

IS 15660: Refillable Transportable Seamless Aluminium Alloy Gas Cylinders

IS 15660 defines the specifications for refillable, transportable, seamless aluminium alloy gas cylinders. These cylinders are designed to store and transport compressed, permanent, and liquefiable gases under pressure. They are commonly used in various industries, including industrial, medical, and automotive sectors.

Consumers expect the following key quality parameters in these gas cylinders:

1. **Safety:**
 - **Robust Construction:** The cylinder should be built to withstand high pressures and accidental impacts.
 - **Leak-Proof Design:** It should have a reliable sealing mechanism to prevent gas leakage.
 - **Corrosion Resistance:** The material should be resistant to corrosion, especially in harsh environments.
 - **Compliance with Safety Standards:** The cylinder should adhere to relevant safety standards, including IS 15660.
2. **Durability:**
 - **Long Service Life:** The cylinder should be durable and withstand repeated filling and emptying cycles.
 - **Resistance to Wear and Tear:** It should be able to handle rough handling and transportation.
3. **Reliability:**
 - **Consistent Performance:** The cylinder should perform reliably under various conditions.
 - **Accurate Pressure Gauge:** The pressure gauge should provide accurate readings.
4. **Ease of Use:**
 - **User-Friendly Design:** The cylinder should be easy to handle and operate.
 - **Clear Labelling:** It should have clear labelling indicating the type of gas and safety instructions.

IS 15660 addresses these consumer expectations by providing detailed specifications for:

- **Material:** The standard specifies the type of aluminium alloy to be used, ensuring its strength, durability, and corrosion resistance.
- **Design and Manufacturing:** It outlines the design requirements, including wall thickness, dimensions, and manufacturing processes.
- **Testing and Inspection:** The standard mandates rigorous testing procedures to verify the cylinder's strength, leak tightness, and overall quality.
- **Marking and Labelling:** It specifies the required markings and labels to provide essential information to users.
- **Periodic Inspection:** The standard emphasizes the importance of periodic inspection and testing to maintain the cylinder's safety and reliability.

By adhering to the guidelines of IS 15660, manufacturers can produce high-quality gas cylinders that meet consumer expectations for safety, durability, reliability, and ease of use.