Air Pipes

Jindal group is the largest manufacturer of ERW Pipes, well diversified in various piping systems such as PE-AL-PE Pipes (also known as Multi Layered Composite Pipes or Jindal MLC Pipes), PVC Pipes, UPVC Pipes, HDPE Pipes and CPVC Pipes. These pipes are used for various applications such as Hot & Cold Water supply, Drainage, Irrigation water supply, Borewell water supply and Gas Distribution system.

Air Connect Piping system are composed of Multi layered composite pipes and a range of different types of fittings. The fittings are available in Brass and Plastic materials and are joint using either compression technique or crimp technique. This provides the customer various options to choose from depending on their budget, requirement and application.

Compressed Air is required in manufacturing and industrial activities for a multitude of applications. It is used to control and regulate appliances and is the driving force for pneumatic drills, conveyors, spray guns, machine tools etc. For these appliances to function correctly it is very important to ensure that the quality of air employed is excellent. In Air Connect pipes the inner surface of the pipe which comes in direct contact with air is made of polyethylene which unlike metal pipes guarantees absence of rust and impurities formed by condensation that could become detached from the pipe walls. Cleaner Air also means that the filters require less maintenance. Also Air Connect pipes are suitable for use at high operating pressures of upto 232 psi. Air Connect Pipes are bendable without springing back and come in coils of upto 200 meters which significantly reduces the number of joints in the piping system.

Air Connect piping system can be easily and quickly installed, modified or expanded without the need for specialized equipment, providing clean, reliable and long-term performance. The strength of Jindal lies in its quality products and prompt service. For over 50 years Jindal has been a trusted name in the piping industry satisfying customers through its extensive distribution network all over India and worldwide.

ADVANTAGES

- Long Working Life
- Low Thermal Conductivity
- Low Thermal linear expansion
- Cleaner Air due to corrosion free surface
- EBetter flow rate
- Compact Piping system
- Bendable without springing back
- Lower labour cost
- Minimum Fittings

EASE OF INSTALLATION

- Pipes and fittings are supplied ready for installation
- No in-depth training required
- No need to weld, glue, fuse or thread
- Time Saving
- Easy to install, handle and Transport
- Light Weight
- Pipes do not require painting
- Can be modified or expanded without the need for Specialized Equipment

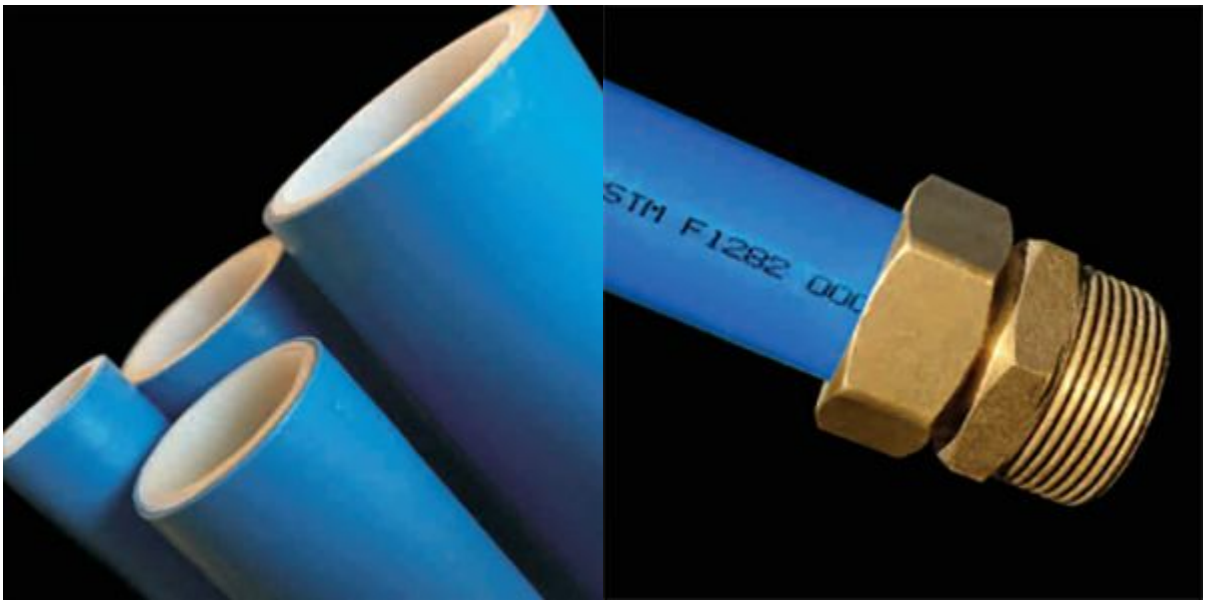
RESISTANT TO

- Thermal variations
- Corrosion
- Mineral and Synthetic Compressor Oils
- Acidic condensation
- Fire (retardant)

PIPES

Air Connect Pipes are constructed of an inner and outer layer of Polyethylene sandwiched over an aluminum core. All the layers are permanently bonded together by an intermediate layer of polyethylene based adhesive. The aluminum core is sealed by Over-lap welding technology which enables the pipes to withstand high working pressures.

The Polyethylene layer contributes approximately 30% to the overall strength of the pipe, the remaining 70% coming from Aluminum layer. It is a bendable pipe and comes in coils of upto 200 meters which significantly reduces the number of joints in the piping system such as couplers and elbows.



SALIENT FEATURES

Anyone who grew up with the old fashioned piping system will appreciate the advantages of Air Connect Pipes. Its flow rate is superior to other systems, its virtually maintenance free as it does not rust or corrode. Similarly it has various features which make it the suitable choice in Compressed Air piping system.

- **BENDABILITY**

  The unique feature of Air Connect pipes is its flexibility, these pipes can be bent in any shape without it springing back to its original shape, i.e. It retains the given shape.

- **CORROSION RESISTANCE**

  Air Connect's Polyethylene layer resists corrosion and hence provides a longer service life compared to traditional metallic pipes that are susceptible to corrosion.

- **PERMEATION BARRIER**

  The unique composite construction of Air Connect Pipes eliminates permeation of air through the pipe wall ensuring the delivery of pure gases. The central layer of Aluminum acts as a barrier to such permeation.

- **CHEMICAL RESISTANCE**

  Air Connect Pipes along with its associated fittings have an outstanding resistance to a wide range of compressor oil and lubricants.

- **THERMAL EXPANSION**

  Air Connect Pipes have a low coefficient of thermal linear expansion, similar to Aluminum pipes. It is significantly less than the expansion rates of most plastic pipes. This eliminates the need to install “offsets” and the concern of pipe abrasion from movement due to temperature changes. The coefficient of thermal expansion is 25 x 10^{-} m/m.k. Low expansion coefficient is due to the adhesive layer which eliminates the differential expansion of plastic and metal.

- **MINIMUM FITTINGS**

  Due to the flexibility of pipe, fittings such as elbows and couplers are not required. This in turn leads to optimized flow rates and possible leakage points are also reduced.

- **STRENGTH REMAINS SAME AFTER BENDING**

  The minimum bending radius of Air Connect pipes is 2-5 times the Outside diameter of the pipe. The tensile and compressive stresses developed on the outermost and innermost layer of the pipe cross section respectively are well within the allowable limits. Hence the pipes bent within this limit can be safely used without any reduction in basic strength of the pipe.

- **LIGHT WEIGHT AND STRONG**

  Air Connect pipes are upto 90% lighter compared to other piping systems such as GI, Aluminum, PPR pipes and yet can withstand high pressures of upto 232 psi making them easy to install, handle and use.

- **HIGHER FLOW RATES**

  Air Connect pipes have a smooth inner layer which leads to superior flow rates. It has a high Hazen Williams flow coefficient of c=150. Since the pipes are rust and corrosion resistant, the inside diameter is maintained throughout its life-cycle leading to constant flow rates over time.

- **TOXICITY**

  Air Connect Pipes are excellent choice for the delivery of gaseous carbon dioxide in food and beverage applications. The Polyethylene used in Air Connect Pipes is of food grade quality