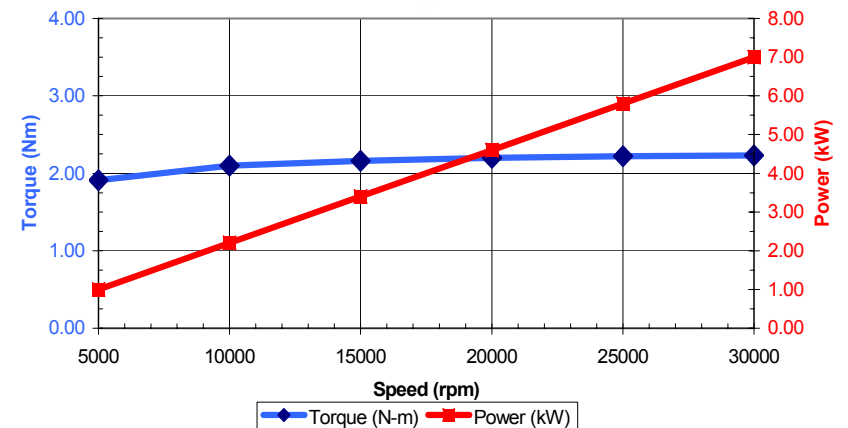


# Spindle Datasheet

## SC 50100



MOTOR	
Speed Range	5,000 – 30,000 rpm
Torque (S1-100%)	2.2 N-m [20 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	70 - 350 VAC
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	0.2 bar [3 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]
Runout Accuracy	≤ 2 μm [0.00008"] radial runout in shaft bore ≤ 2 μm [0.00008"] radial runout at shaft face
Balance Quality	≤ 1 mm/sec radial vibration velocity at maximum speed
SPINDLE COOLING	
Cooling	Liquid circulation through spindle housing using Type RCS 2304 Refrigerated Cooling System
TOOL CLAMPING	
Collets	Type SRP 25 collets (16mm, 5/8" maximum collet capacity)
SENSORS	
Motor Protection	PTC thermistor in stator
Speed Sensing	Tachometer
CONNECTIONS	
	<ul style="list-style-type: none"> <li>liquid cooling (2 x Ø8mm tubes)</li> <li>labyrinth air seal (1 x Ø6mm tube)</li> <li>Power Cable (1 meter length with connector)</li> </ul>
MOUNTING / WEIGHT	
Housing Diameter	Ø 100 mm h5
Mount Type	Type 9100 plane mount
Net Weight	14.7 kg [32 lb]



# Spindle Datasheet

## SC 50100



### SC 50100 Standard Equipment:

**SC 50100 spindle (w/ 1-meter power cable)**  
Cat. #550410



#### Included Accessories:

- 1 operating instruction #331969
- 1 round cleaning brush #477450
- 1 straight cleaning brush #477451
- 1 SRP 25 taper wiper #412664
- 1 27 mm open end wrench #412589
- 1 SRP 25 spanner wrench #412653
- 1 SRP 25 collet nut #412653
- 1 wood shipping box #332463

### SC 50100 System Components (ordered separately):

**Type PCSP Frequency Converter:**



**Type RCS 2304 Refrigerated Cooling System:**

Cat. #330698  
(230V, 1-phase, 60 Hz)

Cat. #330697  
(230V, 1-phase, 50 Hz)



### SC 50100 Accessories (ordered separately):

**Type SRP 25 Ultra-Precision Collets:**



2mm	412722	10mm	412730	1/8"	412762
3mm	412723	11mm	412731	3/16"	412763
4mm	412724	12mm	412732	1/4"	412764
5mm	412725	13mm	412733	5/16"	412765
6mm	412726	14mm	412734	3/8"	412766
7mm	412727	15mm	412735	7/16"	412767
8mm	412728	16mm	412736	1/2"	412768
9mm	412729			5/8"	412770

**Type 9100 Plane Mount:**

Cat. #410705



**Base Tubing Kit:**

Cat. #411681 (for liquid cooling, and labyrinth air-seal connections)

- 5m Ø6mm tubing (#328853)
- 10m Ø8mm tubing (#328856)
- 1 tubing cutter (#329378)
- 2 adapter fittings (#330629)

**Extension Cable:**

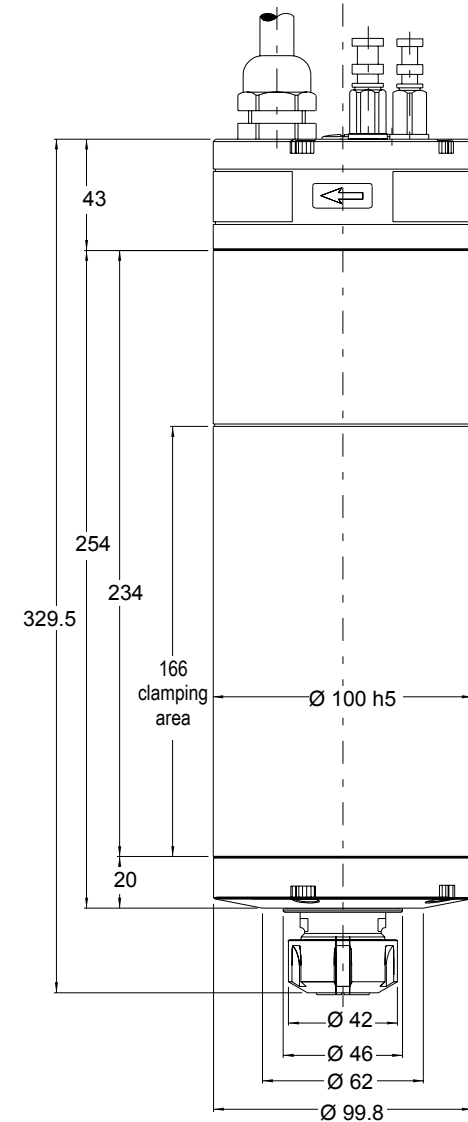
Cat. #331108, 3m [9.6 ft]  
Cat. #331109, 5m [16 ft]



**Filter/Regulator Kit:**

Cat. #329279 (for labyrinth air-seal function)

- 5-micron filter-regulator with bracket
- 5m Ø1/4" tubing (#179525)



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