

Comparing Fine Threaded with Coarse Threaded Fasteners



Fastener threads provide both load holding when tightened and the ability to move during tightening and loosening.

A fastener's pitch and lead, determined by whether it has a coarse or fine thread, is a factor in fastener performance. A coarse thread will move a larger distance with each rotation than a finer thread of the same diameter.

If speed of assembly is a factor, a coarse thread may be preferred as it will assemble faster. If adjustment is required, a fine thread will provide a less sensitive adjustment and a greater ability to control adjustment.

Each flank of thread carries a percentage of the clamping load. This load is not distributed equally among the thread pitches in most applications. It is generally thought that a fine pitch thread will have a more uniform load distribution among its engaged pitches when installed.

Finally, starting can be a factor. Fine threads can be more susceptible to cross threading if assembly conditions are not controlled. In general, both coarse and fine threads have advantages depending on the fastening output required.