

Socket Head Cap Screw Information

Socket head cap screws feature a hexagonal center recess in the head for tightening with an Allen wrench or hex key. With no side-clearance restrictions, they can be placed close together and are ideal for assemblies with close tolerances.

Standard socket head cap screws typically supply higher tensile strength, better yield strength, and more shear strength than equivalent sizes of hex head cap screws; yet they require less counter-bore because they are internally wrenched.

HEAD TYPES



Standard

Features a relatively high cylindrical head with a recessed hexagonal socket. Use where maximum tensile strength is essential.



Button

Dome-shaped head has wider hex socket and lower profile than standard. Ideal for lighter applications with low limited clearance where loading capacity is not critical.



Flange

Projecting collar around bottom of head acts like a washer, dispersing the load on the bearing surface. Use when a wider bearing surface or a more finished appearance is desired, and with thinner materials.



Flat

Features an 82° countersunk flat head. Flush mounts so moving parts can pass over freely. Not ideal for applications that require optimal fatigue properties.



Low

Head height is 50% lower than standard size; socket size is smaller. Used in thinner materials and where clearance is too limited to use a full-height cap screw. Cannot withstand the same preloads as standard socket head cap screws.



Vented

A small hole drilled through the entire length of the cap screw allows gas and fluids to vent.