

Metric Sprockets Overview

TL Taper Bushed Metric Sprockets



TL Sprockets are stocked in a wide variety of sizes including ISO 06B, 08B, 10B, 12B, 16B and 20B chain sizes (3/8 to 1-1/4" pitch) for single, double and triple chain. These mount with standard TL tapered bushings from 1008 thru 5050 (i.e., thru a 5" or 125mm shaft diameter). TL Sprockets are available in a wide range of diameters to accommodate various application speeds.

The more popular sizes are stocked with hardened teeth. The C45 material, standard steel sprockets, allows for induction hardening of teeth. So all can be heat treated Hardened Teeth on request. The TL Taper Bushed Sprocket provides a true concentric fit to the shaft. As the TL bushing screws are tightened, the bushing compresses around the shaft securely. Standard hex wrenches are the only tool required for installation or removal. Once the bushing mounting screws are loosened and removed, the screw is re-used and threaded into the bushing removal hole. Tightening the removal screw will gently loosen the sprocket. PTI stocks both metric and inch bore TL bushings, a standard global design, which is why the TL sprocket is so versatile. Ease of installation, concentric shaft fit, suitable for higher speeds and heavy loads plus an economical cost, make this the popular choice for new designs and replacement needs. TL sprockets are generally less expensive than custom or finished bored sprockets.

Hub Type Metric Sprockets



Hub Type Metric Sprockets are available with a minimum plain bore (pilot bore) and some stock finished bore sizes. Any shaft size is possible with our custom bore and keyway capability. Sprockets with hubs are typically fitted to the shaft as a clearance fit.

They are held in place with two set screws and a keyway. Clearance fits are popular for light loads and slow speeds. A press fit (or shrink fit to the shaft) is usually preferred for higher speeds or heavier loads as they fit to the shaft more securely than a clearance fit sprocket. Depending on the clearance of the shaft fit, sprockets may work slightly on the shaft causing possible fretting or shaft wear. All standard hub sprockets are available with hardened teeth from stock or on request.

Press fits usually require the sprocket to be heated for installation to expand the bore. As a heated sprocket cools, it shrinks, conforming to the shaft with a tight grip. A set screw secures the key. The TL Taper Bushed Sprocket will function like the press fit sprocket and generally easier to install.



Plate Type Metric Sprockets



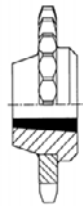
Plate Sprockets for single, double or triple strand chain are an economical choice allowing for direct mounting to the customers' hub or shaft. They are most frequently considered for sprockets above 40 teeth and are available in a wide range of diameters. Plate type sprockets can be welded or bolted directly to the users' hub keeping equipment compact and light weight. They are available in single, double and triple tooth configurations as well.

weight. They are available in single, double and triple tooth configurations as well.

Weld on Hubs



A Weld-On-Hub is often used to simplify mounting, especially large diameter sprockets. PTI stocks standard TL Weld-On-Hub sizes. The Weld-On-Hub uses the standard TL bushings as do many of the other standard drive components. TL Bushings are stocked in both metric and inch bores.



TL Bushings for Weld-On-Hubs or TL Bushed Sprockets



TL Taper Bushings for Weld-On-Hubs and sprockets are stocked from 1008 thru 5050 sizes covering 5" or 125mm shaft sizes. TL Bushings are ideal for replacements and a contemporary solution for upgrading clearance fit and press fit sprockets. TL Bushings are used in a wide variety of other European and American standard drive products.

Stainless Steel Metric Sprockets



Stainless Steel (AISI 304L) Metric Sprockets provide corrosion resistance and allow wash-down capability. These hub type sprockets can be provided with a finished bore and keyway. Stainless Sprockets cannot be hardened. PTI stocks sizes from ISO 06B thru 16B (3/8" -1" pitch) and from 12 to 25 & 30 teeth. Larger sizes available on request. TL Bushed version also on request.

Metric Idler and Double-Single Sprockets



Metric Idler Sprockets are plate sprockets with a ball bearing for mounting. These sprockets generally provide tension for the chain drive and can be used within a tension arm assembly or individually mounted to position the drive.



Stock sizes are available for ISO 05B thru 20B metric chain sizes. Double-Single Sprockets, popular on conveyors, allow 2 single chains on a single sprocket to control pairs of rolls or drive units that must index.

Custom Metric or ANSI Sprockets



Custom sprockets including large diameter steel or cast iron units for single, duplex or triple strand chain can be made to order. PTI typically keeps some stock in our European warehouse, so delivery could be rather quick. Other custom sprockets sizes for Metric conveyor chain or ANSI chain are also possible.

Drawings are preferred to insure requirements are clear. All are possible with custom finished bore or bored for a TL taper bushing.