



## IS 2028:2004 - OPEN JAW WRENCHES (SPANNERS) — SPECIFICATION

Open jaw wrenches, or spanners, are tools with U-shaped open ends, designed to grip nuts and bolts for tightening or loosening. Their open jaw allows quick placement on fasteners, especially in tight spaces. They are commonly used in mechanical and automotive work.

The standard covers the requirements for forged open jaw (ended) wrenches (spanners) of torque series C and D of IS 6131.

### Key Features of the Standard:

**Dimensions:** IS 2028 specifies the dimensions for various types of open jaw wrenches:

**Single-ended wrenches**

**Double-ended wrenches for automobiles**

**General-purpose double-ended wrenches**

**Engineers' double-headed wrenches**

**Materials:** Wrenches must be forged from steel that meets the requirements of **IS 3748**. This ensures they are strong and durable. The standard also outlines specific **hardness** and **torque** requirements to guarantee performance.

**Hardness:** Wrenches need to be hardened throughout, with specific hardness values measured according to **IS 6131**. This ensures they can withstand high forces without breaking.

**Workmanship and Finish:** IS 2028 references **IS 6131** for the standards of **workmanship** and **finish quality**. This guarantees that the wrenches are well-made and free from defects.

**Sampling and Testing:** **IS 6131** dictates the procedures for **sampling** wrenches to check for compliance with the standard and outlines the methods for conducting **torque testing**. This ensures that only wrenches meeting the required standards are sold.

**Designation:** Each wrench is designated by its type (single or double-ended), purpose (general, automotive, or engineers'), torque series (C or D), nominal width across flats, and the standard number. This makes it easy to identify the correct wrench for a specific job.

**Tables:** IS 2028 includes detailed tables with the maximum and minimum dimensions for each wrench size. This provides manufacturers and users with a clear reference for wrench dimensions.