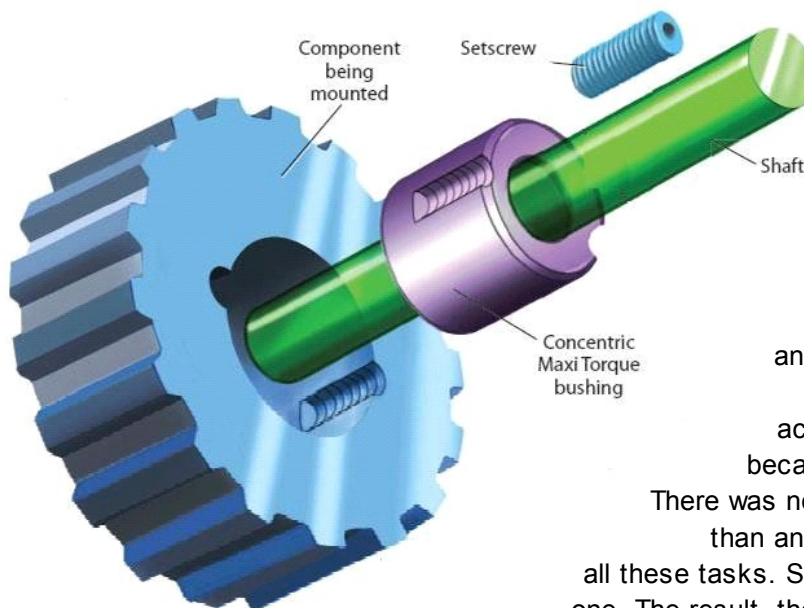


## SCANNING FOR IDEAS

### A better way to **attach components** to smaller shafts



Engineers at **Custom Machine & Tool Co., Inc.**, E. Weymouth, Mass. (cmtco.com), found that fasteners used to connect components to high-speed shafts had to have low inertia and create few vibrations. They also knew that component alignment, accuracy, holding ability, and runout became more critical at higher speeds.

There was no compact bushing for shafts less than an inch in diameter that could handle all these tasks. So they decided to design and build one. The result, the Concentric Maxi Torque bushing.

A single setscrew can lock the low-taper angle-split bushing in place without cocking, using a locking-taper design. And once locked, the setscrew can be removed. The same screw is also used to unlock the connection and let users reposition the bushing and component. The bushing applies uniform force along its full contact with the shaft. And the bushing can be detached, moved, and reattached multiple times without damaging the shaft or losing holding torque. The bushing has low inertia, so there's better shaft-to-component balance. They come in sizes to cover bores from 0.125 to 1.1875 in. (2 to 30 mm) with torque capacities from 35 to 3,500 lb-in. (4 to 410 Nm). Radial runout is less than 0.001 in. (0.026 mm).

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