

## Marks awarded to the programmes of the Drainage Division:

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### Coestilen®



Italy



Germany



Belgium



Austria



Denmark



Australia



France



Sweden



Ukraine

### Coesprene®



Austria



Australia



Denmark



Sweden



Finland



Ukraine

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# Drainage

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BluePower®	Pag. 80
PhoNoFire®	Pag. 108

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Coesprene®

# Coesprene®

Coesprene® is a programme of pipes and fittings made of self-extinguishing, co-polymer PP from diam. 32 to diam. 160 mm, for drainage in the following fields of use:

- **sanitary systems** in civil and industrial buildings, washing machine and dishwasher drains
- **large commercial** and industrial uses
- **aggressive fluids**

Co-polymer PP is a material that provides high technological performance. Its high molecular weight is a guarantee of high resistance and strength, even at low temperatures. Plus, Coesprene® is self-extinguishing. It is classified B1 under the DIN 4102 standard.

The dimensions of Coesprene® pipes and fittings conform to UNI EN 1451-1.

Laboratory tests demonstrate resistance to aging greater than 50 years.

- SELF-EXTINGUISHING  
CO-POLYMER  
POLYPROPYLENE
- UNBREAKABLE AT LOW  
TEMPERATURES,  
RESISTANT TO BOILING  
WATER AND IMMUNE  
TO THE EFFECTS OF  
THE WEATHER
- THE "SOCKET  
CONNECTOR"  
JUNCTION ALLOWS  
QUICK CONNECTIONS  
WITH OTHER  
MATERIALS
- THE "DOUBLE-LIP"  
GASKET GUARANTEES  
A PERFECT HYDRAULIC  
SEAL EVEN UNDER  
BACKFLOW  
CONDITIONS
- THE RAW MATERIAL IS  
NON-POLLUTING AND  
RECYCLABLE

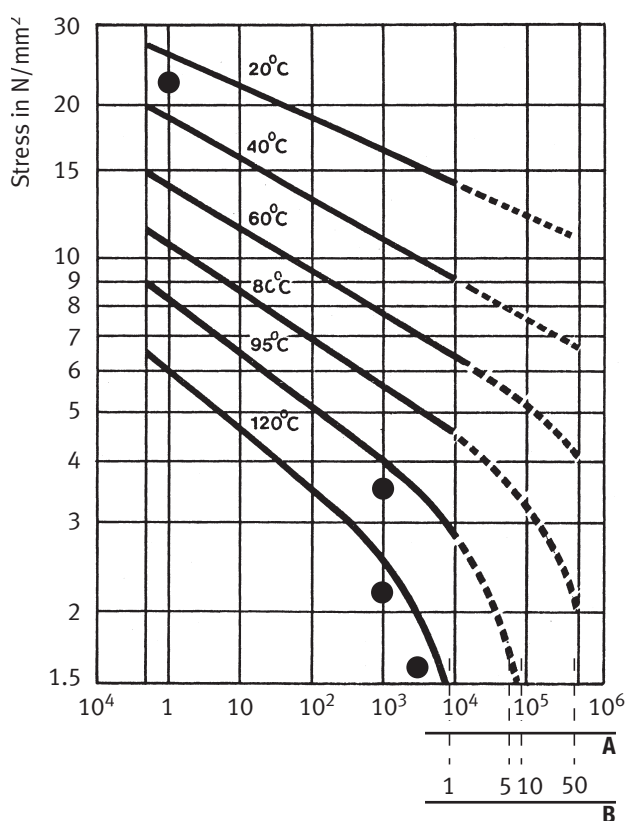
Characteristics	ISO	DIN	Unit	Value
Melt index	ISO 1133	DIN 53735	–	–
MF1190/5	Procedure 18	Code T	g/10 min	0.5
MF1230/2	Procedure 12	Code M	g/10 min.	0.35
MF1230/5	Procedure 20	Code V	g/10 min.	2
Crystallite melt temperature	Microscope polarisation		°C	164-168
Specific weight at 23 °C	ISO/R 1183	DIN 53479	g/cm <sup>3</sup>	0.933
Charpy resistance	ISO 179/2 D	DIN 53453	kJ/m <sup>2</sup>	n. c.
– 30 °C	–	–	kJ/m <sup>2</sup>	40
Resistance with Charpy cut	ISO 179/2 C	DIN 53453	kJ/m <sup>2</sup>	40
– 30 °C	–	–	kJ/m <sup>2</sup>	3
Izod resistance	ISO 180/1 C	–	kJ/m <sup>2</sup>	n. c.
– 30 °C	–	–	kJ/m <sup>2</sup>	35
Resistance with Izod cut	ISO 180/1 A	–	kJ/m <sup>2</sup>	12
– 30 °C	–	–	kJ/m <sup>2</sup>	2.5
Traction resistance	ISO 527	DIN 53455	N/mm <sup>2</sup>	37
Traction lengthening	Vel. <sup>E</sup>	Vel. <sup>V</sup>	%	10
Break lengthening	Specimen	Specimen 3	%	> 50
Ball hardness	ISO 2039 (H 358/30)	DIN 53456 (H358/30)	N/mm <sup>2</sup>	70
Coefficient of elasticity (traction test)	ISO 527	DIN 53457	N/mm <sup>2</sup>	1300
Yield modulus	ISO 537 Method A	DIN 53445	N/mm <sup>2</sup>	650
Stress with traction	ISO 178 (standard tests)	DIN 53452	N/mm <sup>2</sup>	30
Softening temperature				
Vicat VST/B/50	ISO 306	DIN 53460	°C	90
Bending temperature	ISO 75 Method A	DIN 53461	°C	55

n.c. = no yielding

1) Basic polymer

Execution of the specimens and the choice of test materials were carried out in compliance with the DIN 16774 standards.

## REGRESSION CURVES



## Resistance to cracking under strain

The values that determine the resistance capacity of Coesprene® self-extinguishing copolymer PP and of plastic materials over time are the following:

- Mechanical stress = *pressure*
- Thermal stress = *temperature*
- Duration of the stress = *time*

The expression that links the parameters described can be checked through the regression curves.

With internal pressure tests at temperatures spaced out at 20, 40, 60, 80, 95 and 120°C, the minimum resistance values of self-extinguishing PP-C have been established.

Through logarithmic representation, the comparison stresses, life-time in years and the regression curves at the various temperatures according to the ISO standards are shown.

— = actual testing period

● = duration time according to the ISO standard

A = hours

B = years

N/mm<sup>2</sup> = Kg/cm<sup>2</sup>



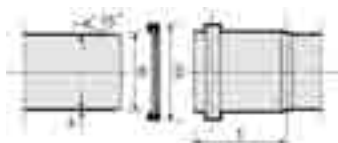
## SOCKET DIMENSIONS

The dimensions of the sockets conform to the UNI EN 1451-1 standards and use PGL joints.

The thickness of the Coesprene® pipes and fittings from diameter 32 mm to 160 mm are in conformity with the UNI-EN 1451-1 standard.

### Please note

- As regards the 32-mm diameter found in this catalogue, it is not provided for by the above-mentioned standards, even if it is manufactured in compliance with them.



### Socket dimensions

d	s	D	t
32	1,8	42	46
40	1,8	54	51
50	1,8	64	52
75	1,9	89	55
90	2,2	106	59
110	2,7	128	64
125	3,1	145	72
160	3,9	184	82

Coesprene® was designed for drainage inside domestic and industrial buildings for the following fields of application:

- **Drainage of sanitary fixtures**
- **Drainage of washing machines and dishwashers**
- **Extended drainage of waste water** (large kitchens, laundries, industrial systems).
- **Drainage of aggressive fluids** in schools, laboratories and industrial buildings.

In this case the chemical resistance of the material at the duty temperature can be roughly obtained from ISO/TR 7471.

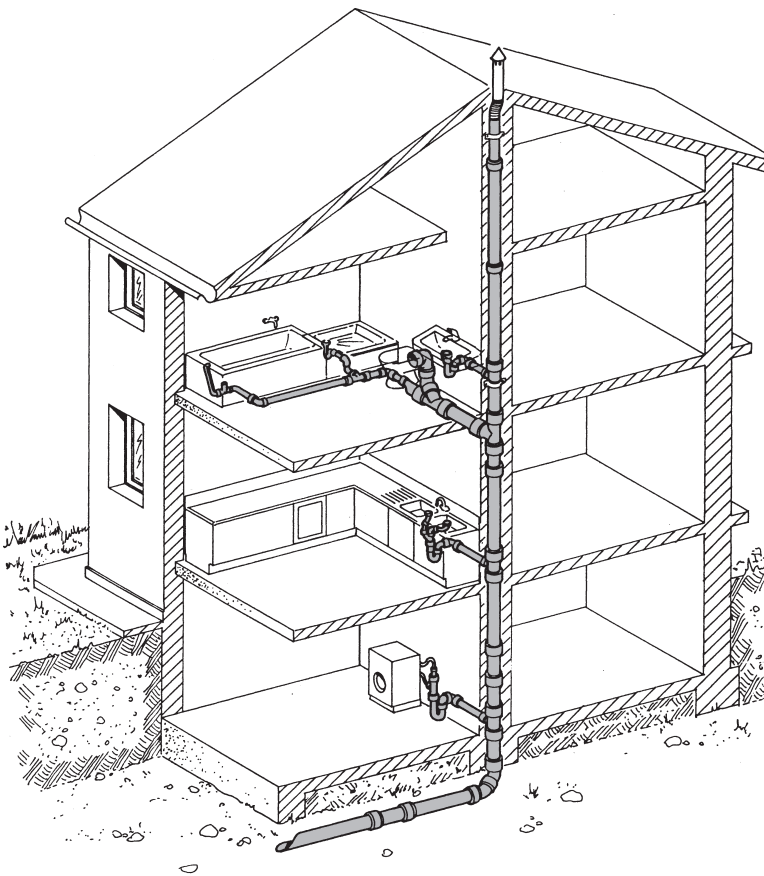
Its use is also contemplated in the downflow of rainwater inside buildings, and in ventilation columns and branches (DIN 1986/4).

All Coesprene® programme components, including seals, have features such as to fully meet the UNI-EN 1451-1 specifications.

### Application conditions

Maximum temperature of the fluids piped not under vacuum: 95°C.

**Note:** It cannot be used for piping drain water containing benzene or benzole (DIN 1986/3, 2.3).





Connection by socket coupling is quick and easy:

- 1 Clean the ends of the pipe and fitting
- 2 Check that the socket seal is in perfect condition (Fig. 1)
- 3 Lubricate the part to be coupled with Coes product AT1426 (Fig. 2)
- 4 Insert the pipe all the way to the end of the socket, then extract it 10 mm (Fig. 3)
- 5 Coesprene® pipes and fittings have their tang perfectly chamfered to make insertion easier. If you use crop ends of pipe, make a cut precisely and perpendicular (Fig. 4). Then, in order to not damage the seal during coupling, chamfer using the special tool (Fig. 5)

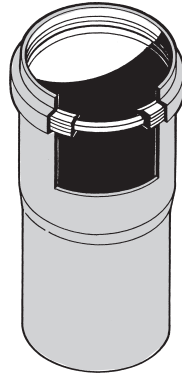


Fig. 1

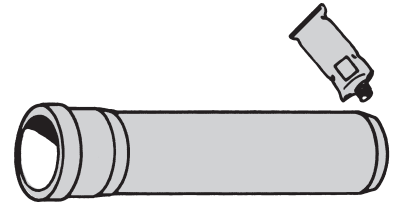


Fig. 2

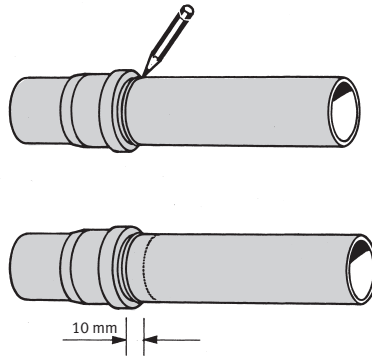


Fig. 3

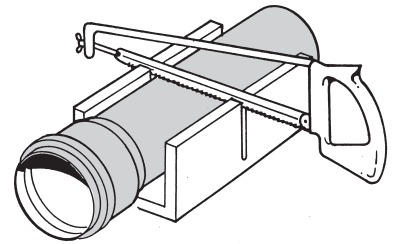


Fig. 4

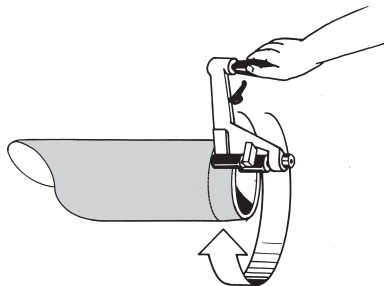


Fig. 5

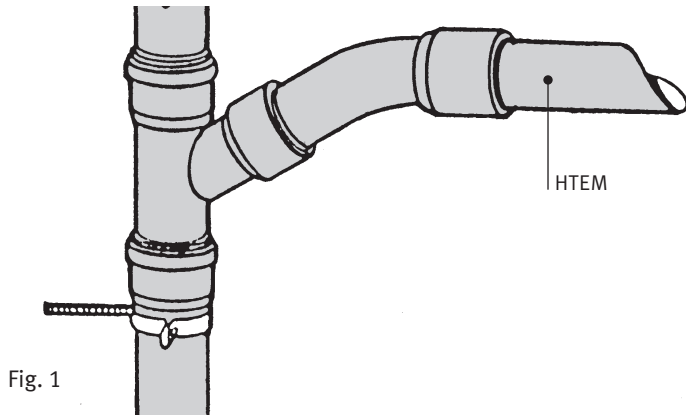


Fig. 1

Vertical systems must be secured using bands placed beneath the coupling right after assembly so as to prevent them from slipping (*Fig. 1*).

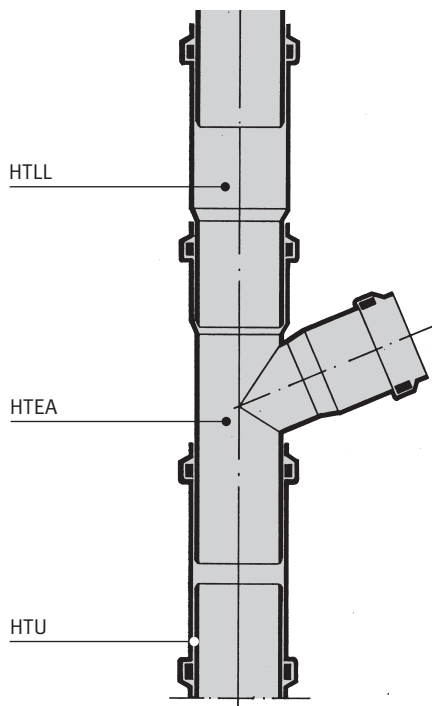


Fig. 2

To insert a branch in an existing pipe, use the triple-depth coupling. Continue by cutting a segment of pipe equivalent to the length of the branch to be inserted plus the coupling insertion depth. Then insert the coupling into the upper part as far as it will go, and insert the branch in the part underneath using an HTU coupling. Lastly, insert the end of the long coupling in the branch socket (*Fig. 2*).

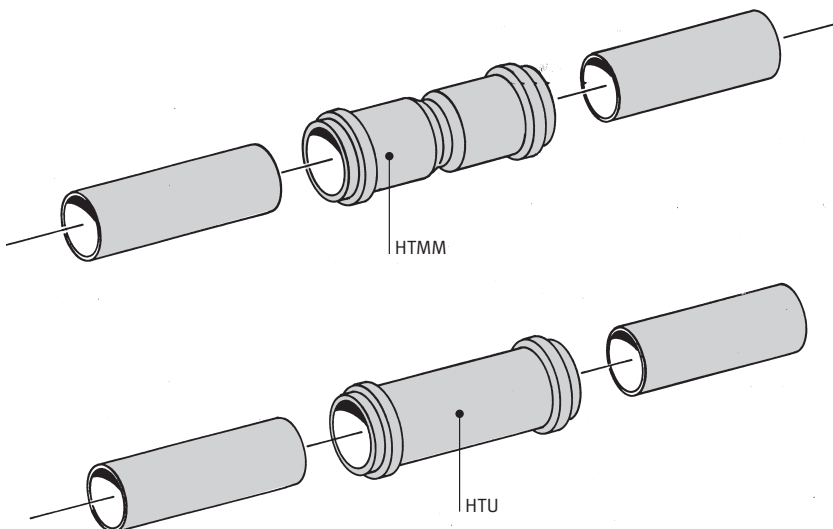


Fig. 3

You can re-use crop ends of pipe left over by joining them with HTU couplings or double-socket couplings (*Fig. 3*).

The length of the coupling socket was calculated to absorb thermal expansions of single construction lengths no longer than 2 metres.

It is customary to calculate the thermal expansions of 5 mm per metre in the used water drain and 2 mm per metre in the water columns.

**The system must be built in such a way that it does not prevent thermal expansions.**

It is for this purpose that a fixed point is to be made under the coupling of each pipe of every construction length that will lock that part of the system while leaving the rest free to expand.

**Fixed point**

Bands that completely wrap around the pipe are used to create a fixed point.

If no protective tape is used, the interior of the band must be smooth with its edges rounded off.

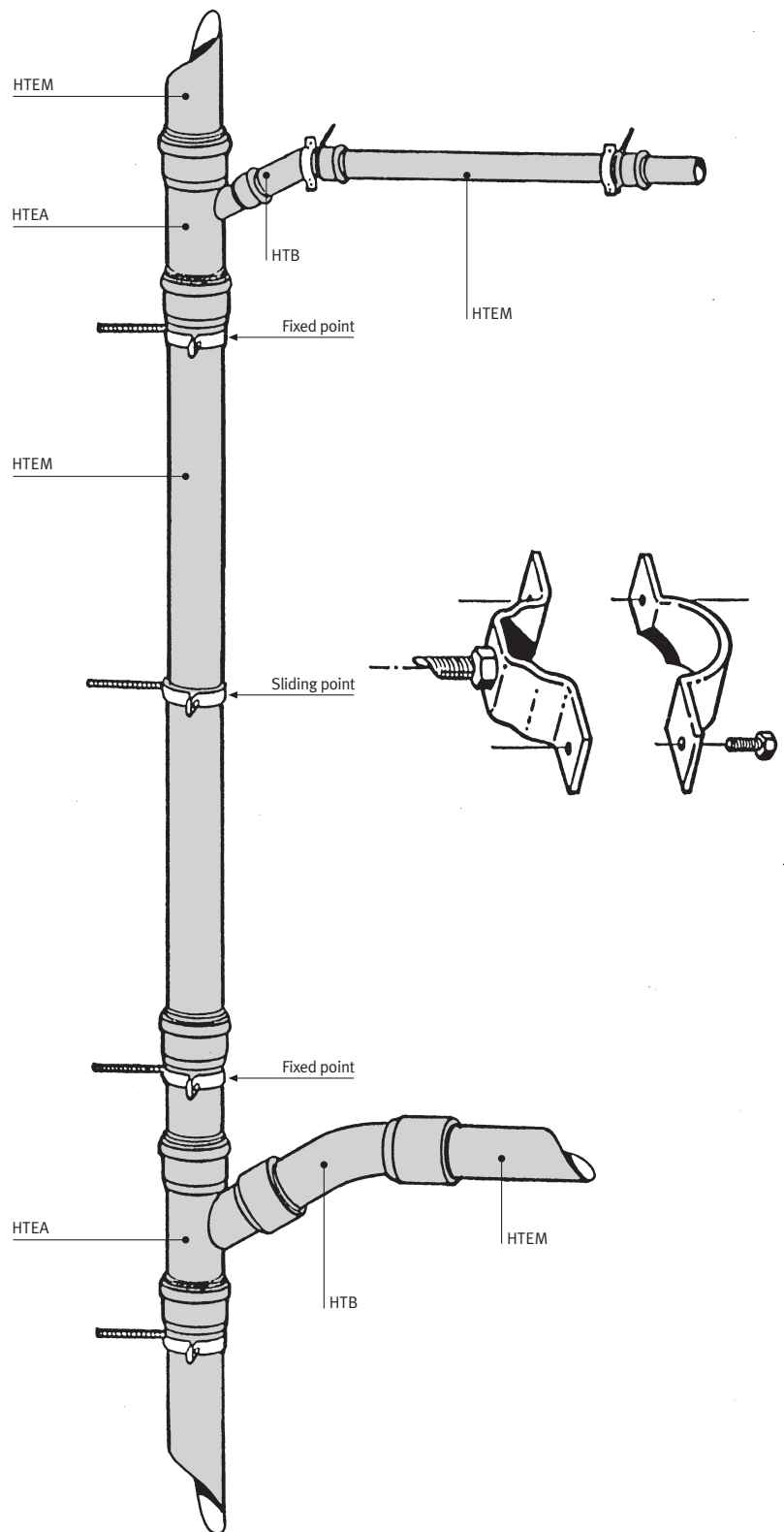
**Sliding point**

The bands for sliding points have the job of keeping the system aligned while permitting it to freely expand.

For soundproofing reasons, it is advisable to use only bands with internal protective tape.

The recommended distance between bands is:

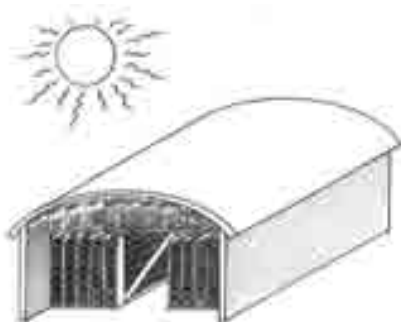
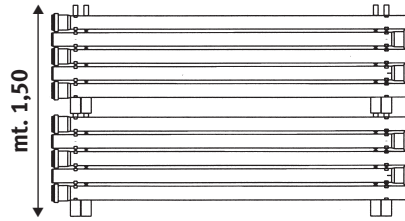
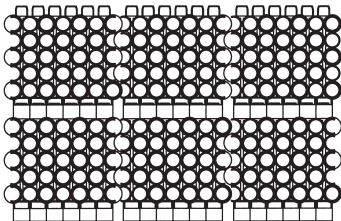
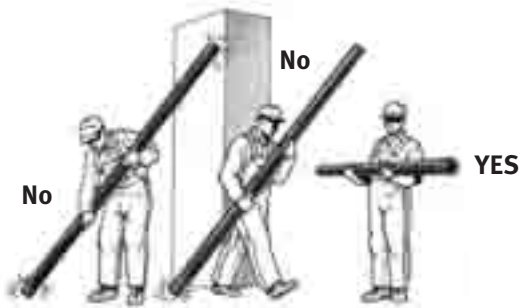
- Every 10 times the diameter of the pipe for horizontal pipes.
- Every 15 times the diameter of the pipe for vertical pipes.



**Notices**

Bear in mind any national provisions or laws for installation and use of the Coesprene® system. The coupling joint system guarantees the seal. Any possible mechanical stresses must be considered during the design and assembly stage so as to not compromise the seal of the system. Suspended systems must be designed and installed with an adequate attachment system so that mechanical stresses do not prejudice the hydraulic seal of the gasket.





**Loading**

- Use suitable vehicles
- Set the pipes down on their entire length
- Load the heaviest pipes first
- Do not let the pipes protrude more than one metre from the loading bed of the lorry

**Handling**

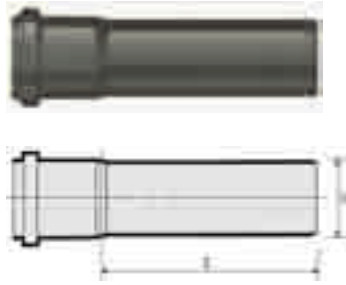
- Do not bang or drag the pipes

**Stacking**

- Set the smooth pipes on surfaces without roughness; the socketed pipes are packaged in special frames in order to prevent deformations
- Do not exceed the height of 1.5 m when stacking
- Outdoor stacking must be restricted to 2 years at the most

**Storage**

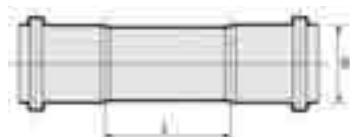
- Use the same precautions as those of the pipes for the fittings
- They must not be stored outdoors for more than 2 years
- Prevent all contact with benzene or benzole



Pipe with one socket HTEM

CODE	d	L	KG
PTU0301	32	150	0,035
PTU0302	32	250	0,051
PTU0305	32	500	0,096
PTU0310	32	1000	0,178
PTU0315	32	1500	0,290
PTU0320	32	2000	0,356
PTU0330	32	3000	0,534
PTU0401	40	150	0,047
PTU0402	40	250	0,070
PTU0405	40	500	0,127
PTU0407	40	750	0,183
PTU0410	40	1000	0,240
PTU0415	40	1500	0,353
PTU0420	40	2000	0,466
PTU0430	40	3000	0,672
PTU0501	50	150	0,060
PTU0502	50	250	0,088
PTU0505	50	500	0,160
PTU0507	50	750	0,231
PTU0510	50	1000	0,302
PTU0515	50	1500	0,445
PTU0520	50	2000	0,587
PTU0530	50	3000	0,872
PTU0701	75	150	0,098
PTU0702	75	250	0,143
PTU0705	75	500	0,257
PTU0707	75	750	0,370
PTU0710	75	1000	0,484
PTU0715	75	1500	0,711
PTU0720	75	2000	0,938
PTU0730	75	3000	1,392
PTU0901	90	150	0,100
PTU0902	90	250	0,164
PTU0905	90	500	0,330
PTU0910	90	1000	0,656
PTU0915	90	1500	0,98
PTU0920	90	2000	1,320
PTU0930	90	3000	1,980
PTU1101	110	150	0,211
PTU1102	110	250	0,305
PTU1105	110	500	0,539
PTU1107	110	750	0,774
PTU1110	110	1000	1,008
PTU1115	110	1500	1,477
PTU1120	110	2000	1,946
PTU1130	110	3000	2,884
PTU1202	125	250	0,411
PTU1205	125	500	0,718
PTU1210	125	1000	1,331
PTU1215	125	1500	1,945
PTU1220	125	2000	2,558
PTU1230	125	3000	3,785
PTU1602	160	250	0,680
PTU1605	160	500	1,166
PTU1610	160	1000	2,137
PTU1615	160	1500	3,109
PTU1620	160	2000	4,080
PTU1630	160	3000	6,023

Pipe with two sockets HTDM



CODE	d1	L	KG
PTD0305	32	500	0,113
PTD0310	32	1000	0,210
PTD0315	32	1500	0,290
PTD0320	32	2000	0,398
PTD0330	32	3000	0,579
PTD0405	40	500	0,140
PTD0410	40	1000	0,253
PTD0415	40	1500	0,366
PTD0420	40	2000	0,479
PTD0430	40	3000	0,732
PTD0505	50	500	0,177
PTD0510	50	1000	0,319
PTD0515	50	1500	0,462
PTD0520	50	2000	0,604
PTD0530	50	3000	0,924
PTD0705	75	500	0,286
PTD0710	75	1000	0,513
PTD0715	75	1500	0,740
PTD0720	75	2000	0,967
PTD0730	75	3000	1,480
PTD0905	90	500	0,33
PTD0910	90	1000	0,656
PTD0915	90	1500	0,98
PTD0920	90	2000	1,320
PTD0930	90	3000	1,980
PTD1105	110	500	0,610
PTD1110	110	1000	1,079
PTD1115	110	1500	1,548
PTD1120	110	2000	2,017
PTD1130	110	3000	2,955
PTD1205	125	500	0,822
PTD1210	125	1000	1,436
PTD1215	125	1500	2,049
PTD1220	125	2000	2,663

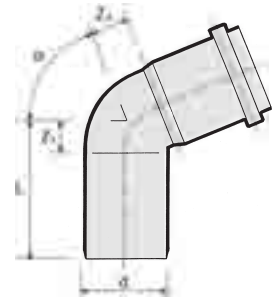
Pipe without socket HTGL



CODE	d	L	KG
PTS0450 ●	40	5000	1,130
PTS0550 ●	50	5000	1,425
PTS0750 ●	75	5000	2,270
PTS1130	110	3000	2,814
PTS1150	110	5000	4,690
PTS1250 ●	125	5000	6,135

● on order only

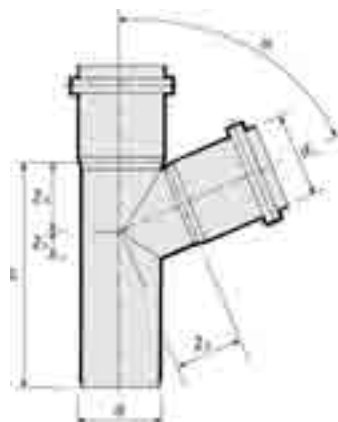
Bend HTB



CODE	d	$\alpha$	z1	z2	L
PGO0315	32	15°	3	7	54
PGO0330	32	30°	6	7	52
PGO0345	32	45°	8	10	55
PGO0367	32	67,5°	13	15	60
PGO0387	32	87,5°	14	16	62
PGO0415	40	15°	5	8	54
PGO0430	40	30°	7	11	56
PGO0445	40	45°	10	14	59
PGO0467	40	67,5°	16	20	65
PGO0480	40	80°	20	24	69
PGO0487	40	87,5°	23	26	72
PGO0515	50	15°	5	9	55
PGO0530	50	30°	9	12	59
PGO0545	50	45°	12	16	62
PGO0567	50	67,5°	20	23	70
PGO0580	50	80°	24	28	74
PGO0587	50	87,5°	28	31	78
PGO0715	75	15°	7	11	64
PGO0730	75	30°	12	15	69
PGO0745	75	45°	18	21	75
PGO0767	75	67,5°	28	31	85
PGO0780	75	80°	35	38	92
PGO0787	75	87,5°	40	43	97
PGO0915	90	15°	8	13	78
PGO0930	90	35°	14	20	84
PGO0945	90	45°	21	27	91
PGO0967	90	67,5°	34	40	104
PGO0987	90	87,5°	50	56	120
PGO1115	110	15°	9	14	74
PGO1130	110	30°	17	21	82
PGO1145	110	45°	25	29	90
PGO1167	110	67,5°	40	44	105
PGO1180	110	80°	50	54	115
PGO1187	110	87,5°	57	61	122
PGO1215	125	15°	10	14	92
PGO1230	125	30°	10	15	92
PGO1245	125	45°	28	33	110
PGO1267	125	67,5°	45	50	127
PGO1287	125	87,5°	65	70	147
PGO1615	160	15°	12	18	11
PGO1630	160	30°	29	23	123
PGO1645	160	45°	42	36	136
PGO1687	160	87,5°	89	83	183

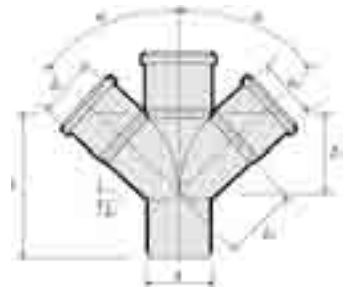
Branch HTEA

CODE	d - d1	α	z1	z2	z3	L
PB40303	32/32	45°	9	40	40	95
PB60303	32/32	67,5°	16	25	33	96
PB80303	32/32	87,5°	23	18	25	70
PB40403	40/32	45°	14	44	46	95
PB60403	40/32	67,5°	10	49	49	100
PB40404	40/40	45°	10	49	49	110
PB60404	40/40	67,5°	16	33	33	98
PB80404	40/40	87,5°	23	25	25	97
PB40504	50/40	45°	5	56	54	109
PB60504	50/40	67,5°	14	39	35	99
PB80504	50/40	87,5°	23	30	35	98
PB40505	50/50	45°	12	61	61	129
PB60505	50/50	67,5°	20	41	41	111
PB80505	50/50	87,5°	28	30	30	108
PB40704	75/40	45°	7	74	67	117
PB60704	75/40	67,5°	9	52	40	106
PB80704	75/40	87,5°	22	42	26	105
PB40705	75/50	45°	1	79	74	130
PB60705	75/50	67,5°	14	54	46	117
PB80705	75/50	87,5°	27	43	31	115
PB40707	75/75	45°	18	91	91	162
PB60707	75/75	67,5°	28	59	59	140
PB80707	75/75	87,5°	40	43	43	136
PB40904	90/40	45°	3	89	81	148
PB80904	90/40	87,5°	27	50	31	128
PB40905	90/50	45°	15	89	81	145
PB80905	90/50	87,5°	27	50	31	130
PB40909	90/90	45°	23	109	109	200
PB80909	90/90	87,5°	46	51	51	171
PB41104	110/40	45°	24	99	84	125
PB61104	110/40	67,5°	3	71	48	116
PB81104	110/40	87,5°	23	59	27	115
PB41105	110/50	45°	17	104	91	139
PB61105	110/50	67,5°	8	73	54	127
PB81105	110/50	87,5°	28	60	32	125
PB41107	110/75	45°	1	116	109	175
PB61107	110/75	67,5°	22	78	67	154
PB81107	110/75	87,5°	40	60	45	150
PB41111	110/110	45°	25	134	134	219
PB61111	110/110	67,5°	40	86	86	186
PB81111	110/110	87,5°	57	62	62	179
PB41211	125/110	45°	18	143	141	243
PB61211	125/110	67,5°	37	93	88	210
PB81211	125/110	87,5°	57	68	62	204
PB41212	125/125	45°	33	152	152	266
PB61212	125/125	67,5°	48	97	97	266
PB81212	125/125	87,5°	66	69	69	266
PB41611	160/110	45°	0	168	159	260
PB61611	160/110	67,5°	31	113	96	230
PB81611	160/110	87,5°	59	86	62	225
PB41612	160/125	45°	12	176	169	282
PB61612	160/125	67,5°	39	116	104	245
PB81612	160/125	87,5°	67	86	69	236
PB41616	160/160	45°	36	193	193	329
PB61616	160/160	67,5°	58	123	123	281
PB81616	160/160	87,5°	84	87	87	271



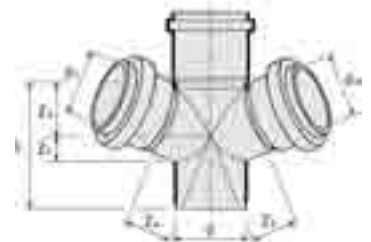


Double branch HTDA



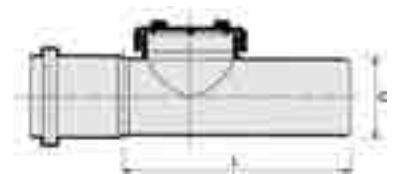
CODE	d - d1- d2	$\alpha$	z1	z2	z3	L
PBD0505	50/50/50	67,5°	11,6	40	41	113
PBD4904	90/40/40	45°	7	89	81	148
PBD4905	90/50/50	45°	7	89	91	148
PBD1104	110/40/40	67,5°	12	69	46	113
PBD8104	110/40/40	87°	12	69	26	113
PBD4105	110/50/50	45°	17	103	91	145
PBD1105	110/50/50	67,5°	8	71	51	135
PBD8105	110/50/50	87,5°	8	73	54	131
PBD1111	110/110/110	67,5°	40	85	85	201
PBD8111	110/110/110	87,5°	45	59	63	182

67,5° double branch HTED



CODE	d - d1- d2	z1	z2	z3	z4	L
PBS1105	110/50/50	10	48	54	48	156
PBS0151	110/50/110	10	48	54	48	188
PBS0115	110/110/50	40	86	86	86	202
PBS1111	110/110/110	40	86	86	86	202

Inspection with screw cap HTRE



CODE	d	L
PIL0505	50	115
PIL0707	75	142
PIL0909	90	170
PIL1111	110	185
PIL1212	125	214
PIL1616	160	228

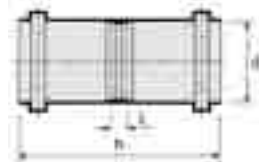
**Coupling HTU**

CODE	d1	h
PMA0300	32	108
PMA0400	40	104
PMA0500	50	104
PMA0700	75	110
PMA0900	90	120
PMA1100	110	126
PMA1200	125	180
PMA1600	160	204



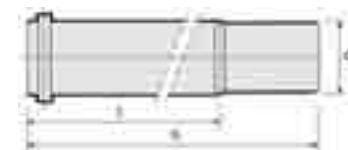
**Double-socket coupling HTMM**

CODE	d1	L	h
PM20300	32	3	108
PM20400	40	9	112
PM20500	50	9	115
PM20700	75	10	118
PM20900	90	11	131
PM21100	110	12	134
PM21200	125	42	185
PM21600	160	49	211



**Triple-depth socket HTLL**

CODE	d	L	h
PM30400	40	112	168
PM30500	50	114	170
PM30700	75	185	245
PM30900	90	177	247
PM31100	110	185	258
PM31200	125	129	230



**Sliding PVC coupling for repairs**

CODE	d	L
PMS1122	110	320

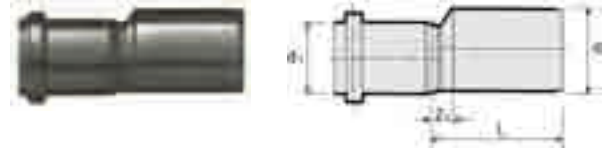


Closing plug HTM



CODE	d	L
PTC0400	40	23
PTC0500	50	23
PTC0700	75	27
PTC1100	110	27
PTC1200	125	33

Increase HTR



CODE	d1 - d	z1	L
PRE0304	32/40	10	53
PRE0305	32/50	16	66
PRE0307	32/75	30	85
PRE0405	40/50	12	62
PRE0407	40/75	20	80
PRE0409	40/90	35	105
PRE0411	40/110	40	100
PRE0507	50/75	20	73
PRE0509	50/90	31	100
PRE0511	50/110	40	100
PRE0709	75/90	17	86
PRE0711	75/110	26	86
PRE0911	90/110	20	90
PRE1112	110/125	14	101
PRE1116	110/160	36	121
PRE1216	125/160	28	114

Eccentric built-in reduction



CODE	DN	DN2	L	L1	L2
PRC0704	75	40	75	59	46,5
PRC0705	75	50	75	59	58
PRC0904	90	40	77	61	46,5
PRC0905	90	50	76	61	45,5
PRC1104	110	40	82	66	54
PRC1105	110	50	82	66	45,5
PRC1107	110	75	82	66	56
PRC1109	110	90	81,5	65	55

Eccentric reduction



CODE	d1 - d	L
PRE0403	40/32	98
PRE0504	50/40	54

Double reduction



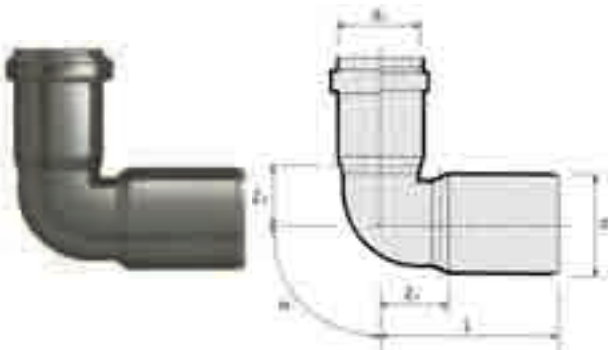
CODE	DN	DN1	DN2	Z1	L	L1
PRC1144	110	40	40	30	60	42

Socket for reduction



CODE	d1 - d	L
PRR0403	40/32	65
PRR0504	50/40	55

Reduced bend HTBR

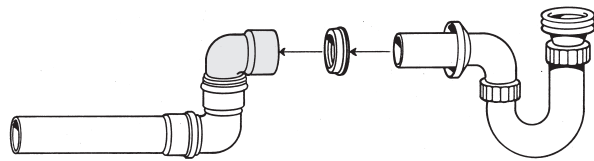


CODE	d - d1	$\alpha$	z1	z2	L
PCR0405	40/50	87,5	28	26	78

Technical bend HTSW



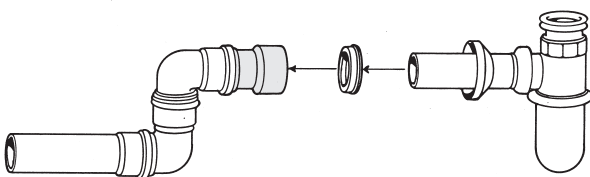
CODE	d	d1	z1	z2	L1
PCT0346	32	46	23,5	24	76
PCT0446	40	46	23,5	24	76
PCT0405	40	50	23,5	24	76
PCT0505	50	50	28,5	29	82
PCT0506	50	60	28,5	29	82



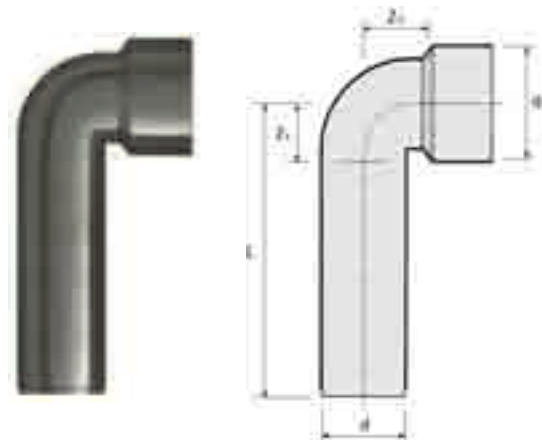
Coupling for trap HTS



CODE	d	d1	L	H
PMS0346	32	46	56	83,5
PMS0446	40	46	56	83,5
PMS0405	40	50	56	83,5
PMS0505	50	50	57	82,5
PMS0506	50	60	55,5	85,5

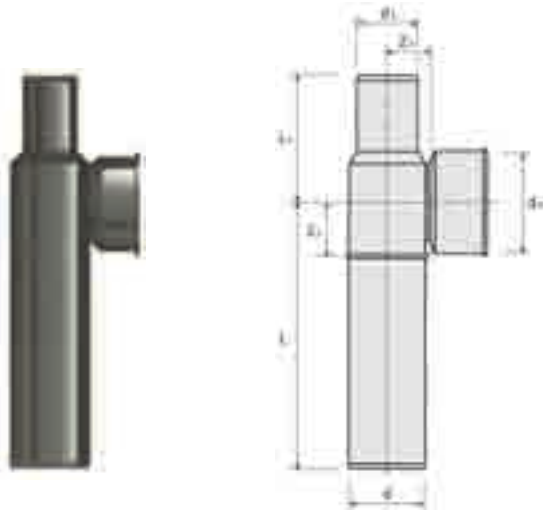


Extended technical bend HTSWL



CODE	d	d1	z1	z2	L
PCTL446	40	46	23,5	20	152
PCTL405	40	50	23,5	20	152

Ventilated technical bend HTSW



CODE	d	d1	z1	z2	d2	L	L1
PCTV446	40	46	23,5	20	32	152	67
PCTV450	40	50	23,5	20	32	152	67

Rubber clamp seal



CODE	d1	d2
GC2632	46	26÷32
GC4046	46	40
GC5058	60	50
PMG0501	50	28/34-1"
PMG0502	50	38/44-1 1/4"
PMG0601	60	28/34-1"
PMG0602	60	38/44-1 1/4"
PMG0603	60	48/54-1 1/2"

- Note: to be used for:
- coupling for trap HTS
  - technical bend HTSW
  - extended technical bend HTSWL
  - ventilated technical bend HTSW

See Coestilen programme, page 50

White PP HTSK coupling for W.C. connection with wall drain, complete with seal

CODE  
 NB0900  
 NB1100

White PP rosette

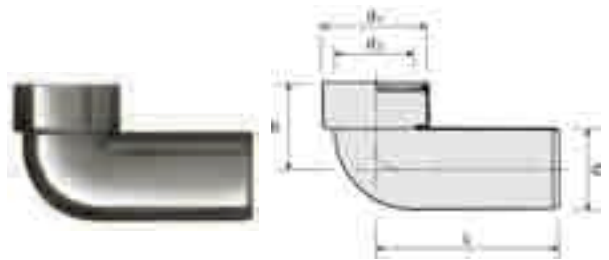
CODE  
 MA0917  
 MA1117

White PP HTSK eccentric coupling for W.C. connection with wall drain, complete with seal

CODE  
 NB110E

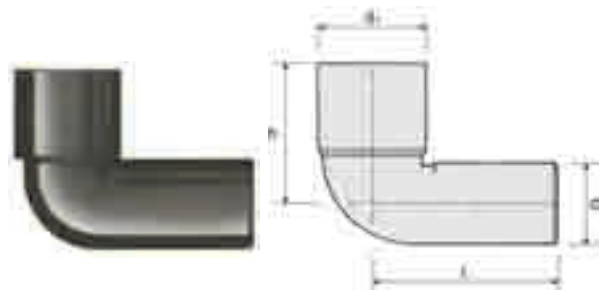
See Coestilen programme, page 46

White PP 90° WC bend with seal



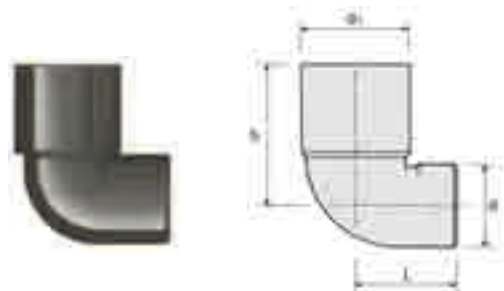
CODE	d	d1	d2	L	d
PCW110B	110	136	120±5	230	100

Extended 90° WC curve HTSBL

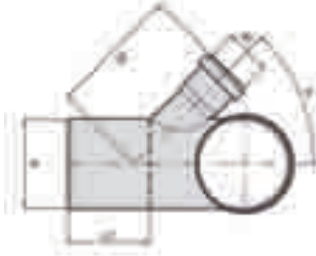
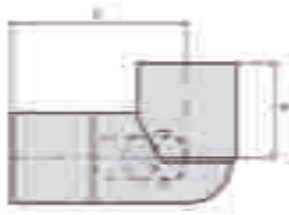


CODE	d	d1	L	h
PWL0900	90	120	230	175
PWL1100	110	120	230	185

Short 90° WC bend HTSBL

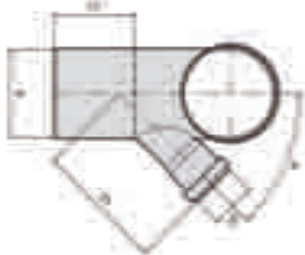
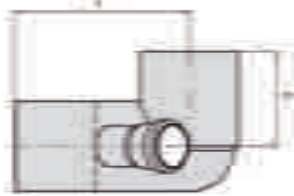


CODE	d	d1	L	h
PWL110C	110	120	120	185



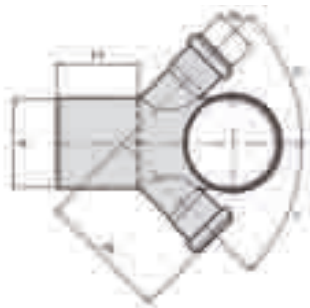
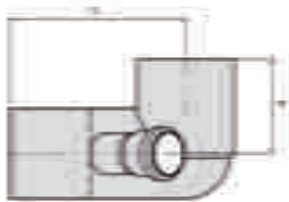
**Extended WC bend with left coupling HTSBL**

CODE	d - d1	$\alpha$	z1	h	L1	L
PWL09S4	90/40	45°	107	185	105	230
PWL09S5	90/50	45°	107	185	100	230
PWL11S4	110/40	45°	105	185	105	230
PWL11S5	110/50	45°	105	sd185	100	230



**Extended WC bend with right coupling HTSBL**

CODE	d - d1	$\alpha$	z1	h	L1	L
PWL09D4	90/40	45°	107	185	105	230
PWL09D5	90/50	45°	107	185	100	230
PWL11D4	110/40	45°	105	185	105	230
PWL11D5	110/50	45°	105	185	100	230



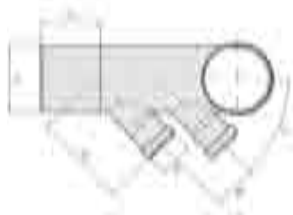
**Extended WC bend with 2 couplings HTSBL**

CODE	d - d1	$\alpha$	z1	h	L1	L
PWL0924	90/40	45°	107	185	105	230
PWL0925	90/50	45°	107	185	100	230
PWL1124	110/40	45°	105	185	105	230
PWL1125	110/50	45°	105	185	100	230



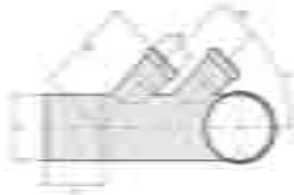
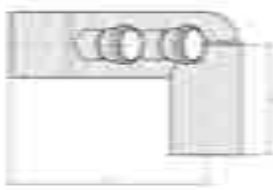
Extended WC bend with 2 left couplings HTSBL

CODE	$\varnothing_1 \varnothing_2 \varnothing_3$	$\alpha$	z1	z2	L1	L	H
PWL1125S	110/50/50	45°	107	75	100	330	185



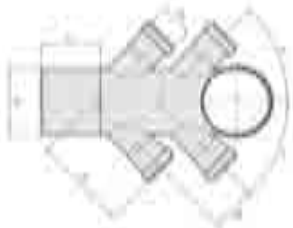
Extended WC bend with 2 right couplings HTSBL

CODE	$\varnothing_1 \varnothing_2 \varnothing_3$	$\alpha$	z1	z2	L1	L	H
PWL1125D	110/50/50	45°	107	75	100	330	185



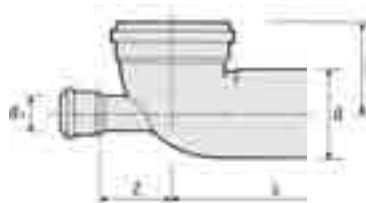
Extended WC bend with 4 couplings HTSBL

CODE	$\varnothing_1 \varnothing_2 \varnothing_3$	$\alpha$	z1	z2	L1	L	H
PWL1145	110/50/50	45°	107	75	100	330	185



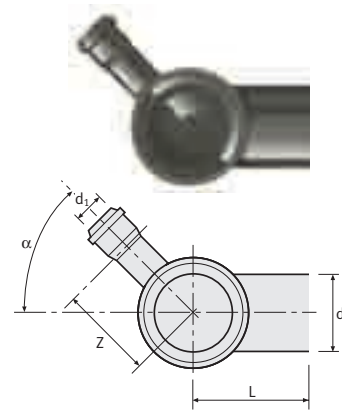
87,5° WC bend with front coupling HTB

CODE	d - d1	L	z	h
PGW1104	110/40	122	64	129
PGW1105	110/50	122	64	129



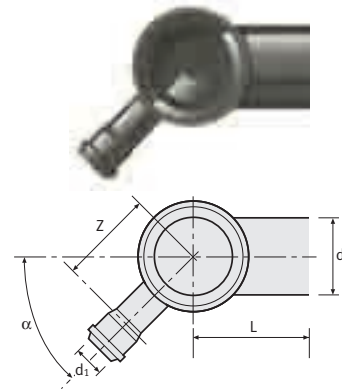
**Bend with 45° left coupling complete with seal HTB**

CODE	d - d1	$\alpha$	L	Z
PGWA114	110/40	45°	125	57
PGWB114	110/40	45°	125	57
PGWA115	110/50	45°	125	57
PGWB115	110/50	45°	125	57



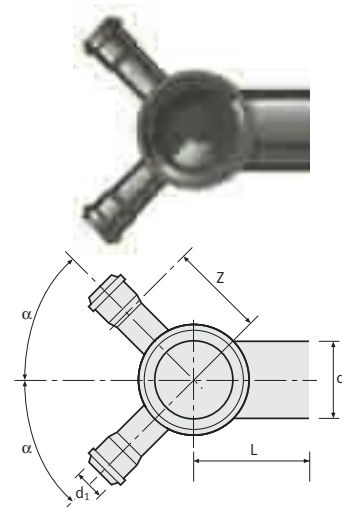
**Bend with 45° right coupling complete with seal HTB**

CODE	d - d 1	$\alpha$	L	Z
PGWC114	110/40	45°	125	57
PGWD114	110/40	45°	125	57
PGWC115	110/50	45°	125	57
PGWD115	110/50	45°	125	57



**Bend with 45° double coupling complete with seal HTB**

CODE	d - d1	$\alpha$	L	Z
PGWE114	110/40/40	45°	125	57
PGWF114	110/40/40	45°	125	57
PGWE115	110/50/50	45°	125	57
PGWF115	110/50/50	45°	125	57



**Seal for WC curve**

CODE	d1	d2
GW1020	102±5	130

- Note: to be used for:
- 90° extended WC bend HTSBL (right/left coupling)
  - extended WC bend with 1-2 couplings HTSBL
  - extended WC bend with 2-4 couplings HTSBL





## “FIRENZE” trap

### CODE

PSF1111 ■

PSF1212 ■

## Non-return valve with automatic clapet closing and with manual locking. Inspection opening and removable handle

### CODE

SF1711 ■

SF1712 ■

SF1713 ■

## Non-return valve with automatic clapet closing and with inspection opening

### CODE

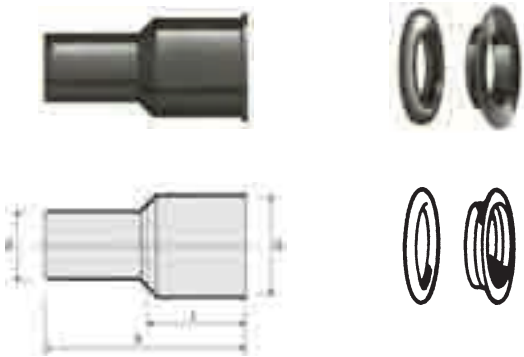
SF1701 ■

SF1702 ■

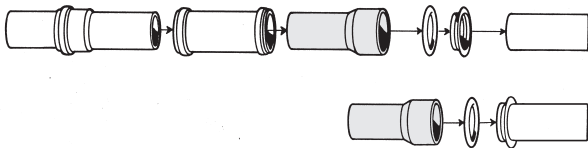
SF1703 ■

■ See Coestilen® programme, page 51

Fitting for connection with cast iron pipes with double seal HTUG



CODE	d	d1	L	h
PRA0500	50	72	58	120
PRA0700	75	92	58	120
PRA1100	110	124	67	131
PRA1200	125	151	112	180

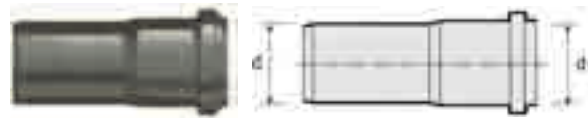


PVC fitting for connection to Eternit pipes



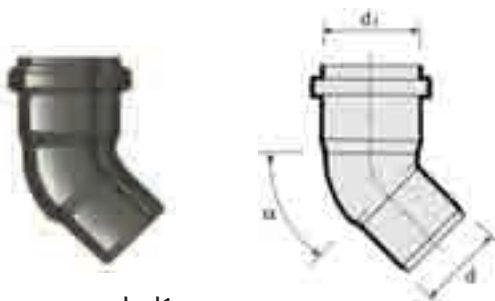
CODE	d - d1	L
PCE1113	110/130	280
PCE1114	110/148	355

PVC stub pipe for connection to PVC



CODE	d - d1
PVC0404	40/40
PVC0505	50/50
PVC0807	80/75
PVC0910	90/100
PVC1009	100/90
PRD1110	100/110
PVC1110	110/100
PVC1112	110/125
PVC1211	125/110
PVC1212	125/125

PVC fitting for connection to PVC Ø 100



CODE	d - d1	$\alpha$
PG11110	100/110	15°
PG31110	100/110	30°
PG41110	100/110	45°
PG61110	100/110	67°
PG81110	100/110	87°

Note: for the spare parts see our price list