

SOCKET HEAD CAP SCREWS. . . Why Socket Screws? Why UNBRAKO?

The most important reasons for the increasing use of socket head cap screws in industry are safety, reliability and economy. All three reasons are directly traceable to the superior performance of socket screws vs. other fasteners, and that is due to their superior strength and advanced design.

- Reliability, higher pressures, stresses and speeds in today's machines and equipment demand stronger, more reliable joints and stronger, more reliable fasteners to hold them together.
- Rising costs make failure and downtime intolerable. Bigger, more complex units break down more frequently despite every effort to prevent it.
- This is why the reliability of every component has become critical. Components must stay together to function properly, and to keep them together joints must stay tight.
- Joint reliability and safety with maximum strength and fatigue resistance. UNBRAKO socket cap screws offer this to a greater degree than any other threaded fastener you can purchase "off-the-self."
- UNBRAKO socket cap screws offer resistance to a greater degree than any other threaded fasteners you can purchase "off-the-shelf."

TENSILE STRENGTH

- U.S. standard alloy steel socket head cap screws are made to strength levels of 180,000 and 170,000 psi to current industry standards. However, UNBRAKO socket cap screws are consistently maintained at 190,000 and 180,000 psi (depending on screw diameter).
- The higher tensile strength of UNBRAKO socket screws can be translated into savings. Using fewer socket screws of the same size can achieve the same clamping force in the joint. A joint requiring twelve 1-3/8" Grade 5 hex heads would need only 7 UNBRAKO socket head cap screws. Use them size for size and there are fewer holes to drill and tap and fewer screws to buy and handle. Smaller diameter socket head cap screws vs. larger hex screws cost less to drill and tap, take less energy to drive, and there is also weight saving.
- The size of the component parts can be reduced since the cylindrical heads of socket screws need less space than hex heads and require no additional wrench space.

FATIGUE STRENGTH

- Joints that are subject to external stress loading are susceptible to fatigue failure. UNBRAKO socket screws have distinct advantages that give you an extra bonus of protection against this hazard.
- Three major factors account for the greater fatigue resistance of UNBRAKO socket screws – design improvements, mechanical properties and closely controlled manufacturing processes.