# **SOLVENT WELD JOINING METHOD**

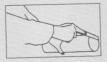
### 1. CUT PIPE:

Cut pipe square. As joints are sealed at the base of the fitting socket. An angled cut may result in joint failure.



# 2. REMOVE BURR AND BEVEL:

Remove all burr from inside and outside of pipe with a knife-edge file, or deburring tool. Chamfer (bevel) the end of the pipe 10°-15°



# CLEAN:

Remove surface dirt, grease, or moisture with a clean dry cloth.

### 3. DRY FIT:

With light pressure, pipe should go one third to one half of the way into the fitting socket. Pipes and fittings that are too tight or too loose should not be used.



## 4. CEMENT:

Apply a full even layer of cement to the outside of a pipe and medium layer of cement to the inside of a fitting.



# 5. JOIN PIPE AND FITTINGS:

Assemble pipe and fitting socket till it contacts socket bottom. Hold pipe and fitting together until the pipe does not back out. Remove excessive cement from the exterior. A perfect made joint will show a continuous bead of cement around the perimeter.









#### PROFILE

Astral DrainMaster® is a uPVC conventional drainage system for soil, waste and rain water. This system enables fast and efficient removal of waste without blockage and leakage. Its high impact strength, chemical and corrosion resistance. Long life and virtually zero maintenance have made Astral DrainMaster® system a preferred drainage and rain water system among architects, builders and plumbing contractors.

The state of the art equipments and virgin raw material used to produced Astral DrainMaster® SWR system. The system is available from 75mm to 160mm, the entire range is Manufactured as per internationally accepted quality standards and specifications.

### **APPLICATIONS**

Astral DrainMaster® drainage system can be applicable at houses, offices, hotels, commercial complex, industries, hospitals as well as at airports, railway stations, stadiums, theaters etc. for waste discharge, ventilation and rain water management.

#### **ADVANTAGES**

Specially designed Astral DrainMaster® drainage system offers numerous advantages over conventional drainage systems. A large numbers of dealers, distributors and field staff are always on to for uninterrupted supply of products to the end users.

### **AVAILABLE SIZE**

75 mm, 110 mm & 160 mm



# INTRODUCTION

#### PRESENTING ASTRAL DRAINMASTER® PUSHFIT SYSTEM

In this unique system, pipe and fittings are joined together by simple pushing the spigot into socket end. The spigot end is held firmly and tightly in the socket by reinforced pre-fitted yellow rubber ring provided in the groove. Thus it ensures leak-proof joints which can withstand high pressure and it also prevent choking. The system thus does not require to thread or to paste. The yellow co-molded rubber ring enables the joints to withstand high pressure and also compensates for the thermal expansion and 75mm, 110mm & 160mm contraction. Since the joints are not fixed by the usage of solvent cements, it can be reopened later for the purpose of realignment or adjustment of pipes / fittings.

Astral DrainMaster® pipes and fittings are manufactured from virgin raw material and they are tested for correct thickness and dimensional accuracy, randomly and batch wise in our most modern quality assurance laboratory.



# **KEY PROPERTIES AND BENEFITS**



#### STRONGER, RESILIENT & LIGHT WEIGHT

Astral DrainMaster® system is highly resilient and tough with good mechanical strength and high impact resistance. At the same time this system is very light in weight which gives highest benefit to the end user in terms of transportation, installation and long service life.



#### **CORROSION RESISTANCE**

The inert nature of Astral DrainMaster® uPVC drainage system provide complete corrosion resistance and renders wrapping, coating and lining unnecessary. It also ensures that uPVC sewer and drainage pipes have long operational life compared to conventional asbestos or cast iron systems.



#### NON CONDUCTIVE

Astral DrainMaster® uPVC drainage system is a non-conductor of electricity, and is therefore not subject to galvanic or electrolytic action.



#### CHEMICAL RESISTANCE

Astral DrainMaster® uPVC drainage system is inert to most of the acids, alkalis, effluents, salts, minerals and aggressive soils. The system remains unaffected by transportation of such type of media and gives longer life with trouble free service.



#### **FLAMMABILITY**

Astral DrainMaster® uPVC drainage system does not support combustion and is inherently difficult to ignite. It also stops burning once the source of heat is removed.



#### UV STABILIZED

Astral DrainMaster® uPVC drainage system is UV stabilized which gives protection to the system while being operational in direct sun light.



#### **HIGH FLOW RATES**

Extremely smooth bores, precision joints and lack of internal projections ensure unrivaled hydraulic capacity over the total life of the system.



### QUICK & EASY INSTALLATIONS

Astral DrainMaster® pipes and fittings can be joined together with rubber ring or solvent weld system. These techniques are very simple and ensure 100% leak proof system at a reduced installation time with lower maintenance.



# VERSATILE AND ELEGANT

The physical properties of PVC allow designers a high degree of freedom while designing with Superb finished pipes and fittings.



#### ECONOMICAL

Astral DrainMaster® uPVC drainage system is more cost effective than any other conventional drainage systems available in market.



#### **ENVIRONMENTAL IMPACT**

uPVC has a lower feedstock energy especially compared to other polymers and common building materials. It is the least energy intensive of all thermoplastics. In life cycle analysis and independent studies, PVC's environmental impact has been found most favorable, so the more usage of PVC will greatly help to keep our global natural resources intake for longer period of time. It does not pollute air, water or land during manufacturing or service life and can be recycled after prolonged service life.

# **ASTRAL DRAINMASTER® PIPES & FITTINGS**



DRAINMASTER PIPES: ASTRAL DRAINMASTER® ISI marked pipes are available in ringfit pipe with two different class of pipes named as "TYPE A" & "TYPE B". TYPE A pipes are recommended for use in ventilation and rain water applications while TYPE B pipes are recommended for soil and waste discharge applications. Pipes are available in all sizes and in different lengths with single socket and double socket.



ASTRAL DRAINMASTER® Ringfit pipes are socketed on automatic online socketing machine with very high degree of accuracy. The socket has groove inside for yellow co-molded rubber ring. The yellow rubber ring ensures trouble free water tight joint with allowance to thermal expansion /contraction. One end of the pipe is plain and the other is self socketed with an integral groove to hold the rubber gasket. When joined with a yellow rubber ring, the joint formed is a trouble free, water tight one, ready to take care of thermal expansion / contraction. Sizes: 75 mm, 90 mm, 110 mm, 160 mm

NOMINAL DIAMETER	MEAN OU DIAME		TYPE WALLTHIC		TYPI WALL THI	CKNESS
DIAMETER	Min.	Max.	Min.	Max.	Min.	Max.
		75.3	1.8	2.2	3.2	3.8
75	75.0			2.3	3.2	3.8
90	90.0	90.3	1.9		3.7	3.8
110	110.0	110.4	2.2	2.7	3.2	4.6
160	160.0	160.5	3.2	3.8	4.0	4.0

All dimensions are in mm.



DRAINMASTER FITTINGS: ASTRAL DRAINMASTER® ISI marked fittings are available in grooved ring type in full range starting from 75 mm to 160 mm and are fully compatible with ASTRAL DRAINMASTER® Pipes.



ASTRAL DRAINMASTER® Grooved ring type fittings are self socketed with groove to hold the yellow co-molded rubber ring. The grooves are made on highly accurate online socketing machines that give highest quality, performance and satisfaction.

# **TESTING REQUIREMENTS**

ASTRAL DRAINMASTER® uPVC pipes & fittings are manufactured subject to strict and continuous control over raw materials, production, dimensions & identification. The rigorous testing and quality control throughout the entire process ensures that ASTRAL DRAINMASTER® System is highly reliable and efficient in working.

# PIPES ARE SUBJECT TO TESTS LIKE.

- ☑ Tensile Strength
- ☑ Impact Strength
- ☑ Reversion
- ☑ Stress relief test
- ☑ Vicat softening temp. test ☑ Exposure to Sunlight
- ☑ Water tightness of joint
- ☑ Resistance to H,SO,

# FITTING ARE SUBJECT TO TESTS LIKE.

- ☑ Impact Strength
- ☑ Stress relief test
- ☑ Vicat Softning temp. test ☑ Water tightness of joint
- ☑ Resistance to H.SO.
- ☑ Sulphated Ash content

The acceptance criteria for test results obtained are as per widely accepted International and National Standards.

### **UNIQUE IDENTIFICATION:**

Each fitting is having unique identification known as "Clock". This system ensures 100% traceability to every production lot.



#### THERMAL EXPANSION AND CONTRACTION:

ASTRAL DRAINMASTER® piping system will undergo thermal expansion and contraction like any other thermoplastic materials. The thermal expansion & contraction depends on the coefficient of thermal expansion (5.4 x  $10^5$  mm / mm / $^{\circ}$ C for PVC), length of piping and temperature difference encountered by the piping. Normally for drainage & sewerage system temperature difference of atmosphere will effect more to thermal movements of piping rather than effluent temperatures as full bore discharges are normally not happened for prolong time and also these discharges are periodic in nature. Still expansion & contraction issue needs to be addressed. For ringfit joining systems specially designed yellow co-molded rubber rings and proper joining of pipes and fittings will take care of length change. Please refer joining method section of this catalogue for more details.



# SINGLE TEE





SIZE (D)	PART NO.	WT.	A	Н	
75	M342000107	3.2	90	186	135
90	M342000108	3.2	105	233	170
110	M342000109	3.2	127	258	193
160	M342000112	4.0	182	362	270

**Application :** Required to connect branch soil / waste line to main line at an angle of 87.5°.

#### REDUCING TEE



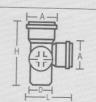


SIZE (Dxd)	PART NO.	WT.	A	Н	
# 90 x 75	M342000330	3.2	105 x 90	232	152
110 x 75	M342000329	3.2	127 x 90	260	175
160 x 75	M342000335	4.0	182 x 90	343	229
160 x 110	M342000331	4.0	182 x 127	343	235

Application: Required to connect branch line at 87.5° / 92.5°

# SINGLE TEE L-H WITH DOOR



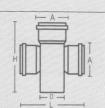


SIZE (D)	PART NO.	WT.	A	Н	L	С
75	M342000507	3.2	90	186	137	79
110	M342000509	3.2	127	258	185	107

**Application :** Same as plain Tee with option of L-H door for cleaning purpose.

#### **CROSS TEE**





SIZE (D)	PART NO.	WT.	A	н	L
75	M342000707	3.2	90	187	185
110	M342000709	3.2	127	257	255

**Application :** Required to connect two adjacent branch line at an angle of 87.5°/92.5°

# SINGLE TEE WITH DOOR



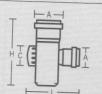


SIZE (D)	PART NO.	WT.	A	Н		-
75	M342000207	3.2	90	186	176	79
90	M342000208	3.2	105	233	193	92
110	M342000209	3.2	127	258	224	107
160	M342000212	4.0	182	362	298	107

**Application:** Same as plain Tee with option of door for cleaning purpose.

# REDUCING TEE WITH DOOR





SIZE (Dxd)	PART NO.	WT.	A	H		C
	M342000430			232	173	79
110 x 75	M342000429	3.2	127 x 90	260	207	107
160 x 75	M342000435	4.0	182 x 90	343	266	107
160 x 110	M342000431	4.0	182 x 127		277	107

**Application :** Same as Reducing Tee with option of door for cleaning purpose.

# SINGLE TEE R-H WITH DOOR





SIZE (D)	PART NO.	WT.	A	Н	L	C
75	M342000607	3.2	90	186	137	79
110	M342000609	3.2	127	258	185	107

**Application :** Same as plain Tee with option of R-H door for cleaning purpose.

#### **CROSS TEE WITH DOOR**





SIZE (D)	PART NO.	WT.	A	Н	L	C
75	M342000807	3.2	90	187	185	79
110	M342000809	3.2	127	257	255	107

 $\label{lem:application:Same as cross} \mbox{Tee with option of door for $\varsigma$ leaning purpose.}$ 

#### **SWEPT TEE**

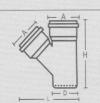


SIZE (D)	PART NO.	WT.	A	Н	L
75	M342000907	3.2	90	204	155
110	M342000909	3.2	127	265	205

Application: Same as plain Tee.

### SINGLE 'Y'





SIZE (D)	PART NO.	WT.	A	Н	L
75	M342001907	3.2	90	217	180
90	M342001908	3.2	105	258	207
110	M342001909	3.2	127	294	266
160	M342001912	4.0	182	412	347

**Application :** Required to connect branch soil/waste pipeline to the main vertical line at an angle of 45°.

## **REDUCING SINGLE 'Y'**





SIZE (D)	PART NO.	WT.	A	Н	L
110 x 75	M342002129	3.2	127 x 90	250	215
160 x 75	M342002135	3.2	182 x 90	282	284
160 x 110	M342002131	3.2	182 x 127	332	310

**Application :** Required to connect branch soil/waste pipeline to the main vertical line at an angle of 45° with reduction of size.

#### **SWEPT TEE WITH DOOR**



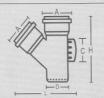


SIZE (D)	PART NO.	WT.	A	н	L	C
75	M342001007	3.2	90	204	175	79
110	M342001009	3.2	127	265	230	107

**Application:** Same as plain Tee with option of door for cleaning purpose.

#### SINGLE 'Y' WITH DOOR





SIZE (D)	PART NO.	WT.	A	H	L	C
75	M342002007	3.2	90	217	200	79
90	M342002008	3.2	105	258	223	92
110	M342002009	3.2	127	294	273	107
160	M342002012	4.0	182	412	370	107

**Application:** Same as plain 'Y' with option of door for cleaning purpose.

#### REDUCING SINGLE 'Y' WITH DOOR



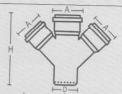


SIZE (D)	PART NO.	WT.	A	H	L	C
110 x 75	M342002229	3.2	127 x 90	250	242	107
160 x 75	M342002235	3.2	182 x 90	282	284	304
160 x 110	M342002231	3.2	182 x 127	332	310	330

**Application :** Same as reducing "Y" with option of door for cleaning purpose.

# DOUBLE 'Y'



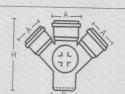


THE RESERVE OF THE PERSON NAMED IN					
SIZE (D)	PART NO.	WT.	A	H	
75	M342002307	3.2	90	215	261
110	M342002309	3.2	127		201
THE RESERVED OF THE PARTY OF TH		2.2	12/	295	375

**Application :** Required to connect 2 branch soil/waste pipeline to the main vertical line at an angle of 45°.

# DOUBLE 'Y' WITH DOOR





CHES IN.			<u> </u>			
SIZE (D)	PART NO.	WT.	A	H	L	C
75	M342002407	3.2	90	215	261	70
110	M242002400			213	201	79
110	M342002409	3.2	127	295	375	107

**Application :** Same as Double 'Y' with option of door for cleaning purpose.

#### **BEND 87.5°**



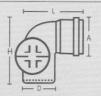


SIZE (D)	PART NO.	WT.	A	Н	L
75	M342001207	3.2	90	146	134
90	M342001208	3.2	105	174	173
110	M342001209	3.2	127	198	175
160	M342001212	4.0	182	276	267

**Application :** Required to connect internal pipeline to main pipeline & also for direction change at an angle of 87.5°.

### BEND 87.5° L-H WITH DOOR





8	SIZE (D)	PART NO.	WT.	A	Н	L	С
	75	M342001407	3.2	90	143	135	79
	110	M342001409	3.2	127	196	185	107

**Application :** Same as Bend with option of L-H door for cleaning purpose.

#### 45° BEND





SIZE (D)	PART NO.	WT.	A	Н	L
75	M342001107	3.2	90	153	120
90	M342001108	3.2	105	189	140
110	M342001109	3.2	127	207	168
160	M342001112	4.0	182	260	233

**Application :** Required as a shoe for drainage line & also for direction change at an angle of 45°.

## INVERT 'Y' 45°



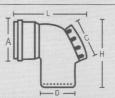


SIZE (D)	PART NO.	WT.	A	Н	L
75	M342002507		90	221	180
13	101342002307				

**Application :** Required to connect two branches an angle of 45° with invert socket.

### BEND 87.5° WITH DOOR (TS)



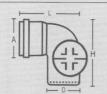


SIZE (D)	PART NO.	WT.	A	Н	L	C
75	M342001307	3.2	90	146	155	79
90	M342001308	3.2	105	147	191	92
110	M342001309	3.2	127	198	210	107
160	M342001312	4.0	182	276	280	107

**Application :** Same as Bend with option of door for cleaning purpose.

# BEND 87.5° R-H WITH DOOR





SIZE (D)	PART NO. M342001507	PART NO. WT. A H			Н	L	C
75		3.2	90	143 135		79	
110	M342001509	3.2	127	196	185	107	

**Application :** Same as Bend with option of R-H door for cleaning purpose.

### COUPLER





SIZE (D)	PART NO.	WT.	Н	L
75	M342001607	3.2	90	105
90	M342001608	3.2	105	116
110	M342001609	3.2	127	130
160	M342001612	4.0	180	158

Application: Required to connect two length of pipe.

# **CLEANSING PIPE**





	PART NO.	WT.	Δ	н	L	C
SIZE (D)	M342002607	3.2	90	187	118	79
75 110	M342002609	3.2	127	258	143	107
160	M342002612	4.0	182	345	207	107

**Application**: Used in between a vertical line to facilitate cleaning.

### REDUCER





SIZE (Dxd)	PART NO.	WT.	A	H-1	L	C
90 x 75	M342001830	3.2	45	91	137	93
110 x 75	M342001829	3.2	58	90	151	92
110 x 90	M342001843	3.2	55	105	161	105
160 x 75	M342001831	4.0	68	127	186	117

**Application :** Required to reduce 110mm dia. pipe to 75 mm dia. pipe.

### **VENT COWL**





SIZE (D)	PART NO.	WT.	Н
50	M112002705	3.2	56
63	M112002706	3.2	67
75	M112002707	3.2	67
90	M112002708	3.2	80
110	M112002709	3.2	90

**Application:** Used as a cap on the top of the vertical line. Also helps in release of foul gases.

### 4",5",7" FLOOR TRAP





SIZE	PART NO.	D	d	A	L	Н
4"	M142003208	75	50	117	206	100
5"	M142003209	90 x 75	50	117	195	142
7"	M142003210	75	40	117	208	178
4" (Red)	M142003236	75 x 63	50	117	206	100

**Application :** For multiple draining i.e. Bathroom/ Washbasin/ Washing machine / Bathtub etc. Provided with 3 additional inlets that can be opened as an when required.

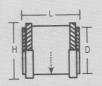
#### PLAIN FLOOR TRAP



SIZE	PART NO.	D	d	A	L	Н
4"	M142003208	75	63	117	155	101
5"	M142003209	75	63	117	155	140
HARD	OUR DESIGNATION OF THE PERSON			1.17	133	140

# REPAIR COUPLER





SIZE (D)	PART NO.	WT.	Н	L
75	M342001707	3.2	90	105
110	M342001709	3.2	127	130

**Application :** Required to repairing of pipe, having small cracks / holes / dents.

#### PIPE CLIP





SIZE (D)	PART NO.	WT.	Н	L
40	M112002804	3.2	75	76
50	M112002805	3.2	84	86
63	M112002806	3.2	98	103
75	M112002807	3.2	110	112
90	M112002808	3.2	122	140
110	M112002809	3.2	143	140
160	M112002812	4.0	210	180

**Application :** To fix / secure the pipeline to the wall or flat surface.

### **GULLY TRAP**





SIZE (D)	PART NO.	A	d1 x 3	d2 x 3	Н
160 x 110	M192014131	132	100	50	300

**Application:** used to remove surface water from paved pedestrian areas. Side and back boss inlets accept waste water from ground floor domestic applications and / or rainwater from roofs. Accepts waste or rainwater pipework from 32 mm up to 110 mm sizes

# **GULLY TRAP (SQUARE TYPE) WITH JALI**





SIZE (D)	PART NO.	WT.	A	н	
110	M142003409	3.2	139	220	200

# **SOCKET PLUG**



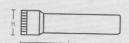


SIZE (D)	PART NO.	WT.	Н	L
75	M112002907	3.2	48	95
110	M112002909	3.2	60	130

Application: Used as a blind plug to terminate the pipeline.

# W.C. CONNECTOR (STRAIGHT)



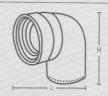


SIZE (D)	PART NO.	L	Н
110	F172006009	450	122

Application: To connect W.C. pans to soil pipe.

# W.C. CONNECTOR (BEND)





SIZE (D)	PART NO.	L	H
110	F172005909	192	197

Application: To provide appropriate adaption to W.C. pans.

### **MULTI FLOOR TRAP ADAPTOR (HEIGHT RISER)**



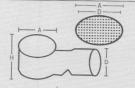


SIZE	PART NO.	WT.	A	D	d	L	Н
	M112003344						

**Application :** Required to raise the height of floor traps.

#### NAHANITRAP & JALI





SIZE (D)	PART NO.	Н	L	A
63	M142003106	67	215	120
75	M142003107	85	256	128
90	M142003108	91	260	128
110	M142003109	100	270	128
NAHANI TI	RAP (SINGLE PI	CE)		
63 (with Jali)	M142007006	67	215	120
3 (without Jali)	M142007106	67	215	120
JALI	PART NO.	SIZE (D)	WT.	А
	M142008509	110	3.4	119

**Application :** For draining waste from bathroom / wash basin out to the main line.

## W.C. CONNECTOR (RED)





SIZE (D)	PART NO.	WT.	A	С	L
125 x 110	M112003834	3.2	125	110	103

**Application:** 125 x 110 Reducer with W.C. ring can be joined to required length of pipe to take the line out.

## ECCENTRIC REDUCING BUSH





CITE (D)	DARTNO	WT	Н	-	
110 x 63	PART NO. M112003032	WT.	49	115	
110 x 75	M112003032	3.2	49	115	
110 x 90	M112003023	3.2	50	115	
160 x 110	M112003031	4.0	78	172	