



***TECHNICAL FEATURES OF  
“Titan” IMPACT SOCKETS and DRIVING ACCESSORIES.***

1. **MATERIAL:** Chrome Vanadium Steel confirming to IS 3749 – 1978/AISI – 6150.  
We ensure the Quality of Raw Material by following tests:
  - a. Chemical Compositions even levels of detrimental impurities such as P & S are checked to see that they are below the normal commercial standards.
  - b. Macro & Micro inclusions controlled.
  - c. Harden ability defined.
  - d. Ultrasonic / Magna - Flux testing ensured.
  - e. Grain Size controlled.
  - f. Apart from selecting the Best Suited Alloy Steel for our Impact Socket, we procure our Complete Alloy Steel consumption from a Single Source. Great care is taken in selection and sourcing of our basic raw material is one of the Major Factors leading to Superior Performance of our end Products.
  
2. **Quality Assurance Test:** All the tests necessary to ensure that compliance of material with The specifications laid are carried out at our works before dispatch of material.
  
3. **DESIGN:** All the Tools are designed in accordance with U. S. Federal specifications GGG - W - 636E.
  
4. **MANUFACTURE:**
  - \* Equal care is taken during manufacture. The Hexagon and Bi-hexagon opening are precision machined to close range of tolerances as per USA Federal Standard.
  
5. **INSPECTION:**
  - \* 100% inspection at each stage of the manufacture.
  - \* Each piece is assigned its own distinctive serial number for its identification throughout the Tool life since its inspection. Complete record of its hardness and material heat is maintained.
  
6. **HEAT TREATMENT:**
  - \* An exhaustive heat treatment including special multiple tempering cycle is carried out on electric salt bath tempering furnaces filled with automatic temperature controllers with temperatures maintained to an accuracy on +/-5 Degree C
  - \* Hardness Checks: A 100% check is carried out on each and every piece after every stage of the heat treating process.

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7. **FINISHING:**

- \* All Sockets and Accessories are finished Black using a Patented rust resistant Manganese Phosphate process.
- \* Pre-cleaning, before blackening is carried out by blasting using Aluminum Oxide grit. Acid cleaning is not allowed. This prohibition is to prevent loss of fatigue strength due to hydrogen embrittlement associated with acid cleaning.
- \* Nickel Cr. Plating is also not allowed as it has a tendency to flake out during impact use and there is a reduction in fatigue strength, due to Hydrogen embrittlement by the Plating processes.

8. **WARRANTEE / GUARANTEE:**

The Wrenches are warranted against any manufacturing defect or workmanship for a Life. Our Guarantee provides free replacement / repair of the Titan equipment due to manufacturing defects or workmanship, with the product.