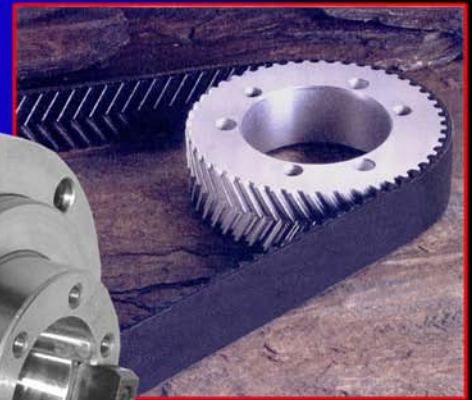


Motorized CNC Designs



Belt-Driven CNC Designs

SETCO™ High Performance CNC Machine Spindles

- **Standard & Custom Models**
- **Robust Cutting Capabilities**
- **Extended Life Designs & Features**

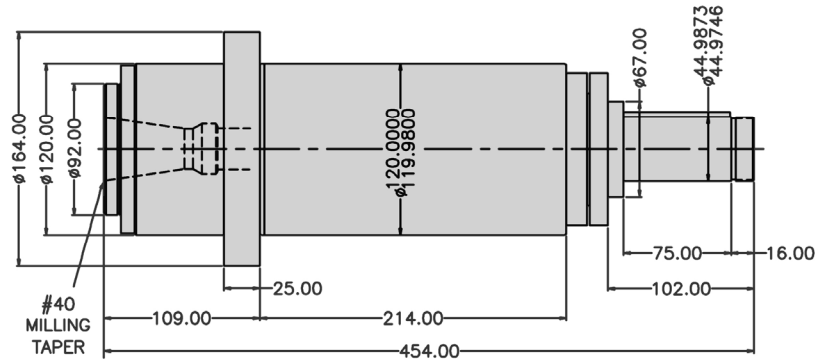
SETCO™

Field Proven Belt-Driven & Motorized Designs...

SETCO 120mm 60-50 Belt-Driven Spindle

Torque Rating	57 N-m	504 in-lbs	Operating Speed- Max.	15,000 RPM
Power/Revolution- Max.	.006 kW/rev	.008 hp/rev	Speed Rating	900,000 DN
Front Bearings	Duplex 60mm Hybrid Ceramic		Seal Type	AirShield™
Rear Bearings	Duplex 50mm Hybrid Ceramic		Lubrication	Permanent Grease

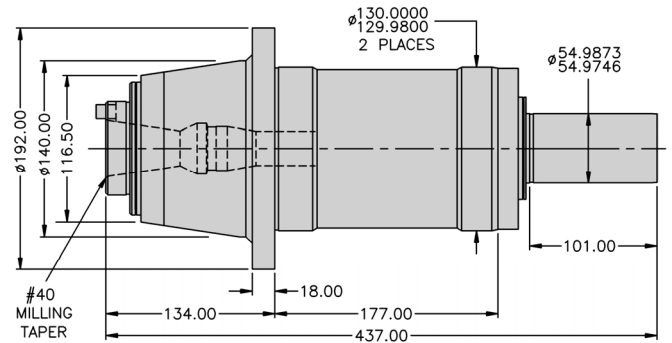
This belt driven design is field tested and a proven cost effective and reliable architecture. The maximum operating speed of this spindle is 15,000 rpm. Spindle torque is drive dependent. The spindle utilizes hybrid ceramic bearings, grease lubricated, and is equipped with the AirShield™. As options, it can be equipped with variety of tool connections and a power drawbar.



SETCO 130mm 70-60 Belt-Driven Spindle

Torque Rating	110 N-m	974 in-lbs	Operating Speed- Max.	15,000 RPM
Power/Revolution- Max.	.012 kW/rev	.0155 hp/rev	Speed Rating	1,050,000 DN
Front Bearings	Duplex 70 Hybrid Ceramic		Seal Type	AirShield™
Rear Bearings	Duplex 60 Hybrid Ceramic		Lubrication	Permanent Grease

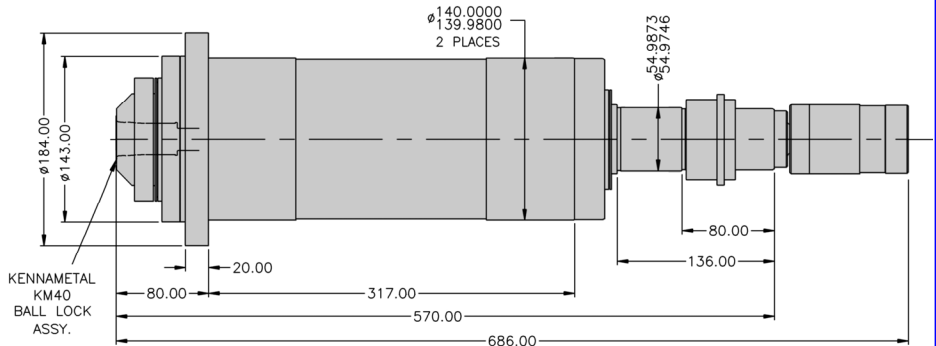
This popular belt driven spindle has a maximum speed of 15,000 rpm. It is equipped with hybrid ceramic bearings and utilizes permanent grease lubrication. This spindle is equipped with the patented AirShield™ spindle seal system to maximize reliability. As options, it can be equipped with a variety of tool connections, power drawbar, and other features like thru-spindle coolant and advanced helical belt drive technologies.



SETCO 140mm 70-65 Belt-Driven Spindle

Torque Rating	110 N-m	974 in-lbs	Operating Speed- Max.	8,000 RPM
Power/Revolution- Max.	.012 kW/rev	.0155 hp/rev	Speed Rating	560,000 DN
Front Bearings	Triplex 70mm Steel		Seal Type	AirShield™
Rear Bearings	One 65mm Cylindrical Steel Roller		Lubrication	Permanent Grease

This spindle is equipped with triplex set of 70mm steel front bearings and 65mm cylindrical rear roller bearing that delivers superior axial and radial stiffness. As configured, it provides a max. speed of 8,000 rpm. The spindle is grease lubricated and is equipped with the AirShield™. As options, this spindle can be equipped with a variety of tool/drawbar options.

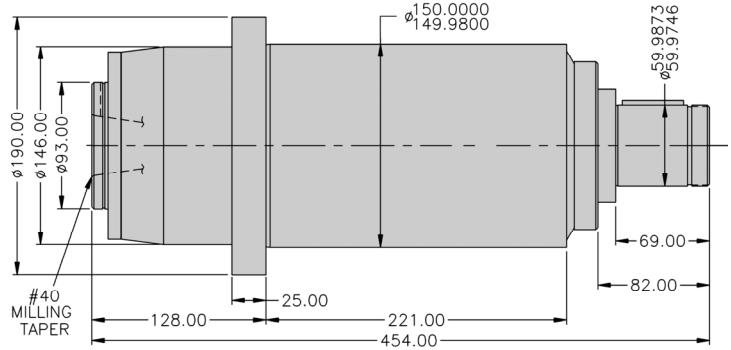


Spindle Designs for Demanding Applications...

SETCO 150mm 70-65 Belt-Driven Spindle

Torque Rating	110 N-m	974 in-lbs	Operating Speed- Max.	15,000 RPM
Power/Revolution- Max.	.012 kW/rev	.0155 hp/rev	Speed Rating	1,050,000 DN
Front Bearings	Duplex 70mm Hybrid Ceramic		Seal Type	AirShield™
Rear Bearings	Duplex 65mm Hybrid Ceramic		Lubrication	Permanent Grease

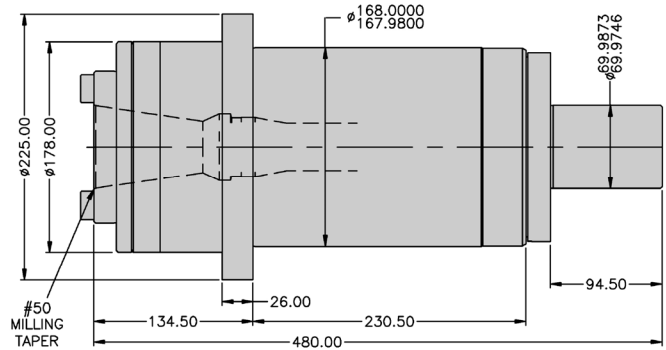
This popular belt-driven 15k spindle utilizes hybrid ceramic bearings. It utilizes a permanent grease lubrication system, a solid preloaded bearing system, and is equipped with the AirShield™ spindle seal system. As options, this spindle is equipped with a variety of tool connections, drawbar options, and can be arranged with advanced helical belt drive technologies.



SETCO 170mm 90-80 Belt-Driven Spindle

Torque Rating- Max.	295 N-m	2611 in-lbs	Operating Speed- Max.	8,000 RPM
Power/Revolution- Max.	.031 kW/rev	.0413 hp/rev	Speed Rating	720,000 DN
Front Bearings	Duplex 90mm Steel		Seal Type	AirShield™
Rear Bearings	Duplex 80mm Steel		Lubrication	Permanent Grease

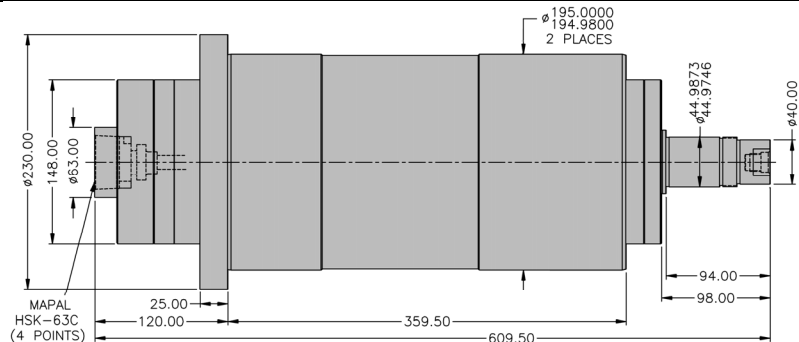
This 170mm belt-driven CNC cartridge spindle offers a compact design. It has a maximum operating speed of 8,000 rpm, utilizes steel ball bearings, solid bearing preload, and a permanent grease lubrication system. This spindle is equipped with the patented AirShield™ seal system. As options, this spindle is equipped with a variety of tool connections, drawbar options and can be arranged with thru coolant and air blow-off.



SETCO 195mm 70-60 Belt-Driven Spindle

Torque Rating	110 N-m	974 in-lbs	Operating Speed- Max.	15000 RPM
Power/Revolution- Max.	.012 kW/rev	.0155 hp/rev	Speed Rating	1,050,000 DN
Front Bearings	Duplex 70mm Hybrid Ceramic		Seal Type	AirShield™
Rear Bearings	Duplex 60mm Hybrid Ceramic		Lubrication	Permanent Grease

This large body belt driven spindle utilizes hybrid ceramic bearings and a permanent grease lubrication system. It features a solid preloaded bearing system and is equipped with the AirShield™ spindle seal system. Torque is drive dependent and maximum speed is up to 15,000 rpm. As options, this spindle is equipped with a variety of tool connections, drawbar types, and coolant options.

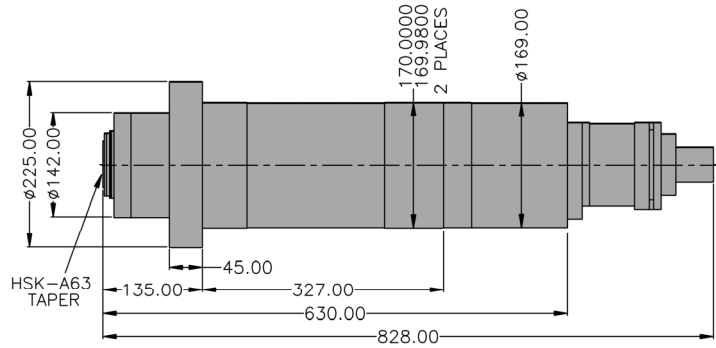


Extremely Reliable & Low Maintenance...

SETCO 170mm 70-60 Motorized Spindle

Torque Rating- Max.	24 N-m	211 in-lbs	Operating Speed- Max.	20,000 RPM
Power/Revolution- Max.	.013 kW/rev	.017 hp/rev	Speed Rating	1,400,000 DN
Front Bearings	Duplex 70mm Hybrid Ceramic		Seal Type	AirShield™
Rear Bearings	Duplex 60mm Hybrid Ceramic		Lubrication	Permanent Grease

This motorized CNC cartridge spindle is a standard SETCO design. It has a maximum operating speed of 20,000 rpm and can deliver up to 30kW (40hp) at 15,000 rpm. The spindle utilizes hybrid ceramic bearings, spring bearing preload, and permanent grease lubrication. As options, this spindle is equipped with a variety of tool connections and drawbar options. This spindle is equipped with the patented AirShield™ seal system.



SETCO-Pope 255mm 70-55 Motorized Spindle

Torque Rating- Max.	110 N-m	974 in-lbs	Operating Speed- Max.	12,000 RPM
Power/Revolution- Max.	.013 kW/rev	.017 hp/rev	Speed Rating	840,000 DN
Front Bearings	Quad 70mm Hybrid Ceramic		Seal Type	AirShield™
Rear Bearings	Duplex 55mm Hybrid Ceramic		Lubrication	Permanent Grease

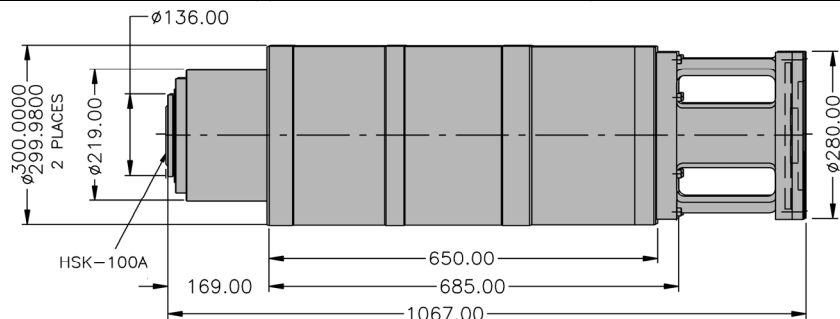
This heavy duty 255mm cartridge motorized CNC spindle is a SETCO-Pope design. It has a maximum operating speed of 12,000 rpm and can deliver up to 36kW (48hp) at 3,100 rpm. This spindle utilizes hybrid ceramic bearings and a permanent grease lubrication system. This spindle is equipped with a power drawbar and arranged for thru-spindle coolant.



SETCO-Pope 300mm 100-70 Motorized Spindle

Torque Rating- Max.	287 N-m	2533 in-lbs	Operating Speed- Max.	8,000 RPM
Power/Revolution- Max.	.030 kW/rev	.040 hp/rev	Speed Rating	800,000 DN
Front Bearings	Quad 100mm Hybrid Ceramic		Seal Type	AirShield™
Rear Bearings	Duplex 70mm Hybrid Ceramic		Lubrication	Permanent Grease

This heavy duty 300mm cartridge CNC spindle is a SETCO-Pope design. It has a maximum operating speed of 8,000 rpm and can deliver up to 37kW (49.6hp) at 1,000 rpm. This spindle utilizes hybrid ceramic bearings and a permanent grease lubrication system. This spindle equipped with a power drawbar and arranged for thru-spindle coolant.



SETCO... The Leader in Spindle Technologies.

SETCO™ is a world leader in design and manufacture of precision spindles. We engineer our spindles for maximize performance and reliability. We provide the most robust architecture in the industry. Our spindle designs are customized to meet customer and application requirements. Our spindles deliver maximum performance, reliability, and are less costly to maintain.

SETCO is the leader in spindle technologies – with an installed base of over 250,000 spindles and more than 300 years of combined spindle design experience– SETCO is recognized around the world for quality products and professional service.



Spindle Designs with High Reliability & Built To Last

SETCO spindle designs offer the machine builder high performance in a low maintenance package. By applying state-of-the-art spindle technologies, to meet specific application needs, we can deliver a spindle that will increase productivity and improved reliability to reduce product manufacturing costs. As a leader in spindle technologies, our expertise provides us the ability to achieve higher performance and increase reliability.

New greases, specifically designed for higher speed spindles, allow higher permissible operating speeds, lower operating temperatures, and longer spindle life without the necessity to use inherently less reliable and costly air/oil lubrication systems. Improvements in bearing materials and geometries allow for higher load capacities, speed, and precision, while providing lower operating temperatures. And the development of a revolutionary seal design, the patented SETCO AirShield™, eliminated the problems caused by contamination and coolant ingress; the most common reason for all spindle failures.

SETCO AirShield™ Eliminates Bearing Contamination Problems

Historically, the most common spindle failure is caused by bearing failure due to contamination from coolant ingress, condensation, contamination, or chip damage. In most cases, contamination enters the spindle because the spindle seal failed. The SETCO AirShield™ eliminated spindle failure due to bearing contamination and proven itself as the best and most reliable spindle seal in the industry. This statement is proven by extensive testing over 5 years without a single failure attributable to the AirShield™ performance and backed by the longest and best warranty in the industry. The SETCO AirShield™ is the most reliable spindle seal in the industry and carries a 3-year standard limited warranty!

The patented AirShield™ design is the only spindle seal that offers both dynamic and static protection for 100% elimination of coolant ingress and spindle contamination. Unlike other spindle air seal systems, the AirShield™ design does not inhibit spindle bearing lubrication. It is non-contaminating and maintenance free requiring only clean and dry shop air.



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