

Buy Your Machine from the Other Guys

Grizzly, Harbor Freight, Homier, Cummins, Micro-Mark, Prazi...or eBay

Come to LittleMachineShop.com for Everything You Need to Make Your Machine Work!

Accessories

- Ball turning attachments
- Coolant spray units
- Lathe chucks
- Milling attachments
- Quick change tool posts
- Rotary tables
- Tool post grinders

Measuring

- Coaxial centering indicators
- Dial indicators
- Dial test indicators
- Electronic digital calipers
- Laser edge and center finders
- Machinist's levels
- Magnetic bases

Tooling

- Boring heads
- Clamping kits
- Collet chucks and closers
- Collets (MT, R8, 5C, 3C, ER)
- Drill chucks
- End mill holders
- Knurlers
- Live & dead centers
- Mill quick change tooling
- Thin parallels
- Vises

Cutting Tools

- Boring bars
- Center drills
- Cut-off blades
- End mills
- Indexable tools
- Tool bits

Upgrades & Conversions

- Air spring conversion kits
- Bed extension kits
- Belt drive conversion kits
- Digital position readouts
- Mini mill power feed kits
- Tachometers
- Tailstock cam lock kits
- Tweaks & Enhancements Kits

Plus

- DVDs, videos, and books
- Model kits and plans
- Spare parts kits
- Spindle head assemblies
- Starter kits
- X-Y table assemblies
- Replacement parts

Quick Change Tooling for Mills!

Tool switching with the Tormach Tooling System (TTS) is extremely easy: Simply loosen the drawbar, slide out the current tool holder, then slip in the next and retighten. The unique geometry of the TTS tool holder ensures that, as the drawbar is tightened, the tool holder moves into an exact Z height while increasing rigidity.

Each TTS holder has a shoulder that is undercut so it contacts the spindle itself, not the end of the collet. As the drawbar is tightened the collet will simultaneously squeeze the shank and be pulled upward into the spindle taper. This simultaneous action, grasping while moving up, pulls the tool holder tightly against the spindle face. The high-pressure contact between the shoulder of the tool holder and the spindle is the equivalent of a zero tolerance fit; the vertical location (Z-height) of the tool is exact. The initial placement, created by simply sliding the tool holder up until it stops, is normally within a few thousandths of an inch. The final location, after tightening the collet, is exact, highly

repeatable, and not affected by the variable tension of the drawbar or wear on the collet.

- 2441, Tormach Quick Change Starter Set, Manual, \$215.52
- 2440, Tormach Quick Change Starter Set, CNC, \$670.40
- 2453, JT2 Drill Chuck Arbor, \$14.20
- 2436, JT33 Drill Chuck Arbor, \$14.20
- 2456, Boring Head Shank, \$33.22
- 2435, ER-20 Collet Holder, \$81.90
- 2455, 3MT Collet for TTS, \$18.20
- 2454, R8 Collet for TTS, \$17.50
- 2438, 1/2" End Mill Holder, \$20.75
- 2434, 3/8" End Mill Holder, \$20.75
- 2437, Tool Height Setting Fixture, \$25.03
- 2439, Wrench Set, \$12.74

For more information about the Tormach Tooling System, visit www.littlemachineshop.com/tts



Visit our Web site or call for a free catalog

LittleMachineShop[™]
The premier source of tooling, parts, and accessories for bench top machinists.
www.littlemachineshop.com

www.littlemachineshop.com

396 W. Washington Blvd. #500 • Pasadena, California 91103 • (800)981-9663 • (626)797-7850