



IS 204 (Part 1) : 1991

TOWER BOLTS - SPECIFICATION

PART 1 - FERROUS METALS

Tower Bolts (Ferrous Metals) are essential hardware components used for securing doors, windows, and cabinets, ensuring safety and stability in residential, commercial, and industrial applications. These bolts are typically manufactured using **mild steel sheets, mild steel bars, or cast iron**, depending on the required strength and durability. The materials adhere to specified grades in Indian Standards: Grade HR1 of IS 1079:2017, Grade CR2 of IS 513 (Part 1):2016, or Grade E 300-C of IS 2062:2011 for steel components, and Grade FG 150 of IS 210:2009 for cast iron parts. Tower bolts are available in various designs to cater to different consumer needs, including **barrel tower bolts, semi-barrel tower bolts, riveted or spot-welded tower bolts, and skeleton tower bolts**, making them versatile for diverse applications.

Consumers expect tower bolts to deliver consistent **durability, smooth functionality, and corrosion resistance** to ensure long-term reliability. Key quality parameters include accurate **dimensions**, high-quality **surface finishes**, and smooth operation.

IS 204 (Part 1):1991 addresses these expectations with stringent requirements for materials, finishes, and **manufacturing dimensions** to ensure reliability and durability. The dimensions are standardized to provide precise fitting and secure locking, ensuring optimal functionality. The specified material grades enhance the strength and resistance of tower bolts to mechanical stress and environmental factors, such as moisture and rust. Aesthetic finishes like **bright polish, stain finish, nickel-chrome plating** (as per IS 1068:1985), **copper oxidized finishes** (as per IS 1376:1987), or **zinc plating** (as per IS 1513:1986) further enhance their appeal and performance. Additionally, black **stove enamel finishes** are available for certain components, offering both protection and style.

By addressing these aspects, **IS 204 (Part 1):1991** ensures that **Tower Bolts (Ferrous Metals)** meet consumer expectations for **safety, durability, and functionality**, providing a reliable and aesthetically appealing locking solutions for various applications like doors, windows, and other fixtures.