

PVC-U RAINWATER

Downpipes System



CERTIFIED TO ISO 9001:2015
CERT NO.: QMS 02632

BINA PLASTIC

INDUSTRIES SDN BHD



Founded in 1973, Bina Plastic has grown significantly into a company employing several hundred staffs and possesses ten large and modern factories.



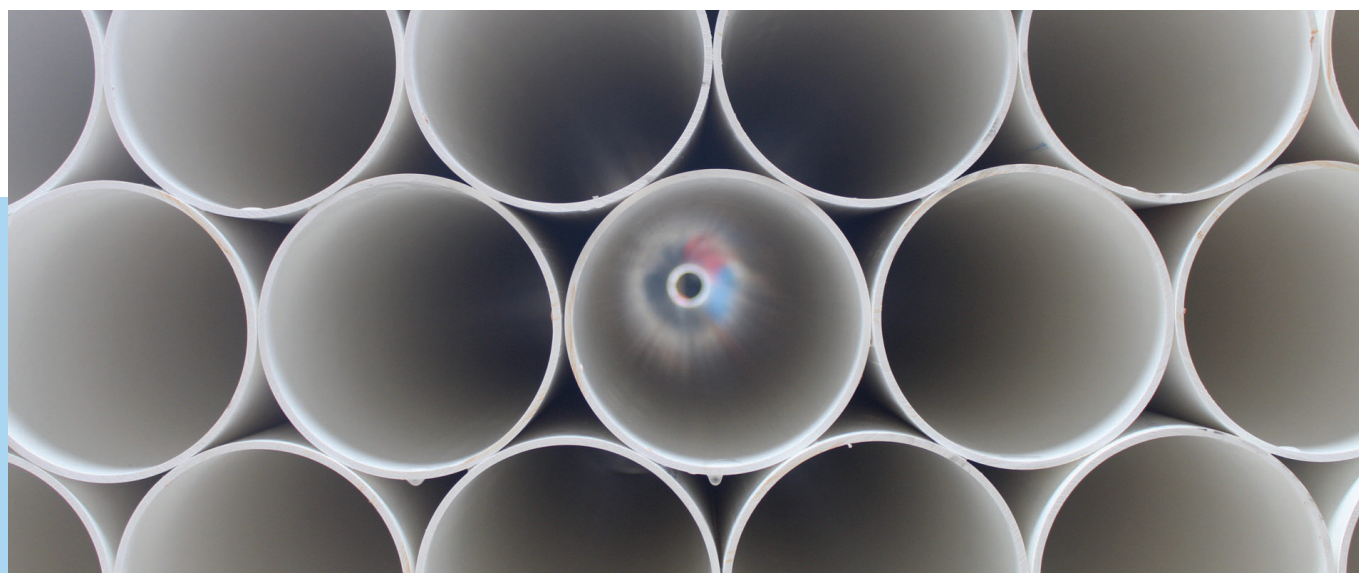
Bina Plastic supplies complete piping systems comprising various kind of plastics including PVC-U, PPR, HDPE and ABS. Bina Plastic piping systems are used in a broad cross-section of markets such as water supply, wastewater and stormwater drainage, irrigation, electrical and telecommunication.

PIPES

Model	Product Code	Specification
LIGHT DUTY	82, 110 & 160	BS EN 12200-1:2000
NORMAL DUTY	82,110,160,200,250 & 315	BS EN 12200-1:2000 MS 1063:2002 (BD)
MEDIUM DUTY	82,110,160,200,250 & 315	BS EN 12200-1:2000 BS EN ISO 1452-2:2009 (PN10)
HEAVY DUTY	82,110,160,200,250 & 315	BS EN 12200-1:2000 BS EN ISO 1452-2:2009 MS 628 PART 2:2014 (PN12.5)

FITTINGS

Normal Size (mm)	Specification
82,110,160,200,250 & 315	BS EN ISO 1452-3:2009 MS1063:2002 (BD) MS 628 PART 2:1999



PVC-U RAINWATER DOWNPIPES

Rainwater downpipes are used to direct rainwater away from a building, typically from roof gutters to the drainage system. Bina Plastic rainwater downpipes are manufactured from high quality Unplasticized Polyvinyl Chloride (PVC-U) materials. These pipes meet the requirements of BS EN 12200-1, MS 1063, BS EN ISO 1452.

There are 4 TYPES of rainwater downpipes which are:

LIGHT DUTY

Suitable for landed properties such as terrace or bungalow houses.

NORMAL DUTY

Recommended for high rise properties such as apartment, condominium and commercial building.

MEDIUM DUTY

Suitable for low rise casting and extreme expose installation.

HEAVY DUTY

Suitable for casting and underground columns.



As the scope of BS EN 12200 PVC-U rainwater piping systems covers PVC-U rainwater downpipes of nominal sizes from 82mm to 160mm only. Additional sizes and classes of rainwater pipes have been incorporated into the Bina Plastic Rainwater Piping System to meet the different requirements of MS1063 and BS EN ISO 1452.

FEATURES & BENEFITS:

- **Corrosion Resistant:** It is unaffected by coastal atmosphere and completely resistant to industrial air pollution.
- **Light weight:** The pipes are easily transported and installed.
- **Performance:** Excellent flow characteristics allow for low maintenance and trouble free performance.
- Smooth bore with low coefficient of friction.
- Formulated to withstand weathering effect.
- Chemical resistance.
- Prevents algae and microbial growth.

LIGHT DUTY - for low rise building expose installation (5 Storeys & Below)

Comply to BS EN 12200-1:2000

Nominal Size (mm)	Product Code	Outside Diameter (mm)		Wall Thickness (mm)	Length (meter)
		Min.	Max.		
82	P5/082-6S-LD	82.4	82.8	1.8	5.8
110	P5/110-6S-LD	110.0	110.4	2.2	5.8
160	P5/160-6S-LD	160.0	160.6	3.2	5.8

NORMAL DUTY - for expose installation, suitable for high rise

Comply to BS EN 12200-1:2000 (MS 1063:2002, Type "BD")

Nominal Size (mm)	Product Code	Outside Diameter (mm)		Wall Thickness (mm)	Length (meter)
		Min.	Max.		
82	P5/082-6S-ND	82.4	82.8	3.0	5.8
110	P5/110-6S-ND	110.0	110.4	3.2	5.8
160	P5/160-6S-ND	160.0	160.6	4.0	5.8
200	P5/200-6S-ND	200.0	200.6	4.9	5.8
250	P5/250-6S-ND	250.0	250.7	6.2	5.8
315	P5/315-6S-ND	315.0	316.0	7.7	5.8

*Code 'BD' = Application for components intended for above ground use for both inside the buildings or components outside buildings fixed onto the wall and buried in building structures.

MEDIUM DUTY - for low rise casting and extreme expose installation

Comply to BS EN 12200-1:2000 (BS EN ISO 1452-2:2009, PN10)

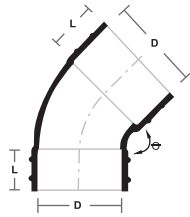
Nominal Size (mm)	Product Code	Outside Diameter (mm)		Wall Thickness (mm)	Length (meter)
		Min.	Max.		
82	P5/082-6S-MD	82.4	82.8	3.2	5.8
110	P5/110-6S-MD	110.0	110.4	4.2	5.8
160	P5/160-6S-MD	160.0	160.6	6.2	5.8
200	P5/200-6S-MD	200.0	200.6	7.7	5.8
250	P5/250-6S-MD	250.0	250.7	9.6	5.8
315	P5/315-6S-MD	315.0	316.0	12.1	5.8

HEAVY DUTY - for casting and underground columns

Comply to BS EN 12200-1:2000 (BS EN ISO 1452-2:2009, PN12.5)

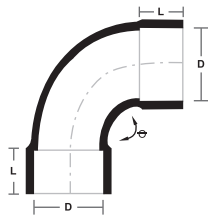
Nominal Size (mm)	Product Code	Outside Diameter (mm)		Wall Thickness (mm)	Length (meter)
		Min.	Max.		
82	P5/082-6S-HD	82.4	82.8	4.6	5.8
110	P5/110-6S-HD	110.0	110.4	5.3	5.8
160	P5/160-6S-HD	160.0	160.6	7.7	5.8
200	P5/200-6S-HD	200.0	200.6	9.6	5.8
250	P5/250-6S-HD	250.0	250.7	11.9	5.8
315	P5/315-6S-HD	315.0	316.0	15.0	5.8

45° PLAIN BEND



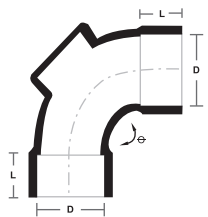
Product Code	Size (mm)	Angle (°)	Dimension (mm)	
			D	L
FU/135BP-082S	82	45	82.6	45
FU/135BP-110S	110	45	110.2	50
FU/135BP-160S	160	45	160.4	78
FU/135BP-200S	200	45	200.5	100
FU/135BP-250S	250	45	250.5	83.2
FU/135BP-315S	315	45	315.5	102.2

SWEEP BEND



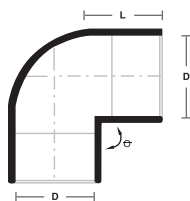
Product Code	Size (mm)	Angle (°)	Dimension (mm)	
			D	L
FU/SB-082S	82	92	82.6	45
FU/SB-110S	110	92	110.2	50
FU/SB-160S	160	92	160.4	78
FU/SB-200S	200	92	200.5	99
FU/SB-250S	250	92	250.5	83
FU/SB-315S	315	92	315.5	102

SWEEP BEND WITH I/O



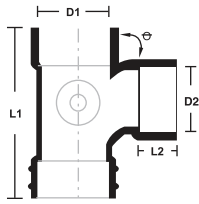
Product Code	Size (mm)	Angle (°)	Dimension (mm)	
			D	L
FU/SB-082S-I	82	92	82.6	45
FU/SB-110S-I	110	92	110.2	50
FU/SB-160S-I	160	92	160.4	78
FU/SB-200S-I	200	92	200	99

HEAVY DUTY BEND



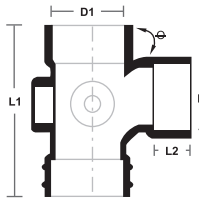
Product Code	Size (mm)	Angle (°)	Dimension (mm)	
			L	D
FU/SB-110S-HD	110	92	60	110.2
FU/SB-160S-HD	160	92	80	160.4
FU/SB-200S-HD	200	92	99	200.4

EQUAL SINGLE BRANCH



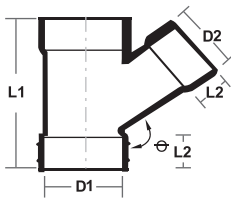
Product Code	Size (mm)	Angle (°)	Dimension (mm)			
			D1	D2	L1	L2
FU/ESB-082S	82	92	82.6	82.9	205	45
FU/ESB-082-50S	82x56	92	82.6	56	173.4	30.2
FU/ESB-110S	110	92	110.2	110.2	250	50
FU/ESB-110-50S	110x56	92	110.2	56	270	29.9
FU/ESB-110-82S	110x82	92	110.2	82.6	270	47.8
FU/ESB-160S	160	92	160.4	160.2	315	75.3
FU/ESB-160-110S	160x110	92	160.4	110.2	376	52
FU/ESB-200S	200	92	200.2	200.2	395.2	83.6

EQUAL SINGLE BRANCH WITH I/O



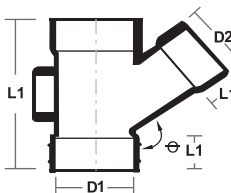
Product Code	Size (mm)	Angle (°)	Dimension (mm)			
			D1	D2	L1	L2
FU/ESB-082S-I	82	92	82.9	82.6	205	45
FU/ESB-082-50I	82x56	92	82.6	56	173.4	30.2
FU/ESB-110S-I	110	92	110.2	110.2	250	50
FU/ESB-110-50I	110x56	92	110.2	56	270	29.9
FU/ESB-110-82I	110x82	92	110.2	82.6	270	47.8
FU/ESB-160S-I	160	92	160.4	160.4	315	75.3
FU/ESB-160-110I	160x110	92	160.4	110.2	376	52

45° Y-BRANCH (Y-TEE)



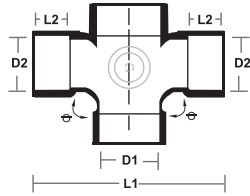
Product Code	Size (mm)	Angle (°)	Dimension (mm)			
			D1	D2	L1	L2
FU/YT-082S	82	45	82.6	82.6	205	46.5
FU/YT-110S	110	45	110.2	110.2	255	50
FU/YT-160S	160	45	160.4	160.4	315	73.5
FU/YT-160-110S	160x110	45	160.4	110.2	376	52.1
FU/YT-200S	200	45	200.4	200.4	428	62

45° Y-BRANCH (Y-TEE) WITH I/O



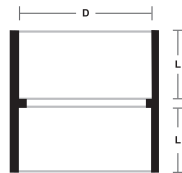
Product Code	Size (mm)	Angle (°)	Dimension (mm)			
			D1	D2	L1	L2
FU/YT-110S-I	110	45	110.2	110.6	267.1	52

EQUAL DOUBLE BRANCH (CROSS TEE)



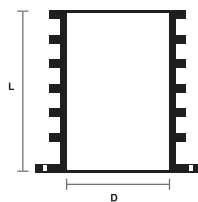
Product Code	Size (mm)	Angle (°)	Dimension (mm)			
			D1	D2	L1	L2
FU/CT-110-110S	110x110	92	110.2	110.2	270	50
FU/CT-160-110S	160x110	92	160.4	110.2	315.3	50

STRAIGHT COUPLING



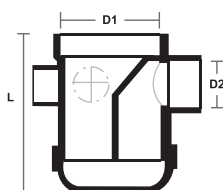
Product Code	Size (mm)	Dimension (mm)	
		D	L
FU/SC-082S	82	82.6	45
FU/SC-110S	110	110.2	50
FU/SC-160S	160	160.4	78
FU/SC-200S	200	200.4	122.5
FU/SC-250S	250	250.4	83.2
FU/SC-315S	315	315.5	102.2

PIPE SLEEVE



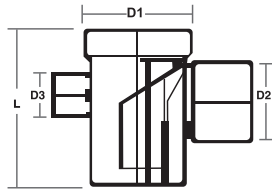
Product Code	Size (mm)	Dimension (mm)	
		D	L
FU/PS-082S	82	82.7	109.8
FU/PS-110S	110	110.3	109.6
FU/PS-160S	160	160.8	165.9
FU/PS-200S	200	200.4	122.5

FLOOR GULLY WITH I/O



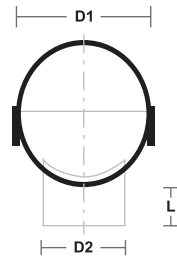
Product Code	Size (mm)	Dimension (mm)		
		D1	D2	L
FU/FG-110-50S	110x56	110.2	56	198
FU/FG-110-82S	110x82	110.2	82.6	198
FU/FG-110-5-5S	110x56x56	110.2	56	198

FLOOR GULLY (TOP ACCESS)



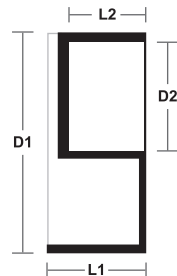
Product Code	Size (mm)	Dimension (mm)			
		D1	D2	D3	L
FU/FG-110-8-5S	110x82x56	110.2	82.9	56	164.0

BOSS CONNECTOR



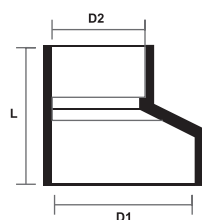
Product Code	Size (mm)	Dimension (mm)		
		D1	D2	L
FU/BC-082-50S	82x56	82.6	56	28
FU/BC-110-50S	110x56	110.2	56	28
FU/BC-110-82S	110x82	110.2	82.6	45
FU/BC-160-82S	160x82	160.4	82.6	45
FU/BC-160-110S	160x110	160.4	110.2	50

BUSH REDUCER



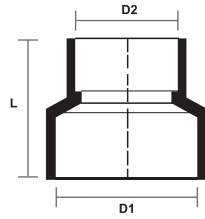
Product Code	Size (mm)	Dimension (mm)			
		D1	D2	L1	L2
FU/SR-082-50S	82x56	82.6	56	45	28
FU/SR-110-50S	110x56	110.2	56	50	28
FU/SR-110-82S	110x82	110.2	82.6	50	45
FU/SR-160-82S	160x82	160.4	82.6	78	45
FU/SR-160-110S	160x110	160.4	110.2	78	50
FU/SR-200-110S	200x110	200.4	110.2	80	48
FU/SR-200-160S	200x160	200.4	160.4	80	58

LEVEL INVERT REDUCER



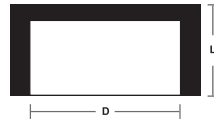
Product Code	Size (mm)	Dimension (mm)		
		D1	D2	L
FU/RS-082-50S	82x56	82.6	56	124.5
FU/RS-110-50S	110x56	110.2	56	124.6
FU/RS-110-82S	110x82	110.2	82.6	124.5
FU/RS-200-110S	200x110	200.4	110.2	160.0
FU/RS-200-160S	200x160	200.4	160.2	160.0

CONCENTRIC REDUCER



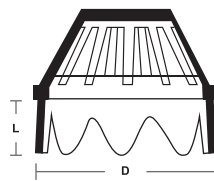
Product Code	Size (mm)	Dimension (mm)		
		D1	D2	L
FU/RS-160-110S	160x110	160.4	110.2	141.3

END CAP



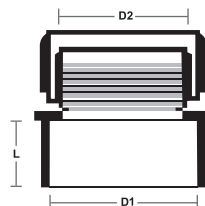
Product Code	Size (mm)	Dimension (mm)	
		D	L
FU/EC-082S	82	82.6	45.3
FU/EC-110S	110	110.2	25
FU/EC-160S	160	160.4	75.8

DOME GRATING



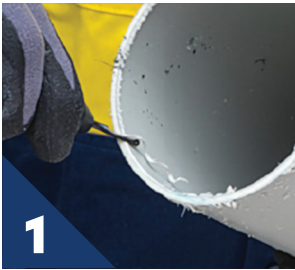
Product Code	Size (mm)	Dimension (mm)	
		D	L
FU/DG-110S	110	110	28.5
FU/DG-160S	160	160	50
FU/DG-200S	200	200	62

ACCESS PLUG WITH CAP



Product Code	Size (mm)	Dimension (mm)		
		D1	D2	L
FU/AP-082S	82	82.6	87.0	51.5
FU/AP-110S	110	110.2	76.5	84.3
FU/AP-160S	160	160.4	159	95

JOINTING METHOD WITH SOLVENT CEMENT



STEP 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.



STEP ② DEGREASE THE SPIGOT & 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.



STEP 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.

**can or tin well before using to ensure homogeneity.*



STEP ④ MAKE THE JOINT

Insert pipe straight into the fitting as deeply into the fitting socket as possible without twisting and hold in place firmly and steadily for at least 30 seconds.

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.



STEP 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 24hours before testing or use*

