



# SOIL, WASTE & VENT SYSTEM

a **LESSO** company

★★★  
**LEAD-FREE**  
PIPE SYSTEMS

SUITABLE FOR BUILDINGS,  
HOUSES AND CIVIL  
CONSTRUCTION PURPOSES.

**LESSO**







## SYSTEM FEATURES & ADVANTAGES

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# green pipes

for greener home

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.




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**PALING ECOTECH PIPES**



OUTDOOR | SUSTAINABLE PRODUCTS

**WHY IS IT GREEN?**  
Made of Minimum 50% by mass of Pre-Consumer Recycle Materials that generate no waste from the manufacturing process.  
A three layer piping system utilize advanced co-extrusion technology in its production, this increase efficiency and productivity. Therefore, less power were used during production processes.  
Fully recyclable and lead free.

**PRODUCT FEATURES**

- Made of minimum 50% recycle materials.
- Less power consumption with the utilization of advance co-extrusion technology during the manufacturing process.
- A three layer piping systems that provide superior performance at an affordable price.
- Environmental friendly, recyclable without compromise product quality.
- Fully recyclable and lead free.
- Prevent algae growth inside pipe by blocking light penetration.

**PRODUCT CERTIFICATION & COMPLIANCE**

- SIRIM GAS International Sdn Bhd, License No. PC002337, comply with BS EN 1329-1: 2000
- SIRIM GAS International Sdn Bhd, License No. PC003118, comply with BS 4514: 2003
- SIRIM GAS International Sdn Bhd, License No. PC003118, comply with MS 1063: 2002

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www.greenpagesmalaysia.com | www.mgic.org.my GREENPAGESMALAYSIA 8<sup>th</sup> EDITION





## ECO FRIENDLY PIPE

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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.

### 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

### SOLVENT CEMENT

1. Coloursolve Polyvinyl Chloride (PVC) Solvent Cement.

For updated copies of our certificates, please visit the Paling website [www.paling.com.my](http://www.paling.com.my)

## 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	SPECIFICATION
		min	max				
1200 036 58 01	36	36.2	36.5	3.0	5.8	B	BS EN 1329/MS 1063
1200 043 58 01	43	42.8	43.1	3.0	5.8	B	BS EN 1329/MS 1063
1200 056 58 01	56	55.8	56.1	3.0	5.8	B	BS EN 1329/MS 1063
1200 082 58 01	82	82.4	82.8	3.0	5.8	B	BS EN 4514/MS 1063
1200 110 58 01	110	110.0	110.3	3.2	5.8	BD	BS EN 1329/MS 1063
1200 160 58 01	160	160.0	160.4	3.2	5.8	B	BS EN 1329/MS 1063
1200 160 58 BD 01	160	160.0	160.4	4.0	5.8	BD	BS EN 1329/MS 1063
1200 200 58 01	200	200.0	200.5	4.9	5.8	BD	BS EN 1329/MS 1063
1200 250 58 01	250	250.0	250.5	6.2	5.8	BD	BS EN 1329/MS 1063
1200 315 58 01	315	315.0	315.6	7.7	5.8	BD	BS EN 1329/MS 1063

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)	AREA CODE	SPECIFICATION
		min	max				
1210 082 58 01	82	82.4	82.8	3.0	5.8	B	BS EN 4514/MS 1063
1210 110 58 01	110	110.0	110.3	3.2	5.8	BD	BS EN 1329/MS 1063
1210 160 58 01	160	160.0	160.4	3.2	5.8	B	BS EN 1329/MS 1063
1210 160 58 BD 01	160	160.0	160.4	4.0	5.8	BD	BS EN 1329/MS 1063



## SWV PIPES (SOCKET END)

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	SPECIFICATION
		min	max				
1202 036 58 01	36	36.2	36.5	3.0	5.8	B	BS EN 1329/MS 1063
1202 043 58 01	43	42.8	43.1	3.0	5.8	B	BS EN 1329/MS 1063
1202 056 58 01	56	55.8	56.1	3.0	5.8	B	BS EN 1329/MS 1063
1202 082 58 01	82	82.4	82.8	3.0	5.8	B	BS EN 4514/MS 1063
1202 110 58 01	110	110.0	110.3	3.2	5.8	BD	BS EN 1329/MS 1063
1202 160 58 01	160	160.0	160.4	3.2	5.8	B	BS EN 1329/MS 1063
1202 160 58 BD 01	160	160.0	160.4	4.0	5.8	BD	BS EN 1329/MS 1063
1202 200 58 01	200	200.0	200.5	4.9	5.8	BD	BS EN 1329/MS 1063
1202 250 58 01	250	250.0	250.5	6.2	5.8	BD	BS EN 1329/MS 1063
1202 315 58 01	315	315.0	315.6	7.7	5.8	BD	BS EN 1329/MS 1063

Other length are available on special order.

Socket ended pipes only for export market

## ECOTECH PIPES (SOCKET END)

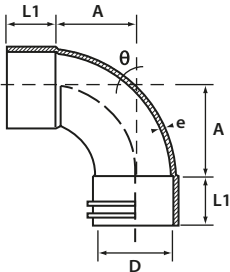


CODE NO.	NOM. SIZE (mm)	Mean Outside Diameter D (mm)		Min Wall Thickness e (mm)	Length L (mm)	AREA CODE	SPECIFICATION
		min	max				
1212 082 58 01	82	82.4	82.8	3.0	5.8	B	BS EN 4514/MS 1063
1212 110 58 01	110	110.0	110.3	3.2	5.8	BD	BS EN 1329/MS 1063
1212 160 58 01	160	160.0	160.4	3.2	5.8	B	BS EN 1329/MS 1063
1212 160 58 BD 01	160	160.0	160.4	4.0	5.8	BD	BS EN 1329/MS 1063

Socket ended pipes only for export market

## HEAVY DUTY SWEEP 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

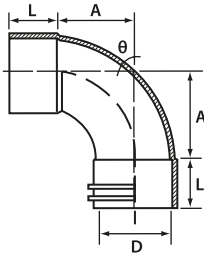


CODE NO.	NOM. SIZE (mm)	ANGLE $\theta$	DIMENSIONS (mm)			MIN W/T e(mm)
			L1	A	D	
2201 110 HD 20	110	87.5°	51	73	110	5
2201 160 HD 20	160	87.5°	76	120	160	7
2201 200 HD 20	200	89°	94	110	200	9

Color : Greyish White

## SWEEP BEND

To solvent weld to pipes or fittings at both ends.



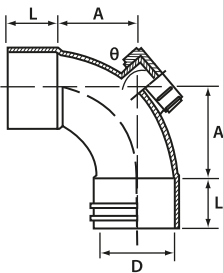
CODE NO.	NOM. SIZE (mm)	ANGLE $\theta$	DIMENSIONS (mm)		
			L	A	D
2201 036 01	36	87.5°	24	28	36
2201 043 01	43	87.5°	28	27	43
2201 056 01	56	87.5°	30	40	56
2201 082 01	82	87.5°	45	71	82
2201 110 01*	110	87.5°	51	73	110
2201 160 01*	160	87.5°	76	120	160
2201 200 01*	200	89°	94	118	200
2201 250 01	250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

\* Available in spigot/spigot and spigot socket (upon request)

## SWEEP BEND I/O

with Inspection Opening

To solvent weld to pipes, fitted with inspection opening

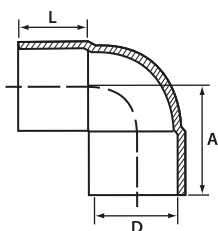


CODE NO.	NOM. SIZE (mm)	ANGLE $\theta$	DIMENSIONS (mm)		
			L	A	D
2202 043 01	43	87.5°	28	27	43
2202 056 01	56	87.5°	30	40	56
2202 082 01	82	87.5°	45	71	82
2202 110 01*	110	87.5°	51	73	110
2202 160 01*	160	87.5°	76	120	160
2202 200 01* $\Delta$	200	88°	102	137	200
2202 250 01	250	89°	86	144	250
2202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

\* Available in spigot/spigot and spigot socket (upon request)

$\Delta$  Fabrication item

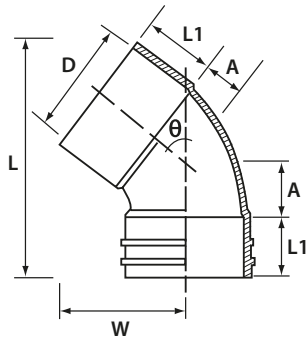
## KNUCKLE BEND PLAIN



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° BEND**

For Solvent weld to pipe.

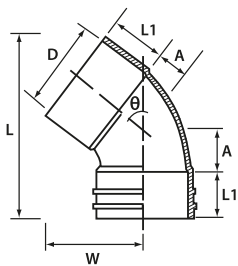


CODE NO.	NOM. SIZE (mm)	ANGLE $\theta$	DIMENSIONS (mm)				
			L	L1	W	A	D
2205 110 01	110	68°	205	52	117	56	110
2205 160 01	160	68°	290	80	170	74	160
2205 200 01*	200	68°	370	100	126	96	200
2205 250 01 $\Delta$	250	68°	-	70	-	100	250
2205 315 01 $\Delta$	315	68°	-	220	-	81	315

\* Available in spigot/spigot and spigot socket (upon request)

 $\Delta$  Fabrication item**45° BEND**

For Solvent weld to pipe.



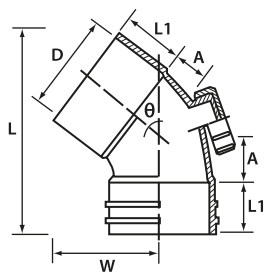
CODE NO.	NOM. SIZE (mm)	ANGLE $\theta$	DIMENSIONS (mm)				
			L	L1	W	A	D
2210 036 01	36	45°	72	23	37	6	36
2210 043 01	43	45°	84	27	45	8	43
2210 056 01	56	45°	96	30	53	10	56
2210 082 01	82	45°	140	43	74	15	82
2210 110 01	110	45°	170	50	93	20	110
2210 160 01	160	45°	255	76	140	30	160
2210 200 01	200	45°	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 spigot/spigot and spigot socket (upon request)

**45° BEND I/O**

with Inspection Opening

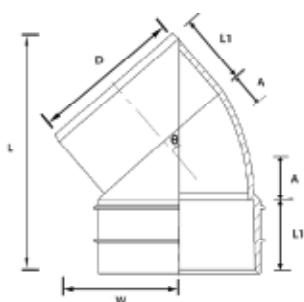
For Solvent weld to pipe, fitted with inspection opening.



CODE NO.	NOM. SIZE (mm)	ANGLE $\theta$	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° BEND**

For Solvent weld to pipe.

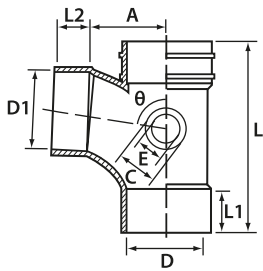


CODE NO.	NOM. SIZE (mm)	ANGLE $\theta$	DIMENSIONS (mm)				
			L	L1	W	A	D
2207 110 01	110	41°	180	50	90	20	110



## SWEEP BRANCH

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



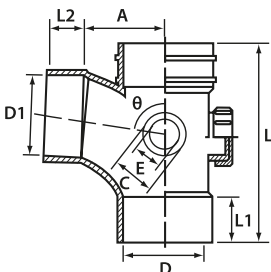
CODE NO.	NOM. SIZE (mm)	ANGLE θ	DIMENSIONS (mm)							
			L	L1	L2	A	C	E	D	D1
2211 036 01	36	87.5°	93	23	23	30	-	-	36	36
2211 043 01	43	87.5°	109	27	27	31	-	-	43	43
2211 056 01	56	87.5°	136	30	30	45	-	-	56	56
2211 056043 01	56x43	87.5°	122	31	27	35	-	-	56	43
2211 082 01	82	87.5°	206	45	45	76	-	43	82	82
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 200110 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 spigot/spigot and spigot socket (upon request)  
# With boss adaptor

## SWEEP BRANCH I/O

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 spigot/spigot and spigot socket (upon request)  
Δ Fabrication item

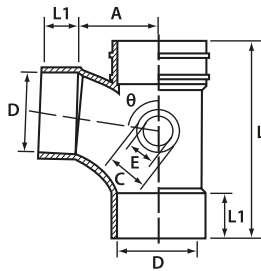
### SWEEP BRANCH

with Inspection Opening (L/R)

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

CODE NO.	NOM. SIZE (mm)	ANGLE $\Theta$	DIMENSIONS (mm)					
			L	L1	A	C	E	D
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

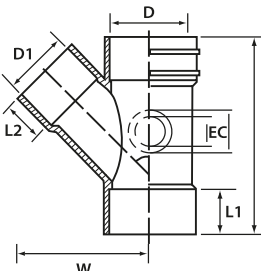


### 45° Y-BRANCH

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

CODE NO.	NOM. SIZE (mm)	ANGLE $\Theta$	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 01 $\Delta$	315	45°	1035	200	200	610	-	-	315	315
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

$\Delta$  Fabrication item



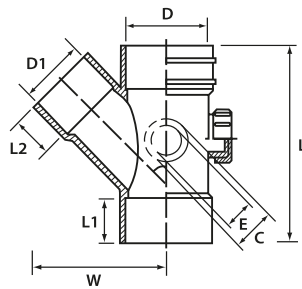
## 45° Y-BRANCH I/O

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 $\theta$	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

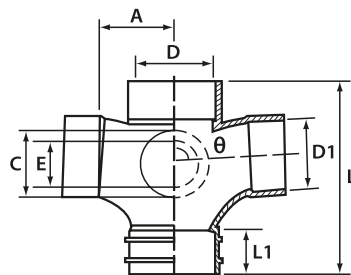


## DOUBLE BRANCH

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

CODE NO.	NOM. SIZE (mm)	ANGLE $\theta$	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



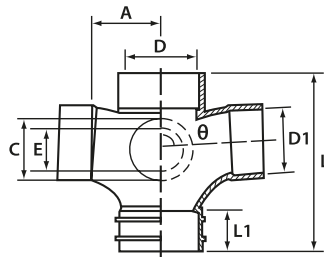


## DOUBLE BRANCH I/O

with Inspection Opening

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

CODE NO.	NOM. SIZE (mm)	ANGLE $\theta$	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

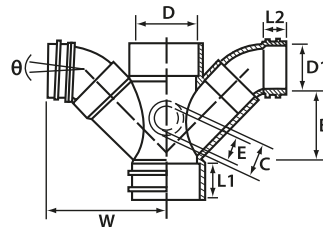


## REDUCING DOUBLE BRANCH I/O

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 $\theta$	DIMENSIONS (mm)							
			L1	L2	W	B	C	E	D	D1
2216 160110 01	160 x 110	87.5°	77	50	254	115	82	56	160	110



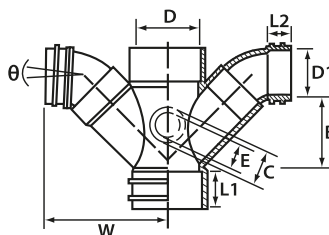
## REDUCING DOUBLE BRANCH I/O

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.

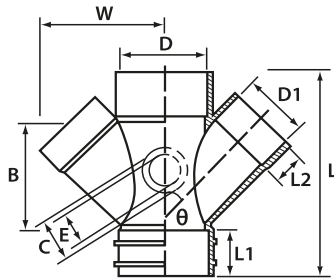
CODE NO.	NOM. SIZE (mm)	ANGLE $\theta$	DIMENSIONS (mm)							
			L1	L2	W	B	C	E	D	D1
2217 160110 01	160 x 110	87.5°	77	50	254	115	82	56	160	110



## 45° REDUCING DOUBLE BRANCH

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

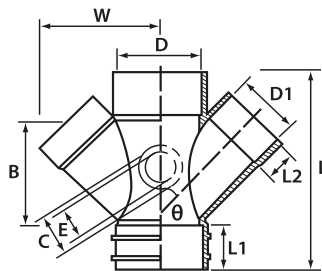
CODE NO.	NOM. SIZE (mm)	ANGLE $\theta$	DIMENSIONS (mm)								
			L	L1	L2	W	B	C	E	D	D1
2218 160110 01	160 x 110	45°	320	71	50	195	153	82	56	160	110



## 45° 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 $\theta$	DIMENSIONS (mm)									
			L	L1	L2	W	B	C	E	D	D1	
2219 160110 01	160 x 110	45°	320	71	50	195	153	82	56	160	110	

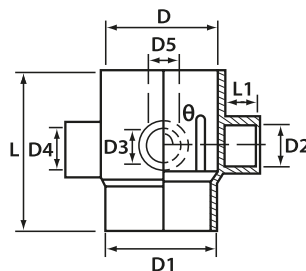


## 1, 2, 3 & 4 WAY BRANCH

To allow for waste pipe connection above soil branch.

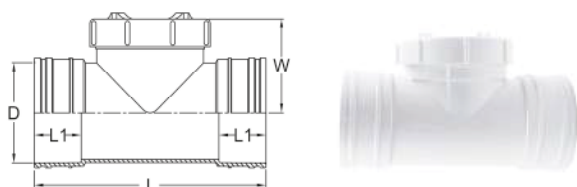
CODE NO.	NOM. SIZE (mm)	ANGLE $\theta$	L	L1	DIMENSIONS (mm)			
					D	D1	D2-D5	
2231 110056 01	110 X 56	88°	148	30	110	110	56	
2232 110056 01	110 X 56	88°	148	30	110	110	56	
2233 110056 01	110 X 56	88°	148	30	110	110	56	
2234 110056 01	110 X 56	88°	148	30	110	110	56	

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



## TEST OPENING

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

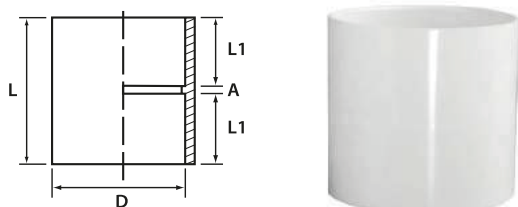


CODE NO.	NOM. SIZE (mm)	DIMENSIONS (mm)		
		L	L1	W
TO82	82	212	46	83
TO110	110	256	52	105
TO160	160	312	77	132
TO200	200	380	102	150
TO82MF	82	212	46	83
TO110MF 01	110	256	52	105
TO160MF 01	160	312	77	132

SNOW product

## STRAIGHT COUPLER

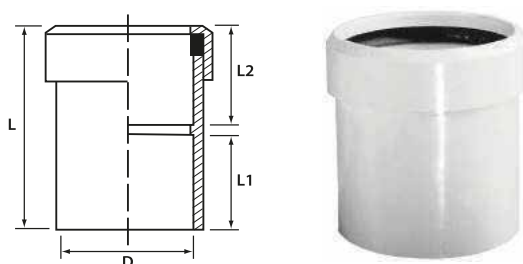
To solvent weld together two lengths of soil or waste pipes



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.

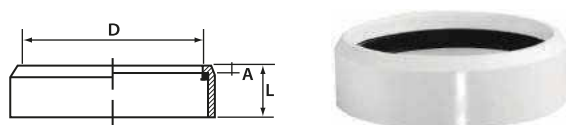


CODE NO.	NOM. SIZE (mm)	DIMENSIONS (mm)			
		L	L1	L2	D
2226 082 01	82	113	47	63	82
2226 110 01	110	133	54	75	110
2226 160 01	160	190	82	104	160

With Rubber Ring Seal  
Upon request

## SEAL RING ADAPTOR

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



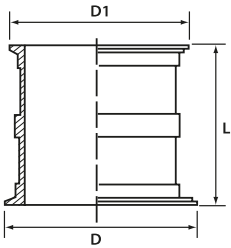
CODE NO.	NOM. SIZE (mm)	DIMENSIONS (mm)		
		L	A	D
2242 082 01	82	31	5	82
2242 110 01	110	38	7	110
2242 160 01	160	42	9	160

With Rubber Ring Seal



## PIPE SLEEVE

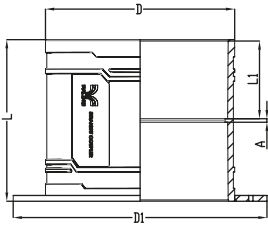
For cast into RC floor slab/concrete wall to provide a through socket for pipes.



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



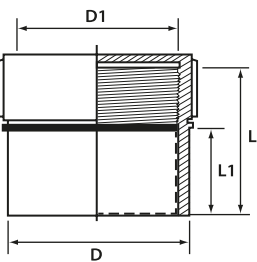
CODE NO.	NOM. SIZE (mm)	DIMENSIONS (mm)				
		L	L1	A	D	D1
2252 200 01 Δ	200	184	90	4	200	289
2252 250 01 Δ	250	225	110	5	250	342
2252 315 01 Δ	315	206	100	5	315	406

Δ Fabrication item

## SOCKET PLUG

with Screw on Cap

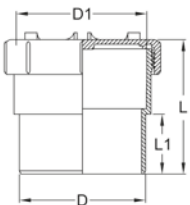
To plug the socket open-end of a pipeline to allow for later accessibility.



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 082046 01	82	46	23	82	76
2229 082067 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.

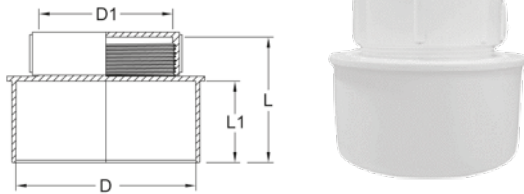


CODE NO.	NOM. SIZE (mm)	DIMENSIONS (mm)		
		L	L1	D/D1
AC100MF	110	114	52	110
AC150MF	160	173	77	160

SNOW product

## END CAP WITH ACCESS OPENING

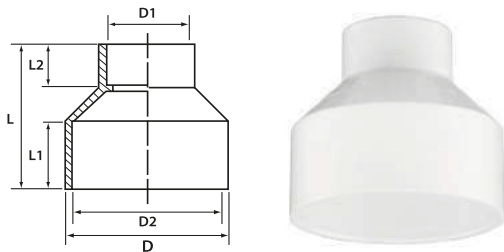
As an end cap to plug the open-end of a pipeline to allow for later accessibility.



CODE NO.	NOM. SIZE (mm)	DIMENSIONS (mm)			
		L	L1	D	D1
2229 110082 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.

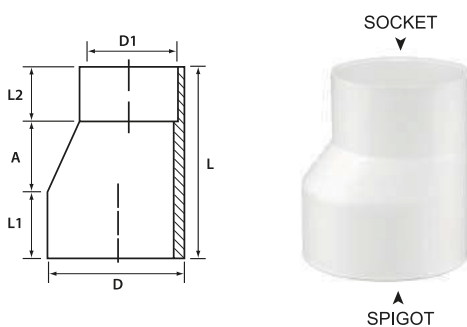


CODE NO.	NOM. SIZE (mm)	DIMENSIONS (mm)					
		L	L1	L2	D	D1	D2
2239 110056 01	110x56	109	50	28	-	56	110
2239 160110 01#	160x110	145	75	49	160	110	-

# D for 160mm is spigot

## LEVEL INVERT REDUCER (M/F)

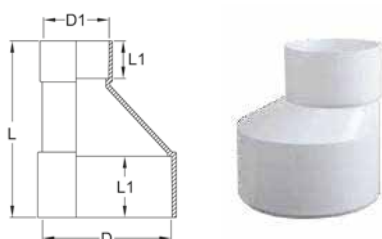
To allow for change in pipe diameter with larger spigot end into socket for fitting or socketed pipe.



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

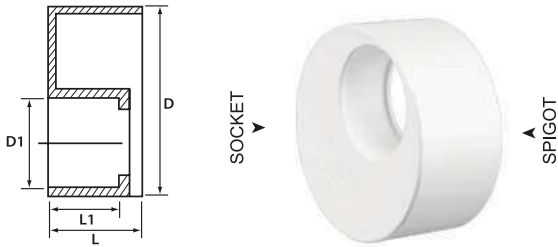


CODE NO.	NOM. SIZE (mm)	DIMENSIONS (mm)				
		L	L1	L2	D	D1
2244 200110 01	200 x100	192	70	50	200	110
2244 200160 01	200 x160	250	100	76	200	160
2244 250110 01	250 x110	194	60	48	250	110
2244 250160 01	250 x160	222	85	58	250	160
2244 250200 01	250 x200	210	85	70	250	200
2244 315200 01	315 x200	265	102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

# D and D1 are both socket

## BUSH/SOCKET REDUCER

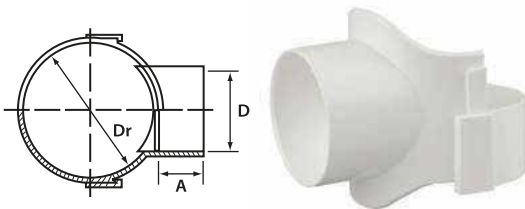
To allow for change in fittings socket diameter.



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

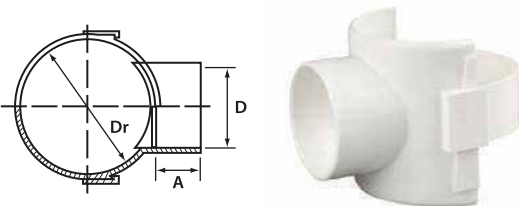
Dr Nominal diameter pipe

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

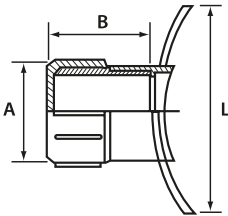
D Diameter of inlet pipe

A Socket depth



## INSPECTION OPENING & FRAME

Solvent weld to pipe for access to stack.

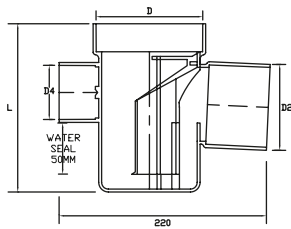


CODE NO.	NOM. SIZE (mm)	DIMENSIONS (mm)		
		L	A	B
2238 082056 01	82x56	94	52	47
2238 110056 01	110x56	122	52	42
2238 110082 01	110x82	122	76	67
2238 160082 01	160x82	175	76	71

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

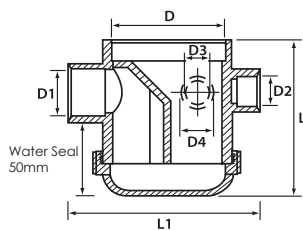


CODE NO.	NOM. SIZE (mm)	DIMENSIONS (mm)				
		L	L1	D	D1	D2-D3-D4
2260 110 01	110x82	174	220	110	82	56

## FLOOR GULLY WITH TRAP

And Inspection Opening

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

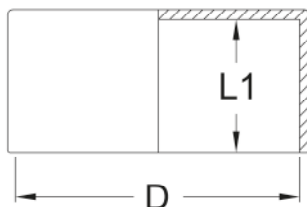


CODE NO.	NOM. SIZE (mm)	DIMENSIONS (mm)					
		L	L1	D	D1	D2-D4	D3
2259 110082 01	110x82	170	200	110	82	56	15

\* Combination with Rubber Ring Seal item.

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

## PUSH-ON CAP

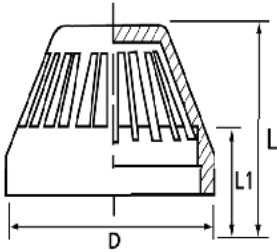


PRODUCT CODE	NOM. SIZE (mm)	DIMENSIONS (mm)	
		L1	D
2230 POC56 01	56	30	56
2230 POC82 01	82	45	82
2230 POC110 01	110	52	110
2230 POC160 01	160	77	160

SNOW product

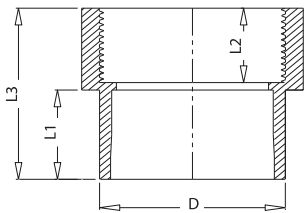
## VENT COWL

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

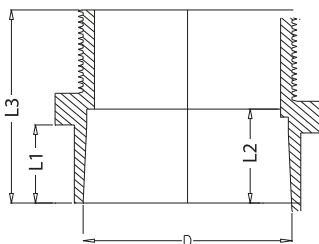
## FEMALE IRON CONNECTOR



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

SNOW product

## MALE IRON CONNECTOR

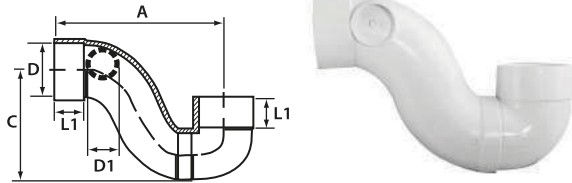


PRODUCT CODE	NOM. SIZE (mm)	DIMENSIONS (mm)			
		L1	L2	L3	D
2227 036 01	36	20	24	47	36.6
2227 043 01	43	20	27.5	51	43.2
2227 056 01	56	30.5	33.5	75	56.2
2227 082 01	82	37	44.5	91.5	83
2227 110 01	100	56	52	119	117.8

SNOW product

### 'P' TRAP

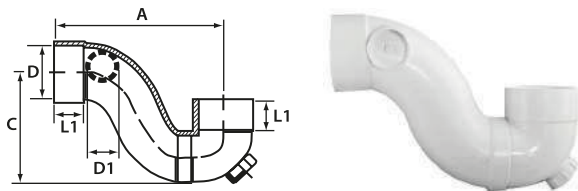
'P' Trap water seal for gas-tight connection to SWV system.



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

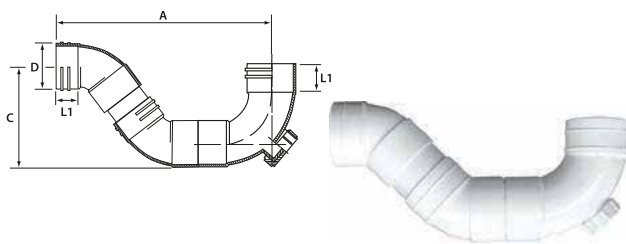
'P' Trap with water seal for gas-tight connection to SWV system.



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

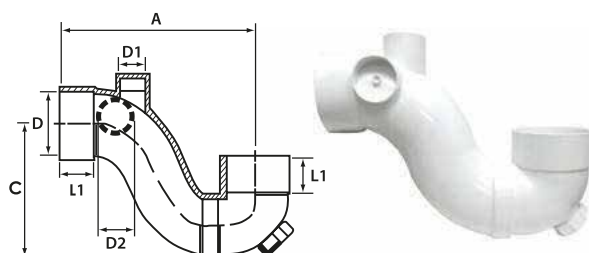
'P' Trap with water seal for gas-tight connection to SWV system.



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



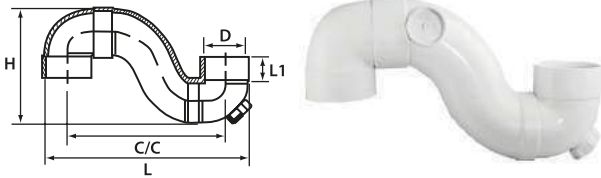
CODE NO.	NOM. SIZE (mm)	DIMENSIONS (mm)					
		L1	A	C	D	D1	D2
2247 056 01	56x36	30	205	160	56	36	-
2247 110 01	110x56	50	325	223	110	56	56

### 'S' TRAP

*with Inspection opening*

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

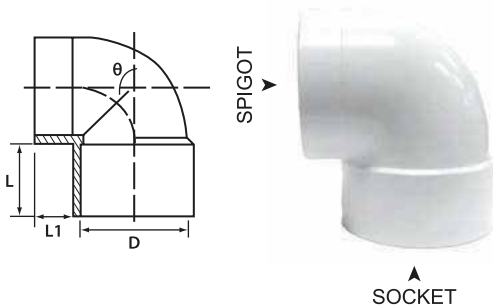
CODE NO.	NOM. SIZE (mm)	DIMENSIONS (mm)				
		L	L1	H	C/C	D
2248 110 01	110	500	50	270	390	390



### WC CONNECTING BEND

For WC Pans to BS 5503.

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

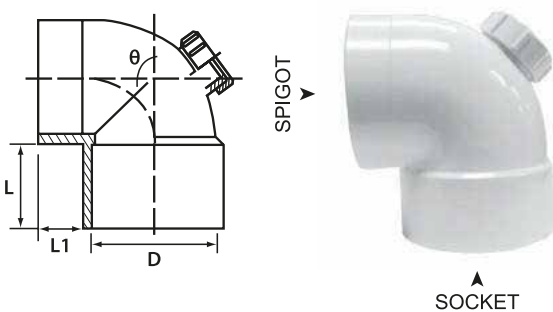


### WC CONNECTING BEND

*with Inspection Opening*

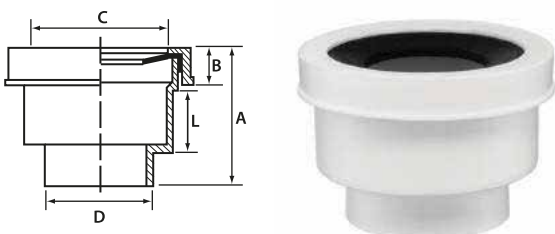
For WC Pans to BS 5503.

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



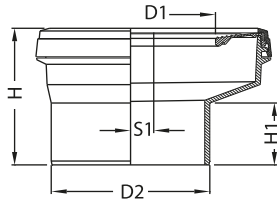
### WC PAN CONNECTOR

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)

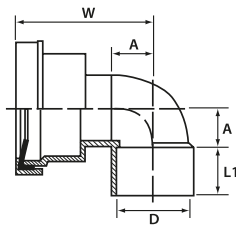


PRODUCT CODE	NOM. SIZE (mm)	DIMENSIONS (mm)				
		H	H1	D1	D2	S1
PC100100	110	156	98	80	103	15

SNOW product

## WC PAN ELBOW CONNECTOR

To solvent weld to pipes or fittings at both ends

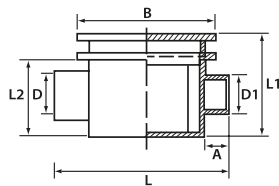


CODE NO.	NOM. SIZE (mm)	DIMENSIONS (mm)			
		L1	W	A	D
2241 110 01	110	50	158	54	110

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.

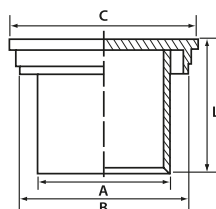


CODE NO.	NOM. SIZE (mm)	DIMENSIONS (mm)						
		L	L1	L2	A	B	D	D1
2258 110046 01	110x43	162	85	71	32	118	43	38

PP grating & Collar

## GRATING

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



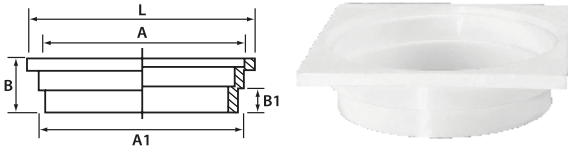
CODE NO.	NOM. SIZE (mm)	DIMENSIONS (mm)	
		L	C
2254 110082 01	110 x 82	73	110
A -82 mm	Seats on 82 mm short length pipe solvent welded to Concentric Reducer		
B -110 mm	Seats on 110 mm short length pipe solvent welded to Floor Gully		



### EXTENSION GRATING COLLAR

To be used as a collar for grating.

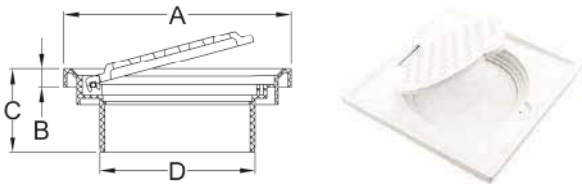
CODE NO.	NOM. SIZE (mm)	DIMENSIONS (mm)				
		L	A	A1	B	B1
2255 110 01	110x14	118	110	110	33	14



### SQUARE FLAT GRATING

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

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

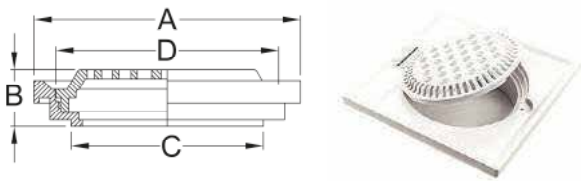


SNOW product

### SQUARE DOMED GRATING

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

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

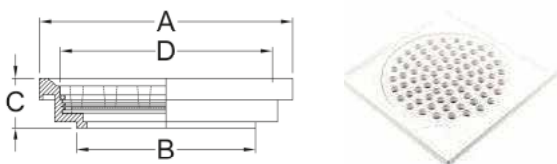


SNOW product

### SQUARE SCREW FLAT GRATING (HEAVY DUTY)

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

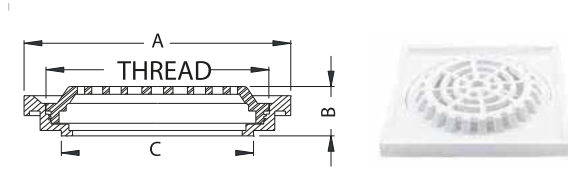
PRODUCT CODE	NOM. SIZE (mm)	DIMENSIONS (mm)			
		A	B	C	D
G150SFE	150x150	150x150	106	29.5	Thread
G15030SFE	150x150	150x150	102	55	Thread



SNOW product

## SQUARE SCREW DOMED GRATING

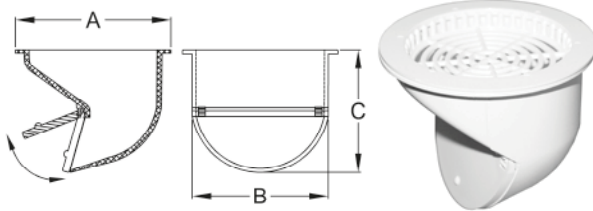
with Edge With Spigot (30mm) (or No Spigot)



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

SNOW product

## (MIS) ANTI - MOSQUITO DEVICE



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

SNOW product

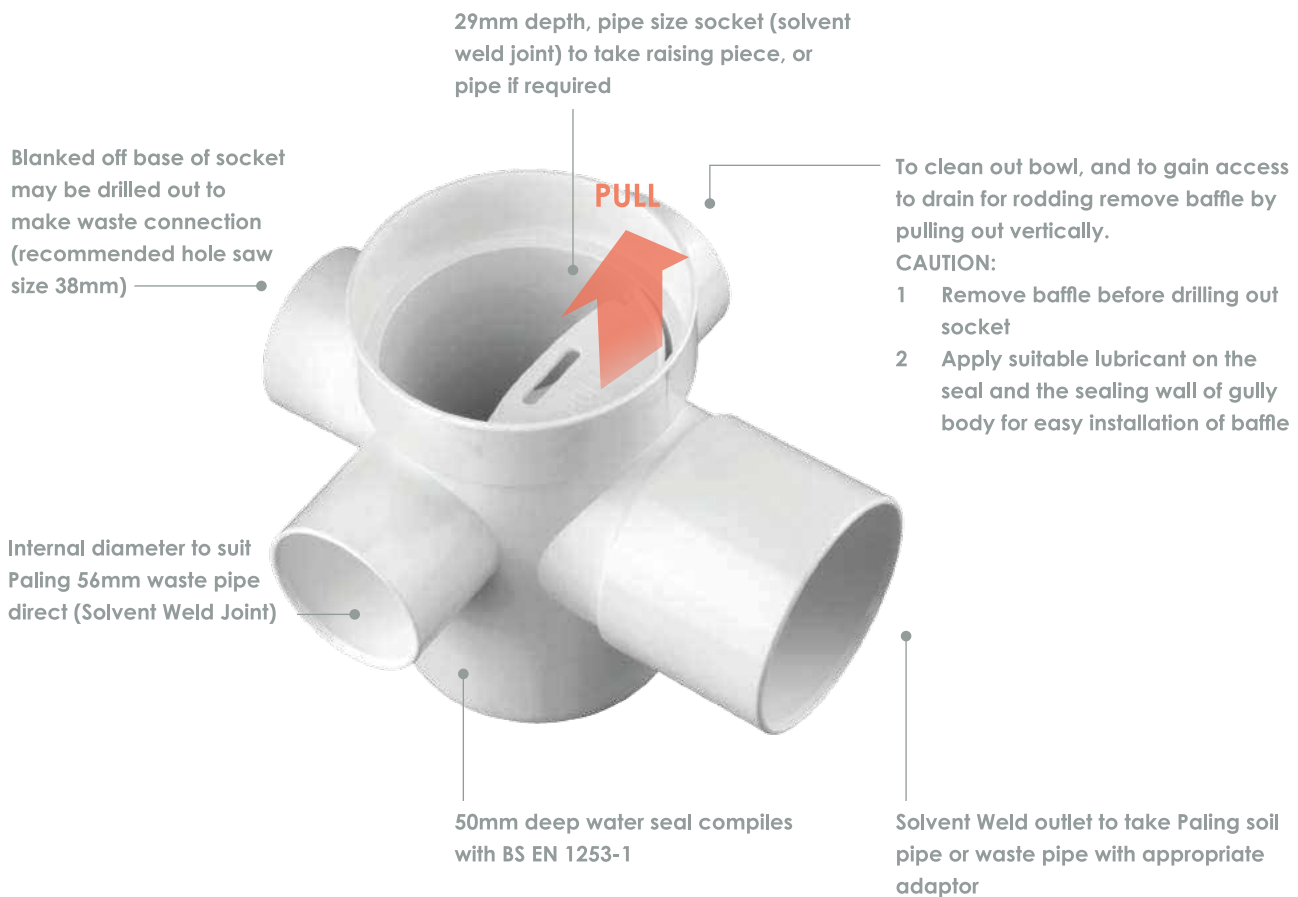
## SOLVENT CEMENT



CODE NO.	DESCRIPTION	GMS	TIN / CARTON
60500 12	Paling Coloursolve fast dry (Green)	500	20

## Top Removable Trapped Floor Gully SIRIM Certified to BS EN 1253

<b>Code No</b>	: 226011001
<b>Material</b>	: 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
<b>Seal depth</b>	: 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
<b>Size</b>	: 110/82
<b>Colour</b>	: 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

## 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.



## ABOUT LESSO MALAYSIA INDUSTRIES SDN. BHD.

These systems are suitable for various applications and building types, including domestic, commercial, industrial and civil construction projects. Paling products are accurately designed to consistently exceed the performance aspects specified under widely recognized standards.

Along with ISO 9001 certification and various approvals by SIRIM and IKRAM, Paling products are accredited by NSF, an authority in water industry standards.

Paling products are manufactured under an effective system of inspection, testing, supervision and control.



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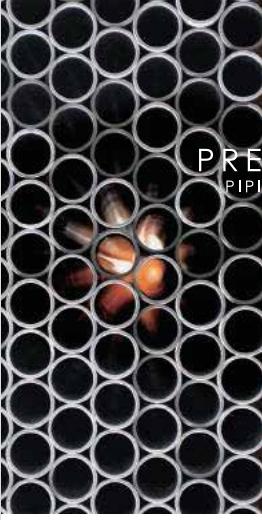
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