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

PRODUCT CATALOGUE


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$\left\{\begin{array}{l}\text { STTO } \\ \text { INTRODUCE } \\ \text { LEADREE } \\ \text { GOLUNNPIPES } \\ \text { INNDIA }\end{array}\right.$


# 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 ADHESIVESINSTANT HAND SANITIZER
SURFACE CLEANING PRODUCTS

## WATER TANKS

## 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


## 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 <br> 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.


## ABOUT DRAMMMSTRAL ${ }^{\text {ASTM }}$ <br> SUPERIOR SWR DRAINAGE SYSTEM

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.

## ABOUT DRAINMASTER

## 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 75 mm to 160 mm . 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

$7.5 \mathrm{~cm}, 9.0 \mathrm{~cm}, 11.0 \mathrm{~cm}$ \& 16.0 cm


## KEY PROPERTIES

## STRONGER, RESILIENT \& LIGHTWEIGHT

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.

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.

## (2) NON CONDUCTIVE

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 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.

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 UV stabilized which gives protection to the system while being operational in direct sun light.


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

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.

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.

## PIPES \& <br> 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.

IS:13592

*Only those products bearing the above marks are certified.


| NOMINAL <br> DIAMETER |  | MEAN OUTSIDE <br> DIAMETER (mm) |  | TYPE A <br> WALL THICKNESS $(\mathrm{mm})$ |  | TYPE B <br> WALL THICKNESS (mm)  <br> $(\mathrm{cm})$ $(\mathrm{mm})$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 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.
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.


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

*Only those products bearing the above marks are certified.

## 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



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 ( $5.4 \times 10^{-5} \mathrm{~mm} / \mathrm{mm} /{ }^{\circ} \mathrm{C}$ 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.


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 ' $P$ ', ' $Q^{\prime}$ \& ' $S^{\prime}$ depending on the outlet angle required.

## LIP RING FOR P/Q/S TRAP



| SIZE (D) | A | B | C | J | L |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 125 | 132 | 105 | 96 | 10 | 53 |

## RUBBER RING FOR WC CONNECTOR \& BEND



| SIZE (D) | A | B | L |
| :---: | :---: | :---: | :---: |
| 110 | 120 | 85 | 30 |

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


| SIZE (D) | A | B | L |
| :---: | :---: | :---: | :---: |
| 110 | 126 | 85 | 38 |
| 125 | 412 | 95 | 40 |

Application: Where the outlet is at $45^{\circ}$ to inlet.

## PRODUCT

ASTRAL
DRAMMASTER


# DRAINMASTER - RINGFIT PIPES \& FITTINGS 

ASTRAL DBAIMMASTEP SUPERIOR SWR DRAINAGE SYSTEM

|  |  |  |  |
| :--- | :--- | :--- | :--- |
|  |  |  |  |
|  |  |  |  |


|  |  | 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 | $2 \mathrm{FTS} / \mathrm{S}$ | M341112208 | 01 |
| 9.0 | $3 \mathrm{FTS} / \mathrm{S}$ | M341113308 | 01 |
| 9.0 | $4 \mathrm{FTS} / \mathrm{S}$ | M341114408 | 01 |
| 9.0 | $6 \mathrm{FTS} / \mathrm{S}$ | M341116608 | 01 |



|  |  | PIPES TYPE - A |  |
| :---: | :---: | :---: | :---: |
| $\begin{aligned} & \text { Size } \\ & (\mathrm{cm}) \end{aligned}$ | 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 | $4 \mathrm{FT} \mathrm{D} / \mathrm{S}$ | M351114412 | 01 |
| 16.0 | 6 FT D/S | M351116612 | 01 |
| 16.0 | $2 \mathrm{FTS} / \mathrm{S}$ | M341112212 | 01 |
| 16.0 | $3 \mathrm{FTS} / \mathrm{S}$ | M341113312 | 01 |
| 16.0 | $4 \mathrm{FTS} / \mathrm{S}$ | M341114412 | 01 |
| 16.0 | $6 \mathrm{FTS} / \mathrm{S}$ | M341116612 | 01 |

# DRAINMASTER - RINGFIT <br> PIPES \& FITTINGS 




| Size <br> $(\mathrm{cm})$ | Length <br> Socket | Product Code | Std. Pkg. <br> (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 | - B |
| :---: | :---: | :---: | :---: |
| Size <br> (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 | $2 \mathrm{FTS} / \mathrm{S}$ | M341122209 | 01 |
| 11.0 | $3 \mathrm{FTS} / \mathrm{S}$ | M341123309 | 01 |
| 11.0 | $4 \mathrm{FTS} / \mathrm{S}$ | M341124409 | 01 |
| 11.0 | $6 \mathrm{FTS} / \mathrm{S}$ | M341126609 | 01 |
| 11.0 | $12 \mathrm{FTS} / \mathrm{S}$ | M341121209 | 01 |




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


Application: Require to connect internal pipeline to main pipeline \& also for direction change at an angle of $87.5^{\circ}$.
BEND $87.5^{\circ}$ WITH DOOR

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

| $(\mathrm{cm})$ |  | $(\mathrm{mm})$ | $(\mathrm{mm})$ | $(\mathrm{mm})$ | $(\mathrm{mm})$ | (Nos.) |
| :--- | :--- | :---: | :---: | :---: | :---: | ---: |
| 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 $87.5^{\circ}$ with option of door for cleaning purpose.


Size (D) Product Code A H L C Std. Pkg. (cm) (mm) (mm) (mm) (mm
(Nos.)

| 7.5 | M342001407 | 90 | 143 | 135 | 79 | 28 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 11.0 | M342001409 | 127 | 196 | 185 | 107 | 26 |

Application: Same as Bend $87.5^{\circ}$ with option of L-H door for cleaning purpose.


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

| $(\mathrm{cm})$ |  | $(\mathrm{mm})$ | $(\mathrm{mm})$ | $(\mathrm{mm})$ | $(\mathrm{mm})$ | (Nos.) |
| :--- | :--- | :---: | :---: | :---: | :---: | ---: |
| 7.5 | M342001507 | 90 | 143 | 135 | 79 | 28 |
| 11.0 | M342001509 | 127 | 196 | 185 | 107 | 26 |

Application: Same as Bend $87.5^{\circ}$ with option of R-H door for cleaning purpose.

|  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- |

## DRAINMASTER - RINGFIT <br> PIPES \& FITTINGS



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


Application: Require to connect two adjacent branch line at an angle of $87.5^{\circ} / 92.5^{\circ}$


| Size(D) <br> $(\mathrm{cm})$ | Product Code | A <br> $(\mathrm{mm})$ | H <br> $(\mathrm{mm})$ | L <br> $(\mathrm{mm})$ | C <br> $(\mathrm{mm})$ | Std. Pkg. <br> $($ 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) <br> $(\mathrm{cm})$ | Product Code | A <br> $(\mathrm{mm})$ | H <br> $(\mathrm{mm})$ | L <br> $(\mathrm{mm})$ | Std. Pkg. <br> $($ Nos.) |
| :--- | :--- | :---: | :---: | :---: | ---: |
| 7.5 | M 342000107 | 90 | 186 | 135 | 40 |
| 9.0 | M 342000108 | 105 | 233 | 170 | 21 |
| 11.0 | M 342000109 | 127 | 258 | 193 | 14 |
| 16.0 | M 342000112 | 182 | 362 | 270 | 04 |

Application: Require to connect branch soil / waste line to main line at an angle of $87.5^{\circ}$.


| Size(D) <br> $(\mathrm{cm})$ | Product Code | A <br> $(\mathrm{mm})$ | $\mathrm{Hm})$ | L <br> $(\mathrm{mm})$ | Cm <br> $(\mathrm{mm})$ | Std. Pkg. <br> $($ 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) Product Code A H L C Std. Pkg.

| $(\mathrm{cm})$ |  | $(\mathrm{mm})$ | $(\mathrm{mm})$ | $(\mathrm{mm})$ | $(\mathrm{mm})$ | (Nos.) |
| :--- | :--- | :---: | :---: | :---: | :---: | ---: |
| 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) Product Code A H L C Std. Pkg. (cm) (mm) (mm) (mm) (mm) (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.

| PEDUCING TEE |
| :--- |

[^0]

Size(D) Product Code A H L C Std. Pkg.
(cm)
(mm) (mm) (mm) (mm) (Nos.)

| 7.5 | M342001007 | 90 | 204 | 175 | 79 | 30 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 11.0 | $M 342001009$ | 127 | 265 | 230 | 107 |  |

$\begin{array}{lllllll}11.0 & \text { M342001009 } & 127 & 265 & 230 & 107 & 12\end{array}$
Application: Same as plain Tee with option of door for cleaning purpose.


Application: Same as plain Tee.

## DRAINMASTER - RINGFIT <br> PIPES \& FITTINGS



Size Product Code A H L C Std. Pkg. (cm DXd) (mm) $\quad(\mathrm{mm})(\mathrm{mm})(\mathrm{mm})$ (Nos.)
16.0×7.5 M342001035 182X90 28427510704
16.0×11.0 M342001031 182×127308 29010704

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


Application: Require to connect two branches an angle of $45^{\circ}$ with invert socket.


Application: Require to connect branch soil/waste pipeline to the main vertical line at an angle of $45^{\circ}$.


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

|  |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- |

Application: Require to connect branch soil/waste pipeline to the main vertical line at an angle of $45^{\circ}$ with reduction of size.


| Size(D) <br> $(\mathrm{cm})$ | Product Code | A <br> $(\mathrm{mm})$ | H <br> $(\mathrm{mm})$ | L <br> $(\mathrm{mm})$ | C <br> $(\mathrm{mm})$ | Std. Pkg. <br> $($ 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.


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


| Size(D) Product Code <br> $(\mathrm{cm})$ | A <br> $(\mathrm{mm})$ | H <br> $(\mathrm{mm})$ | L <br> $(\mathrm{mm})$ | Std. Pkg. <br> $($ 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 $45^{\circ}$.

## REDUCER "Y" WITH DOOR


Size(Dxd) Product Code Axa H L C Std. Pkg. (cmxcm) (mmxmm)(mm)(mm)(mm) (Nos.)

| $11.0 \times 7.5$ | M342002229 | $127 \times 90$ | 250 | 242 | 107 | 15 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| $16.0 \times 7.5$ | M342002235 | $182 \times 90$ | 282 | 284 | 304 | 05 |
| $16.0 \times 11.0$ | M342002231 | $182 \times 127332310330$ | 05 |  |  |  |

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

CLEANSING PIPE

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

| $(\mathrm{cm})$ |  | $(\mathrm{mm})$ | $(\mathrm{mm})$ | $(\mathrm{mm})$ | $(\mathrm{mm})$ | (Nos.) |
| :--- | :--- | :---: | :---: | :---: | :---: | ---: |
| 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.


[^1]
## DRAINMASTER - SELFIT <br> PIPES \& FITTINGS





| Size <br> $(\mathrm{cm})$ |  <br> Socket Type | Product Code | Std. Pkg. <br> (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 |




| Size <br> $(\mathrm{cm})$ |  <br> Socket Type | Product Code | Std. Pkg. <br> (Nos.) |
| :--- | :--- | :--- | ---: |
| 7.5 | 3 MTR S/S | M411120307 | 01 |
| 7.5 | 6 MTR S/S | M411120607 | 01 |
| 7.5 | 3 MTR D/S | M421120307 | 01 |
| 7.5 | 6 MTR D/S | M421120607 | 01 |
| 7.5 | 2 FT D/S | M421122207 | 01 |
| 7.5 | 3 FT D/S | M421123307 | 01 |
| 7.5 | 4 FT D/S | M421124407 | 01 |
| 7.5 | 6 FT D/S | M421126607 | 01 |
| 7.5 | 12 FT D/S | M421121207\# | 01 |
| 7.5 | 2 FT S/S | M411122207 | 01 |
| 7.5 | 3 FT S/S | M411123307 | 01 |
| 7.5 | $4 ~ F T ~ S / S ~$ | $M 411124407$ | 01 |
| 7.5 | 6 FT S/S | M411126607 | 01 |
| 7.5 | 12 FT S/S | M411121207\# | 01 |



|  |  |  |  |
| :--- | :--- | :--- | :--- |
|  |  | PlPES TYPE - B |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  | M411120309 |


|  |  | PIPES | - B |
| :---: | :---: | :---: | :---: |
| Size <br> (cm) | Length \& Socket Type | Product Code | Std. Pkg. <br> (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 | $2 \mathrm{FTS} / \mathrm{S}$ | M411122212 | 01 |
| 16.0 | 3 FTS S | M411123312 | 01 |
| 16.0 | $4 \mathrm{FTS} / \mathrm{S}$ | M411124412 | 01 |
| 16.0 | $6 \mathrm{FTS} / \mathrm{S}$ | M411126612 | 01 |

PIPES TYPE - B

## DRAINMASTER - SELFIT <br> PIPES \& FITTINGS



| Size <br> $(\mathrm{cm})$ |  <br> Socket Type | Product Code | Std. Pkg. <br> (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(D) (cm) | Product Code | $\begin{gathered} \mathrm{A} \\ (\mathrm{~mm}) \end{gathered}$ | $\begin{gathered} \mathrm{H} \\ (\mathrm{~mm}) \end{gathered}$ | $\begin{gathered} \mathrm{L} \\ (\mathrm{~mm}) \end{gathered}$ | Std. Pkg. <br> (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) <br> $(\mathrm{cm})$ | Product Code | A <br> $(\mathrm{mm})$ | H <br> $(\mathrm{mm})$ | L <br> $(\mathrm{mm})$ | C <br> $(\mathrm{mm})$ | Std. Pkg. <br> $($ Nos. $)$ |
| :--- | :--- | :---: | :---: | :---: | :---: | ---: |
| 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 $87.5^{\circ}$ with option of door for cleaning purpose.


| Size(D) <br> $(\mathrm{cm})$ | Product Code | A <br> $(\mathrm{mm})$ | Hm <br> $(\mathrm{mm})$ | $\mathrm{Lmm})$ | C <br> $(\mathrm{mm})$ | Std. Pkg. <br> $($ Nos. $)$ |
| :--- | :--- | :---: | :---: | :---: | :---: | ---: |
| 7.5 | M 252001407 | 82 | 137 | 139 | 79 | 24 |
| 11.0 | M 252001409 | 117 | 192 | 195 | 107 | 16 |

Application: Same as Bend $87.5^{\circ}$ with option of L-H door for cleaning purpose.


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

| $(\mathrm{cm})$ |  | $(\mathrm{mm})$ | $(\mathrm{mm})$ | $(\mathrm{mm})$ | $(\mathrm{mm})$ | (Nos.) |
| :---: | :---: | :---: | :---: | :---: | :---: | ---: |
| 7.5 | M 252001507 | 82 | 137 | 139 | 79 | 24 |
| 11.0 | M252001509 | 117 | 192 | 195 | 107 | 16 |

Application: Same as Bend $87.5^{\circ}$ with option of R-H door for cleaning purpose.


Application: Require to connect two length of pipe.


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


| Size(D) <br> $(\mathrm{cm})$ | Product Code | A <br> $(\mathrm{mm})$ | H <br> $(\mathrm{mm})$ | L <br> $(\mathrm{mm})$ | Std. Pkg. <br> $($ Nos. $)$ |
| :--- | :--- | :---: | :---: | :---: | ---: |
| 7.5 | M 252000707 | 82 | 190 | 206 | 32 |
| 11.0 | M 252000709 | 117 | 262 | 277 | 09 |

Application: Require to connect two adjacent branch line at an angle of $87.5^{\circ} / 92.5^{\circ}$.


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

## DRAINMASTER - SELFIT <br> PIPES \& FITTINGS



Application: Require to connect branch soil / waste line to main line at an angle of $87.5^{\circ}$.


| Size(D) <br> $(\mathrm{cm})$ |  | Product Code | A <br> $(\mathrm{mm})$ | $\mathrm{Lmm})$ <br> $(\mathrm{mm})$ | C <br> $(\mathrm{mm})$ | Std. Pkg. <br> $($ Nos. $)$ |
| :--- | :--- | :---: | :---: | :---: | :---: | ---: |
| 7.5 | M 252000207 | 82 | 190 | 172 | 79 | 32 |
| 9.0 | M 252000208 | 97 | 236 | 198 | 92 | 20 |
| 11.0 | M 252000209 | 117 | 264 | 233 | 107 | 12 |
| 16.0 | M 252000212 | 168 | 368 | 318 | 107 | 04 |

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

REDUCING TEE

Size(Dxd) Product Code Axa H L Std. Pkg. ( cmxcm ) (mmxmm) (mm) (mm) (Nos.)

| $9.0 \times 7.5$ | M252000330 | $97 \times 82$ | 236 | 157 | 28 |
| :--- | :--- | :--- | :--- | :--- | :--- |

11.0×7.5 M252000329 117x82 $265179 \quad 19$
16.0×7.5 M252000335 168×82 $350 \quad 233 \quad 07$
16.0x11.0 M252000331 168x172 35024006
Application: Require to connect branch line at $87.5^{\circ} / 92.5^{\circ}$.


Size(Dxd) Product Code Axa H L C Std. Pkg. (cmxcm) (mmxmm)(mm)(mm)(mm) (Nos.)
$9.0 \times 7.5$ M252000430 97x82 $23617779 \quad 24$
11.0x7.5 M252000429 117x82 26521110714
16.0x7.5 M252000435 168x82 35027010706
16.0x11.0 M252000431 168x117350277107 05

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


| Size(D) <br> $(\mathrm{cm})$ | Product Code | A <br> $(\mathrm{mm})$ | H <br> $(\mathrm{mm})$ | L <br> $(\mathrm{mm})$ | C <br> $(\mathrm{mm})$ | Std. Pkg. <br> $($ Nos. $)$ |
| :--- | :--- | :---: | :---: | :---: | :---: | ---: |
| 7.5 | M 252000507 | 82 | 190 | 140 | 79 | 31 |
| 11.0 | M 252000509 | 117 | 261 | 193 | 107 | 11 |

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


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

| $(\mathrm{cm})$ |  | $(\mathrm{mm})$ | $(\mathrm{mm})$ | $(\mathrm{mm})$ | $(\mathrm{mm})$ | (Nos.) |
| :--- | :--- | :--- | :--- | :--- | :--- | ---: |
| 7.5 | M 252000607 | 82 | 190 | 140 | 79 | 31 |

11.0 M252000609 $117 \quad 261 \quad 193107 \quad 11$

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


| Size(D) <br> $(\mathrm{cm})$ | Product Code | A <br> $(\mathrm{mm})$ | H <br> $(\mathrm{mm})$ | L <br> $(\mathrm{mm})$ | Std. Pkg. <br> $($ Nos. $)$ |
| :--- | :--- | :---: | :---: | :---: | ---: |
| 7.5 | M252000907 | 82 | 208 | 160 | 40 |
| 11.0 | M252000909 | 117 | 273 | 212 | 15 |

Application: Same as plain Tee.


Size (Dxd) Product Code A H L Std. Pkg. ( cmxcm ) (mm) (mm) (mm) (Nos.)

$$
16.0 \times 7.5 \text { M252000935 182×90 } 289254
$$

$$
16.0 \times 11.0 \text { M252000931 182×127 } 31326905
$$

Application: Same as plain Tee.


Size (Dxd) Product Code A H L C Std Pkg (cmxcm) $(\mathrm{mm}) \quad(\mathrm{mm})(\mathrm{mm})(\mathrm{mm}) \quad$ (Nos.)
$\begin{array}{lllllll}16.0 \times 7.5 & \text { M252001035 182×90 } & 289 & 280 & 107 & 04\end{array}$
$16.0 \times 11.0$ M252001031 182x127 31329410704
Application: Same as plain Tee with option of door for cleaning purpose.


| Size(D) <br> $(\mathrm{cm})$ | Product Code | A <br> $(\mathrm{mm})$ | H <br> $(\mathrm{mm})$ | L <br> $(\mathrm{mm})$ | C <br> $(\mathrm{mm})$ | Std. Pkg. <br> $($ Nos. $)$ |
| :--- | :--- | :---: | :---: | :---: | :---: | ---: |
| 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.

|  |  | SINGLE 'Y' |
| :--- | :--- | :--- | :--- | :--- | :--- |

Application: Require to connect branch soil/waste pipeline to the main vertical line at an angle of $45^{\circ}$.


Application: Require to connect two branches an angle of $45^{\circ}$ with invert socket.

## DRAINMASTER - SELFIT <br> PIPES \& FITTINGS



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

|  |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- |

Application: Require to connect branch soil/waste pipeline to the main vertical line at an angle of $45^{\circ}$ with reduction of size.


(cmxcm) (mm) (mm)(mm)(mm) (Nos.)

| $11.0 \times 5.0$ | M252002244 | $117 \times 57$ | 253 | 224 | 107 | Shrt. Intr. |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| $11.0 \times 6.3$ | M252002232 | $117 \times 70$ | 253 | 234 | 107 | 16 |
| $11.0 \times 7.5$ | M252002229 | $117 \times 82$ | 253 | 247 | 107 | 14 |
| $16.0 \times 7.5$ | M252002235 | $162 \times 82$ | 288 | 286 | 107 | 06 |
| $16.0 \times 11.0$ | M252002231 | $168 \times 117$ | 337 | 312 | 107 | 05 |

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


Application: Require to connect 2 branch soil/waste pipeline to the main vertical line at an angle of $45^{\circ}$.


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

| $(\mathrm{cm})$ |  | $(\mathrm{mm})$ | $(\mathrm{mm})$ | $(\mathrm{mm})$ | $(\mathrm{mm})$ | (Nos.) |
| :---: | :---: | :---: | :---: | :---: | :---: | ---: |
| 7.5 | M252002407 | 82 | 220 | 268 | 79 | 18 |
| 110 | M252002409 | 117 | 300 | 390 | 107 | 06 |

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



| $9.0 \times 7.5$ | M252001930 | 82 | 45 | 137 | 93 | 36 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $11.0 \times 7.5$ | M252001929 | 82 | 61 | 153 | 92 | 24 |
| $11.0 \times 9.0$ | M252001943 | 95 | 58 | 163 | 105 | 24 |
| $16.0 \times 7.5$ | M252001935 | 90 | 82 | 180 | 90 | 08 |
| $16.0 \times 11.0$ | M252001931 | 118 | 73 | 190 | 117 | 12 |

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


Size(D) Product Code D D1 L H Std. Pkg. (cm) (mm) (mm) (mm) (mm) (Nos.)
$\begin{array}{llllll}11.0 & \text { M252003509 } & 117 & 83 & 335 & 727\end{array}$
3
Application: Require for connecting multiple toilets in less space.


| Size(D) <br> $(\mathrm{cm})$ | Product Code | A <br> $(\mathrm{mm})$ | H <br> $(\mathrm{mm})$ | L <br> $(\mathrm{mm})$ | C <br> $(\mathrm{mm})$ | Std. Pkg. <br> $($ Nos. $)$ |
| :--- | :--- | :---: | :---: | :---: | :---: | ---: |
| 7.5 | M 252002607 | 82 | 190 | 112 | 79 | 30 |
| 11.0 | M 252002609 | 117 | 263 | 157 | 107 | 18 |
| 16.0 | M 252002612 | 168 | 350 | 200 | 107 | 07 |



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


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


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


| Size(D) <br> $(\mathrm{cm})$ | Product Code | A <br> $(\mathrm{mm})$ | H <br> $(\mathrm{mm})$ | L <br> $(\mathrm{mm})$ | Std. Pkg. <br> $($ Nos. $)$ |
| :--- | :--- | :--- | :--- | :--- | ---: |
| 5.0 | $\mathrm{M} 2520010705^{\#}$ | 57 | 86 | 99 | 01 |
| 6.3 | $\mathrm{M} 2520010706^{\#}$ | 71 | 106 | 119 | 01 |
| 7.5 | $\mathrm{M} 2520010707^{\#}$ | 81 | 122 | 122 | 01 |
| 9.0 | M 2520010708 | 97 | 146 | 146 | 33 |
| 11.0 | M 2520010709 | 117 | 172 | 172 | 24 |
| 14.0 | M 2520010711 | 147 | 210 | 210 | 13 |
| 16.0 | M 2520010712 | 167 | 235 | 235 | 08 |

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

## DRAINMASTER - SELFIT <br> PIPES \& FITTINGS



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

|  |  | ON <br> TM <br> MENT |
| :---: | :---: | :---: |
| Qty. <br> (ml) | Product Code | Std. Pkg. <br> (Nos.) |
| 50 | TMIPS100U050 | 48 |
| 118 | TMIPS100U118 | 24 |
| 237 | TMIPS100U237 | 24 |
| 473 | TMIPS100U437 | 12 |
| 946 | TMIPS100U946 | 12 |



| Size <br> (Mtr.) | Product Code | Std. Pkg. <br> (Nos.) |
| :--- | :--- | ---: |
| 5 | PTFE-1205 | 01 |
| 10 | PTFE-1210 | 01 |
| 20 | PTFE-1220 | 01 |




Size(Dxd) Product Code H L C A Std. Pkg. (cmxcm)
(Nos.)

| $7.5 \times 7.5$ | M252003590 | 150 | 250 | 128 | 84 | 30 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 11.0×7.5 | M212004329 | 245 | 400 | 193 | 110 | 11 |
| 砍 $11.0 \times 11.0$ | M252003533 | 215 | 355 | 193 | 110 | 16 |
| ${ }_{0}^{0} 12.5 \times 11.0$ | M212003534 | 215 | 365 | 193 | 125 | 14 |
| \$ *12.5×11.0 | M252003534 | 215 | 365 | 193 | 125 | 14 |

Application: To provide water seal \& efficient functioning of the drainage system.


| Size (Dxd) <br> (cmxcm) | Product Code | H | L | C | Std. Pkg. <br> (Nos.) |
| :--- | :--- | :--- | :--- | :--- | ---: |
| $11.0 \times 11.0$ | M252003633 | 213 | 410 | 193 | 14 |
| $12.5 \times 11.0$ | M252003634 | 213 | 410 | 192 | 14 |
| Application: Where the outlet is at $45^{\circ}$ to inlet. |  |  |  |  |  |



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

MULTIFLOOR WITH JALI


| Size(Dxd) <br> (cmxcm) | Height Product Code <br> (inch) | L <br> $(\mathrm{mm})$ | H <br> $(\mathrm{mm})$ | Std. Pkg. <br> (Nos.) |  |
| :--- | :---: | :---: | :---: | :---: | ---: |
| $7.5 \times 6.3$ | 4 | M 252003236 | 182 | 108 | 30 |
| $11.0 \times 11.0$ | 4 | M 252003208 | 182 | 108 | 30 |
| $11.0 \times 12.5$ | 5 | M 252003209 | 177 | 149 | 20 |
| $11.0 \times 17.5$ | 7 | M 252003210 | 183 | 185 | 20 |

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


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


| Size(AxDxd) <br> (cmxcmxcm) | Product Code | L <br> $(\mathrm{mm})$ | H <br> $(\mathrm{mm})$ | Std. Pkg. <br> (Nos.) |
| :--- | :--- | :---: | :---: | ---: |
| $11.0 \times 5.0 / 4.0$ | M212003344 | 180 | 158 | 28 |

[^2]
## DRAINMASTER - SELFIT <br> PIPES \& FITTINGS



Application: Require to cover Multi Floor Trap.



| Size(Dxd) <br> (cmxcm) | (inch) | Product Code | A <br> $(\mathrm{mm})$ | L <br> $(\mathrm{mm})$ | Std. Pkg. <br> (Nos.) |
| :--- | :--- | :--- | :---: | :---: | ---: |
| $11.0 \times 7.5$ | 4 | M252006908 | 116 | 156 | 48 |
| $12.5 \times 7.5$ | 5 | M252006909 | 116 | 156 | 32 |

Application: Require to drain surface water from bathroom.
 wash basin out to the main line.


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

SUPERIOR SWR DRAINAGE SYSTEM


| Size Product Code <br> $(\mathrm{cm})(\mathrm{D})$ | A <br> $(\mathrm{mm})$ | H <br> $(\mathrm{mm})$ | L <br> $(\mathrm{mm})$ | Std. Pkg. <br> $($ Nos. $)$ |
| :--- | :---: | :---: | :---: | ---: |
| 11.0 | M 252003409 | 139 | 239 | 290 |
| 08 |  |  |  |  |

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


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


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 H Std. Pkg. (cm)
$\mathrm{mm})(\mathrm{mm})(\mathrm{mm})(\mathrm{mm}) \quad$ (Nos.)
$16.0 \times 11.0$ M192014131 $132100 \quad 50 \quad 300 \quad 04$
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 <br> $(\mathrm{cm})$ | Product Code | H <br> $(\mathrm{mm})$ | L <br> $(\mathrm{mm})$ | Std. Pkg. <br> $($ Nos. $)$ |
| :--- | :--- | :---: | :---: | ---: |
| 4.0 | M 212002804 | 75 | 76 | 385 |
| 5.0 | M 212002805 | 84 | 86 | 312 |
| 6.3 | M 212002806 | 98 | 103 | 216 |
| 7.5 | M 212002807 | 110 | 112 | 132 |
| 9.0 | M212002808 | 122 | 140 | 100 |
| 11.0 | M 212002809 | 143 | 140 | 110 |
| 16.0 | M 212002812 | 210 | 180 | 156 |

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

## DRAINMASTER - SELFIT <br> PIPES \& FITTINGS



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


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


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


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


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


Application: Require to connect waste pipe with toilet pan.


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


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



Application: Require to reduce main line.


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

## DRAINMASTER - SELFIT <br> PIPES \& FITTINGS



| Size <br> $(\mathrm{cm})$ | Product Code | Std. Pkg. <br> (Nos.) |
| :--- | :--- | ---: |
| 7.5 | M 006500075 | 1400 |
| 9.0 | M 006500090 | 960 |
| 11.0 | M 006500110 | 600 |
| 16.0 | M 006500160 | 180 |
| 20.0 | M 006500200 | 75 |




Application: Cover for Multifloor Trap.


## GROOVE RING 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 $10^{\circ}-15^{\circ}$ 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 $10^{\circ}-15^{\circ}$ 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.


## 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 $110 \times 110 \mathrm{~mm}$ 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 $5.4 \times 10^{-5} \mathrm{~mm} / \mathrm{mm} /{ }^{\circ} \mathrm{C}$. This means that one metre length of uPVC pipe will expand approximately 0.54 mm for each $10^{\circ} \mathrm{C}$ 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 ( $0.5 \mathrm{~kg} / \mathrm{cm}^{2}$ ) 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 1 m 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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$\overbrace{1800}^{\text {ASTRAL Tou PRI }}$
Please get in touch with us between 10 AM to 6 PM


[^0]:    

    Size(Dxd) Product Code A H L C Std. Pkg. $(\mathrm{cm}) \quad(\mathrm{mm}) \quad(\mathrm{mm})(\mathrm{mm})(\mathrm{mm}) \quad$ (Nos.)
    $9.0 \times 7.5$ M342000430 105x90 $23215279 \quad 23$ 11.0×7.5 M342000429 127×90 $260175107 \quad 14$ 16.0x7.5 M342000435 182x90 $343229107 \quad 06$
    16.0x11.0M342000431 182x127343235 10706

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

[^1]:    Application: Require to join ringfit socket.

[^2]:    Application: Require to raise the height of floor traps.

