

## **611-2310 (35-080) Bourdon Gauge**

### **Warranty and Parts:**

We replace all defective or missing parts free of charge. Additional replacement parts may be ordered toll-free. We accept MasterCard, Visa, checks and School P.O.s. All products warranted to be free from defect for 90 days. Does not apply to accident, misuse or normal wear and tear. Intended for children 13 years of age and up. This item is not a toy. It may contain small parts that can be choking hazards. Adult supervision is required.

This method of measuring the pressure of liquids and gases is as useful today as when it was patented by a French watchmaker in 1849.

For many years people had known that if you sucked on a drinking straw placed in water, the water would rise upward through the straw. The precise explanation for this phenomenon was not possible until methods were found by which pressure could be measured directly.

The Bourdon Gauge, named after French watchmaker Eugene Bourdon, is such a method. The gauge is used to measure the pressure of water, air, steam and many other fluids. It contains a curved metal tube, closed on one end, which contains air. The curved tube is usually C-shaped, although in high-pressure gauges a spiral tube is used.

When the pressure inside the tube increases, the tube uncurls slightly, causing a small movement at its closed end. A system of levers and gears magnifies this movement and turns a pointer. The pointer in turn indicates the pressure on a circular scale. The scale of the gauge indicates pressure directly, usually in psi.

In high-pressure gauges, the spiral rotates as pressure increases and the tip screws forward.

Widely used in medical facilities, schools and industrial labs, this type of gauge is often fitted to cylinders of compressed gas.

