

SDPSI

Stock Drive Products/Sterling Instrument

Fairloc® - The Integral Fastener

Phone: 516-328-3300

Fax: 516-326-8827

Fairloc® is a patented component fastening system that is built into the hub of the part. How it works is explained on **page 67**.

The relationship between the clamp screw fastening torque and the torque at which the component starts to slip on the shaft is shown in the charts. These are typical values for stainless steel gears mounted on stainless steel shafts.

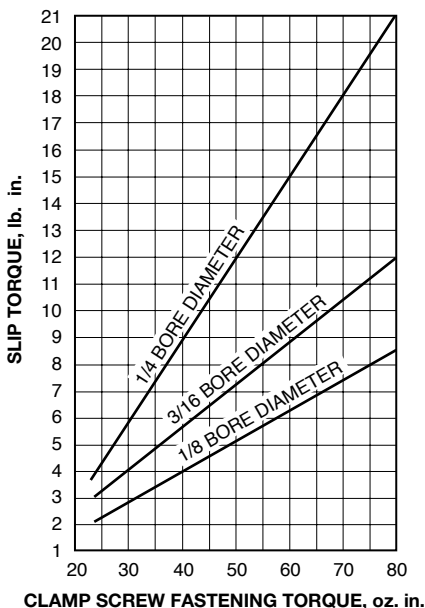


Figure 1

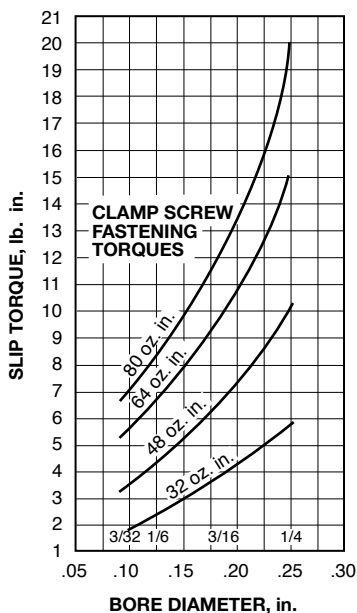
INCH BORE TORQUE DATA

Figure 2

Figure 1 shows the torque at which the sample Fairloc® gears started to slip on the shaft.

All gears and shafts were made of 303 Stainless Steel. Gear bores were within +.0003 inch of nominal values. Shafts had surface finishes of 16 micro-inch maximum and were within -.0002 inch of the nominal diameters.

Figure 2 compares the slip torques for different values of the clamping screw fastening torques.

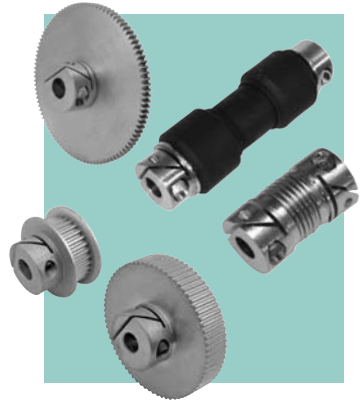


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For best results, the space between the component bore and shaft O.D. should be controlled closely. In addition, lubricating the clamping screw with molybdenum disulfide grease will improve the clamping action.

Caution: Do not tighten screws without shaft in the bore. Doing so will create a permanent set of wedge section which will prevent the shaft from going in.



METRIC BORE TORQUE DATA

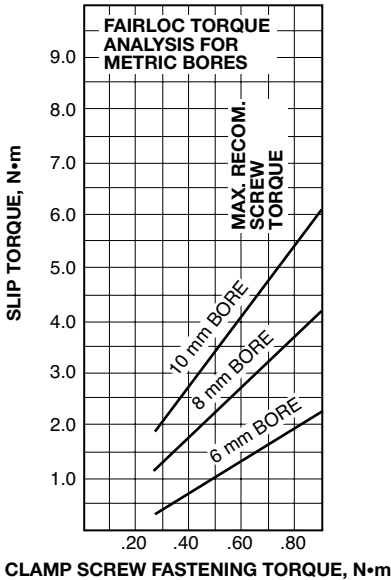


Figure 3

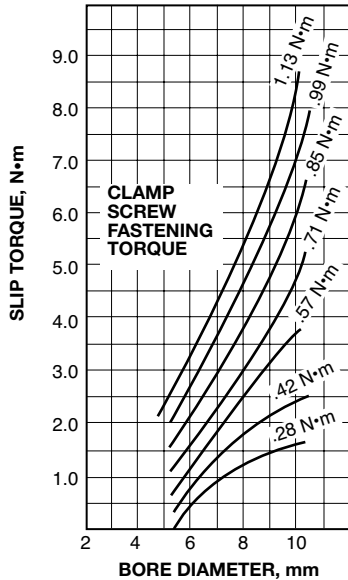


Figure 4

Figure 3 shows the torque at which the sample Fairloc® gears started to slip on the shaft. All gears and shafts were made of 303 Stainless Steel. Gear bores were within +0.0075 mm of nominal values. Shafts had surface finishes of 0.4 μm maximum and were within -0.005 mm of the nominal diameters.

Figure 4 compares the slip torques for different values of the clamping screw fastening torques.