



# uPVC PRESSURE Pipes & Fittings



Leak-Proof Jointing System

Suitable for Agriculture, Industrial & Commercial Buildings

Lesser cost than Alternate Solutions



Corrosion-Free



Lighter Weight







**Products:** CPVC PIPES & FITTINGS | uPVC PLUMBING SYSTEM | PRESSURE PIPES & FITTINGS | uPVC SWR DRAINAGE SYSTEM | COLUMN PIPES | uPVC WELL CASING PIPES | HDPE PIPES | SPRINKLER SYSTEM

### About **Apollo Pipes**

APOLLO PIPES LTD. is the key group company of Sudesh Group. The company has an enriching experience of decades in manufacturing pipes and related products for all purposes. With a manufacturing plant having 20 extrusion lines and producing 60,000 tonnes of polymers annually, APOLLO PIPES LTD. has the largest manufacturing unit at a single location under one roof in North India. APOLLO PIPES LTD. business activities are focused on development, manufacturing and distribution of Plastic Piping Systems under the brand name of APL APOLLO.

APOLLO PIPES have plants located at Dadri, Sikandrabad (Uttar Pradesh) and Ahmedabad (Gujarat). The plants use flexible manufacturing techniques, greener technologies and modern machinery. We strictly follow the national and international standards while manufacturing all kinds of CPVC Pipes and Fittings, uPVC Plumbing System, uPVC SWR Piping Systems, Pressure Pipes and Fittings, Elastomeric (Ring Fit Pipes), Column Pipes, uPVC Well Casing Pipes, HDPE Pipes, Sprinkler System and Cable Ducts.



## **Pressure Piping System**

APL Apollo Pressure Piping System with a wide spectrum of Pipes & Fittings in different sizes and pressure classes is an ideal solution for water supply and irrigation. APL Apollo pressure piping system has become the prime choice of farmers, water supply bodies and different government institutions who have successfully replaced the conventional piping with APL Apollo products.

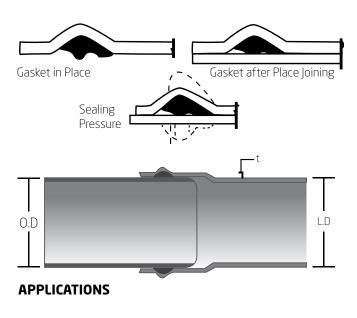
APL Apollo offers an exhaustive range of Pressure Pipes & Fittings. Pressure Pipes are manufactured as per IS 4985: 2000 standards and are available in 20 to 450 mm sizes in different pressure classes. Pipes with both types of joints, i.e., solvent cement type and rubber seal type are available. Varieties of moulded fittings and wide range of handmade Fittings are also available. Moulded Fittings are manufactured as per IS 7834 and fabricated Fittings are manufactured.

These Pipes & Fittings are used for a variety of applications like, Aggriculture, water supply, industrial process lines, swimming pools, firefighting mains, etc. These Pipes are superior to CI, DI or RCC Pipes in terms of being light in weight, easier and quicker installation, excellent corrosion and chemical resistance properties, high flow rates, long life and economy.

#### Pressure Pipes are offered in Socketed (Self Fit) & Elastomeric (Ring Fit)variants

#### THE RING FIT JOINTING SYSTEM

The following diagrams show the cross-section view of the Elastomeric Pipe before & after assembly. When the Pipes are pushed together the rubber field is compressed. The composition gives rise to a sealing pressure that acts on the socket and sigpot as shown in the illustration below.



APL Apollo Pressure Pipes are multipurpose product with a wide range of applications in (Potable Water Transportation) (underground Pipe lines) for agriculture farms & domestic water supply lines, agricultural & domestic tube wells & bore wells, also they are often applied as drain pipes in residential, commercial & industrial buildings. APL Apollo uPVC Pipes are manufactured conforming to IS-4985 & the Fittings conforming to IS-7834. APL Apollo Pressure Pipes offer a maintenance-free solution for a longer & non-rusting and corrosion-free service life of more than 50 years







Commercial

#### **PRESSURE FITTINGS AS PER IS: 7834**



#### AGRI PIPES CONFORMING TO IS 4985-2000

| AGRI PIP  | ES                       |       |
|-----------|--------------------------|-------|
| Class I   | - 3″x16″                 |       |
| Class II  | - 2″x16″                 | 31    |
| Class III | - 1 <sup>1/4</sup> "x16" |       |
| Class IV  | - 3/4""x16"              | 1 × 1 |
| Class V   | - 1/2″x16″               |       |

#### **PRESSURE PIPES & FITTINGS FEATURES AND BENEFITS**

| Manufactured from quality raw material   | <ul> <li>APL Apollo Pressure Pipes offer high strength &amp; durability</li> </ul>   |  |  |  |  |
|--|--|--|--|--|--|
| World-class machining  | <ul> <li>APL Apollo Pressure Pipes are manufactured on most sophisticated, state-<br/>of-the-art machines to ensure a flawless product at every time</li> </ul>            |  |  |  |  |
| Easy handling, transportation & installation                                       | <ul> <li>APL Apollo Pressure Pipes are lighter in weight than the conventional metal<br/>pipes</li> </ul>  |  |  |  |  |
|  | > APL Apollo Pressure Pipes cost less than the other alternates  |  |  |  |  |
| Economical   | <ul> <li>Cost of transportation, handling and installation is lower</li> </ul>   |  |  |  |  |
|  | Non-reactive with acidic & alkali substances in water  |  |  |  |  |
| APL Apollo Pressure Pipes offer excellent chemical resistance                      | <ul> <li>Ideal for drain water discharge as well as a numerous number of chemicals<br/>like strong minerals acids that could be therein</li> </ul>                         |  |  |  |  |
|  | <ul> <li>Non-corrosive, ensures longer life cycle</li> </ul>   |  |  |  |  |
| APL Apollo Pressure Pipes are non-conductive                                       | <ul> <li>Offers excellent life avoiding Electrochemical reactions, which generally lead<br/>to encrustation of Pipes</li> </ul>  |  |  |  |  |
| Longevity of Lifecycle   | <ul> <li>APL Apollo Pressure Pipes generally have a lifecycle of up to 50 years, which<br/>saves on replacement &amp; replenishment costs</li> </ul>                       |  |  |  |  |
| APL Apollo Pressure Pipes are<br>manufactured under stringent quality<br>standards | APL Apollo Pressure System offers a reliable piping system which is highly resilient, tough & durable with excellent impact strength                                       |  |  |  |  |
| Ease of use  | <ul> <li>APL Apollo Pressure Pipes offers fast &amp; easy jointing which saves on time &amp; cost of installation yet a long and reliable service life</li> </ul>          |  |  |  |  |
| Better flow for optimum yields   | <ul> <li>APL Apollo Pressure Pipes have a smoother (inner) surface as compared to<br/>the alternate products maintaining smooth flow of water</li> </ul>                   |  |  |  |  |
|  | APL Apollo Pressure Pipes with self fit (solvent cement based) jointing system ensures leak proof jointing system for optimum results                                      |  |  |  |  |
| Leak proof joints  | APL Apollo Pressure Pipes with Elastomeric (Ring Fit) jointing provides special<br>rubber rings at the joints which offer quick & easy installation & leak-proof<br>joints |  |  |  |  |
|  | UV stabilised  |  |  |  |  |
| Exceeds in reliability   | <ul> <li>Suitable for outdoor application</li> </ul>   |  |  |  |  |
|  | <ul> <li>Offers longer lifecycle</li> </ul>  |  |  |  |  |



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| Nominal             |                       |       | Wall Thickness      |     |                    |      |                    |      |
|---------------------|-----------------------|-------|---------------------|-----|--------------------|------|--------------------|------|
| Outside<br>Diameter | Mean Outside Diameter |       | Class 1<br>0.25 Mpa |     | Class 2<br>0.4 Mpa |      | Class 3<br>0.6 Mpa |      |
| Nominal Size        | Min                   | Max   | Min                 | Max | Min                | Max  | Min                | Max  |
| 20                  | 20.0                  | 20.3  | -                   | -   | -                  | -    | -                  | -    |
| 25                  | 25.0                  | 25.3  | -                   | -   | -                  | -    | -                  | -    |
| 32                  | 32.0                  | 32.3  | -                   | -   | -                  | -    | -                  | -    |
| 40                  | 40.0                  | 40.3  | -                   | -   | -                  | -    | 1.4                | 1.8  |
| 50                  | 50.0                  | 50.3  | -                   | -   | -                  | -    | 1.7                | 2.1  |
| 63                  | 63.0                  | 63.3  | -                   | -   | 1.5                | 1.9  | 2.2                | 2.7  |
| 75                  | 75.0                  | 75.3  | -                   | -   | 1.8                | 2.2  | 2.6                | 3.1  |
| 90                  | 90.0                  | 90.3  | 1.3                 | 1.7 | 2.1                | 2.6  | 3.1                | 3.7  |
| 110                 | 110.0                 | 110.4 | 1.6                 | 2.0 | 2.5                | 3.0  | 3.7                | 4.3  |
| 125                 | 125.0                 | 125.4 | 1.8                 | 2.2 | 2.9                | 3.4  | 4.3                | 5.0  |
| 140                 | 140.0                 | 140.5 | 2.0                 | 2.4 | 3.2                | З.8  | 4.8                | 5.5  |
| 160                 | 160.0                 | 160.5 | 2.3                 | 2.8 | 3.7                | 4.3  | 5.4                | 6.2  |
| 180                 | 180.0                 | 180.6 | 2.6                 | 3.1 | 4.2                | 4.9  | 6.1                | 7.1  |
| 200                 | 200.0                 | 200.6 | 2.9                 | 3.4 | 4.6                | 5.3  | 6.8                | 7.9  |
| 225                 | 225.0                 | 225.7 | 3.2                 | 3.9 | 5.2                | 6.0  | 7.6                | 8.8  |
| 250                 | 250.0                 | 250.8 | 3.6                 | 4.2 | 5.7                | 6.5  | 8.5                | 9.8  |
| 280                 | 280.0                 | 280.9 | 4.1                 | 4.8 | 6.4                | 7.4  | 9.5                | 11.0 |
| 315                 | 315.0                 | 316.0 | 4.6                 | 5.3 | 7.2                | 8.3  | 10.7               | 12.4 |
| 355                 | 355.0                 | 356.1 | 5.1                 | 5.9 | 8.1                | 9.4  | 12.0               | 13.8 |
| 400                 | 400.0                 | 401.2 | 5.8                 | 6.7 | 9.1                | 10.5 | 13.5               | 15.6 |
| 450                 | 450.0                 | 451.4 | 6.5                 | 7.5 | 10.3               | 11.9 | 15.2               | 17.5 |

#### APL Apollo PRESSURE PIPES TECHNICAL CHART CONFORMING TO IS: 4985

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| Nominal             | Mean Outside Diameter |       | Wall Thickness     |      |                    |      |                     |      |
|---------------------|-----------------------|-------|--------------------|------|--------------------|------|---------------------|------|
| Outside<br>Diameter |                       |       | Class 4<br>0.8 Mpa |      | Class 5<br>1.0 Mpa |      | Class 6<br>1.25 Mpa |      |
|                     |                       |       |                    |      |                    |      |                     |      |
| Nominal Size        | Min                   | Max   | Min                | Max  | Min                | Max  | Min                 | Max  |
| 20                  | 20.0                  | 20.3  | -                  | -    | 1.1                | 1.5  | 1.4                 | 1.8  |
| 25                  | 25.0                  | 25.3  | 1.2                | 1.6  | 1.4                | 1.8  | 1.8                 | 2.1  |
| 32                  | 32.0                  | 32.3  | 1.5                | 1.9  | 1.8                | 2.2  | 2.2                 | 2.7  |
| 40                  | 40.0                  | 40.3  | 1.8                | 2.2  | 2.2                | 2.7  | 2.8                 | 3.3  |
| 50                  | 50.0                  | 50.3  | 2.3                | 2.8  | 2.8                | 3.3  | 3.4                 | 4.0  |
| 63                  | 63.0                  | 63.3  | 2.8                | 3.3  | 3.5                | 4.1  | 4.3                 | 5.0  |
| 75                  | 75.0                  | 75.3  | 3.4                | 4.0  | 4.2                | 4.9  | 5.1                 | 5.9  |
| 90                  | 90.0                  | 90.3  | 4.0                | 4.6  | 5.0                | 5.7  | 6.1                 | 7.1  |
| 110                 | 110.0                 | 110.4 | 4.9                | 5.6  | 6.1                | 7.1  | 7.5                 | 8.7  |
| 125                 | 125.0                 | 125.4 | 5.6                | 6.4  | 6.9                | 8.0  | 8.5                 | 9.8  |
| 140                 | 140.0                 | 140.5 | 6.3                | 7.3  | 7.7                | 8.9  | 9.5                 | 11.0 |
| 160                 | 160.0                 | 160.5 | 7.2                | 8.3  | 8.8                | 10.2 | 10.9                | 12.6 |
| 180                 | 180.0                 | 180.6 | 8.0                | 9.2  | 9.9                | 11.4 | 12.2                | 14.1 |
| 200                 | 200.0                 | 200.6 | 8.9                | 10.3 | 11.0               | 12.7 | 13.6                | 15.7 |
| 225                 | 225.0                 | 225.7 | 10.0               | 11.5 | 12.4               | 14.3 | 15.3                | 17.6 |
| 250                 | 250.0                 | 250.8 | 11.2               | 12.9 | 13.8               | 15.9 | 17.0                | 19.6 |
| 280                 | 280.0                 | 280.9 | 12.5               | 14.4 | 15.4               | 17.8 | 19.0                | 21.9 |
| 315                 | 315.0                 | 316.0 | 14.0               | 16.1 | 17.3               | 19.9 | 21.4                | 24.7 |
| 355                 | 355.0                 | 356.1 | 15.8               | 18.2 | 19.6               | 22.6 | 24.1                | 27.8 |
| 400                 | 400.0                 | 401.2 | 17.8               | 20.5 | 22.0               | 25.3 | 27.2                | 31.3 |
| 450                 | 450.0                 | 451.4 | 20.0               | 23.0 | 24.8               | 28.6 | 30.5                | 35.1 |

#### Installation Guide



CUTTING: Cut the pipe with the help of a Hand Saw & make sure it should cut from right angles from all sides. The cut piece should not be with burr on edges.



DEBURRING AND RIDGE **REMOVAL:** Remove all the burrs and ridges accumulated on the inner and on the outer edges of the pipe with the help of a deburring knife, file or abrasive paper.



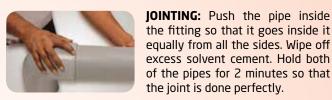
**CLEANING:** clean the pipe with dry cloth to avoid dust, dirt, oil, moisture and other foreign material during the installation process.



**CHAMFERING:** After cutting, the pipe needs to be chamfered from the outer sides. It is advisable to provide approximately 2 mm wide, 150 chamfer on spigot end.







place . JOINTING: Push the pipe inside the fitting so that it goes inside it equally from all the sides. Wipe off excess solvent cement. Hold both

**DRYFIT TEST:** Before applying

solvent cement, insert the pipe end

into the socket of the next pipe or

fitting to check that interference

occurs at about 1/3 to 2/3 of the

**CEMENT:** Mark the pipe length to be inserted for jointing. Apply a

liberal coat of solvent cement with

the help of the brush at the correct

OF

SOLVENT

socket depth.

APPLICATION

#### Note :

- a) Pipe line should be installed in proper alignment and along with necessary clamps.
- b) Pressure testing to be done before concealing work.
- c) Pressure testing may be carried out after a curing period of 24 hrs.

#### **Our Product Range**

| CPVC Pipes & Fittings : | APL Apollo CPVC Pipes & Fittings (as per ASTM D-1784, ASTM D-2846, ASTM F-439, ASTM F-441, ASTM F-438 & ASTM F-493) is a safe, long lasting and cost-effective solution for hot and cold water. This system is suitable for all plumbing and potable water application.  |
|-------------------------|--|
| uPVC Plumbing System :  | APL Apollo uPVC Plumbing System (as per ASTM D-1785 & ASTM D-2467) being lead-free and non-toxic is favourable for carrying potable water. It is used for high pressure water distribution plumbing in residential, commercial and industrial buildings.   |
| SWR Piping System :     | APL Apollo uPVC SWR Piping System (as per IS:14735-99 & IS:13592-92) is an easy & economical product, ideal for drainage of soil waste and rain water application in residential, commercial and Industrial buildings.   |
| Column Pipes :          | APL Apollo Column Pipes are manufactured for borewell / submersible pumps which offer many advantages like-light weight, high tensile load capacity, leak-proof joints and long life with economy and hence, emerges as the best option for conventional metal pipes.  |
| Well Casing Pipes :     | APL Apollo uPVC Well Casing Pipes an ideal preference for applications like protection of<br>domestic, irrigation, industrial and mining borewells.  |
| HDPE Pipes :            | HDPE is strongly resistant to stress cracking and has low creep rupture properties. It has excellent insulation properties over a wide range of frequencies and is not chemically active.  |
| Sprinkler System :      | APL Apollo Sprinkler System (as per IS:14151) is suitable for almost all field crops like wheat , gram, pulses as well as vegetables, cotton, soya bean, tea, coffee and other fodder crops, Suitable for residential, industrial, hotel, resorts, public & government enterprises, golf links, race courses, etc. |

#### **Apollo Pipes Ltd.,**

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