



ULTRASILENT™

Acoustic Drainage Piping System

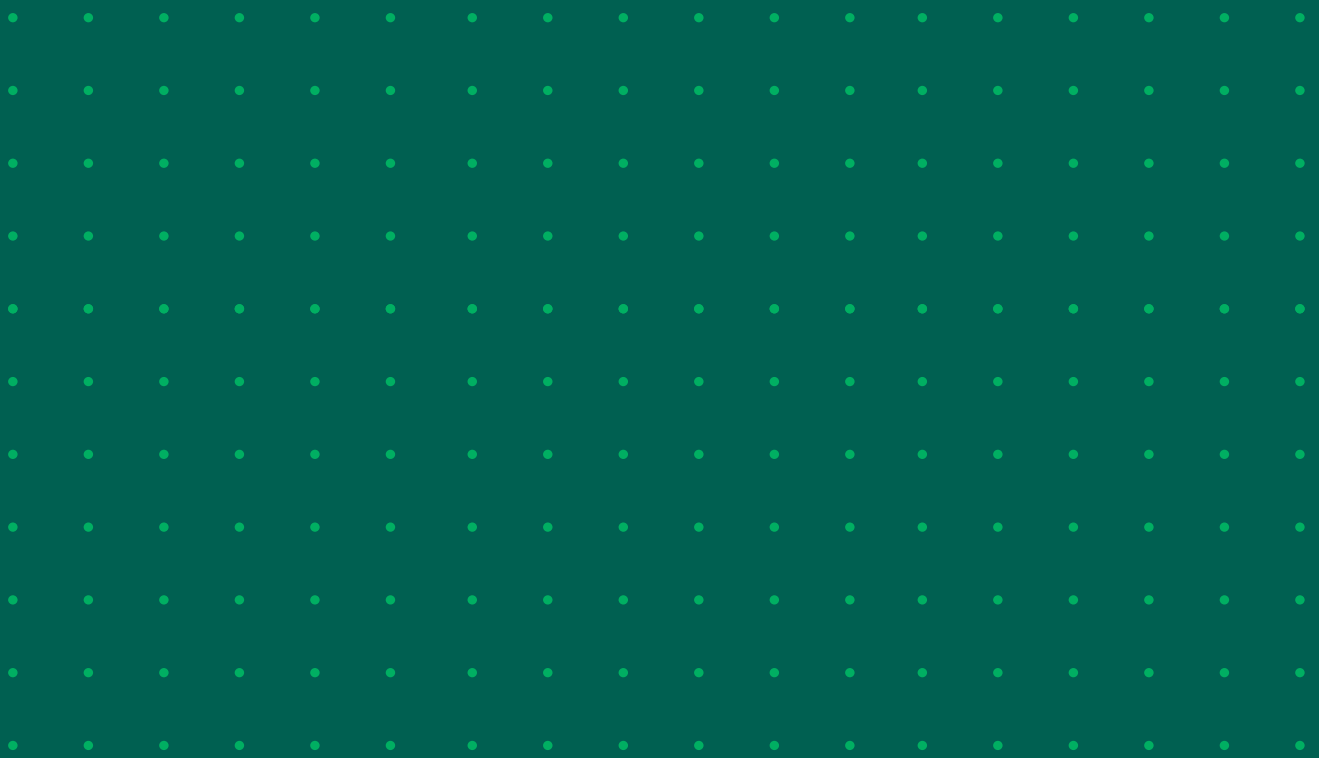


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Description of the ULTRASILENT™ System

Acoustic, triple layer, push-fit system made of pipes and fittings for soil and waste discharge, at low and high temperatures, both within the building structure (application area code “B”) as well as buried in the ground (application area “BD”).

Pipes have a three-layer wall structure with external and internal layers of polypropylene (PP) and a middle layer of mineral-filled polypropylene (PP-MD). Fittings are made of mineral filled Polypropylene (PP-MD). Materials are halogen and cadmium free.

Joints are made with push-fit sockets and elastomer seals.

Suitable for the drainage of fluids, in compliance with DIN 8078, with pH between 2 and 12 at atmospheric pressure and at maximum operating temperature between 95°C and 98°C for short periods.

Suitable for the construction of ventilation, rainwater and drainage systems. Can be used at environmental temperatures no lower than -25°C.

The system has a sound level value of 20 dB(A) at a flow rate of 4 l/s in accordance with DIN EN 14366-1 when using standard pipe clamps with rubber linings.

Fire performance rating is D-s1, d1 according to DIN EN 13501-1.

The Ultra Silent™ System is certified by: SKZ, DiBt - Germany, DTI- Denmark, AENOR - Spain and SII - Israel. In compliance with HR 3.43, DIN EN 14366, UNE EN 1451-1, IS 958 “Plastics piping system for soil and waste discharge (low and high temperature) within the building structure”.



System Advantages:



Excellent acoustic performance

Sound insulation value of 20 dB(A) at a flow rate of 4 l/s in accordance with DIN EN 14366-1 when using standard pipe clamps with rubber linings



High impact resistance

even at low temperature (-25°)



Excellent resistance to high temperatures

95°C continuous, 98°C discontinuous



High chemical resistance

pH 2 to pH 12



stable assembly

due to Increased depth of socket



smoother and increased flow

due to Branches with swept angle and optimized design



Wide range of diameters

DN 32mm to DN 200mm



High UV resistance

due to black color of external layer



Recyclability

Ultra Silent™ products have the Green Label mark for Environmentally friendly and recyclable products and EPD (Environmental product declaration)



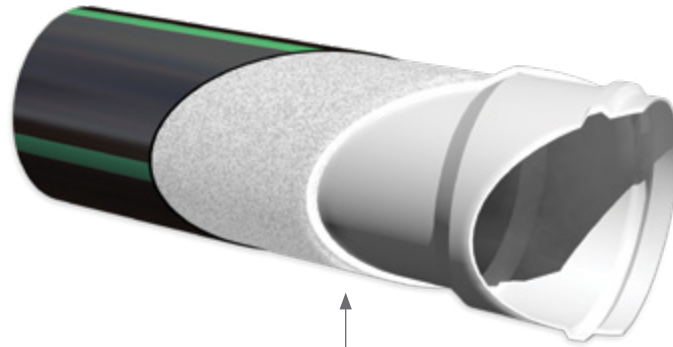
All materials comply with RoHS directive

and are Halogen and Cadmium free



25-year guarantee

System marking



External Layer

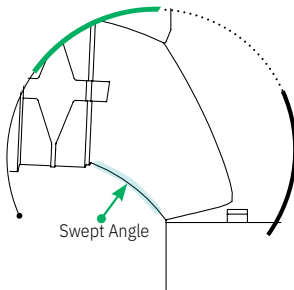
Black PP provides excellent impact resistance and long-term UV protection.

Middle Layer

PP and PP-MD provide high mechanical resistance and excellent soundproofing performance.

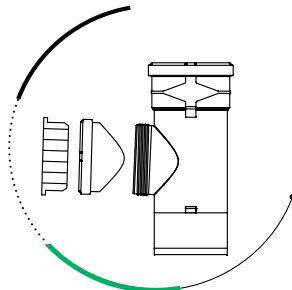
Internal Layer

White PP provides the best flow performance and high-definition contrast for visual inspection.



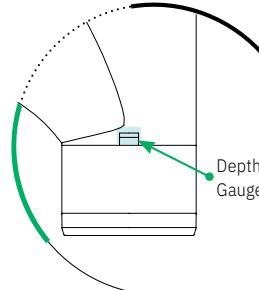
Clever Design

Ultra Discharge Rate
Ultra Smooth Flow



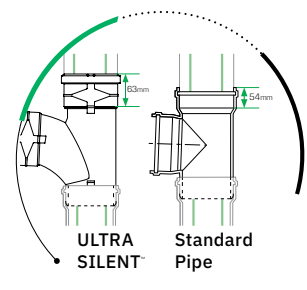
Internal Plug

Ultra Smooth Flow
Ultra Silent™



Depth Gauge

Ultra Fit



Extra Socket Depth

Ultra Stable
Ultra Solid



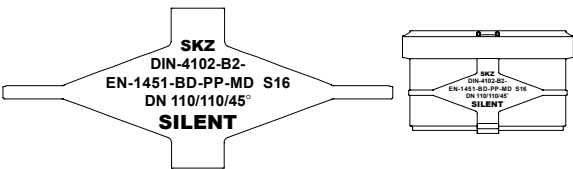
System marking

Marking of Pipes



	Recyclable product
Huliot Logo	Manufacturer logo
Dibt Z-42.1-556	DIBT approval
AENOR 001/949	AENOR product certificate
Barcode	Product barcode
Ultra Silent™	System brand name
DN 110X3.4	Diameter and wall thickness
PP-MD-ML	Material
S-16	Pipe series
UNE EN-1451	Construction standard
BD	Application area
SKZ A 676	Certificate number
DIN 4102 B2	Fire resistance classification
SI 958	SI Standard
for domestic hot waste discharge	Pipe application
DD/MM/YY	Production date
HH:MM #XX	Production time and place

Marking Fittings



SKZ	Approval
DIN 4102 B2	Fire resistance classification
EN 1451 BD PP-MD S16	construction standard and application area, material, series
DN 110/110/87.5°	Type of product, diameters, angle
ULTRA SILENT	System brand name

Datasheet

Property	Value	Test Method
System Brand Name	Ultra Silent™	
Application	Soil and waste discharge systems (low and high temperatures) within the building structure (application area code "B") as well as buried in the ground (application area "BD"); construction of ventilation, rainwater and drainage systems inside the building structure (application area code "B")	
Pipe Material	Co-polymer PP for the external (black) and the internal (white) layers. Compound of PP and PP-MD for the middle layer provide high excellent soundproof performance.	
Fitting Material	PP-MD	
Connection	Push-fit sockets with elastomer rubber seals	
Seal Material	SBR-NR, NBR, EPDM	
Colour	Black	
Diameter	Ø32-200 mm	
Pipe Series	S-16	
Minimum installation temp.	-25°C	
Waste Water Temp. (Max.)	+95°C long term +98°C short term	
Chemical Resistance	pH 2 - pH 12 (Accordance with the instructions of the raw material manufacturer)	DIN 8078
Halogen & Cadmium Content	Free of halogen or cadmium	
Fire Resistance	D-s2, d1 B2	DIN 13501-1 DIN 4102-1
UV Resistance	Suitable for external installation when protected from exposure to direct sunlight, can be stored outside up to two years	
Acoustic Performance	Test report P-BA 155/2023e	DIN 14366
Construction Standard	HR 3.43, UNE EN 1451-1, IS 958	
License/certificates*	SII, SKZ, DIBT, AENOR, DTI	
Green Label*	70304, EPD	

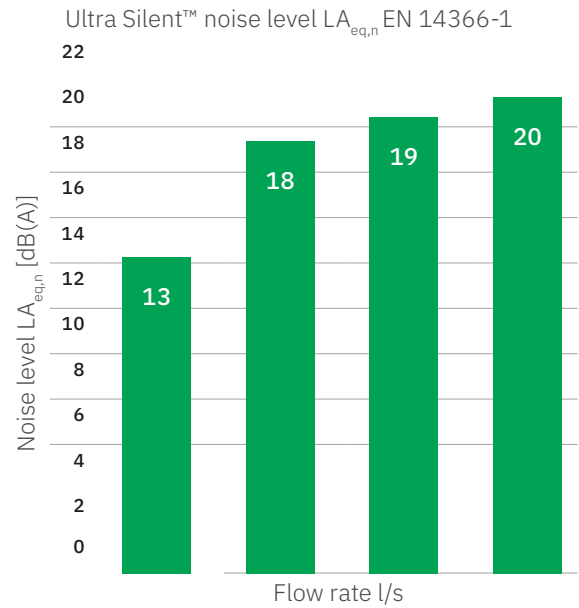
*Depending on the country of manufacture

Acoustic Performance

Ultra Silent™ soundproof drainage piping system

When installed by a professional, the Huliot Ultra Silent™ soundproof drainage piping system meets all the minimum and increased sound insulation requirements of DIN 4109 and DIN 4109 Part 5, as well as VDI Guideline 4100.

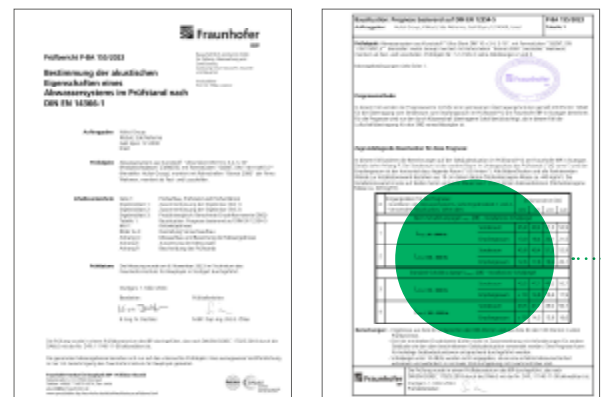
The system is tested with the standard Bismat 2000 pipe clamp with a rubber lining. The Bismat 2000 from Walraven is approved by the Fraunhofer Institute as a standard steel pipe clamp with a rubber lining. Acoustically, it is comparable with clamps of the same design from other manufacturers, while its outer diameters are standardized in accordance with DIN EN 476.



Acoustic properties

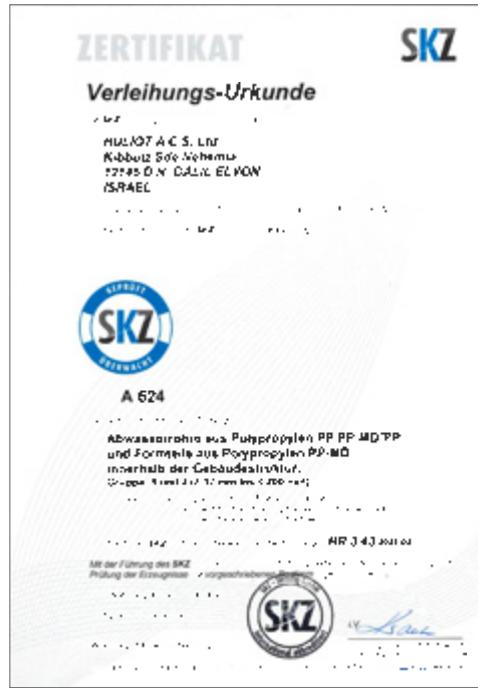
Test certificate

In tests at the Fraunhofer Institute (test certificate P-BA 155/2023e from 11/2023), which were performed in accordance with DIN EN 14366-1 and using the Bismat 2000 standard pipe clamp with a rubber lining, the Huliot Ultra Silent™ system achieved a sound insulation value of 20 dB(A) at 4l/s.



Input data for the test: – Source data of the wastewater system, see results sheet 1 and 2 – Building situation used, see above.			Volume flow [l/s]			
			0.5	1.0	2.0	4.0
Standard noise level LAeq,n [dB] – Installation noise level						
1	L _{Aeq,n} 50-5000 Hz	Broadcasting room	45.8	49.4	51.5	52.9
		Reception room	13.0	18.4	20.1	21.5
2	L _{Aeq,n} 100-5000 Hz	Broadcasting room	45.8	49.4	51.5	52.9
		Reception room	12.6	17.8	19.4	20.1
Standard noise level LAeq,n [dB] – Installation noise level						
3	L _{Aeq,nT} 50-5000 Hz	Broadcasting room	43.5	47.1	49.2	50.7
		Reception room	<10.0	14.8	16.6	17.9
4	L _{Aeq,nT} 100-5000 Hz	Broadcasting room	45.8	47.1	49.2	50.7
		Reception room	<10.0	14.3	15.9	16.6

Approvals and certificates



Certificate SKZ 676

SKZ – The Plastics Center

Testing and monitoring regulations on the state of the art, production, and applications

Certificate SKZ 624

SKZ – The Plastics Center

Testing and monitoring regulations on the state of the art, production, and applications

DIBt Certificate

DIBt – German Institute for Building Technology

The general building authority approval – proof of usability for construction products



Installation of the ULTRASILENT™ System

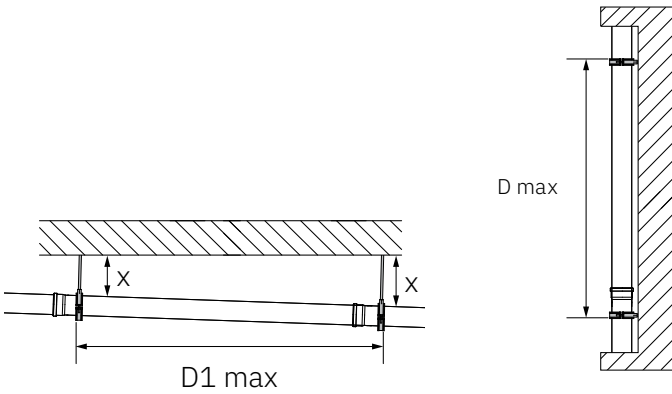
1.1 | Pipe preparation and assembly

- Pipes are produced in various lengths with one or two sockets and with plain pre-beveled ends. If cutting to length is needed, use only proper cutting tools for plastic pipes (manual or mechanical) and bevel the cut pipe end with an angle of approximately 15° with bevel length of about 5 mm
- Remove chips, shavings and sawdust before installing
- Check the position and integrity of the lip seal in the socket gasket slot. Clean the seal and the socket and apply a thin layer of lubricant around the plain pipe end
- Fittings should be inserted to maximum socket depth whereas pipes, after being pushed completely into the socket, have to be pulled back of approximately 10 mm
- For anchoring Ultra Silent™ system to walls and ceiling use steel brackets with rubber inserts approved for acoustic insulation systems
- Horizontal pipes should be installed with a slope of 1 to 5%. Unless differently prescribed by specific country regulation a 2% slope is a good compromise between a good flow and the space needed for the installation
- As a general rule straight lengths of pipe must be anchored by mean of fixed point brackets under each socket while the rest of the pipework and the fittings will be supported by sliding point brackets
- The Maximum distances between the brackets for horizontal and vertical installation are shown in the below table

Hanging distances

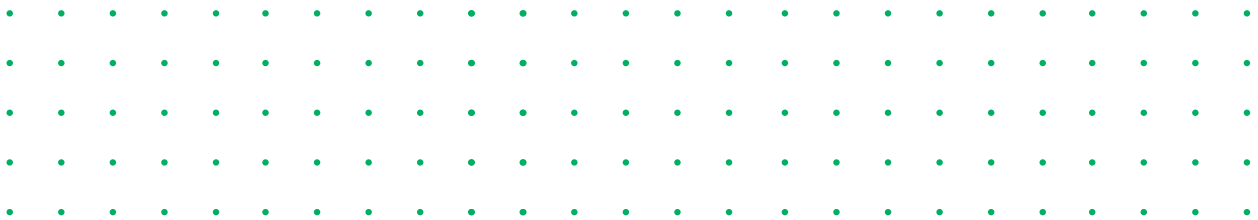
Pipe DN (External diameter)	Max. bracket distance for Horizontal installation - D1 max	Max. bracket distance for Vertical installation - D max
Ø 50	0.80	1.50
Ø 75	1.10	2.00
Ø 90	1.40	2.00
Ø 110	1.65	2.00
Ø 125	1.85	2.00
Ø 160	2.40	2.00
Ø 200	2.40	2.00

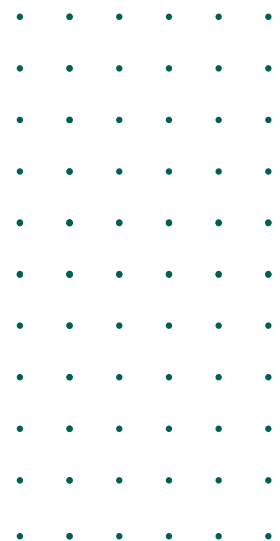
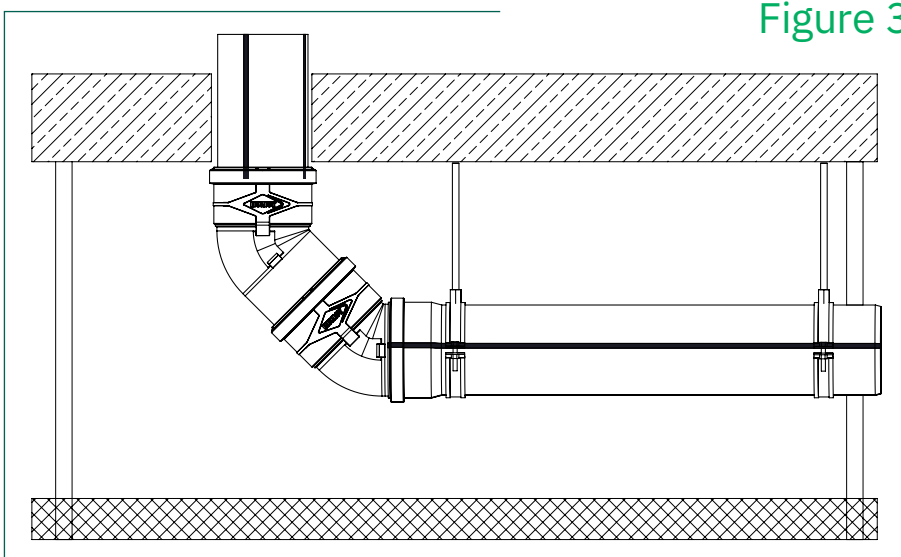
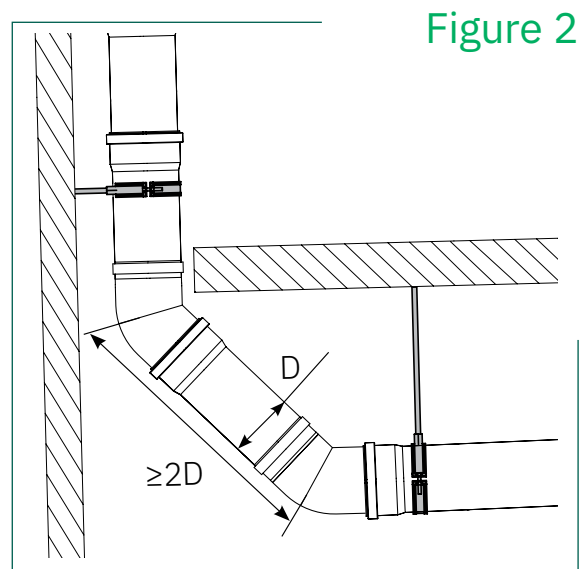
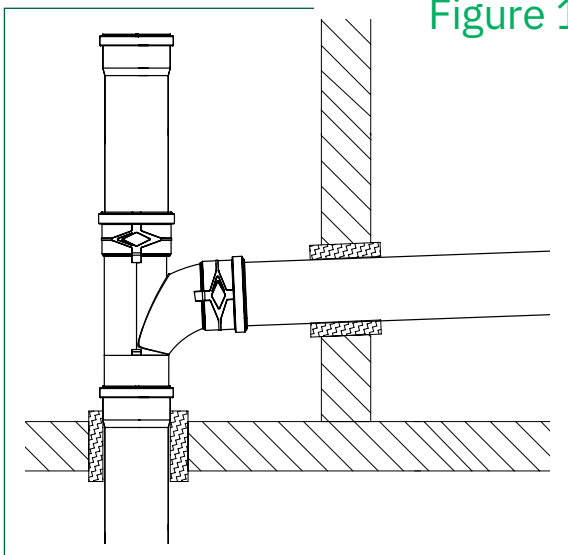
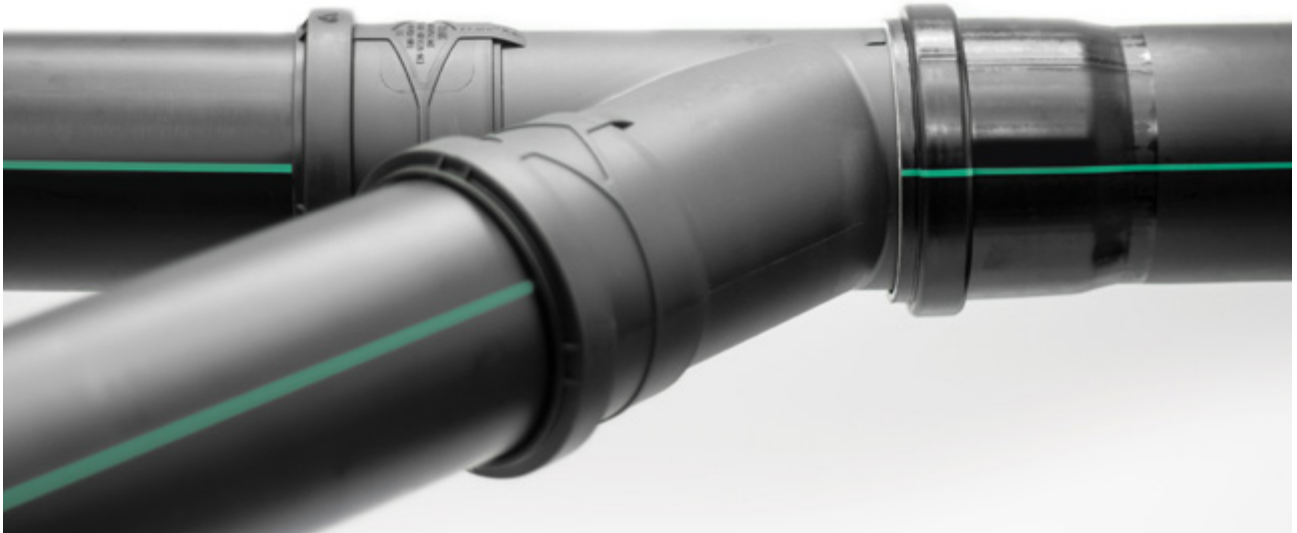
Pipe DN (External diameter)	Hanging distance from the ceiling (X)	Ceiling Rod diameter
110, 125, 160, 200	Up to 0.7 meters	3/8"
	Over 0.7 meters Up to 2.5 meters	1/2"
	Over 2.5 meters	3/4"



1.2 | Installation through ceilings, floors and walls

- It is important in acoustic insulated systems to avoid contact between system components and rigid elements, such as walls, ceilings, floors etc., in order to prevent structure-borne noise transmission.
- For pipes traversing walls and ceilings, a space of at least 30 mm should be maintained between the pipe and any rigid material.
- If the spaces around the pipes traversing walls and floors must be filled, use only soft construction materials such as foam or glass fiber (Figure 1).
- In case of pipes traversing floors where protection against humidity is needed we recommend to use Huliot Ultraseal (see description in following pages).
- For improved hydraulic flow and reduced noise, 87° bends are not recommended to be used for changing flow direction from vertical to horizontal. It is preferable to use two 45° bends, with 2D minimum length of connecting pipe between them (Figure 2).
- When installing pipes in open spaces (such as basements, parking garages etc.), above suspended ceilings or behind screen walls, prevent any contact of other material (such as suspended ceiling, electrical, water, ventilation and air conditioning systems etc.) with the pipes (Figure 3).







1.3 | Repairs and installation

- To add a branch (USEA) to an existing pipe with long socket (USTL) and sleeve (USU), insert the long socket plain end into the branch socket, cut the equivalent of the socket length from the existing pipe piece. Insert the long socket into the upper pipe all the way. Fix the sleeve on the lower pipe and slide the branch and long socket down into the sleeve (Figure 4). An alternative possibility is to use two sleeves and plain pipe (the minimum plain pipe length must be more than double that of the external pipe diameter DN, as in Figure 5).
- To fix punctured or damaged pipe, the same methods can apply with one socket pipe (USEM) instead of the branch and for adding inspection pipe (USRE) or double branch (USDA).

Figure 4

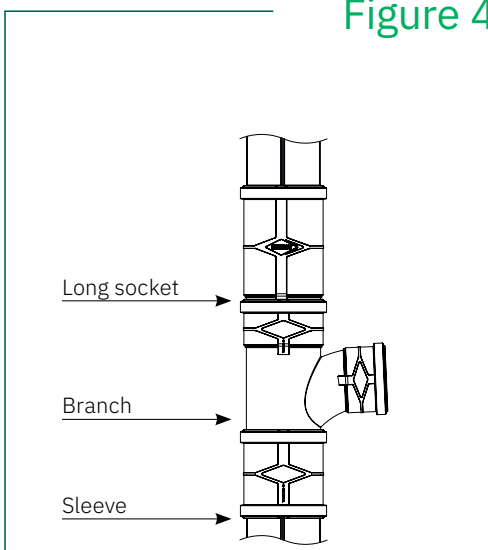
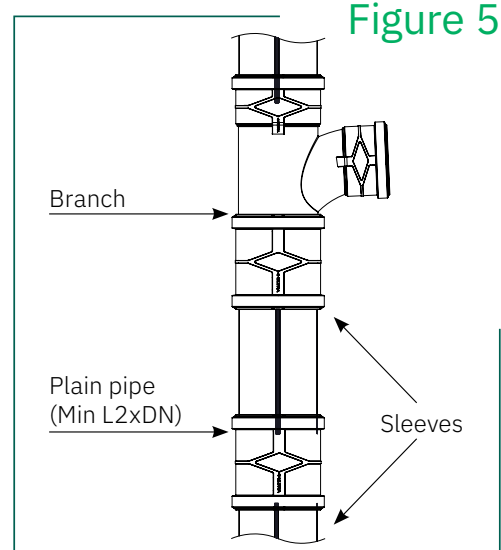
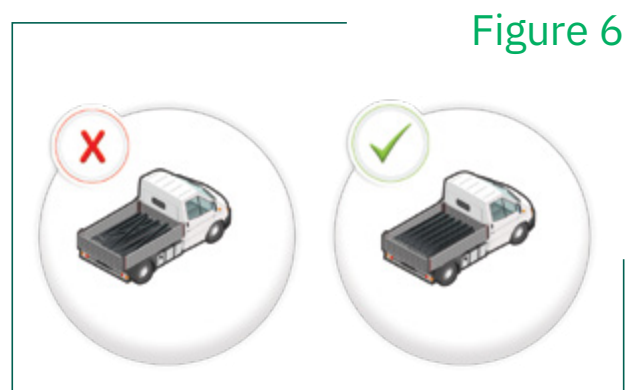
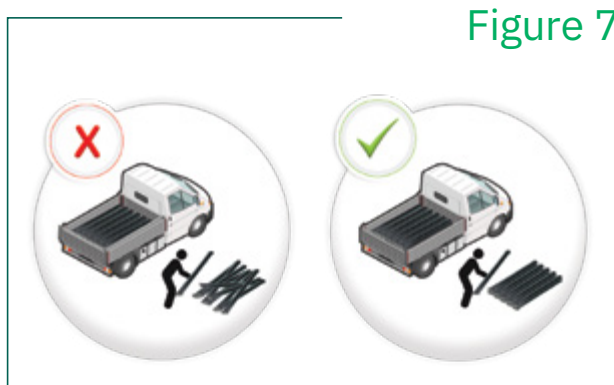


Figure 5



Transportation, Handling and Storage



It is recommended to handle the pipes and fittings in their original sales packaging to protect them and prevent damage during loading and transporting.

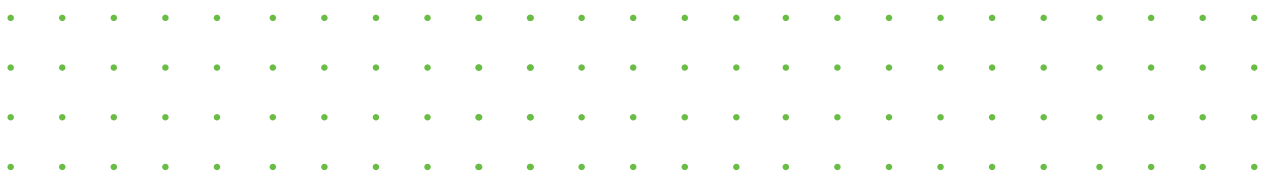
Load and transport pipes in straight, horizontal position with the full length supported (note that the sockets are unencumbered all around), avoid extreme pressure on the pipes (straps or other heavy materials).

Unload and handle pipes carefully and lay them in a straight, horizontal position (pay attention to positioning of the sockets), on a smooth surface (Figure 6, Figure 7).

Some sizes of pipes and all fittings are packed in carton boxes. Protect them from rain and moisture and store them in a dry place. It is recommended to store the pipes and fittings in their original sales packaging to protect them from damages.

Ultra Silent™ pipes are UV protected and can be stored outdoor for up to 2 years (depending on geographical location). The gasket material can withstand outdoor storage for up to 2 years and after this period must be replaced before installing. When using mechanical tools and machines (forklifts, cranes etc.) extra caution should be taken to prevent damages to the products.

Optical defects (external scratches and pigment changes etc.) have no influence on the quality and/or functionality of the system.





ACOUSTICCLAMP™

Huliot Acoustic Clamp for perfect Ultra Silent™ installation

- Structured rubber profile with hollow sections for maximal pipe grip and minimal vibration intensity passed to the constructive elements
- Easy and simple clamp fastening by a single screw on only one side
- EPDM rubber body with air ducts for vibration prevention
- Average rubber softness shore 30±6

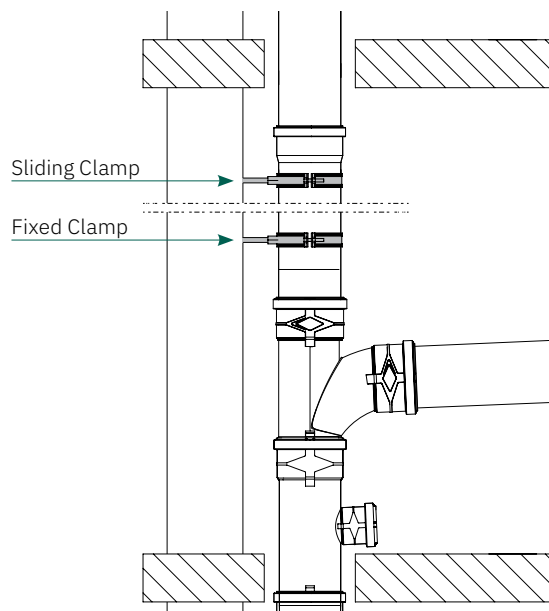
Acoustic Clamp™ Assembly instructions

- Use Huliot acoustic clamps or equivalent products only
- It is advisable to install the clamps on external walls only. Installation on interior walls will adversely affect acoustic performance
- It is recommended to install the clamps around the head of the connection for a better grip

For vertical wall mounting, two Huliot Ultra Silent™ clamps should be assembled on every floor:

Fixed Clamp: The first of the two clamps should be installed at the lower third of the floor height of each floor, just below the pipe or fitting socket, and must be fully tightened.

Sliding Clamp: Should be mounted at the upper third of the floor height of each floor. The clamp should lightly press the pipe against the rubber rather than be closed tightly, to reduce the vibration intensity passed to the constructive elements.



Upper sliding clamp tightening level



Lower Fixed clamp tightening level

PRESSURECLAMP™

Pressure Clamp™ connector for perfect ULTRA SILENT™ installation



Pressure Clamp™ Applications

- Parking lot ceilings
- Exposed rainwater pipes
- Blind pipes for sewage drainage
- Pressure resistance up to 4 BAR
- Retrieval prevention



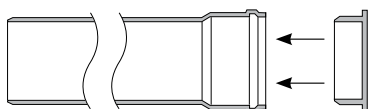
ENDLOCK™

Pressure end cap for sealing pipeline end



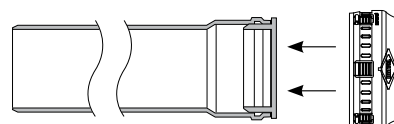
End Lock™ Assembly instructions

- Connect the end cap to the pipe or fitting opening to be plugged
- Ensure the presence of a gasket on the pipe or fitting to which the end cap is to be connected

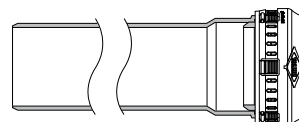


- Connect the Endlock™ connector to the pipe or fitting end cap (Article 1)

- Make sure the clips are in place and that the Endlock™ is properly aligned



- Tighten the metal band



LOCKSEAL™

Lock Seal™, for easy and simple installation

Lock Seal™ Applications

When Installing pipes in concrete the use of Lock Seal™:

- Protects the push-fit connections against vibrations generated during concrete pouring
- Prevents the concrete slurry from infiltrating to the gasket and interfering with proper sealing

Lock Seal™ Advantages

- Easy and fast assembly
- Increased safety
- Tool-free installation

Lock Seal™ Assembly instructions

Lockseal™ is designed for use with PP pipes resilient to hydrostatic pressure and with annular strength suitable for concrete casting.



1

Assemble the narrow part of the Lock Seal™ socket to the extremity of the pipe or the socket



2

Insert the plain end of the fitting or pipe into the socket (normal push-fit connection method)



3

Slide down the Lock Seal™ until it is properly aligned and the clips settle down in the socket to complete the installation



To facilitate the assembly, it is recommended to use Huliote's pipe lubricant.



For disassembly, open the clips to pull the Lock Seal™ off

ULTRASEAL™



Ultra Seal™ System

- Ultraseal provides the ideal solution for preventing the structure-borne noise created between wastewater pipes and solid construction.
- Ultraseal prevents moisture transition between floors at the pipe borehole.
- Ultraseal integrates a thin, highly flexible, waterproof geotextile membrane for perfect adherence to sealants and bituminous cement.

Ultra Seal™ Advantages

- Strong elastic gasket
- Fast, simple assembly
- No special tools or equipment required
- Elastic, flexible, durable
- Geotextile membrane meets European standards for wet rooms

Ultra Seal™ Assembly instructions



1

Assembled on the pipe and placed in the pipe borehole



3

Second insulating layer



2

Initial insulating layer (primer)



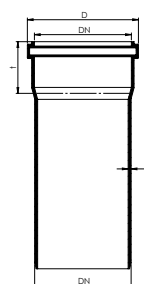
4

Final insulating layer



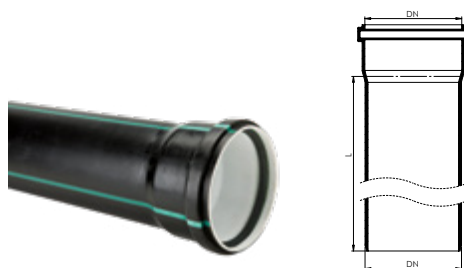
5

Filling and coating layer



USEM Single Socket Pipes

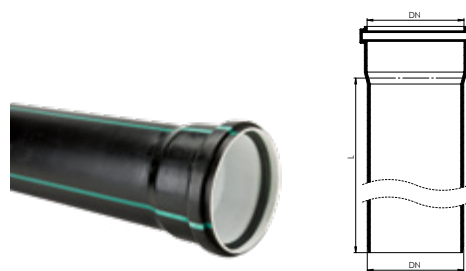
DN	D	t	S	S Class
32	43.1	39.6	1.8	S16
40	54.1	43.1	1.8	S16
50	64.1	47.1	1.8	S16
63	77.6	49.6	2.05	S16
75	89.6	51.6	2.3	S16
90	106.0	55.1	2.8	S16
110	128.1	63.6	3.4	S16
125	146.0	69.1	3.9	S16
160	185.0	80.1	4.9	S16
200	229.1	93.3	6.2	S16



USEM Single Socket Pipe

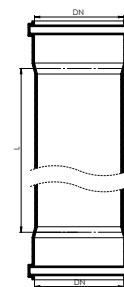
Code	DN	L	
5753200015	32	150	20
5753200025	32	250	20
5753200050	32	500	20
5753200100	32	1000	15
5753200150	32	1500	15
5753200200	32	2000	15
5753200300	32	3000	15
5754000015	40	150	20
5754000025	40	250	20
5754000050	40	500	20
5754000100	40	1000	15
5754000150	40	1500	15
5754000200	40	2000	15
5754000300	40	3000	15
5755000015	50	150	20
5755000025	50	250	20
5755000050	50	500	20
5755000100	50	1000	15
5755000150	50	1500	15
5755000200	50	2000	15

USEM Single Socket Pipe



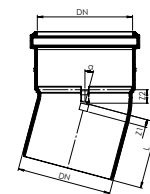
Code	DN	L	
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5757500015	75	150	20
5757500025	75	250	20
5757500050	75	500	20
5757500100	75	1000	10
5757500150	75	1500	10
5757500200	75	2000	10
5757500300	75	3000	10
5759000015	90	150	20
5759000025	90	250	20
5759000050	90	500	10
5759000100	90	1000	10
5759000150	90	1500	10
5759000200	90	2000	10
5759000300	90	3000	10
5751100015	110	150	20
5751100025	110	250	20
5751100050	110	500	10
5751100100	110	1000	10
5751100150	110	1500	10
5751100200	110	2000	10
5751100300	110	3000	10
5751200015	125	150	10
5751200025	125	250	6
5751200050	125	500	6
5751200100	125	1000	8
5751200150	125	1500	8
5751200200	125	2000	8
5751200300	125	3000	8
5751600015	160	150	8
5751600025	160	250	8
5751600050	160	500	8
5751600100	160	1000	6
5751600150	160	1500	6
5751600200	160	2000	6
5751600300	160	3000	6
5752000100	200	1000	1
5752000300	200	3000	1

USDM Double Socket Pipe



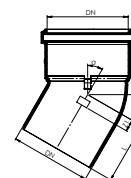
Code	DN	L	
5753232050	32	500	20
5753232100	32	1000	15
5753232150	32	1500	15
5753232200	32	2000	15
5753232300	32	3000	15
5754040050	40	500	20
5754040100	40	1000	15
5754040150	40	1500	15
5754040200	40	2000	15
5754040300	40	3000	15
5755050050	50	500	20
5755050100	50	1000	15
5755050150	50	1500	15
5755050200	50	2000	15
5755050300	50	3000	15
5757575050	75	500	20
5757575100	75	1000	10
5757575150	75	1500	10
5757575200	75	2000	10
5757575300	75	3000	10
5759090050	90	500	10
5759090100	90	1000	10
5759090150	90	1500	10
5759090200	90	2000	10
5759090300	90	3000	10
5751111050	110	500	10
5751111100	110	1000	10
5751111150	110	1500	10
5751111200	110	2000	10
5751111300	110	3000	10
5751212050	125	500	6
5751212100	125	1000	8
5751212150	125	1500	8
5751212200	125	2000	8
5751212300	125	3000	8

USB Bend 15°



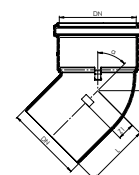
Code	DN	Z1	Z2	L	
7070000170	32	4.0	9.0	48.0	50
7070010170	40	4.0	10.0	51.5	40
7070020170	50	5.0	11.0	56.5	40
7070030170	75	7.0	12.0	63.5	20
7070090170	90	8.0	13.0	68.0	20
7070040170	110	9.0	15.5	78.0	20
7070050170	125	12.0	18.0	87.0	10
7070060170	160	26.0	32.5	112.0	5

USB Bend 30°



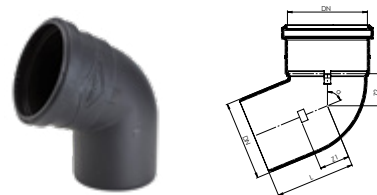
Code	DN	Z1	Z2	L	
7070000370	32	7.0	11.0	51.0	50
7070010370	40	7.0	13.0	54.5	40
7070020370	50	8.0	14.0	59.5	40
7070030370	75	12.0	18.0	68.5	20
7070090370	90	14.0	20.0	74.0	20
7070040370	110	16.0	22.0	85.0	20
7070050370	125	29.0	26.0	104.0	10
7070060370	160	26.0	32.5	112.0	5

USB Bend 45°



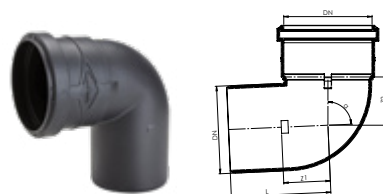
Code	DN	Z1	Z2	L	
7070000470	32	9.0	11.0	53.0	40
7070010470	40	11.0	17.0	58.5	40
7070020470	50	13.0	19.0	64.5	40
7070030470	75	18.0	24.0	74.5	20
7070090470	90	21.0	27.0	81.0	20
7070040470	110	27.0	37.5	96.0	20
7070050470	125	29.0	35.0	104.0	10
7070060470	160	38.0	43.0	124.0	5
7070080470	200	49.0	57.0	148.0	3

USB Bend 67.5°



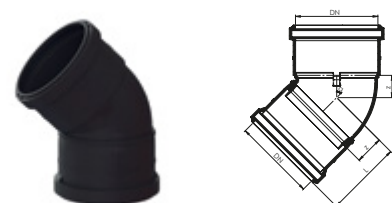
Code	DN	Z1	Z2	L	
7070000670	32	18.0	22.0	62.0	40
7070010670	40	18.0	24.0	65.5	40
7070020670	50	21.0	27.0	72.5	40
7070030670	75	29.0	35.0	85.5	20
7070090670	90	34.0	40.0	94.0	20
7070040670	110	41.0	47.0	100.0	20

USB Bend 87.5°



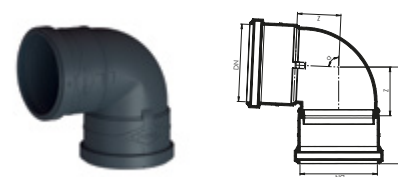
Code	DN	Z1	Z2	L	
7070000870	32	20.0	22.0	64.0	40
7070010870	40	26.0	32.0	73.5	40
7070020870	50	31.0	37.0	82.5	35
7070030870	75	43.0	49.0	99.5	20
7070090870	90	50.0	56.0	110.0	20
7070040870	110	60.0	66.0	129.0	20
7070050870	125	67.0	73.0	142.0	10
7070060870	160	85.0	91.0	171.0	5
7070080870	200	120.0	113.0	219.0	3

USB One Way Bend 45°

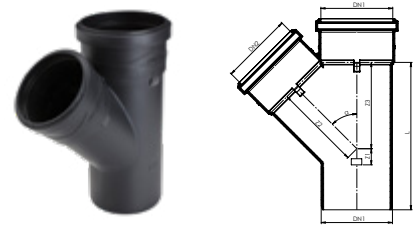


Code	DN	Z	L	
7070040471	110	37.5	117.0	12

USB One Way Bend 87.5°

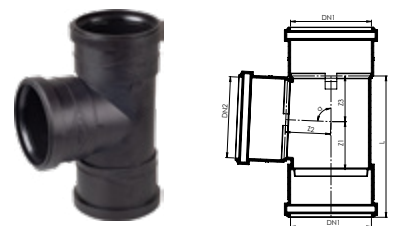


Code	DN	Z	L	
7070040871	110	66.0	145.0	12



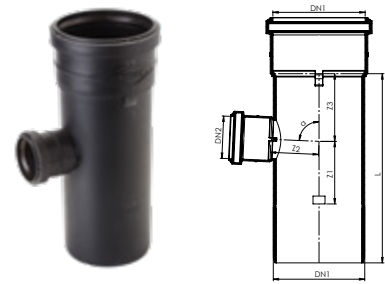
USEA Branch 45°

Code	DN1	DN2	Z1	Z2	Z3	L	
7070600470	32	32	9.0	40.0	40.0	93.0	30
7070611470	40	40	11.0	50.0	50.0	108.5	20
7070621470	50	40	13.0	56.0	62.0	126.5	20
7070622470	50	50	13.0	62.0	62.0	126.5	20
7070632470	75	50	18.0	98.0	92.5	167.0	20
7070633470	75	75	18.0	92.5	92.5	167.0	20
7070691470	90	40	32.5	90.0	109.5	202.0	10
7070692470	90	50	32.5	89.0	109.5	202.0	10
7070699470	90	90	32.5	109.5	109.5	202.0	10
7070641470	110	40	-17.0	110.0	93.0	162.0	10
7070642470	110	50	-17.0	106.0	93.0	162.0	10
7070643470	110	75	2.0	118.5	110.0	181.0	10
7070649470	110	90	25.0	140.0	133.5	227.5	10
7070644470	110	110	25.0	133.5	133.5	227.5	8
7070654470	125	110	18.0	145.0	141.0	234.0	8
7070655470	125	125	31.0	152.0	152.0	258.0	6
7070664470	160	110	39.0	169.0	159.0	284.0	5
7070666470	160	160	39.0	194.0	194.0	319.0	3
7070686470	200	160	25.0	221.0	213.0	337.0	2
7070688470	200	200	53.0	241.0	241.0	393.0	4



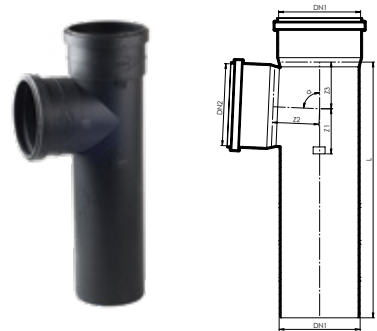
One Way Branch 87.5°

Code	DN1	DN2	Z1	Z2	Z3	L	
7070943871	110	75	86.0	62.5	47.0	164.5	9
7070944871	110	110	70.0	63.0	63.0	196.6	9
7070953871	125	75	67.5	90.5	79.5	232.0	6
7070954871	125	110	67.5	89.5	79.5	232.0	5
7070963871	160	75	70.0	107.5	84.0	255.5	5
7070964871	160	110	70.0	106.5	84.0	255.5	4



USEA Branch 87.5°

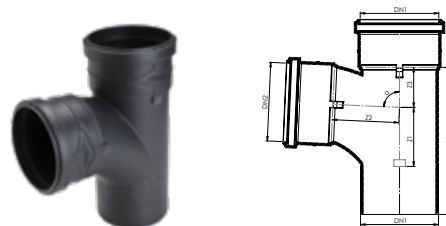
Code	DN1	DN2	Z1	Z2	Z3	L	
7070600870	32	32	19.0	21.5	22.5	85.3	20
7070611870	40	40	27.0	27.0	27.0	101.5	20
7070621870	50	40	31.0	32.0	30.0	112.5	20
7070622870	50	50	31.0	30.0	30.0	112.5	20
7070632870	75	50	58.0	58.0	52.5	167.0	20
7070633870	75	75	58.0	52.5	52.5	167.0	20
7070692870	90	50	69.0	50.0	73.0	202.0	10
7070642870	110	50	32.0	63.0	33.0	134.0	10
7070642875	110	50	77.0	60.0	81.5	227.5	10
7070647870	110	63	42.0	62.6	39.0	150.0	12
7070652870	125	50	67.5	82.8	79.5	222.5	8
7070657870	125	63	67.5	82.8	79.5	222.5	9
7070653870	125	75	67.5	90.5	79.5	222.5	8
7070655870	125	125	78.5	76.0	76.0	229.5	6
7070662870	160	50	70.0	99.8	84.0	240.5	6
7070667870	160	63	70.0	99.8	84.0	240.5	6
7070663870	160	75	70.0	107.5	84.0	240.5	5
7070666870	160	160	97.9	90.0	90.1	274.0	4
7070688870	200	200	140.0	109.0	109.0	348.0	4



USEA Long Branch 87.5°

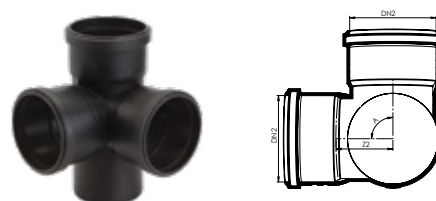
Code	DN1	DN2	Z1	Z2	Z3	L	
7070843871	110	75	86.0	62.5	47.0	353.0	9
7070844871	110	110	70.0	63.0	63.0	353.0	6

USEA Swept Branch 87.5°



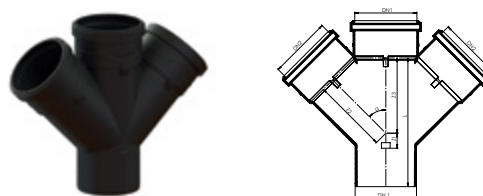
Code	DN1	DN2	Z1	Z2	Z3	L	
7070799870	90	90	79.0	94.0	63.0	202.0	10
7070799876	90	90	58.0	67.0	50.0	168.5	10
7070747870	110	63	42.0	80.7	39.0	150.0	10
7070743870	110	75	82.0	93.7	56.5	207.5	10
7070749870	110	90	82.0	94.0	56.5	207.5	10
7070744870	110	110	82.0	94.5	58.0	207.5	10
7070754870	125	110	100.0	113.5	61.0	236.0	6
7070764870	160	110	96.0	113.5	79.0	261.0	4

USED Corner Branch 87.5°

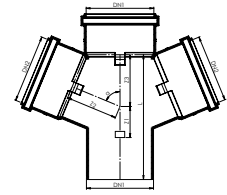


Code	DN1	DN2	Z1	Z2	Z3	L	
7071299870	90	90	52.0	55.0	52.3	164.3	6
7071242870	110	50	52.5	74.8	57.8	179.0	9
7071247870	110	63	53.5	74.8	57.8	179.0	8
7071243870	110	75	54.5	82.5	57.8	179.0	7
7071244870	110	110	60.0	72.5	71.5	200.5	6
7071252870	125	50	67.5	82.8	79.5	222.5	8
7071257870	125	63	67.5	82.8	79.5	222.5	7
7071254870	125	110	60.0	71.5	70.0	205.0	5
7071262870	160	50	70.0	99.8	84.0	240.5	6
7071267870	160	63	70.0	99.8	84.0	240.5	5
7071263870	160	75	70.0	107.5	84.0	240.5	5
7071264870	160	110	70.0	106.5	84.0	240.5	4

USDA Double Branch 45°

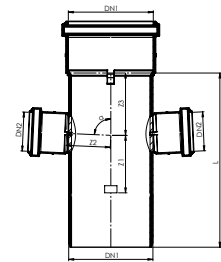


Code	DN1	DN2	Z1	Z2	Z3	L	
7071044470	110	110	27.0	135.0	135.0	231.0	5
7071054470	125	110	18.0	147.0	144.0	237.0	5
7071064470	160	110	39.0	169.0	158.5	283.5	4



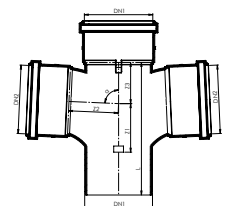
USDA Double Branch 67.5°

Code	DN1	DN2	Z1	Z2	Z3	L	
7071042670	110	50	17.0	73.0	54.0	140.0	9
7071044670	110	110	51.0	85.0	85.0	205.0	6



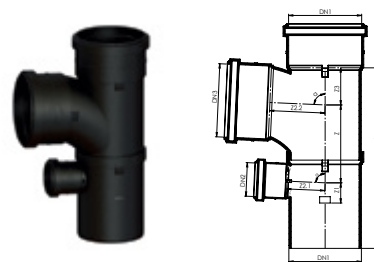
USDA Double Branch 87.5°

Code	DN1	DN2	Z1	Z2	Z3	L	
7071032870	75	50	58.0	52.5	58.0	167.0	12
7071042870	110	50	52.5	74.8	57.8	179.0	9
7071047870	110	63	52.5	74.8	57.8	179.0	8
7071043870	110	75	52.5	82.5	57.8	179.0	7
7071052870	125	50	67.5	82.8	79.5	222.5	8
7071057870	125	63	67.5	82.8	79.5	222.5	7
7071054870	125	110	67.5	89.5	79.5	222.5	5
7071062870	160	50	70.0	99.8	84.0	240.5	5
7071067870	160	63	70.0	99.8	84.0	240.5	5
7071064870	160	110	71.0	106.5	84.0	240.5	3



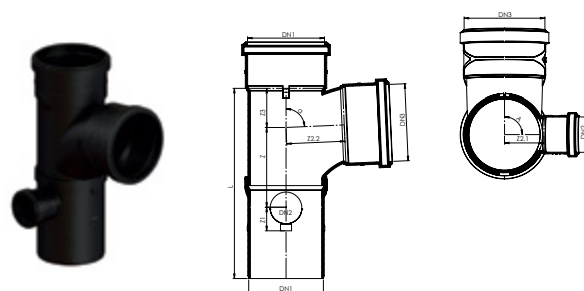
USDA Double Swept Branch 87.5°

Code	DN1	DN2	Z1	Z2	Z3	L	
7071099876	90	90	58.0	67.0	50.0	168.5	6
7071044870	110	110	79.0	80.9	66.9	214.9	6



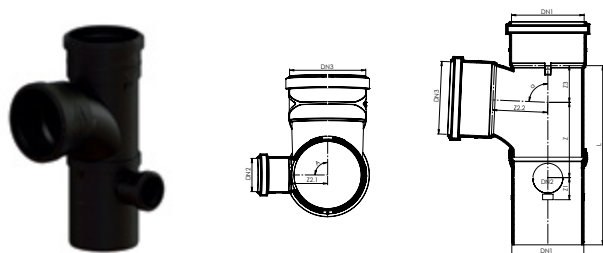
Vertical Double Branch 87.5°

Code	DN1	DN2	DN3	Z	Z1	Z2.1	Z2.2	Z3	L	
7191499823	90	50	90	105.4	31.0	50.0	67.0	50.0	246.7	10
7191444823	110	50	110	130.5	32.0	63.0	94.4	58.0	286.8	10



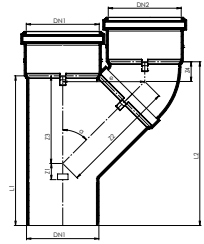
Corner Double Branch 87.5° Left

Code	DN1	DN2	DN3	Z	Z1	Z2.1	Z2.2	Z3	L	
7191499829	90	50	90	105.4	31.0	50.0	67.0	50.0	246.7	5
7191444829	110	50	110	130.5	32.0	63.0	94.4	58.0	286.8	5



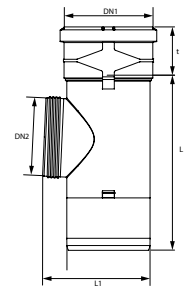
Corner Double Branch 87.5° Right

Code	DN1	DN2	DN3	Z	Z1	Z2.1	Z2.2	Z3	L	
7191499828	90	50	90	105.4	31.0	50.0	67.0	50.0	246.7	5
7191444828	110	50	110	130.5	32.0	63.0	94.4	58.0	286.8	5



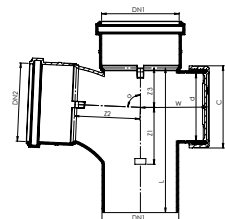
Parallel Branch

Code	DN1	DN2	Z1	Z2	Z3	Z4	E	L1	L2	
7191544070	110	110	25.0	187.0	133.5	37.5	132.4	228.8	257.2	10



USRE Inspection Pipe

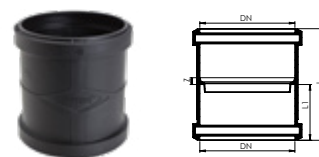
Code	DN1	d	Z1	Z3	W	L	C	
7079120070	50	45.9	33.0	35.0	49.0	119.5	58.0	20
7079130070	75	64.6	58.0	52.5	59.0	167.0	83.0	25
7079190070	90	77.4	61.0	78.9	83.0	199.9	98.0	10
7079140070	110	97.0	77.0	81.5	85.0	227.5	118.0	10
7079150070	125	97.0	62.0	85.0	100.0	222.0	118.0	8
7079160070	160	97.0	65.0	85.0	117.0	236.0	118.0	6
7079180070	200	97.0	121.0	117.0	131.0	337.0	118.0	2



USEA Swept Branch 87.5° with inspection

Code	DN1	DN2	d	Z1	Z2	Z3	W	L	C	
7070744877	110	110	97.0	82.0	94.4	56.5	95.0	207.5	118.0	7

USMM Double Socket / One Way



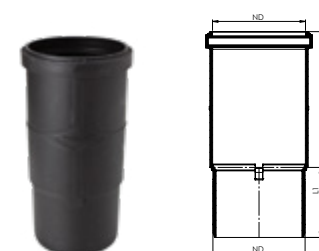
Code	DN	Z	L	L1	
7071700270	32	1.4	102.0	50.3	50
7071710270	40	2.0	88.2	43.0	30
7071720275	50	3.6	96.2	47.1	20
7071730275	75	5.6	105.5	51.6	20
7071790270	90	2.8	113.0	55.0	20
7071740275	110	3.3	130.5	63.6	20
7071750275	125	4.8	143.0	69.0	10
7071760275	160	8.9	165.2	87.6	12
7071780275	200	9.5	192.4	101.2	2

USU Sleeve



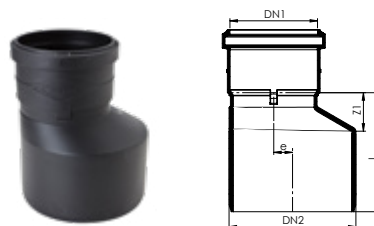
Code	DN	L	
7071700070	32	102.0	50
7071710070	40	88.2	30
7071720070	50	96.2	20
7071730070	75	105.5	20
7071790070	90	113.0	20
7071740070	110	130.5	20
7071750070	125	143.0	10
7071760070	160	165.2	12
7071780070	200	192.4	2

USLL Long Socket



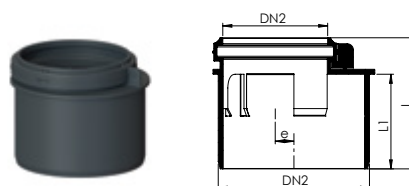
Code	DN	L	L1	
7072210070	40	147.7	52.3	30
7072220070	50	173.6	58.5	20
7072230070	75	195.1	66.0	20
7072290070	90	221.1	73.0	20
7072240070	110	244.6	83.5	15
7072250070	125	298.7	93.0	12
7072260070	160	334.5	106.6	6

USR Reducer



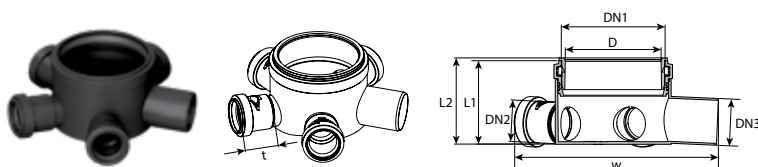
Code	DN1	DN2	Z1	E	L	
7072110070	32	40	12.0	4.3	59.5	30
7072120070	32	50	13.5	9.3	64.5	30
7072121070	40	50	16.0	5.2	66.5	30
7072191070	40	90	33.0	24.6	93.0	20
7072141070	40	110	51.5	33.6	120.5	20
7072132070	50	75	26.0	12.2	82.5	20
7072192070	50	90	33.0	19.2	93.0	20
7072142070	50	110	46.5	28.6	115.5	20
7072147070	63	110	36.0	22.0	107.0	20
7072193070	75	90	24.0	7.1	84.0	20
7072143070	75	110	34.0	16.5	103.0	20
7072149070	90	110	28.5	9.6	97.5	20
7072154070	110	125	27.5	7.6	102.5	10
7072164070	110	160	47.5	23.6	133.5	10
7072165070	125	160	48.9	17.6	134.0	16
7072186070	160	200	49.0	18.6	148.0	6

USR Short Reducer



Code	DN1	DN2	E	L	L1	
7072392070	50	90	16.5	85.8	61.0	20
7072342070	50	110	26.1	94.5	69.0	20
7072343070	75	110	13.6	95.6	69.0	20
7072349070	90	110	6.1	92.0	69.0	20

TRAP/COLLECTOR 90/40/50



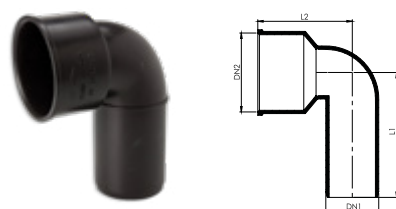
Code	D	DN1	DN2	DN3	L1	L2	W	t		
7157114075	103	110	40	50	90	93	218	42	16	192

USM End Cap



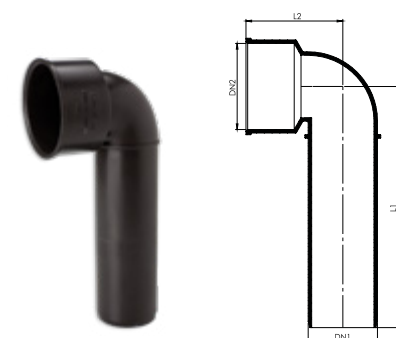
Code	DN	L	
7071600070	32	31.0	100
7071610070	40	44.0	80
7071620070	50	46.0	70
7071630070	75	42.7	30
7071690070	90	60.0	20
7071640070	110	48.8	20
7071650070	125	75.0	20
7071660070	160	86.0	20
7071680070	200	42.2	10

USSW Technical Bend / Siphon Connector



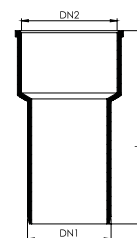
Code	DN1	DN2	L1	L2	
7074010970	32	46	76.0	58.0	40
7074021970	40	50	82.0	56.0	20
7074011970	40	46	76.0	56.0	20
7074022970	50	50	82.0	60.0	20

USSWL Long Technical Bend / Siphon Connector



Code	DN1	DN2	L1	L2	
7074021971	40	50	140.0	56.0	20
7074011971	40	46	140.0	57.0	20

USS Straight Fitting / Siphon Connector

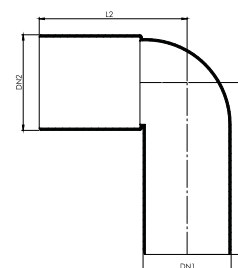


Code	DN1	DN2	L	
7141760070	32	46	92.5	40
7141761070	40	46	93.0	40
7141721070	40	50	93.0	40



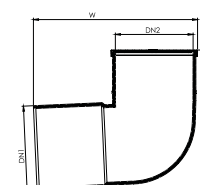
Rubber Gasket for US, USSW, USSWL

Code	DN1	DN2	
T040T0000000030	40	30/32	
T047T00000000	46	26/32	500
T046T00000000	46	40	1000
T050T0000000032	50	26/32	500
T050T0000000040	50	40	500



USSBL Long WC Bend

Code	DN1	DN2	L1	L2	
7195000070	90	119.6	225.0	175.0	10
7155000070	110	119.6	226.0	185.0	10



Balcony Rain water Bend 92.5°

Code	DN1	DN2	W	L		
7075300070	75	66.9	165.0	144.0	36	
7075400070	110	101	213.0	182.0	21	

Lock Seal™



Code	DN	DN1	DN2	L	
7072330000	75	76.5	91.5	59.5	48
7072340000	110	112	130.0	63.0	30
7072350000	125	127	149.0	83.0	18
7072360000	160	163	186.5	90.0	10
7072380000	200	202.5	233.5	114.0	5

End Lock™



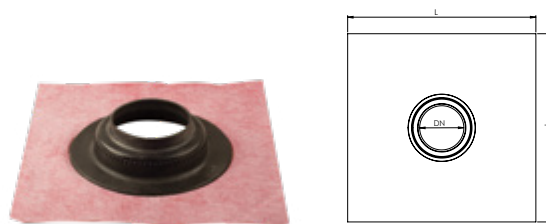
Code	DN	DN1	DN2	L	L1	
7078004000	110	112	130.0	63.0	48.8	30
7078005000	125	127	149.0	83.0	75.0	12
7078006000	160	163	186.5	90.0	86.0	8
7078008000	200	202.5	233.5	114.0	42.2	4

Pressure Clamp™



Code	DN	L	bar	
7073500070	32	83.0	4	10
7073510070	40	59.9	4	10
7073520070	50	106.0	4	10
7073530070	75	135.0	4	10
7073590070	90	148.0	4	10
7073540070	110	170.0	4	10
7073550070	125	217.0	4	10
7073560070	160	251.0	4	10
7073580070	200	300.0	3	5

Ultra Seal™



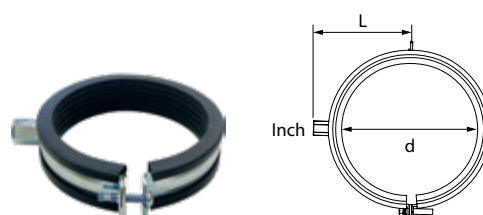
Code	DN	L	
7981100000	110	340.0	30
7981250000	125	500.0	20
7981600000	160	500.0	20

Lubricant



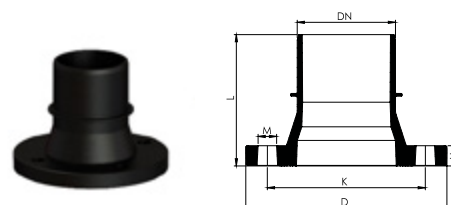
Code	ml	
47700012	250	50
47700013	2000	1

Acoustic Clamp



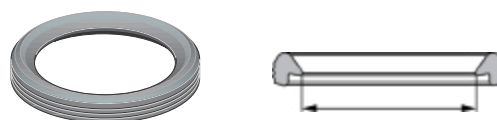
Code	DN	d	Inch	L		
7890011071	110	107-113	$\frac{3}{8} * \frac{1}{2}$	72	40	1440
7890012571	125	122-129	$\frac{3}{8} * \frac{1}{2}$	80	40	1440
7890016071	160	157-164	$\frac{3}{8} * \frac{1}{2}$	97	20	720

Full face flange



Code	DN	M	H	L	D	K	Screw		
7079830070	75	17.0	18.0	117.5	184.0	145.0	4		
7079890070	90	17.0	18.0	120.0	184.0	145.0	4		

Gasket



Code	DN	
47603241	32	40
47610041	40	34
47620041	50	34
47630041	75	34
47630141	90	48
47640041	110	45
47650041	125	40
47660041	160	23
47680041	200	20

Ultra Silent™ NBR sealing element (grease and oil resistant)

Code	DN	
47703241	32	40
47710041	40	34
47720041	50	34
47730041	75	34
47730141	90	48
47740041	110	45
47750041	125	40
47760041	160	23
47780041	200	10

Our Products



Smart Lock™
ratchet lock domestic pipes
and fittings drainage system



Ultra Silent™
soundproof drainage
piping system



HT-Pro
drainage piping system



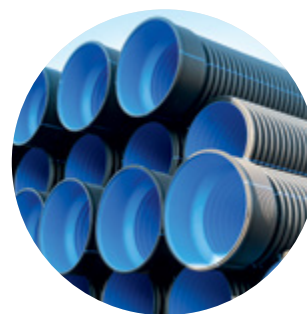
Manholes and
inspection chambers



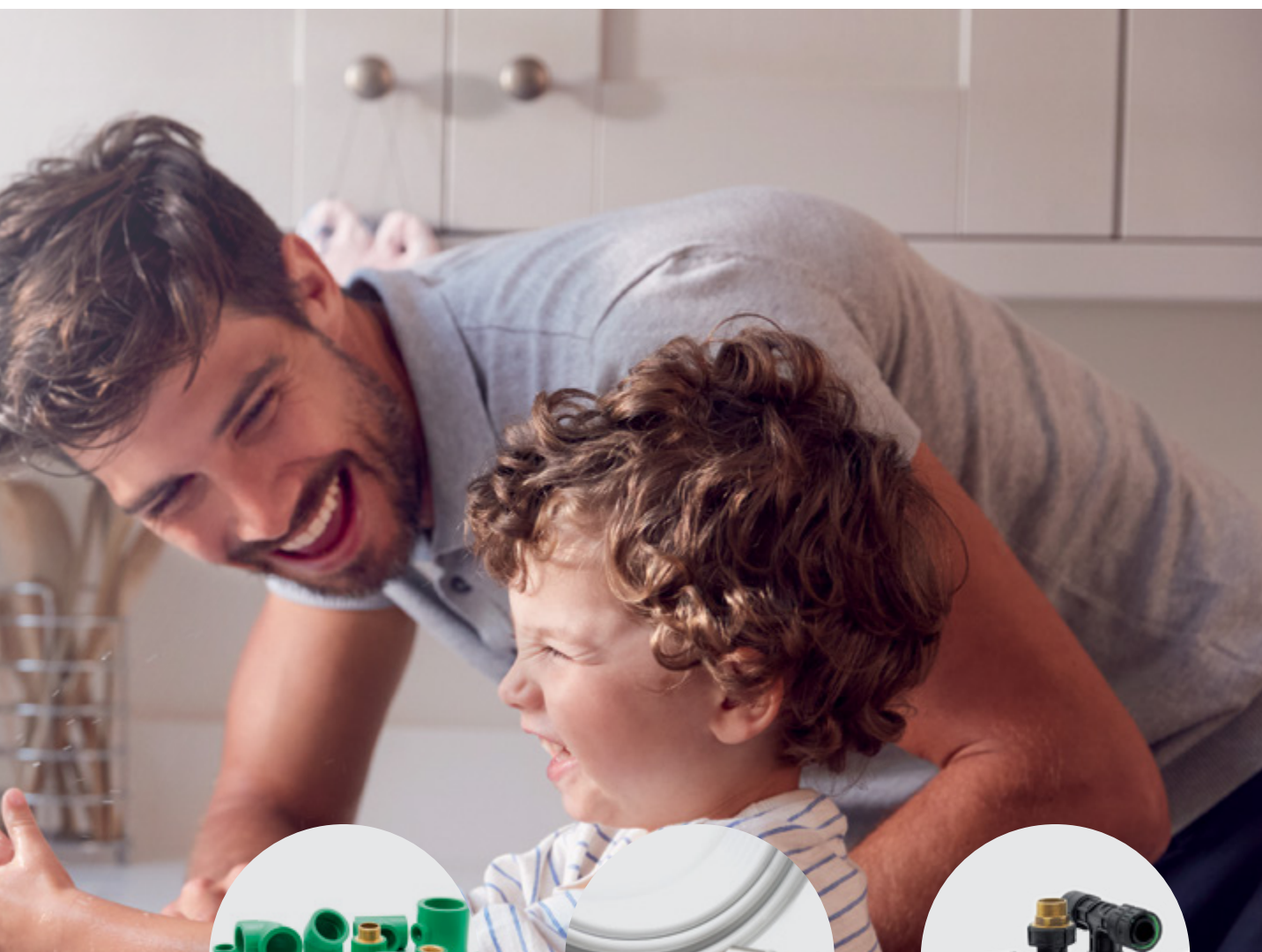
Grease, fat &
oil separators



Electrical and
communication



Stormwater
management



PP-R water supply



Multilayer pipe systems



Zen Weld™ induction welding technology



PE-RT and PE-X pipe systems



Fire protection networks



Wastewater and sewerage pumps



Water supply pumps



 **HuliotGroup**

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 **Huliot** Hofit

 **Heliroma**
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