

## **Indian Standards Summary Writings**

### **Welded and Seamless Steel Dissolved Acetylene Gas Cylinders — Specification**

Welded and seamless steel dissolved acetylene gas cylinders are storage containers designed to hold acetylene gas, which is used mainly in welding and cutting. "Welded" cylinders have seams from welding, while "seamless" ones are formed without seams, making them more durable. Both types of Acetylene Gas Cylinder covered safely dissolve acetylene in a porous material to prevent explosions. Porosity in acetylene gas cylinders prevents explosions by safely absorbing and dispersing acetylene gas within a porous material, like a sponge, inside the cylinder.

The Indian Standards IS 7312: 2018 covers the requirements for the materials, design manufacture, construction, test and marking on these cylinders. This standard was first published in 1974 when the manufacturing of these Acetylene Gas Cylinders was not commenced in the country. This standard was revised in 1982 and 1993 when the manufacturing started by the domestic manufacturer. Subsequently this standard was also aligned with ISO 3807: 2013 and included seamless cylinder also.

The major tests covered are Tensile Test, Hydrostatic Test, Pneumatic Leakage Test, Burst Test, Technical requirements for Acetylene Porous Filling Mass and Solvent, Elevated Temperature Test, Vibration Test, Backfire Test, and Bonfire test etc. to ensure the reliability, safety and usability of the Acetylene Gas Cylinders.