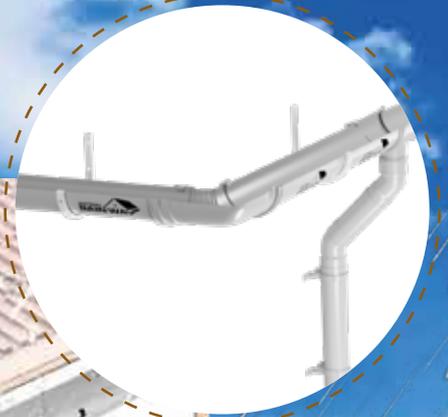


ASTRAL
RAINWAY

Half Round Piping
System For Rainwater
Collection





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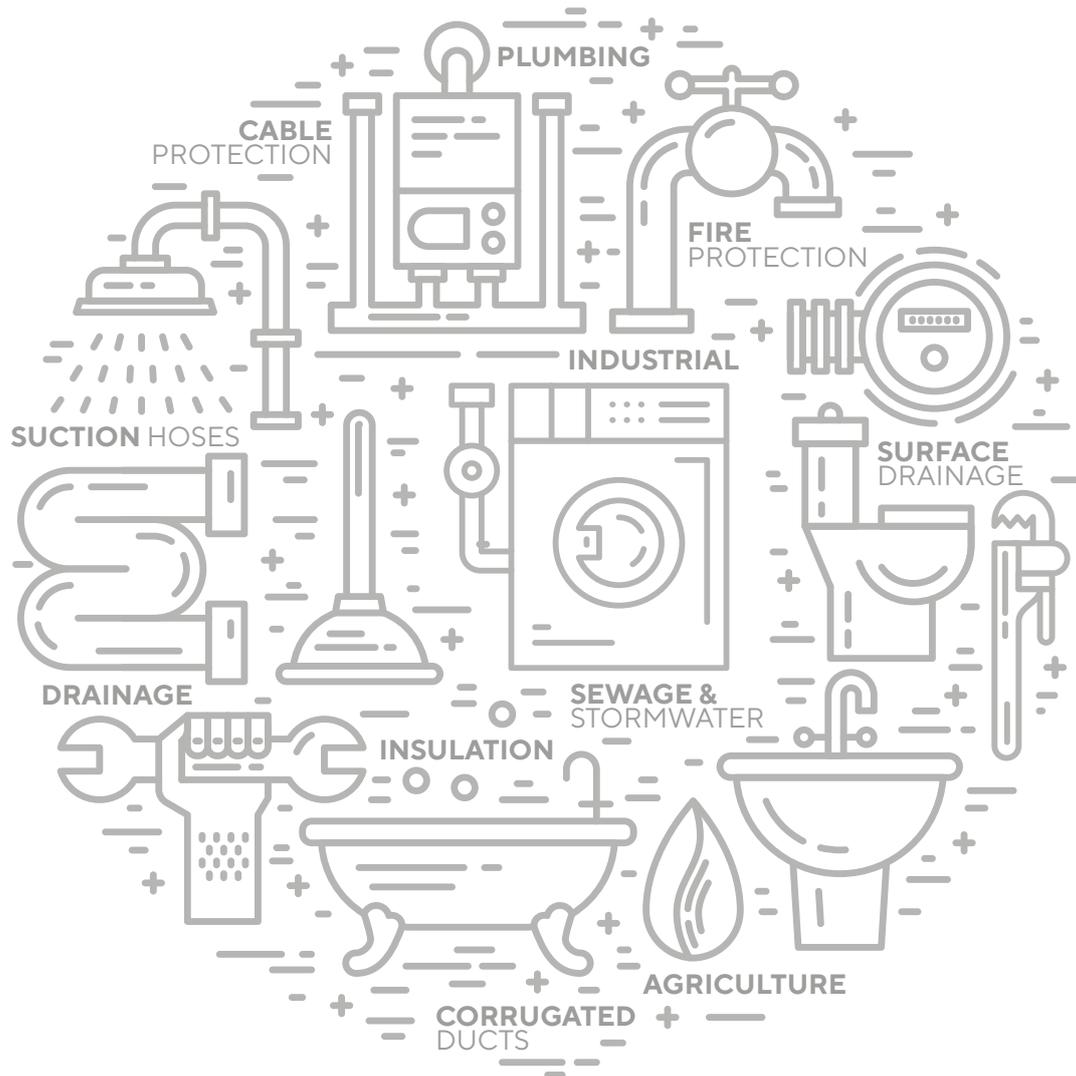
INSTALLATION
PROCEDURE

**1st TO
INTRODUCE
CPVC
IN INDIA**

**1st TO
INTRODUCE
UPVC LEAD
FREE PIPES
IN INDIA**

**1st TO
INTRODUCE
LOW NOISE
PP DRAINAGE
PIPES IN INDIA**

**1st TO
INTRODUCE
FOAMED PVC
DRAINAGE
PIPES IN INDIA**



**1st TO
INTRODUCE
LEAD FREE
COLUMN PIPES
IN INDIA**

**1st TO
INTRODUCE
POLYMER BASED
INDUSTRIAL
PIPING SYSTEM
IN INDIA**

**1st TO
INTRODUCE
NSF APPROVED
SOLVENT
CEMENT
IN INDIA**

**1st TO
INTRODUCE
CPVC PIPING FOR
AUTOMATIC
FIRE SPRINKLER
SYSTEM 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 fulfills 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 industries 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, and Sitar Ganj in Uttarakhand, Cuttack in Orissa to manufacture plumbing systems, drainage systems, agriculture systems, sprinkler piping systems, industrial piping & 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





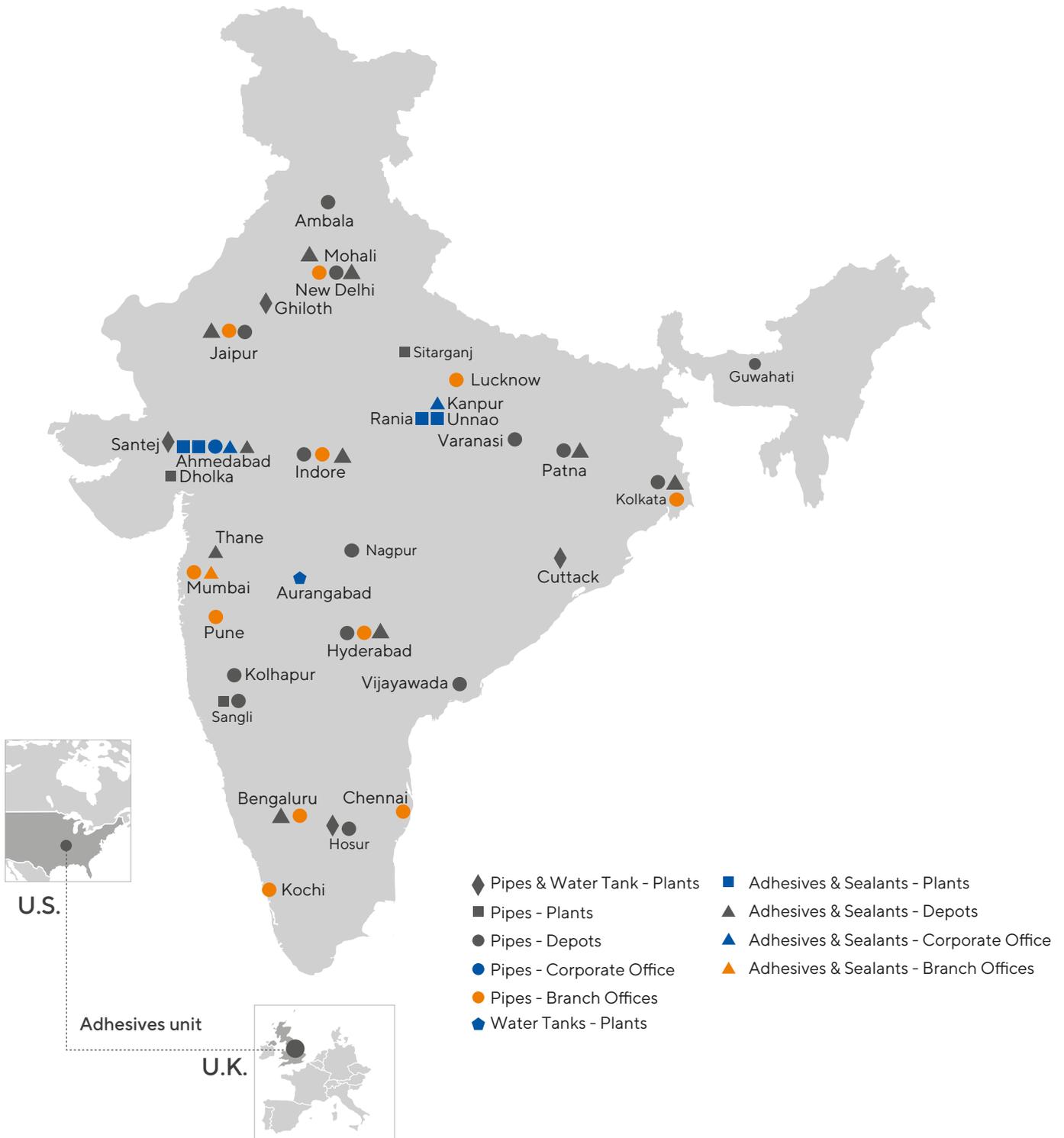
REWARDS & RECOGNITION

- 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)
- ET Inspiring Business Leaders of India Award (2016)
- India's Most Attractive Pipe Brand Award (2016)
- Fortune India 500 Company (2016)
- Consumer Validated Superbrands India (2017, 2019, 2021 & 2023)
- India's Most Desired Brand based on TRA's Brand Trust Report (2021)



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.



SYSTEM DESCRIPTION



ABOUT Rainway

In the current context of water scarcity, the collection and storage of rainwater have become imperative for various purposes. Introducing Astral Rainway: a specialized solution comprising half-cut roof water drainage pipes and fittings designed to efficiently collect rainwater from the roof's surface. The advanced design of Astral Rainway pipes and fittings ensures optimal water collection by strategically positioning them along the roof's edges where rainwater accumulates most. The half-cut shape enables a larger surface area to capture water, enhancing collection efficiency and minimizing rainwater wastage. The implementation of Astral Rainway pipes and fittings facilitates the seamless flow of rainwater, effectively preventing overflow and safeguarding the integrity of the building's structure. By mitigating the risk of water seepage or leakage, these systems contribute to preserving the roof's longevity. Moreover, through the effective management of rainwater, half-cut roof water drainage systems significantly alleviate the demand for freshwater sources.

In the face of escalating water scarcity and growing environmental concerns, the adoption of sustainable water management practices is paramount. Astral Rainway half-cut roof water drainage pipes and fittings exemplify this commitment by promoting the utilization of rainwater as a viable alternative water source. By efficiently collecting and channelling rainwater, these systems contribute to water conservation efforts, alleviate the pressure on freshwater sources, and foster sustainable water management practices.



KEY PROPERTIES



EXCEPTIONAL DESIGN

This system is having unique design that can carry high flow rates even during heavy rainfall without overflowing.



UV STABILIZED

Astral Rainway System is UV protected, hence compatible for outdoor use & provide long service life.



CORROSION RESISTANCE

Astral Rainway has a high resistance to corrosion, eliminating the need for protective coatings.



EASE OF INSTALLATION

Astral Rainway is lightweight and easy to handle, making installation fast and convenient. "Single click" mechanism provides quick and easy installation.



ENVIRONMENT FRIENDLY RECYCLABLE PRODUCT

Astral Rainway is environment friendly as it pollutes neither land nor water during the manufacturing process and during its service life. It can be recycled after prolonged service life.



BETTER FLOW

Due to excellent hydraulic properties and large cross-sectional area, this system also has a high flow carrying capacity.



NO LEAKAGES

Astral Rainway is leak-proof, thanks to "Single Click" locking & special rubber gaskets that provide stability and water tightness in different climate change.



IDEAL FOR CARRYING RAIN WATER

Astral Rainway doesn't affect water quality hence it is ideal for rain water.



LOW MAINTENANCE

Astral Rainway is maintenance free and offers long service life.

FIELDS OF APPLICATION

Used in Rainwater Collection



RESIDENTIAL BUILDINGS



INSTITUTIONS



COMMERCIAL BUILDINGS



WAREHOUSES



HOTELS



SHEDS ON PLATFORM, GARAGES, PARKING, FACTORY ETC.



SCHOOLS

COMPARISON WITH METAL SYSTEM

Sr. No	Parameters	Rainway	Metal Roof Gutter System
1	Weight	Light weight	Higher weight compared to Rainway
2	Storage	Easy Storage and Handling	Difficult Storage and Handling
3	Corrosion Resistance	Excellent Corrosion Resistance	Poor Corrosion Resistance
4	Installation	Easy Fitting and Installation	Laborious installation
5	Maintenance	Easy maintenance, Ready made parts and fittings available in market.	Complex maintenance, require fabricated part not easily available and costly.
6	Cost	Comparatively cheap to metal	Comparatively costlier

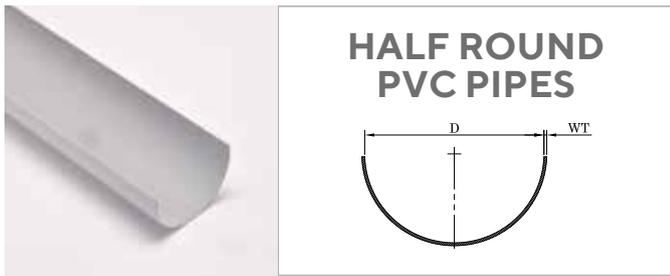
PRODUCT



RANGE

RAINWAY

PIPES, FITTINGS & ACCESSORIES



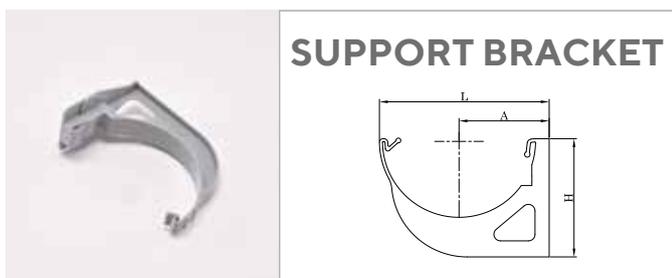
Size (cm)	Product Code	Length (metre)	D (mm)	W.T. (mm)	Packing (Nos.)
14.0	M081250311RW	3	140	2.0	18
14.0	M081250611RW	6	140	2.0	9
18.0	M081250313RW	3	180	2.6	12
18.0	M081250613RW	6	180	2.6	6
25.0	M081250316RW	3	250	3.6	6

Application: - Its use to Collect & transport roof water.



Size (cm)	Product Code	A (mm)	B (mm)	D (mm)	Packing (Nos.)
14.0	M492000411	114.2	59	75	26
18.0	M492000513	145.5	83	110	10
25.0	M492000616	230.4	86.59	160	4

Application: - To provide outlet at rain water systems to down line pipes at corner.



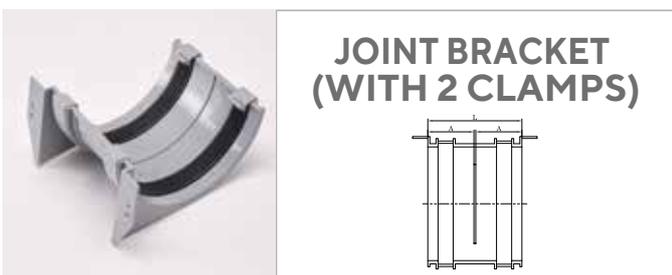
Size (cm)	Product Code	L (mm)	A (mm)	H (mm)	Packing (Nos.)
14.0	M492002211	155.89	82.8	109.33	160
18.0	M492002313	196.92	104.82	103.2	76
25.0	M492002416	274.5	144.69	179.5	40

Application: - For mounting/fixing of system on wall.



Size (cm)	Product Code	L (mm)	A (mm)	Packing (Nos.)
14.0	M492000111	114.2	59	24
18.0	M492000213	145.5	83	12
25.0	M492000316	230.4	86.59	5

Application: - Required to connect half round pipes at corners.



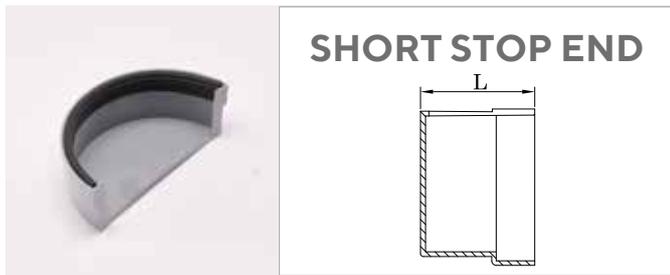
Size (cm)	Product Code	L (mm)	A (mm)	Packing (Nos.)
14.0	M492001011	115	56.35	58
18.0	M492001113	158	77.6	26
25.0	M492001216	207	101.7	14

Application: - It is used to provide leak proof connection between two half round pipes.



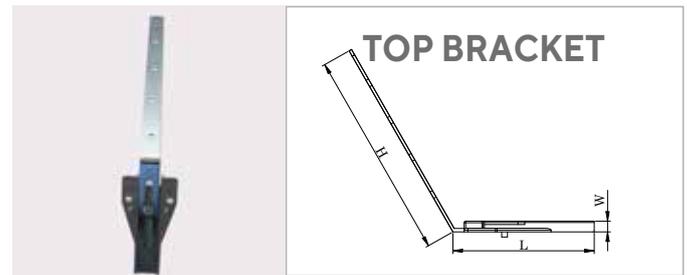
Size (cm)	Product Code	L (mm)	A (mm)	D (mm)	H (mm)	Packing (Nos.)
14.0	M492001311	230.5	25.75	75	58	21
18.0	M492001413	323.3	37.6	110	70	9
25.0	M492001516	421.8	40.4	160	84.5	4

Application: - Required to connect roof water system in between location other than pipe end or corner to down line pipes.



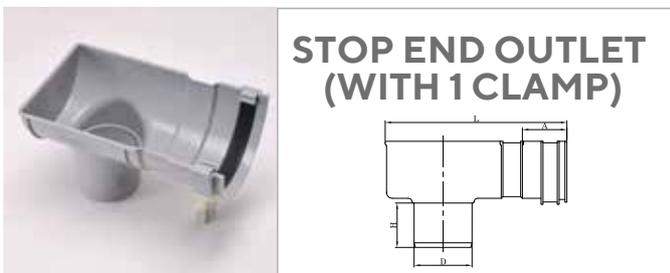
Size (cm)	Product Code	L (mm)	Packing (Nos.)
14.0	M492001611	56.6	144
18.0	M492001713	64.5	90
25.0	M492001816	85.4	27

Application: - Required to stop water at end of half round pipe.



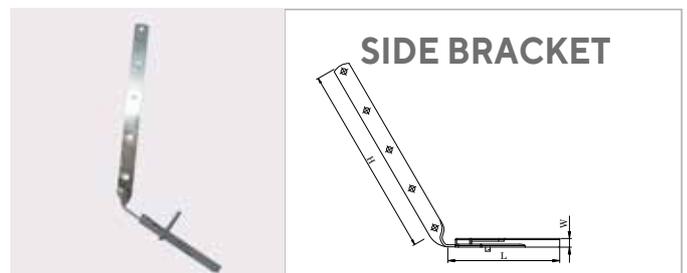
Size (cm)	Product Code	H (mm)	L (mm)	W.T. (mm)	Std. Pkg. (Nos.)
14.0	M492002511	234	113	2.5	80
18.0	M492002613	254	133	2.5	50
25.0	M492002716	436	173	2.5	30

Application: - Required to provide fastening of system at ceiling support and adjust slope of system



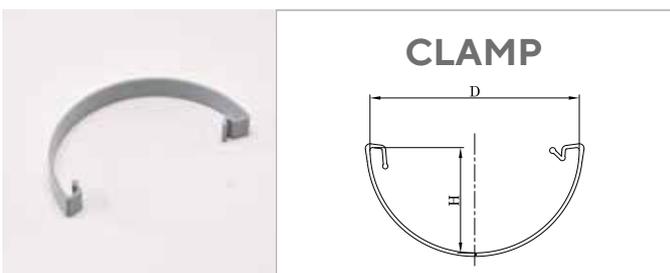
Size (cm)	Product Code	L (mm)	A (mm)	D (mm)	H (mm)	Std. Pkg. (Nos.)
14.0	M492001911	235.64	57.75	75	58	26
18.0	M492002013	326.65	80.39	110	70	16
25.0	M492002116	422.17	87.9	160	84.5	4

Application: - Required to provide connection with downline pipe at end of roof water system.



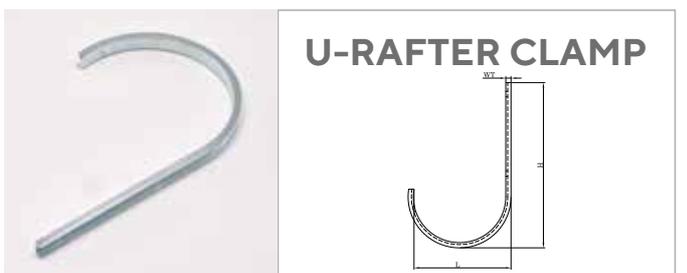
Size (cm)	Product Code	H (mm)	L (mm)	W.T. (mm)	Std. Pkg. (Nos.)
14.0	M492002811	215	115	2.5	80
18.0	M492002813	209	135	2.5	50
25.0	M492002816	379	175	2.5	30

Application: - Required to provide fastening of system at edge of side wall support and adjust slope of system.



Size (cm)	Product Code	D (mm)	H (mm)	Std. Pkg. (Nos.)
14.0	M492000711	154.75	78.5	500
18.0	M492000813	198.87	98.88	250
25.0	M492000916	275.81	104	100

Application: - A clamp is used for fastening half round pipe with other fittings to hold or secure proper fitment of half round pipe and fitting tightly together to prevent movement or separation and leak proof joint.

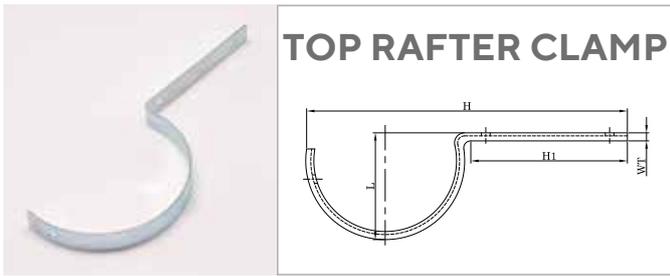


Size (cm)	Product Code	H (mm)	L (mm)	W.T. (mm)	Std. Pkg. (Nos.)
14.0	RM10220004	253.3	156.6	8	50
18.0	RM10220008	304.4	192.81	8	50
25.0	RM10220012	333.5	267	8.5	50

Application: - Required to provide support to half round pipe at wall mounting.

RAINWAY

PIPES, FITTINGS & ACCESSORIES

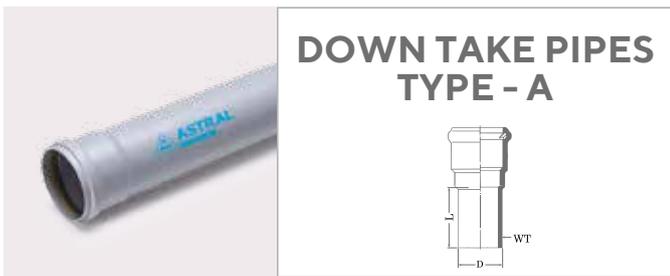


Size (cm)	Product Code	H (mm)	H1 (mm)	L (mm)	W.T. (mm)	Std. Pkg. (Nos.)
14.0	RM10220003	316.9	154.26	106	8	50
18.0	RM10220007	36.92	164.21	126.4	8	50
25.0	RM10220011	448.75	179.2	174	8.5	50

Application: - Required to provide support to system at ceiling mounting.

DRAINMASTER

PIPES, FITTINGS & ACCESSORIES



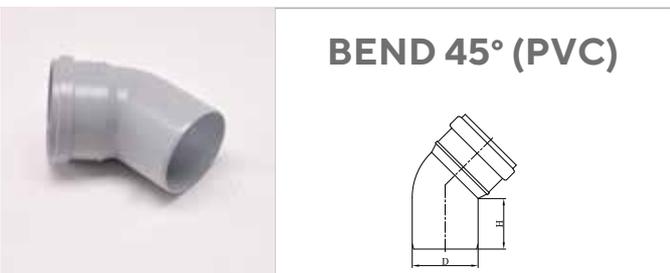
Size(D) (mm)	Product Code	Length & Socket Type	L (min) (m)	W.T. (min) (mm)	Packing (Nos.)
75	M341110307	3 M S/S	3	1.8	1
75	M341110607	6 M S/S	6	1.8	1
110	M341110309	3 M S/S	3	2.2	1
110	M341110609	6 M S/S	6	2.2	1
160	M341110312	3 M S/S	3	3.2	1
160	M341110612	6 M S/S	6	3.2	1

Application: - Its use to provide outlet to rainwater from half round pipes.



Size (cm)	Product Code	D (mm)	H (mm)	Std. Pkg. (Nos.)
7.5	M212002807	75	70.5	132
11.0	M212002809	110	83.5	110
16.0	M212002812	160	110	156

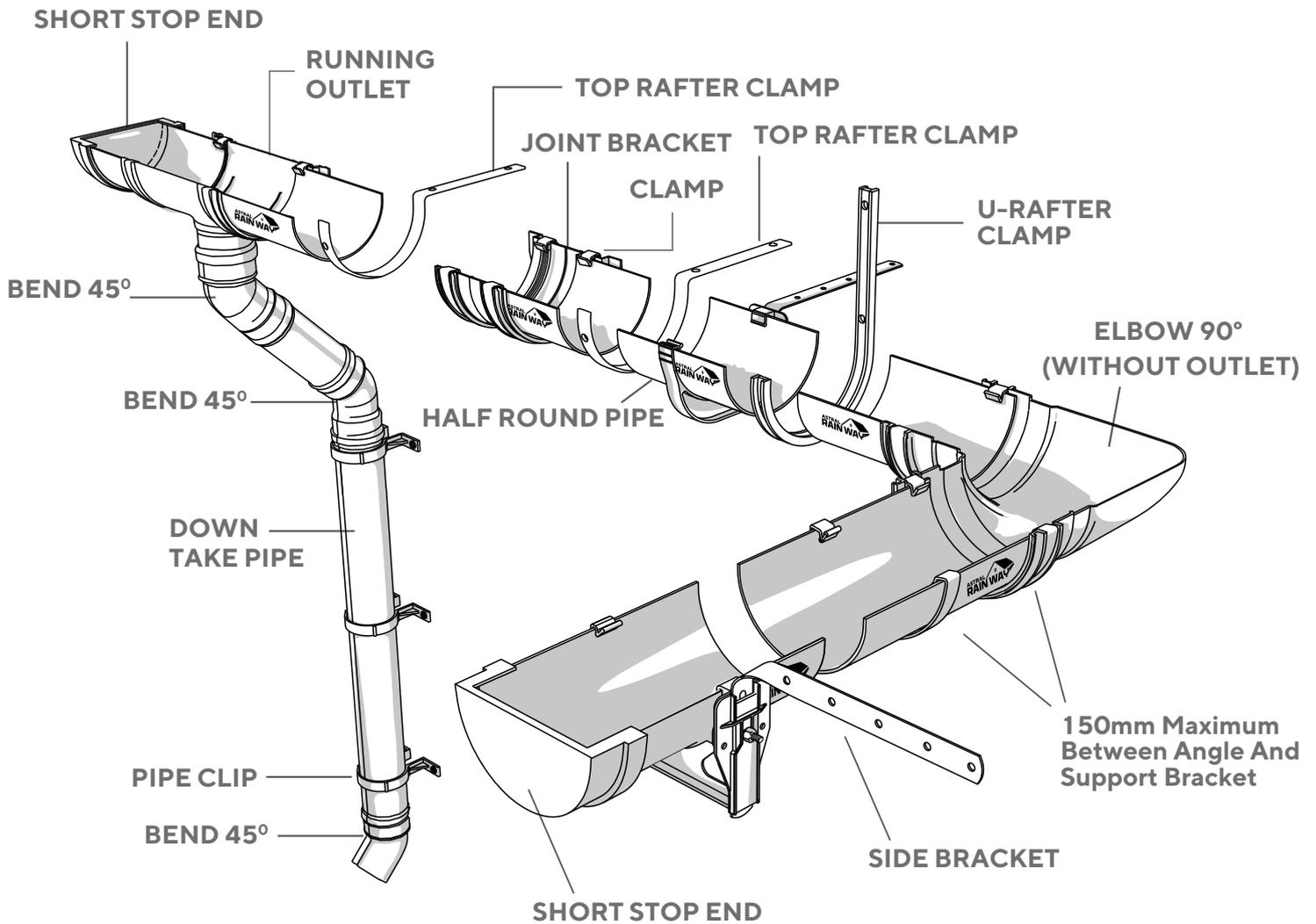
Application: - Required to provide fastening to down pipe.



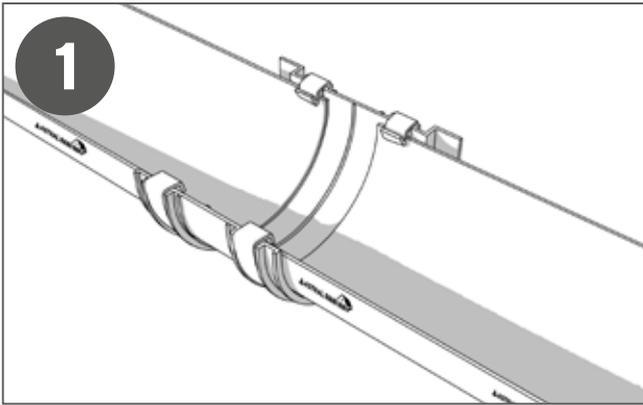
Size (cm)	Product Code	D (mm)	H (mm)	Std. Pkg. (Nos.)
7.5	M342001107	75	58	28
11.0	M342001109	110	76	18
16.0	M342001112	160	86	06

Application: - Required to provide directional change angle towards wall/support of down line pipe.

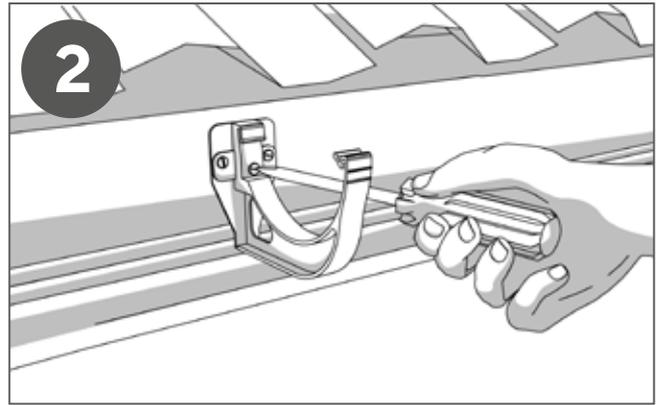
COMPONENTS OF ASTRAL RAINWAY



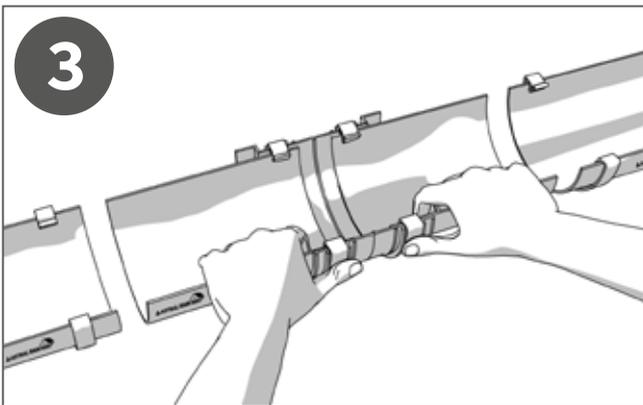
INSTALLATION PROCEDURE



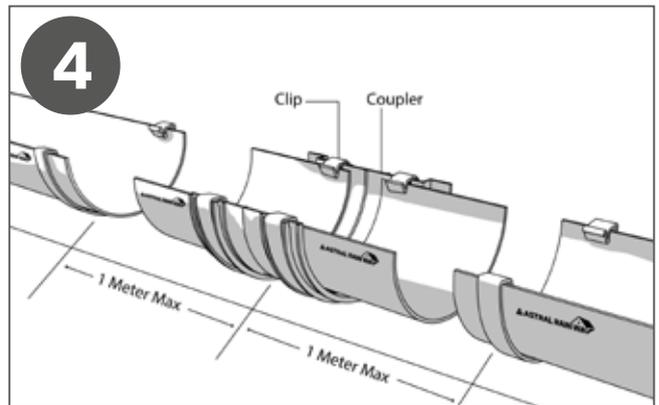
System Slop- To improve drainage and we recommend installing a Rainway System with minimum fall of 1 :500, meaning a 20 mm drop over a 10-meter span. This will increase the flow capacity and allow for a larger area of the roof to be drained.



Fixing Support bracket- When fixing the Support bracket, note that it has a single screw fixing that enables the fitting to pivot to the desired Slop of system. Fixing Support bracket, is distance below from roof edge 2 to 3 cm. Make sure that roof edge complete before centre of half round pipe (within 2 to 4 cm), to keep necessary free board.

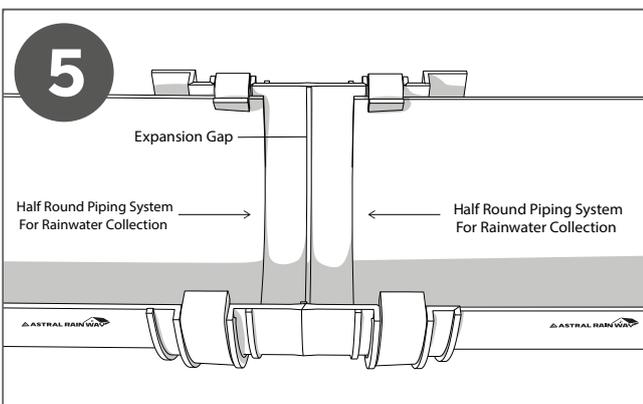


Pipe Joining- The Rainway rainwater system comes equipped with a "Single click" and seal jointing mechanism, allowing for effortless connection of various components & leak proof joints. With this feature, you can be sure of a secure, permanent, and watertight joint with other fittings.

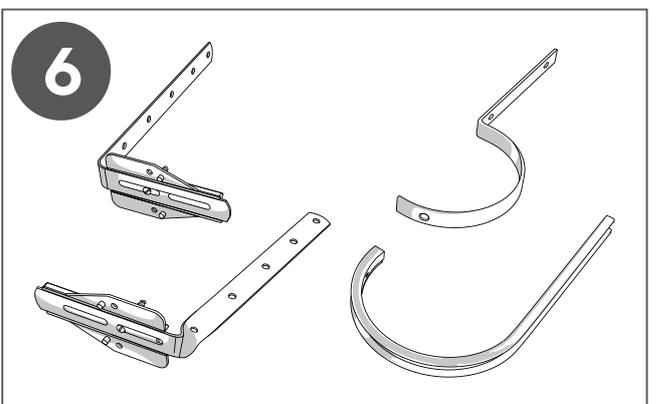


Assembly Connection Steps:

1. Position the Half round pipe edge at near Joint bracket and slide it under the clip near to the rib by keeping at least 10 mm distance for expansion and contraction.
2. Use your fingers to pull down the Half round pipe while using your thumbs to push the clip over it.



Fixing Joint Bracket - When fixing the Joint Bracket, ensure that it is supported at its centre with a support bracket, which allows for adjustment to the desired Water fall/ System angle. Additionally, make sure to fix support brackets within 1 meter of both sides of all Half round pipe joints.



Fixing rafter brackets- Choose the metal rafter bracket that best fits the needs of the site. Adjust the position of the rafter bracket to match the slope requirements, and secure System. Use adjustable rafter bracket to give slope or desire angle to system.



A consumer validated Superbrand in piping category for consecutive 4 years



India's Most Trusted Pipe Brand based on TRA's Brand Trust Report for the 5th time

Power of Desire



India's Most Desired Brand based on TRA's Brand Trust Report 2022



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Please get in touch with us between 10 AM to 6 PM between Monday to Friday and the last Saturday of the month. We will remain closed on Public Holidays.

SC: PR070000xx
ARW/PC/01
REV. 05/23