



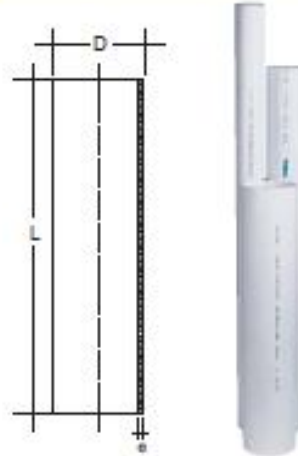
# Soil, Waste & Vent Piping System

### Soil, Waste & Vent Pipes

For solvent weld connection to all fittings.

CODE NO.	NOM. SIZE (mm)	Mean Outside Diameter D (mm)		Min Wall Thickness e (mm)	Length L (m)
		min	max		
1200 032 40 N	36	36.2	36.5	3.0	4
1200 040 40 N	43	42.8	43.1	3.0	4
1200 050 40 N	56	55.8	56.1	3.0	4
1200 050 60 N	56	55.8	56.1	3.0	6
1200 082 40 N	82	82.4	82.8	3.0	4
1200 082 60 N	82	82.4	82.8	3.0	6
1200 110 40 N	110	110.0	110.3	3.2	4
1200 110 60 N	110	110.0	110.3	3.2	6
1200 160 40 N	160	160.0	160.4	3.2	4
1200 160 60 N	160	160.0	160.4	3.2	6
5100 160 60 MD N	160	160.0	160.4	4.0	6
5102 200 60 MD N	200	200.0	200.5	4.9	6
5102 250 60 MD N	250	250.0	250.5	6.2	6
5102 315 60 MD N	315	315.0	315.6	7.7	6

Other lengths are available on special order.



### Swept Bend

To solvent weld to pipes or fittings at both ends.

CODE NO.	NOM. SIZE (mm)	ANGLE °	DIMENSIONS (mm)			
			L	A	B	D
2201 032	36	87 1/2°	24.0	28.0	30.0	36
2201 040	43	87 1/2°	28.0	27.0	28.0	43
2201 050	56	87 1/2°	30.0	32.0	32.0	56
2201 082	82	87 1/2°	43.0	80.0	76.0	82
* 2201 110	110	87 1/2°	51.0	75.0	71.0	110
* 2201 160	160	87 1/2°	76.0	129.0	129.0	160
* 2201 200	200	89°	94/100	120	116	200

\* Available in MF & FF



### Swept Bend with Inspection Opening

To solvent weld to pipe, fitted with inspection opening.

CODE NO.	NOM. SIZE (mm)	ANGLE °	DIMENSIONS (mm)			
			L	A	B	D
2202 040	43	87 1/2°	28.0	27.0	28.0	43
2202 050	56	87 1/2°	30.0	32.0	32.0	56
2202 082	82	87 1/2°	43.0	80.0	76.0	82
* 2202 110	110	87 1/2°	51.0	75.0	71.0	110
* 2202 160	160	87 1/2°	76.0	129.0	129.0	160

\* Available in MF & FF



### Knuckle Bend Plain

CODE NO.	NOM. SIZE (mm)	L	DIMENSIONS (mm)	
			D	A
2203 032	36	21.0	36.6	45.0
2203 040	43	24.0	43.2	52.0



### Unswept Bend

To solvent weld to pipe.

CODE NO.	NOM. SIZE (mm)	ANGLE φ	DIMENSIONS (mm)			
			L	A	B	D
2210 032	36	45°	23	6.0	6.0	36
2210 040	43	45°	27	8.0	8.0	43
2210 050	56	45°	30	10.0	10.0	56
* 2210 082	82	45°	43	15	15	82
* 2210 110	110	45°	50	20	20	110
* 2210 160	160	45°	76	30	30	160
* 2205 110	110	68°	52	60	53	110
+ 2210 110 139	110	41°	50	15	25	110
* 2205 160	160	68°	80	75	72	160
* 2205 200	200	68°	100	97	96	200

Available in Rubber Ring Joint

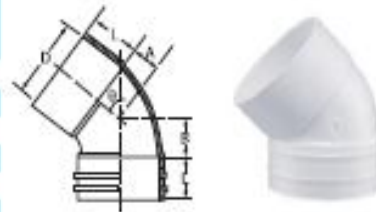
D: Nominal Dimensions

\* Available on Inspection Opening

◆ Available in MF

★ Available in FF

◆ Available in MF & FF



### Unswept Bend with Inspection Opening

To solvent weld to pipe, fitted with inspection opening.

CODE NO.	NOM. SIZE (mm)	ANGLE φ	DIMENSIONS (mm)			
			L	A	B	D
2203 050	56	45°	30.0	10.0	10.0	56
2203 082	82	45°	43.0	15.0	15.0	82
2203 110	110	45°	50.0	20.0	20.0	110
2203 160	160	45°	76.0	30.0	30.0	160



### Swept Branch

To solvent weld to pipe.

With integrally moulded boss adaptor socket to accept waste pipes or fittings.

CODE NO.	NOM. SIZE (mm)	ANGLE φ	DIMENSIONS (mm)								
			L	A	B	C	E	D	D1	L1	
2211 032	36	87 1/2°	23.3	30.0	93.0	-	-	36	36	-	
2211 040	43	87 1/2°	27.0	35.0	109.0	-	-	43	43	-	
2211 050	56	87 1/2°	30.0	45.0	136.0	-	-	56	56	-	
2211 082	82	87 1/2°	45.0	76.0	206.0	-	43.0	82	82	-	
* 2211 110	110	87 1/2°	50.0	75.0	250.0	-	56.0	110	110	-	
2211 160	160	87 1/2°	77.0	155.0	360.0	83.0	56.0	160	160	-	
+ 2211 160 110	160x110	87 1/2°	50.0	120.0	312.0	-	56.0	160	110	76	

\* Available in MF & FF

+ Reducing Branch



### Swept Branch with Inspection Opening

To solvent weld to pipe.

With integrally moulded boss adaptor socket to accept waste pipes or fittings.

CODE NO.	NOM. SIZE (mm)	ANGLE °	DIMENSIONS (mm)							
			L	A	B	C	E	D	D1	L1
2212 040	43	87½°	27.0	35.0	109.0	-	-	43	43	-
2212 050	56	87½°	30.0	45.0	136.0	-	-	56	56	-
2212 082	82	87½°	45.0	76.0	206.0	-	43.0	82	82	-
* 2212 110	110	87½°	50.0	75.0	250.0	-	56.0	110	110	-
2212 160	160	87½°	77.0	155.0	360.0	83.0	56.0	160	160	-
+2212 160 110	160x110	87½°	50.0	120.0	312.0	-	56.0	160	110	76

\* Available in MF & FF

+ Reducing Branch



### Swept Branch with Inspection Opening (L/R)

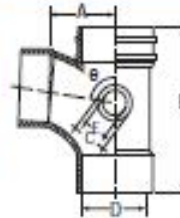
To solvent weld to pipe.

With integrally moulded boss adaptor socket to accept waste pipes or fittings.

CODE NO.	NOM. SIZE (mm)	ANGLE °	DIMENSIONS (mm)				
			A	B	C	E	D
2212 110 LE	110	87½°	80	250	56	75.8	110
2212 110 RI	110	87½°	80	250	56	75.8	110

LE - Branch with left opening

RI - Branch with right opening

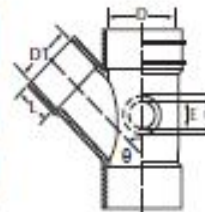


### Unswept Branch

With integrally moulded boss adaptor socket to accept waste pipes or fittings.

CODE NO.	NOM. SIZE (mm)	ANGLE °	DIMENSIONS (mm)				
			L	C	E	D	D1
2213 050	56	45°	30.0	-	-	56	56
2213 082	82	45°	44.0	-	43.0	82	82
2213 110	110	45°	51.0	83.0	56.0	110	110
* 2213 110 082	110x82	45°	45.0	83.0	56.0	110	82
2213 160 110	160x110	45°	50.0	83.0	56.0	160	110

\* Combination item comprising Branch (2213 110) and Bush Socket Reducer (2236 110 082).

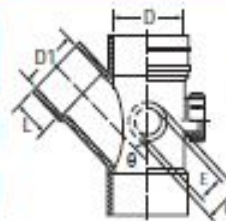


### Unswept Branch with Inspection Opening

With integrally moulded boss adaptor socket to accept waste pipes or fittings.

CODE NO.	NOM. SIZE (mm)	ANGLE °	DIMENSIONS (mm)				
			L	C	E	D	D1
2214 050	56	45°	30.0	-	-	56	56
2214 082	82	45°	44.0	-	43.0	82	82
2214 110	110	45°	51.0	83.0	56.0	110	110
* 2214 110 082	110x82	45°	45.0	83.0	56.0	110	82
2214 160 110	160x110	45°	50.0	83.0	56.0	160	110

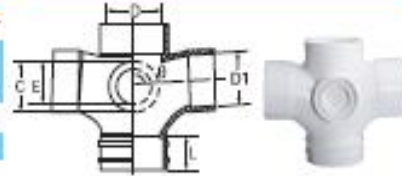
\* Combination item comprising Branch (2213 110) and Bush Socket Reducer (2236 110 082).



### Swept Equal Double Branch

With integrally moulded boss adaptor socket to accept waste pipes or fittings.

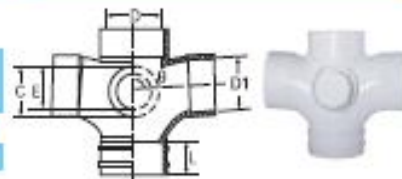
CODE NO.	NOM. SIZE (mm)	ANGLE		DIMENSIONS (mm)				
		α	L	C	E	D	D1	
2216 050	56	87 1/2°	28.5	-	43.0	56	56	
2216 110	110	87 1/2°	50.5	82.5	56.0	110	110	



### Swept Equal Double Branch with Inspection Opening

Access Plug (2229) connected to integrally moulded boss adaptor socket to provide inspection opening.

CODE NO.	NOM. SIZE (mm)	ANGLE		DIMENSIONS (mm)				
		α	L	C	E	D	D1	
2217 050	56	87 1/2°	30.0	-	43.0	56	56	
2217 110	110	87 1/2°	50.0	83.0	56.0	110	110	

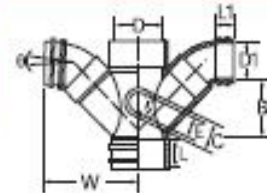


### Swept Reducing Double Branch

With integrally moulded boss adaptor socket to accept waste pipes or fittings.

CODE NO.	NOM. SIZE (mm)	ANGLE		DIMENSIONS (mm)						
		α	L	L1	B	W	C	E	D	D1
2216 160 110	160x110	87 1/2°	71.0	50.0	173.0	260.0	83.0	56.0	160	110

Combination of 2218 160 110 and 41° Bend

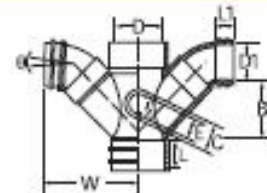


### Swept Reducing Double Branch with Inspection Opening

Access Plug (2229) connected to integrally moulded boss adaptor socket to provide inspection opening.

CODE NO.	NOM. SIZE (mm)	ANGLE		DIMENSIONS (mm)				
		α	L	C	E	D	D1	
2217 160 110	160x110	87 1/2°	76.0	83.0	56.0	160.8	110.6	

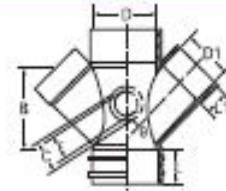
\* Combination item comprising Reducing Double Branch (2219 160 110) and 41° Bend.



### Unswept Reducing Double Branch

With integrally moulded boss adaptor socket to accept waste pipes or fittings.

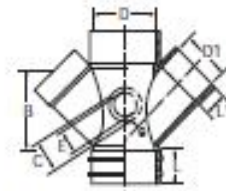
CODE NO.	NOM. SIZE (mm)	ANGLE °	DIMENSIONS (mm)							
			L	L1	B	C	E	D	D1	
2218 160 110	160x110	45°	71.0	50.0	173.0	83.0	56.0	160	110	



### Unswept Reducing Double Branch with Inspection Opening

Access Plug (2229) connected to integrally moulded boss adaptor socket to provide inspection opening.

CODE NO.	NOM. SIZE (mm)	ANGLE °	DIMENSIONS (mm)							
			L	L1	B	C	E	D	D1	
2219 160 110	160x110	45°	71.0	50.0	173.0	83.0	56.0	160	110	

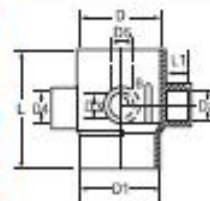


### Unswept 1,2,3 & 4 Way Branch

To allow for waste pipe connection above soil branch.

CODE NO.	NOM. SIZE (mm)	ANGLE °	DIMENSIONS (mm)					
			L	L1	D	D1	D2-D5	
(1) 2231 110 050	110x56	88°	150.0	35.0	110	110	56	
(2) 2232 110 050	110x56	88°	150.0	35.0	116	110	56	
(3) 2233 110 050	110x56	88°	150.0	35.0	110	110	56	
(4) 2234 110 050	110x56	88°	150.0	35.0	110	110	56	

- (1) One Way Branch      (2) Two Way Branch  
(3) Three Way Branch    (4) Four Way Branch

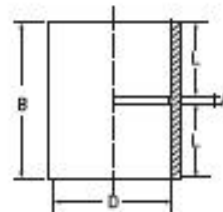


### Straight Coupler

To solvent weld together two lengths of soil or waste pipes.

CODE NO.	NOM. SIZE (mm)	L	DIMENSIONS (mm)		
			A	B	D
2225 032	36	25.3	3.0	56	36
2225 040	43	28.0	3.0	59	43
2225 050	56	32.0	3.0	67	56
2225 082	82	42.0	3.0	96	82
2225 110	110	51.0	3.2	112	110
2225 160	160	77.0	4.3	161	160
* 2225 200	200	108	78	294	200
* 2225 250	250	112	110	334	250
* 2225 315	315	128	90	346	315

\* Fabrication item



### Pipe Sleeve

For cast into RC floor slab/concrete wall to provide a through socket for pipes.

CODE NO.	NOM. SIZE (mm)	H	DIMENSIONS (mm)	
			D	D1
2252 032	36	112.0	72.0	56.0
2252 040	43	112.0	79.0	67.5
2252 050	56	112.0	92.0	75.5
2252 082	82	112.0	120.0	104.0
2252 110	110	112.0	147.0	131.0
2252 160	160	163.0	199.0	184.0



### Expansion Coupler

To provide an expansion joint for pipe connection or other materials pipe connection at base of stack.

Combination of Seal Ring Adaptor (2242) & Straight Coupler (2225).

CODE NO.	NOM. SIZE (mm)	L	DIMENSIONS (mm)		
			L1	L2	D
2226 082	82	113.0	42.0	48.0	82
2226 110	110	133.0	51.0	55.0	110
2226 160	160	190.0	77.0	80.0	160

■ Rubber Ring Seal



### Socket Plug with Screw on Cap

To plug up the open-end of a pipe line, via a straight coupler, to allow for later accessibility.

CODE NO.	NOM. SIZE (mm)	L	DIMENSIONS (mm)		
			L1	D	D1
2229 032	36	45.0	23.0	36.3	32.0
2229 040	43	50.0	26.0	42.9	42.9
2229 050	56	46.0	28.0	55.9	52.5
2229 082 46	82	46.0	23.0	82.6	76.4
2229 082 67	82	68.0	44.0	82.6	76.4
* 2229 110 082	110	77.0	50.0	103.8	76.0

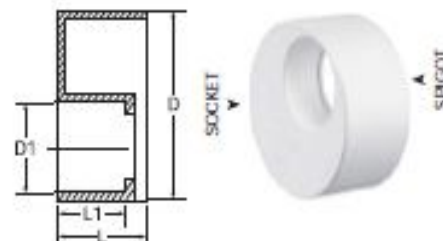
\* Socket Plug dimension 'D' is internal diameter of 110 mm Ø Pipe.



### Bush/ Socket Reducer

To allow for change in fittings socket diameter.

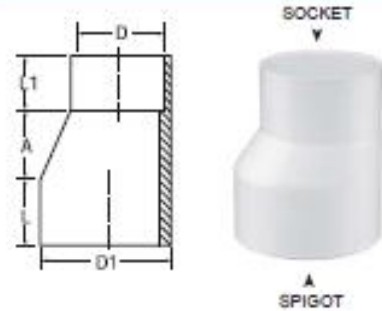
CODE NO.	NOM. SIZE (mm)	L	DIMENSIONS (mm)		
			L1	D	D1
2236 040 032	43x36	22.0	17.0	42.9	36
2236 050 032	56x36	28.0	17.5	55.9	36
2236 050 040	56x43	28.0	21.0	55.9	43
2236 082 050	82x56	38.0	28.0	82.6	56
2236 110 050	110x56	50.0	27.0	110.2	56
2236 110 082	110x82	50.0	37.0	110.2	82
2236 160 110	160x110	71.0	48.5	160.3	110



### Level Invert Reducer

To allow for change in pipe diameter with larger end spigot to fitting and other end socket to pipe.

CODE NO.	NOM. SIZE (mm)	DIMENSIONS (mm)				
		L	L1	A	D	D1
2239 050 032	56x36	32.0	23.5	19.0	36	55.9
2239 082 050	82x56	45.0	27.0	35.0	56	82.6
2239 110 050 145	110x56	51.0	36.0	68.0	56	110.2
2239 110 082	110x82	50.0	43.0	35.0	82	110.2



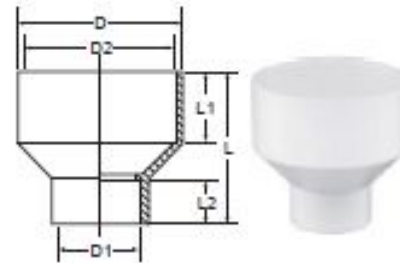
### Concentric Reducer

To allow for change in pipe diameter mainly used with 'P' Trap (2246 & 2247), Grating (2254), and Extension Grating Collar (2255).

CODE NO.	NOM. SIZE (mm)	DIMENSIONS (mm)					
		L	L1	L2	D	D1	D2
* 2239 082 050 83	82x56	83.0	32.0	25.0	75.6	56	-
+ 2239 110 050	110x56	109.0	50.0	28.0	-	56	110
# 2239 160 110	160x110	148.0	75.0	49.0	160.3	110	-

\* Concentric Reducer dimension 'D' is the internal diameter of 82 mm pipe.

# D for 160mm is spigot



### Inspection Opening & Frame

Solvent weld to pipe for access to slack.

CODE NO.	NOM. SIZE (mm)	L	DIMENSIONS (mm)	
			A	B
2238 082 050	82x56	92.0	56.5	47.0
2238 110 050	110x56	122.0	56.5	47.0
2238 110 082	110x82	122.0	82.2	71.0
2238 160 082	160x82	175.0	82.2	71.0

Combination of Boss Connector (2243) & Socket Plug with screw on cap (2229).

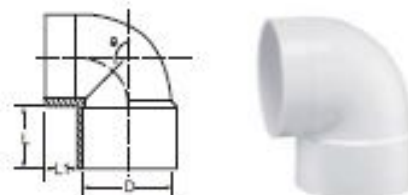


### WC Connecting Bend

For WC Pans to BS 5503

CODE NO.	NOM. SIZE (mm)	ANGLE °	DIMENSIONS (mm)		
			L	L1	D
2208 110	110	90°	50.0	25.0	110
* 2209 110	110	90°	50.0	25.0	110

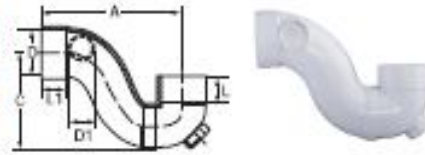
\* With Inspection Opening.



### 'P' Trap

'P' Trap with water seal for gas-tight connection to SWV system

CODE NO.	NOM. SIZE (mm)	DIMENSIONS (mm)					
		L	L1	A	C	D	D1
2246 050	56	30	29	210.0	156.0	56	-
2246 110	110	50.0	50.0	325.0	223.0	110	56

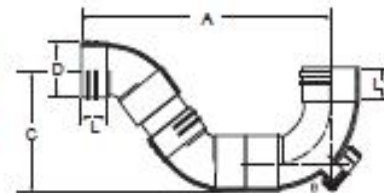


### 'P' Trap

'P' Trap with water seal for gas-tight connection to SWV system

CODE NO.	NOM. SIZE (mm)	DIMENSIONS (mm)					
		L	L1	A	C	D	D1
* 2246 082	82	44.0	44.0	375.0	157.0	82	-

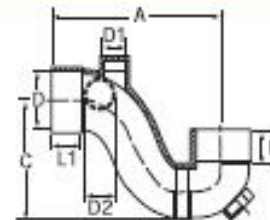
\* Fabricated Item



### 'P' Trap with Vent

'P' Trap with water seal for gas-tight connection to SWV system.  
Bossed socket to allow for connection to vent pipe.

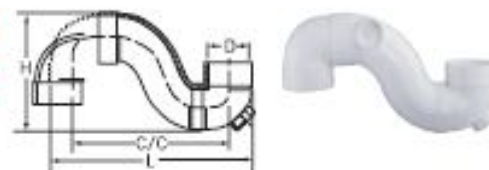
CODE NO.	NOM. SIZE (mm)	DIMENSIONS (mm)							
		L	L1	A	C	D	D1	D2	
2247 050 032	56x36	28.0	28.0	210.0	125.0	56	36.3	-	
2247 110 050	110x56	50.0	50.0	310.0	160.0	110	55.9	55.9	



### 'S' Trap

With water seal for gas-tight connection to SWV System.

CODE NO.	NOM. SIZE (mm)	DIMENSIONS (mm)			
		L	H	C/C	D
2248 110	110	500.0	270.0	390.0	110



### Vent Cowl

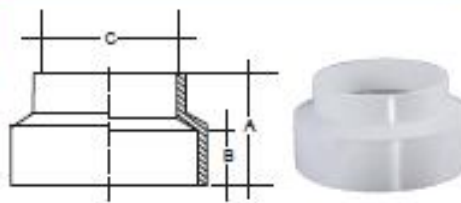
To cap open end of soil and vent stack, solvent welded to pipe.

CODE NO.	NOM. SIZE (mm)	DIMENSIONS (mm)	
		L	A
2250 050	56	28.5	75.0
2250 082	82	24.0	70.0
2250 110	110	25.0	90.0
2250 160	160	47.0	143.0



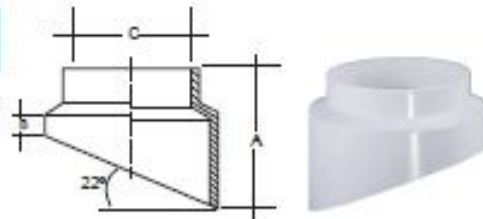
### Weather Apron Flat

CODE NO.	NOM. SIZE (mm)	DIMENSIONS (mm)		
		A	B	C
2253 110 075	110	76.0	45.0	110.4



### Weather Apron 22°

CODE NO.	NOM. SIZE (mm)	DIMENSIONS (mm)		
		A	B	C
2253 110 115	110	115.0	27.0	110.3

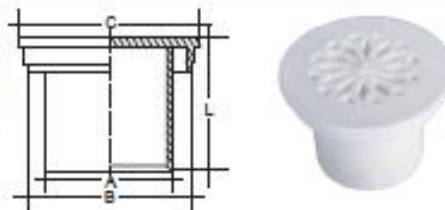


### Grating

Can be sealed into 82mm or 110mm drainage pipes or floor wells.

CODE NO.	NOM. SIZE (mm)	DIMENSIONS (mm)	
		L	C
2254 110 082	110x82	73.0	110.2

- A - 82mm** Seats on 82mm short length pipe solvent welded to Concentric Reducer (2239 082 050 83) and connected to 50mm P-trap (2246 or 2247).
- B - 110mm** Seats on 110mm short length pipe solvent welded to Floor Gully (2259 110).



### Extension Grating Collar

To be used as a collar for grating (2254 110 082)

CODE NO.	NOM. SIZE (mm)	DIMENSIONS (mm)				
		L	A	A1	B	B1
2255 110 014	110x14	118.0	110.5	110.0	33.0	14.0



Floor Gully S-191

CODE NO.	NOM. SIZE (mm)	DIMENSIONS (mm)			
		L	L1	L2	D
2258 110 S191	110	84	105	127	50

Imported fitting from Aliaxis



Floor Gully S-228

CODE NO.	NOM. SIZE (mm)	DIMENSIONS (mm)				
		L	L1	L2	L3	D
2258 110 S228	110	105	145	170	116	ø50/ø40

Imported fitting from Aliaxis

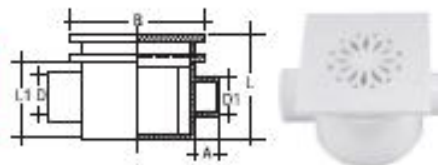


Floor Gully with Trap

Floor Gully comes complete with water trap, extension grating collar (2255) and grating (2254) together with snap-in-cover, outlet may be rodded by removing grating.

CODE NO.	NOM. SIZE (mm)	DIMENSIONS (mm)					
		L	L1	A	B	D	D1
2258 110 085	110(85)x43	85.0	90.0	32.0	118.0	43.0	38.6

PP grating & collar



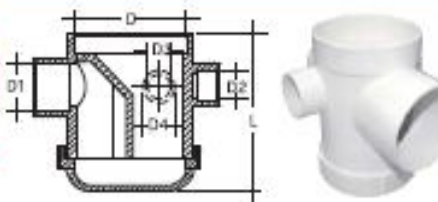
Floor Gully with Trap & Inspection Opening

Integrally moulded boss adaptor with 40mm (D3) & 50mm (D2) socket to accept waste pipe or other fittings.

CODE NO.	NOM. SIZE (mm)	DIMENSIONS (mm)				
		L	D	D1	D2	D3-D4
2259 110	110	190	110	63.1	56.0	43.0
* 2259 110 050	110x56	190	110	56.2	56.0	43.0

■ Rubber Ring Seal

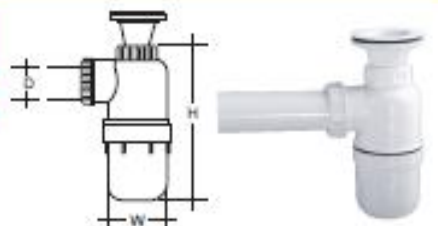
\* Combination of 2259 110 & 2236 082 050



Bottle Trap

CODE NO.	NOM. SIZE (mm)	DIMENSIONS (mm)		
		H	W	D
2260 032	36	151.0	66.5	36.3
2260 040	43	174.0	74.4	42.9

With plug & chain



## Top Removable Trapped Floor Gully

**Code No** : 2259 110 RFG

**Material** : PVC-U

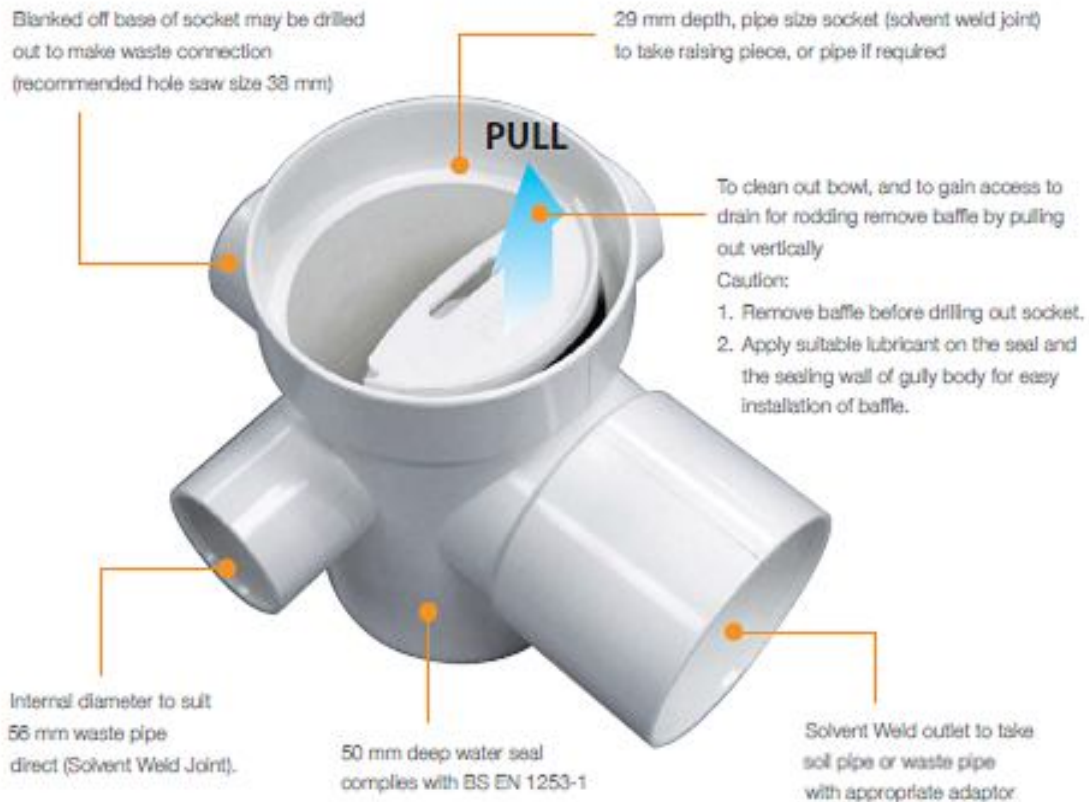
Under-floor trap to receive up to 3 waste pipe connections  
Sockets to accept 56 mm waste pipe  
Outlet socket sizes at 2 - 1/2 fall: - 82 mm

**Seal depth** : 50 mm meets BS EN 1253-1

Cleaning access via removable baffle with integral gasket to maintain airtight seal.  
Upper socket can accept standard 110 soil pipe.

**Size** : 110/82

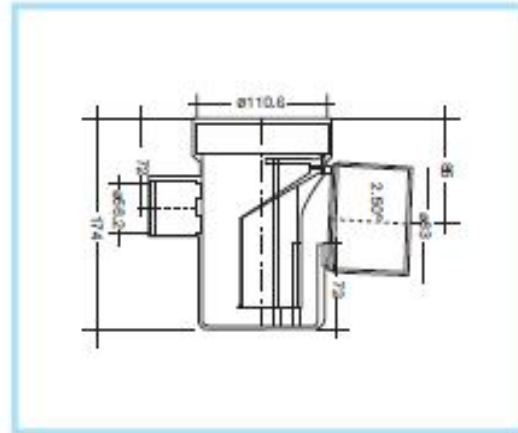
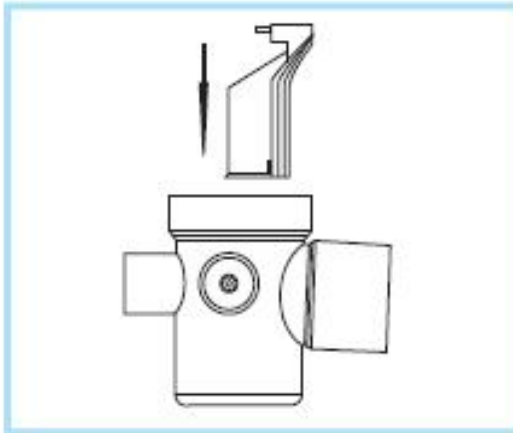
**Colour** : White



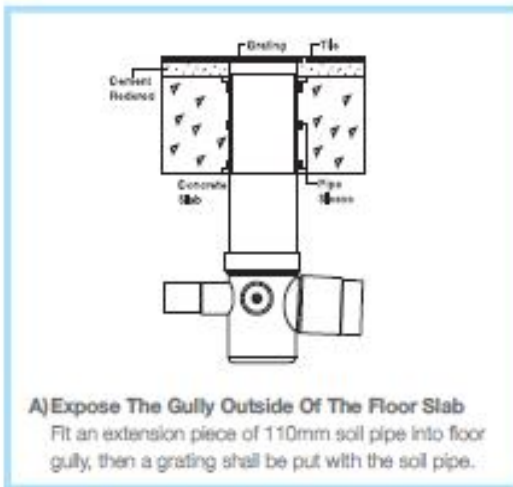
### Advantages:

1. Removable trap, easier and simple way to clean
2. No rubber ring seal, no leakage.
3. Easier solution for adding for collar for higher false ceiling.
4. Save cost, can receive up to 3 waste pipe connection without additional fittings.
5. Prevent Insect, cockroaches and gases entering building.

## Dimension



## Method of Installation



### Step 1

Check overall height of unit with inlet in position, and adjust to suit installation location. (Do NOT solvent weld inlet at this stage)

### Step 2

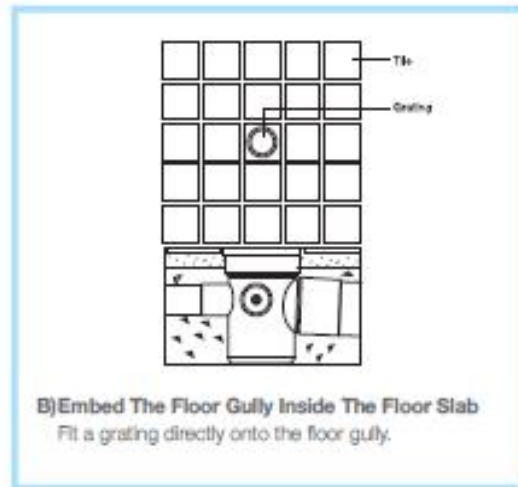
Place gully into position

### Step 3

Solvent-weld waste pipe to outlet socket

### Step 4

Bring floor screed up to level with bottom of gully inlet



### Step 5

Allow screed to set, and remove gully inlet

### Step 6

Apply waterproof mastic to underside of square flange of gully inlet

### Step 7

Solvent cement gully inlet into position

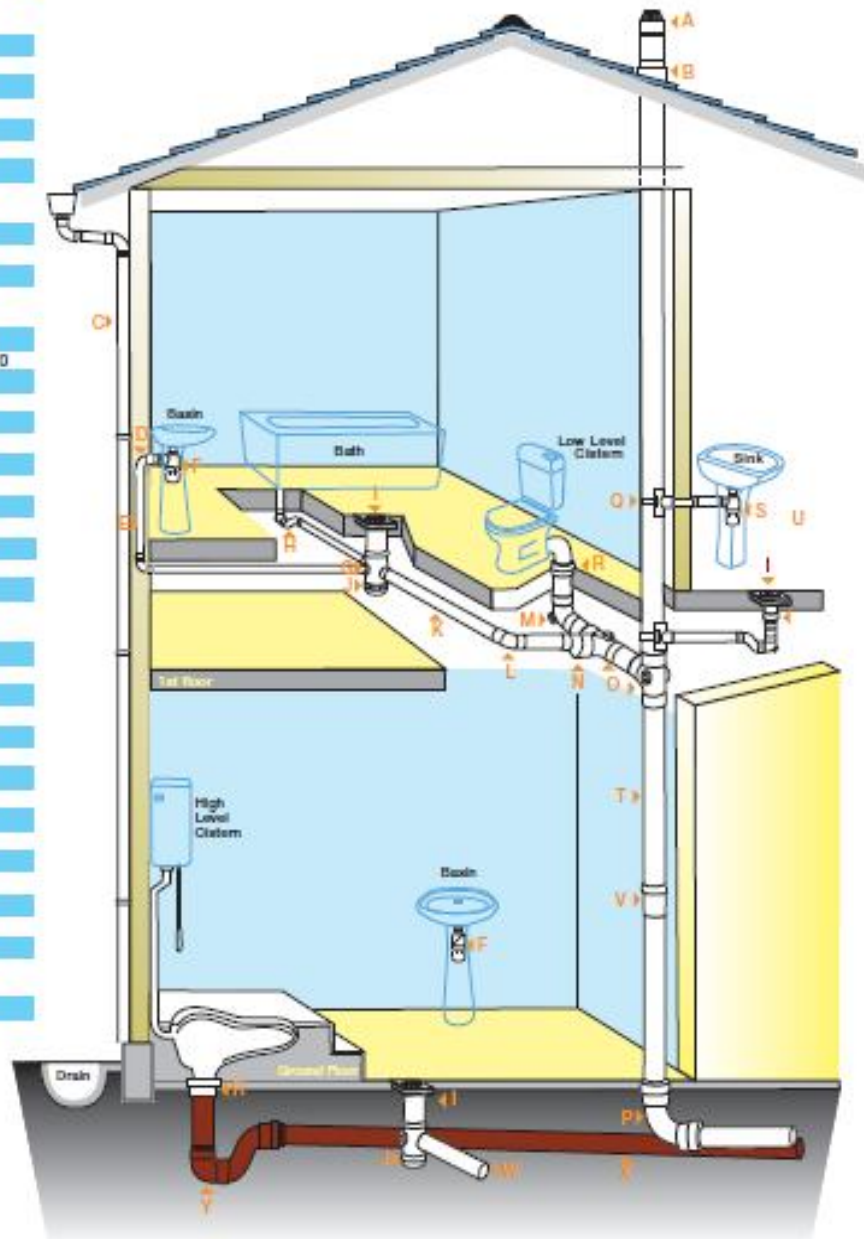
### Step 8

Tile up to inlet, and grout using waterproof grout

## Typical Soil, Waste & Vent Piping layout for a 2 storey house using

### PALING SWV Pipes & Fittings

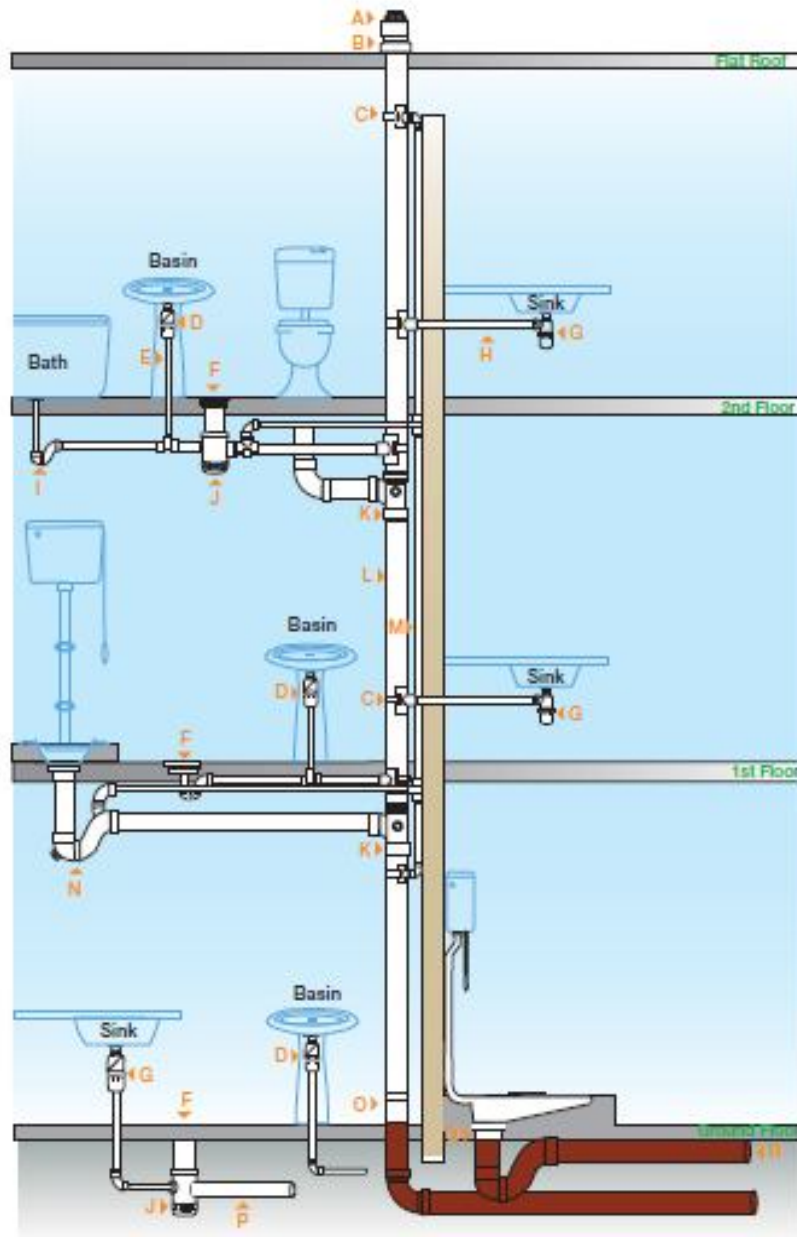
A	110 mm Vent Cowl
B	110 mm Weather Apron
C	82 mm PVC-U Rainwater Down Pipe
D	36 mm Band (Sweep)
E	36 mm PVC-U Pipe
F	36 mm Bottle Trap
G	43 x 36 mm Bush Socket Reducer
H	56 mm P Trap
I	110 x 82 mm Grating with Extension Collar
J	110 x 82 mm Floor Gully with Trap & V/O
K	82 mm PVC-U Pipe
L	82 mm Band (Sweep)
M	110 mm Band W/V/O (Sweep)
N	110 x 82 mm Level Invert Reducer
O	110 mm Single Branch (Sweep)
P	110 mm Underground Band (Sweep)
Q	110x43 mm Boss Connector
R	110 mm WC Pan Connector
S	43 mm Bottle Trap
T	110 mm PVC-U Soil Stack
U	82x56 mm Concentric Reducer
V	110 mm Expansion Coupler
W	82 mm PVC-U Pipe
X	110 mm Underground PVC-U Pipe
Y	110 mm Underground P Trap



## Typical Soil, Waste & Vent Piping Layout for a 3 storey flat using

### PALING SWV Pipes & Fittings

- A** 110 mm Vent Cowl
- B** 110 mm Weather Apron
- C** 110 x 56 mm Boss Connector
- D** 36 mm Bottle Trap
- E** 36 mm PVC-U Pipe
- F** 110 x 82 mm Grating with Extension Collar
- G** 43 mm Bottle Trap
- H** 43 mm PVC-U Pipe
- I** 56 mm 'P' Trap
- J** 110 x 82 mm Floor Gully with Trap & Inspection Opening
- K** 110 mm Branch (Sweep)
- L** 110 mm PVC-U Soil Stack
- M** 56 mm PVC-U Vent Stack
- N** 110 mm 'P' Trap with Vent
- O** 110 mm Expansion Coupler
- P** 82 mm PVC-U Pipe
- Q** 110 mm WC Pan Connector
- R** 110 mm Underground PVC-U Pipe



## Joining

### A - PVC-U To Vitrified Clay Joints

Joints between pipes and vitrified clay sockets shall be made by applying solvent cement evenly to the pipe end for the full engagement length, and while wet, coat the surface with clean sharp sand, the joint shall then be finished by filling the annular jointing space with cement mortar, or by approved epoxy jointing compound. Both materials shall be neatly splayed off.

### B - PVC-U To G. I. Joints

Joints between pipes and steel tubes shall be made by means of a threaded adaptor. Polytetrafluorethylene (PTFE) tape shall be used on the thread as sealant, and hemp shall not be used.

### C - PVC-U To Copper Or Brass Tube Joints

Joints between pipes and copper or brass tubes, shall be made by means of a threaded adaptor solvent cemented to the pipe and screwed into an approved brass adaptor, silver brazed to the copper or brass tube.

### D - PVC-U To Cast Iron Joints

Joints between pipes and cast iron sockets shall be made as follows:

- 1- For caulked joint sockets by filling the annular jointing space with an approved epoxy jointing compound, neatly splayed off.
- 2- For bolted gland joint by means of a gasket gland ring.

## Co-efficient of Thermal Expansion

PVC-u has a coefficient of linear expansion of  $7 \times 10^{-5}$  mm/mm<sup>o</sup>C. This means that 1 metre length of pipes will expand approximately 0.70 mm per 10<sup>o</sup>C rise in temperature of the pipe material. However due to the short duration of most effluent flows and the slow temperature response of the material, the greatest thermal movements take place due to variation in environmental temperature rather than the effect of hot effluent discharge. Successful accommodation of thermal movement is dependent on the control direction and distribution of this movement.

The following notes are based on general practice but because of minor variations in By-law and Codes of Practice reference should be made to the appropriate statutory authority.

## General

In assembling pipes and fittings particular care shall be taken to establish proper gradient and alignment before jointing. Grading and aligning pipes and fittings by straining shall not be allowed.

## Storage

Pipes stacked for transport or long term storage should be continuously and evenly supported to minimise distortion. Alternatively supports of at least 75mm bearing widths, at spacing not greater than 1.5 metres centres, should be placed beneath the pipes. In such load bearing pecks, maximum free height should be 1 meter.

