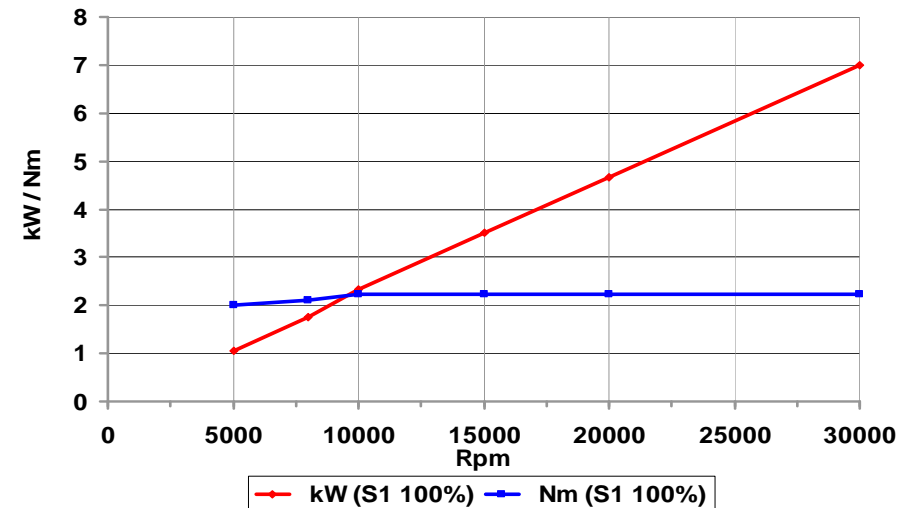


Spindle Datasheet

SC 50102



MOTOR	
Speed Range	5,000 – 30,000 rpm
Torque (S1-100%)	2.2 N·m [19.7 in·lbs] (S 1)
Power (S1-100%)	7 kW [9.4 hp] at 30,000 rpm (S 1)
Frequency Range	167 - 1,000 Hz
Voltage Range	58 - 350 V
Maximum Amperage	19 A (S 1)
Motor Type	AC asynchronous, 4-pole, 3-phase
SPINDLE DRIVE	
Drive Type	Type PCSP Frequency Converter
BEARINGS	
Bearings	Four (4) angular-contact, hybrid-ceramic bearings, ABEC 7/9 precision
Mounting	Front and rear duplex sets, mounted in "O" arrangement with shaft length compensation to provide constant spring pre-load
Lubrication	Permanent grease lubrication
Labyrinth Air-Seal	0.5 bar [7 psi] positive air pressure at bearing seal
SHAFT DATA	
Stiffness at spindle nose	Axial: 65 N/μm [370,000 lb/in]
	Radial: 70 N/μm [400,000 lb/in]
SPINDLE COOLING	
Cooling	Liquid circulation through spindle housing using Type RCS 2304 Refrigerated Cooling System
TOOL CLAMPING	
Taper	Automatic #25 taper clamping system with spring-loaded drawbar
Clamping Force	> 2000 N [450 lb]
Toolchange	Built-in pneumatic toolholder release cylinder, 5.5 bar [80 psi] minimum air pressure required
Toolholder Type	Type ATC 2-25-20 toolholder (Cat. #411630)
Taper Purge	0.3 – 0.5 bar [4 – 7 psi] air blast through taper at toolholder release
SENSORS	
Motor Protection	PTC thermistor in stator
Tool-in-position Sensors	Four (4) PNP proximity sensors to detect toolholder position and release-cylinder position
CONNECTIONS	
	<ul style="list-style-type: none"> liquid cooling (2 x Ø8mm tubes) labyrinth air seal (1 x Ø6mm tube) taper purge (1 x Ø6mm tube) ATC (2 x Ø6mm tubes) Power/thermistor cable with connector Sensor Cable with connector
MOUNTING / WEIGHT	
Housing Diameter	Ø 100 mm h5 (spindle also available with custom mounting flange)
Net Weight	17 kg [37 lb]



Spindle Datasheet

SC 50102



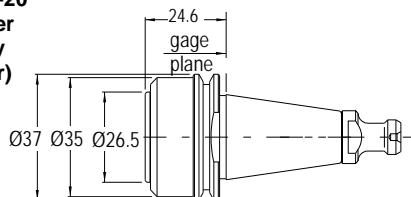
SC 50102 Standard Equipment:

SC 50102 spindle Cat. #550412 <ul style="list-style-type: none"> Power/thermistor cable with connector Sensor cable with connector 	Wrenches: <ul style="list-style-type: none"> 1 - SRP 20 spanner wrench #411511 1 - #25 taper socket #412658
Documentation: <ul style="list-style-type: none"> 1 operating instruction 	Cleaning Kit: <ul style="list-style-type: none"> 1 SRP 20 taper wiper #412663 1 SRP 25 taper wiper #412664 1 round brush #477450 1 straight brush #477451

SC 50102 System Components (ordered separately):

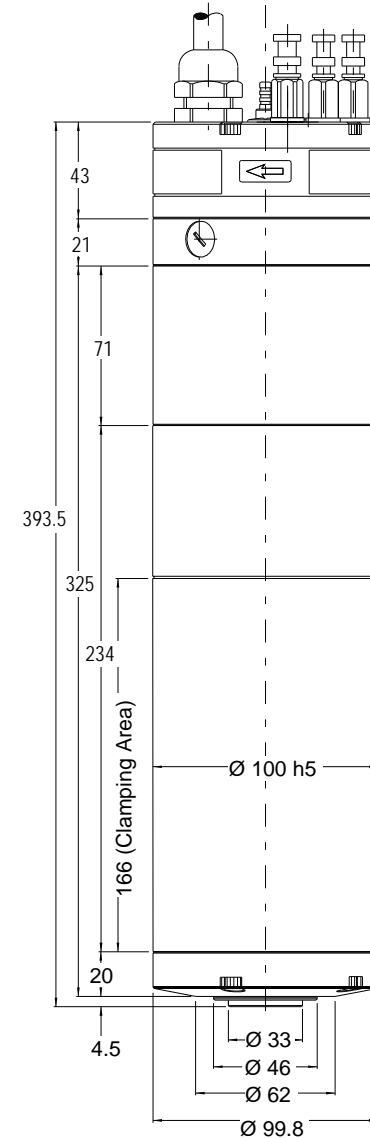
Type PSCP Frequency Converter: Includes: - Frequency converter - Output transformer	
Type RCS 2304 Refrigerated Cooling System: Cat. #330698 (230V, 1-phase, 60 Hz) Cat. #330697 (230V, 1-phase, 50 Hz)	
Type PPU Pneumatic Preparation Unit: Cat. #333004	

ATC 2-25-20 Toolholder Assembly (#25 taper)



SC 50102 Accessories (ordered separately):

Type SRP 20 Ultra-Precision Collets: Cat. #410743, 3 mm Cat. #410744, 4 mm Cat. #410746, 6mm Cat. #410748, 8mm Cat. #410750, 10mm Cat. #410752, 12mm	Cat. #410762, 1/8" Cat. #410763, 3/16" Cat. #410764, 1/4" Cat. #410766, 3/8" Cat. #410768, 1/2"
Type ATC 2-25-20 Toolholder Assembly (#25 taper): Cat. #411630	
Type 9100 Plane Mount: Cat. #410705	
Pigtail Extension Cable Sets (2 cables per set): Cat. #332783, 3m [9.6 ft] Cat. #332784, 5m [16 ft]	
Base Tubing Kit: Cat. #411681 (for liquid cooling, and labyrinth air-seal connections) <ul style="list-style-type: none"> 5m Ø6mm tubing (#328853) 10m Ø8mm tubing (#328856) 1 tubing cutter (#329378) 2 adapter fittings (#330629) 	
ATC Tubing Kit: Cat. #411682 (for ATC connections) <ul style="list-style-type: none"> 15m Ø6mm tubing (#328853) 	



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