



IS 7381: 1986- Hand Operated Square Drive Socket Wrenches

Square drive socket wrenches are hand-operated tools designed to apply torque to bolts and nuts through a square-shaped drive that fits into matching sockets. They typically work with tommy bars, ratchets, or cranks to provide leverage and make fastening or loosening tasks easier. The square drive securely attaches to a socket, which can have either a hexagon or double hexagon opening to fit various fastener heads. This design is widely used in mechanical, automotive, and assembly applications due to its compatibility and ability to handle high torque without slipping.

Good quality square drive socket wrenches are characterized by durable, high-grade tool steels that resist deformation under high torque, precise dimensions for a secure fit with sockets, and a smooth, corrosion-resistant finish to prevent rusting. They should meet specific torque strength requirements to handle heavy-duty applications without damage and possess adequate hardness for wear resistance, maintaining their shape even with repeated use. These parameters ensure the wrench's reliability, longevity, and safety, making it suitable for demanding industrial and mechanical tasks.

This standard outlines specifications for hand-operated square drive socket wrenches used with tools like tommy bars, ratchets, and cranks. This standard covers dimensions, material quality, hardness, finish, and torque requirements to ensure reliable performance. The wrenches are designed to fit sockets for hexagon bolts and are available in short and long types, with sizes specified in millimetres. Materials for these wrenches include durable tool steels that meet specified hardness levels and can withstand high torque without deforming. Each wrench is marked with its size, manufacturer's details, and certification marks, ensuring traceability and quality compliance. This standard aligns with international specifications to ensure compatibility and reliability in use.