





A SUPERIOR SOIL, WASTE AND RAIN WATER (SWR) DRAINAGE SYSTEM

PRODUCT CATALOGUE



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STTO INTRODUCE UPVC LEAD FREE PIPES IN INDIA STTO INTRODUCE Low Noise PP Drainage Pipes in India

STTO INTRODUCE FOAMED PVC DRAINAGE PIPES IN INDIA











ASTRAL, INDIA'S PROGRESSIVE BUILDING MATERIALS COMPANY

Established in 1996 with the aim to manufacture best-in-globe plastic piping systems, Astral Pipes fulfils emerging piping needs of millions of houses and adds extra mileage to India's developing real estate fraternity with the hallmark of unbeaten quality and innovative piping solutions. Keeping itself ahead of the technology curve, Astral has always been a front runner in the piping category by bringing innovation and getting rid of old, primitive and ineffective plumbing methods. Bringing CPVC in India, and pioneering in this technology, have set Astral apart and its highest quality enabled it to obtain NSF approval for its CPVC pipes and fittings. Astral went beyond the category codes by launching many industry firsts, like launching India's first lead-free uPVC pipes for plumbing as well as for stream water, just to name a few.

Astral Pipes offers the widest product range across this category when it comes to product applications. Astral Pipes is equipped with production facilities at Santej and Dholka in Gujarat, Hosur in Tamil Nadu, Ghiloth in Rajasthan, Sangli & Aurangabad in Maharashtra, Cuttack in Odisha and Sitarganj in Uttarakhand to manufacture plumbing systems, drainage systems, agriculture systems, fire sprinkler piping systems, industrial piping and electrical conduit pipes with all kinds of necessary fittings.

Astral Pipes' Infrastructure division offers a comprehensive product range including corrugated piping for drainage and cables, polyolefin cable channels, sewage treatment plants, plastic sheathing ducts, suction hoses, and sub-surface drainage systems. This range helps Astral to establish a strong foothold in infrastructure and agriculture sector in the constantly evolving business of piping.

In 2014, Astral forayed into the adhesives category by acquiring UK-based Seal It Services Ltd. and Kanpur based Resinova Chemie Ltd., which manufacture adhesives, sealants and construction chemicals. With five manufacturing facilities now in this business segment, Astral has strengthened its presence in the category and made rapid inroads.

In the year 2020, Astral has expanded its product portfolio and entered into the Water Tanks Segment. The water tank segment is an expanded domain of plumbing and water supply with a huge nationwide potential. Astral Pipes manufactures water tanks from its Santej, Aurangabad, Cuttack, Hosur & Ghiloth manufacturing facilities. A wide range of water storage tanks has helped Astral to become a versatile player in the industry.

Extending the product portfolio further, in the year 2022 Astral forayed into the categories of Faucets and Sanitaryware, followed by acquisition of Bangalore based Gem Paints to enter in the Paints category. This expansion will help Astral march firmly towards becoming a holistic building materials company.

ADHESIVES

EPOXY ADHESIVES & PUTTY SILICONE SEALANTS CONSTRUCTION CHEMICALS **PVA**

CYANOACRYLATE **SOLVENT CEMENTS**

TAPES POLYMERIC FILLING COMPOUND
ANAEROBIC ADHESIVES
INDUSTRIAL ADHESIVES

INSTANT HAND SANITIZER

SURFACE CLEANING PRODUCTS

PIPING

PLUMBING PIPES & FITTINGS

CPVC, PVC & PEX

SEWERAGE DRAINAGE PIPES & FITTINGS

AGRICULTURE PIPES & FITTINGS

INDUSTRIAL PIPES & FITTINGS

FIRE SPRINKLERS PIPES & FITTINGS

CONDUIT & CABLE PROTECTION

ANCILLARY PRODUCTS

URBAN INFRASTRUCTURE

WATER TANKS

PAINTS



DUCTING FAUCETS

SANITARYWARE



INNOVATION & RECOGNITIONS

- First to introduce CPVC piping system in India (1999)
- First to launch lead free uPVC piping system in India (2004)
- Corp Excel- National SME Excellence Award (2006)
- First to get NSF Certification for CPVC piping system in India (2007)
- First to launch lead-free uPVC column pipes in India (2012)
- Enterprising Entrepreneur of the year (2012-13)
- Business Standard Star SME of the year (2013)
- Inc. India Innovative 100 for Smart Innovation under category of 'Technology' (2013)
- India's Most Promising Brand Award (2014)
- Value Creator Award during the first ever Fortune India Next 500 (2015)
- India's Most Trusted Pipe Brand Award (2016, 2019, 2020 & 2022)
- ET Inspiring Business Leaders of India Award (2016)
- Fortune India 500 Company (2016)
- India's Most Desired Pipe Brand Award (2022)
- Consumer Validated Superbrands India (2017, 2019 & 2021-2022)

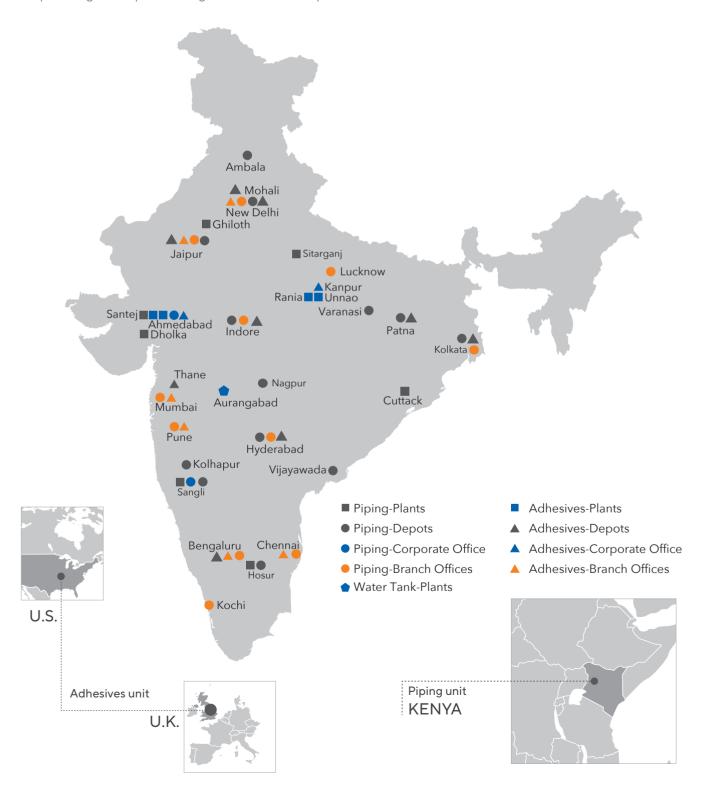






MARKETING NETWORK

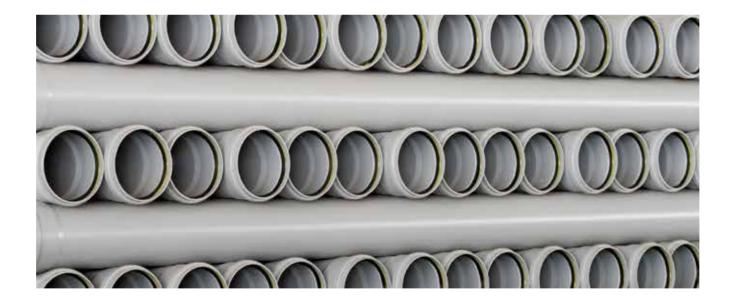
Astral has a marketing network of more than 800 distributors and 30,000 dealers spread all over India with branch offices at Mumbai, Pune, Delhi, Bengaluru, Chennai, Hyderabad, Jaipur, Lucknow and Kochi. Apart from that Astral has its own warehouses at Vijaywada, Hyderabad, Delhi, Kolhapur, Kolkata, Nagpur, Indore, Patna, Varanasi, Jaipur & Hosur to deliver the material as quick as possible. More than 400 techno marketing professionals and administrative personnel are on the board to coordinate with architects, plumbing contractors and plumbers to utilize the best plumbing techniques and to get the best from the products.



QUALITY APPROVALS& CERTIFICATIONS







Astral regularly tests the finished products by checking its resistance to impact and pressure as well as other ASTM or DIN tests. In addition, we regularly test pipes, randomly selected from the market place. Various testing methods like OD/ID (Dimension) checking, Flattening, Burst pressure, Drop Impact, Heat Reversion etc. are carried out at regular intervals to keep quality very high. In order to deliver consistent high quality pipes and fittings to end users, Astral has a Quality Assurance Program. This Quality Assurance Program intends quality levels to exceed the requirements of ASTM and other industrial standards. The program also includes regular visits of partners from USA to upgrade and to implement Quality Assurance Plan effectively.





Astral Drainmaster offers two separate joining systems: Push-fit and Selfit joining methods, where using Push-fit system, pipe and fittings are joined together by simple pushing the spigot into socket end. The spigot end is held firmly in the socket by reinforced pre-fitted rubber ring provided in the groove. Thus it ensures leak-proof joints which can withstand high pressure and it also prevent choking. 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.

Selfit system operates on pipes socketed on automatic socketed machines with self socket length. Such pipes are to be joined with solvent cements.

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.

ABOUTDRAINMASTER

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. Astral Drainmaster is manufactured using 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 used in 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 supply chain of of dealers, distributors and field staff of Astral Pipes ensures all-round support and supply.

AVAILABLE SIZE

7.5 cm, 9.0 cm, 11.0 cm & 16.0 cm









KEYPROPERTIES



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 provides benefits like easy transportation, installation and long service life.



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 substances and gives longer life with trouble free service.



The inert nature of Astral Drainmaster uPVC drainage system provides 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.



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.



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



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

KEYPROPERTIES



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



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



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.



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



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.

PIPES &FITTINGS

RINGFIT 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: 7.5 cm, 9.0 cm, 11.0 cm, 16.0 cm



SELFIT PIPES: (Type A & Type B): Selfit pipes are socketed on automatic socketing machine with self socket length (without groove). Such pipes are to be joined with solvent cement. One end of the pipe is plain and the other is self socketed on sophisticated automatic machines for high degree of accurate diameters. The pipes when joined using solvent cement, form a permanent water tight joint.

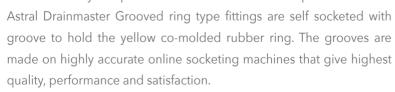
Sizes: 7.5 cm, 9.0 cm, 11.0 cm, 16.0 cm



	1INAL 1ETER	MEAN O DIAMETE		TYPE / WALL THICKN		TYPE WALL THICK	
(cm)	(mm)	Min.	Max	Min.	Max	Min.	Max
7.5	75	75.0	75.3	1.8	2.2	3.2	3.8
9.0	90	90.0	90.3	1.9	2.3	3.2	3.8
11.0	110	110.0	110.4	2.2	2.7	3.2	3.8
16.0	160	160.0	160.5	3.2	3.8	4.0	4.6



GROOVED RING TYPE: Astral Drainmaster ISI marked fittings are available in grooved ring type in full range starting from 7.5 cm to 16.0 cm and are fully compatible with Astral Drainmaster Pipes.



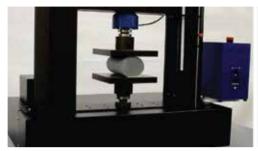




PASTING TYPE: Pasting type fittings are self socketed on highly automatic machines. These fittings are to be joined with solvent cement.

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 DrainmasterSystem is highly reliable and efficient in working.







TESTING CONDUCTED			
☑ Raw Material	☑ Impact Strength	☑ Tensile Strength	☑ Resistance to Dichloromethane
☑ Dimensional & Visual Appearance	☑ Stress Relief	☑ Reversion	at Specific Temp.
☑ Axial Shrinkage	☑ Exposure to Sunlight	$\ensuremath{\square}$ Vicat Softening Temp.	☑ Access Opening
☑ Titanium Dioxide Content	☑ Resistance to H ₂ SO ₄	$\ensuremath{\square}$ Water tightness of Joint	

THE ACCEPTANCE CRITERIA FOR TEST RESULTS OBTAINED ARE AS PER WIDELY ACCEPTED INTERNATIONAL AND NATIONAL STANDARDS.

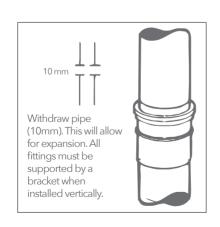
UNIQUE IDENTIFICATION:

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

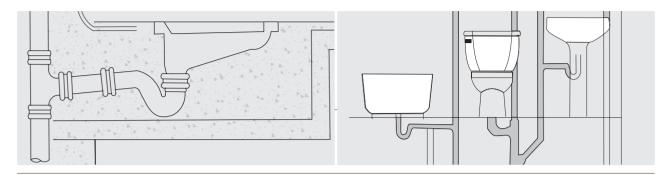


THERMAL EXPANSION AND CONTRACTION:

Astral Drainmaster piping system will thermally expand & contract like any other thermoplastic material. The thermal expansion & contraction depends on the co-efficient of thermal expansion (5.4 x 10⁻⁵ mm / mm /°C for PVC), length of piping and temperature difference encountered by the piping. Normally for drainage & sewerage system temperature difference of atmosphere will affect 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.



uPVC TRAPS



Traps are very important parts of drainage and sewage system and are most critical to ensure efficient working of the system. Traps prevent foul gases or air to enter back in passage and at a same time allow waste to flow through them.

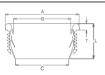
Conventional Cast Iron or cement traps are suspectible to bacterial growth due to its structure and material as they are not able to withstand the attack of salts, acidic or alkaline nature of effluent. This will lead to cracks in masonry and ultimately in inefficient working and unsatisfactory results of the system.

Astral Drainmaster uPVC Traps are immune to attack of bacteria and have very good resistance to chemicals which make them most suitable for drainage system. These traps have very smooth inside surface which ensures efficient flushing of system.

Traps are available in 'P', 'Q' & 'S' depending on the outlet angle required.

LIP RING FOR P/Q/S TRAP





SIZE (D)	Α	В	С	J	L
125	132	105	96	10	53

RUBBER RING FOR WC CONNECTOR & BEND

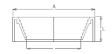




SIZE (D)	Α	В	L
110	120	85	30

W.C. CONNECTOR RING FOR P/Q/S TRAP





SIZE (D)	Α	В	L
110	126	85	38
125	412	95	40

Application: Where the outlet is at 45° to inlet.

PRODUCT



RANGE

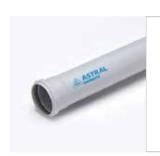
DRAINMASTER - RINGFITPIPES & FITTINGS





PIPES TYPE - A

Size (cm)	Length Socket	Product Code	Std. Pkg. (Nos.)
7.5	3 MTR S/S	M341110307	01
7.5	6 MTR S/S	M341110607	01
7.5	3 MTR D/S	M351110307	01
7.5	6 MTR D/S	M351110607	01
7.5	2 FT D/S	M351112207	01
7.5	3 FT D/S	M351113307	01
7.5	4 FT D/S	M351114407	01
7.5	6 FT D/S	M351116607	01
7.5	12 FT D/S	M351111207#	01
7.5	2 FT S/S	M341112207	01
7.5	3 FT S/S	M341113307	01
7.5	4 FT S/S	M341114407	01
7.5	6 FT S/S	M341116607	01
7.5	12 FT S/S	M341111207	01



PIPES TYPE - A

Size (cm)	Length Socket	Product Code	Std. Pkg. (Nos.)
9.0	3 MTR S/S	M341110308	01
9.0	6 MTR S/S	M341110608	01
9.0	3 MTR D/S	M351110308	01
9.0	6 MTR D/S	M351110608	01
9.0	2 FT D/S	M351112208	01
9.0	3 FT D/S	M351113308	01
9.0	4 FT D/S	M351114408	01
9.0	6 FT D/S	M351116608	01
9.0	2 FT S/S	M341112208	01
9.0	3 FT S/S	M341113308	01
9.0	4 FT S/S	M341114408	01
9.0	6 FT S/S	M341116608	01



PIPES TYPE - A

Length Socket	Product Code	Std. Pkg. (Nos.)
3 MTR S/S	M341110309	01
6 MTR S/S	M341110609	01
3 MTR D/S	M351110309	01
6 MTR D/S	M351110609	01
2 FT D/S	M351112209	01
3 FT D/S	M351113309	01
4 FT D/S	M351114409	01
6 FT D/S	M351116609	01
12 FT D/S	M351111209#	01
2 FT S/S	M341112209	01
3 FT S/S	M341113309	01
4 FT S/S	M341114409	01
6 FT S/S	M341116609	01
12 FT S/S	M341111209	01
	Socket 3 MTR S/S 6 MTR S/S 3 MTR D/S 6 MTR D/S 2 FT D/S 3 FT D/S 4 FT D/S 6 FT D/S 2 FT S/S 3 FT S/S 4 FT S/S 6 FT S/S	Socket 3 MTR S/S M341110309 6 MTR S/S M341110609 3 MTR D/S M351110309 6 MTR D/S M351110609 2 FT D/S M351112209 3 FT D/S M351113309 4 FT D/S M351114409 6 FT D/S M351111209# 2 FT S/S M341112209 3 FT S/S M341113309 4 FT S/S M341114409 6 FT S/S M341116609



PIPES TYPE - A

Size (cm)	Length Socket	Product Code	Std. Pkg. (Nos.)
16.0	3 MTR S/S	M341110312	01
16.0	6 MTR S/S	M341110612	01
16.0	3 MTR D/S	M351110312	01
16.0	6 MTR D/S	M351110612	01
16.0	2 FT D/S	M351112212	01
16.0	3 FT D/S	M351113312	01
16.0	4 FT D/S	M351114412	01
16.0	6 FT D/S	M351116612	01
16.0	2 FT S/S	M341112212	01
16.0	3 FT S/S	M341113312	01
16.0	4 FT S/S	M341114412	01
16.0	6 FT S/S	M341116612	01

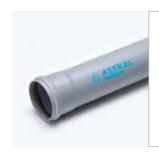
DRAINMASTER - RINGFIT

PIPES & FITTINGS



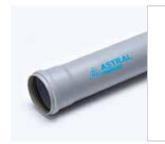
PIPES TYPE - B

Size (cm)	Length Socket	Product Code	Std. Pkg. (Nos.)
7.5	3 MTR S/S	M341120307	01
7.5	6 MTR S/S	M341120607	01
7.5	3 MTR D/S	M351120307	01
7.5	6 MTR D/S	M351120607	01
7.5	2 FT D/S	M351122207	01
7.5	3 FT D/S	M351123307	01
7.5	4 FT D/S	M351124407	01
7.5	6 FT D/S	M351126607	01
7.5	12 FT D/S	M351121207#	01
7.5	2 FT S/S	M341122207	01
7.5	3 FT S/S	M341123307	01
7.5	4 FT S/S	M341124407	01
7.5	6 FT S/S	M341126607	01
7.5	12 FT S/S	M341121207	01



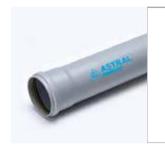
PIPES TYPE - B

Size (cm)	Length Socket	Product Code	Std. Pkg. (Nos.)
9.0	3 MTR S/S	M341120308	01
9.0	6 MTR S/S	M341120608	01
9.0	3 MTR D/S	M351120308	01
9.0	6 MTR D/S	M351120608	01
9.0	2 FT D/S	M351122208	01
9.0	3 FT D/S	M351123308	01
9.0	4 FT D/S	M351124408	01
9.0	6 FT D/S	M351126608	01
9.0	2 FT S/S	M341122208	01
9.0	3 FT S/S	M341123308	01
9.0	4 FT S/S	M341124408	01
9.0	6 FT S/S	M341126608	01



PIPES TYPE - B

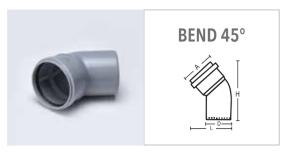
Size (cm)	Length Socket	Product Code	Std. Pkg. (Nos.)
11.0	3 MTR S/S	M341120309	01
11.0	6 MTR S/S	M341120609	01
11.0	3 MTR D/S	M351120309	01
11.0	6 MTR D/S	M351120609	01
11.0	2 FT D/S	M351122209	01
11.0	3 FT D/S	M351123309	01
11.0	4 FT D/S	M351124409	01
11.0	6 FT D/S	M351126609	01
11.0	12 FT D/S	M351121209#	01
11.0	2 FT S/S	M341122209	01
11.0	3 FT S/S	M341123309	01
11.0	4 FT S/S	M341124409	01
11.0	6 FT S/S	M341126609	01
11.0	12 FT S/S	M341121209	01



PIPES TYPE - B

Size (cm)	Length Socket	Product Code	Std. Pkg. (Nos.)
16.0	3 MTR S/S	M341120312	01
16.0	6 MTR S/S	M341120612	01
16.0	3 MTR D/S	M351120312	01
16.0	6 MTR D/S	M351120612	01
16.0	2 FT D/S	M351122212	01
16.0	3 FT D/S	M351123312	01
16.0	4 FT D/S	M351124412	01
16.0	6 FT D/S	M351126612	01
16.0	2 FT S/S	M341122212	01
16.0	3 FT S/S	M341123312	01
16.0	4 FT S/S	M341124412	01
16.0	6 FT S/S	M341126612	01





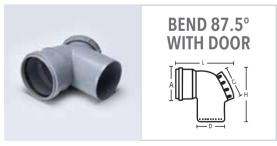
Size(D) (cm)	Product Code	A (mm)	H (mm)	L (mm)	Std. Pkg. (Nos.)
7.5	M342001107	90	153	120	28
9.0	M342001108	105	189	140	33
11.0	M342001109	127	207	168	18
16.0	M342001112	182	260	233	06

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



Size(D) (cm)	Product Code	A (mm)	H (mm)	L (mm)	Std. Pkg. (Nos.)
7.5	M342001207	90	146	134	40
9.0	M342001208	105	174	173	40
11.0	M342001209	127	198	175	24
16.0	M342001212	182	276	267	08

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



Size(D) (cm)	Product Code				C (mm)	•
7.5	M342001307	90	146	155	79	32
9.0	M342001308	105	147	191	92	32
11.0	M342001309	127	198	210	107	18
16.0	M342001312	182	276	280	107	06

Application: Same as Bend 87.5° with option of door for cleaning purpose.



Size (D) (cm)	Product Code			L (mm)		9
7.5	M342001407	90	143	135	79	28
11.0	M342001409	127	196	185	107	26
	ion: Same as Ber	nd 87.5	5° with	option	of L-H	H door for



Size(D (cm)) Product Code			L (mm)		Std. Pkg. (Nos.)
7.5	M342001507	90	143	135	79	28
11.0	M342001509	127	196	185	107	26
1 1	ation: Same as Be	nd 87.	5° with	optio	n of R-I	H door for

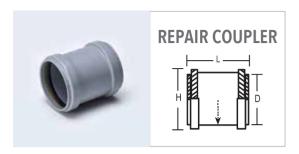


Size(D) (cm)	Product Code	H (mm)	L (mm)	Std. Pkg. (Nos.)
7.5	M342001607	90	105	42
9.0	M342001608	105	116	40
11.0	M342001609	127	130	30
16.0	M342001612	180	158	14

Application: Require to connect two length of pipe.

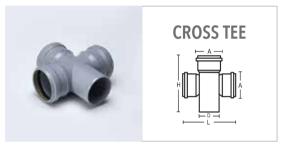
DRAINMASTER - RINGFIT

PIPES & FITTINGS



Size(D) (cm)	Product Code	H (mm)	L (mm)	Std. Pkg. (Nos.)
7.5	M342001707	90	105	42
11.0	M342001709	127	130	30

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



Size(D) (cm)	Product Code		H (mm)	L (mm)	Std. Pkg. (Nos.)
7.5	M342000707	90	187	185	30
11.0	M342000709	127	257	255	10

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



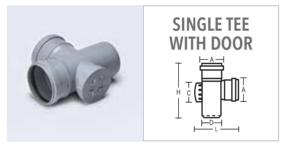
Size(D) (cm)	Product Code					Std. Pkg. (Nos.)
7.5	M342000807	90	187	185	79	19
11.0	M342000809	127	257	255	107	07

Application: Same as cross Tee with option of door for cleaning puarpose.



Size(D) (cm)	Product Code	A (mm)	H (mm)	L (mm)	Std. Pkg. (Nos.)
7.5	M342000107	90	186	135	40
9.0	M342000108	105	233	170	21
11.0	M342000109	127	258	193	14
16.0	M342000112	182	362	270	04

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



Size(D) (cm)	Product Code			L (mm)		Std. Pkg. (Nos.)
7.5	M342000207	90	186	176	176	33
9.0	M342000208	105	233	193	193	30
11.0	M342000209	127	258	224	224	13
16.0	M342000212	182	362	298	298	04

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



Size(D) (cm)	Product Code				C (mm)	_
7.5	M342000507	90	186	137	79	30
11.0	M342000509	127	258	185	107	12

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





Size(D) (cm)	Product Code					Std. Pkg. (Nos.)
7.5	M342000607	90	186	137	79	30
11.0	M342000609	127	258	185	107	11

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



Size(Dxd) (cm)	Product Code				Std. Pkg. (Nos.)
9.0x7.5	M342000330	105x90	232	152	25
11.0x7.5	M342000329	127x90	260	175	18
16.0x7.5	M342000335	182x90	343	229	07
16.0x11.0	M342000331	182x127	343	235	06

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



Size(Dxd) (cm)	Product Code	A (mm)				•
9.0x7.5	M342000430	105x90	232	152	79	23
11.0x7.5	M342000429	127x90	260	175	107	14
16.0x7.5	M342000435	182x90	343	229	107	06
16.0x11.0)M342000431	182x127	343	235	107	06
Application	on: Same as Red	ucing Tee	with	optio	on of	door for

cleaning purpose.

Size(D) Product Code A H L Std. Pkg

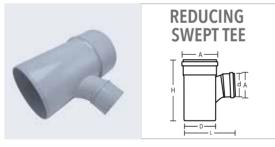
Size(D) (cm)	Product Code	A (mm)	H (mm)	L (mm)	Std. Pkg. (Nos.)
7.5	M342000907	90	204	155	35
11.0	M342000909	127	265	205	15

Application: Same as plain Tee.



Size(D) (cm)	Product Code					Std. Pkg. (Nos.)
7.5	M342001007	90	204	175	79	30
11.0	M342001009	127	265	230	107	12

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



Size (cm Dxd)	Product Code	A (mm)			Std. Pkg. (Nos.)
16.0 X 7.5	M342000935	182x90	284	255	07
16.0 X 11.0	M342000931	182×127	308	270	05

Application: Same as plain Tee.

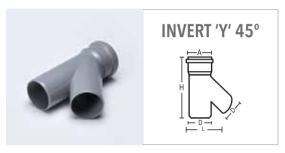
DRAINMASTER - RINGFIT

PIPES & FITTINGS



Size (cm DXd)	Product Code	A (mm)	H (mm)	L (mm)	C (mm)	Std. Pkg. (Nos.)
16.0 X 7.5	M342001035	182X90	284	275	107	04
16.0 X 11.0	M342001031	182X127	308	290	107	04

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



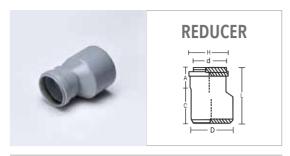
Size(D)	Product Code	A	H	L	Std. Pkg.
(cm)		(mm)	(mm)	(mm)	(Nos.)
7.5	M342002507	90	221	180	28

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



Size(D) (cm)	Product Code	A (mm)	H (mm)	L (mm)	Std. Pkg. (Nos.)
7.5	M342001907	90	217	180	32
9.0	M342001908	105	258	207	22
11.0	M342001909	127	294	266	12
16.0	M342001912	182	412	347	04

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



Size(Dxd) (cm)	Product Code				C (mm)	•
9.0x7.5	M342001830	45	91	137	93	40
11.0x7.5	M342001829	58	90	151	92	44
11.0x9.0	M342001843	55	105	161	105	24
16.0x7.5	M342001835	48	90	177	129	14
16.0x11.0	M342001831	57	127	186	129	12

Application: Require to reduce 110mm dia. pipe to 75 mm dia. pipe.



Size(Dxd) (cmxcm)	Product Code				Std. Pkg. (Nos.)
11.0x7.5	M342002129	127x90	250	215	18
16.0x7.5	M342002135	182x90	282	284	07
16.0x11.0	M342002131	182x127	332	310	05

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



Size(D) (cm)	Product Code					Std. Pkg. (Nos.)
7.5	M342002407	90	215	261	79	18
11.0	M342002409	127	295	375	107	10

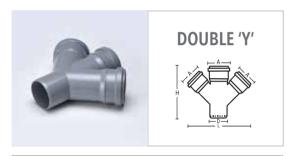
Application: Same as Double 'Y' with option of door for cleaning purpose.





Size(D) (cm)	Product Code				C (mm)	•
7.5	M342002007	90	217	200	79	29
9.0	M342002008	105	258	223	92	18
11.0	M342002009	127	294	273	107	09
16.0	M342002012	182	412	370	107	04

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



Size(D (cm))) Product Code	A (mm)	H (mm)	L (mm)	Std. Pkg. (Nos.)
7.5	M342002307	90	215	261	24
11.0	M342002309	127	295	375	08

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



Size(Dxd) (cmxcm)	Product Code	Axa (mmxmm)				•
11.0x7.5	M342002229	127x90	250	242	107	15
16.0x7.5	M342002235	182x90	282	284	304	05
16.0x11.0	M342002231	182x127	332	310	330	05

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



Size(D) (cm)	Product Code				C (mm)	
7.5	M342002607	90	187	118	79	30
11.0	M342002609	127	258	143	107	18
16.0	M342002612	182	345	207	107	07

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



Qty. (grams)	Product Code	Std. Pkg. (Nos.)
100	S TINS-100	100
250	S TINS-250	40
500	S TINS-500	20

Application: Require to join ringfit socket.

DRAINMASTER - SELFIT

PIPES & FITTINGS



PIPES TYPE - A

Size (cm)	Length & Socket Type	Product Code	Std. Pkg. (Nos.)
7.5	3 MTR S/S	M411110307	01
7.5	6 MTR S/S	M411110607	01
7.5	3 MTR D/S	M421110307	01
7.5	6 MTR D/S	M421110607	01
7.5	2 FT D/S	M421112207	01
7.5	3 FT D/S	M421113307	01
7.5	4 FT D/S	M421114407	01
7.5	6 FT D/S	M421116607	01
7.5	12 FT D/S	M421111207#	01
7.5	2 FT S/S	M411112207	01
7.5	3 FT S/S	M411113307	01
7.5	4 FT S/S	M411114407	01
7.5	6 FT S/S	M411116607	01
7.5	12 FT S/S	M411111207#	01



PIPES TYPE - A

Size (cm)	Length & Socket Type	Product Code	Std. Pkg. (Nos.)
11.0	3 MTR S/S	M411110309	01
11.0	6 MTR S/S	M411110609	01
11.0	3 MTR D/S	M421110309	01
11.0	6 MTR D/S	M421110609	01
11.0	2 FT D/S	M421112209	01
11.0	3 FT D/S	M421113309	01
11.0	4 FT D/S	M421114409	01
11.0	6 FT D/S	M421116609	01
11.0	12 FT D/S	M421111209#	01
11.0	2 FT S/S	M411112209	01
11.0	3 FT S/S	M411113309	01
11.0	4 FT S/S	M411114409	01
11.0	6 FT S/S	M411116609	01
11.0	12 FT S/S	M411111209	01



PIPES TYPE - A

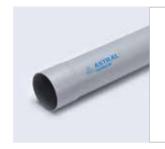
Size (cm)	Length & Socket Type	Product Code	Std. Pkg. (Nos.)
9.0	3 MTR S/S	M411110308	01
9.0	6 MTR S/S	M411110608	01
9.0	3 MTR D/S	M421110308	01
9.0	6 MTR D/S	M421110608	01
9.0	2 FT D/S	M421112208	01
9.0	3 FT D/S	M421113308	01
9.0	4 FT D/S	M421114408	01
9.0	6 FT D/S	M421116608	01
9.0	2 FT S/S	M411112208	01
9.0	3 FT S/S	M411113308	01
9.0	4 FT S/S	M411114408	01
9.0	6 FT S/S	M411116608	01



PIPES TYPE - A

Size (cm)	Length & Socket Type	Product Code	Std. Pkg. (Nos.)
16.0	3 MTR S/S	M411110312	01
16.0	6 MTR S/S	M411110612	01
16.0	3 MTR D/S	M421110312	01
16.0	6 MTR D/S	M421110612	01
16.0	2 FT D/S	M421112212	01
16.0	3 FT D/S	M421113312	01
16.0	4 FT D/S	M421114412	01
16.0	6 FT D/S	M421116612	01
16.0	2 FT S/S	M411112212	01
16.0	3 FT S/S	M411113312	01
16.0	4 FT S/S	M411114412	01
16.0	6 FT S/S	M411116612	01





PIPES TYPE - B

Length & Socket Type	Product Code	Std. Pkg. (Nos.)
3 MTR S/S	M411120307	01
6 MTR S/S	M411120607	01
3 MTR D/S	M421120307	01
6 MTR D/S	M421120607	01
2 FT D/S	M421122207	01
3 FT D/S	M421123307	01
4 FT D/S	M421124407	01
6 FT D/S	M421126607	01
12 FT D/S	M421121207#	01
2 FT S/S	M411122207	01
3 FT S/S	M411123307	01
4 FT S/S	M411124407	01
6 FT S/S	M411126607	01
12 FT S/S	M411121207#	01
	Socket Type 3 MTR S/S 6 MTR S/S 3 MTR D/S 6 MTR D/S 6 MTR D/S 2 FT D/S 3 FT D/S 4 FT D/S 12 FT D/S 2 FT S/S 3 FT S/S 4 FT S/S 6 FT S/S	Socket Type 3 MTR S/S M411120307 6 MTR S/S M411120607 3 MTR D/S M421120307 6 MTR D/S M421120607 2 FT D/S M421122207 3 FT D/S M421123307 4 FT D/S M421124407 6 FT D/S M421121207* 2 FT S/S M411122207 3 FT S/S M411123307 4 FT S/S M411124407 6 FT S/S M411124407



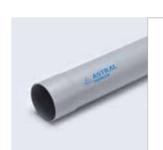
PIPES TYPE - B

Size (cm)	Length & Socket Type	Product Code	Std. Pkg (Nos.)
11.0	3 MTR S/S	M411120309	01
11.0	6 MTR S/S	M411120609	01
11.0	3 MTR D/S	M421120309	01
11.0	6 MTR D/S	M421120609	01
11.0	2 FT D/S	M421122209	01
11.0	3 FT D/S	M421123309	01
11.0	4 FT D/S	M421124409	01
11.0	6 FT D/S	M421126609	01
11.0	12 FT D/S	M421121209#	01
11.0	2 FT S/S	M411122209	01
11.0	3 FT S/S	M411123309	01
11.0	4 FT S/S	M411124409	01
11.0	6 FT S/S	M411126609	01
11.0	12 FT S/S	M411121209	01



PIPES TYPE - B

Size (cm)	Length & Socket Type	Product Code	Std. Pkg. (Nos.)
9.0	3 MTR S/S	M411120308	01
9.0	6 MTR S/S	M411120608	01
9.0	3 MTR D/S	M421120308	01
9.0	6 MTR D/S	M421120608	01
9.0	2 FT D/S	M421122208	01
9.0	3 FT D/S	M421123308	01
9.0	4 FT D/S	M421124408	01
9.0	6 FT D/S	M421126608	01
9.0	2 FT S/S	M411122208	01
9.0	3 FT S/S	M411123308	01
9.0	4 FT S/S	M411124408	01
9.0	6 FT S/S	M411126608	01



PIPES TYPE - B

Size (cm)	Length & Socket Type	Product Code	Std. Pkg. (Nos.)
16.0	3 MTR S/S	M411120312	01
16.0	6 MTR S/S	M411120612	01
16.0	3 MTR D/S	M421120312	01
16.0	6 MTR D/S	M421120612	01
16.0	2 FT D/S	M421122212	01
16.0	3 FT D/S	M421123312	01
16.0	4 FT D/S	M421124412	01
16.0	6 FT D/S	M421126612	01
16.0	2 FT S/S	M411122212	01
16.0	3 FT S/S	M411123312	01
16.0	4 FT S/S	M411124412	01
16.0	6 FT S/S	M411126612	01

DRAINMASTER - SELFIT

PIPES & FITTINGS



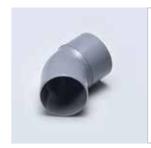
Size (cm)	Length & Socket Type	Product Code	Std. Pkg. (Nos.)
20.0	3 MTR S/S	M411120314	01
20.0	6 MTR S/S	M411120614	01
20.0	3 MTR D/S	M421120314#	01
20.0	6 MTR D/S	M421120614#	01

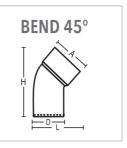


Size (cm)	Length & Socket Type	Product Code	Std. Pkg. (Nos.)
25.0	3 MTR S/S	M411120316	01
25.0	6 MTR S/S	M411120616	01
25.0	3 MTR D/S	M421120316#	01
25.0	6 MTR D/S	M421120616#	01



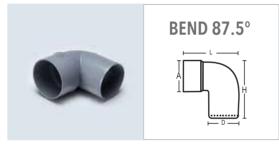
Size (cm)	Length & Socket Type	Product Code	Std. Pkg. (Nos.)
31.5	3 MTR S/S	M411120318	01
31.5	6 MTR S/S	M411120618	01
31.5	3 MTR D/S	M421120318#	01
31.5	6 MTR D/S	M421120618#	01





Size(D) (cm)	Product Code	A (mm)	H (mm)	L (mm)	Std. Pkg. (Nos.)
7.5	M252001107	82	157	123	30
9.0	M252001108	97	192	143	18
11.0	M252001109	117	212	168	27
16.0	M252001112	168	265	228	10

Application: Require as a shoe for drainage line & also for direction change at an angle of $45^\circ\!.$



Size(D) (cm)	Product Code	A (mm)	H (mm)	L (mm)	Std. Pkg. (Nos.)
7.5	M252001207	82	142	140	38
9.0	M252001208	97	171	174	38
11.0	M252001209	117	195	188	24
16.0	M252001212	168	207	271	08

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



Size(D) (cm)	Product Code				C (mm)	•
7.5	M252001307	82	142	168	79	20
9.0	M252001308	97	171	194	92	32
11.0	M252001309	117	195	271	107	18
16.0	M252001312	168	207	282	107	07

Application: Same as Bend 87.5° with option of door for cleaning purpose.





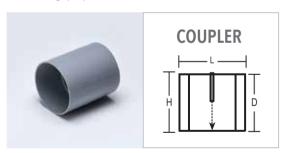
Size(D) (cm)	Product Code				C (mm)	9
7.5	M252001407	82	137	139	79	24
11.0	M252001409	117	192	195	107	16

Application: Same as Bend 87.5° with option of L-H door for cleaning purpose.



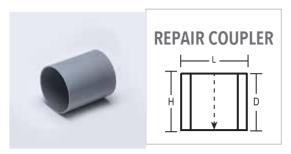
Size(D) (cm)	Product Code				C (mm)	9
7.5	M252001507	82	137	139	79	24
11.0	M252001509	117	192	195	107	16

Application: Same as Bend 87.5° with option of R-H door for cleaning purpose.



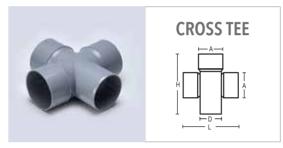
Size(D) (cm)	Product Code	H (mm)	L (mm)	Std. Pkg. (Nos.)
7.5	M252001607	82	113	43
9.0	M252001608	97	119	27
11.0	M252001609	117	137	42
16.0	M252001612	168	165	14

Application: Require to connect two length of pipe.



Size(D) (cm)	Product Code	H (mm)	L (mm)	Std. Pkg. (Nos.)
7.5	M252001707	82	113	43
11.0	M252001709	117	137	42

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



Size(D) (cm)	Product Code	A (mm)	H (mm)	L (mm)	Std. Pkg. (Nos.)
7.5	M252000707	82	190	206	32
11.0	M252000709	117	262	277	09

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

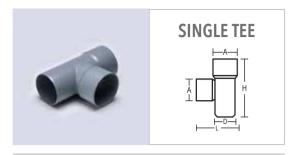


Size(D) (cm)	Product Code				C (mm)	9
7.5	M252000807	82	190	206	79	24
11.0	M252000809	117	262	277	107	08

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

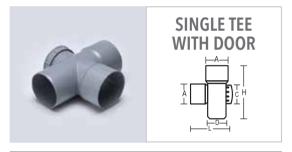
DRAINMASTER - SELFIT

PIPES & FITTINGS



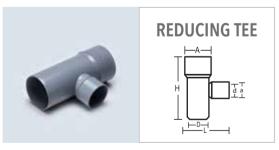
Size(D) (cm)	Product Code	A (mm)	H (mm)	L (mm)	Std. Pkg. (Nos.)
7.5	M252000107	82	190	140	41
9.0	M252000108	97	236	165	26
11.0	M252000109	117	264	195	15
16.0	M252000112	168	368	285	04

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



Size(D) (cm)	Product Code				C (mm)	
7.5	M252000207	82	190	172	79	32
9.0	M252000208	97	236	198	92	20
11.0	M252000209	117	264	233	107	12
16.0	M252000212	168	368	318	107	04

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



Size(Dxd) (cmxcm)	Product Code	Axa (mmxmm)			Std. Pkg. (Nos.)
9.0x7.5	M252000330	97x82	236	157	28
11.0x7.5	M252000329	117x82	265	179	19
16.0x7.5	M252000335	168x82	350	233	07
16.0x11.0	M252000331	168x172	350	240	06
Application	n: Require to cor	nect brand	ch line	at 87	7.5° / 92.5°.



		()	(111111)	(Nos.)
97x82	236	177	79	24
117x82	265	211	107	14
168x82	350	270	107	06
168x117	350	277	107	05
	117x82 168x82 168x117	117x82 265 168x82 350 168x117 350	117x82 265 211 168x82 350 270 168x117 350 277	97x82 236 177 79 117x82 265 211 107 168x82 350 270 107 168x117 350 277 107

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



Size(D) (cm)	Product Code			L (mm)		Std. Pkg. (Nos.)
7.5	M252000507	82	190	140	79	31
11.0	M252000509	117	261	193	107	11
	tion: Same as pla g purpose.	ain Te	e with	optior	n of L-I	H door for



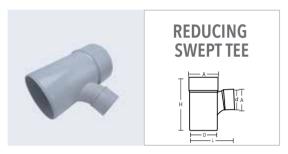
Size(D) (cm)	Product Code				C (mm)	9
7.5	M252000607	82	190	140	79	31
11.0	M252000609	117	261	193	107	11
	tion: Same as pl g purpose.	ain Te	e with	optio	n of R-	H door for





Size(D) (cm)	Product Code	A (mm)	H (mm)	L (mm)	Std. Pkg. (Nos.)
7.5	M252000907	82	208	160	40
11.0	M252000909	117	273	212	15

Application: Same as plain Tee.



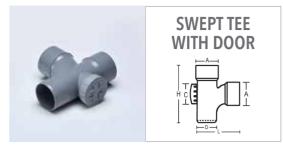
Size (Dxd) (cmxcm)	Product Code				Std. Pkg. (Nos.)
16.0 X 7.5	M252000935	182x90	289	254	07
16.0 X 11.0	M252000931	182x127	313	269	05

Application: Same as plain Tee.



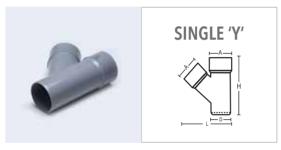
Size (Dxd) Product Code	Α	Н	L	С	Std. Pkg.
(cmxcm)		(mm)	(mm)	(mm)	(mm)	(Nos.)
16.0 x 7.5	M252001035	182x90	289	280	107	04
16.0 x 11.0	M252001031	182x127	313	294	107	04

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



Size(D) (cm)	Product Code				C (mm)	
7.5	M252001007	82	208	180	79	30
11.0	M252001009	117	273	236	107	12
16.0	M252001012	168	372	313	107	04

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



Size(D) (cm)	Product Code	A (mm)	H (mm)	L (mm)	Std. Pkg. (Nos.)
4.0	M252001904	47	117	95	64
5.0	M252001905	56	146	119	32
6.3	M252001906	69	177	144	24
7.5	M252001907	82	220	175	34
9.0	M252001908	97	260	207	22
11.0	M252001909	117	298	253	12
16.0	M252001912	168	417	348	04

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

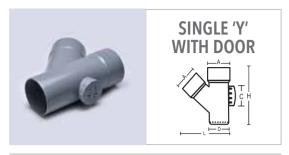


Size(D)	Product Code	A	H	L	Std. Pkg.
(cm)		(mm)	(mm)	(mm)	(Nos.)
7.5	M252002507	82	226	175	35

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

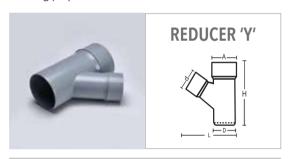
DRAINMASTER - SELFIT

PIPES & FITTINGS



Size(D) (cm)	Product Code	A (mm)	H (mm)	L (mm)	C (mm)	Std. Pkg. (Nos.)
5.0	M252002005	56	146	142	54	36
6.3	M252002006	69	177	179	64	20
7.5	M252002007	82	220	202	79	31
9.0	M252002008	97	260	225	92	18
11.0	M252002009	117	298	290	107	09
16.0	M252002012	168	417	382	107	04

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



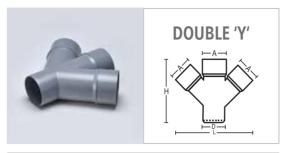
Size(Dxd) (cmxcm)	Product Code	A (mm)			Std. Pkg. (Nos.)
11.0x5.0	M252002144	110x57	253	196	18
11.0x6.3	M252002132	117x70	253	196	18
11.0x7.5	M252002129	117x82	253	210	17
16.0x7.5	M252002135	162x82	288	286	08
16.0x11.0	M252002131	168x117	337	312	05

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



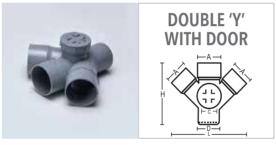
Size(Dxd) (cmxcm)	Product Code					Std. Pkg. (Nos.)
11.0x5.0	M252002244	117x57	253	224	107	Shrt. Intr.
11.0x6.3	M252002232	117x70	253	234	107	16
11.0x7.5	M252002229	117x82	253	247	107	14
16.0x7.5	M252002235	162x82	288	286	107	06
16.0x11.0	M252002231	168x117	337	312	107	05

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



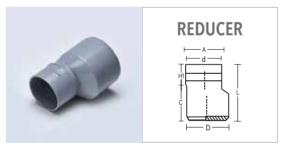
Size(D) (cm)	Product Code	A (mm)	H (mm)	L (mm)	Std. Pkg. (Nos.)
7.5	M252002307	82	220	268	24
11.0	M252002309	117	300	390	06

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



Size(D) (cm)	Product Code				C (mm)	9
7.5	M252002407	82	220	268	79	18
11.0	M252002409	117	300	390	107	06

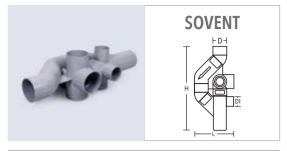
Application: Same as Double 'Y' with option of door for cleaning purpose.



Size(Dxd) (cmxcm)	Product Code				C (mm)	
9.0x7.5	M252001930	82	45	137	93	36
11.0x7.5	M252001929	82	61	153	92	24
11.0x9.0	M252001943	95	58	163	105	24
16.0x7.5	M252001935	90	82	180	90	08
16.0x11.0	M252001931	118	73	190	117	12

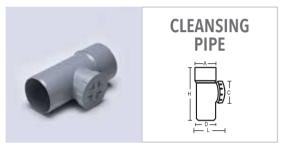
Application: Require to reduce 110mm dia. pipe to 75 mm dia. pipe.





	Product Code			L		Std. Pkg.
(cm)		(mm)	(mm)	(mm)	(mm)	(Nos.)
11.0	M252003509	117	83	335	727	3

Application: Require for connecting multiple toilets in less space.

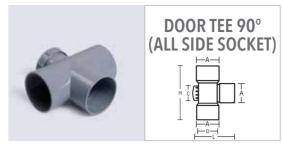


Size(D) (cm)	Product Code		H (mm)			•
7.5	M252002607	82	190	112	79	30
11.0	M252002609	117	263	157	107	18
16.0	M252002612	168	350	200	107	07



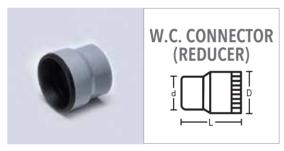
Size (D) (cm)	Product Code	A (mm)	H (mm)	L (mm)	Std. Pkg. (Nos.)
5.0	M2520010605#	56	118	87	01
6.3	M2520010606#	69	144	107	50
7.5	M2520010607#	81	166	123	40
9.0	M2520010608#	96	195	145	32
11.0	M2520010609#	116	226	171	18
14.0	M2520010611	147	280	213	08
16.0	M2520010612	167	314	240	05

Application: Require to connect branch soil / waste line to main line.



Size(D) (cm)	Product Code	A (mm)	H (mm)		C (mm)	Std. Pkg. (Nos.)
5.0	M2520010505#	56	118	111	54	01
6.3	M2520010506#	69	144	135	65	40
7.5	M2520010507#	81	166	155	79	32
9.0	M2520010508#	96	195	184	92	24
11.0	M2520010509	116	226	208	107	15
14.0	M2520010511	147	280	250	107	08
16.0	M2520010512	167	314	275	107	04

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



Size(Dxd)	Product Code	L	Std. Pkg.
(cmxcm)		(mm)	(Nos.)
12.5 x 11.0	M212003834	103	40

Application: Reducer with W.C. ring can be joined to Require length of pipe to take the line out.

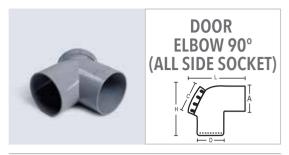


Size(D) (cm)	Product Code	A (mm)	H (mm)	L (mm)	Std. Pkg. (Nos.)
5.0	M2520010705#	57	86	99	01
6.3	M2520010706#	71	106	119	01
7.5	M2520010707#	81	122	122	01
9.0	M2520010708	97	146	146	33
11.0	M2520010709	117	172	172	24
14.0	M2520010711	147	210	210	13
16.0	M2520010712	167	235	235	08

Application: Require to connect internal pipeline to main pipeline & also for direction change.

DRAINMASTER - SELFIT

PIPES & FITTINGS



Size(D) (cm)	Product Code	A (mm)	H (mm)	L (mm)		Std. Pkg. (Nos.)
5.0	M2520010405#	57	86	99	54	48
6.3	M2520010406#	71	106	119	64	25
7.5	M2520010407#	81	122	140	79	01
9.0	M2520010408	97	146	163	92	25
11.0	M2520010409	117	172	191	107	20
14.0	M2520010411	147	210	223	107	12
16.0	M2520010412	167	235	244	107	06

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



Qty. (ml)	Product Code	Std. Pkg. (Nos.)
50	TMIPS100U050	48
118	TMIPS100U118	24
237	TMIPS100U237	24
473	TMIPS100U437	12
946	TMIPS100U946	12

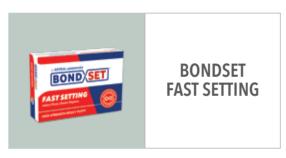


Size (Mtr.)	Product Code	Std. Pkg. (Nos.)
5	PTFE-1205	01
10	PTFE-1210	01
20	PTFE-1220	01



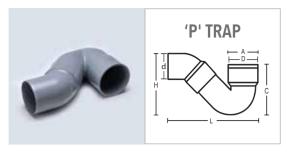
RESCUE TAPE

Size (Ft.)	Product Code	Std. Pkg. (Nos.)
5	RSCU-TAPE-05-CLR	120
5	RSCU-TAPE-05-RED	120
5	RSCU-TAPE-05-BLK	120
10	RSCU-TAPE-10-CLR	120
10	RSCU-TAPE-10-RED	120
10	RSCU-TAPE-10-BLK	120
15	RSCU-TAPE-15-CLR	120
15	RSCU-TAPE-15-RED	120
15	RSCU-TAPE-15-BLK	120



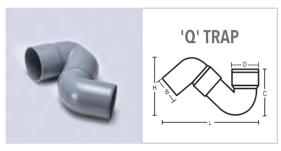
Qty. (gm)	Product Code	Std. Pkg. (Nos.)
50	BONDSETFS-50	01
100	BONDSETFS-100	01





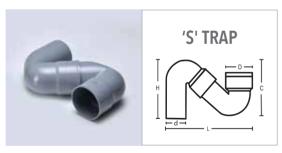
Size(Dxd) (cmxcm)	Product Code	Н	L	С	Α	Std. Pkg. (Nos.)
7.5x7.5	M252003590	150	250	128	84	30
11.0x7.5	M212004329	245	400	193	110	11
	M252003533				110	16
12.5x11.0	M212003534	215	365	193	125	14
	M252003534				125	14

^{*} Application: To provide water seal & efficient functioning of the drainage system.



Size (Dxd) (cmxcm)	Product Code	Н	L	С	Std. Pkg. (Nos.)
11.0x11.0	M252003633	213	410	193	14
12.5x11.0	M252003634	213	410	192	14
A	. \\/		450	1 .	

Application: Where the outlet is at 45° to inlet.



Size(Dxd) (cmxcm)	Product Code	Н	L	С	Std. Pkg. (Nos.)
11.0 x 11.0	M252003733	228	395	193	12
12.5 x 11.0	M252003734	230	405	192	12

Application: Where inlet and outlet are parallel to each other.



		(Nos.)
182	108	30
182	108	30
177	149	20
183	185	20
	182 177 183	182 108 177 149

Application: Require for disposing water from more than one connection and drains through a single outlet.



Size(Dxd)	Product Code	L	H	Std. Pkg.
(cmxcm)		(mm)	(mm)	(Nos.)
11.0	M252009408	182	108	30

Application: Require for disposing water from more than one connection and drains through a single outlet.



Size(AxDxd)	Product Code	L	H	Std. Pkg.
(cmxcmxcm)		(mm)	(mm)	(Nos.)
11.0 x 5.0/4.0	M212003344	180	158	28

Application: Require to raise the height of floor traps.

DRAINMASTER - SELFIT

PIPES & FITTINGS



Size	Product Code	L	Std. Pkg.
(cm)(D)		(mm)	(Nos.)
11.0	M252009508	150	200

Application: Require to cover Multi Floor Trap.



Size (inch) (H)	Product Code	Std. Pkg. (Nos.)
4	M252009008	500
5	M252009009	300
7	M252009010	150

Application: Require to make water seal.



Size(Dxd) H (cmxcm) (inch)	Product Code	A (mm)	L (mm)	Std. Pkg. (Nos.)
11.0x7.5 4	M252006908	116	156	48
12.5x7.5 5	M252006909	116	156	32

Application: Require to drain surface water from bathroom.



Size(Dxd) (cmxcm)	Product Code			A (mm)	Std. Pkg. (Nos.)
10.0 x 6.3	M252007106	67	215	120	61
11.0 x 6.3	M252003106	67	215	120	40
11.0 x 7.5	M252003107	85	256	128	50
11.0 x 9.0	M252003108	91	260	128	32
11.0 x 11.0	M252003109	100	270	128	24

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



Size(Dxd) (cmxcm)	Product Code	H (mm)	L (mm)		Std. Pkg. (Nos.)
11.0 x 6.3	M252007006	67	215	120	61

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



Size (cm)(D)	Product Code	A (mm)	Std. Pkg. (Nos.)
6.3	M252008506	114	500
11.0	M252008509	119	500

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





Size	Product Code	A	H	L	Std. Pkg.
(cm)(D))	(mm)	(mm)	(mm)	(Nos.)
11.0	M252003409	139	239	290	08

Application: Require to remove surface water from paved pedestrian areas.



Size (cm)(D)	Product Code	H (mm)	Std. Pkg. (Nos.)
5.0	M212002705	56	270
6.3	M212002706	67	140
7.5	M212002707	67	105
9.0	M212002708	80	162
11.0	M212002709	90	105
16.0	M212002712	131	25

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



Size (cm)(D)	Product Code	H (mm)	Std. Pkg. (Nos.)
5.0	M212009905	56	200
6.3	M212009906	67	161
7.5	M212009907	67	96
9.0	M212009908	80	72
11.0	M212009909	90	81
16.0	M212009912	131	32

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



Size	Product Code	A	d1x3	d2x3	Н	Std. Pkg.
(cm)		(mm)	(mm)	(mm)	(mm)	(Nos.)
16.0 x 11.0	M192014131	132	100	50	300	04

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.



Size (cm)	Product Code	Std. Pkg. (Nos.)
11.0	M252008808	2000



Size (cm)	Product Code	H (mm)	L (mm)	Std. Pkg. (Nos.)
4.0	M212002804	75	76	385
5.0	M212002805	84	86	312
6.3	M212002806	98	103	216
7.5	M212002807	110	112	132
9.0	M212002808	122	140	100
11.0	M212002809	143	140	110
16.0	M212002812	210	180	156

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

DRAINMASTER - SELFIT

PIPES & FITTINGS



Size (cm)	Product Code	Std. Pkg. (Nos.)
7.5	F172002807	01
11.0	F172002809	01

Application: Require for connecting two pipes by crossing over an existing pipeline without any distrubance.



Size (cm)	Product Code	Std. Pkg. (Nos.)
7.5	F142114707	13
9.0	F142114708	06
11.0	F142114709	04

Application: Require to connect internal pipeline to main pipeline & also for direction change.



Size (cm)(D)	Product Code	H (mm)	L (mm)	Std. Pkg. (Nos.)
7.5	M212002907	48	95	92
11.0	M212002909	60	130	36

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



Size (cm)	Product Code	Std. Pkg. (Nos.)
11.0 x 7.5	F182005729	01

Application: 11.0×7.5 Reducer with W.C. ring can be joined to Require length of pipe to take the line out.



Size	Product Code	L	H	Std. Pkg.
(cm)		(mm)	(mm)	(Nos.)
11.0	M172005909	192	197	24

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



Size (cm)	Product Code	L (mm)	H (mm)	Std. Pkg. (Nos.)
11.0	F172006009	450	122	06
11.0	F172006009B	450	122	06

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





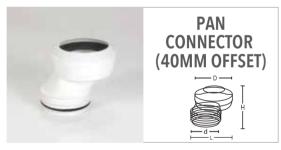
Size	Product Code	H	Std. Pkg.
(cm)(Dxd)		(mm)	(Nos.)
12.5 x 11.0	M1420012834	108	24

Application: Require to connect waste pipe with toilet pan.



Size	Product Code	H	L	Std. Pkg.
(cm)(Dxd)		(mm)	(mm)	(Nos.)
12.5 x 11.0	M1420012934	127	144	18

Application: Require to connect waste pipe with toilet pan without need of angle adjustment.



Size	Product Code	H	L	Std. Pkg.
(cm)(Dxd)		(mm)	(mm)	(Nos.)
12.5 x 11.0	M1420013034	145	170	18

Application: Require to connect waste pipe with toilet pan without need of angle adjustment.



Size (cm)(D)	Product Code	L	Std. Pkg. (Nos.)
11.0	CWFL5511	550	01



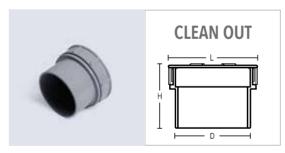
Size(Dxd) (cmxcm)	Product Code	H (mm)	L (mm)	Std. Pkg. (Nos.)
11.0 x 6.3	M212003032	49	115	38
11.0 x 7.5	M212003029	49	115	38
11.0 x 9.0	M212003043	50	115	38
16.0 x 11.0	M212003031	78	172	09

Application: Require to reduce off center main line.



Size (Dxd) (cmxcm)	Product Code	H (mm)	L (mm)	Std. Pkg. (Nos.)
16.0 x 7.5	M212007535	83	170	09
16.0 x 11.0	M212007531	83	170	09

Application: Require to reduce main line.

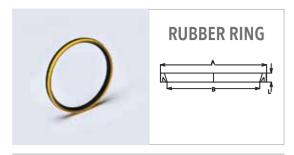


Size (cm)(D)	Product Code	H (mm)	L (mm)	Std. Pkg. (Nos.)
6.3	M2520010106	68	79	64
7.5	M2520010107	71	92	64
9.0	M2520010108	79	107	51
11.0	M2520010109	84	119	45
16.0	M2520010112	91	182	18

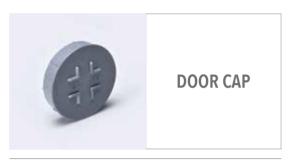
Application: Require to access sewer line for cleaning of clogs.

DRAINMASTER - SELFIT

PIPES & FITTINGS



Size (cm)	Product Code	Std. Pkg. (Nos.)
7.5	M006500075	1400
9.0	M006500090	960
11.0	M006500110	600
16.0	M006500160	180
20.0	M006500200	75



Size (cm)	Product Code	Std. Pkg. (Nos.)
5.0	M212004005	300
6.3	M212004006	300
7.5	M212004007	300
9.0	M212004008	200
11.0	M212004009	200



Size (cm)	Product Code	LxW	Н	Std. Pkg. (Nos.)
∑ 11.0	M112007508	150	42	12
₹ 11.0	M112007508I	150	42	12

Application: Cover for Multifloor Trap.



Size (cm)	Product Code	Std. Pkg. (Nos.)
30.0	M144009100	10



Size (Dxd)	Product Code	L	Std. Pkg.
(cmxcm)		(mm)	(Nos.)
7.5x5.0	TAR07550	50	01

Application: Require to connect service line to main line.



Size(Dxd)	Product Code	L	Std. Pkg.
(cmxcm)		(mm)	(Nos.)
11.0x10.0	RC110100	50	01

Application: Require to join two pipes of different diameters.



Size (cm)	Product Code	Std. Pkg. (Nos.)
11.0x6.3	M252003106N	40



Size (cm)	Product Code	Std. Pkg. (Nos.)
11.0x11.0	M252003533S	14

GROOVE RINGJOINING 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 at 10°-15° Clean: Remove surface dirt, grease, or moisture with a clean dry cloth.



3. INSERT PIPE

Insert the pipe in to the socket without the seal ring and mark along the pipe, when it is fully inserted. Fix the rubber ring in the groove without twisting it.



4. APPLY LUBRICANT

Apply jointing lubricant to the chamfered end of the pipe & on rubber ring up to the mark made on spigot or to the socket end of fitting.



5. JOIN PIPE AND FITTINGS

Push the pipe firmly into the socket till the gap between the mark on the spigot and the socket is about 10 mm to allow thermal expansion.

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 at 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. SOLVENT CEMENT

Apply a full even layer of solvent 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 outer side. A perfectly made joint will show a continuous bead of cement around the perimeter.

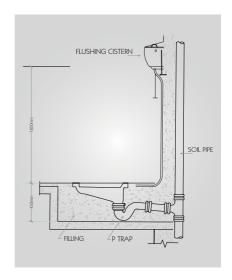
INSTALLATION OF TRAPS& TESTING THE SYSTEM

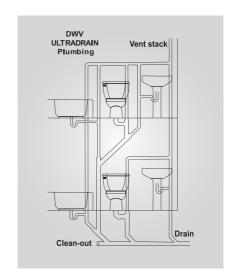
INSTALLATION OF TRAPS

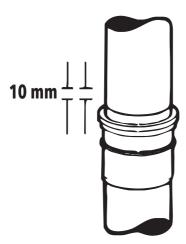
- Select right type of trap from 'P' / 'Q' / 'S' traps as per the outlet angle required. Place the trap on firm base, pour with concrete on a slab and set it relative to the level of finished floor
- Concrete can be poured around 'P'/ 'Q' / 'S' trap but outlet to the trap must be left open clear to concrete
- Place Astral W.C. connector ring to the socketed end of trap
- Apply rubber lubricant on W.C. connector ring and on outer side of W.C. pan. Join W.C. pan to trap by pushing W.C. pan to 125 mm socket of trap
- Solvent cement can be used to make joints when 110 x110 mm traps are used to join connectors other than W.C. Pan connection

In such cases, outlet of traps can be inserted in the socketed end of pipe or fittings, which ever is applicable and joint can be solvent cemented

TYPE OF COMMON INSTALLATION







WITHDRAW PIPE (10 MM). THIS WILL ALLOW FOR EXPANSION. ALL FITTINGS MUST BE SUPPORTED BY A BRACKET WHEN INSTALLED VERTICALLY.

THERMAL EXPANSION & CONTRACTION

uPVC has a coefficient of linear expansion of 5.4×10^{-5} mm / mm / °C. This means that one metre length of uPVC pipe will expand approximately 0.54 mm for each 10° C rise or fall in temperature. However due to short duration of most effluent flows and the slow temperature response of the material, greater thermal movement take place due to variation in temperature rather than the effect of hot effluent discharge. Successful accommodation of thermal movement is dependent on the controlled direction and distribution of this movement. Specially designed rubber seal rings and gap of 10 mm while joining pipe and fittings will take care of length change in most of the cases. However, expansion loops, change in direction or offsets can also be accommodated in the system to overcome expansion and contraction issue.

PREPARING THE PIPELINE FOR TEST

- · All joints should be inspected to ensure the correct location of the mark or groove to the coupling socket
- Check that minimum cure time has elapsed since the last concrete thrust block or support was cast
- Check the tightness of all ties and clamps and correct positioning of piping

WATER TEST

Water test is the most recommended test in most plumbing code standards. The purpose of the test is to locate any leaks at the joints and correct them prior to putting system into operation. Since it is important to be able to visually inspect the joints, a water test should be conducted prior to closing in the piping or backfilling underground piping.

To isolate each floor or section being tested, test plugs are inserted through test fittings in the stack. All other opening should be plugged or capped with test plug or test caps. Fill the system to be tested with water at the highest point. As water fills a vertical pipe it creates hydrostatic pressure. The pressure increases as the height of water in the vertical pipe increases. Astral recommends testing at 5 m of hydrostatic pressure (0.5 kg/cm²) or as per the local authority's guidelines. Filling the system slowly should allow any air in the system to escape as the water rises in the vertical pipe. All entrapped air in the system should be expelled prior to the beginning of the test. Failure to remove entrapped air may give faulty test results.

Once the stack is filled to desired level of water column, a visual inspection of the section being tested should be made to check leaks. If a leak is found, the cause of leak must be found and accordingly repairing/ replacement of the joint should be done. Find the cause of leak and to repair or replace the joint. Fifteen minutes is a suitable time for the water test. Once the system has been successfully tested, it should be drained and the next section should be prepared for testing.

INSTALLATION OF

DRAINMASTER SYSTEM IN TRENCH

One of the most significant advantages of Astral Drainmaster uPVC pipe system is its light weight. This means that the pipe can be easily handled and longer lengths can be installed without sophisticated lifting machinery and with minimum in-trench labour.

Long pipe lengths increase the speed with which a system can be installed, and also mean that pipelines are less susceptible to misalignment and consequent blockage following possible ground movement, than those made up of short pipe lengths.

Sewer and waste pipelines rely on gravity to ensure adequate flow of fluid. Strict adherence to the designed grade along the entire pipeline is essential and the line must be maintained to specification between inspection or manhole position.

Installation of Astral Drainmaster uPVC pipelines should be fast and efficient provided the proper guidelines are followed. The installer should also be familiar with national plumbing code together with the requirements of local authorities or municipal standards wherever applicable.

HANDLING AND STORAGE

While Astral Drainmaster uPVC pipes are light and easy to handle, careless handling can cause unnecessary damage. Pipes and fittings should not be dropped or thrown onto hard surfaces or allowed to come into contact with sharp objects that could inflict deep scratches. Foamcore pipes should not be allowed to slide across sharp edges.

BOWING

- Pipes can get distorted under high loads in the absence of support or if they are stacked incorrectly or at height. This can be aggravated if the pipes are hot
- Heat sources should be avoided to reduce the risk of distortion
- If pipes or fittings are to be stored outdoors for prolonged period they should be protected, by for example, hessian or white PE sheet in a manner that allows ventilation and avoids heat build-up
- Pipes heated on one side by direct sunlight might tend to bow. This process is reversible and the bow can be eliminated by exposing the other side to the sunlight or otherwise allowing the temperature to become consistent before laying the pipe

STORAGE

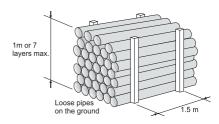
Temporary storage in the fields where racks are not provided, pipes can be in stacked on the ground, provided the surface is leveled and free from loose stones or other sharp objects.

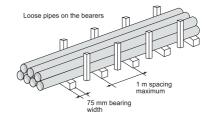
Socketed pipes should be stacked in layers with sockets placed at alternative ends of the rack, and protruding, to avoid uneven stacks and distortion. The sockets should not be bearing the load. Another acceptable approach is to have alternate layers of pipes facing in the same direction.

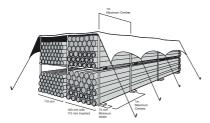
Racks for long term storage are recommended and should preferably provide continuous support, but if this is not possible then supports of at least 75 mm bearing widths at 1m centres (max) should be placed beneath the pipes. Side restraints should be placed at centre not exceeding 1.5 m and stacks should not exceed 1 m in height.

ON SITE STORAGE

- Ideally, stacks should contain one diameter pipe size only where this is not possible, stack largest diameter pipes at base of stack. Small pipes may be nested inside larger pipes
- Store all materials in well ventilated, shady conditions
- Store fittings under cover. Do not remove from cartons or packaging until required
- · Store solvent cement and cleaning fluid in a cool place away from direct sunlight and away from any heat source







DO'S & DON'TS

- Always insist to use Astral Drainmaster rubber lubricant and solvent cement for making joints
- Cut the pipe straight, as improper cut may lead to leakage
- Use test plug / socket plug for testing the lines. Try to avoid smoke test
- Avoid over tightening of door caps. Make sure that door gaskets are placed properly before tightening
- Do not insert the pipe into socket of fitting without

- chamfering. This can leads to misplacing of rubber rings and finally leakage in piping
- Never mix soil and waste line without putting water seal trap in between
- Never remove rubber rings from pipes and fittings to make solvent weld joint from the same pipe or fittings.
 This will lead to heavy leakage or failure of system
- Do not install pipeline without properly placed pipe clips. This is required to ensure efficient working of the system















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