



Indian Standard IS 3196 (Part 2): 2006 – Welded Low Carbon Steel Gas Cylinders for Low Pressure Liquefiable Gases (Exceeding 5 Liter Water Capacity) – Cylinders for Liquefiable Gases Other than LPG

IS 3196 (Part 2) specifies the design, construction, testing, and inspection of welded low-carbon steel gas cylinders intended for the storage and transportation of liquefiable gases (excluding LPG), with a water capacity exceeding 5 liters. These cylinders are critical for safely storing gases such as ammonia, butane, and various industrial gases that are liquefied under pressure at ambient temperatures.

Consumers expect high-quality, durable cylinders that meet safety standards, provide reliable performance, and ensure safe handling of liquefiable gases. Key expectations include:

1. **Structural Integrity:** The cylinder must withstand internal pressure without deforming or leaking, ensuring that the stored gas remains safely contained.
2. **Material Quality:** The use of high-quality low-carbon steel ensures resistance to corrosion and mechanical failure, maintaining the cylinder's strength and durability over time.
3. **Safety Features:** Proper valve installation, pressure relief mechanisms, and testing for leakage and other failures are crucial to preventing accidents.

IS 3196 (Part 2) addresses these expectations through strict guidelines on:

- **Material Specifications:** It prescribes the use of specific grades of low-carbon steel to ensure the cylinder's strength, weldability, and corrosion resistance.
- **Design and Construction:** The standard details the required design features, such as wall thickness and structural tolerances, ensuring that the cylinders can safely withstand both normal and extreme operating conditions.
- **Testing and Inspection:** It mandates comprehensive testing procedures including hydrostatic, pneumatic, and visual inspections to verify cylinder integrity before use.

By adhering to IS 3196 (Part 2), manufacturers can ensure the production of gas cylinders that meet the safety and quality expectations of consumers, promoting both reliability and operational safety in the handling of liquefiable gases.