

High precision lathe 102TM-CNC W20/W25

SCHAUBLIN 
MACHINES SA

Rue Nomlieutant 1
2735 Bévillard Switzerland
T +41 32 491 67 00
F +41 32 491 67 08
info@smsa.ch www.smsa.ch

Technical data 0102-012 / 0102-013

Capacities

W20 / W25

Max. swing	200 [mm]
Max. permissible swing over carriage	75 [mm]
Max. permissible swing over bed	200 [mm]
Center height over carriage	40 [mm]
Center height over bed	102 [mm]
Distance between spindle nose and headstock cover	15 [mm]
Distance between spindle nose face and turret/slide face	100 [mm]
Turning length with W20 collet	100 [mm]
Turning length with W25 collet	100 [mm]

Principal spindle; by AC motor drive

Power, continuous / intermittent	1,5 / 2,2 [kW]
----------------------------------	----------------

Spindle W20

Spindle for SCHAUBLIN collets	W20
Spindle speed, infinitely variable	50 - 8'000 [min ⁻¹]
Continuous torque spindle / intermittently	4,8 / 7 [Nm]
Spindle ID (without chuck key)	20 [mm]
Max. bar capacity with W20 collet	14.5 [mm]
Recommended max. swing	20 [mm]

Spindle W25

Spindle for SCHAUBLIN collets	W25
Spindle speed, infinitely variable	50 - 8'000 [min ⁻¹]
Continuous torque spindle / intermittently	4,8 / 7 [Nm]
Spindle ID (without chuck key)	25 [mm]
Max. bar capacity with W20 collet	14.5 [mm]
Max. bar capacity with W25 collet	19 [mm]
Recommended max. swing	25 [mm]

Pneumatic clamping system

option

Adjustable axial clamping force, at 5 bar	500 [daN]
Max. spindle speed	6'000 [min ⁻¹]

Lever-type quick-clamping system

option

Max. spindle speed	3'000 [min ⁻¹]
--------------------	----------------------------

Spindle interlock

Pneumatic spindle interlock, interlocking moment at 5 bars	48 [Nm]
--	---------

C axis

Programmable increment	0.001 [°]
Interpolation	X - Z - C
Max. use	20%

High precision lathe 102TM-CNC W20/W25

SCHAUBLIN 
MACHINES SA

Rue Nomlieutant 1
2735 Bévillard Switzerland
T +41 32 491 67 00
F +41 32 491 67 08
info@smsa.ch www.smsa.ch

Technical data 0102-012 / 0102-013

Cross slide

Transverse stroke, X axis	120 [mm]
Resolution, X-axis (on radius)	0.0005 [mm]
AC motor drive	0.35 [kW]
Torque, continuous/intermittent	0,65 / 2,5 [Nm]
Ball screw, dia. x pitch	12 x 3 [mm]
Longitudinal stroke, Z axis	100 [mm]
Resolution, Z axis	0,001 [mm]
AC motor drive	0.35 [kW]
Torque, continuous/intermittent	0,65 / 2,5 [Nm]
Ball screw, dia. x pitch	12 x 3 [mm]

Feedrates

Cutting feedrate, X and Z axes, infinitely variable	0 - 5 [m/min]
Rapid feed, X- and Z-axes	7 [m/min]
Feed force, X and Z axes, continuous	100 [daN]

Tooling : Linear

Possible number of radial tool holders (according to Ø of the piece)	2
Possible number of front tool holders (according to Ø of the piece)	2 ⇄ 5
Max. cross section of tool shank (Multifix system)	16 x 16 [mm]
Max. cross section of tool shank (Tripan system)	12 x 12 [mm]
Tool clamping for collets	ESX 20
Bar holder dia.	Ø20 [mm]

Screw-type tailstock

option

Internal taper of the sleeve	Mo 2
Spindle OD	30 [mm]
Spindle stroke	80 [mm]

Coolant supply

option

Tank capacity	25 [l]
Pump performance	0,12 [kW]
Pump capacity	10 [l/min]
Pressure of pump	0,5 [bar]

Pneumatic consumption

Min./max. pneumatic pressure	5 - 6 [bar]
Type of connection	1/4" [G]
Quality of the air	Clean and dry
average consumption	0.5 [m³/h]

Electrical power supply

Voltage	400 [V]
Tolerated fluctuations	+/- 5 [%]
Other Voltage	option [V]
Frequency	50 / 60 [Hz]
Tolerated fluctuations	+/- 5 [%]
Rated current	10 [A]
Protection at mains end	25 [A]
Power consumption of the machine	7 [kVA]

High precision lathe 102TM-CNC W20/W25

SCHAUBLIN 
MACHINES SA

Rue Nomlieutant 1
2735 Bévillard Switzerland
T +41 32 491 67 00
F +41 32 491 67 08
info@smsa.ch www.smsa.ch

Technical data 0102-012 / 0102-013

Obstruction and weight

Overall dimensions : length x depth x height	1'400 x 900 x 1'600 [mm]
Approx. net weight of the machine (including oil)	700 [kg]
Floor load	1'893 [kg/m ²]
Load per square meter for one machine (in the workshop with many machines)	267 [kg/m ²]
Dimensions of the pallet	1'700 x 1'000 [mm]
Weight of the pallet	55 [kg]
Center height over floor	1'115 [mm]

Lubrication of slideways and ball screws

Kind of X slideways lubrication	Manual
Kind of Z slideways lubrication	Manual
Kind of grease or oil	Mobil Vactra 2
Kind of X ball screws lubrication	Lifetime lubrication
Kind of Z ball screws lubrication	Lifetime lubrication
Kind of grease or oil	Klüber Isoflex Topas NB 52

Various

Workpiece collector	option
Color of the machine: SCHAUUBLIN standard 2 colors, color 1, Grey	RAL 7035
Color of the machine: SCHAUUBLIN standard color 2 colors, color 2, Blue	RAL 5013
Noise level under load at the operator's station	75 [dB _A]
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 OiMateTD
Screen	8.4" Couleur tactile
Turn Mate i	✓
Memory	512 [Kbyte]
Number of programs	400
Tool offsets	64
Programmable increment	0.001
Axis feedrate override	0-150 [%]
Spindle override	50-150 [%]
M codes in one block	1
Background editing	✓
Constant surface speed control	✓
Spindle positioning	0.1 [°]
Rigid tapping (with Spindle)	✓
Multiple threading	✓
Taper thread cutting	✓
Continuous threading	✓
Variable lead threading	✓
Custom Macro B	✓
Polar coordinate interpolation	✓
Cylindrical interpolation	✓
Inch/Metric	✓

High precision lathe 102TM-CNC W20/W25

SCHAUBLIN 
MACHINES SA

Rue Nomlieutant 1
2735 Bévillard Switzerland
T +41 32 491 67 00
F +41 32 491 67 08
info@smsa.ch www.smsa.ch

Technical data 0102-012 / 0102-013

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	option
Interface PCMCIA	✓
Interface Ethernet	x