

SETCO™

170 High-Speed Motorized CNC 'Smart' Spindle

Reliable High-Performance High-Speed 170mm Motorized CNC Spindle!

New!



Cartridge Style Spindle Housing with Removable Flange to Fit Your Machine Configuration

Above. The SETCO 170 high-speed closed loop motorized CNC 'Smart' spindle designed to operate up to 24,000 rpm, deliver up to 30kW (40 hp) power at 12,000 rpm, and produce 23.8 N-m (211 in-lbs) continuous torque.

Performance PLUS Features

- ✓ Standard Models: 18k, 20k & 24k rpm
- ✓ High Nitrogen Steel/Ceramic Ball Bearings
- ✓ 30kW (40hp) @ 12,000 rpm Motor
- ✓ 23.8 N-m (211 in-lb) Continuous Torque
- ✓ Choice of Preload: Solid or Spring-preload
- ✓ Grease Lubrication Up to 20k rpm
- ✓ Closed Loop Speed Control
- ✓ Quick Connect Electrical Couplings
- ✓ HSK Tool Interface
- ✓ Power Drawbar
- ✓ Patented SETCO AirShield™ Spindle Seal System, Offering a 3-year Limited Warranty Against Bearing Contamination From Seal Failure.

The new SETCO™ 170 is a high-speed super-precision closed loop motorized CNC spindle designed to deliver speed, power, performance, and reliability for high performance machine tools.

The 170 spindle is built for reliability using a standard spindle design and robust architecture to maximize performance to meet application needs. In the past, buying an off-the-shelf high-speed spindle resulted in purchasing what was available; a spindle that was less robust, more expensive to operate and offered less reliability. The customer ended up paying for speed compatibility and making reliability trade offs that are unnecessary.

With the new SETCO 170 you build a custom spindle by selecting the speed range you want from a list of standard options and end up with a high-performance solution that meets exact application needs, more reliable, and one that is less costly to maintain.

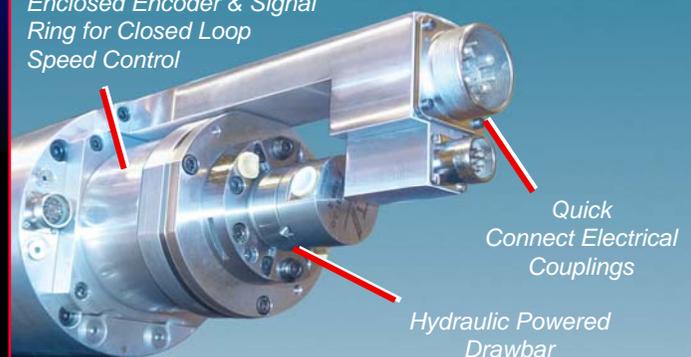
The 170 high speed spindle utilizes advanced technology in bearing design and materials. The spindle is equipped with ABEC Class 7 high nitrogen steel bearings and hybrid ceramic balls. Spindles up to 20,000 rpm are grease lubricated with a special SETCO high-speed grease, eliminating the need for air-oil lubrication sub-systems.

The SETCO 170 is a liquid cooled spindle designed to operate from zero to 18,000, 20,000, and up to 24,000 rpm, and delivers up to 30 kW (40 hp) at 12,000 rpm and 23.8 N-m (211 in-lbs) of torque under continuous duty (see specifications).

And for protection, the 170 has internal sensors to monitor motor temperature to alert conditions that are harmful to spindle performance.

The new SETCO 170 CNC spindle is equipped with the patented **AirShield** spindle seal system that comes standard with a 3-year limited warranty!

Enclosed Encoder & Signal Ring for Closed Loop Speed Control



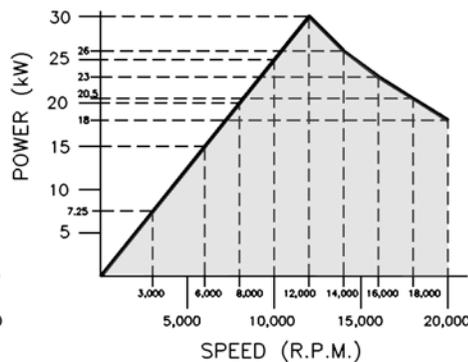
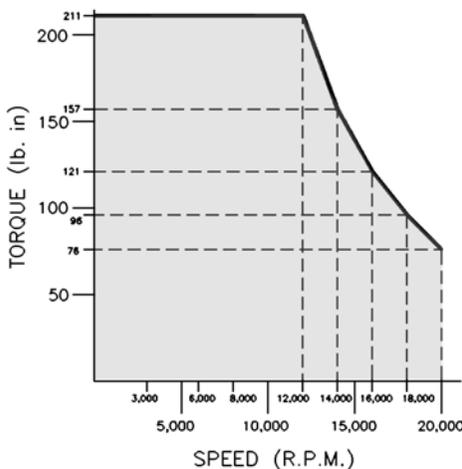
Quick Connect Electrical Couplings

Hydraulic Powered Drawbar

170 Spindle Specifications

Spindle Size, Type & Mounting Attitude	170mm (6.693") Diameter Body with Removable 210mm (8.3") Diameter Mounting Flange The Flange can be Customized for the Application. Distance from Mounting Flange to Spindle Nose is 115mm (4.53"). The Spindle Can be Operated at Any Attitude; Nose Up, Nose Down or Horizontal
Speed Options	0 to 18,000 rpm, 0 to 20,000 rpm, and 0 to 24,000 rpm Reversible Rotation, All Models. For different speeds, consult factory.
Power	30 kW (40 Hp) Duty Rating at 12,000 rpm
Torque	23.8 N-m (211 in-lbs) Torque Continuous Duty Rating from 0 to 12,000 rpm
Tool Nose	HSK-A63 Tool Interface. Consult factory for options
Tool Retention	Power Drawbar for Automatic Tool Change
High Speed Applications	Front. Pair of 70mm 25 deg. Angular Contact ABEC Class 7 High Nitrogen Steel with Ceramic Balls Rear. Pair of 60mm 25 deg. Angular Contact ABEC Class 7 High Nitrogen Steel with Ceramic Balls
Bearing Preload	Solid Lockup for Speeds Up to 18,000 rpm models Spring Preload for 20,000 and 24,000 rpm models
Spindle Rigidity	Axial Rigidity 250 N/micrometer (1.44×10^6 lb/in) Radial Rigidity 350 N/micrometer (2.02×10^6 lb/in)
Runout Accuracy	Spindle Face and Taper Not to Exceed 0.000080" TIR
Vibration	Displacement: 0.0005mm Pk-Pk Velocity: 1.00 mm/sec Pk Max. Acceleration: 0.4 G's Max.
Lubrication	For Up to 20,000 rpm Spindles, Special SETCO High Performance Grease (Permanent lube) For 24,000 rpm Spindles, Air-Oil Lubrication
Cooling	Motor is Ported for Customer Supplied Liquid Cooling Cooling System Must Dissipate 6kW per Hour (20,462 Btu/hr) with a Flow Rate of 15.2 L/min (4 gal) at a Coolant Inlet Temperature of 27-29 deg C (80-85 deg F) A Chiller is Required to Cool the Spindle Motor
Spindle Seal	Patented SETCO AirShield in the Front & Rear Requiring Air Purge. Air Purge Inlets are Located on the Spindle Mounting Flange.
Air Requirements	Spindle Air Purge Requires 10 to 15 psi of Clean, Dry Air at Inlet Ports.
Electrical Connections	460V, 3 Ph, 60 Hz Input to Drive. For other voltages, consult factory. All Motor & Signal Connections are Quick Disconnect Type Out the Rear of the Spindle
Spindle Length	Overall Length is 918mm (36.15in) Includes Drawbar and Electrical Connections
Weight	Approx. 91 kg (200 lbs)
Warranty	1-Year Standard Warranty, 3-Year Warranty on the Spindle Seal System Against Coolant/Contamination Ingress.

Specifications subject to change. Consult factory.



Call SETCO for ALL YOUR SPINDLE NEEDS!

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