



SOIL, WASTE & VENT SYSTEM



★★★
LEAD-FREE
PIPE SYSTEMS

SUITABLE FOR BUILDINGS,
HOUSES AND CIVIL
CONSTRUCTION PURPOSES.



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PRODUCT RANGE

SOIL, WASTE & VENT SYSTEM

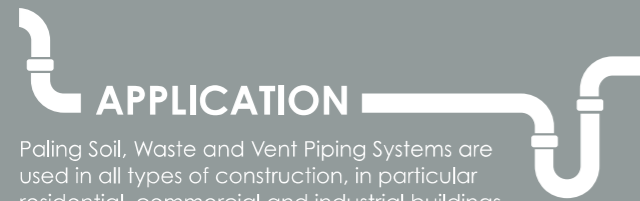
FEATURES

- High quality of finish with smooth internal and external surfaces
- Provide low coefficient of flow friction
- Excellent resistance to chemicals found in domestic effluent
- Remain stable under elevated temperature
- Formulated to withstand weathering effect



ADVANTAGES

- Excellent Performance
- Chemical and Corrosion Resistance
- High Flow Capacity
- Durability and Strength
- Low Installation Costs



APPLICATION

Piling Soil, Waste and Vent Piping Systems are used in all types of construction, in particular residential, commercial and industrial buildings.





The revolutionized Paling Ecotech Pipe is a unique innovation that focuses on conserving and preserving our precious environment for the benefit of future generations.

5 Features of Paling Ecotech Pipe

- 1 UNIQUE CORE** – Unlike conventional single-layer uPVC pipes, Paling EcoTech Pipe has a center layer that is made of reprocessed materials generated from the manufacturing process based on Paling's very own premium formulation.
- 2 ALGAE RESISTANT** – This unique pipe is also designed as such that it prevents algae or other microbial growth inside the pipe to maintain a smooth bore for better flow rate.
- 3 ECO-FRIENDLY** – Paling EcoTech Pipe is made mostly from reprocessed materials, and is also lead-free. Hence, this pipe is safe for both humans and the environment.
- 4 HIGH PERFORMANCE** – This product has been tested and proven to provide performance at par or exceeding BSEN 1329. This high performance ensures excellent drainage system.
- 5 ENERGY SAVING** – This three-layer piping system is produced using advanced co-extrusion technology which uses less power during production while increasing efficiency and productivity of the process. This is a big step in conserving energy and resources for long term environment sustainability.



PRODUCT RANGE

ECOTECH PIPES

FEATURES

- High quality of finish with smooth internal and external surfaces
- Provide low coefficient of flow friction
- Excellent resistance to chemicals found in domestic effluent
- Remain stable under elevated temperature
- Complied and Certified to BS EN 1329, BS 4514 & MS 1063
- Green pages listed as sustainable products.
 Visit : <http://www.greenpagesmalaysia.com/product/paling-ecotech-pipes/>

ADVANTAGES

- Premium Formulation and Reliability
- Eco-Friendly
- High Drainage Performance
- Very Competitive Cost
- Algae Resistance

APPLICATION

Paling Soil, Waste and Vent Piping Systems are used in all types of construction, in particular residential, commercial and industrial buildings.



ECO FRIENDLY PIPE

1. Lead-free
2. Three-layers technology
 - External layers made of premium formulation
 - Central layer made of reprocessed materials



QUALITY & CERTIFICATION



SYSTEM CERTIFICATION

FITTINGS

1. Unplasticized Polyvinyl Chloride (PVC-U) Fittings for Soil and Waste Discharge (Low and High Temperature) within the Building Structure.
2. Unplasticized Polyvinyl Chloride (PVC-U) Fittings for Non-Pressure underground Drainage and Sewerage.

SOLVENT CEMENT

1. Coloursolve / Clearsolve Polyvinyl Chloride (PVC) Solvent Cement.

PIPES

1. Unplasticized Polyvinyl Chloride (PVC-U) Pipes for Soil and Waste Discharge (Low and High Temperature) within the Building Structure.
2. Paling Ecotech Pipes is made from reprocessed material, is lead free and recognised as Sustainable Materials by Green Pages Malaysia

PIPES

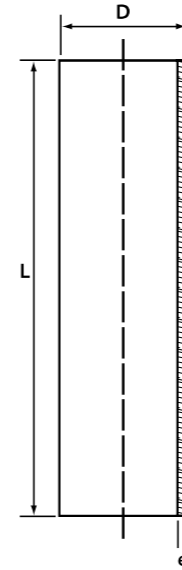
MODEL PREMIUM	NOM SIZE (mm)	AREA CODE	SPECIFICATION
SWV Pipes	36, 43 & 56	B	BS EN 1329/ MS 1063
SWV Pipes	82	B / BD	BS 4514 / MS 1063
SWV Pipes	110	BD	BS EN 1329/ MS 1063
SWV Pipes	160	B & BD	BS EN 1329/ MS 1063
SWV Pipes	200, 250 & 315	BD	BS EN 1329/ MS 1063

FITTINGS

NOM.SIZE (mm)	SPECIFICATION
36, 43, 56, 110, 160, 200, 250 & 315	BS EN 1329 / BS EN 1401 / MS 1063
82	BS 4514 / MS 1063
Top Removable Trapped Floor Gully	BS EN 1253
Floor Gully with Trap	BS EN 1253

SWV PIPES

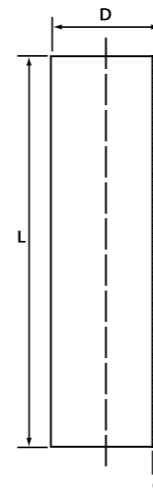
For Solvent weld connection to all fittings.



CODE NO.	NOM. SIZE (mm)	Mean Outside Diameter D (mm)		Min Wall Thickness e (mm)	Length L (mm)	AREA CODE
		min	max			
1200 036 58 01	36	36.2	36.5	3.0	5.8	B
1200 043 58 01	43	42.8	43.1	3.0	5.8	B
1200 056 58 01	56	55.8	56.1	3.0	5.8	B
1200 082 58 01	82	82.4	82.8	3.0	5.8	B
1200 110 58 01	110	110.0	110.3	3.2	5.8	BD
1200 160 58 01	160	160.0	160.4	3.2	5.8	B
1200 160 58 BD 01	160	160.0	160.4	4.0	5.8	BD
1200 200 58 01	200	200.0	200.5	4.9	5.8	BD
1200 250 58 01	250	250.0	250.5	6.2	5.8	BD
1200 315 58 01	315	315.0	315.6	7.7	5.8	BD

Other length are available on special order.

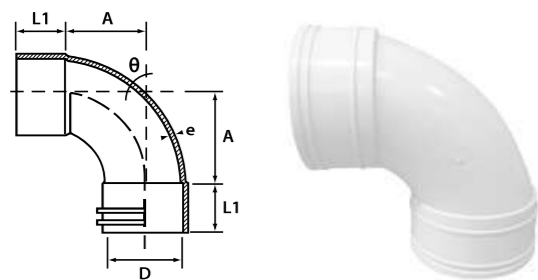
ECOTECH PIPES



CODE NO.	NOM. SIZE (mm)	Mean Outside Diameter D (mm)		Min Wall Thickness e (mm)	Length L (mm)	Pipe End	AREA CODE
		min	max				
1210 082 58 01	82	82.4	82.8	3.0	5.8	PE	B
1210 110 58 01	110	110.0	110.3	3.2	5.8	PE	BD
1210 160 58 01	160	160.0	160.4	3.2	5.8	PE	B
1210 160 58 BD 01	160	160.0	160.4	4.0	5.8	PE	BD

87.5° HEAVY DUTY BEND

For solvent weld to pipe at both end, recommended for casting and lowest connection at the bottom of the stack to horizontal drainage pipe

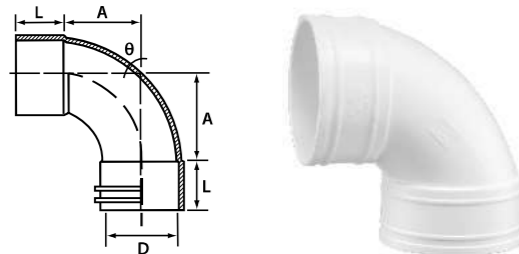


CODE NO.	NOM. SIZE (mm)	ANGLE θ	DIMENSIONS (mm)			MIN W/T e(mm)
			L1	A	D	
2201 110 HD 20	110	87.5°	51	73	110	5
2201 160 HD 20	160	87.5°	76	120	160	7
2201 200 HD 20	200	89°	94	110	200	9

Color : Greyish White

SWEPT BEND

To solvent weld to pipes or fittings at both ends.



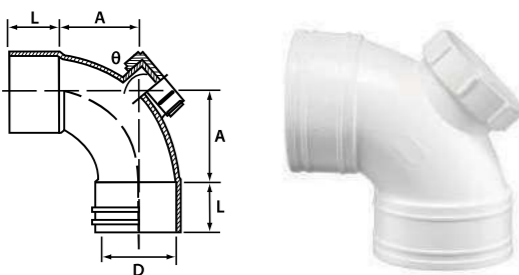
CODE NO.	NOM. SIZE (mm)	ANGLE θ	DIMENSIONS (mm)		
			L	A	D
2201 036 01	36	87.5°	24	28	36
2201 043 01	43	87.5°	28	27	43
2201 056 01	56	87.5°	30	40	56
2201 082 01	82	87.5°	45	71	82
2201 110 01*	110	87.5°	51	73	110
2201 160 01*	160	87.5°	76	120	160
2201 200 01*	200	89°	94	118	200
2201 250 01	250	89°	86	144	250
2201 315 01	315	89°	102	280	315

* Available in MF & FF

SWEPT BEND

with Inspection Opening

To solvent weld to pipes, fitted with inspection opening

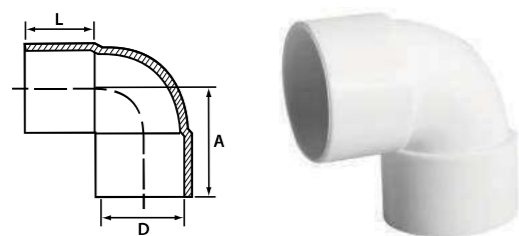


CODE NO.	NOM. SIZE (mm)	ANGLE θ	DIMENSIONS (mm)		
			L	A	D
2202 043 01	43	87.5°	28	27	43
2202 056 01	56	87.5°	30	40	56
2202 082 01	82	87.5°	45	71	82
2202 110 01*	110	87.5°	51	73	110
2202 160 01*	160	87.5°	76	120	160
2202 200 01*Δ	200	88°	102	137	200
2201 250 01	250	89°	86	144	250
2201 315 01	315	89°	102	185	315

* Available in MF & FF

Δ Fabrication item

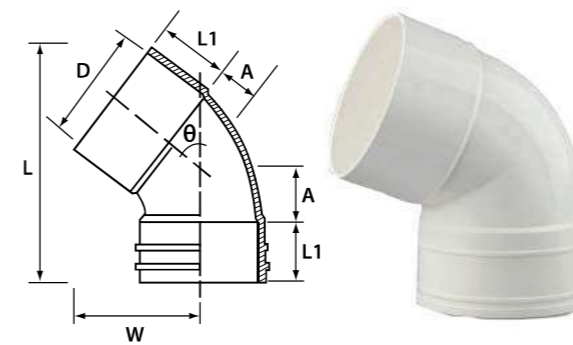
KNUCKLE BEND PLAIN



CODE NO.	NOM. SIZE (mm)	L	DIMENSIONS (mm)	
			A	D
2204 036 01	36	21	45	36
2204 043 01	43	24	52	43

68° UNSWEPT BEND

For Solvent weld to pipe.



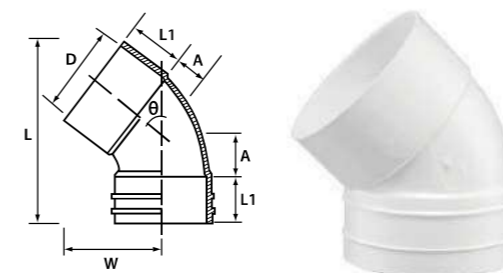
CODE NO.	NOM. SIZE (mm)	ANGLE θ	DIMENSIONS (mm)				
			L	L1	W	A	D
2205 110 01	110	68°	205	52	117	56	110
2205 160 01	160	68°	290	80	170	74	160
2205 200 01*	200	68°	370	100	126	96	200
2201 250 01Δ	250	68°	-	70	-	100	250
2201 315 01Δ	315	68°	-	220	-	81	315

* Available in MF

Δ Fabrication item

45° UNSWEPT BEND

For Solvent weld to pipe.



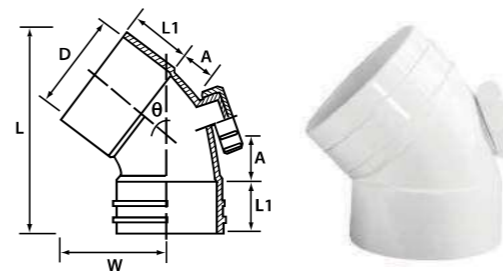
CODE NO.	NOM. SIZE (mm)	ANGLE θ	DIMENSIONS (mm)				
			L	L1	W	A	D
2210 036 01	36	45°	72	23	37	6	36
2210 043 01	43	45°	84	27	45	8	43
2210 056 01	56	45°	96	30	53	10	56
2210 082 01	82	45°	140	43	74	15	82
2210 110 01	110	45°	170	50	93	20	110
2210 160 01	160	45°	255	76	140	30	160
2210 200 SN8 01	200	45°	313	88	185	48	200
2210 250 01*	250	45°	380	85	230	75	250
2210 315 01*	315	45°	465	102	263	95	315

* Available in MF & FF

45° UNSWEPT BEND

with Inspection Opening

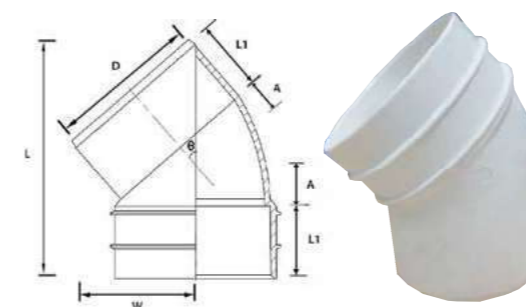
For Solvent weld to pipe, fitted with inspection opening.



CODE NO.	NOM. SIZE (mm)	ANGLE θ	DIMENSIONS (mm)				
			L	L1	W	A	D
2203 056 01	56	45°	96	30	53	10	56
2203 082 01	82	45°	140	43	74	15	82
2203 110 01	110	45°	170	50	93	20	110
2203 160 01	160	45°	255	76	140	30	160
2203 200 01	200	45°	302	102	185	70	200

41° UNSWEPT BEND

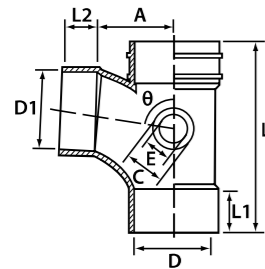
For Solvent weld to pipe.



CODE NO.	NOM. SIZE (mm)	ANGLE θ	DIMENSIONS (mm)				
			L	L1	W	A	D
2207 110 01	110	41°	180	50	90	20	110

SWEPT BRANCH

To solvent weld to pipe.
With integrally moulded socket to accept pipes or boss adaptor for inspection opening



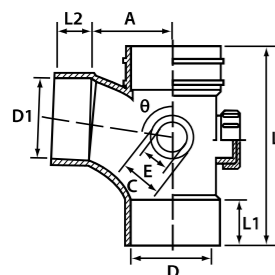
CODE NO.	NOM. SIZE (mm)	ANGLE θ	DIMENSIONS (mm)								
			L	L1	L2	A	C	E	D	D1	
2211 036 01	36	87.5°	93	23	23	30	-	-	36	36	
2211 043 01	43	87.5°	109	27	27	31	-	-	43	43	
2211 056 01	56	87.5°	136	30	30	45	-	-	56	56	
2211 056043 01	56x43	87.5°	122	31	27	35	-	-	56	43	
2211 082 01	82	87.5°	206	45	45	76	-	43	82	82	
2212 082056 01	82x56	87.5°	190	46	31	60	-	#	82	56	
2211 110 01*	110	87.5°	250	50	50	75	-	56	110	110	
2211 110056 01	110x56	87.5°	207	51	31	75	-	56	110	56	
2211 110082 01	110x82	87.5°	220	51	45	75	-	56	110	82	
2211 160 01	160	87.5°	360	77	77	145	82	56	160	160	
2211 160110 01	160x110	87.5°	312	76	48	120	-	56	160	110	
2211 200 01	200	89°	385	75	75	140	-	-	200	200	
2211 200100 01	200x110	88°	294	60	48	110	-	#	200	100	
2211 200160 01	200x160	87.5°	400	90	71	148	-	-	200	160	
2211 250 01	250	89°	454	82	82	175	-	-	250	250	
2211 250160 01	250x160	89°	350	79	57	136	-	-	250	160	
2211 250200 01	250x200	89°	454	90	90	180	-	-	250	200	
2211 315 01	315	89°	548	90	90	180	-	-	315	315	
2211 315200 01	351x200	89°	417	91	69	175	-	-	315	200	
2211 315250 01	315x250	89°	470	90	80	181	-	-	315	250	

* Available in MF & FF
With boss adaptor

SWEPT BRANCH

with Inspection Opening

To solvent weld to pipe.
With integrally moulded socket to accept pipes or boss adaptor for inspection opening



CODE NO.	NOM. SIZE (mm)	ANGLE θ	DIMENSIONS (mm)								
			L	L1	L2	A	C	E	D	D1	
2212 043 01	43	87.5°	109	27	27	31	-	-	43	43	
2212 056 01	56	87.5°	136	30	30	45	-	-	56	56	
2212 082 01	82	87.5°	206	45	45	76	-	43	82	82	
2212 110 01*	110	87.5°	250	50	50	75	-	56	110	110	
2212 160 01	160	87.5°	360	77	77	145	82	56	160	160	
2212 160110 01	160X110	87.5°	312	76	48	120	-	56	160	110	
2212 200 01	200	89°	385	75	75	140	-	-	200	200	
2212 200160 01	200x160	89°	337	75	65	150	-	-	200	160	
2212 250 01Δ	250	89°	454	90	90	180	-	-	250	250	
2212 250200 01Δ	250x200	89°	454	90	90	180	-	-	250	200	
2212 315 01Δ	315	89°	548	90	90	180	-	-	315	315	
2212 315250 01Δ	351x200	89°	470	90	80	181	-	-	315	250	

* Available in MF & FF
Δ Fabrication item

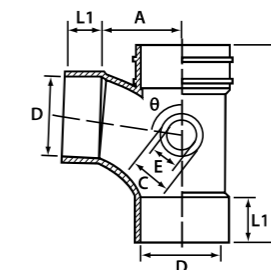
SWEPT BRANCH

with Inspection Opening (L/R)

To solvent weld to pipe ,
fitted with inspection opening from left/right

CODE NO.	NOM. SIZE (mm)	ANGLE θ	DIMENSIONS (mm)							
			L	L1	A	C	E	D	D1	
2212 110 LE 01*	110	87.5°	250	52	80	56	76	110		
2212 110 RI 01*	110	87.5°	250	52	80	56	76	110		

* Left - Branch with left opening
* Right - Branch with right opening

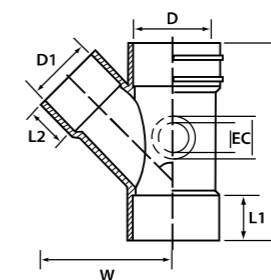


45° Y-BRANCH

With integrally moulded socket to accept waste pipes or boss adaptor for inspection opening

CODE NO.	NOM. SIZE (mm)	ANGLE θ	DIMENSIONS (mm)								
			L	L1	L2	W	C	E	D	D1	
2213 056 01	56	45°	152	30	30	96	-	-	56	56	
2213 082 01	82	45°	205	44	44	136	-	43	82	82	
2213 110 01	110	45°	266	51	51	175	75	56	110	110	
2213 110056 01	110 x56	45°	226	52	31	120	-	#	110	56	
2213 110082 01	110 x82	45°	257	52	45	150	-	#	110	82	
2213 160 01	160	45°	405	75	75	251	-	-	160	160	
2213 160110 01	160 x110	45°	317	77	50	200	83	56	160	110	
2213 200 01	200	45°	451	71	71	300	-	-	200	200	
2213 250 01	250	45°	573	84	84	385	-	-	250	250	
2213 315 01Δ	315	45°	1035	200	200	610	-	-	315	315	
2213 160110 01	160 x110	45°	317	77	50	200	83	56	160	110	
2213 200160 01	200 x160	45°	410	70	58	265	-	-	200	160	
2213 250160 01	250 x160	45°	410	84	63	-	-	-	250	160	
2213 250200 01	250 x200	45°	463	85	73	-	-	-	250	200	

Δ Fabrication item



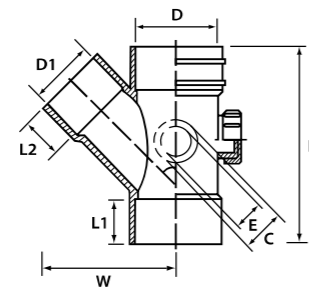
45° Y-BRANCH

with Inspection Opening

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

* Combination item comprising 45° Y-Branch and Bush Socket Reducer.

CODE NO.	NOM. SIZE (mm)	ANGLE θ	DIMENSIONS (mm)								
			L	L1	L2	W	C	E	D	D1	
2214 056 01	56	45°	152	30	30	96	-	-	56	56	
2214 082 01	82	45°	205	44	44	136	-	43	82	82	
2214 110 01	110	45°	266	51	51	175	75	56	110	110	
2214 110082 01*	110x82	45°	266	51	45	175	83	56	110	82	
2214 160110 01	160x110	45°	317	77	50	200	83	56	160	110	

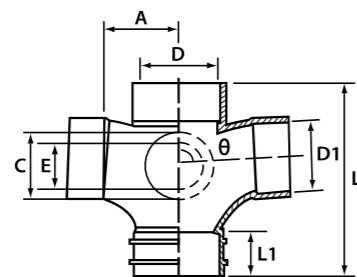


SWEPT DOUBLE BRANCH

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

CODE NO.	NOM. SIZE (mm)	ANGLE θ	DIMENSIONS (mm)								
			L	L1	L2	A	C	E	D	D1	
2216 056 01	56	87.5°	136	28	28	48	-	43	56	56	
2216 082 01	82	87.5°	204	45	45	65	-	#	82	82	
2216 110 01	110	87.5°	246	50	50	80	83	56	110	110	
2216 110056 01	100 x56	87.5°	207	52	32	78	-	#	110	56	
2216 110082 01	100 x82	87.5°	220	52	45	78	-	#	110	82	
2216 160 01	160	89°	320	60	60	105	-	-	160	160	
2216 200 01	200	89°	385	70	70	135	-	-	200	200	
2216 200 110 01	200 x110	89°	282	68	48	115	-	-	200	110	
2016 200 160 01	200 x160	89°	325	68	58	110	-	-	200	160	
2016 250110 01	250 x110	89°	282	68	48	124	-	-	250	110	
2216 250160 01	250 x160	89°	300	68	58	122	-	-	250	160	

With boss adaptor

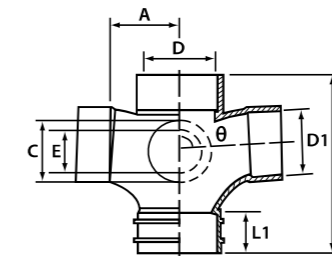


SWEPT DOUBLE BRANCH

with Inspection Opening

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

CODE NO.	NOM. SIZE (mm)	ANGLE θ	DIMENSIONS (mm)						
			L	L1	A	C	E	D	D1
2217 056 01	56	87.5°	136	30	48	-	43	56	56
2217 110 01	110	87.5°	246	50	80	82	56	110	110

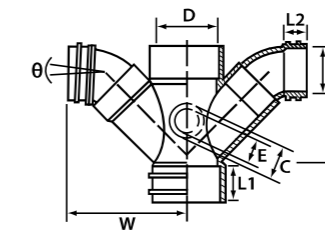


SWEPT REDUCING DOUBLE BRANCH

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

Combination of Unswept Reducing Double Branch and 41° Bend.

CODE NO.	NOM. SIZE (mm)	ANGLE θ	DIMENSIONS (mm)								
			L1	L2	W	B	C	E	D	D1	
2216 160110 01	160 x110	87.5°	77	50	254	115	82	56	160	110	



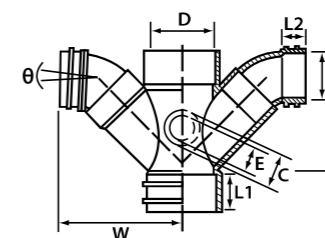
SWEPT REDUCING DOUBLE BRANCH

with Inspection Opening

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

Combination of Unswept Reducing Double Branch and 41° Bend.

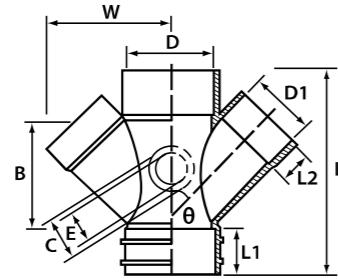
CODE NO.	NOM. SIZE (mm)	ANGLE θ	DIMENSIONS (mm)								
			L1	L2	W	B	C	E	D	D1	
2217 160110 01	160 x110	87.5°	77	50	254	115	82	56	160	110	



UNSWEPT REDUCING DOUBLE BRANCH

With integrally moulded boss adaptor socket to accept waste pipes or fittings. Fitted with socket plug for inspection opening.

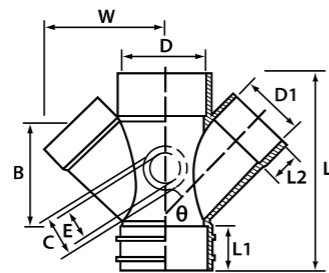
CODE NO.	NOM. SIZE (mm)	ANGLE θ	DIMENSIONS (mm)								
			L	L1	L2	W	B	C	E	D	D1
2218 110056 01	110 x 56	45°	226	52	31	120	114	-	-	110	56
2218 160110 01	160 x 110	45°	320	71	50	195	153	82	56	160	110



UNSWEPT REDUCING DOUBLE BRANCH with Inspection Opening

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

CODE NO.	NOM. SIZE (mm)	ANGLE θ	DIMENSIONS (mm)								
			L	L1	L2	W	B	C	E	D	D1
2219 160110 01	160x110	45°	320	71	50	195	153	82	56	160	110

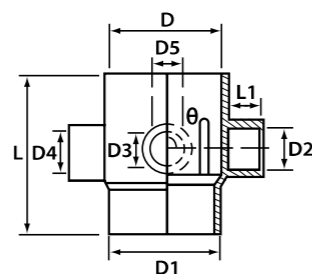


UNSWEPT 1, 2, 3 & 4 WAY BRANCH

To allow for waste pipe connection above soil branch.

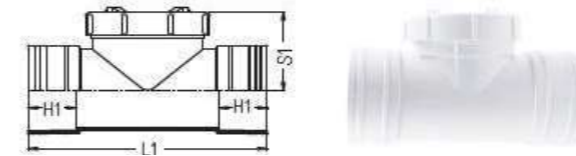
- (1) One Way Branch
- (2) Two Way Branch
- (3) Three Way Branch
- (4) Four Way Branch

CODE NO.	NOM. SIZE (mm)	ANGLE θ	DIMENSIONS (mm)				
			L	L1	D	D1	D2-D5
2231 110056 01	110 X 56	88°	148	30	110	110	56
2232 110056 01	110 X 56	88°	148	30	110	110	56
2233 110056 01	110 X 56	88°	148	30	110	110	56
2234 110056 01	110 X 56	88°	148	30	110	110	56



TESTING OPENING

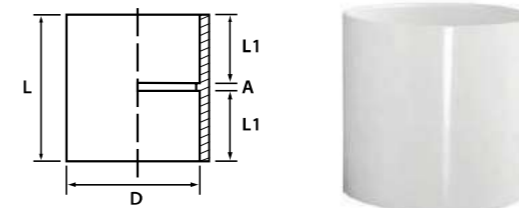
Allow access opening at any straight location with solvent weld together two lengths of soil or waste pipes



CODE NO.	NOM. SIZE (mm)	DIMENSIONS (mm)		
		L	L1	W
2212 TO 80	82	212	46	83
2212 TO 100	110	256	52	105
2212 TO 150	160	312	77	132
2212 TO 200	200	380	102	150
2212 TO 80MF	82	212	46	83
2212 TO 100MF	110	256	52	105
2210 TO 150MF	160	312	77	132

STRAIGHT COUPLER

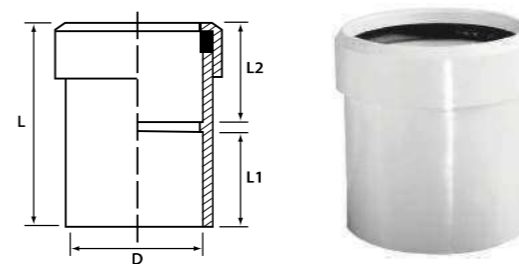
To solvent weld together two lengths of soil or waste pipes



CODE NO.	NOM. SIZE (mm)	DIMENSIONS (mm)			
		L	L1	A	D
2225 036 01	36	50	24	2	36
2225 043 01	43	59	28	3	43
2225 056 01	56	66	32	2	56
2225 082 01	82	97	47	3	82
2225 110 01	110	110	53	4	110
2225 160 01	160	167	82	4	160
2225 200 01	200	184	90	4	200
2225 250 01	250	225	110	5	250
2225 315 01	315	206	100	5	315

EXPANSION COUPLER

To provide an expansion joint for pipe connection or other materials pipe connection at base of stack. Combination of Seal Ring Adaptor & Straight Coupler.

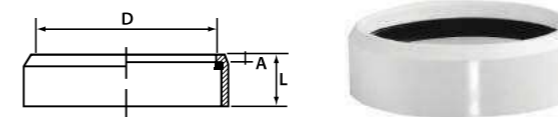


CODE NO.	NOM. SIZE (mm)	DIMENSIONS (mm)			
		L	L1	L2	D
2226 082 01	82	113	47	63	82
2226 110 01	110	133	54	75	110
2226 160 01	160	190	82	104	160

With Rubber Ring Seal

SEAL RING ADAPTOR

To solvent weld to fittings for conversion to ring seal expansion joint.

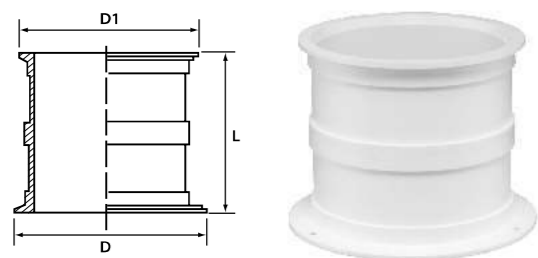


CODE NO.	NOM. SIZE (mm)	DIMENSIONS (mm)		
		L	A	D
2242 082 01	82	31	5	82
2242 110 01	110	38	7	110
2242 160 01	160	42	9	160

With Rubber Ring Seal

PIPE SLEEVE

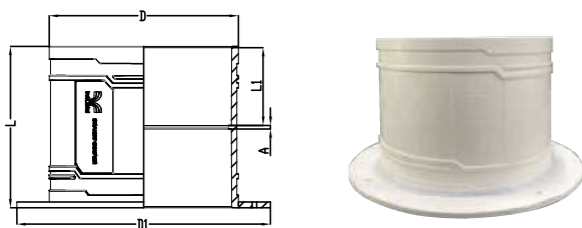
For cast into RC floor slab/concrete wall to provide a through socket for pipes.



CODE NO.	NOM. SIZE (mm)	DIMENSIONS (mm)			
		L	D	D1	
2252 036 01	36	112	72	56	
2252 043 01	43	112	79	68	
2252 056 01	56	112	92	76	
2252 082 01	82	112	120	104	
2252 110 01	110	112	147	131	
2252 160 01	160	163	199	184	

FABRICATED PIPE SLEEVE

For cast into RC floor slab/concrete wall for socket connection with pipes from top and bottom



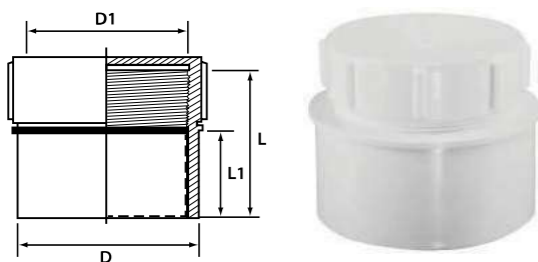
CODE NO.	NOM. SIZE (mm)	DIMENSIONS (mm)					
		L	L1	A	D	D1	
2252 200 01 Δ	200	184	90	4	200	289	
2252 250 01 Δ	250	225	110	5	250	342	
2252 315 01 Δ	315	206	100	5	315	406	

Δ Fabrication item

SOCKET PLUG

with Screw on Cap

To plug the socket open-end of a pipeline to allow for later accessibility.



CODE NO.	NOM. SIZE (mm)	DIMENSIONS (mm)			
		L	L1	D	D1
2229 036 01	36	45	23	36	32
2229 043 01	43	50	26	43	43
2229 056 01	56	46	28	56	52
2229 082 L46 01	82	46	23	82	76
2229 082 L67 01	82	67	44	82	76
2229 160 01	160	120	102	160	145

ACCESS CAP AND PLUG (M/F)

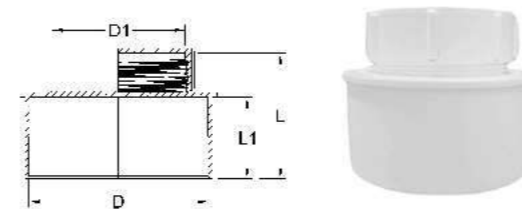
To plug the socket open-end of a pipeline to allow for later accessibility as well as future connection by removing the cap.



CODE NO.	NOM. SIZE (mm)	DIMENSIONS (mm)		
		L	L1	D/D1
2229 AC100MF	110	114	52	110
2229 AC150MF	160	173	77	160

END CAP WITH ACCESS OPENING

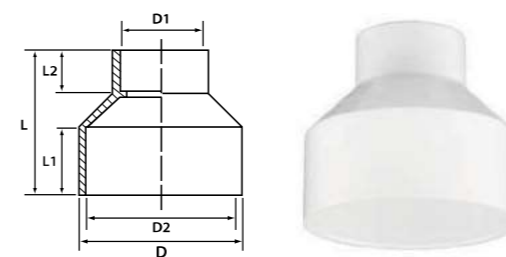
As an end cap to plug the open-end of a pipeline to allow for later accessibility.



CODE NO.	NOM. SIZE (mm)	DIMENSIONS (mm)			
		L	L1	D	D1
2229 110 082 01	110	86	50	110	76
2229 200 01	200	113	68	200	160
2229 250 01	250	152	79	250	200
2229 315 01	315	165	90	315	200

CONCENTRIC REDUCER

To allow for change in pipe diameter with both end socket connect directly with pipe.

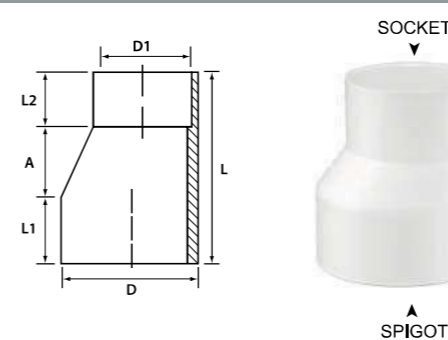


CODE NO.	NOM. SIZE (mm)	DIMENSIONS (mm)					
		L	L1	L2	D	D1	D2
2239 110056 01	110x56	109	50	28	-	56	110
2239 160 110 01 #	160x110	145	75	49	160	110	-

D for 160mm is spigot

LEVEL INVERT REDUCER (M/F)

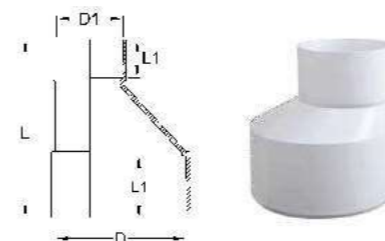
To allow for change in pipe diameter with larger spigot end into socket for fitting or socketed pipe.



CODE NO.	NOM. SIZE (mm)	DIMENSIONS (mm)					
		L	L1	L2	A	D	D1
2244 056036 01	56x36	73	25	28	20	56	36
2244 082056 01	82x56	105	45	27	33	82	56
2244 110056 01	110x56	150	56	31	68	110	56
2244 110082 01	110x82	126	50	43	33	110	82

LEVEL INVERT REDUCER (F/F)

To allow for change in pipe diameter with both end socket connect directly with pipes

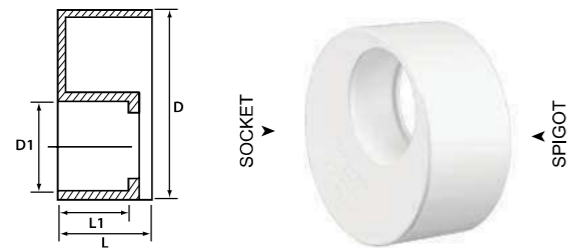


CODE NO.	NOM. SIZE (mm)	DIMENSIONS (mm)				
		L	L1	L2	D	D1
2244 200110 01	200 x100	192	70	50	200	110
2244 200160 01	200 x160	250	100	76	200	160
2244 250110 01	250 x110	194	60	48	250	110
2244 250160 01	250 x160	222	85	58	250	160
2244 250200 01	250 x200	210	85	70	250	200
2244 315200 01	315 x200	265	102	70	315	200
2244 315250 01	315 x250	255	103	83	315	250

D and D1 are both socket

BUSH/SOCKET REDUCER

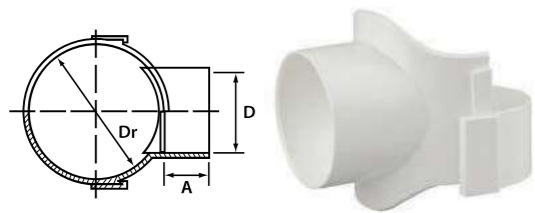
To allow for change in fittings socket diameter.



CODE NO.	NOM. SIZE (mm)	DIMENSIONS (mm)			
		L	L1	D	D1
2236 043036 01	43x36	22	19	43	36
2236 056036 01	56x36	28	18	56	36
2236 056043 01	56x43	28	21	56	43
2236 082056 01	82x56	38	28	82	56
2236 110056 01	110x56	50	27	110	56
2236 110082 01	110x82	50	37	110	82
2236 160110 01	160x110	71	48	160	110
2236 200160 01	200x160	90	71	200	160
2236 250110 01	250x110	78	48	250	110
2236 250160 01	250x160	78	59	250	160
2236 315110 01	315x110	90	48	315	110
2236 315160 01	315x160	90	59	315	160
2236 315200 01	315x200	90	75	315	200
2236 315250 01	315x250	90	80	315	250

BOSS CONNECTOR WITH BRACKET

To allow additional inlet/branch by boring the pipe, connect with solvent cement incorporate a bracket specially designed to hold the boss connector in place during installation

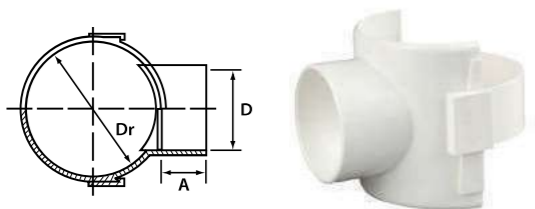


CODE NO.	NOM. SIZE (mm)	DIMENSIONS (mm)		
		Dr	D	A
2243 082036 01*	82x36	82	36	19
2243 082043 01*	82x43	82	43	26
2243 082056 01	82x56	82	56	31
2243 110082 01	110x82	110	82	45

* Combination of Boss Connector & Bush Socket Reducer
 Dr Nominal diameter pipe
 D Diameter of inlet pipe
 A Socket depth

BOSS CONNECTOR WITH BRACKET

To allow additional inlet/branch by boring the pipe, connect with solvent cement incorporate a bracket specially designed to hold the boss connector in place during installation

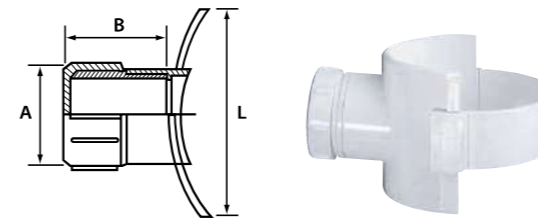


CODE NO.	NOM. SIZE (mm)	DIMENSIONS (mm)		
		Dr	D	A
2243 110036 01*	110x36	110	36	19
2243 110043 01*	110x43	110	43	22
2243 110056 01	110x56	110	56	30
2243 160082 01	160x82	160	82	45

* Combination of Boss Connector & Bush Socket Reducer
 Dr Nominal diameter pipe
 D Diameter of inlet pipe
 A Socket depth

INSPECTION OPENING & FRAME

Solvent weld to pipe for access to stack.

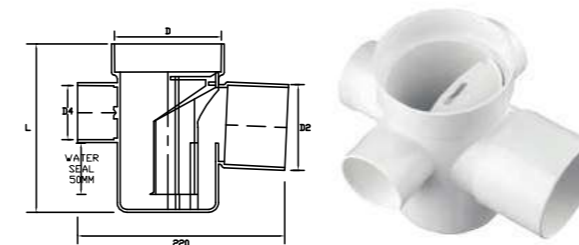


CODE NO.	NOM. SIZE (mm)	DIMENSIONS (mm)		
		L	A	B
2238 082056 01	82x56	94	52	47
2238 110056 01	110x56	122	52	42
2238 110082 01	110x82	122	76	67
2238 160082 01	160x82	175	76	71

Combination of Boss Connector & Socket Plug with screw on cap

TOP REMOVABLE TRAPPED FLOOR GULLY

Top cleaning access with integrally moulded socket 56 mm to accept waste pipes

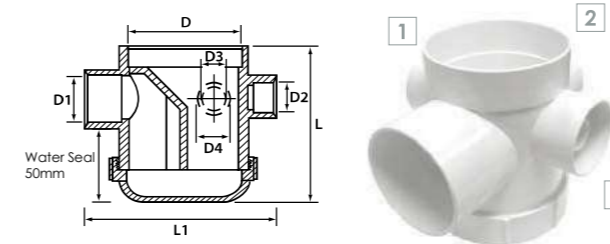


CODE NO.	NOM. SIZE (mm)	DIMENSIONS (mm)				
		L	L1	D	D1	D2-D3-D4
2260 110 01	110x82	174	220	110	82	56

FLOOR GULLY WITH TRAP

And Inspection Opening

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

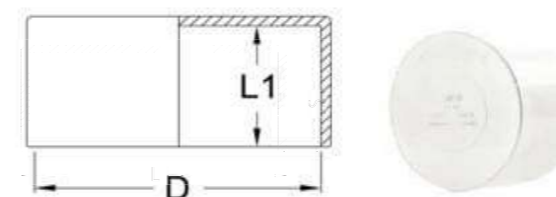


CODE NO.	NOM. SIZE (mm)	DIMENSIONS (mm)					
		L	L1	D	D1	D2-D4	D3
2259 110082 01	110x82	170	200	110	82	56	15

* Combination with Rubber Ring Seal item.

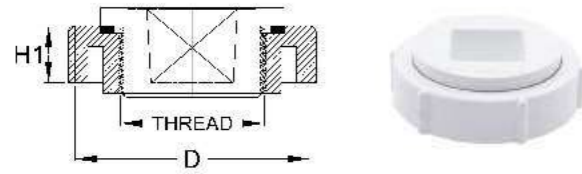
1 and 3 are equipped with 15 mm inlet to accept air-con pipe

PUSH-ON CAP



PRODUCT CODE	NOM. SIZE (mm)	DIMENSIONS (mm)	
		L1	D
2230 POC 50	56	30	56
2230 POC 80	82	45	82
2230 POC 100	110	52	110
2230 POC 150	160	77	160

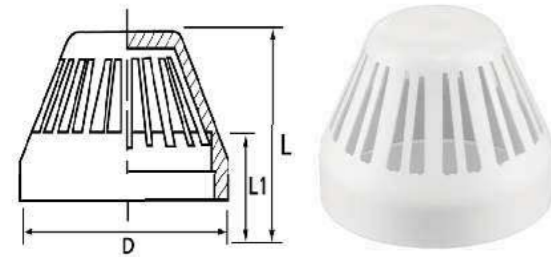
Boss Adaptor



CODE NO.	NOM. SIZE (mm)	DIMENSIONS (mm)	
		H1	D
2229 BA32	32	16	65.8

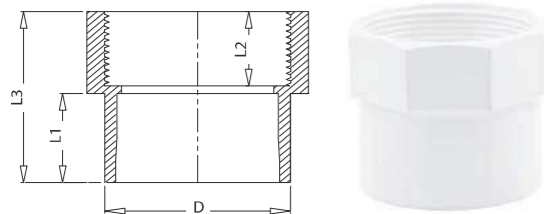
VENT COWL

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



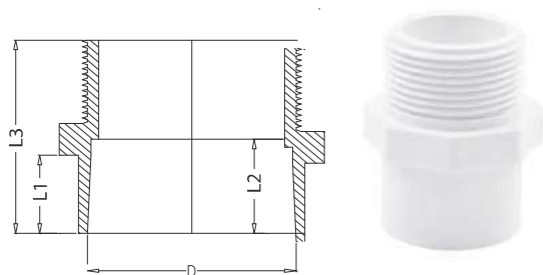
CODE NO.	NOM. SIZE (mm)	DIMENSIONS (mm)		
		L	L1	D
2250 056 01	56	75	28	56
2250 082 01	82	73	24	82
2250 110 01	110	90	25	110
2250 160 01	160	143	45	160

FEMALE IRON CONNECTOR



PRODUCT CODE	NOM. SIZE (mm)	DIMENSIONS (mm)			
		L1	L2	L3	D
2228 036 01	36	24	20	46	41.5
2228 043 01	43	30	28	66	49.2
2228 056 01	56	34	22	56	61.5

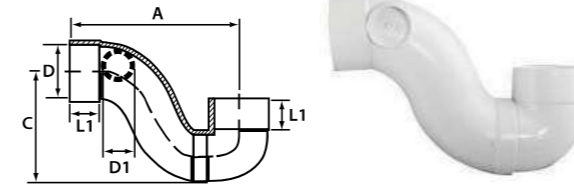
MALE IRON CONNECTOR



PRODUCT CODE	NOM. SIZE (mm)	DIMENSIONS (mm)			
		L1	L2	L3	D
2227 036 01	36	20	24	47	36.6
2227 043 01	43	20	27.5	51	43.2
2227 056 01	56	30.5	33.5	75	56.2
2227 082 01	82	37	44.5	91.5	83
2227 110 01	100	56	52	119	117.8

'P' TRAP

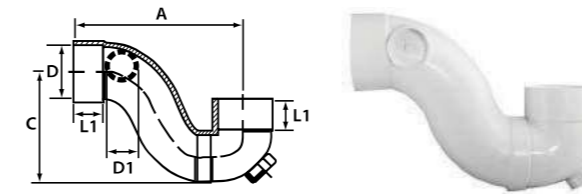
'P' Trap water seal for gas-tight connection to SWV system.



CODE NO.	NOM. SIZE (mm)	DIMENSIONS (mm)				
		L1	A	C	D	D1
2245 056 01	56	30	210	156	56	-
2245 110 01	110	50	325	223	110	56

'P' TRAP with Inspection opening

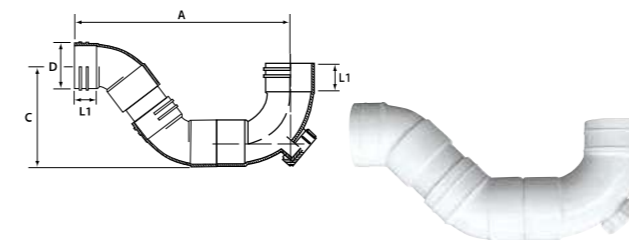
P' Trap with water seal for gas-tight connection to SWV system.



CODE NO.	NOM. SIZE (mm)	DIMENSIONS (mm)				
		L1	A	C	D	D1
2246 056 01	56	30	205	160	56	-
2246 110 01	110	50	325	223	110	56

'P' TRAP with Inspection opening

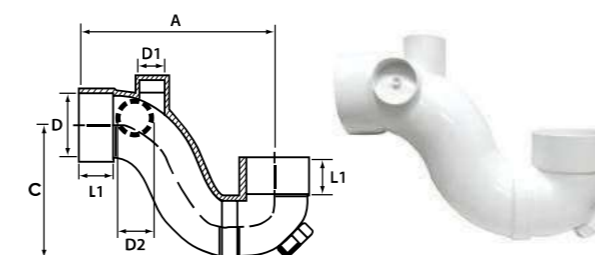
P' Trap with water seal for gas-tight connection to SWV system.



CODE NO.	NOM. SIZE (mm)	DIMENSIONS (mm)			
		L1	A	C	D
2246 082 01Δ	82	44	375	157	82

Δ Fabrication item

'P' TRAP WITH VENT and Inspection Opening

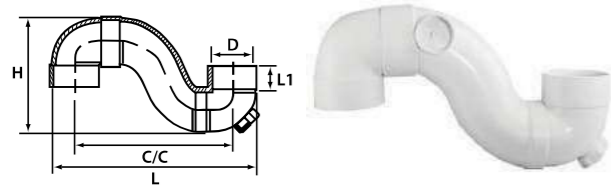


CODE NO.	NOM. SIZE (mm)	DIMENSIONS (mm)					
		L1	A	C	D	D1	D2
2247 056 01	56x36	30	205	160	56	36	-
2247 110 01	110x56	50	325	223	110	56	56

'S' TRAP with Inspection opening

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

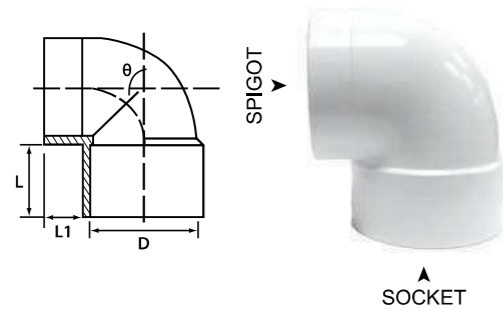
CODE NO.	NOM. SIZE (mm)	DIMENSIONS (mm)				
		L	L1	H	C/C	D
2248 110 01	110	500	50	270	390	390



WC CONNECTING BEND

For WC Pans to BS 5503.

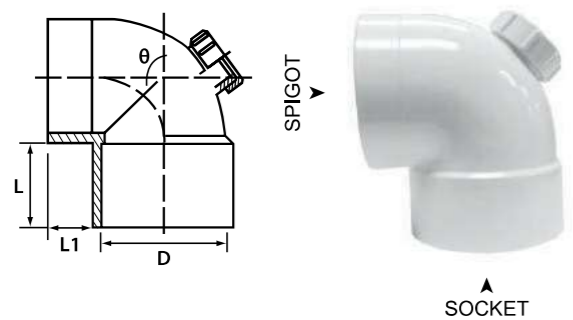
CODE NO.	NOM. SIZE (mm)	ANGLE θ	DIMENSIONS (mm)		
			L	L1	D
2208 110 01	110	90°	50	25	110



WC CONNECTING BEND

with Inspection Opening
For WC Pans to BS 5503.

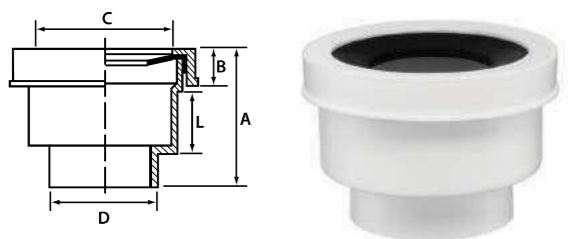
CODE NO.	NOM. SIZE (mm)	ANGLE θ	DIMENSIONS (mm)		
			L	L1	D
2209 110 01	110	90°	50	25	110



WC PAN CONNECTOR

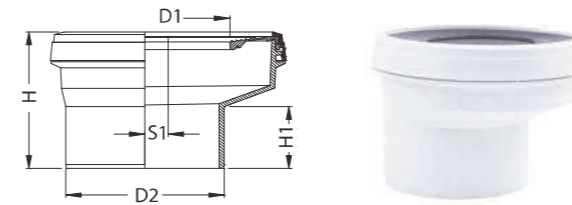
CODE NO.	NOM. SIZE (mm)	DIMENSIONS (mm)				
		L	A	B	C	D
2240 110 01	110	50	110	25	121	103

With Rubber Ring Seal



W.C PAN COLLAR (OFFSET)

PRODUCT CODE	NOM. SIZE (mm)	DIMENSIONS (mm)				
		H	H1	D1	D2	S1
2240 100 100 01	110	156	98	80	103	15

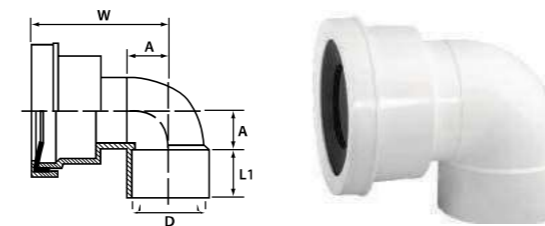


WC PAN ELBOW CONNECTOR

To solvent weld to pipes or fittings at both ends

CODE NO.	NOM. SIZE (mm)	L1	DIMENSIONS (mm)		
			W	A	D
2241 110 01	110	50	158	54	110

With Rubber Ring Seal

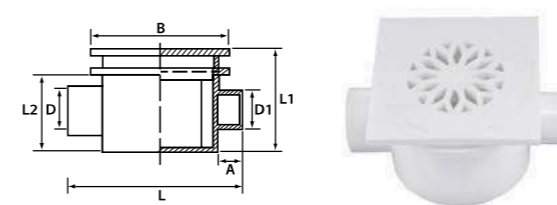


FLOOR GULLY WITH TRAP

Floor Gully comes complete with water trap, extension grating collar and grating together with span-in-cover, outlet may be rodded by removing grating.

CODE NO.	NOM. SIZE (mm)	DIMENSIONS (mm)						
		L	L1	L2	A	B	D	D1
2258 110046 01	110x43	162	85	71	32	118	43	38

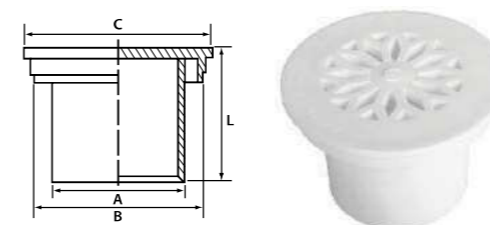
PP grating & Collar



GRATING

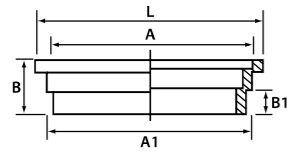
Can be seated into 82 mm or 110 mm drainage pipes for floor wells.

CODE NO.	NOM. SIZE (mm)	DIMENSIONS (mm)	
		L	C
2254 110082 01	110 x 82	73	110
A -82 mm	Seats on 82 mm short length pipe solvent welded to Concentric Reducer		
B -110 mm	Seats on 110 mm short length pipe solvent welded to Floor Gully		



EXTENSION GRATING COLLAR

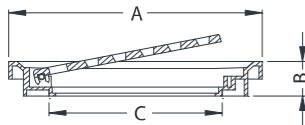
To be used as a collar for grating.



CODE NO.	NOM. SIZE (mm)	DIMENSIONS (mm)				
		L	A	A1	B	B1
2255 110 01	110x14	118	110	110	33	14

SQUARE FLAT GRATING

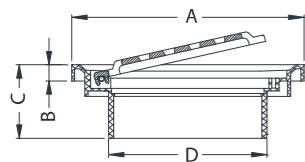
with Edge With Spigot (30mm) (or No Spigot)



CODE NO.	NOM. SIZE (mm)	DIMENSIONS (mm)		
		A	B	C
2254 G150E	150x150	150x150	24	102
2254 G15030E	150x150	150x150	55	102

SQUARE DOMED GRATING

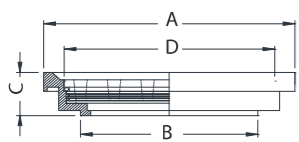
with Edge With Spigot (30mm) (or No Spigot)



PRODUCT CODE	NOM. SIZE (mm)	DIMENSIONS (mm)			
		A	B	C	D
2254 G150ED	150x150	150x150	12	24	102
2254 G15030ED	150x150	150x150	12	56	102

SQUARE SCREW FLAT GRATING (HEAVY DUTY)

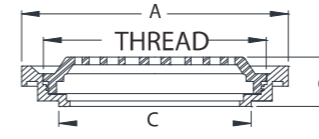
with Edge With Spigot (30mm) (or No Spigot)



PRODUCT CODE	NOM. SIZE (mm)	DIMENSIONS (mm)			
		A	B	C	D
2254 G150SFE	150x150	150x150	106	29.5	Thread
2254 G15030SFE	150x150	150x150	102	55	Thread

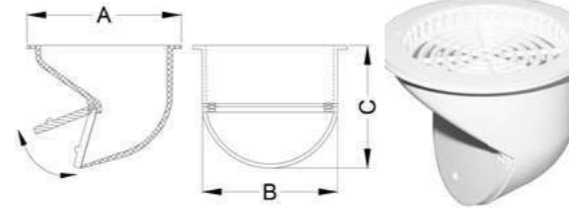
SQUARE SCREW DOMED GRATING

with Edge With Spigot (30mm) (or No Spigot)



PRODUCT CODE	NOM. SIZE (mm)	DIMENSIONS (mm)			
		A	B	C	D
2254 G150SD	150x150	150x150	22	102	Thread
2254 G15030SD	150x150	150x150	55	102	Thread

(MIS) ANTI - MOSQUITO DEVICE



PRODUCT CODE	NOM. SIZE (mm)	DIMENSIONS (mm)		
		A	B	C
2254 AMD98R	98	98	87	42
2254 AMD98S	98	98	87	80

Top Removable Trapped Floor Gully SIRIM Certified to BS EN 1253, min flow rate of 48 l/s

Code No : 226011001

Material : PVC-U

Under-floor trap to receive up to 3 waste pipe connections

Sockets to accept 56mm waste pipe

Outlet sockets sizes at 2 – ½ fall: - 82mm

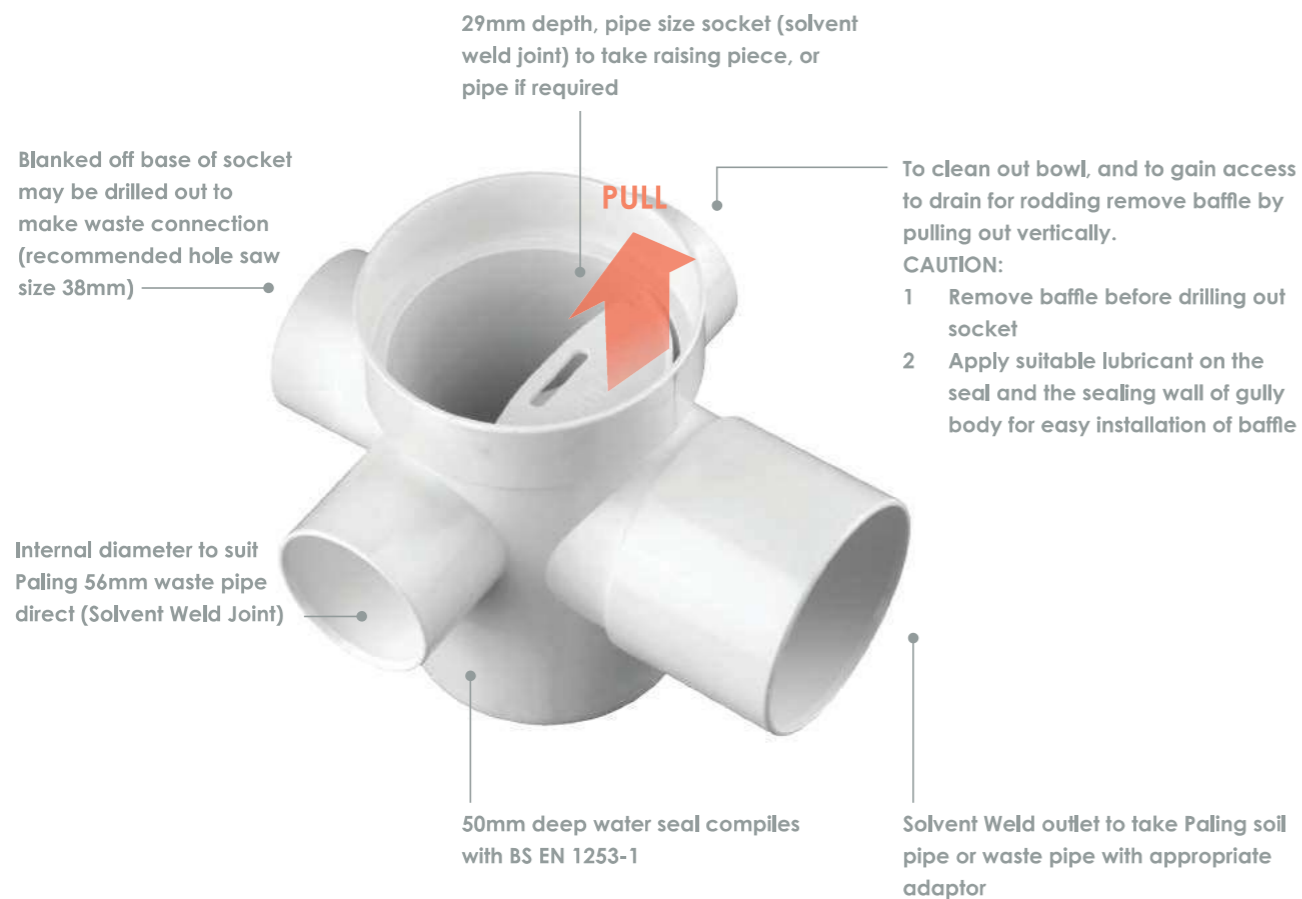
Seal depth : 50mm meets BS EN 1253-1

Cleaning access via removable baffle with integral gasket to maintain airtight seal

Upper socket can accept standard 110 soil pipe

Size : 110/82

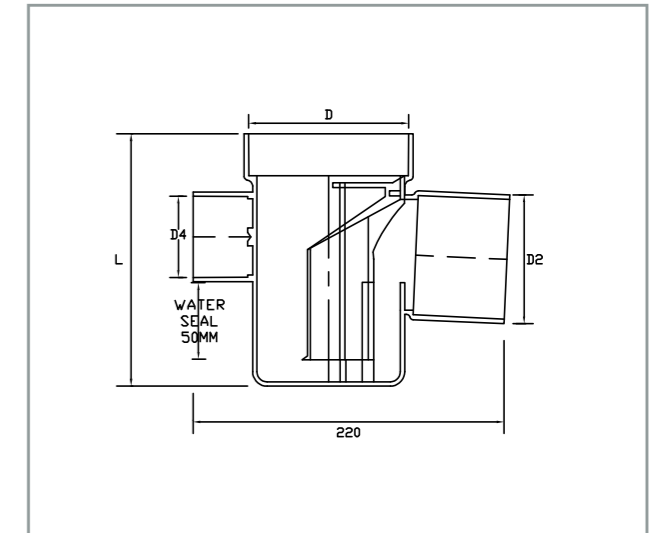
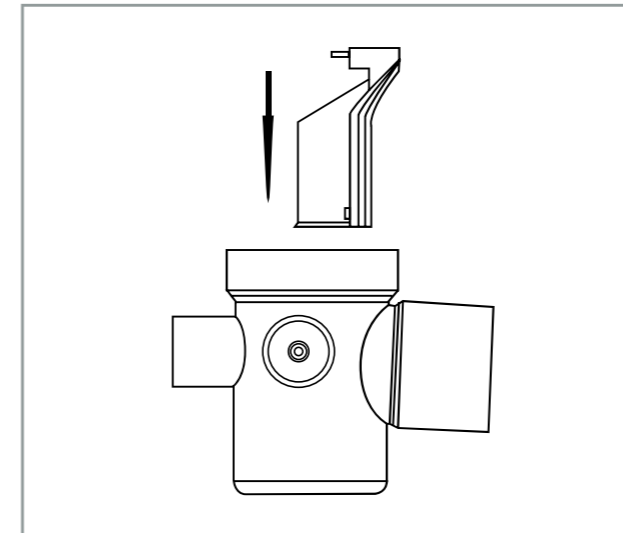
Colour : White



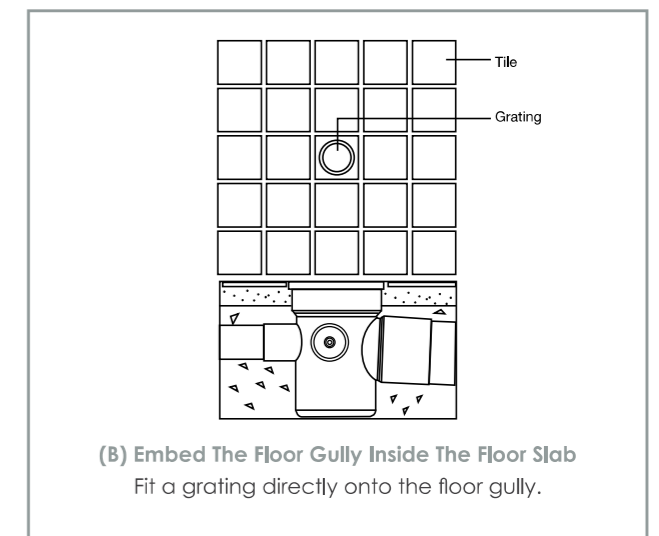
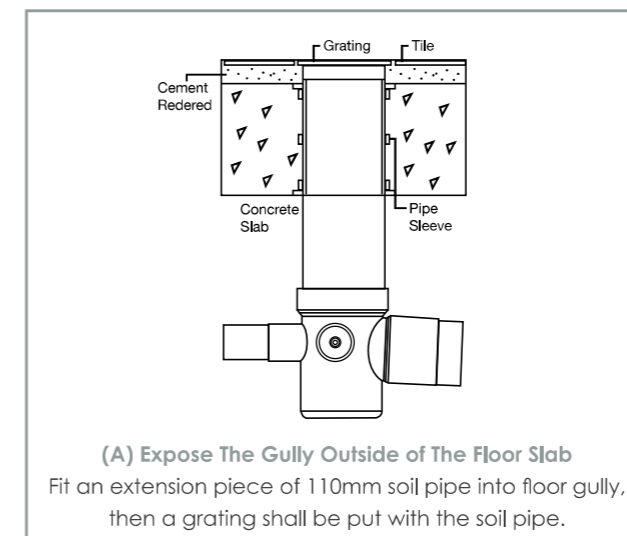
Advantages:

1. Removable trap, easier and simple way to clean
2. With 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

Dimensions



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

SOLVENT CEMENT

CODE NO.	DESCRIPTION	GMS	TIN/ CARTON
60500 70P	Paling Clearsolve fast dry	500	20
60500 13	Paling Clearsolve Slow Dry	500	20
60100 70	Paling Clearsolve fast dry	100	60
60500 10	Paling Coloursolve slow dry (Blue)	500	20
60500 12	Paling Coloursolve fast dry (Green)	500	20



PRODUCT RANGE

SOLVENT CEMENT

FEATURES

- PVC Solvent Cement Fast Dry – for pipes and fittings $\leq 80\text{mm}$
- PVC Solvent Cement Slow Dry – for pipes and fittings $\geq 80\text{mm}$
- Moderate solvent odour
- Complies with MS 628 or BS 4346. SPAN listed

ADVANTAGES

- Colour Co-Polymer for Easier Application and Inspection
- Easy to Use
- Premium Quality
- Fast and Slow Drying Solvent available for Strong Bonding

APPLICATION

Paling Solvent Cement is formulated for PVC pipes and fittings.

PALING CLEAR SOLVE / COLOUR SOLVE - FAST DRY

Solid Content: 24%

Consistency property: 1,000 cps

Quality: Tough & Resilient

Solid consist of: MEK & CYC

Colour: Clear / Green

Standard: MS628-4 : 2015

- Highly soluble fast dry PVC-U Solvent cement.
- Suitable for joining all PVC-U pipes from 15mm - 75mm diameter.
- When applied, it will instantly dissolve and blend with the pipe to produce a film (wall) of 0.4mm thick, so that the fitting gap will be strong and stable.

STRAINING TIME

Pipes with diameters 15mm	10 seconds
Pipes with diameters 25mm to 32mm	8 seconds
Pipes with diameters 50mm	6 seconds
Pipes with diameters 75mm	4 seconds

PALING CLEAR SOLVE / COLOUR SOLVE - SLOW DRY

Solid Content: 24%

Consistency property: 1,000 cps

Quality: Tough & Resilient

Solid consist of: MEK, CYC & THF

Colour: Clear / Blue

Standard: MS628-4 : 2015

- Highly soluble slow dry PVC-U Solvent cement.
- Suitable for joining all PVC-U pipes from 75mm - 315mm diameter.
- When applied, it will instantly dissolve and blend with the pipe to produce a film (wall) of 0.4mm thick, so that the fitting gap will be strong and stable.

STRAINING TIME

Pipes with diameters 25mm	20 seconds
Pipes with diameters 32mm to 50mm	16 seconds
Pipes with diameters 75mm to 100mm	12 seconds
Pipes with diameters 150mm	8 seconds
Pipes with diameters ≥200mm	4 seconds

ATTENTION:

1. Temperature below 15°C (50°F) will extend the straining period for approximately 5 minutes for each type of pipe.
2. After assembly, the pipe must be tightly held in place and shall only be released after recommended straining time as stipulated. If release prematurely, the pipe to be fitted will spring apart.

PACKING	CTN. SIZE
500g. (with brush) x 20 Tins per ctn.	508mm x 220mm x 225mm

SOLVENT CEMENT REQUIREMENT FOR PVC-U PIPES & FITTINGS

NOMINAL SIZE OF PIPE OR FITTING (mm)	AMOUNT OF SOLVENT CEMENT REQUIRED PER JOINT (g)	NO. OF POSSIBLE JOINTS	
		100 g	500 g
15	1.3	76	383
20	2.0	55	250
25	2.5	40	200
32	3.2	30	156
40	5.0	20	100
50	7.2	13	69
80	12.0	8	41
100	15.5	6	32
155	26.0	2	19
200	49.0	1	10

RECOMMENDATIONS ON BRUSH:

- A : Pipes with diameter 25mm and below - use brush as accompanied and affixed to can
- B : Pipes with diameter 32mm to 50mm - use 1" brush
- C : Pipes with diameter 75mm to 200mm - use 2" brush

PHYSICAL AND CHEMICAL PROPERTIES

Flash point: 15°C

Flammable Mixture (UN No. 1133)

Colourless vapours may travel considerable distance to ignition sources and cause flash fires or explosions.

Hazard Identification

May cause eyes and skin irritation, burns or dermatitis.

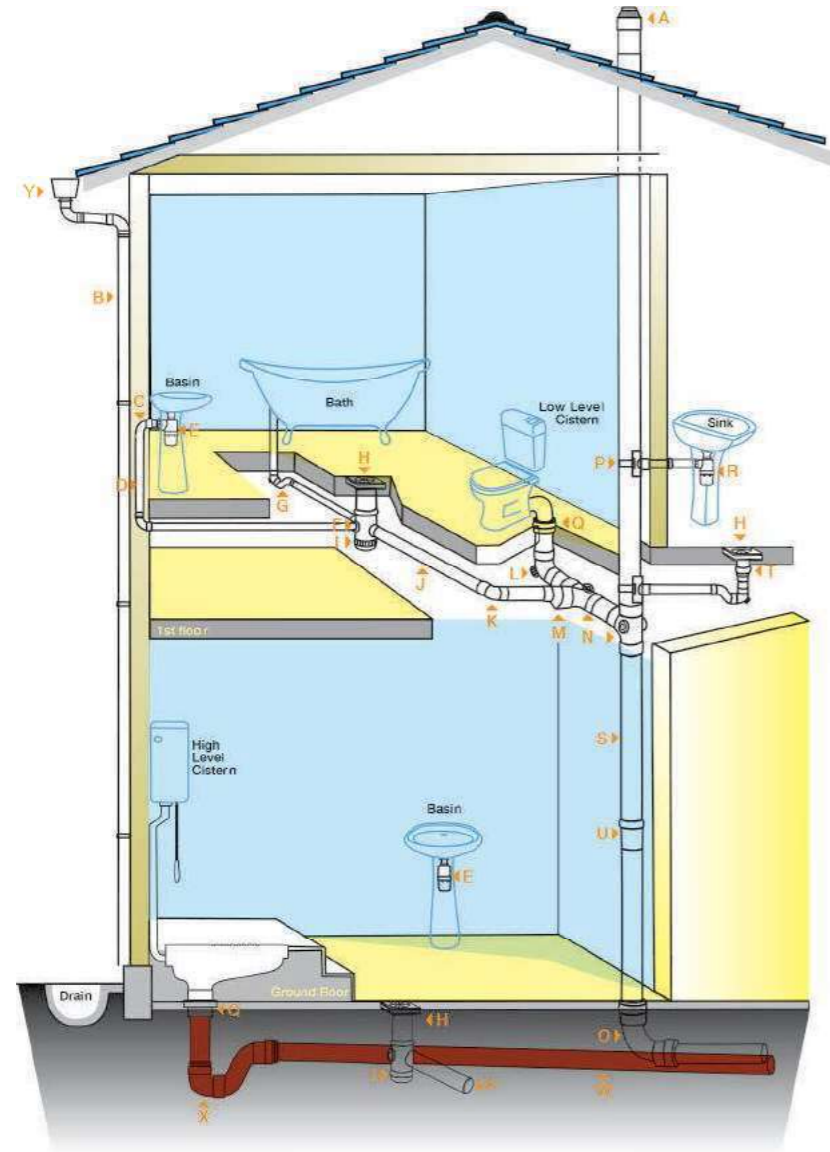
Storage

Store in well-ventilated area. Keep away from heat, sparks and flame.

Safety Advice

- Keep out of reach of children.
- Keep away from sources of ignition - No Smoking.
- Avoid contact with eyes.
- In case of fire, use chemical powder, foam or carbon dioxide.

Typical Soil, Waste & Vent Piping Layout for double storey flat

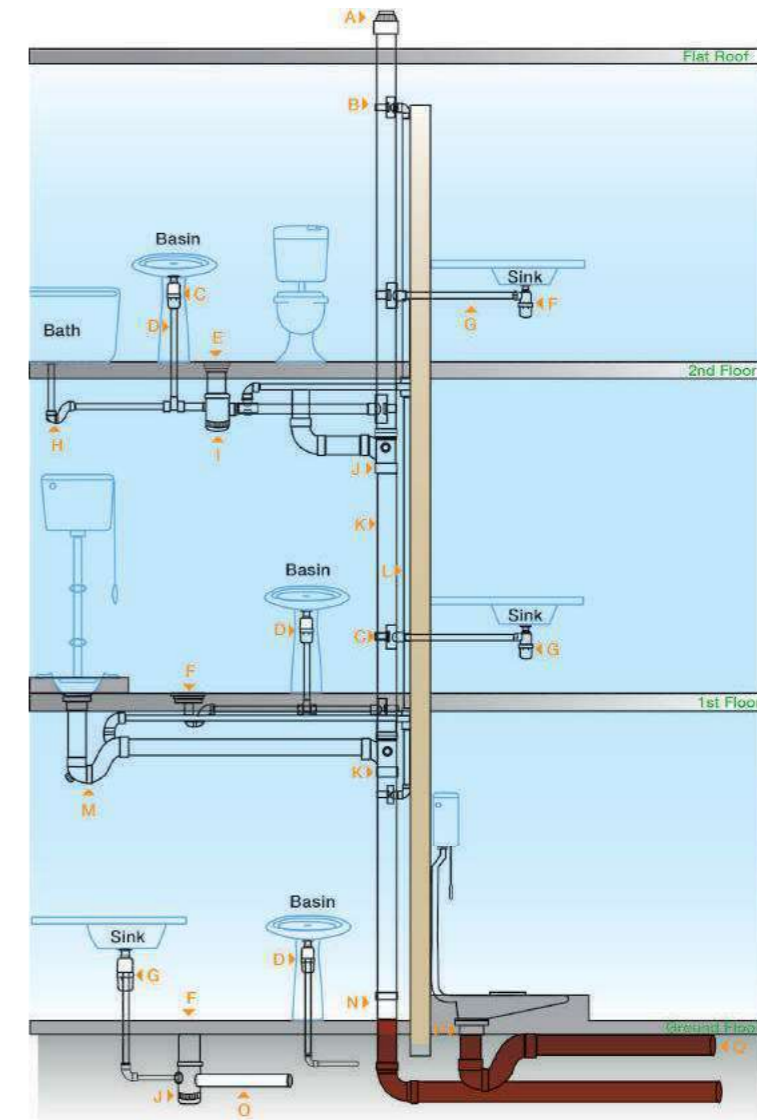


Paling SWV Pipes and Fittings

A	110 mm	Vent Cowl
B	82 mm	PVC-U Rainwater Down Pipe
C	36 mm	Bend (Swept)
D	36 mm	PVC-U Pipe
E	36 mm	Bottle trap
F	43 x 36 mm	Bush Socket Reducer
G	56 mm	'P' Trap
H	110 x 82 mm	Grating With Extension Collar
I	110 x 82 mm	Floor Gully With Trap & I/O
J	82 mm	PVC-U Pipe
K	82 mm	Bend (Swept)
L	110 mm	Bend With I/O (Swept)
M	110 x 82 mm	Level Invert Reducer

N	110 mm	Single Branch (Swept)
O	110 mm	Underground Bend (Swept)
P	110 x 43 mm	Boss Connector
Q	110 mm	WC Pan Connector
R	43 mm	Bottle Trap
S	110 mm	PVC-U Soil Stack
T	82 x 56 mm	Concentric Reducer
U	110 mm	Expansion Coupler
V	82mm	PVC-U Pipe
W	110 mm	Underground PVC-U Pipe
X	110 mm	Underground 'P' Trap
Y	196 mm	PVC-U Elegance gutter

Typical Soil, Waste & Vent Piping Layout for a 3 storeys flat



Paling SWV Pipes and Fittings

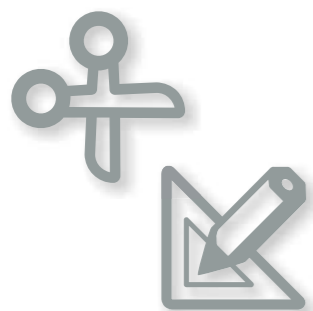
A	110 mm	Vent Cowl
B	110 x 56 mm	Boss Connector
C	36 mm	Bottle Trap
D	36 mm	PVC-U Pipe
E	110 x 82 mm	Grating With Extension Collar
F	43 mm	Bottle Trap
G	43 mm	PVC-U Pipe
H	56 mm	'P' Trap
I	110 x 82 mm	Floor Gully With Trap & Inspection Opening

J	110 mm	Branch (Swept)
K	110 mm	PVC-U Soil Stack
L	56 mm	PVC-U Vent Stack
M	110 mm	'P' Trap With Vent
N	110 mm	Expansion Coupler
O	82 mm	PVC-U Pipe
P	110 mm	WC Pan Connector
Q	110 mm	Underground PVC-U Pipe

ASSEMBLY PIPES WITH SOLVENT CEMENT JOINTS

-1- CUT & DEBURR

Where necessary, cut pipe to length at right angle to its axis to maximize surface for bonding. Use of a mitre box and fine tooth saw is recommended.



Cut surface need to be deburred and chamfered to a slight bevel to simplify centred insertion and uniform adhesive distribution between parts.

-2- DEGREASE THE SPIGOT AND SOCKET

Mark the insertion depth to the pipe spigot to avoid excessive application and provides control as to whether pipe has been adequately inserted into the fitting.



Clean parts to be fused with priming fluid to ensure that dirt and possible slip and release agents are removed for optimal results.

-3- APPLY THE SOLVENT CEMENT

Apply adhesive evenly to both sides to be mated using a brushing stroke parallel to or along the pipe axis. It is recommended that a

- 1" brush be used to apply the solvent cement for pipes with diameters between 32 to 50mm
- 2" brush for pipes with diameters above 50mm. Joint must be made within 2 minutes of starting application.



-4- MAKE THE JOINT

Insert pipe straight into the the fitting until bottom together with a quarterly turn during pushing.

Hold the joint firmly in place for at least

- 10 seconds for Fast Dry and
- 20 seconds for Slow Dry

Remove excess solvent cement with a soft cloth. A small closed adhesive ring should be clearly visible at the end of the fitting to signal that the sufficient adhesive has been applied.



-5- CLEAN THE EXCESS SOLVENT CEMENT

When making multiple joints on a piping system, an undisturbed rest period of at least five minutes is required before second bond can be carried out. This is to avoid stress to the first joint, which may weaken its adhesion.



Wait 24 hours before testing or use



WHAT ARE THE ADVANTAGES OF PVC-U ?

PVC-U pipes do not react with chemicals and do not conduct electricity. They are safe for use outdoors or in soil that contains a high level of acidity, alkalis or other chemicals. They are also suitable for use indoors or as a means to convey chemicals or waste products, without the risk of the contents corroding and weakening the integrity of the pipes. They are frequently used in industrial and laboratory applications due to their capacity to withstand high temperatures.

WHAT ARE THE BENEFITS OF ECOTECH PIPES ?

EcoTech Pipes are eco-friendly, as they are made with in-house premium grade reprocessed materials. As a result, their manufacture process saves energy, and they remain resistant to algae while in use.

WHY ARE PVC PIPING SYSTEMS COST EFFECTIVE ?

The cost of PVC piping is only a fraction of the cost for products made of other materials. Installation costs are also lower, because of increased productivity and cheaper transportation expenses due to the product's lower weight. Savings are also realised when work is done to join the piping sections together, because PVC piping makes use of simple PVC connectors and solvent cements, whereas metal piping requires welding and expensive metal connectors to bring into operational use.

DO PVC-U FITTINGS LAST LONG ?

PVC is strong and durable, in spite of its relatively light weight. As a result, this material is suitable for all types of long-term applications, including indoor, outdoor and buried piping system. It remains strong across a range of temperatures, resulting in fewer burst pipes and reduced maintenance issues. In general, the impact strength of PVC piping is actually better than that of comparable alternative materials.

ARE THERE ANY SPECIAL MARKINGS ON PALING PIPES ?

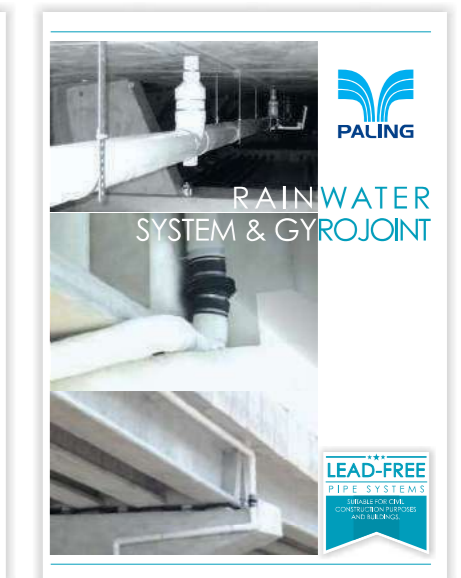
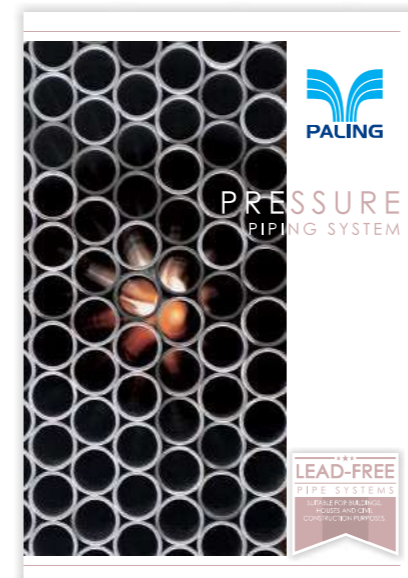
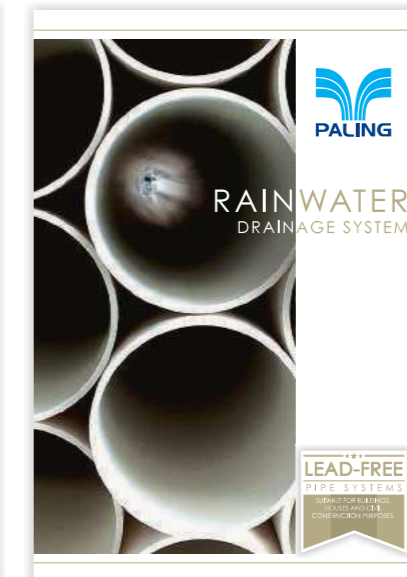
Paling marks all of its pipes with the following: Paling logo, SIRIM certification, SIRIM license number, standards conformance and year of the standard, nominal size, manufacture date, manufacture shift code, lead-free and quality mark.

NOTE :

: DATE

NOTE :

: DATE





we make life flow

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