



PVC-U soil, vent & waste system
Solvent cement welding system made of fire-resistant
PVC-U (Me Class)

PVC-U

Soil, vent & waste system

Pipes and fittings for quality guarantee

The PVC pipes and fittings used in the drainage systems must conform to the sector standard which is established by the National Italian Committee for Standardisation (UNI); this conformity as per Art. 7 of Italian Law 46/90 must be certified by the mark issued by the Italian Institute of Plastics (IIP):



With regard to this, we remind that REDI only guarantees the perfect operation of the PVC ME drainage system when all its parts (pipes and fittings) are from its own production.

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  Me PVC fittings for building water drainage systems with the French  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/cm ³	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.

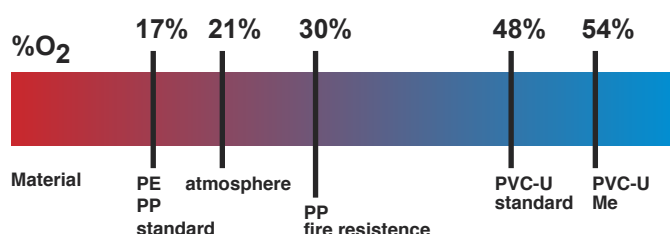
In the following page, a summarising table contains information obtained from laboratory tests.

Fire resistance

The oxygen level contained in the different materials used for building the most common sanitary drainage 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 drainage systems.



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).

■ 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.

PVC - Chemical resistance

Product	Conc. %	Temp. 20 °C	Temp. 60 °C	Product	Conc. %	Temp. 20°	Temp. 60°
ACETIC ACID	60	S	L	HYDROFLUORIC ACID	60	L	NS
ACETIC ACID MONOCHLORIDE	SOL.	S		HYDROGEN	100	S	S
ACETIC ALDEHYDE	100	NS	-	HYDROGEN DIOXIDE	30	S	S
ACETIC ANHYDRIDE	100	NS	NS	HYDROGEN SULPHIDE	100	S	S
ACETONE	100	NS	NS	IRON CHLORIDE	SOL. SAT.	S	S
ADIPIC ACID	SOL. SAT.	S	L	LACTIC ACID	10	S	L
ALLYL ALCOHOL	90	L	S	LACTIC ACID	10~90	L	NS
ALUMINUM CHLORIDE	SOL. SAT.	S	S	LEAD ACETATE	SOL. SAT.	S	S
ALUMINUM SULPHATE	SOL. SAT.	S	S	LEAD TETRAETHYL	100	S	-
AMMONIA (AQUEOUS)	100	L	NS	MAGNESIUM CHLORIDE	SOL. SAT.	S	S
AMMONIA (GAS)	100	S	S	MAGNESIUM SULPHIDE	SOL. SAT.	S	S
AMMONIA (SOLUTION)	SOL. DIL.	S	L	MALEIC ACID	SOL. SAT.	S	L
AMMONIUM CHLORIDE	SOL. SAT.	S	S	METHYL ALCOHOL	100	S	L
AMMONIUM FLUORIDE	20	S	L	METHYL METHACRYLATE	100	NS	NS
AMMONIUM NITRATE	SOL. SAT.	S	S	METHYLENE CHLORIDE	100	NS	NS
AMMONIUM SULPHATE	SOL. SAT.	S	S	MILK		S	S
AMYL ACETATE	100	NS	NS	NICKEL SULPHIDE	SOL. SAT.	S	S
AMYL ALCOHOL	100	S	L	NICOTINIC ACID	CONC.	S	S
ANILINE	100	NS	NS	NITRIC ACID	<46	S	L
ANILINE	SOL. SAT.	NS	NS	NITRIC ACID	46~98	NS	NS
ANILINE HYDROCHLORIDE	SOL. SAT.	NS	NS	OILS		S	S
ANTIMONY CHLORIDE	90	S	S	OLEIC ACID	100	S	S
ARSENIC ACID	SOL. DIL.	S	-	OLEUM	10% of SO ³	NS	NS
BEER		S	S	OXALIC ACID	SOL. DIL.	S	L
BENZALDEHYDE	0,1	NS	NS	OXALIC ACID	SOL. SAT.	S	S
BENZENE	100	NS	NS	OXIGEN	100	S	S
BENZOIC ACID	SOL. SAT.	L	NS	OZONE	100	NS	NS
BORAX	SOL. SAT.	S	L	PERCHLORIC ACID	10	S	L
BORIC ACID	SOL. DIL.	S	L	PERCHLORIC ACID	70	L	NS
BROMINE (LIQUID)	100	NS	NS	PETROL	80/20	NS	NS
BROMINE ACID	10	S	-	PHENOL	90	NS	NS
BUTADIENE	100	S	S	PHOSPHINE	100	S	S
BUTANE	100	S	-	PHOSPHOR TRICHLORIDE	100	NS	-
BUTYL ACETATE	100	NS	NS	PHOSPHORIC ACID	30	S	L
BUTYL PHENOL	100	NS	NS	PICRIC ACID	SOL. SAT.	S	S
BUTYLENE	100	S	L	POTASSIUM BICHROMATE	40	S	S
BUTYRIC ACID	20	S	L	POTASSIUM BROMIDE	SOL. SAT.	S	S
BUTYRIC ACID	98	NS	NS	POTASSIUM CHLORIDE	SOL. SAT.	S	S
CALCIUM CHLORIDE	SOL. SAT.	S	S	POTASSIUM CHROMATE	40	S	S
CALCIUM NITRATE	50	S	S	POTASSIUM CYANIDE	SOL.	S	S
CARBON DIOXIDE	100	S	S	POTASSIUM FERRICYANIDE	SOL. SAT.	S	S
CARBON SULPHIDE	100	NS	NS	POTASSIUM FERROCYNIDE	SOL. SAT.	S	S
CARBON TETRACHLORIDE	100	NS	NS	POTASSIUM HYDROXIDE	SOL.	S	S
CETYL ACID	100	S	S	POTASSIUM NITRATE	SOL. SAT.	S	S
CHLORINE (DRY GAS)	100	L	NS	POTASSIUM PERMANGANATE	20	S	S
CHLORINE (LIQUID)	SOL. SAT.	L	NS	POTASSIUM PERSULFATE	SOL. SAT.	S	L
CHLOROSULPHONIC ACID	100	L	NS	PROPANE (GAS LIQUID)	100	S	-
CHROMIC ACID	1~50	S	L	PYRIDINE	100	NS	-
CITRIC ACID	SOL. SAT.	S	S	SEA WATER		S	L
COPPER CHLORIDE	SOL. SAT.	S	S	SILVER NITRATE	SOL. SAT.	S	L
COPPER FLUORIDE	2	S	S	SOAP	SOL.	S	L
CREOSOL	SOL. SAT.	-	NS	SODIUM BENZOATE	35	S	L
CRESOL ACID	SOL. SAT.	NS	NS	SODIUM BISULPHITE	SOL. SAT.	S	S
CROTONIC ALDEHYDE	100	NS	NS	SODIUM CHLORATE	SOL. SAT.	S	S
CYCLOHEXANOL	100	NS	NS	SODIUM FERRICYANIDE	SOL. SAT.	S	S
CYCLOHEXANONE	100	NS	NS	SODIUM HYDROXIDE	SOL.	S	L
DEVELOPING BATH		S	S	SODIUM HYPOCHLORITE	100 (13% CL.)	S	L
DEXTRINE	SOL. SAT.	S	L	SODIUM SULPHITE	SOL. SAT.	S	L
DICHLOROETHYLENE	100	NS	NS	SUGAR	SOL. SAT.	S	S
DIGLYCOLIC ACID	18	S	L	SULPHUR ACID	SOL.	S	S
DIMETHYLAMINE	30	S	-	SULPHUR ANHYDRIDE	100 (LIQUID)	L	NS
ETHYL ACETATE	100	NS	NS	SULPHUR ANHYDRIDE	100 (DRY)	L	NS
ETHYL ACRYLATE	100	NS	NS	SULPHURIC ACID	40~90	S	L
ETHYL ALCOHOL	95	S	L	SULPHURIC ACID	96	L	NS
ETHYL ETHER	100	NS	L	TANNIC ACID	SOL.	S	S
ETHYLENE GLYCOL	CONC.	L	L	TARTARIC ACID	SOL.	S	S
FLUOSILICIC ACID	32	S	S	TIN CHLORIDE	SOL. SAT.	S	S
FORMALDEHYDE	SOL.	S	S	TOLUENE	100	NS	NS
FORMALDEHYDE	40	S	S	TRICHLOROETHYLENE	100	NS	NS
FORMIC ACID	1~50	S	L	TRIMETHYL PROPANE	<10	S	L
FURFURAL ALCOHOL	100	NS	NS	UREA	10	S	L
GLUCOSE	SOL. SAT.	S	L	URINE		S	L
GLYCERIN	100	S	S	VINAGRE		S	S
GLYCOLIC ACID	30	S	S	VINYL ACETATE	100	NS	NS
GOLDEN SYRUP	SOL.	S	L	WINE		S	S
HYDRAZINE BENZENE	100	NS	NS	XYLENE	100	NS	NS
HYDRAZINE BENZENE CLORIC	97	NS	NS	YEAST	SOL.	S	L
HYDROBROMIC ACID	50	S	L	ZINC CHLORIDE	SOL. SAT.	S	S
HYDROCHLORIC ACID	>30	S	S				

TS = Without corrosion

L = Limited corrosion

NS = Corrosion

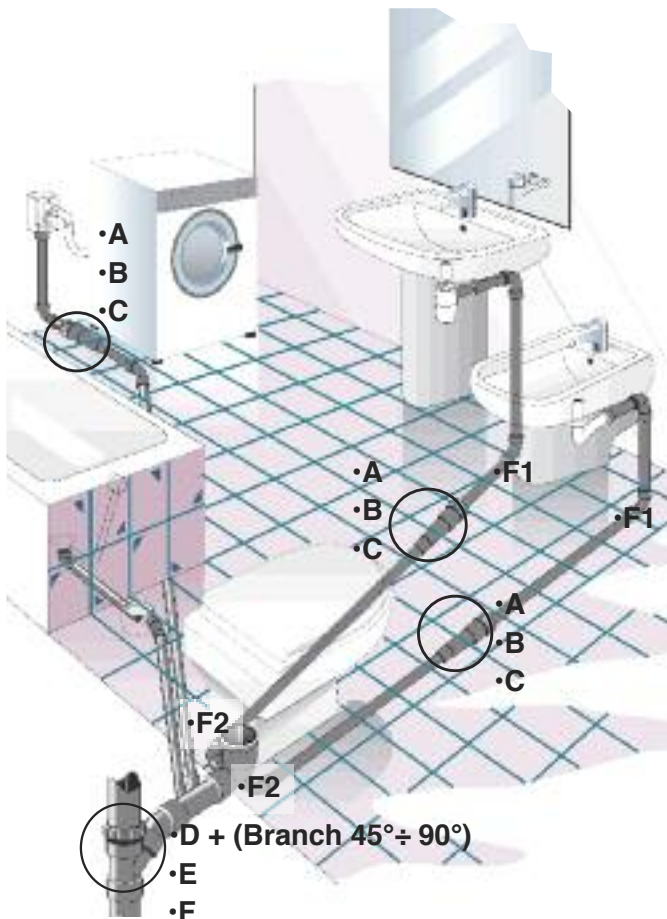
For special applications it is recommended to contact the REDI Technical Department.

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.

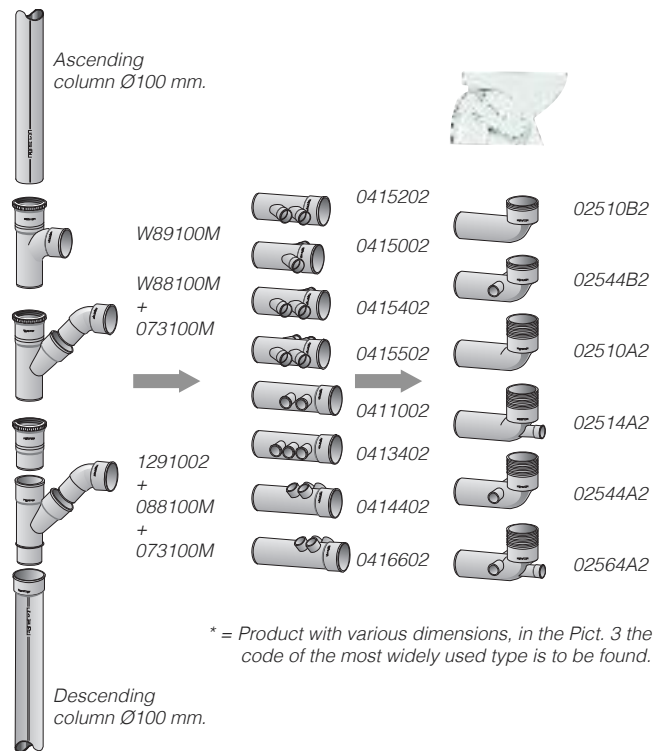
■ A vertical expansion joint (D) should be inserted onto each level of the vertical columns above the branch that connects to the bend and the toilet bowl. Alternatively, a branch equipped with an expander (E or F) can be used to directly connect to the column.



Pict. 1

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.

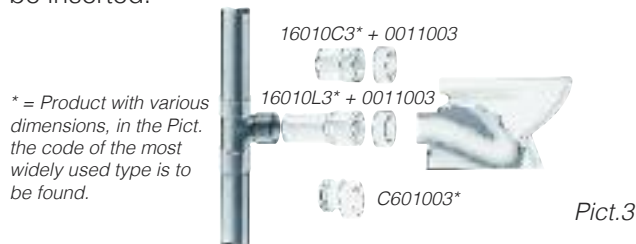


Pict. 3

* = 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.

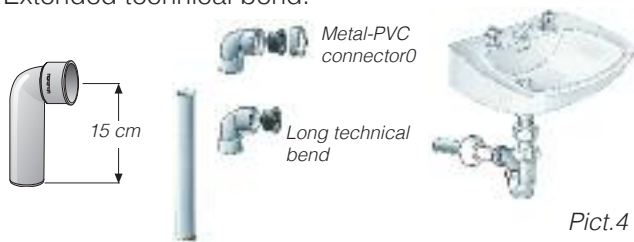


Sink/bidet connection

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.

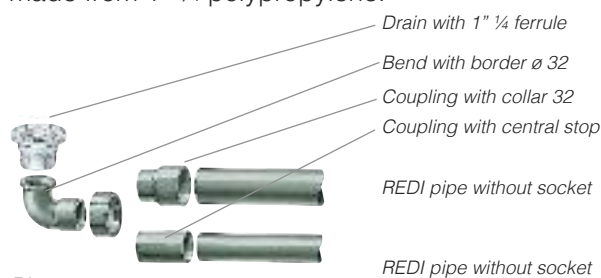


Technical bends with ferrule: Guarantee greater stability of the technical seal which bears slight misalignment of the sleeve connection pipe better.

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.



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)



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 concerns 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

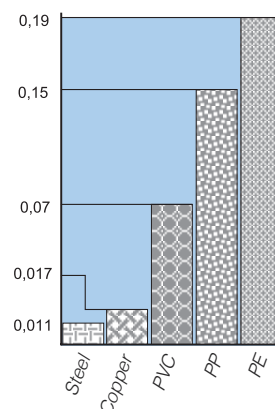
- for 1 °C of heat gradient

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)

T_1 = 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)

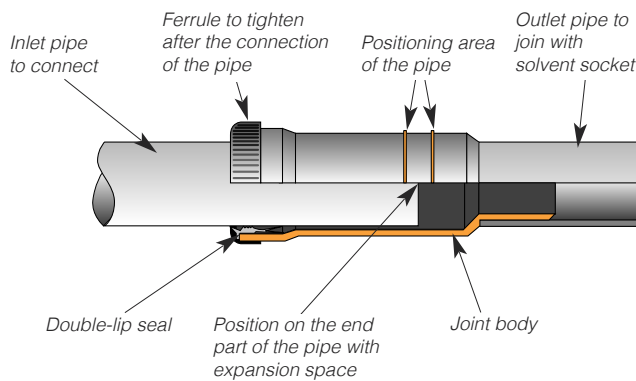
L = length of the section in question (e.g. 3 linear metres)

$(T - T_1) \times 0.07 \times L$

specifically in the case under examination: $(90-20) \times 0.07 \times 3 = 15 \text{ mm}$

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

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).

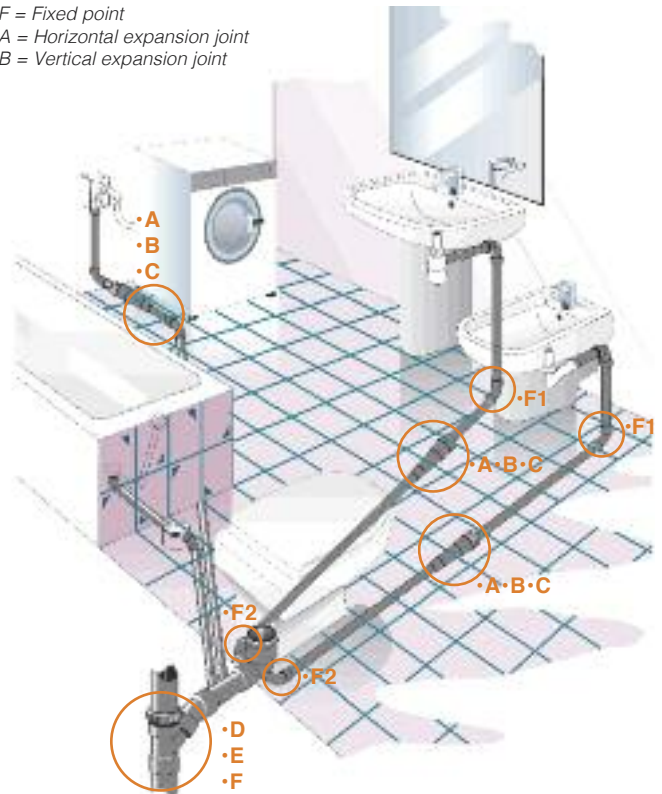
3) During the installation of the expansion joint, the following requirements must be observed:

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.

d) during the installation of the branch with joint B (Pict. 9) a fixed point of the column is normally created; the socket of the branch equipped with a seal must remain protected by the casting in order to allow the descending column to expand.

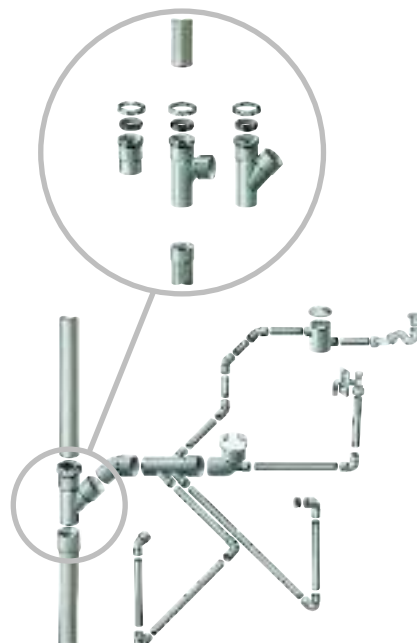
F = Fixed point
 A = Horizontal expansion joint
 B = Vertical expansion joint



Pict. 9

Pict. 10

Vertical expansion-joint and insertion according to the mounting diagram



Expansion joint - horizontal

Manchon de dilatation horizontal

M/F



DN (mm)	Reference	Pack.	Type
32	1290302	5/80	A (see picture 9 on page 31)
40	1290402	5/60	B (see picture 9 on page 31)
50	1290502	5/40	C (see picture 9 on page 31)
63	W296302	32/-	
75	W297502	20/400	
80	W298002	35/-	
100	W291002	20/540	
110	W291102	1/20	
125	W291202	16/-	
160	W291602	18/216	

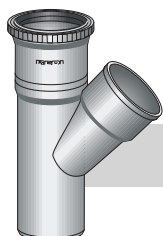
Expansion joint - vertical

Manchon de dilatation vertical

M/F



DN (mm)	Reference	Pack.	Type
100	1291002	10/240	D (see picture 9 on page 31)

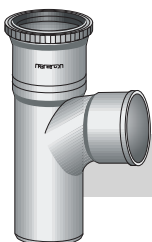


Expansion branch 45°

Culotte de dilatation

M/F

DN (mm)	Reference	Pack.	Type
100	W88100M	20	E (see picture 9 on page 31)



Expansion branch 87°30'

Té de dilatation

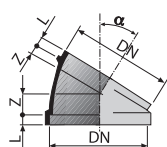
M/F

DN (mm)	Reference	Pack.	Type
100	W89100M	20/400	F (see picture 9 on page 31)

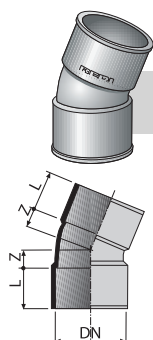
Segment Bend 15° / 30°

Secteur de coude

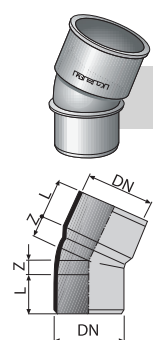
M/F



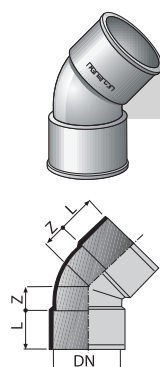
DN (mm)	Reference	Pack.	L (mm)	Z (mm)	α	Note
100	017100M	40/960	20	9	15°	
100	018100M	40/960	20	16	30°	

Bend Double Socket 22°30'*Coude***F/F**

DN (mm)	Reference	Pack.	L (mm)	Z (mm)	Note
32	028030M	10/100	23	5,5	
40	028040M	10/60	27	6,5	
50	028050M	10/40	32	7,5	
100	028100M	12/288	56	20	

Bend 22°30'*Coude***M/F**

DN (mm)	Reference	Pack.	L (mm)	Z (mm)	Note
32	078030M	10/100	23	5,5	
40	078040M	10/150	27	6,5	
50	078050M	10/40	32	7,5	
100	078100M	12/288	56	20	

Bend Double Socket 45°*Coude***F/F**

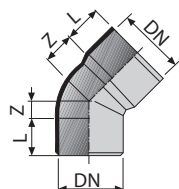
DN (mm)	Reference	Pack.	L (mm)	Z (mm)	Note
32	023030M	10/100	23	11	
40	023040M	10/140	27	13	
50	023050M	10/80	32	17	
63	023060M	45/1080	39	22	
75	023070M	25/600	44,5	25	
80	023080M	20/480	47	26,5	
100	023100M	40/640	53	33	
110	023110M	30/240	56	38	
125	023120M	20/160	61	41	
140	023140M	15/120	61	47	
160	023160M	8/64	72	50	
200	023200M	5/40	85	65	
250	0232502	1/27	101	79	
315	0233002	1/14	116	100	



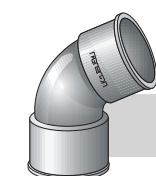
Bend 45°

Coude

M/F



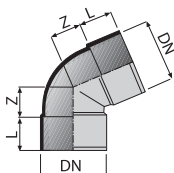
DN (mm)	Reference	Pack.	L (mm)	Z (mm)	Note
32	073030M	10/100	23	11	
40	073040M	10/150	27	13	
50	073050M	10/80	32	17	
63	070060M	50/1200	39	22	
75	073070M	25/600	44,5	25	
80	073080M	25/600	47	26,5	
100	073100M	40/640	53	33	
110	073110M	8/192	56	38	
125	073120M	20/160	61	41	
140	0121402	20/160	61	47	
160	0701602	15/120	72	50	
200	0702002	5/40	85	65	
250	0122502	5/1	101	79	
315	0123002	1/16	116	100	
400	0124002	1/7	155	125	
500	0125002	1/4	150	160	



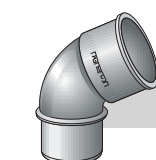
Bend Double Socket 67°30'

Coude

F/F



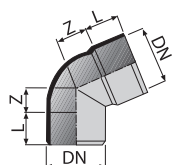
DN (mm)	Reference	Pack.	L (mm)	Z (mm)	Note
32	027030M	10/50	23	18	
40	027040M	10/50	27	21	
50	027050M	10/60	32	27	
100	027100M	30/240	57	53	



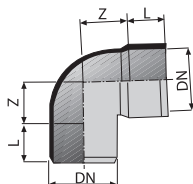
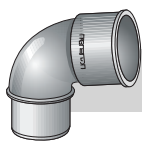
Bend 67°30'

Coude

M/F

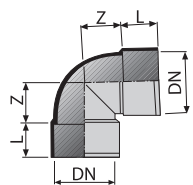
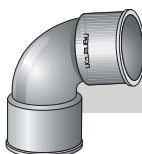


DN (mm)	Reference	Pack.	L (mm)	Z (mm)	Note
32	072030M	10/50	23	18	
40	072040M	10/50	27	21	
50	072050M	10/60	32	27	
100	072100M	30/240	57	53	
110	013110M	30/240	57	53	
125	013120M	18/144	64	58	
140	013140M		85	76	
160	013160M		75	74	
200	013200M		87	91	

Bend 87°30'*Coude***M/F**

DN (mm)	Reference	Pack.	L (mm)	Z (mm)	Note
32	074030M	10/80	23	25	
40	074040M	10/100	27	31	
50	074050M	10/50	32	39	
63	071060M	35/840	39	48	
75	074070M	10/20	44,5	58	
80	074080M	15/360	47	61	
100	074100M	30/480	57	77	
110	0711102	20/160	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

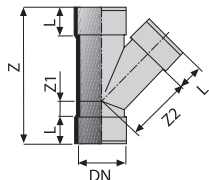
Bend Double Socket 87°30'*Coude***F/F**

DN (mm)	Reference	Pack.	L (mm)	Z (mm)	Note
32	024030M	10/80	23	25	
40	024040M	10/100	27	31	
50	024050M	10/50	32	39	
63	024060M	30/720	39	48	
75	024070M	18/432	44,5	58	
80	024080M	15/360	47	61	
100	024100M	25/400	57	77	
110	0241302	18/144	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	81	

* Long radius / Grand rayon

Branch Triple Socket 45°
Culotte

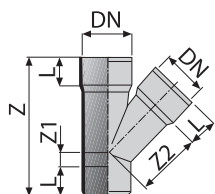
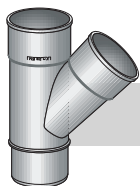
F/F



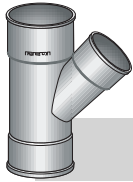
DN (mm)	Reference	Pack.	L (mm)	Z (mm)	Z ₁ (mm)	Z ₂ (mm)	Note
32	044030M	10/100	23	98	11	41	
40	044040M	10/60	27	118	13	51	
50	044050M	10/30	32	144	17	63	
63	044060M	15/360	39	180	21	81	
75	044070M	10/240	44,5	207	25	93	
80	044080M	10/240	47	224	27	103	
100	044100M	20/320	57	271	33	124	
110	044110M	10/80	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	

Branch 45°
Culotte

M/F

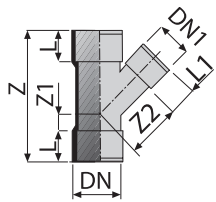


DN (mm)	Reference	Pack.	L (mm)	L1 (mm)	Z (mm)	Z ₁ (mm)	Z ₂ (mm)	Note
32	088030M	10/50	23	-	98	11	41	
40	088040M	10/60	27	-	118	13	51	
50	088050M	10/30	32	-	144	17	63	
63	088060M	20/480	39	-	180	21	81	
75	088070M	10/240	44,5	-	207	25	93	
80	088080M	8/192	47	-	224	27	103	
100	088100M	20/320	57	-	271	33	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 triple socket 45° *Culotte*

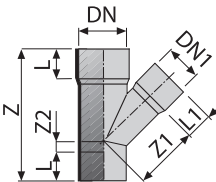
F/F



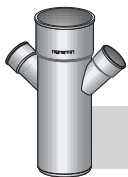
DN (mm)	DN ₁ (mm)	Reference	Pack.	L (mm)	Z (mm)	Z ₁ (mm)	Z ₂ (mm)	Note
40	32	W43430M	50/-	27	106	7	46	
50	32	W43530M	30/600	32	116	2	54	
50	40	W43630M	30/-	32	127	8	57	
160	110	0311702	6/48	72	325	2	175	

Unequal Branch 45° *Culotte*

M/F

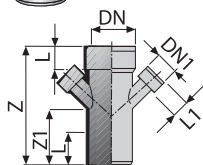


DN (mm)	DN ₁ (mm)	Reference	Pack.	L (mm)	L ₁ (mm)	Z (mm)	Z ₁ (mm)	Z ₂ (mm)	Note
75	50	031270M							
100	40	083100M	10/240	53	36	180	100	15	
100	50	083300M	10/240	53	40	193	104	8	
100	63	083500M	10/240	56	38	208	107	3	
100	80	083700M	20/160	56	47	236	116	11	
110	40	W31780M	20/300	55	35	200	10	110	
110	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° *Culotte multiple*

M/F

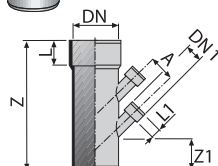


DN (mm)	DN ₁ (mm)	Reference	Pack.	L (mm)	L ₁ (mm)	Z (mm)	Z ₁ (mm)	Note
100	40	0415002	10/180	57	27	273	145	
100	50	0414902	7/168	-	-	-	-	

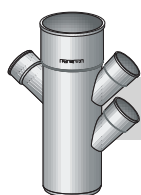


Reduced multibranch 45° *Culotte multiple*

M/F



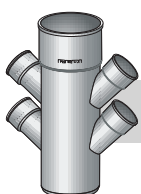
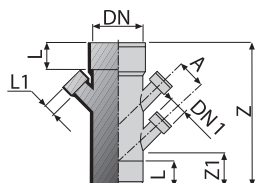
DN (mm)	DN ₁ (mm)	Reference	Pack.	L (mm)	L ₁ (mm)	Z (mm)	Z ₁ (mm)	A (mm)	Note
100	40	0415202	10/190	57	27	273	67	55	



Reduced multibranch 45°
Culotte multiple

M/F

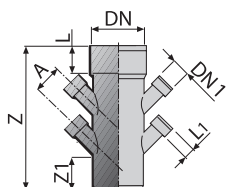
DN (mm)	DN ₁ (mm)	Reference	Pack.	L (mm)	L ₁ (mm)	Z (mm)	Z ₁ (mm)	A (mm)	Note
100	40	0415402	10/160	57	27	273	67	55	



Reduced multibranch 45°
Culotte multiple

M/F

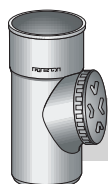
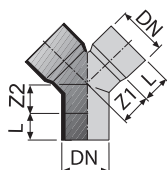
DN (mm)	DN ₁ (mm)	Reference	Pack.	L (mm)	L ₁ (mm)	Z (mm)	Z ₁ (mm)	A (mm)	Note
100	40	0415502	20	57	27	273	65	55	



Double bend 45°
Coude double

M/F

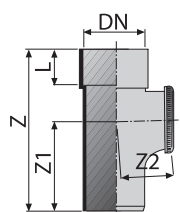
DN (mm)	Reference	Pack.	L (mm)	Z ₁ (mm)	Z ₂ (mm)	Note
100	0421002	10/180	64	56	28	

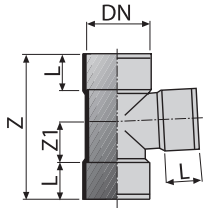
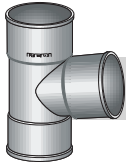


Access pipe
Té de visite

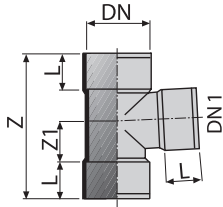
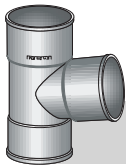
M/F

DN (mm)	Reference	Pack.	L (mm)	Z (mm)	Z ₁ (mm)	Z ₂ (mm)	Note
63	1820602	25/500	41	75	163	77	
80	1820802	20/400	47	87	194	94	
100	182100M	20/160	57	90	243	134	
110	182110M	20/160	63	95	246	119	
125	1821202	1/160	62	97	274	134	
160	1821602	1/75	74	110	333	164	
200	1822002	1/40	86	145	411	205	
250	1402502		101	199	508	255	
315	1403002		115	240	611	310	

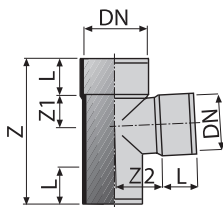
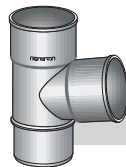


Branch triple socket 87°30'*Culotte***F/F**

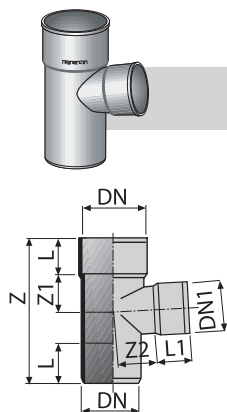
DN (mm)	Reference	Pack.	L (mm)	Z (mm)	Z ₁ (mm)	Note
32	045030M	10/50	23	88	25	
40	045040M	10/70	27	106	31	
50	045050M	10/40	32	129	39	
63	W45060M	25/600	39	159	48	
75	045070M	15/360	44	185	58	
80	045080M	10/240	47	195	61	
100	045100M	20/320	57	243	77	
110	045110M	13/104	62	268	87	
125	E45120M	10/80	60	283	100	
140	E45140M	9/72	62	260	70	
160	045160M	5/40	74	335	95	
200	1452002	6/28	86	410	120	
250	1452502	1/15	103	510	152	
315	1453002	1/8	115	620	185	

Unequal branch triple socket 87° 30'*Culotte***F/F**

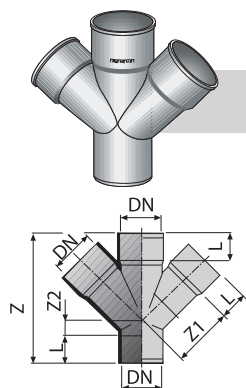
DN (mm)	DN1 (mm)	Reference	Pack.	L (mm)	Z (mm)	Z ₁ (mm)	Z ₂ (mm)	Note
160	110	0351702	8/160	74	287	73		
200	160	0460602	1/30	86	380	110		

Branch 87°30'*Culotte***M/F**

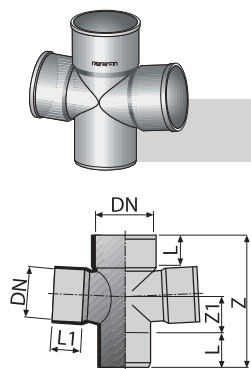
DN (mm)	Reference	Pack.	L (mm)	Z (mm)	Z ₁ (mm)	Z ₂ (mm)	Note
32	089030M	10/50	23	88	17	25	
40	089040M	10/70	27	106	21	31	
50	089050M	10/40	32	129	26	39	
63	0810602	20/480	46	160	42	42	
75	089070M	12/288	44	185	39	58	
80	089080M	15/360	47	195	40	61	
100	089100M	20/320	56	227	44	64	
110	089110M	12/96	62	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'*Culotte***M/F**

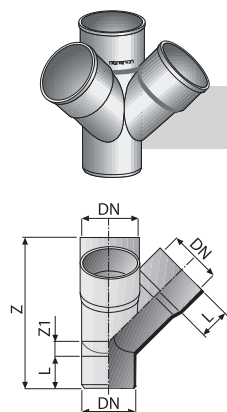
DN (mm)	DN1 (mm)	Reference	Pack.	L (mm)	Z (mm)	Z ₁ (mm)	Z ₂ (mm)	Note
75	50	035270M	20/480	45	168	40	52	
100	40	0841002	8/192	53	36	170	44	
100	50	0843002	10/240	53	40	174	44	
100	63	0845002	10/240	53	41	175	44	
110	50	035310M	10/240	59	198	50	71	
110	75	035710M	8/192	59	210	50	71	
125	110	0357202	1/152	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	125	0350202	4/32	86	380	110	120	
200	160	0352002	1/40	86	380	110	132	

Double branch 45°*Culotte double parallèle***M/F**

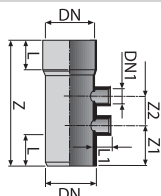
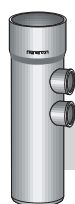
DN (mm)	Reference	Pack.	L (mm)	Z (mm)	Z ₁ (mm)	Z ₂ (mm)	Note
50	0360502	50/550	40	168	69	19	
75	036070M	8/192	45	221	102	29	
100	0361002	5/100	53	264	125	30	
110	0361102	1/96	58	289	141	32	
125	0361202	1/60	64	316	157	31	
160	0361602	1/30	72	412	201	67	

Double branch 87°30'*Culotte double parallèle***M/F**

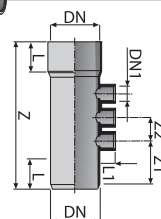
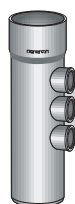
DN (mm)	Reference	Pack.	L (mm)	Z (mm)	Z ₁ (mm)	Z ₂ (mm)	Note
50	0380502	50/-	-	-	-	-	
75	038070M	25/200	-	-	-	-	
100	0381002	5/105	64	264	66	-	
110	0381102	1/120	-	-	-	-	

Double corner branch 45°*Culotte double d'équerre***M/F**

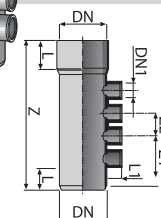
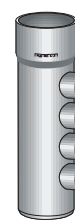
DN (mm)	Reference	Pack.	L (mm)	Z (mm)	Z ₁ (mm)	Note
100	U391002	5/70	50	271	40	

**Multibranch 87°30'***Culotte multiple***M/F**

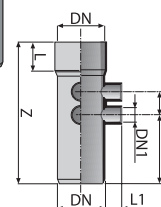
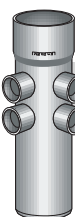
DN (mm)	DN ₁ (mm)	Reference	Pack.	L (mm)	L ₁ (mm)	Z (mm)	Z ₁ (mm)	Z ₂ (mm)	Note
100	40	0413302	1/248	40	-	-	-	-	
100	50	0411002	1/165	56	32	400	230	65	
110	50	0411102	5/120	68	42	330	110	100	

**Multibranch 87°30'***Culotte multiple***M/F**

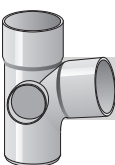
DN (mm)	DN ₁ (mm)	Reference	Pack.	L (mm)	L ₁ (mm)	Z (mm)	Z ₁ (mm)	Z ₂ (mm)	Note
100	40	0413402	1/180	56	26	330	180	52	
100	40	0413602	1/-	56	26	450	302	52	
110	50	0415602	1/126	56	32	400	165	65	

**Multibranch 87°30'***Culotte multiple***M/F**

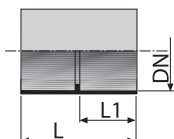
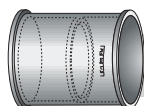
DN (mm)	DN ₁ (mm)	Reference	Pack.	L (mm)	L ₁ (mm)	Z (mm)	Z ₁ (mm)	Z ₂ (mm)	Note
100	40	0414702	1/140	-	-	450	-	-	

**Multibranch 87°30'***Culotte multiple***M/F**

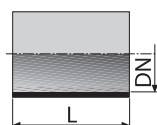
DN (mm)	DN ₁ (mm)	Reference	Pack.	L (mm)	L ₁ (mm)	Z (mm)	Z ₁ (mm)	Z ₂ (mm)	Note
100	40	0414402	8/520	56	26	330	180	52	
100	40	0414602	6/390	56	26	450	302	52	
110	50	0416602	1/144	56	32	400	230	65	

**Boss Pipe Out.75 - 87°30'***Culotte avec piquage 75***M/F**

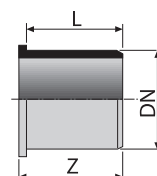
DN (mm)	Reference	Pack.	Note
110	089750M	10/800	

Coupler with central stop*Manchon avec butée***F/F**

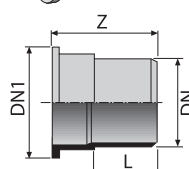
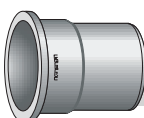
DN (mm)	Reference	Pack.	L (mm)	L ₁ (mm)	Note
32	063030M	100/-	49	23	
40	063040M	10/50	57	27	
50	063050M	40/2080	67	32	
63	063060M	20/1040	81	39	
75	063070M	20/1040	92	44,5	
80	063080M	20/1040	97	47	
100	063100M	60/960	116	57	
110	063110M	12/288	125	61	
125	063120M	35/280	138	67,5	
160	0631602	18/144	172	84	
200	0632002	8/64	217	106	
250	0632502	1/36	252	123	
315	0633002	1/20	296	145	

Slip coupler*Manchon coulissant*

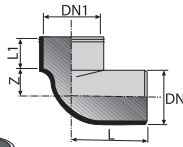
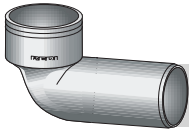
DN (mm)	Reference	Pack.	L (mm)	Note
32	061030M	10/100	49	
40	061040M	10/50	57	
50	061050M	40/2080	67	
100	061100M	60/960	116	
110	0611102	20/400	125	
125	061120M	35/280	138	
160	0611602	18/144	172	
200	0612002	8/64	217	
250	0612502	1/36	252	
315	0613002	1/20	296	

**Coupler with collar***Douille d'évacuation*

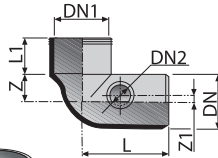
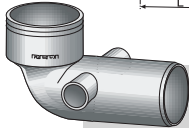
Ø ghiera	DN (mm)	Reference	Pack.	L (mm)	Z (mm)	Note
1" 1/4	32	062320M	10/100	39,5	42	
1" 1/2	40	062400M	100	39,5	42	

Coupler with collar 35 mm*Douille d'évacuation*

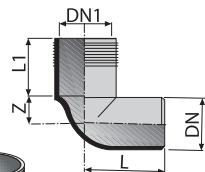
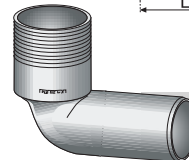
Ø ghiera	DN (mm)	DN ₁ (mm)	Reference	Pack.	L (mm)	Z (mm)	Note
1" 1/2	35,5	44	062350M	100	25,5	42	

Low WC bend*Coude WC bas*

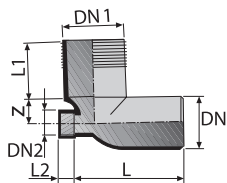
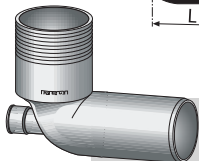
DN (mm)	DN ₁ (mm)	Reference	Pack.	L (mm)	L ₁ (mm)	Z (mm)	Note
100	116	02510B2	10/240	127	63	48	

Low WC bend with 2 side-inlets*Coude WC bas avec 2 entrées latérales*

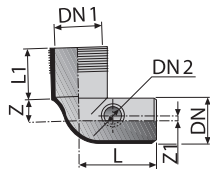
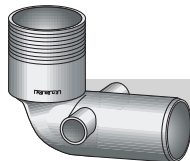
DN (mm)	DN ₁ (mm)	DN ₂ (mm)	Reference	Pack.	L (mm)	L ₁ (mm)	Z (mm)	Z ₁ (mm)	Note
100	116	40	02544B2	20/160	175	63	48	10	
100	116	50	02555B2	20/160	175	63	48	1	

Long WC bend*Coude WC haut*

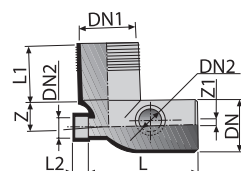
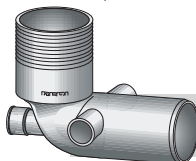
DN (mm)	DN ₁ (mm)	Reference	Pack.	L (mm)	L ₁ (mm)	Z (mm)	Note
100	116	02510A2	25/200	127	113	48	

WC bend*Coude WC*

DN (mm)	DN ₁ (mm)	DN ₂ (mm)	Reference	Pack.	L (mm)	L ₁ (mm)	L ₂ (mm)	Z (mm)	Note
100	116	40	02514A2	25/200	175	225	27	48	
100	116	50	02515A2	20/160	175	227	32	48	

Long WC bend with 2 side-inlets*Coude WC haut avec 2 entrées latérales*

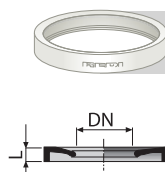
DN (mm)	DN ₁ (mm)	DN ₂ (mm)	Reference	Pack.	L (mm)	L ₁ (mm)	Z (mm)	Z ₁ (mm)	Note
100	116	40	02544A2	15/120	175	113	48	10	
100	116	50	02555A2	15/120	175	113	48	10	

Long WC bend with 3 side-inlets*Coude WC haut avec 3 entrées latérales*

DN (mm)	DN ₁ (mm)	DN ₂ (mm)	Reference	Pack.	L (mm)	L ₁ (mm)	L ₂ (mm)	Z (mm)	Z ₁ (mm)	Note
100	116	40	02564A2	15/120	225	113	27	48	10	
100	116	50	02565A2	15/120	227	113	32	48	10	

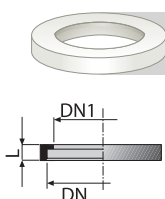
WC snap cap

Bague de sertissage WC

	DN (mm)	DN ₁ (mm)	Reference	Pack.	L (mm)	Note
	126	116,5	0201302	100	25	Colour Grey
	126	116,5	0201303	100	25	Colour White

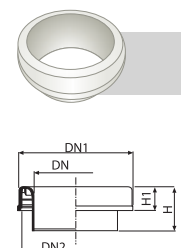
Gasket for WC bends and connectors

Joint pour coudes et manchons WC avec anneau de blocage

	DN (mm)	Reference	Pack.	L (mm)	Note
	70	7810003	100	21,5	Colour White

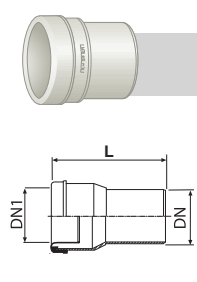
Gasket WC

Joint WC

	DN (mm)	DN ₁ (mm)	DN ₂ (mm)	Reference	Pack.	H (mm)	H ₁ (mm)	Note
	94	130	120,5	0011003	125	50,5	27	

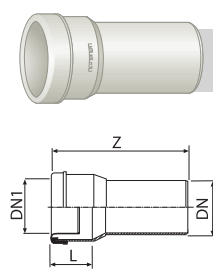
Straight WC connector

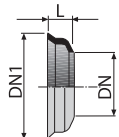
Sortie WC droite

	DN (mm)	DN ₁ (mm)	Reference	Pack.	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	without gasket / sans joint
	110	-	06031C3	1/310	80	162	White	without gasket / sans joint

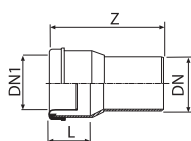
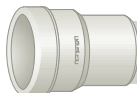
LONG Straight WC connector

Sortie WC droite longue

	DN (mm)	DN ₁ (mm)	Reference	Pack.	Z (mm)	Colour	Note
	100	95÷105	16010L3	25/200	250	White	
	110	95÷105	16031L3	20/160	250	White	
	100	-	06010L3	1/220	250	White	without gasket / sans joint
	110	-	06031L3	1/200	250	White	without gasket / sans joint

Rosette for WC connector*Rosace pour sortie WC*

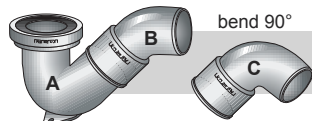
DN (mm)	DN ₁ (mm)	Reference	Pack.	L (mm)	Note
100	137	0481003	20/1620	30	Colour White
110	162	0481103	50/1200	35	Colour White

Extension for WC bend*Manchette pour coude WC*

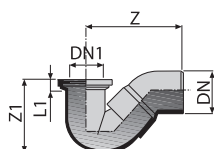
DN (mm)	DN ₁ (mm)	Reference	Pack.	L (mm)	Z (mm)	Colour	Note
116	95+105	1601103	10/240	50	135	White	
116	-	0601103	10/240	50	135	White	without gasket / sans joint



bend 45°



bend 90°

**Low backed gully with bend***Siphon pour siège à la turque*

DN (mm)	DN ₁ (mm)	Reference	Pack.	L ₁ (mm)	Z (mm)	Z ₁ (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*

DN (mm)	Reference	Pack.	Note
32	W201502	10	

Gully Trap*Coude Siphon*

DN (mm)	Reference	Pack.	Note
110	0771102	12/96	

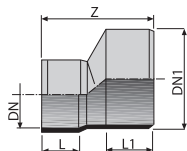
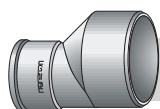
WC Bend*Coude WC*

DN (mm)	Reference	Pack.	Note
100	12510A2	20/160	

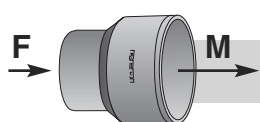
Invert reducer

Réduction excentrée

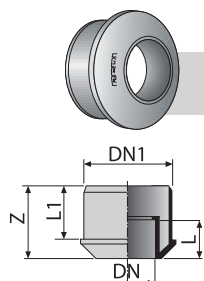
M/F



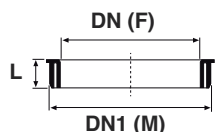
DN (mm)	DN ₁ (mm)	Reference	Pack.	L (mm)	L ₁ (mm)	Z (mm)	Note
32	50	091050M	10/150	23	32	75	
40	50	091250M	10/110	27	32	71	
40	63	0900602	70/1680	36	50	116	
40	100	090480M	30/720	36	58	142	
50	63	090260M	50/1200	40	50	114	
50	75	051070M	50/1200	40	48	115	
50	80	090080M	40/960	40	53	128	
50	100	090100M	30/720	40	62	148	
50	110	051110M	50/400	40	70	173	
63	80	0902802	50/-	43	53	122	
63	100	0903002	30/720	43	61	142	
75	110	0513102	25/375	-	-	-	
80	100	090500M	20/480	46	61	135	
100	125	090120M	45/360	57	61	134	
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*Réduction conique***F/M**

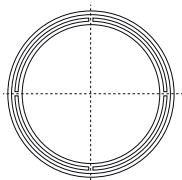
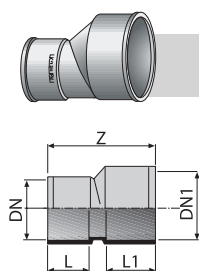
DN (mm)	Reference	Pack.	Note
32/40	0500402	100/5200	
32/63	0530602	50/2600	
40/75	0500702	50/-	
40/80	0500802	50/-	
40/125	0505202	50/1000	
50/125	0501202	50/1000	
63/75	0530702	50/-	
63/90	0530902	50/-	
63/110	0503102	25/500	
63/125	0507202	25/-	
75/90	0532902	50/750	
75/125	0503202	25/500	
80/125	0509202	50/5000	
90/100	0531002	25/500	
100/110	0533102	25/500	
100/160	0501602	20/400	
100/200	0502002		

Inside reducer*Réduction incorporée***M/F**

DN (mm)	DN ₁ (mm)	Reference	Pack.	L (mm)	L ₁ (mm)	Z (mm)	Note
32	40	054040M	150	22	26	33	
32	50	054050M	80	22	31	42	
40	50	054250M	80	26	31	39	

**Concentric reducer***Réduction concentrique***M/F**

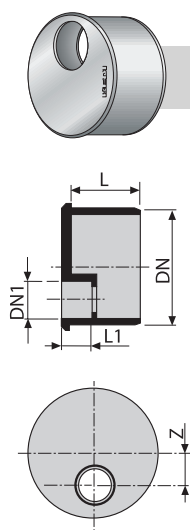
DN (mm)	DN ₁ (mm)	Reference	Pack.	L (mm)	Note
110	125	0209202	35	22	

**Invert reducer double socket***Réduction excentrée***F/F**

DN (mm)	DN ₁ (mm)	Reference	Pack.	L (mm)	L ₁ (mm)	Z (mm)	Note
32	50	092050M	10/150	23	32	75	
40	50	092250M	10/130	27	32	71	

Reducing plug *Tampon de réduction*

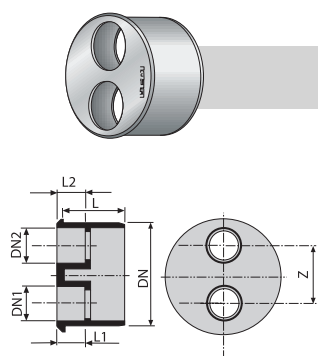
M/F



DN (mm)	DN ₁ (mm)	Reference	Pack.	L (mm)	L ₁ (mm)	Z (mm)	Note
63	32	054070M	40/3240	-	-	-	
63	40	054060M	40/3240	38	27	3	
63	50	054090M	40/3240				
80	40	054080M	25/2025	47	27	11,5	
80	50	054850M	25/2025	-	-	-	
80	63	W54110M	80/-	-	-	-	
100	32	054110M	20/1040	-	-	-	
100	40	054100M	20/1040	56	26	28	
100	50	054200M	20/1040	56	31	23	
100	63	054300M	20/1040	56	38	16	
100	80	054400M	20/1040	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	054140M	30/720	-	-	-	
125	100	054150M	10/520	-	-	-	
125	110	054160M	10/520	-	-	-	

Reducing plug *Tampon de réduction*

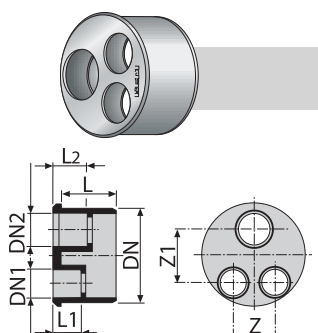
M/F



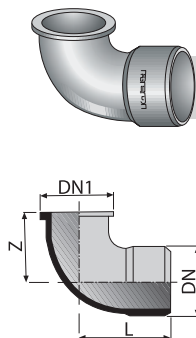
DN (mm)	DN ₁ (mm)	DN ₂ (mm)	Reference	Pack.	L (mm)	L ₁ (mm)	L ₂ (mm)	Z (mm)	Note
100	40	32	054600M	20/1040	56	26	22	60	
100	40	40	054700M	20/1040	56	26	26	56	
100	50	40	054800M	20/1040	56	31	26	51	
110	40	40	054950M	35/840	60	27	27	95	
110	50	40	054960M	35/840	60	32	27	90	

Reducing plug *Tampon de réduction*

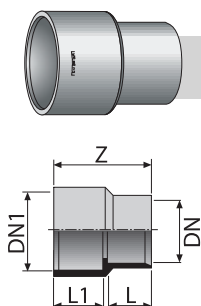
M/F



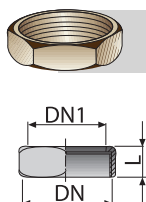
DN (mm)	DN ₁ (mm)	DN ₂ (mm)	Reference	Pack.	L (mm)	L ₁ (mm)	L ₂ (mm)	Z (mm)	Z ₁ (mm)	Note
100	32	40	054900M	20/1040	56	22	27	48	47	
110	40	40	054980M	35/840	60	27	27	56	48	
125	40	40	W54140M	20/480	-	-	-	-	-	

Bend with collar 87°30'*Coude à collet*

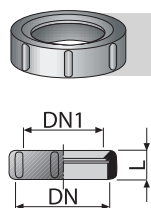
DN (mm)	DN ₁ (mm)	Reference	Pack.	L (mm)	Z (mm)	Note
1" 1/4 32	38	026030M	100	43	33	
1" 1/2 40	44,5	026040M	150	55	42	

Coupler with collar*Manchon à collet***F/F**

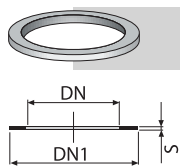
DN (mm)	DN ₁ (mm)	Reference	Pack.	L (mm)	L ₁ (mm)	Z (mm)	Note
32	40	060320M	50	22,5	26,5	51	

Brass nut*Écrou laiton*

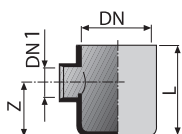
DN (mm)	DN ₁ (mm)	Reference	Pack.	L (mm)	Note
1" 1/4 35	35	C661400	200	15	
1" 1/2 40	40	C661200	150	15	

PP nut*Écrou en PP*

DN (mm)	DN ₁ (mm)	Reference	Pack.	L (mm)	Note
1" 1/4 35	35	B661402	200	20	
1" 1/2 42	42	B661202	200	20	

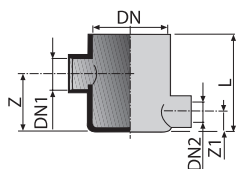
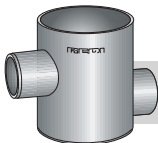
Gasket*Joint plat*

DN	DN ₁ (mm)	Reference	Pack.	S (mm)	Note
1" 1/4	39	B821400	200	2,5	
1" 1/2	44	B821200	250	2,5	

Floor gully*Collecteur*

DN (mm)	DN ₁ (mm)	Reference	Pack.	L (mm)	Z (mm)	Note
100	40*	0961002	20/480	120	74	

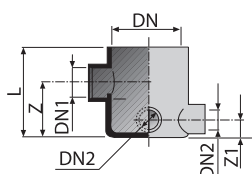
* Outlet Ø 40 Female / Sortie Ø 40 Femelle

Floor gully*Collecteur*

DN (mm)	DN ₁ (mm)	DN ₂ (mm)	Reference	Pack.	L (mm)	Z (mm)	Z ₁ (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*

DN (mm)	DN ₁ (mm)	DN ₂ (mm)	Reference	Pack.	L (mm)	Z (mm)	Z ₁ (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

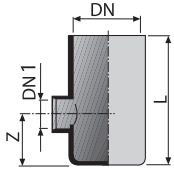


High floor gully - 1 outlet

Collecteur haut - 1 sortie

DN (mm)	DN ₁ (mm)	Reference	Pack.	L (mm)	Z (mm)	Note
100	40*	0981502	30/240	200	74	

* Outlet Ø 40 Female / Sortie Ø 40 Femelle



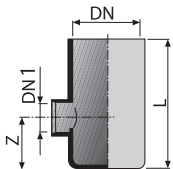
High floor gully - 2 outlets

Collecteur haut - 2 sorties

DN (mm)	DN ₁ (mm)	DN ₂ (mm)	Reference	Pack.	L (mm)	Z (mm)	Z ₁ (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



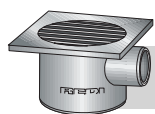
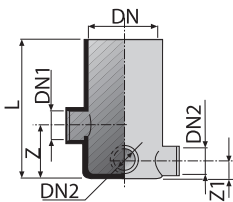
High floor gully - 3 outlets

Collecteur haut - 3 sorties

DN (mm)	DN ₁ (mm)	DN ₂ (mm)	Reference	Pack.	L (mm)	Z (mm)	Z ₁ (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



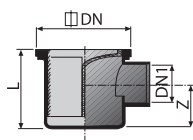
PVC trapped floor drain (horizontal outlet)

Siphon de cour PVC - sortie horizontale

DN (mm)	DN ₁ (mm)	Reference	Pack.	L (mm)	Z (mm)	Note
100	40/32*	0210304	16/832	82	45	
100	Interna 40	0210404	16/832	82	45	

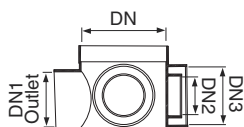
* Outlet Ø 40 Female - Outlet Ø 50 Male

* Sortie Ø 40 Femelle - Sortie Ø 50 Male



Floor gully

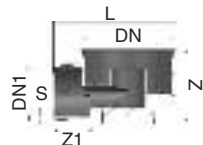
Collecteur grand débit



DN (mm)	DN ₁	DN ₂	DN ₃	Ref.	Pack.	Note
160 F/Sk	110 M/Sp	75 F/Sk	110 F/SK	0961602	8/64	

Trapped balcony outlet

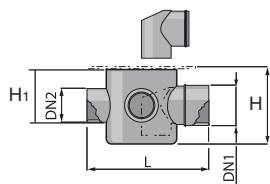
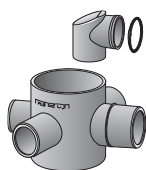
Siphonnette de balcon



DN (mm)	DN ₁	Reference	Pack.	L (mm)	Z (mm)	Z ₁ (mm)	S (mm)	Note
125	50	19935F2	20/480	169	88	40	3	
125	75	19937F2	15/360	169	100	50	3	

Floor trap with Multi-inlets

Siphon parquet



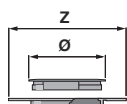
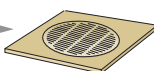
Ø	DN (mm)	DN ₁ (mm)	DN ₂ (mm)	Ref.	Pack.	L (mm)	H (mm)	H ₁ (mm)	Note
150	125	75*	50**	1961202	20/160	237,5	137,5	92	High version / Version haute
150	125	75*	50**	19613B2	24/192	237,5	107,5	82	Low version / Version baisse

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

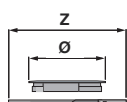
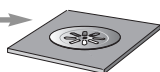
Cadre et grille en PVC



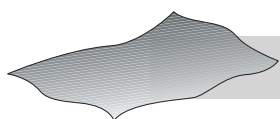
Ø (mm)	Z (mm)	Reference	Pack.	Note
125	150	1990702	20/1040	Sand colour / Couleur sable

PVC frame with stainless steel grill

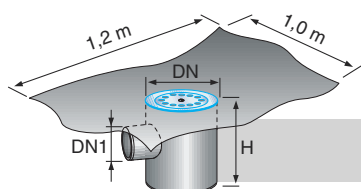
Cadre en PVC avec grille en acier inox



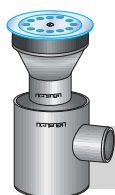
Ø (mm)	Z (mm)	Reference	Pack.	Note
125	150	1990802	20/1040	PVC frame in Grey colour / Cadre en PVC gris
125	200	1991002	10/810	PVC frame in Grey colour / Cadre en PVC gris

PVC insulating membrane*Membrane d'étanchéité*

DN (mt)	Reference	Pack.	Note
1,2 x 1,0	L991202	5/260	1 single sheet
30 x 1,2	R981002	1/60	Roll

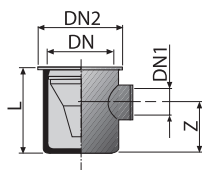
**Floor gully with PVC membrane***Collecteur avec membrane d'étanchéité*

DN (mm)	DN ₁ (mm)	Reference	Pack.	H (mm)	Note
100	40	1960402	8/64	120	

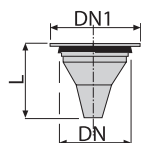
**Floor trap with inox grid and funnel***Siphonette avec grille inox et entonnoir*

DN (mm)	DN ₁ (mm)	DN ₂ (mm)	Reference	Pack.	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*

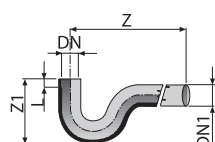
DN (mm)	DN ₁ (mm)	Reference	Pack.	L (mm)
100	125	1993302	30/720	106

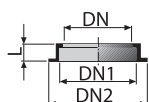
**Long "S" syphon***Siphon "S" long*

DN (mm)	DN ₁ (mm)	Reference	Pack.	L (mm)	Z (mm)	Z ₁ (mm)
40	45	C240402	20/480	32	345	115

* Outlet Ø 40 Female - Outlet Ø 50 Male

* Sortie Ø 40 Femelle - Sortie Ø 50 Male

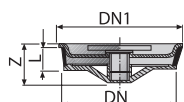


Locking ring for PVC membrane*Anneau de blocage de la membrane d'étanchéité*

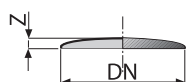
DN (mm)	DN ₁ (mm)	DN ₂ (mm)	Reference	Pack.	L (mm)	Note
100	107	145	0201002	20/2000	20	

Protection cap for floor gully*Plaque de protection pour collecteur*

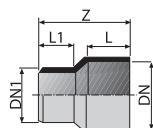
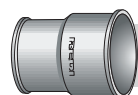
DN (mm)	Reference	Pack.	Note
100	T651000	20/2000	Made of plastics

Plug for floor gully*Bouchon pour collecteur*

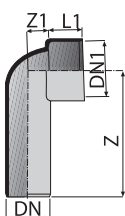
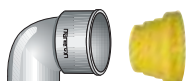
DN (mm)	DN ₁ (mm)	Reference	Pack.	L (mm)	Z (mm)	Note
100	106	0661002	20/1620	20	35	

Stainless steel plate*Plaque de protection inox*

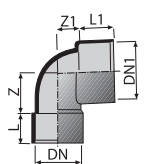
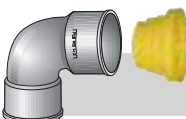
DN (mm)	Reference	Pack.	Z (mm)	Note
135	PIAOXNI	400/20	5	

Technical coupling*Manchon technique*

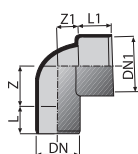
DN (mm)	DN ₁ (mm)	Reference	Pack.	L (mm)	L ₁ (mm)	Z (mm)	Note
40	50	0930302	50/2600	22,5	31	55,5	F/F
40	32	0930402	50/4050	26,5	22,5	57,5	M/F
50	40	0930502	50/2600	31,5	26,5	67,5	M/F

Technical bend long version*Coude technique long***M/F**

DN (mm)	DN ₁ (mm)	Reference	Pack.	L ₁ (mm)	Z (mm)	Z ₁ (mm)	Note
40	50	074540M	50/1200	33	150	17	With protection plug Avec bouchon de protection

Technical bend*Coude technique***F/F**

DN (mm)	DN ₁ (mm)	Reference	Pack.	L (mm)	L ₁ (mm)	Z (mm)	Z ₁ (mm)	Note
32	40	024230M	10/130	23	28	29	14	With protection plug Avec bouchon de protection
32	50	024530M	10/90	23	33	35	15	
40	50	024240M	70/1680	26	33	-	17	

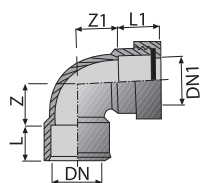
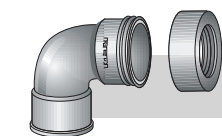
Technical bend*Coude technique***M/F**

DN (mm)	DN ₁ (mm)	Reference	Pack.	L (mm)	L ₁ (mm)	Z (mm)	Z ₁ (mm)	Note
32	40	074230M	80/1920	23	28	29	14	With protection plug Avec bouchon de protection
32	50	074530M	10/80	26	33	36	17	
40	50	074240M	10/80	-	-	-	-	

Metal-PVC connector 87°30'

Coude sanitaire à joint

F/F

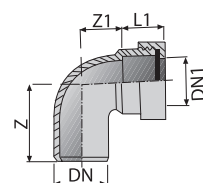
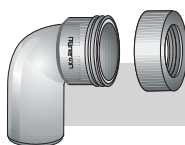


DN (mm)	DN ₁ (mm)	Reference	Pack.	L (mm)	L ₁ (mm)	Z (mm)	Z ₁ (mm)	Note
32	34	002320M	100/2400	23	29	25	25	
40	38	002400M	70/1680	27	31	31	31	

Metal-PVC connector 87°30'

Coude sanitaire à joint

M/F

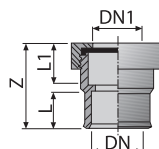


DN (mm)	DN ₁ (mm)	Reference	Pack.	L ₁ (mm)	Z (mm)	Z ₁ (mm)	Note
32	34	003320M	10/120	29	48	25	
40	38	003400M	10/80	31	58	31	

Metal-PVC connector

Manchette sanitaire à joint

F/F

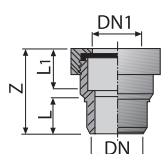


DN (mm)	DN ₁ (mm)	Reference	Pack.	L (mm)	L ₁ (mm)	Z (mm)	Note
32	34	004320M	50/4050	23	29	56	
40	38	004400M	50/2600	27	31	62	

Metal-PVC connector

Manchette sanitaire à joint

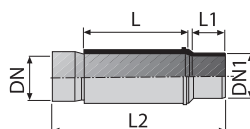
M/F



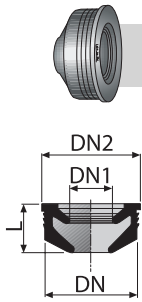
DN (mm)	DN ₁ (mm)	Reference	Pack.	L (mm)	L ₁ (mm)	Z (mm)	Note
32	34	005320M	50/4050	23	29	56	
40	38	005400M	50/2600	27	31	62	

Repairing coupler (Orange colour)

Manchon de réparation (couleur orange)



DN (mm)	DN ₁ (mm)	Reference	Pack.	L (mm)	L ₁ (mm)	L ₂ (mm)	Note
50	-	1790509	10/-	-	-	-	
63	-	1790609	5/-	-	-	-	
80	-	1790809	5/-	-	-	-	
100	94	1791009	5/100	240	76	324	
125	118	1791209	1/-	240	76	324	

Gasket*Joint*

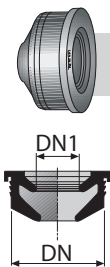
DN (mm)	DN ₁ (mm)	DN ₂ (mm)	Reference	Pack.	L (mm)	Note
32	1"	37	6820300	50/40	13	
40	1"	46,5	6820400	50/50	18	
40	1" 1/4	46,5	6820401	50/-	18	
50	1"	55	6820502	50/500	19	
50	1" 1/4	56	6820500	50/500	19	
50	1" 1/2	55	6820501	50/500	19	

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

Long Gasket*Joint long*

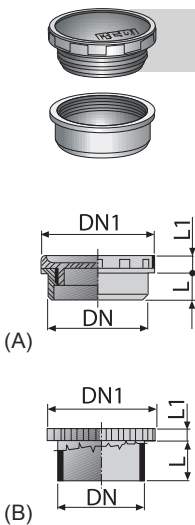
DN (mm)	DN ₁ (mm)	Reference	Pack.	L (mm)	Note
50	1"	68255LU	50/400	33	
50	1" 1/4	68265LU	50/10	33	
50	1" 1/2	68260LU	50/10	33	

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

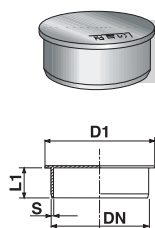
Technical gasket with nut (for bends and couplers)*Joint technique avec écrou (pour coudes et manchons)*

DN (mm)	DN ₁ (mm)	Reference	Pack.	Note
37	1"	6823200	50/7	
45	1"	6824202	50/500	
45	1" 1/4	6824404	50/600	
45	1" 1/2	6824606	50/900	

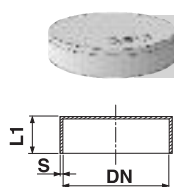
1" = 26 mm. 1" 1/4 = 32 mm. 1" 1/2 = 40 mm.

Access plug*Tampon de visite***M**

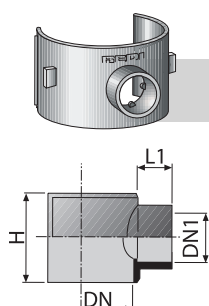
DN (mm)	DN ₁ (mm)	Reference	Pack.	L (mm)	L ₁ (mm)	Note
32	39	065320M	50/250	15	8,5	(A) With gasket / Avec joint
40	47	065400M	50/150	15	8,5	(A) With gasket / Avec joint
50	57	065500M	25/100	15	8,5	(A) With gasket / Avec joint
63	78	065060M	90/2160	38	17	(B)
75	97	065070M	20/1040	44	17	(B)
80	97	065080M	50/1200	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)

Socket plug*Bouchon de fermeture***M**

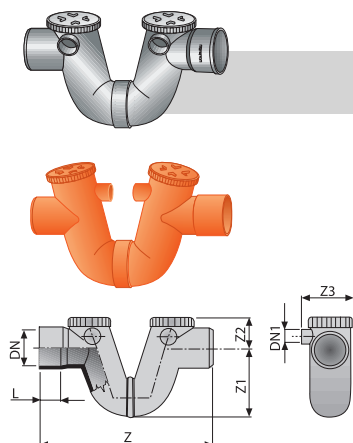
DN (mm)	D1 (mm)	Reference	Pack.	L1 (mm)	S (mm)	Note
40	45	0660402	50/500	18	2,5	
50	55	0660502	50/350	20	2,5	
100	104	0669902	45/1080	15	-	
110	126	0661102	150/1200	38	3,2	
125	142	0661202	100/800	42	3,2	
160	180	0661602	55/440	49	4,0	
200	223	0662002	25/200	59	4,9	
250	282	0662502	1/114	90	6,2	
315	350	0663002	1/67	93	7,7	
400	440	06640M2	1/1	95	9,8	

Female cap*Bouchon femelle***F**

DN (mm)	Reference	Pack.	L1 (mm)	S (mm)	Note
100	E6611F2	20/400	32	2,2	
110	06613F2	30/1560	32	2,0	
125	06615F2	20/1040	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	1/1	52	4,0	

Clip*Selle***F**

DN (mm)	DN1 (mm)	Reference	Pack.	L (mm)	L1 (mm)	Note
100 - 110 - 115	32	043050M	20/1040	80	25	
100 - 110 - 115	40	043100M	20/1040	80	27	
100 - 110 - 115	50	043300M	20/1040	80	32	

Syphon O-O (with blank outlets for ventilation Ø40)*Siphon O-O (avec piquage pour ventilation Ø40)*

DN (mm)	DN1 (mm)	Reference	Pack.	L (mm)	Z (mm)	Z1 (mm)	Z2 (mm)	Z3 (mm)	Note
100	40	1751102	5/60	56	452	178	84	140	
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	-	-	-	-	-	Orange colour
160	50	1751609	1/18	-	-	-	-	-	Orange colour
200	50	1752009	1/9	-	-	-	-	-	Orange colour

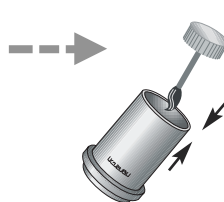
How to use the solvent cement welding socket couplers



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.

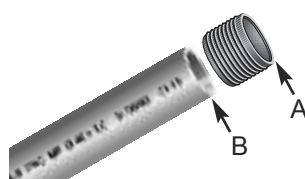


Apply the solvent cement inside
the coupler's spigot end

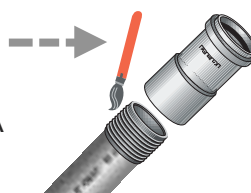


Fit the socket coupler without turning
it until it stops against pipe end.

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.

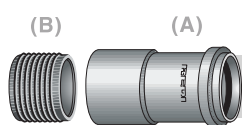


Fit the socket coupler without turning
it until it stops against pipe end.

Socketer coupler - push-fit version

Manchon avec joint

F/F

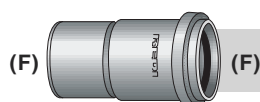


DN (mm)	Reference	Pack.	
(A) 40	063228M	50	
(B) 40	6855700	1	
(A) 50	063238M	40	
(B) 50	6855800	1	

Socketer coupler - solvent welding version

Manchon à coller

F/F

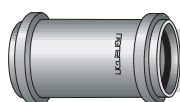


DN (mm)	Reference	Pack.	
40	063338M	10/50	
50	063348M	40	

Slip coupler with 2 gaskets

Manchon coulissant avec 2 joints

F

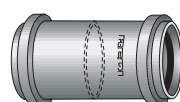


DN (mm)	Reference	Pack.	
40	061445M	10/80	

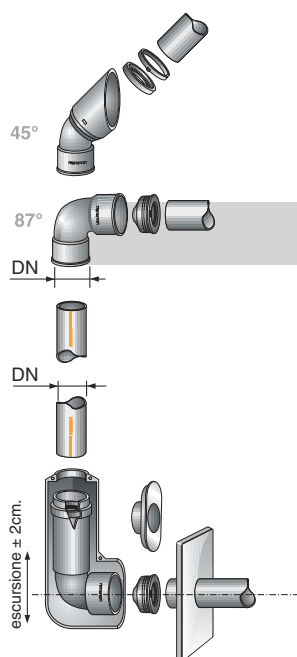
Coupler with central stop with 2 gaskets

Manchon avec butée avec 2 joints

F/F



DN (mm)	Reference	Pack.	
40	063445M	40	
50	063455M	50	



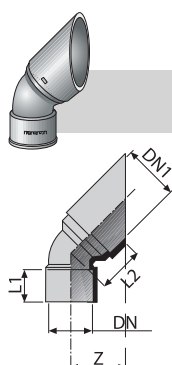
Adjustable flushing kit for high WC cisterns

Kit évacuation réglable pour réservoirs WC suspendus

DN (mm)	Reference	Pack.	Note
32/40	19900CA	5/405	with bend 45°
32/40	19900CC	5/405	with bend 87°30'
32	19900CR	5/405	without bend

Connecting bend 45° for high WC flushing cistern

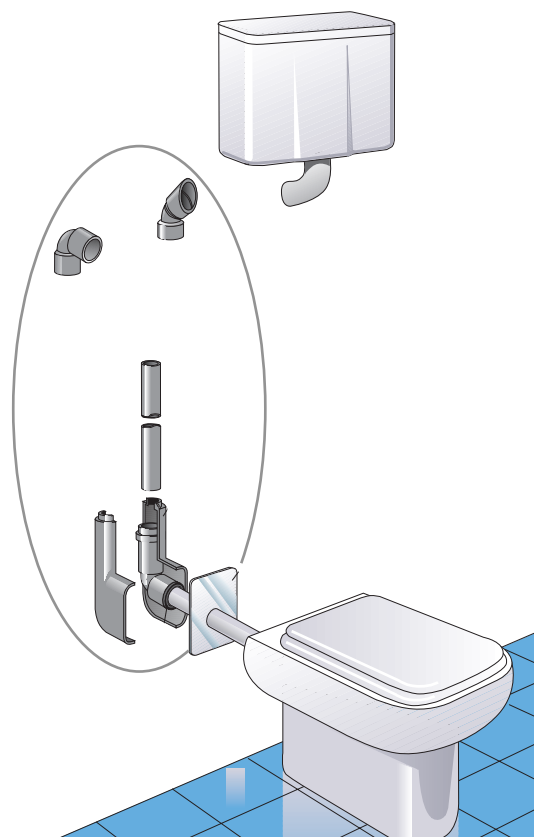
Raccord 45° pour réservoir WC haut



DN (mm)	DN ₁ (mm)	Reference	Pack.	L ₁ (mm)	L ₂ (mm)	Z (mm)	Note
32	40	1605202	10/50	22,5	32,5	39	
40	34	123040M	10/100	27	65	45	

Adjustable flushing kit for high WC cisterns

- Purpose: connection between high-flushing cisterns and WC pans.
- Features: it allows the final technical bend to be adjusted by ± 2 cm, thus enabling the connection to the WC pan even in case of incorrect laying or floor leveling.
- Materials: moulded PVC components, EPDM gaskets, stainless steel plate.
- Colour: Grey RAL 7037
- Patent: No. 3390 A/88



CUBO REDI

Syphon for washing-machine

Siphon machine à laver

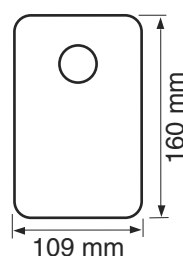


PVC



PE

DN (mm)	Reference	Pack.	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



PE Syphon for washing-machine

Siphon machine à laver



Ø40
Ø50

DN (mm)	Reference	Pack.	Note
40/50	KSIF1PE	10/160	for PE pipes



Adaptor with Air Admittance Valve

Sortie avec anti-vide

DN (mm)	Reference	Pack.	Note
32	C130303	1/10	
40	C130403	1/10	

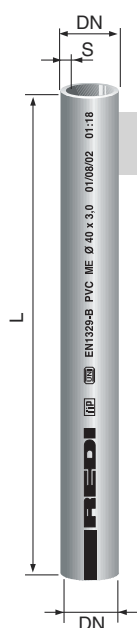


Inspection Syphon for washing-machine

Siphon machine à laver

DN (mm)	Reference	Pack.	Note
1" 1/2-40	19999S3	1/15	for PVC pipes
1" 1/2-40	199PES3	1/15	for PE pipes

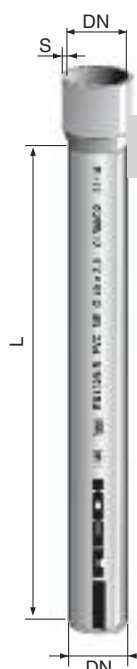
Packed in plastic bag



Pipe Tube

M/M

DN (mm)	L (mt)	S Thick.	Reference	Pack.	Note
32	1 mt.	3	V010302	1/300	
32	2 mt.	3	V020302	1/300	
32	3 mt.	3	V030302	5/300	
40	1 mt.	3	V010402	1/300	
40	2 mt.	3	V020402	1/300	
40	3 mt.	3	V030402	5/300	
50	1 mt.	3	V010502	1/300	
50	2 mt.	3	V020502	1/300	
50	3 mt.	3	V030502	5/300	



Single socket pipe Tube

M/F

DN (mm)	L (mt)	S Thick.	Reference	Pack.	Note
63	3	3	V030602	1/193	
80	3	3	V030802	1/163	
100	0,5	3	V051002	1/120	
100	1	3	V011002	1/210	
100	3	3	V031002	1/105	
110	3	3	V031102	1/86	
125	3	3	V031202	1/68	
160	3	3	V031602	1/53	
200	3	3	V032002	1/30	



Solvent cement Colle

Pack. type	Content (gr.)	Reference	Pack.	Note
Tube	125	6711200	30	
Jar	250	6712500	24	With brush / Avec pinceau
Jar	500	6715500	16	With brush / Avec pinceau
Jar	1.000	6711000	8	With brush / Avec pinceau



Cleaner Détergent

Pack. type	Content	Reference	Pack.	Note
Can	1 litre	6721100	8	