

# **IS 7302:2018 specifies requirements for valve fittings in Self-Contained Breathing Apparatus (SCBA) and Self-Contained Underwater Breathing Apparatus (SCUBA)**

The BIS Standard IS 7302:2018 specifies requirements for valve fittings for use with refillable high pressure cylinders for breathing apparatus namely Self-Contained Breathing Apparatus (SCBA) and Self-Contained Underwater Breathing Apparatus (SCUBA). These valve fittings are essential in high-pressure gas cylinders used in life-saving breathing equipment, supplying breathable air, oxygen or oxygen/nitrogen mixtures to users in hazardous or underwater environments.

## ➤ **Key specification:**

- **Materials:** These valves body shall be forged from wrought or extruded section of brass and comply with the requirements like Tensile strength, Impact strength.

- **Safety Design:** The valves with component are engineered for reliable performance in extreme conditions, ensuring users receive a consistent air supply when required.

## ➤ **Testing and Compliance:** To meet IS 7302:2018 standards, valve fittings undergo several tests to verify their functionality, reliability, and safety under extreme conditions. These include:

- **Valve Burst Pressure Tests:** The valves are subjected to high-pressure conditions to confirm they can handle the maximum cylinder pressure without failing.

- **Leak Tests:** These tests ensure that valves are leak-proof, maintaining an airtight seal that preserves the cylinder's air supply.

- **Endurance Testing:** The valves must perform consistently over repeated uses, simulating real-life applications to validate durability.

- **Impact Testing:** This evaluates the valve's resilience to physical shocks or impacts, which could occur during handling or in emergency situations.

This standard guarantees that SCBA and SCUBA valve fittings provide safe, uninterrupted air supply in life-critical situations, offering peace of mind for users and meeting strict safety and performance requirements.

## **When buying ISI-marked valve fittings in Self-Contained Breathing Apparatus (SCBA) and Self-Contained Underwater Breathing Apparatus (SCUBA) here's what to check-**

- Marking Detail include year and month of manufacturer, Valve Lot/Batch Identification, Chemical symbol of gas, Manufacturer Identification, IS 7320, Working pressure of valve, Internal Thread code, BIS Standard Mark with CM/L No.

- To verify the CM/L number marked on the product, **download the BIS CARE app** from the Play Store.

- You may explore further by downloading the standard for free from **<https://standardsbis.bsbedge.com/>**.