

# High precision lathe

## 180-CCN R-TM A2-5 / A2-6

**SCHAUBLIN**   
MACHINES SA

Rue Nomlieutant 1  
2735 Bévillard Switzerland  
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### Technical data 0180-013 / 0180-014

#### Machining capacity

	A2-5 / A2-6
Max. swing	270 [mm]
Max. permissible swing over carriage	160 [mm]
Max. permissible swing over bed	430 [mm]
Center height over carriage	83 [mm]
Center height over bed	280 [mm]
Distance between spindle nose and headstock cover	72 / 91 [mm]
Max. turning length (depend on clamping head / collet)	721 [mm]

#### Principal spindle; by AC motor drive

Power, continuous / intermittent	15 / 18,5 [kW]
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#### Spindle A2-5 (ISO 702/I / DIN 55026)

Spindle for SCHAUBLIN collets	F48 / B32 / B45
Spindle speed	50 - 5'000 [min <sup>-1</sup> ]
Continuous torque spindle / intermittently	133 / 164 [Nm]
Spindle ID (without chuck key)	51 [mm]
Max. bar capacity with B32 collet	24 [mm]
Max. bar capacity with B45 collet	36 [mm]
Max. throughbore with collet F48	42 [mm]
Max. bar capacity of the "HAINBUCH Gr 42" clamping head	42 [mm]
Max. clamping diameter on clamping head "HAINBUCH Gr52"	52 [mm]
Max. bar capacity of the automatic chuck	43,6 [mm]
Recommended max. swing	250 [mm]

#### Spindle A2-6 (ISO 702/I / DIN 55026)

Spindle for SCHAUBLIN collets	F66 / B32 / B45
Spindle speed	50 - 4'000 [min <sup>-1</sup> ]
Continuous torque spindle / intermittently	133 / 164 [Nm]
Spindle ID (without chuck key)	68 [mm]
Max. bar capacity with B32 collet	24 [mm]
Max. bar capacity with B45 collet	36 [mm]
Max. bar capacity with F66 collet	60 [mm]
Max. clamping diameter on clamping head «HAINBUCH Gr65»	65 [mm]
Max. bar capacity of the automatic chuck	61 [mm]
Recommended max. swing	300 [mm]

#### Pneumatic clamping system

	A2-5 / A2-6
Adjustable axial clamping force, at 5 bar	2'700 / 3'400 [daN]
Max. spindle speed	Without limitation [min <sup>-1</sup> ]

#### Spindle interlock

Electromagnetic spindle interlock, interlock force at 5 bar	83 [Nm]
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#### C axis

Programmable increment	0.001 [°]
Interpolation	X - Z - C
Rapid advance	36'000 [°/min]

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#### Top cross slide

Transverse stroke, X axis	231 [mm]
Programmable increment, X axis (on diameter)	0.001 [mm]
AC motor drive, power	1,4 [kW]
Torque, continuous/intermittent	4 / 14 [Nm]
Ball screw, dia. x pitch	32 x 5 [mm]
Longitudinal stroke, Z axis	721 [mm]
Programmable increment, Z axis	0,001 [mm]
AC motor drive, power	1,6 [kW]
Torque, continuous/intermittent	8 / 29 [Nm]
Ball screw, dia. x pitch	(2 x 5) 32 x 10 [mm]

#### Tooling: Linear

Cutting feedrate, X and Z axis	0 - 5 [m/min]
Rapid feed, X and Z axis	8 / 15 [m/min]
Feed force, X and Z axes, continuous	500 [daN]

#### Tooling: Turret with rotary tools

#### «DIPLOMATIC»

Number of tool stations	12
Number of stations for rotary tools	6
Standardized mounting of tool holders	VDI 30 selon DIN 69880
Drive of the rotary tools according to the standards	DIN 1809
Max. cross section of tool shank	20 x 20 [mm]
Spindle speed	30 - 5'000 [min <sup>-1</sup> ]
Power, continuous/intermittent	1,1 / 3,7 [kW]
Torque, continuous / intermittent	7 / 23.5 [Nm]
Integrated cooling and indexing in both directions of rotation	✓

#### Pneumatic tailstock

#### option

Internal taper of the sleeve	Mo 5
Spindle OD	72 [mm]
Spindle stroke	80 [mm]
Adjustable pressing force	25 - 440 [daN]

#### Coolant supply

Tank capacity	120 [l]
Pump performance	1,1 [kW]
Pump capacity	8 [l/min]
Pressure of pump	5 [bar]

#### Pneumatic consumption

Min./max. pneumatic pressure	5 - 7 [bar]
Type of connection	3/8" [G]
Quality of the air	Clean and dry
Average consumption	4 - 6 [m <sup>3</sup> /h]

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#### Electrical power supply

Voltage	400 [V]
Tolerated fluctuations	+/- 5 [%]
Other Voltage	option [V]
Frequency	50 [Hz]
Tolerated fluctuations	+/- 5 [%]
Rated current	28 [A]
Protection at mains end	40 [A]
Power consumption of the machine	19,5 [kVA]

#### Obstruction and weight

Overall dimensions: length x depth x height	2'301 x 1'460 x 1'676 [mm]
Approx. net weight of the machine (including oil)	2'740 [kg]
Floor load	1'734 [kg/m <sup>2</sup> ]
Load per square meter for one machine (in the workshop with many machines)	400 [kg/m <sup>2</sup> ]
Dimensions of the pallet [mm]	3'000 x 1'800 [mm]
Weight of the pallet	230 [kg]
Center height over floor	1'061 [mm]

#### Lubrication of slideways and ball screws

Kind of X slideways lubrication	Automatic
Kind of Z slideways lubrication	Automatic
Kind of grease or oil	Mobil DTE 25
Kind of X ball screws lubrication	Automatic
Kind of Z ball screws lubrication	Automatic
Kind of grease or oil	Mobil DTE 25

#### Various

Workpiece collector	option
Color of the machine: SCHAUUBLIN standard 2 colors, color 1, Grey	RAL 7035
Color of the machine: SCHAUUBLIN standard 2 colors, color 2, Blue cobalt	RAL 5013
Noise level under load at the operator's station	75 [dB <sub>A</sub> ]
Machine and equipment in accordance with the CE safety standards	✓
Operating temperature	+15 ⇨ +30 [°C]
Relative humidity	10 ⇨ 75 [%]

#### Control unit

Type of control unit	Fanuc Oi-TD
Screen	10.4" LCD Color
Memory	512 [Kbyte]
Number of programs	400
Tool offsets	64
Programmable increment	0.001
Axis feedrate override	0-120 [%]
Spindle override	50-120 [%]
M-codes in one block	3
Background editing	✓
Constant surface speed control	✓
Spindle positioning	0.1°
Rigid tapping (with Spindle)	✓
Multiple threading	✓

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Taper thread cutting	✓
Continuous threading	✓
Variable lead threading	✓
Custom Macro B	✓
Polar coordinate interpolation	✓
Cylindrical interpolation	✓
Helical Interpolation	option
Polygon turning	✓
Inch/Metric	✓

### Languages control unit

French	✓
German	✓
English	✓
Italian	✓
Spanish	✓
Portuguese	✓
Dutch	✓
Swedish	✓
Danish	✓
Russian	✓
Polish	✓
Czech	✓
Hungarian	✓
Turkish	✓
Japanese	✓
Korean	✓
Chinese (simplified characters)	✓
Chinese (traditional characters)	✓

### Interface control unit

Interface RS232-C	✓
Interface PCMCIA	✓
Interface Ethernet	option