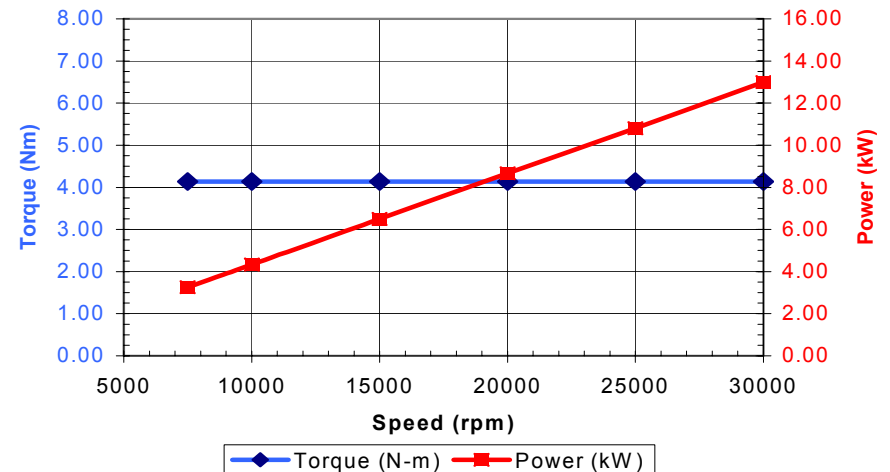


# Spindle Datasheet

## SC 60121



MOTOR	
Speed Range	7,500 – 30,000 rpm
Torque (S1-100%)	4.14 N-m [36.6 in-lb]
Power (S1-100%)	13 kW [17.4 hp] at 30,000 rpm
Frequency Range	250 - 1,000 Hz
Voltage Range	88 - 350 VAC
Maximum Amperage	33 amps (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: 70 N/μm [393,000 lb/in] Radial: 100 N/μm [562,000 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	
Grinding Arbors	threaded grinding arbors with M20 x 1.5 thread and Ø21 mm pilot diameter
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 120 mm h5
Mount Type	Type 9120 plane mount
Net Weight	23.3 kg [51 lb]



# Spindle Datasheet

## SC 60121



### SC 60121 Standard Equipment:

**SC 60121 spindle** (w/ 1-meter power cable)  
Cat. #550416



#### Included Accessories:

- 1 operating instruction #330973
- 1 round cleaning brush #477450
- 1 straight cleaning brush #477451
- 1 - 34 mm open end wrench #412575
- 1 - open end wrench W32 #412588
- 1 wood shipping box #332463

### SC 60121 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 60121 Accessories (ordered separately):

**Type 9120 Plane Mount:**



Cat. #412705

#### 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:



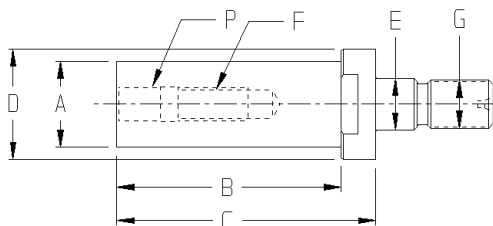
Cat. #332141, 3m [9.6 ft]  
Cat. #332142, 5m [16 ft]

#### Filter/Regulator Kit:

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

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

### SC 60121 Grinding Arbor



### SC 60121 Grinding Arbors:

	A	Ø12	Ø15.9	Ø19.8	Ø24.9
<b>B</b>	35	45	55	65	
<b>C</b>	45	55	65	75	
<b>D</b>	Ø40				
<b>E</b>	Ø21				
<b>F</b>	1/4" – 20		3/8" – 16		
<b>G</b>	M20 x 1.5				
<b>P</b>	0.250"		0.375"		
<b>Type 1</b>	<b>412543</b>	<b>412544</b>	<b>412545</b>	<b>412546</b>	
<b>Type 2</b>	<b>412535</b>	<b>412536</b>	<b>412537</b>	<b>412538</b>	

Type 1: For wheels with threaded shanks  
Type 2: For wheels with separate wheel screws



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