BLÜCHER

EuroPipe®

DRAINAGE PIPEWORK SYSTEM

BLÜCHER

EuroPipe®

DRAINAGE PIPES AND FITTINGS

WORLDWIDE

DRAINAGE SYSTEMS IN STAINLESS STEEL

ISO 9001 CERTIFIED

BLÜCHER

EuroPipe®

DRAINAGE PIPES AND FITTINGS

The tried and tested, cost effective alternative above ground drainage system

EuroPipe® is a lightweight push-fit jointed drainage pipework system suitable for soil, waste, rainwater and process drainage applications.
A real alternative to "lightweight" cast iron systems.

BBA approval 86/1751 for domestic, commercial and public building drainage.

In sizes 50, 75, 110, 125,160 and 200 mm dia can be easily connected to other pipe materials, being compatible or through the use of adaptors.

Standard pipe lengths from 150 to 6000 mm reduce the need for cutting - but can be cut on site if required.

Lightweight - 1/3 the weight of a "lightweight" cast iron system.

Aesthetically pleasing finish no painting or maintenance required (enhanced finishes can be provided if required).

Earth continuous without the need for additional clips.

Range of pipe brackets and hangers available.

Available on FASTRACK CAD disks in AutoCAD or DXF format.

Streamlined socket dimensions ideal when pipework space is restricted.

Available from a Nationwide network of stockists.

Stainless Steel is environmentally friendly being manufactured largely from recycled material and is 100% recyclable.
EuroPipe® is acknowledged by the Association for Environment Conscious Building, as a viable alternative to PVC for "Greener Buildings".

EB
ASSOCIATION FOR ENVIRONMENT-CONSCIOUS BUILDING

Cheltenham Racecourse
Rainwater

Trafford Centre - Manchester
Soil, Waste and Rainwater

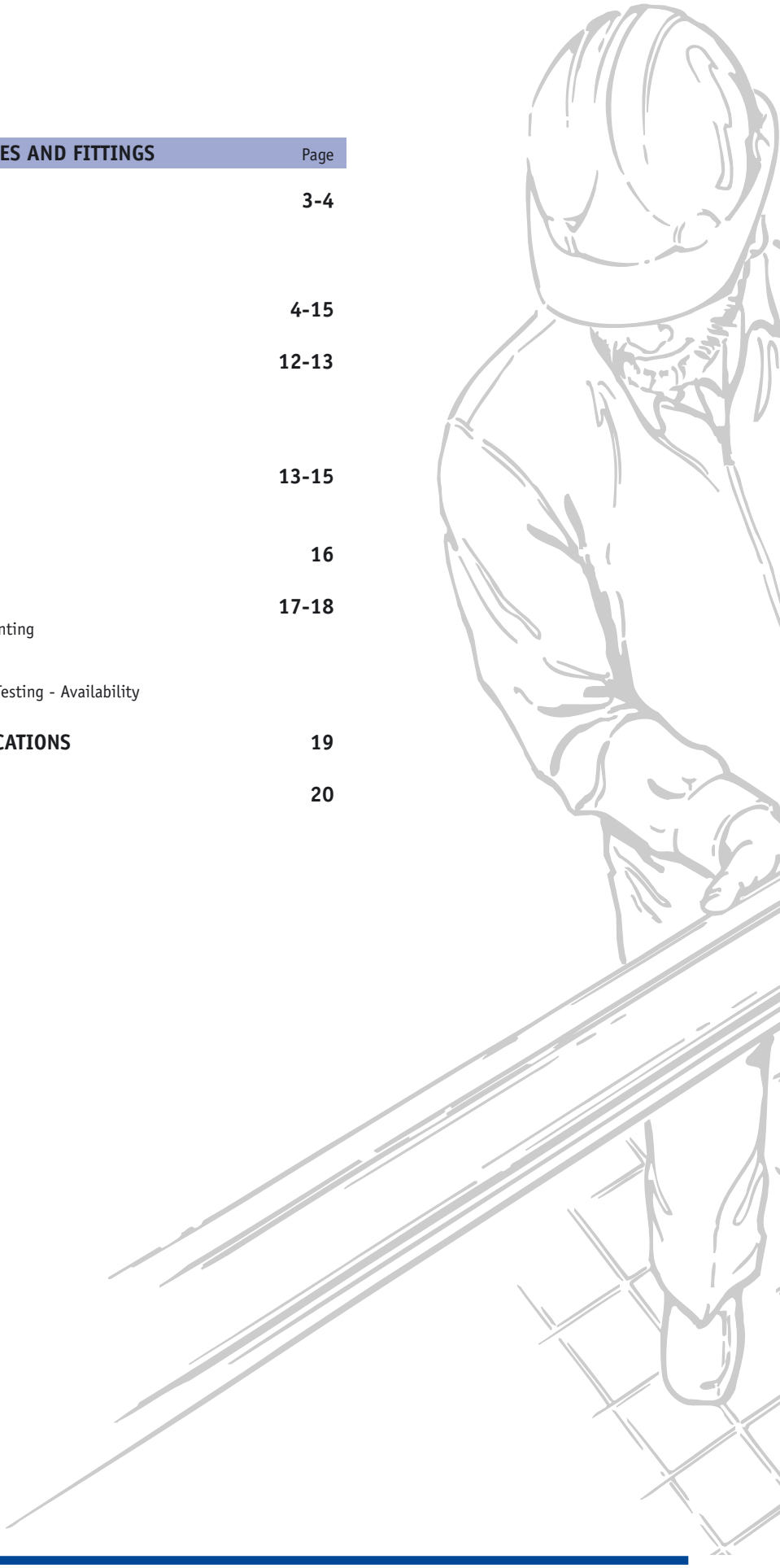
Smithfield Markets - London
Soil, Waste and Rainwater

SECC - Glasgow
Soil

RAC Headquarters - Bristol
Syphonic Rainwater

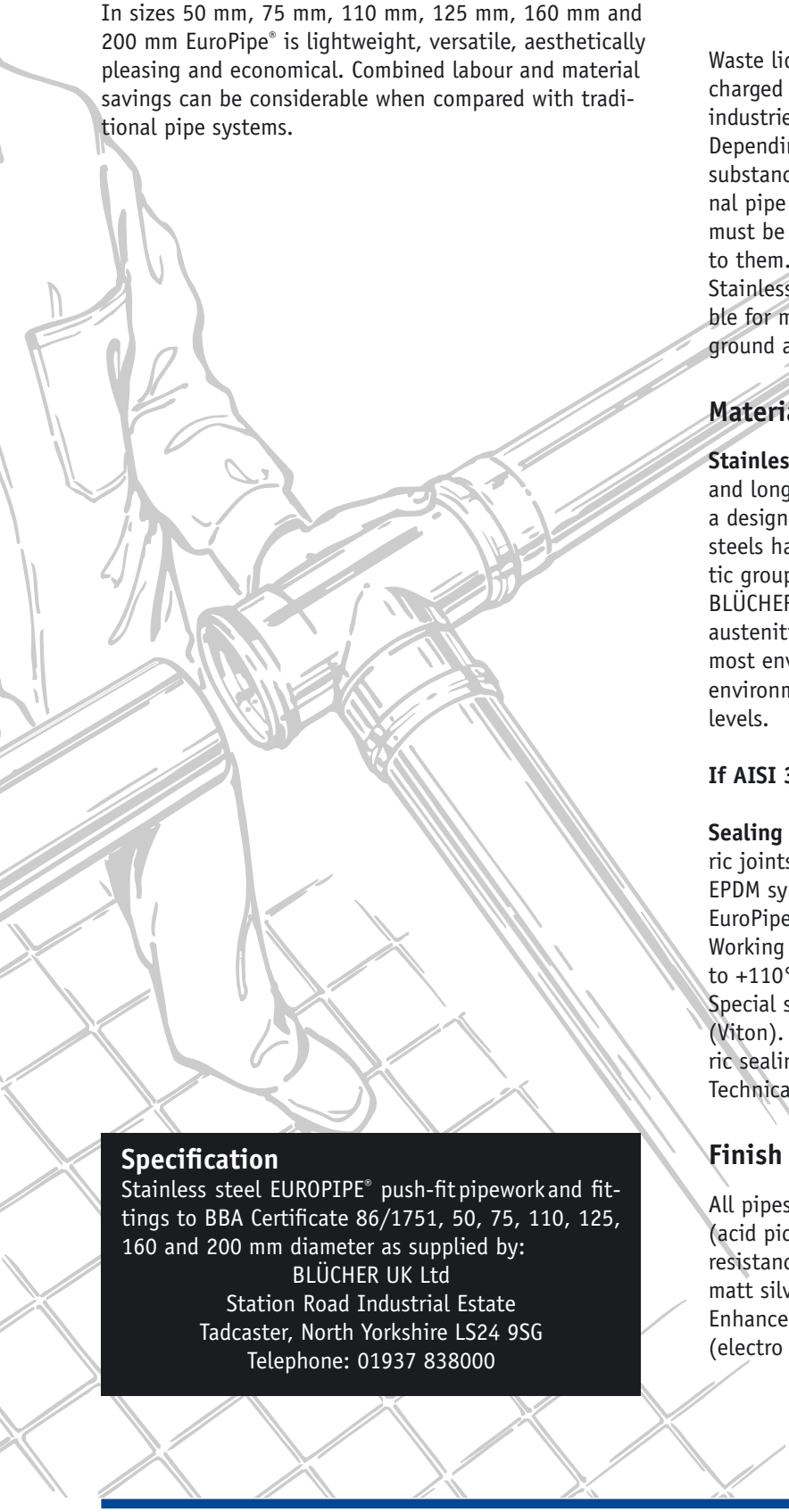
Marriott Hotel - Heathrow
Soil

BLÜCHER EUROPIPE® PIPES AND FITTINGS - TABLE OF CONTENTS



Introduction

The EuroPipe® push-fit drainage pipework system provides an easy to use alternative type of drainage pipework and rainwater pipework for all applications, e.g. office blocks, food factories and laboratories.
In sizes 50 mm, 75 mm, 110 mm, 125 mm, 160 mm and 200 mm EuroPipe® is lightweight, versatile, aesthetically pleasing and economical. Combined labour and material savings can be considerable when compared with traditional pipe systems.



Specification

Stainless steel EUROPIPE® push-fit pipework and fittings to BBA Certificate 86/1751, 50, 75, 110, 125, 160 and 200 mm diameter as supplied by:

BLÜCHER UK Ltd
Station Road Industrial Estate
Tadcaster, North Yorkshire LS24 9SG
Telephone: 01937 838000

Application

The EuroPipe® push-fit waste pipework system is suitable for the drainage of:

a) soil and waste water
b) rain water
c) process waste water

Waste liquids of varying corrosive composition are discharged in chemical, pharmaceutical and food processing industries, also laboratories and catering establishments. Depending on their composition and temperature, these substances may cause unpredictable damage to traditional pipe materials. Pipes for discharging these substances must be manufactured from a material which is resistant to them.
Stainless steel EuroPipe® with EPDM sealing rings is suitable for most applications and can be used in both above ground and below ground situations.

Materials

Stainless steel is a clean, durable, corrosion resistant and long lasting material ideally suited for buildings with a design life expectancy of over fifty years. All stainless steels have inherent corrosion resistance but the austenitic group have greater resistance.
BLÜCHER products are manufactured from high grade austenitic stainless steel in grades AISI 304, suitable for most environments and AISI 316 L suitable for corrosive environments such as marine locations or high chloride levels.

If AISI 316 L is required add suffix S to type no.

Sealing rings to BS 2494: 1986 (Materials for elastomeric joints for pipework and pipelines), are moulded from EPDM synthetic rubber and are specially designed for the EuroPipe® ring groove.
Working temperature range for EPDM sealing rings is -30° to +110° C.
Special sealing rings are available if required e.g. FPM (Viton). For advice regarding the suitability of elastomeric sealing rings in chemical environments consult our Technical Department.

Finish

All pipes and fittings are chemically descaled (acid pickled) in order to enhance the natural corrosion resistance and provide a uniform aesthetically pleasing matt silver finish.
Enhanced finishes can be provided if required (electro polished, powder coated etc.) at extra cost.

BLÜCHER EUROPIPE® PIPES AND FITTINGS

Quality

All products are manufactured to our stringent quality assurance procedures, ISO 9001.
The EuroPipe® system carries British Board of Agrément approval - an independent assessment of products for the construction industry.

Lloyds Register Type approval and Bureau Veritas approval has also been granted for the use of the EuroPipe® system on ships and offshore structures.

BBA BRITISH BOARD OF AGRÉMENT
CERTIFICATE No. 86/1751
BM STAINLESS STEEL DRAINAGE SYSTEMS

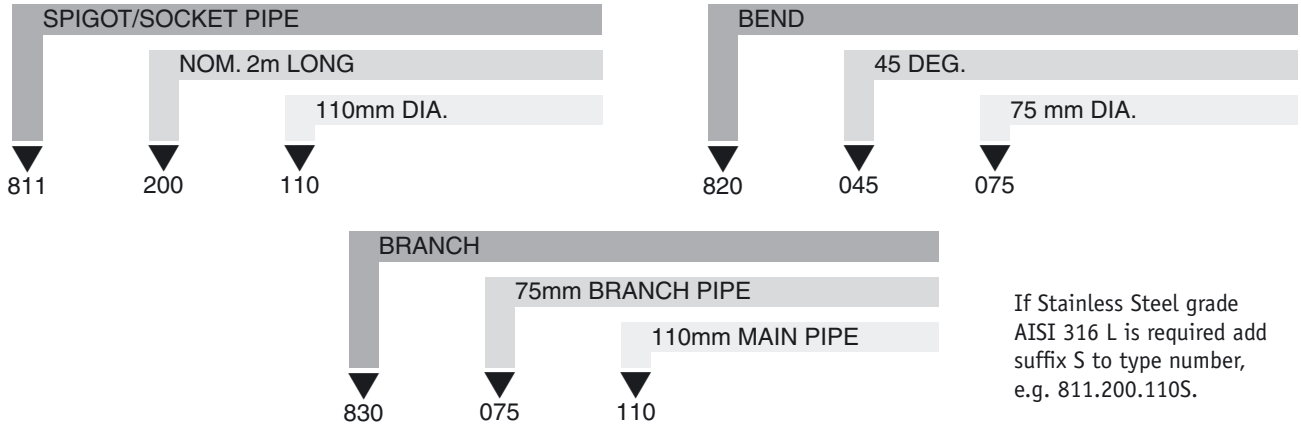
CAD

The EuroPipe® push-fit drainage pipework system is available on FASTRACK-CAD computer disks.
The disks are available in either Auto-CAD or DXF formats. To obtain disks and the accompanying manual please contact our sales department.

CAD

Explanation of type numbers

All EuroPipe® pipes and fittings have triple three digit numbers. The first number refers to the product type and the remaining numbers are dimensional references.



If Stainless Steel grade AISI 316 L is required add suffix S to type number, e.g. 811.200.110S.

Type 811 - Straight pipe with one socket

Type No.	D	T	L
811.015.050	50	192	150
811.025.050	50	292	250
811.050.050	50	542	500
811.100.050	50	1042	1000
811.200.050	50	2042	2000
811.300.050	50	3042	3000
811.400.050	50	4042	4000
811.600.050	50	6042	6000

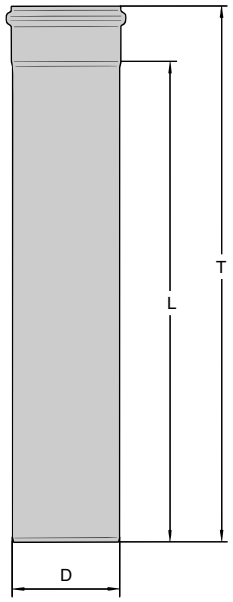
Type No.	D	T	L
811.025.125	125	310	250
811.050.125	125	560	500
811.100.125	125	1060	1000
811.200.125	125	2060	2000
811.300.125	125	3060	3000
811.400.125	125	4060	4000
811.600.125	125	6060	6000

Type No.	D	T	L
811.015.075	75	200	150
811.025.075	75	300	250
811.050.075	75	550	500
811.100.075	75	1050	1000
811.200.075	75	2050	2000
811.300.075	75	3050	3000
811.400.075	75	4050	4000
811.600.075	75	6050	6000

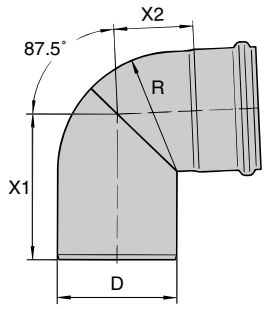
Type No.	D	T	L
811.025.160	160	322	250
811.050.160	160	572	500
811.100.160	160	1072	1000
811.200.160	160	2072	2000
811.300.160	160	3072	3000
811.400.160	160	4072	4000
811.600.160	160	6072	6000

Type No.	D	T	L
811.015.110	110	207	150
811.025.110	110	307	250
811.050.110	110	557	500
811.100.110	110	1057	1000
811.200.110	110	2057	2000
811.300.110	110	3057	3000
811.400.110	110	4057	4000
811.600.110	110	6057	6000

Type No.	D	T	L
811.050.200 S	200	590	500
811.100.200 S	200	1090	1000
811.200.200 S	200	2090	2000
811.300.200 S	200	3090	3000

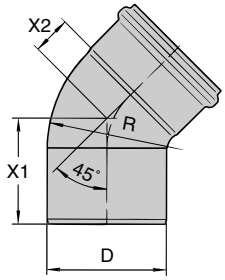


Type 820 - 87,5° Bend



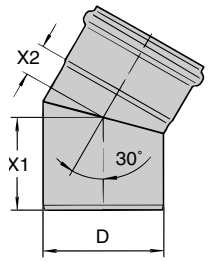
Type No.	D	X1	X2	R
820.090.050 S	50	86	40	50
820.090.075 S	75	107	53	75
820.090.110 S	110	134	73	110
820.090.125 S	125	158	93	125
820.090.160 S	160	181	105	171
820.090.200 S	200	397	307	400

Type 820 - 45° Bend



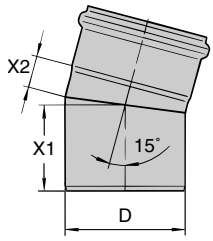
Type No.	D	X1	X2	R
820.045.050 S	50	60	26	50
820.045.075 S	75	76	33	75
820.045.110 S	110	93	43	110
820.045.125 S	125	113	39	125
820.045.160 S	160	131	55	172
820.045.200 S	200	234	144	400

Type 820 - 30° Bend



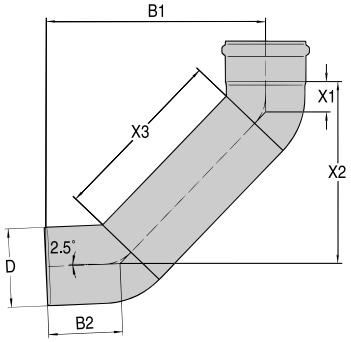
Type No.	D	X1	X2
820.030.050 S	50	57	16
820.030.075 S	75	71	21
820.030.110 S	110	85	28
820.030.125 S	125	98	28
820.030.160 S	160	110	40
820.030.200 S	200	137	45

Type 820 - 15° Bend



Type No.	D	X1	X2
820.015.050 S	50	54	12
820.015.075 S	75	66	16
820.015.110 S	110	78	21
820.015.125 S	125	84	19
820.015.160 S	160	99	29
820.015.200 S	200	123	31

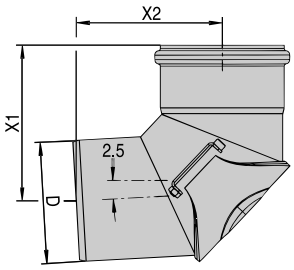
Type 821 - 87,5° Long radius bend



Type No.	D	B1	B2	X1	X2	X3
899.4241B	50	159	72	26	116	104
899.4341C	75	216	87	32	166	156
821.090.110	110	307	103	42	255	250
821.090.160	160	354	130	54	288	250

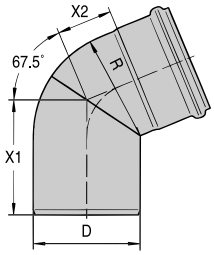
*All dimensions in mm - If Stainless Steel grade AISI 316 L is required specify type no. with suffix **S***

Type 822 - Access Bend



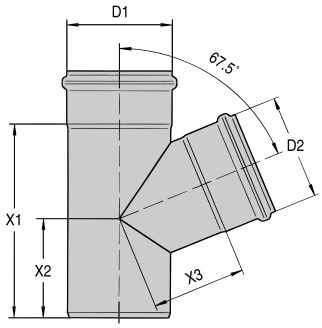
Type No.	X2	X1	X2
822.090.075	75	102	112
822.090.110	110	132	143
822.090.160	160	209	200

Type 820 - 68° Bend



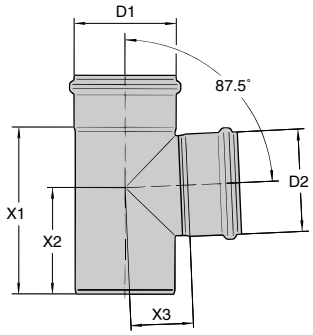
Type No.	D	X1	X2	R
820.068.110	110	118	57	110

Type 829 - 68° Branch



Type No.	D1	D2	X1	X2	X3
829.110.110	110	110	209	107	100

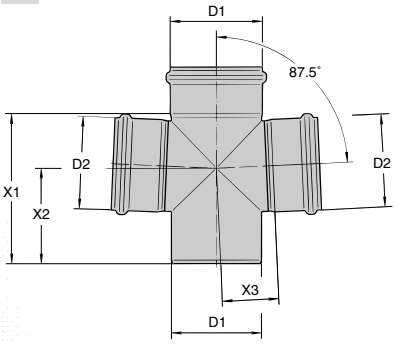
Type 830 - 87,5° Branch



Type No.	D1	D2	X1	X2	X3
830.050.050	50	50	106	71	36
830.050.075	75	50	139	98	49
*830.075.075	75	75	139	90	52
830.050.110	110	50	132	93	66
830.075.110	110	75	152	104	70
*830.110.110	110	110	183	117	69
830.075.125	125	75	187	110	77
830.110.125	125	110	205	127	76
830.125.125	125	125	220	135	72
830.110.160	160	110	236	152	94
*830.160.160	160	160	288	184	104
830.160.200	200	160	293	186	125
830.200.200	200	200	333	206	128

* To comply with BS EN 12056 Sanitary Pipework use branch type 838.xxx.xxx or type 839.xxx.xxx

Type 831 - 87,5° Double branch 180°

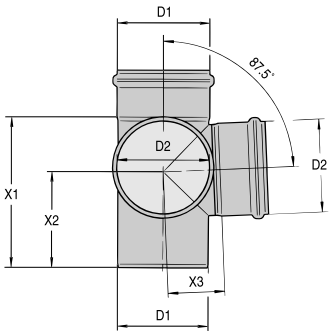


Type No.	D1	D2	X1	X2	X3	Kg
831.050.050 S	50	50	106	71	36	0,4
831.050.075 S	75	50	139	98	49	0,5
*831.075.075 S	75	75	139	90	52	0,7
831.050.110 S	110	50	132	93	66	0,7
831.075.110 S	110	75	152	104	70	0,9
*831.110.110 S	110	110	183	117	69	1,1
831.110.160 S	160	110	236	152	94	2,0
*831.160.160 S	160	160	288	184	104	2,9

* To comply with BS EN 12056 Sanitary Pipework use branch type 836.xxx.xxx S

*All dimensions in mm - If Stainless Steel grade AISI 316 L is required specify type no. with suffix **S***

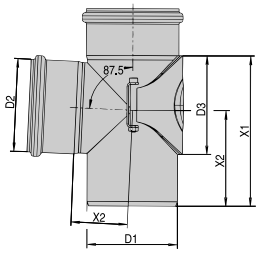
Type 832 - 87,5° Double branch 90°



Type No.	D1	D2	X1	X2	X3
832.050.050 S	50	50	106	71	36
832.050.075 S	75	50	139	98	49
*832.075.075 S	75	75	139	90	52
832.050.110 S	110	50	132	93	66
832.075.110 S	110	75	152	104	70
*832.110.110 S	110	110	183	117	69
832.110.160 S	160	110	236	152	94
*832.160.160 S	160	160	288	184	104

* To comply with BS EN 12056 Sanitary Pipework use branch type 837.xxx.xxx S

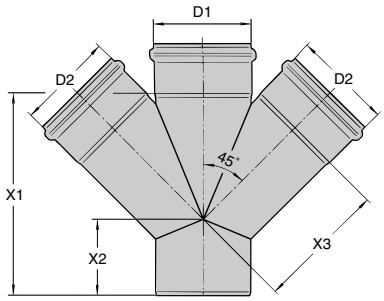
Type 834 - Rear access branch



Type No.	D1	D2	D3	X1	X2	X3
*834.110.110 S	110	110	120	188	117	69
*834.160.160 S	160	160	120	277	176	94

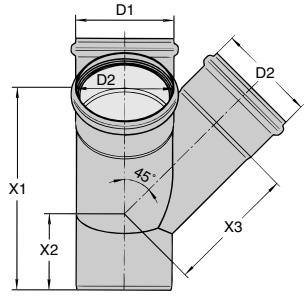
* To comply with BS EN 12056 Sanitary Pipework use branch type 838.xxx.xxx or type 839.xxx.xxx with access pipe type 840.xxx.xxx

Type 836 - 45° Double branch 180°



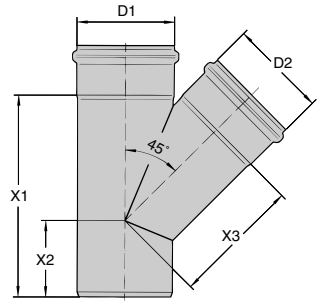
Type No.	D1	D2	X1	X2	X3
836.050.050 S	50	50	128	57	76
836.050.075 S	75	50	144	56	94
836.075.075 S	75	75	179	74	110
836.050.110 S	110	50	147	42	119
836.075.110 S	110	75	182	60	135
836.110.110 S	110	110	233	88	149
836.110.160 S	160	110	258	80	186
836.160.160 S	160	160	328	115	222

Type 837 - 45° Double branch 90°



Type No.	D1	D2	X1	X2	X3
837.050.050 S	50	50	128	57	76
837.050.075 S	75	50	144	56	94
837.075.075 S	75	75	147	42	119
837.050.110 S	110	50	179	74	110
837.075.110 S	110	75	182	60	135
837.110.110 S	110	110	233	88	149
837.110.160 S	160	110	258	80	186
837.160.160 S	160	160	328	115	222

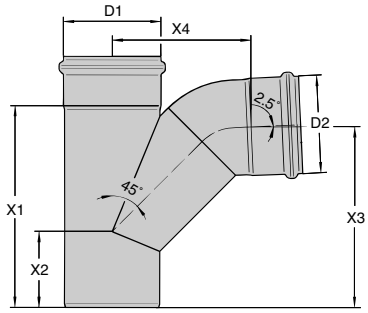
Type 838 - 45° Oblique branch



Type No.	D1	D2	X1	X2	X3
838.050.050	50	50	128	57	76
838.050.075	75	50	144	56	94
838.075.075	75	75	179	74	110
838.050.110	110	50	147	42	119
838.075.110	110	75	182	60	135
838.110.110	110	110	233	88	149
838.110.125	125	110	250	90	154
838.125.125	125	125	273	103	170
838.110.160	160	110	258	80	186
838.160.160	160	160	328	115	222
838.160.200	200	160	359	123	250
838.200.200	200	200	415	151	274

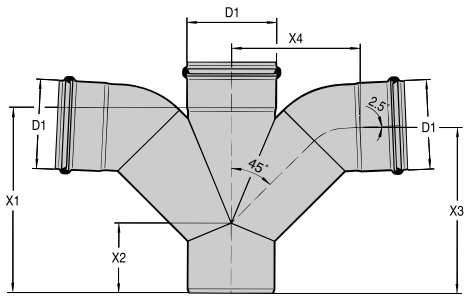
*All dimensions in mm - If Stainless Steel grade AISI 316 L is required specify type no. with suffix **S***

Type 839 - 87,5° Swept branch



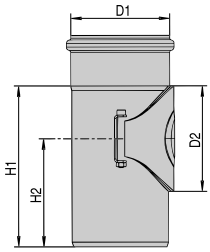
Type No.	D1	D2	X1	X2	X3	X4
839.050.050 S	50	50	128	57	117	84
839.050.075 S	75	50	144	56	128	97
839.075.075 S	75	75	179	74	157	113
839.050.110 S	110	50	147	42	132	115
839.075.110 S	110	75	182	60	160	130
839.110.110 S	110	110	233	88	209	160
839.110.160 S	160	110	258	80	227	186
839.160.160 S	160	160	328	115	293	225

Type 820 - 68° Bend



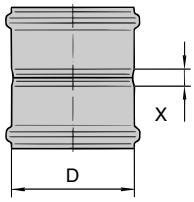
Type No.	D1	X1	X2	X3	X4
879.110.110	110	233	88	209	160

Type No. 840 - Access pipe



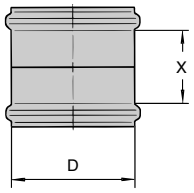
Type No.	D1	D2	H1	H2
840.075.075	75	83	139	92
840.110.110	110	120	188	117
840.111.110	110	120	253	187
840.125.125	125	120	195	128
840.160.160	160	120	277	208

Type 841 - Double ring-seal socket



Type No.	D	X
841.050.050	50	14
841.075.075	75	19
841.110.110	110	16
841.125.125	125	20
841.160.160	160	35
841.200.200	200	20

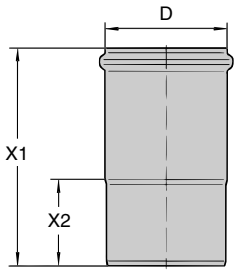
Type 842 - Sliding ring-seal socket



Type No.	D	X
842.050.050 S	50	37
842.075.075 S	75	50
842.110.110 S	110	67
842.125.125 S	125	104
842.160.160 S	160	81
842.200.200 S	200	147

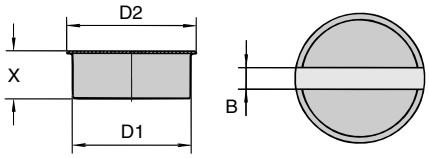
*All dimensions in mm - If Stainless Steel grade AISI 316 L is required specify type no. with suffix **S***

Type 843 - Expansion socket



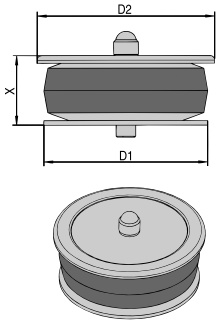
Type No.	D	X1	X2
843.105.050 S	50	159	57
843.115.075 S	75	175	62
843.125.110 S	110	200	79
843.182.160 S	160	292	122

Type 844.000 - Socket plug



Type No.	D1	D2	X	B
844.000.050 S	50	58	50	15
844.000.075 S	75	85	45	20
844.000.110 S	110	120	45	20
844.000.160 S	160	170	45	25

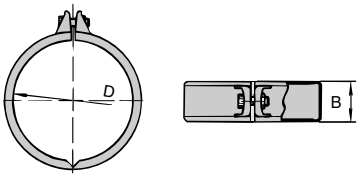
Type 844 - Socket plug



NEW

Type No.	D1	D2	X	Pressure
844.100.050 S	50	58	50	0,5 bar
844.100.075 S	75	85	45	0,5 bar
844.100.110 S	110	120	45	0,3 bar
845.000.160 S (Design not the same as illustrated)	160	170	42	0,5 bar

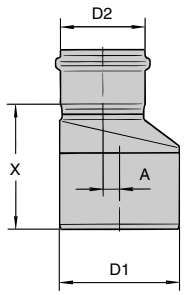
Type 847 - Joint Clamp



Type No.	D	B
847.050.050 S	50	34
847.075.075 S	75	34
847.110.110 S	110	36
847.160.160 S	160	46

Can also be used for horizontal fixing and support, see page 12 and / or earth continuity, see page 18.

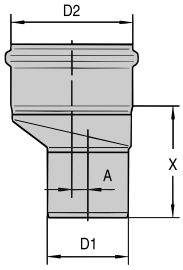
Type 850 - Eccentric increaser



Type No.	D1	D2	X	A
850.050.075	75	50	87	7
850.050.110	110	50	113	25
850.075.110	110	75	116	15
850.075.160	160	75	174	37
850.110.125	125	110	105	-
850.110.160	160	110	136	22
850.125.160	160	125	145	-
850.160.200	200	160	170	-

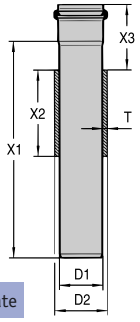
*All dimensions in mm - If Stainless Steel grade AISI 316 L is required specify type no. with suffix **S***

Type 850 - Eccentric reducer



Type No.	D1	D2	X	A
850.075.050 S	50	75	84	7
850.110.050 S	50	110	99	25
850.110.075 S	75	110	103	15

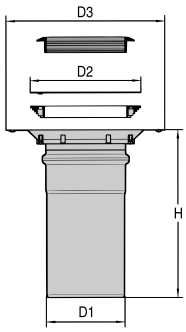
Type 866 - Pipe penetration



◎ = MED certificate

Type No.	D1	D2	X1	X2	X3	T
866.025.050.10 FS ◎ A0-A60	50	60	250	100	75	5
866.025.075.10 FS ◎ A0-A60	75	85	250	100	75	5
866.025.110.10 FS ◎ A0-A60	110	120	250	100	75	5
866.025.160.10 FS ◎ A0-A60	160	170	250	100	75	5

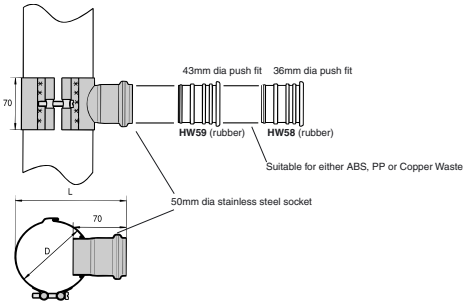
Type 865 - Vinyl pentration pipe



Type No.	D1	D2	D3	H
865.155.110	110	155	222	235

Clamps vinyl floor covering in position around a 110 mm dia pipe pentration.

Type 890 - Saddle clamp for waste water pipe

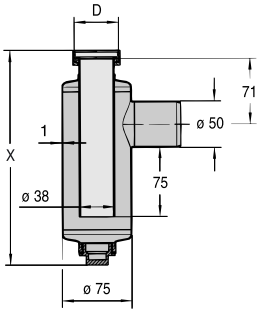


Type No.	Waste-water pipe	Inlet dim.
890.075.036	75	36
890.075.043	75	43
890.075.050	75	50
890.110.036	110	36
890.110.043	110	43
890.110.050	110	50

Materials:
Clamp with socket: Stainless steel AISI 304 Rubber Sleeve: Synthetic rubber O-ring: Neoprene ruber

Application:
Can be used where washing-machine, automatic dishwasher, wash basin, shower cabinet, bath etc. is to be connected to an existing waste-water pipe.

Type 505 - Bottle trap



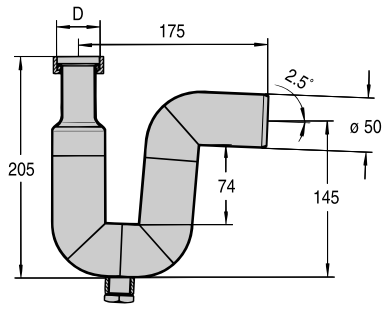
Type No.	D	H
505.032.050 S	(1¼" BSP)	250
505.040.050 S	(1½" BSP)	231

Materials:
Stainless steel grade AISI 316 L Swivel nut sump plug chromed brass
Water seal: 75 mm

Connections:
Inlet - Swivel nut: 1¼", 1½"
Outlet - 50 mm outside diameter (adaptors available to 42 mm or 35 mm mapress, see page 15).
(Sink waste outlets available on request).

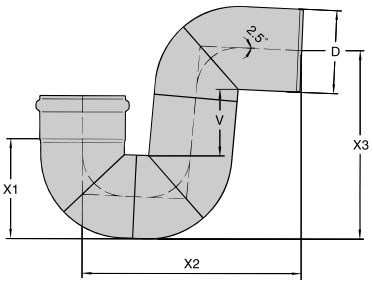
*All dimensions in mm - If Stainless Steel grade AISI 316 L is required specify type no. with suffix **S***

Type 525 - Tubular trap



Type No.	D
525.032.050 S	1¼" BSP
525.040.050 S	1½" BSP
525.050.050 S	2" BSP

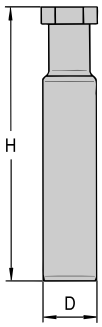
Type 525 - 87,5° P-trap



Type No.	D	X1	X2	X3	Water seal
525.090.050 S	50	67	175	145	74
525.090.075 S	75	93	222	189	81
525.090.110 S	110	132	289	249	89
525.090.125 S	125	158	330	292	110
525.090.160 S	160	184	388	338	105

Cleaning eyes available at extra cost.

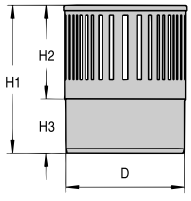
Type 851 - Sink connector



Type No.	D	H
851.025.040 S	50	254

With 1½" swivel nut.

Type 640 - Vent cowl



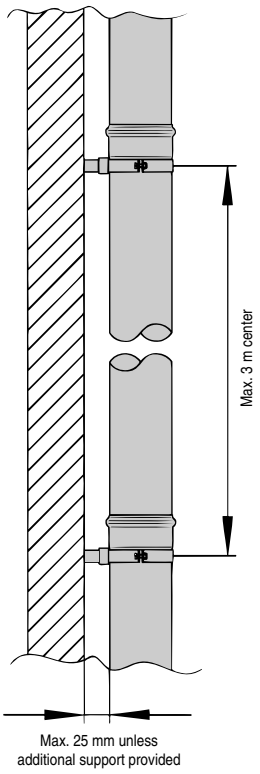
Type No.	D	H1	H2	H3
851.025.040 S	110	137	87	50

*All dimensions in mm - If Stainless Steel grade AISI 316 L is required specify type no. with suffix **S***

Fixing and Support

VERTICAL FIXING

All vertical pipework should be provided with pipe brackets at maxium of 3 m intervals.

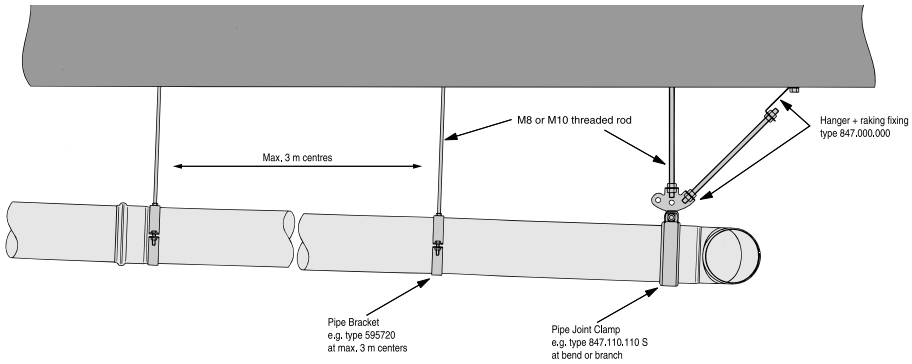


HORIZONTAL FIXING

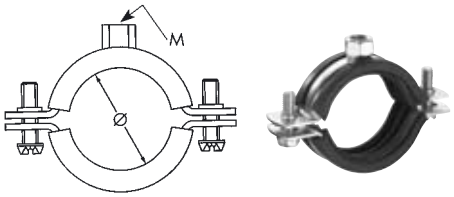
All horizontal pipework should be provided with pipe brackets at maximum of 3 m intervals.

Additional brackets should be provided at branches and bends, as required to maintain adequate support.

Where the vertical distance between the soffit and pipe is greater than 300 mm additional hanger and raking fixings (847.000.000) in conjunction with pipe joint clamps (847.xxx.xxx) may be required to limit movements, **unless** otherwise adequately fixed to the structure of the building.



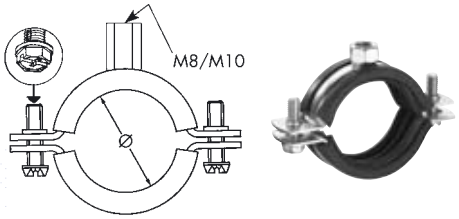
Stainless steel pipe brackets



Type No.	Pipe dia.	Back Fixing Nut
595650	50	M8
595690	75	M8
595720	110	M10
595730	125	M10
595760	160	M10
595770	200	M8/M10

2 mm thick with self threaded multifuncional M6 side fixing and EPDM sound insulating liner.

Galvanised steel pipe brackets



Type No.	Pipe dia.	Back Fixing Nut
595860	50	M8
595890	75	M8
595930	110	M10
595940	125	M10
595960	160	M10
595971	200	M10

1.5/2 mm thick with self threaded multifuncional M6 side fixing and EPDM sound insulating liner.

*All dimensions in mm - If Stainless Steel grade AISI 316 L is required specify type no. with suffix **S***

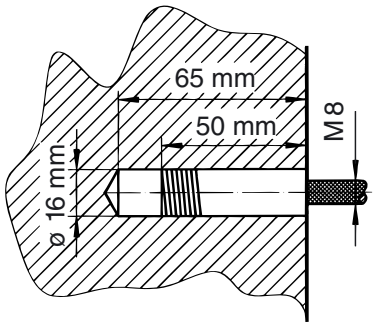
Fixing and Support

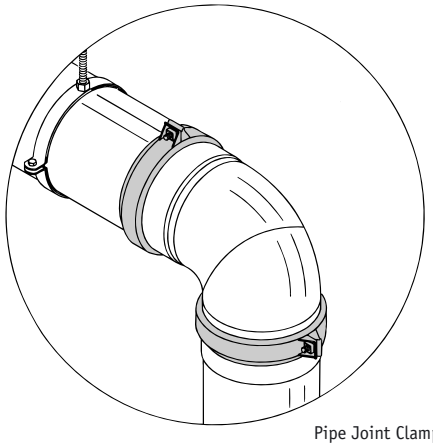
Heavy duty nylon anchor

Heavy Duty Nylon Anchor

The expansion unit made from glass reinforced nylon and having a brass wedge will provide a secure fixing in poor masonry where most other devices fail. In addition it works most successfully in hollow pots, breeze blocks and hollow beams or in situations where it's corrosion resistant properties can be appreciated. The anchor body is sealed to keep out dust and grit.

Type No.	Drill ø mm	Min. drill hole depth
895.M8	16	65 mm





Pipe Joint Clamps Type No. 847.xxx.xxx S (See page ??) may be required if walls or soffits are not accessible for brackets.

Purpose-made Pipe Brackets

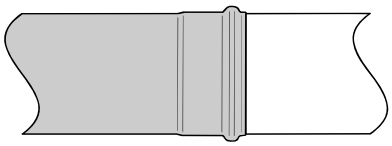
To provide falls on horizontal pipe runs or to link pipe runs together, purpose-made brackets can be supplied utilising lengths of threaded rod to customers requirements. Angle frame supports and girder clamp brackets can also be provided to solve all fixing and support problems.

Connection to other pipe materials

The EuroPipe® system can be easily connected to other pipe materials, being either compatible or through the use of adaptors.

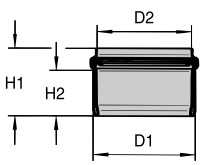
PVC u

110/160



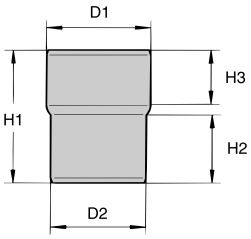
Compatible push-fit joint

54/82



BLÜCHER stainless steel socket adaptor

Type No.	D1	D2	H1	H2
*852.050.054 SOS	54	50	49	30
852.075.082.SOS	82	75	60	40



BLÜCHER stainless steel spigot adaptor

Type No.	D1	D2	H1	H2	H3
*852.050.054 S	54	50	97	49	38
852.075.082 S	82	75	123	63	50

*Note 2" PVCu waste to BS5254

*All dimensions in mm - If Stainless Steel grade AISI 316 L is required specify type no. with suffix **S***

Connection to other pipe materials

Vitrified clay (plain end)

100

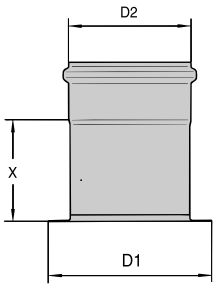
Connector (supplied by others)
Naylor Bros - Desleeve Type DC6
Hepworth - Supersleeve Type AD400

150

Connector (supplied by others)
Naylor Bros - Desleeve Type DC7
Hepworth - Supersleeve Type AD600

Concrete or Vitrified clay (Socket) AISI 316 L only

100/150



BLÜCHER stainless steel adaptor

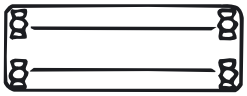
Type No.	D1	D2	X
851.150.110 S	150	110	100
851.200.160 S	200	160	125

Vitrified clay (plain end)

150

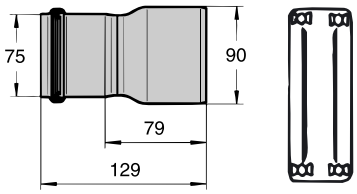
Connector 150mm dia (supplied by others)
Glynwed - Timesaver TD02 (drain)
- Timesaver GT01 (soil)
- Ensign EC0016
Stanton - Stanflex X003 (soil)
- SMU RB013

100



Connector 100mm dia (supplied by others)
Glynwed - Timesaver TD02 (drain)
- Timesaver GT01 (soil)
- Ensign EC0014
Stanton - Stanflex X003 (soil)
- SMU RB011

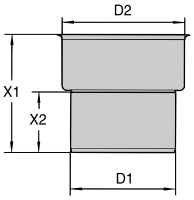
75



Connector 75mm dia (supplied by others)
Glynwed - Timesaver TD01 (drain)
- Timesaver GT01 (soil)
- Ensign EC0033
Use also BLÜCHER Stainless Steel Adaptor
Type No. 853.075.090S
Stanton - SMU RB010 + RB311

Cast iron (spigot) AISI 316 L only

150



BLÜCHER stainless steel adaptor

Type No.	D1	D2	X1	X2
853.093.075 S	75	93	121	60
853.127.110 S	110	127	137	70
853.177.160 S	160	177	174	93

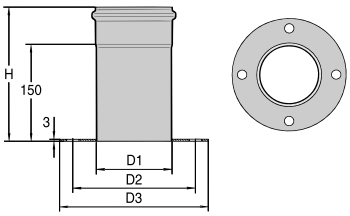
Insert cast iron spigot into stainless steel adaptor and apply caulking compound.

*All dimensions in mm - If Stainless Steel grade AISI 316 L is required specify type no. with suffix **S***

Connection to other pipe materials

BS10 Table D Flange AISI 316 L only

150/100



BLÜCHER stainless steel adaptor

Type No.	D1	D2	D3	H	Holes
850.015.110 S FL	110	178	216	207	4
850.015.160 S FL	169	235	280	220	8

Plastic, copper or stainless steel

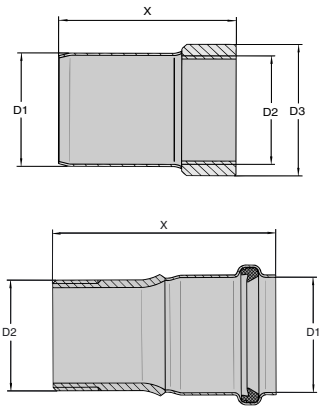
NOM 1¼" or 1½"

Reducer (rubber)
To 50 mm dia EuroPipe® Socket, enables nom. 1¼" or 1½" pipes to be push fit connected to 50 mm dia EuroPipe®.

Nom. 1¼" Type No. W 58
Nom. 1½" Type No. W 59

Threaded adaptors AISI 316 L only

1¼" 1½" 2" BSP

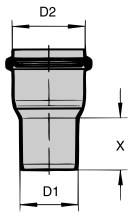


BLÜCHER stainless steel adaptor

Type No.	D1	D2	X
851.150.110 S	150	110	100
851.200.160 S	200	160	125

Mapress adaptor AISI 316 L only

42/35



50 mm EuroPipe® to 42 mm & 35 mm Mapress tube

Type No.	D1	D2	X
850.050.035 S	35	50	42
850.050.042 S	42	50	42

*All dimensions in mm - If Stainless Steel grade AISI 316 L is required specify type no. with suffix **S***

Flow tables

Introduction

Stainless Steel pipes are hydraulically smooth and are less susceptible to scaling than other pipe materials e.g. cast iron.
Pipe manufacturers often claim very low roughness coefficient values (Ks) but for design purposes 0.6mm for Surface Water drainage and 1.5mm for Foul drainage should be used.

Flow Tables

The flow tables are based on the Colebrook-White equation and are full bore velocity and discharge values.
Velocities (V) are in metres/second (0.76 m/s is regarded as the minimum for self cleansing in foul sewers).
Discharge capacities (Q) are in litres/second.

Hydraulic Flow Data - Roughness Coef Ks=0.6

Gradient	50 mm Dia		75 mm Dia		110 mm Dia		125 mm Dia		160 mm Dia		200 mm Dia	
	V Velocity	Q Discharge	V Velocity	Q Discharge	V Velocity	Q Discharge	V Velocity	Q Discharge	V Velocity	Q Discharge	V Velocity	Q Discharge
(1in)	(m/s)	(l/s)	(m/s)	(l/s)	(m/s)	(l/s)	(m/s)	(l/s)	(m/s)	(l/s)	(m/s)	(l/s)
10	1.50	2.71	1.99	8.33	2.58	23.64	2.81	33.39	3.30	64.32	3.82	3.82
15	1.22	2.21	1.62	6.78	2.10	19.26	2.29	27.21	2.69	52.43	3.11	3.11
20	1.06	1.91	1.40	5.87	1.82	16.67	1.98	23.55	2.33	45.39	2.69	2.69
25	0.94	1.70	1.25	5.24	1.63	14.89	1.77	21.05	2.08	40.56	2.41	2.41
30	0.86	1.55	1.14	4.78	1.48	13.58	1.61	19.19	1.90	36.98	2.19	2.19
35	0.79	1.44	1.06	4.42	1.37	12.57	1.50	17.77	1.76	34.25	2.03	2.03
40	0.74	1.34	0.99	4.13	1.28	11.74	1.40	16.60	1.64	32.00	1.90	1.90
45	0.70	1.26	0.93	3.89	1.21	11.06	1.32	15.63	1.55	30.14	1.79	1.79
50	0.66	1.20	0.88	3.69	1.14	10.49	1.25	14.83	1.47	28.59	1.70	1.70
55	0.63	1.14	0.84	3.51	1.09	10.00	1.19	14.13	1.40	27.26	1.62	1.62
60	0.60	1.09	0.80	3.36	1.04	9.57	1.14	13.53	1.34	26.10	1.55	1.55
65	0.58	1.05	0.77	3.23	1.00	9.19	1.09	12.99	1.29	25.05	1.49	1.49
70	0.56	1.01	0.74	3.11	0.97	8.85	1.05	12.51	1.24	24.12	1.43	1.43
75	0.54	0.97	0.72	2.99	0.93	8.53	1.01	12.05	1.19	23.25	1.38	1.38
80	0.52	0.94	0.69	2.90	0.90	8.26	0.98	11.68	1.16	22.53	1.34	1.34
85	0.50	0.91	0.67	2.82	0.88	8.02	0.95	11.34	1.12	21.89	1.30	1.30
90	0.49	0.88	0.65	2.73	0.85	7.78	0.93	11.00	1.09	21.22	1.26	1.26
95	0.48	0.86	0.63	2.65	0.83	7.56	0.90	10.69	1.06	20.63	1.23	1.23
100	0.46	0.84	0.62	2.59	0.80	7.37	0.88	10.43	1.03	20.12	1.20	1.20
105	0.45	0.82	0.60	2.52	0.78	7.18	0.86	10.16	1.01	19.61	1.16	1.16
110	0.44	0.80	0.59	2.47	0.77	7.03	0.84	9.94	0.98	19.18	1.14	1.14
115	0.43	0.78	0.58	2.41	0.75	6.87	0.82	9.71	0.96	18.75	1.11	1.11
120	0.42	0.76	0.56	2.35	0.73	6.71	0.80	9.48	0.94	18.31	1.09	1.09
125	0.42	0.75	0.55	2.31	0.72	6.58	0.78	9.31	0.92	17.97	1.07	1.07
130	0.40	0.73	0.54	2.26	0.70	6.45	0.77	9.13	0.90	17.62	1.05	1.05
135	0.40	0.72	0.53	2.22	0.69	6.32	0.76	8.95	0.89	17.27	1.03	1.03
140	0.39	0.70	0.52	2.17	0.68	6.19	0.74	8.76	0.87	16.91	1.00	1.00
145	0.38	0.69	0.51	2.14	0.67	6.10	0.73	8.63	0.86	16.66	0.99	0.99

Hydraulic Flow Data - Roughness Coef Ks=1.5

Gradient	50mm Dia		75mm Dia		110mm Dia		125mm Dia		160mm Dia		200 mm Dia	
	V Velocity	Q Discharge	V Velocity	Q Discharge	V Velocity	Q Discharge	V Velocity	Q Discharge	V Velocity	Q Discharge	V Velocity	Q Discharge
(1in)	(m/s)	(l/s)	(m/s)	(l/s)	(m/s)	(l/s)	(m/s)	(l/s)	(m/s)	(l/s)	(m/s)	(l/s)
10	1.26	2.29	1.70	7.11	2.22	20.38	2.43	28.87	2.87	55.91	3.33	3.33
15	1.03	1.87	1.39	5.80	1.81	16.62	1.98	23.55	2.34	45.61	2.72	2.72
20	0.89	1.61	1.20	5.02	1.57	14.39	1.72	20.39	2.03	39.50	2.35	2.35
25	0.80	1.44	1.07	4.49	1.40	12.88	1.53	18.23	1.81	35.31	2.10	2.10
30	0.73	1.32	0.98	4.09	1.28	11.73	1.40	16.63	1.65	32.21	1.92	1.92
35	0.67	1.22	0.91	3.79	1.19	10.87	1.30	15.40	1.53	29.84	1.78	1.78
40	0.63	1.14	0.85	3.54	1.11	10.16	1.21	14.40	1.43	27.89	1.66	1.66
45	0.59	1.07	0.80	3.34	1.04	9.57	1.14	13.56	1.35	26.27	1.57	1.57
50	0.56	1.02	0.76	3.16	0.99	9.08	1.08	12.87	1.28	24.93	1.49	1.49
55	0.54	0.97	0.72	3.02	0.95	8.66	1.03	12.27	1.22	23.78	1.42	1.42
60	0.51	0.93	0.69	2.89	0.91	8.29	0.99	11.75	1.17	22.77	1.36	1.36
65	0.49	0.89	0.66	2.77	0.87	7.96	0.95	11.28	1.12	21.86	1.30	1.30
70	0.47	0.86	0.64	2.67	0.84	7.67	0.91	10.87	1.08	21.06	1.26	1.26
75	0.46	0.83	0.62	2.58	0.81	7.39	0.88	10.48	1.04	20.31	1.21	1.21
80	0.44	0.80	0.60	2.50	0.78	7.17	0.85	10.16	1.01	19.68	1.17	1.17
85	0.43	0.78	0.58	2.42	0.76	6.96	0.83	9.87	0.98	19.12	1.14	1.14
90	0.42	0.75	0.56	2.35	0.74	6.75	0.81	9.57	0.95	18.54	1.11	1.11
95	0.41	0.73	0.55	2.29	0.72	6.56	0.78	9.30	0.93	18.03	1.07	1.07
100	0.40	0.72	0.53	2.23	0.70	6.40	0.76	9.08	0.90	17.59	1.05	1.05
105	0.39	0.70	0.52	2.17	0.68	6.24	0.74	8.84	0.88	17.14	1.02	1.02
110	0.38	0.68	0.51	2.13	0.67	6.10	0.73	8.65	0.86	16.77	1.00	1.00
115	0.37	0.67	0.50	2.08	0.65	5.97	0.71	8.46	0.84	16.40	0.98	0.98
120	0.36	0.65	0.48	2.03	0.64	5.83	0.70	8.26	0.82	16.01	0.95	0.95
125	0.35	0.64	0.48	1.99	0.62	5.72	0.68	8.11	0.81	15.72	0.94	0.94
130	0.35	0.63	0.47	1.95	0.61	5.61	0.67	7.95	0.79	15.42	0.92	0.92
135	0.34	0.62	0.46	1.91	0.60	5.50	0.66	7.80	0.78	15.11	0.90	0.90
140	0.33	0.60	0.45	1.87	0.59	5.39	0.64	7.63	0.76	14.80	0.88	0.88
145	0.33	0.59	0.44	1.85	0.58	5.31	0.63	7.53	0.75	14.59	0.87	0.87

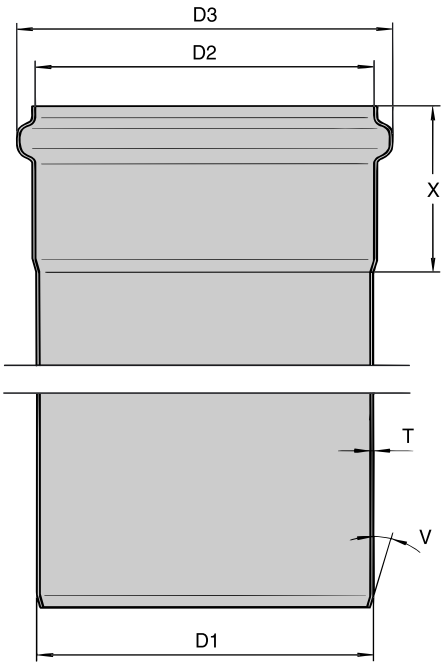
Pipe Sizing

Internal Soil Waste and Rainwater pipes should be sized in accordance with the requirements of BS EN 12056 - Gravity drainage systems inside buildings.

External Below Ground Foul and Storm Drains should be sized in accordance with the requirements of
BS EN 752 - Drain and sewer systems outside buildings.

Dimensions

50 mm, 75 mm, 110 mm, 125 mm, 160 mm and 200 mm outside diameters. For pipe socket dimensions and wall thicknesses see Figure 1.



D1	D2	D3	X	V	T
50	51	61	47	20°	1
75	76	87	55	20°	1
110	111	123	62	20°	1
125	126	140	65	20°	1
160	161	177	78	20°	1.25
200	201	219	98	20°	1.50

Figure 1. Pipe dimensions (in mm).

Weight

Being manufactured from lightweight stainless steel the EuroPipe® system is easy to handle and install. It offers major savings on labour costs when compared with traditional pipe systems. The weight savings are of great benefit when used on multi-storey buildings, ships and offshore structures.

Diameter	Pipe only	Pipe filled with water
50 mm	1.30	3.01
75 mm	1.94	6.03
110 mm	2.87	11.86
125 mm	3.30	14.96
160 mm	5.31	24.48
200 mm	8.12	38.60

Figure 2. Pipe Weights (Kg/m).

Cutting

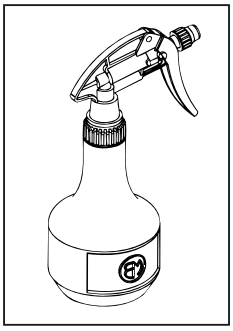
May be achieved with either BLÜCHER Cutting and Bevelling Tools (manual or electric) or by a fine toothed metal saw. Adequate mineral oil lubrication (Type No. 007.500.050) is recommended. When a saw is used ensure pipe is cut square, chamfered and deburred prior to jointing.

BLÜCHER Cutting and Bevelling Tool (manual)
Type No. 006.050.110 to cut and bevel 50 mm, 75 mm and 110 mm diameter EuroPipe®. Type No. 006.125.200 to cut and bevel 110 mm, 125 mm, 160 mm and 200 mm diameter EuroPipe®.

BLÜCHER Cutting and Bevelling Tool (electric)
Type No. 800.050.160 to cut and bevel 50 mm, 75 mm, 110 mm and 160 mm diameter EuroPipe®.

Jointing

Lubricate spigot with BLÜCHER Lubricant (Type No. 007.100.050) and push fit to full socket depth. Withdraw pipe nominal 2 mm or 3 mm to allow for expansion.



BLÜCHER Lubricant

Type No. 007.100.050	1/2 litre soap lubricant
Type No. 007.100.050.SIL	1/2 litre silicon lubricant
Type No. 007.000.000	Atomizer

Technical Data

Expansion

Stainless steel has a low coefficient of expansion. This approximates to 1 mm per metre length of pipe per 60° C change in temperature, see Figure 3.

Polyethylene	12.00
PVC	8.00
Aluminium	2.40
Copper	1.62
Stainless Steel	1.60
Cast Iron	0.90

Figure 3. Coefficient of expansion of different pipe materials. (Increase in mm per m when heated up by 100° C.)

An allowance for expansion is only therefore required when the pipes are carrying hot waste water, see Jointing, page 13.

Fire Resistance

The EuroPipe® system being of stainless steel is inherently fire resistant and may be considered as non-combustible to the requirements of the Building Regulations. i.e. When exposed to a temperature of 800° C. will not soften or fracture to the extent that flames or hot gases will pass through the pipe wall.
It is recommended that any structural opening for the pipe be kept as small as possible and fire-stopped around the pipe. Suitable fire-stop materials are:
I) cement mortar, II) gypsum based plaster, III) intumescent materials.

Chemical Resistance

Austenitic Stainless Steels are extremely chemical resistant and are unaffected by elevated temperatures.
The EuroPipe® system utilises EPDM sealing rings to provide a flexible, chemical resistant joint. For extreme applications special sealing rings are available e.g. FPM (Viton) if required. For advice regarding the suitability of EuroPipe® and elastomeric sealing rings in chemical environments consult our Technical Department.

Strength

All pipes and fittings have adequate resistance to the forms of loading associated with installation and normal service conditions. However, the pipes and fittings should be protected from impacts by heavy vehicles such as fork lift trucks, for example. For advice regarding the use of pipes and fittings underground consult our Technical Department.

Prefabrication

Purpose made fittings can be manufactured to customers requirements. For information regarding the prefabrication service consult our Technical Department.

Earth Continuity

The EuroPipe® push-fit waste pipework system has been tested and certified by AREPA Test and Calibration in Denmark, to be classified as equipotentially bonded without the addition of earth continuity clamps.
Copies of the test procedure and results are available upon request to our Technical Department but may be summarised as follows:

1. Resistance measurements are taken with pipe/fittings pushed together and also pulled apart by 10mm. In each case values are taken and the inserted pipe rotated 120 degrees and 240 degrees and retested.
2. A current of 20A is applied and resistance values calculated.
3. Resistance values between 0.25m and 19.68m were obtained.

It is recommended that the pipework system is checked regularly for equipotential bonding in case accidental damage or modification has occurred.

Testing

Testing in accordance with BS EN 12056 Sanitary pipework or BS EN 752 Building drainage can be carried out immediately following installation.

It is recommended that pipework is tested in sections where appropriate.

Availability

All items are generally available ex-stock from our National Distribution Centre in Tadcaster or your local Stockist
Most items can be delivered next day to any UK destination. For information contact our Sales Department.

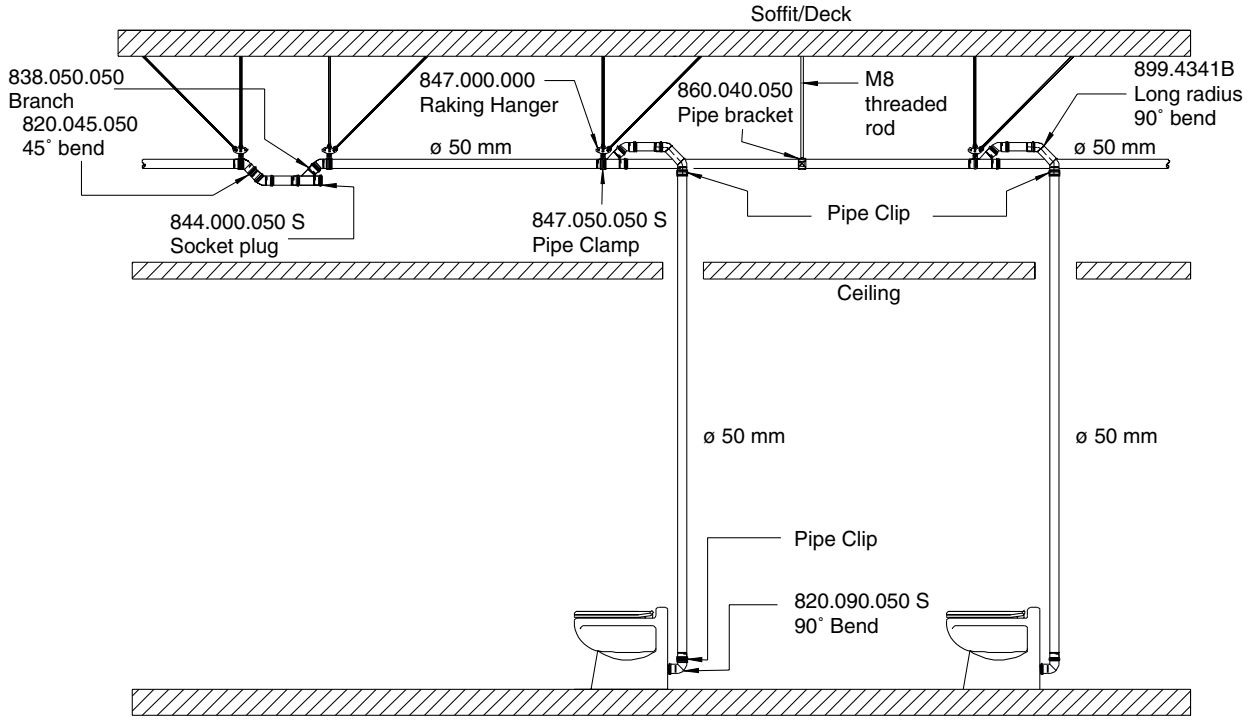
Vacuum / Syphonic applications

EuroPipe® is suitable for use on syphonic rainwater schemes and vacuum drainage applications.

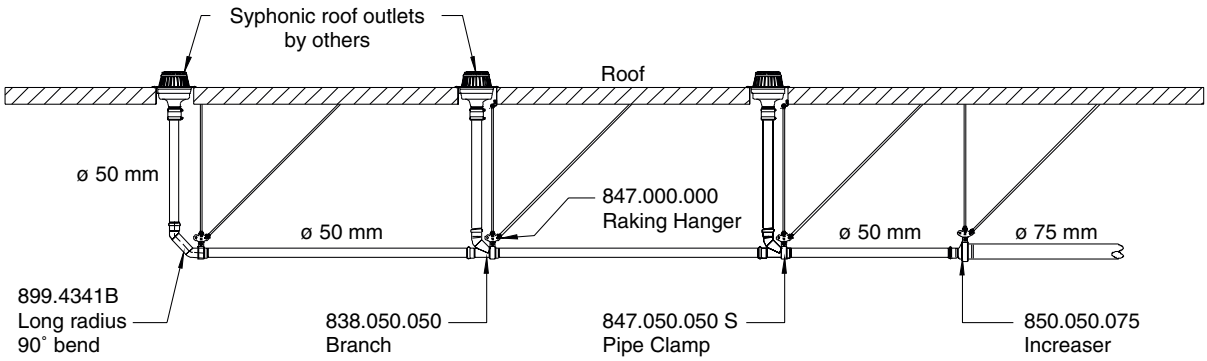
Negative Pressures:

Diameter	Standard seal	Special "O" ring
50 mm	-550m bar	980m Bar
75 mm	-850m bar	980m Bar
110 mm	-600m bar	980m Bar
125 mm	-600m bar	not yet available
160 mm	-600m bar	not yet available
200 mm	-600m bar	not yet available

Vacuum Drainage

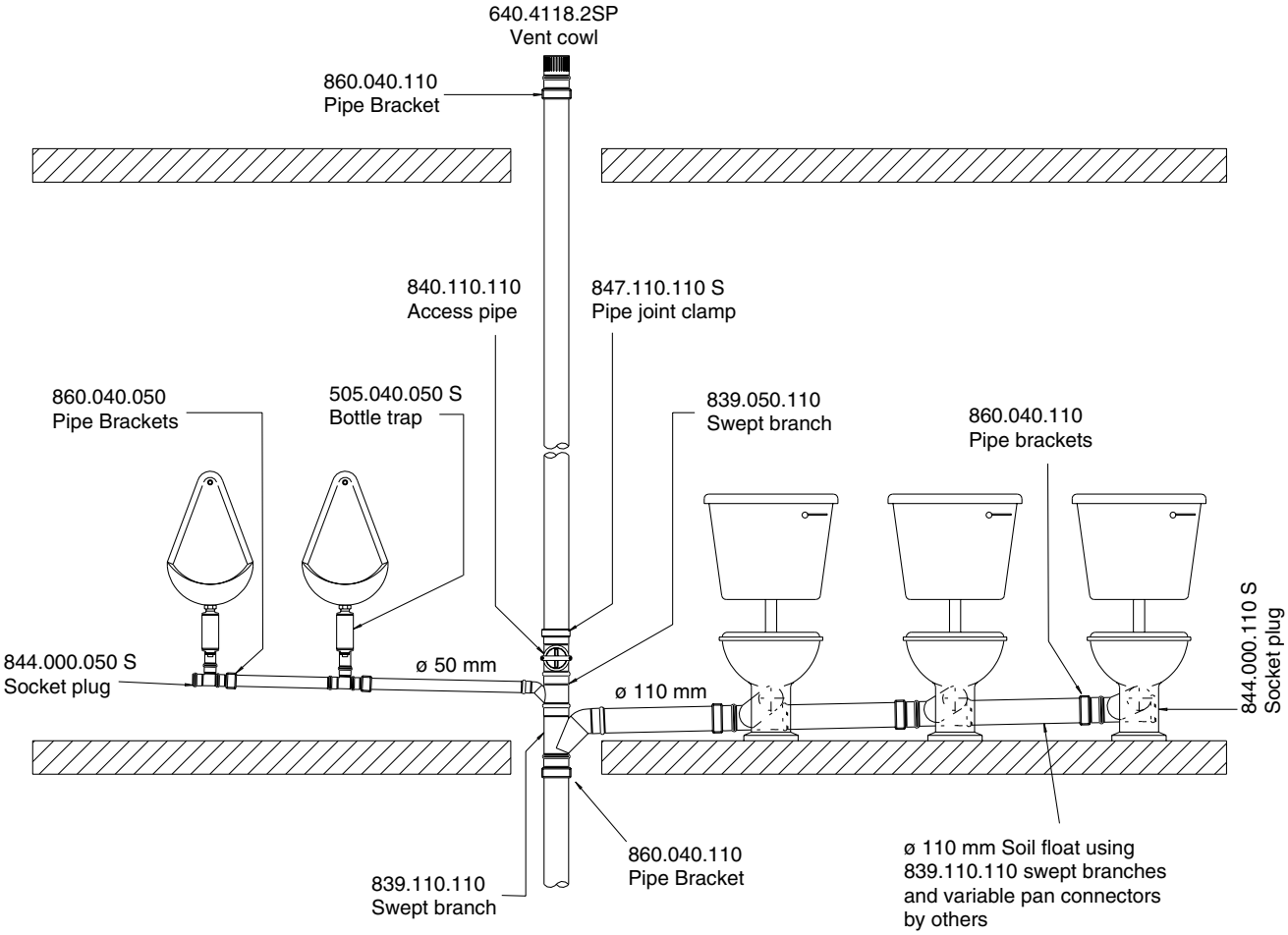


Syphonic Rainwater



Drawing courtesy of Fullflow Systems Ltd.

Typical details



Typical EuroPipe® soil stack including branch discharge pipes.

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DRAINAGE PIPES AND FITTINGS

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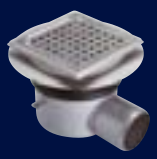
FLOOR DRAINS



BLÜCHER
Industrial®
FLOOR DRAINS

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DRAINAGE PRODUCTS

BLÜCHER
Channel®
LINEAR DRAINAGE

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BLÜCHER UK Ltd was founded in 1978 as the first overseas subsidiary of BLÜCHER. Market Leaders in the manufacturer of stainless steel drainage solutions, BLÜCHER was established in 1965 in Vildbjerg, Denmark and currently employs over 330 staff worldwide.

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