Export Catalogue 2021

REDI



Soil & waste
Surface drainage
Sewage system
Hot & cold water

aliaxis

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The Aliaxis brand story

In a rapidly changing world, with a growing population and a changing climate, water is key. Being one of the most precious resources on our planet, we today must radically change the way we use water. As a global industry leader that connects people with water and energy, Aliaxis is ready to take up this challenge and help shape a better tomorrow.

As one of the world's largest advanced plastic piping manufacturers, we combine the strength of a global group with the diversity and passion of our local teams. We offer world-class water and energy solutions across continents, and it is the specific knowledge and experience of our people on the field that makes the difference for our customers. Whether it is designing the most efficient water supply systems or meeting the ever-growing demands of cities and their inhabitants, we work closely together with our customers and partners to deliver trusted performance, today and tomorrow.

Our global network of leading local brands, intimate market understanding, and proven technical expertise means we are well placed to collaborate with our customers, so they can access the industry's most advanced products and services. We are constantly challenging ourselves to think further and faster, ensuring we deliver ever smarter, innovative and sustainable solutions that benefit people all over the world and that make life flow.

REDI ISEA ASTORE

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which fulfills the requirements of the following standard:

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The production site in Zola Predosa, IT



Since 1960 the Redi brand is synonymous with quality sustainability and success for our customers.

The reason for this success is our constant effort in offering the most comprehensive service to our clients aiming at establishing long-lasting and profitable business relationships.

Redi is certified in accordance with quality standards UNI EN ISO 9001:2008.

Redi brand manufactures and offers the following product ranges:

- PVC-U rubber ring-sealed fittings for underground drainage (EN 1401)
- PVC-U and pp inspection chambers (AFNOR-ANF)
- PVC-U anti-flooding valves (Ø 100 ÷ 630)
- PVC-U solvent welding fittings for above ground drainage (EN 1329 - AFNOR-ENF)
- Phonoline: soundproof piping system 12 dB (EN 14366)
- Phonoblack: soundproof piping system 13 dB (EN 14366)
- PP pipes and fittings for non-pressure above grounddrainage (EN 1451)
- Ventilation systems
- ISEA, solutions for wastewate, rainwater treatment and rainwater recicle
- Surface drainage systems

Aliaxis world leader in the manufacture of building materials.

The company operates a policy of progressive improvements and reserves the right to alter the specification of any product without prior notice. Information given by way of illustrations and dimensions is intended to assist the buyer but where such information is of paramount importance it should be confirmed with the company in writing before any order is placed.

Certified in accordance with quality standards:

– UNI EN ISO 9001

– UNI EN ISO 14001

– BSI OHSAS 18001

Voluntary commitment to sustainable development of the European PVC industry

REDI SpA associate GBC Italy (Green Building Council Italy)

Building solutions

REDI ISEA FLUXO

Soundproof system, energy saving, surface drainage, wastewater



and rainwater treatment, rainwater recycle



Advice for drainage systems installation

Soil & Waste branches in the bathroom

The sizing of the collecting branches of all sanitary equipments is based on the fluid quantity discharged in a specific time unit. The nominal diameter of a DN branch has to be calculated by interpolation (Pict. 1) among the following variables related to any single case taken into consideration.

Q= flow rate expressed in liter/second
u= pipe usage ratio or filling factor
J= pipe slope expressed in %

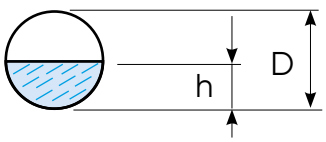
Description of the variables:

Q: basing on the kind of user, it's possible to fix some average typical Q-rates for each sanitary equipment

Kind of Sanitary Equipment	Flow rate Q (l/sec.)	Average discharge duration (sec.)
Shower plate	0,45	13
Washbasin	0,45	13
Bidet	0,45	13
Bathtub	0,90	200
Double kitchen sink	0,90	13
Domestic washing machine	0,90	80
Dishwasher	0,90	80
Double washtub	1,50	20
Restaurant dishwasher	1,60	130
Service washing machine	1,80	140
W.C. W. & S.	2,50	10

Pict. 1

u: usage ratio calculated as **h/D = 0,5**
This filling hypothesis avoids the creation of internal counter pressures that slow the S&W down and increase its noise. In order to maintain this ratio constant, the S&W branch diameter will have to be bigger at least of a measure than the fixing point diameter.
J: by increasing the branch slope, an increase of the discharge flow speed is observed, and consequently of the S&W flow rate in the pipe itself.



By changing the slope, the same quantity of water coming out from the same equipment might be drained away by pipes of different diameters. (Pict. 2)
As it is not always convenient to carry on with the dimensioning in the best conditions, through the practical experience it has been created a simplification of the dimensioning theory of the drainage networks proposed in Pict. 3.

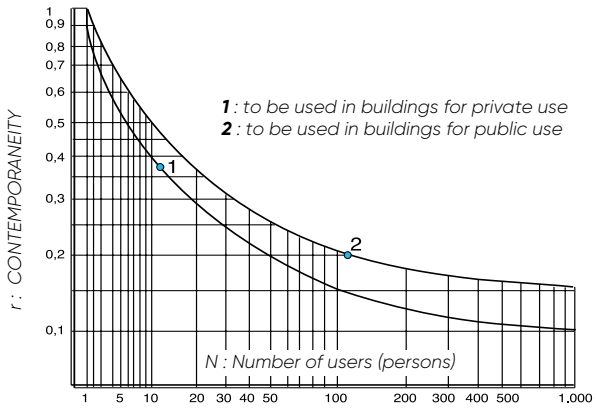
DN	Slope J					
Considering u=0,5 (mm)	0,5 %	1,0 %	1,5 %	2,0 %	2,5%	3,0 %
32	0,19	0,27	0,34	0,39	0,43	0,48
40	0,30	0,43	0,54	0,61	0,67	0,74
50	0,47	0,66	0,84	0,95	1,04	1,16
63	0,54	0,76	0,95	1,08	1,19	1,32
75	0,92	1,29	1,63	1,85	2,03	2,26
80	1,21	1,70	2,14	2,43	2,67	2,96
100	1,90	2,67	3,35	3,81	4,19	4,65
110	2,47	3,46	4,04	4,59	5,44	5,60
125	2,97	4,16	5,24	5,95	6,54	7,26

Pict. 2

Sanitary Equipment kind	DN connection (mm)	DN branch (mm)
Washbasin	25/32	32/40
Bidet	25/32	32/40
Showerplate	32	40
Bathtub	32	40
Double kitchen sink	32	40
Domestic washing machine	32	40
Dishwasher	32	40
Double washtub	40	50
Restaurant dishwasher	50	63
Home washing machine	65	80
W.C. S&W	90	100

Pict. 3

Definition of the discharge flow rate of a stack



Pict. 4

The calculation of the total flow rate (Qt) of a stack or of a sewer pipe is equal to the sum of the S&W intensity of the single users, multiplied by the "r", namely usage contemporaneity ratio.
While calculating the sum of the flow rates you have to take in consideration a single sanitary equipment for each bathroom (you have to choose the equipment with the largest S&W intensity, usually the W.C.) and the other independent S&W units, i.e.:
kitchen sinks, washing machines S&W, dishwasher, etc...

The variables that affect the calculation of the total Qt flow rate are connected by the following formula:

$$QT = \frac{r}{4} \times \sum Q \times \frac{N}{A} = l/sec$$

whereas:

QT = max discharge intensity

Q = discharge intensity for kind of equipment, namely one for each room (pict. 1)

r = contemporaneity ratio of the various bathrooms that involve the same stack (pict. 4)

N = number of users (persons)

A = number of the involved bathrooms

∑Q = the sum of the discharge intensities for each floor (Q1 x n. of apartment kind 1+ Q2 x apartment kind 2 + Q3 x apartment kind 3)

Calculation example for a stack having 1 bathroom to be connected at each floor:

QT = ?

Q = considering a single sanitary equipment every bathroom, we will use for each single apartment the WC and the kitchen sink (pict. 1)

r = the data can be obtained by interpolation in the chart of picture 4

N = 20 people (4 located in each apartment)

A = 5 bathrooms + 5 kitchens

∑Q = (Q w.c. x n. of w.c. + sink Q x n. of sinks)

$$QT = \frac{0,3}{4} \times (5 \times 2,50 + 5 \times 0,90) \times \frac{20}{10} = 2,55\ l/sec$$

Dimensioning of the vertical and ventilation stacks DN1

A stack receives the discharges of various branches located on different floors: it is advisable that this stack maintain a constant section along its own length from the bottom to the roof vent cowl with a constant DN diameter. The problems related to the secondary ventilation of the stack will be discussed in the following chapter; right now we will just calculate its DN1 diameter. In order to proceed with the dimensioning it is necessary to have already defined the max flow rate (Qt).

Pict.5

QT (l/sec) Max discharge intensity	**DN** (mm) Ø stack	**DN1** (mm) Ø secondary ventilation stack	**WC** Maximum nstallable n.	
			Total	For floor
1,74	**50**	40	-	-
2,03	**63**	50	-	-
4,51	**80**	63	-	-
7,24	**100**	80	30	6
10,57	**125**	80	56	8
17,25	**160**	100	150	16
28,26	**200**	110	300	38

Ventilation of the S&W systems

General remarks

The ventilation of a system is the set of pipes made up for the air passage, which is necessary for compensating the hydrostatic depressions, that originate inside gravity discharge stacks.

When the water falls inside the stack (about 10 mt/sec speed) it originates an effect of compression of the below existing air, and an hydrostatic depression (vacuum) just over the referring sewage unit.

The ventilation must temporarily fill in this vacuum, thus avoiding the emptying of the trap interceptors of each single connected system; it must also limit as much as possible the water fluttering inside the stack, which causes the S&W noise.

The main cause that originates pressures and corresponding hydrostatic depressions has to be searched in the structure of the pipes that make up the evacuation system of the building.

By following the S&W water run from the entrance into the stack until the sewage network itself we should take in consideration the variables that might occur:

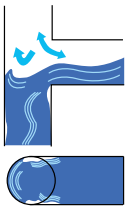
Connection to the stack:

1) with a 87°30' Branch at constant section during the discharge there is a total closure of the pipe and a consequent pressure fall in the top stack.

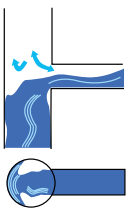
On the other side the air circulation inside the link pipe is good and it can be avoided the danger of the WC trap interceptor emptying.

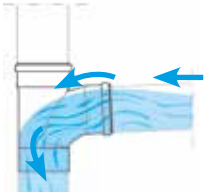
2) with a Reduced 87°30' Branch during the discharge there is a partial closure of the stack with a lower pressure fall than the previous case. The air circulation inside the pipe is good by the way, and if the pipe has been measured in the appropriate way, there will be no suction phenomenon in the trap interceptors.

Pict .6



Pict .7



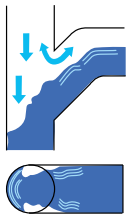


Example of installation of a Phonoline long radius branch M/F Ø110: the acoustic abatement is improved thanks to its wide radius.

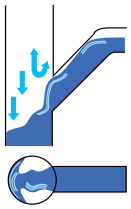
3) with a 45° Branch at constant section the hydraulic closure of the stack during the discharge will be just partial. The discharge flow rate (Qt) strongly increases and the chances of emptying the trap interceptors are practically impossible.

4) with a Reduced 45 ° branch it will similarly happen as the previous case, a partial hydraulic closure of the stack. However, it is necessary to carefully measure the diameter of the link branch of the stack because in case of hydraulic closure there might be an emptying risk of the trap interceptors of the sanitary equipments.

Pict .8



Pict .9

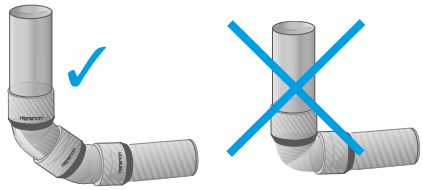


Stack bottom:

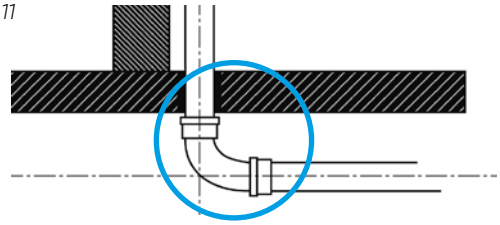
1) At the bottom of the stack where the discharge pipe gets from vertical to horizontal the water flow violently changes direction; this causes a strong increase of the internal pressure, which is proportional to the height of the stack itself. In order to weaken the impact intensity it should be advisable to get two 45° bends rather than one of 87° 30' (this general rule should be always applied when there is enough space).

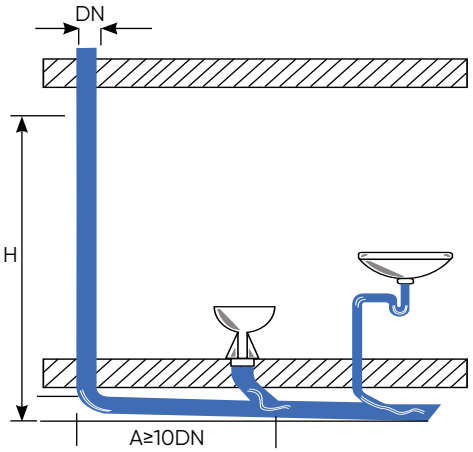
2) For stacks' heights superior than 4 building storeys, the H counterpressure level caused by the stack bottom might change from 3 to 5 mt (Pict.11).
It is absolutely not advisable to connect the equipments to the stack in these stretches, except for those cases in which there's a secondary ventilation (pict. 17) or a stack doubling beneath the mentioned stretch (pict. 16).
On the other hand, the link is possible along the horizontal stretch of the sewer pipe in a neutral A area, which is usually placed at a distance at least 10 times superior than the stack diameter (DN).

Pict .10



Pict .11

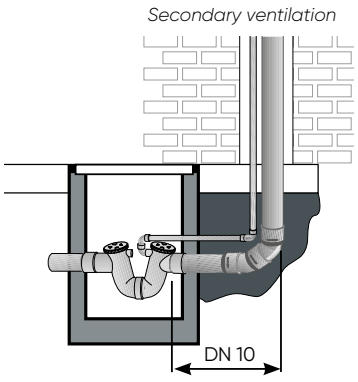




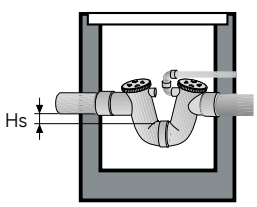
Stack trap interceptor

1) In order to avoid that the roof vent cowl acts like a chimney tower with the sewage system i.e. causing a drying up of the internal deposits by its constant draw, as well as the diffusion into the atmosphere of polluting substances - it is necessary to place a black waters trap interceptor (B-W) at the stack basement.
For a correct positioning of the trap interceptor you must take in consideration the elevated pressure created during the discharge in the stack basement.
In order to avoid the trap interceptor damaging and its bad functioning, you must keep a distance from the stack basement 10 times larger than its own diameter.
In order to get a good water flow inside the trap interceptor it is not advisable to use trap interceptors (realized by assembling bends) for the short reachable height (Hs) of water seal. REDI proposes its one piece B-W trap interceptor planned for ensuring the maximum height (Hs) equipped for the connection with the ventilation system and provided with double inspection having a diameter equal to the pipe one.
REDI trap interceptor being an inspectable product must be installed inside a drain well for its periodic cleaning or for easily reaching the above placed stack in case of obstruction. In case of secondary ventilation, the basement link must be connected to the dedicated socket which is placed on the B-W trap interceptor, close to the inspection cap.

Pict .12



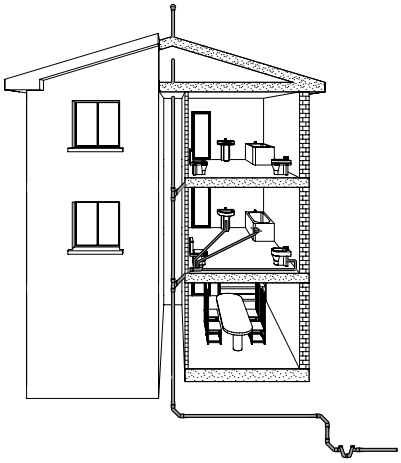
Pict .13



Primary ventilation

It is the easiest and most economic ventilation system. It's advisable to use it in buildings with few floors where the S&W contemporaneousness risks are limited.
It is realized just with the extension of the stack getting outside, on the roof: the only important thing is to maintain the stack diameter equal until the roof-vent cowl. In case it occurs a S&W contemporaneousness in two sanitary systems placed on different floors, there might be the risk of an emptying of the intermediate-placed trap interceptors. This is due to the fact that there are no air exits that compensate the suction effect. In this case the kind of stack joint is extremely important; as a matter of fact, it must not completely obstruct the stack flow during the S&W. You can see from picture 10 that the most convenient connection may realized with a 45° branch at constant section.

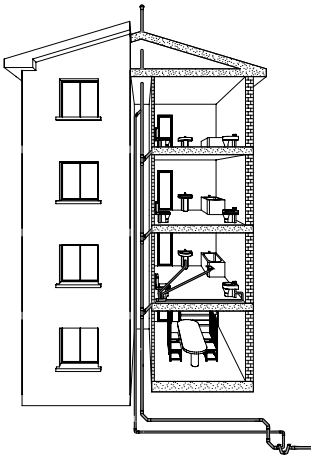
Pict.14
Primary ventilation



Stack secondary ventilation (roundventilation)

It consists in the stack doubling by a ventilation bypass connection located on each floor (picture 17). In this case the stack must be extended up to the roof vent cowl by always keeping its constant diameter.
The joint of the secondary stack in the final section of the roof-vent cowl allows internal recycles that strongly reduce the gas flow towards the external side. This flow becomes ten times larger when a secondary stack gets outside through its own roof-vent cowl (this procedure must absolutely be avoided).
In case of medium height buildings (3/4 floors) you can just connect the upper side of the ventilation stack (at least 20 cm above the 5th floor), with the connection placed above the B-W trap interceptor of the stack basis (picture 15).
When the building is high (8/10 floors) the excessive stack length might create more intense suction phenomena on the lower floors; in order to avoid this problem you should connect the equipments to an independent stack (pict.16) at the level of the lower floors.
By this way you will avoid flowings, foams and noise, that occur hight otherwise on the lower floors.
The diameter of the secondary DN1 column must be minimum 2/3 of the diameter of the main Stack DN (pict.5); the building material is the same used for the stack: fire resistant PVC-U Me Class.

Pict.16
Secondary ventilation with max 3 floors



Pict.15
Secondary ventilation with auxiliary stack

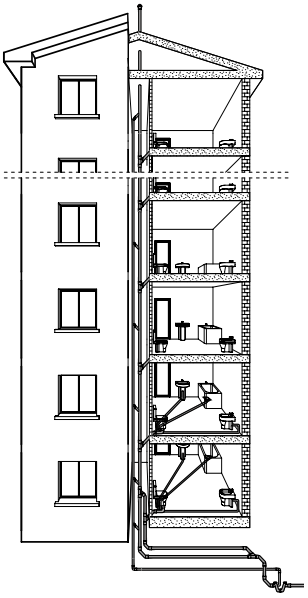
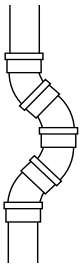
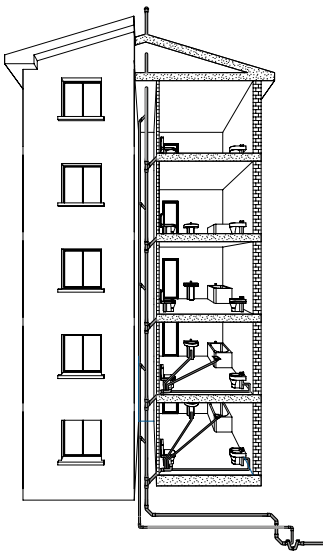


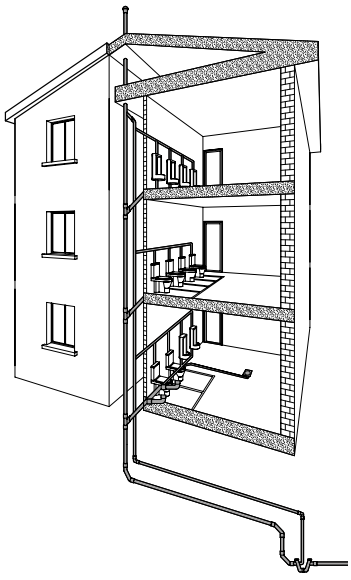
Fig.17



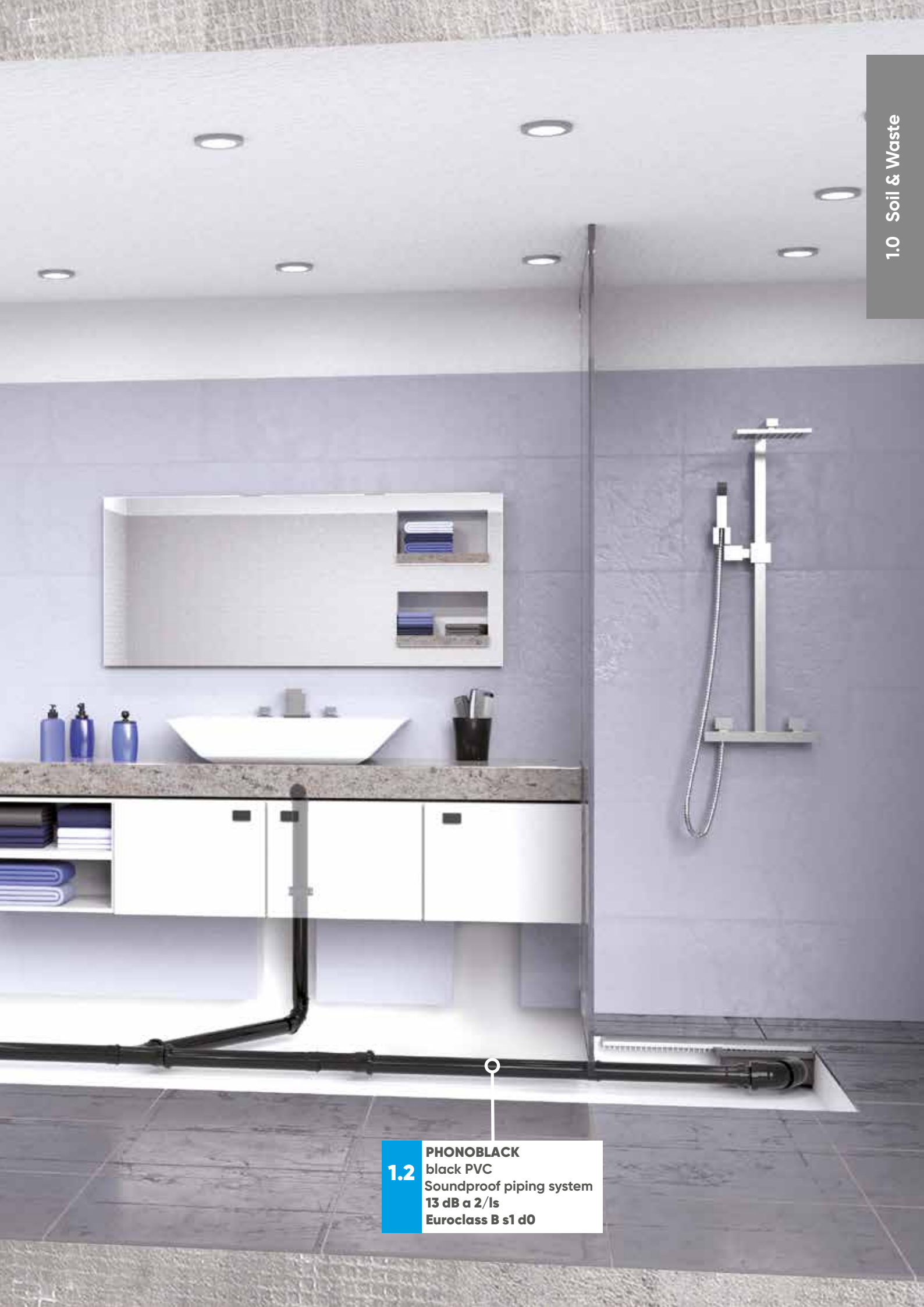
Pict.17
Secondary column ventilation (roundventilation)



Pict.18
Secondary ventilation




1.2
PHONOBLACK
black PVC
Soundproof piping system
13 dB a 2/ls
Euroclass B s1 d0
1.6
VENTILATION
Air Admittance Valve
for primary ventilation
ARIO



1.2

PHONOBLACK
black PVC
Soundproof piping system
13 dB a 2/ls
Euroclass B s1 d0



Soundproof piping system

Acoustic performance certified
12 dB at 2 l/s flow rate
Fire classification Euroclass B s2 d0

phono line

aliaxis

Soundproof piping system

REDI Phonoline system has been certified by both the French CSTB Institute and the German Fraunhofer Institute according to EN 14366 norm, the only European standard for soundproof systems.

It is the widest European soundproof system:
8 different diameters available (40mm ÷ 160mm).
More flexibility for designers, contractors and technicians.

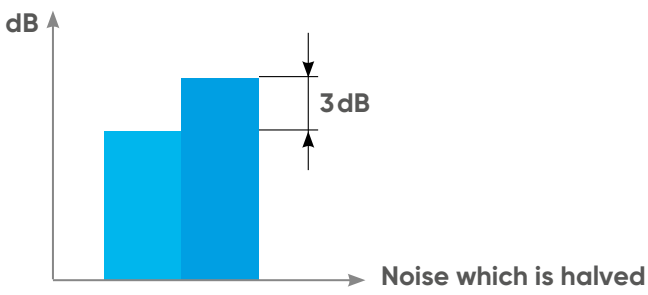
REDI Phonoline is a 100% standard metric size range, and it does not require adaptors for the connection to the horizontal waste/sewer network.
Fire reaction class B s2 d0
- Thermal linear expansion: only 0,04 mm/m x °C
- Density: 1,6 g/cm^3
- Colour: White Ral 9018

What is decibel?

A decibel is a unit calculated from a logarithm of the ratio between the measured sound multiplied by 10.
The human ear, via the eardrum, is sensitive to pressure, but not in a linear way; doubling a pressure value does not mean that the sensation increases two fold.
For example 40 dB is not half of 80 dB.
Instead the 3 dB rule is applied i.e. "doubling an acoustic power value corresponds to an increase in sound intensity of 3 dB; vice versa, an acoustic power value that is halved corresponds to a decrease in sound intensity of 3 dB.

So 40 dB + 40 dB = 43 dB
And 80 dB - 40 dB = 77 dB

$$dB = 10 \log \frac{P}{Pa}$$



About noise...

The choice of a soundproof piping system follows first the analysis of common noise levels we experience daily in our houses.
The following table enables a right comparison of noises affecting our daily life.
Note that some National Building Regulations require a noise limit below 35 dB.



Noise produced by Technological Equipments

The noise produced by the technological equipments must not go over the following limits:

a) 35 dB(A) LAS max with a slow time constant for discontinuous functioning services:

b) x 25 dB(A) LAeq for continuous functioning services.

The measurements of sound level must be carried out in the environment where the noise level is higher.
Such environment has to be different from that one where the noise is originated.

Chart A - House classification (art. 2)
Class A: building used as residence or similar;
Class B: building used as offices;
Class C: building used as hotel, boarding houses and similar activities;
Class D: building used as hospitals, clinics, nursing homes and similar;
Class E: building used as school activities at any levels and similar;
Class F: building used for recreational, religious or similar activities;
Class G: building used for commercial activities or similar.

Available diameters:
40 -50 -75 -90 -100 -110 -125 -160-200

Installation: pipes and fittings cutting, chamfering, cleaning, pipes and jointing must be executed in full compliance with national building regulations.

General features of the system
- Algae and bacteria-proof
- Abrasion proof
- Electrically insulated
- Grants extremely high internal smoothness
- Shock resistant
- Corrosion resistant
- Unflammable Class B1

Technical characteristics:

Product Description
- Soundproof pipes and fittings for public and private drainage
- Thermoplastic mineral-reinforced material
- Ring jointed sockets fitted with certified elastomeric liprings
- Fittings packed in carton boxes
- 2/3-meters long pipes packed in wood frames and protected by film
- 1/0,5/0,25/0,15-meters pipes packed in carton boxes
- Pipe support: phonoline sound perfomances require noise-insulating supports

Technical data
- Density: 1,6 g/cm^3
- Fire resistance: not flammable item complying to Class Me NF P 92501
- Coefficient of thermal linear expansion; 0,04 mm/m x °C
- Colour: RAL 9018 pearl white
- Lip rings certified EN 681

Tender specifications

- Soundproof and fire resistance Class B s2 d0 pipes and fittings system for S & W sanitary systems inside buildings; it can be located in a specific technical space (shaft) fixed with noise-insulating supports or directly embedded in the wall.
- System made from thermoplastic mineral reinforced material. Sound performance certified by German Fraunhofer Institute according to EN14366 (12 dB at 2/ls flow rate, using special noise-insulating support Bismat® 1000) and by CSTB Institute of Grénoble, according to EN 14366 requirements (max noise of 21,7 dB at 2l/s flow rate, using standard noise-insulating supports).
- Push-fit system with elastomeric lip-rings certified EN681-1 and Din 4060.
- Pipes and fittings branded "Phonoline by REDI"

Gasket

Phonoline is equipped with lip gaskets.
The gaskets quality ensures a long lasting life system.
REDI uses gaskets exclusively manufactured by specialised Companies complying with law requirements and certified by the main international certification bodies.

All gaskets can be removed from the groove and consequently re-placed without affecting the hydraulic seal.

Technical features of the gaskets:

- Reference Standards: EN 681-1 and DIN 4060
- lip profile like BL type
- material: SBR (SS-P-60-00)
- hardness: 60 ± 5 IRHD
- tensile strencht at break: 14,4 N/mm^2
- elongamon at break: 380%
- permanent distortion: 9,7%
- tensile strencht at break (after accelerated ageing) -0,8%
- elongamon at break (after accelerated ageing) -5,8%



gasket section



Gaskets standard

The certificates shown on this catalogue may be subject to revisions.
Updated certificates for each product are available on website www.redi.it



MPS NRW
Standard nr.
220000032 04-02-1b
DIN 4060



KIWA KOMO
Standard nr. K4195/06
Type rubbe SBR ss-p-60-00



BSI
Standard nr. KM 51718
BS EN 681-1



DNV Det Norske Veritas
Certification Licence

Standard n. 112.929.01-01E
SS-EN 681-1
Type test report:
SP report No. 98K12514 A-C,
98K 12558, 99K12583, 99K12604,
F020847C, F101033

Product marking



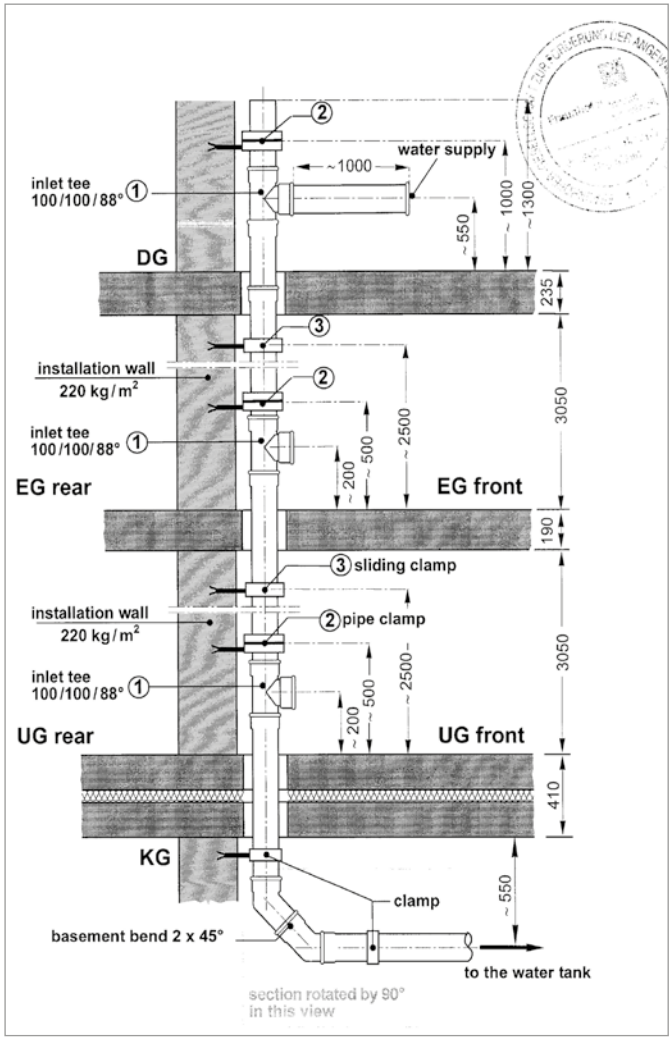
Fitting:
Phonoline REDI
Diameter - Angle

Pipe:
Phonoline REDI - External diameter x thickness - REDI test number (Fraunhofer) - Certified soundproofness 12 dB 2/ls - Fire resistance: class B s2 d0

phono line by REDI d.110 x 5,0 - 12 dB- 2,0 l/s - EN 14366 (Fraunhofer P-BA 219/2006) - B s2 d0

Test conditions carried out by Fraunhofer Institute - Stuttgart (EN 14366)

Performances of Phonoline system by using superior noise-insulating support Bismat® 1000 (by Walraven)



Determination of the Installation sound level L_{In} in the laboratory — P-BA 219/2006e, Table 1

Client: REDI S.p.a, Via Madonna dei Prati 5/A, 40069 ZOLA BREDOSA – BOLOGNA, ITALY

Test specimen: Wastewater installation system (test specimen S 9760-01) consisting of "REDI Phonoline 110x5.0" plastic pipes and fittings (manufacturer: REDI) mounted with pipe clamps "Bismat 1000" (manufacturer: Walraven).

Test set-up:
- The pipe system was mounted according to Figure 4 (see also Annex A).
- The system consisted of wastewater pipes (nominal size OD 101.6), three inlet tees, two 45°-basement bends and a horizontal drain section. The inlet tees in the basement and in the ground floor were closed by lids supplied by the manufacturer. The pipe system was mounted by a plumber enterprise.
- Pipe system "REDI Phonoline": size OD 110, one-layer pipe, material: PVC with mineral filler, wall thickness 5.0 mm, weight 2.9 kg/m, density 1.6 g/cm³. One-layer fittings, size OD 110, material: PVC with mineral filler, wall thickness 3.2 mm, density 1.4 g/cm³. Connection of the pipes by plug-on socket connection.
- Pipe clamps "Bismat 1000": structure born sound insulating support attachment consisting of supporting and fixing clips. Fixed to the installation wall with dowels and thread rods.

Test facility: Installation test facility P12, mass per unit area of the installation wall: 220 kg/m², installation rooms: sub-basement (KG), basement (UG) front, ground floor (EG) front and top floor (DG), measuring rooms: UG front, UG rear (details in Annex P and EN 14366: 2005-02)

Test method: The measurements were performed following EN 14366 and German standard DIN 52 219: 1993-07; noise excitation by constant water flow with 0.5 l/s, 1.0 l/s, 2.0 l/s and 4.0 l/s (details in Annexes A and F).

Results:

Waste water system "REDI Phonoline" with pipe clamps "Bismat 1000"

Flow rate [l/s]	0,5	1,0	2,0	4,0
Installation sound level L_{In} [dB(A)] measured in the basement test-room UG front	45	48	51	54
Installation sound level L_{In} [dB(A)] measured in the basement test-room UG rear	8	11	15	19
Airborne sound pressure level $L_{a,A}$ [dB(A)] [1]	45	48	51	54
Structure-borne sound characteristic level $L_{sc,A}$ [dB(A)] [1]	3	7	12	16

[1] Evaluation according to DIN EN 14366.

Date of tests: September 12, 2006

Comments:
- The requirements of DIN 4109 only apply for the installation sound level L_{In} measured in the test room UG rear.
- By using supporting and fixing clips the details of attachment strongly affects the acoustical properties of the system. Only if the assembly instructions of the manufacturer are obeyed exactly and the weight of the system is distributed evenly on all fastening elements, a reproducible acoustical behaviour is reached. Otherwise possibly strong deviations from the measured values may occur.

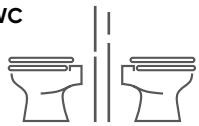
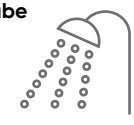
Fraunhofer Institut Bauphysik — The tests were performed in a laboratory accredited by the German Accreditation System for Testing (DAP, file no. PL-3743.26) according to standard EN ISO/IEC 17025.
Stuttgart, October 19, 2006
Head of Laboratory:

Soundproof Phonoline performance:

Sound level of the waste and system, according to all existing appliances

The method used to measure the noise level of a soil and waste system is regulated by a standard requiring the execution of cycle tests carried out with different flow rates, in order to simulate all the sanitary appliances you can find inside a building.

Fraunhofer Institut für Bauphysik certified all the perfomances reported in the chart on the right side. In the tests are used superior noise-insulating support Bismat® 1000 (by Walraven).

Performance Phonoline	Appliance	Flow rate
16 dB	WC 	4,0 l/s
12 dB	WC 	2,0 l/s
7 dB	Bath tube 	1,0 l/s
3 dB	Sink 	0,5 l/s

Fire classification

The introduction of the new European system for classification of the reaction to fire test of construction products is described in EN 13501-1 "Reaction to fire classification of construction products and building elements" which includes optional requirements for smoke and burning droplets.

The Euroclass system is based on different tests depending on the level of fire protection that is required from the end product in its intended application.

Euroclasses defining the fire reaction of construction materials and products now take account of three essential criteria:

- concept of **flammability**
- **smoke** release
- production of burning **drops**

Consequently, they help to determine the behavior of these products with more accuracy than before.

Construction products

EUROCLASS:

Flammability	Smoke	Drop	
A1	no	no	inert materials
A2	s1-s2-s3	d0-d1-d2	inert materials
B	**s1-s2-s3**	**d0-d1-d2**	synthetic materials
C	s1-s2-s3	d0-d1-d2	synthetic materials
D	s1-s2-s3	d0-d1-d2	synthetic materials
E			synthetic materials

phono line *is classified as* **EUROCLASS B-s2, d0**

Best class between synthetic materials.

Flammability

Ignition time, fire propagation and energy contribution of the product. This is represented by a measurement of heat released from the product and its potential contribution to propagation of a fire (possibly up to a general flash over).

Internal tests carried out, according to the NF513 Rév. 0 02/2009, on Phonoline pipes and fittings confirm their high expansion capacity (Meringage, Me) suitable for French classification method.



Flammability scale.


LAPI

ATTESTAZIONE DI CLASSIFICAZIONE ACL/216/16/CPR/...

Classification Assessment

RAPPORTO DI CLASSIFICAZIONE DI REAZIONE AL FUOCO N°. 216.0DC0050/16

Reaction to fire classification report n°.

CLASSIFICAZIONE RICHIESTA DA / *Classification on behalf of*

REDI S.p.A.

DENOMINAZIONE COMMERCIALE DEL MATERIALE / *Trade name of the material*

SOIL AND WASTE ACOUSTIC SYSTEM "PHONOLINE"

DESCRIZIONE DEL MATERIALE / *Description of the material*

METODI DI PROVA / *Test methods*

EN ISO 11925-2: 2010 and EN 13823:2010

STANDARD DI PRODOTTO / *Product Standard*

Non applicabile / *Not applicable*

METODO DI CLASSIFICAZIONE / *Classification standard*

CLASSIFICAZIONE / *Classification*

B - s2, d0

Euroclass Phonoline pipes certificate.

The certificates shown on this catalogue may be subject to revisions.
Updated certificates for each product are available on website www.redi.it

PVC - Chemical resistance

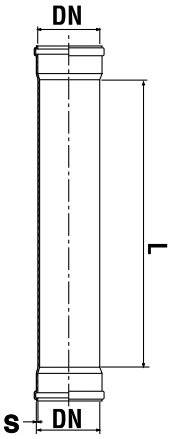
Product	Conc. %	Temp. 20 °C	Temp. 60 °C
Acetic Acid	60	S	L
Acetic Acid Monochloride	SOL.	S	L
Acetic Aldehyde	100	NS	-
Acetic Anhydride	100	NS	NS
Acetone	100	NS	NS
Adipic Acid	SOL.SAT.	S	L
Allyl Alcohol	90	L	S
Aluminum Chloride	SOL. SAT.	S	S
Aluminum Sulphate	SOL. SAT.	S	S
Ammonia (aqueous)	100	L	NS
Ammonia (gas)	100	S	S
Ammonia (solution)	SOL. DIL.	S	L
Ammonium Chloride	SOL. SAT.	S	S
Ammonium Fluoride	20	S	L
Ammonium Nitrate	SOL. SAT.	S	S
Ammonium Sulphate	SOL. SAT.	S	S
Amyl Acetate	100	NS	NS
Amyl Alcohol	100	S	L
Aniline	100	NS	NS
Aniline	SOL. SAT.	NS	NS
Aniline Hydrochloride	SOL. SAT.	NS	NS
Antimony Chloride	90	S	S
Arsenic Acid	SOL. DIL.	S	-
Beer		S	S
Benzaldehyde	0,1	NS	NS
Benzene	100	NS	NS
Benzoic Acid	SOL. SAT.	L	NS
Borax	SOL. SAT.	S	L
Boric Acid	SOL. DIL.	S	L
Bromine (liquid)	100	NS	NS
Bromine Acid	10	S	-
Butadiene	100	S	S
Butane	100	S	-
Butyl Acetate	100	NS	NS
Butyl Phenol	100	NS	NS
Butylene	100	S	L
Butyric Acid	20	S	L
Butyric Acid	98	NS	NS
Calcium Chloride	SOL. SAT.	S	S
Calcium Nitrate	50	S	S
Carbon Dioxide	100	S	S
Carbon Sulphide	100	NS	NS
Carbon tetrachloride	100	NS	NS
Cetyl Acid	100	S	S
Chlorine (dry gas)	100	L	NS
Chlorine (liquid)	SOL. SAT.	L	NS
Chlorosulphonic Acid	100	L	NS
Chromic Acid	1~50	S	L
Citric Acid	SOL. SAT.	S	S
Copper Chloride	SOL. SAT.	S	S
Copper Fluoride	2	S	S
Creosol	SOL. SAT.	-	NS
Cresol Acid	SOL. SAT.	NS	NS
Crotonic Aldehyde	100	NS	NS
Cyclohexanol	100	NS	NS
Cyclohexanone	100	NS	NS
Developing Bath		S	S
Dextrine	SOL. SAT.	S	L
Dichloroethylene	100	NS	NS
Diglycolic Acid	18	S	L
Dimethylammine	30	S	-
Ethyl Acetate	100	NS	NS
Ethyl Acrylate	100	NS	NS
Ethyl Alcohol	95	S	L
Ethyl Ether	100	NS	L
Ethylene Glycol	CONC.	L	L
Fluosilicic Acid	32	S	S
Formaldehyde	SOL.	S	S
Formaldehyde	40	S	S
Formic Acid	1~50	S	L
Furfural Alcohol	100	NS	NS
Glucose	SOL. SAT.	S	L
Glycerin	100	S	S
Glycolic Acid	30	S	S
Golden Syrup	SOL.	S	L
Hydrazine Benzene	100	NS	NS
Hydrazine Benzene Cloric	97	NS	NS
Hydrobromic Acid	50	S	L
Hydrochloric Acid	>30	S	S

Product	Conc. %	Temp. 20 °C	Temp. 60 °C
Hydrofluoric Acid	60	L	NS
Hydrogen	100	S	S
Hydrogen Dioxide	30	S	S
Hydrogen Sulphide	100	S	S
Iron Chloride	SOL. SAT.	S	S
Lactic Acid	10	S	L
Lactic Acid	10~90	L	NS
Lead Acetate	SOL. SAT.	S	S
Lead Tetraethyl	100	S	-
Magnesium Chloride	SOL. SAT.	S	S
Magnesium Sulphide	SOL. SAT.	S	S
Maleic Acid	SOL. SAT.	S	L
Methyl Alcohol	100	S	L
Methyl Methacrylate	100	NS	NS
Methylene Chloride	100	NS	NS
Milk		S	S
Nickel Sulphide	SOL. SAT.	S	S
Nicotinic Acid	CONC.	S	S
Nitric Acid	<46	S	L
Nitric Acid	46~98	NS	NS
Oils		S	S
Oleic Acid	100	S	S
Oleum	10% of SO	NS	NS
Oxalic Acid	SOL. DIL.	S	L
Oxalic Acid	SOL. SAT.	S	S
Oxigen	100	S	S
Ozone	100	NS	NS
Perchloric Acid	10	S	L
Perchloric Acid	70	L	NS
Petrol	80/20	NS	NS
Phenol	90	NS	NS
Phosphine	100	S	S
Phosphor Trichloride	100	NS	-
Phosphoric Acid	30	S	L
Picric Acid	SOL. SAT.	S	S
Potassium Bichromate	40	S	S
Potassium Bromide	SOL. SAT.	S	S
Potassium Chloride	SOL. SAT.	S	S
Potassium Chromate	40	S	S
Potassium Cyanide	SOL.	S	S
Potassium Ferricyanide	SOL. SAT.	S	S
Potassium Ferrocyanide	SOL. SAT.	S	S
Potassium Hydroxide	SOL.	S	S
Potassium Nitrate	SOL. SAT.	S	S
Potassium Permanganate	20	S	S
Potassium Persulfate	SOL. SAT.	S	L
Propane (gas liquid)	100	S	-
Pyridine	100	NS	-
Sea Water		S	L
Silver Nitrate	SOL. SAT.	S	L
Soap	SOL.	S	L
Sodium Benzoate	35	S	L
Sodium Bisulphite	SOL. SAT.	S	S
Sodium Chlorate	SOL. SAT.	S	S
Sodium Ferricyanide	SOL. SAT.	S	S
Sodium Hydroxide	SOL.	S	L
Sodium Hypochlorite	100 (13% Cl.)	S	L
Sodium Sulphite	SOL. SAT.	S	L
Sugar	SOL. SAT.	S	S
Sulphur Acid	SOL.	S	S
Sulphur Anhydride	100 (liquid)	L	NS
Sulphur Anhydride	100 (dry)	L	NS
Sulphuric Acid	40~90	S	L
Sulphuric Acid	96	L	NS
Tannic Acid	SOL.	S	S
Tartaric Acid	SOL.	S	S
Tin Chloride	SOL. SAT.	S	S
Toluene	100	NS	NS
Trichloroethylene	100	NS	NS
Trimethyl Propane	<10	S	L
Urea	10	S	L
Urine		S	L
Vinagre		S	S
Vinyl Acetate	100	NS	NS
Wine		S	S
Xylene	100	NS	NS
Yeast	SOL.	S	L
Zinc Chloride	SOL. SAT.	S	S

TS = Without corrosion L = Limitaded corrosion NS = Corrosion

For special applications it is recommended to contact the REDI Technical Department.



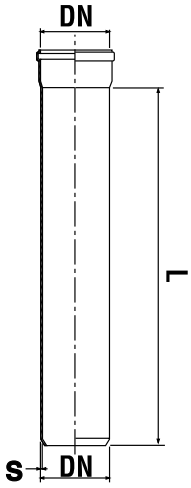


Double socket pipe F/F

Tube F/F - Tubo de doble embocadura H/H

DNxL (ml.)	S Thick.	Reference			Note
75 x 1,00	4,0	VF17555	21	21	
75 x 2,00	4,0	VF27555	21	21	
75 x 3,00	4,0	VF37555	21	21	
90 x 1,00	4,5	VF10955	18	18	
90 x 2,00	4,5	VF20955	18	18	
90 x 3,00	4,5	VF30955	18	18	
100 x 1,00	5,0	VF11055	15	15	
100 x 2,00	5,0	VF21055	15	15	
100 x 3,00	5,0	VF31055	15	15	
110 x 1,00	5,0	VF11155	15	15	
110 x 2,00	5,0	VF21155	15	15	
110 x 3,00	5,0	VF31155	15	15	





Single socket pipe M/F

Tube M/F - Tubo M/H

DNxL (ml.)	S Thick.	Reference			Note
40 x 1,00	3,0	V010455	40	40	
40 x 2,00	3,0	V020455	40	40	
40 x 3,00	3,0	V030455	40	40	
50 x 1,00	3,0	V010555	30	30	
50 x 2,00	3,0	V020555	30	30	
50 x 3,00	3,0	V030555	30	30	
75 x 1,00	4,0	V017555	21	21	
75 x 2,00	4,0	V027555	21	21	
75 x 3,00	4,0	V037555	21	21	
90 x 1,00	4,5	V010955	18	18	
90 x 2,00	4,5	V020955	18	18	
90 x 3,00	4,5	V030955	18	18	
100 x 1,00	5,0	V011055	15	15	
100 x 2,00	5,0	V021055	15	15	
100 x 3,00	5,0	V031055	15	15	
110 x 1,00	5,0	V011155	15	15	
110 x 2,00	5,0	V021155	15	15	
110 x 3,00	5,0	V031155	15	15	
125 x 1,00	5,0	V011255	12	12	On reques
125 x 2,00	5,0	V021255	12	12	On reques
125 x 3,00	5,0	V031255	12	12	On reques
160 x 1,00	5,5	V011655	1	24	On reques
160 x 2,00	5,5	V021655	8	8	On reques
160 x 3,00	5,5	V031655	8	8	On reques
200 x 1,00	5,5	V032055	30	30	On reques

Available length from 5.75 m container with minimum lot



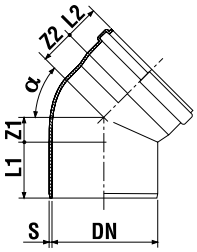
Pipe insulation

Gaine d'isolation phonique - Funda de aislamiento acústico

DN (mm)	DN Pipe (mm)	Reference			S Thick.	Note
80	75 - 80 - 90	CD08500	6	-	5	15 metre-roll
110	100 - 110	CD11500	5	-	5	15 metre-roll
110	100 - 110	CD11100	5	-	10	15 metre-roll

** See Accessories and special solution*





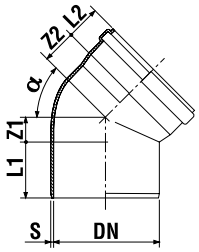
Bend 15° M/F

Coude 15° M/F - Codo 15° M/H

DN (mm)	Reference			S Thick.	Z1 (mm)	Z2 (mm)	L1 (mm)	L2 (mm)
40	0100455	25	2.025	3	3	27	48	41
50	0100555	15	1.215	3	4	17	53	45
75	0100755	8	648	3	5	18	50	45
● 90	0100955	5	260	5.1	11	14	59	55.7
110	0101155	5	260	3.2	9	22	62	57
125	0101255	4	208	3.2	10	22	68	63
160	0101655	4	96	4.0	14	28	82	72

● *High thickness / À paroi épaisse / Alto espesor*





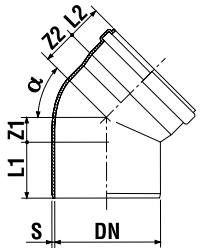
Bend 30° M/F

Coude 30° M/F - Codo 30° M/H

DN (mm)	Reference			S Thick.	Z1 (mm)	Z2 (mm)	L1 (mm)	L2 (mm)
40	0110455	25	2.025	3	5	19.5	49	41
50	0110555	15	1.215	3	8	20	53	45
75	0110755	8	648	3	11	24	50	45
● 90	0110955	5	260	5.1	17	18	59	55.7
100	0781055	6	312	3.2	12	20	68	56
110	0111155	5	260	3.2	17	29	61	57
125	0111255	6	144	3.2	19	29	68	62
160	0111655	3	72	4.0	25	40	82	72

● *High thickness / À paroi épaisse / Alto espesor*



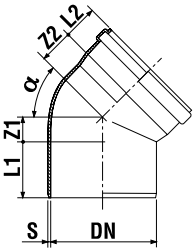


Bend 45° M/F
Coude 45° M/F - Codo 45° M/H

DN (mm)	Reference			S Thick.	Z1 (mm)	Z2 (mm)	L1 (mm)	L2 (mm)	Note
40	0700455	30	2.430	3	8	22	48	36	
50	0700555	20	1.620	3	10	24	52	40	
75	0730755	10	520	3.2	16	25	52	45	
90	0120955	5	260	3	23	33	56	54	
100	0701055	10	240	3	20	35	62	53	
110	0121155	4	208	3.2	27	39	58	50	
● 110	0701155	4	208	5.3	25	29	62.5	56.6	
125	0701255	6	144	3.2	29	42	68	62	
160	0701655	3	72	4.0	37	50	80	66	
200	0702055	1	50	4.9	46	64	100	84	On request

● *High thickness / À paroi épaisse / Alto espesor*



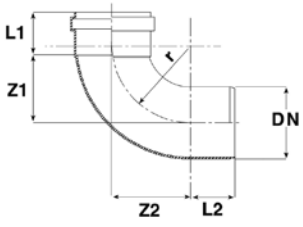


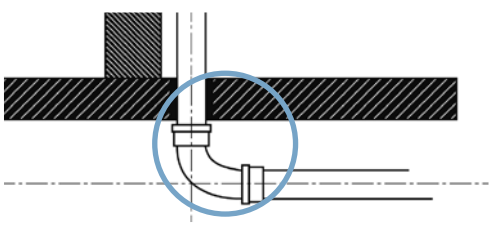
Bend 87° M/F
Coude 87° M/F - Codo 87° M/H

DN (mm)	Reference			S Thick.	Z1 (mm)	Z2 (mm)	L1 (mm)	L2 (mm)	Note
40	0710455	30	2.430	3	20	32	43	36	
50	0710555	25	1.300	3	23	40	53	40	
75	0740755	10	520	3.2	52	58	50	45	
90	0710955	5	260	3	47	57	56	54	
100	0711055	10	240	3	47	63	63	55	
110	0711155	4	208	3.2	59	69	58	50	
● 110	0711355	6	144	5.3	57	61	62.5	56.6	
125	0711255	5	120	3.2	67	79	69	62	On request
160	0711655	2	48	4.0	84	100	80	66	On request
200	0712055	1	40	4.9	105	122	100	85	On request

● *High thickness / À paroi épaisse / Alto espesor*







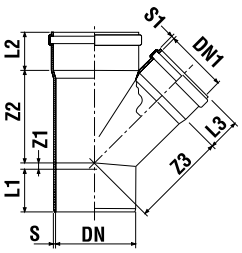
Long radius bend 87° M/F
Coude grand rayon 87° M/F - Codo gran radio 87° M/H

DN (mm)	Reference			Z1 (mm)	Z2 (mm)	L1 (mm)	L2 (mm)	r (mm)	Note
110	0741155	4	96	106	115	58	65	142	



Branch 45° M/F

Culotte 45° M/F - Derivación 45° M/H



DN/DN1 (mm)	Ref.			S Thick.	S1 Thick	Z1 (mm)	Z2 (mm)	Z3 (mm)	L1 (mm)	L2 (mm)	L3 (mm)	Note
40/40	0800455	20	1.040	3	3	9	52	52	49	45	45	
50/50	0800555	12	624	3.2	3.2	14	70	70	48	40	40	
75/40	0312655	3	243	3.2	3.2	3	85	90	53	45	40	
75/50	0312755	6	312	3.2	3.2	-	85	-	42	45	-	
75/75	0880755	5	260	3.2	3.2	15	93	93	51	45	45	
● 90/50	0312855	3	156	5,5	3	10	77	100	53	53	45	
90/90	0880955	6	144	3	22	119	119	56	54	54	3	
100/40	0831055	10	240	3	3	-20	84	95	84	60	44	
100/50	0833055	4	208	3	3	-14	90	101	72	60	46	
100/100	0881055	6	144	3.2	3.2	25	131	131	60	53	53	
110/40*	1310455	7	168	3.2	3.2	-	102	-	42	55	-	
110/50	0313155	6	144	3.2	3.2	-14	102	114	63	55	40	
● 110/50	0813155	6	144	5.3	2	-11	93	101	62.5	56.6	46.5	
110/75	0315155	6	144	3.2	3.2	3	120	127	63	55	45	
110/110	0301155	4	96	3.2	-	27	143	143	58	50	50	
● 110/110	0801155	4	96	5.3	2.5	25	134	134	62.5	56.6	56.6	
125/110	0319255	2	48	3.2	3.2	19	147	152	69	62	56	
125/125	0801255	2	48	3.2	-	30	161	161	71	62	62	
160/110	0311655	2	48	4.0	3.2	2	168	176	82	74	56	
160/160	0301655	4	32	4.0	-	38	205	205	83	71	71	
200/200	0302055	1	20	4.9	-	45	256	256	100	81	81	On request

* *Fabricated*

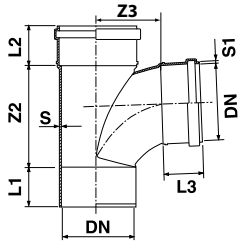
● *High thickness / À paroi épaisse / Alto espesor*



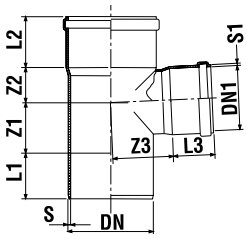
Long radius branch 87°30′ M/F

Té grand rayon 87°30′ M/F - Derivación gran radio 87°30′ M/H

DN (mm)	Ref.			S Thick.	S1 Thick	Z2 (mm)	L1 (mm)	L2 (mm)	L3 (mm)	Z3 (mm)	Note
110	0891355	5	120	3.2	2.9	146	62	57.5	57.5	95.5	







Branch 87°30′ M/F

Culotte 87°30′ M/F - Derivación 87°30′ M/H

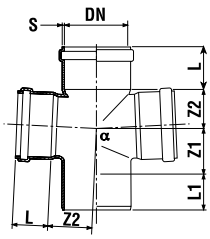
DN/DN1 (mm)	Ref.			S Thick.	S1 Thick.	Z1 (mm)	Z2 (mm)	Z3 (mm)	L1 (mm)	L2 (mm)	L3 (mm)	Note
40/40	0810455	15	1.215	3.2	3.2	25	33	33	44	36	36	
50/50	0810555	15	780	3.2	3.2	29	38	38	48	40	40	
75/40	0350755	4	324	3.2	3.2	25	35	50	48	45	36	
75/50	0352755	6	312	3.2	3.2	30	40	52	53	45	40	
75/75	0890755	6	312	3.2	3.2	37	39	58	66	50	50	
● 90/50	0352855	3	156	5,5	3	39	31	47	53	53	45	
90/90	0340955	3	156	5.1	4.5	49	51	51	59	55.7	55.7	
100/50	0843055	10	240	3.2	2.8	23	44	63	65	53	40	
100/100	0811055	5	120	3.2	3.2	55	64	64	55	53	53	
110/50	0353155	6	144	3.2	3.2	30	40	70	63	55	40	
● 110/50	0853155	6	144	5.3	2.0	37	32	56	62.5	56.6	46.5	
110/75	0357155	6	144	3.2	3.2	43	54	70	63	55	45	
110/110*	■	-	-	-	-	-	-	-	-	-	-	
● 110/110	0811155	5	120	5.3	2.5	57	62	62	62.5	56.6	56.6	
125/110	0357255	4	96	3.2	3.0	84	58	92	78	77	67	On request
125/125	0811255	3	72	3.2	3.2	66	70	78	62	62	62	On request

* *Fabricated*

● *High thickness / À paroi épaisse / Alto espesor*

■ See "Long radius branch"*/ Voir "Té grand rayon" / Ver "Derivación gran radio 87 M/H"*



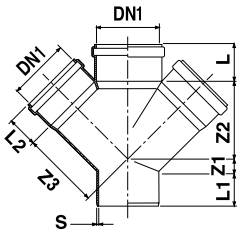


Double Branch 87°30′ M/F

Té double 87°30′ M/F - Derivación doble 87°30′ M/H

DN/DN1 (mm)	Ref.			α	S (mm)	Z1 (mm)	Z2 (mm)	L1 (mm)	L2 (mm)	Note
110/110	0381155	2	48	87°30′	3.2	62	70	70	80	



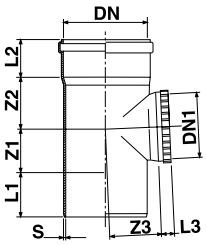


Double Branch 45° M/F

Culotte double 45° M/F - Derivación doble 45° M/H

DN/DN1/DN1 (mm)	Ref.			S Thick.	Z1 (mm)	Z2 (mm)	Z3 (mm)	L (mm)	L1 (mm)	L2 (mm)	Note
100/40/40	0415055	2	104	3	-20	93	105	60	75	44	
100/50/50	0414955	2	104	3	-15	99	110	60	64	46	
110/110/110	0361155	2	48	3.2	30	141	141	57	60	57	
125/125/125	0361255	6	48	3.2	25	157	157	64	70	64	



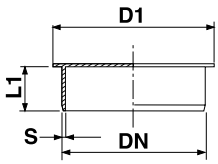


Access pipe M/F

Té de visite M/F - Te M/H con boca de registro

DN (mm)	Ref.			S Thick.	Z1 (mm)	Z2 (mm)	Z3 (mm)	L1 (mm)	L2 (mm)	L3 (mm)	Note
75	1820755	6	312	3,2	37	39	58	66	50	28	
100	1821055	6	144	3.2	55	64	64	55	53	35	
110	1821155	6	144	3.0	59	69	69	60	55	36	
125	1821255	2	104	3.2	66	70	78	62	62	22	On request
160	1821655	2	48	4.0	83	99	99	85	72	24	On request





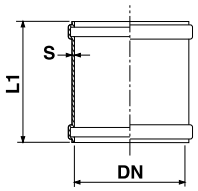
Socket Plug

Bouchon de fermeture - Tapón

DN (mm)	Ref.			D1 (mm)	S1 Thick.	L1 (mm)	Note
40	0660405	10	10.400	45	2.5	18	
50	0660505	10	7.800	55	2.5	20	
75	0650705**	10	810	80	2.5	39	
90	0650905**	8	648	125	3	52	
100	0669905	15	1215	125	3	56	
110	0661105	10	810	126	3.2	38	
125	0661205	8	648	142	3.2	42	On request
160	0661605	4	324	180	4.0	49	On request
200	0662005	25	200	223	4.9	59	On request

**Screwing version / *Vérsion à visser/ Versión roscada*



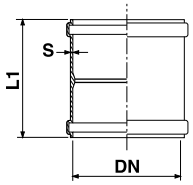


Repair/Slip coupler F/F

Manchon coulissant F/F - Manguito deslizante H/H

DN (mm)	Reference			S Thick.	L1 (mm)	Note
40	0614455	30	2.430	2.2	57	
50	0614555	20	1.620	2.2	67	
75	0610755	10	810	2.5	92	
90	0610955	6	486	2.5	104	
100	0611055	6	312	2.5	116	
110	0611155	5	260	2.9	122	
125	0611255	4	208	2.9	141	On request
160	0611655	4	96	3.6	154	On request



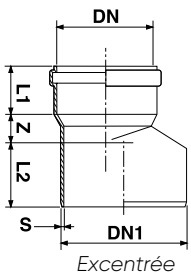


Coupler with central stop F/F

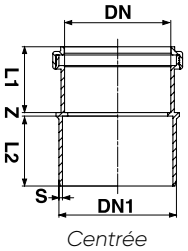
Manchon avec butée F/F - Manguito con tope H/H

DN (mm)	Reference			S Thick.	L1 (mm)	Note
75	0630755	10	810	2.5	92	
90	0630955	6	312	2.5	104	
100	0631055	6	312	2.5	116	
110	0631155	5	260	2.9	122	
200	0632055	8	64	4.4	217	On request





Excentrée



Centrée

Invert Reducer M/F

Réduction excentrée M/F - Ampliación excéntrica M/H

DN/DN1 (mm)	Reference			S Thick.	Z (mm)	L1 (mm)	L2 (mm)	Note
40/50	0900555	25	2.025	3.2	22	42	48	
40/100	0904855	30	600	3	48	42	58	
50/75	0510755	15	1215	3	30	45	48	
50/100	0901055	8	648	3.2	45	45	61	
50/110	0511155	6	486	3	51	45	70	
75/100	0503355	6	486	3	31	50	61	
75/110	0513155	6	486	3.2	35	45	63	
90/100	0531055**	5	405	3.2	3	56	59,5	
90/110	0531155**	5	405	3.2	3	58	61	
100/110	0533155**	6	486	3	3	60	61	
110/125	0513255	4	324	3.2	22	56	63	
110/160	0511655	6	144	4.0	43	56	82	
125/160	0513655	6	144	4.0	36	62	82	
160/200	0514055	15	120	4.9	39	74	100	

***concentric/concentrique/concéntrico*

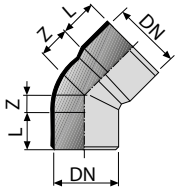
SOLVENT CEMENT transition fitting
Raccords à coller
Accesorios encolar



Bend 45° M/F
Coude 45° M/F - Codo 45° M/H

DN (mm)	Reference			L (mm)	Z (mm)	Note
110	0731105	40	320	56	38	

* *Price on request*

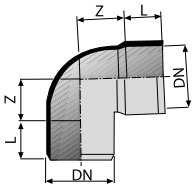




Bend 87°30' M/F
Coude 87°30' M/F - Codo 87°30' M/H

DN (mm)	Reference			L (mm)	Z (mm)	Note
110	0711105	25	200	61	65	

* *Price on request*

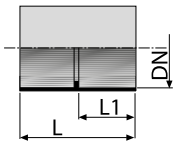




Coupler with central stop F/F
Manchon avec butée F/F - Manguito con tope H/H

DN (mm)	Reference			L (mm)	L1 (mm)	Note
110	0631105	50	400	125	61	

* *Price on request*



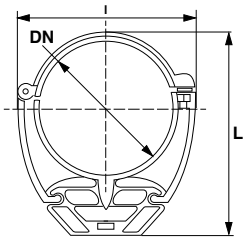


Standard noise-insulating support
Collier coulissant isophonique - Abrazadera fonoabsorbente

DN (mm)	Reference			Note
50	AV00500	2	1800	
75	AV00700	2	720	
90	AV00900	2	720	
100	AV01000	2	720	
110	AV01100	2	720	
125	AV01200	2	720	
160	AV01600	10	360	

** See Accessories and special solutions*





PHONOKLIP - Noise-insulating support
Collier coulissant isophonique
Abrazadera acústica

DN (mm)	Reference			Filetto Ø	L (mm)	I (mm)	Note
50	PHONK50	10	-	M8	76	78	
75	PHONK75	10	-	M8	112	111	
90	PHONK90	10	-	M8	144	131	
100	PHONK10	10	-	M7	160	140	screws M7
110	PHONK11	10	-	M8	171	150	
125	PHONK12	2	-	M10	213	170	
160	PHONK16	2	-	M10	245	213	

** See Accessories and special solutions*



Chamfering pipe cutter, tool box
Valise coupe tubes chanfreineur
Maletín de corte y abocardado

DN (mm)	Reference			Note
50-75-110	TT00100	1	–	
110-125-160	TT00200	1	–	

For cutting and 15° chamfering of PVC-PP-PE and soundproof pipes
Pour coupage et chanfreinage à 15° de tubes PVC-PP-PE et acoustiques.

** See Accessories and special solutions*



Chamfering tool for plastic pipes
Chanfreineur à rouleau
Achaflanadora exterior para tubos de material plástico

DN (mm)	Reference			Note
25÷160	A080506	1	–	For 15° chamfering of PVC-PP-PE and soundproof pipes. *Pour chanfreinage à 15° de tubes PVC-PP-PE et acoustiques.* Adjustable for DN 25÷160 / *Réglable pour DN 25÷160* Adjustable for thickness up to 10 mm / *Réglable pour épaisseurs jusqu'à 10 mm*

** See Accessories and special solutions*



Soundproof piping system
Black PVC-U system

Acoustic performance certified
13 dB at 2 l/s flow rate
Fire classification Euroclass B s1 d0

phono black

aliaxis

The black PVC choice

The new PVC formula strengthened with mineral additives guarantees excellent acoustic performance

Phonoblack is designed and developed to satisfy the levels of low noise emissions of waste systems required by the regulations, laws and standards in force

- PVC respects the environment
  PVC is lead free and is entirely recyclable so its environmental footprint is distinctively low
- PVC allows the installation of both glued and push fit systems. Excellent adaptation and flexibility to the needs of installers, always more focused on having useful, quick and economic solutions
- PVC allows you to easily install an acoustic system suitable for both new and renovated buildings. The PVC bonding allows you to work on the existing systems, on the maintenance and renovation thanks to an innovative solution in terms of technical performance
- PVC has high chemical resistance to the acids, alkalis, saline and organic molecules dissolved in the water.

Wide range at high performances

The system
Innovative material made of PVC-U strengthened with mineral additives for excellent acoustic performances.

Fire resistance
Phonoblack is certified according to uni en13501 standard Euroclass B-s1-d0.

The range
The wide range includes pipes and fittings in Ø: 40-50-75-90-100-110-125-160.
Single socket (MF) and double socket (FF) pipes available in lengths: 0.25-0.50-1-2-3 m.

Ø100

Exclusivity
Uniquer PVC gasketed soundproofing system available in diameter 100 mm.

13 dB

Acoustic certification 13 dB - 2 l/s
Certified by the Stuttgart Fraunhofer Physical Constructions Institute according to EN 14366 standard (P-BA 77 / 2017e).


AFITI LICOF
Centro de Ensayos e Investigación del Fuego

Informe de Clasificación
Classification Report

Laboratorio de Reacción al Fuego
Reaction to Fire Laboratory

ENAC

Phonoblack Euroclass certified by AFITI


Fraunhofer IBP

Test Report P-BA 77/2017e

Determination of the Acoustic Performance of a Wastewater Installation System in the Laboratory according to EN 14366

Sound performance certified by Fraunhofer

The certificates shown on this catalogue may be subject to revisions.
Updated certificates for each product are available on website www.redi.it

The key points

REDI presents Phonoblack: the acoustic soil and waste system made of black PVC-U strengthened with mineral additives, fire-resistant (Euroclass B s1 d0) certified and patented acoustic brackets are available for each diameters. Phonoblack offer a complete range of soundproof pipes and fittings for soil and waste water discharge : suitable for renovation, thanks to possibility of bonding connections directly on the old downpipe. The specific acoustic composition guarantees high chemical resistance, mechanical characteristics even at low temperatures and an excellent soundproof performance.

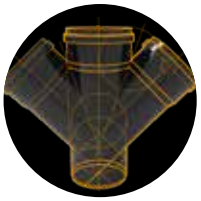




1

High quality gaskets (EPDM)

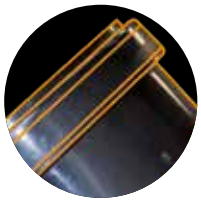
The EPDM gaskets guarantee the perfect sealing even in difficult conditions; slightly lubricated, can be temporarily removed for installation tests and then relocated without any difficulty



4

Soundproof geometry

The geometry of the Phonoblack fittings provide a high soundproof performance limiting the noises generated by water flow on the impact areas



2

Total safety

Phonoblack guarantees complete sealing thanks to the square profile of the socket, even in severe working conditions (low temperatures, exposure to chemical agents)



5

Easy installation

Thanks to the ease of installation Phonoblack is the ideal solution in renovations, allowing both the push fit connections and the direct connections to the existing pipe by gluing



3

High flow capacity

Thanks to the excellent smooth surface of the new PVC compound strengthened with mineral additives, Phonoblack guarantees a perfect water flow avoiding irregular outflows and clogs that cause annoying noises



6

Compact fittings

The range of Phonoblack fittings, ensures a versatile and compact system, easy to handle and ideal for specific situations where the space is limited

Phonoklip

brackets for the best perfomance





Essential
Brackets are essential to anchor and guide the piping network improving its performances

Patended and certified
The new Phonoklip brackets are patented and certified to reach the best acoustic performances

Totally plastic
The Phonoklip bracket, thanks to its full plastic structure, guarantees durability, flexibility and exceptional mechanical strength

Wide range
Wide range of diameters:
Ø 50-75-90-100-110-125-160

Horizontal and vertical installation
Phonoklip brackets can indifferently installed horizontally and vertically, and is used for both anchoring and guiding functions thanks to Phonoklip brackets Phonoblack reaches the top perfomances.



For guiding purposes, keep the red spacer ring in position so that the pipe is allowed to move freely.



For anchoring purposes, remove the red spacer ring before closing the bracket



Integral hinge design

Vibration attenuator

Spacer ring to switch from guiding to anchoring

Captive screw

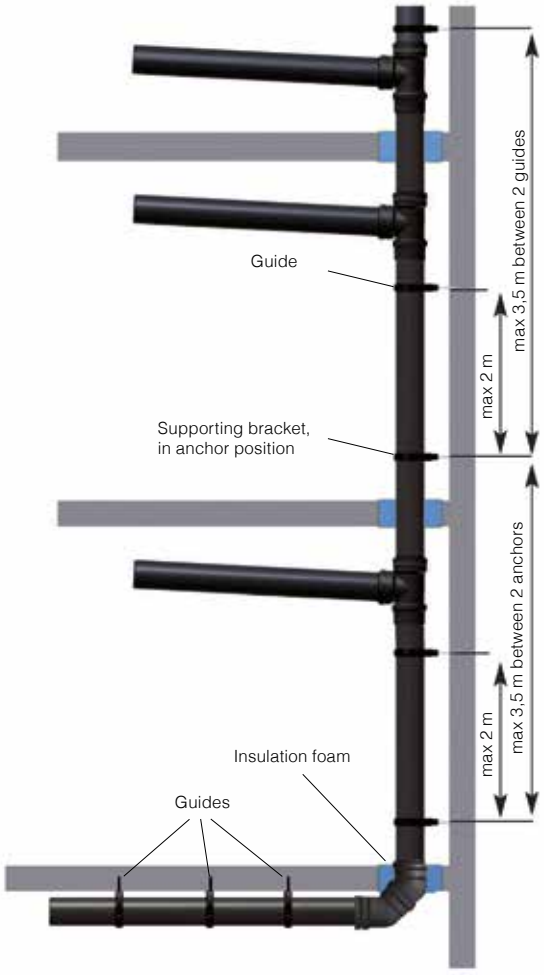
Screw or screwdriver passage hole

Female threaded insert for connections to male threaded rods or to screws with male threaded heads

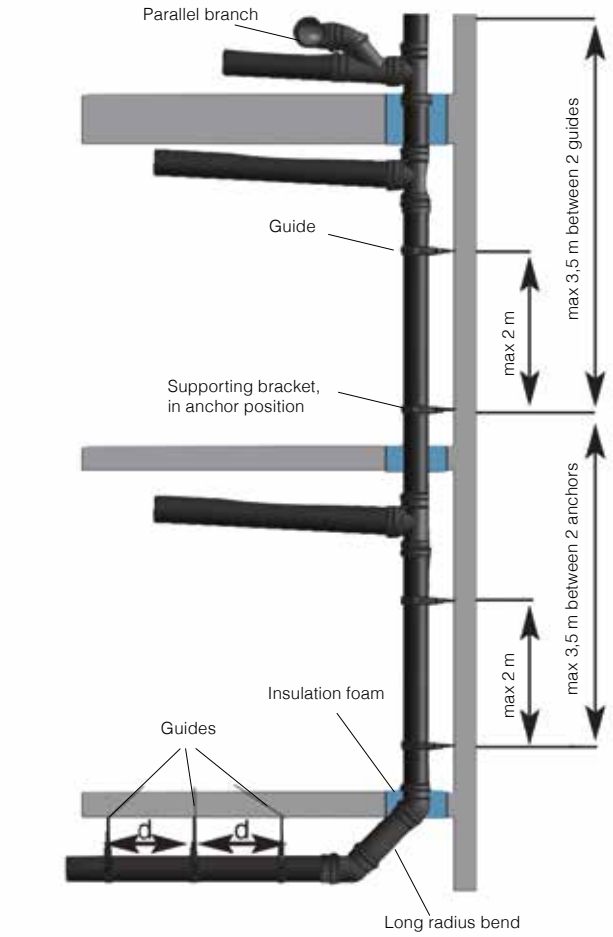
Distance between Phonoklip brackets

For vertical pipes 2 brackets must be used at each floor level:
- 1 anchor
- 1 guide

For horizontal pipes, the distance are:
- DN 50 = 0,50 m
- DN 75 - DN 125 = 0,80 m
- DN 160 = 1,00 m

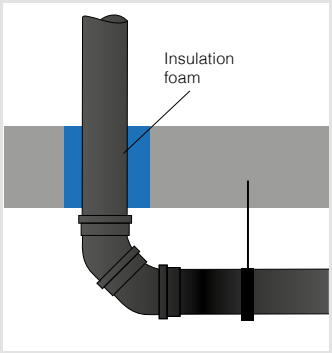


Alternative configuration
for pipes drops above 10 m

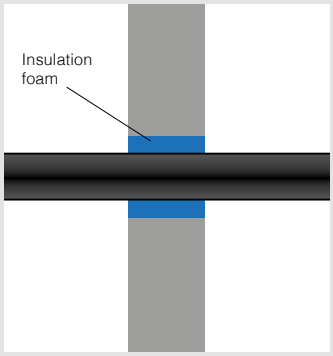


Acoustic insulation of pipes passing through floors, partitions and walls

In order to limit the trasmission of structural noise, pipes must be disconnected by floors, partitions and walls each time they pass through, by use of foam or insulating material (minimun thickness 4 mm).



Passage through the floor.
(Up to 10 m pipe drop).

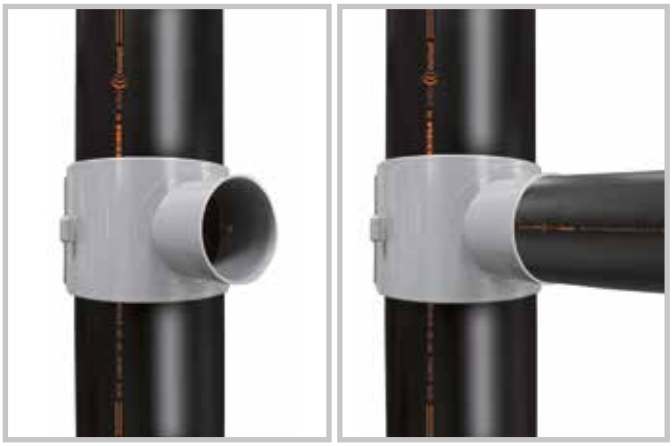


Passage through the wall or partition.

Different situations but one solution



Phonoblack can be connected to the existing PVC piping network with a slip coupler or any fitting by direct bonding



Phonoblack pipe, made of PVC-U, allows the direct connection on any point along the piping network. A new connection is easily done thanks to the PVC-U saddle that avoids the installation of a branch saving space on the slab.

Handling and storage

Always store pipes on a flat surface in a dry place protected from the UV rays. Pallets must be stored at a maximum height of 3 m.
Take great care when handling pipes and fittings, excessive scratching or impact stress on the pipe may damage the external structure or affect the seal properties. Take extra care when handling the pipes and fittings during the winter: the low temperature reduces the resistance to impact stress of plastic.

Tender specifications

Soundproof and fire resistance Class B s1 d0 pipes and fittings system for acoustic S & W sanitary systems inside buildings; it can be located in a specific technical shaft fixed with noise-insulating supports or directly embedded in the wall.
Phonoblack system is made of thermoplastic mineral reinforced material.
Acoustic performance certified by German.
Fraunhofer Institute according to EN14366 (13 dB at 2/ls flow rate, using special acoustic bracket called Phonoklip)
Push-fit system with elastomeric lip-rings certified EN681 and Din 4060.
Pipes and fittings branded "Phonoblack by REDI.
Fire classification Euroclass B s1 d0 according to the norm EN13501.

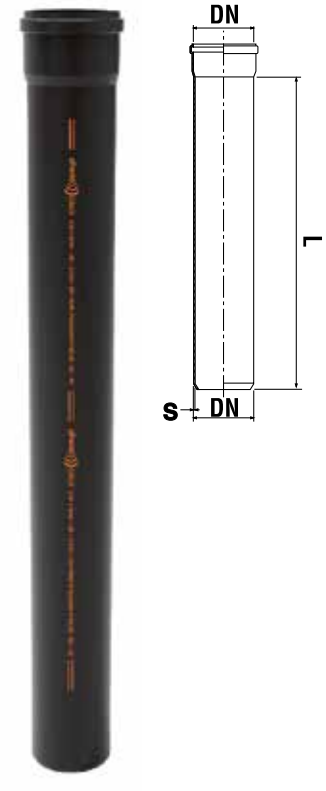
PVC - Chemical resistance

Product	Conc. %	Temp. 20 °C	Temp. 60 °C
Acetic Acid	60	S	L
Acetic Acid Monochloride	SOL.	S	L
Acetic Aldehyde	100	NS	-
Acetic Anhydride	100	NS	NS
Acetone	100	NS	NS
Adipic Acid	SOL.SAT.	S	L
Allyl Alcohol	90	L	S
Aluminum Chloride	SOL. SAT.	S	S
Aluminum Sulphate	SOL. SAT.	S	S
Ammonia (aqueous)	100	L	NS
Ammonia (gas)	100	S	S
Ammonia (solution)	SOL. DIL.	S	L
Ammonium Chloride	SOL. SAT.	S	S
Ammonium Fluoride	20	S	L
Ammonium Nitrate	SOL. SAT.	S	S
Ammonium Sulphate	SOL. SAT.	S	S
Amyl Acetate	100	NS	NS
Amyl Alcohol	100	S	L
Aniline	100	NS	NS
Aniline	SOL. SAT.	NS	NS
Aniline Hydrochloride	SOL. SAT.	NS	NS
Antimony Chloride	90	S	S
Arsenic Acid	SOL. DIL.	S	-
Beer		S	S
Benzaldehyde	0,1	NS	NS
Benzene	100	NS	NS
Benzoic Acid	SOL. SAT.	L	NS
Borax	SOL. SAT.	S	L
Boric Acid	SOL. DIL.	S	L
Bromine (liquid)	100	NS	NS
Bromine Acid	10	S	-
Butadiene	100	S	S
Butane	100	S	-
Butyl Acetate	100	NS	NS
Butyl Phenol	100	NS	NS
Butylene	100	S	L
Butyric Acid	20	S	L
Butyric Acid	98	NS	NS
Calcium Chloride	SOL. SAT.	S	S
Calcium Nitrate	50	S	S
Carbon Dioxide	100	S	S
Carbon Sulphide	100	NS	NS
Carbon tetrachloride	100	NS	NS
Cetyl Acid	100	S	S
Chlorine (dry gas)	100	L	NS
Chlorine (liquid)	SOL. SAT.	L	NS
Chlorosulphonic Acid	100	L	NS
Chromic Acid	1~50	S	L
Citric Acid	SOL. SAT.	S	S
Copper Chloride	SOL. SAT.	S	S
Copper Fluoride	2	S	S
Creosol	SOL. SAT.	-	NS
Cresol Acid	SOL. SAT.	NS	NS
Crotonic Aldehyde	100	NS	NS
Cyclohexanol	100	NS	NS
Cyclohexanone	100	NS	NS
Developing Bath		S	S
Dextrine	SOL. SAT.	S	L
Dichloroethylene	100	NS	NS
Diglycolic Acid	18	S	L
Dimethylammine	30	S	-
Ethyl Acetate	100	NS	NS
Ethyl Acrylate	100	NS	NS
Ethyl Alcohol	95	S	L
Ethyl Ether	100	NS	L
Ethylene Glycol	CONC.	L	L
Fluosilicic Acid	32	S	S
Formaldehyde	SOL.	S	S
Formaldehyde	40	S	S
Formic Acid	1~50	S	L
Furfural Alcohol	100	NS	NS
Glucose	SOL. SAT.	S	L
Glycerin	100	S	S
Glycolic Acid	30	S	S
Golden Syrup	SOL.	S	L
Hydrazine Benzene	100	NS	NS
Hydrazine Benzene Cloric	97	NS	NS
Hydrobromic Acid	50	S	L
Hydrochloric Acid	>30	S	S

Product	Conc. %	Temp. 20 °C	Temp. 60 °C
Hydrofluoric Acid	60	L	NS
Hydrogen	100	S	S
Hydrogen Dioxide	30	S	S
Hydrogen Sulphide	100	S	S
Iron Chloride	SOL. SAT.	S	S
Lactic Acid	10	S	L
Lactic Acid	10~90	L	NS
Lead Acetate	SOL. SAT.	S	S
Lead Tetraethyl	100	S	-
Magnesium Chloride	SOL. SAT.	S	S
Magnesium Sulphide	SOL. SAT.	S	S
Maleic Acid	SOL. SAT.	S	L
Methyl Alcohol	100	S	L
Methyl Methacrylate	100	NS	NS
Methylene Chloride	100	NS	NS
Milk		S	S
Nickel Sulphide	SOL. SAT.	S	S
Nicotinic Acid	CONC.	S	S
Nitric Acid	<46	S	L
Nitric Acid	46~98	NS	NS
Oils		S	S
Oleic Acid	100	S	S
Oleum	10% of SO	NS	NS
Oxalic Acid	SOL. DIL.	S	L
Oxalic Acid	SOL. SAT.	S	S
Oxigen	100	S	S
Ozone	100	NS	NS
Perchloric Acid	10	S	L
Perchloric Acid	70	L	NS
Petrol	80/20	NS	NS
Phenol	90	NS	NS
Phosphine	100	S	S
Phosphor Trichloride	100	NS	-
Phosphoric Acid	30	S	L
Picric Acid	SOL. SAT.	S	S
Potassium Bichromate	40	S	S
Potassium Bromide	SOL. SAT.	S	S
Potassium Chloride	SOL. SAT.	S	S
Potassium Chromate	40	S	S
Potassium Cyanide	SOL.	S	S
Potassium Ferricyanide	SOL. SAT.	S	S
Potassium Ferrocyanide	SOL. SAT.	S	S
Potassium Hydroxide	SOL.	S	S
Potassium Nitrate	SOL. SAT.	S	S
Potassium Permanganate	20	S	S
Potassium Persulfate	SOL. SAT.	S	L
Propane (gas liquid)	100	S	-
Pyridine	100	NS	-
Sea Water		S	L
Silver Nitrate	SOL. SAT.	S	L
Soap	SOL.	S	L
Sodium Benzoate	35	S	L
Sodium Bisulphite	SOL. SAT.	S	S
Sodium Chlorate	SOL. SAT.	S	S
Sodium Ferricyanide	SOL. SAT.	S	S
Sodium Hydroxide	SOL.	S	L
Sodium Hypochlorite	100 (13% Cl.)	S	L
Sodium Sulphite	SOL. SAT.	S	L
Sugar	SOL. SAT.	S	S
Sulphur Acid	SOL.	S	S
Sulphur Anhydride	100 (liquid)	L	NS
Sulphur Anhydride	100 (dry)	L	NS
Sulphuric Acid	40~90	S	L
Sulphuric Acid	96	L	NS
Tannic Acid	SOL.	S	S
Tartaric Acid	SOL.	S	S
Tin Chloride	SOL. SAT.	S	S
Toluene	100	NS	NS
Trichloroethylene	100	NS	NS
Trimethyl Propane	<10	S	L
Urea	10	S	L
Urine		S	L
Vinagre		S	S
Vinyl Acetate	100	NS	NS
Wine		S	S
Xylene	100	NS	NS
Yeast	SOL.	S	L
Zinc Chloride	SOL. SAT.	S	S

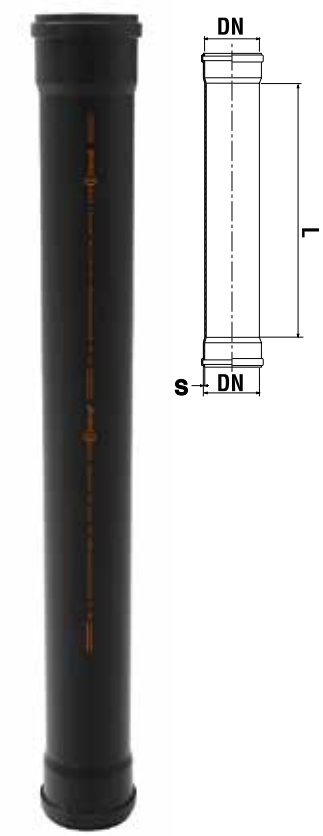
TS = Without corrosion L = Limitaded corrosion NS = Corrosion

For special applications it is recommended to contact the REDI Technical Department.



Single socket pipe M/F
Tube M/F - Tubo M/H

DN (mm)	L (ml.)	S (mm)	Reference			Note
40	0,25	3	V0404P8	20	20	
40	0,50	3	V0504P8	20	20	
40	1,00	3	V0104P8	20	20	
40	2,00	3	V0204P8	20	20	
40	3,00	3	V0304P8	20	20	
50	0,25	3	V0405P8	20	20	
50	0,50	3	V0505P8	20	20	
50	1,00	3	V0105P8	20	20	
50	2,00	3	V0205P8	20	20	
50	3,00	3	V0305P8	20	20	
75	0,25	3	V0475P8	10	10	
75	0,50	3	V0575P8	10	10	
75	1,00	3	V0175P8	10	10	
75	2,00	3	V0275P8	10	10	
75	3,00	3	V0375P8	10	10	
90	0,25	3	V0409P8	10	10	
90	0,50	3	V0509P8	10	10	
90	1,00	3	V0109P8	10	10	
90	2,00	3	V0209P8	10	10	
90	3,00	3	V0309P8	10	10	
100	0,25	3	V0410P8	10	10	
100	0,50	3	V0510P8	10	10	
100	1,00	3	V0110P8	10	10	
100	2,00	3	V0210P8	10	10	
100	3,00	3	V0310P8	10	10	
110	0,25	3.2	V0411P8	10	10	
110	0,50	3.2	V0511P8	10	10	
110	1,00	3.2	V0111P8	10	10	
110	2,00	3.2	V0211P8	10	10	
110	3,00	3.2	V0311P8	10	10	
125	0,25	3.2	V0412P8	8	8	
125	0,50	3.2	V0512P8	8	8	
125	1,00	3.2	V0112P8	8	8	
125	2,00	3.2	V0212P8	8	8	
125	3,00	3.2	V0312P8	8	8	
160	0,50	4	V0516P8	6	6	
160	1,00	4	V0116P8	6	6	
160	2,00	4	V0216P8	6	6	
160	3,00	4	V0316P8	6	6	



Double socket pipe F/F

Tube F/F - Tubo de doble embocadura H/H

DN (mm)	L (ml.)	S (mm)	Reference			Note
40	0,50	3	VF504P8	20	20	
40	1,00	3	VF104P8	20	20	
40	2,00	3	VF204P8	20	20	
40	3,00	3	VF304P8	20	20	
50	0,50	3	VF505P8	20	20	
50	1,00	3	VF105P8	20	20	
50	2,00	3	VF205P8	20	20	
50	3,00	3	VF305P8	20	20	
75	0,50	3	VF575P8	10	10	
75	1,00	3	VF175P8	10	10	
75	2,00	3	VF275P8	10	10	
75	3,00	3	VF375P8	10	10	
90	0,50	3	VF509P8	10	10	
90	1,00	3	VF109P8	10	10	
90	2,00	3	VF209P8	10	10	
90	3,00	3	VF309P8	10	10	
100	0,50	3	VF510P8	10	10	
100	1,00	3	VF110P8	10	10	
100	2,00	3	VF210P8	10	10	
100	3,00	3	VF310P8	10	10	
110	0,50	3.2	VF511P8	10	10	
110	1,00	3.2	VF111P8	10	10	
110	2,00	3.2	VF211P8	10	10	
110	3,00	3.2	VF311P8	10	10	
125	0,50	3.2	VF512P8	8	8	
125	1,00	3.2	VF112P8	8	8	
125	2,00	3.2	VF212P8	8	8	
125	3,00	3.2	VF312P8	8	8	



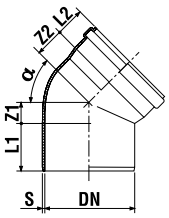
Acoustic pipe insulation

Gaine d'isolation phonique - Funda de aislamiento acústico

DN (mm)	DN Pipe (mm)	Ref.			S Thick.	Note
80	75 - 80 - 90	CD08500	6	–	5	15 metre-roll
110	100 - 110	CD11500	5	–	5	15 metre-roll
110	100 - 110	CD11100	5	–	10	15 metre-roll

** See Accessories and special solutions*



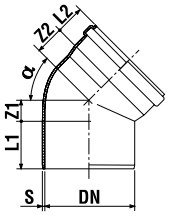


Bend 15° M/F
Coude 15° M/F - Codo 15° M/H

DN (mm)	Ref.			S (mm)	Z1 (mm)	Z2 (mm)	L1 (mm)	L2 (mm)	Note
40	01004P8	25	2.025	3	3	27	48	41	
50	01005P8	15	1.215	3	4	17	53	45	
75	01007P8	8	648	3	5	18	50	45	
• 90	01009P8	5	260	5.1	11	14	59	55.7	
110	01011P8	5	260	3.2	9	22	62	57	
125	01012P8	4	208	3.2	10	22	68	63	
160	01016P8	4	96	4.0	14	28	82	72	

• *High thickness / À paroi épaisse / Alto espesor*



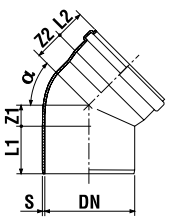


Bend 30° M/F
Coude 30° M/F - Codo 30° M/H

DN (mm)	Ref.			S (mm)	Z1 (mm)	Z2 (mm)	L1 (mm)	L2 (mm)	Note
40	01104P8	25	2.025	3	5	19.5	49	41	
50	01105P8	15	1.215	3	8	20	53	45	
75	01107P8	8	648	3	11	24	50	45	
• 90	01109P8	5	260	5.1	17	18	59	55.7	
100	07810P8	5	260	3.2	12	20	68	56	
110	01111P8	4	208	3.2	17	29	61	57	
125	01112P8	6	144	3.2	19	29	68	62	
160	01116P8	3	72	4.0	25	40	82	72	

• *High thickness / À paroi épaisse / Alto espesor*





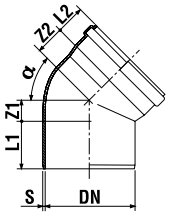
Bend 45° M/F
Coude 45° M/F - Codo 45° M/H

DN (mm)	Ref.			S (mm)	Z1 (mm)	Z2 (mm)	L1 (mm)	L2 (mm)	Note
40	07004P8	30	2.430	3	8	22	48	36	
50	07005P8	20	1.620	3	10	24	52	40	
75	07307P8	10	520	3.2	16	25	52	45	
90	01209P8	5	260	3	23	33	56	54	
100	07010P8	10	240	3	20	35	62	53	
110	01211P8	4	208	3.2	27	39	58	50	
125	07012P8	6	144	3.2	29	42	68	62	
160	07016P8	3	72	4.0	37	50	80	66	

Bend 67°30′ M/F

Coude 67°30′ M/F - Codo 67°30′ M/H





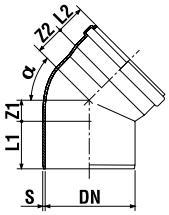
DN (mm)	Ref.			S (mm)	Z1 (mm)	Z2 (mm)	L1 (mm)	L2 (mm)	Note
75	01307P8	9	468	3	25	40	60	51	
• 90	01309P8	5	260	5.1	36	42	59	55,7	
100	07210P8	3	156	3.2	33	53	75	57	
110	01311P8	6	144	3.2	41	53	62	56	
125	01312P8	6	144	3.2	46	60	69	62	
160	01316P8	2	48	4.0	60	74	82	74	

• *High thickness / À paroi épaisse / Alto espesor*

Bend 87° M/F

Coude 87° M/F - Codo 87° M/H



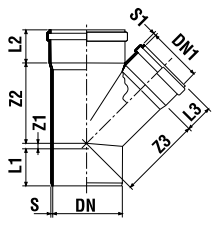


DN (mm)	Ref.			S (mm)	Z1 (mm)	Z2 (mm)	L1 (mm)	L2 (mm)	Note
40	07104P8	30	2.430	3	20	32	43	36	
50	07105P8	20	1.040	3	23	40	53	40	
75	07407P8	9	468	3.2	52	58	50	45	
90	07109P8	5	260	3	47	57	56	54	
100	07110P8	10	240	3	47	63	63	55	
110	07111P8	3	156	3.2	59	69	58	50	
125	07112P8	5	120	3.2	67	79	69	62	
160	07116P8	2	48	4.0	84	100	80	66	

Branch 45° M/F

Culotte 45° M/F - Derivación 45° M/H

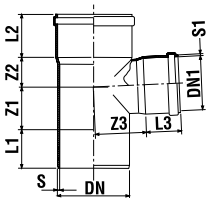




DN/DN1 (mm)	Ref.			S (mm)	S1 (mm)	Z1 (mm)	Z2 (mm)	Z3 (mm)	L1 (mm)	L2 (mm)	L3 (mm)	Note
40/40	08004P8	20	1.040	3	3	9	52	52	49	45	45	
50/50	08005P8	10	520	3.2	3.2	14	70	70	48	40	40	
75/50	03127P8	6	312	3.2	3.2	-	85	-	42	45	-	
75/75	08807P8	4	208	3.2	3.2	15	93	93	51	45	45	
• 90/50	03128P8	5	120	5,5	3	10	77	100	53	53	45	
90/90	08809P8	6	144	3	22	119	119	56	54	54	3	
100/40	08310P8	10	240	3	3	-20	84	95	84	60	44	
100/50	08330P8	3	156	3	3	-14	90	101	72	60	46	
100/100	08810P8	6	144	3.2	3.2	25	131	131	60	53	53	
110/50	03131P8	6	144	3.2	3.2	-14	102	114	63	55	40	
110/75	03151P8	6	144	3.2	3.2	3	120	127	63	55	45	
110/110	03011P8	4	96	3.2	-	27	143	143	58	50	50	
125/110	03192P8	2	48	3.2	3.2	19	147	152	69	62	56	
125/125	08012P8	2	48	3.2	-	30	161	161	71	62	62	
160/110	03116P8	2	48	4.0	3.2	2	168	176	82	74	56	
160/160	03016P8	4	32	4.0	-	38	205	205	83	71	71	

• *High thickness / À paroi épaisse / Alto espesor*





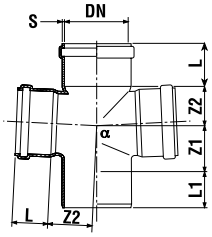
Branch 87°30′ M/F

Culotte 87°30′ M/F - Derivación 87°30′ M/H

DN/DN1 (mm)	Ref.			S (mm)	S1 (mm)	Z1 (mm)	Z2 (mm)	Z3 (mm)	L1 (mm)	L2 (mm)	L3 (mm)	Note
40/40	08104P8	15	1.215	3.2	3.2	25	33	33	44	36	36	
50/50	08105P8	14	728	3.2	3.2	29	38	38	48	40	40	
75/40	03507P8	4	324	3.2	3.2	25	35	50	48	45	36	
75/50	03527P8	6	312	3.2	3.2	30	40	52	53	45	40	
75/75	08907P8	5	260	3.2	3.2	37	39	58	66	50	50	
• 90/50	03528P8	5	260	5,5	3	39	31	47	53	53	45	
90/90	03409P8	5	120	5.1	4.5	49	51	51	59	55.7	55.7	
100/50	08430P8	10	240	3.2	2.8	23	44	63	65	53	40	
100/100	08110P8	5	120	3.2	3.2	55	64	64	55	53	53	
110/50	03531P8	6	144	3.2	3.2	30	40	70	63	55	40	
110/75	03571P8	6	144	3.2	3.2	43	54	70	63	55	45	
• 110/110	08913P8	5	120	3.2	2.9	146	62	57.5	57.5	95.5	-	
125/110	03572P8	4	96	3.2	3.0	84	58	92	78	77	67	
125/125	08112P8	3	72	3.2	3.2	66	70	78	62	62	62	
160/110	03516P8	10	80	4.0	3.2	59	69	37	81	74	57	
160/160	08116P8	5	40	4.0	-	76	98	98	88	74	74	

• *High thickness / À paroi épaisse / Alto espesor*



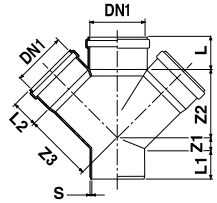


Double Branch 87°30′ M/F

Té double 87°30′ M/F - Derivación doble 87°30′ M/H

DN (mm)	Ref.			α	S (mm)	Z1 (mm)	Z2 (mm)	L1 (mm)	L2 (mm)	Note
110/110	03811P8	2	48	87°30′	3.2	62	70	70	80	



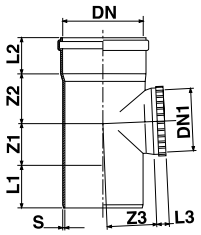


Double Branch 45° M/F

Culotte double 45° M/F - Derivación doble 45° M/H

DN/DN1/DN1 (mm)	Ref.			S (mm)	Z1 (mm)	Z2 (mm)	Z3 (mm)	L (mm)	L1 (mm)	L2 (mm)	Note
100/40/40	04150P8	2	104	3	-20	93	105	60	75	44	
100/50/50	04149P8	2	104	3	-15	99	110	60	64	46	
110/110/110	03611P8	2	48	3.2	30	141	141	57	60	57	



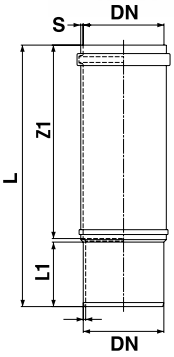


Access pipe M/F

Té de visite M/F - Te M/H con boca de regristro

DN (mm)	Ref.			S (mm)	Z1 (mm)	Z2 (mm)	Z3 (mm)	L1 (mm)	L2 (mm)	L3 (mm)	Note
75	18207P8	6	312	3.2	37	39	58	66	50	28	
100	18210P8	6	144	3.2	55	64	64	55	53	35	
110	18211P8	6	144	3.0	59	69	69	60	55	36	
125	18212P8	2	104	3.2	66	70	78	62	62	22	
160	18216P8	2	48	4.0	83	99	99	85	72	24	



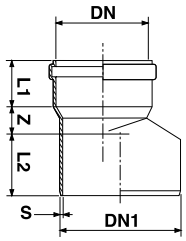


Repairing coupler

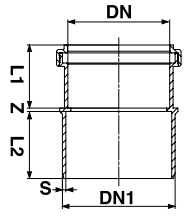
Manchon de réparation - Manguito de reparación

DN (mm)	Ref.			S (mm)	L1 (mm)	Z1 (mm)	L (mm)	Note
100	02910P8	5	170	3	80	240	324,4	
125	02912P8	5	110	3	80	240	324,4	





Excentrée



Centrée

Invert Reducer M/F

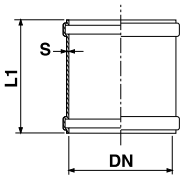
Réduction excentrée M/F - Ampliación excéntrica M/H

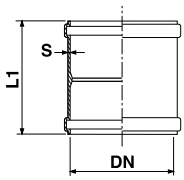
DN/DN1 (mm)	Ref.			S (mm)	Z (mm)	L1 (mm)	L2 (mm)	Note
40/50	09005P8	25	2.025	3.2	22	42	48	
40/100	09048P8	10	520	3	48	42	58	
50/75	05107P8	15	1.215	3	30	45	48	
50/100	09010P8	8	648	3.2	45	45	61	
50/110	05111P8	6	486	3	51	45	70	
75/100	05033P8	6	486	3	31	50	61	
75/110	05131P8	6	486	3.2	35	45	63	
90/100	05310P8**	5	405	3	3	56	59,5	
90/110	05311P8**	5	260	3	3	56	63,5	
100/110	05331P8**	6	486	3	3	60	61	
100/125	09012P8	4	208	3	16	57	61	
110/125	05132P8	4	324	3.2	22	56	63	
110/160	05116P8	6	144	4.0	43	56	82	
110/160	0686348**	16	384	-	-	-	-	
125/160	05136P8	6	144	4.0	36	62	82	

** *Centrée / Escentrée / Concéntrico*

* *See UDG Sewage fittings*



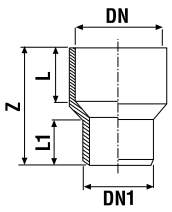




Repair/Slip coupler F/F
Manchon coulissant F/F - Manguito H/H

DN (mm)	Ref.			S (mm)	L1 (mm)	Note
40	06144P8	30	2.430	2.2	57	
50	06145P8	20	1.620	2.2	67	
75	06107P8	10	810	2.5	92	
90	06109P8	6	312	2.5	104	
100	06110P8	5	260	2.5	116	
110	06111P8	4	208	2.9	122	
125	06112P8	4	208	2.9	141	
160	06116P8	4	96	3.6	154	
40	06344P8	40	2.080	-	57	with central stop / avec butée / con tope
50	06345P8	20	1.980	-	67	with central stop / avec butée / con tope
75	06307P8	10	810	2.5	92	with central stop / avec butée / con tope
90	06309P8	6	312	2.5	104	with central stop / avec butée / con tope
100	06310P8	5	260	2.5	116	with central stop / avec butée / con tope
110	06311P8	4	208	2.9	122	with central stop / avec butée / con tope
125	06312P8	4	208	2.9	68	with central stop / avec butée / con tope
160	06316P8	4	96	4.4	141	with central stop / avec butée / con tope

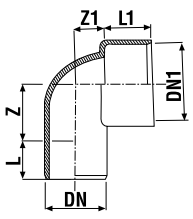




Technical coupling M/F
Manchon pour raccordements multi-matériaux M/F
Manguito técnico M/H

DN (mm)	DN1 (mm)	Ref.			L (mm)	L1 (mm)	Z (mm)	Note
50	40	09305P8	50	2.600	31,5	26,5	67,5	

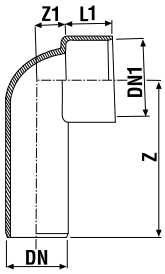




Technical bend (with protection plug) M/F
Coude (avec tampon de protection) M/F
Codo técnico M/H (con tapa protectora)

DN (mm)	DN1 (mm)	Ref.			L (mm)	L1 (mm)	Z (mm)	Z1 (mm)	Note
40	50	07424P8	20	1.980	62	70	70	-	

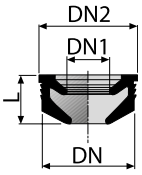




Technical bend long version M/F
Coude long (avec tampon de protection) M/F
Codo técnico largo M/H (con tapa protectora)

DN (mm)	DN1 (mm)	Reference			L1 (mm)	Z (mm)	Z1 (mm)	Note
40	50	07454P8	20	1.040	33	150	17	





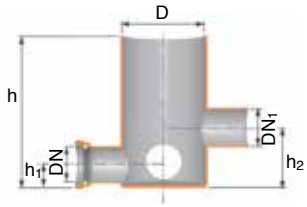
Gasket
Joint - Junta de goma

DN (mm)	DN1 (mm)	DN2 (mm)	Reference			L (mm)	Note
50	1"	55	6820502	50	6000	19	
50	1" 1/4	56	6820500	50	6000	19	
50	1" 1/2	55	6820501	50	6000	19	

1" = 26 mm. 1"1/4 = 32 mm. 1"1/2 = 40 mm.

** See PVC-U Soil, vent & waste system*

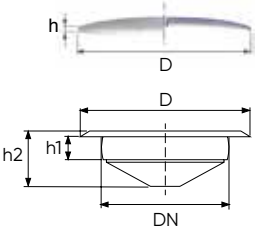




Floor gullies whit multiple inlets
Siphonnette a entrée multiples
Bote sifónico 3 entradas 1 salida

D (mm)	DN 3 inlets	DN1 1 inlet	Reference			h (mm)	h1 (mm)	h2 (mm)	Material
100	40	40	Z9511P8	20	160	200	30	80	PP



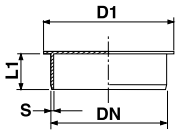


Plug for floor gully with stainless steel plate
Bouchon pour collecteur avec tournette en acier inox
Tapa bote sifónico con embellecedor acero inoxidable

DN (mm)	Reference			D (mm)	h (mm)	h1 (mm)	h2 (mm)	Note
100	Z7450PP	20	1.040	135	3	19	44,9	

** See PP Soil & waste push fit system*



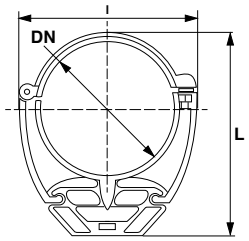


Socket plug
Bouchon de fermeture - Tapón

DN (mm)	Reference			D1 (mm)	S (mm)	L1 (mm)	Note
40	06604P8	10	-	45	2.5	18	
50	06605P8	10	-	55	2.5	20	
75	06507P8**	10	810	80	2.5	39	
90	06509P8**	8	648	125	3	52	
100	06699P8	15	1.215	125	3	56	
110	06611P8	10	810	126	3.2	38	
125	06612P8	8	648	142	3.2	42	
160	06616P8	4	324	180	4.0	49	

**Screwing version / *Vérsion à visser/ Versión roscada*





PHONOKLIP
Acoustic brackets
Collier coulissant isophonique
Abrazadera acústica

DN (mm)	Reference			Filetto Ø	L (mm)	I (mm)	Note
50	PHONK50	10	-	M8	76	78	
75	PHONK75	10	-	M8	112	111	
90	PHONK90	10	-	M8	144	131	
100	PHONK10	10	-	M7	160	140	screws M7
110	PHONK11	10	-	M8	171	150	
125	PHONK12	2	-	M10	213	170	
160	PHONK16	2	-	M10	245	213	

** See Accessories and special solutions*



PVC-U soil, vent & waste system

Solvent cement welding system made of fire-resistant PVC-U (Me Class B s2 d0)

REDI

aliaxis

PVC-U
Soil, vent & waste system

Standards and marks for the total protection

REDI PVC solvent socket fittings are Me Class (French standard) corresponding to the highest level of protection against fires.
This feature is periodically certified by the **Laboratoire National D'Essaie**
The mark certifying the conformity of **NF** Me PVC fittings for building water drainage systems with the French **CSTB** standard guarantees the respect of the dimensional tolerances for the designs provided by the NF EN1329 and NF T 54-030 standards (the remaining products conform to the basic UNI EN1329 standard).
The detailed list of certified products is available on request.

General characteristics of PVC

- Name: Polyvinyl chloride
- Colour: Grey RAL 7037
- Conditions of use: Maximum temperature of the waste water under 70°.

Maximum temperature of 95° for discontinuous drainage of the normal household appliances.

Mechanical resistance

	Testing method	Unit of measure	Measured value*
Yield point	ISO 527	MPa	53
Tensile strength	ISO 527	MPa	43
Elongation at break	ISO 527	%	150
Modulus of elasticity	ISO 527	MPa	≥ 3,000

Physical properties

	Testing method	Unit of measure	Measured value*
•Average density	ISO 1183	g/cm3	1.43
•Softening temperature (VICAT)	EN 727	°C	80
•Coefficient of linear thermal expansion		mm/m x °C	0.07
•Thermal conductivity		W/m x °C	0.16
•Surface electrical resistivity		Ω	> 1012

- Resistance to decay: PVC is completely resistant to decay.
- Biological resistance: algae and bacteria present in the waste water do not have any effect on the PVC pipes.
- The PVC is not affected by rodents.
- Abrasion resistance: the pipes and fittings conforming to EN1329 standard are abrasion-proof.
- Hydraulic roughness: the internal surfaces of the pipes and fittings conforming to EN1329 standard are hydraulically smooth. REDI couplings and fittings are designed to ensure good hydraulic performance. For flow rate calculations on PVC branches, an effective roughness coefficient can be used (k = 0.25 mm).
- For flow rate calculations on PVC branches, an effective roughness coefficient can be used k = 0.25 mm. (See installation guide).
- Chemical resistance: PVC is particularly resistant to chemical attacks and can therefore be used without problems for the drainage of industrial water containing chemical compounds in the pH range between 2 (acid) and 12 (alkaline).

PVC is also one of the few plastic materials that can be joined with solvent socket, which simplifies and speeds up many installation operations.
In the following page, a summarising table contains information obtained from laboratory tests.

- Reaction to Fire:
  With regard to building materials, it is important to assess the destructive fire reaction and resistance properties.
  PVC is a fire-proof polymer and in the event of a fire it shows a better behaviour than other traditional plastic materials.

REDI fittings have a **B s2 d0 EUROCLASS FOR REACTION TO FIRE**, tested and classified by the French Laboratoire Nationale d'Essaie LNE as provided for by the EN13501:2007 European standard which is applied to plastic drainage systems.

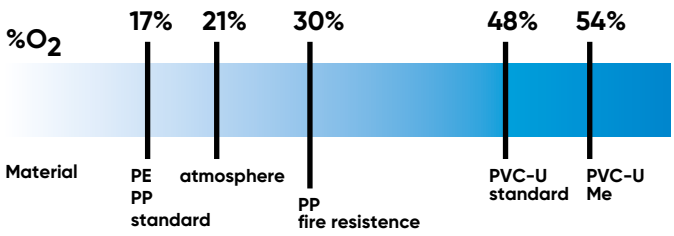
Therefore these are very difficult to ignite, as letter "B" refers to a fire reaction scale containing the classes A1, A2, B, C, D, E, F where the performance decreases progressively from class A1 (non-flammable material such as concrete and ceramic) to class F (non-classifiable material and therefore the most dangerous one) do not spread fire via burning droplets. In fact "d0" is applicable to products which do not spread burning droplets.

The NF-Me mark is reserved only for products that, like Redi fittings, have an excellent Euroclass for reaction to fire (a minimum level of B s3 d0 is required to apply for the mark NF-Me).
However, the NF-Me mark is designed to guarantee the user an even greater level of protection.

The mark NF-Me certifies that when subjected to the effects of heat, the material has a minimum expansion capacity equal to 800 times the thickness of the walls (800% minimum expansion). This property of NF-Me certified products enables the cross-section of the pipe or the fitting to be obstructed in the event of a fire, consequently avoiding the spreading of the flame.

Fire resistance

The oxygen level contained in the different materials used for building the most common sanitary draiange systems is quoted here below.
The higher the oxygen level is, the higher the material's fire resistance.
It is clear that PVC Me class is the most fire-resistant material for sanitary draiange systems.



NF Me

As to achieve the new NF Me branding, the minimum European fire resistance classification required for PVC is B d0s3.

- **B** characterizes PVC reaction to fire (replacing the former M1)
- **d0** characterizes the propensity to leave fire droplets fall, that may propagate a fire, particularly from floor to floor. PVC does not release any droplets.
- **S2** characterizes the propensity to release smoke.

However, this branding is going one step further and guarantees fire resistance as well.
A minimum expansion rate of 800% must be actually certified by a qualified independent laboratory (LNE – Laboratoire National d'Essais).

PVC - Chemical resistance

Product	Conc. %	Temp. 20 °C	Temp. 60 °C
Acetic Acid	60	S	L
Acetic Acid Monochloride	SOL.	S	L
Acetic Aldehyde	100	NS	-
Acetic Anhydride	100	NS	NS
Acetone	100	NS	NS
Adipic Acid	SOL.SAT.	S	L
Allyl Alcohol	90	L	S
Aluminum Chloride	SOL. SAT.	S	S
Aluminum Sulphate	SOL. SAT.	S	S
Ammonia (aqueous)	100	L	NS
Ammonia (gas)	100	S	S
Ammonia (solution)	SOL. DIL.	S	L
Ammonium Chloride	SOL. SAT.	S	S
Ammonium Fluoride	20	S	L
Ammonium Nitrate	SOL. SAT.	S	S
Ammonium Sulphate	SOL. SAT.	S	S
Amyl Acetate	100	NS	NS
Amyl Alcohol	100	S	L
Aniline	100	NS	NS
Aniline	SOL. SAT.	NS	NS
Aniline Hydrochloride	SOL. SAT.	NS	NS
Antimony Chloride	90	S	S
Arsenic Acid	SOL. DIL.	S	-
Beer		S	S
Benzaldehyde	0,1	NS	NS
Benzene	100	NS	NS
Benzoic Acid	SOL. SAT.	L	NS
Borax	SOL. SAT.	S	L
Boric Acid	SOL. DIL.	S	L
Bromine (liquid)	100	NS	NS
Bromine Acid	10	S	-
Butadiene	100	S	S
Butane	100	S	-
Butyl Acetate	100	NS	NS
Butyl Phenol	100	NS	NS
Butylene	100	S	L
Butyric Acid	20	S	L
Butyric Acid	98	NS	NS
Calcium Chloride	SOL. SAT.	S	S
Calcium Nitrate	50	S	S
Carbon Dioxide	100	S	S
Carbon Sulphide	100	NS	NS
Carbon tetrachloride	100	NS	NS
Cetyl Acid	100	S	S
Chlorine (dry gas)	100	L	NS
Chlorine (liquid)	SOL. SAT.	L	NS
Chlorosulphonic Acid	100	L	NS
Chromic Acid	1~50	S	L
Citric Acid	SOL. SAT.	S	S
Copper Chloride	SOL. SAT.	S	S
Copper Fluoride	2	S	S
Creosol	SOL. SAT.	-	NS
Cresol Acid	SOL. SAT.	NS	NS
Crotonic Aldehyde	100	NS	NS
Cyclohexanol	100	NS	NS
Cyclohexanone	100	NS	NS
Developing Bath		S	S
Dextrine	SOL. SAT.	S	L
Dichloroethylene	100	NS	NS
Diglycolic Acid	18	S	L
Dimethylammine	30	S	-
Ethyl Acetate	100	NS	NS
Ethyl Acrylate	100	NS	NS
Ethyl Alcohol	95	S	L
Ethyl Ether	100	NS	L
Ethylene Glycol	CONC.	L	L
Fluosilicic Acid	32	S	S
Formaldehyde	SOL.	S	S
Formaldehyde	40	S	S
Formic Acid	1~50	S	L
Furfural Alcohol	100	NS	NS
Glucose	SOL. SAT.	S	L
Glycerin	100	S	S
Glycolic Acid	30	S	S
Golden Syrup	SOL.	S	L
Hydrazine Benzene	100	NS	NS
Hydrazine Benzene Cloric	97	NS	NS
Hydrobromic Acid	50	S	L
Hydrochloric Acid	>30	S	S

Product	Conc. %	Temp. 20°	Temp. 60°
Hydrofluoric Acid	60	L	NS
Hydrogen	100	S	S
Hydrogen Dioxide	30	S	S
Hydrogen Sulphide	100	S	S
Iron Chloride	SOL. SAT.	S	S
Lactic Acid	10	S	L
Lactic Acid	10~90	L	NS
Lead Acetate	SOL. SAT.	S	S
Lead Tetraethyl	100	S	-
Magnesium Chloride	SOL. SAT.	S	S
Magnesium Sulphide	SOL. SAT.	S	S
Maleic Acid	SOL. SAT.	S	L
Methyl Alcohol	100	S	L
Methyl Methacrylate	100	NS	NS
Methylene Chloride	100	NS	NS
Milk		S	S
Nickel Sulphide	SOL. SAT.	S	S
Nicotinic Acid	CONC.	S	S
Nitric Acid	<46	S	L
Nitric Acid	46~98	NS	NS
Oils		S	S
Oleic Acid	100	S	S
Oleum	10% of SO	NS	NS
Oxalic Acid	SOL. DIL.	S	L
Oxalic Acid	SOL. SAT.	S	S
Oxigen	100	S	S
Ozone	100	NS	NS
Perchloric Acid	10	S	L
Perchloric Acid	70	L	NS
Petrol	80/20	NS	NS
Phenol	90	NS	NS
Phosphine	100	S	S
Phosphor Trichloride	100	NS	-
Phosphoric Acid	30	S	L
Picric Acid	SOL. SAT.	S	S
Potassium Bichromate	40	S	S
Potassium Bromide	SOL. SAT.	S	S
Potassium Chloride	SOL. SAT.	S	S
Potassium Chromate	40	S	S
Potassium Cyanide	SOL.	S	S
Potassium Ferricyanide	SOL. SAT.	S	S
Potassium Ferrocyanide	SOL. SAT.	S	S
Potassium Hydroxide	SOL.	S	S
Potassium Nitrate	SOL. SAT.	S	S
Potassium Permanganate	20	S	S
Potassium Persulfate	SOL. SAT.	S	L
Propane (gas liquid)	100	S	-
Pyridine	100	NS	-
Sea Water		S	L
Silver Nitrate	SOL. SAT.	S	L
Soap	SOL.	S	L
Sodium Benzoate	35	S	L
Sodium Bisulphite	SOL. SAT.	S	S
Sodium Chlorate	SOL. SAT.	S	S
Sodium Ferricyanide	SOL. SAT.	S	S
Sodium Hydroxide	SOL.	S	L
Sodium Hypochlorite	100 (13% Cl.)	S	L
Sodium Sulphite	SOL. SAT.	S	L
Sugar	SOL. SAT.	S	S
Sulphur Acid	SOL.	S	S
Sulphur Anhydride	100 (liquid)	L	NS
Sulphur Anhydride	100 (dry)	L	NS
Sulphuric Acid	40~90	S	L
Sulphuric Acid	96	L	NS
Tannic Acid	SOL.	S	S
Tartaric Acid	SOL.	S	S
Tin Chloride	SOL. SAT.	S	S
Toluene	100	NS	NS
Trichloroethylene	100	NS	NS
Trimethyl Propane	<10	S	L
Urea	10	S	L
Urine		S	L
Vinagre		S	S
Vinyl Acetate	100	NS	NS
Wine		S	S
Xylene	100	NS	NS
Yeast	SOL.	S	L
Zinc Chloride	SOL. SAT.	S	S

TS = Without corrosion L = Limitaded corrosion NS = Corrosion

For special applications it is recommended to contact the REDI Technical Department.

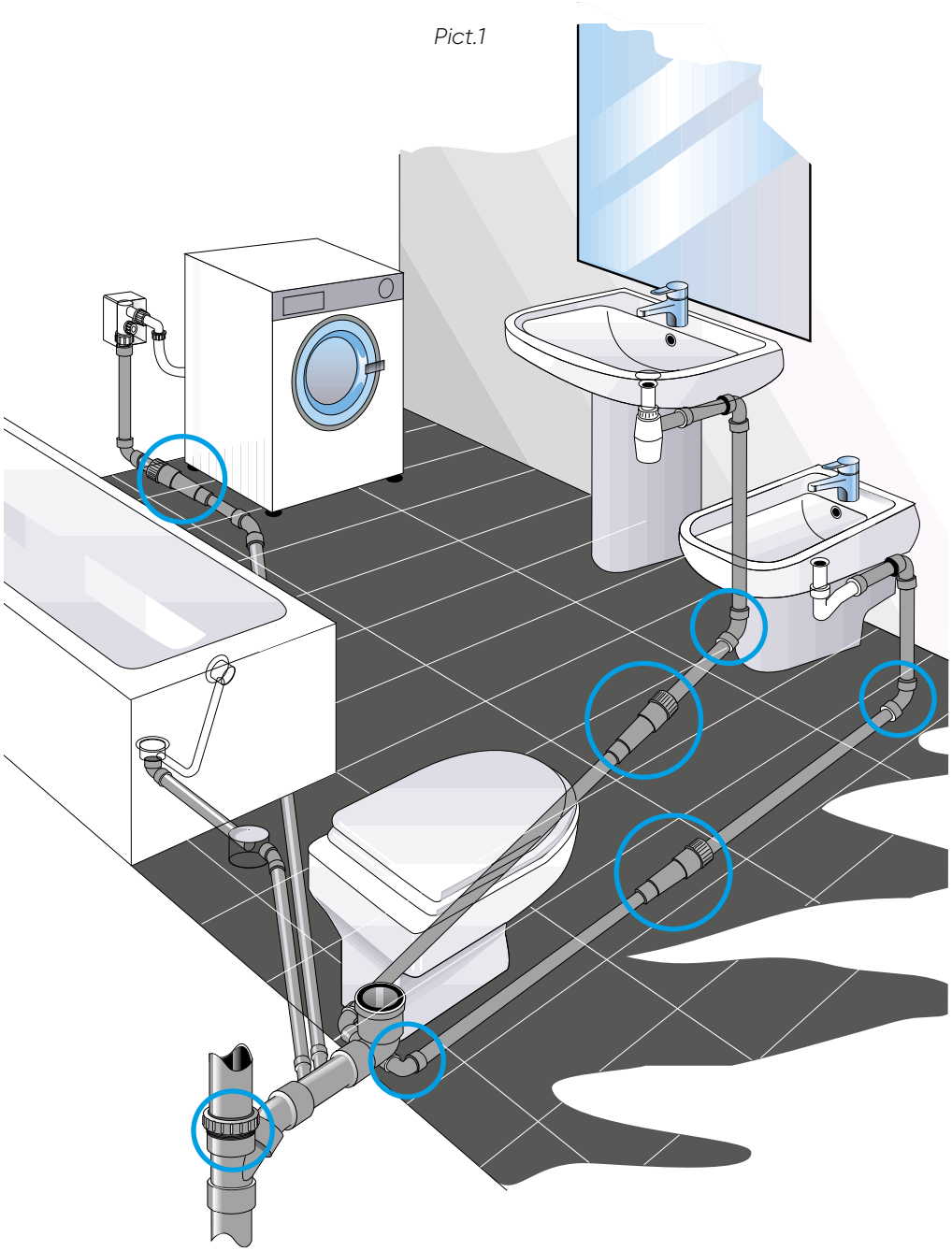
Installation guide

Installation of the expansion joint in the PVC drainage systems:

In branches or bends, the most correct technical solution is inserting a horizontal expansion joint (**A**; **B**; **C**) into the piping whenever the section between two fixed points is higher than 2÷3 m, and always when connecting washing-machines, dishwashers and kitchen sinks.

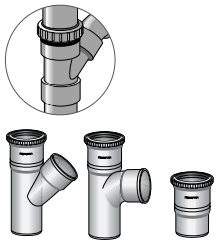
A vertical expansion joint (**D**) should be inserted onto each level of the vertical columns above the branch that connects to the bend and the toilet bowl. Alternatively, a branch equipped with an expander (**E** or **F**) can be used to directly connect to the column.

Pict.1

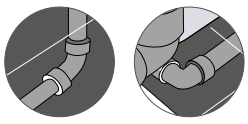




Expansion joint horizontal
•A •B •C



Expansion
•D •E •F

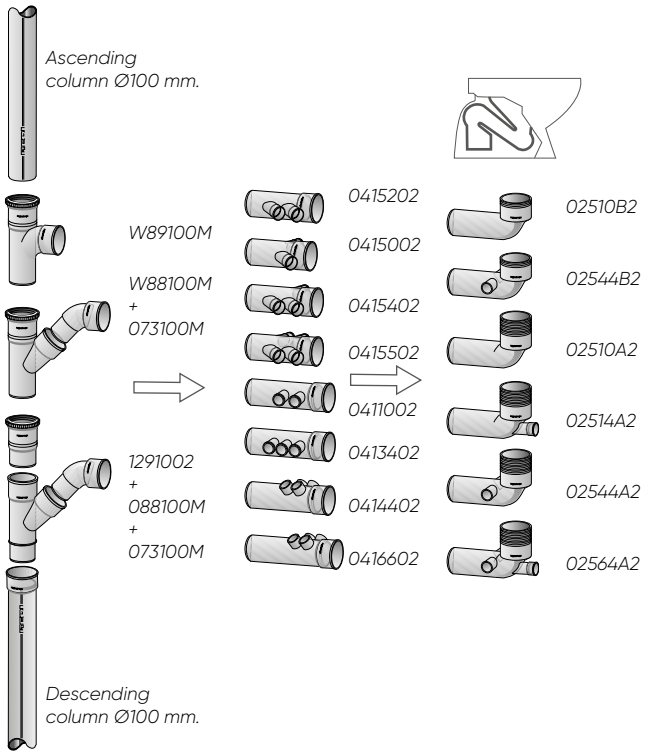


Technical bend

Connection to sanitary fittings:

Vertical connection to the toilet

Pict.2



** = Product with various dimensions, in the Pict. 3 the code of the most widely used type is to be found.*

Connecting elements:

Extension for toilet bend.
EVA Universal Seal with high wear and tear resistance.
Concentric and eccentric adapters.
Flat rubber seal with clamping ring.

Pict.3

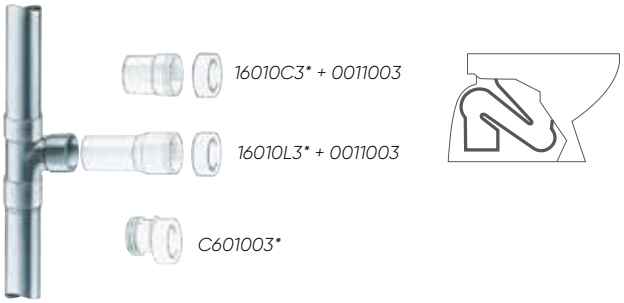


** = Product with various dimensions, in the Pict. the code of the most widely used type is to be found.*

Horizontal connection to the toilet (back or suspended)

A both long and short toilet coupling is used on when the same accessories indicated in the figure below can be inserted.

Pict.3

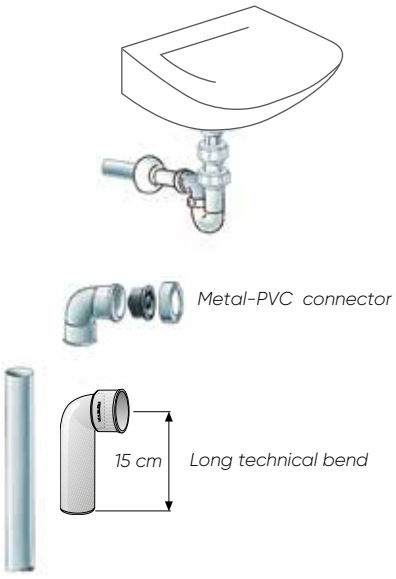


** = Product with various dimensions, in the Pict. the code of the most widely used type is to be found.*

Sink/bidet connection

Technical bends: guarantee good water-tightness, maintaining compact sizes against the wall.
The same product exists also in the technical coupling version. Technical bends with ferrule.
Extended technical bend.

Pict.4

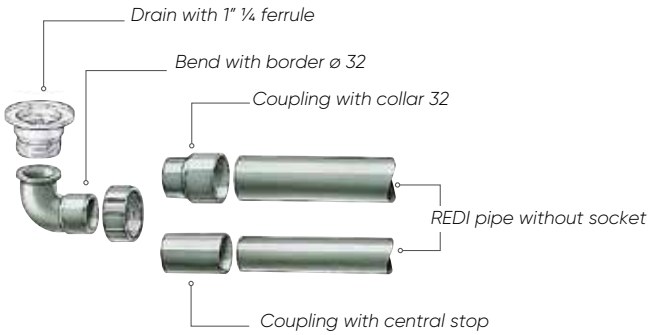


Technical bends with ferrule: guarantee greater stability of the technical seal which bears slight misalignment of the sleeve connection pipe better.
This fitting needs a technical self-locking seal shaped accordingly to allow the ferrule to be assembled.
This product exists also in the technical coupling version.

Bath and shower connection:

The connection of the bath drains directly to the bend with border Ø32 (026030M) with half a brass ferrule or made from 1" ¼ polypropylene.

Pict.5



Floor trap:

Waterproofing of the surrounding area, in consideration that infiltration may occur between the walls of the trap and the floor covering: for installation refer to the exploded figure below which indicates the positioning of the necessary components:

Tap for floor trap (0661002)

Stainless steel plate (PIAOXNI)

Drain ring for PVC cloth (0201002)

PVC cloth (02; R991202)

Pict.6



Typical problems of the drainage system

The main problems which can affect the drainage system are:

- **CLOGGING** often occurs as a result of an inadequate diameter, that not allowing the regular disposal of sewage, it prevents the correct passage of the liquid which normally makes the internal self-cleaning of the walls: a reduced cross-section prevents disposal whilst an excessive cross-section causes the deposit of sediments that might lead to the gradual shrinking of the section until it is blocked. This phenomenon can also occur due to small slopes, abrupt deviations and inadequate confluence.

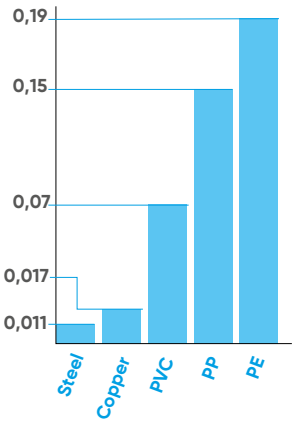
- **SMELL EMISSION** is another problem strictly linked to the ventilation system: the descent of sewage can cause the leakage of gases conveyed through the drain pipes of the lower floors or the emptying by suction of the drain pipes located upstream. The misplacement of the vent can cause the emission of odours into the environment: this must be at least 2 ml. above the ground floor of high houses, at least 20 cm above the roof cover and always 1 ml. above the architrave of the nearest window.

- **LINEAR EXPANSION** is a problem which affects all plastic and metal systems, depending on the coefficient of linear thermal expansion that is a given characteristic of each material. In order to assess the elongation of each single system section, the thermal expansions of different materials are compared in graph A. It is clear that, as concernins the effects of thermal expansion containment, PVC is the least subjected to changes of size which are in the range of:

- 0.07 mm each 1 ml. of pipe
- for 1 °C of heat gradient

4 ml. piping installed at 0 °C that reaches the temperature of 42 °C, is subject to an elongation of around 12 mm (e.g. upright column).
However, in the case of a kitchen drain where boiling water is poured (around 90 C° for the thermal expansion which occurs inside the sink pipe) in a room temperature pipe (20 °C) on a 3 ml. length of tube it will increase in length by around 15 mm.

Pict.7



Graph A
Linear thermal expansion
expressed in mm. x m. x °C

Example of expansion calculation:

T = max operating temperature (e.g. 90°C)

T1 = mounting temperature or minimum operating temperature if below (e.g 20°C

0,07 = linear thermal expansion of PVC expressed in mm x m x °C (Pict. 7)

L = length of the section in question (e.g. 3 linear metres)

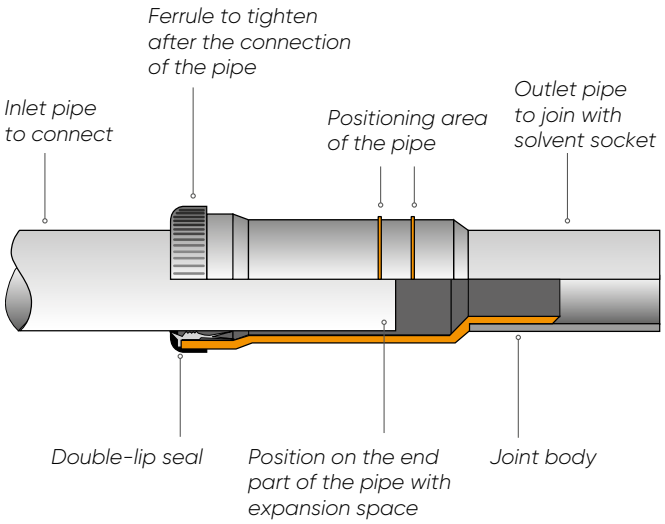
(T - T1) x 0.07 x L

specifically in the case under examination: (90-20) x 0.07 x 3 = 15 mm

The following general rules can be gathered from the example shown below:

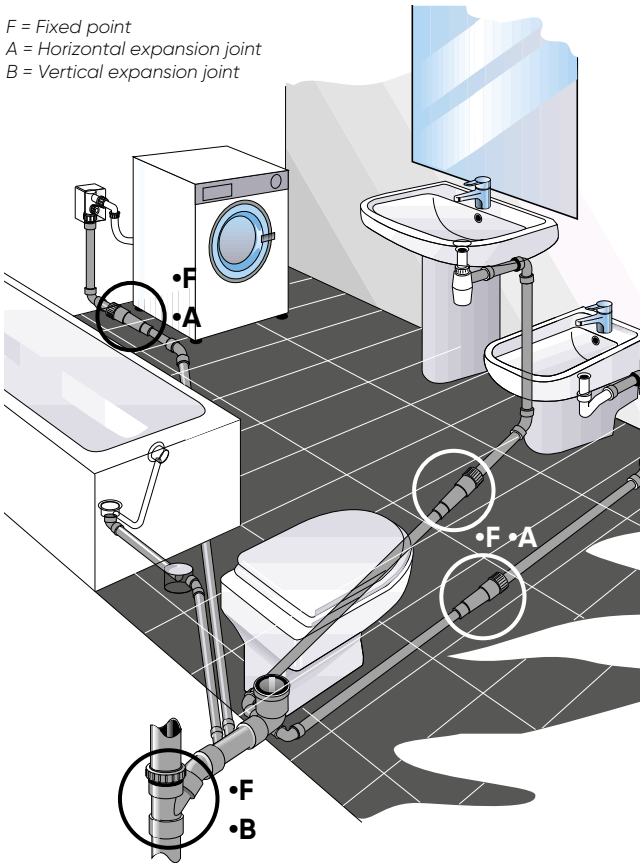
1) in branches or bends (Pict. 9) the most correct solution is inserting a horizontal expansion joint into the piping (Pict. 8) whenever the section between two fixed points F (Pict. 9) exceeds 2 ÷ 3 metres and always when connecting washing-machines and dishwashers (branches subjected to continuous discharge of hot water).

Pict.8



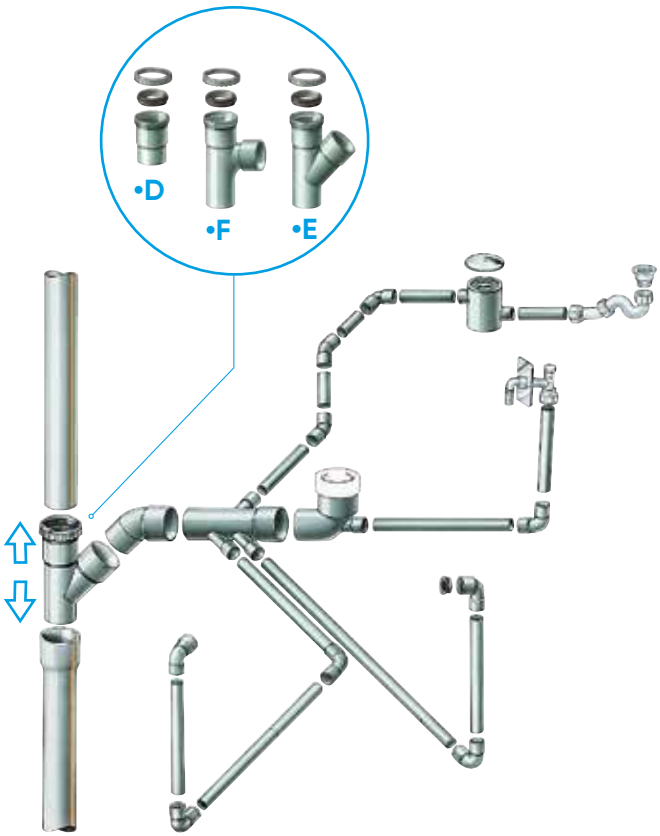
Pict.9

F = Fixed point
A = Horizontal expansion joint
B = Vertical expansion joint



Pict.10

Vertical expansion-joint and insertion according to the mounting diagram

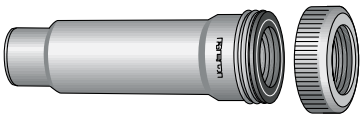


2) A vertical expansion joint should be inserted on each level (every 3 ÷ 4 metres) of the upright columns above the branch which receives the bend and the toilet bowl. Alternatively, a branch equipped with an expander can be used for direct connection to the column (Pict. 10).

3) During the installation of the expansion joint, the following requirements must be observed:

a) after having treated the joint seal with REDI greaser, apply also the grease to the pipe and insert it into the relative slot. Before tightening the locking ring nut, feed the pipe until it has its end part in the field marked out by two lines, superimposed on the joint body (Pict. 9).

c) install the pipe placed behind the wall without immersing it in the cement, using for the filling of the section fine grained-stabilised material in order to allow for any adjustment caused by expansion.



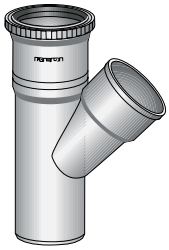
Expansion joint horizontal M/F
Manchon de dilatation horizontal M/F
Manguito de dilatación horizontal M/H

DN (mm)	Reference			Type
32	1290302	5	1.920	**A** (see Picture 9)
40	1290402	5	1.440	**B** (see Picture 9)
50	1290502	5	960	**C** (see Picture 9)
63	MLH00NI	32	768	
75	MPH00NI	20	-	
80	MRH00NI	35	420	
100	MTH00NI	20	240	
110	MVH00NI	20	240	
125	MXH00NI	16	-	
160	MZH00NI	18	144	



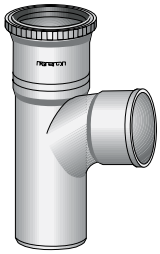
Expansion joint vertical M/F
Manchon de dilatation vertical M/F
Manguito de dilatación vertical M/H

DN (mm)	Reference			Type
100	1291002	10	240	**D** (see Picture 10)



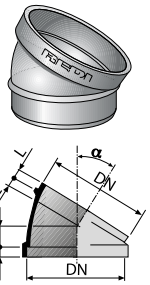
Expansion branch 45° M/F
Culotte de dilatation 45° M/F
Derivación de dilatación 45° M/H

DN (mm)	Reference			Type
100	W88100M	20	-	**E** (see Picture 10)



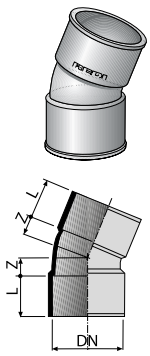
Expansion branch 87°30′ M/F
Té de dilatation 87°30′ M/F
Derivación de dilatación 87°30′ M/H

DN (mm)	Reference			Type
100	W89100M	20	400	**F** (see Picture 10)



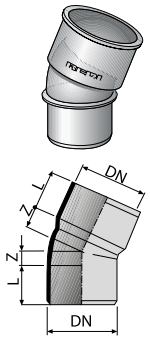
Segment Bend 15°/30° M/F
Secteur de coude 15°/30° M/F
Sector de codo 15°/30° M/H

DN (mm)	Reference			L (mm)	Z (mm)	α	Note
100	017100M	40	960	20	9	15°	
100	018100M	40	960	20	16	30°	



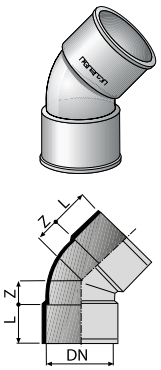
Bend Double Socket 22°30' F/F
Coude 22°30' F/F - Codo 22°30' H/H

DN (mm)	Reference			L (mm)	Z (mm)	Note
32	028030M	100	5.200	23	5,5	
40	028040M	60	3.120	27	6,5	
50	028050M	40	2.080	32	7,5	
100	028100M	12	288	56	20	



Bend 22°30' M/F
Coude 22°30' M/F - Codo 22°30' M/H

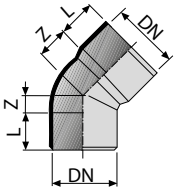
DN (mm)	Reference			L (mm)	Z (mm)	Note
32	078030M	100	5.200	23	5,5	
40	078040M	150	3.600	27	6,5	
50	078050M	40	2.080	32	7,5	
100	078100M	12	288	56	20	



Bend Double Socket 45° F/F
Coude 45° F/F - Codo 45° H/H

DN (mm)	Reference			L (mm)	Z (mm)	Note
32	023030M	100	5.200	23	11	
40	023040M	140	3.360	27	13	
50	023050M	80	1.920	32	17	
63	023060M	45	1.080	39	22	
75	023070M	25	600	44,5	25	
80	023080M	20	480	47	26,5	
100	023100M	40	320	53	33	
110	023110M	30	240	56	38	
125	023120M	20	160	61	41	
140	023140M	15	120	61	47	
160	023160M	10	64	72	50	
200	023200M	5	40	85	65	
250	0232502	1	27	101	79	
315	0233002	1	14	116	100	

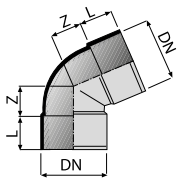




Bend 45° M/F
Coude 45° M/F - Codo 45° M/H

DN (mm)	Reference			L (mm)	Z (mm)	Note
32	073030M	100	5.200	23	11	
40	073040M	150	3.600	27	13	
50	073050M	80	1.920	32	17	
63	070060M	50	1.200	39	22	
75	073070M	25	600	44,5	25	
80	073080M	25	600	47	26,5	
100	073100M	40	320	53	33	
110	073110M	8	192	56	38	
125	073120M	20	160	61	41	
140	0121402	20	160	61	47	
160	0701602	15	120	72	50	
200	0702002	5	40	85	65	
250	0122502	1	50	101	79	
315	0123002	1	16	116	100	
400	0124002	1	7	155	125	
500	0125002	1	4	150	160	

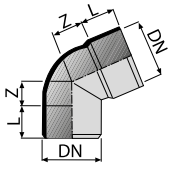




Bend Double Socket 67°30′ F/F
Coude 67°30′ F/F - Codo 67°30′ H/H

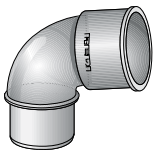
DN (mm)	Reference			L (mm)	Z (mm)	Note
32	027030M	50	4.050	23	18	
40	027040M	50	2.600	27	21	
50	027050M	60	1.440	32	27	
100	027100M	30	240	57	53	

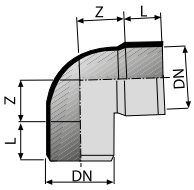




Bend 67°30′ M/F
Coude 67°30′ M/F - Codo 67°30′ M/H

DN (mm)	Reference			L (mm)	Z (mm)	Note
32	072030M	50	4.050	23	18	
40	072040M	50	2.600	27	21	
50	072050M	60	1.440	32	27	
100	072100M	30	240	57	53	
110	013110M	30	240	57	53	
125	013120M	18	144	64	58	



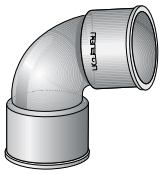


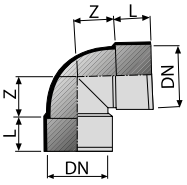
Bend 87°30' M/F

Coude 87°30' M/F - Codo 87°30' M/H

DN (mm)	Reference			L (mm)	Z (mm)	Note
32	074030M	80	4.160	23	25	
40	074040M	100	2.400	27	31	
50	074050M	50	1.200	32	39	
63	071060M	35	840	39	48	
75	074070M	20	480	44,5	58	
80	074080M	15	360	47	61	
100	074100M	30	240	57	77	
110	0711102	25	200	61	65	
125	074120M	15	120	60	101	
140	0141402	12	96	61	83	
160	074160M	8	64	60	124	
200	074200M	5	40	60	153	
250	0142502	1	22	103	155	
315	0143002	1	10	120	192	
400	0144002	1	6	155	245	
* 110	074110M	20	160	62	87	

** Long radius / Grand rayon / Gran radio*



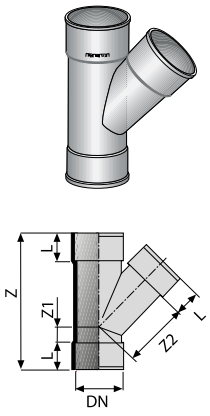


Bend Double Socket 87°30' F/F

Coude 87°30' F/F - Codo 87°30' H/H F/F

DN (mm)	Reference			L (mm)	Z (mm)	Note
32	024030M	80	4.160	23	25	
40	024040M	100	2.400	27	31	
50	024050M	50	1.200	32	39	
63	024060M	30	720	39	48	
75	024070M	18	432	44,5	58	
80	024080M	15	360	47	61	
100	024100M	25	200	57	77	
110	0241302	25	200	61	65	
125	024120M	15	120	60	101	
140	E24140M	10	80	61	83	
160	024160M	8	64	60	124	
200	024200M	4	32	60	153	
250	0242502	1	20	103	155	
315	0243002	1	10	120	192	
* 110	024110M	18	144	62	245	

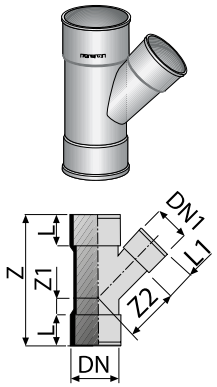
** Long radius / Grand rayon / Gran radio*



Branch Triple Socket 45° F/F

Culotte 45° F/F - Derivación 45° H/H

DN (mm)	Reference			L (mm)	Z (mm)	Z1 (mm)	Z2 (mm)	Note
32	044030M	100	2.400	23	98	11	41	
40	044040M	60	1.440	27	118	13	51	
50	044050M	30	720	32	144	17	63	
63	044060M	15	360	39	180	21	81	
75	044070M	10	240	44,5	207	25	93	
80	044080M	10	240	47	224	27	103	
100	044100M	20	160	57	271	33	124	
110	044110M	10	80	60,5	296	37	138	
125	E44120M	10	80	61	319	41	156	
140	E44140M	8	64	60	334	32	176	
160	044160M	4	32	65	387	45	203	
200	1442002	1	22	86	483	45	250	
250	1442502	1	11	103	609	57	315	
315	1443002	1	5	115	725	73	380	

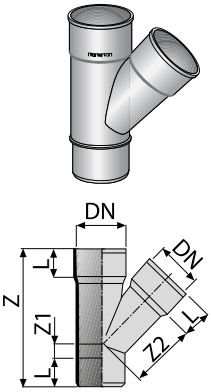


Unequal branch triple socket 45° F/F

Culotte et embranchement 45° F/F

Derivación reducida 45° H/H

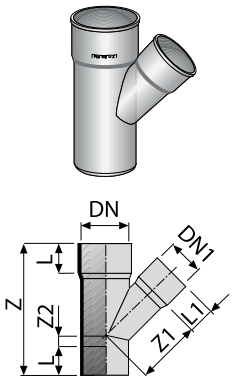
DN (mm)	DN1 (mm)	Reference			L (mm)	Z (mm)	Z1 (mm)	Z2 (mm)	Note
40	32	BH244NI	10	1.920	27	106	7	46	
50	32	W43530M	30	600	32	116	2	54	
50	40	W43630M	30	-	32	127	8	57	
160	110	0311702	6	48	72	325	2	175	



Branch 45° M/F

Culotte 45° M/F - Derivación 45° M/H

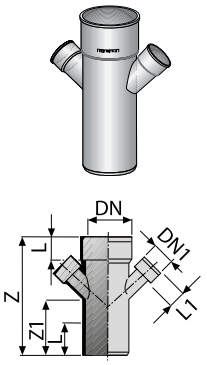
DN (mm)	Reference			L (mm)	L1 (mm)	Z (mm)	Z1 (mm)	Z2 (mm)	Note
32	088030M	50	2.600	23	-	98	11	41	
40	088040M	60	1.440	27	-	118	13	51	
50	088050M	30	720	32	-	144	17	63	
63	088060M	20	480	39	-	180	21	81	
75	088070M	10	240	44,5	-	207	25	93	
80	088080M	8	192	47	-	224	27	103	
100	088100M	20	160	57	-	271	33	124	
110	088110M	15	120	60,5	-	296	37	138	
125	080120M	10	80	61	-	319	41	156	
140	0301402	8	64	60	-	334	32	176	
160	0301602	5	40	65	-	387	45	203	
200	0302002	1	22	86	-	483	45	250	
250	0302502	1	12	103	-	609	57	315	
315	0303002	1	5	115	-	725	73	380	



Unequal Branch 45° M/F

Culotte 45° M/F - Derivación reducida 45° M/H

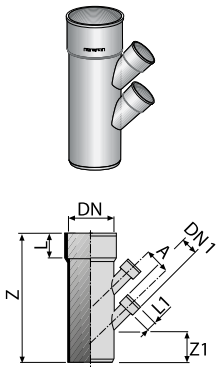
DN (mm)	DN1 (mm)	Ref.			L (mm)	L1 (mm)	Z (mm)	Z1 (mm)	Z2 (mm)	Note
75	50	031270M	20	480	45	40	180	87	8	
100	40	083100M	10	240	53	36	180	100	15	
100	50	083300M	10	240	53	40	193	104	8	
100	63	083500M	10	240	56	38	208	107	3	
100	80	083700M	20	160	56	47	236	116	11	
110	40	BV840NI	20	560	55	35	200	10	110	
110	50	031310M	10	240	55	40	206	15	114	
110	75	031510M	20	160	59	45	237	1	122	
125	100	031720M	12	96	70	62	294	145	14	
125	110	031920M	10	80	62	56	298	19	150	
160	110	0311602	1	72	72	55	325	2	175	
160	125	0313602	6	48	74	62	346	12	182	
200	110	0313502	1	48	86	56	360	17	200	
200	125	0313702	1	40	86	60	380	7	210	
200	160	0312002	1	30	86	74	430	18	230	
250	160	0314002	1	20	103	72	482	3	260	
250	200	0314102	1	14	103	86	540	24	280	



Reduced multibranch 45° M/F

Culotte multiple 45° M/F - Derivación múltiple reducida 45° M/H

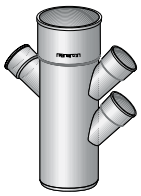
DN (mm)	DN1 (mm)	Ref.			L (mm)	L1 (mm)	Z (mm)	Z1 (mm)	Note
100	40	0415002	10	180	57	27	273	145	

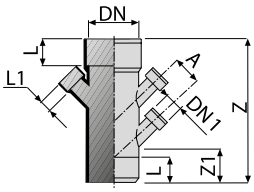


Reduced multibranch 45° M/F

Culotte multiple 45° M/F - Derivación múltiple reducida 45° M/H

DN (mm)	DN1 (mm)	Ref.			L (mm)	L1 (mm)	Z (mm)	Z1 (mm)	A (mm)	Note
100	40	0415202	10	190	57	27	273	67	55	

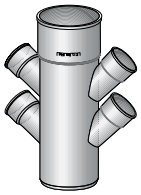


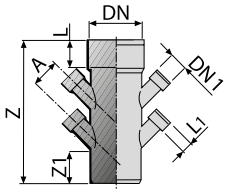


Reduced multibranch 45° M/F

Culotte multiple 45° M/F - Derivación múltiple reducida 45° M/H

DN (mm)	DN1 (mm)	Ref.			L (mm)	L1 (mm)	Z (mm)	Z1 (mm)	A (mm)	Note
100	40	0415402	10	160	57	27	273	67	55	



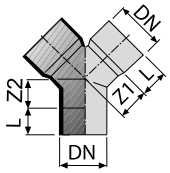


Reduced multibranch 45° M/F

Culotte multiple 45° M/F - Derivación múltiple reducida 45° M/H

DN (mm)	DN1 (mm)	Ref.			L (mm)	L1 (mm)	Z (mm)	Z1 (mm)	A (mm)	Note
100	40	0415502	20	-	57	27	273	65	55	

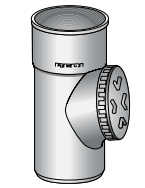


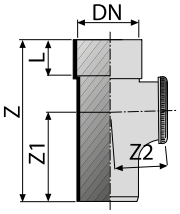


Double bend 45° M/F

Coude double 45° M/F - Codo doble 45° M/H

DN (mm)	Ref.			L (mm)	Z1 (mm)	Z2 (mm)	Note
100	0421002	10	180	64	56	28	

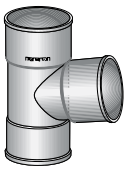


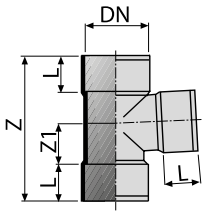


Access pipe M/F

Té de visite M/F - Té con registro M/H

DN (mm)	Ref.			Z (mm)	Z1 (mm)	Z2 (mm)	Note
63	1820602	25	600	75	163	77	
80	1820802	20	400	87	194	94	
100	182100M	20	160	90	243	134	
110	182110M	20	160	95	246	119	
125	1821202	1	160	97	274	134	
160	1821602	1	75	110	333	164	
200	1822002	1	38	145	411	205	
315	1403002	1	8	240	611	310	

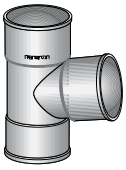


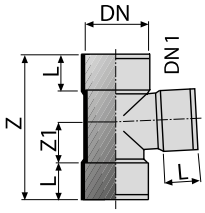


Branch triple socket 87°30′ F/F

Culotte 87°30′ F/F - Derivación 87°30′ H/H

DN (mm)	Ref.			L (mm)	Z (mm)	Z 1 (mm)	Note
32	045030M	50	2.600	23	88	25	
40	045040M	70	1.680	27	106	31	
50	045050M	40	960	32	129	39	
63	W45060M	25	600	39	159	48	
75	045070M	15	360	44	185	58	
80	045080M	10	240	47	195	61	
100	045100M	20	160	57	243	77	
110	045110M	13	104	62	268	87	
125	E45120M	10	80	60	283	100	
140	E45140M	9	72	62	260	70	
160	045160M	5	40	74	335	95	
200	1452002	1	28	86	410	120	
250	1452502	1	15	103	510	152	
315	1453002	1	8	115	620	185	

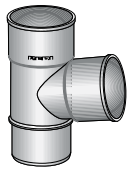


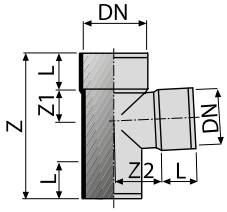


Unequal branch triple socket 87° 30′ F/F

Culotte 87°30′ F/F - Derivación reducida 87°30′ H/H

DN (mm)	DN1 (mm)	Ref.			L (mm)	Z (mm)	Z1 (mm)	Z2 (mm)	Note
160	110	0351702	8	160	74	287	73		
200	160	0460602	1	34	86	380	110		



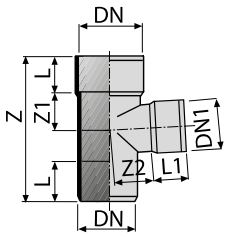


Branch 87°30′ M/F

Culotte 87°30′ M/F - Derivación 87°30′ M/H

DN (mm)	Ref.			L (mm)	Z (mm)	Z1 (mm)	Z2 (mm)	Note
32	089030M	50	2.600	23	88	17	25	
40	089040M	70	1.680	27	106	21	31	
50	089050M	40	960	32	129	26	39	
63	0810602	20	480	46	160	42	42	
75	089070M	12	288	44	185	39	58	
80	089080M	15	360	47	195	40	61	
100	089100M	20	160	56	227	44	64	
110	089110M	12	96	62	268	57	87	
125	081120M	12	96	62	275	70	70	
140	0341402	8	64	62	260	70	78	
160	0811602	6	48	74	333	95	95	
200	0342002	3	24	86	410	120	120	
250	0342502	1	18	103	510	152	152	
315	0343002	1	8	115	620	185	185	

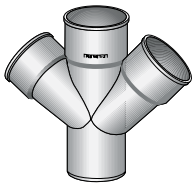


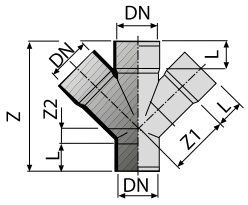


Unequal branch 87°30′ M/F

Culotte 87°30′ M/F - Derivación reducida 87°30′ M/H

DN (mm)	DN1 (mm)	Ref.			L (mm)	Z (mm)	Z1 (mm)	Z2 (mm)	Note
75	50	035270M	20	480	45	168	40	52	
100	40	0841002	8	192	53	36	170	44	
100	50	0843002	10	240	53	40	174	44	
100	63	0845002	10	240	53	41	175	44	
110	50	035310M	10	240	59	198	50	71	
110	75	035710M	8	192	59	210	50	71	
125	110	0357202	1	152	62	260	71	78	
160	110	0351602	10	80	74	287	73	93	
160	125	0353602	1	-	71	308	81	93	
200	110	0350102	1	40	86	380	110	120	
200	160	0352002	1	40	86	380	110	132	

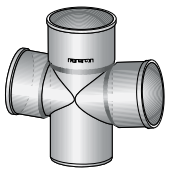


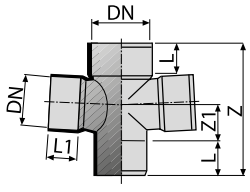


Double branch 45° M/F

Culotte double parallèle 45° M/F
Derivación doble plana 45° M/H

DN (mm)	Ref.			L (mm)	Z (mm)	Z1 (mm)	Z2 (mm)	Note
50	0360502	50	550	40	168	69	19	
75	036070M	8	192	45	221	102	29	
100	0361002	5	100	53	264	125	30	
110	0361102	1	96	58	289	141	32	
125	0361202	1	60	64	316	157	31	
160	0361602	1	30	72	412	201	67	

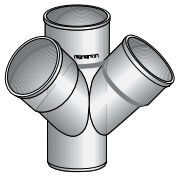


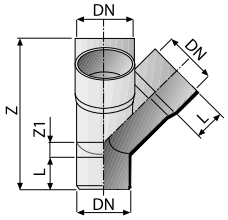


Double branch 87°30′ M/F

Culotte double parallèle 87°30′ M/F
Derivación doble plana 87°30′ M/H

DN (mm)	Ref.			L (mm)	Z (mm)	Z1 (mm)	Z2 (mm)	Note
50	0380502	50	-	40	168	69	19	
75	038070M	25	200	45	221	102	29	
100	0381002	5	105	53	264	125	30	
110	0381102	1	20	58	289	141	32	

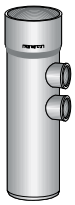


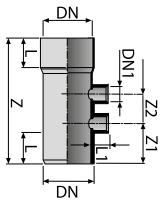


Double corner branch 45° M/F

Culotte double d'équerre 45° M/F
Doble derivación escuadra 45° M/H

DN (mm)	Ref.			L (mm)	Z (mm)	Z1 (mm)	Note
100	U391002	5	70	50	271	40	

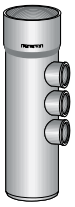


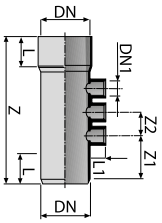


Multibranch 87°30′ M/F

Culotte multiple 87°30′ M/F - Derivación múltiple 87°30′ M/H

DN (mm)	DN1 (mm)	Ref.			L (mm)	L1 (mm)	Z (mm)	Z1 (mm)	Z2 (mm)	Note
100	40	0413302	1	248	40	-	-	-	-	
110	50	0411102	5	120	68	42	330	110	100	



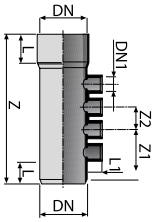


Multibranch 87°30′ M/F

Culotte multiple 87°30′ M/F - Derivación múltiple 87°30′ M/H

DN (mm)	DN1 (mm)	Ref.			L (mm)	L1 (mm)	Z (mm)	Z1 (mm)	Z2 (mm)	Note
100	40	0413402	1	224	56	26	330	180	52	

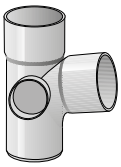




Multibranch 87°30′ M/F

Culotte multiple 87°30′ M/F - Derivación múltiple 87°30′ M/H

DN (mm)	DN1 (mm)	Ref.			L (mm)	L1 (mm)	Z (mm)	Z1 (mm)	Z2 (mm)	Note
100	40	0414702	1	140	-	-	450	-	-	

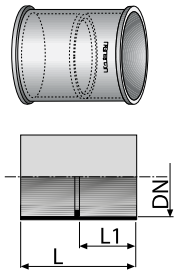


Boss Pipe 87°30′ outlet. 75 mm M/F

Culotte 87°30′ avec piquage 75 mm M/F

Derivación doble 87°30′ con 1 salida 75mm M/H

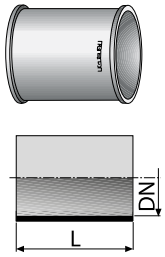
DN (mm)	Ref.			Note
110	089750M	10	80	



Coupler with central stop F/F

Manchon avec butée F/F - Manguito de unión con tope H/H

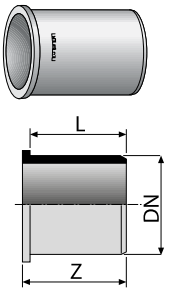
DN (mm)	Reference			L (mm)	L1 (mm)	Note
32	063030M	100	8.100	49	23	
40	063040M	50	4.050	57	27	
50	063050M	40	2.080	67	32	
63	063060M	20	1.040	81	39	
75	063070M	20	1.040	92	44,5	
80	063080M	20	1.040	97	47	
100	063100M	60	480	116	57	
110	063110M	12	288	125	61	
125	063120M	35	280	138	67,5	
160	0631602	18	144	172	84	
200	0632002	8	64	217	106	
250	0632502	1	36	252	123	
315	0633002	1	20	296	145	



Slip coupler

Manchon coulissant - Manguito deslizante

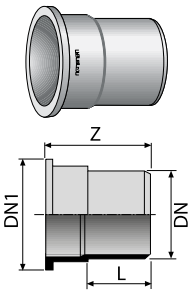
DN (mm)	Reference			L (mm)	Note
32	061030M	100	8.100	49	
40	061040M	50	4.050	57	
50	061050M	40	2.080	67	
100	061100M	16	384	116	
110	0611102	20	400	125	
125	061120M	35	280	138	
160	0611602	18	144	172	
200	0612002	8	64	217	
250	0612502	1	36	252	
315	0613002	1	20	296	



Coupler with collar

Douille d'évacuation - Acoplamiento con valona

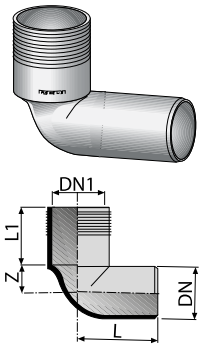
Ø ghiera	DN (mm)	Reference			L (mm)	Z (mm)	Note
1" 1/4	32	062320M	100	8.100	39,5	42	
1" 1/2	40	062400M	100	8.100	39,5	42	



Coupler with collar

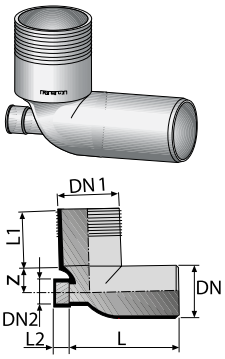
Douille d'évacuation - Acoplamiento con valona

Ø ghiera	DN (mm)	DN1 (mm)	Reference			L (mm)	Z (mm)	Note
1" 1/2	35,5	44	062350M	100	8.100	25,5	42	



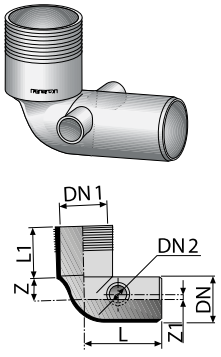
Long WC bend
Coude WC haut - Manguito inodoro acodado largo

DN (mm)	DN1 (mm)	Ref.			L (mm)	L1 (mm)	Z (mm)	Note
100	116	02510A2	25	200	127	113	48	



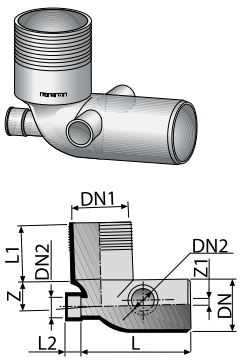
Long WC bend with frontal inlet
Coude WC haut avec 1 entrée frontale
Manguito inodoro acodado largo 1 toma frontal

DN (mm)	DN1 (mm)	DN2 (mm)	Ref.			L (mm)	L1 (mm)	L2 (mm	Z (mm)	Note
100	116	40	02514A2	25	200	175	225	27	48	



Long WC bend with 2 side-inlets
Coude WC haut avec 2 entrées laterales
Manguito inodoro acodado largo 2 tomas laterales

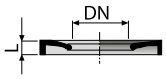
DN (mm)	DN1 (mm)	DN2 (mm)	Ref.			L (mm)	L1 (mm)	Z (mm	Z1 (mm)	Note
100	116	40	02544A2	15	120	175	113	48	10	
100	116	50	02555A2	15	120	175	113	48	10	



Long WC bend with 3 side-inlets
Coude WC haut avec 3 entrées laterales
Manguito inodoro acodado largo 3 tomas auxiliares

DN (mm)	DN1 (mm)	DN2 (mm)	Ref.			L (mm)	L1 (mm)	L2 (mm)	Z (mm	Z1 (mm)	Note
100	116	40	02564A2	15	120	225	113	27	48	10	



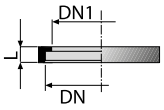


WC snap cap

Bague de sertissage WC - Anillo de inserción inodoro

DN (mm)	DN1 (mm)	Ref.			L (mm)	Colour
126	116,5	0201302	100	2.000	25	Grey
126	116,5	0201303	100	2.000	25	White



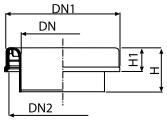


Gasket for WC bends and connectors

Joint pour coudes et manchons WC avec anneau de blocage
Junta para manguitos inodoro con anillo de bloqueo

DN (mm)	Ref.	€/pc			L (mm)	Colour
70	7810003	**2,63**	1	800	21,5	White



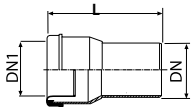


Gasket WC

Joint WC - Junta inodoro

DN (mm)	DN1 (mm)	DN2 (mm)	Ref.			H (mm)	H1 (mm)	Colour
94	130	120,5	0011003	1	2.000	50,5	27	White



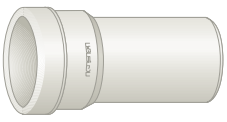


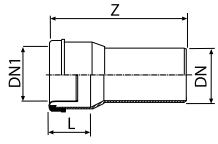
Straight WC connector

Sortie WC droite - Manguito inodoro corto

DN (mm)	DN1 (mm)	Ref.			L (mm)	Z (mm)	Colour	Note
100	95÷105	16010C3	40	320	80	162	White	
110	95÷105	16031C3	40	320	80	162	White	
100	-	06010C3*	1	310	80	162	White	
110	-	06031C3*	1	310	80	162	White	

*without gasket / sans joint / sin junta





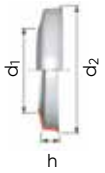
Long straight WC connector

Sortie WC droite longue - Manguito inodoro largo

DN (mm)	DN1 (mm)	Ref.			L (mm)	Colour	Note
100	95÷105	16010L3	25	200	250	White	
110	95÷105	16031L3	20	160	250	White	
100	-	06010L3*	1	230	250	White	
110	-	06031L3*	1	-	250	White	

*without gasket / sans joint / sin junta



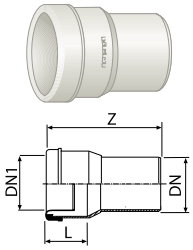


Rosette for WC connector

Rosace pour sortie WC - Plafón para salida inodoro

d1 (mm)	d2 (mm)	Reference			L (mm)	Colour
100	137	0481003	20	1.620	30	White
110	162	0481103	50	1.200	35	White

** See Accessories and special solutions*

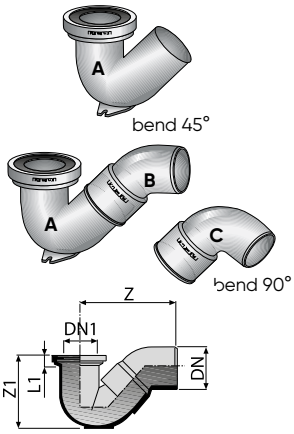


Extension for WC bend

Manchette pour coude WC - Extensión para manguito inodoro

DN (mm)	DN1 (mm)	Reference			L (mm)	Z (mm)	Colour	Note
116	95÷105	1601103	10	240	50	135	White	
116	-	0601103*	10	240	50	135	White	

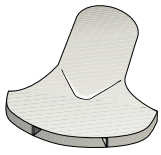
*without gasket / sans joint / con junta



Low backed gully with bend

Siphon pour siège à la turque - Sifón placa turca

DN (mm)	DN1 (mm)	Reference			L (mm)	Z (mm)	Z (mm)	Type
110	95÷135	1771402	15	120	33	280	214	A
100	95÷135	17710A2	10	80	33	280	214	A + B
110	95÷135	17714A2	10	80	33	200	214	A + B
110	95÷135	17714C2	10	80	33	310	214	A + C



Sprinkler for squat toilet

Queue de carpe - Difusor placa turca

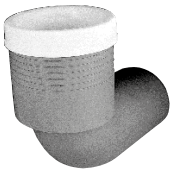
DN (mm)	Reference			Note
32	W201502	10	-	



Gully Trap

Coude Siphon - Codo sifónico

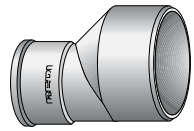
DN (mm)	Reference			Note
110	0771102	12	96	

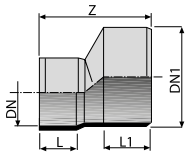


WC Bend

Coude WC - Manguito inodoro acodado con junta

DN (mm)	Reference			Note
100	12510A2	20	160	

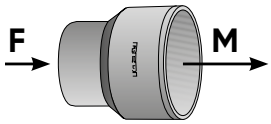




Invert reducer M/F

Réduction excentrée M/F - Ampliación excéntrica M/H

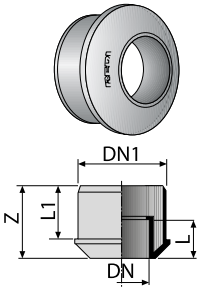
DN (mm)	DN1 (mm)	Reference			L (mm)	L1 (mm)	Z (mm)	Note
32	50	091050M	150	3.600	23	32	75	
40	50	091250M	110	2.640	27	32	71	
40	63	0900602	70	1.680	36	50	116	
40	100	090480M	30	720	36	58	142	
50	63	090260M	50	1.200	40	50	114	
50	75	051070M	50	1.200	40	48	115	
50	80	090080M	40	960	40	53	128	
50	100	090100M	30	720	40	62	148	
50	110	051110M	50	400	40	70	173	
63	80	0902802	50	0	4 3	53	122	
63	100	0903002	30	720	43	61	142	
75	110	0513102	25	450	-	-	-	
80	100	090500M	20	480	46	61	135	
100	125	090120M	45	360	57	61	134	
100	140	E511002	30	240	-	-	-	
100	160	E511302	30	240	-	-	-	
100	200	E511502	15	120	-	-	-	
110	125	051320M	35	280	56	69	148	
110	160	0511602	30	240	56	82	180	
125	160	0513602	30	240	62	82	180	
125	140	0511402	25	200	60	72	154	
125	200	0512002	15	120	62	100	221	
125	250	0534202	10	80	62	90	159	
140	160	0515602	30	240	60	81	166	
140	200	E512202	4	96	-	-	-	
160	200	0514002	15	120	74	100	211	
160	250	0514602	6	48	74	90	172	
160	315	0534802	5	40	74	93	174	
200	250	0512502	5	60	86	134	265	
200	315	0513302	4	32	86	145	318	
250	315	0513002	1	32	103	144	307	
315	400	0519202	1	18	118	156	363	



Conic reducer F/M

Réduction conique F/M - Reducción doble H/M

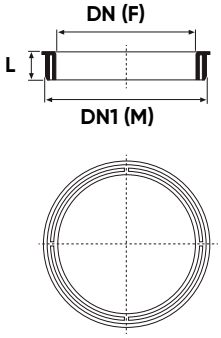
DN (F) / DN (M) (mm)	Reference			Note
32/40	0500402	100	5.200	
32/63	0530602	50	2.600	
40/75	0500702	50	-	
40/80	0500802	50	-	
50/125	0501202	50	1.000	
63/75	0530702	50	-	
63/90	0530902	50	-	
63/110	0503102	25	500	
75/90	0532902	50	750	
75/125	0503202	25	500	
100/110	0533102	25	500	
100/160	0501602	20	400	



Inside reducer M/M

Réduction incorporée M/M - Tapón de reducción H/H

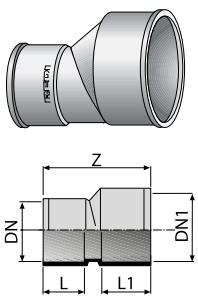
DN (mm)	DN1 (mm)	Ref.			L (mm)	L1 (mm)	Z (mm)	Note
32	40	054040M	150	7.800	22	26	33	
32	50	054050M	80	4.160	22	31	42	
40	50	054250M	80	4.160	26	31	39	



Concentric reducer M/F

Réduction concentrique M/F - Reducción concéntrica M/H

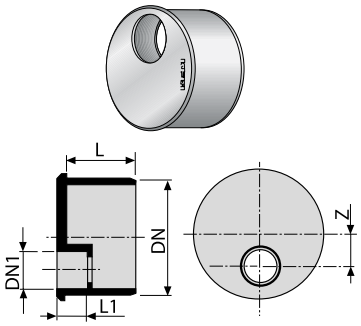
DN (mm)	DN1 (mm)	Ref.			L (mm)	Note
110	125	0209202	35	1.820	22	



Invert reducer double socket F/F

Réduction excentrée F/F - Ampliación excéntrica H/H

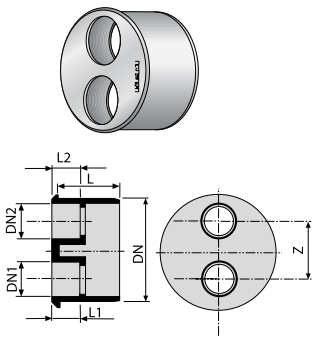
DN (mm)	DN1 (mm)	Ref.			L (mm)	L1 (mm)	Z (mm)	Note
32	50	092050M	150	3.600	23	32	75	
40	50	092250M	130	3.120	27	32	71	



Reducing plug M/F

Tampon de réduction M/F - Tapón reductor M/H

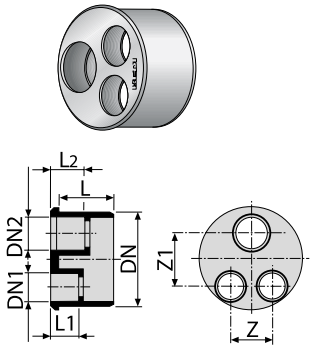
DN (mm)	DN1 (mm)	Reference			L (mm)	L1 (mm)	Z (mm)	Note
63	32	054070M	40	3.240	-	-	-	
63	40	054060M	40	3.240	38	27	3	
63	50	054090M	40	3.240				
80	40	054080M	25	2.025	47	27	11,5	
80	50	054850M	25	2.025	-	-	-	
80	63	W54110M	80	-	-	-	-	
100	32	R6000NI	10	1.920	-	-	-	
100	40	054100M	20	1.040	56	26	28	
100	50	054200M	20	1.040	56	31	23	
100	63	054300M	20	1.040	56	38	16	
100	80	054400M	20	1.040	56	47	8	
110	40	054910M	35	840	60	27	32	
110	50	054920M	35	840	60	32	27	
110	63	054970M	35	840	60	38	20	
110	75	054930M	35	840	60	44,5	14,5	
110	80	054940M	35	840	60	47	12	
110	100	054990M	35	840	60	57	0	
125	40	054120M	30	720	-	-	-	
125	50	054130M	30	720	-	-		
125	80	X4440NI	25	-	-	-	-	
125	100	054150M	10	520	-	-	-	
125	110	054160M	10	520	-	-	-	



Reducing plug M/F

Tampon de réduction M/F - Tapón reductor doble M/H

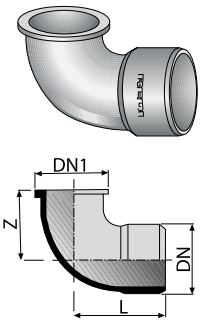
DN (mm)	DN1 (mm)	DN2 (mm)	Ref.			L (mm)	L1 (mm)	L2 (mm)	Z (mm)	Note
100	40	32	054600M	20	1.040	56	26	22	60	
100	40	40	054700M	20	1.040	56	26	26	56	
100	50	40	054800M	20	1.040	56	31	26	51	
110	40	40	054950M	35	840	60	27	27	95	
110	50	40	054960M	35	840	60	32	27	90	



Reducing plug M/F

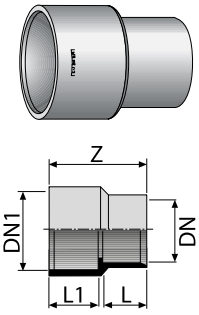
Tampon de réduction M/F - Tapón reductor triple M/H

DN (mm)	DN1 (mm)	DN2 (mm)	Ref.			L (mm)	L1 (mm)	L2 (mm)	Z (mm)	Z1 (mm)
100	32	40	054900M	20	1.040	56	22	27	48	47
110	40	40	054980M	35	840	60	27	27	56	48



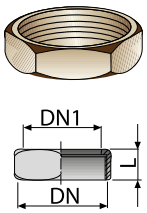
Bend with collar 87°30'
Coude à collet 87°30' - Codo con valona 87°30'

DN (mm)	DN1 (mm)	Reference			L (mm)	Z (mm)	Note
1" 1/4 32	38	026030M	100	5.200	43	33	
1" 1/2 40	44,5	026040M	150	3.600	55	42	



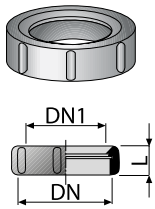
Coupler with collar F/F
Manchon à collet F/F - Manguito con collar H/H

DN (mm)	DN1 (mm)	Reference			L (mm)	L1 (mm)	Z (mm)	Note
32	40	060320M	50	4.050	22,5	26,5	51	



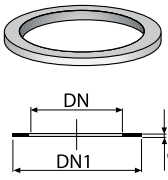
Brass nut
Écrou laiton - Tuerca latón

DN (mm)	DN1 (mm)	Reference			L (mm)	Note
1" 1/4	35	C661400	5	-	15	
1" 1/2	40	C661200	5	-	15	



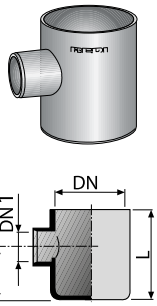
PP nut
Écrou en PP - Tuerca en PP

DN (mm)	DN1 (mm)	Reference			L (mm)	Note
1" 1/4	35	B661402	1	-	20	
1" 1/2	42	B661202	1	-	20	



Gasket
Joint plat - Junta plana

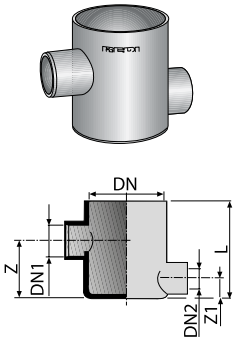
DN (mm)	DN1 (mm)	Reference			S (mm)	Note
1" 1/4	39	B821400	1	-	2,5	
1" 1/2	44	B821200	1	-	2,5	



Floor gully
Collecteur - Colector 1 salida

DN (mm)	DN1 (mm)	Reference			L (mm)	Z (mm)	Note
100	40*	0961002	20	480	120	74	

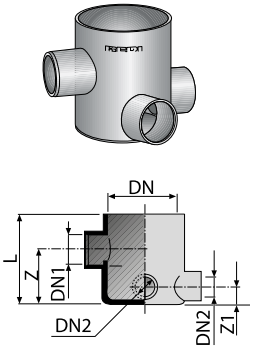
** Outlet Ø 40 Female / Sortie Ø 40 Femelle*



Floor gully
Collecteur - Colector 2 salidas

DN (mm)	DN1 (mm)	DN2 (mm)	Ref.			L (mm)	Z (mm)	Z1 (mm)	Note
100	40/50*	40	0971022	20	480	120	74	25	

** Outlet Ø 40 Female - Outlet Ø 50 Male*
** Sortie Ø 40 Femelle - Sortie Ø 50 Male*

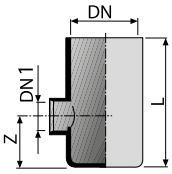


Floor gully
Collecteur - Colector 3 salidas

DN (mm)	DN1 (mm)	DN2 (mm)	Ref.			L (mm)	Z (mm)	Z1 (mm)	Note
100	40/50*	40	0971042	40	320	120	74	25	
100	50	40	0941042	40	320	120	80	25	

** Outlet Ø 40 Female - Outlet Ø 50 Male*
** Sortie Ø 40 Femelle - Sortie Ø 50 Male*

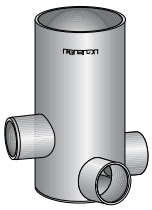


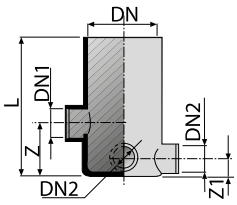


High floor gully - 2 outlets
Collecteur haut - 2 sorties - Colector alto 2 salidas

DN (mm)	DN1 (mm)	DN2 (mm)	Reference			L (mm)	Z (mm)	Z1 (mm)	Note
100	40/50*	40	0951022	10	240	200	74	25	

** Outlet Ø 40 Female - Outlet Ø 50 Male*
** Sortie Ø 40 Femelle - Sortie Ø 50 Male*





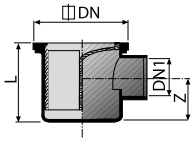
High floor gully - 3 outlets
Collecteur haut - 3 sorties - Colector alto 3 salidas

DN (mm)	DN1 (mm)	DN2 (mm)	Reference			L (mm)	Z (mm)	Z1 (mm)	Note
100	40/50*	40	0981042	22	176	200	74	25	
100	50	40	0951042	25	200	200	80	25	

* Outlet Ø 40 Female - Outlet Ø 50 Male
** Sortie Ø 40 Femelle - Sortie Ø 50 Male*





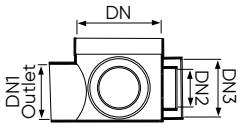


PVC trapped floor drain (horizontal outlet)
Siphon de cour PVC (sortie horizontale)
Sumidero sifónico, salida horizontal hembra de PVC

DN (mm)	DN1 (mm)	Reference			L (mm)	Z (mm)	Note
100	40 external /32 internal	0210304	16	832	82	45	
100	40 internal	0210404	16	832	82	45	

** See Floor drain



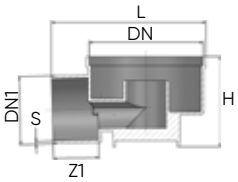


Floor gully

Collecteur grand débit - Colector

DN (mm)	DN1 (mm)	DN2 (mm)	DN3 (mm)	Reference			Note
160 F/Sk	110 M/Sp	75 F/Sk	110 F/SK	0961602	10	80	





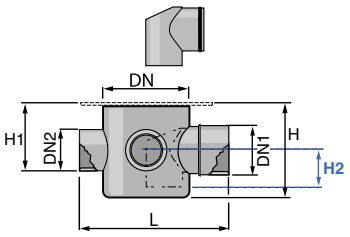
Trapped balcony outlet

Siphonnette de balcon - Terminal bote sifónico para terraza

DN (mm)	DN1 (mm)	Reference			L (mm)	H (mm)	Z1 (mm)	S (mm)	Note
125	50	19935F2	15	360	169	88	40	3	
125	75	19937F2	15	360	169	100	50	3	







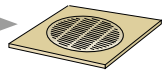
Water seal 50 mm in compliance with UNI EN1253

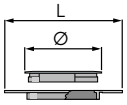
Floor trap with Multi-inlets

Siphon parquet - Terminal bote sifónico entradas múltiples

Ø (mm)	DN (mm)	DN1 (mm)	DN2 (mm)	Ref.			L (mm)	H (mm)	H1 (mm)	H2 (mm)	Version
150	125	75*	50**	1961202	20	160	237,5	137,5	92	50	High / *Haute / Alto*
150	125	75*	50**	19613B2	24	192	237,5	107,5	82	35	Low / *Baisse / Corto*

*Connections: * 1 spigot outlet DN 75 mm. ** 3 female blank inlets DN 50 mm.*
*Connections: * 1 sortie male DN 75 mm . ** 3 entres femelle DN 50 mm.*



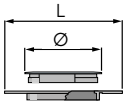


PVC frame and grill

Cadre et grille en PVC - Cerco y rejilla de PVC

Ø (mm)	L (mm)	Reference			Colour
125	150	1990702	20	1.040	Sand / *Sable /Arena*



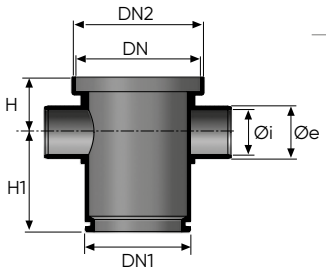


PVC frame with stainless steel grill

Cadre en PVC avec grille en acier inox
Cerco de PVC con rejilla de acero inox

Ø (mm)	L (mm)	Reference			Colour
125	150	1990802	20	1.040	PVC frame in Grey colour / *Cadre en PVC gris*
125	200	1991002	10	810	PVC frame in Grey colour / *Cadre en PVC gris*





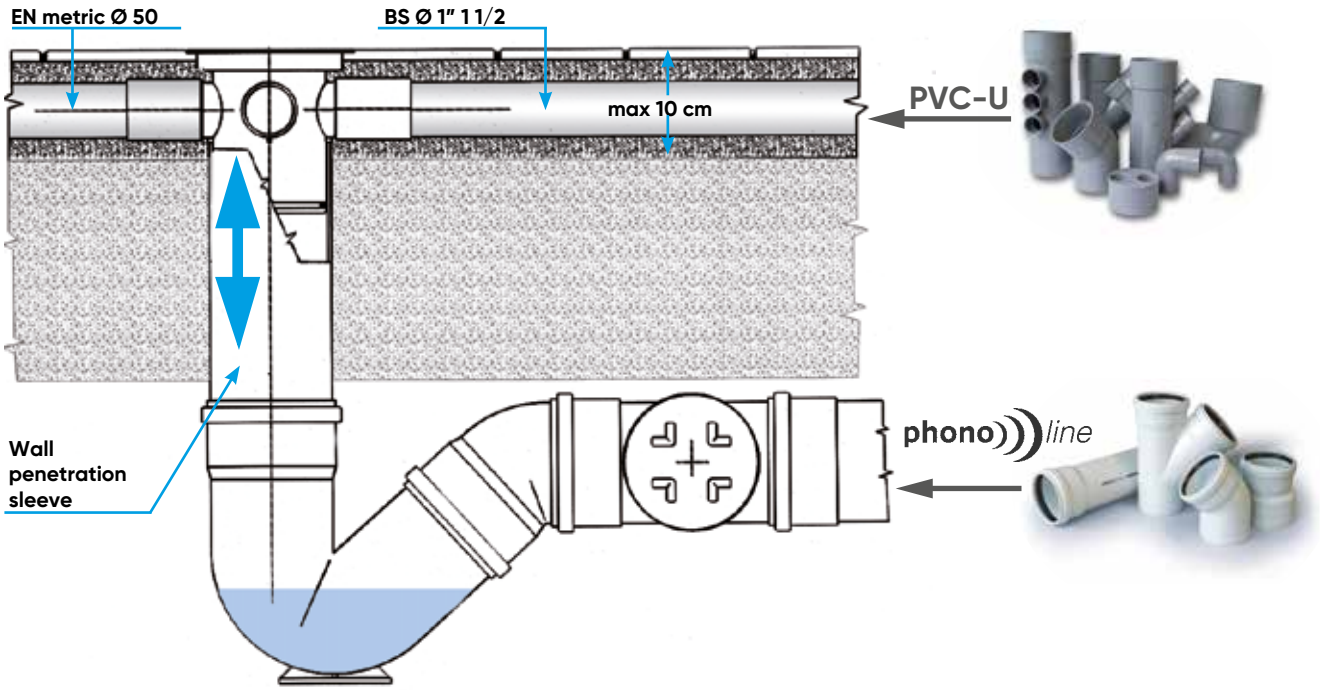
Smart gully

Collecteur - Colector 4 entradas

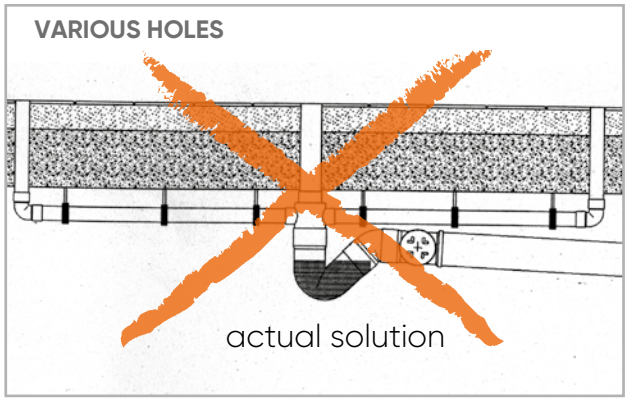
DN (mm)	DN1 (mm)	DN2	Øi	Øe	Ref.			H (mm)	H1 (mm)	Note
120,5	101	126,5	43	50	0960102	30	240	53	71	**Suspended application high rise buildings**

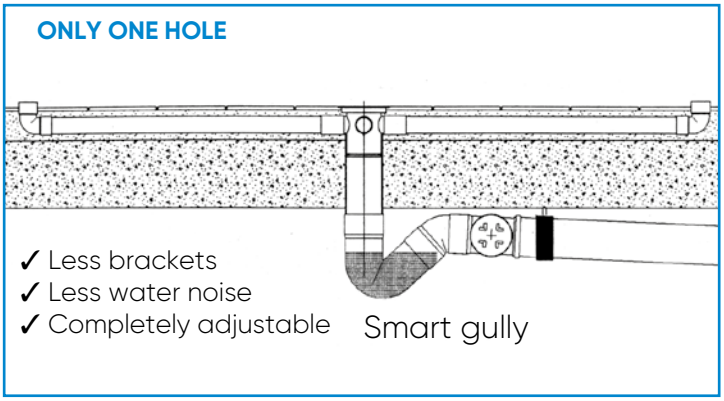
Adjustable ± 40 mm

It's possible to adjust the height of the Smart Gully, till the moment of the effective floor construction.



Less Slab



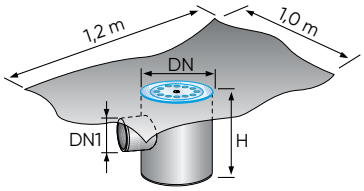




PVC insulating membrane
Membrane d'étanchéité - Lámina de PVC, impermeabilizante

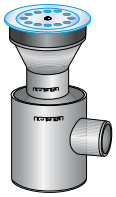
DN (mm)	Reference			Note
1500 x 1500 x 0,8 mm	J022087	5	260	1 single sheet

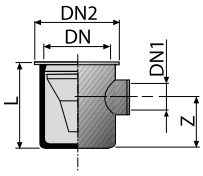
Material: PVC plasticized - Colour: Grey - Use: waterproofing sheet



Floor gully with PVC membrane
Collecteur avec membrane d'étanchéité
Colector con lámina impermeabilizante

DN (mm)	DN_1 (mm)	Reference			H (mm)	Note
100	40	1960402	1	64	120	



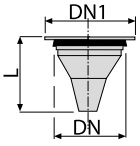


Floor trap with inox grid and funnel
Siphonette avec grille inox et entonnoir
Sifón con rejilla de acero inox y embudo

DN (mm)	DN_1 (mm)	DN_2 (mm)	Reference			L (mm)	Z (mm)	Note
100	40/50*	125	1961002	15	360	121	74	

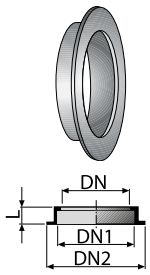
** Male outlet / Sortie male*





Inox grid with funnel
Grille inox avec entonnoir - Rejilla de acero inox y embudo

DN (mm)	DN_1 (mm)	Reference			L (mm)	Note
100	125	1993302	1	720	106	



Locking ring for PVC membrane
Anneau de blocage de la membrane d'étanchéité
Anillo de bloqueo de la junta de estanqueidad

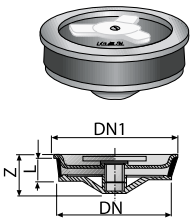
DN (mm)	DN1 (mm)	DN2 (mm)	Reference			L (mm)	Note
100	107	145	0201002	20	2.000	20	



Protection cap for floor gully
Plaque de protection pour collecteur
Tapón de protección bote sifónico

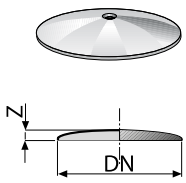
DN (mm)	Reference			Note
100	T651000	20	2.000	Made of plastics

* See Accessories and special solutions



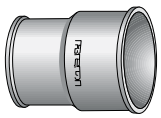
Plug for floor gully
Bouchon pour collecteur - Tapa expansión para colector

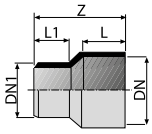
DN (mm)	DN1 (mm)	Reference			L (mm)	Z (mm)	Note
100	106	0661002	20	1.620	20	35	



Stainless steel plate
Plaque de protection inox - Tapa de acero inoxidable

DN (mm)	Reference			Z (mm)	Note
135	PIAOXNI	20	-	5	

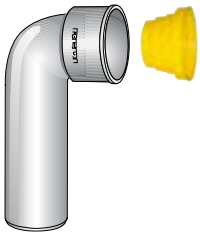


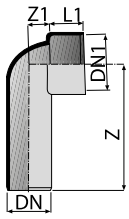


Technical coupling M/F

Manchon technique M/F - Manguito técnico M/H

DN (mm)	DN1 (mm)	Reference			L (mm)	L1 (mm)	Z (mm)	Note
40	50	0930302	50	2.600	22,5	31	55,5	F/F
40	32	0930402	50	4.050	26,5	22,5	57,5	M/F
50	40	0930502	50	2.600	31,5	26,5	67,5	M/F



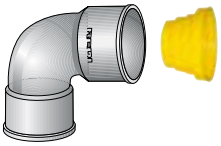


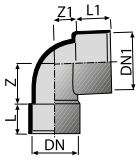
Technical bend long version M/F

Coude technique long M/F - Codo técnico M/H

DN (mm)	DN1 (mm)	Reference			L (mm)	L1 (mm)	Z (mm)	Note
40	50	074540M	5	1.200	33	150	17	

With protection plug /Avec bouchon de protection / Con tapa protectora





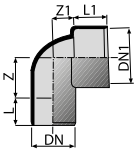
Technical bend F/F

Coude technique F/F - Codo técnico H/H

DN (mm)	DN1 (mm)	Reference			L (mm)	L1 (mm)	Z (mm)	Z1 (mm)	Note
32	40	024230M	130	3.120	23	28	29	14	
40	50	024240M	70	1.680	26	33	-	17	

With protection plug /Avec bouchon de protection / Con tapa protectora



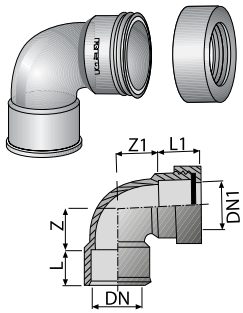


Technical bend M/F

Coude technique M/F - Codo técnico M/H

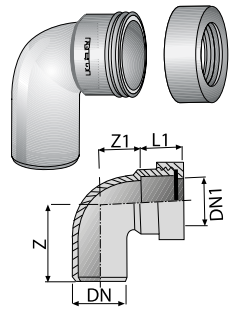
DN (mm)	DN1 (mm)	Reference			L (mm)	L1 (mm)	Z (mm)	Z1 (mm)	Note
32	40	074230M	80	1.920	23	28	29	14	
32	50	074530M	80	1.920	26	33	36	17	
40	50	074240M	80	1.920	-	-	-	-	

With protection plug /Avec bouchon de protection / Con tapa protectora



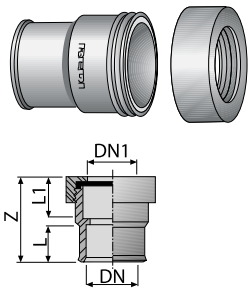
Metal-PVC connector 87°30′ F/F
Coude sanitaire à joint 87°30′ F/F (métal-PVC)
Codo técnico 87°30′ H/H con junta (metal-PVC)

DN (mm)	DN1 (mm)	Reference			L (mm)	L1 (mm)	Z (mm)	Z1 (mm)	Note
32	34	002320M	100	2.400	23	29	25	25	
40	38	002400M	70	1.680	27	31	31	31	



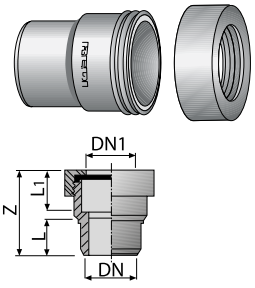
Metal-PVC connector 87°30′ M/F
Coude sanitaire à join 87°30′ M/F (métal-PVC)
Codo técnico 87°30′ M/H con junta (metal-PVC)

DN (mm)	DN1 (mm)	Reference			L (mm)	Z (mm)	Z1 (mm)	Note
32	34	003320M	120	2.880	29	48	25	
40	38	003400M	80	1.920	31	58	31	



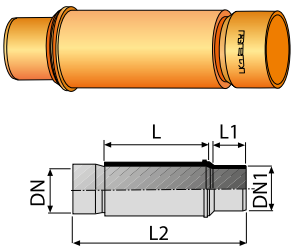
Metal-PVC connector F/F
Manchette sanitaire à joint F/F (métal-PVC)
Manguito técnico H/H con junta (metal-PVC)

DN (mm)	DN1 (mm)	Reference			L (mm)	L1 (mm)	Z (mm)	Note
32	34	004320M	50	4.050	23	29	56	
40	38	004400M	50	2.600	27	31	62	



Metal-PVC connector M/F
Manchette sanitaire à joint M/F (métal-PVC)
Manguito técnico M/H con junta (metal-PVC)

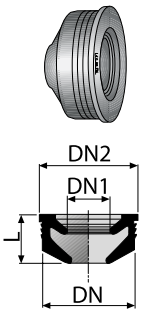
DN (mm)	DN1 (mm)	Reference			L (mm)	L1 (mm)	Z (mm)	Note
32	34	005320M	50	4.050	23	29	56	
40	38	005400M	50	2.600	27	31	62	



Repairing coupler (orange colour)
Manchon de réparation (coleur orange)
Manguito de reparación (color naranja)

DN (mm)	DN1 (mm)	Reference Orange Ral 2003			L (mm)	L1 (mm)	L2 (mm)	Note
50	-	1790509	10	-	-	-	-	
63	-	1790609	5	-	150	50	-	
80	-	1790809	5	-	168	56	-	
100	94	1791009	5	150	240	76	324	
125	118	1791209	5	100	240	76	324	

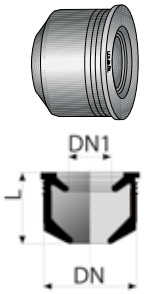
Gasket
Joint - Junta de goma



DN (mm)	DN1 (mm)	DN2 (mm)	Reference			L (mm)	Note
32	1"	37	6820300	50	24.000	13	
40	1"	46,5	6820400	50	12.000	18	
40	1" 1/4	46,5	6820401	50	12.000	18	
50	1"	55	6820502	50	6.000	19	
50	1" 1/4	56	6820500	50	6.000	19	
50	1" 1/2	55	6820501	50	6.000	19	

1" = 26 mm. 1"1/4 = 32 mm. 1"1/2 = 40 mm.

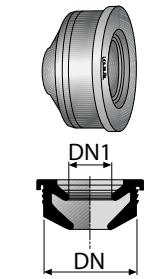
Long Gasket
Joint long - Junta de goma larga



DN (mm)	DN1 (mm)	Reference			L (mm)	Note
50	1"	68255LU	1	6.000	33	
50	1" 1/4	68265LU	1	6.000	33	
50	1" 1/2	68260LU	1	6.000	33	

1" = 26 mm. 1"1/4 = 32 mm. 1"1/2 = 40 mm.

Technical gasket with nut (for bends and couplers)
Joint technique avec écrou (pour coudes et manchons)
Junta técnica con tuerca (para codos y manguitos)

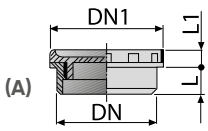


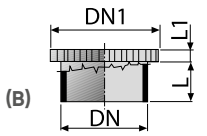
DN (mm)	DN1 (mm)	Reference			Note
37	1"	6823200	1	4.200	
45	1"	6824202	50	12.000	
45	1" 1/4	6824404	50	14.400	
45	1" 1/2	6824606	50	21.600	

1" = 26 mm. 1"1/4 = 32 mm. 1"1/2 = 40 mm.

Access plug M
Tampon de visite M - Tapón de inspección M



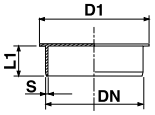




DN (mm)	DN1 (mm)	Ref.			L (mm)	L1 (mm)	Note
32	39	065320M	50	20.250	15	8,5	(A) With gasket / *Avec joint / Con junta*
40	47	065400M	50	12.150	15	8,5	(A) With gasket / *Avec joint / Con junta*
50	57	065500M	25	8.100	15	8,5	(A) With gasket / *Avec joint / Con junta*
63	78	065060M	90	2.160	38	17	(B)
75	97	065070M	20	1.040	44	17	(B)
80	97	065080M	50	1.200	47	17	(B)
90	-	0650902	30	720	52	-	(B)
100	116	065100M	30	960	56	20	(B)
110	-	0651102	70	560	62	22	(B)
125	-	0651202	50	400	60	20	(B)
140	-	1651402	40	320	60	20	(B)
160	-	1651602	30	240	60	20	(B)
200	-	1652002	15	120	80	22	(B)
250	-	1652502	10	100	90	17	(B)
315	-	1653002	6	48	93	21	(B)

* See UDG Sewage fittings



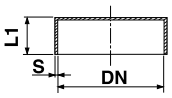


Socket plug M
Bouchon de fermeture M - Tapón ciego M

DN (mm)	DN1 (mm)	Reference			L (mm)	S (mm)	Note
40	45	0660402	50	12.000	18	2,5	
50	55	0660502	50	8.400	20	2,5	
100	104	0669902	45	1.080	15	-	
110	126	0661102	150	1.200	38	3,2	
125	142	0661202	100	800	42	3,2	
160	180	0661602	55	440	49	4,0	
200	223	0662002	25	200	59	4,9	
250	282	0662502	1	114	90	6,2	
315	350	0663002	1	67	93	7,7	
400	440	06640M2	1	50	95	9,8	

* See UDG Sewage fittings



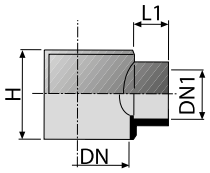


Female cap F
Bouchon femelle F - Tapón hembra H

DN (mm)	Reference			L1 (mm)	S (mm)	Note
100	E6611F2	20	2.000	32	2,2	
110	06613F2	30	1.560	32	2,0	
125	06615F2	20	1.040	32	2,5	
160	06617F2	30	720	35	2,7	
200	06621F2	60	480	35	2,9	
250	06628F2	30	240	40	3,5	
315	06634F2	15	120	52	4,0	
400	06640F2	1	50	52	4,0	

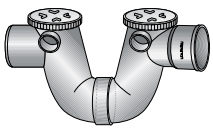
* See UDG Sewage fittings

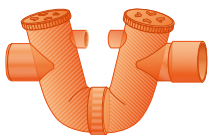


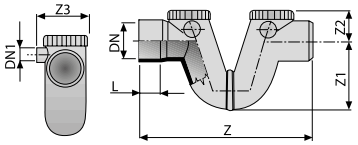


Clip
Selle - Injerto clip

DN (mm)	DN1 (mm)	Reference			H (mm)	L1 (mm)	Note
100 - 110 - 115	32	043050M	20	1.040	80	25	
100 - 110 - 115	40	043100M	20	1.040	80	27	
100 - 110 - 115	50	043300M	20	1.040	80	32	







Syphon O-O (with blank outlets for ventilation Ø40
Siphon O-O (avec piquage pour ventilation Ø40)
Sifón en línea (con conexión para ventilación Ø40)

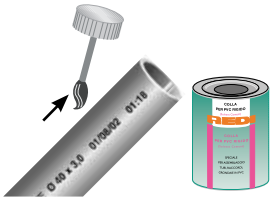
DN (mm)	DN1 (mm)	Ref.			L (mm)	Z (mm)	Z1 (mm)	Z2 (mm)	Z3 (mm)	Note
110	40	1750002	5	35	63	490	205	85	155	
125	40	1751302	1	34	62	506	235	95	175	
140	40	1751409*	1	24	-	-	-	-	-	RAL 2003
160	50	1751609*	1	18	-	-	-	-	-	RAL 2003
200	50	1752009*	1	9	-	-	-	-	-	RAL 2003

*RAL 2003: orange colour /coleur orange / color naranja

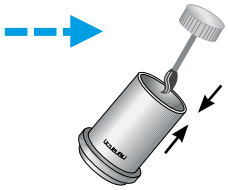
How to use the solvent cement welding socket couplers



Cut the pipe into the required length. If necessary, deburr pipe end with a chamferer.



Apply the solvent cement lengthwise on the previously cleaned pipe end.



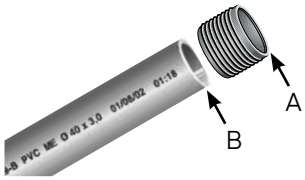
Apply the solvent cement inside the coupler's spigot end



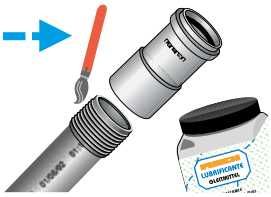
Fit the socket coupler without turning it until it stops against pipe end.

How to use the push-fit socket couplers

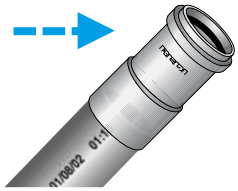




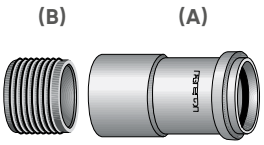
Fit the corrugated gasket onto the pipe end as shown in the picture (the sealing edge A to be in contact with pipe's front section B).



Apply a thin layer of lubricant onto the corrugated gasket.

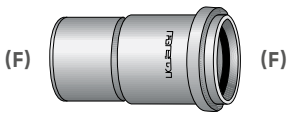


Fit the socket coupler without turning it until it stops against pipe end.



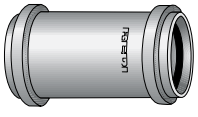
Socketer coupler - push-fit version F/F
Manchon avec joint F/F
Manguito de conexión push-fit con junta H/H

DN (mm)	Reference			Note
(A) 40	063228M	2.600	-	
(B) 40	6855700	-	-	
(A) 50	063238M	1.820	-	



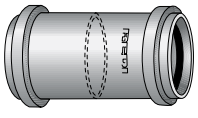
Socketer coupler - solvent welding version F/F
Manchon à coller F/F
Manguito de conexión push-fit encolar H/H

DN (mm)	Reference			Note
40	063338M	10	2.600	
50	063348M	40	2.080	



Slip coupler with 2 gaskets F
Manchon coulissant avec 2 joints F
Manguito deslizante H, con junta labiada H

DN (mm)	Reference			Note
40	061445M	10	1.920	



Coupler with central stop with 2 gaskets F/F
Manchon avec butée avec 2 joints F/F
Manguito con tope H/H, con junta labiada

DN (mm)	Reference			Note
40	063445M	40	2.080	
50	063455M	50	1.200	



PVC

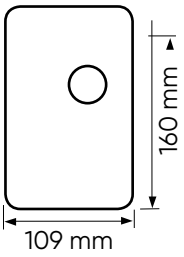


PE

CUBO REDI
Syphon for washing-machine
Siphon machine à laver
Sifón sencillo para empotrar, toma lavadora

DN (mm)	Reference			Note
40	1999903	8	416	for PVC pipes
40/50	199PE03	6	312	for PE pipes





CUBO REDI
NEW Cover plate in stainless steel 160x109 mm















Inspection Syphon for washing-machine
Siphon machine à laver
Sifón sencillo para empotrar, toma lavadora

DN (mm)	Reference			Note
1" 1/2-40	19999S3	1	780	for PVC pipes
1" 1/2-40	199PES3	1	780	for PE pipes

Packed in plastic bag



PE Syphon for washing-machine
Siphon machine à laver - Sifón máquina lavadora

DN (mm)	Reference			Note
40/50	C13PEAI	15	-	for PE pipes



Adaptor with Air Admittance Valve
Sortie avec anti-vide - Válvula aireación, toma lavadora

DN (mm)	Reference			Note
40	C130403	1	1.280	



Solvent cement THF free
Colle sans THF - Adhesivo sin THF

Pack. type	Content (ml)	Ref.			Note
Tube	125	COLLA12	30		
Jar	250	COLLA25	24		With brush / *Avec pinceau*
Jar	500	COLLA50	16		With brush / *Avec pinceau*
Jar	1.000	COLLA00	8		With brush / *Avec pinceau*



Cleaner
Détergent - Limpiador

Pack. type	Content (ml)	Ref.			Note
Can	1 litre	6721100	8	384	

* See Accessories and special solutions



PVC-U soil & waste push fit system

Fittings EN1329

REDI

aliaxis

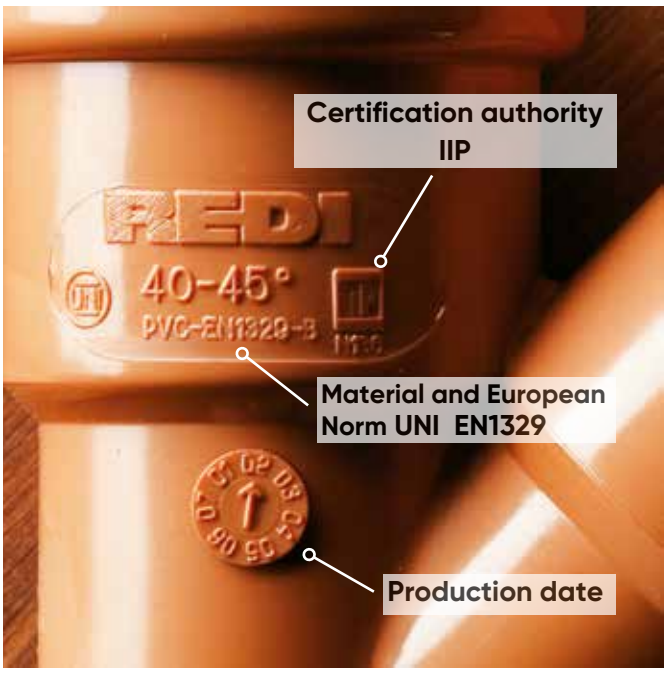
PVC-U
Soil & waste system push-fit system

Installation areas
PVC soil & waste push-fit fittings for waste water discharge are suitable for installation in civil and industrial buildings.

Maximum operative temperature
70°C - with constant temperature of the liquids
95°C - peaks of temperature (maximum elapsed time of 1 minute)

Composition material
Redi manufactures the range of soil & waste push-fit fittings using only the highest quality materials, according to the European **Norm 1329**.

Certificates: UNI IIP EN1329
Plastics piping systems for soil and waste discharge (low and high temperature) within the building structure.
Unplasticized poly(vinyl chloride) (PVC-U).
Specifications for pipes, fittings and the system.





IIP

CERTIFICATO DI CONFORMITÀ
Certificate of conformity

n° 1753 / 2017 — Rev. 0

Prodotti / *Products*	**Raccordi in cloruro di polivinile non plastificato (PVC-U) per sistemi di tubazioni per scarichi (a bassa ed alta temperatura) all'interno dei fabbricati** ***Unplasticized polyvinyl chloride (PVC-U) fittings for piping systems for soil and waste dicharge (low and high temperature) within the building structure***
Gamma di prodotti / *Range of products*	**vedere allegato / *see annex***
Norma / *Standard*	**UNI EN 1329-1 : 2014**
Nome commerciale / *Trade name*	**REDI**
Produttore / *Manufacturer*	**REDI SPA**
Sede legale / *Head office*	**VIA MADONNA DEI PRATI, S/A — 40069 ZOLA PREDOSA (BO)**
Sito produttivo / *Production site*	**VIA MADONNA DEI PRATI, S/A — 40069 ZOLA PREDOSA (BO)**

Istituto Italiano dei Plastici S.r.l. (I.I.P. S.r.l.) certifica che i prodotti sopra elencati sono conformi alla norma indicata ed ai requisiti di I.I.P. S.r.l. specificati nel Regolamento generale e nelle Regole particolari applicabili. Il produttore, sottoposto a sorveglianza continua da parte di I.I.P. S.r.l., è autorizzato ad apporre sui prodotti certificati il marchio IIP-UNI con numero distintivo **136**.
Il presente certificato di conformità è valido (salvo modifica, sospensione o revoca) fino al **30/09/2020**.

Istituto Italiano dei Plastici S.r.l. (I.I.P. S.r.l.) certifies that the above listed products are in conformity with the indicated standard and the requirements of I.I.P. S.r.l. specified in the general Rules and in the applicable particular Rules.
*The manufacturer, which is subjected to continuous surveillance by I.I.P. S.r.l., is entitled to put on the certified products the IIP-UNI conformity Mark with the distinctive number **136**.*
*This certificate of conformity is valid (unless modification, suspension or withdrawal) until **30/09/2020**.*

Monza, 25/09/2017

ISTITUTO ITALIANO DEI PLASTICI S.r.l.
via Velleia 2 - 20900 Monza (MB) - www.iip.it - info@iip.it
Il Direttore Generale
(Mauro La Ciacera)

ACCREDIA

The certificates shown on this catalogue may be subject to revisions.
Updated certificates for each product are available on website www.redi.it

Connection
Sockets are fitted with preassembled and prelubricated o-ring gasket.

Gasket section



Flow direction in reference to the position of the gasket.

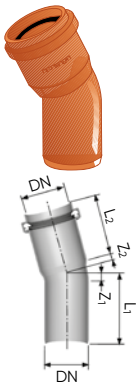
Gasket certificates
You can download all updated certificates from our website: www.redi.it

MPS NRW
Standard nr. 220000032 04-02-1b
DIN 4060

KIWA KOMO
Standard nr. K4195/06
Type rubbe SBR ss-p-60-00

BSI
Standard nr. KM 51718
BS EN 681-1

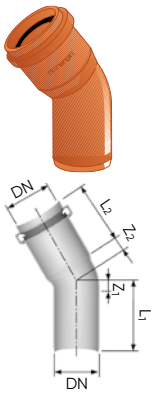
DNV Det Norske Veritas
Standard n. 112.929.01-01E; SS-EN 681-1
Type test report: SP report No. 98K12514 A-C, 98K 12558, 99K12583, 99K12604, F020847C, F101033



Bend S/S 15°

Coude 15° M/F - Codo 15° M/H

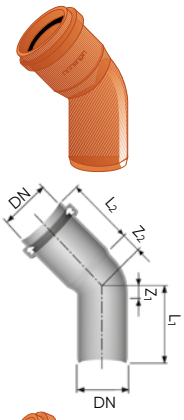
DN (mm)	Reference RAL 8023 Red EN1329			Z1 (mm)	Z2 (mm)	L1 (mm)	L2 (mm)	Note
40	0100411	25	2.025	3	27	48	41	
50	0100511	25	1.300	4	17	53	45	



Bend S/S 30°

Coude 30° M/F - Codo 30° M/H

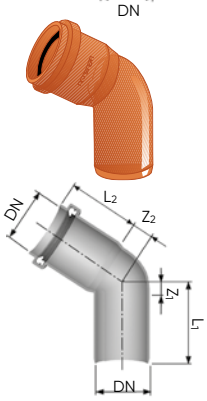
DN (mm)	Reference RAL 8023 Red EN1329			Z1 (mm)	Z2 (mm)	L1 (mm)	L2 (mm)	Note
40	0110411	25	2.025	5	19.5	49	41	
50	0110511	25	1.300	4	17	53	45	
100	0781011	12	288	12	20	68	56	



Bend S/S 45°

Coude 45° M/F - Codo 45° M/H

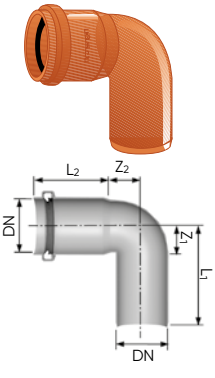
DN (mm)	Reference RAL 8023 Red EN1329			Z1 (mm)	Z2 (mm)	L1 (mm)	L2 (mm)	Note
40	0700411	100	2.400	8	22	48	36	
50	0700511	60	1.440	10	24	52	40	
63	0700611	40	960	-	-	-	-	
75	0730711	25	600	16	25	52	45	
82	0708211	25	600	-	-	-	-	
100	0701011	40	320	20	35	62	53	



Bend S/S 67°30'

Coude 67°30' M/F - Codo 67°30 M/H

DN (mm)	Reference RAL 8023 Red EN1329			Z1 (mm)	Z2 (mm)	L1 (mm)	L2 (mm)	Note
100	0721011	30	240	33	53	75	57	



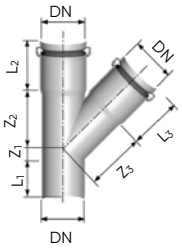
Bend S/S 87°30'

Coude 87°30' M/F - Codo 87°30 M/H

DN (mm)	Reference RAL 8023 Red EN1329			Z1 (mm)	Z2 (mm)	L1 (mm)	L2 (mm)	Note
40	0710411	100	2.400	-	-	-	-	
50	0710511	50	1.200	-	-	-	-	
63	0710611	30	720	-	-	-	-	
75	0740711	20	480	-	-	-	-	
82	0718211	20	480	-	-	-	-	
100	0711011	30	240	-	-	-	-	

Lip Ring





Branch 45° D/S
Culotte 45° M/F - Derivación 45° M/H

DN (mm)	Reference RAL 8023 Re EN1329			Z1 (mm)	Z2 (mm)	Z3 (mm)	L1 (mm)	L2 (mm)	L3 (mm)
40	0800411	50	1.200	9	52	52	49	45	45
50	0800511	25	600	14	70	70	48	40	40
63	0880611	15	360	-	-	-	-	-	-
75	0880711	10	240	15	93	93	51	45	45
82	0808211	30	-	-	-	-	-	-	-
100	0881011	15	120	25	131	131	60	53	53

Lip Ring



Unequal branch 45° D/S
Culotte et embranchement 45° M/F
Derivación reducida 45° M/H

DN (mm)	Reference RAL 8023 Red EN1329			Note
100/40	0831011	10	240	
100/50	0833011	10	240	
110/63	D312611	5	-	
110/75	0315111	20	160	
110/100	D312811	5	-	
125/75	D312711	10	80	

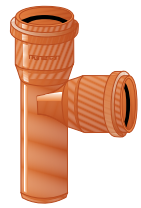
Lip Ring

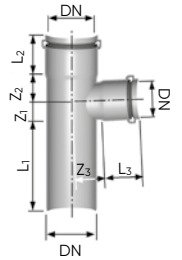


Unequal branch 45° D/S
Embranchement double 45° M/F
Derivación doble reducida 45° M/H

DN-DN1 (mm)	Reference RAL 8023 Red EN1329			Note
100-40-40	0415011	8	192	
100-50-50	0414911	7	168	

Lip Ring

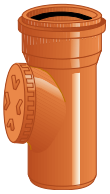


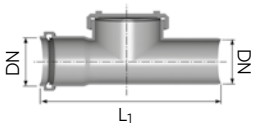


Branch 87° D/S
Culotte 87° M/F - Derivación 87° M/H

DN (mm)	Reference RAL 8023 Red EN1329			Z1 (mm)	Z2 (mm)	Z3 (mm)	L1 (mm)	L2 (mm)	L3 (mm)	Note
82	0818211	30	600	-	-	-	-	-	-	
100	0811011	20	160	55	64	64	55	53	53	

Lip Ring



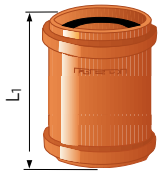


Access pipe

Tè de visite - Te con boca de registro

DN (mm)	Reference RAL 8023 Red EN1329			L1 (mm)	Note
100	1821011	20	160	227	

Lip Ring



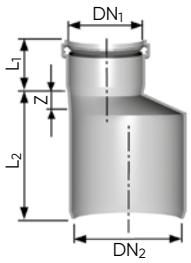
Repair/Slip coupler F/F

Manchon coulissant F/F - Manguito deslizante H/H

DN (mm)	Reference RAL 8023 Red EN1329			L1 (mm)	Note
63	D610611	10	-	-	
75	0610751	10	810	92	

Lip Ring



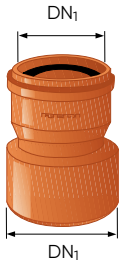


Invert reducer M/F

Réduction excentrée M/F - Ampliación excéntrica M/H

DN1-DN2 (mm)	Reference RAL 8023 Red EN1329			Z (mm)	L1 (mm)	L2 (mm)	Note
40/50	0900511	80	1.920	22	42	48	
40/63	0900611	60	1.440	-	-	-	
40/100	0904811	30	600	48	42	58	
50/63	0902611	50	1.200	-	-	-	
50/75	0510711	40	960	30	45	48	
50/100	0901011	25	600	45	45	61	
50/110	0511111	50	400	51	45	70	
63/100	0903011	30	720	-	-	-	
75/100	0503311	25	500	31	50	61	
75/125	0907311	10	300	48	55	115	
100/125	0901211	10	240	16	57	61	

Lip Ring



Invert reducer M/F

Réduction excentrée M/F - Ampliación excéntrica M/H

DN1-DN2 (mm)	Reference RAL 8023 Red EN1329			Note
82/100	0906811	30	720	

Lip Ring



Invert reducer M/F
Réduction M/F - Ampliación excéntrica M/H

DN1-DN2 (mm)	Reference RAL 8023 Red EN1329			Note
63/75	0530711	40	960	
100/110	0533111	18	432	

Lip Ring



Invert reducer M/F
Réduction M/F - Ampliación M/H

DN (mm)	Reference RAL 8023 Red EN1329			Note
40	0635589	50	2.600	
50	0635689	40	2.080	

Lip Ring



Invert reducer M/F
Réduction M/F - Ampliación M/H

DN1-DN2 F - M (mm)	Reference RAL 8023 Red EN1329			Note
125/100	0931211	15	360	
125/110	D931111	45	360	

Lip Ring



Lip ring
Joint à lévre - Junta labiada

DN (mm)	Reference			Note
40	6830400	1	-	
50	6830500	1	-	
75	6830700	1	-	
82	6808200	1	-	OR section round
100	6801000	1	-	

** See Accessories and special solutions*



Polypropylene soil & waste push-fit system

Self-extinguishing certified

Impact resistant

ULTRAMAX

AMAX

aliaxis

ULTRAMAX pipe range is completed by AMAX fittings

ULTRAMAX by REDI is the new push-fit polypropylene pipe for the drainage of civil and industrial waste water the AMAX fittings line by REDI.

Pipe features:

- White internal laye
- Impact-resistant
- Self-extinguishing B1

Three characteristics which make ULTRAMAX a unique product like the continuous development of REDI's offer.

The range includes the following diameters:
Ø 32 – 40 – 50 – 75 – 90 – 110 – 125 - 160 in the version with single and double socket.
The length range goes from 15 cm up to 3 ml.



Fitting marking



Pipe marking:



Impact resistance

The pipes are produced with multilayer technology but without any mineral material. The great elasticity of the pipe allows complete compression when under impact, without breaks, cracks or functional consequences, even at low temperatures.
The impact resistance is tested directly in line, at regular intervals, for each production batch.



1)
Compression test of an ULTRAMAX pipe by REDI.
During the test the pipe is hit with a 5 kg heavy hammer



2)
After the impact of the ULTRAMAX pipe by REDI, it returns to its original form without cracks or crushing

White Interior

ULTRAMAX presents a perfectly WHITE and uniform interior. This feature is particularly appreciated during video inspection.
The technology used allows an extrusion flow of the extremely regular raw material which enables a perfect fusion among the layers which are realised with different colours but the same material.



Self-extinguishing material

ULTRAMAX is completely self-extinguishing and matches Class B1 characteristics according to the DIN 4102 standard.

ULTRAMAX and AMAX poliypropylene system

Pipes and fittings are made of self extinguishing homopolymer PP.
The high quality material is certified according to the norm **EN 1451**

The REDI system passed the tests of conformity to the DIN EN 1451 carried out by the Institute SKZ.

The system also obtained the certification on raw material relating to DIN 4102-B1, passing the severe quality tests which certify the conformity to the required specifications.

Conditions for use	Fields of application
Maximum temperature of conveyed fluids not under pressure: 95°	for sanitary fittings
	for washing-machines, dishwashers and boilers also extended for waste water (large kitchens, laundry rooms, industrial appliances)
	for corrosive fluids in schools, laboratories and industrial factories. In this case, the chemical resistance at the operating temperature can be derived from the ISO/TR7471344.

The certificates printed on these pages are constantly updated. The updated certificates can be downloaded from our website www.redi.it



SKZ Certificate for pipe



SKZ Certificate for fittings

PP - Chemical resistance

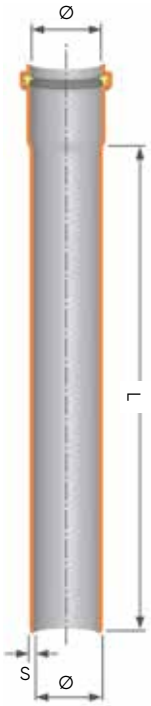
Product	Conc. %	Temp. 20 °C	Temp. 60 °C
Acetic Acid	60	S	L
Acetic Acid Monochloride	SOL.	S	L
Acetic Aldehyde	33	L	NS
Acetic Anhydride	100	L	NS
Acetone	100	S	S
Adipic Acid	-	-	-
Allyl Alcohol	96	S	S
Aluminum Chloride	SOL. SAT.	S	S
Aluminum Sulphate	SOL. SAT.	S	S
Ammonia (gas)	100	S	S
Ammonia (liquid)	100	S	L
Ammonia (solution)	SOL. DIL.	S	L
Ammonium Chloride	SOL. SAT.	S	S
Ammonium Fluoride	-	-	-
Ammonium Nitrate	SOL. SAT.	S	S
Ammonium Sulphate	SOL. SAT.	S	S
Amyl Acetate	100	NS	NS
Amyl Alcohol	100	S	L
Aniline	100	S	L
Aniline	SOL. SAT.	S	L
Aniline Hydrochloride	SOL. SAT.	-	-
Antimony Chloride	90	S	S
Arsenic Acid	SOL. DIL.	S	-
Beer		S	S
Benzaldehyde	100	S	-
Benzene	100	NS	NS
Benzoic Acid	SOL. SAT.	S	L
Borax	SOL. SAT.	S	L
Boric Acid	SOL. DIL.	S	L
Bromine (liquid)	100	NS	NS
Bromine Acid	10	S	-
Butadiene	100	S	S
Butane	100	S	-
Butyl Acetate	100	NS	NS
Butyl Phenol	100	NS	NS
Butylene	100	S	L
Butyric Acid	20	S	L
Butyric Acid	98	NS	NS
Calcium Chloride	SOL. SAT.	S	S
Calcium Nitrate	50	S	S
Carbon Dioxide	100	S	S
Carbon Sulphide	100	S	-
Carbon tetrachloride	100	NS	NS
Chlorine (dry gas)	100	NS	NS
Chlorine (liquid)	SOL. SAT.	NS	NS
Chlorosulphonic Acid	100	NS	NS
Chromic Acid		-	-
Citric Acid	SOL. SAT.	S	S
Copper Chloride	SOL. SAT.	S	S
Copper Fluoride	2	S	S
Creosol	100	L	NS
Cresol Acid	SOL. SAT.	NS	NS
Crotonic Aldehyde	100	NS	NS
Cyclohexanol	100	L	NS
Cyclohexanone	100	L	NS
Developing Bath		S	S
Dextrine	SOL. SAT.	-	-
Dibutyl Phthalate	100	NS	L
Dichloroethylene	100	NS	NS
Diglycolic Acid	18	S	L
Dimethylammine	30	S	-
Ethyl Acetate	100	NS	NS
Ethyl Alcohol	95	S	L
Ethyl Benzene	100	NS	NS
Ethyl Ether	100	S	-
Ethylene Glycol	CONC.	S	S
Fluorine	100	NS	NS
Formaldehyde	SOL. DIL.	S	S
Formaldehyde	40	S	S
Formic Acid	1~50	L	NS
Furfural Alcohol	100	NS	NS
Glucose	SOL. SAT.	S	L
Glycerin	100	S	S
Glycolic Acid	30	S	S
Golden Syrup	SOL.	S	L
Hydrobromic Acid	50	-	-
Hydrochloric Acid	30	L	NS
Hydrofluoric Acid	60	L	NS

Product	Conc. %	Temp. 20 °C	Temp. 60 °C
Hydrogen	100	S	S
Hydrogen Dioxide	30	S	L
Hydrogen Sulphide	100	S	S
Isooctane	100	L	S
Lactic Acid	10	S	L
Lactic Acid	10~90	L	L
Lead Tetraethyl	100	S	-
Magnesium Sulphide	SOL. SAT.	S	S
Maleic Acid	SOL. SAT.	S	L
Methyl Alcohol	100	S	L
Methyl Methacrylate	100	NS	NS
Methylene Chloride	100	NS	NS
Milk		S	S
Mineral Oil	100	L	L
N-Heptane	100	L	NS
Nickel Sulphide	SOL. SAT.	S	S
Nicotinic Acid	CONC.	S	S
Nitric Acid	<25	L	NS
Nitric Acid	50	NS	NS
Oleic Acid	100	L	L
Oleum	10% of SO^3	NS	NS
Oxalic Acid	25	S	L
Oxalic Acid	SOL. SAT.	L	L
Oxigen	SOL. SAT.	L	L
Petrol	80/20	NS	NS
Petroleum	100	L	NS
Phenol	SOL. SAT.	S	S
Phosphine	100	S	L
Phosphor Oxichloride	100	L	L
Phosphoric Acid	30	S	L
Potassium Bichromate	SOL. 20	S	S
Potassium Bromide	SOL. SAT.	S	S
Potassium Chloride	SOL. SAT.	S	S
Potassium Chromate	40	S	S
Potassium Cyanide	SOL.	S	S
Potassium Ferricyanide	SOL. SAT.	S	S
Potassium Ferrocyanide	SOL. SAT.	S	S
Potassium Hydroxide	SOL.	S	S
Potassium Nitrate	SOL. SAT.	S	L
Potassium Permanganate	20	S	S
Potassium Persulfate	SOL. SAT.	S	L
Propane (gas liquid)	100	S	-
Propionic Acid	50	S	S
Pyridine	100	NS	NS
Sea Water		S	L
Silver Nitrate	SOL. SAT.	S	L
Soap	SOL.	S	S
Sodium Bisulphite	SOL. SAT.	S	S
Sodium Chlorate	SOL. SAT.	S	S
Sodium Chloride	SOL. SAT.	S	S
Sodium Ferricyanide	SOL. SAT.	S	S
Sodium Hydroxide	SOL.	S	S
Sodium Hypochlorite	25	L	NS
Sodium Hypochlorite	100 (13% Cl.)	S	L
Sodium Silicate	SOL.	S	S
Sodium Sulphite	SOL. SAT.	S	L
Sulphur Acid	SOL.	S	S
Sulphur Anhydride	100 (liquid)	S	L
Sulphur Anhydride	100 (dry)	L	NS
Sulphuric Acid	40~90	L	L
Sulphuric Acid	96	NS	NS
Sulphuric Chloride	100	NS	NS
Sulphuryl Chloride	100	NS	NS
Tannic Acid	SOL.	S	S
Tartaric Acid	SOL.	S	S
Tetrachloroethene	100	NS	NS
Thiophene	100	L	L
Tin Chloride	SOL. SAT.	S	S
Toluene	100	NS	NS
Trichloroethylene	100	NS	NS
Turpentine (oil)	100	NS	NS
Urea	10	S	L
Vaseline		L	L
Vinagre		S	S
Vinyl Acetate	100	NS	NS
Wine		S	S
Xylene	100	NS	NS
Yeast	SOL.	S	L

TS = Without corrosion L = Limitaded corrosion NS = Corrosion

For any special application, please contact the REDI Technical Service beforehand.

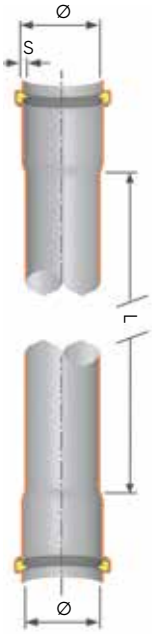




Single socket pipe M/F (Self-extinguishing class B1)
Tube M/F (classe d'inflammabilité B1)
Tubo M/H (Autoextinguible clase B1)

Ø (mm)	x	L (ml.)	S Thick	Reference			Note
32	x	0,15	1,8	ZT132PP	40	2.560	
32	x	0,25	1,8	ZT232PP	40	1.280	
32	x	0,50	1,8	ZT332PP	10	1.200	
32	x	1,00	1,8	ZT532PP	10	600	
32	x	1,50	1,8	ZT632PP	10	600	
32	x	2,00	1,8	ZT732PP	10	600	
32	x	3,00	1,8	ZT832PP	10	600	
40	x	0,15	1,8	ZT140PP	40	960	
40	x	0,25	1,8	ZT240PP	40	960	
40	x	0,50	1,8	ZT340PP	10	800	
40	x	1,00	1,8	ZT540PP	10	400	
40	x	1,50	1,8	ZT640PP	10	400	
40	x	2,00	1,8	ZT740PP	10	400	
40	x	3,00	1,8	ZT840PP	10	400	
50	x	0,15	1,8	ZT150PP	20	800	
50	x	0,25	1,8	ZT250PP	20	640	
50	x	0,50	1,8	ZT350PP	10	480	
50	x	1,00	1,8	ZT550PP	10	240	
50	x	1,50	1,8	ZT650PP	10	240	
50	x	2,00	1,8	ZT750PP	10	240	
50	x	3,00	1,8	ZT850PP	10	240	
75	x	0,15	1,9	ZT175PP	20	480	
75	x	0,25	1,9	ZT275PP	20	320	
75	x	0,50	1,9	ZT375PP	10	240	
75	x	1,00	1,9	ZT575PP	10	180	
75	x	1,50	1,9	ZT675PP	10	180	
75	x	2,00	1,9	ZT775PP	10	180	
75	x	3,00	1,9	ZT875PP	10	180	
90	x	0,15	2,2	ZT190PP	24	384	
90	x	0,25	2,2	ZT290PP	24	288	
90	x	0,50	2,2	ZT390PP	10	240	
90	x	1,00	2,2	ZT590PP	10	120	
90	x	1,50	2,2	ZT690PP	10	120	
90	x	2,00	2,2	ZT790PP	10	120	
90	x	3,00	2,2	ZT890PP	10	120	
110	x	0,15	2,7	ZT111PP	20	320	
110	x	0,25	2,7	ZT211PP	20	160	
110	x	0,50	2,7	ZT311PP	10	160	
110	x	1,00	2,7	ZT511PP	10	80	
110	x	1,50	2,7	ZT611PP	10	80	
110	x	2,00	2,7	ZT711PP	10	80	
110	x	3,00	2,7	ZT811PP	10	80	
125	x	0,15	3,1	ZT112PP	10	120	
125	x	0,25	3,1	ZT212PP	10	120	
125	x	0,50	3,1	ZT312PP	1	45	
125	x	1,00	3,1	ZT512PP	1	45	
125	x	1,50	3,1	ZT612PP	1	45	
125	x	2,00	3,1	ZT712PP	1	45	
125	x	3,00	3,1	ZT812PP	1	45	
160	x	0,15	3,9	ZT116PP	5	60	
160	x	0,25	3,9	ZT216PP	5	40	
160	x	0,50	3,9	ZT316PP	1	48	
160	x	1,00	3,9	ZT516PP	1	24	
160	x	1,50	3,9	ZT616PP	1	24	
160	x	2,00	3,9	ZT716PP	1	24	
160	x	3,00	3,9	ZT816PP	1	24	



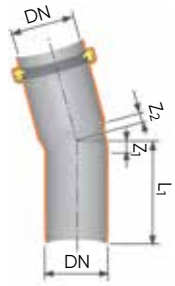


Double socket pipe F/F
Tube F/F
Tubo H/H

Ø (mm)	x	L (ml.)	S Thick	Reference			Note
32	x	0,5	1,8	ZT333PP	10	1.200	
32	x	1	1,8	ZT533PP	10	600	
32	x	1,5	1,8	ZT633PP	10	600	
32	x	2	1,8	ZT733PP	10	600	
32	x	3	1,8	ZT833PP	10	600	
40	x	0,5	1,8	ZT343PP	10	600	
40	x	1	1,8	ZT543PP	10	1.000	
40	x	1,5	1,8	ZT643PP	10	500	
40	x	2	1,8	ZT743PP	10	500	
40	x	3	1,8	ZT843PP	10	500	
50	x	0,5	1,8	ZT353PP	10	500	
50	x	1	1,8	ZT553PP	10	720	
50	x	1,5	1,8	ZT653PP	10	360	
50	x	2	1,8	ZT753PP	10	360	
50	x	3	1,8	ZT853PP	10	360	
75	x	0,5	1,9	ZT373PP	10	360	
75	x	1	1,9	ZT573PP	10	240	
75	x	1,5	1,9	ZT673PP	10	180	
75	x	2	1,9	ZT773PP	10	180	
75	x	3	1,9	ZT873PP	10	180	
90	x	0,5	2,2	ZT393PP	10	180	
90	x	1	2,2	ZT593PP	10	240	
90	x	1,5	2,2	ZT693PP	10	120	
90	x	2	2,2	ZT793PP	10	120	
90	x	3	2,2	ZT893PP	10	120	
110	x	0,5	2,7	ZT321PP	10	120	
110	x	1	2,7	ZT521PP	10	160	
110	x	1,5	2,7	ZT621PP	10	80	
110	x	2	2,7	ZT721PP	10	80	
110	x	3	2,7	ZT821PP	10	80	
125	x	0,5	3,1	ZT322PP	1	80	
125	x	1	3,1	ZT522PP	1	45	
125	x	1,5	3,1	ZT622PP	1	45	
125	x	2	3,1	ZT722PP	1	45	
125	x	3	3,1	ZT822PP	1	45	
160	x	0,5	3,9	ZT326PP	1	48	
160	x	1	3,9	ZT526PP	1	24	
160	x	2	3,9	ZT726PP	1	24	
160	x	3	3,9	ZT826PP	1	24	

HTDM

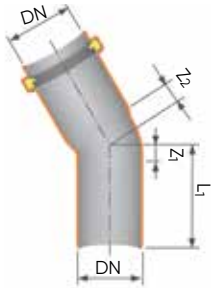




Bend 15° M/F
Coude 15° M/F - Codo 15° M/H

DN (mm)	Reference			Z1 (mm)	Z2 (mm)	L1 (mm)	Note
32	Z1032PP	40	5.120	6	5	49	
40	Z1040PP	25	3.200	5	8	66	
50	Z1050PP	30	1.920	5	9	67,5	
75	Z1075PP	25	800	7	11	73	
90	Z1090PP	20	640	-	-	-	
110	Z1011PP	10	320	9	14	85	
125	Z1012PP	20	160	10	15	92	
160	Z1016PP	10	80	13	19	113	

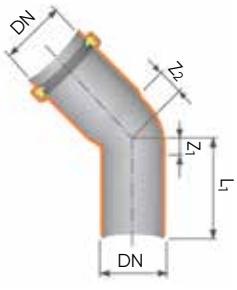




Bend 30° M/F
Coude 30° M/F - Codo 30° M/H

DN (mm)	Reference			Z1 (mm)	Z2 (mm)	L1 (mm)	Note
32	Z1132PP	40	5.120	6	7	52	
40	Z1140PP	25	3.200	7	11	69	
50	Z1150PP	30	1.920	9	12	71	
75	Z1175PP	25	800	12	15	78	
90	Z1190PP	15	480	-	-	-	
110	Z1111PP	10	320	17	21	92	
125	Z1112PP	20	160	19	23	100	
160	Z1116PP	10	80	24	30	123	

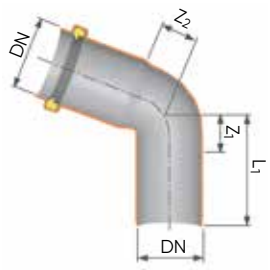




Bend 45° M/F
Coude 45° M/F - Codo 45° M/H

DN (mm)	Reference			Z1 (mm)	Z2 (mm)	L1 (mm)	Note
32	Z1232PP	40	5.120	8	10	55	
40	Z1240PP	20	2.560	10	14	72	
50	Z1250PP	30	1.920	12	16	74,5	
75	Z1275PP	20	640	18	21	83	
90	Z1290PP	30	480	-	-	-	
110	Z1211PP	20	320	25	29	101	
125	Z1212PP	20	160	28	33	110	
160	Z1216PP	10	80	36	42	136	

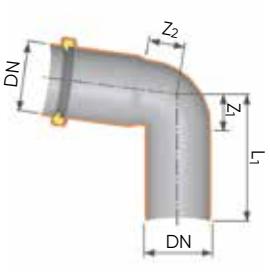




Bend 67°30' M/F
Coude 67°30' M/F - Codo 67°30' M/H

DN (mm)	Reference			Z1 (mm)	Z2 (mm)	L1 (mm)	Note
32	Z1332PP	30	3.840	13	15	60	
40	Z1340PP	20	2.560	16	20	78	
50	Z1350PP	25	1.600	20	23	81,5	
75	Z1375PP	20	640	28	31	93	
90	Z1390PP	30	480	-	-	-	
110	Z1311PP	10	160	40	44	116	

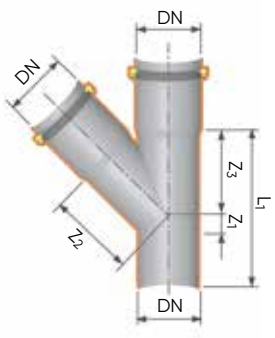




Bend 87°30' M/F
Coude 87°30' M/F - Codo 87°30' M/H

DN (mm)	Reference			Z1 (mm)	Z2 (mm)	L1 (mm)	Note
32	Z1432PP	30	3.840	14	16	62	
40	Z1440PP	20	2.560	23	26	85	
50	Z1450PP	25	1.600	28	31	90	
75	Z1475PP	20	640	40	43	105	
90	Z1490PP	25	400	-	-	-	
110	Z1411PP	15	240	57	61	133	
125	Z1412PP	20	160	65	70	147	
160	Z1416PP	10	80	83	89	183	

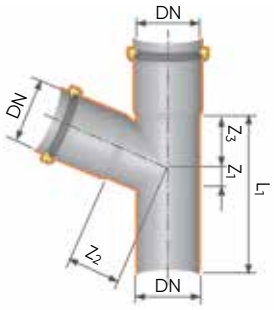




Branch 45° M/F
Culotte 45° M/F - Derivación 45° M/H

DN (mm)	Reference			Z1 (mm)	Z2 (mm)	Z3 (mm)	L1 (mm)	Note
32	Z3032PP	60	1.920	9	40	40	95	
40	Z3040PP	20	1.280	10	49	49	121	
50	Z3050PP	25	800	12	61	61	135	
75	Z3075PP	20	320	18	91	91	174	
90	Z3090PP	20	240	-	-	-	-	
110	Z3011PP	20	160	25	134	134	234	
125	Z3012PP	20	80	28	152	115	266	
160	Z3016PP	10	40	36	194	194	380	

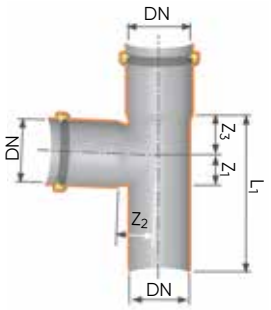




Branch 67°30′ M/F
Culotte 67°30′ M/F - Derivación 67°30′ M/H

DN (mm)	Reference			Z1 (mm)	Z2 (mm)	Z3 (mm)	L1 (mm)	Note
32	Z3132PP	20	1.920	-	-	-	-	
40	Z3140PP	20	1.280	16	33	33	121	
50	Z3150PP	25	800	12	61	61	135	
75	Z3175PP	20	320	26	59	59	152	
110	Z3111PP	5	80	40	86	86	201	
160	Z3116PP	10	40	58	123	123	380	

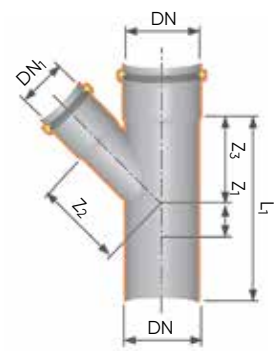




Branch 87°30′ M/F
Culotte 87°30′ M/F - Derivación 87°30′ M/H

DN (mm)	Reference			Z1 (mm)	Z2 (mm)	Z3 (mm)	L1 (mm)	Note
32	Z3232PP	30	1.920	10	23	23	85	
40	Z3240PP	45	1.440	23	25	25	109	
50	Z3250PP	30	960	28	30	30	119	
75	Z3275PP	20	240	40	43	43	148	
90	Z3290PP	20	240	-	-	-	-	
110	Z3211PP	20	160	57	62	62	194	
125	Z3212PP	20	80	67	70	70	266	
160	Z3216PP	10	40	83	89	89	380	

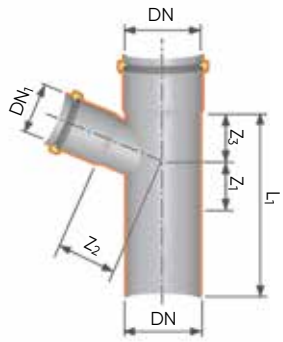




Reduced branch 45° M/F
Culotte et embranchement 45° M/F
Derivación reducida 45° M/H

DN/DN1 (mm)	Reference			Z1 (mm)	Z2 (mm)	Z3 (mm)	L1 (mm)	Note
40/32	Z3340PP	20	1.040	-	-	-	-	
50/40	Z3350PP	30	960	5	56	54	121	
75/40	Z3475PP	35	560	-	74	67	125	
75/50	Z3375PP	25	400	-	79	74	139	
90/40	Z3590PP	20	240	-	-	-	-	
90/50	Z3490PP	25	300	-	-	-	-	
90/75	Z3390PP	20	240	-	-	-	-	
110/40	Z3511PP	20	160	0	86	68	128	
110/50	Z3411PP	20	240	-	104	91	149	
110/75	Z3311PP	10	160	1	116	109	185	
110/90	Z3310PP	10	80	-	-	-	-	
125/110	Z3312PP	10	80	18	144	141	243	
160/110	Z3416PP	10	60	1	168	159	265	
160/125	Z3316PP	10	40	12	176	169	280	

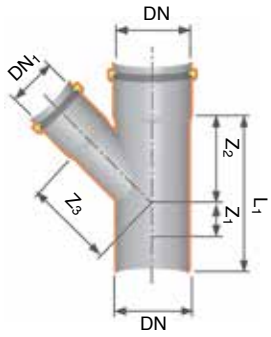




Reduced branch 67°30′ M/F
Culotte et embranchement 67°30′ M/F
Derivación reducida 67°30 M/H

DN/DN1 (mm)	Reference			Z1 (mm)	Z2 (mm)	Z3 (mm)	L1 (mm)	Note
40/32	Z3640PP	20	1.920	-	-	-	-	
50/40	Z3650PP	20	640	14	39	35	111	
75/50	Z3675PP	20	480	14	54	46	115	
110/40	Z3811PP	20	240	-	69	49	110	Fabricated
110/50	Z3711PP	5	160	8	73	54	135	
110/75	Z3611PP	20	160	22	73	67	163	



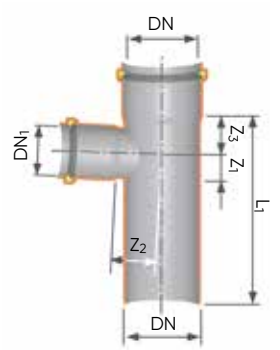


Reduced branch 45° M/F (short version)
Culotte et embranchement 45° M/F (version courte)
Derivación reducida 45° M/H (versión corta)

DN/DN1 (mm)	Reference			Z1 (mm)	Z2 (mm)	Z3 (mm)	L1 (mm)	Note
90/40	Z359CPP	20	240	16	87	88	127	
90/50	Z349CPP	25	300	9	87	94	134	
110/40	Z351CPP	20	160	25	98	102	134	
110/50	Z341CPP	20	240	18	98	107	142	

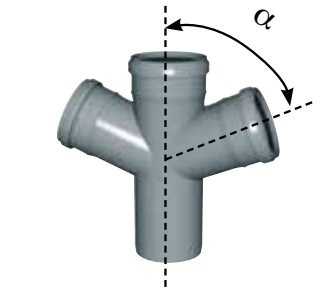
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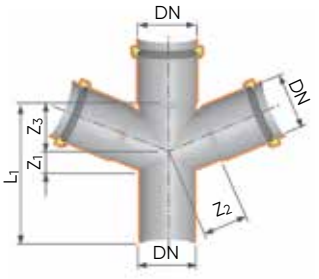




Reduced branch 87°30′ M/F
Culotte et embranchement 87°30′ M/F
Derivación reducida 87°30′ M/H

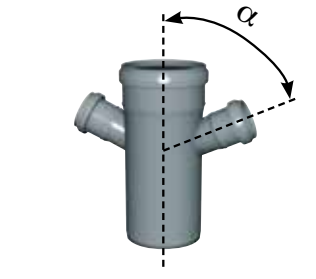
DN/DN1 (mm)	Reference			Z1 (mm)	Z2 (mm)	Z3 (mm)	L1 (mm)	Note
40/32	Z3940PP	20	1.920	-	-	-	-	
50/40	Z3950PP	35	1.120	23	30	25	109	
75/50	Z3975PP	10	320					
90/40	Z4190PP	20	320	-	-	-	-	
90/50	Z4090PP	20	320	-	-	-	-	
90/75	Z3990PP	20	160	-	-	-	-	
110/40	Z4111PP	20	160	-	60	32	110	
110/50	Z4011PP	20	160	28	60	32	133	
110/75	Z3911PP	20	160	40	60	45	160	
110/90	Z3910PP	20	160	-	-	-	-	Fabricated
125/110	Z3912PP	10	80	58	69	63	204	
160/110	Z4016PP	10	60	58	86	64	237	
160/125	Z3916PP	10	60	66	87	71	280	

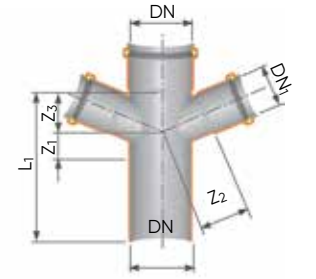




Double branch M/F
Culotte double M/F - Derivación doble M/H

DN (mm)	α	Ref.			Z1 (mm)	Z2 (mm)	Z3 (mm)	L1 (mm)	Note
50	67°30'	Z4250PP	10	640	20	41	41	124	
75	67°30'	Z4275PP	20	240	28	59	59	153	
90	87°30'	Z4511PP	20	160	-	-	-	-	
110	45°	Z4611PP	10	80	-	-	-	-	
110	67°30'	Z4211PP	5	80	40	86	86	201	
110	87°30'	Z4311PP	10	80	-	-	-	-	

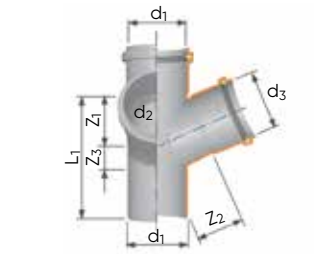


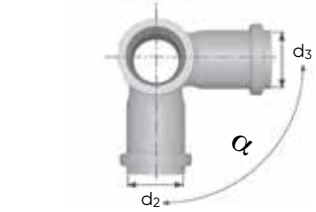


Reduced double branch M/F
Embranchement double M/F
Derivación doble reducida M/H

DN/DN1/DN1 (mm)	α	Ref.			Z1 (mm)	Z2 (mm)	Z3 (mm)	L1 (mm)	Note
90/40/40	45°	Z4540PP	20	240	19	87	79	120	
90/50/50	45°	Z4550PP	20	240	-	-	-	-	
110/40/40	45°	Z4650PP	20	160	10	96	-	153	
110/50/50	45°	Z4675PP	20	240	10	92	-	153	
110/50/50	67°30'	Z4711PP	10	160	-	-	-	-	
110/50/50	87°30'	Z4411PP	20	160	-	-	-	-	
125/110/110	45°	Z4712PP	10	80	-	-	-	-	Fabricated





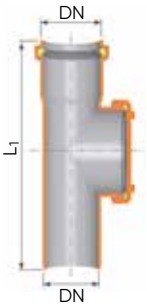


Double corner branch M/F
Embranchement double d'équerre M/F
Doble derivación escuadra M/H

d1 (mm)	d2 (mm)	d3 (mm)	α	Ref.			Z1 (mm)	Z2 (mm)	Z3 (mm)	L1 (mm)	Note
110	40	40	67°30'	Z4844PP	10	80	-	-	-	-	Fabricated
110	50	50	67°30'	Z4855PP	10	80	40	86	86	202	Fabricated
110	110	50	67°30'	Z4815PP	10	80	40	86	86	202	Fabricated
110	50	110	67°30'	Z4851PP	10	80	40	86	86	202	Fabricated
110	110	110	67°30'	Z4811PP	10	80	40	86	86	202	
110	110	110	87°30'	Z4950PP	10	80	40	86	86	202	Fabricated

HTED



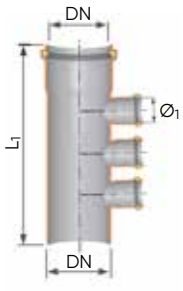


Access pipe M/F

Té de visite M/F - Te M/H con boca de regristro

DN (mm)	Reference			L1 (mm)	Note
50	Z7050PP	30	960	146	
75	Z7075PP	10	320	192	
90	Z7090PP	20	240	-	
110	Z7011PP	5	160	228	
125	Z7012PP	20	160	236	
160	Z7016PP	10	80	303	

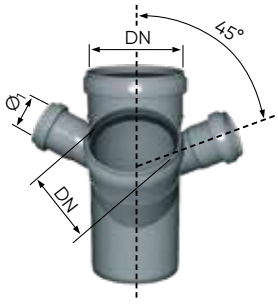




Multiple branch M/F

Culotte multiple M/F - Derivación múltiple M/H

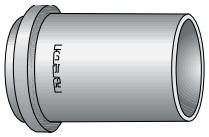
DN (mm)	Ø1 (mm)	Connection	Reference			L1 (mm)	Note
110	40	2	Z6942PP	20	160	330	Fabricated
110	40	3	Z6943PP	20	330	330	Fabricated



Multiple branch 45° M/F

Culotte multiple 45° M/F - Derivación múltiple 45° M/H

DN (mm)	Ø1 (mm)	Reference			Note
110	40	Z3044PP	10	80	Fabricated





Repair / Slip coupler F/F

Manchon coulissant F/F - Manguito deslizante H/H

DN (mm)	Reference			L_1 (mm)	Note
32	Z6132PP	40	5.120	88	
40	Z6140PP	40	2.560	108	
50	Z6150PP	25	1.600	105	
75	Z6175PP	20	640	144,5	
90	Z6190PP	20	640	120	
110	Z6111PP	5	320	129,5	
125	Z6112PP	20	160	166,5	
160	Z6116PP	10	120	167,5	





Coupler with central stop F/F

Manchon avec butée F/F - Manguito con tope H/H

DN (mm)	Reference			L_1 (mm)	L_2 (mm)	Note
32	Z6332PP	40	5.120	88	1,2	
40	Z6340PP	40	2.560	108	1,2	
50	Z6350PP	25	1.600	105	1,2	
75	Z6375PP	20	640	144,5	1,5	
90	Z6390PP	20	640	120	-	
110	Z6311PP	12	384	126	1,5	
125	Z6312PP	20	160	166,5	2,7	
160	Z6316PP	10	120	181	3,0	





Socketer M/F

Manchon d'adaptation M/F - Manguito adaptador M/H

DN (mm)	Reference			L_1 (mm)	L_2 (mm)	Note
40	Z6540PP	25	1.600	116	163	
50	Z6550PP	40	1.280	116	165	
75	Z6575PP	35	560	122	253	
90	Z6490PP	20	240	-	-	
110	Z6511PP	20	240	124	257	
125	Z6512PP	20	160	145	221	





Reducer M/F
Réduction M/F - Reducción M/H

d1 (mm)	d2 (mm)	Reference			L1 (mm)	L2 (mm)	Note
40	32	Z5540PP	50	3.200	-	-	
50	40	Z5550PP	60	1.920	9	103	
75	50	Z5775PP	20	1.280	-	-	



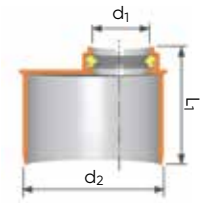


Inside reducer M/F
Réduction incorporée M/F - Reductor interior M/H

d1 (mm)	d2 (mm)	Reference			L1 (mm)	Note
32	40	Z5440PP	10	6.400	66	
40	50	Z5450PP	10	3.840	55	

HTV

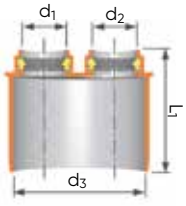




Reducer plugs M/F
Tampon de réduction M/F - Tapón reductor M/H

d1 (mm)	d2 (mm)	Reference			L1 (mm)	Note
50	75	Z5575PP	20	1.620	-	
40	90	Z5630PP	20	1.040	-	
50	90	Z5190PP	20	1.280	-	
40	110	Z5640PP	20	640	90	
50	110	Z5650PP	20	640	90	
75	110	Z5675PP	30	960	90	
90	110	Z5690PP	20	640	-	



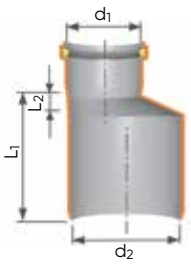


Double reducer plugs M/F
Tampon de réduction double M/F
Tapón reductor doble M/H

d1 (mm)	d2 (mm)	d3 (mm)	Reference			L1 (mm)	Note
32	40	110	Z5634PP	20	1.280	-	
40	40	110	Z5641PP	20	480	-	
40	50	125	Z5845PP	20	640	-	

HTV



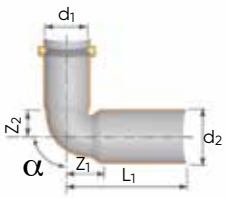


Invert reducer M/F

Réduction excentrée M/F - Reducción excéntrica M/H

d1 (mm)	d2 (mm)	Ref.			L2 (mm)	L1 (mm)	Note
32	40	Z5040PP	20	2.800	-	-	
32	50	Z5150PP	20	2.800	12	73	
40	50	Z5050PP	20	1.920	12	73	
40	75	Z5175PP	20	1.280	26	91	
40	90	Z5290PP	20	640	--		
40	110	Z5110PP	20	640	-	-	
50	75	Z5075PP	20	1.280	20	86	
50	110	Z5111PP	15	480	40	115	
75	90	Z5090PP	20	640	-	-	
75	110	Z5011PP	15	480	26	101	
110	125	Z5012PP	20	320	15	101	
110	160	Z5116PP	20	240	34	137	
125	160	Z5016PP	20	240	27	130	





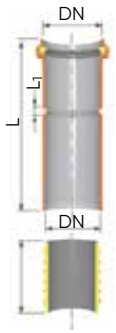
Reducing bend M/F

Coude de réduction M/F - Codo reductor M/H

d1 (mm)	d2 (mm)	Ref.			Z1 (mm)	Z2 (mm)	L1 (mm)	α	Note
40	50	Z2650PP	20	1.280	36	26	83	87°30'	

HTBR





Socket couple

Manchon d'adaptation - Manguito adaptador con junta

DN (mm)	Ref.			L (mm)	L1 (mm)	Note
50	Z6950PP*	20	1.920	113	4	* getting out of production soon
75	Z6975PP*	20	640	117	5	* getting out of production soon
110	Z6911PP*	20	320	130	8	* getting out of production soon





Technical Coupling M/F (with protection plug)

Manchon pour raccordements multi-matériaux M/F (avec tampon de protection)

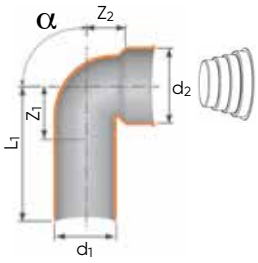
Manguito técnico M/H (con tapa protectora)

D

d1 (mm)	d2 (mm)	Reference			L1 (mm)	L2 (mm)	Note
40	50	Z6815PP	20	2.560	107	72	
50	50	Z6814PP	20	1.920	100	68	

HTS





Technical bend M/F (with protection plug)

Coude M/F (avec tampon de protection)

Codo técnico M/H (con tapa protectora)

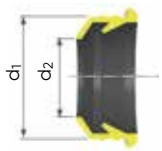
D

d1 (mm)	d2 (mm)	Ref.			Z1 (mm)	Z2 (mm)	L1 (mm)	α	Note
50	32	Z2910PP*	20	1.040	–	–	–	–	
40	40	Z2918PP	45	2.880	26	20	89	90°	
40	50	Z2916PP	35	2.240	31	25	89	90°	
50	50	Z2915PP	35	1.120	31	25	94	90°	
50	60	Z2917PP	35	1.120	31	25	94	90°	

**Female rail with gasket / Queue femelle à joint / Compatible con Junta de goma*

HTSW





Gasket

Joint - Junta de goma

D

d1 (mm)	d2 (mm)	Reference			Note
40	20÷26	6820400	50	12.000	
40	26÷32	6820401	50	12.000	
50	20÷26	6820502	50	6.000	
50	26÷32	6820500	50	6.000	
50	40	6820501	50	6.000	
60	32	ZMG32PP	20	12.000	
60	40	ZMG41PP	20	500	
60	50	ZMG51PP	20	500	

1" = 26mm. 1"1/4 = 32 mm. 1"1/2= 40 mm.

** See PVC-Ucon Junta de goma*



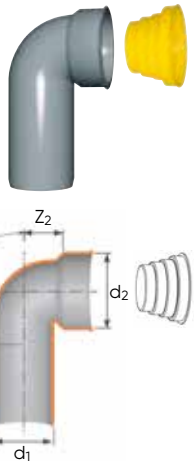
Technical Coupling M/F (with protection plug)

Manchon pour raccordements multi-matériaux M/F (avec tampon de protection)

Manguito técnico M/H (con tapa protectora)

d1 (mm)	d2 (mm)	Reference			L1 (mm)	L2 (mm)	Note
32	46	Z6810PP	20	1.040	79	50	
40	46	Z6811PP	25	1.600	93	63	

HTS



Technical bend M/F (with protection plug)

Coude M/F (avec tampon de protection)

Codo técnico M/H (con tapa protectora)

d1 (mm)	d2 (mm)	Ref.			Z1 (mm)	Z2 (mm)	L1 (mm)	α	Note
32	46	Z2911PP	50	3.200	16	24	70	90°	
40	46	Z2912PP	35	2.240	17	27	76	90°	
50	46	Z2913PP	30	1.920	21	31	80	90°	
Long version / *Version longue / Versión larga*									
40	46	Z2920PP	50	1.600	88	27	140	90°	

HTSW

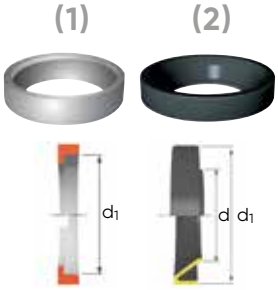


Gasket

Joint - Junta de goma

d1 Ext. (mm)	d2 Int.	d3	Reference			L1 (mm)	Note
46	1"- 1"1/4	20÷32	ZMG11PP	50	–	26	(1)
46	1" 1/2	40	ZMG12PP	50	–	26	(2)

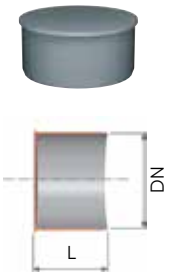
HTGM



Gasket

Joint - Junta

d1 (mm)	d WC	Reference			Note
116	-	ZAB11PP	20	1.280	(1) PP White *PP blanc*
116	94÷104	ZGW12PP	10	4.160	(2) Rubber *Caoutchouc*

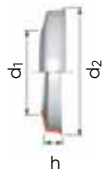


Socket plug

Bouchon de fermeture - Tapón

DN (mm)	Reference			L (mm)	Note
32	Z7132PP	20	7.680	39	
40	Z7140PP	10	7.680	39	
50	Z7150PP	20	5.120	39	
75	Z7175PP	20	2.560	39	
90	Z7190PP	30	1.920	-	
110	Z7111PP	20	1.280	46	
125	Z7112PP	20	960	50	
160	Z7116PP	10	320	58	



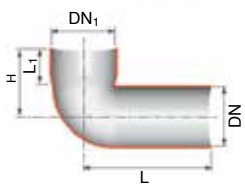


Rosette
Rosace - Plafón

d1 (mm)	d2 (mm)	Reference			h (mm)	Colour
90	-	0480903	20	1.620	-	White
100	137	0481003	20	1.620	30	White
110	162	0481103	50	1.200	35	White

** See PP Soil & waste push fit system*



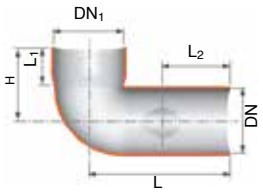


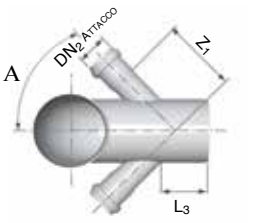
WC bend M/F
Coude WC M/F - Manguito inodoro acodado M/H

DN (mm)	DN1 (mm)	Reference			L (mm)	L1 (mm)	h (mm)	Colour
110	116	Z2290PP	10	160	215	40	85	White

HTSB





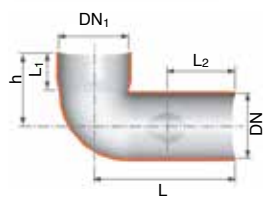


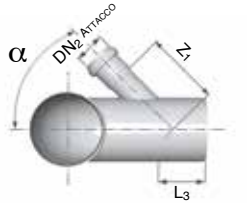
WC bend with 2 side-inlets M/F
Coude WC avec 2 entrése latérales M/F
Manguito inodoro acodado 2 tomas auxiliares M/H

Type	DN (mm)	DN1 (mm)	DN2 (mm)	Ref.			L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	h (mm)	Z1 (mm)	α	Colour
SX	110	116	40	Z2440PP	10	120	215	95	40	125	85	110	45°	White
SX	110	116	50	Z2450PP	10	120	215	95	40	125	85	110	45°	White
DX	110	116	40	Z2404PP	10	120	215	95	40	125	85	110	45°	White
DX	110	116	50	Z2405PP	10	80	215	95	40	125	85	110	45°	White

HTSB





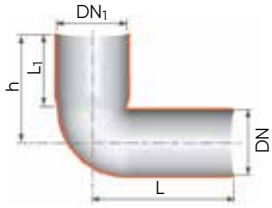


WC bend with 1 side-inlets left/right M/F
Coude WC avec 1 entrées latérales gauche/droite M/F
Manguito inodoro acodado 1 toma auxiliar derecha/izquierda M/H

DN (mm)	DN1 (mm)	DN2 (mm)	Ref.			L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	h (mm)	Z1 (mm)	α	Colour
110	116	40	Z2444PP	10	80	215	100	45	130	85	110	45°	White
110	116	50	Z2455PP	10	80	215	100	45	130	85	110	45°	White

HTSB





Long WC bend M/F

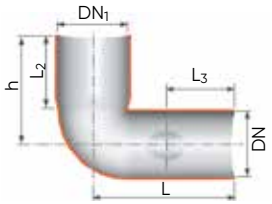
Coude WC haut M/F - Manguito inodoro acodado largo M/H

DN (mm)	DN1 (mm)	Ref.			L (mm)	L1 (mm)	h (mm)	Colour
110	116	Z2511PP	15	15	215	140	185	White

HTSB







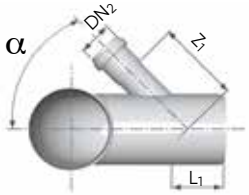
Long WC bend with 1 side inlet left/right M/F

Coude WC haut avec 1 entrée latérale gauche/droite M/F

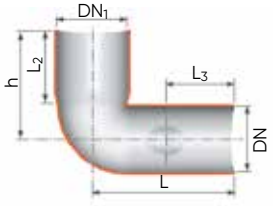
Manguito inodoro acodado largo 1 toma auxiliar derecha/izquierda M/H

Mod	DN (mm)	DN1 (mm)	DN2 (mm)	Ref.			L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	h (mm)	Z1 (mm)	α	Colour
SX	110	116	40	Z2540PP	20	160	-	100	140	130	185	110	45°	White
SX	110	116	50	Z2550PP	20	160	-	100	140	130	185	110	45°	White
DX	110	116	40	Z2504PP	10	80	215	100	140	125	185	110	45°	White
DX	110	116	50	Z2505PP	10	80	215	100	140	125	185	110	45°	White

HTSB







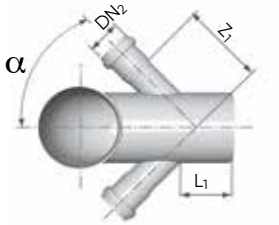
Long WC bend with 2 side-inlets M/F

Coude WC haut avec 2 entrées latérales M/F

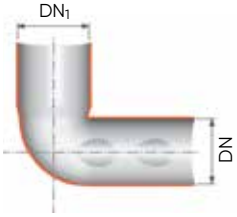
Manguito inodoro acodado largo 2 tomas auxiliares M/H

DN (mm)	DN1 (mm)	DN2 (mm)	Ref.			L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	h (mm)	Z1 (mm)	α	Colour
110	116	40	Z2544PP	10	80	215	100	140	125	185	120	45°	White
110	116	50	Z2555PP	20	80	215	100	140	125	185	120	45°	White

HTSB







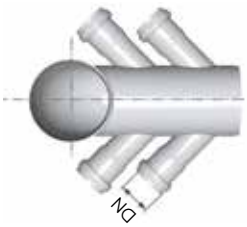
Long WC bend with 4 side-inlets M/F

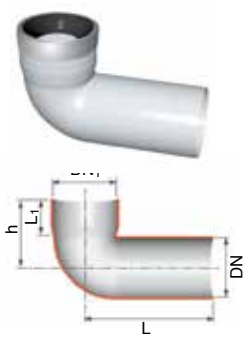
Coude WC haut avec 4 entrées latérales M/F

Manguito inodoro acodado largo 4 tomas auxiliares M/H

DN (mm)	DN1 (mm)	DN2 (mm)	Ref.			Colour
110	116	40	Z2566PP	10	80	White

HTSB



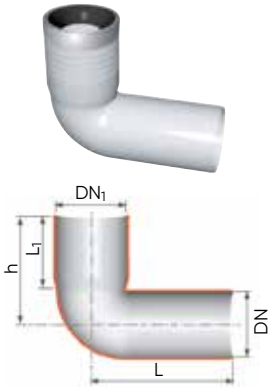


WC bend Ø90 M/F

WC long Ø90 M/F - Manguito inodoro Ø90 M/H

DN (mm)	DN1 (mm)	Reference			h (mm)	Colour
90	116	Z2090PP	10	160	85	White

HTSB



Long WC bend Ø90 M/F

Coude WC haut Ø90 M/F
Manguito inodoro acodado largo Ø90 M/H

DN (mm)	DN1 (mm)	Reference			h (mm)	Colour
90	116	Z2190PP	15	120	185	White

HTSB

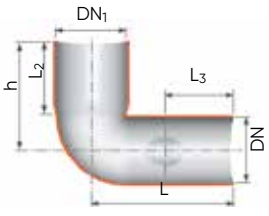


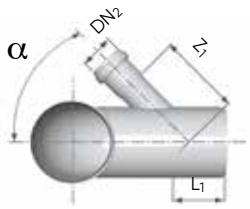
Long WC bend Ø90 with 1 side-inlet left/right M/F

Coude WC haut Ø90 avec 1 entrée latérale gauche/droite M/F
Manguito inodoro acodado largo Ø90, 1 toma auxiliar derecha / izquierda M/H

Type	DN (mm)	DN1 (mm)	DN2 (mm)	Reference			α	h (mm)	Colour
SX	90	116	40	Z2140PP	20	160	45°	185	White
SX	90	116	50	Z2150PP	20	160	45°	185	White
DX	90	116	40	Z2104PP	10	80	45°	185	White
DX	90	116	50	Z2105PP	10	80	45°	185	White

HTSB



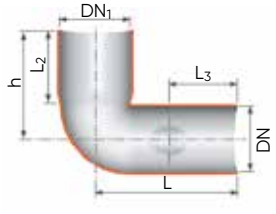


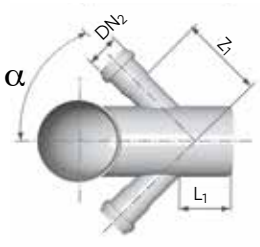
Long WC bend Ø90 with 2 side-inlets M/F

Coude WC haut Ø90 avec 2 entrées latérales M/F
Manguito inodoro acodado largo Ø90, 2 tomas auxiliares M/H

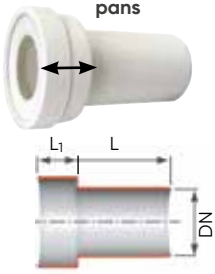
DN (mm)	DN1 (mm)	DN2 (mm)	Reference			α	h (mm)	Colour
90	116	40	Z2144PP	10	80	45°	185	White
90	116	50	Z2155PP	10	80	45°	185	White







Ideal for suspended pans

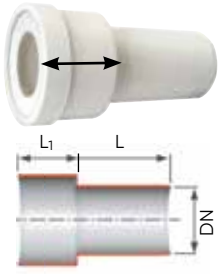


WC connector Ø90 with gasket, short socket

Manchon WC Ø90 avec joint, emboiture courte

Manguito inodoro Ø90 corto, con junta

DN (mm)	Reference			L (mm)	L1 (mm)	Colour
90	16009B3	12	288	190	40	White

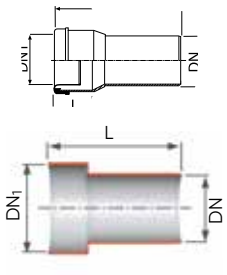


WC connector Ø90 with gasket, long socket

Manchon WC Ø90 avec joint - emboiture longue

Manguito inodoro Ø90 corto, con junta

DN (mm)	Reference			L (mm)	L1 (mm)	Colour
90	16009LB	30	240	240	80	White

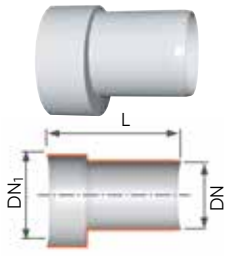


WC connector with gasket

Manchon WC avec joint - Manguito inodoro acordato con junta

DN (mm)	DN1 (mm)	Reference			L (mm)	Colour	Note
110	116	X121503	25	160	230	White colour	
110	116	Z2711PP	15	120	390	White colour	Long

HTSK



Eccentric WC connector with gasket included

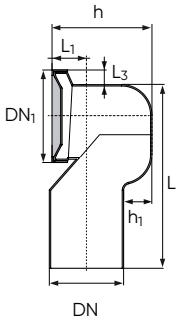
Manchon WC avec joint - sortie droite excentrée

Manguito inodoro excéntrico acordato con junta

DN (mm)	DN1 (mm)	Reference			L (mm)	Colour
110	116	X121504	10	240	160	White

HTSK



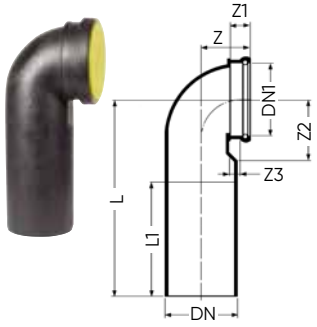


Horizontal WC Bend with gasket

Pipe WC avec joint

Manguito inodoro acodado horizontal con junta

DN (mm)	Reference			L (mm)	L1 (mm)	L2 (mm)	h (mm)	h1 (mm)	Colour
90	Z2525PP	12	144	278	48	22	148	40	White
110	Z2523PP	12	144	272	51	22	148	42	White



Vertical WC Bend (PE)

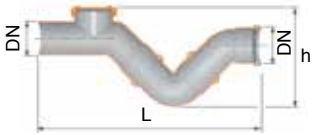
Coude WC vertical (PE)

Manguito acodado para conexión de inodoro al suelo (PE)

DN (mm)	DN1 (mm)	Ref.			L (mm)	L1 (mm)	Z (mm)	Z1 (mm)	Z2 (mm)	Z3 (mm)	Colour
90	90	K2530PE	10	160	225	120	76	34	83	17	Black
110	90	K2531PE	10	160	225	120	76	34	95	17	Black

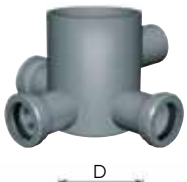
Adjustable trap interceptors
Siphon réglable - Sifón ajustable

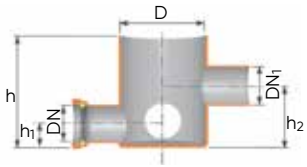




DN (mm)	Reference			h (mm)	l (mm)	Note
50	Z7850PP	10	320	144	356	
75	Z7875PP	10	120	220	480	
90	Z7890PP	10	80	-	-	
110	Z7811PP	10	80	230	521	
125	Z7812PP	5	40	250	610	
160	Z7816PP	1	-	-	-	

Low trapped floor gulley
Siphonnette basse - Bote sifónico, bajo



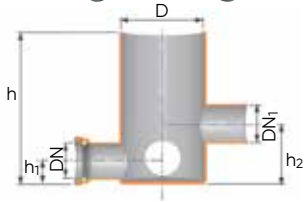


D (mm)	DN 3 inlets	DN1 1 outlet	Reference			L (mm)	h1 (mm)	h2 (mm)	Note
100	40	40	Z9411PP	10	160	120	30	80	
100	40	50	Z9711PP	10	160	120	30	80	

HTSB

High trapped floor gulley
Siphonnette haute - Bote sifónico, alto





D (mm)	DN 3 inlets	DN1 1 outlet	Reference			L (mm)	h1 (mm)	h2 (mm)	Note
100	40	40	Z9511PP	20	160	200	30	80	
100	40	50	Z9811PP	20	160	200	30	80	

HTSB

Inox grid with trap
Grille inox avec siphon - Rejilla con sifón en acero inox





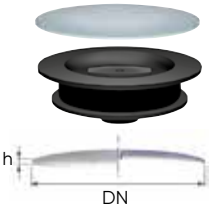
DN (mm)	DN1 (mm)	Reference			h (mm)	Note
100	128	Z7470PP	20	800	96	

Protection cap for floor gully
Bouchon de protection pour collecteur
Tapón de protección bote sifónico



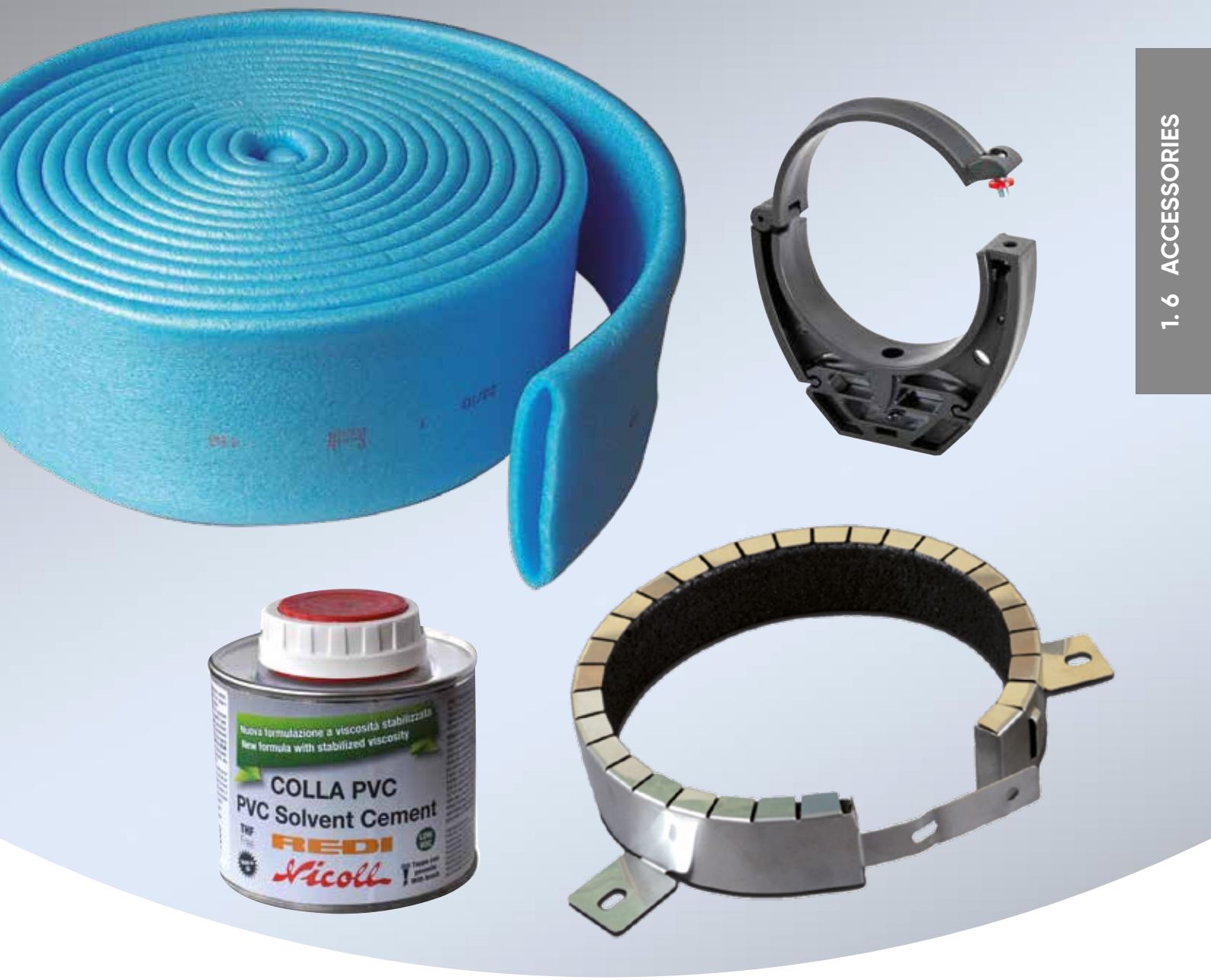
DN (mm)	Reference			Note
100	T651000	50	2.000	

** See Accessories and special solutions*



Plug for floor gully with stainless steel plate
Bouchon pour collecteur avec tournette en acier inox
Tapa en acero inoxidable para bote sifónico

DN (mm)	Reference			h (mm)	Note
100	Z7450PP	20	1.040	3	



Accessories and special solutions

aliaxis

Sanitary Non-return valve



Non-return valve Ø50 PP (Type 1)
Clapet anti-retour Ø50 en PP (Type 1)
Válvula anti-retorno Ø50 PP (Tipo 1)

DN (mm)	Reference			Material	Colour	Note
50	ZVA51PP	1	18	PP	Grey RAL 7037	Push-fit system
50	ZVA51BN	1	18	PP	White	Push-fit system

Certifications: EN13564-1, EN1451, EN12056
Marking: CE





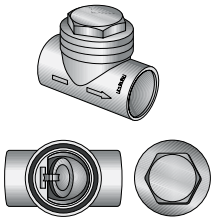
Supplied with packaging



Non-return valve Ø50 PP (Type O)
Clapet anti-retour Ø50 en PP (Type 1)
Válvula anti-retorno Ø50 PP (Tipo O)

DN (mm)	Reference			Material	Colour	Note
50	ZVA50PP	5	30	PP	Grey RAL 7037	Push-fit system





PVC Non-return valve, solvent welding version
Clapet anti-retour en PVC à coller
Válvula anti-retorno PVC, encolar

DN (mm)	Reference			Colour
32	W550302	1	–	Dark Grey
40	W550402	1	–	Dark Grey
50	W550502	1	–	Dark Grey
63	W550602	1	–	Dark Grey

Ideal for connection to sanitary macerators
Idéal pour sanibroyeurs



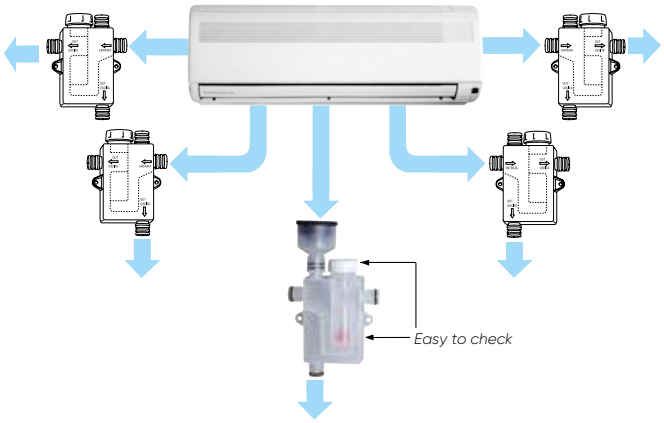


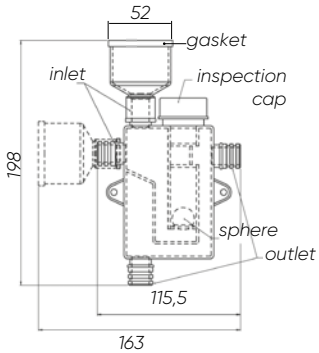
PVC Non-return valve 45°, solvent welding version F/F
Clapet anti-retour 45° en PVC à coller F/F
Válvula anti-retorno 45° PVC, encolar H/H

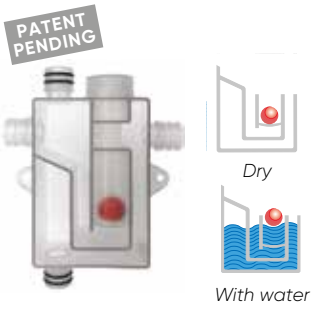
DN (mm)	Reference			Material
32	W600302	1	–	PVC
40	W600402	1	–	PVC
50	W600502	1	–	

Dry condensate trap for AC units or heating pumps

Function: traps were conceived to eliminate bad smells produced in the condensate discharge hose, one of the major problems tied with recessed housings for air-conditioning units. Many traps are fitted and embedded into the wall without any possibility for the user to inspect them at a later stage.
Easy register: the cover guarantees an easy access to remove any likely obstruction (i.e. bugs or algae)
Fast inspection: thanks to its manufacturing process on a transparent material, an immediate vision of the good installation operation can be achieved inspection rapide.







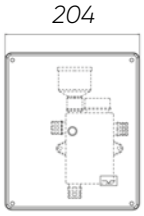


Dry condensate trap (for AC units or heating pumps)
Siphon à condensats
Sifón seco registrable para aire acondicionado

DN (mm)	Ref.			Note
20-26-30	199CLPP	1	–	Kit: Gaskets - Adaptor - Sealing rings Inspection cap - Hole saw

A unique product allows multiple solutions to installation layouts
Un seul produit permet de multiples solutions d'installation

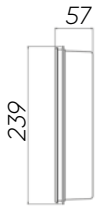




Inspection syphon with box
Siphon à condensats avec boitier de coffrage
Sifón de condensación con caja empotrable para registro

DN (mm)	Ref.			Note
20-26-30	LSSIF00	1	–	Technical gasket and inlet - Dual-purpose outlet - Watertight gasket - Piercing tool - Inspection cap

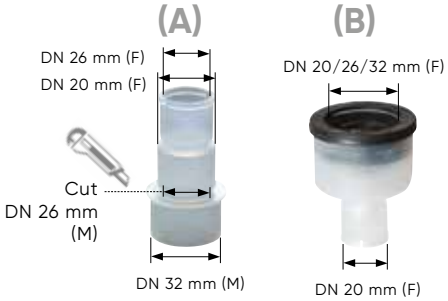




Gasket Piercing tool

Inspection box
Boitier de coffrage
Caja empotrable, con tapa y tornillos

DN (mm)	Ref.			Note
204x239x57	LSCAT00	1	–	With lid and screws / *Avec couvercle et*



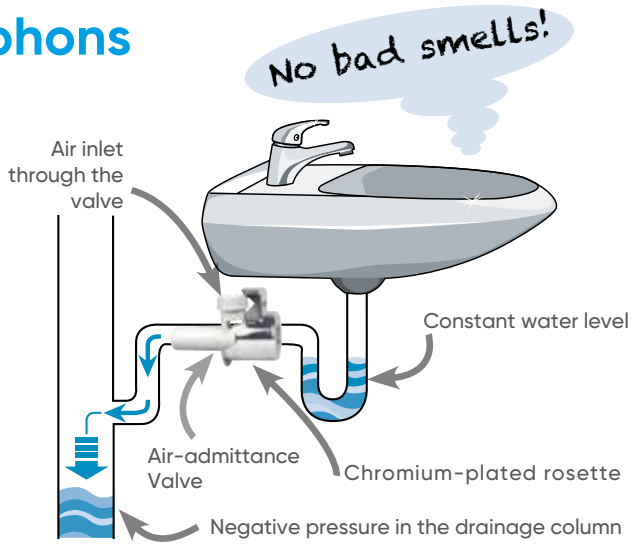
Connectors
Connecteurs
(A) Salida polivalente (B) Manguito de entrada con junta

DN (mm)	Ref.			Note
26-32	Z0260PP	1	–	(A) Dual purpose outlet
52	Z0250PP	1	–	(B) Technical gasket and inlets

Air-admittance valve for syphons

Air-Admittance Valves (AAV) are suitable for most residential applications. They can be especially beneficial in retrofit applications where venting may be difficult. They are good for large new homes where long vent runs can be eliminated, and for kitchen island sinks.

How does an AAV work? A one-way valve that allows air into a plumbing system when there is water flow to allow drainage. Because the valve closes from internal air pressure, it seals under no-flow conditions.
The valve will not open if there is positive internal pressure in the drainage system.



Installation guide lines



1. Remove the trap



2. Install the AAV with technical gasket



3. Connection with chromed pipe



4. Create the correct space to connect the trap







5. Fix the chromed cover



6. Connect the trap



Air-admittance valve
Aérateur à membrane - Válvula de aireación

DN (mm)	DN1 (mm)	Ref.			Note
32	26/32	Z5803PP	1	640	For adaptors 1"÷1" ¼ / *Pour adaptateurs 1"÷1" ¼* Made of PP / *Corp en PP* No metal parts / *Pas d'éléments métalliques*



Chromium-plated rosette
Rosette chromée - Plafon cromado

DN (mm)	Ref.			Note
26 (32 e 40 preformed)	Z4803CR	1	400	Ideal for chromium-plated syphons *Idéal pour siphons chromés*



Air-admittance valve Ø40 (for sink and bathtub)
Soupape anti-vide (pour évier et baignoire)
Válvula de aireación intercalable

DN (mm)	DN1 (mm)	Ref.			Note
40	40	Z5804PP	1	800	For adaptors 1" ½ / *Pour adaptateurs 1" ½*

Special connections



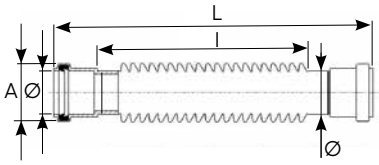


"COUDIX" universal flexible sleeve (PVC)

Manchette flexible universelle (PVC)

Manguito flexible universal (PVC)

DN (mm)	Reference			l (mm)	L (mm)	A (mm)	Colour
32	COU3252	10	800	184	257	42	Ral 7037
40	COU4052	10	560	212	294	53	Ral 7037
50	COU5052	5	140	215	310	63,5	Ral 7037



- Single piece, all **PVC made**
- Colour grey RAL 7037
- Resistant to hot temperature of household appliances and to clearing liquids
- It connects the siphon of the sanitary to the waste
- Flexibility, it can be bent beyond 180°
- By cutting off one or both the sockets with a cutter it can be used as M/F or M/M push-fit sleeve or solvent weld (use PVC glue)
- Shrinkable, suitable for maintenance and expansion joint
- Patented



Flexible connector with waste outlet

Manchette flexible avec bonde - Válvula Ø70 con tubo flexible

DN (mm)	Reference			L (mm)	Note
1" 1/4 - 70/32	FPF3203	1	400	370 ÷ 765	Rubber cap
1" 1/2 - 70/40	FPF4003	1	400	370 ÷ 920	Rubber cap

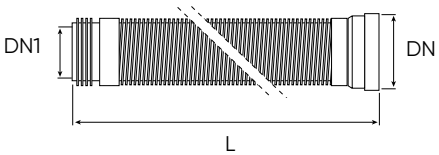


WC flexible extensible adaptor

Adaptateur de WC souple

Manguito inodoro extensible para conexiones de difícil acceso

DN (mm)	DN1 (mm)	Reference			L (mm)	Note
110	90 ÷ 114	FAF1103	9	216	100 ÷ 160	





Tank outlet

Sortie réservoir - Conexión salida tanque cisterna

DN (mm)	DN1 (mm)	Reference			Note
40	1-1/2	BBS4003	10	810	



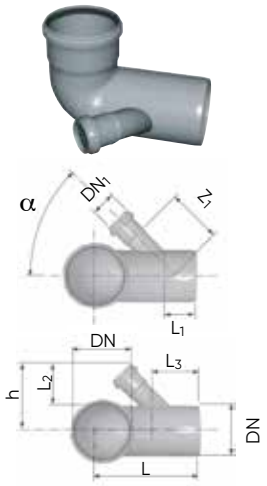
Cast iron pipe adaptors (without sealing-rings)
Adaptateur pour tubes en fonte (sans joint)
Enlance mixto hierro fundido (sin junta)

DN (mm)	DN1 Cast iron	Ref.			L (mm)	L1 (mm)	Material
50	72	Z6861PP	20	1.280	140	70	PP
75	92	Z6862PP	20	1.280	142	71	PP
110	124	Z6863PP	15	480	158	83	PP

Double gasket (A+B) - Joint double (A+B) - Junta doble (A+B)

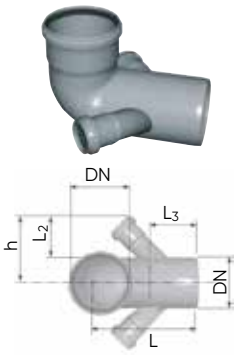
50	-	ZSG50PA	10	-			
75	-	ZSG75PA	1	2.430			
110	-	ZSG11PA	1	-			

HTUG



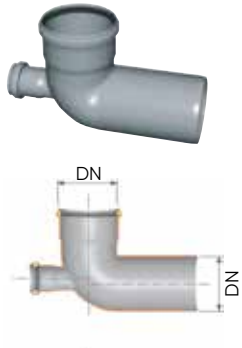
WC bend 87°30′ 1 inlet left/right
Coude WC 87°30′ 1 entrée gauche/droite
Manguito inodoro acodado 87°30′, 1 toma auxiliar derecha/izquierda

Mod	DN1 (mm)	DN2 (mm)	Ref.			L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	h (mm)	Z1 (mm)	α	Note
DX	110	40	Z2304PP	20	160	161	66	68	87	138	88	45°	
DX	110	50	Z2305PP	20	160	161	61	68	90	132	90	45°	
SX	110	40	Z2340PP	20	160	161	66	68	87	132	88	45°	
SX	110	50	Z2350PP	20	160	161	61	68	90	132	90	45°	



WC bend with 87°30′ 2 side-inlets
Coude WC 87°30′ avec 2 entrées latérales
Manguito inodoro acodado 87°30′, 2 tomas auxiliares

Mod	DN1 (mm)	DN2 (mm)	Ref.			L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	h (mm)	Z1 (mm)	α	Note
SX-DX	110	40	Z2344PP	20	160	161	66	68	87	132	88	45°	
SX-DX	110	50	Z2355PP	20	160	161	61	68	90	132	90	45°	

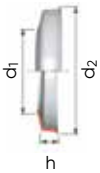


WC bend with frontal inlet
Coude WC 87°30′ avec 1 entrée frontale
Manguito inodoro acodado 87°30′, 1 toma frontal

DN (mm)	DN2 (mm)	Ref.			Note
110	40	Z2314PP	20	160	
110	50	Z2315PP	20	160	



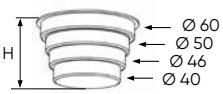


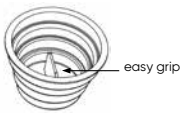


Rosette
Rosace - Plafón

d1 (mm)	d2 (mm)	Reference			h (mm)	Colour
90	-	0480903	20	1.620	-	Withe
100	137	0481003	20	1.620	30	White
110	162	0481103	50	1.200	35	White







Multi-size technical plug
Bouchon technique multiple - Tapa protectora

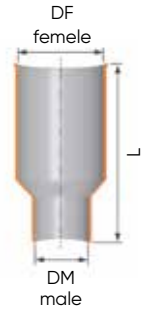
DN (mm)	Reference			H (mm)	Colour	Material
40-46-50-60	0TAMUPP	1	1.200	37,5	Yellow	PP



Protection plug for floor drain
Bouchon de protection pour collecteur
Tapón de protección bote sifónico

DN (mm)	Reference			Note
100	T651000	50	2.000	

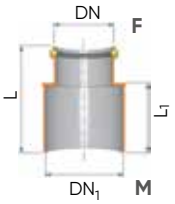




Special connectors
Connecteurs spéciaux - Manguitos especiales

Mod	DF (mm)	DM (mm)	Reference			Note
B	100	90	1790902	1	840	
A	125	100	1791102	6	-	
A	125	110	1792202	1	100	
A	140	100	1794402	6	-	
A	140	110	1795502	8	-	
A	160	100	1796602	6	-	
A	160	110	1797702	6	60	
A	160	125	1798802	6	60	





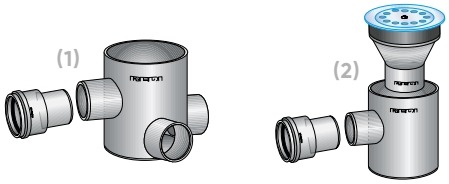
PVC-PP Adaptors / Invert reducer
Adaptateur PVC -PP / Réduction excentrée
Enlance mixto PVC-PP / Ampliación excéntrica

Type	DN F (mm)	DN1 M (mm)	Ref.			L (mm)	L1 (mm)	Material
A	40	40	063558M	10	2.600	73	52	PVC
A	50	50	063568M	40	2.080	83	52	PVC
A	125	125	D501212	25	200	-	-	PVC
B	63	75	053075M	40	960	-	-	PVC
B	75	80	Z6868PP	20	940	190	78,5	PP
B	75	100	0503312	50	400	-	-	PVC
B	90	100	0531012	20	480	-	-	PVC
B	90	110	0531152	20	480	132	80	PVC
B	100	110	Z5331PP	15	480	123	66	PP
B	100	110	0533152	18	432	-	-	PVC
B	110	125	0513252	35	280	190	91	PVC

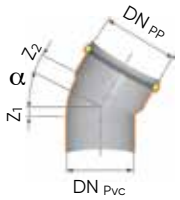
APPLICATION EXAMPLES

(1) 063558M + 0971042

(2) 063558M + 1961002

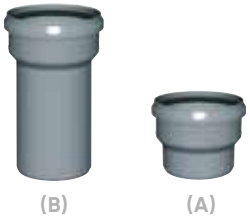






PP-PVC reducing bends
Coude de réduction PP-PVC - Codo reducción PP-PVC

α	DN PP (mm)	DN PVC (mm)	Ref.			Z (mm)	Z1 (mm)	Material
15°	110	100	01011R2	15	360	15	15	PVC
30°	110	100	0041052	15	360	15	26	PVC
45°	110	100	0041552	15	360	32	32	PVC
67°	110	100	01311R2	10	240	34	47	PVC
87°	110	100	07111R2	10	240	51	66	PVC





PP-PVC reducing adaptors
Adaptateur de réduction PP-PVC - Enlance reducción PP-PVC

Mod	DF (mm)	DM (mm)	Ref.			Z (mm)	Z1 (mm)	L (mm)	L1 (mm)	Mat.	Note
A	75	63	0930712	15	780	-	-	-	-	PVC	O-Ring
A	80	75	0930812	20	1.040	-	-	-	-	PVC	O-Ring
A	110	90	0520952	20	480	67	10	148	90	PVC	O-Ring
A	110	100	0521152	18	432	67	10	148	90	PVC	O-Ring
A	125	100	0931212	15	360	77	18	172	102	PVC	O-Ring
A	125	110	D931112	45	360	-	-	-	-	PVC	O-Ring
B	110	100	Z6922PP	20	320	-	-	-	-	PVC	O-Ring Long



PE straight connector (with brass nut)
Connecteur en PE (avec écrou en laiton)
Enlace recto PE (con tuerca de latón)

DN (mm)	Reference			Material
40 - 1"1/4	ZP114PP	20	1.280	PE
40 - 1"1/2	ZP112PP	20	1.280	PE



PE long tail bend 87°30' (with brass nut)
Coude 87°30' longue (avec écrou en laiton)
Codo 87°30' PE (con tuerca de latón)

DN (mm)	Reference			Material
40 - 1"1/4	ZP214PP	20	1.280	PE
40 - 1"1/2	ZP212PP	20	1.280	PE



Lead / PVC-PP-PE connectors (tightening version)
Connecteur plomb / PVC-PP-PE (version à compression)
Enlance mixto plomo / PVC-PP-PE (cierre a presión)

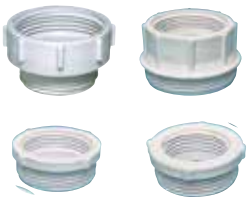
DN lead (mm)	DN PVC-PP-PE	Ref.			Colour	Material
32	32	M6103FG	20	2.560	Grey	PP
35	40	M6104FG	10	2.560	White	PP

With nut and gasket *Avec écrou et joint*



Lead / PVC-PP (for tin welding)
Connecteur plomb / PVC-PP (à souder à l'étain)
Enlance mixto plomo / PVC-PP (para soldadura de estaño)

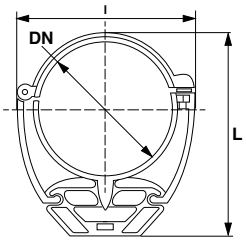
DN (mm)	Reference			Note
32	C170300	10	8.100	
40	C170400	10	2.400	
50	C180500	10	3.240	



Adapting nut
Écrou d'adaptation - Tuerca

Ø F x M	Reference			Note
1" x 1"1/4	M6703FG	50	10.400	Increase / *Augmentation*
1"1/4 x 1"1/2	M6704FG	50	8.100	Increase / *Augmentation*
1"1/2 x 2"	M6705FG	10	4.050	Increase / *Augmentation*
1"1/2 x 1"1/4	M6733FG	25	8.100	Reducer / *Réduction*





PHONOKLIP, noise-insulating support
Collier coulissant isophonique
Abrazadera acústica

DN (mm)	Ref.			Filetto Ø	L (mm)	I (mm)	Note
50	PHONK50	10	-	M8	76	78	
75	PHONK75	10	-	M8	112	111	
90	PHONK90	10	-	M8	144	131	
100	PHONK10	10	-	M7	160	140	screws M7
110	PHONK11	10	-	M8	171	150	
125	PHONK12	2	-	M10	213	170	
160	PHONK16	2	-	M10	245	213	



Standard noise-insulating support
Collier coulissant isophonique - Abrazadera fonoabsorbente

DN (mm)	Ref.			Note
50	AV00500	2	1.800	Fixing screw included / *Vis de fixation incluse*
75	AV00700	2	720	Fixing screw included / *Vis de fixation incluse*
90	AV00900	2	720	Fixing screw included / *Vis de fixation incluse*
100	AV01000	2	720	Fixing screw included / *Vis de fixation incluse*
110	AV01100	2	720	Fixing screw included / *Vis de fixation incluse*
125	AV01200	2	720	Fixing screw included / *Vis de fixation incluse*
160	AV01600	10	360	Fixing screw included / *Vis de fixation incluse*



Lip ring
Joint à lèvre - Junta

DN (mm)	Ref.			h (mm)	Note
32	7803000	1	-	6	
40	6830400	1	-	7,8	
50	6830500	1	-	7,8	
63	6800600	1	1.500	-	
75	6830700	1	-	7,8	
90	6800900	1	8.736	-	
100	6831000	1	6.480	-	
110	6831100	1	5.220	9,9	
125	6831200	1	3.600	10,2	
160	6831600	1	1.904	11,5	







Brackets
Colliers de fixation pour tubes - Abrazadera de tubo

DN (mm)	Ref.			Ø fixing screw	Ø anchor dim.	Note
40	ZCA40PP	50	1.800	Ø10 x 100	Ø14 x 80	Fixing screw included / *Vis de fixation incluse*
50	ZCA50PP	50	1.800	Ø10 x 100	Ø14 x 80	Fixing screw included / *Vis de fixation incluse*
75	ZCA75PP	50	1.800	Ø10 x 120	Ø14 x 80	Fixing screw included / *Vis de fixation incluse*
90	ZCA90PP	50	1.800	-	-	Fixing screw included / *Vis de fixation incluse*
110	ZCA11PP	2	1.440	Ø10 x 120	Ø14 x 80	Fixing screw included / *Vis de fixation incluse*
125	ZCA12PP	30	1.080	Ø10 x 120	Ø14 x 80	Fixing screw included / *Vis de fixation incluse*
160	ZCA16PP	30	1.080	Ø10 x 140	Ø14 x 80	Fixing screw included / *Vis de fixation incluse*



Fire collars (EN 1366-3 and ETAG 026-2)

Colliers coupe-feu - Manguito de protección contra incendios

DN (mm)	Reference			S (mm)	Note
40	K0096PE	1	960	30	also suitable for Ø32
50	K0088PE	1	960	30	
63	K0097PE	1	960	30	
75	K0089PE	1	960	30	
90	K0090PE	1	960	30	
110	K0091PE	1	960	30	also suitable for Ø100
125	K0092PE	1	960	30	
160	K0095PE	1	940	30	



Pipe insulation

Gaine d'isolation phonique - Funda de aislamiento acústico

DN (mm)	DN Pipe (mm)	S Thick.	Reference			Note
80	75 - 80 - 90	5	CD08500	6	-	15 meter-roll
110	100 - 110	5	CD11500	5	-	15 meter-roll
110	100 - 110	10	CD11100	5	-	15 meter-roll



Solvent cement THF free

Colle sans THF - Adhesivo sin THF

Pack. type	Content (ml)	Ref.			Note
Tube	125	COLLA12	30		
Jar	250	COLLA25	36		With brush / *Avec pinceau*
Jar	500	COLLA50	24		With brush / *Avec pinceau*
Jar	1.000	COLLA00	12		With brush / *Avec pinceau*



Lubricant

Lubrifiant - Lubricante

Type	Weight (grs)	Reference			Note
Tube	150	6741500	50	1.200	
Tube	250	6742500	50	1.000	
Jar	500	6745000	12	840	
Jar	1.000	6746000	12	432	



Cleaner

Détergent - Limpiador

Type	Weight	Reference			Note
Tin	1 litre	6721100	8	384	



Chamfering tool for plastic pipes
Chanfreineur à rouleau
Achaflanadora exterior para tubos de material plástico

Ø (mm)	Ref.			Note
25÷10	A080506	1	20	For 15° chamfering of PVC-PP-PE and soundproof pipes *Pour chanfreinage à 15° de tubes PVC-PP-PE et acoustiques* Adjustable for DN 25÷160 / *Réglable pour DN 25÷160* Adjustable for thickness up to 10 mm *Réglable pour épaisseurs jusqu'à 10 mm*



Chamfering pipe cutter, tool box
Valise coupe-tubes chanfreineur - Maletín de corte y abocardado

Ø (mm)	Ref.			Note
50-75-110	TT00100	1	20	For cutting and 15° chamfering of PVC-PP-PE end soundproof pipes / *Pour coupage et chanfreinage à 15° de tubes PVC-PP-PE et acoustiques.*
110-125-160	TT00200	1	-	



Adaptors for pipe cutters
Adaptateurs pour coupe-tubes
Adaptadores para cortadora de tubo de tubo

Ø (mm)	Ref.			Note
40	TAD0400	1	-	for pipe cutter Reference TT00100
90	TAD0900	1	-	for pipe cutter Reference TT00100
100	TAD1000	1	-	for pipe cutter Reference TT00100



Multi-blade chamferer
Chanfreineur multi-lame - Escariador

Ø (mm)	Ref.			Note
20÷50	A070506	10	810	Tempered stainless steel blades / *Lames en acier inox trempé* SDN: da Ø20÷Ø50 / *Diamètres: Ø20÷Ø50* Both inside and outside chanfering *Chamfreinage interne et externe*



Conic chamferer
Chanfreineur conique - Escariador cónico

Ø (mm)	Ref.			Note
32÷50	ZCS50PP	1	-	



Pipe cutting nippers
Pince coupe-tubes - Alicate corta tubos

Ø (mm)	Ref.			Note
32	QA150RH	1	32	



Pipe cutting shears
Cisailles coupe-tubes - Tijeras corta tubos

Ø (mm)	Ref.			Note
40 ÷ 63	QA160RH	1	32	



Ventilation
AAV (Air-Admittance Valve)

REDI

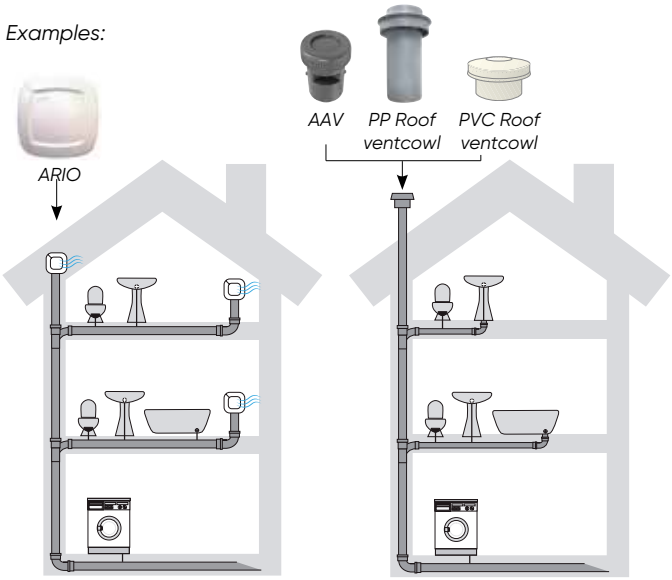
aliaxis

Ventilation system

Products for ventilation of the waste system:
- ARIO
- AAV (Air-Admittance Valve)
- Exhaling vent cowl
- Air-admittance valve for siphon bathroom/kitchen
Purposes:
- Eliminate bad smells and avoid syphons emptying
- Reduce discharge noise
- Improve drainage capacity (flow rate)
- Speed up discharge process

Norms:
EN 12056 Air-admittance valve systems
EN 12380 Air-admittance valves

Examples:

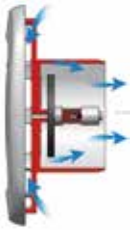


Ario what it is and what it is used for

ARIO is an AAV, which has specific features and a revolutionary operating principle.
Thanks to a pre-loaded spring, which conveys the right pressure to the gasket seal, ARIO is able to operate regardless of its installation position. This feature makes it a unique product because it can be installed both inside and outside building.



Operating position "CLOSED": it prevents bad smells emission.



Operating position "OPEN": upon drainage, depressurization intakes air, which in turn opens the cover.

ARIO is particulary suitable for installation on concealed sanitation facilities, thanks to its design which makes it suitable to be applied in bathrooms, attics, stairwells.

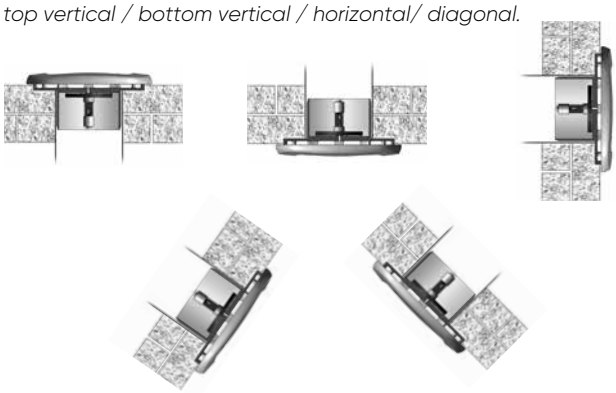




The system designer has a broader flexibility of positioning and increase installation safety, thereby avoiding unexpected errors linked to pipe layout (leveling in required for other products.



Possible installation positions:
top vertical / bottom vertical / horizontal/ diagonal.



Sewage ventilation, why ad how

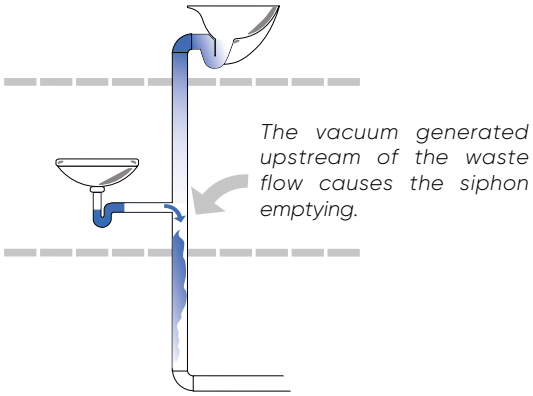
In order to impede the expulsion of pungent odor gasses from the discharge system, the use of cut-off devices known as siphons (or traps) are integrated.
The hydraulic seal generate-prevents gas from escaping. There are many ways of designing a discharge system. In particular, the European standard EN 12056 describes the manner of sizing the discharge system and its relative ventilation. This standard has been implemented in Europe's main countries.
Conditions of pressurization and of depressurization come into being due to the water flow as the discharge system is operating. These pressure variations can cause problems to the traps: compression may result in trap "by-free" by the stagnant gasses, while depressurization may cause the siphon to empty (siphoning) with loss of the gas seal.
Therefore, it is extremely important to compensate these effects by designing the drainage system for top efficiency, always taking ventilation into consideration. This allows drastic reduction of the pressure gradients that are generated as the system operates.
System design must account both for both fluid and air flow, thus allowing these to circulate freely without acting on the siphon in undesired ways.
Air intake into the discharge system can be performed by the implementation of specific devices known as ventilation chimney or ventilation valves.
The use of ventilation valves allows air to enter, decreasing depressurization during discharge and that cause siphons to empty, while blocking pungent fumes from escaping.

Good design of a ventilation system allows:
- increase of discharge capacity
- reduction of noise generated during discharge
- thorough emptying of the system.

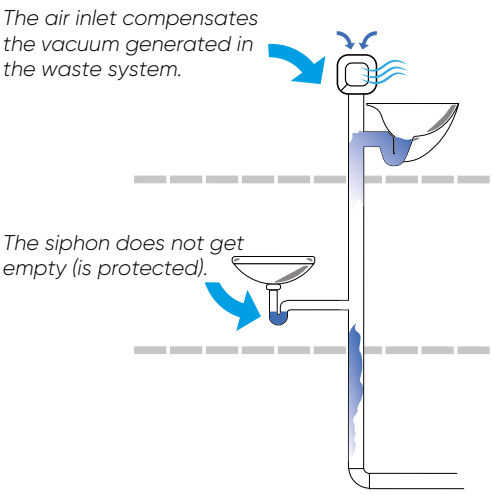
Siphoning

Siphoning is the first cause that involves emptying the traps within a building, from this point of view an effect of subordinate importance may be evaporation, that may lead to seal failure due to long periods of siphon inactivity.
The ventilation valve is a device designed to allow air intake when depressurization is generated within the system, thereby avoiding air intake by the siphons with consequential discharge.
The ARIO ventilation valve is designed to allow air intake that is suitable to the depressurization generated within the system due to the discharge flow, thus able to fully protect the siphons. As a result, this valve helps avoid the "siphoning" effect.

Without ventilation



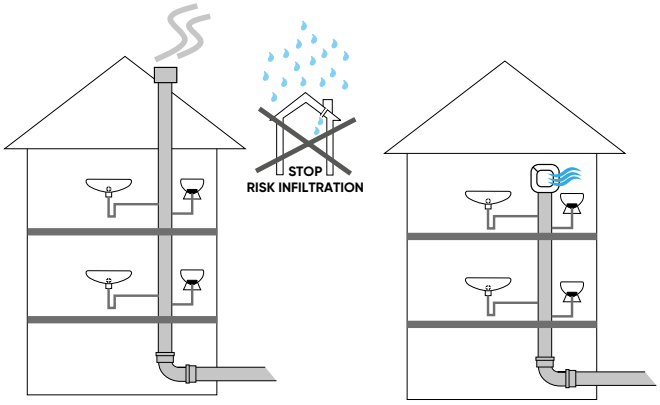
With ARIO



When installing a ventilation valve upstream of the horizontal section, the depressurization generated by discharge is compensated by air intake, thus protecting the sink siphon from the siphoning effect. Simultaneously, the valve remains closed to avoid release of foul odours after drainage. There are many applications for the device that must be considered during system design; however, the valve can be added to pre-existent systems. ARIO is designed to allow installation on both the secondary branches and on the main column.

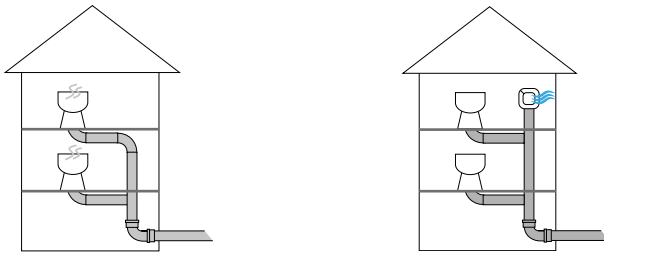
Advantage of technology

One of the most important features is that ARIO, thanks to its seal tightness, allows inside installation. An example of application may be the case in which you want to avoid freeing the ventilation column through the roof outside the roof to benefit from technical and aesthetic advantages. This does not make it necessary to enter through building tops with the consequent risk of seepage. In addition, no more external chimmneys are needed, which results in aesthetic advantage.



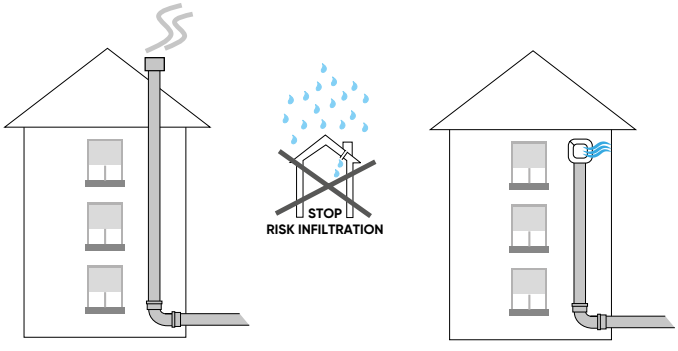
With ventilation chimney. *With ARIO ventilation valve.*

Example of the advantages offered by this technology is the realization of ventilation for pre-existent systems. This can be achieved easily because using an ARIO valve means that no extension of the column, or of the branch at issue, is required. With the ARIO vent valve the installation can be performed inside the building in proximity of the manifold at issue. No floor free-through is necessary to reach the rooftop; and its design makes it perfect for bathroom installation.



Pre-existant system with no ventilation. *Ventilation is installed with ARIO.*

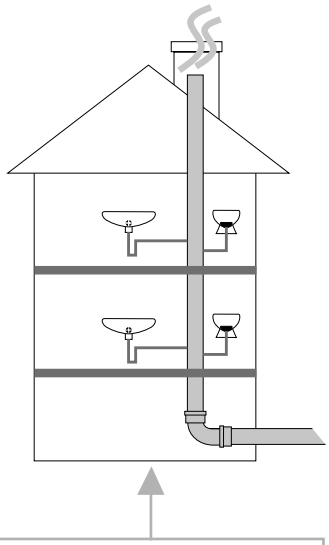
This makes it possible to install the air inlet inside the building, i.e. in the stairwell of a condominium, given that there are no foul odours to expel outside.
Installation is also possible in cases where we are in the proximity of an opening, such as a window, which requires compliance to air intake regulations.
The following example shows valve installation near a window, on the side of the building, with no problems of fumes. ARIO can be installed onto the building side in clear view thanks to its flat design and insensitivity to installation position. The valve comes in an array of available colors and can be painted.
Otherwise, the ventilation chimney would have to be installed on the roof.



Example of a discharge ventilation system with ARIO next to a window.

Compared systems solutions

Traditional way

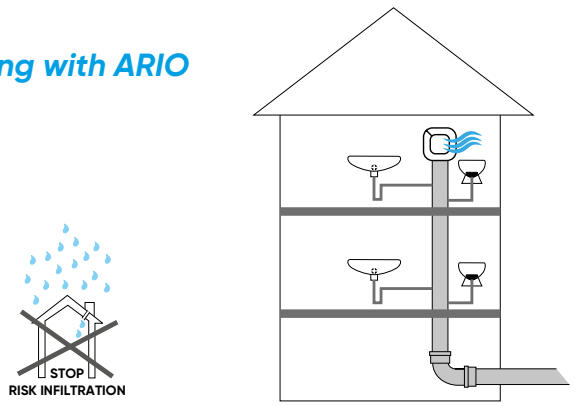


Calculation example for the construction of a chimney to allow pipes to free through the rooftop.

Drill a smoke stack hole	***€ 80,00***
Water-proofing with 4 mm. Sheath	***€ 24,00***
Copper flashing to protect hole	***€ 100,00***
Protection chimney	***€ 200,00***
Total	***€ 404,00***

The costs refer to realized installations - source data of 2011 Italy

Venting with ARIO



*When a discharge system is designed using a vent valve such as ARIO, **no additional costs** are necessary.*
For example: a valve can be installed in the attic.

Aside from avoiding a series of installation-linked complications, water seepage from the roof is no longer a problem.

Technical application

Below are represented a series of system layouts suitable to different system needs and typologies. The purpose is to outline several possible applications, not all those obtainable. Sizing must be executed in compliance with the reference regulations and local laws. An international standard accepted throughout Europe is EN 12056 that provides indications on discharge system sizing.

Diagram 1

Pressure regulation in the discharge column can be achieved by means of a venting channel; alternatively, a ventilation valve may be installed.

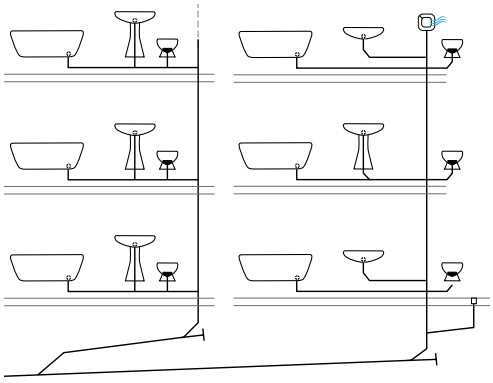


Diagram 2

Pressure control in the discharge branch can be achieved by means of a ventilation valve.

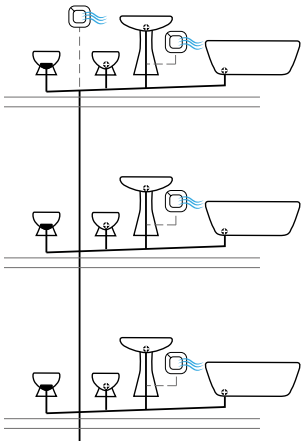


Diagram 3

Different ways of installing a ventilation systems.
The use of a ventilation valve greatly simplifies the installation scheme, thus avoiding rooftop free-through while keeping the same efficiency.

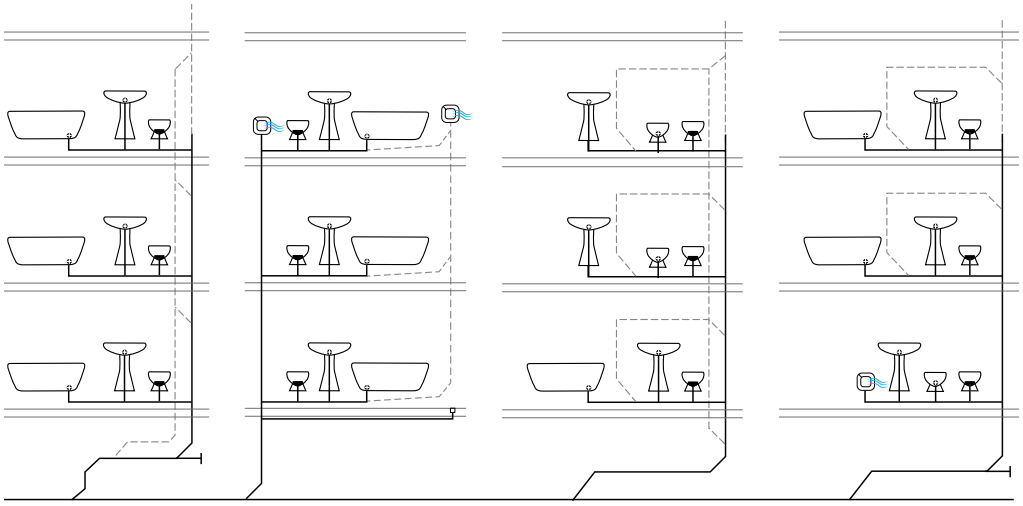
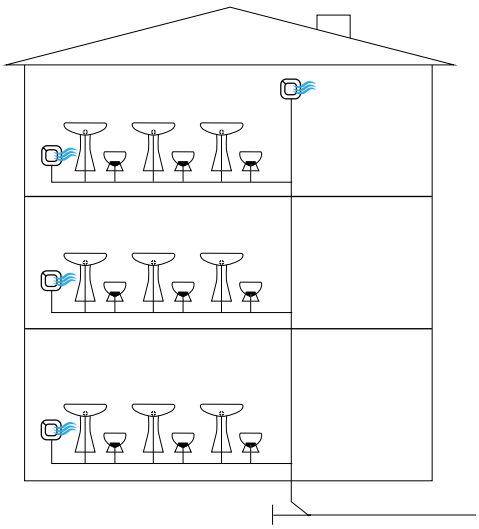


Diagram 4

ARIO vent can be considered as an effective solution for the ventilation of sequentially-installed systems (i.e. in tower buildings such as offices, schools, barracks) in a column of non-direct auxiliary ventilation.
The system proves to be much simplified this way.



CE Marking

Ario CE 10

Air-admittance valves for drainage systems

EN 12380

Specifications:

- Name: **A II**
- Air flow capacity: **14 l/s**
- Air seal tested at: **10 KPa**
- Range of operating temperature: **from 0°C to 60°C**
- Subzero temperature performance: **NPD**



ISTITUTO GIORDANO

ABRIDGED TEST REPORT No. 278540

(Refers to test report No. 275298
issued by Istituto Giordano S.p.A. on 03/11/2010)

Place and date of issue: Bellaria-Igea Marina - Italy, 01/02/2011

Customer: REDI S.p.A. - Via Madonna Dei Prati, 5/A - 40069 ZOLA PREDOSA (BO) - Italy

Date test requested: 25/06/2010

Order number and date: 49608, 29/06/2010

Date sample received: 11/10/2010

Test date: from 18/10/2010 to 28/10/2010

Purpose of test: Testing air admittance valves for drainage systems in accordance with standard UNI EN 12380:2004

Test site: Istituto Giordano S.p.A. - Blocco 1 - Via Rossini, 2 - 47814 Bellaria-Igea Marina (RN) - Italy

Sample origin: sampled and supplied by the Customer

Identification of sample received: No. 2010/2239

Sample name*

The test sample is called "ARIO".

Test result

On the basis of the results obtained, the air admittance valve for drainage systems designated as A II and DN 75, identified as sample A, meets the requirements of the following tests specified under subclauses 6.3.2 j) (Airtightness at 10000 Pa) and 6.5 (Opening characteristic and airflow capacity test) of standard UNI EN 12380:2004. The value obtained for airflow capacity is 48,9 m³/h or 13,6 l/s.

As regards the description of the specimen, normative references, test methods, test equipment, test results and everything else necessary for the identification of the work carried out, please see Test Report No. 275298 issued by Istituto Giordano on 03/11/2010.

(*) according to that stated by the Customer.

Test Technician (Dott. Ing. Emanuele Pettai) — Head of Applied Physics Laboratory (Dott. Ing. Vincenzo Iommi) — Managing Director L'AMMINISTRATORE DELEGATO Dott. Ing. Vincenzo Iommi

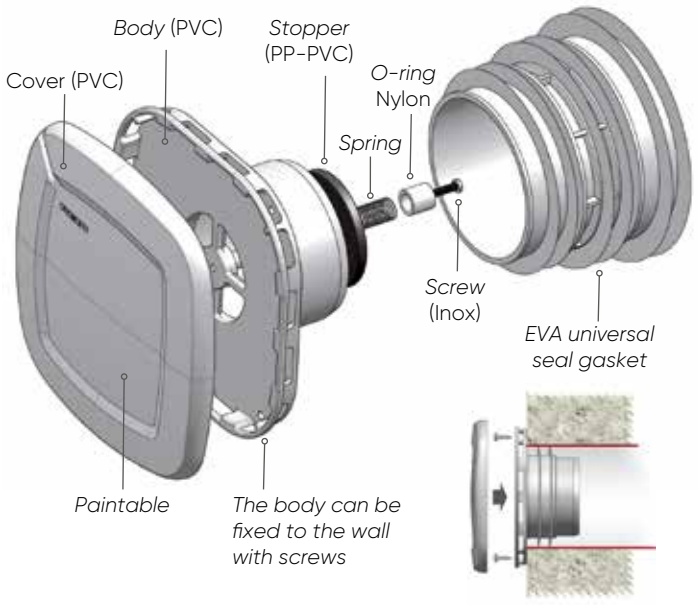
Comp. AT Revis. — This document is the English translation of the abridged report no. 278540 dated 03/02/2011 issued in Italian. Date of translation: 03/02/2011 — Sheet 1 of 1

Certificate "ISTITUTO GIORDANO"

The certificates shown on this catalogue may be subject to revisions.
Updated certificates for each product are available on website www.redi.it

Technical specifications

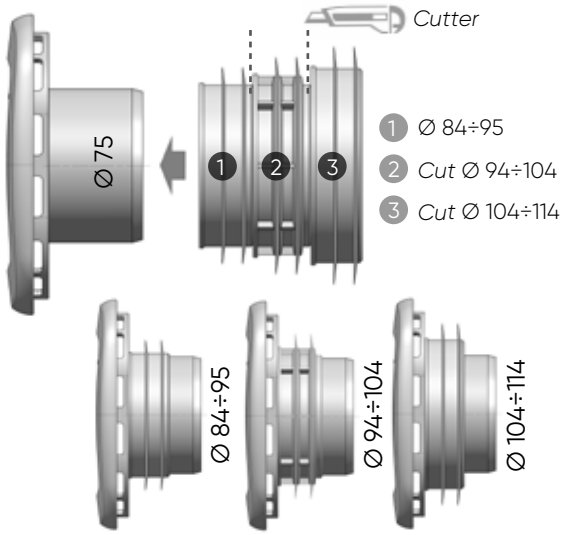
The outside cover of ARIO can be removed when needed, to either allow verification of the proper operating conditions of the sealing disc, or look for any obstructions. This disc can be removed from its seat for further inspection.



ARIO is designed to be installed through coupling.
The valve can be directly inserted when dealing with Ø75 pipes (glue to a PVC) pipe.
A special gasket is designed to allow fitting to a wide range of diameters – from Ø75 to Ø114.

The gasket is made of highly resistant EVA material and its shape makes it suitable to be trimmed to the desired diameter.

Assembling of the universal gasket (EVA)





Ario

AAV - primary ventilation (universal, diameter range: Ø75 ÷ Ø114)

Soupape anti-vide (Ø75 ÷ Ø114)

Válvula de aireación (diámetro universal rango: Ø75 ÷ Ø114)

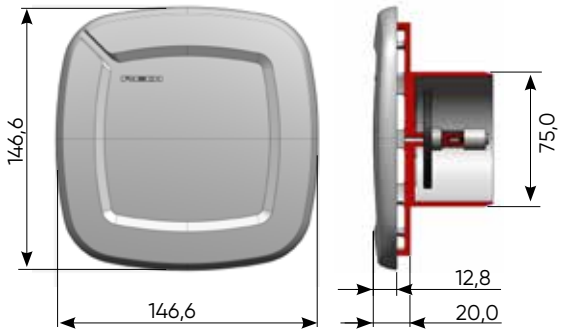
Dim. (mm)	Reference			Type	Note
146,6 x 146,6	169000W	1	306	White	universal gasket included
146,6 x 146,6	1690007	1	306	Dark brown	universal gasket included

Available in single package, also including universal gasket
Adaptor required: Ø84÷95; Ø94÷104; Ø104÷110
For the kitchen, Ø75 can be directly inserted.



Dark brown

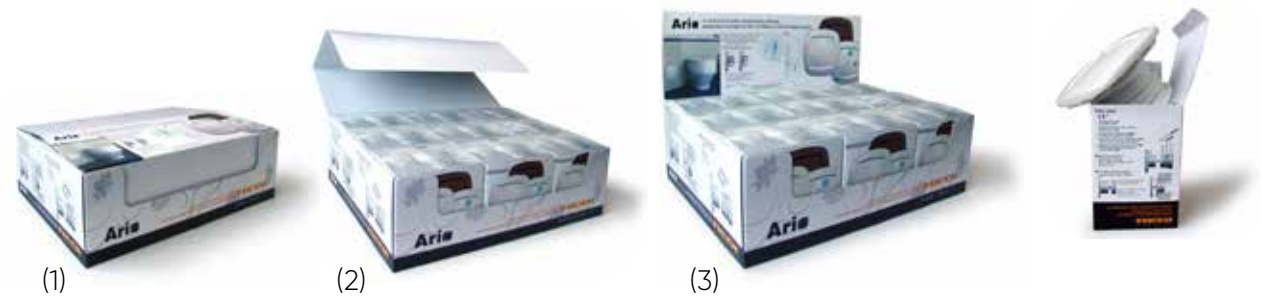
Universal, diameter range:
Ø 75 ÷ Ø 114



EN 12380 CE[10]

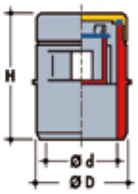
- Description: **A II**
- Airflow rate: **14 l/s**
- Air tightness tested at: **10 KPa**
- Temperature range: **0°C at 60°C**
- Effectiveness at low temperature (below zero): **NPD**

Packaging: display box (9 piece-box)



(1) (2) (3)





PVC Air-admittance valve (AAV)

Clapet à membrane en PVC - Aireador de membrana en PVC

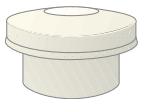
DN M - F	H (mm)	Reference			Note
40 - 32	68	WAM430M	1	2.880	
63 - 50	84	WAM650M	1	240	
80 - 75	87	WAM870M	1		
110 - 100	132	WAM110M	1	120	

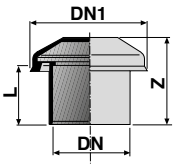


PP Ventpipe

Cheminée de ventilation de colonne en PP
Sombrerete de ventilación PP

DN M - F	Reference			L	Note
50	Z7950PP	10	360	800	long version
75	Z7975PP	5	120	800	long version
110	Z7911PP	5	45	800	long version
50	Z8050PP	20	320	280	short version
75	Z8075PP	10	-	280	short version
110	Z8011PP	10	-	280	short version





PVC Roof ventcowl

Chapeau de ventilation en PVC - Sombrerete de ventilación PVC

DN (mm)	DN1	Reference						L1	Z
		Ivory RAL 1013	Orange RAL 2003	Brown RAL 8017	Grey RAL 7035				
40	137	1690403			1690402	5	-	32	124
50	137	1690503			1690502	5	900	36	120
63	137	1690603			1690602	5	500	38	64
75	-				1690702	20	700	-	-
80	137	1690803		1690807	1690802	5	600	46	69
82	-	1698203			1698202	5	500	-	-
100	162	1691003	1691009	1691007	1691002	10	400	56	84
110	178	1691103				10	300	61	89
125	162	1691203		1691207		10	300	60	165
140	178	1691403				10	200	60	165
160	178	1691603				10	120	60	178





PVC Roof Ventcowl with fly mesh

Chapeau de ventilation en PVC avec moustiquaire
Sombrerete de ventilación con mosquitera PVC

DN (mm)	Reference Brown RAL 8017			Note
100	1690107	15	360	with fly mesh
110	1691307	10	240	with fly mesh



Ventilation

REDI

aliaxis

The new air system

Grill with removable winged insert
All ventilation grills consist of two different parts: one is perimetrical and the other one is central (with wings) and removable in order to remove easily mosquito mesh. You have to check at least once time per year to inspect the pipe.

Round built-in grills
To remove the grill it is sufficient to rotate anticlockwise holding the wings and extracting.



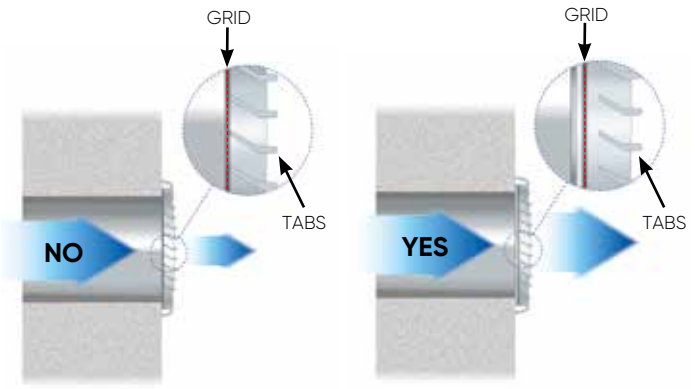
Round push–in grills - PATENTED
To remove the grill it is sufficient to rotate anticlockwise holding the wings and extracting.



Square push–in grills - PATENTED
To remove the grill it is sufficient to insert the screwdriver in the special slit and to extract it without forcing.



The grills have the same air flow with or without the mosquito mesh
Grills with fly mesh always permit the same air flow of the one without fly mesh. That's possible because uses a 70% open section grid that warrants an air flow always superior to the one it is linked to. The final air flow is not reduced. Because the grid is distanced from the wings. Therefore we can affirm that all ventilation grills have the same air flow.

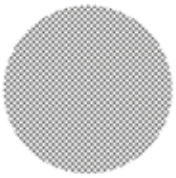


30° Inclined tabs
The wings of the grill have 30° inclination in order to permit the maximum air flow and to be rain proof.



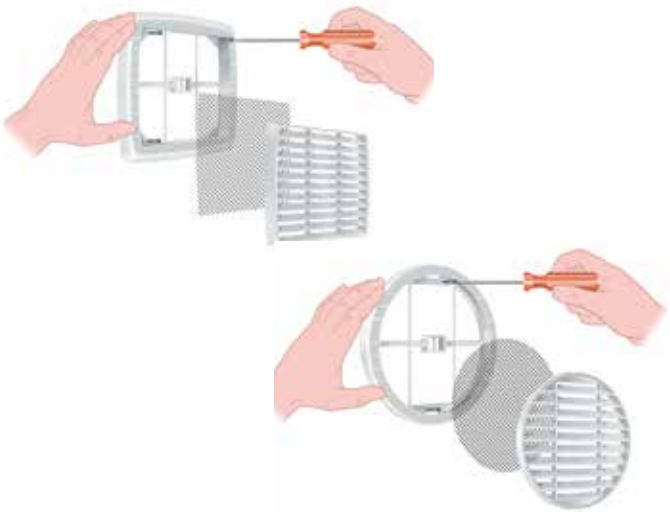
Materials and colours
Grills are made with:
- **ABS** shock resistant with additive anti UV in order to guarantee a greater resistance to sun rays.
- **Colours:** White, Copper
- **PVC** the structure and the materials are particularly resistant and it permits the use of grills in places subject to shocks.
- **Colours:** Grey, Brown

Aluminium mosquito mesh with 70% open section
In grills uses aluminium insect proof grid with 70% open section, in order to permit a high air flow, superior to the one of the grill. The mosquito mesh is not electrostatic; which means it doesn't attract dust, unlike the plastic ones that favour obstruction.



Design - Models - Dimensions - PATENTED MODELS
The round shape grills has been projected to differentiate the product and to confer to the structure a greater shock resistance. The range of products and their dimensions have been examined to meet all customer's requirements.

Screw fixing
All grills can be fixed with screws. Inside the perimetrical side of the grill there are some holes that can be seen only taking off the winged part. In this case the spring support must be removed.



Spring fixing - PATENTED

For a quick installation, grills have a carriage spring fixed to a foldable support that blocks during the period of use. This kind of spring permit to apply the grill to pipes or holes with different diameters.
When the hole is too close to the floor or to the ceiling, and is not installed in central axe with the grill, only one part of the spring can bend compensating the offset.







Technical characteristics

Proprietà	Test	Size	Result
Mechanical characteristics:			
Shock resistance IZOD with 3,2 mm cut	ISO R180/4A	j/m	190-250
Thermic characteristics:			
Vicat softening temperature	ISO 306/A 120 (10N)	°C	106-108
	ISO 306/B 120 (50N)	°C	98-100
HDT deflection temperature	ISO 75 1,82 N/mm²	°C	98-100
	ISO 75 0,45 N/mm²	°C	102-104
Thermal linear expansion coefficient	DIN 53752	10^{-4}/K	0,8-1,1
Flaming:	IEC 695 2-1	°C	650

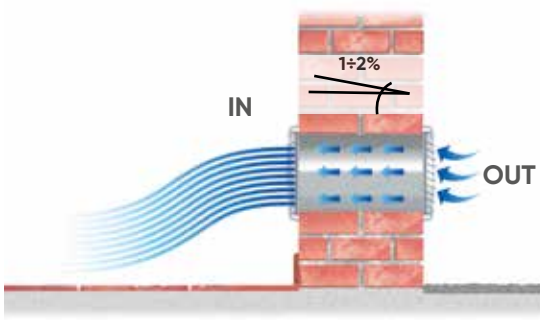
How to clean



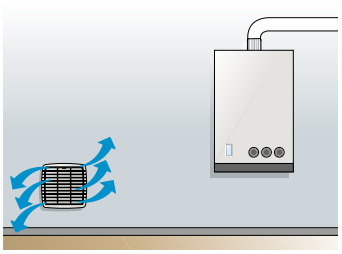




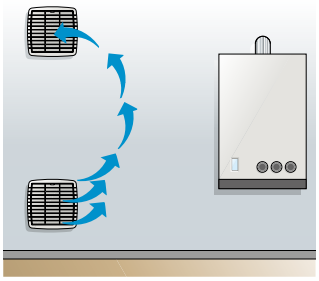
Example of installation



Ventilation



Aeration



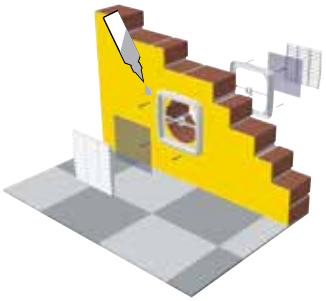
Silicone fixing

For permanent fixing or water insulation, you can seal the exterior edge of the grill with silicone without compromising the possibility of extracting the winged part and the grid.







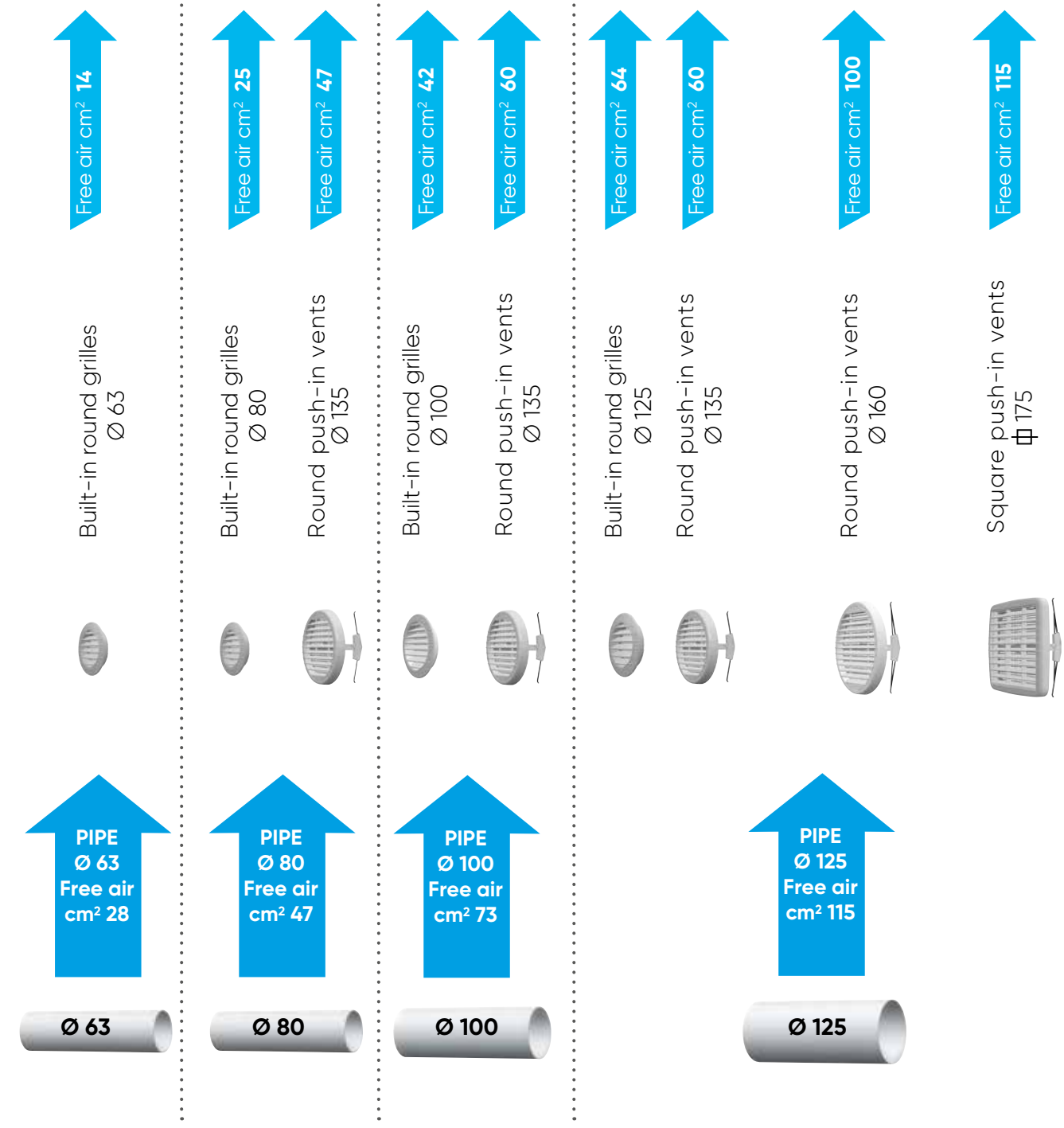


Guidelines

VENTILATION
(without presence of gas devices)

Air flow min. cm² 120
UNI CIG 7129/92





Air flow cm² 120



Free air cm² 100

Round push-in vents
Ø 160



Free air cm² 130

Round push-in vents
Ø 186



Free air cm² 130

Square push-in vents
⧈ 175



PIPE
Ø 140
Free air
cm² 144

Ø 140

Air flow cm² 120



Free air cm² 130

Round push-in vents
Ø 186



Free air cm² 130

Square push-in vents
⧈ 175



Air flow cm² 180



Free air cm² 188

Square push-in vents
⧈ 210



Free air cm² 188

Rectangular surface
mounted vents
⧈175x270



PIPE
Ø 160
Free air
cm² 188

Ø 160

Air flow cm² 200



Free air cm² 210

Round push-in vents
Ø 230



Free air cm² 200

Square push-in vents
⧈ 210



PIPE
Ø 200
Free air
cm² 294

Ø 200

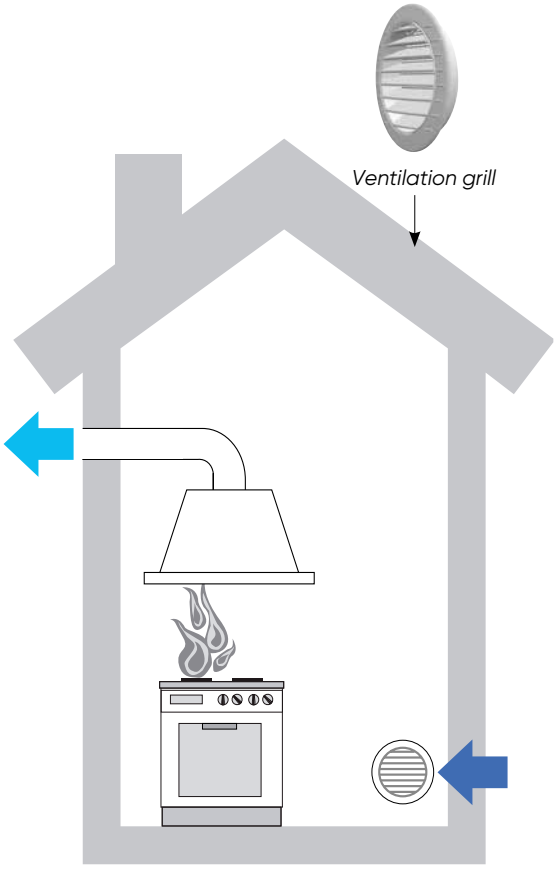
Guidelines

AIR SYSTEM:

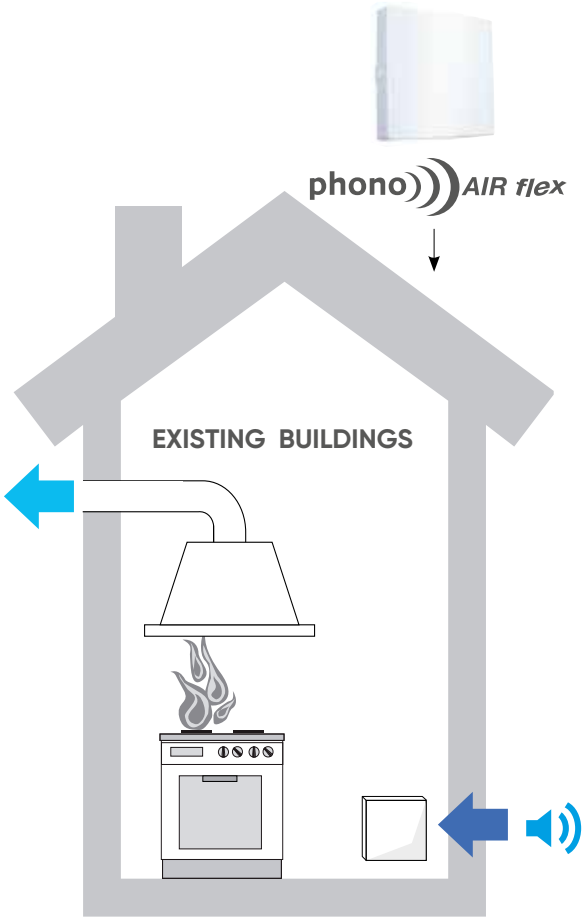
- Acoustic ventilation solution
- Ventilation grills

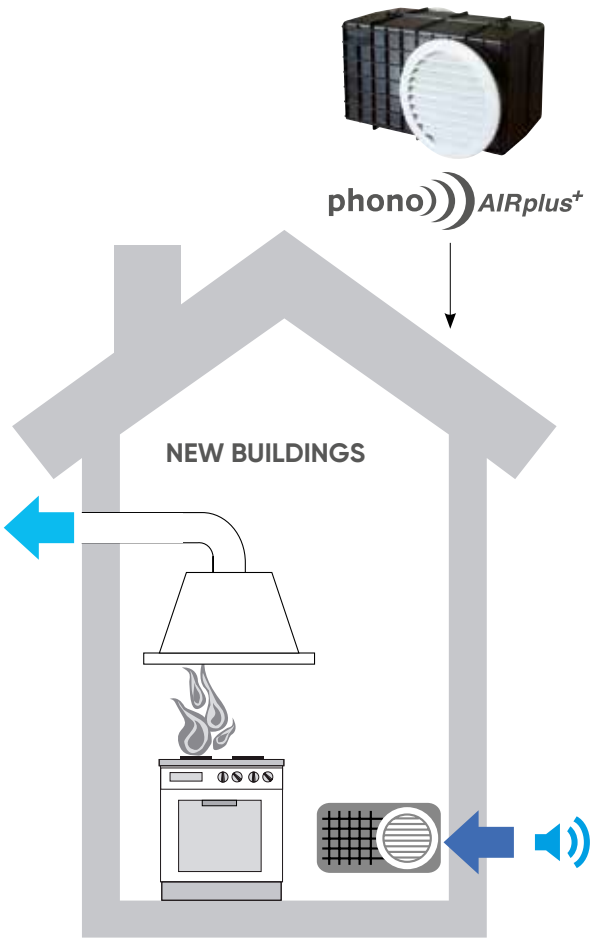
Functions:

- Allow change of ambient air.
- Compling with the safety norms related to kitchens or boiler rooms.
- Compling with the norms related to ambient noise limit.



Acoustic solution for ventilations

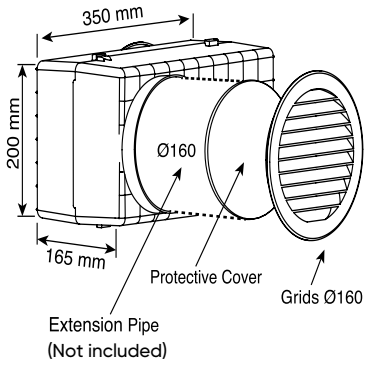






Air Flow
100 cm²

-47 dB



phono AIRplus+

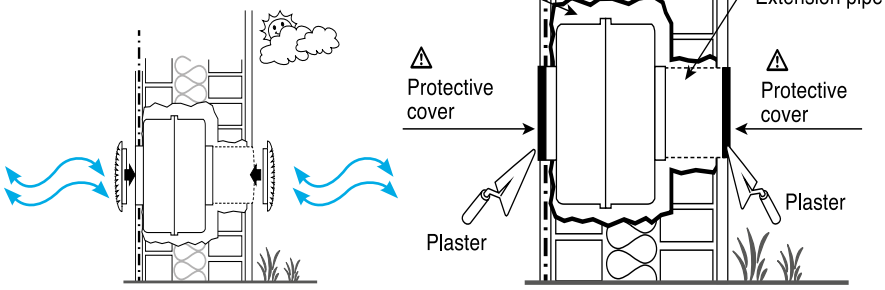
Sound-proof air kit

Echangeur d'air avec abattement acoustique
Intercambiador de aire con reducción acústica

Dim (mm)	Ref.			Colour
350x200x165	1PA1608	1	40	Black

Included in the package:
- 2 pcs. grids Ø160 with mesh (inspectable)
- Protective cover
- Extension pipe not included

Advantages:
- Compact (10,8 LT)
- Reinforced box
- No maintenance





-42 dB



EUSTACHIO 160

Eustachio 160

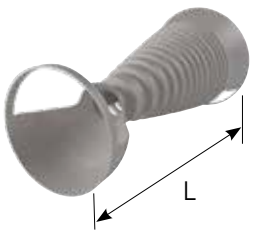
Ø (mm)	L (mm)	Ref.			Note
150	288	EPA0603	1	1.296	Colour white

Air flow 100 cm²

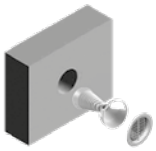
Inserted in the ventilation pipe Ø160

Ideal for renovation projects in existing buildings.

N.B.: Built-in round grille Ø160 not included



-6 dB



EUSTACHIO 125

Eustachio 125

Ø (mm)	L (mm)	Ref.			Note
118	280	EPA0202	1	–	Colour grey

Air flow 100 cm²

Ideal for use in ventilation pipes Ø125 existing.

N.B.: Built-in round grille Ø125 not included

phono AIR flex



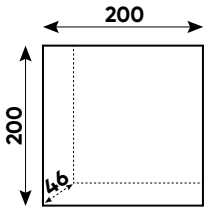
Acoustic ventilation grill

Grille de ventilation acoustique - Rejilla de ventilación acústica

Dim (mm)	Ref.			Colour	Note
200x200	EPAGF03	1	400	White	Multidiameter Ø: 80-100-125-140 mm Supplied with screws and gasket

Spare parts: screw

Ref.			Note
EKVGF00	30	-	



Multidiameter
80 ÷ 140 mm

Air Flow
100 cm²

-32 dB

UV RESISTANCE

ABS

Technical features:

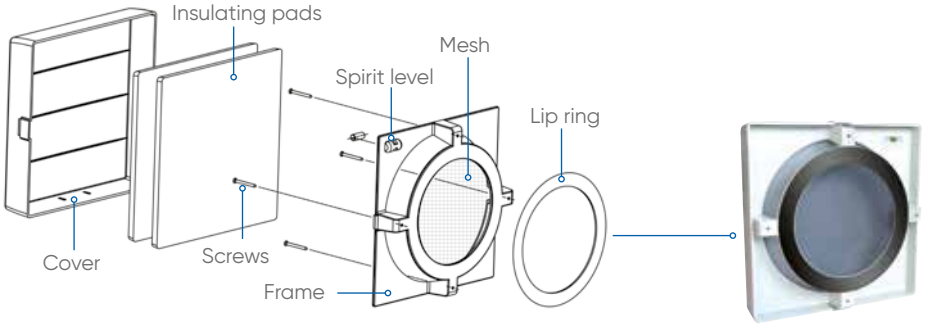
- Made of ABS (UV resistant)
- Air flow: 100 cm² (UNI CIG GAS)
- Certified acoustic performance: -32 dB
- Double density noise insulation
- Aluminium net (anti insects and dust)
- Multi diameter: (80, 100, 125, 140 mm)
- Suitable for indoor and outdoor installations
- Integrated spirit level to the right installation
- Screws included



Bathrooms & rooms with boilers



Kitchens



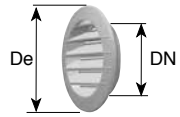
Installation sequence:



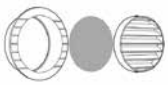








AIR FLOW: **14 cm²**



Easy inspection



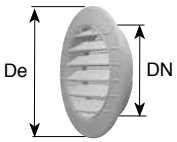
Built-in round grille Ø63

Grille ronde à sceller Ø63 - Rejilla empotrable Ø63

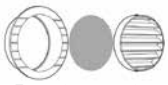
DN (mm)	De (mm)	Colour	Reference			Note
63	80	White	E06TI05	10	2.160	With removable mosquito mesh
63	80	Copper	E06TI0R	10	2.160	With removable mosquito mesh

Thermo shrinking

DN (mm)	De (mm)	Colour	Reference			Note
63	80	White	E06TIG5	1	2.160	With removable mosquito mesh
63	80	Copper	E06TIGR	1	2.160	With removable mosquito mesh



AIR FLOW: **25 cm²**



Easy inspection



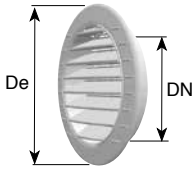
Built-in round grille Ø80

Grille ronde à sceller Ø80 - Rejilla empotrable Ø80

DN (mm)	De (mm)	Colour	Reference			Note
80	100	White	E08TI05	10	2.400	With removable mosquito mesh
80	100	Copper	E08TI0R	10	2.400	With removable mosquito mesh

Thermo shrinking

DN (mm)	De (mm)	Colour	Reference			Note
80	100	White	E08TIG5	1	2.400	With removable mosquito mesh
80	100	Copper	E08TIGR	1	2.400	With removable mosquito mesh



AIR FLOW: **42 cm²**



Easy inspection



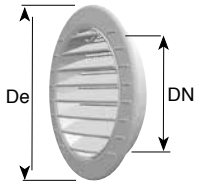
Built-in round grille Ø100

Grille ronde à sceller Ø100 - Rejilla empotrable Ø100

DN (mm)	De (mm)	Colour	Reference			Note
100	120	White	E10TI05	10	1.440	With removable mosquito mesh
100	120	Copper	E10TI0R	10	1.440	With removable mosquito mesh

Thermo shrinking

DN (mm)	De (mm)	Colour	Reference			Note
100	120	White	E10TIG5	1	1.440	With removable mosquito mesh
100	120	Copper	E10TIGR	1	1.440	With removable mosquito mesh



AIR FLOW: **64cm²**



Easy inspection



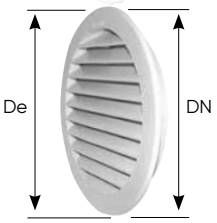
Built-in round grille Ø125

Grille ronde à sceller Ø125 - Rejilla empotrable Ø125

DN (mm)	De (mm)	Colour	Reference			Note
125	140	White	E12TI05	5	290	With removable mosquito mesh
125	140	Copper	E12TI0R	5	290	With removable mosquito mesh

Thermo shrinking

DN (mm)	De (mm)	Colour	Reference			Note
125	140	White	E12TIG5	1	290	With removable mosquito mesh
125	140	Copper	E12TIGR	1	290	With removable mosquito mesh

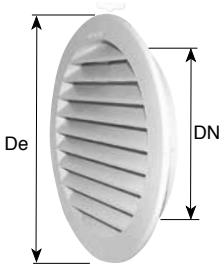


AIR FLOW: **120 cm²**

Built-in round grille Ø160

Grille ronde à sceller Ø160 - Rejilla empotrable Ø160

DN (mm)	De (mm)	Colour	Reference			Note
156	190	White	V16TI05	5	600	

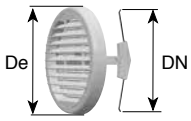


AIR FLOW: **132 cm²**

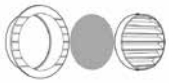
Built-in round grille Ø200

Grille ronde à sceller Ø200 - Rejilla empotrable Ø200

DN (mm)	De (mm)	Colour	Reference			Note
200	238	White	V20TI05	3	-	



AIR FLOW: **60 cm²**



Easy inspection



Round push-in vent Ø135 (type 100)

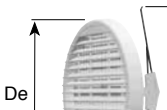
Grille ronde avec ressort de fixation Ø135

Rejilla circular conexión a presión Ø135

De (mm)	DN (pipe)	Colour	Reference			Note
135	63-125	White	E13TU05	5	1.200	With removable mosquito mesh
135	63-125	Copper	E13TU0R	5	1.200	With removable mosquito mesh

Thermo shrinking

De (mm)	DN (pipe)	Colour	Reference			Note
135	63-125	White	E13TUG5	1	1.200	With removable mosquito mesh
135	63-125	Copper	E13TUGR	1	1.200	With removable mosquito mesh



AIR FLOW: **100 cm²**



Easy inspection



Round push-in vent Ø160 (type 125)

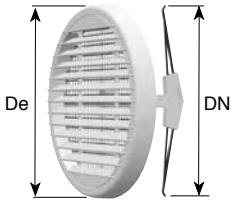
Grille ronde avec ressort de fixation Ø160

Rejilla circular conexión a presión Ø160

De (mm)	DN (pipe)	Colour	Reference			Note
160	80-140	White	E16TU05	5	600	With removable mosquito mesh
160	80-140	Copper	E16TU0R	5	600	With removable mosquito mesh

Thermo shrinking

De (mm)	DN (pipe)	Colour	Reference			Note
160	80-140	White	E16TUG5	1	720	With removable mosquito mesh
160	80-140	Copper	E16TUGR	1	720	With removable mosquito mesh



AIR FLOW: **130 cm²**



Easy inspection



Round push-in vent Ø186 (type 160)

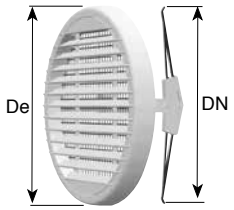
Grille ronde avec ressort de fixation Ø186

Rejilla circular conexión a presión Ø186

De (mm)	DN (pipe)	Colour	Reference			Note
186	100-160	White	E18TU05	5	600	With removable mosquito mesh
186	100-160	Copper	E18TU0R	5	600	With removable mosquito mesh

Thermo shrinking

De (mm)	DN (pipe)	Colour	Reference			Note
186	100-160	White	E18TUG5	1	720	With removable mosquito mesh
186	100-160	Copper	E18TUGR	1	720	With removable mosquito mesh



AIR FLOW: **210 cm²**



Easy inspection



Round push-in vent Ø230 (type 200)

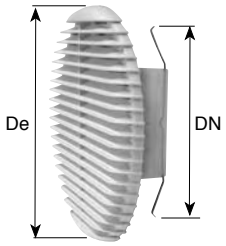
Grille ronde avec ressort de fixation Ø230

Rejilla circular conexión a presión Ø230

De (mm)	DN (pipe)	Colour	Reference			Note
230	100-200	White	E23TU05	3	288	With removable mosquito mesh
230	100-200	Copper	E23TU0R	3	288	With removable mosquito mesh

Thermo shrinking

De (mm)	DN (pipe)	Colour	Reference			Note
230	100-200	White	E23TUG5	1	240	With removable mosquito mesh
230	100-200	Copper	E23TUGR	1	240	With removable mosquito mesh



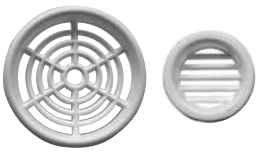
AIR FLOW: **300 cm²**

Round push-in vent Ø260 (type 250)

Grille ronde avec ressort de fixation Ø260

Rejilla circular conexión a presión Ø260

De (mm)	DN (pipe)	Colour	Reference			Note
260	160-250	White	E26TU05	2	348	

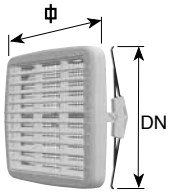


Built-in air vent Ø32 - 60 (without mosquito mesh)

Grille ronde pour caissons de volet roulant (sans moustiquaire)

Rejilla de ventilacion empotrable (sin mosquitera)

De (mm)	DN (pipe)	Colour	Reference			Note
32	39	White	VAE3205	100	-	



AIR FLOW: **130 cm²**



Easy inspection

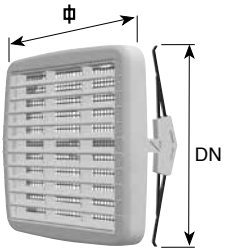


Square push-in vent 175x175
Grille carrée avec ressort de fixation 175x175
Rejilla cuadrada conexión a presión 175x175

⌀ (mm)	DN (pipe)	Colour	Reference			Note
175	100-160	White	E17QU05	5	600	With removable mosquito mesh
175	100-160	Copper	E17QU0R	5	600	With removable mosquito mesh

Thermo shrinking

⌀ (mm)	DN (pipe)	Colour	Reference			Note
175	100-160	White	E17QUG5	1	600	With removable mosquito mesh
175	100-160	Copper	E17QUGR	1	720	With removable mosquito mesh



AIR FLOW: **200 cm²**



Easy inspection



Square push-in vent 210x210
Grille carrée avec ressort de fixation 210x210
Rejilla cuadrada enchufe rápido 210x210

⌀ (mm)	DN (pipe)	Colour	Reference			Note
210	125-200	White	E21QU05	3	288	With removable mosquito mesh
210	125-200	Copper	E21QU0R	3	288	With removable mosquito mesh

Thermo shrinking

⌀ (mm)	DN (pipe)	Colour	Reference			Note
210	125-200	White	E21QUG5	1	288	With removable mosquito mesh
210	125-200	Copper	E21QUGR	1	288	With removable mosquito mesh



AIR FLOW: **130 cm²**



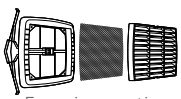
Easy inspection

Square surface mounted vent 175x175
Grille carrée à visser 175x175
Rejilla cuadrada montaje en superficie 175x175

⌀ (mm)	DN (pipe)	Colour	Reference			Note
175	160	White	E18QS05	5	288	With removable mosquito mesh
175	160	Copper	E18QS0R	5	288	With removable mosquito mesh



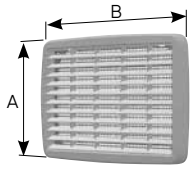
AIR FLOW: **200 cm²**



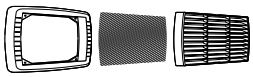
Easy inspection

Square surface mounted vent 210x210
Grille carrée à visser 210x210
Rejilla cuadrada montaje en superficie 210x210

⌀ (mm)	DN (pipe)	Colour	Reference			Note
210	200	White	E22QS05	3	288	With removable mosquito mesh
210	200	Copper	E22QS0R	3	288	With removable mosquito mesh



AIR FLOW: **200 cm²**



Easy inspection

Rectangular surface mounted vents 175x270
Grille rectangulaire à visser 175x270
Rejilla rectangular montaje en superficie 175x270

AxB (mm)	Colour	Reference			Note
175x270	White	E172705	2	432	ABS
175x270	Copper	E17270R	2	432	ABS

Ø160



Ø125

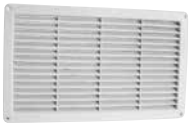




AIR FLOW: **170 cm²**

Rectangular built-in vents
Grille rectangulaire à visser - Rejilla rectangular para atornillar

Dim (mm)	Dim Carving	Colour	Reference			Note
370x123	335x95	White	V371205	6	1800	



AIR FLOW: **280 cm²**

Rectangular built-in vents
Grille rectangulaire à visser - Rejilla rectangular para atornillar

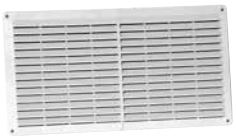
Dim (mm)	Dim Carving	Colour	Reference			Note
370 x 223	335 x185	White	V372205	5	48	



AIR FLOW: **630 cm²**

Rectangular built-in vents
Grille rectangulaire à visser - Rejilla rectangular para atornillar

Dim (mm)	Colour	Reference			Note
230x630	White	VGR6305	4	-	



AIR FLOW: **300 cm²**

Rectangular built-in vents
Grille rectangulaire à visser - Rejilla rectangular para atornillar

Dim (mm)	Colour	Reference			Note
230x430	White	VGR4305	4	256	

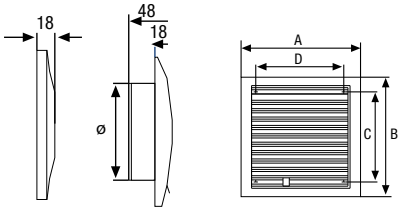
Square grill with adjustable air flow

Grille carrée à fermeture règlable - Rejilla cuadrada con apertura regulable



AxB (mm)	CxD (mm)	Ø (mm)	Colour	Reference			Note
150x150	97x100	-	White	EGQ5005	20	1.360	Surface mounted
190x190	131x131	-	White	EGQ9005	20	780	Surface mounted
150x150	156x156	100	White	EGQ5T05	20	480	Built-in
190x190	178x178	125	White	EGQ9X05	20	400	Built-in

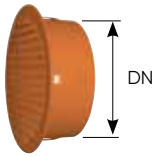
Built-in Surface mounted



Round built-in grill with mosquito net (copper)

Grille ronde à sceller avec moustiquaire (cuivre)

Rejilla empotrable circular con filtro anti-mosquitos (cobre)

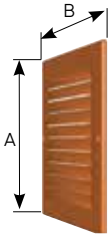


DN (mm)	Free Air	Reference			Note
80	24,5	GTI08RA	1	3.168	
100	70	GTI10RA	1	480	
120	84	GTI12RA	1	480	
140	98	GTI14RA	1	480	
150	98	GTI15RA	1	1.080	
160	98	GTI16RA	1	576	
200	140	GTI20RA	1	240	

Rectangular and square grill with mosquito net (copper)

Grille carrée à visser avec moustiquaire (cuivre)

Rejilla rectangular y cuadrada con filtro anti-mosquitos (cobre)

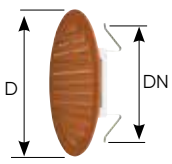


AxB (mm)	Free Air	Reference			Note
140x140	70	GRS14RA	1	1.000	
140x250	101,5	GRS25RA	1	1.000	
140x350	150,5	GRS35RA	1	500	
230x230	193	GRS23RA	1	400	

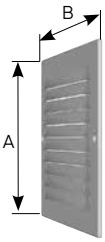
Round push-in grill with mosquito net (copper)

Grille ronde avec ressort de fixation et moustiquaire (cuivre)

Rejilla circular conexión a presión con filtro anti-mosquitos (cobre)

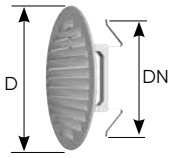


D (mm)	DN Min	Pipe	Free Air	Reference			Note
135	80	125	70	GTM13RA	1	-	
175	125	160	98	GTM17RA	1	500	
230	160	200	140	GTM23RA	1	900	



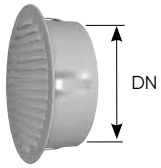
Rectangular and square grill with mosquito net (aluminium)
Grille carrée à visser avec moustiquaire (aluminium)
Rejilla rectangular y cuadrada con filtro anti-mosquitos (aluminio)

AxB (mm)	Free Air	Reference			Note
140x140	70	GRS40AL	1	50	
140x250	101,5	GRS45AL	1	25	
140x350	150,5	GRS50AL	1	25	
230x230	193	GRS55AL	1	20	



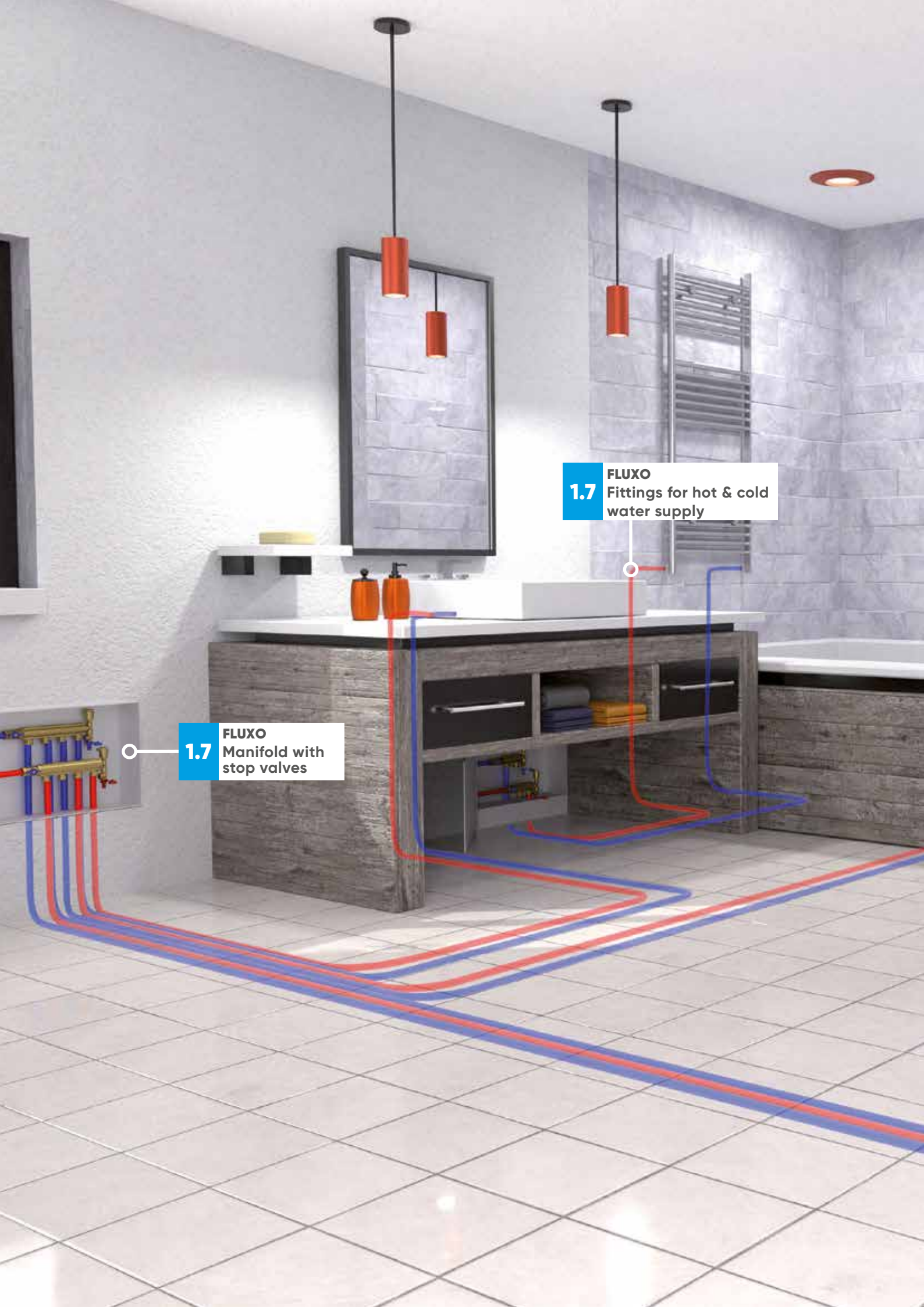
Round push-in grill with mosquito net (aluminium)
Grille ronde avec ressort de fixation et moustiquaire (aluminium)
Rejilla circular enchufe rapido con filtro anti-mosquitos (aluminio)

D (mm)	DN Min	Pipe Max	Free Air	Reference			Note
135	80	125	70	GTM30AL	1	25	
175	125	160	98	GTM35AL	1	25	
230	160	200	140	GTM40AL	1	20	



Round push-in grill with mosquito net (aluminium)
Grille ronde avec ressort de fixation et moustiquaire (aluminium)
Rejilla circular conexión a presión con filtro anti-mosquitos (aluminio)

DN (mm)	Free Air	Reference			Note
80	24,5	GTI30AL	1	24	
100	70	GTI35AL	1	24	
120	84	GTI40AL	1	24	
140	98	GTI45AL	1	24	
150	98	GTI50AL	1	24	
160	98	GTI55AL	1	12	
200	140	GTI65AL	1	12	


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3- Placing the fitting



4- Pressing the fitting

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3 times faster compared to traditional systems

Creating a system using traditional materials and welding techniques requires some time. As professional installer, you know exactly what we are talking about.
Thanks to the Fluxo® multilayer system, your systems will be installed three times faster, regardless of the type of application and working procedures.
Modern and simple, this system combines the benefits of hi-tech multilayer pipes with specifically-developed brass fittings. With a few operations: cutting the pipe, chamfering, inserting the fitting and pressing, and the connection is finished with the utmost ease and at top speed! With each connection you do, you will save precious minutes. But these minutes will turn into hours if you consider all the sites you work in. In a nutshell, this is the aim of the Fluxo® system: making your job easy and more profitable.

Compare costs and benefits.
Fluxo® will convince you from all points of view

If you compare the ensured benefits of the Fluxo® system with the costs of traditional installation techniques (labour time for welding, waste, slowness, etc.) you will definitely notice a significant difference in the cost of the system. All this, without taking into consideration the cost fluctuations of metal (copper) and the irregular supply on construction sites and warehouses.
The time has come, therefore, to choose the Fluxo® multilayer system. The best way to actually see all the benefits of this system is to try it yourself. Ask your local dealer.

BEAR IN MIND, YOU CAN:

- Improve productivity on the job
- Reduce installation costs
- Avoid delays in delivery times

TIME

Connection with traditional technique



TIME

Connection with Fluxo® system



Take a closer look at Fluxo® It bends to every need





TECHNICAL FEATURES

Fluxo® multilayer pipe is easy to work with as it is flexible but, above all, it will firmly maintain the shape you give it. This is due to its composition: a pipe consisting of 5 layers which comes from the union between synthetic materials (PEX) and an inner layer of laser butt-welded aluminium. Fluxo® embraces the features of synthetic materials and metal materials, offering unparalleled benefits:

- **Simple installation** It is flexible, lightweight and free from "elastic memory", the Fluxo® pipe is the best solution for any water-supply system.
- **Absolute hygiene** It is suitable for drinking water and all food fluids, as certified by important external labor "Studi di Pisa".
- **Corrosion resistance** The polyethylene internal and external layers and the fittings provided with a dielectric barrier protect the aluminium against any type of chemical, electromagnetic and natural corrosion.
- **Low load losses** The internal polyethylene surface has a surface finish that can ensure significant reductions in load losses compared to classic metal pipes; furthermore, the absence of lime deposits or other scaling ensures a flow rate that remains constant over time.
- **Oxigen and light barrier** The aluminium layer blocks the passage of oxygen, water vapour and any other gas, therefore avoiding the formation of corrosion in the circuits. Aluminium is also a fully-effective barrier against UV radiation.
- **Reduced thermal expansion** Linear expansion caused by temperature variations is metal pipes. This ensures great stability as regards the size of the pipe and it is therefore subject to limited thermal stress.

Technical benefits

All the benefits of metal:
- rigidity and resistance
- low linear expansion
- versatility
- high professional quality

All the benefits of plastic materials:
- corrosion resistance
- light weight (products and equipment)
- simple and fast installation

It is perfectly compatible with most of the pressing machines on the market.

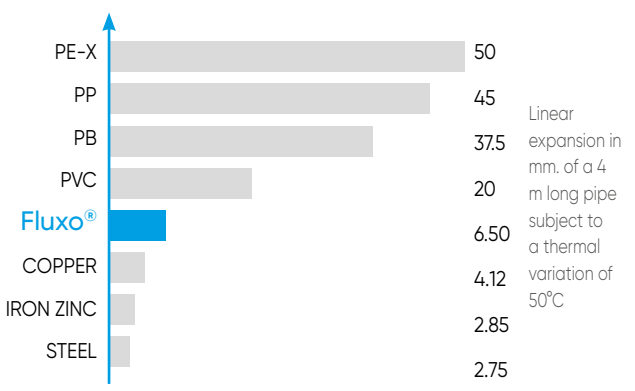
Create any type of installation variants with safe and suitable fittings: use FLUXO® fittings

Our attention to quality and performance is clear from all Fluxo® system components, especially in the range of fittings. The size precision of Fluxo® fittings is absolute. The positioning of the O-rings on fittings is designed to obtain the maximum adherence between the fitting nipple and the internal layer of the pipe, ensuring long-lasting sealing performance. Your fittings will therefore be created with extreme precision and safety.
The size of our product range is also another benefit: you can create any type of installation thanks to the variety of Fluxo® fittings.
As regards pipes, the range of fittings is available for diameters between 16 mm and 63 mm. The fittings are made from brass bars of the highest quality, ensuring optimum corrosion-resistant properties.

QUALITY AND RELIABILITY

Thanks to the best technology of composite materials and the continuous improvettens, you can benefit from the extreme reliability of the multilayer Fluxo® system. Crossliniced polytheylene is abrasion resistant so it means the Fluxo pipes are durable 8 time lower than the plastic pipe and can recompared to.





Fluxo® is a fully-compliant system


Heating


Supply


Hot and cold water


Drinking water

Made in Italy

The multilayer Fluxo® system is made in Italy according to the EN ISO 21003 standard.
The EN ISO 21003 is the European standard providing the suitability features for the application of multilayer piping systems for hot and cold water supply inside buildings and for heating purposes.

- **Safety and reliability:** the Fluxo® system is the most advanced and professional solution for hot and cold water supply:
- **Compliance with Standards:** the Fluxo® pipes and fittings are manufactured in full compliance with regulations and prescriptions in terms of quality, hygiene and energy saving.
- **Safety:** the risk of fire on the construction site is practically eliminated, also avoiding unpleasant accidents such as burns on carpets, parquet or walls.
- **Reliability and durability:** the Fluxo® system, in addition to our ten-year warranty, is certified to last longer than 50 years.
- **Soundproofing:** the Fluxo® system significantly absorbs the vibrations and water-hammer effects which piping systems are subject to.

Application fields

Domestic water and heating

The top benefit of Fluxo® is its versatility. Regardless of the size of your construction site or the type of intervention, whether you are working in a single house or a block of flats, you will be able to install hot and cold water supply systems and heating systems with one only system.

Cooling

Fluxo® is also perfect for cooling systems which use cold water, thanks to the dedicated "POLAR" range of pipes which are specifically insulated with a particular high-density sheath characterised by a high thermal insulation coefficient.

Hygiene and drinking water

The system complies with the most important norm requirements in terms of hygiene and potabilty.

System certifications

The Fluxo® system has been tested and certified by significant certifying bodies such as: KIWA (Netherlands) and KQ (France) valid for the range included in the Avis Tecnique 14/15-1828 in compliance with the UNI EN ISO 21003 Standard ensuring duration, reliability and safety.



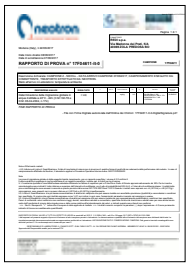
Kiwa certificate
System certification in accordance with the UNI EN ISO 21003 standard for the entire Fluxo range: pipe and press fittings.
(Certificate no. K55985/03)



Cstb certification
System certification which states the durability and suitability for the installation of heating and domestic hot and cold water supply systems. Valid for the range included in the Avis Technique 14/13 - 1828.



Health compliance
Fluxo® has the important certification on French health compliance (ACS).



Portability under Italian Ministerial Decree 174
The suitability of the system to transport drinking water has also been certified by prestigious institutions under Italian Ministerial Decree no. 174 of 2004



Rina certification
This certificate states the conformity and suitability of the Fluxo® multilayer pipe for use in the naval sector.
(Certificate no. MAC342816CS)

Design and installation

Calculation of the load losses

In general, the load losses which may occur on a water circuit can be divided in:
1 - Continuous load losses (**YC**)
2 - Localised load losses (**YL**)
The total load loss (Ytot) is the sum of these two types of losses and is measured in mwc (metres of water column). Therefore: **Ytot = YC + YL**
Continuous load losses (YC) are caused by the friction between the fluid and the internal surface of the pipe.

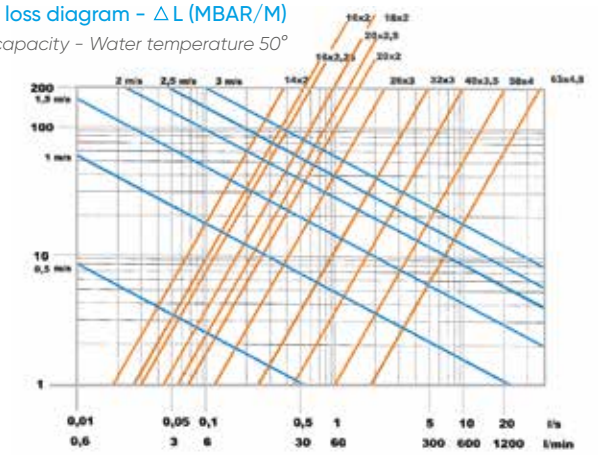
The multilayer Fluxo® pipe, in this case, shows one of its most significant benefits: its **low internal roughness** leads to very low continuous load losses with respect to traditional metal pipes.

The continuous load losses are calculated using the following formula: **YC = Ycu x pipe L**

Where:
YC = continuous load losses (mwc)
Ycu = unitary continuous load losses (mwc/m)
pipe L = length of the pipe (m)

The Ycu are the continuous load losses per metre of length and can be calculated on the basis of the flow capacity indicated in the table below.

Load loss diagram - △L (MBAR/M)
Flow capacity - Water temperature 50°



Load losses

Localised load losses (YL) are caused by the geometric variations of the system such as curves, elbows, valves, T-shaped fittings etc.,. The multilayer Fluxo® pipe offers significant benefits compared to traditional systems: the possibility of creating curves with a very small bending radius, reduces the installation of curves and elbows and therefore the load losses. Compared to PEX pipes, in addition, the presence of the aluminium layer ensures geometric stability and the circularity of the section minimising geometric variations and therefore the load losses. The geometry of the Fluxo® fittings is also designed to improve flow and therefore to reduce these types of load losses.

Localised load losses are calculated using the following formula: **YL = Ycu x eqL**

Where:
YL = localised load losses (mwc)
Ycu = unitary continuous load losses (mwc/m)
eqL = equivalent length of the pipe (m)

The equivalent lengths (eqL) depend on the type of the considered geometric discontinuity and are indicated in the figure below.

Fittings load loss

Discontinuity	Ø 14	Ø 16	Ø 18	Ø 20	Ø 26	Ø 32	Ø 40	Ø 50	Ø 63
Curve	0.7	0.6	0.55	0.5	0.4	0.3	0.3	0.2	0.2
Elbow Angle 45°	1.5	1.4	1.2	1.1	1.0	0.8	0.7	0.6	0.6
T	1.3	1.2	0.9	0.6	0.5	0.3	0.2	0.1	0.1
T	1.6	1.5	1.4	1.3	1.2	1.0	0.9	0.8	0.8
T	1.7	1.6	1.5	1.4	1.3	1.1	1.0	0.9	0.9
T	1.7	1.6	1.5	1.4	1.3	1.1	1.0	0.9	0.9
Straight fitting	1.0	0.9	0.7	0.5	0.4	0.3	0.2	0.1	0.1
Fittings for taps	1.4	1.3	1.2	1.1	/	/	/	/	/

Expansion calculation

The Fluxo® pipe has a thermal expansion similar to that of metal piping, thanks to the aluminium layer and to the adhesive which imposes the metal layer level of expansion on the PE-X layers. The table below shows the comparison between the thermal expansion coefficients of our pipe and that of other materials.
The calculation formula for the thermal expansion of the pipe is the following: **L1 = α x L2 x T**

Where:
L1 = Pipe expansion in mm
L2 = Length of the pipe in m
α = Expansion coefficient of the material in mm/m°K
T = Difference between the service temperature and the temperature at the time of installation, expressed in °C

You can also calculate the pipe expansion by using the diagram on the side. By taking into consideration the horizontal axis which indicates the difference between the service temperature and that calculated at the time of installation, and intersecting the line on the diagram, you can read the expansion value (in mm) per metre of pipe on the vertical axis. To calculate the effective expansion, the latter value must be multiplied by the length of the pipe (expressed in m).

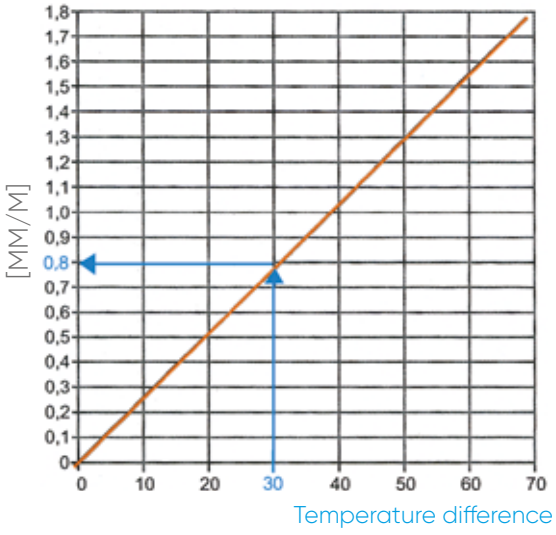
Thermal expansion coefficient of different materials

Type of piping	Expan. Coeff. α [mm/(m°k)]
Fluxo®	0.026
Galvanised steel	0.012
Stainless steel	0.017
Copper	0.017
Plastic material (PE-X PEHD PPRC)	0.19 - 0.20

Design recommendations

In order to maintain the expected performances and durability of this product range but, above all, to achieve a complete warranty coverage of the system, we recommend that you strictly follow the system design, installation and commissioning standards in order to make sure you carry out your work in a fully-professional manner.

Thermal expansion diagram



Expansion compensation

Even if the multilayer pipe has low expansion properties, heating and cooling can certainly induce the pipe to expand and contract. A compensation technique for free piping inside shafts, entails creating omega-shaped bends in the straight sections. If the piping is constrained or inside a wall, you can solve the problem by insulating the pipe.

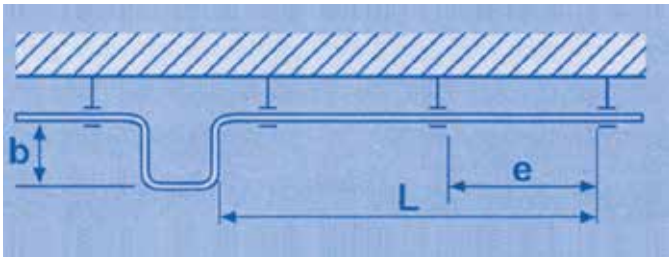
Calculation of the length of the expansion bend

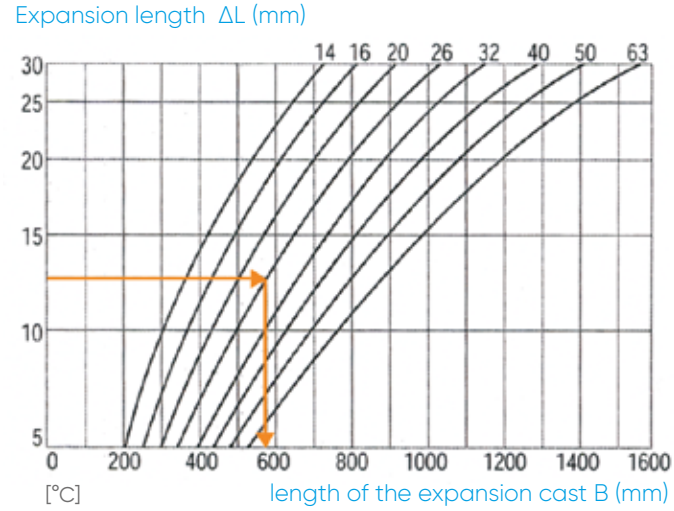
The length of the expansion bend can be deduced from the diagram below, or it can be calculated using the following formula: **b = K x (D x L) ½**

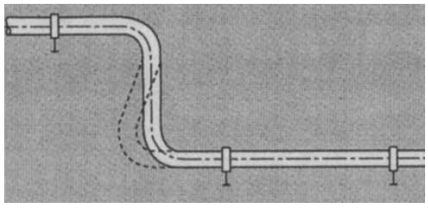
Where:
b = Bend length (in mm)
D = External diameter of the multilayer pipe (in mm)
L = Pipe expansion (calculated as shown above)
K = material constant (for the Fluxo® pipe = 33)

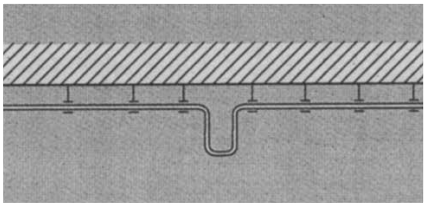
Example:
Calculation of an expansion bend
Calculation of the length of the expansion bend of a multilayer Fluxo pipe with Ø 26, 8 m long subject to a temperature variation of T = 60°C

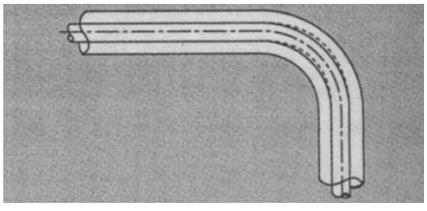
L1 = α x L2 x T =
0.026 x 8 x 60 = 12.5 mm
b = 33 x (26 x 12.5) ½ = 595 mm











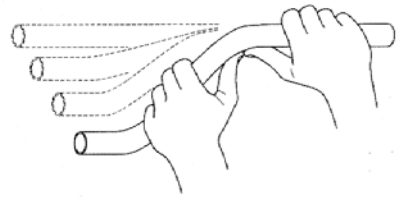
Pipe bending

One of the most significant benefits of the Fluxo® system is the ease with which it can be bent. This important result was only possible thanks to laser technology which ensures highly-resistant welds even with modest thicknesses. In this way we can also ensure an easy bending and geometric stability, in addition to the significant mechanical features of the pipe.
The methods of pipe bending are:
- manual bending
- bending using pipe-bending clamps

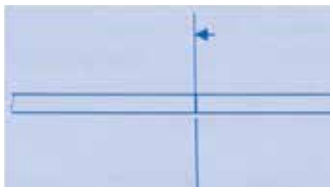
Manual bending
For pipes with a modest diameter and for wide bending radii, manual bending is the fastest and most effective method: the installer must check that the pipe shows no signs of crushing signs on the surface which may be caused by improper bending techniques.

The table below shows the minimum obtainable values of bending radii.

External diameter (mm)	Ø14	Ø16	Ø18	Ø20	Ø26	Ø32	Ø40	Ø50	Ø63
Manual bending radius (mm)	70	80	90	100	110	160	550	700	---
Bending radius with bending clamp (mm)	35	45	55	60	95	125	180	210	315



Bending using bending clamps
For smaller bending radii and/or for pipes with a larger diameter, we recommend that you use a bending clamp as shown below.



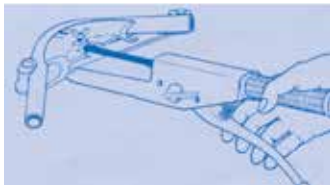
Phase 1 - Mark the middle of the bending curve.

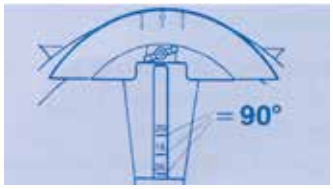


Phase 2 - Place the pipe inside the bending clamp.



Cutting and calibration
1- Cutting the pipe
Cut the pipe perpendicularly to its axis.





Phase 3 - Use the lever of the clamp until you reach the desired bending angle.



2- Inserting the fitting
Insert the fitting in the pipe until it reaches its stop (the O-rings must not be lubricated).



Phase 4 - Loosen the clamp to release the pipe.



3- Calibrating the pipe
Calibrate and deburr the pipe, making sure you fully remove any plastic shavings.

Installation of **press fittings**

Joints with press fittings

For mechanical connections with press fittings, after cutting the pipe perpendicularly to the pipe axis, and after calibration and deburring, insert the pipe into the fitting until it reaches its stop which can be accessible for inspection thanks to the openings and proceed with the pressing of the stainless steel sleeve by using the special tool as shown below.

Preparing the pressing machine

Note: use the appropriate clamp on the base for each size of fitting. Check that these measurements correspond with every application. Preparing the tool: remove the safety pin; insert the jaw; insert the safety pin fully.



1- Remove the safety pin



2- Insert the jaw



3- Insert the safety pin completely



Pressing the fitting

4- Positioning

Warning: place the fitting in the jaw correctly; the seal ring is provided with a design feature which "obliges" this positioning.



5- Pressing

Press the lever until the pressing clamp stops automatically.



6- Opening

Opening the jaw.

Rules for correct installation



Below you will find a set of instructions for the installation of the Fluxo® system to ensure its perfect operation and long lasting performance.

Coupling the fittings

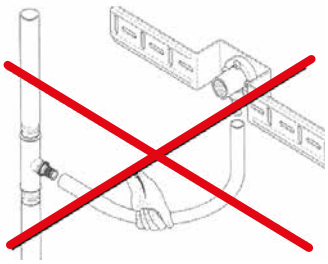
The coupling of fittings in the Fluxo® system, male or female, with fittings of other brands and/or systems, complying with the UNI EN 10226 standard, does not require the use of additional sealing materials such as teflon, hemp, etc. The "construction" of the thread ensures the sealing of the coupling.

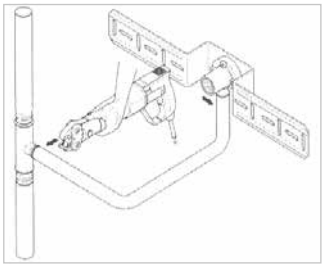
Pressing the fittings

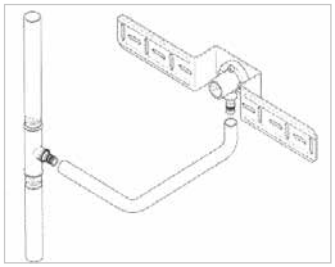
The pressing must be carried out with the system completely installed in all its parts and without unnecessary stress which may compromise its correct operation over time.

Bending the pipes

To bend the pipes correctly, without creating dangerous stresses, you must measure and mark the pipe accurately and bend it manually or using bending clamps. Pressing must only be done after the pipe has been correctly installed, as shown in the figures below.



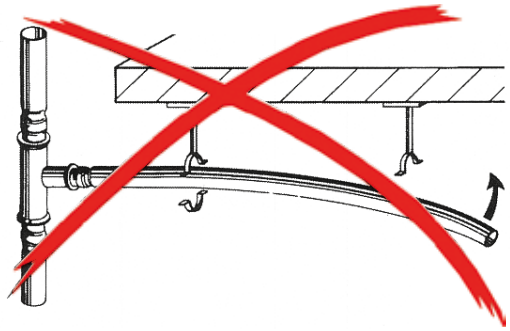


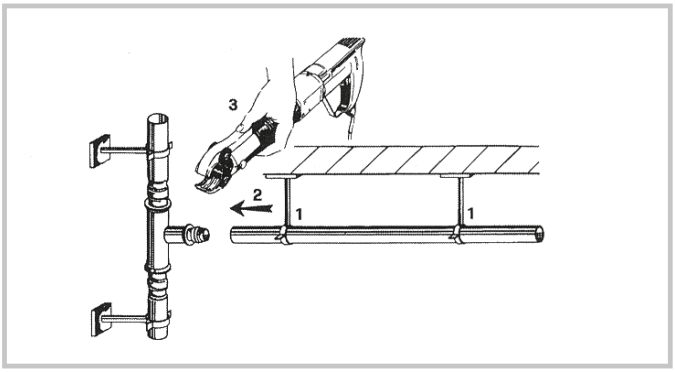


Testing protocol

Installing "T" shaped fittings

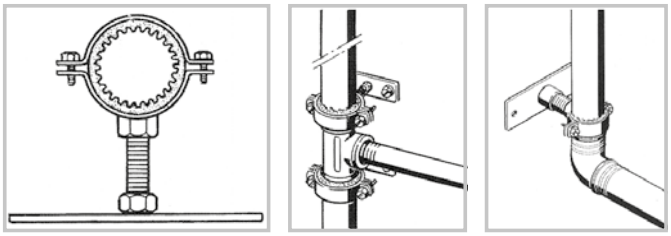
To install "T" shaped fittings, install the pipe, secure it and then press the fittings as shown in the figure on the side.





Securing the pipes

Pipes are to be secured using soundproof collars. If the collars are not soundproof, the pipes must be secured on the external insulation of the pipes.



Distance between securing points

Correct positioning of the securing collars ensures correct pipe stability, without creating dangerous stress. The distances between the securing collars, according to the diameter of the pipes, are listed below. Pipes installed horizontally must be secured every 75 cm maximum. A securing collar must be installed 25 cm before and after each curve.

Diameter	Distance L
14 - 16	M
18 - 20	1
26	1.2
32	1.5

Testing the system

WARNING

Every system must be tested in accordance with the reference standard before concealing the system into the wall. Failing to perform this test will relieve the company of any liability arising from possible accidents, involving injury to persons or damage to property.

Civil liability regarding systems always lies with the installation company which must safeguard its work and perform tests on the systems as a standard requirement for the completion of the job.

The following is the correct procedure for testing in accordance with the DIN 1988 standards.

Pre-test. Duration 30 min.

Fill the system with fluid and bleed any air out of it via the top parts of the pipe system; then, apply a pressure of 15 bar for 15 minutes and check for any leaks in the mechanical fittings. The maximum pressure drop within the 30 minutes of the test is 0.3 bar.

Test. Duration 2 hours

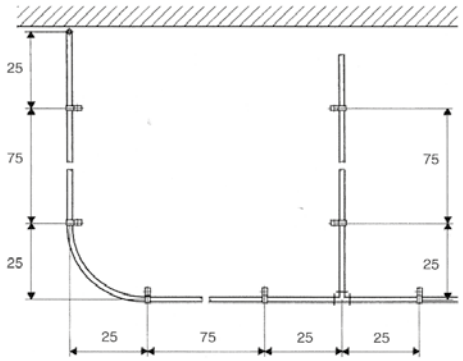
After the pre-test and after having restored the pressure, proceed with the definitive test which requires longer verification times.

Apply once again a pressure of 15 bar to the system for a minimum of two hours within which the maximum pressure drops must not exceed 0.3 bar. After the positive outcome of the test you can conceal the system inside the wall.

Testing protocol

We recommend you always draft a report of the test stating its positive outcome.

For such tests we recommend you use a pump fitted with a pressure gauge with 0.1 bar precision and connect it to the lowest point of the system to be tested. The concealing of the system must always be performed with the circuits under fixed service pressure.



Multilayer Fluxo® pipe

The Fluxo® pipe is produced through the combination of an aluminium alloy and higt quality crosslinked polyethylene. The aluminium core provides a lower thermal linear expansion compared to other plastic materials that are generally used in heating and domestic plumbing systems. The external layer protects the aluminium from potential corrosion risks providing mechanical, electrical and chemical protection. Additionally, the internal layer is fully suited to be in contact with water, as certified by external laboratories. The multilayer Fluxo® pipe is produced and certified according to the UNI EN ISO 21003 standard.



Inner aluminium core:
The butt-welded aluminium using 5 micron laser technology, can withstand the highest pressures. It creates an 100% impenetrable oxygen barrier and a UV-protection barrier, significantly preventing the formation of algae inside the system. Elastic memory makes the installation simple and reduces the use of pipe fittings.

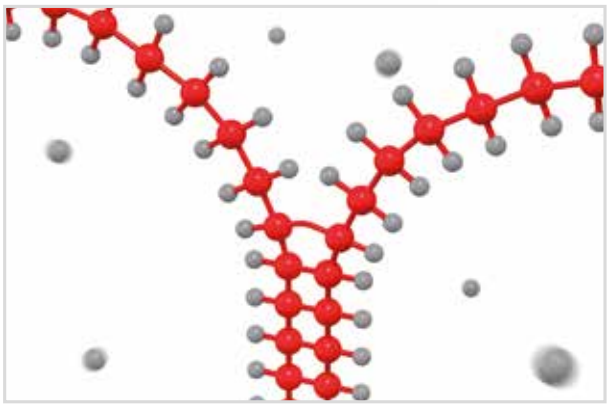
Internal and external layer in cross-linked polyethylene (PE-Xb)

Exceptional temperature resistance Thanks to cross-linking, PEX is the most long-lasting and resistant plastic material to hot and cold water cycles under pressure. This makes the Fluxo® pipe perfect for the installation of heating and domestic water-supply systems.

Anti-corrosion The internal and external PEX layers ensure total protection of the aluminium layer inside.

Soundproofing The PEX layers absorb vibrations and sounds produced by water flows and water-hammer effects.

Drinking water The PEX layer is suitable for drinking water and food fluids.



Cross-linked polyethylene (PE-Xb). Permanent link between the molecular chains thanks to crosslinking.

Insulation sheath

The multilayer Fluxo pipe is covered with a high-performance insulating sheath with the following **certified** features:

- White exterior
- Polyethylene closed-cell foam material (recyclable)
- Class 1 fire-resistance classification
- Density 35kg/m^3
- Service temperature range -45°C + 100°C
- Permeability coefficient >6000
- Thermal conductivity coefficient at 40°C 0.039 W/(m*K)
- Non-toxic
- CFC (Freon) CFC-Free



Naked pipe in coils, packed in boxes

Tube multicouche nu en couronne, emballage en boîte de carton
Tubería multicapa en rollo, embalaje en caja de cartón

Ø (mm)	Thickness pipe (mm)	Reference	(mt)	(mt)	Coil (m)	Note
16	2.0	M010566	100	2.800	100	
20	2.0	M011535	100	1.800	100	
26	3.0	M012626	50	900	50	
32	3.0	M013208	50	450	50	



Insulated pipe in coils, packed in boxes

Tube multicouche pré-isolé en couronne, emballage en boîte de carton - Tubería multicapa preaislado en rollo, embalaje en caja de cartón

Ø (mm)	Thickness pipe (mm)	Insulation thickness (mm)	Reference	(mt)	(mt)	Coil (m)	Note
16	2.0	6	M040537	50	900	50	
20	2.0	6	M041528*	50	900	50	
20	2.0	10	M041524*	50	500	50	
26	3.0	10	M042617*	50	500	50	
32	3.0	10	M043208	25	225	25	

*** Insulation thickness not-compliant with Italian Law 10/91*



"Polar" insulated pipe for cooling systems, packed in boxes (for systems with fancoil units, heat pumps)

Tube multicouche pré-isolé "Polar" en couronne, emballage en boîte de carton - Tubería multicapa preaislado "Polar" en rollo, embalaje en caja de cartón

Ø (mm)	Thickness pipe (mm)	Insulation thickness (mm)	Reference	(mt)	(mt)	Coil (m)	Note
16	2.0	10	MT116PT	50	900	50	
20	2.0	10	MT120PT	50	900	50	
26	3.0	10	MT126PT	50	900	50	
32	3.0	10	MT132PT	25	255	25	

With special sheath



Straight pipes

Tube multicouche nu en barre - Tubería multicapa en barra

Ø (mm)	Thickness pipe (mm)	Reference	(mt)	(mt)	mt	Pack (no. of bars)	Note
16	2.0	M020511	100	4.800	4	25	
20	2.0	M021514	64	3.072	4	16	
26	3.0	M022612	40	1.920	4	10	
32	3.0	M023208	28	1.344	4	7	
40	3.5	M023307	25	500	5	5	
50	4.0	M023407	25	500	5	5	
63	4.5	M023507	15	300	5	3	
75	5.0	M023602	10	200	5	2	



Naked pipe in coils, toroidal packaging
Tube multicouche nu en couronne
Tubería multicapa en rollo

Ø (mm)	Thickness pipe (mm)	Reference	(mt)	(mt)	Coil (m)	Note
16	2.0	M010520	100	2000	100	
20	2.0	M011510	100	1500	100	
26	3.0	M012610	50	600	50	
32	3.0	M013220	50	400	50	



White Pipe System in coils, toroidal packaging
Tube multicouche "System" pré-isolé en couronne, couleur blanche - Tubería multicapa "System" en rollo, color blanco

Ø (mm)	Thickness pipe (mm)	Insulation thickness (mm)	Reference	(mt)	(mt)	Coil (m)	Note
16	2.0	6	M040511	50	700	50	
20**	2.0	6	M041513	50	700	50	
26	3.0	10	M042605	50	400	50	
32	3.0	10	M043206	25	225	25	

*** Insulation thickness not-compliant with Italian Law 10/91*



Blue Pipe System in coils, toroidal packaging
Tube multicouche "System" pré-isolé en couronne, couleur bleue - Tubería multicapa "System" en rollo, color azul

Ø (mm)	Thickness pipe (mm)	Insulation thickness (mm)	Reference	(mt)	(mt)	Coil (m)	Note
16	2.0	6	M040505	50	700	50	
20	2.0	6	M041505	50	700	50	
26	3.0	10	M042604	50	400	50	
32	3.0	10	M043209	25	225	25	



Red Pipe System in coils, toroidal packaging
Tube multicouche "System" pré-isolé en couronne, couleur rouge - Tubería multicapa "System" en rollo, color rojo

Ø (mm)	Thickness pipe (mm)	Insulation thickness (mm)	Reference	(mt)	(mt)	Coil (m)	Note
16	2.0	6	M040516	50	700	50	
20	2.0	6	M041504	50	700	50	
26	3.0	10	M042603	50	400	50	
32	3.0	10	M043207	25	225	25	



Pipe "Tech" in coils, toroidal packaging
Tube multicouche "Tech" en couronne
Tubería multicapa "Tech" en rollo

Ø (mm)	Thickness pipe (mm)	Insulation thickness (mm)	Reference	(mt)	(mt)	Coil (m)	Note
16	2.0	13	M040514	50	400	50	
20	2.0	13	M041534	50	400	50	
26	3.0	13	M042600	50	350	50	
32	3.0	13	M043221	25	225	25	



Pipe corrugated blue in coils, packed in boxes
Tube multicouche pré-fourreauté bleu en couronne, emballage en boîte de carton - Tubería multicapa corrugada color azul, embalaje en caja de cartón

Ø (mm)	Thickness pipe (mm)	Reference	(mt)	(mt)	Coil (m)	Note
16	2.0	M060534	50	900	50	Corrugated blue
16	2.0	M060508	100	1000	100	Corrugated blue
20	2.0	M061515	50	900	50	Corrugated blue



Pipe corrugated red in coils, packed in boxes
Tube multicouche pré-fourreauté rouge, emballage en boîte de carton - Tubería multicapa corrugada color rojo, embalaje en caja de cartón

Ø (mm)	Thickness pipe (mm)	Reference	(mt)	(mt)	Coil (m)	Note)
16	2.0	M060535	50	900	50	Corrugated red
16	2.0	M060509	100	1000	100	Corrugated red
20	2.0	M061516	50	900	50	Corrugated red

Press fittings

The press fittings of the Fluxo® range are designed to rapidly perform any type of installation with maximum flexibility and safety: the Fluxo® fittings are made in high-quality brass are in accordance with the ACS French health compliance standard.



1 Dielectric ring: avoids any contact with the aluminium of the pipe so as to eliminate any electrical conductivity risks

2 Inspection opening to check the pipe insertion

3 Double O-ring in EPDM perox

4 Stainless steel large sleeves. Stainless steel 304 used for the sleeves ensures high-resistance to corrosion and optimum pipe pressing.

The TH pressing system

We have chosen to use the TH pressing profile as it is the most widely used in the market. Furthermore, the TH profile gives more stability to the fitting inside the pressing jaws.
The pressing system for fittings between Ø 14 and Ø 63 is made using a TH version clamp which deforms the sleeve in solubilised stainless steel (AISI 304) creating the connection between the pipe and the fitting.

Fittings with diameters of 40 - 50 - 63 mm have a plastic sleeve-holder.

Equipment:

If you already have a Rems, Rothenberger, Virax, Klauke or Novopress pressing machine and TH profile jaws, you can use the Fluxo® system with your equipment

If you have a pressing machine of one of the brands listed above but you do not have the TH profile jaws, all you need to do is replace the latter for use with Fluxo® fittings.

Safety and health compliance

The brass alloys used to produce Fluxo® fittings, indicated as CW614N according to **UNI EN 12164** (for bar) and CW617N according to **UNI EN 12165** (for heat pressing), in terms of hygiene and drinking water, comply with the requirements provided **by the Italian Ministerial Decree 174 of 2004**.

Bear in mind

- Simple installation
- Corrosion resistance
- System installation speed
- Health compliance certification
- Wide range to cover any installation requirement



Adapter male thread
Manchons à sertir, à visser mâles fixes
Racor prensado macho

	Ø Fitting	Ø Thread	Reference			Note
▶	14	1/2"	MM1130P*	10	8.000	Plastic sleeve-holder
	16	1/2"	MM1160P	10	6.000	
	16	3/4"	MC1161P	10	7.290	
	18	3/4"	MM1190P*	10	1.600	
	20	1/2"	MM1200P	10	6.000	
	20	3/4"	MM1210P	10	-	
	26	3/4"	MM1260P	10	4.860	
	26	1"	MM1270P	10	4.860	
	32	1"	MM1320P	5	3.645	
▶	40	1" 1/4	MM1400P	5	1.200	Plastic sleeve-holder
▶	50	1" 1/2	MM1510P	2	972	Plastic sleeve-holder
▶	63	2"	MM1630P	2	972	Plastic sleeve-holder
	75	2" 1/2	MM1730P	1	-	

** Run out of stock*



Adapter female thread
Manchons à sertir, à visser femelles fixes
Racor prensado hembra

	Ø Fitting	Ø Thread	Reference			Note
▶	14	1/2"	MM4130P*	10	2.000	Plastic sleeve-holder
	16	1/2"	MM4160P	10	6.000	
	16	3/4"	MC1162P	10	8.000	
	18	1/2"	MM4180P*	10	2.000	
	18	3/4"	MM4190P*	10	1.600	
	20	1/2"	MM4200P	10	6.000	
	20	3/4"	MM4210P	10	7.290	
	26	3/4"	MM4260P	10	4.860	
	26	1"	MM4270P	10	800	
	32	1"	MM4320P	5	3.645	
▶	40	1" 1/4	MM4400P	5	810	Plastic sleeve-holder
▶	50	1" 1/2	MM4510P	2	1.458	Plastic sleeve-holder
▶	63	2"	MM4630P	2	240	Plastic sleeve-holder
	75	2" 1/2	MM4730P	1	8	

** Run out of stock*



Straight coupler
Manchons à sertir égaux - Manguito prensado

	Ø Fitting	Reference			Note
	16 x 16	MM2160P	10	6.000	
▶	18 x 18	MM2180P*	10	7.290	
	20 x 20	MM2200P	10	7.290	
	26 x 26	MM2260P	10	4.860	
	32 x 32	MM2320P	5	3.645	
	40 x 40	MM2400P	5	810	Plastic sleeve-holder
▶	50 x 50	MM2500P	2	972	Plastic sleeve-holder
▶	63 x 63	MM2630P	2	128	Plastic sleeve-holder
▶	75 x 75	MM2750P	1	8	

** Run out of stock*



Equal tee 90°
Tés à sertir égaux 90° - Te prensado 90°

	Ø Fitting	Reference			Note
▶	14 x 14 x 14	MD1140P*	10	1.200	Plastic sleeve-holder
	16 x 16 x 16	MD1160P	10	4.860	
	18 x 18 x 18	MD1180P*	10	800	
	20 x 20 x 20	MD1200P	10	2.400	
	26 x 26 x 26	MD1260P	10	1.620	
	32 x 32 x 32	MD1320P	5	810	
▶	40 x 40 x 40	MD1400P	5	4.995	Plastic sleeve-holder
▶	50 x 50 x 50	MD1500P	2	16	Plastic sleeve-holder
▶	63 x 63 x 63	MD1630P	2	162	Plastic sleeve-holder
	75 x 75 x 75	MM1631P	1	1	

** Run out of stock*

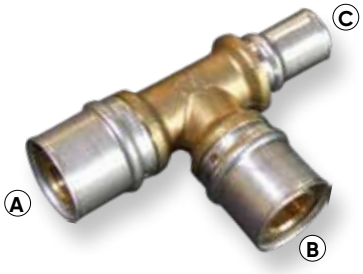


Reducing coupling

Manchons à sertir réduits- Manguito reducido prensado

	Ø Fitting	Reference			Note
▶	18 x 16	MM3180P*	10	9.000	Plastic sleeve-holder
	20 x 16	MM3210P	10	6.000	
	20 x 18	MM3200P*	10	1.600	
	26 x 16	MM3240P	10	4.860	
	26 x 18	MM3250P*	10	1.200	
	26 x 20	MM3260P	10	4.860	
	32 x 20	MM3310P	5	800	
	32 x 26	MM3320P	5	3.645	
▶	40 x 26	MM3390P	5	400	Plastic sleeve-holder
▶	40 x 32	MM3400P	5	1.200	Plastic sleeve-holder
▶	50 x 26	MM3480P	2	240	Plastic sleeve-holder
▶	50 x 32	MM3490P	2	-	Plastic sleeve-holder
▶	50 x 40	MM3500P	2	972	Plastic sleeve-holder
▶	63 x 40	MM3620P	2	-	Plastic sleeve-holder
▶	63 x 50	MM3630P	2	972	Plastic sleeve-holder
	75 x 40	MM3640P	1	8	
	75 x 50	MM3641P	1	-	
	75 x 63	MM3642P	1	-	

** Almost out of stock*



Unequal Reducing tee 90°

Tés à sertir réduits double 90° - Te reducida prensado 90°

	ØA x ØB x ØC Fitting	Reference			Note
▶	18 x 16 x 16	MD2120P*	10	800	Plastic sleeve-holder
	16 x 20 x 16	MD2121P	10	1.200	
	20 x 16 x 16	MD2140P	10	4.860	
	20 x 20 x 16	MD2180P	10	2.400	
	20 x 20 x 18	MD2190P*	10	800	
	20 x 18 x 18	MD2160P*	10	800	
	26 x 26 x 16	MD2280P	10	800	
	26 x 16 x 20	MD2220P	10	1.620	
	26 x 20 x 16	MD2250P	10	800	
	26 x 26 x 20	MD2300P	10	800	
	26 x 20 x 20	MD2122P	10	800	
	32 x 32 x 20	MD2123P	5	400	
	32 x 20 x 26	MD2340P	5	-	
	32 x 32 x 26	MD2380P	5	-	
	32 x 26 x 26	MD2360P	5	810	
▶	40 x 32 x 32	MD2124P	5	-	Plastic sleeve-holder

** Almost out of stock*



Reducing tee 90°

Tés à sertir réduits 90° - Te reducida prensado 90°

	Ø Fitting	Reference			Note
▶	14 x 16 x 14	MD3100P*	10	1.200	Plastic sleeve-holder
	18 x 16 x 18	MD3130P*	10	-	
	20 x 16 x 20	MD3150P	10	2.400	
	20 x 18 x 20	MD3170P*	10	800	
	20 x 26 x 20	MD2200P	10	1.620	
	26 x 16 x 26	MD3230P	10	1.620	
	26 x 18 x 26	MD3260P*	10	800	
	26 x 20 x 26	MD3270P	10	1.620	
	26 x 32 x 26	MD2310P	5	400	
	32 x 16 x 32	MD3320P	5	400	
	32 x 18 x 32	MD3330P	5	400	
	32 x 20 x 32	MD3350P	5	810	
	32 x 26 x 32	MD3370P	5	810	
	32 x 40 x 32	MD1261P	5	320	
▶	40 x 20 x 40	MD1262P	5	-	Plastic sleeve-holder
▶	40 x 26 x 40	MD3400P	5	360	Plastic sleeve-holder
▶	40 x 32 x 40	MD3410P	5	320	Plastic sleeve-holder
▶	50 x 26 x 50	MD3420P	2	16	Plastic sleeve-holder
▶	50 x 32 x 50	MD3430P	2	16	Plastic sleeve-holder
▶	50 x 40 x 50	MD3440P	2	128	Plastic sleeve-holder
▶	63 x 26 x 63	MD3450P	2	128	Plastic sleeve-holder
▶	63 x 32 x 63	MD3460P	2	128	Plastic sleeve-holder
▶	63 x 40 x 63	MD3470P	2	-	Plastic sleeve-holder
▶	63 x 50 x 63	MD3480P	2	-	Plastic sleeve-holder
	75 x 50 x 75	MM3481P	1	162	
	75 x 63 x 75	MM3482P	1	8	

** Almost out of stock*



Tee 90° female thread

Tés à sertir, femelles à visser 90° - Te rosca hembra 90°

	ØA x ØB x ØC Fitting	Reference			Note
▶	14 x 1/2"x 14	MD5140P*	10	1.200	Plastic sleeve-holder
	16 x 1/2"x 16	MD5160P	10	4.860	
	18 x 1/2"x 18	MD5180P*	10	800	
	18 x 3/4" x 18	MD5141P*	10	800	
	20 x 1/2" x 20	MD5200P	10	2.400	
	20 x 3/4" x 20	MD5210P	10	800	
	26 x 3/4" x 26	MD5260P	10	1.620	
	26 x 1" x 26	MD5142P	10	800	
	32 x 1" x 32	MD5320P	5	810	
▶	40 x 1" x 40	MD5143P	5	320	Plastic sleeve-holder
▶	40 x 1"1/4 x 40	MD5400P	5	360	Plastic sleeve-holder
▶	50 x 1"1/2 x 50	MD5500P	2	324	Plastic sleeve-holder
▶	50 x 3/4" x 50	MD5144P	2	128	Plastic sleeve-holder
▶	50 x 1" x 50	MD5145P	15	120	Plastic sleeve-holder
▶	63 x 1" x 63	MD5630P	2	128	Plastic sleeve-holder
▶	63 x 2" x 63	MD5640P	2	128	Plastic sleeve-holder

** Run out of stock*



Tee 90° male thread

Tés à sertir, mâles à visser 90° - Te rosca macho 90°

	ØA x ØB x ØC Fitting	Reference			Note
▶	14 x 1/2" x 14	MD4140P*	10	1.200	Plastic sleeve-holder
	16 x 1/2" x 16	MD4160P	10	4.860	
	18 x 1/2" x 18	MD4180P*	10	800	
	20 x 1/2" x 20	MD4200P	10	-	
	20 x 3/4" x 20	MD4210P	10	-	
	26 x 3/4" x 26	MD4260P	10	800	
	26 x 1" x 26	MD4161P	10	800	
	32 x 1" x 32	MD4320P	5	-	
▶	40 x 1 1/4" x 40	MD4400P	5	-	Plastic sleeve-holder
▶	50 x 1 1/2" x 50	MD4500P	2	-	Plastic sleeve-holder
▶	63 x 2" x 63	MD4630P	2	128	Plastic sleeve-holder

** Run out of stock*



Elbow female thread
Coudes à sertir, femelles à visser - Codo rosca hembra

	Ø Fitting	Ø Thread	Reference			Note
▶	14	1/2"	MC3130P*	10	1.600	Plastic sleeve-holder
	16	1/2"	MC3160P	10	7.290	
	16	3/4"	MC3131P	10	1.600	
	18	3/4"	MC3132P*	10	1.600	
	20	1/2"	MC3200P	10	7.290	
	20	3/4"	MC3210P	10	4.860	
	26	3/4"	MC3260P	10	2.400	
	26	1"	MC3133P	10	800	
	32	1"	MC3320P	5	2.430	
▶	40	1" 1/4	MC3400P	5	320	Plastic sleeve-holder
▶	50	1" 1/2	MC3510P	2	480	Plastic sleeve-holder
▶	63	2"	MC3630P	2	128	Plastic sleeve-holder

** Run out of stock*



Elbow male thread
Coudes à sertir, mâles à visser - Codo rosca macho

	Ø Fitting	Ø Thread	Reference			Note
	14	1/2"	MC2130P*	10	1.600	
	16	1/2"	MC2160P	10	7.290	
	16	3/4"	MC2201P	10	1.600	
	18	3/4"	MC2202P*	10	1.760	
	20	1/2"	MC2200P	10	7.290	
	20	3/4"	MC2210P	10	4.860	
	26	3/4"	MC2260P	10	2.400	
	26	1"	MC2203P	10	800	
	32	1"	MC2320P	5	2.430	
▶	40	1" 1/4	MC2400P	5	-	Plastic sleeve-holder
▶	50	1" 1/2	MC2510P	2	-	Plastic sleeve-holder
▶	63	2"	MC2630P	2	128	Plastic sleeve-holder

** Run out of stock*



Elbow 90°
Coudes à sertir à 90° - Codo 90°

	Ø Fitting	Reference			Note
▶	14 x 14	MC1140P*	10	1.600	Plastic sleeve-holder
	16 x 16	MC1160P	10	7.290	
	20 x 20	MC1200P	10	4.860	
	26 x 26	MC1260P	10	2.400	
	32 x 32	MC1320P	5	2.430	
▶	40 x 40	MC1400P	5	360	Plastic sleeve-holder
▶	50 x 50	MC1500P	2	324	Plastic sleeve-holder
▶	63 x 63	MC1630P	2	324	Plastic sleeve-holder
	75 x 75	MC1650P	1	8	

** Run out of stock*



Elbow 45°
Coudes à sertir à 45° - Codo 45°

Size	Reference			Note
40 x 40	MG1140P	5	-	
50 x 50	MG1160P	2	-	
63 x 63	MG1200P	2	324	
75 x 75	MG1210P	1	32	



Back plate elbow female thread
Coudes appliques à sertir, femelles à visser
Codo fijación rosca hembra

Ø Fitting	Ø Thread	Reference			Note
16	1/2"	MF3160P	10	2.400	
18	1/2"	MF3180P*	10	800	
20	1/2"	MF3200P	10	2.400	

** Run out of stock*
Item height 53 mm



Back plate elbow female thread (long)
Coudes appliques à sertir, femelle à visser hauteur
Codo fijacion largo rosca hembra

Ø Fitting	Ø Thread	Reference			Note
16	1/2"	MF5160P	10	800	Long version
18	1/2"	MF3181P*	10	800	Long version
20	1/2"	MF3182P	10	800	Long version

** Run out of stock*
Item height 77 mm



Backplate double elbow female thread
Coudes appliques double à sertir, femelles à visser
Codo fijacion doble rosca hembra

Ø Fitting	Ø Thread	Reference			Note
16 x 16	1/2"	MF3138P	100	800	
20 x 20	1/2"	MF3184P	10	800	



Swivel adaptor for manifolds
Manchons à sertir, à visser écrous tournants siège plat
Manguito tuerca loca

Ø Fitting	Ø Thread	Reference			Note
16	1/2"	MM4131P	5	480	
20	1/2"	MM4132P	10	6.000	
20	3/4"	MM4133P	10	7.290	
26	3/4"	MM4134P	5	400	
26	1"	MM4135P	5	400	
32	1"	MM4136P	5	400	
32	1" 1/4	MM4137P	5	400	
40	1" 1/4	MM4138P	5	400	
50	1" 1/2	MM4139P	2	160	
63	2"	MM4140P	2	128	
75	2" 1/2	MM4141P	1	8	



Adaptor for copper
Manchons à sertir, de transition FLUXO® cuivre
Manguito de transición para cobre

Ø Fitting	Reference			Note
16 MLP X 14 COPPER	MM5135P	10	800	
16 MLP X 16 COPPER	MM5136P	10	800	
20 MLP X 18 COPPER	MM5137P	10	800	
20 MLP X 22 COPPER	MM5138P	10	800	



Sleeve stainless steel
Bague de sertissage laiton inox
Injerto acero inoxidable

Ø x Thickness (mm)	Reference			Note
16 x 2.0	MB1160P	10	80	
18 x 2.0	MB1180P*	10	80	
20 x 2.0	MB1200P	10	80	
26 x 3.0	MB1260P	10	800	
32 x 3.0	MB1320P	10	80	
40 x 3.5	MB1400P	5	40	
50 x 4.0	MB1500P	5	40	
63 x 4.5	MB1630P	2	16	
75 x 5.0	MB1750P	1	8	

** Almost out of stock*



In wall ball valve
Robinet avec cartouche à encastrer
Válvula de esfera para empotrar

Ø Fitting	Reference			Note
16 x 16	MR1160P	15	240	
20 x 20	MR1200P	15	120	
26 x 26	MR1260P	15	120	



Extension kit for in wall ball valve
Jeu rallonge pour robinet - Alargadera grifo

Reference			Note
MPR990P	15	120	



Chromed cover
Capuchon et rosette pour robinets encastrés
Plafón embellecedor cromado

Reference			Note
MCA980P	15	120	



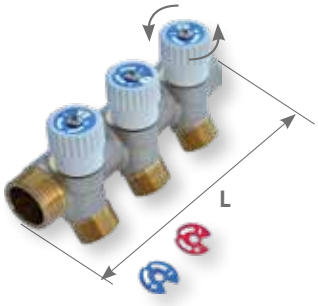
Chromed handle and cover
Poignée et rosette pour robinets encastrés
Maneta con plafón cromado

Reference			Note
MMA970P	15	-	



Adapter for manifolds - thread ½"
Raccords à compression pour collecteur ½"
Adaptador para colectores

Ø Pipe	Reference			Note
16 x 2.0	MA1170P	10	2.000	
20 x 2.0	MA1210P	10	-	



Manifold with stop valves
Collecteurs de distribution avec robinet d'arrêt
Colcetor de distribución con válvulas de cierre

Ways	Ø Inlet	Ø Outlets	Reference			L (mm)	Spacing (mm)	Note
2	¾"	½"	MA3172C	6	1.440	98	40	
2	1"	½"	MA3162C	1	96	98	40	
3	¾"	½"	MA3173C	1	80	138	40	
3	1"	½"	MA3163C	2	324	138	40	
4	¾"	½"	MA3174C	4	960	178	40	
4	1"	½"	MA3164C	2	324	178	40	



End cap for manifolds
Bouchons pour collecteurs - Tapón final para colectores

Ø Threads	Type of thread	Reference			Note
¾"	Male	MT1340C	1	-	
1"	Male	MT1100C	1	-	
½"	Female	MT2120C	1	-	
¾"	Female	MT2340C	1	-	
1"	Female	MT2100C	1	-	

Multilayer accessories



Internal pipe-bending spring
Ressorts de cintrage intérieurs - Muelle de flexión interior

Ø (mm)	Reference			Thickness	Note
16	MMC160A	1	8	2.0	
20	MMC200A	1	8	2.0	
26	MMC260A	1	8	2.0	



Pipe calibrator
Calibreur chanfreineur manuel à poignée 4 diamètres
Calibrador de tubo

Ø (mm)	Reference			Note
14 - 16 - 18 - 20	MCT200A	1	-	
20 - 26 - 32 - 40	MCT400A	1	-	



Countersink calibrator
Calibreur chanfreineur - Calibrador achaflanador

Ø (mm)	Reference			Note
50	MSB200A	1	8	
63	MSB400A	1	8	



Pipe cutter shears
Coupe-tube multicouche - Cizalla cortatubo

Ø (mm)	Reference			Note
from 14 to 26	MCT260A	100	800	



Pipe cutter
Coupe tube automatique Avec ébavureur interne rétractable
Cortador de tubo

Ø (mm)	Reference			Note
from 10 to 40	MS1600C	1	8	
from 50 to 110	MS1610C	1	8	



Bending KIT 16-18-20-25/26-32
Swing 16-18-20-25/26-32 cintreuse arbalète set multicouche
Set doblador de ballesta para tubo multicapa 16-18-20-25/26-32

Reference			Note
MMC132A	1	8	



Battery-powered pressing machine “Rems” (without jaws)
Sertisseuse sur batterie (sans pince)
Engarzadora a batería (sin mordaza)

Model	Ø (mm)	Reference			Note
AKKU-PRESS ACC*	10-108	MK3260A	1	8	
AKKU-PRESS	10-108	MK3PB0A	1	8	

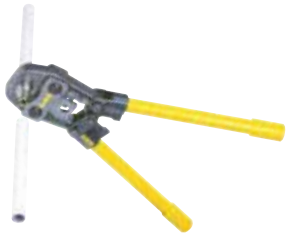
** With automatic return*



Electric pressing machine “Rems” (without jaws)
Sertisseuse filaire (sans pince)
Engarzadora eléctrica (sin mordaza)

Model	Ø (mm)	Reference			Note
POWER-PRESS 2000*	10-108	MK2260A	1	8	
POWER-PRESS E	10-108	MK2PE0A	1	8	

** Electrical limit switch*



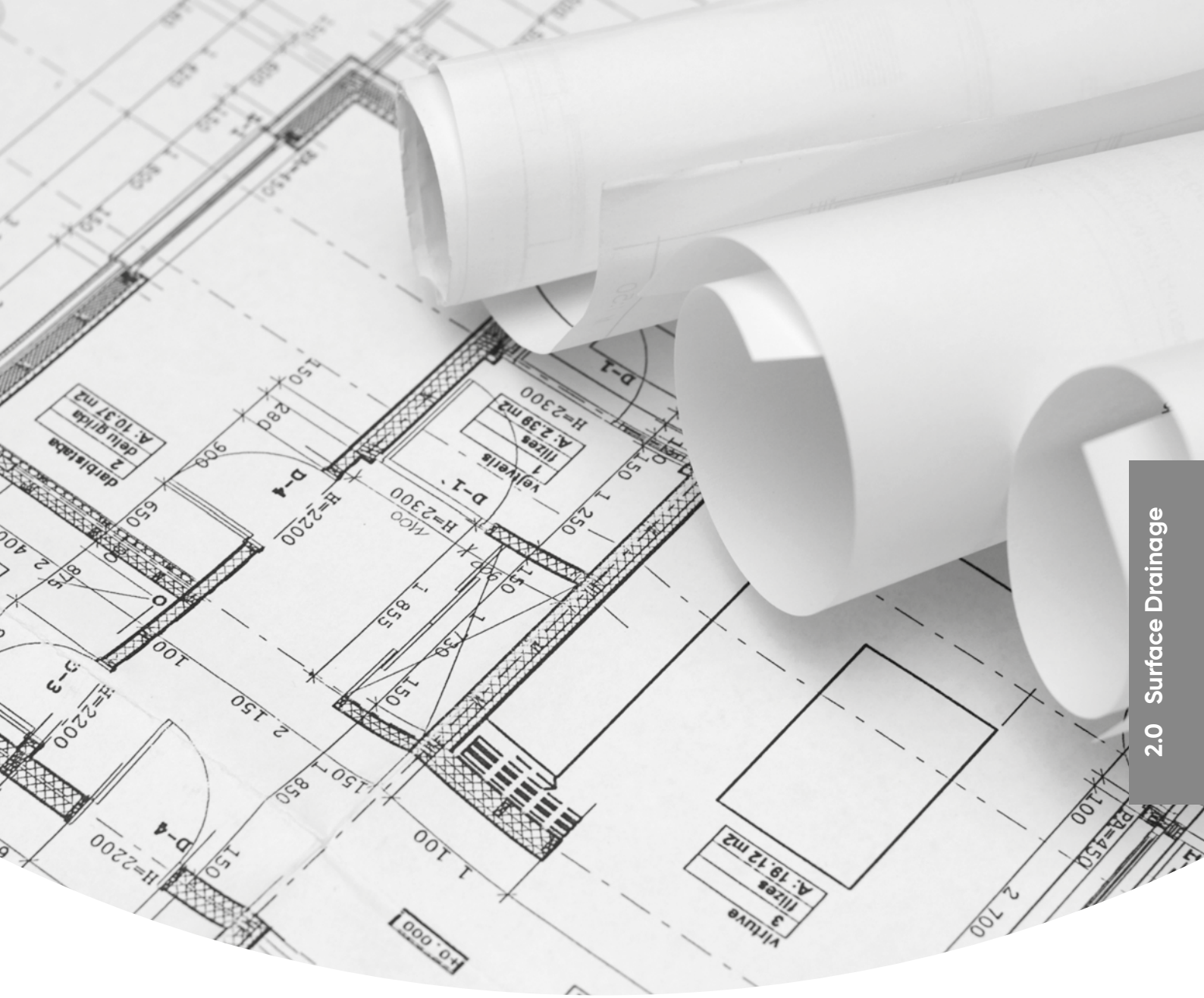
Manual pressing machine “Rems” (without jaws)
Sertisseuses manuel
Engarzadora manual (sin mordaza)

Model	Ø (mm)	Reference			Note
ECO-PRESS	10-26	MK2100A	1	8	



Pressing jaw
Pinces à sertir pour sertisseuses universelles
Mordaza para engarzadora universal

Ø (mm)	Reference			Note
TH 14	MG1140A*	1	8	
TH 16	MG1160A	1	8	
TH 18	MG1180A	1	8	
TH 20	MG1200A	1	8	
TH 26	MG1260A	1	8	
TH 32	MG1320A	1	8	
TH 40	MG1400A	1	8	
TH 50	MG1500A	1	8	
TH 63	MG1630A	1	8	
INTERMEDIATE CLAMP TH 75	MG1750A	1	8	
PRESS RING TH 75	MG1751A	1	8	



Surface drainge system introduction

REDI

aliaxis

Regulations & Tests

UV RAYS RESISTANCE TESTS

Coverings EN4892



FLOW TESTS

Gullies for buildings EN1253

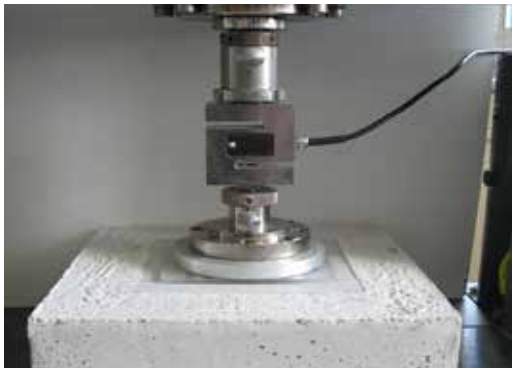


LOAD RESISTANCE TESTS

Drainage channels EN1433

Floor drains EN1253

Covers and Grills EN124



MECHANICAL RESISTANCE

Voluntary Tests

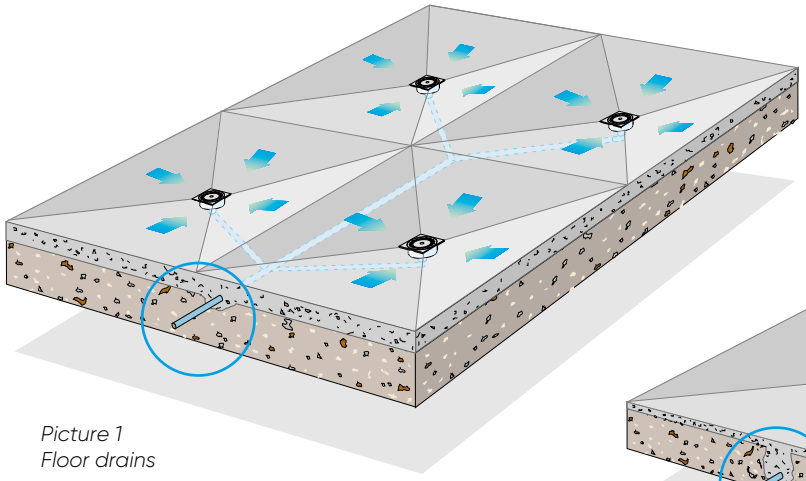


INGRESS PROTECTION TESTS

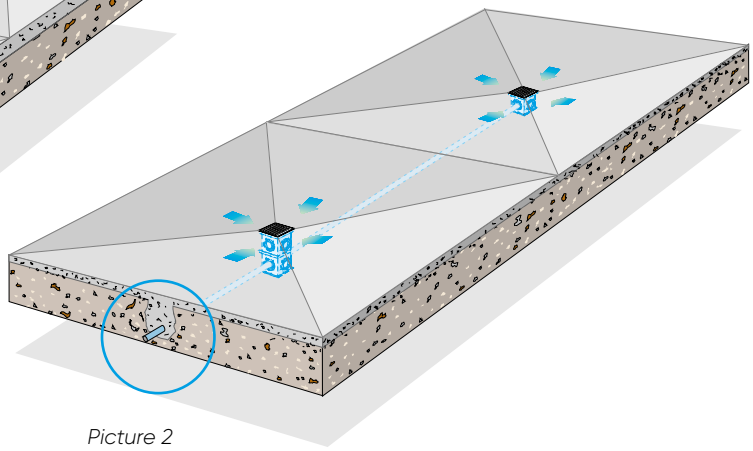
Electrical catch basin EN-CEI 60529



Technical specifications



Picture 1
Floor drains



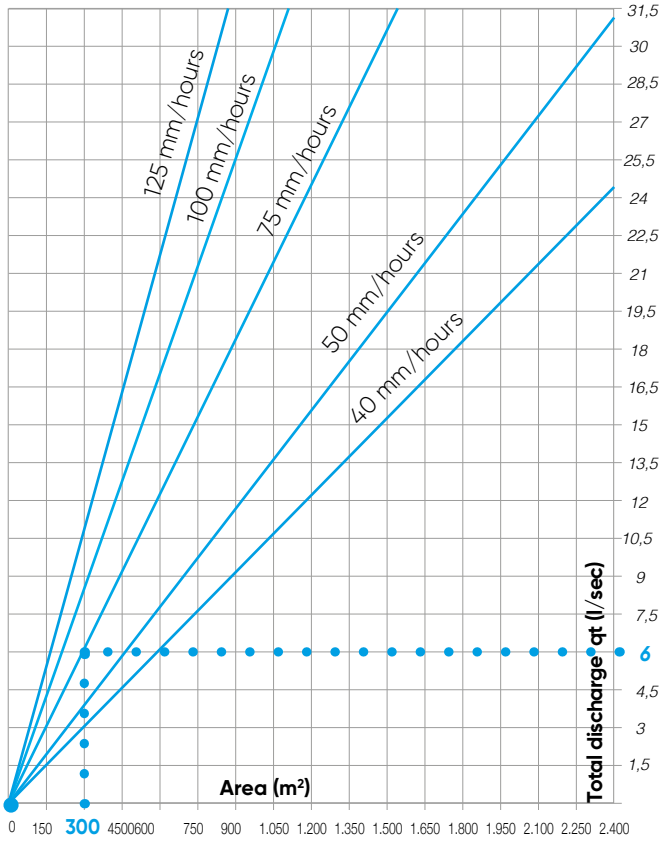
Picture 2
Catch basins and grills

Localized evacuation

This kind of evacuation is mainly considered when it is necessary to gather water trapping every single evacuation point.
In this way, using small drainage accessories called floor drains (see picture 1), a small excavation will be enough to convoy water, especially in low excavation width areas like garages, terraces, etc.

The localized evacuation is often adopted for aesthetical reasons too, because it is possible to place drains in hidden or definite site. In this way catch basins with walkway and light traffic grills are the best solution for areas with no trucks or industrial vehicles passage, because they are designed to optimize transport and installation of the whole drainage system (see pictures 1 - 2).

To get the best performance in a localized evacuation system it is important to:
- calculate number of accessories to be used considering pluviometric intensity, hydraulic discharge of chosen item and roughness of the area to be drained
- divide the whole area into several squares as the number of localized evacuation points
- install the catch basin at the centre of the mentioned drainage points
- keep all the 4 levels of each square with a slight slope inward.



Picture 3
Flow rate calculation

Drainage networks calculation

To establish the correct size of drainage networks it is important to consider the following parameters:
- rain flow to be evacuated Qt (l/sec)
- area to be drained (m^2)
- rain intensity (mm/hour)
- ground morphology and slope
- Flow rate of the selected item Qt (l/sec)

In the picture 3 it is possible to link together area to be drained, pluviometric intensity and rain discharge to be evacuated.

For example: Rain intensity = 75 mm/hour
A Lenght of area to be drained = 20 m
B Breadth of area to be drained = 15 m



Selected item for drainage
Floor drain internal
outlet E193004
(250x250, outlet Ø100 3,0 l/s
certified flow rate)
N° of floor drains to be installed = ?

1) Total area calculation:
Area = AxB = 20x15 = 300 m^2

2) Research in picture 3 of correspondence between area, pluviometric intensity line and related total hydraulic discharge of rain to be evacuated:
about 6 l/s

3) Divide the total hydraulic discharge by single chosen item hydraulic discharge and you will find the total number of floor drains to be placed in the area:
N° floor drains = Qt : Qe = 6 : 3 = 2

Estimate of the total rainwater quantity in the area is the key issue in measuring drainage networks. Data in picture 5 are average results and they are not influenced by external factors (slope and surface characteristics) which can have a relevant impact on these results.

During installation of catch basins and grills it is important to consider the following 2 parameters:

4) **hydraulic discharge of pipelines connecting catch basins and sewage network (litres/second)**

5) **hydraulic discharge of grills placed on catch basins (litres/seconds)**

Hydraulic discharge of pipelines depends on pipe diameter, slope and roughness. Roughness in particular can influence the hydraulic discharge, because pipelines dirtied by using slow down flow, especially with small slopes.

In this way it is important to link the right pipeline (see table A) with the suitable hydraulic discharge grill (see table B) to obtain a balanced evacuation.

Linear evacuation is more complex. For grill evacuation you can consider table A hydraulic discharge multiplied by the number of grills.

It is important to link the suitable hydraulic discharge grill (table B) with the right pipeline (see table A) to obtain a balanced evacuation. In case hydraulic discharge is higher than pipeline one it will be necessary to connect several different evacuation points.



Picture 4
Pluviometer



Weather station

RAINFALL IN THE WORLD

State	City	Rainy months* (mm)	Rainy days*	Month*
ARGENTINA	Buenos Aires	120	8	March
BOLIVIA	La Paz	90	21	January
CANADA	Calgary	90	13	June
CHILE	Santiago	85	6	June
CHINA	Lanzhou	29	16	July
CUBA	Havana	170	11	October
DANIMARK	Copenhagen	70	11	July
PHILIPPINES	Manila	480	22	August
FRANCH	Perpignan	85	7	December
JORDAN	Al Aqaba	8	1	December
UNITED KINGDOM	Edimburgh	85	12	July
GREECE	Athens	70	9	December
INDIA	New Delhi	210	12	July
IRAN	Teheran	44	4	January
IRELAND	Dublin	75	14	December
ICELAND	Reykjavik	95	14	October
KENYA	Nairobi	190	18	May
MOROCCO	Marrakech	35	8	December
MEXICO	Mexico City	160	17	July
NEPAL	Kathmandu	375	21	July
NORWAY	Troms	115	16	October
PERU	Lima	2	1	July
POLAND	Warsaw	90	11	July
SPAIN	Granada	70	10	December
USA	Los Angeles	75	4	February
USA	Phoenix	25	3	February
SOUTH AFRICA	Durban	130	9	February
THAILAND	Chiang Mai	290	18	September
TURKEY	Ankara	50	7	May
RUSSIA	Taskent	80	9	March
VENEZUELA	Caracas	110	13	July
VIETNAM	Hanoi	355	16	August

*Data referred to highest monthly rainfall registered during the year

Picture 5
Rainfall data

TABLE A - PIPES FLOW RATE (l/s) WITH DIFFERENT SLOPES

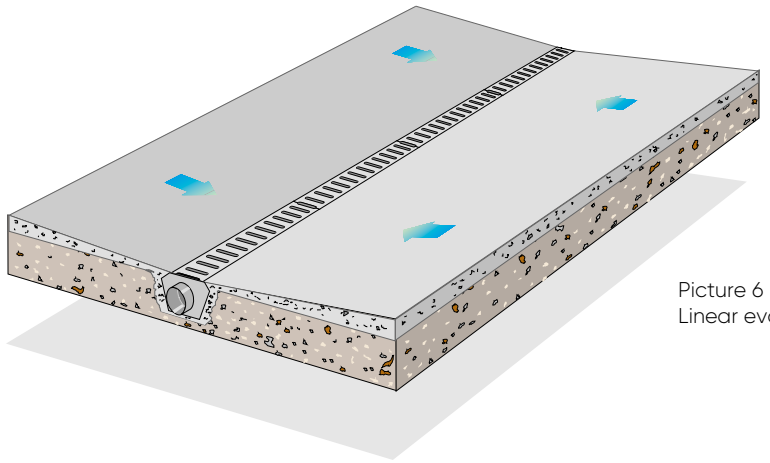
PVC pipe Ø (mm)	0,5%	1%	1,5%	2%	3%	5%	10%
40	0,15	0,26	0,30	0,35	0,43	0,57	0,80
50	0,37	0,52	0,60	0,73	0,89	1,14	1,61
63	0,73	1,04	1,28	1,47	1,77	2,28	3,16
75	1,21	1,63	2,10	2,41	2,94	3,80	5,35
80	1,44	2,05	2,51	2,88	3,54	4,56	6,44
100	2,78	3,91	4,78	5,57	6,78	8,75	12,34
125	5,20	7,36	8,99	10,40	13,00	16,41	23,19
140	6,91	9,78	11,96	13,80	16,90	21,81	30,93
160	9,80	13,74	16,86	19,46	23,86	30,76	43,57
200	16,94	24,01	29,40	33,96	41,61	53,70	75,78
250	30,09	42,54	52,06	60,15	73,64	95,10	134,60
315	54,48	77,11	94,32	108,90	133,40	172,00	244,50

TABLE B - GRILL FLOW RATE (l/s)

Grill		100 x 500		130 x 500		130 x 500 hight drainage		130 x 500 swimming pool		130 x 500 slot		200 x 500
Flow rate (l/s)		**2,3 (l/s)**		**1,9 (l/s)**		**3,6 (l/s)**		**1,2 (l/s)**		**0,4 (l/s)**		**2,8 (l/s)**
Grill		130 x 1000 PP		130 x 1000 galvanized steel grill load class A15		130 x 1000 galvanized steel grill load class B125 square mesh 33 x 33		130 x 1000 galvanized steel grill load class C250 square mesh 33 x 33				
Flow rate (l/s)		**3,5 (l/s)**		**2,3 (l/s)**		**7,9 (l/s)**		**7,5 (l/s)**				
Grill		100 x 500 "Laser"		100 x 500 "Circle"								
Flow rate (l/s)		**0,8 (l/s)**		**1,1 (l/s)**								

CHANNEL FLOW RATE (l/s) WITH DIFFERENT SLOPES

Description	H int. (mm)	Roughness PVC - PP	0,5%	1,0%	1,5%	2,0%	3,0%	4,0%	5,0%	10%
	52 130 x 1000	0,02	1,4	2,0	2,5	2,9	3,5	4,1	4,6	6,5
	70 130 x 1000	0,02	2,3	3,3	4,0	4,6	5,7	6,6	7,3	10,4
	90 130 x 1000	0,02	3,1	4,4	5,4	6,3	7,7	8,8	9,9	14,0
	130 130 x 1000	0,02	4,8	6,8	8,3	9,6	11,7	13,5	15,1	21,4
	50 100 x 500	0,02	0,5	0,7	0,9	1,0	1,3	1,4	1,6	2,3
	70 130 x 5000,02	1,0	1,4	1,7	1,9	2,4	2,8	3,1	4,4	
	134 130 x 5000,02	3,3	4,7	5,7	6,6	8,1	9,4	10,5	14,8	
	94 200 x 5000,02	3,5	5,0	6,1	7,0	8,6	9,9	11,1	15,7	
	170 200 x 5000,02	9,6	13,6	16,6	19,2	23,5	27,2	30,4	43,0	



Picture 6
Linear evacuation

TABLE C - ROUGHNESS COEFFICIENT OF INTERNAL CHANNEL SURFACE

Channel description	Bazin ϒ (m1/2)
Channel made of PVC, PP, PE	0,02
Channels made of concrete	0,10
Channels made of concrete (low level of maintenance)	0,23 ÷ 0,36
Channels made of stone	0,46
Channels made of concrete with grass on the bottom	1,30
Abandoned channels with vegetation	2,0 ÷ 2,3

Linear evacuation

All the underground connectors for rain gathering can be partially substituted by superficial drainage channels with grills. These channels can be placed in flat open areas without digging limitations. Linear drainage system permits an easier installation than localized one, because it is less difficult to project the drainage plane.
All ground drained in this way are flatter and more suitable for vehicular traffic. Both evacuation systems are efficient in case of meteoric water gathering.
There are particular cases, when water reaches drainage area with high speed (like for example in a swimming pool border or between underground garages and ramps or along borders with slope changes), in which it is necessary to gather water for a wide area set at 90° of the flow direction.
REDI proposes its range of channels with walkway and light traffic grills (A15, B125, C250 load classes) to get an efficient linear evacuation.
In case of linear evacuation drainage channels are chosen both for granted load resistance and for water quantity to be drained.

Estimate of quantity of water to be drained

Qt = quantity of water to be drained
A = area to be drained
P = average quantity of rainfall
Qt = A x P
For example considering daily highest rainfall tables it is possible to determine the quantity of water to be drained over an area 10x5 mt characterized by a daily highest rainfall value between 90 mm/day - 120 mm/day (minimum-maximum):
Area = 10 x 5 m = 50 m^2
Hypothetical average rainfall estimated = 105 mm/hour
Qt = 50 x 105 = 5.250 mm/hour
5.250 mm/hour corresponding to 1,46 mm/second (1,46 l/s).

Estimate of channels hydraulic discharge

Channels hydraulic discharge have been calculated supposing hydraulic discharge (Q) has uniform motion. Chézy's formula permits to calcolate respectively Speed (V) and Hydraulic discharge (Q):

$Q = AxV$
$V = C\sqrt{(Rxi)}$

Coefficient C can be calculated with Bazin's formula $C = 87 / (1+\gamma/\sqrt{R})$ where A is the section, R is the average radius of the channel and γ is the roughness coefficient of the internal channel surface. As indicated in the table on the side the roughness coefficient of plastics (PVC and PP) is much lower if compared with other materials.
Grills flow discharge has to be linked with channels flow discharge in table below. If hydraulic discharge is higher than channels one other vertical or lateral pipes can be connected to the channels, improving the hydraulic discharge of the all system.

Materials

The surface drainage system products are made by moulding the following plastics:

- Polyvinyl chloride (PVC), thermoplastic polymer obtained from polymerization of vynil chloride. PVC is nowadays more and more largely used in buildings, thanks to its resistance to external atmospheric agents and to mechanical solicitations.
- Polypropylene (PP), thermoplastic polymer obtained from polymerization of propylene. PP, thanks to its versatility, is largely used in buildings, mainly when product doesn't require specific resistance performances.
- Acrylonitrile - Butadiene - Stirene (ABS), thermoplastic copolymer obtained from polymerization of Acrylonitrile, Butadiene and Stirene. ABS, thanks to its characteristics is particularly used for shock resistant items which satisfy aesthetical requirements.

Raw materials used to realize surface DRAINAGE SYSTEM products are subjected to periodical controls in chemical laboratories. Their formulation has been carefully studied to optimize their chemical and mechanical resistances. The following tables are the result of several laboratory tests. It is important to check the real behaviour during practical use.

TECHNICAL CHARACTERISTICS

PVC mechanical features (23°C)

Characteristcs	Test	Size	Result*
Yeld point	ISO 527	Kg/cm2	530
Breaking load	ISO 527	Kg/cm2	430
Enlongation at break	ISO 527	%	70/80
Traction stretch	ISO 527	Kg/cm2	34.000

PVC physical features

Characteristcs	Test	Size	Result*
Mass volume	ISO 1183	Kg/dm3	1,43
Vicat softening temperature	ISO 306-B	°C	80
Thermal linear expansion coefficient	/	mm/m°C	0,07

* = Data obtained from tests effected: • Test tube type ISO 2 • Traction speed = 5 mm/min
** = Temperature: • min. -10° • max. 60°

PP mechanical features (23°C)

Characteristcs	Test	Size	Result*
Yeld point	ISO 527	Kg/cm2	260
Breaking load	ISO 527	Kg/cm2	200
Enlongation at break	ISO 527	%	20/30
Traction stretch	ISO 527	Kg/cm2	17.000

PP physical features

Characteristcs	Test	Size	Result*
Mass volume	ISO 1183	Kg/dm3	0,92
Vicat softening temperature	ISO 306-B	°C	94
Thermal linear expansion coefficient	/	mm/m°C	0,15

* = Data obtained from tests effected: • Test tube type ISO 1 • Traction speed = 50 mm/min
** = Temperature: • min. 0° • max. 60°

PP - Chemical resistance

Product	Conc. %	Temp. 20 °C	Temp. 60 °C
Acetic Acid	60	S	L
Acetic Acid Monochloride	SOL.	S	L
Acetic Aldehyde	33	L	NS
Acetic Anhydride	100	L	NS
Acetone	100	S	S
Adipic Acid	-	-	-
Allyl Alcohol	96	S	S
Aluminum Chloride	SOL. SAT.	S	S
Aluminum Sulphate	SOL. SAT.	S	S
Ammonia (gas)	100	S	S
Ammonia (liquid)	100	S	L
Ammonia (solution)	SOL. DIL.	S	L
Ammonium Chloride	SOL. SAT.	S	S
Ammonium Fluoride	-	-	-
Ammonium Nitrate	SOL. SAT.	S	S
Ammonium Sulphate	SOL. SAT.	S	S
Amyl Acetate	100	NS	NS
Amyl Alcohol	100	S	L
Aniline	100	S	L
Aniline	SOL. SAT.	S	L
Aniline Hydrochloride	SOL. SAT.	-	-
Antimony Chloride	90	S	S
Arsenic Acid	SOL. DIL.	S	-
Beer		S	S
Benzaldehyde	100	S	-
Benzene	100	NS	NS
Benzoic Acid	SOL. SAT.	S	L
Borax	SOL. SAT.	S	L
Boric Acid	SOL. DIL.	S	L
Bromine (liquid)	100	NS	NS
Bromine Acid	10	S	-
Butadiene	100	S	S
Butane	100	S	-
Butyl Acetate	100	NS	NS
Butyl Phenol	100	NS	NS
Butylene	100	S	L
Butyric Acid	20	S	L
Butyric Acid	98	NS	NS
Calcium Chloride	SOL. SAT.	S	S
Calcium Nitrate	50	S	S
Carbon Dioxide	100	S	S
Carbon Sulphide	100	S	-
Carbon tetrachloride	100	NS	NS
Chlorine (dry gas)	100	NS	NS
Chlorine (liquid)	SOL. SAT.	NS	NS
Chlorosulphonic Acid	100	NS	NS
Chromic Acid		-	-
Citric Acid	SOL. SAT.	S	S
Copper Chloride	SOL. SAT.	S	S
Copper Fluoride	2	S	S
Creosol	100	L	NS
Cresol Acid	SOL. SAT.	NS	NS
Crotonic Aldehyde	100	NS	NS
Cyclohexanol	100	L	NS
Cyclohexanone	100	L	NS
Developing Bath		S	S
Dextrine	SOL. SAT.	-	-
Dibutyl Phthalate	100	NS	L
Dichloroethylene	100	NS	NS
Diglycolic Acid	18	S	L
Dimethylammine	30	S	-
Ethyl Acetate	100	NS	NS
Ethyl Alcohol	95	S	L
Ethyl Benzene	100	NS	NS
Ethyl Ether	100	S	-
Ethylene Glycol	CONC.	S	S
Fluorine	100	NS	NS
Formaldehyde	SOL. DIL.	S	S
Formaldehyde	40	S	S
Formic Acid	1~50	L	NS
Furfural Alcohol	100	NS	NS
Glucose	SOL. SAT.	S	L
Glycerin	100	S	S
Glycolic Acid	30	S	S
Golden Syrup	SOL.	S	L
Hydrobromic Acid	50	-	-
Hydrochloric Acid	30	L	NS
Hydrofluoric Acid	60	L	NS

Product	Conc. %	Temp. 20 °C	Temp. 60 °C
Hydrogen	100	S	S
Hydrogen Dioxide	30	S	L
Hydrogen Sulphide	100	S	S
Isooctane	100	L	S
Lactic Acid	10	S	L
Lactic Acid	10~90	L	L
Lead Tetraethyl	100	S	-
Magnesium Sulphide	SOL. SAT.	S	S
Maleic Acid	SOL. SAT.	S	L
Methyl Alcohol	100	S	L
Methyl Methacrylate	100	NS	NS
Methylene Chloride	100	NS	NS
Milk		S	S
Mineral Oil	100	L	L
N-Heptane	100	L	NS
Nickel Sulphide	SOL. SAT.	S	S
Nicotinic Acid	CONC.	S	S
Nitric Acid	<25	L	NS
Nitric Acid	50	NS	NS
Oleic Acid	100	L	L
Oleum	10% of SO^3	NS	NS
Oxalic Acid	25	S	L
Oxalic Acid	SOL. SAT.	L	L
Oxigen	SOL. SAT.	L	L
Petrol	80/20	NS	NS
Petroleum	100	L	NS
Phenol	SOL. SAT.	S	S
Phosphine	100	S	L
Phosphor Oxichloride	100	L	L
Phosphoric Acid	30	S	L
Potassium Bichromate	SOL. 20	S	S
Potassium Bromide	SOL. SAT.	S	S
Potassium Chloride	SOL. SAT.	S	S
Potassium Chromate	40	S	S
Potassium Cyanide	SOL.	S	S
Potassium Ferricyanide	SOL. SAT.	S	S
Potassium Ferrocyanide	SOL. SAT.	S	S
Potassium Hydroxide	SOL.	S	S
Potassium Nitrate	SOL. SAT.	S	L
Potassium Permanganate	20	S	S
Potassium Persulfate	SOL. SAT.	S	L
Propane (gas liquid)	100	S	-
Propionic Acid	50	S	S
Pyridine	100	NS	NS
Sea Water		S	L
Silver Nitrate	SOL. SAT.	S	L
Soap	SOL.	S	S
Sodium Bisulphite	SOL. SAT.	S	S
Sodium Chlorate	SOL. SAT.	S	S
Sodium Chloride	SOL. SAT.	S	S
Sodium Ferricyanide	SOL. SAT.	S	S
Sodium Hydroxide	SOL.	S	S
Sodium Hypochlorite	25	L	NS
Sodium Hypochlorite	100 (13% Cl.)	S	L
Sodium Silicate	SOL.	S	S
Sodium Sulphite	SOL. SAT.	S	L
Sulphur Acid	SOL.	S	S
Sulphur Anhydride	100 (liquid)	S	L
Sulphur Anhydride	100 (dry)	L	NS
Sulphuric Acid	40~90	L	L
Sulphuric Acid	96	NS	NS
Sulphuric Chloride	100	NS	NS
Sulphuryl Chloride	100	NS	NS
Tannic Acid	SOL.	S	S
Tartaric Acid	SOL.	S	S
Tetrachloroethene	100	NS	NS
Thiophene	100	L	L
Tin Chloride	SOL. SAT.	S	S
Toluene	100	NS	NS
Trichloroethylene	100	NS	NS
Turpentine (oil)	100	NS	NS
Urea	10	S	L
Vaseline		L	L
Vinagre		S	S
Vinyl Acetate	100	NS	NS
Wine		S	S
Xylene	100	NS	NS
Yeast	SOL.	S	L

TS = Without corrosion L = Limitaded corrosion NS = Corrosion

For any special application, please contact the REDI Technical Service beforehand.

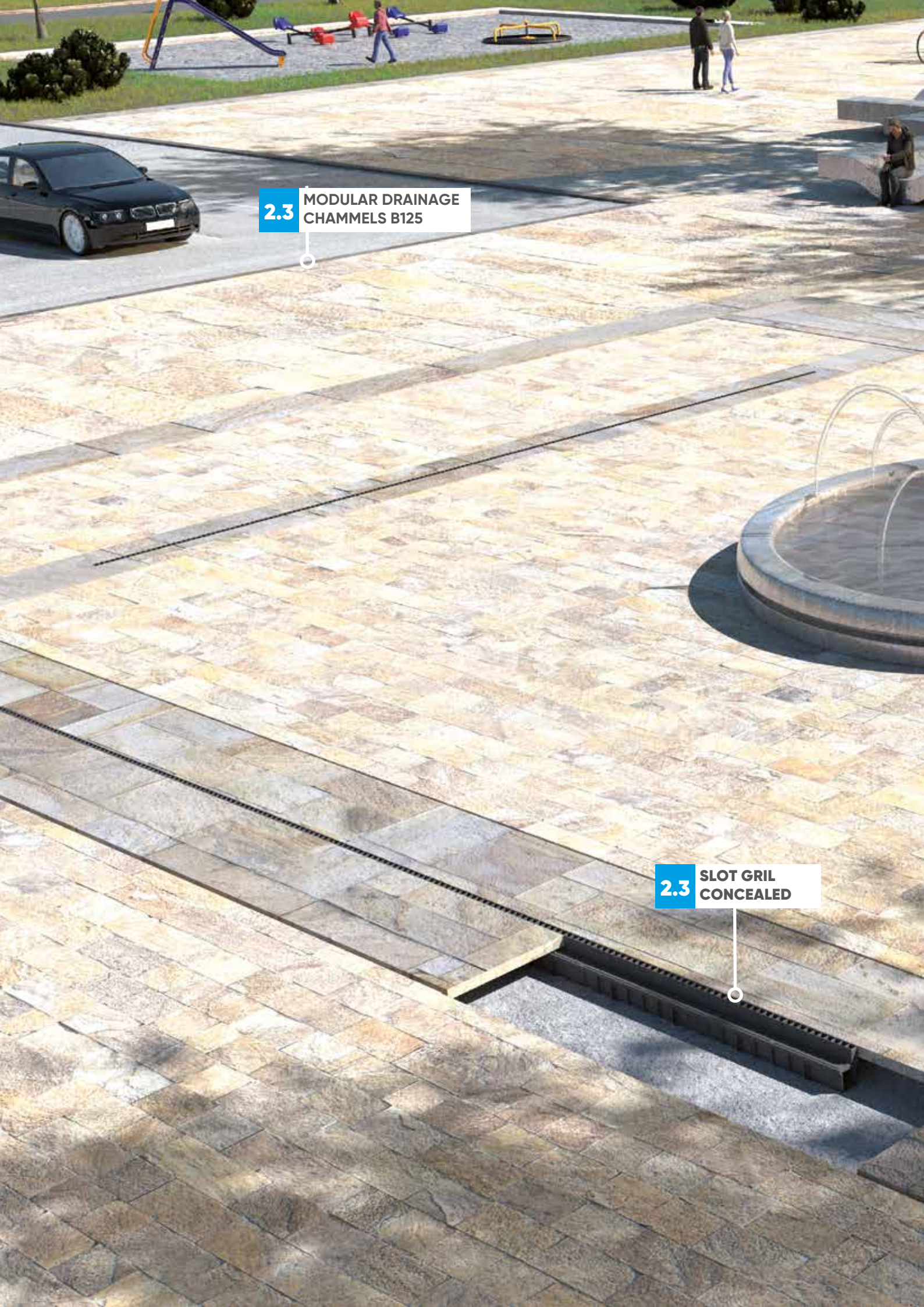
PVC - Chemical resistance

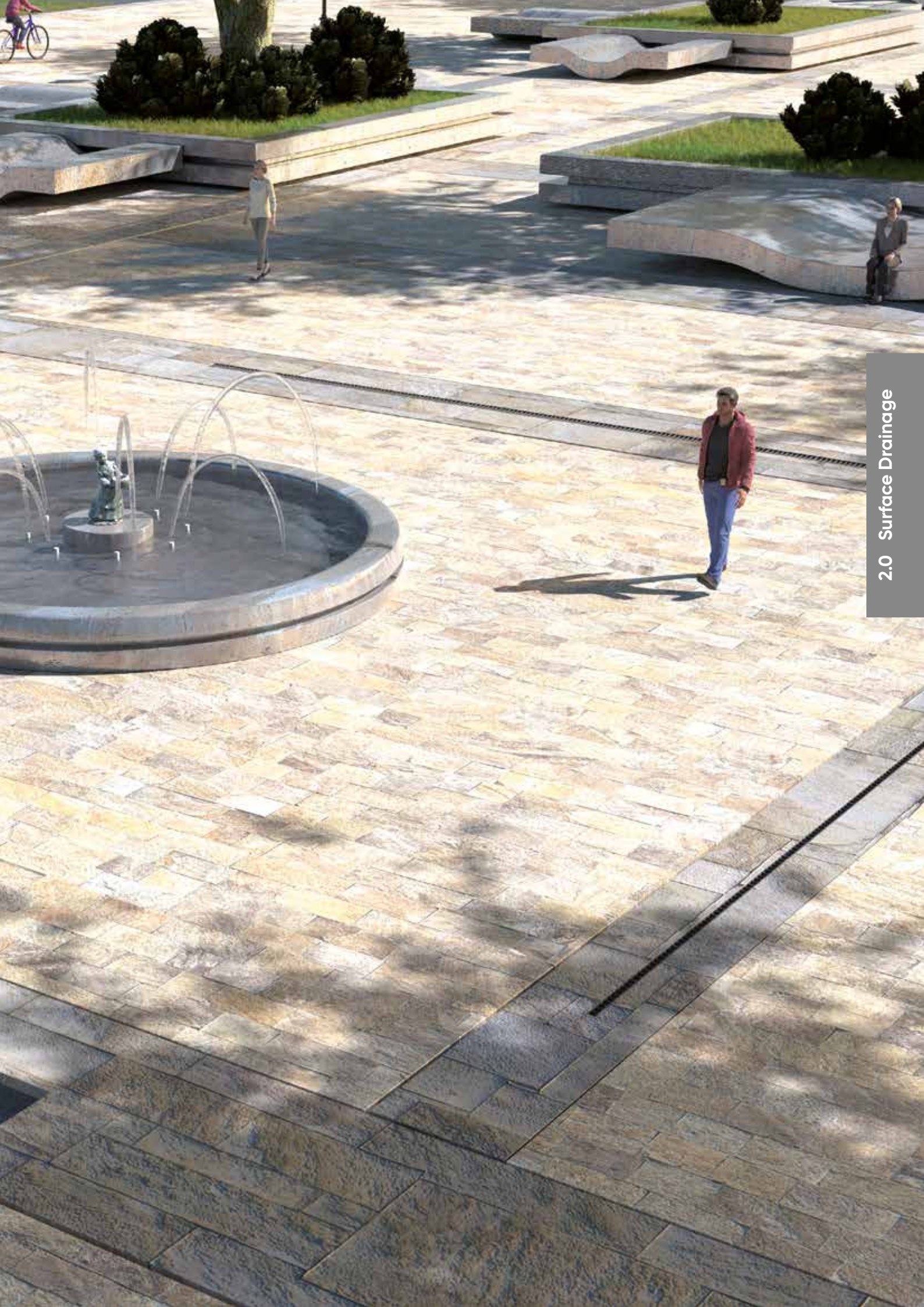
Product	Conc. %	Temp. 20 °C	Temp. 60 °C
Acetic Acid	60	S	L
Acetic Acid Monochloride	SOL.	S	L
Acetic Aldehyde	100	NS	-
Acetic Anhydride	100	NS	NS
Acetone	100	NS	NS
Adipic Acid	SOL.SAT.	S	L
Allyl Alcohol	90	L	S
Aluminum Chloride	SOL. SAT.	S	S
Aluminum Sulphate	SOL. SAT.	S	S
Ammonia (aqueous)	100	L	NS
Ammonia (gas)	100	S	S
Ammonia (solution)	SOL. DIL.	S	L
Ammonium Chloride	SOL. SAT.	S	S
Ammonium Fluoride	20	S	L
Ammonium Nitrate	SOL. SAT.	S	S
Ammonium Sulphate	SOL. SAT.	S	S
Amyl Acetate	100	NS	NS
Amyl Alcohol	100	S	L
Aniline	100	NS	NS
Aniline	SOL. SAT.	NS	NS
Aniline Hydrochloride	SOL. SAT.	NS	NS
Antimony Chloride	90	S	S
Arsenic Acid	SOL. DIL.	S	-
Beer		S	S
Benzaldehyde	0,1	NS	NS
Benzene	100	NS	NS
Benzoic Acid	SOL. SAT.	L	NS
Borax	SOL. SAT.	S	L
Boric Acid	SOL. DIL.	S	L
Bromine (liquid)	100	NS	NS
Bromine Acid	10	S	-
Butadiene	100	S	S
Butane	100	S	-
Butyl Acetate	100	NS	NS
Butyl Phenol	100	NS	NS
Butylene	100	S	L
Butyric Acid	20	S	L
Butyric Acid	98	NS	NS
Calcium Chloride	SOL. SAT.	S	S
Calcium Nitrate	50	S	S
Carbon Dioxide	100	S	S
Carbon Sulphide	100	NS	NS
Carbon tetrachloride	100	NS	NS
Cetyl Acid	100	S	S
Chlorine (dry gas)	100	L	NS
Chlorine (liquid)	SOL. SAT.	L	NS
Chlorosulphonic Acid	100	L	NS
Chromic Acid	1~50	S	L
Citric Acid	SOL. SAT.	S	S
Copper Chloride	SOL. SAT.	S	S
Copper Fluoride	2	S	S
Creosol	SOL. SAT.	-	NS
Cresol Acid	SOL. SAT.	NS	NS
Crotonic Aldehyde	100	NS	NS
Cyclohexanol	100	NS	NS
Cyclohexanone	100	NS	NS
Developing Bath		S	S
Dextrine	SOL. SAT.	S	L
Dichloroethylene	100	NS	NS
Diglycolic Acid	18	S	L
Dimethylammine	30	S	-
Ethyl Acetate	100	NS	NS
Ethyl Acrylate	100	NS	NS
Ethyl Alcohol	95	S	L
Ethyl Ether	100	NS	L
Ethylene Glycol	CONC.	L	L
Fluosilicic Acid	32	S	S
Formaldehyde	SOL.	S	S
Formaldehyde	40	S	S
Formic Acid	1~50	S	L
Furfural Alcohol	100	NS	NS
Glucose	SOL. SAT.	S	L
Glycerin	100	S	S
Glycolic Acid	30	S	S
Golden Syrup	SOL.	S	L
Hydrazine Benzene	100	NS	NS
Hydrazine Benzene Cloric	97	NS	NS
Hydrobromic Acid	50	S	L
Hydrochloric Acid	>30	S	S

Product	Conc. %	Temp. 20 °C	Temp. 60 °C
Hydrofluoric Acid	60	L	NS
Hydrogen	100	S	S
Hydrogen Dioxide	30	S	S
Hydrogen Sulphide	100	S	S
Iron Chloride	SOL. SAT.	S	S
Lactic Acid	10	S	L
Lactic Acid	10~90	L	NS
Lead Acetate	SOL. SAT.	S	S
Lead Tetraethyl	100	S	-
Magnesium Chloride	SOL. SAT.	S	S
Magnesium Sulphide	SOL. SAT.	S	S
Maleic Acid	SOL. SAT.	S	L
Methyl Alcohol	100	S	L
Methyl Methacrylate	100	NS	NS
Methylene Chloride	100	NS	NS
Milk		S	S
Nickel Sulphide	SOL. SAT.	S	S
Nicotinic Acid	CONC.	S	S
Nitric Acid	<46	S	L
Nitric Acid	46~98	NS	NS
Oils		S	S
Oleic Acid	100	S	S
Oleum	10% of SO	NS	NS
Oxalic Acid	SOL. DIL.	S	L
Oxalic Acid	SOL. SAT.	S	S
Oxigen	100	S	S
Ozone	100	NS	NS
Perchloric Acid	10	S	L
Perchloric Acid	70	L	NS
Petrol	80/20	NS	NS
Phenol	90	NS	NS
Phosphine	100	S	S
Phosphor Trichloride	100	NS	-
Phosphoric Acid	30	S	L
Picric Acid	SOL. SAT.	S	S
Potassium Bichromate	40	S	S
Potassium Bromide	SOL. SAT.	S	S
Potassium Chloride	SOL. SAT.	S	S
Potassium Chromate	40	S	S
Potassium Cyanide	SOL.	S	S
Potassium Ferricyanide	SOL. SAT.	S	S
Potassium Ferrocyanide	SOL. SAT.	S	S
Potassium Hydroxide	SOL.	S	S
Potassium Nitrate	SOL. SAT.	S	S
Potassium Permanganate	20	S	S
Potassium Persulfate	SOL. SAT.	S	L
Propane (gas liquid)	100	S	-
Pyridine	100	NS	-
Sea Water		S	L
Silver Nitrate	SOL. SAT.	S	L
Soap	SOL.	S	L
Sodium Benzoate	35	S	L
Sodium Bisulphite	SOL. SAT.	S	S
Sodium Chlorate	SOL. SAT.	S	S
Sodium Ferricyanide	SOL. SAT.	S	S
Sodium Hydroxide	SOL.	S	L
Sodium Hypochlorite	100 (13% Cl.)	S	L
Sodium Sulphite	SOL. SAT.	S	L
Sugar	SOL. SAT.	S	S
Sulphur Acid	SOL.	S	S
Sulphur Anhydride	100 (liquid)	L	NS
Sulphur Anhydride	100 (dry)	L	NS
Sulphuric Acid	40~90	S	L
Sulphuric Acid	96	L	NS
Tannic Acid	SOL.	S	S
Tartaric Acid	SOL.	S	S
Tin Chloride	SOL. SAT.	S	S
Toluene	100	NS	NS
Trichloroethylene	100	NS	NS
Trimethyl Propane	<10	S	L
Urea	10	S	L
Urine		S	L
Vinagre		S	S
Vinyl Acetate	100	NS	NS
Wine		S	S
Xylene	100	NS	NS
Yeast	SOL.	S	L
Zinc Chloride	SOL. SAT.	S	S

TS = Without corrosion L = Limitaded corrosion NS = Corrosion

For special applications it is recommended to contact the REDI Technical Department.


2.3
MODULAR DRAINAGE CHAMMELS B125
2.3
SLOT GRIL CONCEALED



2.0 Surface Drainage



Catch basins, covers and grills

REDI

aliaxis

Catch basins, covers and grills

Test methods

REDI brand products performances are tested in accordance to EN regulations.

Two tests are carried out in particular:
- waterflow control (discharge test)
- mechanical resistance (breaking test).

Discharge test

This test is carried out in compliance with EN1253-1 cap. 8.11. The discharge capacity (lt/sec) is indicated with the symbol:



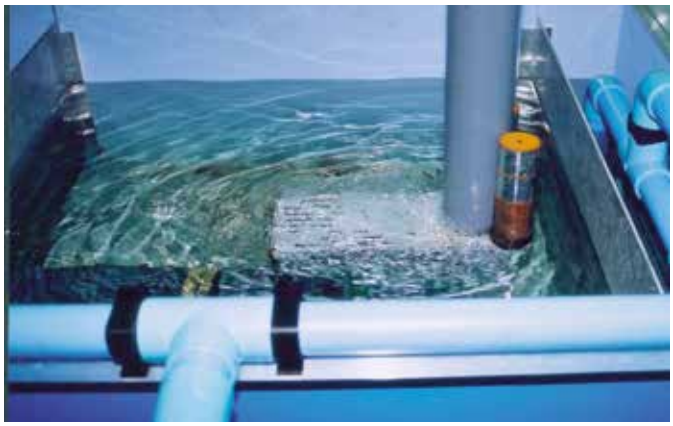
Test on mechanical stress resistance

This test is carried out in compliance with EN124 Standard. All certificates are available on request.
The breaking force (in KN) is indicated with the symbol:









Discharge Test on a rainwater collector.





Breacking test on a light duty traffic grill.



Plastics
Light solution



Polypropylene catch basin with PVC Grill



Easy to open



Light solution



Technical accessories



No leakage



Easy to open



Long time resistance of the junctions



Adaptable riser

Concrete
Heavy solution



Concrete catch basin with concrete cover



Difficult to open



Heavy solution



No accessories



Leakage (in the long term)



Difficult to open

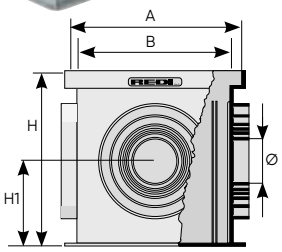


Short time resistance of the junctions



No extension



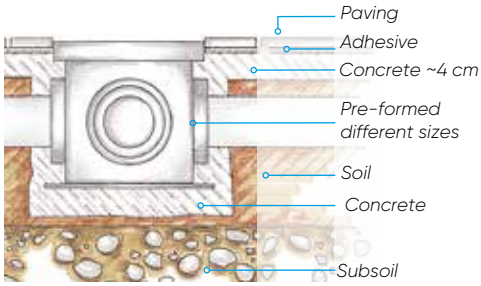


PP Catch basin

Regard de branchement en PP - Arqueta de registro PP

Dim (mm)	Reference Grey Ral 7035	Reference Green Ral 6005			A (mm)	B (mm)	H (mm)	H1 (mm)	Ø outlet (mm)
200x200	Y222004	Y22200V	1	300	189	161	200	100	63; 82; 100
200x200	Y212104	Y21210V	1	300	189	161	200	100	75; 90; 110 (export)
300x300	Y223004	Y22300V	1	48	286	253	297	140	82; 100; 125; 140
300x300	Y213104	Y21310V	1	48	286	253	297	140	75; 90; 110; 125; 160 (export)
400x400	Y224004	Y22400V	1	18	384	355	397	200	100; 125; 140; 160; 200; 250
550x550	Y225504	Y22550V	1	8	535	500	520	250	160; 200; 250; 315

Material: Polypropylene
Use: inspection chamber for rain and waste waters.
Benefits:
- light-weight
- easier to install than concrete chambers
- fully injection moulding
- high durability
- preformed cutouts for insertion of pipes in various sizes on all sides
- smooth rounded angles for a higher shock resistance
- it may be used as a connector block for electric systems.
Note: a concrete floor seating is recommended to prevent subsidence.

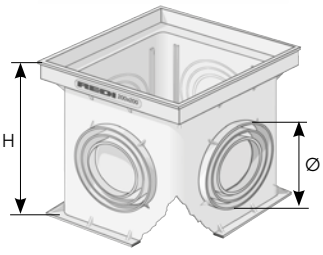


Baffle removal









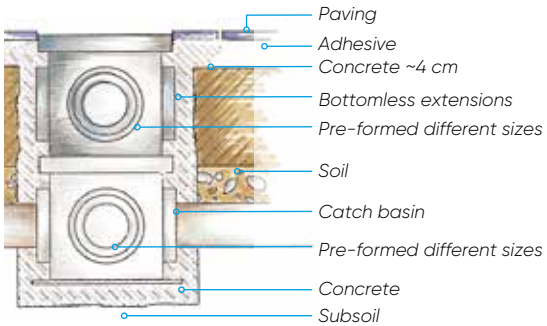
PP Bottomless extension

Rehausse sans fond en PP - Alargadera arqueta PP

Dim (mm)	Reference Grey Ral 7035	Reference Green Ral 6005			H (mm)	Ø outlet (mm)
200x200	Y332004	Y33200V	1	300	200	63; 82; 100
200x200	Y312104	✶	1	300	200	75; 90; 110 (export)
300x300	Y333004	Y33300V	1	48	297	82; 100; 125; 140
300x300	Y313104	✶	1	48	297	75; 90; 110; 125; 160 (export)
400x400	Y334004	Y33400V	1	18	397	100; 125; 140; 160; 200; 250
550x550	Y335504	Y33550V	1	9	520	160; 200; 250; 315

✶ For a minimum quantity available in the color green.

Material: Polypropylene
Colour: Grey RAL 7035
Use:
- extension
- leaking chamber for undergroung disposal of rain water
- inspection chamber for irrigation plants
- it may be used as a connector block for electric systems.





PP Catch basin for electric cables with watertight cover
Regard d'interface pour câbles électriques avec tampon étanche en PP
Arqueta registro para cables eléctricos en PP, con cierre estanco

Dim (mm)	H (mm)	Reference			Colour	Note
250x250	240	E802504	1	60	Grey	Ral 7035 Grey
250x250	240	E80250V	1	60	Green	Ral 6005 Green

Material: Polypropylene
Use : inspection chamber for electric cables
Inlet/outlet : Ø40, Ø50, Ø63, Ø75 mm
Condensation discharge Ø 20 mm
Screws for cover fastening included



Tested by ISTITUTO GIORDANO Qualità al Plurale.

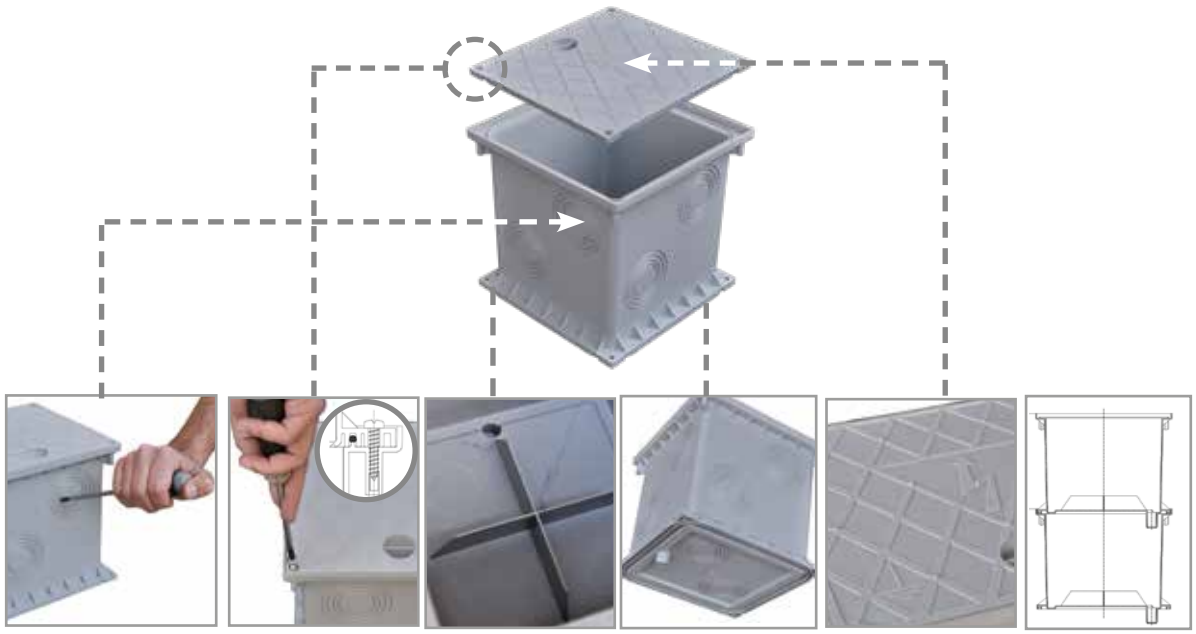
IP 67 certificate in accordance to CEI EN60529 norm

Protection against temporary water (max 30' at 1 mt depth)

Total protection against bodies and dust penetration



All products can be classified in load class A15 in accordance with regulation EN124 (resistance >15 KN). All tests have been carried out at internal laboratories in Aliaxis Group.



Easy to open

Watertight

Internal support for electrical boxes

Condensation discharge

Anti-slip cover Customizable on request

Stacking - Pre cut bottom



Spare parts
Pièces detachées - Tornillos de repuesto

L (mm)	Reference	Pack	Note
40	EKVTQ00*	1	4 screws in plastic bag

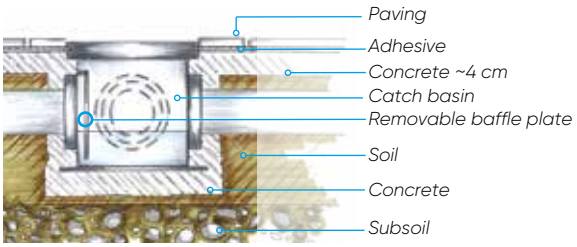
** Avallable on demand, after feasibility check*



PP Removable baffle plate
Plaque-siphon pour regard en PP - Placa para sifón PP

Dim (mm)	Reference Grey Ral 7035			Note
200x200	Y112004	10	1200	
300x300	Y113004	8	768	
400x400	Y114004	4	280	
550x550	Y115504	1	90	

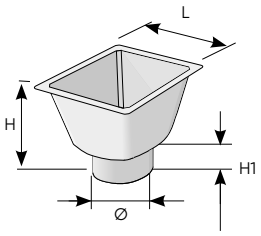
Material: Polypropylene
Use: to trap inlet pipe





Installation: the REDI catch basin is provided with special slots for the baffle to be fitted in.

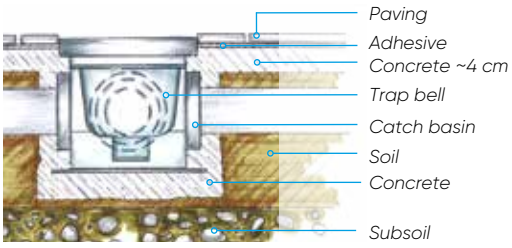




PP Trap bell for catch basin
Cloche siphoide siphon de sol en PP
Campana sifónica para arqueta registro PP

Dim (mm)	Reference Grey Ral 7035			H	H1	L	Ø	Note
300x300	E273304	1	156	210	58	251	125	
400x400	E274404	1	54	300	75	350	160	

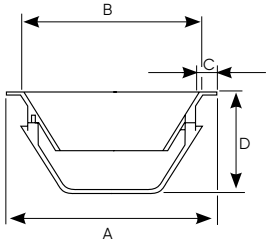
Material: Polypropylene
Use: To trap inspection catch basin.





Installation: the trap bell should be placed into the bottomless catch pit on the specially provided site stops.

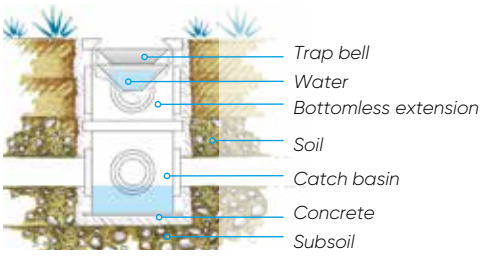




PP Trap bell for catch basin
Cloche siphoide siphon de sol en PP
Campana sifónica para alargadera de arqueta

Dim (mm)	Reference Grey Ral 7035			A (mm)	B (mm)	C (mm)	D (mm)	Note
300 x 300	E275504	1	180	249	238	5	160	
400 x 400	E276604	4	72	348	308	15	210	

Material: Polypropylene
Use: to trap bottomless extension



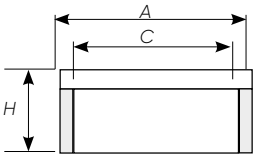


ıstallation: the trap bell hould be placed into ıe bottomless catch it on the specially rovided site stops

PP Short riser

Rehausse en PP (court) - Alargadera modular PP

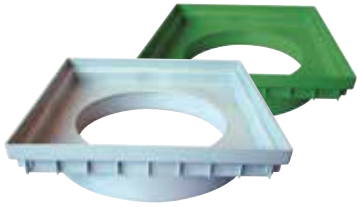


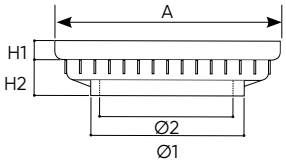


Dim (mm)	Ref. Grey Ral 7035			H (mm)	A (mm)	C (mm)	Note
200x200	Y332204	1	240	100	189	161	
300x300	Y333204	1	168	100	286	253	
400x400	Y334204	1	90	100	384	355	
550x550	Y335204	1	16	315	532	500	

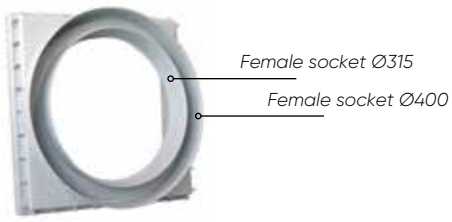
PP frame for pipe inspection

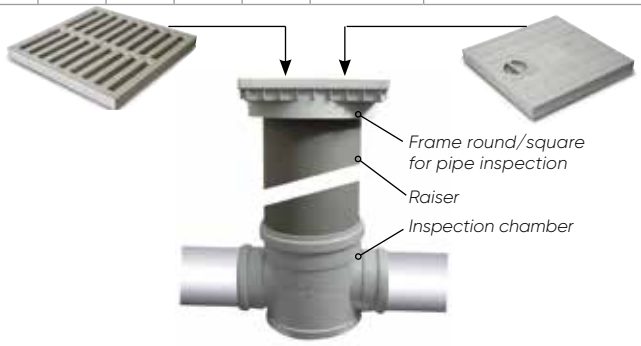
Cadre Carré/Rond en PP - Cerco para tubo de extensión PVC





Dim A (mm)	Ref.			Ø1 (mm)	Ø1 (mm)	H1 (mm)	H2 (mm)	Colour	Note
450x450	ETTQ304	1	40	400	315	50	65	Grey RAL 7035	*Compatible with pedestrian and light traffic 450x450 covers and grills*
450x450	ETTQ30V	1	40	400	315	50	65	Green RAL 6005	*Compatible with pedestrian and light traffic 450x450 covers and grills*



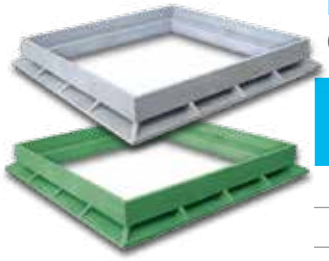


Spare parts

Pièces detachées - Tornillos de repuesto

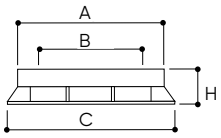


L (mm)	Reference	Pack	Note
40	EKVTQ00	1	4 screws in plastic bag

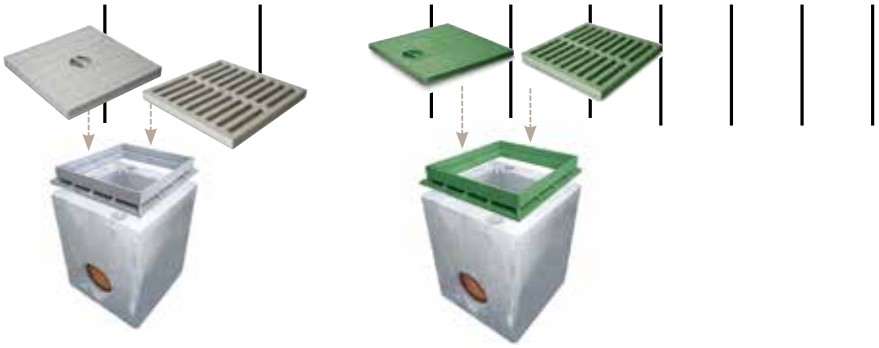


Frame
Cadre - Cerco

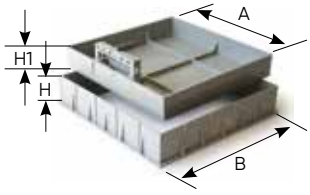
Dim (mm)	Reference Grey Ral 7035	Reference Green Ral 6005			A (mm)	B (mm)	C (mm)	H (mm)	Material
200x200	E202004	E20200V	10	400	200	160	209	40	PVC
300x300	E203004	E20300V	5	165	300	250	328	42	PVC
350x350	E203504	E20350V	5	120	350	300	352	42	PVC
400x400	E204004	E20400V	2	64	400	350	428	45	PVC
450x450	E204504	E20450V	2	64	450	400	448	45	PVC
550x550*	E205604	E20560V	1	40	550	500	583	55	*PP



Material: PVC
Use: to house covers, grates and formworks for closing concrete or masonry catch basins or for other special applications.
Installation: thanks to its special side slits, the REDI frame perfectly fits concrete.









PVC Formwork with handle
Tampon de coffrage avec poignée et cadre en PVC
Tapa rellenable con asa y cerco PVC

Dim (mm)	Reference Grey Ral 7035			A (mm)	H (mm)	B (mm)	H1 internal	Dim. Concrete catch basin	kg
350x350	ECM3504	1	78	350x350	70	370x370	50	300x300	2,5
450x450	ECM4504	1	32	450x450	70	470x470	50	400x400	3,5
550x550	ECM5004	1	26	550x550	70	570x570	50	500x500	4,8
350x350	ECM3804*	1	-	350x350	105	370x370	85	300x300	2,6

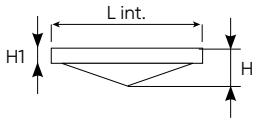
** Subject to availability of stocks*
Material: PVC
Use: as an alternative to the normal cover for catch basin when the surface appearance has to be kept unaltered.
The cover's cavity has to be filled with the proper material (as shown in the pictures).
Once installed, it can be easily lifted off by the handle.
Application field: light duty traffic areas such as garage fronts, private driveways,parkings pedestrian areas.
Durability: PVC specifications and structure design give this product a great resistance against atmospheric agents and ageing, and ensure dimensional stability in time.

Benefits:
*- Handle tested to resist (certified traction resistance of 220 kg)**
- Handle easily extractable (handle fixed with screws on the bottom of the formwork)
- Manageable and practical
- Handle fixed with screws on the bottom of the formwork so that it can be easily dismantled for cleaning
- Iron mesh can be placed inside to improve load resistance
- Designed to support heavy loads
- Thicker section to avoid lateral bendings
- Resistant to acids and atmospheric agents
*- Certified load resistance (more than 203 kn = 20,3t)**
** Test have been carried out by Istituto Giordano. Data and specifications are available on request*

PP Formwork

Tampon de coffrage en PP - Tapa rellenable PP



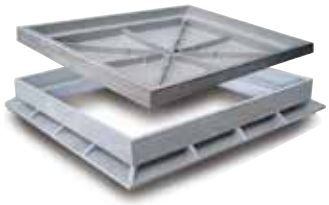


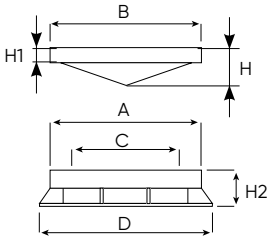
Dim (mm)	Reference Grey Ral 7035			L. int (mm)	H (mm)	H1 (mm)	Note
200 x 200	E292204	10	400	182	29	16	
300 x 300	E293304	5	165	278	41	19	
400 x 400	E294404	2	64	375	42	20	

Material: Polypropylene
Use: as an alternative cover for catch basin when the surface appearance has to be kept unaltered.
The cover's cavity has to be filled with the proper material (as shown in the pictures).
Installation: the recessed cover perfectly fits the REDI catch basin. Always use a frame when closing concrete catch basins or in case of special applications.
Once installed, it can be easily lifted off by the central pin.
Application field: pedestrian area, bicycle paths.
Durability: as Polypropylene is a plastic corrosion proof material, the REDI recessed cover is the best alternative to metal products subject to deformation due to atmospheric agents and ageing.

PP Formwork with frame

Tampon de coffrage avec cadre en PP
Tapa rellenable con cerco PP



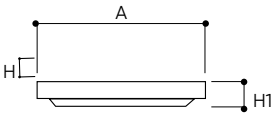


Dim (mm)	Reference Grey Ral 7035			A (mm)	B (mm)	C (mm)	H (mm)	D (mm)	H1 int. (mm)	H2 (mm)
200 x 200	E302204	10	400	200	182	160	29	209	16	40
300 x 300	E303304	5	165	300	284	250	41	328	19	42
400 x 400	E304404	2	64	400	383	350	42	428	20	45

Filling suggestions



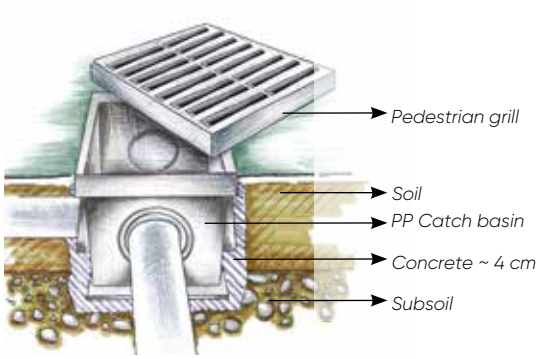




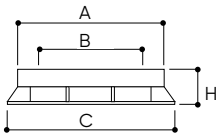
PVC Pedestrian grill
Grille piétonnière en PVC - Rejilla peatonal PVC

Dim (mm)	Reference Grey Ral 7035			A (mm)	H (mm)	H1 (mm)	KN	L/S	Note
200x200	E722004	10	950	187	20	25	25	1,7	
300x300	E723004	5	300	284	20	30	18	2,8	
400x400	E724004	2	156	383	25	35	19	3,8	
450x450	E724504	2	64	432	25	40	22	4,1	
550x550	E725504	1	50	534	34	45	38	4,6	

Material: PVC
Colour: GREY RAL 7035
Use: to cover rain or waste water drainage catch basin.
Installation: the grate perfectly fits the REDI catch pit.
Always use a frame when covering concrete catch basin or in case of special applications.
Application field: pedestrian, cycle or motorcycle areas.
Durability: PVC specifications and structure design give this product a great resistance against atmospheric agents and ageing and ensure dimensional stability in time.





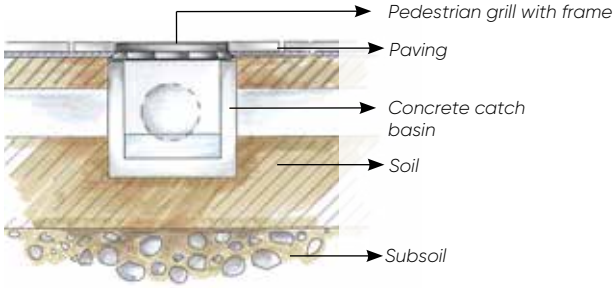


PVC Pedestrian grill with frame
Grille piétonnière avec cadre en PVC
Rejilla con cerco peatonal PVC

Dim (mm)	Reference Grey Ral 7035			A (mm)	B (mm)	C (mm)	H (mm)	KN	L/S	Note
200x200	E742004	10	400	200	160	209	40	25	1,7	
300x300	E743004	5	165	300	250	328	42	18	2,8	
400x400	E744004	2	64	400	350	428	45	19	3,8	
450x450	E744504	2	64	450	400	448	45	22	4,1	
550x550*	E745504	1	38	550	500	583	55	38	4,6	

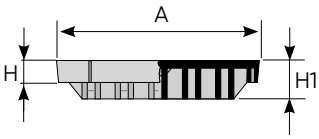
* frame/cadre/cerco PP material

Material: PVC
Colour: GREY RAL 7035
Use: to close concrete or masonry catch basin, or in case of special installations.
Installation: the frame accommodates the grill. When installed on concrete catch basin, frame's side slots ensure a perfect anchorage to the concrete casting.
Application field: pedestrian, cycle or motorcycle areas.



PVC Light traffic grill class A15
Grille renforcée en PVC classe A15
Rejilla reforzada de PVC clase A15

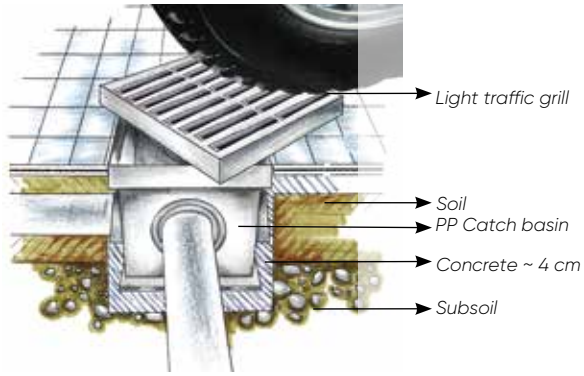




Dim (mm)	Reference Grey Ral 7035			A (mm)	H (mm)	H1 (mm)	KN	L/S	Note
200x200	E256704	10	400	187	20	35	49	1,7	
300x300	E256904	5	165	284	20	45	53	2,8	
350x350	E257004	5	120	331	22	45	84	3,3	
400x400	E257404	2	64	383	25	55	32	3,8	
450x450	E257504	2	64	432	25	55	63	4,1	
550x550	E257604	1	38	534	34	65	88	4,6	

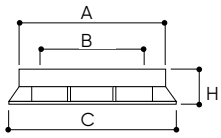
Tested by ISTITUTO GIORDANO

Material: PVC
Colour: GREY RAL 7035
Use: to cover for rain or waste water drainage catch basin.
Installation: the grate perfectly fits the REDI catch pit.
Application field: light duty traffic areas, such as grarage fronts, private driveways, pedestrian areas.
Durability: PVC specifications and structure design give this product a great resistance against atmospheric agents and ageing and ensure dimensional stability in time.



PVC Light traffic grill with frame class A15
Grille renforcée avec cadre en PVC classe A15
Rejilla con cerco reforzada de PVC clase A15





Dim (mm)	Reference Grey Ral 7035			A (mm)	B (mm)	C (mm)	H (mm)	KN	L/S
200x200	E212004	10	400	200	160	209	40	49	1,7
300x300	E213004	5	165	300	250	328	42	53	2,8
350x350	E213504	5	120	350	300	352	42	84	3,3
400x400	E214004	2	64	400	350	428	45	32	3,8
450x450	E214504	2	64	450	400	448	45	63	4,1
550x550*	E215304	1	34	550	500	583	55	88	4,6

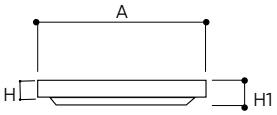
Tested by ISTITUTO GIORDANO

* frame/cadre/cerco PP material

Material: PVC
Colour: GREY RAL 7035
Use: to close concrete or masonry catch basin, or in case of special installations.
Installation: the frame accommodates the grill. When installed on concrete catch basin, frame's side slots ensure a perfect anchorage to the concrete casting.
Application field: light duty traffic areas, such as grarage fronts, private driveways, pedestrian areas.
Durability: PVC specifications and structure design give this product a great resistance against atmospheric agents and ageing and ensure dimensional stability in time.

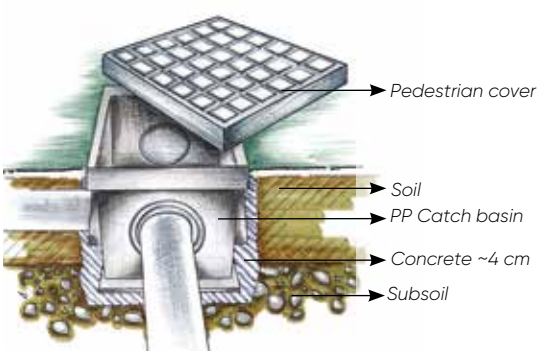
PVC Pedestrian cover
Tampon piétonnier en PVC - Tapa peatonal PVC





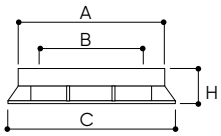
Dim (mm)	Reference Grey Ral 7035			A (mm)	H (mm)	H (mm)	KN	Note
200x200	E682004	10	950	187	20	25	14	
300x300	E683004	5	300	284	20	30	20	
400x400	E684004	2	156	383	25	35	25	
450x450	E684504	2	64	432	25	40	29	
550x550	E685504	1	50	539	34	45	26	

Material: PVC
Colour : GREY RAL 7035
Use: Catch pit covering.
Installation: the cover perfectly fits the REDI catch pit.
Application field: pedestrian, cycle or motorcycle areas. Durability: PVC specifications and structure design give this product a great resistance against atmospheric agents and ageing and ensure dimensional stability in time.



PVC Pedestrian cover
Tampon piétonnier en PVC - Tapa peatonal con cerco PVC

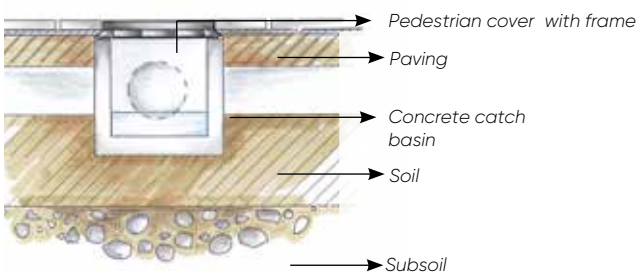




Dim (mm)	Reference Grey Ral 7035			A (mm)	B (mm)	C (mm)	H (mm)	KN	Note
200x200	E702004	10	400	200	160	209	40	13	
300x300	E703004	5	165	300	250	328	42	19	
400x400	E704004	2	64	400	350	428	45	24	
450x450	E704504	2	64	450	400	448	45	28	
550x550*	E705504	1	34	550	500	583	55	28	

* frame/cadre/cerco PP material

Material: Cover PVC
Colour: GREY RAL 7035
Use: to close concrete or masonry catch basin, or in case of special installations.
Installation: the frame accommodates the cover. When installed on concrete catch basin, frame's side slots ensure a perfect anchorage to the concrete casting.
Application field: pedestrian, cycle or motorcycle areas.



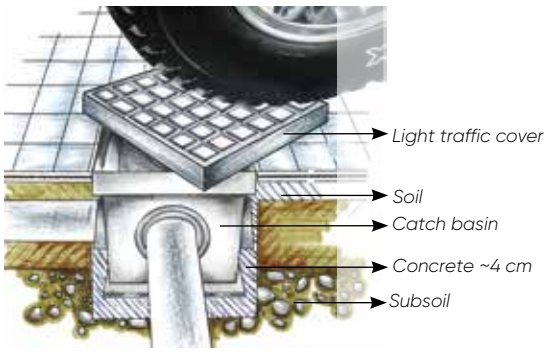
PVC Light traffic cover A15 class
Tampon renforcée en PVC classe A15
Tapa reforzada de PVC clase A15





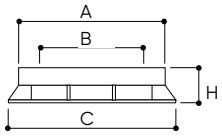
Dim (mm)	Reference Grey Ral 7035			A (mm)	H (mm)	H1 (mm)	KN	Note
200x200	E255704	10	400	187	20	35	57	
300x300	E255904	5	165	284	20	45	35	
350x350	E256004	5	120	331	22	45	94	
400x400	E256404	2	64	383	25	55	31	
450x450	E256504	2	64	432	25	55	111	
550x550	E256604	1	38	534	34	65	56	

Material: PVC
Colour : GREY RAL 7035
Use: Catch pit covering.
Installation: the cover perfectly fits the REDI catch pit.
Application field: light duty traffic areas, such as garage fronts, private driveways, pedestrian areas.
Durability: PVC specifications and structure design give this product a great resistance against atmospheric agents and ageing and ensure dimensional stability in time.



PVC Light traffic cover with frame A15 class
Tampon renforcée avec cadre en PVC classe A15
Tapa con cerco reforzada de PVC clase A15





Dim (mm)	Reference Grey Ral 7035			A (mm)	B (mm)	C (mm)	H (mm)	KN	Note
200x200	E232004	10	400	200	160	209	40	57	
300x300	E233004	5	165	300	250	328	42	35	
350x350	E233504	5	129	350	300	352	42	94	
400x400	E234004	2	64	400	350	428	45	31	
450x450	E234504	2	64	450	400	448	45	111	
550x550*	E235304	1	34	550	500	583	55	56	

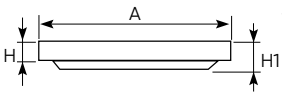
* frame/cadre/cerco PP material

Material: PVC
Colour : GREY RAL 7035
Use: to close concrete or masonry catch basin, or in case of special installations.
Installation: the frame accommodates the cover. When installed on concrete catch basin, frame's side slots ensure a perfect anchorage to the concrete casting.
Application field: light duty traffic areas, such as garage fronts, private driveways, pedestrian areas.
Durability: PVC specifications and structure design give this product a great resistance against atmospheric agents and ageing and ensure dimensional stability in time.

PVC Pedestrian grill

Grille piétonnière en PVC - Rejilla peatonal PVC



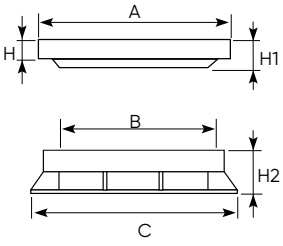


Dim (mm)	Reference Green Ral 6005			A (mm)	H (mm)	H1 (mm)	KN	L/S	Note
200x200	E72200V	10	950	187	20	25	1,7	23	
300x300	E72300V	5	300	284	20	30	2,8	18	
350x350	E25700V*	5	120	331	22	45	3,3	85	* Light traffic
400x400	E72400V	2	156	383	25	35	3,8	19	
450x450	E72450V	2	64	432	25	40	4,1	22	
550x550	E72550V	1	50	534	34	45	4,6	38	

PVC Green pedestrian grill with frame

Grille piétonnière avec cadre en PVC - Rejilla peatonal con cerco PVC





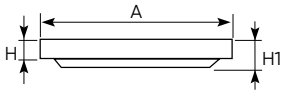
Dim (mm)	Reference Green Ral 6005			A (mm)	H (mm)	H1 (mm)	B (mm)	C (mm)	H2 (mm)	KN	L/S	Note
200x200	E74200V	10	400	187	20	25	160	209	40	1,7	23	
300x300	E74300V	5	165	284	20	30	250	328	42	2,8	18	
350x350	E21350V*	5	120	331	22	45	300	352	42	3,3	85	* Light traffic
400x400	E74400V	2	64	383	25	35	350	428	45	3,8	19	
450x450	E74450V	2	64	432	25	40	400	448	45	4,1	22	
550x550**	E74550V	1	50	534	34	45	500	583	55	4,6	38	

** frame/cadre/cerco PP material

PVC Green pedestrian cover

Tampon piétonnier en PVC - Tapa peatonal PVC



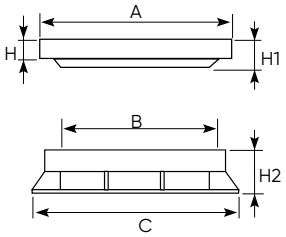


Dim (mm)	Reference Green Ral 6005			A (mm)	H (mm)	H1 (mm)	KN	Note
200x200	E68200V	5	950	187	20	25	32	
300x300	E68300V	5	300	284	20	30	20	
350x350	E25600V*	2	120	284	22	30	85	* Light traffic
400x400	E68400V	2	156	383	25	35	26	
450x450	E68450V	1	64	432	25	40	27	
550x550	E68550V	1	50	534	34	45	21	

PVC Green pedestrian cover with frame

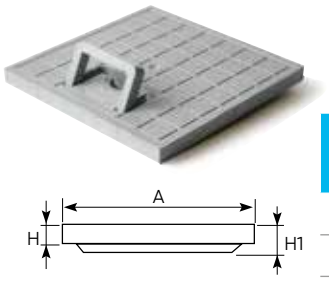
Tampon piétonnier avec cadre en PVC - Tapa peatonal con cerco PVC





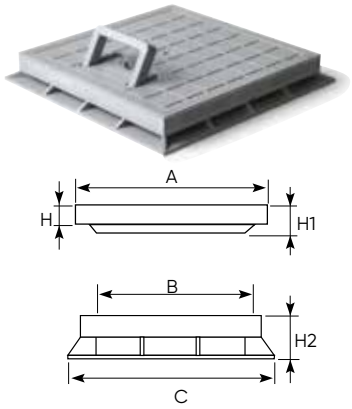
Dim (mm)	Reference Green Ral 6005			A (mm)	H (mm)	H1 (mm)	B (mm)	C (mm)	H2 (mm)	KN	Note
200x200	E70200V	10	400	187	20	25	160	209	40	32	
300x300	E70300V	5	165	284	20	30	250	328	42	20	
350x350	E23350V*	5	120	284	22	30	250	328	42	85	* Light traffic
400x400	E70400V	2	64	383	25	35	350	428	45	26	

Material: PVC
Colour : Green
Features: when placed in gardens or parks, it matches the landscape's colour.
Light duty traffic grate: to cover rain or waste water drainage catch basin.
Application field: light duty traffic areas such as garage fronts, private driveways, pedestrian areas.
Installation: Cover and grate perfectly fit the REDI catch pit.
Always use a frame when closing concrete catch basin or in case of special application



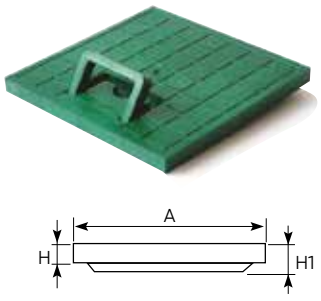
PVC Pedestrian Cover with handle
Tampon piétonnier avec poignée en PVC
Tapa peatonal con asa PVC

Dim (mm)	Reference Grey Ral 7035			A (mm)	H (mm)	H1 (mm)	H2 (mm)	KN	Note
300x300	E255804	5	300	284	20	30	20	20	
400x400	E256304	2	156	383	25	35	26	26	
550x550	E257804	1	56	534	34	45	21	21	



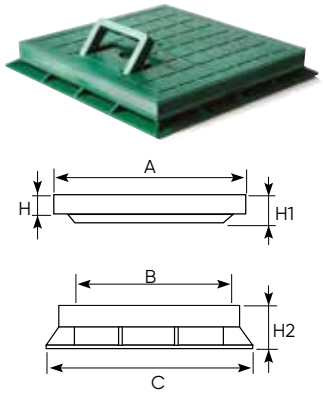
PVC Pedestrian Cover with handle and frame
Tampon piétonnier avec poignée et cadre en PVC
Tapa peatonal con asa y cerco PVC

Dim (mm)	Reference Grey Ral 7035			A (mm)	B (mm)	C (mm)	H2 (mm)	H1 (mm)	H (mm)	KN
300x300	E233104	5	165	284	250	328	42	30	20	20
400x400	E234104	2	64	383	350	428	45	35	25	26
550x550	E235404	1	38	534	500	583	55	45	34	21



PVC Green cover with handle
Tampon piétonnier avec poignée en PVC
Tapa peatonal con asa PVC

Dim (mm)	Reference Green Ral 6005			A (mm)	H (mm)	H1 (mm)	KN	Note
300x300	E25580V	5	300	284	20	30	20	
400x400	E25630V	2	156	383	25	35	26	
550x550	E25780V	1	56	534	34	45	21	

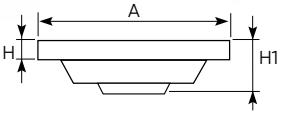


PVC Green cover with handle and frame
Tampon piétonnier avec poignée et cadre en PVC
Tapa peatonal con asa y cerco PVC

Dim (mm)	Reference Green Ral 6005			A (mm)	B (mm)	C (mm)	H2 (mm)	H1 (mm)	H (mm)	KN
300x300	E23310V	5	165	284	250	328	42	30	20	20
400x400	E23410V	2	64	383	350	428	45	35	25	26
550x550	E23540V	1	38	534	500	583	55	45	34	21

Material: PVC
Use: Catch basin covering.
Installation: the cover perfectly fits the REDI catch basin.
Always use a frame in case of special installations or when closing concrete catch basins.
The special handle allows easy access.
Application field: pedestrian, bicycle paths areas.
Durability: PVC specifications and structure design give this product a great resistance against atmospheric agents and ageing, and ensure dimensional stability in time.





PVC cover classe B125

Tampon renforcé classe en PVC B125

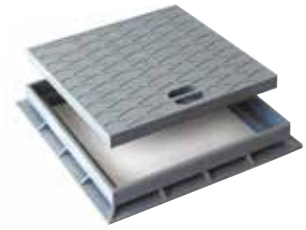
Tapa reforzada de PVC clase B125

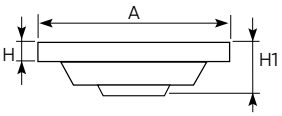
Dim (mm)	Reference Grey Ral 7035			A (mm)	H (mm)	H1 (mm)	KN	Note
300x300	ECR3004	2	120	284	20	67	>125	
400x400	ECR4004	2	64	383	25	62	>125	

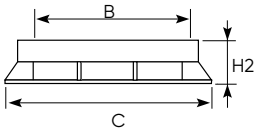
Tested by ISTITUTO GIORDANO

LIGHT DUTY TRAFFIC
Load Class B125 in according with regulation EN 124









PVC cover with frame classe B125

Tampon renforcé avec cadre en PVC classe B125

Tapa con cerco reforzada de PVC clase B125

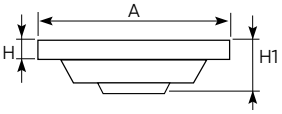
Dim (mm)	Reference Grey Ral 7035			A (mm)	B (mm)	C (mm)	H (mm)	H1 (mm)	H2 (mm)	KN
300x300	ECT3004	3	99	284	250	328	20	42	67	>125
400x400	ECT4004	2	64	383	350	428	25	45	62	>125

Tested by ISTITUTO GIORDANO

LIGHT DUTY TRAFFIC
Load Class B125 in according with regulation EN 124







PVC grill classe B125

Grille renforcée en PVC classe B125

Rejilla reforzada de PVC clase B125

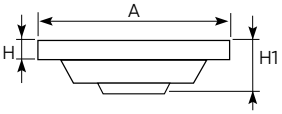
Dim (mm)	Reference Grey Ral 7035			A (mm)	H (mm)	H1 (mm)	KN	L/S	Note
300x300	EGR3004	2	120	284	20	67	>125	1,4	
400x400	EGR4004	2	64	383	25	62	>125	2,9	

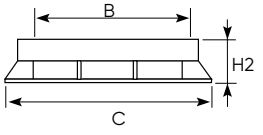
Tested by ISTITUTO GIORDANO

LIGHT DUTY TRAFFIC
Load Class B125 in according with regulation EN 124









PVC grill with frame classe B125

Grille renforcée avec cadre en PVC classe B125

Rejilla con cerco reforzada de PVC clase B125

Dim (mm)	Reference Grey Ral 7035	€/pc			A (mm)	B (mm)	C (mm)	H (mm)	H1 (mm)	H2 (mm)	KN	L/S
300x300	EGT3004	**74,29**	3	99	284	250	328	20	67	42	>125	1,4
400x400	EGT4004	**114,08**	2	64	383	350	428	25	62	45	>125	2,9

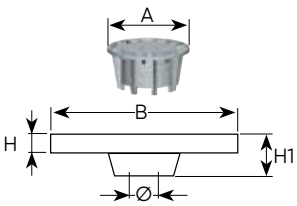
Material: PVC
Use: Catch basin covering.
Installation: the grate perfectly fits the REDI catch basin.
Always use a frame in case of special installations or when closing concrete catch basins.
The handle allows easy access.
Application field: light duty traffic areas such as garage fronts, private driveways,parkings pedestrian areas. Durability: PVC specifications and structure design give this product a great resistance against atmospheric agents and ageing, and ensure dimensional stability in time.

Tested by ISTITUTO GIORDANO

LIGHT DUTY TRAFFIC
Load Class B125 in according with regulation EN 124





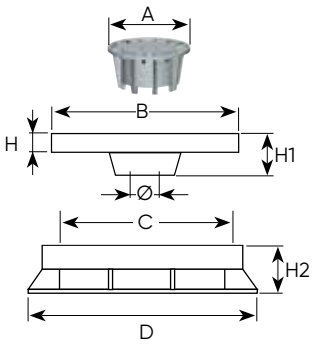


PVC pedestrian cover with siphon
Tampon piétonnier avec siphon en PVC
Tapa peatonal con sifón PVC

Dim (mm)	Reference Grey Ral 7035			A (mm)	B (mm)	H (mm)	H1 (mm)	Ø (mm)	L/S	Note
300x300	ECN3004	2	120	130	284	20	60	50	0,9	
400x400	ECN4004	1	32	180	383	25	83	75	1,4	

Use: to close inspection catch basins. Provided with a trap for rain or waste water drainage.



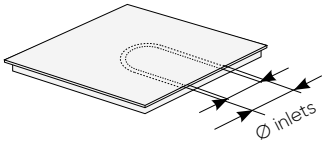


PVC pedestrian cover with siphon and frame
Tampon piétonnier avec siphon et cadre en PVC
Tapa peatonal con sifón y cerco PVC

Dim (mm)	Reference Grey Ral 7035			A (mm)	B (mm)	H (mm)	H1 (mm)	Ø (mm)	C (mm)	D (mm)	H2 (mm)	L/S
300x300	ECS3004	3	99	130	284	20	60	50	250	328	42	0,9
400x400	ECS4004	1	32	180	383	25	83	75	350	428	45	1,4

Use: to close inspection catch basins. Provided with a trap for rain or waste water drainage.

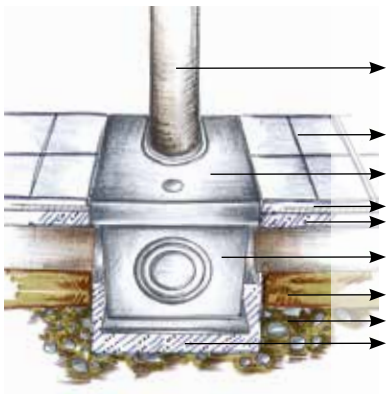




PVC Rainwater catch pitch cover
Tampon pour regard de descente eaux pluviales en PVC
Tapa ara registro de bajante de aguas pluviales PVC

Dim (mm)	Reference Grey Ral 7035			Ø inlets (mm)	Note
300x300	E683104	10	330	80 - 100	
300x300	E683204	10	330	75 - 80 - 110 - 125 - 160	

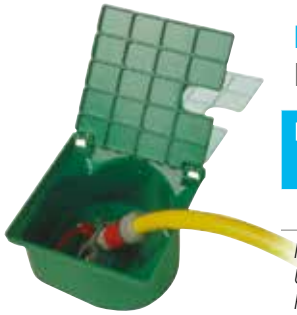
Material: PVC
Use: to cover inspection catch basins directly connected to gutter downpipes.
Installation: the cover is provided with a removable section ("Cut out") to allow gutter downpipes passing through.
Application field: pavements, paved or grass walkways.
Note: this solution is recommended when wider inspection or multi-inlet connections or larger diameters downpipesare required.







Removable section

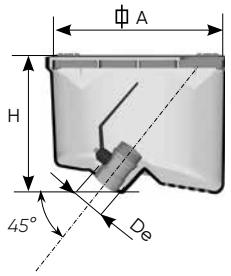


PVC Valve box for irrigation

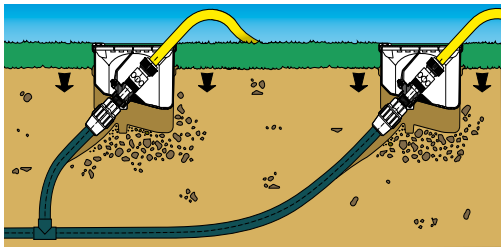
Bouche d'arrosage en PVC - Arqueta de riego con válvula PVC

Dim (mm)	H (mm)	Ø	Reference			Note
200x200	147	3/4"	W949400	1	100	

Material: PVC
Use: to connect irrigation hoses in gardens and pedestrian areas.
Features:
- easy-to-use built-in brass valve
- high resistance to mechanical stress
- high UV resistance
- hinged cover
- the box can be closed even if the hose is connected.
Note: it may be laid underground or fixed with concrete.











PP Bottomless valve box (round version)

Regard irrigation rond sans fond en PP
Arqueta de riego redonda PP

Ø1 (mm)	Ø2 (mm)	H (mm)	Reference			Note
160	212	230	POZ160V	1	320	
240	300	250	POZ240V	1	144	



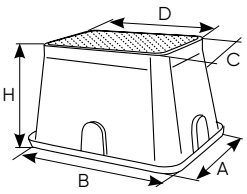


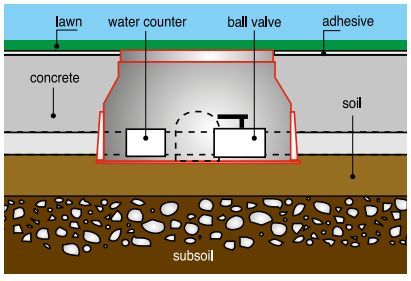
PP Bottomless valve box (square version)

Regard irrigation rectangulaire sans fond en PP
Arqueta de riego rectangular PP

AxB (mm)	CxD (mm)	H (mm)	Reference			Note
380x510	260x385	300	POZ260V	1	32	
500x640	350x500	300	POZ500V	1	112	

Material: Polypropylene
Colour: Green cover and Black body
Use: this valve box allows irrigation systems connection and inspection in pedestrian areas.
Features:
- cover with screw fixing
- pierced walls for pipes to pass through.
Note: this valve box is self supporting. It may be laid underground or fixed with concrete.







Rainwater gullies

REDI

aliaxis

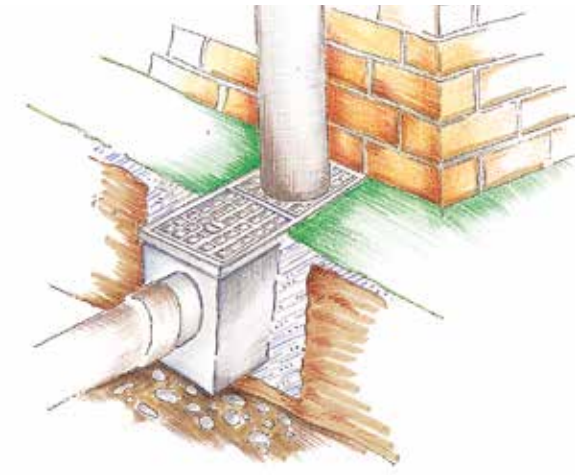
Rainwater gullies

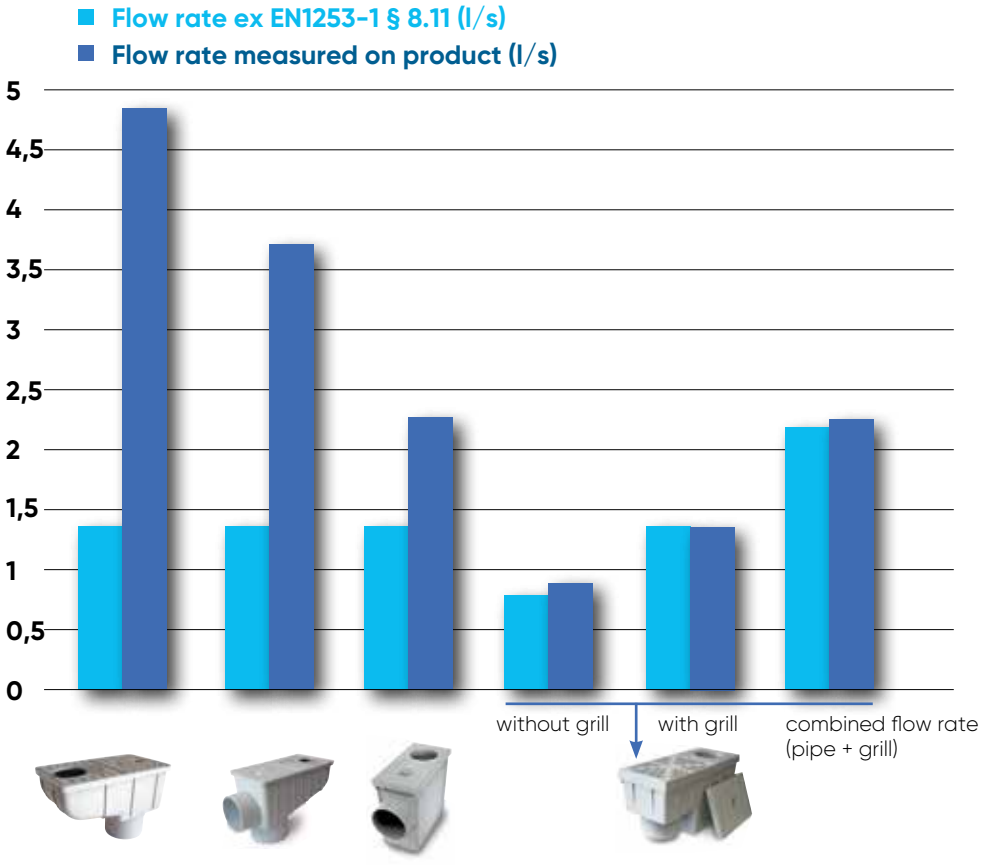


Installation example



Installation example



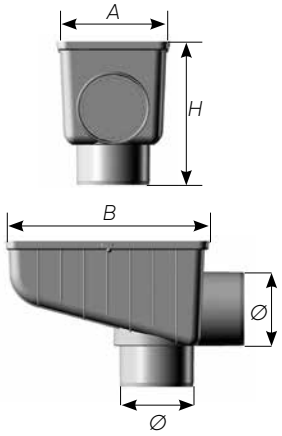




Untrapped rainwater gully with vertical/horizontal outlet

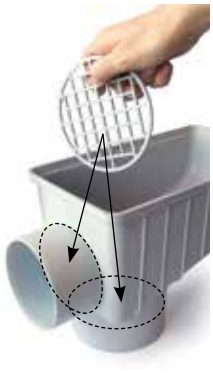
Regard de descente pour eaux pluviales sortie verticale/horizontale sans siphon - Arqueta para bajante de aguas pluviales, no sífónica, salida vertical/horizontal

Dim AxB (mm)	Reference Grey Ral 7035			Ø (mm)	Ø1 (inlets) (mm)	H (mm)	L/S	Material
166x300	Y891004	3	42	100/110	50/75/80/90/100/110/125	215	3,7	PP



Material: Polypropylene
Use: inspection chamber for rainwater flowing from gutter downpipes to the sewage.

Benefits:
***ICE PREVENTION**; light-weight; easier installation than concrete version; fully injection moulded; leaf guard to be positioned in horizontal or vertical direction; high durability in the long term; internal removable baffle plate; cover fasten to the gully or grill; available with round inlet Ø: 50/75/80/90/100/110/125; vertical and horizontal outlet Ø100 (internaland) Ø110 (external); internal removable baffle plate; cover or grill fasten to the gully*
Installation: a concrete floor seating is recommended.
Application field: pavements, grass or paved walkways.



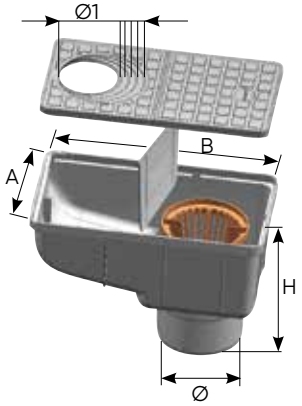


Untrapped rainwater gully with vertical outlet

Regard de descente pour eaux pluviales sortie verticale sans siphon - Arqueta para bajante de aguas pluviales, no sífónica, salida vertical

Dim AxB (mm)	Reference Grey Ral 7035			Ø (mm)	Ø1 (inlets) (mm)	H (mm)	C (mm)	L/S	Mat.
166x300	Y881004 ✦	6	84	100	50/75/80/90/100/110	195	80	4,9	PP
166x300	Y881104 ✦	6	84	110	50/75/80/90/100/110	195	80	4,9	PP
166x300	Y88AL04* ✦	6	84	125	50/75/80/90/100/110	215	80	4,5	PP

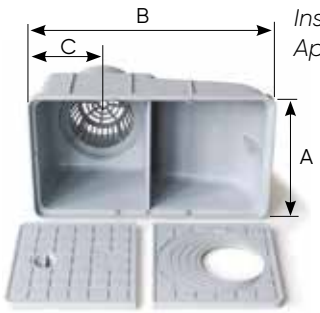
* with internal universal grill
✦ Available in BLACK and BROWN colours on request



Material: Polypropylene
Use: inspection chamber for rainwater flowing from gutter downpipes to the sewage.

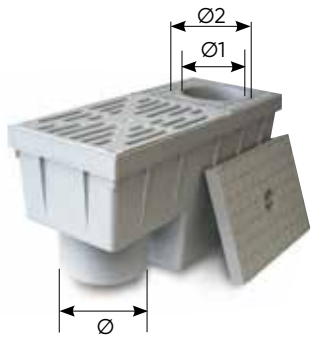
Tested by CSTB
Flow rate in accordance with regulation EN1253-1 §8.11

Benefits:
***ICE PREVENTION**; light-weight; easier installation than concrete version; fully injection moulded; high durability in the long term; access cover with handle; leaves basket (except in model with Ø125 mm); internal removable baffle plate; available with round inlet Ø: 75/80/90/100/110; vertical outlet Ø100, Ø110 and Ø125*
Installation: a concrete floor seating is recommended.
Application field: pavements, grass or paved walkways.




Easy to adapt


Supplied with basket

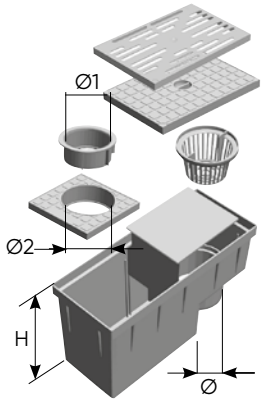


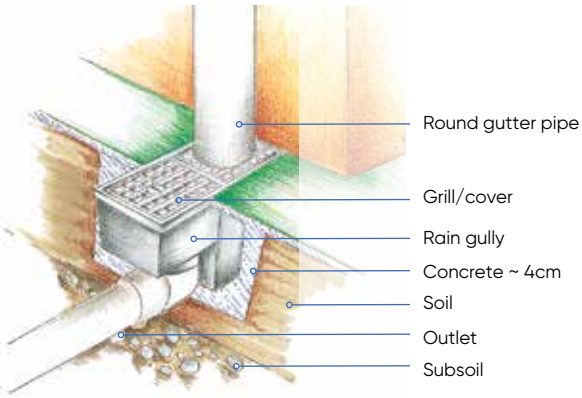
Trapped rainwater gully round inlet vertical outlet
Regard de descente avec siphon sortie verticale
Arqueta sífónica para bajante de aguas pluviales, salida vertical

Dim AxB (mm)	Reference Grey Ral 7035			Ø (mm)	Ø1 (mm)	Ø2 (mm)	H (mm)	L/S	Material
380x156	Y661304* ▲	3	42	100	80	100	197	0,9 - 1,4	PP
380x156	Y662204* ▲	3	42	110	75/90	110	197	0,8 - 1,4	PP
380x156	Y663304* ▲	3	42	110	80	100	197	0,9 - 1,4	PP

* Flow rate in accordance with regulation EN 1253-1 par 8.11 (measured with and without grill)
▲ Available in BLACK colour on request

Tested by CSTB
Flow rate in accordance with regulation EN1253-1 §8.11





Material: Polypropylene
Use: trapped inspection chamber for rainwater flowing from gutter downpipes to the sewage.

Benefits:
- *light-weight*
- *easier installation than concrete version*
- *fully injection moulded*
- *high durability*
- *leaves basket*
- *Internal removable baffle plate*
- *available with round inlet Ø: 80/100 or Ø 75/90/110*
- *vertical outlet Ø 100 and Ø 110.*

Installation: a concrete floor seating is recommended.
Application field: pavements, grass or paved walkways.

Rainwater gully: the right solution



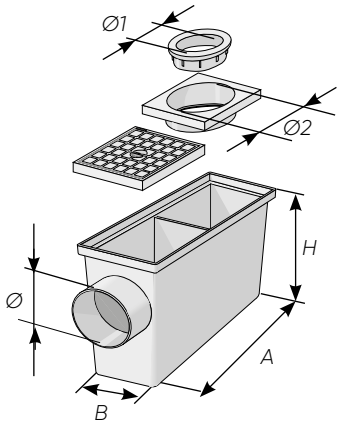
Existing solutions









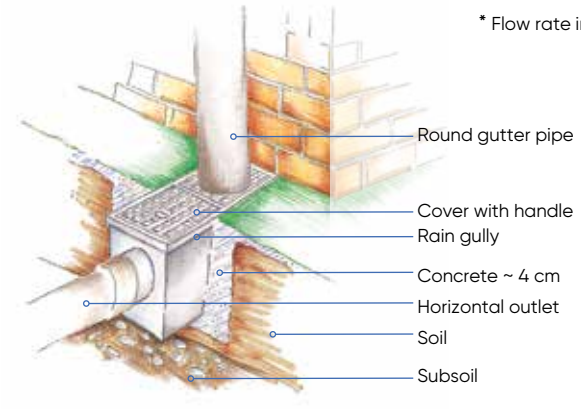



Trapped rainwater gully with round inlet and horizontal outlet

Regard de descente avec siphon pour eaux pluviales entrée ronde sortie horizontale - Arqueta sífónica para bajante de aguas pluviales, salida horizontal

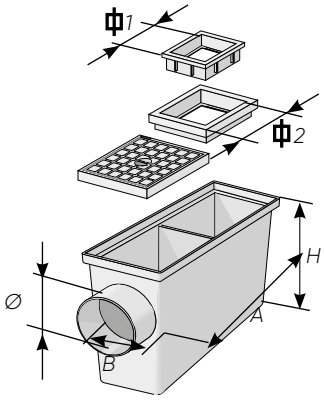
Dim AxB (mm)	Reference Grey Ral 7035			Ø (mm)	Ø1 (mm)	Ø2 (mm)	H (mm)	L/S	Material
240x128	Y661504*	16	160	100	80	100	215	2,3	PP
240x128	Y662004*	16	128	110	80	100	215	2,3	PP
240x128	Y661804*	16	128	110	75	100	215	2,3	PP
240x128	Y661904*	16	160	110	75	110	215	2,3	PP

* Flow rate in accordance with regulation EN1253-1 par 8.11



Tested by CSTB
Flow rate in accordance with regulation EN1253-1 §8.11



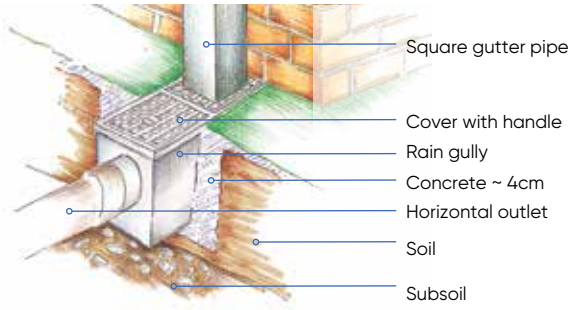


Trapped rainwater gully with square inlet and horizontal outlet

Regard de descente avec siphon pour eaux pluviales, entrée carrée sortie horizontale - Arqueta sífónica para bajante de aguas pluviales, salida horizontal

Dim AxB (mm)	Reference Grey Ral 7035			Ø (mm)	⧈1 (mm)	⧈2 (mm)	H (mm)	L/S	Material
240x128	Y771504*	16	128	100	80	100	215	2,3	PP
240x128	Y772004*	16	128	110	80	100	215	2,3	PP

* Flow rate in accordance with regulation EN1253-1 par 8.11



Tested by CSTB
Flow rate in accordance with regulation EN1253-1 §8.11

Material: Polypropylene
Use: inspection chamber for rainwater flowing from gutter downpipes to the sewage.

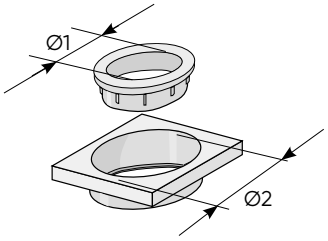
Benefits:
- *light-weight*
- *easier installation than concrete version*
- *fully injection moulded*
- *high durability*
- *access cover with handle*
- *internal removable baffle plate*
- *available with either square or round inlet*
  ROUND Ø 80/100 or Ø 75/110
  SQUARE ⧈ 80/100
- *horizontal outlet Ø 100 and Ø 110.*

Installation: a concrete floor seating is recommended.
Application field: pavements, grass or paved walkways.

Spare parts - Pièces de rechang - Repuestos

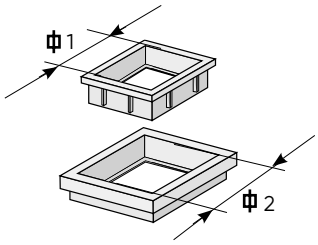






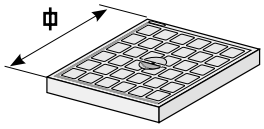
Round adaptor (horizontal outlet)
Adapteur rond - Adaptador redondo

Ø1 (mm)	Ø2 (mm)	Reference Grey Ral 7035			Note
80	100	Y6688PO*	20	-	* Two components
75	110	Y6677PO*	31	-	* Two components



Square adaptor (horizontal outlet)
Adapteur carré - Adaptador cuadrado

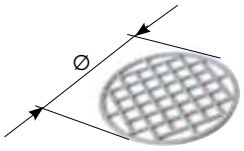
⧈1 (mm)	⧈2 (mm)	Reference Grey Ral 7035			Note
80	100	Y6666PQ*	25	-	* Two components



Cover
Tampon - Tapa

⧈ (mm)	Reference Grey Ral 7035			Note
118	Y665504*	50	-	

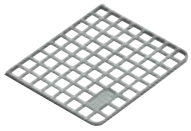
** Subject to availibility of stocks*





Leaf guard grill for untrapped rain water gully Ø 125
Crépine Ø125 - Rejilla Ø125

Ø (mm)	Reference Grey Ral 7035			Note
122	YGR1004	5	-	Grill leaf guard positioned horizontal or vertical







Spare parts for untrapped rainwater gully
Pièces de rechange pour eaux pluviales
Repuestos para arqueta de aguas pluviales

Dim (mm)	Reference Grey Ral 7035			Note
146x160	Y884404	1	-	Grill (Self - locking system)
146x160	NW29104	3	-	Cover
146x160	NW73304	3	-	Cover with round inlet Ø: 50/75/80/90/100/110/125



Modular drainage channels

REDI

aliaxis

Drainage channel installation instructions

In compliance with CE marking statement (Ex Reg. EN1433), it is compulsory to match a galvanized steel grill to the channel.



Excavate a trench 10 cms larger and 5 cms deeper than the channels you need to accomodate.



Butter the concrete on the bottom of the trench (as deep as the channel). No slope.



Use standard silicone glue for pasting the channels



Slot in the channel



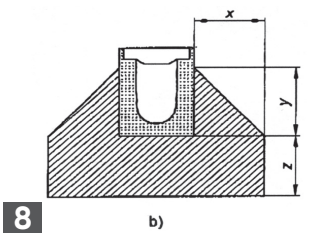
Put the grills on the channels



Set down the channels and check that grill level and ground level are equal to each other



Pack. with cement in order to eliminate air pockets.
The channels must be set down with the grills. Put some shims between the grills and the edge of the channels: this will facilitate inspection by removing the grills, once installation is completed.

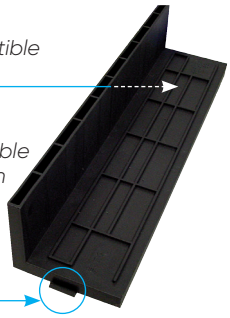


Use concrete class RCK 45. Load class according to the rule EN1433. The observance of the CE marking, according to EN1433, bind the grill 130 x 1000 to the channels 130 x 1000/52-70-90-130 internal height

			Concrete RCK 450 (mm)			Trench dimensions (to be added to channel sizes mm)		
Grill description	Channel dimensions*	Channel height*	X	Y	Z	Additional Side Dx	Additional Side Sx	Additional Depth
Swimming pool	130 x 500	70	33	68	42	100	100	50
High drainage	130 x 500	70	33	68	42	100	100	50
B125 grill	130 x 500	70	33	68	42	100	100	50
B125 cover	130 x 500	70	33	68	42	100	100	50
Swimming pool	130 x 500	134	33	134	42	100	100	50
High drainage	130 x 500	134	33	134	42	100	100	50
B125 grill	130 x 500	134	33	134	42	100	100	50
B125 cover	130 x 500	134	33	134	42	100	100	50
B125 grill	200 x 500	94	33	93	26	100	100	50
B125 cover	200 x 500	94	33	93	26	100	100	50
B125 grill	200 x 500	170	33	165	63	100	100	50
B125 cover	200 x 500	170	33	165	63	100	100	50
Galv. steel A15	130 x 1000	52	20	50	22	100	100	50
Galv. Steel B125 33*33	130 x 1000	52	50	60	50	100	100	50
Galv. Steel C250 33*33	130 x 1000	52	50	60	50	150	150	80
PP pedestrian grill	130 x 1000	70	33	74	66	100	100	50
Galv. steel A15	130 x 1000	70	33	74	36	100	100	50
Galv. Steel B125 33*33	130 x 1000	70	33	74	36	100	100	50
Galv. Steel C250 33*33	130 x 1000	70	70	74	70	150	150	80
Slot grill h. 85mm	130 x 1000	70	33	74	66	100	100	50
Galv. steel A15	130 x 1000	90	60	115	100	100	100	50
Galv. Steel B125 33*33	130 x 1000	90	60	115	100	100	100	50
Galv. Steel C250 33*33	130 x 1000	90	60	115	100	100	100	50
PP pedestrian grill	130 x 1000	130	33	136	40	100	100	50
Galv. steel A15	130 x 1000	130	33	136	40	100	100	50
Galv. Steel B125 33*33	130 x 1000	130	33	136	40	100	100	50
Galv. Steel C250 33*33	130 x 1000	130	70	136	70	150	150	80
Slot grill h. 85mm	130 x 1000	130	33	136	40	100	100	50

Slot Grill concealed drainage channel





Surface compatible with concrete application

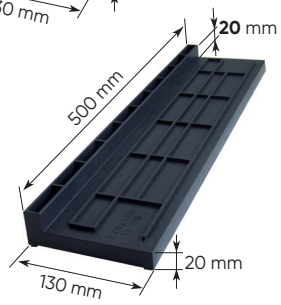
Height compatible with all common materials

Male/Female connection

Marking: CE

Tested by ISTITUTO GIORDANO



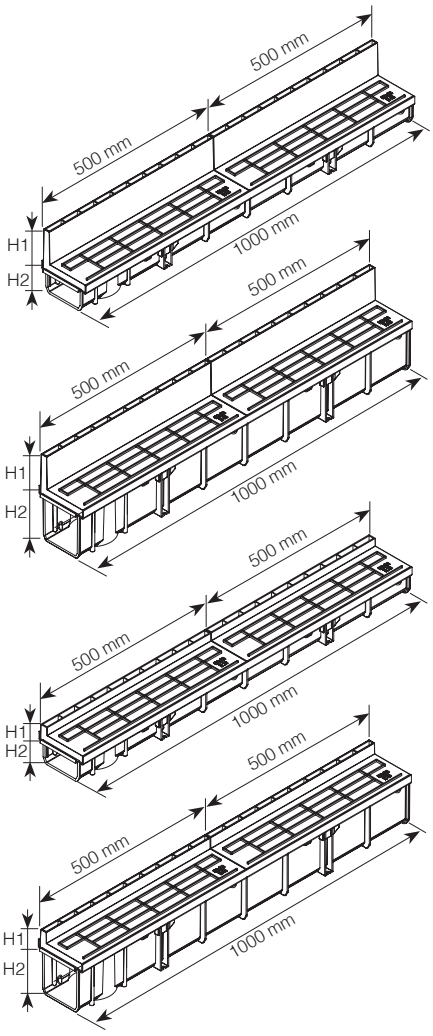


PP Slot grill 130x500

Grille fente 130x500 en PP - Rejilla ranurada 130x500 en PP

Dim (mm)	H int. (mm)	Dim slot (mm)	Ref.			L/S	Note
130x500	85	8x49	EGF10PP	10	140	0,4	**HIGH**
130x500	20	8x49	EGFBAPP	10	360	0,4	**LOW**

Material: PP - Black colour
Slot grill can be installed in all drainage channels 130 with "C" section grate



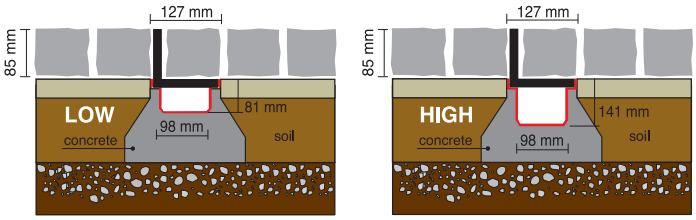
KIT: 2 high slot grills with 1 PP channel 130x1000

Kit: 2 grilles fente hautes avec 1 caniveau en PP 130x1000

Kit: 2 Rejillas ranuradas altas con canaleta 130x1000 en PP

Dim (mm)	H 1 (mm)	H 1 (mm)	Dim. Slot (mm)	Ref.			Note
130x1000	85	70	8x49	EGF15PP	1	55	2 slot grill 1 channel **LOW**
130x1000	85	130	8x49	EGF20PP	1	30	2 slot grill 1 channel **HIGH**

Material: PP - Black colour



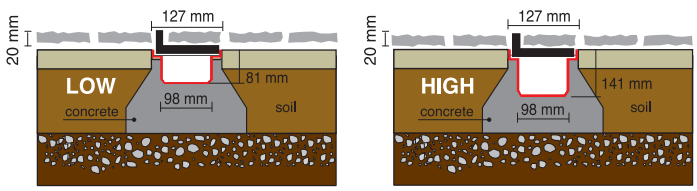
KIT: 2 LOW slot grills with 1 PP channel 130x1000

Kit: 2 grilles fente basses avec 1 caniveau en PP 130x1000

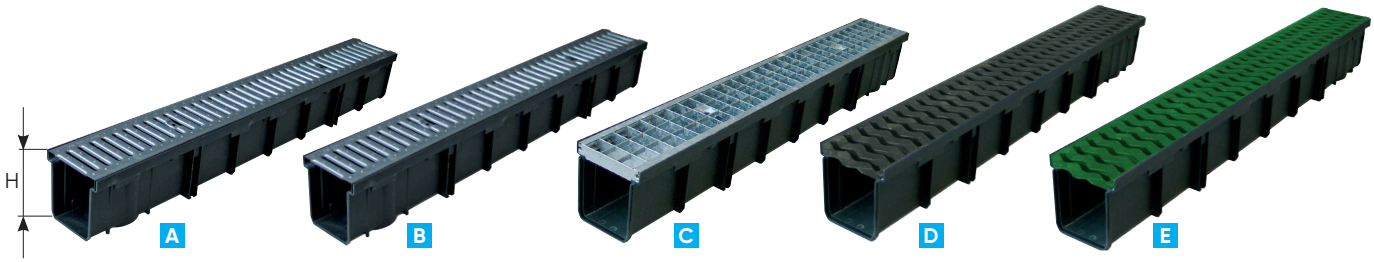
Kit: 2 Rejillas ranuradas bajas con canaleta 130x1000 en PP

Dim (mm)	H 1 (mm)	H 1 (mm)	Dim. Slot (mm)	Ref.			Note
130x1000	20	70	8x49	EGFB5PP	1	56	2 slot grill 1 channel **LOW**
130x1000	20	130	8x49	EGFB0PP	1	60	2 slot grill 1 channel **HIGH**

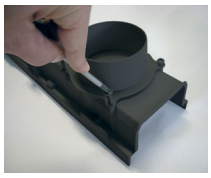
Material: PP - Black colour



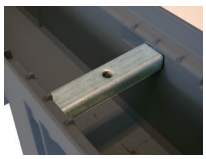
H130 "C" shaped profile



Note:
1 x vertical outlet predisposition (pag. 222)



Grate locking device applicable (pag. 222)

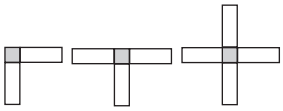


PP channel 130x1000 with "C" section grate
Caniveau 130x1000 section "C" en PP avec grille
Canal 130x1000 sección "C" en PP con rejilla

Type	Dim (mm)	H (mm)	Ref.			Characteristic	Lock system
A	130x1000	**130**	ECAZNPP	1	60	Galvanized steel grill **A15 EN1433**	Lock system
B	130x1000	**130**	ECAIXPP	1	60	Stainless steel grill	Lock system
C	130x1000	**130**	ECCZNPP	1	60	Galvanized steel grill, square mesh 33 x 33 mm **B125 EN1433**	Lock system
D	130x1000	**130**	ECCIXPP	1	60	PP black heel proof grill **A15 EN1433**	Predispose for locking system
E	130x1000	**130**	ECCPP0V	1	30	Green RAL 6005 heel proof grill **A15 EN1433**	Predispose for locking system

Tested by "MASINI Research and Testing Institute"
Marking: CE
Grating: class A15 EN1433. Use rain water drainage in pedestrian areas and light traffic areas. Grate locking device applicable.
Grating: class B125 EN1433. Use rain water drainage. Especially designed for light duty traffic areas, such as garage fronts, private driverways, pedestrian areas. Grate locking device applicable.

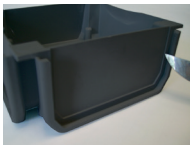




PP junction channel 130 with "C" section grate
Angle caniveau 130 section "C" en PP avec grille
Cruceta 130 sección "C" en PP con rejilla

Dim (mm)	H (mm)	Ref.			Characteristic
130	**130**	EAC13PP	5	160	Corner with galvanized steel grill
130	**130**	EAC14PP	5	160	Corner with PP Black heelproof grill (Type D)
130	**130**	EAC140V	5	160	Corner with PP Green heelproof grill (Type E)

Material: PP - Black colour Use: Designed for creating multiple connections and projects.
Easy-to-open sides.
Preset to fit the connector for vertical outlet Ø100.





Easy to open



PVC end cap outlet 130
Fond/naissance 130 en PVC - Tapón 130 con salida en PVC

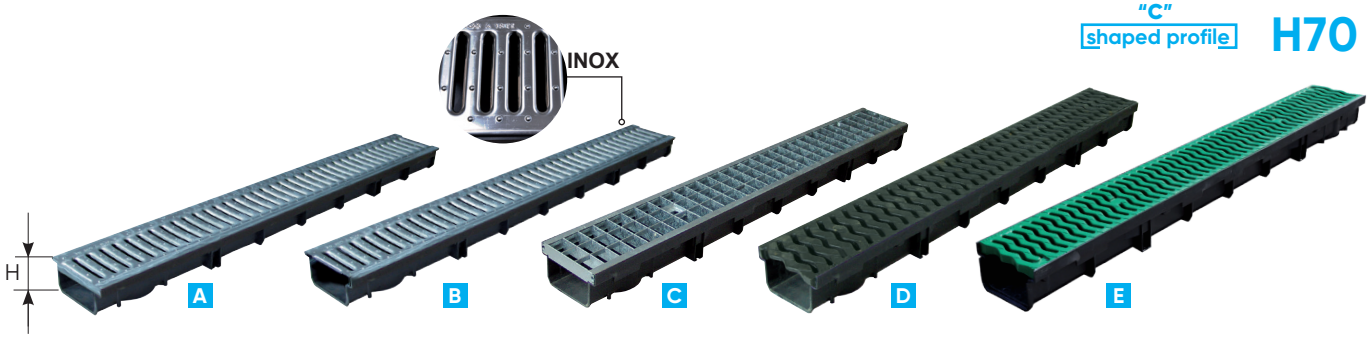
Dim (mm)	H (mm	Ø Outlet	Ref.			Note
130	**130**	100	E1712PP	10	600	
130	**130**	110*	E1714PP	10	600	*Offset

Material: PVC - Black colour
Use: end cap for 130 mm high channel. Easy-to-open outlet.

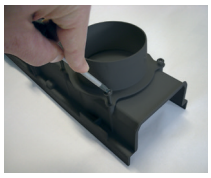


Easy to open

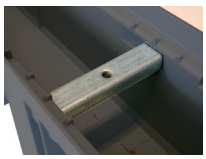
"C" shaped profile **H70**



Note:
1 x vertical outlet predisposition (pag. 222)



Grate locking device applicable (pag. 222)

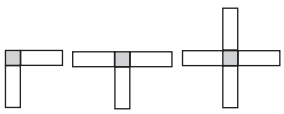


PP channel 130x1000 with "C" section grate
Caniveau 130x1000 section "C" en PP avec grille
Canal 130x1000 sección "C" en PP con rejilla

Type	Dim (mm)	H (mm)	Ref.			Characteristic	Lock system
A	130x1000	**70**	ECBZNPP	1	105	Galvanized steel grill **A15 EN1433**	Lock system
B	130x1000	**70**	ECBIXPP	1	105	Stainless steel grill	Lock system
C	130x1000	**70**	ECDZNPP	1	105	Galvanized steel grill, square mesh 33 x 33 mm **B125 EN1433**	Lock system
D	130x1000	**70**	ECDIXPP	1	105	PP Black heel proof grill **A15 EN1433**	Predispose for locking system
E	130x1000	**70**	ECDPP0V	1	105	PP Green RAL 6005 heel proof grill **A15 EN1433**	Predispose for locking system

Tested by "MASINI Research and Testing Institute"
Marking: CE
Grating: class A15 EN1433
Use: rain water drainage in pedestrian areas and light traffic areas. Grate locking device applicable.
Grating: class B125 EN1433
Use: rain water drainage. Especially designed for light duty traffic areas, such as garage fronts, private driverways, pedestrian areas. Grate locking device applicable.



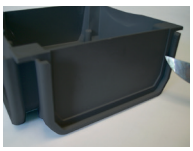


PP junction channel 130 with "C" section grate
Angle caniveau 130 section "C" en PP avec grille
Cruceta 130 sección "C" en PP con rejilla

Dim (mm)	H (mm)	Ref.			Characteristic
130	**70**	EAC70PP	10	-	Corner with galvanized steel grill
130	**70**	EAC71PP	10	320	Corner with PP Black heelproof grill (Type D)
130	**70**	EAC710V	10	320	Corner with PP Green heelproof grill (Type E)

Material: PP - Black colour
Use: Designed for creating multiple connections and projects. Easy-to-open sides.
Preset to fit the connector for vertical outlet Ø100.

Easy to open







PVC end cap outlet 130
Fond/naissance 130 en PVC - Tapón 130 con salida en PVC

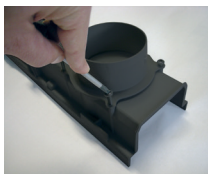
Dim (mm)	H (mm)	Ø Outlet	Ref.			Note
130	**70**	50	E1718PP	10	1.280	

Material: PVC - Black colour
Use: end cap for 130 mm high channel. Easy-to-open outlet.

"T" shaped profile **H52**



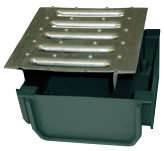
Note:
1 x vertical outlet predisposition (pag. 222)

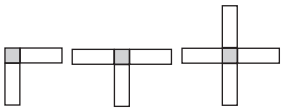


PP channel 130x1000 with "T" section grate
Caniveau bas 130x1000 section "T" en PP avec grille en acier galvanisé
Canal bajo 130x1000 sección "T" en PP con rejilla de acero galvanizado

Type	Dim (mm)	H (mm)	Ref.			Characteristic	Lock system
A	130x1000	**52**	WCB13PP	1	105	Galvanized steel grill **A15 EN1433**	Interlock
B	130x1000	**52**	WCD13PP	1	105	Galvanized steel grill, square mesh 33 x 33 mm **B125 EN1433**	Free

Tested by "MASINI Research and Testing Institute"
Marking: : CE
Grating: class A15 EN1433
Use: rain water drainage in pedestrian areas.
Grating: class B125 EN1433
Use: rain water drainage. Especially designed for light duty traffic areas, such as garage fronts, private driverways, pedestrian areas. Grate locking device not applicable.



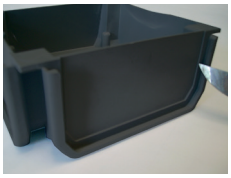


PP junction channel 130 with "T" section grate
Angle caniveau 130 section "T" en PP avec grille
Cruceta 130 sección "T" en PP con rejilla

Dim (mm)	H (mm)	Ø Outlet	Ref.			Note
130	**52**	40	EAU13PP	10	480	

Material: PP - Black colour
Grating: Class A15 EN1433
Use: Designed for creating multiple connections and projects. Easy-to-open sides.
Preset to fit the connector for vertical outlet.

Easy to open







PVC end cap outlet 130
Fond/naissance 130 en PVC - Tapón 130 con salida en PVC

Dim (mm)	H (mm)	Ø Outlet	Ref.			Note
130	**52**	40	W6817PP	10	950	

Material: PVC - Black colour
Use: end cap for 130 mm high channel. Easy-to-open outlet.

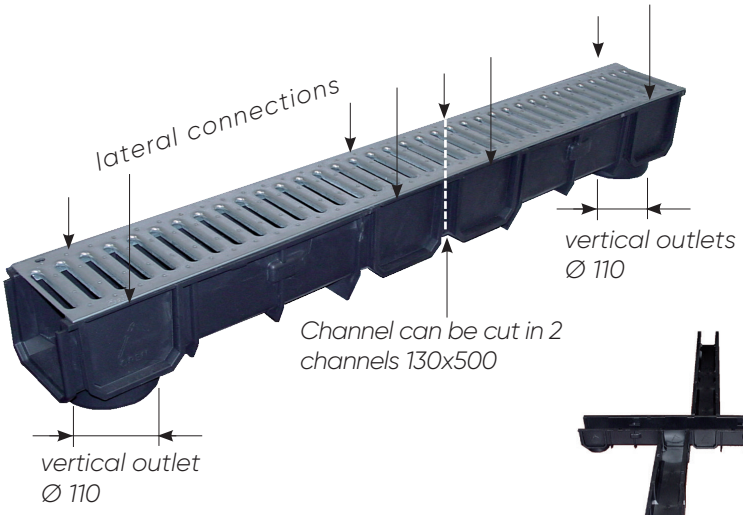
H90 "T" shaped profile



PP channel 130x1000 with "T" section grate (vertical outlet)
Caniveau 130x1000 section "T" en PP avec grille
Canal 130x1000 sección "T" en PP con rejilla (con salida vertical)

Type	Dim (mm)	H (mm)	Reference			Characteristic	Lock system
A	130x1000	**90**	WCA13PP	1	60	Galvanized steel grill **A15 EN1433**	Interlock

Tested by "MASINI Research and Testing Institute"
Marking: CE
Grating: class A15 - B125 - C250, EN1433
Use: rain water drainage. Especially designed for light duty traffic areas, such as garage fronts, private driver ways, pedestrian areas. Grate locking device not applicable.





Project personalization



PVC end cap outlet 130
Fond/naissance 130 en PVC - Tapón 130 con salida en PVC

Dim (mm)	H (mm)	Ø Outlet (mm)	Reference			Characteristic
130	**90**	110*	W6816PP	10	-	*Offset

Material: PVC - Black colour
Use: end cap for 130 mm high channel. Easy-to-open outlet Ø110.



PVC Connector for vertical outlet 130

Piquages sortie verticale 130 en PVC - Conector para salida vertical

Dim (mm)	Ø (mm)	Reference			Note
130	100	EBU1008	10	480	
130	110	EBU1108	10	520	



Material: PVC - Black colour
Use: Connector for vertical outlet Ø100 -110. With 4 fixing screw.
This item can be installed in all channels 130x1000.



Grate locking device (with screw)

Fixation pour grilles - Bloqueo para rejilla (con tornillo)

Dim (mm)	Reference			Note
130x1000	W6820FX	10	-	







Universal leaf-guard

Crapaudine - Filtro atrapa hojas

Ø (mm)	Reference			Note
100-110	WGPAF00	10	-	

Spare parts - Pièces de rechange - Repuestos



A15 Grill "C"- shaped profile

A15 Grille profil "C" - A15 rejilla sección "C"

Dim (mm)	H (mm)	Reference			Material	Note
130x1000	20	EGRZA15	1	100	Galvanized steel	"C" shaped profile
130x1000	20	EGRAA15	1	500	Stainless steel	"C" shaped profile

Note: The length of the metal grille is 997 ± 1m to avoid problems of linear expansion.



B125 Galvanized steel grill "C"- shaped profile

B125 Grille galvanisée profil "C"
B125 Rejilla acero galvanizado perfil "C"

Dim (mm)	H (mm)	Reference			Note
130x1000	20	EGRB125	1	-	Square mesh 33 x 33 mm
200x1000	20	EG2B125*	1	-	Square mesh 33 x 33 mm

** Subject to availability of stocks*
Note: The length of the metal grille is 997 ± 1m to avoid problems of linear expansion.

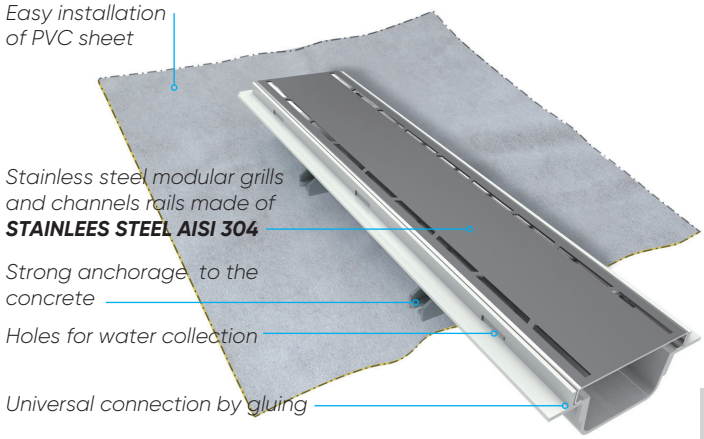


C250 Galvanized steel grill "C" shaped profile

C250 Grille galvanisée profil "C"
C250 Rejilla acero galvanizado perfil "C"

Dim (mm)	H (mm)	Reference			Note
130x1000	20	EGRC250*	1	260	Square mesh 33 x 33 mm

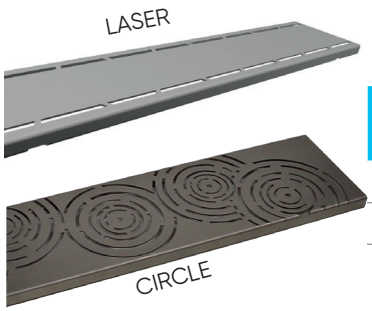
** Subject to availability of stocks*
Note: The length of the metal grille is 997 ± 1m to avoid problems of linear expansion.



"Design" is a new range of non-trapped modular channels, with grates and channel rails made of stainless steel.
Ideal for long stretches of drainage channel systems for white waters.
Thanks to the peculiar patterns engraved on the grills (laser technology), this product is particularly suitable for public showers, changing-rooms, gymnasiums and spas.

Characteristic:
- Modular PVC channel 100x500 mm.
- Height 50 mm.
- PVC outlet Ø 40 mm.
- PVC Universal corner 100x250 mm.
- Community design

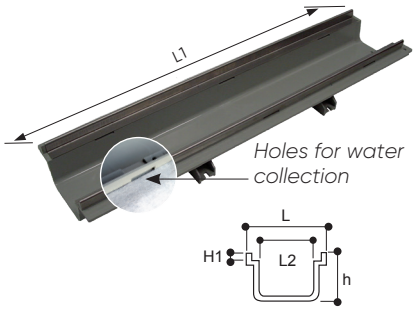
The "Design" grilles can be classified in load class K3 in accordance with regulation **EN1253-2** (resistance >300 kg). All tests have been carried out at Aliaxis laboratories.



Grills 100 "Design" (stainless steel AISI 304)
Grille "Design" 100 (acier inoxydable AISI 304)
Rejilla "Design" 100 (acero inoxidable cromado AISI 304)

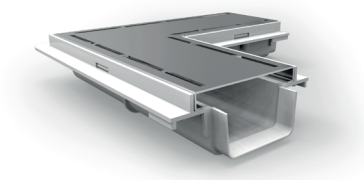
Dim (mm)	L/S	Reference			Design Type	Note
100x500	0,8	EZ10GLA	1	-	LASER	
100x500	1,1	EZ10GCI	1	-	CIRCLE	

Material: Stainless steel AISI 304



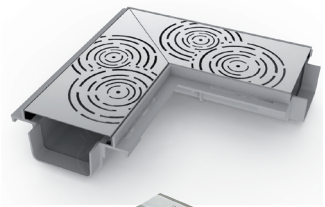
Low modular channel 100 (rails made of stainless steel AISI 304)
Corps de caniveau 100 (profilés en acier inoxydable AISI 304)
Canaleta baja 100 (rieles de acero inoxidable AISI 304)

L (mm)	L1 (mm)	L2 (mm)	H (mm)	H1 (mm)	Reference Grey Ral 7035			Note
100	500	96	50	12	EZ10CAI	10	168	Screwed stainless steel rails



Universal corner 100 with "Laser" design grill
Angle universel 100 avec grille design "Laser"
Ángulo canaleta 100 con rejilla de diseño "Laser"

Dim (mm)	Reference Grey Ral 7035	€/pc			Note
100x250	EZ10ALA	**95,48**	1	120	Stainless steel AISI 304 grill



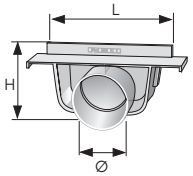
Universal corner 100 with "Circle" design grill
Angle universel 100 avec grille design "Circle"
Ángulo canaleta 100 con rejilla de diseño "Circle"

Dim (mm)	Reference Grey Ral 7035			Note
100x250	EZ10ACI*	1	120	Stainless steel AISI 304 grill

** Available on demand, after feasibility check*

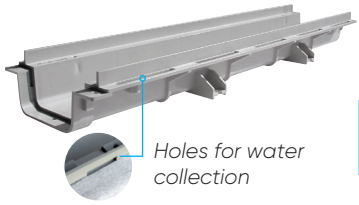


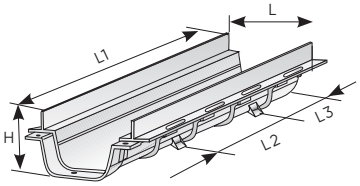
PVC Low end cap outlet 100
Fond/naissance 100 bas en PVC - Tapón 100 bajo con salida



L (mm)	H (mm)	Ø (mm)	Reference Grey Ral 7035			Note
100	50	50*	E1710B4	10	1.280	*Offset

Material: PVC
Use: end cap for channel 100 (easy-to-open outlet).





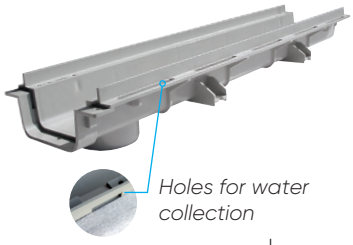
PVC Low modular channel 100

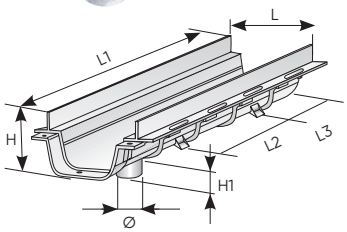
Corps de caniveau modulaire 100 bas en PVC

Canaleta 100 de altura reducida en PVC

L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	H (mm)	Reference Grey Ral 7035			Note
100	500	200	150	50	E1810B4	10	360	

Material: PVC
Use: rain water drainage in garages, terraces and balconies, multi-storeyed car parks in all cases of low concrete slab.
Features:
- Fixing brackets (preset for nails or screw fastening)
- Side slots for better anchorage to concrete
- Modular couplings by pins
- Preset for cover screw fastening
- Vertical outlet Ø 63 (easy perforation)
- End cap (outlet diameter 50)
- Possibility to glue the components to ensure water tightness.





Low modular channel 100 with vertical outlet Ø63

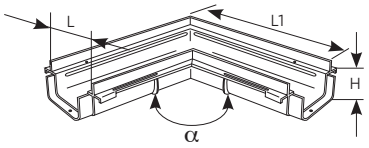
Corps de caniveau modulaire 100 bas (sortie verticale Ø63)

Canaleta 100 de altura reducida en PVC (salida vertical Ø63)

L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	H (mm)	H1 (mm)	Ø (mm)	Reference Grey Ral 7035			Note
100	500	200	150	50	15	63	E1811B4	10	240	

Material: PVC
Use: rain water drainage in garages, terraces and balconies, multi-storeyed car parks in all cases of low concrete slab.
Features:
- Fixing brackets (preset for nails or screw fastening)
- Side slots for better anchorage to concrete
- Modular couplings by pins
- Preset for cover screw fastening
- Vertical outlet Ø 63 male (easy perforation)
- End cap (outlet diameter 50)
- Possibility to glue the components to ensure water tightness.





PVC Low universal corner channel 100

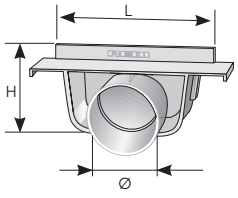
Angle universel corp de caniveau 100 bas en PVC

Ángulo canaleta 100 de altura reducida en PVC

L (mm)	L1 (mm)	H (mm)	α	Reference Grey Ral 7035			Note
100	250	50	90°	E162504	5	150	Universal - one piece moulded

Material: PVC
Use: rain water drainage in garages, terraces and balconies, multi-storeyed car parks in all cases of low concrete slab.





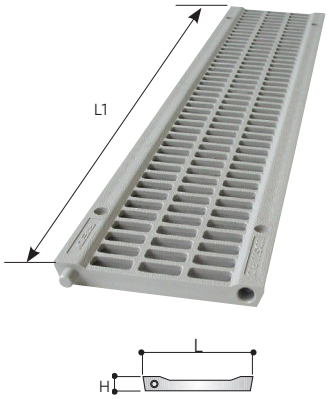
PVC Low end cap-outlet 100

Fond/naissance 100 bas en PVC

Tapón 100 de altura reducida con salida en PVC

L (mm)	L1 (mm)	Ø (mm)	Reference Grey Ral 7035			Note
100	50	50*	E1710B4	10	1.280	*Offset

Material: PVC
Use: end cap for channel 100 (easy-to-open outlet).

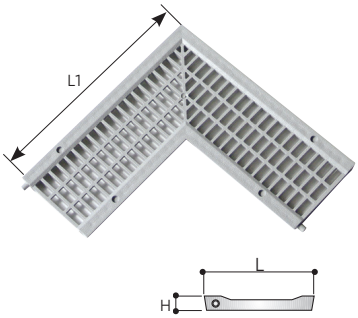


PVC Universal pedestrian "heel-proof" grill 100
Grille piétonnière "anti-talon" 100 en PVC
Rejilla peatonal 100 en PVC

L (mm)	L1 (mm)	H (mm)	L/S	KN	Reference Grey Ral 7035			Note
100	500	12	2,3	>15	E2510B4	10	1.040	

Material: PVC
Use: pedestrian draining grating for 100 channels.
Features:
- heel proof for a safer tread
- antislip knurled surface and chamfered draining section to avoid backwater and icing
- provided with coupling pins
- preset for screw fastening to the channel.

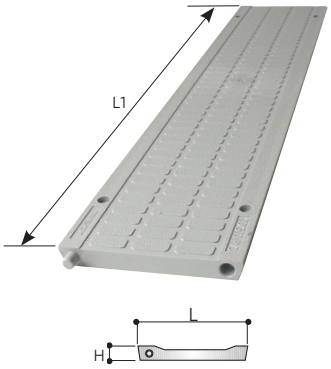
Durability: PVC specifications and structure design give this product a great resistance against atmospheric agents and ageing and ensure dimensional stability in time.



PVC Universal pedestrian "heel-proof" corner grating 100
Angle universel grille piétonnière "anti-talon" 100 en PVC
Ángulo rejilla peatonal 100 en PVC

L (mm)	L1 (mm)	H (mm)	α	Reference Grey Ral 7035			Note
100	250	12	90°	E721004	5	300	Universal - one piece moulded

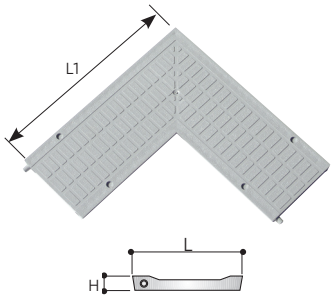
Material: PVC
Use: pedestrian draining grating for corner channels.



PVC Pedestrian channel cover 100
Tampon piétonnier 100 en PVC - Tapa peatonal 100 en PVC

L (mm)	L1 (mm)	H (mm)	KN	Reference Grey Ral 7035			Note
100	500	12	>15	E2555B4	10	1.040	

Material: PVC
Use: pedestrian cover for channels.
Features:
- antislip knurled surface
- provided with coupling pins
- preset for screw fastening to the channel.

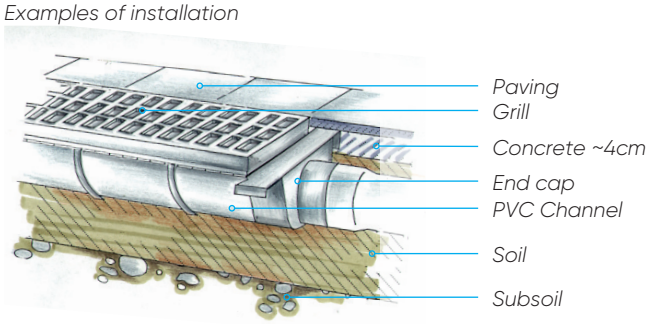


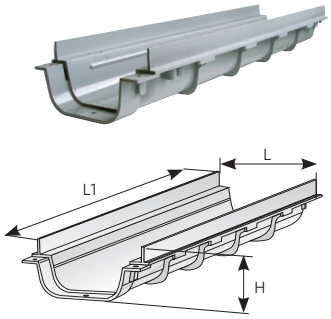
Universal pedestrian corner cover 100
Angle universel tampon piétonnier 100
Ángulo tapa peatonal 100 en PVC

L (mm)	L1 (mm)	H (mm)	α	Reference Grey Ral 7035			Note
100	250	12	90°	E721104*	5	300	Universal - one piece moulded

** Subject to availability of stocks*
Material: PVC
Use: Pedestrian covering for corner channels.

Examples of installation



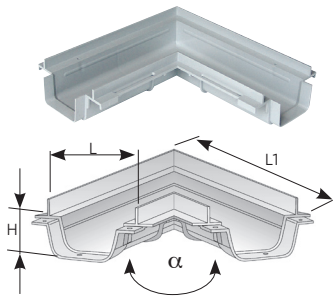


PVC Low modular channel 130

Corp de caniveau modulaire 130 bas en PVC
Canaleta 130 de altura reducida en PVC

L (mm)	L1 (mm)	H (mm)	Reference Grey Ral 7035			Note
130	500	70	E1813B4	10	240	

Material: PVC
Marking: CE
Use: rain water drainage in garages, yards, terraces, balconies, multistoreyed parkings, and in all cases of low concrete slab.
Features:
- modular joint by pins
- preset for cover screw fastening
- possibility to glue the components to ensure water tightness.

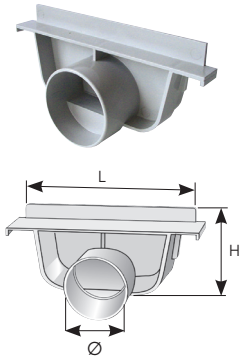


PVC Low universal corner channel 130

Angle universel corp de caniveau 130 bas en PVC
Ángulo canaleta 130 de altura reducida en PVC

L (mm)	L1 (mm)	H (mm)	α	Reference Grey Ral 7035			Note
130	250	70	90°	E731404	5	160	Universal - one piece moulded

Material: PVC

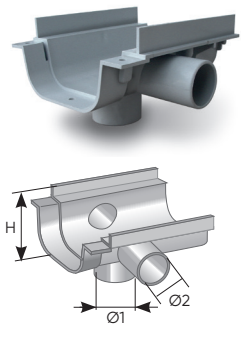


PVC Low end cap-outlet 130

Fond/naissance 130 bas en PVC
Tapón 130 de altura reducida con salida de PVC

L (mm)	L1 (mm)	Ø (mm)	Reference Grey Ral 7035			Note
130	67	40	E1713B4	10	950	

Material: PVC
Use: end cap for channel 130 (easy-to-open outlet).

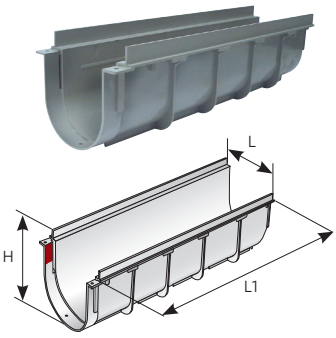


PVC Low junction channel 130

Naissance centrale 130 basse en PVC - Unión canaleta 130 de altura reducida y salida lateral/vertical en PVC

Ø1 (mm)	Ø2 (mm)	H (mm)	Reference Grey Ral 7035			Note
50	40	70	E1613B4	10	330	

Material: PVC
Use: Junction and drainage component for low channels 130 mm (easy-to-open outlet).



PVC High modular channel 130

Corps de caniveau modulaire 130 haut en PVC

Canaleta 130 alta en PVC

L (mm)	L1 (mm)	H (mm)	Reference Grey Ral 7035			Note
130	500	134	E1813A4	10	120	

Material: PVC

Marking: CE

Use: rain and waste water drainage in garages, yards, terraces, outdoor areas and public bathrooms and lavatories (gymnasium, etc).

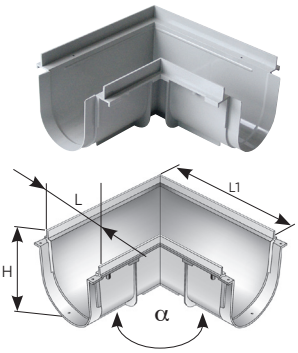
Features:

- self supporting

- modular joint by pins

- possibility to glue the components to ensure water tightness

- a cover can be fastened by means of self-threading screw (pre-set holes).



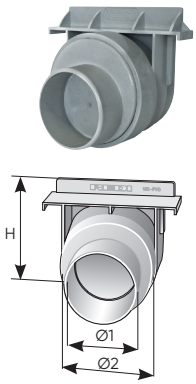
PVC Universal high corner channel 130

Angle universel de caniveau 130 haut en PVC

Ángulo canaleta 130 alta en PVC

L (mm)	L1 (mm)	H (mm)	α	Reference Grey Ral 7035			Note
130	250	134	90°	E731704	5	80	Universal - one piece moulded

Material: PVC



PVC high end cap-outlet 130

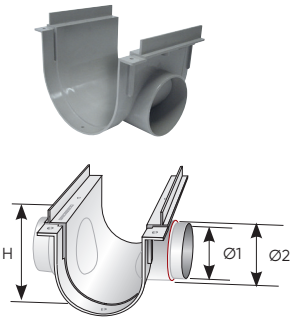
Fond/naissance 130 haut en PVC

Tapón 130 alto con salida en PVC

H (mm)	Ø1 (mm)	Ø2 (mm)	Reference Grey Ral 7035			Note
131	80	100	E1713A4	15	495	
131	75	110	E1711A4	15	360	

Material: PVC

Use: end cap for high channel 130 (easy-to-open outlet).



PVC High junction channel 130

Naissance centrale 130 haute en PVC

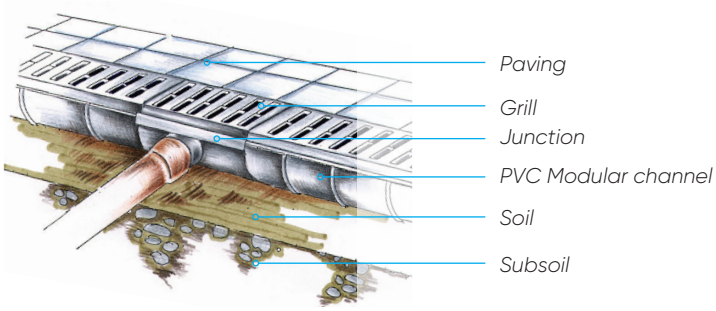
Unión canaleta con salida lateral 130 alta en PVC

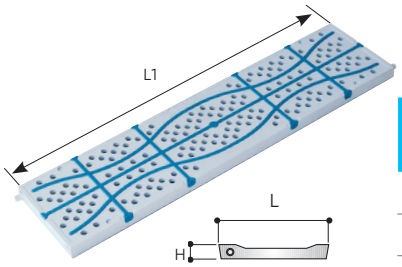
H (mm)	Ø1 (mm)	Ø2 (mm)	Reference Grey Ral 7035			Note
134	75	80	E1613A4	10	120	

Material : PVC

Use: Junction and drainage component for high channels 130 mm (easy-to-open outlet).

Examples of installation



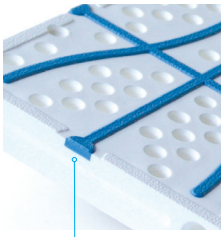


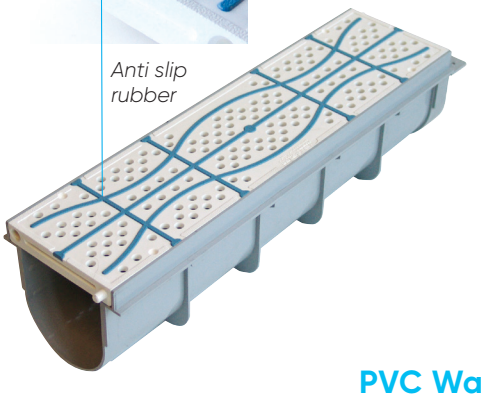
PVC Anti slip grill 130
Grilles pour piscine antidérapant 130 en PVC
Rejilla peatonal antideslizante 130 en PVC

L (mm)	L1 (mm)	H (mm)	Reference			Colour	Note
130	500	20	0219503	10	420	White	
130	500	20	0219504	10	420	Grey	

Material: PVC
Colour: White RAL 9016 - Grey RAL 7035
Use: pedestrian draining cover for channels alongside swimming pools.
Excellent solution to prevent accidents due to slippery surface (also in laundries and other wet areas).

safeSTEP by REDI





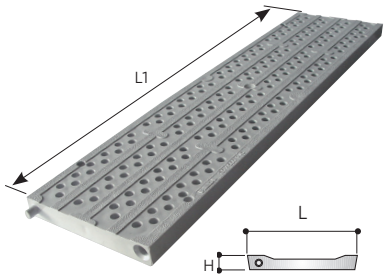
Italian design.
Corrosion-proof, maintenance-free reliable and lightweight.
No coating or extra treatment needed.
Safe Step grilles can be securely fixed onto Redi modular channels.

SAFESTEP means safety and design!



Examples of installation

PVC Walkaway grill standardized for swimming pools 130
Grilles pour piscine 130 en PVC
Rejilla para piscina 130 en PVC

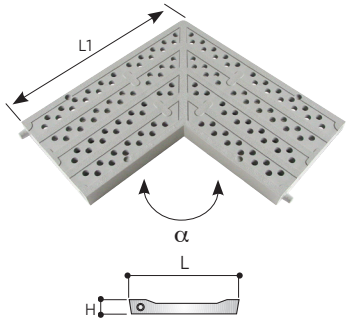


L (mm)	L1 (mm)	H (mm)	Reference			L/S	Colour	Note
130	500	20	W721503	10	420	1,2	White	
130	500	20	W721504	10	420	1,2	Grey	

Material: PVC - Colour: White RAL 9016 / Grey RAL 7035
Marking: CE
Regulation: ***EN124 A15*** *Load class*
Use: pedestrian draining cover for channels alongside swimming pools.
Features:
- Barefoot-friendly
- Antiskid knurled surface
- Provided with coupling pins
- Preset for screw fastening to the channel

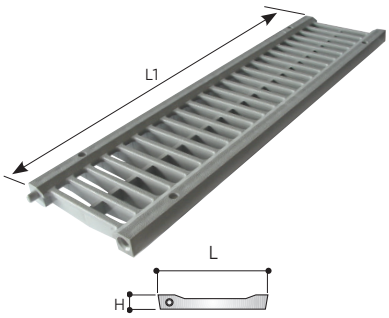
Application field: pedestrian areas.
Durability: PVC specifications and *structure design give this product a great resistance against atmospheric agents and ageing, and ensure dimensional stability in time.*

PVC Universal corner pedestrian grill 130
Angle universel grilles pour piscine 130 en PVC
Ángulo rejilla para piscina 130 en PVC



L (mm)	L1 (mm)	H (mm)	α	Reference			Colour	Note
130	250	20	90°	E731803	5	300	White	Universal one piece moulded
130	250	20	90°	E731804	5	300	Grey	Universal one piece moulded

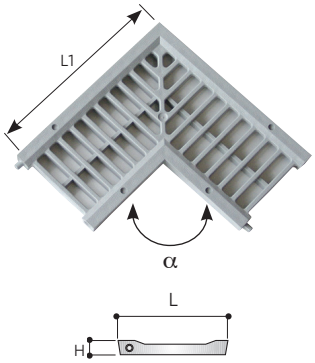
Material: PVC - Colour: White RAL 9016 / Grey RAL 7035
Use: pedestrian draining cover for corner channels alongside swimming pools.



PVC High drainage grill 130
Grille piétonnière 130 en PVC
Rejilla peatonal 130 en PVC

L (mm)	L1 (mm)	H (mm)	Reference Grey Ral 7035			L/S	Note
130	500	20	E257704	10	420	3,6	

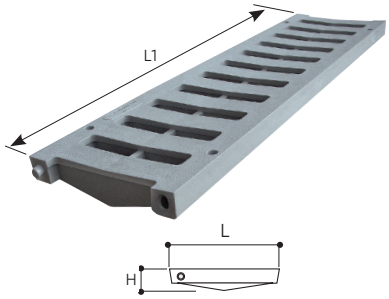
Material: PVC
Marking: CE
*Regulation: **EN124 A15** Load class*
Use: draining grate for 130 channels.
Features
- antiskid as the knurled surface and the chamfered draining profile avoid water stagnation and ice
- provided with coupling pins
- preset for screw fastening to the channel
- provided with a central stiffening rib.
Application field:
light duty traffic areas, such as garage fronts, private driveways, yards, pedestrian areas.



PVC Universal high drainage corner grill 130
Angle universel piétonnier 130 en PVC
Ángulo rejilla peatonal 130 en PVC

L (mm)	L1 (mm)	H (mm)	α	Reference Grey Ral 7035			Note
130	250	20	90°	E731504	5	300	Universal - one piece moulded

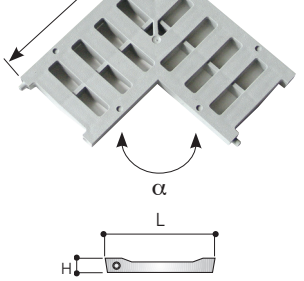
Material: PVC
Use: grating for corner channels.



PVC Light traffic grill 130
Grille renforcée 130 en PVC - Rejilla reforzada 130 en PVC

L (mm)	L1 (mm)	H (mm)	Reference Grey Ral 7035			L/S	KN	Note
130	500	20	W672004	10	360	1,9	50	Class A15

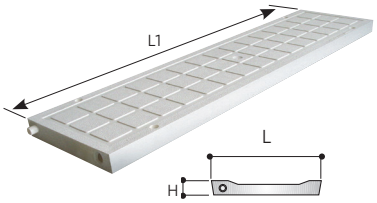
Material: PVC
Marking: CE
*Regulation: **EN124 A15** Load class*
Use: draining light traffic cover for 130 channels.
Features:
- antiskid thanks to the knurled surface
- provided with coupling pins
- preset for screw fastening to the channel
- provided with a central stiffening rib.
Application field:
light duty traffic areas, such as garage fronts, private driveways, yards, pedestrian areas.
Important: in the planning stage, the grating breaking load must be scaled down by using a correct safety factor.



PVC Universal light traffic corner grill 130
Angle universel grille renforcée 130 en PVC
Ángulo rejilla reforzada 130 en PVC

L (mm)	L1 (mm)	H (mm)	α	Reference Grey Ral 7035			Note
130	250	20	90°	E731304	5	300	Universal - one piece moulded

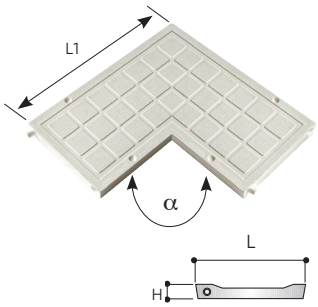
Material: PVC
Use: light duty traffic grating for corner channels.



PVC Walkaway cover 130
Tampon piétonnier 130 en PVC
Tapa peatonal 130 en PVC

L (mm)	L1 (mm)	H (mm)	Reference			Colour	Note
130	500	20	E681303	10	420	White	
130	500	20	E681304	10	360	Grey	

** Avaible on demand, after feasibility check*
Material: PVC - Colour: White RAL 9016 / Grey RAL 7035
Marking: CE
*Regulation: **EN124 A15** Load class*
Use: pedestrian cover for 130 channels.
Features:
- antiskid knurled surface
- provided with coupling pins
- preset for screw fastening to the channel.
Application field: pedestrian or light duty traffic areas (bikes and motorbikes).

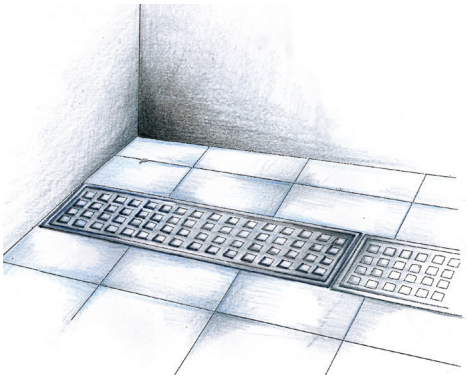


PVC Universal pedestrian corner cover 130
Angle universel tampon piétonnier 130 en PVC
Ángulo tapa peatonal 130 en PVC

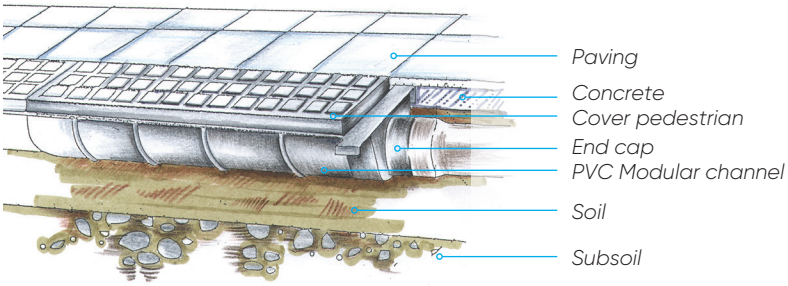
L (mm)	L1 (mm)	H (mm)	α	Reference			Colour	Note
130	250	20	90°	E901303*	5	300	White	Universal - one piece moulded
130	250	20	90°	E901304*	5	300	Grey	Universal - one piece

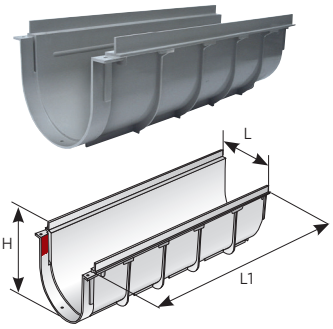
** Available on demand, after feasibility check*
Material: PVC - Colour: White RAL 9016 / Grey RAL 7035
Use: pedestrian covering for corner channels

Examples of installation



Covered pedestrian or cable covering





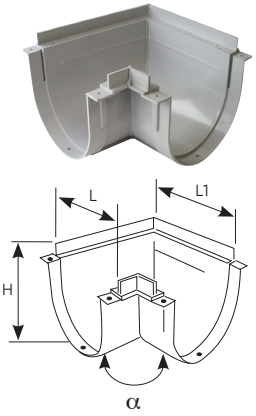
PVC High modular channel 200

Corps de caniveau modulaire 200 haut en PVC

Canaleta 200 alta en PVC

L (mm)	L1 (mm)	H (mm)	Reference Grey Ral 7035			Note
200	500	170	E1820A4	10	80	Class A15

Material: PVC
Marking: CE
*Regulation: **EN124 A15** Load class*
Use: rain and waste water drainage in garages, yards, terraces, balconies, other outdoor areas, public bathrooms and lavatories (gymnasiums, etc.).
Features:
- self-supporting
- modular coupling by pins
- possibility to glue the components to ensure a higher water tightness
- a cover can be fastened by means of self-threading screws (preset holes)



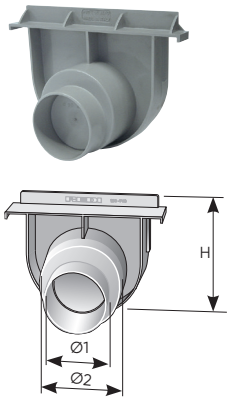
PVC Universal high corner channel 200

Angle universel de caniveau 200 haut en PVC

Ángulo canaleta 200 alta en PVC

L (mm)	L1 (mm)	H (mm)	α	Reference Grey Ral 7035			Note
200	250	170	90°	E7320A4*	5	60	Universal - one piece moulded

** Subject to availability of stocks*



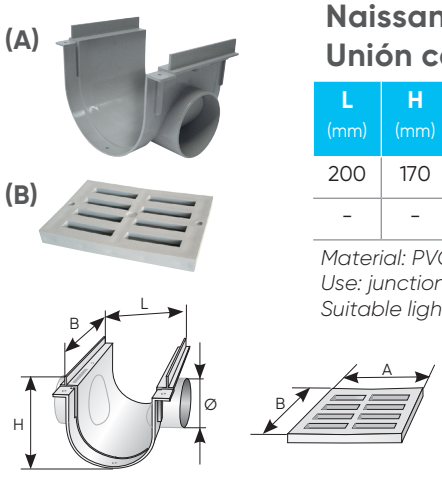
PVC High version end cap-outlet 200

Fond naissance 200 haut en PVC

Tapón 200 alto con salida en PVC

L (mm)	H (mm)	Ø1 (mm)	Ø2 (mm)	Reference Grey Ral 7035			Note
200	170	80	100	E1720A4	10	330	
200	170	75	110	E1722A4	10	330	

Material: PVC
Use: end cap for high channels 200 (easy-to-open outlet).



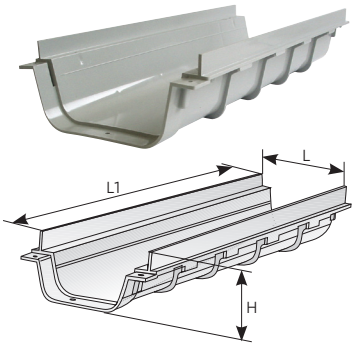
PVC High junction channel with grill 200

Naissance centrale haute avec grille 200 en PVC

Unión canaleta con salida lateral alta 200 y rejilla en PVC

L (mm)	H (mm)	Ø (mm)	A (mm)	B (mm)	Reference Grey Ral 7035			Note
200	170	100	-	145	E1620A4	10	140	A
-	-	-	196	145	E216004	10	1.280	B

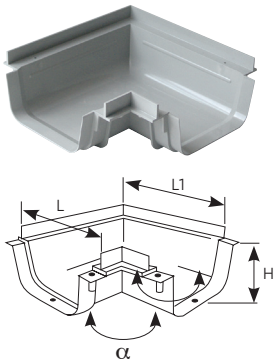
Material: PVC
Use: junction and drainage components for high channel 200 (easy-to-open outlet).
Suitable light duty traffic grate available.



PVC Low modular channel 200
Caniveau 200 bas en PVC
Canaleta 200 de altura reducida en PVC

L (mm)	L1 (mm)	H (mm)	Reference Grey Ral 7035			Note
200	500	94	E1821B4	10	120	Class A15

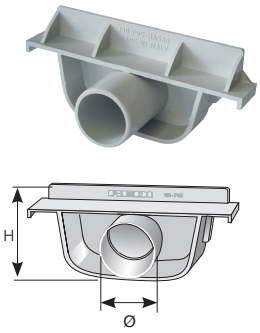
Material: PVC
Marking: CE
Use: rain water drainage in garages, yards, terraces, balconies, multi-storeyed car parks.
Features:
- self supporting
- modular coupling by pins
- possibility to glue the components to ensure a higher water tightness
- a cover can be fastened by means of self-threading screws (preset holes).



PVC Universal low corner channel 200
Angle universel de caniveau 200 en PVC
Ángulo canaleta 200 de altura reducida en PVC

L (mm)	L1 (mm)	H (mm)	α	Reference Grey Ral 7035			Note
200	250	97	90°	E7320B4*	5	120	Universal - one piece moulded

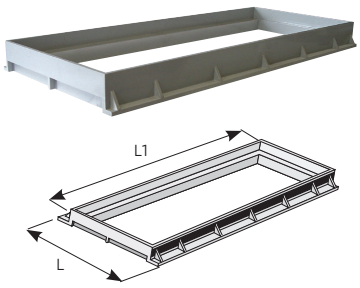
** Subject to availability of stocks*



PVC Low modular channel 200
Caniveau 200 bas en PVC - Tapón 200 bajo con salida en PVC

L (mm)	L1 (mm)	Ø	Reference Grey Ral 7035			Note
200	97	75	E1719B4	10	300	
200	97	80	E1721B4	10	300	

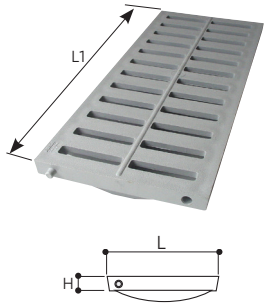
Material: PVC
Use: end cap for low channel 200 (easy-to-open outlet).



PVC Frame for light traffic covers and grates 200
Cadre modulaire pour caniveau 200 en PVC
Cerco para canaleta 200 en PVC

L (mm)	L1 (mm)	Reference Grey Ral 7035			Note
200	500	E250504	10	120	Modular

Materiale: PVC
Use: to house grates or covers for closing concrete channels or other special applications.

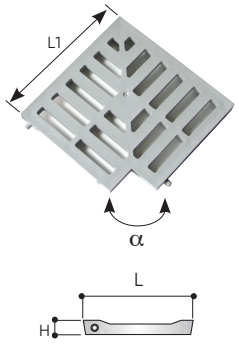


PVC Light traffic grill 200

Grille renforcée 200 en PVC - Rejilla reforzada 200 en PVC

L (mm)	L1 (mm)	H (mm)	Reference Grey Ral 7035			L/S	KN	Colour	Note
200	500	20	0219004	10	140	2,8	61	Grey	Class **A15**
200	500	20	0219003	10	140	2,8	61	White	Class **A15**

Material: PVC - Colour: White RAL 9016 - Grey RAL 7035
Marking: CE
*Regulation: **EN124 A15** Load class*
Use: light duty traffic draining grate for 200 channels
Characteristic:
- antiskid as the knurled surface and the chamfered draining profile avoid water stagnation and ice
- provided with coupling pins
- provided with a central stiffening rib.
Application field:
light duty traffic areas, such as garage fronts, private driveways, yards, pedestrian areas.
IMPORTANT: in the planning stage, the grate breaking load must be scaled down by using a correct safety factor.

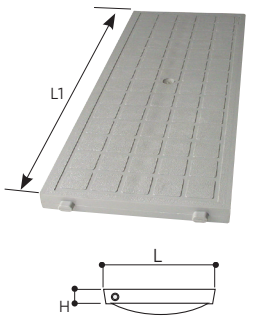


Universal corner grill for channels 200

Angle universel grille renforcée 200
Ángulo rejilla reforzada 200 en PVC

L (mm)	L1 (mm)	H (mm)	α	Reference Grey Ral 7035			Note
200	250	20	90°	E732004*	5	300	Universal - one piece moulded

** Avaible on demand, after feasibility check*



PVC Light traffic cover 200

Tampon renforcé 200 en PVC - Tapa reforzada 200 en PVC

L (mm)	L1 (mm)	H (mm)	Reference Grey Ral 7035			Note
200	500	20	E259004	6	138	

Material: PVC
Marking: CE
*Regulation: **EN124 A15** Load class*
Use: light duty traffic cover for 200 channels.
Characteristic:
- antiskid as the knurled surface and the chamfered draining profile avoid water stagnation and ice
- provided with coupling pins.
Application field:
light duty traffic areas, such as garage fronts, private driveways, yards, pedestrian areas.
IMPORTANT: in the planning stage, the cover breaking load must be scaled down by using a correct safety factor.

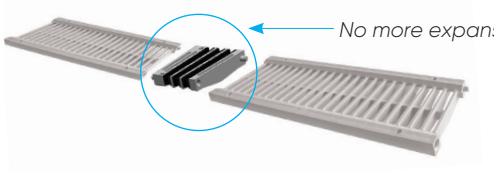


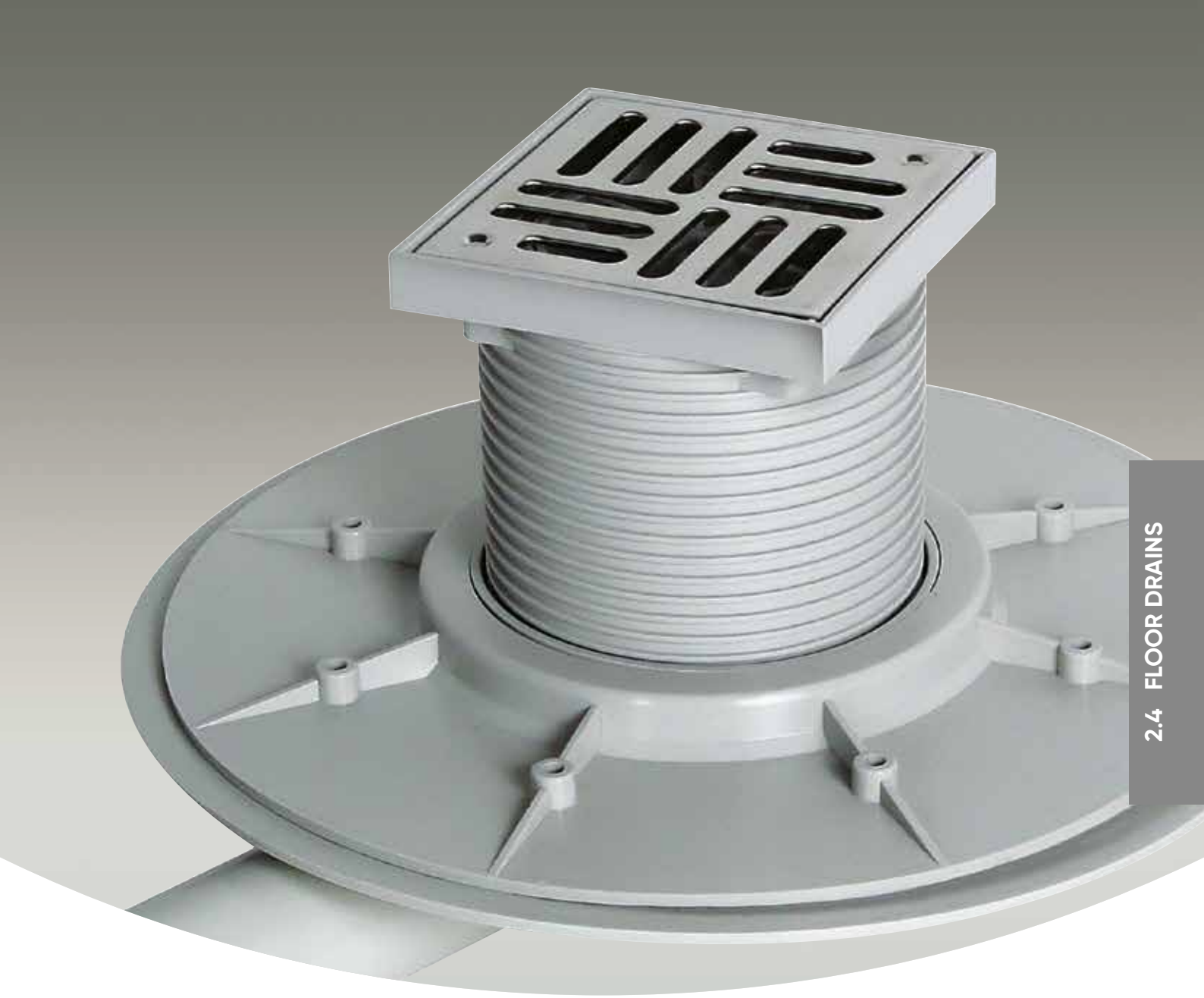
Expansion joint 130

Joint de dilatation 130 - Rejilla de dilatación 130

Dim (mm)	Reference Grey Ral 7035			Note
130x(85÷100)	ZED13PP	50	-	

Material: PP + Rubber
Use: Thanks to its injected rubber inserts, it compensates any possible expansion due to temperature ranges and ensures high durability in any year season.
Benefits:
- preset holes for screw anchors (recommended process)
- an expansion joint is to be inserted every 5/6 grates or covers to ensure the best performance.
Suitable for all grates and covers 130.
PVC therminal extension coefficient = 0,07 mm/mt for Δ1°C





Floor drains

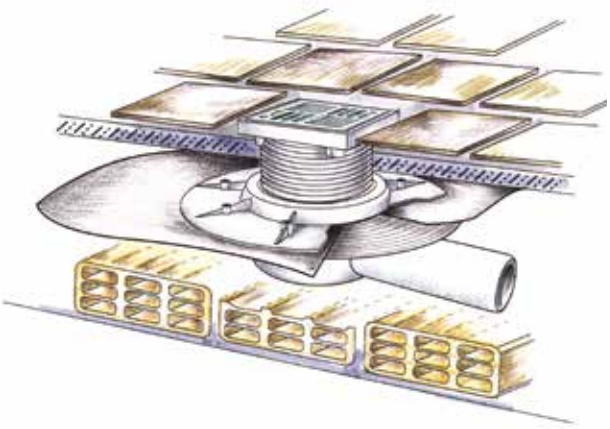
REDI

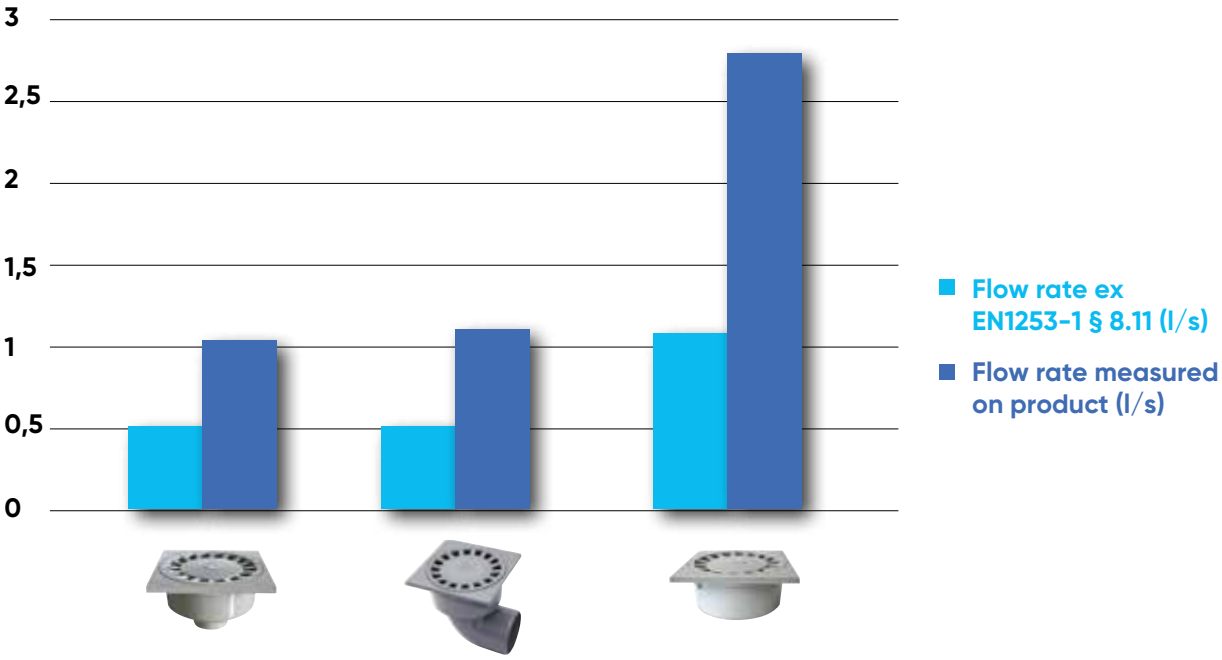
aliaxis

Floor drains:
the best solution for all drainage applications









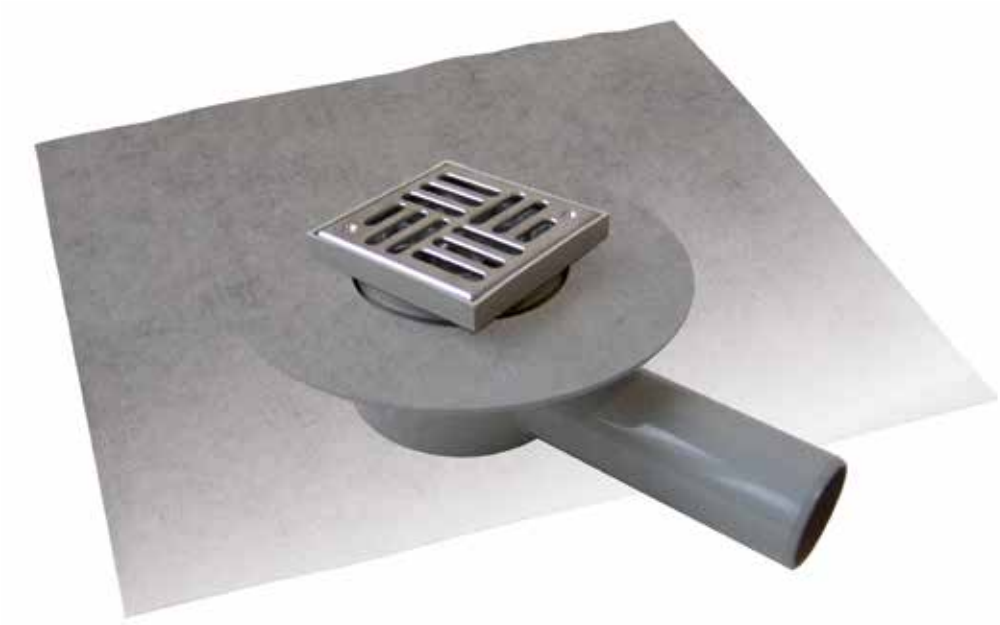
REDI products performances are proved and certified by strict laboratory tests.

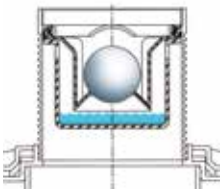
Tests for defining the drainage flow rate: carried out in compliance to EN 1253-1 norm, par. 8.11.
In this catalogue's "Products" section, the drainage flow rate is expressed in liters per second the simbol:



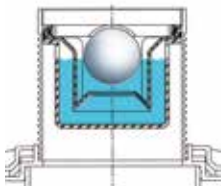


Discharge capacity test





Without water



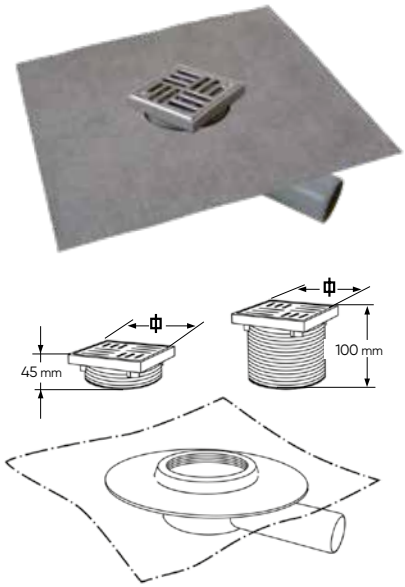
With water

Advantages:

- Adaptable height (minimum 76mm with low riser)
- 360° adjustable horizontal outlet and riser
- PVC body with horizontal outlet (can be connected either by gluing or by push-fit)
- Dry floor trap (working even in case of hot temperature)
- Internal inlets to gather infiltration
- Geotextile membrane

IT WORKS EVEN WITHOUT WATER!

The dry trap prevents any bad smell even without water seal. To collect rain and waste water. Especiallly designed for balconies, terraces and in all cases of low concrete slabs.



PVC dry trapped floor drain, horizontal outlet, geotextile membrane

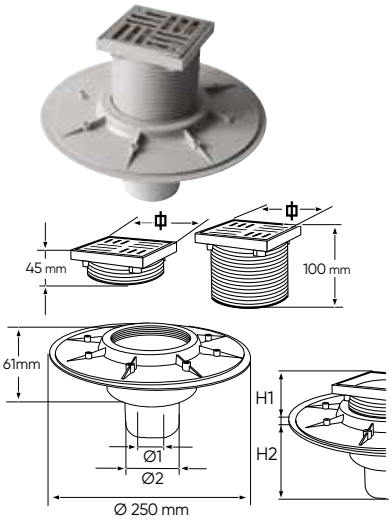
Siphon de cour, sortie horizontale, avec membrane geotextile

Sumidero sifónico seco en PVC, salida horizontal, con lámina geotextil

⌀ Grill (mm)	Reference Grey Ral 7035			Ø1 (mm)	H (mm)	H1 min. (mm)	H2 (mm)	l/s	Note
100x100	EGE41PP	1	60	40	50	29	47	<0,6	PP grill
100x100	EGE41AI	1	60	40	50	29	47	<0,6	AI Stainless steel grill
150x150	EGE45PP	1	60	40	50	29	47	<0,6	PP grill
150x150	EGE45AI	1	60	40	50	29	47	<0,6	AI Stainless steel grill
100x100	EGE51PP	1	60	50	50	29	47	<0,6	PP grill
100x100	EGE51AI	1	60	50	50	29	47	<0,6	AI Stainless steel grill
150x150	EGE55PP	1	60	50	50	29	47	<0,6	PP grill
150x150	EGE55AI	1	60	50	50	29	47	<0,6	AI Stainless steel grill

All products can be classified in load class K3 in accordance with regulation **EN1253** (resistance >300 kg). All tests have been carried out at Aliaxis laboratories. Supplied with protection to permit easy installation.

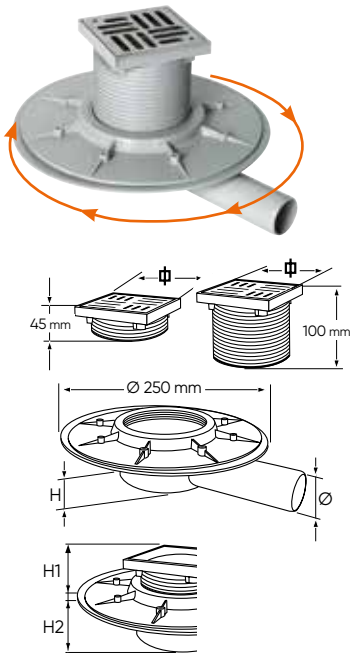
Advantages:
- *Adaptable height (minimum 76mm with low riser)*
- *360° adjustable horizontal outlet and riser*
- *PVC body with horizontal outlet (can be connected by gluing or by push fit)*
- *Dry floor trap (working even in case of hot temperature)*
- *Internal inlets to gather infiltration*
- *Geotextile 390x390 mm*



PVC Dry floor trap with vertical outlet
Siphon en PVC de cour-sortie verticale
Sumidero sifónico seco en PVC, salida vertical

⌀	Reference Grey Ral 7035			Ø1 (mm)	Ø2 (mm)	H (mm)	H1 min. (mm)	H2 (mm)	l/s	Note
100	EAS35AI	1	60	50	75	61	45	115	< 0,6	Stainless steel AISI 304 grill
100	EAS35PP	1	60	50	75	61	45	115	< 0,6	PP Grill
150	EAS45AI	1	60	50	75	61	61	115	< 0,6	Stainless steel AISI 304 grill
150	EAS45PP	1	60	50	75	61	61	115	< 0,6	PP Grill

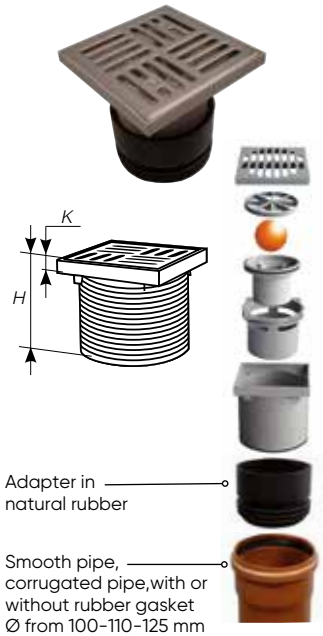
All products can be classified in load class K3 in accordance with regulation **EN1253** (resistance >300 kg).
All tests have been carried out at Aliaxis laboratories. Supplied with protection to permit easy installation.



PVC Dry floor trap with horizontal outlet
Siphon de cour-sortie horizontale
Sumidero sifónico seco en PVC, salida horizontal

⌀	Reference Grey Ral 7035			Ø1 (mm)	H (mm)	H1 min. (mm)	H2 (mm)	l/s	Note
100	EAS14AI	1	60	40	50	45	47	< 0,6	Stainless steel AISI 304 grill
100	EAS14PP	1	60	40	50	45	47	< 0,6	PP Grill
150	EAS24AI	1	60	40	50	45	47	< 0,6	Stainless steel AISI304 grill
150	EAS24PP	1	60	40	50	45	47	< 0,6	PP Grill
100	EAS15AI	1	60	50	56	45	60	< 0,6	Stainless steel AISI304 grill
100	EAS15PP	1	60	50	56	45	60	< 0,6	PP Grill
150	EAS25AI	1	60	50	56	45	60	< 0,6	Stainless steel AISI304 grill
150	EAS25PP	1	60	50	56	45	60	< 0,6	PP Grill

All products can be classified in load class K3 in accordance with regulation **EN1253** (resistance >300 kg).
All tests have been carried out at Aliaxis laboratories. Supplied with protection to permit easy installation.



PP Flexible floor drain
Siphon de cour flexible en PP - Sumidero encastrable en tuberías de bajantes pluviales, cuerpo en PP

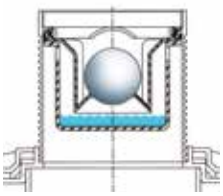
⌀	Reference			Ø (mm)	H (mm)	K (mm)	l/s	Note
100	EFS10PP	1	162	100÷125	45÷110	13	0,4	PP Grill "Dry trapping"
100	EFS10AI	1	162	100÷125	45÷110	13	0,4	Stainless steel AISI 304 grill "Dry trapping"
150	EFS15PP	1	162	100÷125	45÷110	13	0,4	PP Grill "Dry trapping"
150	EFS15AI	1	162	100÷125	45÷110	13	0,4	Stainless steel AISI 304 grill "Dry trapping"
100	EFN10PP	1	162	100÷125	45÷110	13	1,7	PP Grill - NO trap
100	EFN10AI	1	162	100÷125	45÷110	13	1,5	Stainless steel AISI 304 grill NO trap
150	EFN15PP	1	162	100÷125	45÷110	13	1,8	PP Grill - NO trap
150	EFN15AI	1	162	100÷125	45÷110	13	2,3	Stainless steel AISI 304 grill NO trap



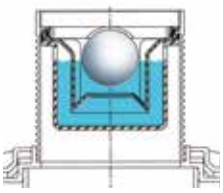
All products can be classified in load class K3 in accordance with regulation **EN1253** (resistance >300 kg).
All tests have been carried out at Aliaxis laboratories. Supplied with protection to permit easy installation.

IT WORKS EVEN WITHOUT WATER!

The dry trap prevents any bad smell even without water seal. For rain and waste water collection. Especiallly designed for balconies, terraces and in all cases of low concrete slabs.



Without water



With water

Advantages:

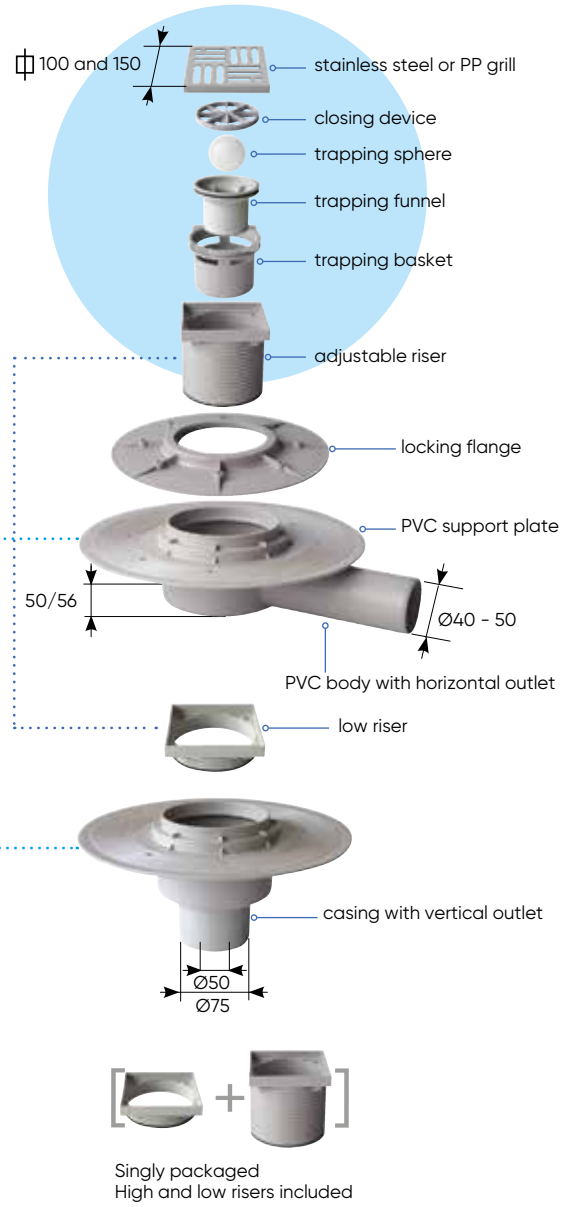
- Low casing to fit small spaces.
- Round plate and flange to lock the insulating membrane.
- 360° adjustable riser and PVC body.
- Easy inspection.
- Vertical outlet.
- Slotted PP or stainless steel grill dims.100x100, 150x150 available.
- Fastening screws are supplied with all stainless steel grilles (included in the package).



The trap may be easily removed for cleaning



Example of installation with insulating membrane



Singly packaged
High and low risers included







Dry floor trap with horizontal outlet can be connected by gluing or by push fit.



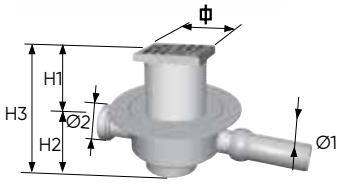
PP floor trap with inlet "Dry system"
Siphon de terrasse en PP "System à sec"
Sumidero sifónico seco en PP, salida horizontal orientable

⌀	Reference Grey Ral 7035			H1 (mm)	H2 (mm)	H3 min./max.	Ø1 (mm)	Ø2 (mm)	l/s	Note
100	E2SE5AI	4	56	100	112	130÷200	50	40	<0,6	Stainless steel AISI 304 grill
150	E2SE8AI	4	56	100	112	130÷200	50	40	<0,6	Stainless steel AISI 304 grill
100	E2SE5PP*	4	56	100	112	130÷200	50	40	<0,6	PP Grill
150	E2SE8PP*	4	56	100	112	130÷200	50	40	<0,6	PP Grill

All products can be classified in load class K3 in accordance with regulation **EN1253** (resistance >300 kg).
All tests have been carried out at Aliaxis laboratories. Supplied with protection to permit easy installation.

** Available on demand, after feasibility check*



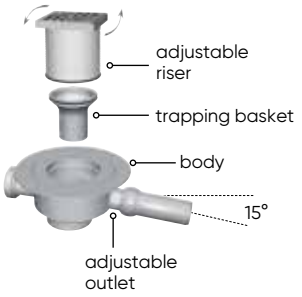


PP floor trap with inlet
Siphon de terrasse en PP
Sumidero sifónico en PP, salida horizontal orientable

⌀	Reference Grey Ral 7035			H1 (mm)	H2 (mm)	H3 min./max.	Ø1 (mm)	Ø2 (mm)	l/s	Note
100	E2266AI	4	56	100	112	130÷200	50	40	1,3	Stainless steel AISI 304 grill
150	E2277AI	4	56	100	112	130÷200	50	40	1,7	Stainless steel AISI 304 grill
100	E2255PP*	4	56	100	112	130÷200	50	40	1,5	PP Grill
150	E2288PP*	4	56	100	112	130÷200	50	40	1,6	PP Grill

All products can be classified in load class K3 in accordance with regulation **EN1253** (resistance >300 kg).
All tests have been carried out at Aliaxis laboratories. Supplied with protection to permit easy installation.

** Available on demand, after feasibility check*

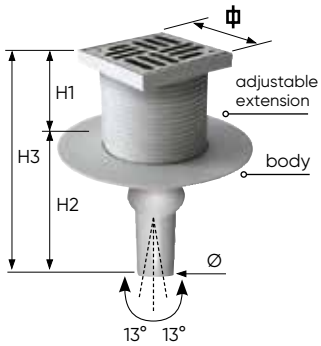


Tested by **MPA**
Use: to collect rain and waste water. Especially designed for public premises, balconies, industrial kitchens, public lavatories and in all cases a trapping action is required.
Advantages: very low casing; round plate for membrane's heat sealing; 360° adjustable riser; easy inspection.

PP Vertical outlet floor drain without trap
Receveur vertical non siphonné en PP
Sumidero en PP, no sifónico, salida vertical orientable

⌀	Reference Grey Ral 7035			H1 (mm)	H2 (mm)	H3 min./max.	Ø (mm)	l/s	Note
100	E7810AI	6	138	100	165	179÷254	50	1,9	Stainless steel AISI 304 grill
150	E7815AI	6	138	100	165	179÷254	50	2,6	Stainless steel AISI 304 grill
100	E7810PP	6	96	100	165	179÷254	50	2,3	PP Grill
150	E7815PP	6	138	100	165	179÷254	50	2,5	PP Grill

All products can be classified in load class K3 in accordance with regulation **EN1253** (resistance >300 kg).
All tests have been carried out at Aliaxis laboratories. Supplied with protection to permit easy installation.

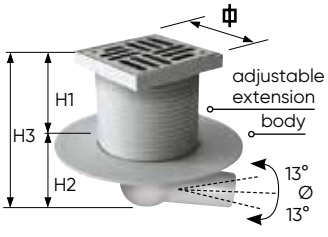


Tested by **CSTB**
Use: to collect rain and waste water. Especially designed for public premises, balconies, industrial kitchens, public lavatories and in all cases a trapping action is required.
Advantages: very low casing; round plate for membrane's heat sealing; 360° adjustable riser; easy inspection.

PP Horizontal outlet floor drain without trap
Receveur horizontal non siphonné en PP
Sumidero en PP, no sifónico, salida horizontal orientable

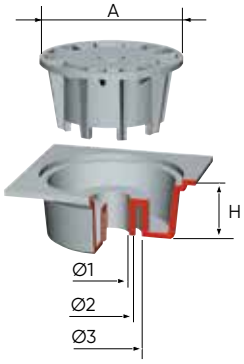
⌀	Reference Grey Ral 7035			H1 (mm)	H2 (mm)	H3 min./max.	Ø (mm)	l/s	Note
100	E7910AI	6	138	100	95	128÷183	50	1,4	Stainless steel AISI 304 grill
150	E7915AI	6	138	100	95	128÷183	50	1,9	Stainless steel AISI 304 grill
100	E7910PP	6	138	100	95	128÷183	50	1,7	PP Grill
150	E7915PP	6	138	100	95	128÷183	50	1,8	PP Grill

All products can be classified in load class K3 in accordance with regulation **EN1253** (resistance >300 kg).
All tests have been carried out at Aliaxis laboratories. Supplied with protection to permit easy installation.



Tested by **MPA**





PVC Floor drain (internal outlet)

Siphon de cour à emboîture incorporée en PVC
Sumidero sifónico de PVC con salida vertical interna

⌀	Reference Grey Ral 7035			A (mm)	H (mm)	Ø1 (mm)	Ø2 (mm)	Ø3 (mm)	Ø1	Ø1	Ø1	Note
100	E191004	12	1.536	92	50	32	40	-	0,4	0,6	-	
150	E191504	12	360	138	63	40	50	63	0,7	0,8	0,8	
200	E192004	6	180	182	92	63	75	90	1,9	1,7	1,6	
200	E192504	6	180	182	92	63	75	100	1,9	1,6	1,6	
250	E192604	6	96	228	95	-	-	100	3,0	-	-	
250	E192704	6	96	228	95	-	-	110	3,0	-	-	
300	E193004	6	72	228	95	-	-	100	3,0	-	-	
300	E193104	6	72	228	95	-	-	110	3,0	-	-	

All products can be classified in load class K3 in accordance with regulation **EN1253** (resistance >300 kg).
All tests have been carried out at Aliaxis laboratories.

Tested by CSTB





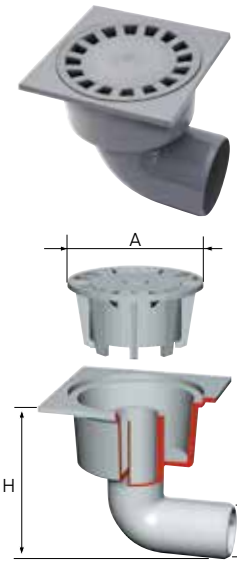
PVC Floor drain (external outlet)

Siphon de cour à sortie externe vertical en PVC
Sumidero sifónico de PVC con salida vertical externa

⌀	Reference Grey Ral 7035			A (mm)	H (mm)	Ø1 (mm)	Ø2 (mm)	l/s	Note
100	0210804	18	936	92	50	32	40	0,89	
100	0210504	18	936	92	50	-	50	1,0	
150	0211104	8	416	138	55	40	50	1,07	
200	0212204	8	192	177	65	63	75	1,34	
200	0212304	8	192	177	65	-	80	1,34	
200	0212604	8	192	177	65	75	82	1,34	
200	0212404	8	192	177	65	90	100	1,34	
200	0212504	8	192	177	65	100	110	1,34	
250	C220704	6	96	177	83	-	75	1,6	
250	E220504	6	96	177	83	-	110	1,6	
250	C221004	6	96	177	83	-	100	1,6	
300	E222504	6	96	177	83	-	75	1,6	
300	E223004	6	96	177	83	-	100	1,6	
300	E223504	6	96	177	83	-	110	1,6	

All products can be classified in load class K3 in accordance with regulation **EN1253** (resistance >300 kg).
All tests have been carried out at Aliaxis laboratories.

Tested by CSTB



PVC Floor drain (external outlet)
Siphon de cour (sortie extérieure) en PVC
Sumidero sifónico de PVC con salida horizontal externa

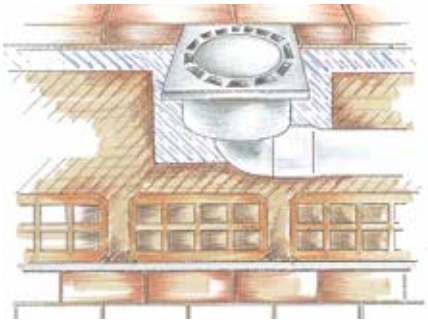
⌀	Reference Grey Ral 7035			Ø outlet	A (mm)	H (mm)	l/s	Note
100	EV64104	12	720	40	92	110	-	
100	EV95404*	12	624	50	92	122	-	
150	EV74204	12	288	50	130	128	1,3	
200	EV68804	6	96	75	177	180	2,2	
200	EV74404	6	96	80	177	183	1,4	
200	EV74604	6	96	100	177	207	1,4	
200	EV73104*	6	96	110	177	220	1,5	
250	EV74704	6	72	75	177	180	1,6	
250	EV74904**	6	72	80	177	188	1,5	
250	EV75104	6	72	100	177	205	1,4	
250	EV75204	6	72	110	177	220	3,0	
300	EV75304	6	72	75	177	180	1,6	
300	EV75404**	6	72	80	177	180	1,5	
300	EV75604	6	72	100	177	205	1,4	
300	EV75704	6	72	110	177	225	3,0	

KN — All products can be classified in load class K3 in accordance with regulation **EN1253** (resistance >300 kg).
All tests have been carried out at Aliaxis laboratories. Supplied with protection to permit easy installation.

** Subject to availability of stocks*
*** Available on demand, after feasibility check*

Tested by CSTB

Material: PVC
Use: to collect rain and waste water. Especially designed for public premises, balconies, industrial kitchens, public lavatories and in all cases a trapping action is required.
PVC specifications and structure design give this product a great resistance against atmospheric agents and ageing and ensure dimensional stability in time.
Advantages:
- easy inspection and cleaning
- external outlet

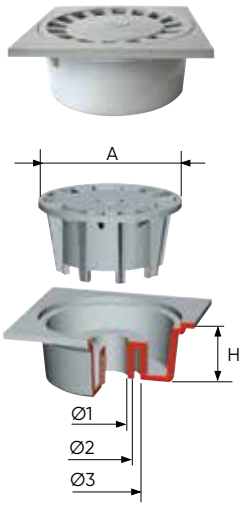




PVC Floor drain 100 (horizontal outlet)
Siphonette 100 (sortie horizontale) en PVC
Sumidero sifónico, salida horizontal hembra de PVC

⌀	Reference			H (mm)	Øi (mm)	Øe (mm)	l/s	Note
100	0210304	16	832	82	32	40	-	
100	0210404	16	832	82	40	-	0,3	

Material: PVC
Use: to collect waste water especially designed for public premises, kitchens, pubblic lavatories.
Application field: pedestrian areas.
Advantages:
- Easy cleaning and inspection thanks to the removable grill and trapping device.
- The square components may be rotated to fit floor's geometry.



PP Floor drain (internal outlet)

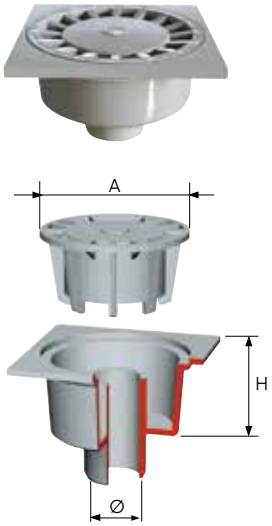
Siphon de cour à emboîture incorporée en PP

Sumidero sifónico de PP con salida vertical interna

⌀	Reference Grey Ral 7035			A (mm)	H (mm)	Ø1 (mm)	Ø2 (mm)	Ø3 (mm)	Ø1	Ø1	Ø1	Note
100	E195004	12	1.536	92	50	32	40	-	0,4	0,6	-	
150	E195504	12	360	138	63	40	50	-	0,7	0,8	0,8	
200	E196004	12	180	182	92	-	80	100	1,4	-	-	
250	E196204	12	96	228	95	-	100	-	3,0	-	-	
250	E196104	12	96	228	95	-	110	-	3,0	-	-	
300	E196304	12	72	228	95	-	100	-	3,0	-	-	
300	E196404	12	96	228	9	-	110	-	3,0	-	-	

All products can be classified in load class K3 in accordance with regulation **EN1253** (resistance >300 kg).
All tests have been carried out at Aliaxis laboratories.

Tested by CSTB



PP Floor drain (external outlet)

Siphon de cour à sortie externe vertical en PP

Sumidero sifónico de PP con salida vertical externa

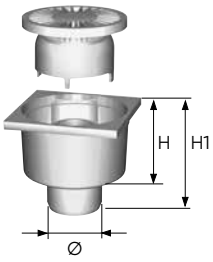
⌀	Reference Grey Ral 7035			A (mm)	H (mm)	Ø (mm)	l/s	Note
100	EP28604	12	720	92	61	40	0,8	
100	EP95604	12	720	92	61	50	0,8	
150	EP75804	12	384	92	59	50	-	
200	EP75904	12	276	92	65	50	-	
200	EP76004	6	138	177	83	75	1,6	
200	EP75104	6	138	177	83	80	1,5	
200	EP76204**	6	138	177	83	82	-	
200	EP76304	6	138	177	83	100	1,6	
200	EP76404	6	138	177	83	110	1,6	
250	EP76504*	6	96	177	83	75	1,5	
250	EP76604	6	96	177	83	80	1,6	
250	EP76704	6	96	177	83	82	-	
250	EP76804	6	96	177	83	100	1,5	
250	EP76904	6	96	177	83	110	1,5	
300	EP77004	6	96	177	83	75	1,5	
300	EP77104**	6	96	177	83	80	1,6	
300	EP77204**	6	96	177	83	82	-	
300	EP77304	6	96	177	83	100	1,5	
300	EP77404	6	96	177	83	110	1,5	

All products can be classified in load class K3 in accordance with regulation **EN1253** (resistance >300 kg).
All tests have been carried out at Aliaxis laboratories.

** Subject to availability of stocks*
*** Available on demand, after feasibility check*

Tested by CSTB
Material: Polypropylene
Use: to collect rain and waste water. Especially designed for public premises, balconies, industrial kitchens, public lavatories and in all cases a trapping action is required.
Advantages:
- easy inspection and cleaning
- internal, external and horizontal outlet versions available





ABS Chromium plated floor drain with vertical outlet
Siphon de cour chromé sortie verticale en ABS
Caldereta de piso cromada de ABS con salida vertical

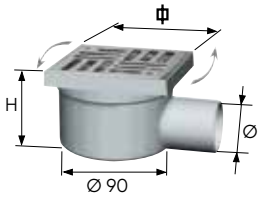
⌀	Reference			H (mm)	Ø (mm)	Ø1 (mm)	l/s	Note
100	E2209CR	12	720	60	40	95	0,8	
100	E2222CR	12	720	60	50	95	0,6	
150	E2233CR	12	384	60	50	95	<0,7	
200	E2210CR*	12	276	60	50	95	<0,7	

All products can be classified in load class K3 in accordance with regulation **EN1253** (resistance >300 kg).
All tests have been carried out at Aliaxis laboratories.

** Subject to availability of stocks*

Tested by CSTB
Material: ABS - Colour: Chromium plated
Use: to collect waste water.
Especially designed for public premises, lavatories, and in all cases a trapping action is required.
The chromium plated material meets with the aesthetical requirements while granting the same water flowability of plastics materials. We suggested not to use aggressive chemical cleaners because in long term could damage chromium plating.
Advantages: easy inspection thanks to the removable trapping bell.





PP Trapped balcony floor drain with adjustable, horizontal outlet
Siphon de cour sortie horizontale et orientable en PP - Caldereta para terrazas y/o balcones con salida ajustable horizontal de PP

⌀	Reference Grey Ral 7035			H (mm)	Ø (mm)	l/s	Note
100	E224004	12	624	80	40	<0,6	PP Grill
100	E224504	12	624	80	50	<0,6	PP Grill
100	E2240AI	12	624	80	40	<0,6	Stainless steel AISI 304 grill
100	E2245AI	12	624	80	50	<0,6	Stainless steel AISI 304 grill

All products can be classified in load class K3 in accordance with regulation **EN1253** (resistance >300 kg).
All tests have been carried out at Aliaxis laboratories.



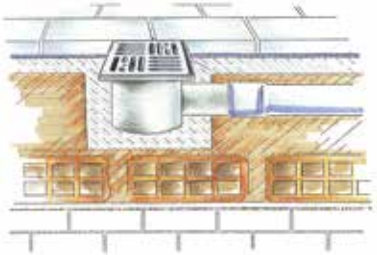


PP Trapped balcony floor drain with horizontal outlet, low version
Siphon de cour sortie horizontale et orientable en PP, version basse - Caldereta para terrazas y/o balcones con salida ajustable horizontal, versión baja

⌀	Reference Grey Ral 7035			H (mm)	Ø (mm)	l/s	Note
150	E224204	12	384	75	40	<0,6	PP Grill
150	E2242AI	12	384	75	40	<0,6	Stainless steel AISI 304 grill
150	E225004	12	384	75	50	<0,6	PP Grill
150	E2250AI	12	384	75	50	<0,6	Stainless steel AISI 304 grill

All products can be classified in load class K3 in accordance with regulation **EN1253** (resistance >300 kg).
All tests have been carried out at Aliaxis laboratories.

Material: Polypropylene
Use: to collect rain and waste water. Especially designed for balcony floor drain
Advantages:
- low casing
- rotating grill
- easy inspection







Double flap
anti-backflow device

PP High capacity floor drain 1 outlet, low version
Siphon grand débit en PP, version bas
Caldereta de suelo gran caudal en PP, versión baja

⌀	Reference Grey Ral 7035			Ø (mm)	H (mm)	l/s	Note
150	EBA22AI	6	84	75	168	>1,05	Stainless steel AISI 304 gril
150	EBA44AI	6	84	110	168	>1,40	Stainless steel AISI 304 gril
150	EBAK3PP	6	84	110 anti-backflow device	168	-	Stainless steel AISI 304 gril
150	EBA11PP	6	84	75	168	>1,14	PP Grill
150	EBA33PP	6	84	110	168	>1,41	PP Grill
150	EBAK4AI	6	84	110 anti-backflow device	168	-	PP Grill

All products can be classified in load class K3 in accordance with regulation **EN1253** (resistance >300 kg).
All tests have been carried out at Aliaxis laboratories.

Tested by LGA





Double flap
anti-backflow device



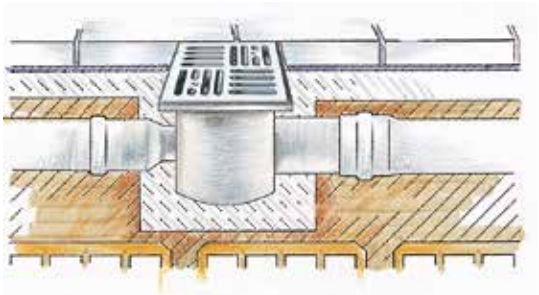
PP High capacity floor drain 1 outlet, high version
Siphon de terrasse grand débit en PP, version haut
Caldereta de suelo gran caudal en PP con altura ajustable, versión alta

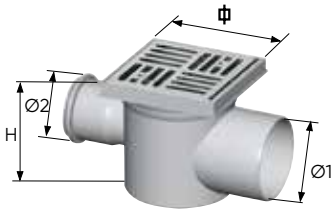
⌀	Reference Grey Ral 7035			Ø (mm)	H1 (mm)	H2 (mm)	H min./max.	l/s	Note
150	EAL22AI	6	72	75	90	155	170÷245	>1,05	Stainless steel AISI 304 grill
150	EAL44AI	6	72	110	90	155	170÷245	>1,40	Stainless steel AISI 304 grill
150	EALK4AI	6	72	110 anti-backflow device	90	155	170÷245	-	Stainless steel AISI 304 grill
150	EAL11PP	6	72	75	90	155	170÷245	>1,14	PP Grill
150	EAL33PP	6	72	110	90	155	170÷245	>1,41	PP Grill
150	EALK3PP	6	72	110 anti-backflow device	90	155	170÷245	-	PP Grill

All products can be classified in load class K3 in accordance with regulation **EN1253** (resistance >300 kg).
All tests have been carried out at Aliaxis laboratories.

** Available on demand, after feasibility check*

Material: Polypropylene
Use: to collect rain or waste water in yards, garages cellars and any areas where a high drainage capacity is required.
Advantages:
- inspection basket
- 360° adjustable riser
- easy inspection
- an anti-backflow device can be fitted in to prevent back flooding.

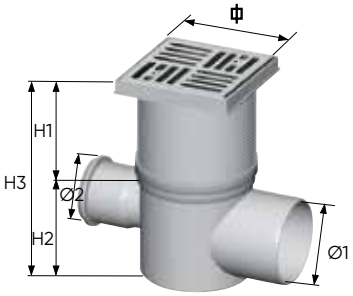




PP High capacity floor drain 1 inlet/1 outlet, low version
Siphon grand débit avec 1 entrée /1 sortie en PP, version bas
Caldereta de suelo gran caudal en PP con 1 entrada/1 salida, versión baja

Ø	Reference Grey Ral 7035			Ø1 (mm)	Ø2 (mm)	H (mm)	Note
150	EBA66AI	6	84	75	75	168	Stainless steel AISI 304 grill
150	EBA88AI	6	84	110	75	168	Stainless steel AISI 304 grill
150	EBA55PP	6	96	75	75	168	PP Grill
150	EBA77PP	6	84	110	75	168	PP Grill

All products can be classified in load class K3 in accordance with regulation **EN1253** (resistance >300 kg).
All tests have been carried out at Aliaxis laboratories.



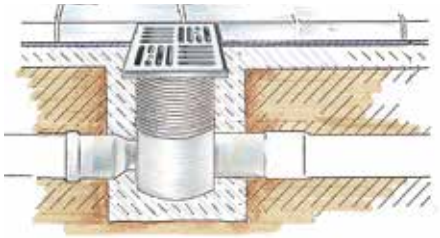


PP High capacity floor drain 1 inlet/1 outlet, high version
Siphon grand débit avec 1 entrée /1 sortie en PP, version haut
Caldereta de suelo gran caudal en PP con 1 entrada/1 salida, versión alta

Ø	Reference Grey Ral 7035			Ø1 (mm)	Ø2 (mm)	H1 (mm)	H2 (mm)	H3 (mm)	Note
150	EAL66AI*	6	72	75	75	90	155	170-245	Griglia inox
150	EAL88AI	6	72	110	75	90	155	170-245	Griglia inox
150	EAL55PP*	6	72	75	75	90	155	170-245	Griglia PP
150	EAL77PP	6	72	110	75	90	155	170-245	Griglia PP

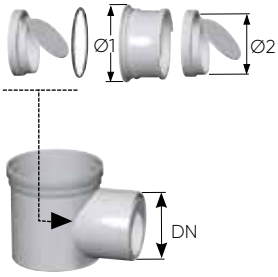
All products can be classified in load class K3 in accordance with regulation **EN1253** (resistance >300 kg).
All tests have been carried out at Aliaxis laboratories.

** Available on demand, after feasibility check*
Material: Polypropylene
Use: to collect rain or waste water in yards, garages cellars and in any areas where a high drainage capacity is required. The second outlet allows in-line systems.
Advantages:
- inspection basket
- the second outlet allows in-line systems
- 360° adjustable riser
- easy inspection
- an anti-backflow device can be fitted in to prevent back flooding.





Example of assembly

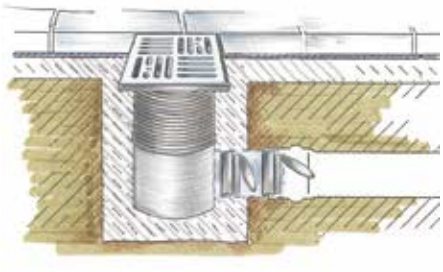


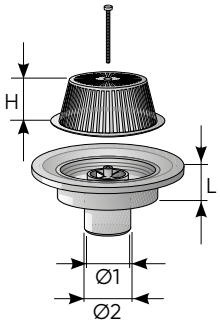
Double flap anti-backflow device

Clapet anti-retour double - Valvula doble clapeta anti-retorno

DN (mm)	Reference Grey Ral 7035			Ø1 (mm)	Ø2 (mm)	Note
110	EDP1104	6	768	70	103	

Material: Polypropylene
It may be fit in to high capacity floor drains to prevent back flooding.



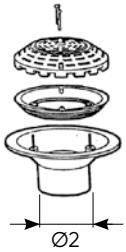


PVC roof outlet

Naissance pour eaux pluviales en PVC
Sumidero de PVC con rejilla alta

Ø1 (mm)	Ø2 (mm)	Reference Grey			l/s	H (mm)	L (mm)	Note
63	75	1992204	15	120	1,8	74	62	
75	82	1992304	15	120	1,8	74	62	Minimum order required
	80	1992404	15	120	1,8	74	62	
100	110	1992504	15	120	1,8	74	62	

* *Price on request*



PVC Flat roof outlet

Naissance pour eaux pluviales en PVC
Sumidero de PVC con rejilla

Ø (mm)	Reference Grey			l/s	Note
160	H991604	7	56	4,0	

* *Price on request*



Universal leaf guard

Crapaudine - Filtro atrapa hojas

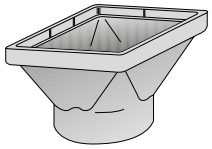
Ø (mm)	Reference			Note
60÷120	G456000	60	1.440	



Outlet union

Ø	Reference			A (mm)	B (mm)	C (mm)	D (mm)	H (mm)	Note
80	G400800	20	120	310	69	64	76	225	
100	G401000	20	-	315	89	84	96	225	
125	G401200	15	-	319	114	109	121	225	

Material: Rubber
Colour: Black



PVC Square hopper
Regard d'accès pluvial en PVC
Colector de agua pluvial en PVC

Ø	⌑	Reference Grey Ral 7035			l/s	Note
110	150	0076502	15	360	3,9*	Grey RAL 7035
110	150	0076501	15	360	3,9*	Red RAL 8023

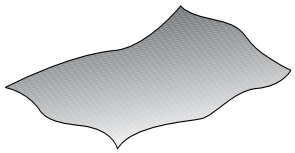
* Flow measured using the grid Reference 7302800



Grill for square hopper
Grille pour regard d'accès pluvial
Rejilla para colector de agua pluvial

⌑ DN (mm)	Reference			Note
150	7302800	50	3.200	

Spare parts - Pièces de rechang - Repuestos



PVC insulating membrane
Membrane d'étanchéité - Lámina de PVC, impermeabilizante

DN (mm)	Reference			Note
1500 x 1500 x 0,8 mm	J022087	5	260	1 single sheet

Material: PVC plasticized - Colour: Grey - Use: waterproofing sheet



Stainless steel Grill
Grille en acier inox - Rejilla inoxidable

⌑ DN (mm)	Reference			Note
100	E9910AI	3	-	Stainless steel AISI 304
150	E9915AI	3	-	Stainless steel AISI 304
150	E9914AI	1	-	Stainless steel AISI 316L (On request)

* *Price on request*



PP Grill
Grille en PP - Rejilla PP

DN (mm)	Reference Grey Ral 7035			Note
145	E9915PP	3	-	Spare part for Ref. E224204 - E225504
95	E9910PP	3	-	Spare part for Ref. E224004 - E224504



Grill frame
Cadre pour grille - Cerco para rejilla

DN (mm)	Reference Grey Ral 7035			Note
150	E97BG00	1	-	Spare part for Ref. E224204 - E225504
100	E97BG10	1	-	Spare part for Ref. E224004 - E224504



Trapping funnel
Entonnoir de siphonnement - Campana para sifón

Ø1 (mm)	Ø2 (mm)	Reference Grey Ral 7035			Note
85	35	E97IM00	3	-	Spare part for Ref. E224004 - E224504 Spare part for Ref. E224004 - E224504



PP Trapped balcony floor drain with adjustable horizontal outlet
Siphon de cour en PP sortie horizontale et orientable
Reference: E225004 - E224204



PP Trapped balcony floor drain low with horizontal outlet
Siphon de cour en PP sortie horizontale et orientable bas
Reference: E224004 - E224504



Risers
Rallonges - Extensible con junta

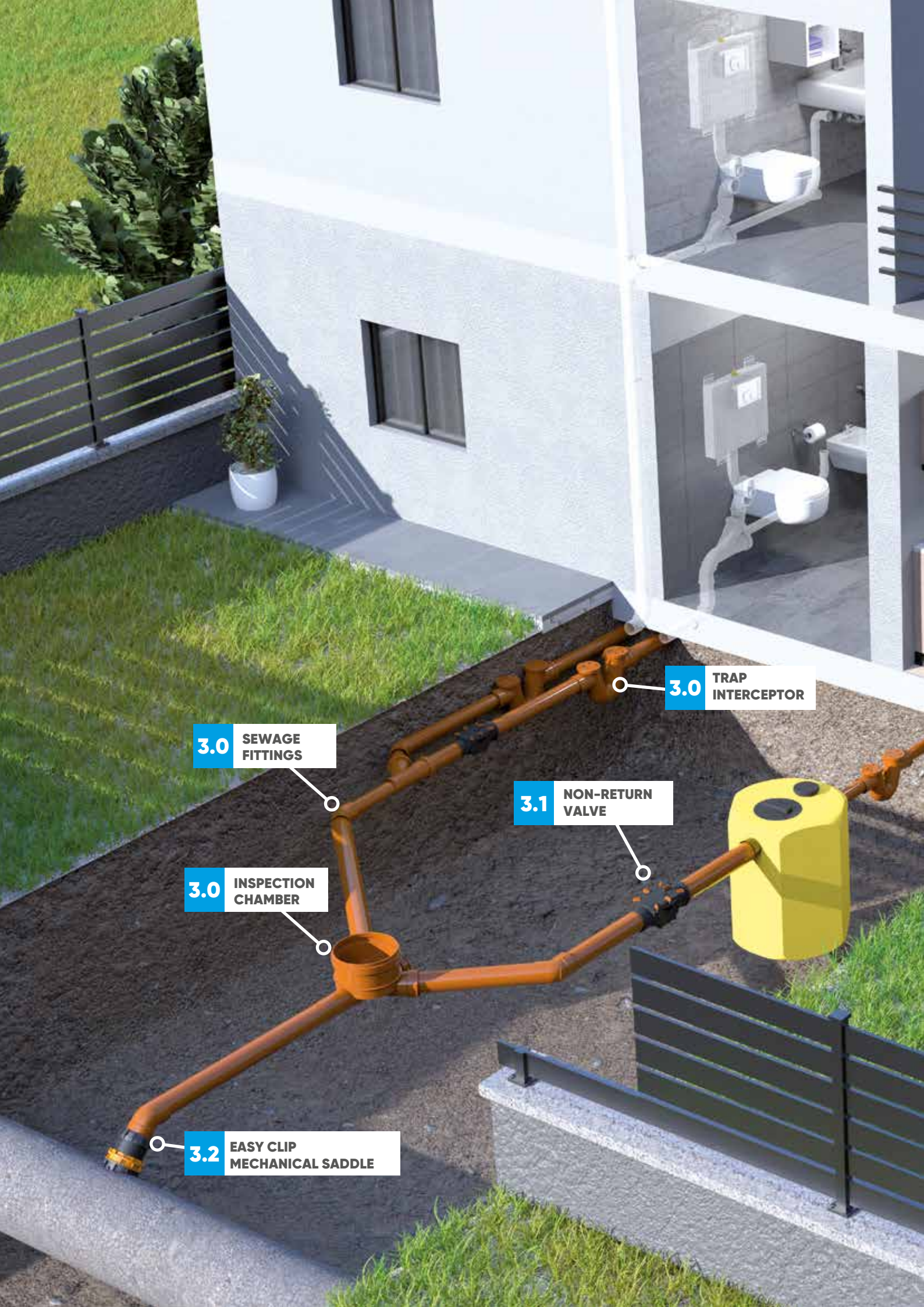
DN (mm)	Reference Grey Ral 7035			Note
100	E98PRB0	1	-	Low riser
150	E99PRB0*	1	-	Low riser
100	E98PRA0	1	-	High riser
150	E99PRA0	3	360	High riser

**Available on demand, after feasibility check*



Dry trap
Syphon à sec - Sifón seca

Reference			Note
KITC500	1	-	Assembled trap (closing device + trapping+ trapping funnel + trapping basket)


3.0 TRAP INTERCEPTOR
3.0 SEWAGE FITTINGS
3.1 NON-RETURN VALVE
3.0 INSPECTION CHAMBER
3.2 EASY CLIP MECHANICAL SADDLE



3.0 UNDERGROUND SEWAGE



Underground sewage fittings PVC-U

REDI

aliaxis

A complete range of fittings for underground drainage

Aliaxis offers complete drainage solutions starting from Phonoline soundproof system for aboveground drainage up to private sewers and connections onto public mains.

Aliaxis fittings and ancillary equipments are fully certified by European Standard Institutes allowing the design of drainage systems complying with local Building Regulations. Aliaxis provides easy-to-install, secure and reliable solutions aiming at building long-lasting networks.

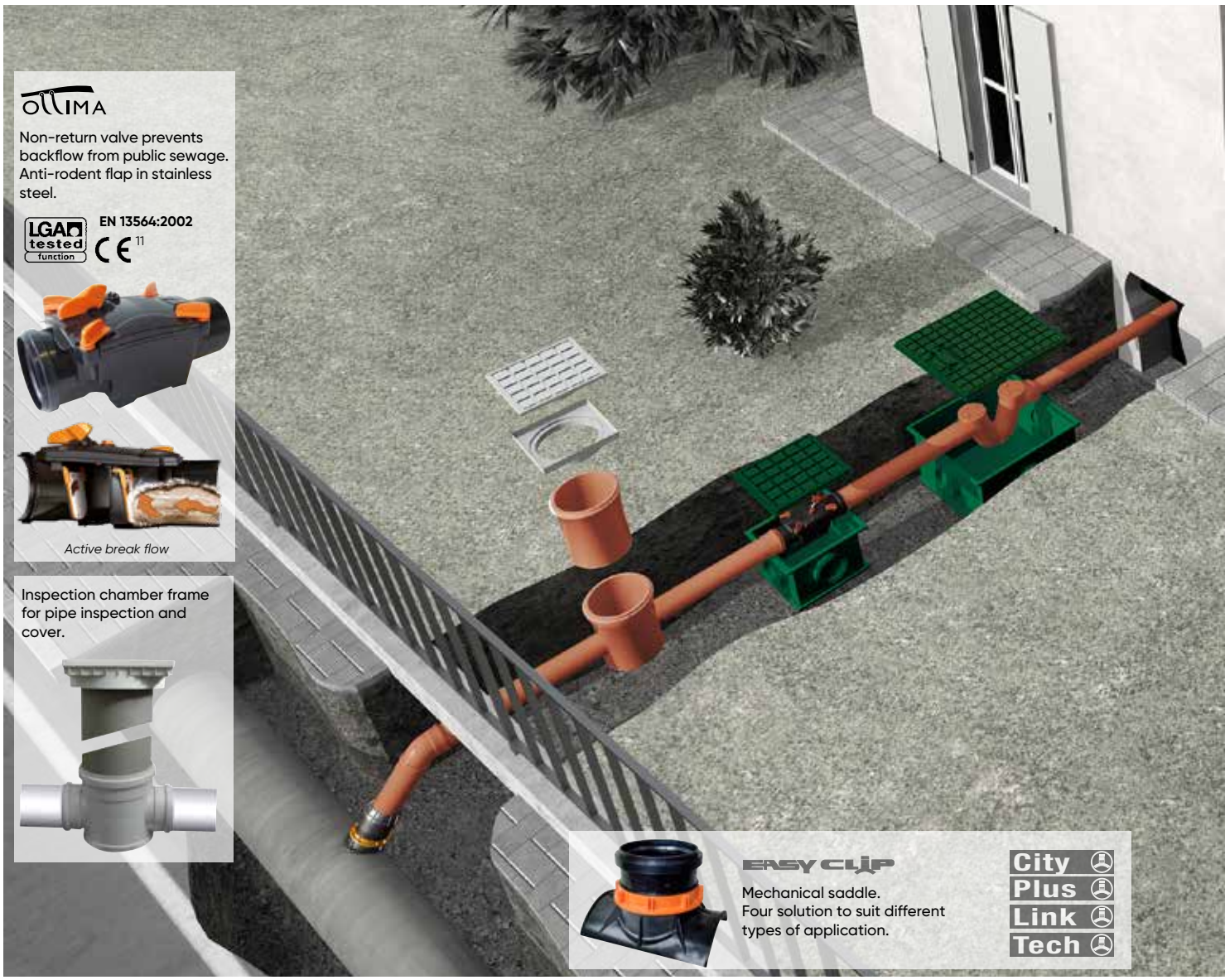
Product specifications, updated certifications, technical data sheets and AutoCAD drawings may be downloaded from our site www.redi.it

Certifications

- Sizes	**EN1401**
- Shock resistance	**EN12061**
- Mechanical stress resistance (Fabricated or thermoformed fittings)	**EN12256**
- Vicat softening temperature	**EN727**
- Heating effects	**EN580**
- Water tightness (Fabricated or thermoformed fittings)	**EN1053**
- Elastomeric sealing tightness* ** (With diametrical elastic failure and angular bending under the following conditions +0,05 bar, +0,5 bar, -0,3 bar)*	**EN1277**
- High temperature cycle	**EN1055**
- Pressure Strength	**EN1167**
- Lip Ring	**EN 681**

Installation tips

Always chamfer cut pipe and lubricate all plain ended spigots for perfect push-fit.
All fittings sized Ø110 are SN8 SDR34.



Certification: Underground sewage fittings



IIP: EN1401



BSI: EN1401



Ö Norm: EN1401



BENOR: EN1401



MPA: EN1401



AFNOR-CSTB:
ANF EN1401



KIWA-KOMO:
EN1401

Certification: Lip Ring



MPS NRW
Standard nr.
220000032 04-02-1b
DIN 4060



BSI
Standard nr. KM 51718
BS EN 681-1



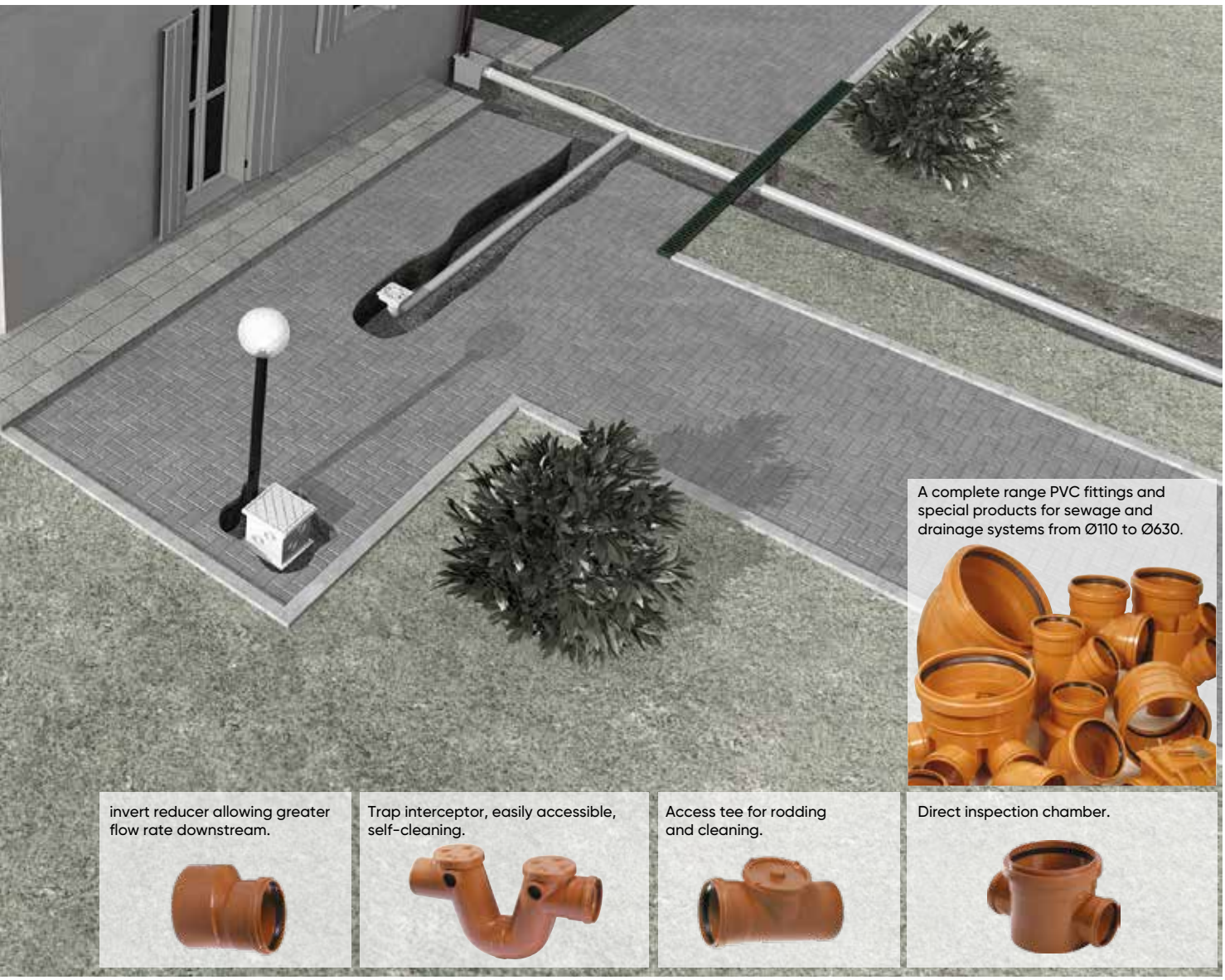
KIWA KOMO
Standard nr. K4195/06
Type rubbe SBR ss-p-60-00



DNV Det Norske Veritas
Certification Licence

Standard n.
112.929.01-01E SS-EN 681-1
Type test report:
SP report No. 98K12514
A-C, 98K 12558, 99K12583,
99K12604, F020847C, F101033

The list of the correspondence between these Certificates of Conformity and the complete range of products described is available upon request.



A complete range PVC fittings and special products for sewage and drainage systems from Ø110 to Ø630.

invert reducer allowing greater flow rate downstream.

Trap interceptor, easily accessible, self-cleaning.

Access tee for rodding and cleaning.

Direct inspection chamber.

Product Specifications

Sewage pipes and fittings

Pipes and fittings are made of PVC-U for non-pressure underground drainage and sewage applications.
Nominal ring stiffness and standard dimension ratio must be as specified in the present technical handbook, reaches conform to EN 1401 and certified by a qualified certification body. Product range goes from DN 110 up to DN 630, manufactured in compliance with EN1401 norm. Push-fit jointing system (spigot/socket) with sealing lip-rings. The gaskets are conform to EN681-1 and certified by a qualified certification body.
Basic marking for fittings :
- Manufacturer's name
- Quality Mark by third part certification (IIP, MPA etc)
- EN1401
- Application area code ("U" or "UD")
- Nominal size
- Nominal angle
- Nominal ring stiffness or SDR

Supplier's Quality system has to be ISO 9001:2008 certified, supplier's Environment system has to be ISO 14001:2004 certified as a condition for purchase.

Inspection Chambers (PVC-U or PP)

Injected molded non return valve made of PVC-U or PP designed for connections to piping systems conform to EN1401. Rubber ring jointing type (Elastomeric ring seal joints conform to EN681-1 and DIN4060).
The semi-circular smooth chamber base is allowing flow continuity and preventing dregs sediment even at a low flow rate. The chamber base may be connected to a riser/shaft DN400 (depending on the depth) terminating at ground level. The telescopic part allows the settlement that might occur after installation or adjustments of the height of the chamber. The cover shall conform to specifications (material, loading class, locking devices).
Suppliers will wave to attest that they hold a ISO9001 approved quality system in place as a condition for purchase.

A-N trap interceptors

Injection-molded sewer traps made of PVC-U, designed for connections to piping systems conform to EN1329 and EN1401.
Push-fit jointing system (spigot/socket) with sealing lip-rings. The gaskets are conform to EN681-1 and certified by a qualified certification body.
This trap interceptor must have the following technical features:
- No hand welding
- SC or RR jointing type
- Optimal water seal (min. 3/10 diameter ratio) to prevent the passage of sewer gas
- 2 rodding access screw caps
- Blank vents inlets for the relief of sewer gases, admission of oxygen for aerobic sewage digestion and maintenance of the trap water seal.

Supplier's Quality system has to be ISO 9001:2008 certified, supplier's Environment system has to be ISO 14001:2004 certified as a condition for purchase.

Photo references

Sewer traps, typical installation of a secondary ventilation column, inspection chambers.

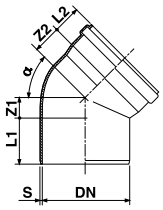








SN8 - SDR34



Bend S/S
Coude M/F - Codo M/H

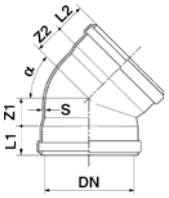
DN	α	S	Z1	Z2	L1	L2	Reference RAL 7037 Grey			Note
125	45°	3,7	29	40	68	56	0702242*	25	200	**SN8 SDR34**
160	15°	4,7	14	28	82	72	0101742	15	120	**SN8 SDR34**
160	45°	4,7	37	51	80	66	0701542	10	80	**SN8 SDR34**

* Available on request for minimum order

Fixed Ring



SN8 - SDR34



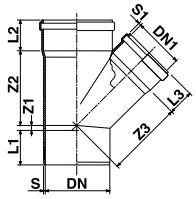
Bend D/S
Coude F/F - Codo H/H

DN (mm)	α	S (mm)	Z1 (mm)	Z2 (mm)	L1 (mm)	L2 (mm)	Reference RAL 7037 Grey			Note
125	45°	3,7	43	43	62	62	0232242	20	160	**SN8 SDR34**
160	15°	4,7	28	28	73	73	0211742	12	96	**SN8 SDR34**
160	45°	4,7	49	49	73	73	0231542	10	80	**SN8 SDR34**

Fixed Ring



SN8 - SDR34



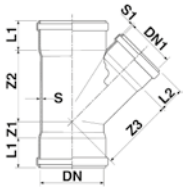
Branch 45° S/S
Culotte 45° M/F - Derivación 45° M/H

DN (mm)	DN1 (mm)	S (mm)	S1 (mm)	Z1 (mm)	Z2 (mm)	Z3 (mm)	L1 (mm)	L2 (mm)	L3 (mm)	Reference RAL 7037 Grey			Note
160	125	4,7	3,7	12	180	185	83	74	62	0313442	6	48	**SN8 SDR34**

Fixed Ring



SN8 - SDR34

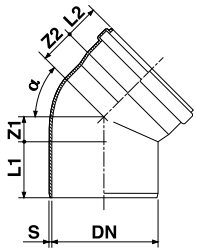


Branch 45° D/S
Culotte 45° F/F - Derivación 45° H/H

DN (mm)	DN1 (mm)	S (mm)	S1 (mm)	Z1 (mm)	Z2 (mm)	Z3 (mm)	L1 (mm)	L3 (mm)	Reference RAL 7037 Grey			Note
160	125	4,7	3,7	41	180	185	74	62	0311932	6	48	**SN8 SDR34**
200	125	5,9	3,7	54	228	232	86	74	0313932	4	32	**SN8 SDR34**
200	160	5,9	3,7	54	228	232	86	74	0312232	1	25	**SN8 SDR34**

Fixed Ring





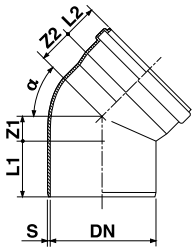
Bend 15° S/S
Coude 15° M/F - Codo 15° M/H

DN (mm)	S (mm)	Z1 (mm)	Z2 (mm)	L1 (mm)	L2 (mm)	Reference RAL 7037 Grey (•)	Reference RAL 8023 Red		
◗ 110	3.2	9	22	62	50	0101142 •	010115E	40	320
125	3.2	10	22	68	63	0101242 •	010125E	25	200
160	4.0	14	28	82	72	0101642 •	010165E	13	104
200	4.9	18	35	100	86	0102042 •	010205E	8	64
250	6.2	19	40	134	103	0102552	0102591	1	36
315	7.7	23	52	144	120	0103052	0103091	1	18
400	9.8	83	80	175	175	1104052	1104091	1	10
500	12.2	150	160	160	250	-	N105091* ✦	1	2
630	-	-	-	-	-	-	N106391* ✦	1	1

* Available on request for minimum order *** Price on request

•(•) Fixed Ring Lip Ring ✦ Fabricated ◗ **SN8 SDR34**





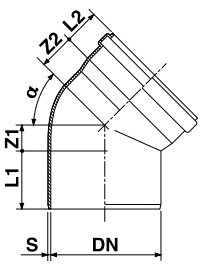
Bend 30° S/S
Coude 30° M/F - Codo 30° M/H

DN (mm)	S (mm)	Z1 (mm)	Z2 (mm)	L1 (mm)	L2 (mm)	Reference RAL 7037 Grey (•)	Reference RAL 8023 Red		
◗ 110	3.2	17	29	61	50	0111142 •	011115E	40	320
125	3.2	19	29	68	62	0111242 •	011125E	25	200
160	4.0	25	40	82	72	0111642 •	011165E	13	104
200	4.9	30	49	100	86	0112042 •	011205E	1	60
250	6.2	37	59	134	103	0112552	0112591	1	33
315	7.7	47	74	144	118	0113052	0113091	1	18
400	9.8	65	98	165	140	1114052	1114091	1	8
500	12.2	165	230	160	250	-	N115091* ✦	1	2
630	-	-	-	-	-	-	N116391* ✦	1	1

* Available on request for minimum order *** Price on request

•(•) Fixed Ring Lip Ring ✦ Fabricated ◗ **SN8 SDR34**





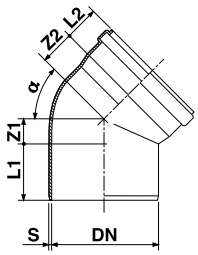
Bend 45° S/S
Coude 45° M/F - Codo 45° M/H

DN (mm)	S (mm)	Z1 (mm)	Z2 (mm)	L1 (mm)	L2 (mm)	Reference RAL 7037 Grey (•)	Reference RAL 8023 Red		
◗ 110	3.2	27	36	58	50	0121142 •	012115E	35	280
125	3.2	29	40	68	56	0701242 •	070125E	23	184
160	4.0	37	51	80	66	0701642 •	070165E	10	80
200	4.9	46	64	100	84	0702042 •	070205E	5	40
250	6.2	58	79	125	96	0122552	0122591	1	27
315	7.7	73	100	144	118	0123052	0123091	1	14
400	9.8	91	126	165	140	1124052	1124091	1	7
500	9.8	103	152	160	150	1125052	1125091	1	4
630	-	-	-	-	-	-	N126391* ✦	1	1

* Available on request for minimum order *** Price on request

•(•) Fixed Ring Lip Ring ✦ Fabricated ◗ **SN8 SDR34**





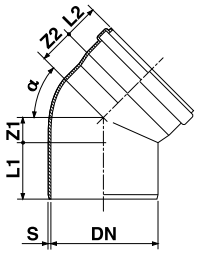
Bend 67°30′ S/S

Coude 67°30′ M/F - Codo 67°30′ M/H

DN (mm)	S (mm)	Z1 (mm)	Z2 (mm)	L1 (mm)	L2 (mm)	Reference RAL 7037 Grey	Reference RAL 8023 Red		
◗ **110**	3.2	41	53	62	56	0131142	013115E	30	240
125	3.2	46	60	69	62	0131242	013125E	20	160
160	4.0	60	74	82	74	0131642	013165E	10	80
200	4.9	73	88	100	86	0132042	013205E	5	40

Fixed Ring Lip Ring **SN8 SDR34**





Bend 87°30′ S/S

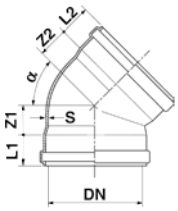
Coude 87°30′ M/F - Codo 87°30′ M/H

DN (mm)	S (mm)	Z1 (mm)	Z2 (mm)	L1 (mm)	L2 (mm)	Reference RAL 7037 Grey (•)	Reference RAL 8023 Red		
◗ **110**	3.2	59	69	58	50	0711142 •	071115E	25	200
125	3.2	65	77	67	56	0711242 •	071125E	20	160
160	4.0	84	96	80	66	0711642 •	071165E	10	80
200	4.9	105	122	100	85	0712042 •	071205E	1	40
250	6.2	132	154	136	103	0142552	0142591	1	20
315	7.7	166	192	144	114	0143052	0143091	1	10
400	9.8	211	244	160	140	1144052	1144091	1	6
500	9.8	380	430	160	150	1145052 ✦	1145091* ✦	1	2
630	-	-	-	-	-	-	N146391* ✦	1	1

* Available on request for minimum order *** Price on request

•Fixed Ring Lip Ring ✦ Fabricated ◗ **SN8 SDR34**





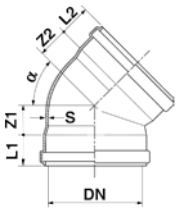
Bend 15° D/S
Coude 15° F/F - Codo 15° H/H

DN (mm)	S (mm)	Z1 (mm)	Z2 (mm)	L1 (mm)	L2 (mm)	Reference RAL 7037 Grey	Reference RAL 8023 Red		
◗ **110**	3.2	20	20	56	56	0211342	0211341	35	280
160	4.0	28	28	73	73	0211642	0211641	12	96
200	4.9	33	33	82	86	1102142	1102141	6	48
250	6.2	64	42	101	101	1102242	1102241*	1	33
315	7.7	73	52	116	116	1103342*	1103341*	1	16
400	9.8	52	70	133	142	1104452*	-	1	8

* Available on request for minimum order *** Price on request

Fixed Ring ◗ **SN8 SDR34**



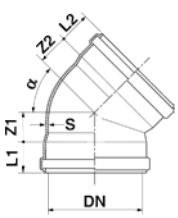


Bend 30° D/S
Coude 30° F/F - Codo 30° H/H

DN (mm)	S (mm)	Z1 (mm)	Z2 (mm)	L1 (mm)	L2 (mm)	Reference RAL 7037 Grey	Reference RAL 8023 Red		
◗ **110**	3.2	27	27	56	56	0221342	0221341	30	240
160	4.0	40	40	74	74	0221642	0221641	10	80
200	4.9	48	48	82	86	1112142	1112141	5	40
250	6.2	81	61	101	101	1112242	-	1	27
315	7.7	88	75	116	116	1113342	-	1	12
400	9.8	80	100	133	142	1114452	-	1	6

Fixed Ring ◗ **SN8 SDR34**



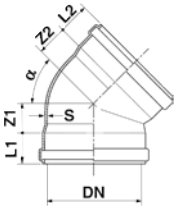


Bend 45° D/S
Coude 45° F/F - Codo 45° H/H

DN (mm)	S (mm)	Z1 (mm)	Z2 (mm)	L1 (mm)	L2 (mm)	Reference RAL 7037 Grey	Reference RAL 8023 Red		
◗ **110**	3.2	37	37	50	50	0231142	023115E	30	240
125	3.7	43	43	62	62	0231242	-	20	160
160	4.0	49	49	73	73	0231642	0231641	10	80
200	4.9	65	65	85	85	0232042	0232041	5	40
250	6.2	79	79	101	101	1232542	1232541	1	27
315	7.7	100	100	116	116	1233042	1233041	1	12
400	9.8	110	125	133	142	1234052	1234051	1	6

Fixed Ring ◗ **SN8 SDR34**





Bend 87°30' D/S

Coude 87°30' F/F - Codo 87°30' H/H

DN (mm)	S (mm)	Z1 (mm)	Z2 (mm)	L1 (mm)	L2 (mm)	Reference RAL 7037 Grey	Reference RAL 8023 Red		
110	3.2	70	70	50	50	0241342	024135E	25	200
125	3.2	77	77	57	57	0241242	-	18	144
160	4.0	124	124	78	78	0241642	0241641	8	64
200	4.9	124	124	85	85	0242142	0242141	4	32
250	6.2	154	154	101	101	1242542	1242541	1	20
315	7.7	192	192	116	116	1243042	1243041	1	10
400	9.8	220	245	133	142	1244052	1244051	1	5

Fixed Ring **SN8 SDR34**

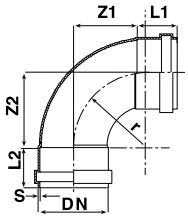


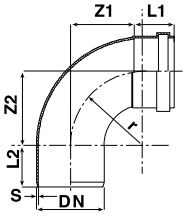
Long radius bend 87°30'

Coude grand rayon 87°30' - Codo largo radio 87°30'

DN (mm)	α	S (mm)	Z1 (mm)	Z2 (mm)	L1 (mm)	L2 (mm)	r (mm)	Reference RAL 7037 Grey	Reference RAL 8023 Red		
110	M/F	3.2	106	115	58	65	142	0741142	074115E	20	160
110	F/F	3.2	106	106	58	58	142	0241142	024115E	20	160

Fixed Ring Lip Ring **SN8 SDR34**







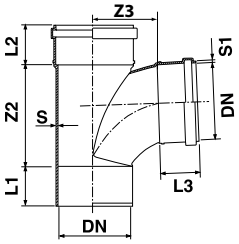


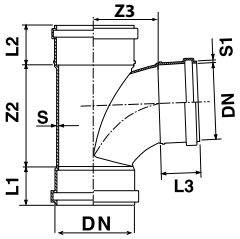
Long radius Branch 87°30'

Culotte grand rayon 87°30' - Derivación de largo radio 87° 30'

DN (mm)	Type	S (mm)	S1 (mm)	Z2 (mm)	L1 (mm)	L2 (mm)	L3 (mm)	Reference RAL 7037 Grey	Reference RAL 8023 Red		
110	F/F	3.2	2.9	146	62	57.5	57.5	0451342	045135E	15	120
110	M/F	3.2	2.9	146	62	57.5	57.5	0891342	089135E	15	120

Fixed Ring Lip Ring **SN8 SDR34**

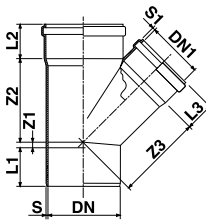




Branch 45° D/S

Culotte 45° M/F - Derivación 45° M/H





DN (mm)	DN1 (mm)	S (mm)	S1 (mm)	Z1 (mm)	Z2 (mm)	Z3 (mm)	L1 (mm)	L2 (mm)	L3 (mm)	Reference RAL 7037 Grey (•)	Reference RAL 8023 Red		
◗ 110	110	3.2	-	25	140	140	60	50	50	0301142 •	030115E	15	120
125	125	3.2	-	25	160	160	70	64	64	0801242 •	080125E	10	80
160	160	4.1	-	37	201	201	81	67	67	0301642 •	030165E	4	32
200	200	4.9	-	45	256	256	100	81	81	0302042 •	0302051	1	20
250	250	6.2	-	57	311	311	134	101	101	0302552	0302591	1	12
315	315	7.7	-	73	392	392	144	114	114	1303052	1303091	1	5
400	400	9.8	-	170	510	535	165	175	170	-	N304091 ✦	1	2
500	500	12.3	-	240	665	675	200	250	255	-	N305091 * ✦	1	1
630	630	-	-	-	-	-	-	-	-	-	N306391 * ✦	1	1

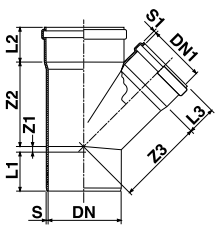
* Available on request for minimum order *** Price on request

•Fixed Ring Lip Ring ✦ Fabricated ◗ **SN8 SDR34**

Reduced branch 45° D/S

Culotte embranchement 45° M/F - Derivación reducida 45° M/H





DN (mm)	DN1 (mm)	S (mm)	S1 (mm)	Z1 (mm)	Z2 (mm)	Z3 (mm)	L1 (mm)	L2 (mm)	L3 (mm)	Reference RAL 7037 Grey (•)	Reference RAL 8023 Red		
125	110	3.2	3.2	19	147	152	69	62	56	0319242 •	031925E	10	80
160	110	4.0	3.2	2	168	176	82	74	56	0311642 •	031165E	7	56
160	125	4.0	3.2	12	180	185	83	74	62	0313642 •	031365E	6	48
200	110	4.9	3.2	17	191	200	100	86	56	0313542	031355E	4	32
200	125	4.9	3.2	7	201	212	100	86	62	0313742 •	031375E	4	32
200	160	4.9	4.0	18	228	232	100	86	74	0312042 •	031205E	3	24
250	110	6.2	3.2	47	251	271	175	103	56	0313352 ✦	0313391 ✦	1	20
250	125	6.2	3.2	27	217	236	196	98	56	-	D313491 ✦	1	16
250	160	6.2	4.0	3	250	261	131	103	74	0314052 ✦	0314091 ✦	1	20
250	200	6.2	4.9	24	275	280	134	103	86	0314152 ✦	0314191 ✦	1	14
315	110	7.7	3.2	79	287	315	190	117	55	1318052 ✦	1318051 ✦	1	10
315	125	7.7	3.2	69	287	310	180	117	62	1318152 ✦	1318151 ✦	1	9
315	160	7.7	4.0	33	289	306	144	114	75	0314252 ✦	0314291 ✦	1	12
315	200	7.7	4.9	5	317	337	144	114	85	0314352 ✦	0314391 ✦	1	10
315	250	7.7	6.2	28	335	344	156	114	99	D314452 ✦	D314491 ✦	1	5
400	110	9.8	3.2	130	450	435	165	170	65	1314452 ▲	1314451 ▲	1	4
400	125	9.8	3.2	20	430	380	175	145	65	1313352 ▲	1313351 ▲	1	4
400	160	9.8	4.0	69	319	385	165	170	95	1316652 ▲	1316651 ▲	1	4
400	200	9.8	4.9	50	355	435	165	180	105	1317752 ▲	1317751 ▲	1	4
400	250	9.8	6.2	35	440	445	165	180	130	-	D314691 ✦	1	3
400	315	9.8	6.9	73	480	530	160	170	135	-	D314791 ✦	1	3
500	110	10.5	3.2	185	360	420	180	250	65	-	1315051* ▲	-	-
500	125	10.5	3.2	55	510	457	165	170	65	-	1315251* ▲	-	-
500	160	10.5	4.0	65	450	680	200	250	90	-	1315351* ▲	-	-
500	200	10.5	4.9	87	400	575	200	250	110	-	1315451* ▲	-	-
500	250	12.3	6.2	10	510	530	200	250	110	-	D314991* ✦	-	-
500	315	12.3	6.9	45	475	503	200	250	135	-	D315091* ✦	-	-
500	400	12.3	9.8	115	615	640	200	250	180	-	D315191* ✦	-	-

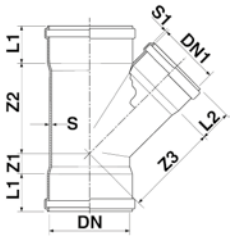
* Available on request for minimum order *** Price on request

•Fixed Ring Lip Ring ✦ Fabricated ▲ Thermoformed

Branch 45° T/S

Culotte 45° F/F - Derivación 45° H/H





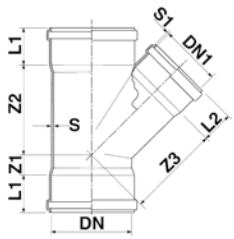
DN (mm)	DN1 (mm)	S (mm)	S1 (mm)	Z1 (mm)	Z2 (mm)	Z3 (mm)	L1 (mm)	L3 (mm)	Reference RAL 7037 Grey	Reference RAL 8023 Red		
110	110	3.2	3.2	37	137	137	60	60	0441142	0441141	12	96
125	125	3.2	3.2	44	160	160	64	64	0441242	0441241	8	64
160	160	4.0	-	52	203	203	72	72	0441642	0441641	4	32
200	200	4.9	4.9	66	256	256	181	81	1442042	1442041	1	20
250	250	6.2	6.2	101	311	311	101	101	1442542	1442551	1	10
315	315	7.7	7.7	113	392	392	117	117	1443042	1443041	1	4

Fixed Ring **SN8 SDR34**

Reduced branch 45° T/S

Culotte embranchement 45° F/F - Derivación reducida 45° H/H



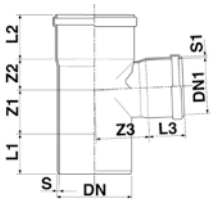


DN (mm)	DN1 (mm)	S (mm)	S1 (mm)	Z1 (mm)	Z2 (mm)	Z3 (mm)	L1 (mm)	L3 (mm)	Reference RAL 7037 Grey	Reference RAL 8023 Red		
160	110	4.0	3.2	19	169	176	73	56	0311742	0311741	6	48
160	125	4.0	3.2	41	180	185	74	62	0311832	-	6	48
200	110	4.9	3.2	5	179	195	86	62	1443142	1443141*	4	32
200	125	5.9	3.7	54	228	232	86	74	0313832	-	4	32
200	160	5.9	4.7	54	228	232	86	74	0312132	0312151	1	25
250	160	6.2	4.0	41	251	262	101	74	1444042	1444041	1	16
250	200	6.2	4.9	68	278	302	101	86	1444142	1444141*	1	12
315	110	7.7	3.2	7	287	315	117	55	1443442	1443451	1	10
315	125	7.7	3.2	7	287	310	117	68	1443542 ▲	-	1	10
315	160	7.7	4.0	7	287	305	117	74	1444242	1444241	1	10
315	200	7.7	4.9	35	317	338	117	86	1444342	1444341	1	8
315	250	-	-	-	-	-	-	-	1444551*	-	1	6
400	110	9.8	3.2	30	450	380	145	60	1444442*▲	1444441*▲	1	5
400	160	9.8	3.2	30	450	410	145	90	1446642 ▲	-	1	5
400	200	9.8	3.2	30	450	430	145	100	1447742 ▲	1447741*▲	1	4
500	110	10.5	3.2	185	360	420	180	250	* ▲	* ▲	-	-
500	125	10.5	3.2	55	510	475	165	170	* ▲	* ▲	-	-
500	160	10.5	4.0	65	450	680	200	250	* ▲	* ▲	-	-
500	200	10.5	4.9	87	400	575	200	250	* ▲	* ▲	-	-

* Available on request for minimum order *** Price on request

Fixed Ring ▲ Thermoformed





Branch 87°30' D/S

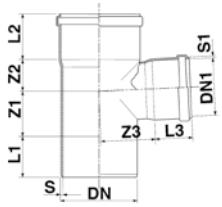
Culotte 87°30' M/F - Derivación 87°30' M/H

DN (mm)	DN1 (mm)	S (mm)	S1 (mm)	Z1 (mm)	Z2 (mm)	Z3 (mm)	L1 (mm)	L2 (mm)	L3 (mm)	Reference RAL 7037 Grey (•)	Reference RAL 8023 Red		
◗110	110	3.2	3.2	55	69	69	60	50	50	0341142 •	034115E	20	160
125	125	3.2	3.2	66	70	78	62	62	62	0811242 •	081125E	12	96
160	160	4.0	-	76	98	98	88	74	74	0811642 •	081165E	5	40
200	200	4.9	-	105	119	119	100	86	86	0812042 •	081205E	1	30
250	250	6.2	-	120	152	152	135	101	101	0342552	0342591	1	18
315	315	7.7	7.7	166	185	174	146	114	114	1343052	1343091	1	8
400	400	9.8	9.8	250	270	230	215	175	175	1344052 ▲	1344051 ▲	1	2
500	500	12.3	12.3	265	355	345	295	245	245	-	N345091 ✦	1	1
630	630	-	-	-	-	-	-	-	-	-	N346391 * ✦	1	1

* Available on request for minimum order *** Price on request

•Fixed Ring Lip Ring ✦ Fabricated ▲ Thermoformed ◗ **SN8 SDR34**





Reduced branch 87°30' D/S

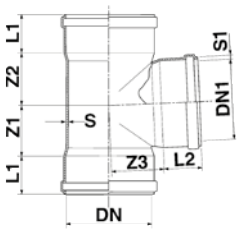
Culotte embranchement 87°30' M/F - Derivación reducida 87°30' M/H

DN (mm)	DN1 (mm)	S (mm)	S1 (mm)	Z1 (mm)	Z2 (mm)	Z3 (mm)	L1 (mm)	L2 (mm)	L3 (mm)	Reference RAL 7037 Grey (•)	Reference RAL 8023 Red		
125	110	3.2	3.0	84	58	92	78	77	67	0357242 •	0357251	12	96
160	110	4.0	3.2	59	69	87	81	74	57	0351642 •	035165E	10	80
160	125	4.0	3.2	60	81	94	88	71	62	0353642 •	0353651	1	70
200	110	4.9	3.2	50	110	120	135	86	59	0350142	035015E	4	32
200	125	4.9	3.2	58	110	120	125	86	62	0350242	035025E	4	32
200	160	4.9	4.0	75	110	132	110	86	74	0352042 ✦	035205E ✦	4	32
250	110	6.2	3.2	90	100	132	144	99	51	0353542**✦	0353551 ✦	1	20
250	125	6.2	3.2	90	100	132	113	130	61	0353442 ✦	-	1	18
250	160	6.2	4.0	90	100	134	117	126	85	0354042 ✦	0354051 ✦	1	18
250	200	6.2	4.9	132	143	136	123	120	116	0353842 ✦	0353851 ✦	1	18
315	110	7.7	3.2	50	150	176	180	116	56	1352252 ✦	1352251 ✦	1	10
315	125	7.7	3.2	55	150	176	174	116	65	1353352 ✦	1353351 ✦	1	10
315	160	7.7	4.0	75	150	180	155	116	73	1354452 ✦	1354451 ✦	1	12
315	200	7.7	4.9	95	150	185	135	116	87	1355552 ✦	1355551 ✦	1	12
315	250	7.7	6.2	166	178	174	128	140	110	D354652 ✦	D354691 ✦	1	6
400	110	9.8	3.2	153	183	240	180	145	60	1354152 • ▲	1354151* ▲	1	5
400	125	9.8	3.2	153	183	240	180	145	65	1354252* ▲	1354251* ▲	1	4
400	160	9.8	4.0	120	205	135	215	160	87	1356652 ▲	1356651 ▲	1	4
400	200	9.8	4.9	145	240	145	215	175	104	1357752 ▲	1357751 ▲	1	4
400	250	9.8	6.2	186	227	270	180	145	105	1358852* ▲	1358851 ▲	1	4
400	315	9.8	6,9	186	227	260	180	145	125	1359952* ▲	1359951 ▲	1	4
500	110	10.5	3.2	163	205	290	210	170	60	-	1355051* ▲	1	2
500	125	10.5	3.2	163	205	290	210	170	65	-	1355251* ▲	1	-
500	160	10.5	4.0	163	205	300	210	170	85	-	1355351* ▲	1	4
500	200	10.5	4.9	163	205	300	210	170	95	-	1355451* ▲	1	2
500	250	10.5	6.2	-	-	-	210	170	105	-	D354991* ✦	1	3
500	315	10.5	6,9	-	-	-	210	170	125	-	D355091* ✦	1	2
500	400	10.5	9.8	-	-	-	210	170	145	-	D355191* ✦	1	1

* Available on request for minimum order ** Available upon request *** Price on request

•Fixed Ring Lip Ring ✦ Fabricated ▲ Thermoformed





Branch 87°30' T/S

Culotte 87°30' F/F - Derivación 87°30' H/H

DN (mm)	DN1 (mm)	S (mm)	S1 (mm)	Z1 (mm)	Z2 (mm)	Z3 (mm)	L1 (mm)	L3 (mm)	Reference RAL 7037 Grey	Reference RAL 8023 Red		
125	125	3.2	3.2	83	78	78	62	62	0451242	0451241	10	80
160	160	4.0	4.0	95	99	99	72	72	0451642	0451641	5	40
200	200	4.9	4.9	120	120	120	86	86	1452042	1452041	1	28
250	250	6.2	6.2	165	152	152	101	101	1452542	1452541	1	15
315	315	7.7	7.7	211	185	185	117	117	1453042	1453041	1	6
400	400	9.8	9.8	250	270	230	175	175	1454052 ▲	1454051 ▲	1	2

Fixed Ring



Reduced branch 87°30' T/S

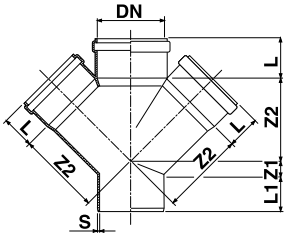
Culotte embranchement 87°30' F/F - Derivación reducida 87°30' H/H

DN (mm)	DN1 (mm)	S (mm)	S1 (mm)	Z1 (mm)	Z2 (mm)	Z3 (mm)	L1 (mm)	L3 (mm)	Reference RAL 7037 Grey	Reference RAL 8023 Red		
160	110	4.0	3.2	70	75	95	72	56	0351742*	0351741	8	64
160	125	4.0	3.2	85	81	94	72	62	0463642	0463641*	6	48
200	110	4.9	3.2	108	110	120	86	60	0460142	0460141	1	33
200	125	4.9	3.2	108	110	120	86	62	0460242	0460241*	4	32
200	160	4.9	4.0	108	110	132	86	74	0460642	0460641	1	30
250	110	6.2	3.2	60	135	145	105	56	1461142	1461141	1	18
250	125	6.2	3.2	100	100	132	103	130	1461242	1461241*	1	18
250	160	6.2	4.0	100	100	134	107	126	1461642	1461651*	1	18
250	200	6.2	4.9	100	143	136	113	120	1462042	1462051*	1	15
315	110	7.7	3.2	150	150	176	116	56	1464142	1464141*	1	9
315	125	7.7	3.2	150	150	176	116	65	1464342	1464341*	1	10
315	160	7.7	4.0	150	150	180	116	73	1464242	1464251	1	10
315	200	7.7	4.9	150	150	185	116	87	1464442	1464451	1	10
400	110	9.8	3.2	192	192	240	145	60	1465542* ▲	1465541* ▲	1	5
400	125	9.8	3.2	192	192	240	145	65	1463342*▲	-	1	9
400	160	9.8	4.0	192	192	250	145	85	1466642 ▲	1466641*▲	1	5
400	200	9.8	4.9	192	192	250	145	95	1467742 ▲	1467741 ▲	1	4
400	250	9.8	6.2	227	227	270	145	105	1468842 ▲	1468841*▲	1	4
400	315	9.8	7.7	227	227	260	145	125	1469942 ▲	1469941*▲	1	3
500	110	10.5	3.2	163	205	290	210	170	* ▲	* ▲	-	-
500	125	10.5	3.2	163	205	290	210	170	* ▲	* ▲	-	-
500	160	10.5	4.0	163	205	300	210	170	* ▲	* ▲	-	-
500	200	10.5	4.9	163	205	300	210	170	* ▲	* ▲	-	-

* Available on request for minimum order *** Price on request

Fixed Ring ▲ Thermoformed





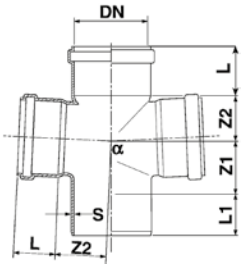
Double branch 45°

Culotte double 45° - Derivación doble 45°

DN (mm)	S (mm)	Z1 (mm)	Z2 (mm)	L (mm)	L1 (mm)	Reference RAL 7037 Grey	Reference RAL 8023 Red		
◗ **110**	3.2	30	141	57	60	0361142	0361141	8	64
125	3.2	30	157	64	65	0361242	-	5	40
160	4.0	51	204	85	88	0361642	-	1	30

Fixed Ring ◗ **SN8 SDR34**





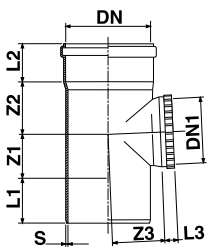
Double branch 87°30'

Culotte double 87°30' - Derivación doble 87°30'

DN (mm)	α	S (mm)	Z1 (mm)	Z2 (mm)	L (mm)	L1 (mm)	Reference RAL 7037 Grey		
◗ **110**	87°30'	3.2	62	70	70	80	0381142	10	80

Fixed Ring ◗ **SN8 SDR34**





Access pipe

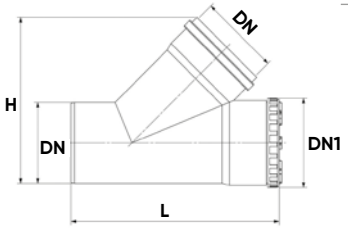
Té de visite - Té de registro

DN (mm)	DN1 (mm)	S (mm)	Z1 (mm)	Z2 (mm)	Z3 (mm)	L1 (mm)	L2 (mm)	L3 (mm)	Reference RAL 7037 Grey (•)	Reference RAL 8023 Red		
110	110	3.0	59	69	69	60	55	36	1821142 •	182115E	20	160
125	125	3.2	66	70	78	62	62	22	1821242 •	182125E	15	120
160	160	4.0	83	99	99	85	72	24	1821642 •	182165E	1	65
200	200	4.9	105	119	119	100	86	28	1822042 •	182205E	1	30
250	250	6.2	120	152	152	135	101	70	1402552	1402591	1	16
315	315	7.7	166	185	185	146	114	90	1403052	1403091	1	8
400	315	9.8	227	227	260	180	145	30	1404352* ▲	1404351 ▲	1	4

* Available on request for minimum order *** Price on request

•Fixed Ring Lip Ring ▲ Thermoformed

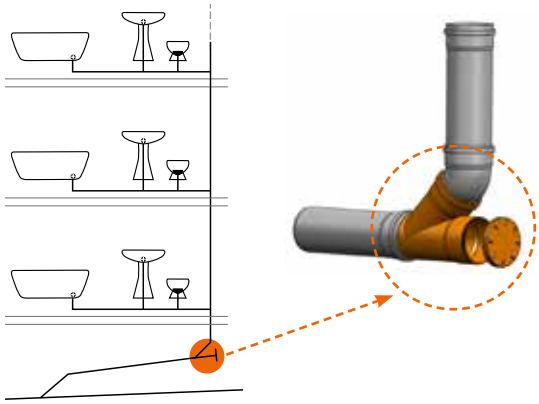




Access pipe
Té de visite - Té de registro

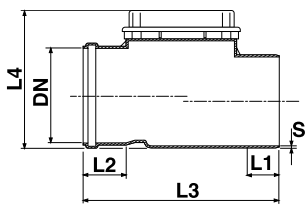
DN (mm)	DN1 (mm)	L (mm)	H (mm)	Reference RAL 8023 Red		
160	176,5	414	328	183165E	4	32

Lip Ring



Example of installation as suggested, according to the EN 12056 in order to have an easier access to the main collector, where requested.





Access chamber
Inspection linéaire - Inspección en línea

DN (mm)	S (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	Reference RAL 8023 Red		
110	4.0	61	61	307	192	1475551	9	72
125	4.0	68	65	318	192	1476051	8	64
160	4.0	74	74	334	220	1471691	6	48
200	4.5	100	86	451	280	1472091	2	16

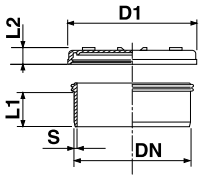
Lip Ring

DN110 and DN125



DN160 and DN200





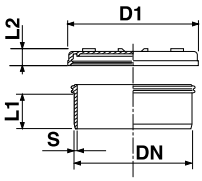
Access plug

Tampon de visite - Tapón de registro

DN (mm)	D1 (mm)	S (mm)	L1 (mm)	L2 (mm)	Reference RAL 7037 Grey	Reference RAL 8023 Red		
110	125	3.4	62	19	0651102	0651101	70	560
125	141	3.0	60	25	0651202	0651201	50	400
160	176	3.1	60	23	1651602	1651601	30	240
200	216	3.4	80	23	1652002	1652001	15	120

Lip Ring





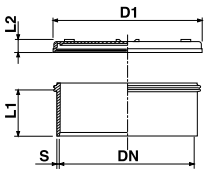
Access plug

Tampon à baïonette male - Tapón de registro

DN (mm)	D1 (mm)	S (mm)	L1 (mm)	L2 (mm)	Reference RAL 7037 Grey	Reference RAL 8023 Red		
250	262	6.1	90	18	1652502	1652501	10	100
315	354	7.7	93	22	1653002	1653001	5	50

Lip Ring



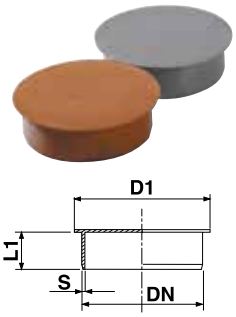


Access end cap Female

Tampon à baïonnette femelle - Tapón de registro hembra

DN (mm)	D1 (mm)	S (mm)	L1 (mm)	L2 (mm)	Reference RAL 7037 Grey		
250	262	5.5	86	18	16525F2	10	100
315	330	6.9	89	22	16530F2	6	48

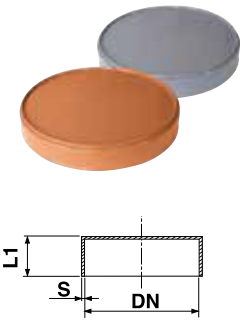
Lip Ring



Socket plug
Bouchon de fermeture - Tapón macho

DN (mm)	D1 (mm)	S (mm)	L1 (mm)	Reference RAL 7037 Grey	Reference RAL 8023 Red		
110	126	3.2	38	0661102	066110E	150	1200
125	142	3.2	42	0661202	066120E	100	800
160	180	4.0	49	0661602	066160E	55	440
200	223	4.9	59	0662002	066200E	25	200
250	282	6.2	90	0662502	0662501	1	144
315	350	7.7	93	0663002	0663001	1	67
400	440	9.8	95	06640M2	06640M1	1	50
500	558	12.3	120	-	D665001 ✦	1	18

✦ Fabricated



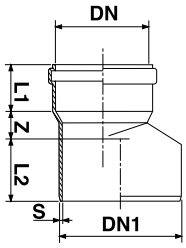
End cap
Bouchon femelle - Tapón hembra

DN (mm)	S (mm)	L1 (mm)	Reference RAL 7037 Grey	Reference RAL 8023 Red		
110	2.0	32	06613F2	06613F1	30	1560
125	2.5	32	06615F2	06615F1	20	1040
160	2.7	35	06617F2	06617F1	30	720
200	2.9	35	06621F2	06621F1	60	480
250	3.5	40	06628F2	06628F1	30	240
315	4.0	52	06634F2	06634F1	15	120
400	6.0	95	06640F2	06640F1	1	50

Invert reducer

Réduction excentrée - Ampliación excéntrica





DN (mm)	DN1 (mm)	S (mm)	Z (mm)	L1 (mm)	L2 (mm)	Reference RAL 7037 Grey (•)	Reference RAL 8023 Red		
110	125	3.2	22	56	63	0513242 •	051325E	35	280
110	160	4.0	43	56	82	0511642 •	051165E	30	240
125	160	4.0	36	62	82	0513642 •	051365E	30	240
125	200	4.9	53	62	100	0512042 •	051205E	15	120
160	200	4.9	39	74	100	0514042 •	051405E	15	120
160	250	6,2	66	73	125	0514642	0514651	1	85
200	250	6.2	39	96	134	0512542 •	051255E	5	60
200	315	7.7	85	86	145	0513342 •	051335E	4	32
250	315	7.7	64	103	144	0513052	0513091	1	32
315	400	9.8	88	118	156	0519252	0519291	1	18
400	500	-	-	-	-	-	D519491 ** ✦	1	4

***Centrée / Escentrée / Concéntrico*

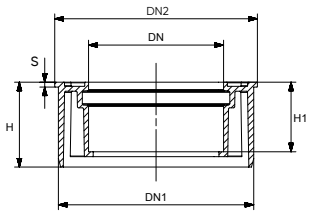
NB: other larger diameters available upon request / diamètres supérieurs disponibles sur demande.

•Fixed Ring Lip Ring ✦ Fabricated



Compact inverter reducer

Tampon de réduction avec joint - Reducción concéntrica



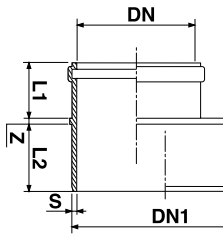
DN (mm)	DN1 (mm)	DN2 (mm)	H (mm)	H1 (mm)	S (mm)	Reference Black		
110	160	166	69.5	57	4	0686348	16	384

Recommended for installation on Easyclip City, Link and Tech



Flat invert reducer

Réduction excentrée - Ampliación excéntrica

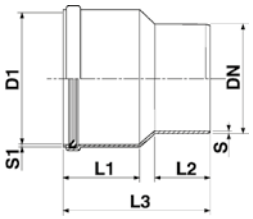


DN (mm)	DN1 (mm)	S (mm)	Z (mm)	L1 (mm)	L2 (mm)	Reference RAL 7037 Grey	Reference RAL 8023 Red		
110	200	4,6	40	60	59	1533542 ✦	1533551 ✦	15	120
110	250	6.1	7	56	90	0534142	0534151	10	80
110	315	7.7	40	60	93	1534042 ✦	1534051 ✦	5	40
110	400	6.0	40	60	95	1535042 ✦	1535051* ✦	7	28
125	250	6.1	7	62	90	0534242✦	0534251	10	80
125	315	7.7	40	65	93	1534342 ✦	1534351* ✦	5	75
125	400	6.0	40	65	95	1535542 ✦	1535551* ✦	-	-
160	315	7.7	7	74	93	0534842	0534851	5	40
160	400	6.0	50	85	95	1536042 ✦	1536051 ✦	1	26
200	400	6.0	50	95	95	1536542 ✦	1536551 ✦	1	26
250	400	6.0	50	105	95	1537052 ✦	1537091 ✦	1	24

* Available on request for minimum order *** Price on request

Fixed Ring Lip Ring ✦ Fabricated





Clay/PVC adaptor

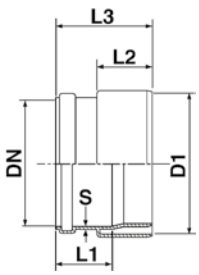
Manchon d'adaptation Grès/PVC - Enlace mixto Gres/PVC

DN (mm)	DN1 (mm)	S (mm)	S1 (mm)	L1 (mm)	L2 (mm)	L3 (mm)	Reference RAL 7037 Grey	Reference RAL 8023 Red		
110	136	3.0	3.0	89	60	170	0621192	0621191	30	240
125	160	3.4	3.0	98	67	190	0621292	0621291	18	144
160	190	4.0	3.6	112	81	215	0621692	0621691	10	80
200	242	5.5	4.5	125	100	255	0622092	0622091	1	60

Lip Ring







PVC/Clay adaptor

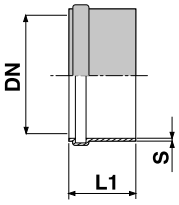
Manchon d'adaptation PVC/Grès - Enlace mixto PVC/Gres

DN (mm)	DN1 (mm)	S (mm)	L1 (mm)	L2 (mm)	L3 (mm)	Reference RAL 8023 Red		
110	136	3.0	56	70	114	0621091	50	400
125	160	3.0	62	70	119	0621391	30	240
160	190	3.6	72	70	123	0621791	20	160
200	242	-	-	-	-	D622191	12	96

Lip Ring





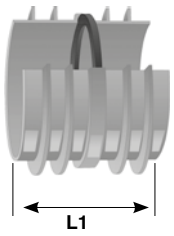


Sanded protection sleeve

Accès de regard sablé court - Manguito pasamuros

DN (mm)	S (mm)	L1 (mm)	Reference Sandblasted	Reference RAL 7037 Grey			Note
110	2.9	61	0641191	-	10	520	
125	2.9	69	0641291	-	18	432	
160	3.6	74	-	0641642	12	168	
200	4.4	107	-	0642042	12	96	
250	5.5	126	0642591	-	1	77	
315	6.9	146	0643091	-	1	36	
400	8.8	160	1644091	-	1	15	
500	9.8	214	1645091	-	1	8	

Lip Ring



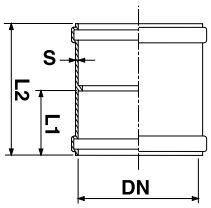
Sleeve

Accès de regard - Manguito

DN (mm)	Reference			S (mm)	L1 (mm)	Note
160	B641758	24	192	3,6	110	
200	B642158*	15	120	4,4	110	

*Fornibile su richiesta previa verifica disponibilità





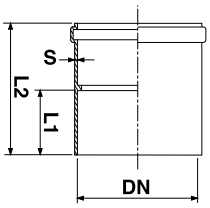
Double socket with central stop

Manchon avec butée - Manguito de unión con tope

DN (mm)	S (mm)	L1 (mm)	L2 (mm)	Reference RAL 7037 Grey (•)	Reference RAL 8023 Red		
110	2.9	60	122	0631142 •	063115E	45	360
125	2.9	68	141	0631242 •	063125E	30	240
160	3.6	75	151	0631642 •	063165E	18	144
200	4.4	106	217	0632042 •	063205E	8	64
250	5.5	123	254	0632552	0632591	1	36
315	6.9	144	297	0633052	0633091	1	20
400	8.8	160	325	0634052	0634091	1	12
500	9.8	170	440	1635052 ▲	1635051 ▲	1	4

•Fixed Ring Lip Ring ▲ Thermoformed





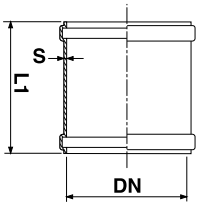
Single socket with central stop

Manchon mixte avec butée - Unión mixta con tope

DN (mm)	S (mm)	L1 (mm)	L2 (mm)	Reference RAL 7037 Grey	Reference RAL 8023 Red		
110	2.9	60	122	0631182	0631181	20	360
125	2.9	68	141	0631282	0631281	16	256
160	3.6	75	154	0631682	0631681	10	120
200	4.4	106	217	0632082	0632081	5	60
250	5.5	123	254	0632582*	0632581	4	32
315	6.9	144	297	0633082	0633081	4	20

Lip Ring





Repair/Slip coupler

Manchon coulissant - Manguito deslizante

DN (mm)	S (mm)	L1 (mm)	Reference RAL 7037 Grey (•)	Reference RAL 8023 Red		
110	2.9	122	0611142 •	061115E	45	360
125	2.9	141	0611242 •	061125E	30	240
160	3.6	151	0611642 •	061165E	18	144
200	4.4	217	0612042 •	061205E	8	64
250	5.5	254	0612552	0612591	1	36
315	6.9	297	0613052	0613091	1	20
400	8.8	325	0614052	0614091	1	12
500	9.8	440	1615052 ▲	1615051 ▲	1	4
630	-	-	-	D616391 ✦	1	3

•Fixed Ring Lip Ring ✦ Fabricated ▲ Thermoformed



Universal Gully trap

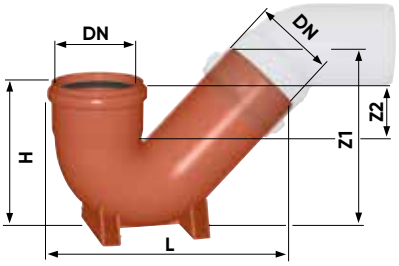
Siphon pour siége à la turque en PP

Sifón placa turca en PP con junta labiada

DN (mm)	H (mm)	L (mm)	Z1 (mm)	Z2 (mm)	Material	Reference RAL 8023 Red		
110	142	310	225	50**	PP	Z7713PP	10	80

** Siphon 50 mm (when fitted with 45° bend)

Fixed Ring Lip Ring



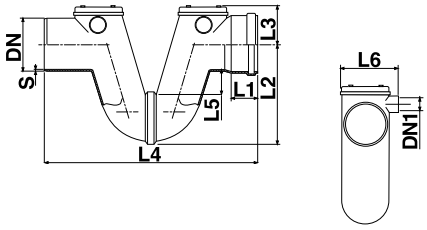
REDI trap interceptor

Siphon à joint male/femelle - Sifón en línea con registros



DN (mm)	DN1	S	L1	L2	L3	L4	L5	L6	Reference RAL 7037 Grey	Reference RAL 8023 Red		
110	40	3.0	61	202	88	495	35	153	1750052	1750091	5	35
125	40	3.0	62	235	92	490	38	175	1751352	1751391	1	34

Fixed Ring Lip Ring



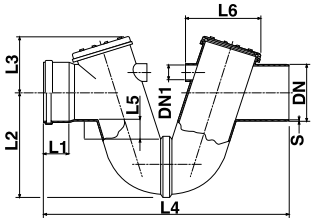
REDI trap interceptor

Siphon à joint male/femelle - Sifón en línea con registros



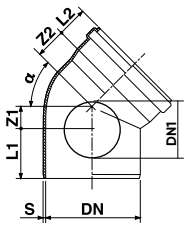
DN (mm)	DN1 (mm)	S (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	L5 (mm)	L6 (mm)	Reference RAL 7037 Grey	Reference RAL 8023 Red		
160	63	3.0	72	295	158	655	50	210	1751652	1751691	1	18
200	63	4.0	84	345	198	795	50	270	1752052	1752091	1	9

Fixed Ring Lip Ring









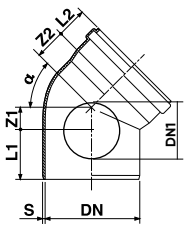
Bend 45° with access plug
Coude de visite 45° - Codo 45° con registro

DN (mm)	DN1 (mm)	S (mm)	Z1 (mm)	Z2 (mm)	L1 (mm)	L2 (mm)	Reference (SX) RAL 7037 Grey	Reference (DX) RAL 8023 Red		
110	63	3,2	27	36	58	50	N1C88E ✦	N1C87E1 ✦	5	–
125	80	3,2	29	40	68	56	11912S1 ✦	11912D1 ✦	5	–
160	100	4,0	37	51	80	66	11916S1 ✦	11916D1 ✦	5	–

Lip Ring ✦ Fabricated







Bend 87°30′ with access plug
Coude de visite 87°30′ - Codo 87°30′ con registro

DN (mm)	DN1 (mm)	S (mm)	Z1 (mm)	Z2 (mm)	L1 (mm)	L2 (mm)	Reference (SX) RAL 7037 Grey	Reference (SX) RAL 8023 Red		
110	100	3,2	41	53	62	56	NC633E1 ✦	NC632E1 ✦	5	–
125	100	3,2	46	60	69	62	N0C87E1 ✦	N0C86E1 ✦	5	–
160	100	4,0	60	74	82	74	NC645E1 ✦	NC644E1 ✦	5	–
200	100	4,9	73	88	100	86	NC638E1* ✦	NC636E1* ✦	5	–

* Available on request for minimum order

Lip Ring ✦ Fabricated



Bend 87°30′ with access plug
Coude de visite 87°30′ - Codo 87°30′ con registro en el dorso

DN (mm)	DN1 (mm)	S (mm)	Z1 (mm)	Z2 (mm)	L1 (mm)	L2 (mm)	Reference RAL 8023 Red		
125	100	3,2	46	60	69	62	N0C88E1 ✦	5	–
160	100	4,0	60	74	82	74	NC646E1 ✦	5	–
200	00	4,9	73	88	100	86	NC641E1 ✦	5	–

Lip Ring ✦ Fabricated





Branch 45° with access plus
Culotte 45° avec accès latéral - Derivación 45° con registro lateral

DN (mm)	Reference (SX) RAL 7037 Grey	Reference (DX) RAL 8023 Red		
110	N1C86E1 ✦	N1C85E1 ✦	5	–
125	1854451 ✦	1853351 ✦	5	–
160	1856651 ✦	1855551 ✦	5	–
200	1858851 ✦	1857751 ✦	1	–

Lip Ring ✦ Fabricated



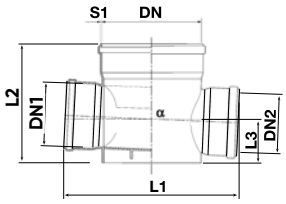


Branch 87°30′ with access plus
Culotte 87°30′ avec accès latéral
Derivación 87°30′ con registro lateral

DN (mm)	Reference (SX) RAL 7037 Grey	€/pc	Reference (DX) RAL 8023 Red		
110	NC707E1 ✦	**17,54**	NC706E1 ✦	5	–
160	-	–	NC715E1 ✦	5	–

Lip Ring ✦ Fabricated





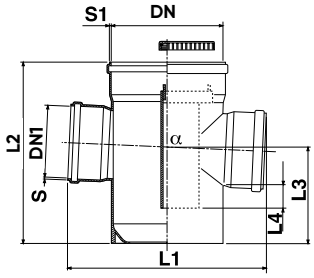
Inspection chamber

Boîte de branchement direct - Colector de registro

DN (mm)	DN1 (mm)	DN2 (mm)	S1 (mm)	L1 (mm)	L2 (mm)	L3 (mm)	α	Reference RAL 7037 Grey		
250	100	160	4.0	406	300	110	2°	1943442*	1	36
315	100	160	5.0	470	320	110	2°	1953442*	1	23
250	125	125	4.0	406	300	110	2°	1943042 ≈	1	37
315	125	125	5.0	459	320	115	2°	1953042 ≈	1	26
250	160	160	4.0	436	300	110	2°	1943242 ≈	1	34
315	160	160	5.0	491	320	115	2°	1953242 ≈	1	23
400	160	160	7	570	412	148	2°	1962942 ≈	1	10
400	200	200	7	610	412	148	2°	196424* ≈	1	12

* Available on request for minimum order
≈ RAL 8023 Red available on request
Lip Ring





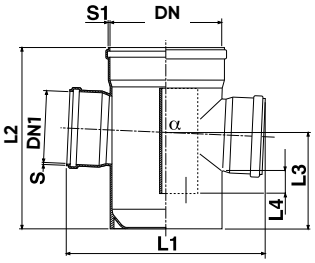
Trapped inspection chamber

Boîte de branchement siphoïde
Colector sifónico en línea

DN (mm)	DN1 (mm)	S1 (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	α	Reference RAL 7037 Grey		
250	125	4.0	406	405	215	67.5	2°	1944642	1	19
315	125	5.0	459	422	217	67.5	2°	1954642	1	12
250	160	4.0	436	405	215	50	2°	1944842	1	17
315	160	5.0	491	422	217	50	2°	1954842	1	10

Lip Ring





Inspection chamber with c. baffle

Boîte de branchement disconnectrice
Colector de inspección desconector

DN (mm)	DN1 (mm)	S1 (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	α	Reference RAL 7037 Grey		
250	125	4.0	406	405	215	67.5	2°	1943842	1	19
315	125	5.0	459	422	217	67.5	2°	1953842	1	12
250	160	4.0	436	405	215	50	2°	1944042	1	17
315	160	5.0	491	422	217	50	2°	1954042	1	10

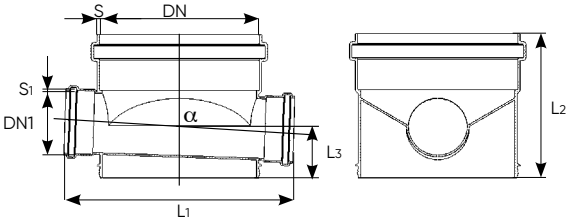
Lip Ring



Heavy inspection chamber
Tabouret lesté passage direct
Colector de inspección resistente a carga

DN (mm)	DN1 (mm)	S (mm)	S1 (mm)	L1 (mm)	L2 (mm)	L3 (mm)	α	Kg	Material	Reference RAL 7037 Grey		
315	125	4,9	3,0	459	283,5	103	2°	7,50	PP	1951242	1	18
315	160	4,9	3,6	480	316,5	119	2°	7,70	PP	1951642	1	21
315	200	4,9	4,5	505	356,5	139	2°	8,20	PP	1952042	1	18

Lip Ring

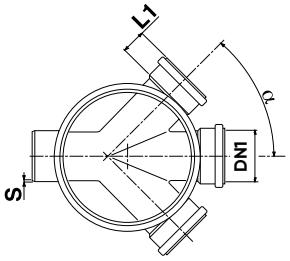


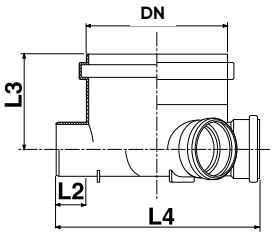


Access junction basis
Regard à 3 entrées - Colector de inspección 3 entradas

DN (mm)	DN1 (mm)	S (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	α	Reference RAL 8023 Red			Note
400	160	5	74	85	275	605	45°	196435X	1	6	3E.M/F - RML

Lip Ring



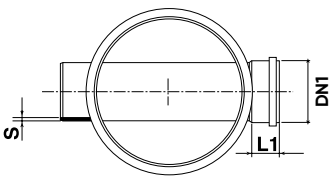


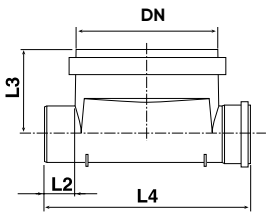


Access junction basis
Regard à 2 entrées - Colector de inspección 2 entradas

DN (mm)	DN1 (mm)	S (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	α	Reference RAL 8023 Red			Note
400	160	5	74	85	275	605	0°	196495X	1	8	MF PD - G

Lip Ring



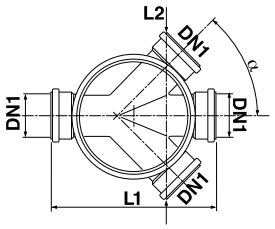


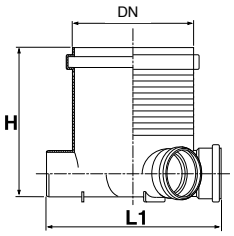


Access junction basis 400x200 Schachtboden
Regard à 3 entrées - Colector de inspección 3 entradas

DN (mm)	DN1 (mm)	α	H (mm)	L1 (mm)	Material	Reference Black			Note
400	200	45°	475	630	PP	POZ4208	1	8	

Lip Ring

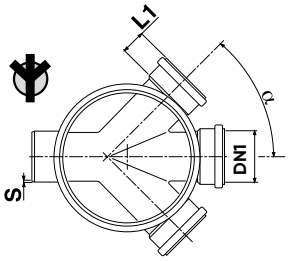


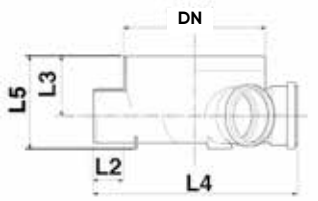


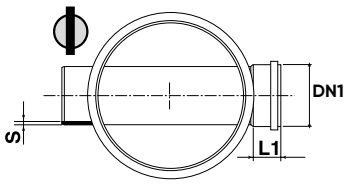


Access junction basis
Regard à 3 entrées - Colector de inspección 3 entradas

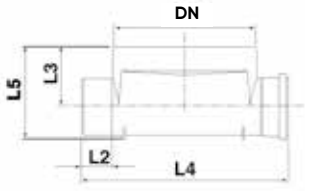
DN (mm)	DN1 (mm)	S (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	L5 (mm)	α	Reference RAL 8023 Red			Note
400	160	5	74	85	130	605	230	45°	096435X	1	12	3E.M/F - RML
400	160	5	74	85	130	605	230	0°	096495X	1	16	MF PD - G

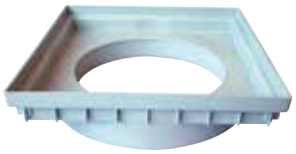






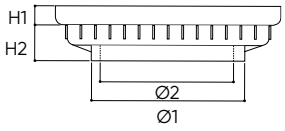
Lip Ring



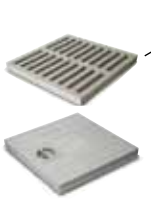


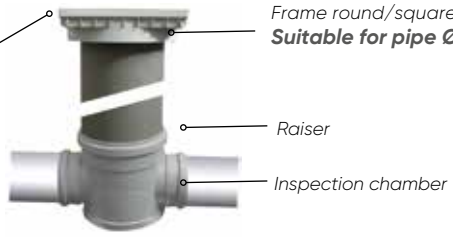
Round/Square frame for pipe inspection
Cadre Carré/Rond - Cerco cuadrado con para colector de inspección

DN (mm)	Ø1 (mm)	Ø2 (mm)	H1 (mm)	H2 (mm)	Reference RAL 7037 Grey			Note
450x450	400	315	50	65	ETTQ304	1	40	





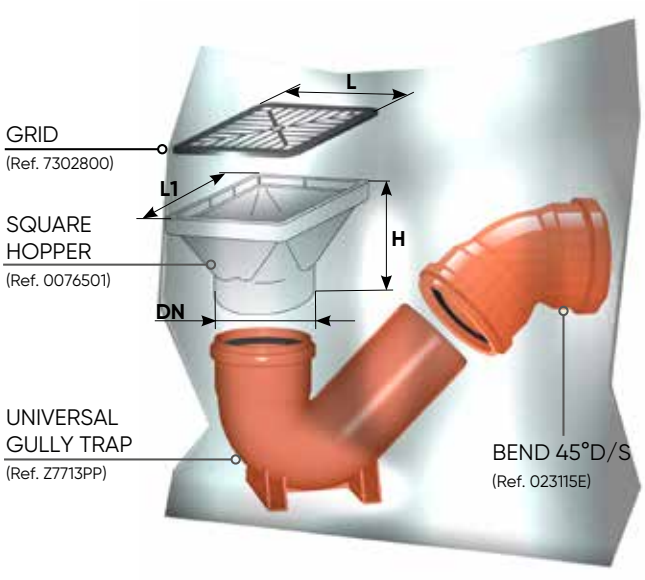






Telescopic gasket
Joint télescopique - Junta telescópica

DN (mm)	DN1 (mm)	Reference RAL 7037 Grey			Note
315	400	6834300	1	66	Upon request



Gully Kit

Reference RAL 8023 Red			Note
1KIT15E	6	12	

Reference RAL 8023 Red	Note	DN (mm)	H (mm)	L (mm)	L1 (mm)
7302800	Grid			150	
0076501	Square Hopper	110	99		160
023115E	Bend 45° D/S	110			
Z7713PP	PP Universal Gully Trap	110			

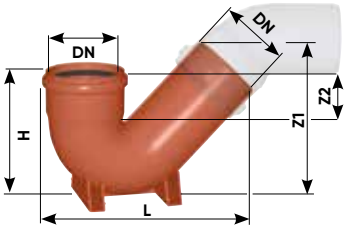


Universal Gully trap

Siphon pour siége à la turque en PP

Sifón placa turca en PP con junta labiada

DN (mm)	H (mm)	L (mm)	Z1 (mm)	Z2 (mm)	Material	Reference RAL 8023 Red		
110	142	310	225	50**	PP	Z7713PP	10	80



**Siphon 50mm (when fitted with 45° bend)

Lip Ring

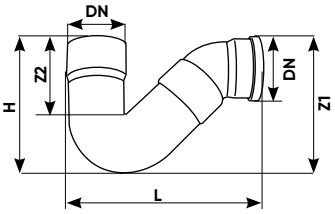


Universal Gully trap (horizontal outlet)

Siphon pour siége a la turque en PVC (sortie horizontale)

Sifón placa turca en PVC para encolar (salida horizontal)

DN (mm)	H (mm)	L (mm)	Z1 (mm)	Z2 (mm)	Material	Reference RAL 8023 Red		
110	245	360	280	120	PVC	17711S1*	10	80



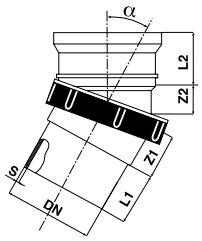
* Available on request for minimum order

Lip Ring



Adjustable bend
Coude orientable - Codo orientable

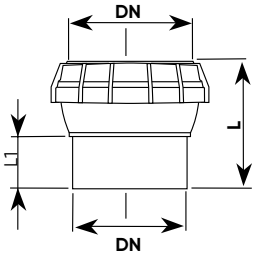
DN (mm)	α	S (mm)	Z1 (mm)	Z2 (mm)	L1 (mm)	L2 (mm)	Reference RAL 8023 Red		
110	5°÷ 30°	3.2	26	36	62	59	H999941	6	144





Swivel 160
Rotule 160 - Rótula 160

DN (mm)	α	L (mm)	L1 (mm)	Reference Black		
160	+/-10°	180	85	1991658	1	96





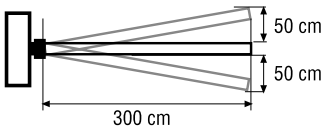


Patent: EP 040298754

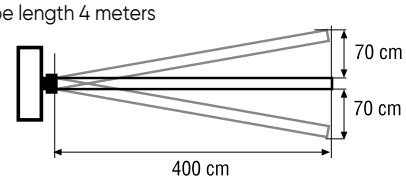
Swivel DN 160 mm.
Pre-lubricated and ready-to-install. Rotation up to 10° to facilitate house connections and balance ground settlement.



Pipe length 3 meters



Pipe length 4 meters





Lip Ring

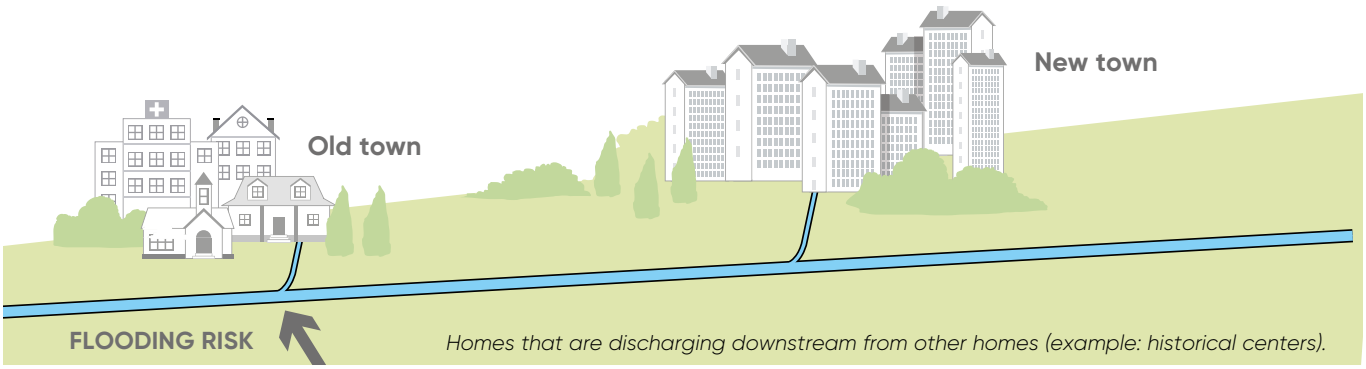


Ottima and Classica non-return valves

OTTIMA

aliaxis

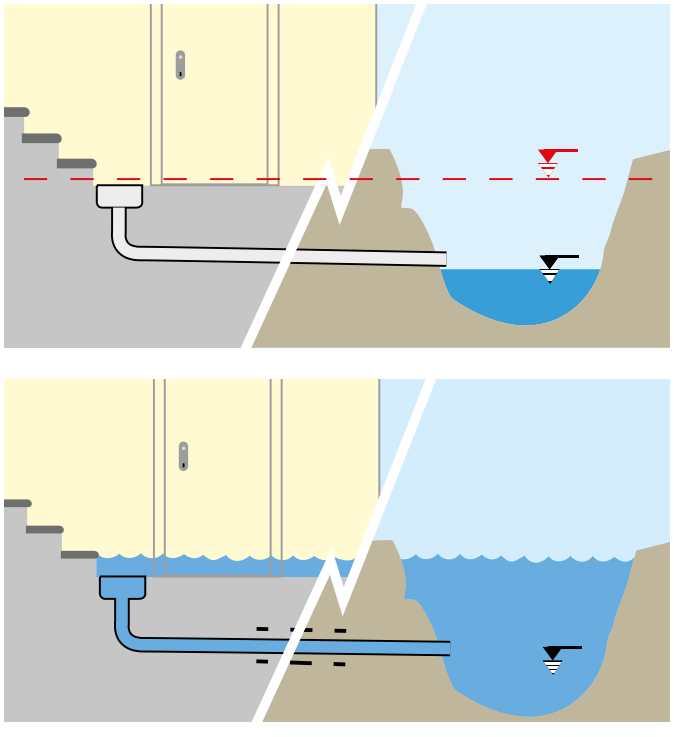
Reasons to install backflow prevention device



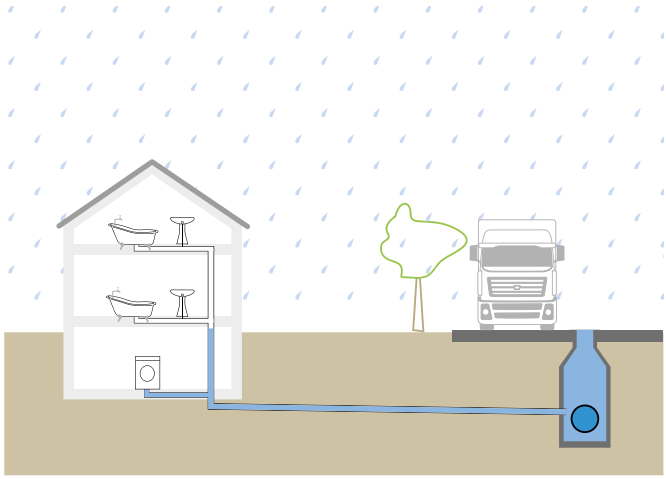
The causes of backflow

Back flow from the public sewer system is mainly caused by:
- overall under-sizing of the public sewers
- high peak flows in stormwater sewers or combined sewers due to short but intense rainfall (climatic trend throughout the world)
- increase of surface water runoff due to new construction (growing territorial urbanization), causing greater volume of flow
- overflow due to peaks of simultaneous flow in built up areas
- malfunctions or blockages downstream from the grid.

The typical situations that may lead to this problem are various and are related to the urban area involved. Several examples:



Riverside areas



Combined sewers that also collect road drainange

Basements

These are only some of the many cases in which sewer overflow risk is high and installation of a backflow prevention device is recommended.



Hydraulic principles: reflux level.

On the grounds of the "Communicating Vessels Principle", water tends to settle at even levels in all branches of the sewer network.
Hence, it is possible to define the concept of "backflow level" as the maximum level in a sewer system before water reflux occurs from the system itself.
All of the utilities below the backflow level of a sewer system (usually basements, cellars and garages, as well as living quarters below street level, face flood risk as grid flows exceed maximum tolerance levels with greater frequency.
Let's schematically examine the consequences of main sewer backflow.

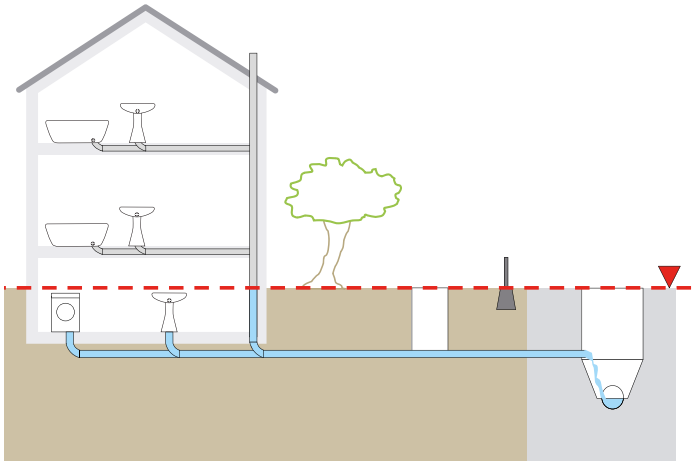
1. Standard use: The main sewer is receptive; the pipes within the home utilities are under safe hydraulic measures.

2. Overlflow use – even temporarily: given that the backflow level in this scheme corresponds with street level (over maximum level, which corresponds to manhole height in this case, fluid may seep from the system), any grid overflow shall lead to the distribution of water in all branches communicating with the main sewer, until reaching a back flow level marked with the red dotted line.

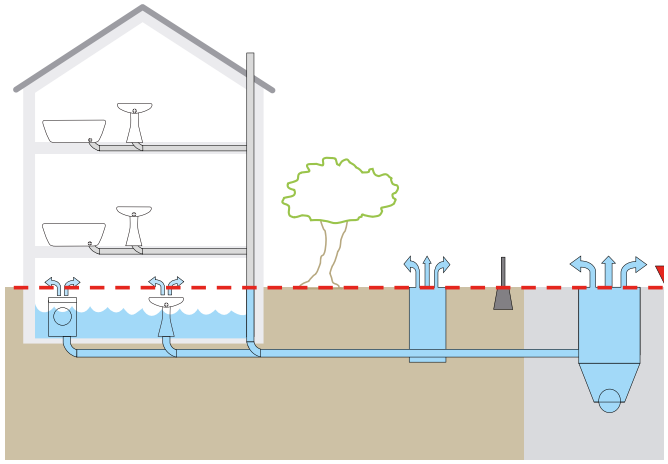
Home risk floods following main sewer overflow.
The non-return valve is active.
In this case the house is protected against flood risk.
This diagram represents a typical scenario that may occur in any home with areas prone to flood risk in regards to the backflow level line.
Unwanted events may take place if the sewer manifold overflows.

Backflow protection may be necessary in separate sewers, where foul and stormwater flow into separate systems, and in cases of combined sewers because backflow typically indirectly involves foul water circuits due to storm water overflow. This problem is normal in areas that do not have separate systems, which concerns the majority of cases.
Discharge water backflow risk is simple to solve by installing a fundamental component in new drainage systems and in modernization of existing grids - the non-return Valve
Its working principle is extremely simple but also very effective.

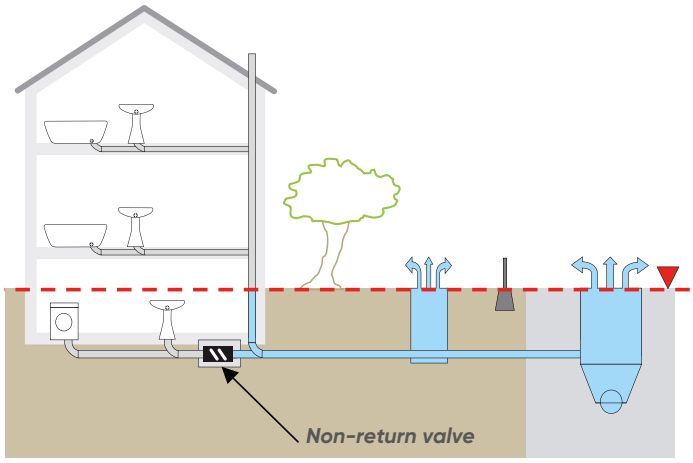
NORMAL FUNCTION



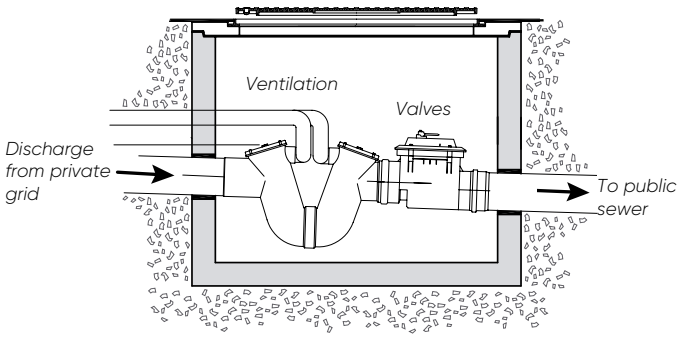
NON PROTECTED **Back flow event: without non-return valve**



PROTECTED **Back flow event: with non-return valve**



Legislative aspects of water grid construction and management



integrated water utility management

In Italy, as throughout Europe, water grid management has been delegated to Integrated Water Services since the start of the 90s. Water grid management passed from the hands of Municipality Management to subjects referred to as Water Companies, which ensure a benchmark level of quality in return for an utility fee, as by the stipulated utility contract. The various Water Companies in Italy are responsible for service provision and system maintenance and good operating conditions.

Hence, these utilities have introduced a series of technical guidelines concerning various aspects on design and construction of water grids that serve as condition for public and private subjects that intend to benefit from such systems under Contract.

The technical guidelines include the manner of connection to the sewers by private and public users.

Guidelines

These guidelines must be respected both by enterprises and private citizens alike.

The contractor that executes works for the Utility Company must strictly follow the execution guidelines received. Likewise, the citizen that requires, for example, connection of a new utility must follow these prescriptions according to established procedures.

Duties

In case of not comply with foregoing prescriptions, the Utility Company is free to decline Contract stipulation for use of public sewer systems; and may press for compensation of any damages caused by the infringing party. Currently, many local Water Companies already expect the installation of a backflow prevention valves when connecting a utility to the public sewers to prevent back flow risk. The image above is an example of prescription. It represents the connection before the public sewage.

Ottima non-return valve with stainless steel flap AISI 304

The new Ottima non-return valve was designed to meet the highest technological standards on the market. Ottima is manufactured with modern technology that ensures high-product standards and reliability.

Innovative

The innovation that is expressed through its design:

- increased safety
- search for functionality
- improvement of product features
- new technical requirements

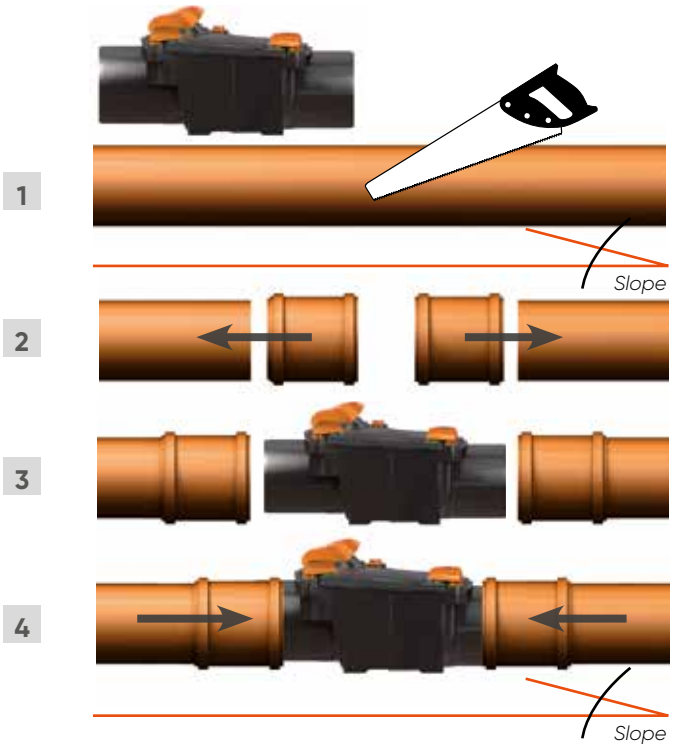
Ottima contains a series of new features that make it a new reference product.



M/M version is recommended for renovation and installation on pre-existing pipes

The M/M version is a real novelty: this feature, along with its low off-set (7mm – for Ø110 version), actually allows installation on pre-existing piping.

Costant slope before and after installation



Minimum offset (7mm) thanks to the low off-set, pipe slope remains unchanged, both before and after installation.



Recommended for use with different materials

The M/M version can be installed on any sort of material. Thanks to the use of transition sleeves, the valve can be mounted in many different materials.

Example of installation on existing pvc or pp pipes.

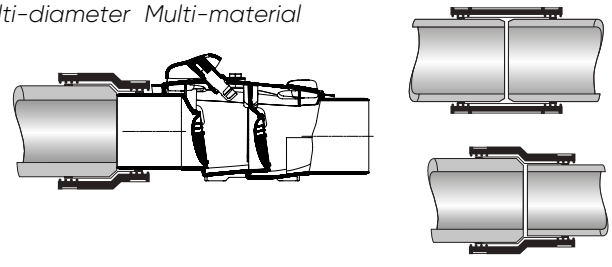
PVC Sleeve



Transition coupling between different materials



Multi-diameter Multi-material



Double flaps

Ottima is a Type 2 non-return valve (definition according to standard EN13564), meaning that it is fitted with two automatic protection devices against backflow and with a command seal device. This means double protection in case of backflow and greater guarantee of water-tightness.

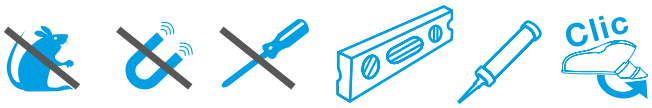


Stainless stel flaps AISI 304

Opens in extremely reduced spaces Ottima's cover can be removed without any tools, screwdrivers or wrenches by directly acting on the sealing levers.



The figure shows valve opening in the vicinity of walls of sewer trap edges. They are manufactured in high-stability nylon polymer for excellent resistance in time, though all parts may be replaced.



Standard inox flap: Ottima is fitted with a series of anti-rodent devices in stainless steel; therefore making it impossible for rodents to travel upwards through water pipelines... Additional protective features!

No metal parts: no metal parts ensure resistance to the test of time given the lack of corrosion. All components such as screws, bolts and pins have been eliminated to ensure greater time resistance. The only metal part is the stainless steel anti-rodent device.

No equipment needed: Ottima poses a definitive solution to tools required for maintenance. It is designed for full inspection, disassembly and re-assembly without using special tools. Thanks to the lever seal replacing screws and to its internal design, every part can be easily removed and repositioned without the use of special tools.

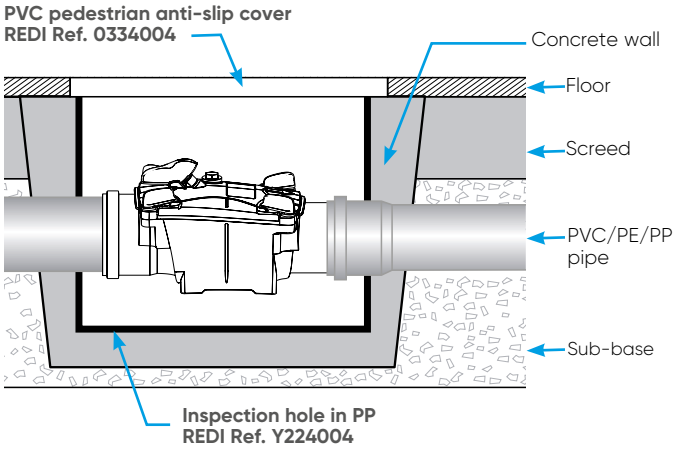
Co-injected gaskets: Ottima is manufactured on a production line that employs management and technology criteria market leading. All seals, spring sheets, lids and couplings are manufactured through direct co-injection. This means that the seals are moulded directly onto the specific part. Therefore, numerous parts are eliminated, water-tightness is increased, maintenance and installation are eased (no gaskets must be removed and remounted, thus eliminating assembly errors).

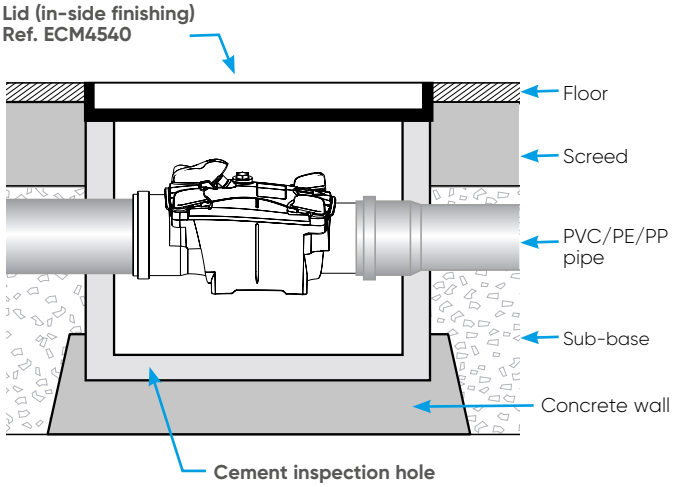
Stable base: Ottima rests on a stable base that facilitates installation and level check operations. But also helps in maintenance, allowing for a stable support.

Detachable locking lever: the locking lever is detachable. This is an important feature for installation in public-accessible areas to avoid unauthorized tampering or unwanted actuation. Should the lever be lost, the valve can be locked with a monkey wrench thanks to the hexagonal shape of the mechanism rotational axis. Setting the locking lever in sealed position is fundamental during emergencies that require line cut-off. E.g. downstream maintenance, accidental spillage into sewers. Actuation is confirmed by the "click" sound when locked into place.

Advice on installation

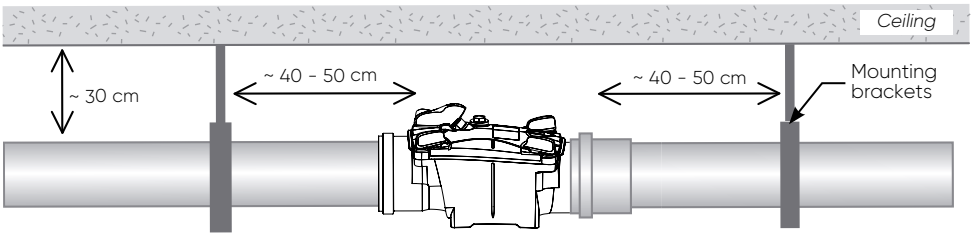
The non-return valve can be installed both indoors and outside; the installation that allows easy inspection, inside an accessible recess, an inspection pit, or in sight installation on a pipeline with support brackets, is always recommended. Example of indoor installation: in areas such as cellars, washrooms and basements.



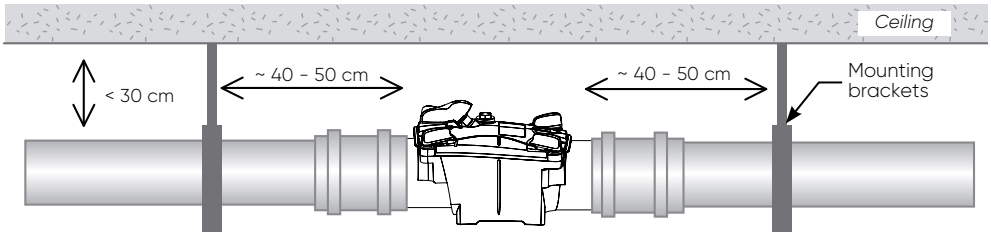


Examples of installation on an overhead pipeline.

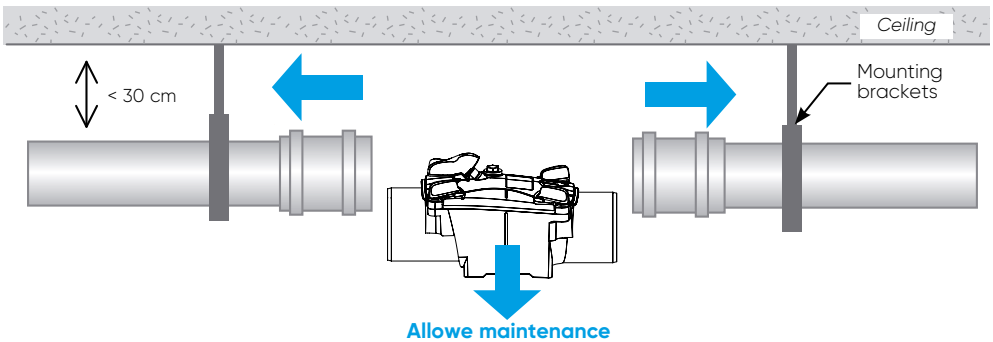
The quota in the examples refer to applications with Ottima Ø100-110, which are greater for Ø125-160.



Example of installation in an overhead pipeline near the ceiling.

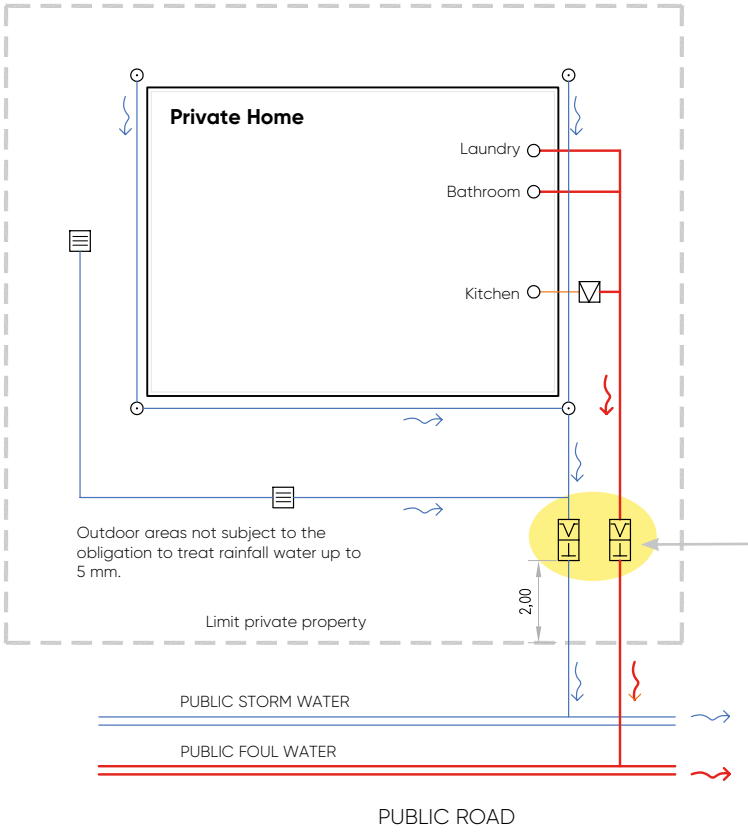


In this case, the Male/Male version allows rapid valve decoupling for inspection and cleaning. This manner of installation is useful for all circumstances of difficult access.



INSTALLATION TYPE

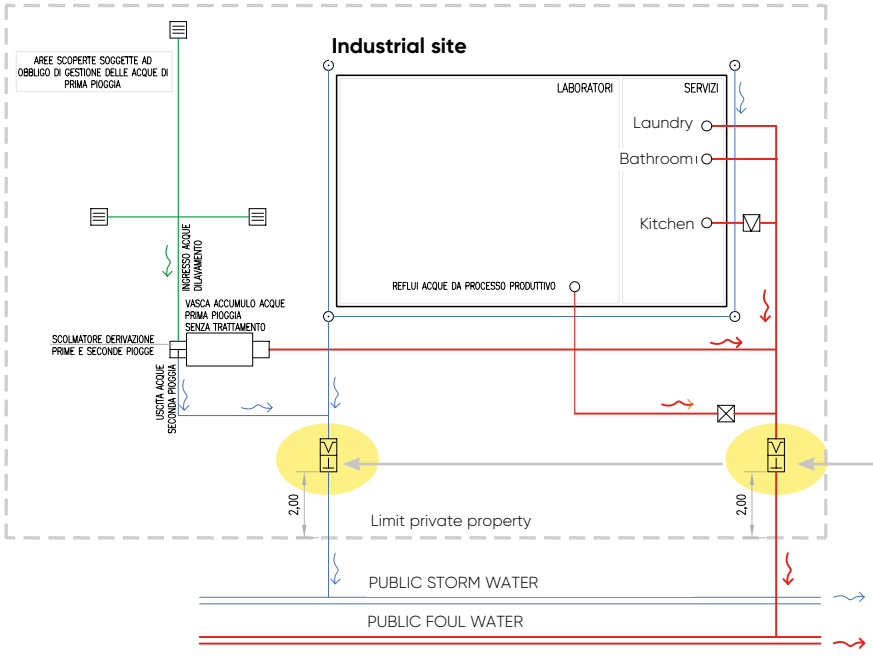
Case 1: **Home**



Two examples of non-return valve installation are provided according to Italian laws in force. The first on shows installation in a private home, the second on a production site.
The non-return valve must be installed both on the storm and foul water circuits.

The drawings shown give example of installation in compliance with the most common european standard norms. Regulations may vary according to State and local areas.

Case 2: **Industrial site**



Certification

Redi anti-flooding valves DN 100 ÷ 200 are certified by the German Institute LGA (LGA Kitemark).

Certified anti-flooding valves guarantee the following performance levels:
- Regular flow granted by the opening of the flap, even in presence of minimum pressure rates (0.005 bar).
- Non-deformability and tightness of the product after 600 test cycles at variable temperature (60 seconds at 75° / 60 seconds at 15°).
- Effectiveness of Redi anti-flooding device after 35 cycles of backflow of variable duration from 5 up to 10 minutes and pressure rate from 0,01 up to 0.5 bar.
- Water tightness of the entire valve's body, subject to a pressure rate of 0.5 bar.
- Inlet and outlet of the valves are complying with EN1401 and EN1329.

CE 11 **EN13564: 2002**
Antiflooding device made of PVC-U

Tested features:
- ☑ Air proof
- ☑ Water proof
- ☑ Effectiveness test
- ☑ Thermal resistance
- ☑ Mechanical resistance
- ☑ Durability



OTTIMA


OTTIMA


OTTIMA



Classica

The certificates shown on this catalogue may be subject to revisions and updates. Updated certificates for each product are available on website www.redi.it

Product specifications

OTTIMA - Non-return valve Type 2 - (Type 1)

Twin flaps (or single flap) self-closing non-return valve provided with an emergency locking lever.
The device is CE marked, according to the norm EN13564-1 (LGA). Structure and body of the valve are injected in PVC-U.
Joint dimensions are in compliance with EN1401 and EN1329 norms.
The connection to the main can be effected as follows:
- solvent cement
- push-fit with rubber ring
- spigot/spigot with multi-material connectors.

Rubber seals are certified in accordance with the European norm EN681.
By removing the cover of the valve, the structure can be completely inspected. The co-injected seals on the cover (not removable) guarantee the leakage-tightness.
The valve can be assembled and disassembled without using any tool (such as screwdrivers or spanners).
The valve is manufactured to be installed as recommended in EN12056 norm (Installation and testing, instructions for operation, maintenance and use of Waste-water drainage systems).

Recommended maintenance
According to EN12056, the valve shall be inspected every 6 months by following the inspection procedure:
- remove the cover
- check gaskets conditions
- remove any sludge or debris which could hinder the correct functioning of the device by obstructing the flaps
- lock and unlock the flaps using the locking lever
- assemble and lock the cover again.

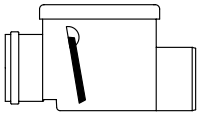
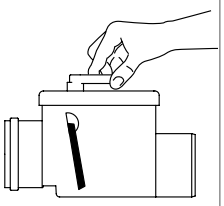
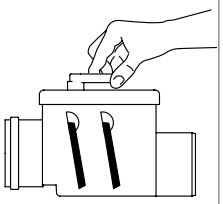
Spare parts available on request.

Classica - Non-return valve

Injection-molded non-return valve made of PVC-U, designed for connections to piping systems conform to EN1329 and EN1401.
- One-flap device with locking lever certified EN13564 Type 1.
- SCJ or RRJ jointing type (Sealing lip-rings conform to EN681-1 and DIN4060).
- Moving parts shall either be detachable or capable of being dismantled on site.
- Airtight and watertight sealed cover.
- CE marking.
- German certification LGA EN13564-1 (DN100 up to DN200)

Suppliers will have to attest that they hold a ISO9001 approved quality system in place as a condition for purchase.

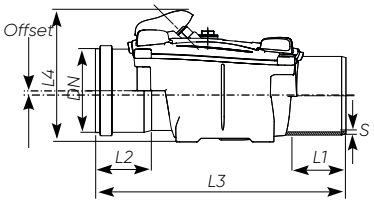
NON-RETURN VALVE EN13564-1

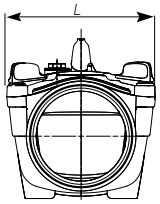
	N° flaps	Emergency closing	Free	Max Temp.	Tightness	Installation	Features
Type 0 	1	NO	90%	75 C°	0,5 bar	horizzontal pipe	Equipped with one automatic closing device. Single flap.
Type 1 	1	SI	90%	75 C°	0,5 bar	horizzontal pipe	Equipped with one automatic closing device. Single flap. Furthermore it has an emergency closing handle, that can be combined to the flap.
Type 2 	2	SI	90%	75 C°	0,5 bar	horizzontal pipe	Equipped with two automatic closing devices. Twin flaps. The emergency closing handle, can be combined with one of both flaps.

OTTIMA TECHNICAL REQUIREMENTS

Ottima	Ø100	Ø110	Ø125	Ø160
Valve Type	TYPE 1 TYPE 2	TYPE 1 TYPE 2	TYPE 1 TYPE 2	TYPE 1 TYPE 2
Material	U-PVC	U-PVC	U-PVC	U-PVC
EN1401-1329 compliance	OK	OK	OK	OK
Connection type	Glue - M/F - F/F	Glue - M/F - F/F	Glue - M/F - F/F	Glue - M/F - F/F
Fully inspectable	OK	OK	OK	OK
Cover tigthness	OK	OK	OK	OK
Removable flap	OK	OK	OK	OK
EN681-1 Seal	OK	OK	OK	OK
EN13564-1	OK	OK	OK	OK
Hot/cold test	OK	OK	OK	OK
Flap tightness	OK	OK	OK	OK
LGA TEST	OK	OK	OK	OK
CE Mark	OK	OK	OK	OK







TYPE 2

Single Socket - RRJ - All plastic smooth materials ØOD

Clapet anti-retour en PVC injecté M/F à joint, 2 clapets

Válvula anti-retorno M/H con junta labiada, clapeta doble

DN (mm)	Reference Black			S (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4. (mm)	Offset (mm)	Note
100	12R1048	1	60	3,0	171	60	57	338	184	7	
110	12R1148	1	60	3,2	171	65	63	350	184	7	
125	12R1248	1	24	3,2	255	73	69	458	226	9	
160	12R1648	1	24	4,0	255	83	82	491	226	9	

Stainless steel flap AISI 304 Lip Ring CE LGA tested

TYPE 1

Single Socket - RRJ - All plastic smooth materials ØOD

Clapet anti-retour en PVC injecté M/F à joint, 1 clapet

Válvula anti-retorno M/H con junta labiada, clapeta única

DN (mm)	Reference Black			S (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4. (mm)	Offset (mm)	Note
100	11R1048	1	60	3,0	171	60	57	338	184	7	
110	11R1148	1	60	3,2	171	65	63	350	184	7	
125	11R1248	1	24	3,2	255	73	69	458	226	9	
160	11R1648	1	24	4,0	255	83	82	491	226	9	

Stainless steel flap AISI 304 Lip Ring CE LGA tested

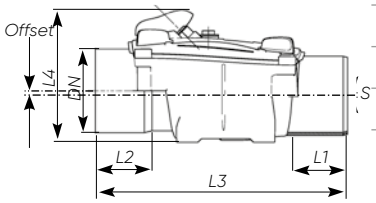


Lip seal version, we recommend to lubricate the gasket to make installation easier

SOLVENT CEMENT transition fitting



TYPE 2

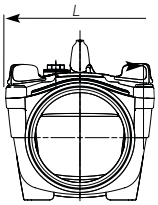


Single Socket - SCJ - PVC

Clapet anti-retour en PVC injecté M/F à coller, 2 clapets
Válvula anti-retorno M/H para encolar, clapeta doble

DN (mm)	Reference Black			S (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4. (mm)	Offset (mm)	Note
100	12S1008	1	60	3,0	171	60	53	334	184	7	
110	12S1108	1	60	3,2	171	65	63	350	184	7	
125	12S1208	1	24	3,2	255	73	69	458	226	9	
160	12S1608	1	24	4,0	255	83	82	491	226	9	

Stainless steel flap AISI 304



TYPE 1

Single Socket - SCJ - PVC

Clapet anti-retour en PVC injecté M/F à coller, 1 clapet
Válvula anti-retorno M/H para encolar, clapeta única

DN (mm)	Reference Black			S (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4. (mm)	Offset (mm)	Note
100	11S1008	1	60	3,0	171	60	53	334	184	7	
110	11S1108	1	60	3,2	171	65	63	350	184	7	
125	11S1208	1	24	3,2	255	73	69	458	226	9	
160	11S1608	1	24	4,0	255	83	82	491	226	9	

Stainless steel flap AISI 304



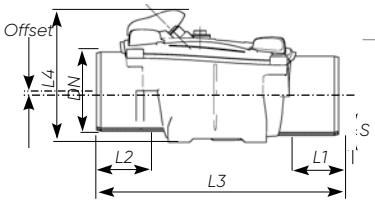


Solvent cement - Colle - Adhesivo

Pack	Gr.	Reference
Tube	125	COLLA12
Jar	250	COLLA25
Jar	500	COLLA50
Jar	1.000	COLLA00

** See Accessories and special solutions*





TYPE 2

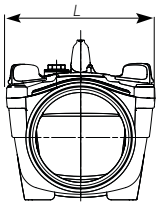
Spigot/Spigot - All materials/PVC (Recommended for renovation)

Clapet anti-retour en PVC injecté M/M - 2 clapets

Válvula anti-retorno M/M clapeta doble (recomendada para obras de renovación)

DN (mm)	Reference Black			S (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4. (mm)	Offset (mm)	Note
100	12M10M8	1	60	3,0	171	60	60	355	184	7	
110	12M11M8	1	60	3,2	171	65	65	365	184	7	
125	12M12M8	1	24	3,2	255	73	73	455	226	9	
160	12M16M8	1	24	4,0	255	83	83	468	226	9	

Stainless steel flap AISI 304 CE LGA tested



TYPE 1

Spigot/Spigot - All materials/PVC (Recommended for renovation)

Clapet anti-retour en PVC injecté M/M - 1 clapet

Válvula anti-retorno M/M clapeta única (recomendada para obras de renovación)

DN (mm)	Reference Black			S (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4. (mm)	Offset (mm)	Note
100	11M10M8	1	60	3,0	171	60	60	355	184	7	
110	11M11M8	1	60	3,2	171	65	65	365	184	7	
125	11M12M8	1	24	3,2	255	73	73	455	226	9	
160	11M16M8	1	24	4,0	255	83	83	468	226	9	

Stainless steel flap AISI 304 CE LGA tested

Example of installation

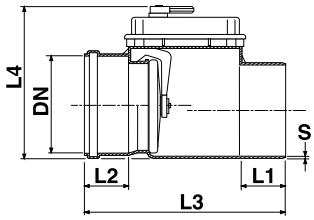


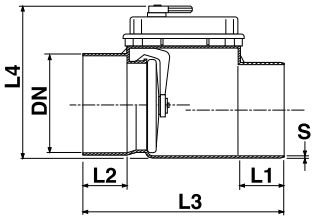
Installation with non-plastic materials



Push-fit installation (plastic only)







TYPE 1

Non-return valve

Clapet anti-retour - Válvula anti-retorno

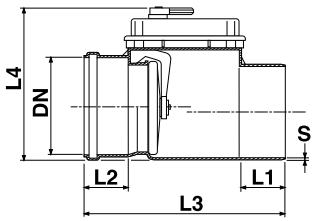
DN (mm)	S (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	Reference RAL 8023 Red			Note
100	4.0	58	56	300	230	1555052*	1	56	With Lip-ring
110	4.0	61	61	307	230	1555551	1	56	With Lip-ring
125	4.0	68	65	318	230	1556051	1	56	With Lip-ring
160	4.0	74	74	337	255	1551691	1	30	With Lip-ring
200	4.5	100	86	451	300	1552091	1	24	With Lip-ring
100	4.0	58	56	300	230	1555001	1	56	Solvent cement socket
110	4.0	61	61	307	230	1555501	1	56	Solvent cement socket
125	4.0	68	65	318	230	1556001	1	56	Solvent cement socket
140	4.0	69	65	325	255	1551401	1	30	Solvent cement socket
160	4.0	74	74	337	255	1551601	1	30	Solvent cement socket
200	4.5	100	86	451	300	1552001	1	24	Solvent cement socket

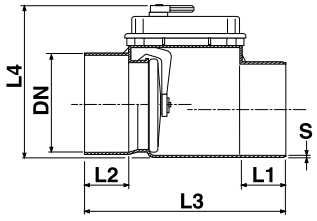
* Grey colour Lip Ring





Stainless stel flap
AISI 304





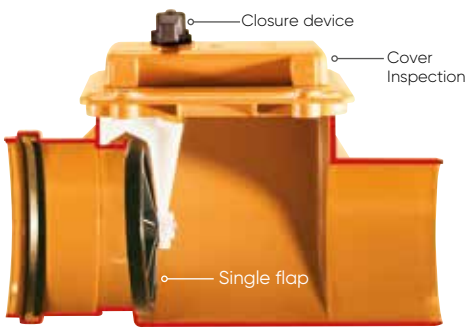
TYPE 1

Non-return valve stainless steel flap

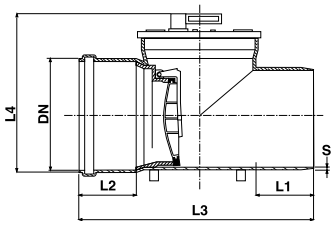
Clapet anti-retour - Válvula anti-retorno con clapeta de acero inox

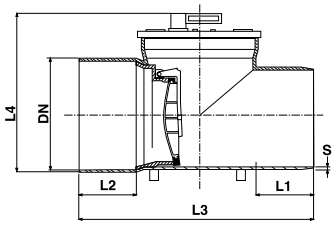
DN (mm)	S (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	Reference RAL 8023 Red			Note
110	4.0	61	61	307	230	1555651	1	56	With Lip-ring
125	4.0	68	65	318	230	1556151	1	56	With Lip-ring
160	4.0	74	74	337	255	1551791	1	30	With Lip-ring
100	4.0	61	57	300	230	1555101	1	56	Solvent cement socket
110	4.0	61	61	307	230	1555601	1	56	Solvent cement socket
125	4.0	68	65	318	230	1556101	1	56	Solvent cement socket
140	4.0	69	65	325	255	1551501	1	30	Solvent cement socket
160	4.0	74	74	337	255	1551701	1	30	Solvent cement socket

Stainless steel flap AISI 304 Lip Ring







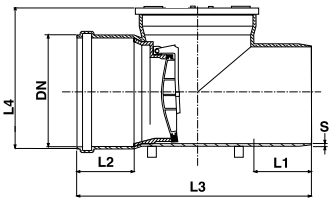


Non-return valve
Clapet anti-retour - Válvula anti-retorno

DN (mm)	S (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	Reference RAL 8023 Red			Note
250	6.2	130	102	520	374	1552591	1	12	With Lip-ring
315	7.7	160	125	615	440	1553091	1	8	With Lip-ring
250	6.2	130	102	520	374	1552501	1	12	Solvent cement socket
315	7.7	160	125	615	440	1553001	1	8	Solvent cement socket

Lip Ring **DOP** available CE





Non-return valve without emergency closure device
Clapet anti-retour sans levier de verouillage
Válvula anti-retorno sin palanca de cierre

DN (mm)	S (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	Reference RAL 8023 Red			Note
400	9.8	245	140	800	480	1554091	1	4	With Lip-ring

Lip Ring **DOP** available CE



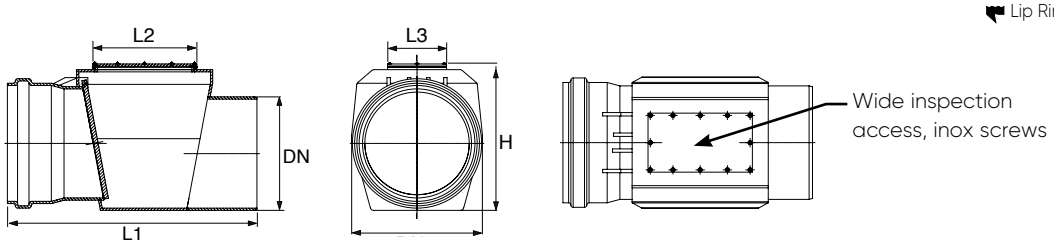
Non-return valve senza leva di blocco
Clapet anti-retour without emergency closure device
Válvula anti-retorno sin palanca de cierre

DN (mm)	H (mm)	L1 (mm)	L2 (mm)	L3 (mm)	Reference RAL 8023 Red + black	SN			Note
500	645	1100	460	260	T555191	SN4*	1	1	With Lip-ring
630	775	1300	460	260	T556391	SN4*	1	1	With Lip-ring

* the article is fabricated by using PVC pipe SN4 conform to EN1401

Male/Male version available on request

Lip Ring

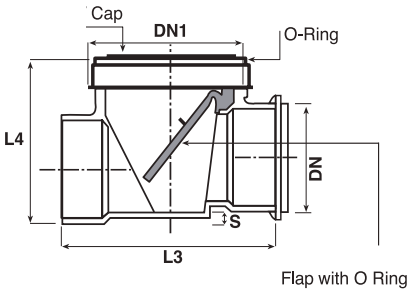


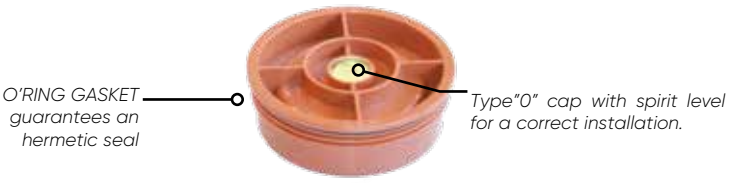


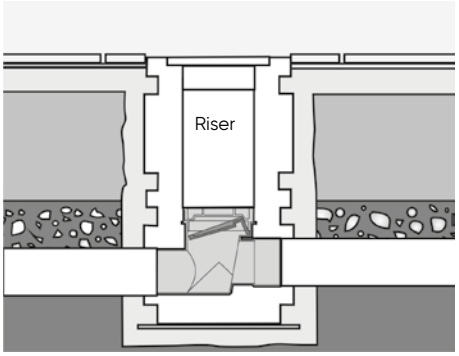
TYPE 0
Non-return valve without emergency closure device
Clapet anti-retour - Válvula anti-retorno

DN (mm)	L3 (mm)	L4 (mm)	CN1 (mm)	L3S (mm)	Reference RAL 8023 Red			Riser	Note
110	280	170	154	20	NC879E1	1	90	PVC pipe Ø160 SN2 EN1401	Plastic flap
125	290	170	154	20	NC887E1	1	90	PVC pipe Ø160 SN2 EN1401	Plastic flap
160	396	257	236	25	NC919E1	1	24	PVC pipe Ø200 SN2 EN1401	Plastic flap

Lip Ring CE





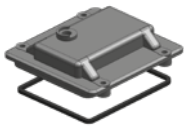


Spare parts - Pièces de rechang - Repuestos



Valve flap
Clapet - Clapeta

DN (mm)	Reference			Note
100	1572206	1	-	PVC
110	1572206	1	-	PVC
125	1572206	1	-	PVC
100	15722IX	1	-	INOX
110	15722IX	1	-	INOX
125	15722IX	1	-	INOX
140	1573306	1	-	PVC
140	15722IX	1	-	INOX
160	1573306	1	-	PVC
160	15716IX	1	-	INOX
200	1574406	1	-	PVC
250	1574406	1	-	PVC
315	1576606	1	-	PVC
400	1577708	1	-	PVC



Inspection cover
Couverture - Tapa

DN (mm)	Reference			Note
100	1562201	1	-	
110	1562201	1	-	
125	1562201	1	-	
140	1563301	1	-	
160	1563301	1	-	
200	1564401	1	-	
250	1565501	1	-	
315	1566601	1	-	
400	16530T1	1	-	



Locking lever
Levier - Maneta

DN (mm)	Reference			Note
100	1582208	1	-	
110	1582208	1	-	
125	1582208	1	-	
140	1583308	1	-	
160	1583308	1	-	
200	1582208	1	-	
250	1585501	1	-	
315	1585501	1	-	



Flap + support
Kit clapet - Kit clapeta

DN (mm)	Reference			Note
100-110	1SP1100	1	-	
125-160	1SP1600	1	-	

Kit with locking levers
Kit de levier de verouillage
Maneta + 4 bloqueos

Reference			Note
1KLMA00	1	-	





Inspection cover with lever
Couverture avec levier
Tapa registro con bloqueo

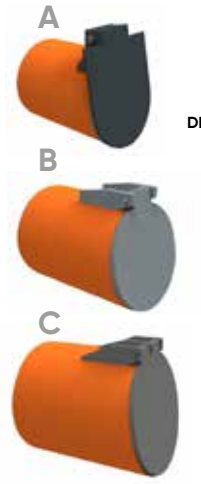
DN (mm)	Reference			Note
100-110	1CO1100	1	-	
125-160	1CO1600	1	-	

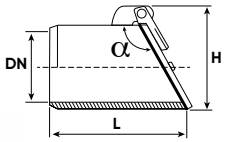
FLAP VALVE



Type A INOX FLAP

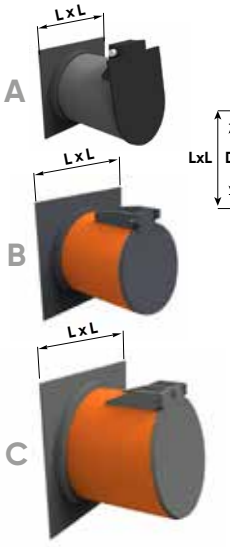
The flap valves allow the waste water to flow out from a pipe to either a ditch or a pond, preventing back flooding at the same time. The flap is opened by waste water's thrust. Flap's weight and 11° slant keep the device closed when not working.
- Material: PVC-U complying to EN1401.
- Colour: Red RAL 8023 (body) Grey (flap).
- Flap seal, EPDM + CR closed cell expanded rubber.
- Hinge: stainless steel AISI 304 with self locking nut.
- Flap closure tilt 11°.
- Up Ø 200 supplied in carton box.

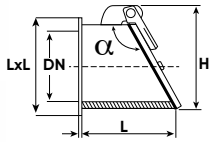




Flap valve male
Clapet de nez - Válvula de clapeta macho

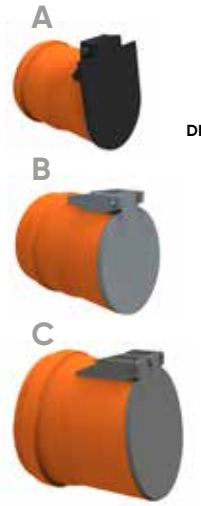
DN (mm)	Ref.			L (mm)	H (mm)	α	Type	RAL Body	Flap
110	P5510M1	1	175	145	140	11°	A	RAL 8023	INOX
125	P5512M1	1	100	165	155	11°	A	RAL 8023	INOX
160	P5516M1	1	100	180	190	11°	A	RAL 8023	INOX
200	P5520M1	1	48	205	230	11°	A	RAL 8023	INOX
250	P5525M1	1	24	260	280	11°	B	RAL 8023	
315	P5530M1	1	8	300	350	11°	B	RAL 8023	
400	P5540M1	1	8	350	430	11°	C	RAL 8023	
500	P5550M1	1	4	400	530	11°	C	RAL 8023	
630	P5563M1	1	-	500	660	11°	C	RAL 8023	

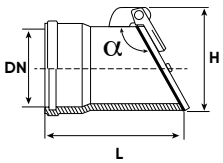




Flap valve, flange
Clapet de nez - Válvula de clapeta brida

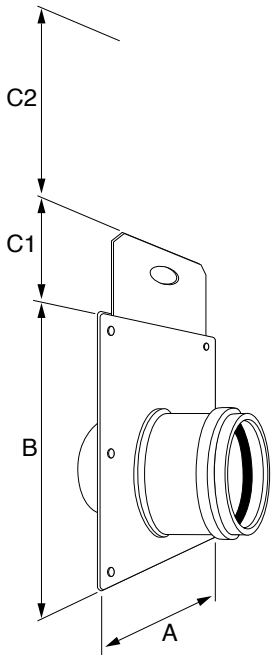
DN (mm)	LxL (mm)	Ref.			L (mm)	H (mm)	S (mm)	α	Type	RAL Body	Flap
110	160	P551002	1	175	145	140	5	11°	A	RAL 7037	INOX
125	160	P551202	1	100	165	155	5	11°	A	RAL 7037	INOX
160	199	P551602	1	96	180	190	5	11°	A	RAL 7037	INOX
200	250	P552002	1	36	205	230	5	11°	A	RAL 7037	INOX
250	320	P552501	1	24	260	280	5	11°	B	RAL 8023	
315	370	P553001	1	18	300	350	6	11°	B	RAL 8023	
400	480	P554001	1	1	350	430	8	11°	C	RAL 8023	
500	600	P555001	1	10	400	530	10	11°	C	RAL 8023	
630	730	P556301	1	-	500	660	12	11°	C	RAL 8023	





Flap valve, soket
Clapet de nez - Válvula de clapeta hembra

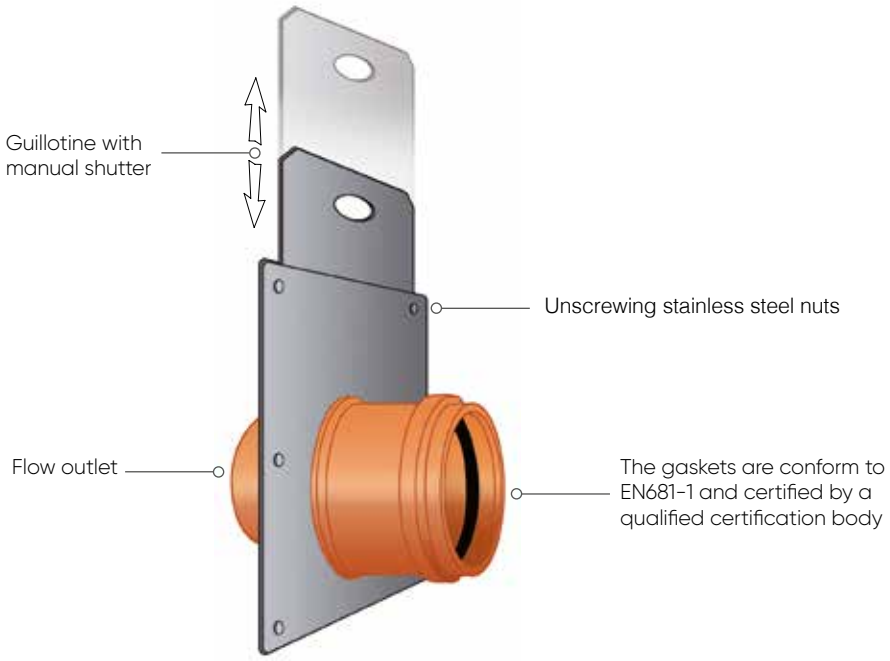
DN (mm)	Ref.			L (mm)	H (mm)	α	Type	RAL Body	Flap
110	P5510F1	1	175	145	140	11°	A	RAL 8023	INOX
125	P5512F1	1	100	165	155	11°	A	RAL 8023	INOX
160	P5516F1	1	100	180	190	11°	A	RAL 8023	INOX
200	P5520F1	1	48	205	230	11°	A	RAL 8023	INOX
250	P5525F1	1	12	260	280	11°	B	RAL 8023	
315	P5530F1	1	20	300	350	11°	B	RAL 8023	
400	P5540F1	1	-	350	430	11°	C	RAL 8023	
500	P5550F1	1	2	400	530	11°	C	RAL 8023	
630	P5563F1	1	-	500	660	11°	C	RAL 8023	



Guillotine valve
Clapet guillotine - Válvula de guillotina

DN (mm)	Reference			A (mm)	B (mm)	C1 (mm)	C2 (mm)	Note
110	P5510G1	1	-	172	300	74	110	
125	P5512G1	1	-	194	311	82	142	
160	P5516G1	1	-	225	335	95	180	
200	P5520G1	1	-	264	374	100	219	
250	P5525G1	1	-	330	430	110	250	
315	P5530G1	1	-	425	540	115	340	
400	P5540G1	1	-	510	583	110	450	
500	P5550G1	1	-	_	_	_	_	on request

Material: PVC-U





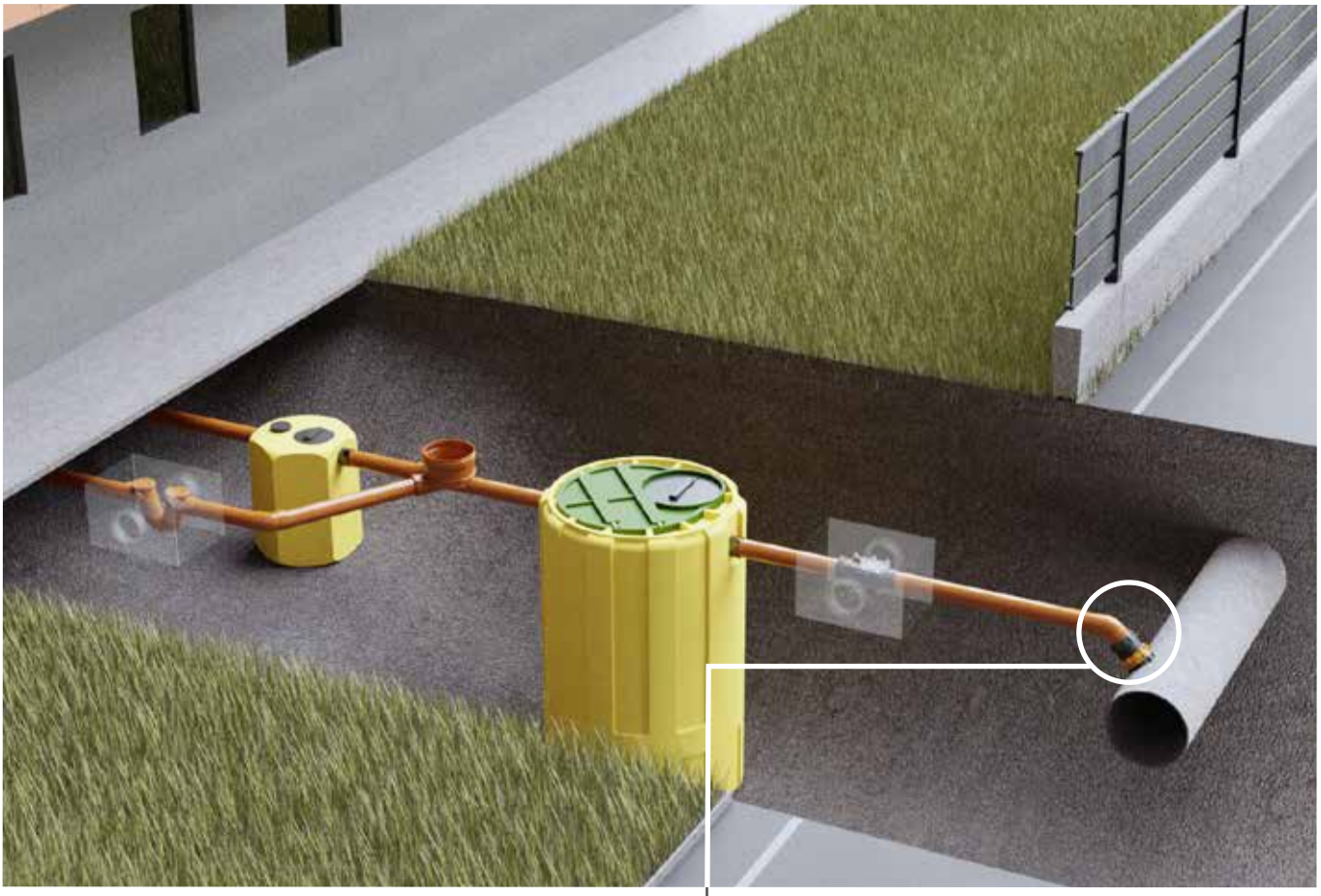
Special mechanical connections

Easy Clip, Mechanical Clip for PVC, Ceramic Clip, Swivel

EASY CLIP

aliaxis

EASY CLIP



City



Ø160



OD 200÷400



DN ID 250*



DN 200÷250

For pipes with small diameters

**≥SN8 complying with EN 13476*

Plus



Ø160

Spherical joint



OD 315÷1000



DN 300÷1200



DN 300÷1200

For all materials, large diameters, absorbs the soil movements

Link



Ø160
Ø200



OD 315÷1000



DN 300÷1200



DN 300÷1200

For all materials, large diameters

Tech



Ø160



DN 250-300-350



DN 250-300

For Concrete and Clay pipes, for hard cleaning

Special mechanical connections

Easy Clip mechanical saddles are products that provide connections to pipelines, without the use of adhesives, or cements. They are particularly suitable for:

New installations
For carrying out a lateral connection to the sewage or drainage well.

Pre-existing pipelines
They allow the creation of a new connection to a pre-existing sewer or drain, and are suitable for both foul and surface water.

The range: four products to suit different types of installation.



City

For smaller diameter pipes

Designed for Plastic compact solid wall pipes PVC/PP/PE Ø200-250-315-400.
Vitrified Clay pipes Ø200, Ø250.
Structured wall (smooth inside) pipes ID 250.
Hole saw Ø152 mm.
Socket rubber ring Ø160 mm.



Plus

For large diameter pipes

Suitable for any material pipe (plastic compact solid wall, plastic structured wall and smooth inside, concrete).
From Ø300 up to Ø1200.
Spherical joint (swivel) compensates ground movements.
Socket Ø160 rubber ring.



Link

For large diameter pipes

Suitable for any material pipe (compact solid wall, structured wall smooth inside, concrete).
From Ø300 up to Ø1200.
Either Ø160 or Ø200 socket rubber ring.



Tech

Thick walled concrete & clay pipes

Designed for thick walled concrete and clay pipes Ø250-350.
No internal gaps and resistant to "hard cleaning cycles" (e.g. chains, blades, or high pressure water jetting).

An alternative working method

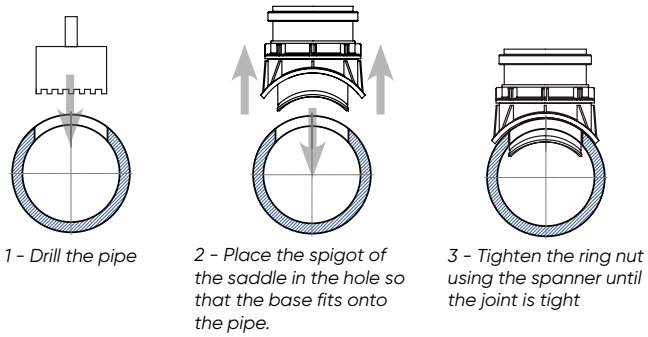
With traditional collar-type systems, the main difficulty lies in removing the material beneath the existing pipeline. The Easy Clip Connections provide for a completely different and more professional working methodology.

The main advantages of using a mechanical connection can be summarized in the following points:

- Major reduction of the time required for excavating and backfilling existing pipelines
- Speed of installation
- Installation without the use of sealants
- Ease of installation
- Low overall installation costs
- Guaranteed joint security
- Flexible solutions

Obviously, the pipeline does not have to be "supported", as is the case with traditional collar-type alternatives. The device's mechanical anchoring system simplifies the operation and drastically reduces the installation time.

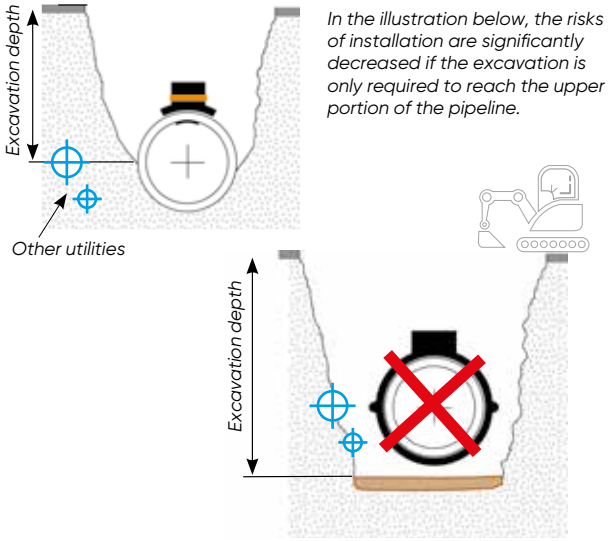
Safety: curing times are not required (as there is no use of cement or adhesives) and the excavation can be immediately backfilled once the intervention has been completed. For this reason, there is no need to leave the excavation open on roads, pathways or residential areas. Therefore there is no need for the work site to be monitored or cordoned off in order to prevent any potential accidents, thus providing significant savings.



1 - Drill the pipe

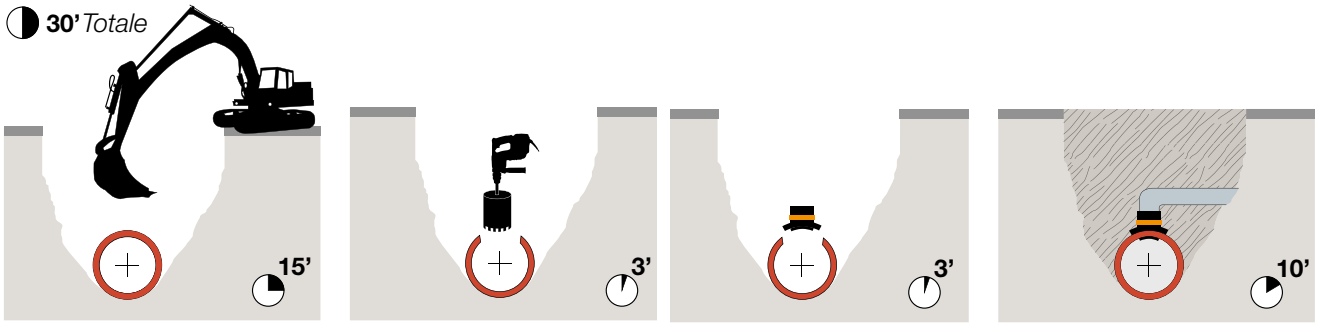
2 - Place the spigot of the saddle in the hole so that the base fits onto the pipe.

3 - Tighten the ring nut using the spanner until the joint is tight



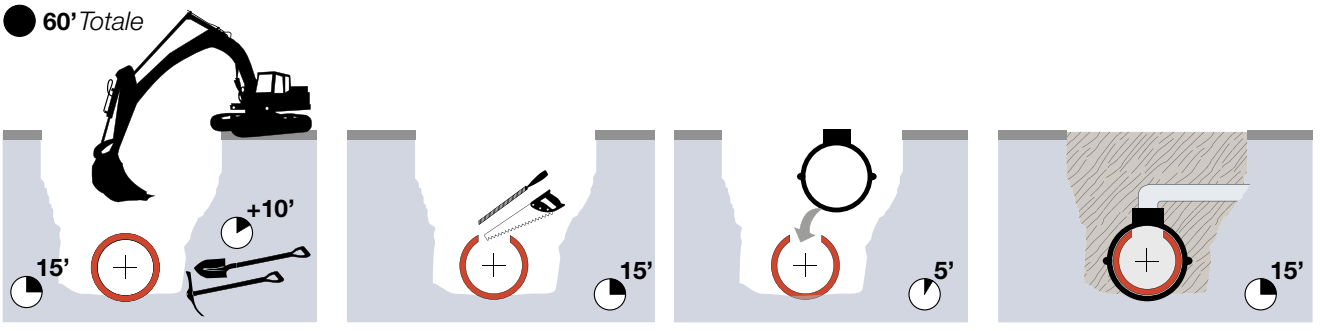
In the illustration below, the risks of installation are significantly decreased if the excavation is only required to reach the upper portion of the pipeline.

With mechanical saddle



1- Excavation *2- Drilling* *3- Connection* *4-Backfill ground*

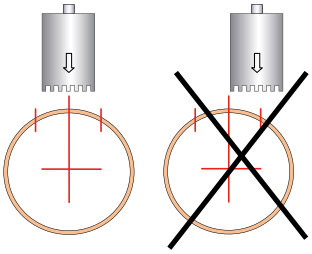
Without mechanical saddle



1- Excavation *2- Drilling* *3- Connection* *4-Backfill ground*

Installation tips:

1. Identify the point at which the connection is required and clean away any debris that may be present.
2. Drill the hole perpendicular to the axis of the main pipe



Note:
The use of appropriate equipment for centering the pipe will help to prevent errors during this phase.
The installation procedure will not be successful if the hole is performed in a decentralized manner.
In the case of non-plastic materials (i.e. ceramic or concrete) it is recommended to drill a guide hole (1) initially before completing the hole using a milling tool with a centring drill bit (2). The drilling procedure should always be carried out using water.
In the case of plastic materials, it is best to use a milling tool with an incorporated centring drill bit.

If more than one connection needs to be performed on the same tract of pipe, be sure to leave at least 1 meter between each hole.

The installation conditions must always be assessed on a case by case basis: loads, compactness of the terrain, presence of foundations, vehicular traffic, groundwater, etc.

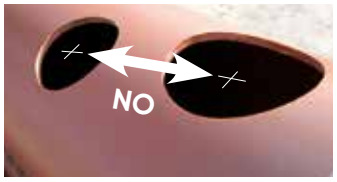
3. Deburr the edges of the hole using a suitable tool, this is especially important for holes made in plastic materials.
4. Lubricate the seal.
5. Insert the Clip and tighten the ring nut.

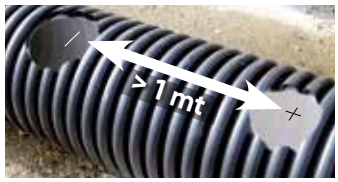


















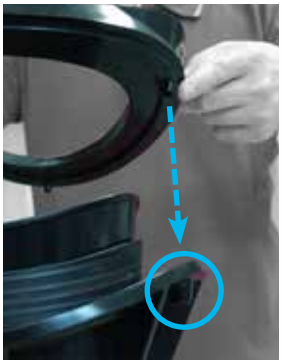
Installation Easy Clip TECH:

Easy Clip tech is supplied with one or two adaptors and a spanner. Choose the right adaptor depending on the installation type. For detailed information concerning installation, please see the "installation sheet" contained in the box.

Fix the right adaptor using the supplied screws.

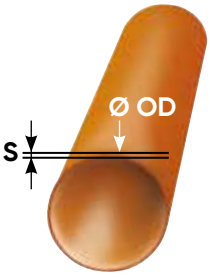
Easy Clip Tech is ready to be installed.
i.e. on a concrete pipe.









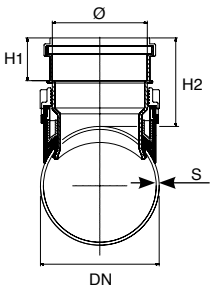


City

Compact solid wall wall/multilayer smooth plastic pipes OD
Installation tube PVC PP PE lisse epaisseur OD
Instalación tubo liso de pared compacta OD

Pipe Ø OD	200	250	315	400
Easy Clip City Ø160	1431158	1432258	1433358	1434458
S (mm)	3÷9	3÷15	3÷15	3÷18



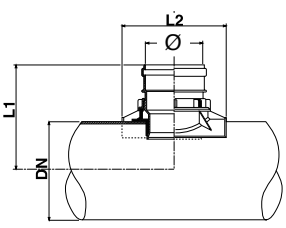


Installation on PVC/PP/PE compact solid wall pipe OD
Installation tube PVC/PP/PE epaisseur OD
Instalación tubo PVC/PP/PE de espesor compacto OD

DN	Ø	S Max Pipe	L1	L2	Reference			Hole saw
200	160	9 mm	255	195	1431158	1	80	AD1513P

**1 spanner included in each box of 6 pcs.*



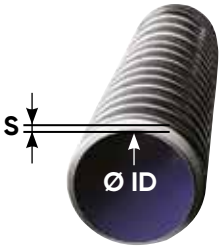


Installation on PVC/PP/PE compact solid wall pipe OD
Installation tube PVC/PP/PE epaisseur OD
Instalación tubo PVC/PP/PE de espesor compacto OD

DN	Ø	S Max Pipe	L1	L2	Reference			Hole saw
250	160	15 mm	285	290	1432258	1	48*	AD1513P
315	160	15 mm	315	290	1433358	6	48*	AD1513P
400	160	18 mm	360	290	1434458	1	48*	AD1513P

**1 spanner included in each box of 6 pcs.*

ID = Internal Diameter **OD** = Outside Diameter **S** = Wall thickness **DN** = Nominal Diameter



City

Twin/structured wall plastic pipe ID
Installation tube annelé ID
Instalación tubo corrugado ID

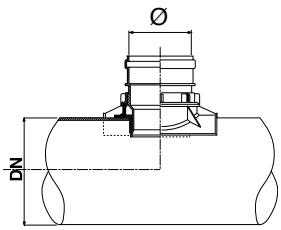
Pipe Ø ID	Ø ID 250
Easy Clip City Ø160	1432658
S (mm)	20÷30



Installation on corrugated pipe ≥SN8 (EN13476)
Installation tube annelé ≥SN8 (EN13476)
Instalación tubo corrugado ≥SN8 (EN13476)

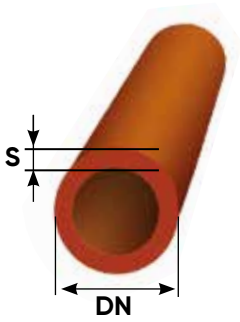
DN ID	Ø	S Max Pipe	L1	L2	L3	Ref.			Hole saw
250	160	20÷35	182	290	236	1432658	6	48*	AD1513P

** 1 spanner included in each box of 6 pcs.*



City

Clay pipe (nominal diameter)
Installation tube grès (diamètre nominal)
Instalación tubo gres (diámetro nominal)



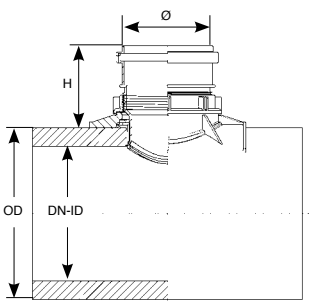
Pipe DN	DN 200	DN 250
Easy Clip City Ø160	1431658	1432658
Thickness Class According to EN 295-1	Class 160 / 240	Class 160 / 240
S (mm)	15÷28	20÷37

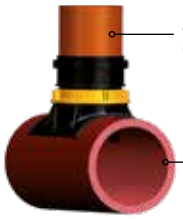
Installation on clay pipe (UNI EN 295-1)
Installation tube grès (UNI EN 295-1)
Instalación tubo gres (UNI EN 295-1)



	DN ID	OD	Class	Ø KN/M²	H	L1	L2	L3	Ref.			Hole saw
Pipe standard	200	242	160	160	158	194	290	219	1431658	1	48*	AC1KSDZ
Pipe standard	200	254	240	160	152							
Pipe standard	250	299	160	160	161	182	290	236	1432658	1	48*	AC1KSDZ
Pipe extra	250	318	240	160	151							

** 1 spanner included in each box of 6 pcs.*
Thickness class to EN 295-1



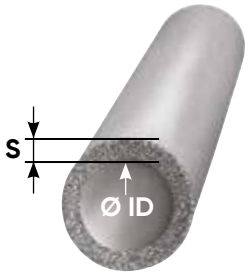


Pipe PVC Ø 160 mm (EN 1401)

Clay pipe DN 200 (EN 295-1) DN 250

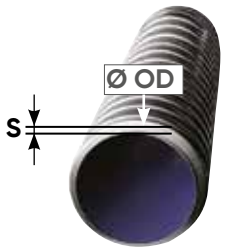
ID = Internal Diameter **OD** = Outside Diameter **S** = Wall thickness **DN** = Nominal Diameter

Plus



Reinforced concrete pipe ID
Installation tube en béton ID
Instalación tubo hormigón ID

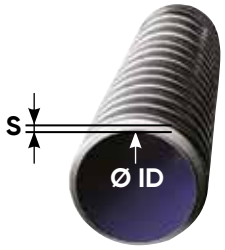
Pipe Ø ID	300	400	500	600	700÷1200
Easy Clip Plus Ø160 with swivel	1C16058	1E16058	1H16058	1H16058	1K16058
S (mm)	30÷80	30÷80	40÷100	40÷100	40÷100



Pipe conform to EN13476 ≥ SN8

Twin/structured wall plastic pipe OD
Installation tube annelé epaisseur OD
Instalación tubo corrugado de espesor OD

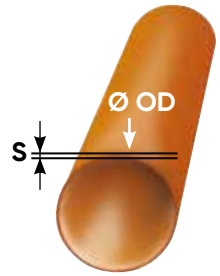
Pipe Ø OD	315	400	500	630	800÷1000
Easy Clip Plus Ø160 with swivel	1A16058	1D16058	1G16058	1K16058	1K16058
S (mm)	5÷30	6÷35	9÷50	9÷50	20÷100
Easy Clip Plus shorter version Ø160 with swivel	1Y16058	1X16058	Shorter version		
S (mm)	5÷30	6÷35			



Pipe congorm to EN13476 ≥ SN8

Twin/structured wall plastic pipe ID
Installation tube annelé ID
Instalación tubo corrugado ID

Tubo / Pipe Ø ID	300	400	500	600	700÷1200
Easy Clip Plus Ø160 with swivel	1A16058	1E16058	1G16058	1H16058	1K16058
S (mm)	5÷30	30-80	20-65	40÷100	40÷100
Easy Clip Plus Ø160 Shorter version with swivel	1Y16058	1Z16058	Shorter version		
S (mm)	5÷30	30÷55			



GRP compact solid wall wall/multilayer smooth plastic pipe OD
Installation tube PVC PP PE PRV lisse epaisseur OD
Instalación tubo liso de pared compacta OD

Tubo / Pipe Ø OD	315	400	500÷630	710÷1000
Easy Clip Plus Ø160 with swivel	1A16058	1D16058	1G16058	1J16058
S (mm)	5÷30	6÷35	9÷50	10÷60
Easy Clip Plus Ø160 Shorter version with swivel	1Y16058	1Z16058	Shorter version	
S (mm)	5÷30	30÷55		

ID = Internal Diameter **OD** = Outside Diameter **S** = Wall thickness **DN** = Nominal Diameter

Plus

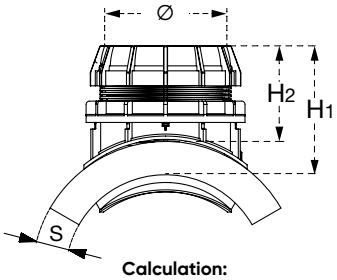
Installation on structured, compact solid wall, clay, concrete and GRP pipe

Installation tube en béton, annelé, lisse

Instalación tubo de hormigón, corrugado, liso de pared compacta



Easy Clip Plus Ø 160 mm



Calculation:
H2 = H1 - S (± 0,5 cm)
S= wall thickness

Ø (mm)	H1	Reference	Certif			Hole saw
160	255	1A16058	QB MPA	1	38	AD2013P (for plastic)
160	255	1C16058	QB MPA	1	38	AC2CSDZ (for non plastic)
160	255	1D16058	QB MPA	1	38	AD2013P
160	255	1E16058	QB MPA	1	38	AC2CSDZ
160	255	1G16058	QB MPA	1	38	AD2013P
160	255	1H16058	QB MPA	1	38	AD2013P / AC2CSDZ
160	255	1J16058	QB MPA	1	38	AD2013P
160	255	1K16058	QB MPA	1	38	AD2013P / AC2CSDZ
160	205	1X16058	QB	1	38	AD2013P
160	205	1Y16058	QB MPA	1	38	AD2013P
160	205	1Z16058	QB	1	38	AD2013P

A spanner is supplied with each saddle



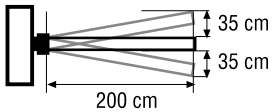
AFNOR-CSTB: ANF EN 1401

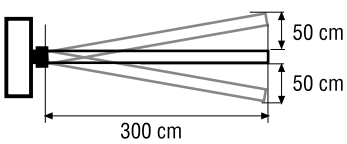


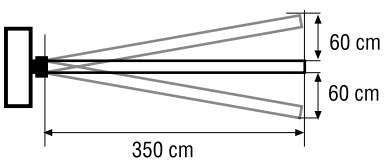
MPA: DIN EN 13598-1

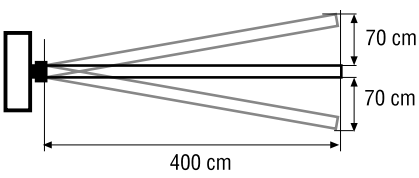


European Patent EP1548349

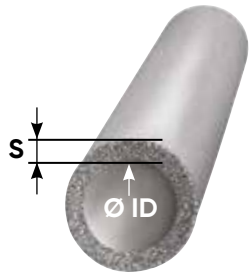






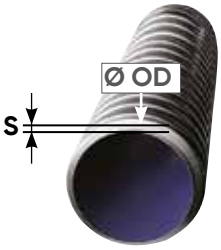


Link



Reinforced concrete and clay pipe ID
Installation tube en béton et gres ID
Instalación tubo de hormigón o gres ID

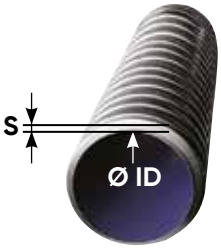
Pipe Ø ID	300	400	500	600	700÷1200
Easy Clip Link Ø160	1C16L58	1E16L58	1H16L58	1H16L58	1K16L58
S (mm)	30÷80	30÷80	40÷120	40÷120	40÷120
Easy Clip Link Ø200	1C20058	1E20058	1H20058	1H20058	1K20058
S (mm)	30÷80	30÷80	40÷100	40÷100	40÷100



Pipe congorm to EN13476 ≥ SN8

Twin/structured wall plastic pipe OD
Installation tube annelé epaisseur OD
Instalación tubo corrugado de espesor OD

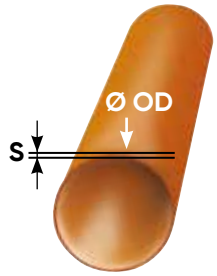
Pipe Ø OD	315	400	500÷630	800÷1000
Easy Clip Link Ø160	1A16L58	1D16L58	1G16L58	1K16L58
S (mm)	5÷30	6÷35	9÷50	20÷100
Easy Clip Link Ø200	1A20058	1D20058	1G20058	1K20058
S (mm)	5÷30	6÷35	9÷50	20÷100
Easy Clip Link Ø160	1Y16L58	1X16L58	Shorter version	
S (mm)	5÷30	6÷35		
Easy Clip Link Ø200	1Y20058	1X20058	Shorter version	
S (mm)	5÷30	6÷35		



Pipe congorm to EN13476 ≥ SN8

Twin/structured wall plastic pipe ID
Installation tube annelé ID
Instalación tubo corrugado ID

Pipe Ø ID	300	400	500	600	700÷1200
Easy Clip Link Ø160	1A16L58	1E16L58	1G16L58	1H16L58	1K16L58
S (mm)	15÷30	30÷80	20÷80	40÷120	40÷120
Easy Clip Link Ø200	1A20058	1E20058	1G20058	1H20058	1K20058
S (mm)	15÷30	30÷80	20÷65	40÷100	40÷100
Easy Clip Link Ø160	1Y16L58	1Z16L58	Shorter version		
S (mm)	15÷30	30÷70			
Easy Clip Link Ø200	1Y20058	1Z20058	Shorter version		
S (mm)	15÷30	30÷55			



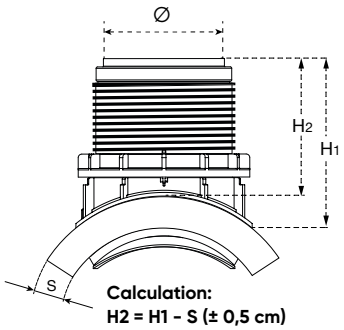
Compact solid wall wall/multilayer smooth plastic pipe OD
Installation tube PVC PP PE lisse epaisseur OD
Instalación tubo liso de pared compacta OD

Pipe Ø OD	315	400	500÷630	710÷1000
Easy Clip Link Ø160	1A16L58	1D16L58	1G16L58	1J16L58
S (mm)	5÷30	6÷35	9÷50	10÷80
Easy Clip Link Ø200	1A20058	1D20058	1G20058	1J20058
S (mm)	5÷30	6÷35	9÷50	10÷60
Easy Clip Link Ø160	1Y16L58	Shorter version		
S (mm)	5÷30			
Easy Clip Link Ø200	1Y20058	Shorter version		
S (mm)	5÷30			

ID = Internal Diameter **OD** = Outside Diameter **S** = Wall thickness **DN** = Nominal Diameter

Link 160

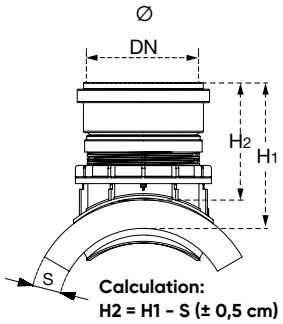




Calculation:
H2 = H1 - S (± 0,5 cm)
S= wall thickness

Link 200





Calculation:
H2 = H1 - S (± 0,5 cm)
S= wall thickness

Installation on structured, compact solid wall, clay, concrete and GRP pipe

Installation tube en béton, annelé, lisse

Instalación tubo de hormigón, corrugado, liso de pared compacta

Ø (mm)	H1 (mm)	Reference	Cert.			Hole saw
160	255	1A16L58	QB MPA	1	38	AD2013P (for plastic)
160	255	1C16L58	QB MPA	1	38	AC2CSDZ (for non plastic)
160	255	1D16L58	QB MPA	1	38	AD2013P
160	255	1E16L58	QB MPA	1	38	AC2CSDZ
160	255	1G16L58	QB MPA	1	38	AD2013P
160	255	1H16L58	QB MPA	1	38	AD2013P / AC2CSDZ
160	255	1J16058	QB MPA	1	38	AD2013P
160	255	1K16L58	QB MPA	1	38	AD2013P / AC2CSDZ
160	205	1X16L58	QB	1	38	AD2013P
160	205	1Y16L58	QB MPA	1	38	AD2013P
160	205	1Z16L58	QB	1	38	AD2013P
200	315	1A20058	QB MPA	1	38	AD2013P (for plastic)
200	315	1C20058	QB MPA	1	38	AC2CSDZ (for non plastic)
200	315	1D20058	QB MPA	1	38	AD2013P
200	315	1E20058	QB MPA	1	38	AC2CSDZ
200	315	1G20058	QB MPA	1	38	AD2013P
200	315	1H20058	QB MPA	1	38	AD2013P / AC2CSDZ
200	315	1J20058	QB MPA	1	38	AD2013P
200	315	1K20058	QB MPA	1	38	AD2013P / AC2CSDZ
200	265	1X20058	QB	1	38	AD2013P
200	265	1Y20058	QB MPA	1	38	AD2013P
200	265	1Z20058	QB	1	38	AD2013P

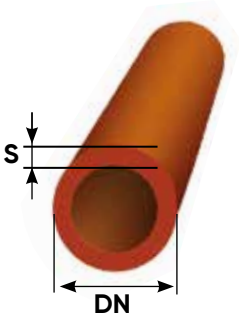
A spanner is supplied with each saddle



AFNOR-CSTB: ANF EN 1401



MPA: DIN EN 13598-1

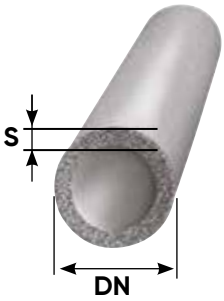


Tech

Clay pipe (nominal diameter)
Installation tube grès (diamètre nominal)
Instalación tubo gres (diámetro nominal)

Pipe DN	250	300	350
Clay*	1T21658	1T11658	1T11658
S (mm)	Min. 23	Min. 23	Min. 23

** Dimensions according to the EN295-1*



Reinforced concrete pipe (nominal diameter)
Installation tube en béton (diamètre nominal)
Instalación tubo hormigón (diámetro nominal)

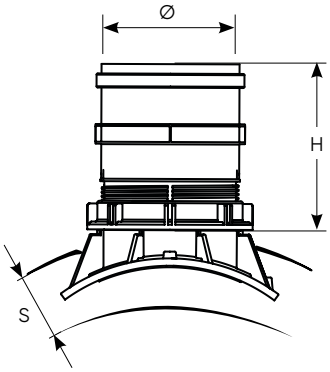
Pipe DN	250	300
Concrete	1T11658	1T11658
S (mm)	Min. 23	Min. 23

Installation on Concrete and clay pipe
Installation tube en béton ou grès
Instalación tubo de hormigón o gres

Ø (mm)	H (mm)	Reference			Note
160	260	1T11658	1	24	
160	260	1T21658	1	24	

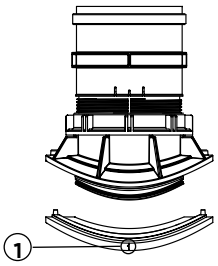
***H** = Ledge Easy Clip installed on tube*
A spanner is supplied with each saddle





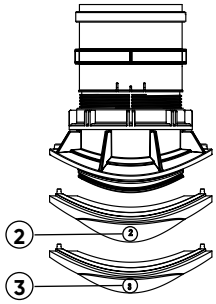
Note:
Designed for concrete and clay pipes DN 250, 300, 350.
With high thicknesses.
Without internal gaps.
Resistant to the sewage "hard cleaning cycles" (e.g. chains, blades, or hi pressur waterjet).

Adaptors



Cod. 1T11658

Clay Grés	DN 300	N - Class 160* H - Class 240*	①
	DN 350	N - Class 160* H - Class 240*	NO
Concrete Beton	DN 250		①
	DN 300		NO



Cod. 1T21658

Clay Grés	DN 250	N - Class 160*	②
	DN 250	H - Class 240*	③

ID = Internal Diameter **OD** = Outside Diameter **S** = Wall thickness **DN** = Nominal Diameter

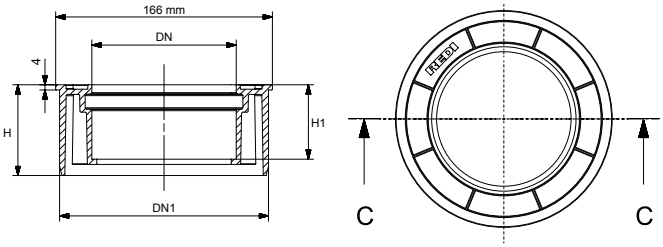


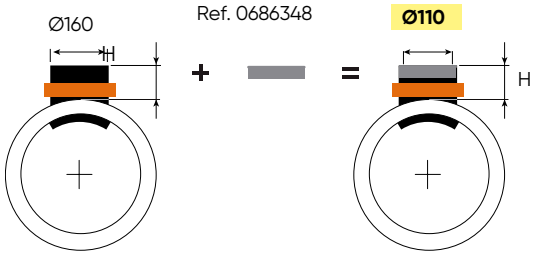
Compact inverter reducer
Tampon de réduction avec joint
Reducción concéntrica

DN	DN1	DN2	H	H1	S	Reference Black			Note
110	160	166	69.5	57	4	0686348	16	384	

Material: PVC-U
Gasket: locked premonted EN681
Dimensions complying EN1401/EN1329

** See UDG Sewage fittings*





Recommended for installation on Easy Clip City, Link and Tech



City

Reference
143ID58
1432658
1431658



Link 160

Reference
1A16L58
1C16L58
1D16L58
1E16L58
1G16L58
1H16L58
1J16L58
1K16L58
1X16L58
1Y16L58
1Z16L58



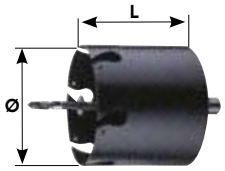
Tech

Reference
1T11658
1T21658



Not for installation on Easy Clip Plus

Plus

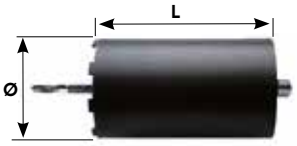


DUSS made in Germany

Hole saw for plastic pipes
Scie cloches pour tubes plastiques PP PE PVC
Corona de corte para tubo de material PLÁSTICO

Ø (mm)	L (mm)	Mandren	Pilot bit	Long endurance	Reference			Note
200	163	13mm	✔	✔	AD2013P	1	-	Pipes from Ø250
152(6")	163	13mm	✔	✔	AD1513P	1	-	Pipes from Ø200

Suitable for drilling materials:
PVC / PP / PE / GRP (sand free)



DUSS made in Germany

Hole saw for NON plastic pipes
Scie cloches pour tubes béton ou grès
Corona de corte para tubo de material NO PLÁSTICO

Ø (mm)	L (mm)	Mandren	Pilot bit	Long endurance	Reference			Note
202	300	SDS max	✔	✔	AC2CSDZ	1	-	Pipes from Ø250
152(6")	300	SDS max	✔	✔	AC1KSDZ	1	-	

Suitable for drilling materials:
Reinforced concrete / Reinforced corrugated steel / Fiber glass filled with sand / Clay

Spare parts - Pièces de rechang - Repuestos



Spanner for CITY and TECH
Clé de serrage pour CITY ou TECH
Llave para CITY o TECH

DN	Reference			Note
160	0996606	1	-	Open


closed

Spanner for PLUS and LINK 160
Clé de serrage pour PLUS ou LINK 160
Llave para PLUS o LINK 160

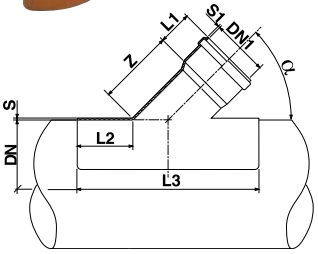
DN	Reference			Note
160	0995508	1	-	Closed



Spanner for LINK 200
Clé de serrage pour LINK 200
Llave para LINK 200

DN	Reference			Note
200	0996008	1	-	Open





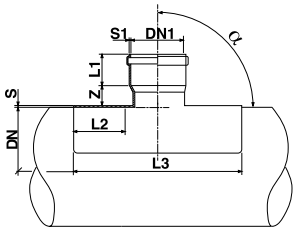
Saddle SCJ 45°

Clip à coller 45° - Injerto 45° con junta labiada

DN	DN1	α	S	S1	Z	L1	L2	L3	Reference RAL 7037 Grey	Reference RAL 8023 Red		
160	125	45°	3.2	3.0	128	62	65	300	0438042	0438091	15	120
200	125	45°	4.1	3.0	128	62	85	340	0438242	0438291	10	80
200	160	45°	4.1	3.6	165	73	85	390	0438442	0438491	10	60
250	125	45°	5.5	3.0	128	62	92	350	0438642	0438691	10	70
250	160	45°	5.5	3.6	165	73	92	400	0438842	0438891	6	48
315	125	45°	5.5	3.0	128	62	92	350	1439042	1439091	5	40
315	160	45°	6.9	3.6	165	73	110	432	0439442	0439491	5	30
315	200	45°	6	4.4	236	95	86	513	1433242	1433291	1	20
400	125	45°	5.5	3.0	128	62	92	350	1439142	1439191	5	40
400	160	45°	5.5	3.6	165	73	92	400	1439542	1439591	3	24
500	125	45°	5.5	3.0	128	62	92	350	1439242	1439291	5	100
500	160	45°	5.5	3.6	165	73	92	400	1439642	1439691	3	24

Fixed Ring Lip Ring





Saddle SCJ 90°

Clip à coller 90° - Injerto 90° con junta labiada

DN	DN1	α	S	S1	Z	L1	L2	L3	Reference RAL 7037 Grey	Reference RAL 8023 Red		
200	160	90°	4.4	3.6	34	58.5	77	322	0434342	0434351	10	80
250	160	90°	4.4	3.6	34	58.5	77	322	1424242	1424251	8	64
315	160	90°	-	-	-	-	-	-	-	142525E	8	64
315	200	90°	6	4.4	45	86	75	390	1425552	-	1	26
400	160	90°	-	-	-	-	-	-	-	142625E	7	56

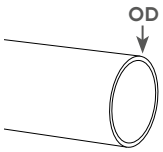
*** *Price on request*

Fixed Ring Lip Ring

on-line Easy Clip CONFIGUATOR https://configuratore.redi.it/

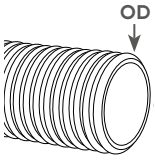
Guide to choose the right mechanical saddle

Installation on compact or multilayer smooth plastic pipes OD
Installation tube PVC PP PE lisse epaisseur OD - Instalación tubo liso de pared compacta OD



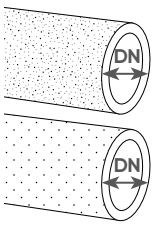
Pipe Ø 200	Pipe Ø 250	Pipe Ø 300	Pipe Ø 315	Pipe Ø 400	Pipe Ø 500	Pipe Ø 600	Pipe Ø 630	Pipe Ø 700	Pipe Ø 710	Pipe Ø 800	Pipe Ø 1000	Pipe Ø 1200	Diam. inlet Easy Clip
1431158 City	1432258 City		1433358 City	1434458 City									Ø 160
			1A16058 Plus	1D16058 Plus	1G16058 Plus				1J16058 Plus				Ø 160
			1Y16058 Plus	1X16058 Plus									Ø 160 Shorter
			1A16L58 Link	1D16L58 Link	1G16L58 Link				1J16L58 Link				Ø 160
			1A20058 Link	1D20058 Link	1G20058 Link				1J20058 Link				Ø 200
			1Y16L58 Link	1X16L58 Link									Ø 160 Shorter
			1Y20058 Link	1X20058 Link									Ø 200 Shorter

Twin/structured wall plastic pipe OD
Installation tube annelé epaisseur OD - Instalación tubo corrugado de espesor OD



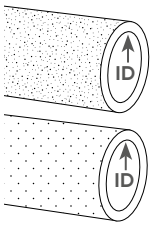
Pipe Ø 200	Pipe Ø 250	Pipe Ø 300	Pipe Ø 315	Pipe Ø 400	Pipe Ø 500	Pipe Ø 600	Pipe Ø 630	Pipe Ø 700	Pipe Ø 710	Pipe Ø 800	Pipe Ø 1000	Pipe Ø 1200	Diam. inlet Easy Clip
			1A16058 Plus	1D16058 Plus	1G16058 Plus		1K16058 Plus			1K16058 Plus			Ø 160
			1A16L58 Link	1D16L58 Link	1G16L58 Link					1K16L58 Link			Ø 160
			1A20058 Link	1D20058 Link	1G20058 Link					1K20058 Link			Ø 200
			1Y16L58 Link	1X16L58 Link									Ø 160 Shorter
			1Y20058 Link	1X20058 Link									Ø 200 Shorter

Reinforced concrete and clay pipe DN
Installation tube en béton et grès DN - Instalación tubo de hormigón o gres DN



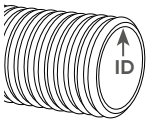
Pipe Ø 200	Pipe Ø 250	Pipe Ø 300	Pipe Ø 315	Pipe Ø 400	Pipe Ø 500	Pipe Ø 600	Pipe Ø 630	Pipe Ø 700	Pipe Ø 710	Pipe Ø 800	Pipe Ø 1000	Pipe Ø 1200	Diam. inlet Easy Clip
1431658 City	1432658 City												Ø 160
	1T21658 Tech	1T11658 Tech											Ø 160
	1T11658 Tech												Ø 160

Reinforced concrete and clay pipe ID
Installation tube en béton et grès ID - Instalación tubo de hormigón o gres ID



Pipe Ø 200	Pipe Ø 250	Pipe Ø 300	Pipe Ø 315	Pipe Ø 400	Pipe Ø 500	Pipe Ø 600	Pipe Ø 630	Pipe Ø 700	Pipe Ø 710	Pipe Ø 800	Pipe Ø 1000	Pipe Ø 1200	Diam. inlet Easy Clip
		1C16058 Plus		1E16058 Plus	1H16058 Plus			1K16058 Plus					Ø 160
		1C16L58 Link		1E16L58 Link	1H16L58 Link			1K16L58 Plus					Ø 160
		1C20058 Link		1E20058 Link	1H20058 Link			1K20058 Link					Ø 200

Twin/structured wall plastic pipe ID
Installation tube annelé ID - Instalación tubo corrugado ID



Pipe Ø 200	Pipe Ø 250	Pipe Ø 300	Pipe Ø 315	Pipe Ø 400	Pipe Ø 500	Pipe Ø 600	Pipe Ø 630	Pipe Ø 700	Pipe Ø 710	Pipe Ø 800	Pipe Ø 1000	Pipe Ø 1200	Diam. Innesto Easy Clip
	1432658 City												Ø 160
		1A16058 Plus		1E16058 Plus	1G16058 Plus	1H16058 Plus		1K16058 Plus					Ø 160
		1A16L58 Link		1E16L58 Link	1G16L58 Link	1H16L58 Link		1K16L58 Link					Ø 160
		1A20058 Link		1E20058 Link	1G20058 Link	1H20058 Link		1K20058 Link					Ø 200
		1Y16L58 Link		1Z16L58 Link									Ø 160 Shorter
		1Y20058 Link		1Z20058 Link									Ø 200 Shorter



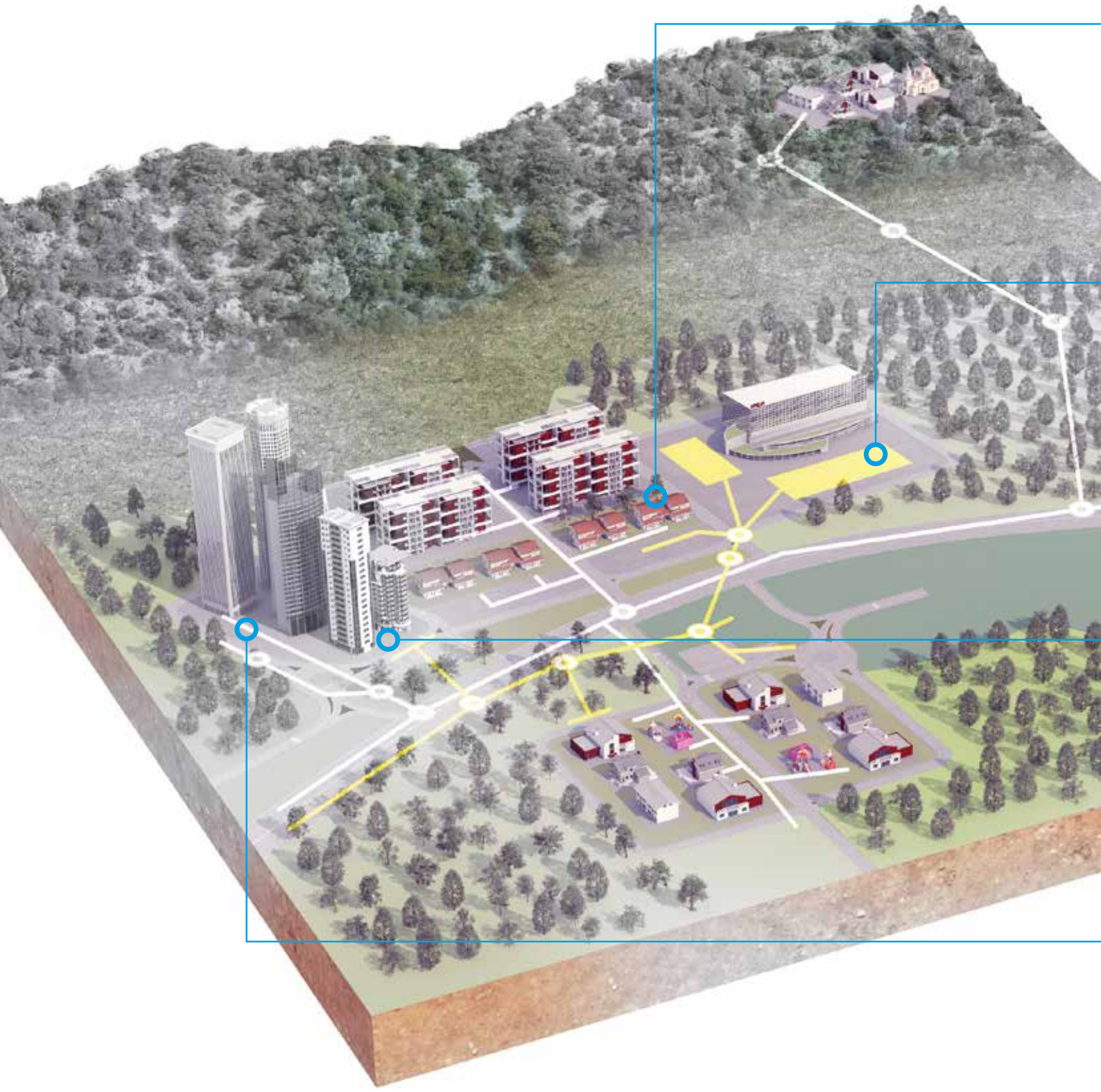
Wastewater rainwater treatment, rainwater reuse

ISEA

aliaxis

Sustainable solutions for wastewater treatment

With its ISEA product range, Aliaxis offers a complete range of systems for the treatment and management of wastewater and rainwater. The treatment systems can be installed in civil, industrial and commercial buildings.
Water treatment and management contributes to preventing pollution of the water table and soil.





Wastewater from buildings: grey water and black water

Grease separators, septic tanks, Imhoff tanks and activated sludge or percolating filter treatment systems.



First flush systems

Management of rainwater run-off from paved surfaces such as car parks and yards.



Rainwater recycling

Collection and reuse of rainwater for irrigation and household uses (washing machines, toilet cisterns, car washing).



Water treatment and raising

Treatment of water containing oils from civil, industrial or commercial uses. Water raising stations to overcome differences in height and carry the water to higher areas.

Pre-treatment solutions



Grease Trap Family

Size 1-30



Grease Trap Elliptic

Size 1-3



Grease Trap Pubblic

Size 21-22



Bio HT Imhoff Tank

Users frin 3 to 85



Bio PC

Elliptical IMHOFF tank

Users from 3 to 4



Bio Maxi

IMHOFF tank

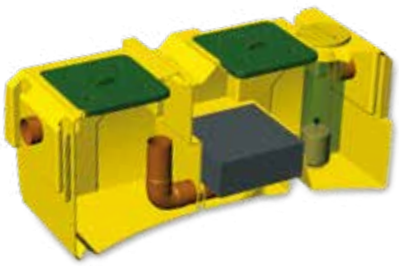
Users from 120 to 300



Oil Trap

Oil and hydrocarbon separator CLASS II

Flow rate from 0,5 to 30 l/s



Otto-PE

Oil and hydrocarbon separator CLASS I

Flow rate from 1,5 to 6,0 l/s

Wastewater treatment units



Anapackage

Anaerobic percolating filter

Users from 5 to 100



Package

Aerobic percolating filter

Users from 5 to 100



Super Plus

Activated sludge systems

Users from 5 to 25



Super Plus Mix

Activated sludge systems

Users from 5 to 30



Compact

Activated sludge systems

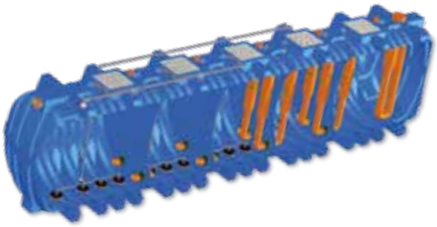
Users from 32 to 60



Poli 1

Activated sludge systems

Users from 50 to 200



Polimaxi

Activated sludge systems

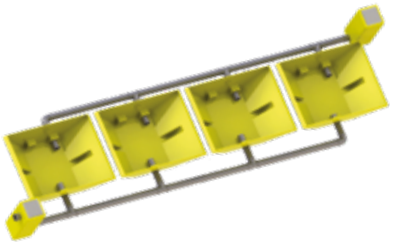
Users from 130 to 300



Country

Reed bed system

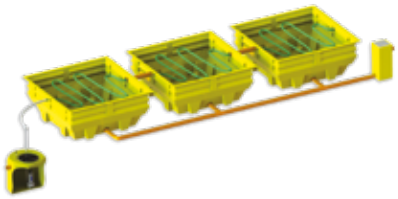
Users from 2 to 20



Country Maxi

Reed bed system

Users from 2 to 20



Country Vertical Flow

Reed bed system

Users from 2 to 100



Ecowash

Biofiltration system

Flow rate from 1,5 to 5 m^3/h

Lifting stations

Type
250 - 500 >



Type
1000 >





Pratica Family - Pratica - Pratica type rotomolding

Capacity from 250 to 1.000 liters

Pratica Pubblic

Capacity from 3.000 to 5.000 liters

Water recovery







Eco Box

Refinement system

Users from 1 to 200

Irriga Plus

Capacity from 3.500 to 41.000 liters

Irriga Plus Flat

Capacity from 5.000 to 10.000 liters

Storage for liquids









Tank

Capacity from
550 to 12.500 liters

Flat

Capacity from
5.000 liters

Tank-R

Capacity from
3.000 to 6.000 liters

Maxitank

Capacity from
12.500 to 41.000 liters

0011003	67
002320M	80
002400M	80
003320M	80
003400M	80
0041052	122
0041552	122
004320M	80
004400M	80
005320M	80
005400M	80
0076501	248
0076501	279
0076502	248
0100411	89
0100455	23
01004P8	40
0100511	89
0100555	23
01005P8	40
0100755	23
01007P8	40
0100955	23
01009P8	40
0101142	258
0101155	23
010115E	258
01011P8	40
01011R2	122
0101242	258
0101255	23
010125E	258
01012P8	40
0101642	258
0101655	23
010165E	258
01016P8	40
0101742	257
0102042	258
010205E	258
0102552	258
0102591	258
0103052	258
0103091	258
0110411	89
0110455	23
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0110511	89
0110555	23
01105P8	40
0110755	23
01107P8	40
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0111255	23
011125E	258
01112P8	40
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0111655	23
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01116P8	40
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011205E	258
0112552	258
0112591	258
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0113091	258
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0123002	57
0123052	258
0123091	258
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0125002	57
01307P8	41
01309P8	41
013110M	57
0131142	259
013115E	259
01311P8	41
01311R2	122
013120M	57
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013125E	259
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013165E	259
01316P8	41
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013205E	259
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0143002	58
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0144002	58
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018100M	55
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0201303	67
0209202	70
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0212604	241
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0219004	233
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0219504	228
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0221642	260
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023050M	56
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023080M	56
023100M	56
023110M	56
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0233002	56
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024200M	58
0242141	261
0242142	261
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024240M	79
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0243002	58
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02514A2	66
02544A2	66
02555A2	66
02564A2	66
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026040M	72
027030M	57
027040M	57
027050M	57
027100M	57
028030M	56
028040M	56
028050M	56
028100M	56
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02912P8	43
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030115E	262
03011P8	41
0301402	59
0301602	59
0301642	262
0301655	25
030165E	262
03016P8	41
0302002	59
0302042	262
0302051	262
0302055	25
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0302552	262
0302591	262
0303002	59
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0311642	262
0311655	25
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0311742	263
0311832	263
0311932	257
0312002	60
0312042	262
031205E	262
0312132	263
0312151	263
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0314391	262
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031720M	60
031920M	60
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031925E	262
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03409P8	42
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034115E	264
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0342002	62
0342502	62
0342552	264
0342591	264
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035015E	264
0350242	264
035025E	264
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0351602	63
0351642	264
035165E	264
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035310M	63
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04/2021

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