



IS 12300 : 2024 Gas Cylinder Valves for Small Refrigerant Cylinders — Specification

IS 12300:2024 specifies the requirements for gas cylinder valves designed for **small refrigerant cylinders**. These valves are critical components that regulate the release of refrigerant gases, ensuring controlled flow and safety during usage and storage. They are commonly used in industries that handle **refrigerants**, such as **HVAC** (Heating, Ventilation, and Air Conditioning) and **refrigeration services**.

These valves must be safe, leak-proof, durable, and resistant to corrosion and wear, as they handle **refrigerant gases** under pressure. High-quality valves should ensure a tight seal, ease of operation, and compatibility with various refrigerant types to prevent **gas leaks** and maintain safety standards.

IS 12300:2024 outlines specifications for gas cylinder valves designed for small refrigerant cylinders with a water capacity of up to **25 litres**. The standard includes specifications on the dimensions, materials, and construction of the valves. Specifically, it ensures that the valve materials are compatible with both the refrigerant gases and the cylinder materials themselves. The construction is specified to meet robustness and safety requirements, including tensile and impact strength.

Moreover, the document prescribes **threading** details for valve stems, types of outlet connections, and general machining **tolerances**. These details ensure the valves function reliably under specified conditions, maintaining **safety and performance**.

IS 12300:2024 also focuses on ensuring that valves are safe and reliable in **real-world use**. It requires that the valves seal properly to **prevent leaks** and stay **functional** under normal conditions. The **valves** are tested for durability and performance to make sure they work well under pressure and don't fail easily.

While implementing this standard, the manufacturer and the **inspection agency** shall ensure compliance with **statutory regulations**. It is the responsibility of the owners and the users to ensure that the **cylinders** are periodically **tested** as per norms laid down in **Gas Cylinder Rules, 2016** as amended from time to time and as enforced by statutory authorities under the rules.