

## **Indian Standard IS 1537:1976 – Your Guide to Vertically cast Iron Pressure Pipes**

For transport of water, gas and sewage, cast iron pipes are used in main lines of transport system. These cast iron pipes are manufactured by vertical casting of iron in sand moulds. The Indian Standard IS 1537:1976 provides for specifications for Vertically cast Iron Pressure Pipes for water, gas and sewage. This standard also covers pipes with sockets and flanges.

The cast iron pipes are expected to handle the water/gas/sewage under pressure and endure operational stresses without deforming, making strength a critical parameter. The pipes should be such that they could be cut, drilled or machined in order to be joined to make the transport system. Dimensional accuracy is also crucial, as pipes must adhere to specific thicknesses, diameters, and lengths for proper fit and function in construction and industry. As the pipes are made of cast iron making susceptible to corrosion, coating becomes a major quality parameter for the durability of the iron pipes.

The standard specifies different dimensions of the pipe and tolerances on the dimensions so that they could fit in each other and be integrated easily to make a transportation system. To ensure that the cast iron pipe endures the strength needed, the standard specifies for Mechanical Strength parameter such as Tensile Strength and Hardness. The pipes and its fittings are tested by keeping it under pressure for specified time to showcase its Hydrostatic test performance. The requirements of Coating and mass of pipes are also specified in the standard for corrosion protection and enhance durability.