



Hybrid 42mm 8-Axis CNC Swiss Machine

- + Bar Capacity to \varnothing 1-5/8"
- + Double "Y" Axis and Double "C" Axis
- + Simultaneous Main & Sub-Spindle Machining
- + 30-Tools with 8-Driven Tools Standard
- + Optional Rotary Synchronous Guide-Bushing
- + High-Performance Mitsubishi M-830 Control



Main Spindle

Maximum RPM/Spindle Bearing	6,000 RPM / 5-Bearing Spindle, 3-Front, 2-Rear Ball Bearings
Main Spindle Servo Moto (5.5/7.5Kw)	10-Horsepower 15-minute Duty-Rated (7.5-HP Constant Duty-Rated)
Collet Style for Main & Subspindle	Traub-42 / 173E
Collet Closer Style	Lever Action Collet Closer – Driven by Hydraulic Accusation
Guide-Bushing Type	Optional Rotary Guide-Bushing uses Hardinge STM38 Bushings
Bar Diameter (with or without Guide-Bushing)	Ø1/4" - 1-5/8" (Ø5-42mm) without Guide-Bushing
Maximum Turning Length (Rotary Bushing)	12.20" Single Stroke (310mm) (Rotary Guide-Bushing Optional)
Maximum Turning Length (without Bushing)	4.13" (105mm)
Spindle Bore	Ø1.732" (Ø44mm)

Main Spindle Tooling

O.D. Turning Tool Holders – S1	6 - 16mm (5/8") Square Shank Tool Holders
I.D. Internal Tool Holders – S1	5 - 25mm Shank Round Tool Sleeve Bores
I.D. Deep Hole Drill Positions – S1	2 - 25mm Shank Round Tool Sleeve Bores
Cross Slide Live Tools – S1	6 - ER-20 Collet Chuck Spindles, 4,000 rpm, 2-HP (1.6kw)
Axial Front Slide Live Tool Option – S1	3 - ER-20 Front Axial Live Tools - Optional in lieu of 1 Cross Tool
Maximum Drilling / Tapping Capacity	13mm Drilling / M10 Tapping
Cross Drilling / Tapping Capacity Option	10mm Drilling Capacity / M6 Tapping

Sub-Spindle

Sub-Spindle RPM/Spindle Bearing	6,000 RPM / 4-Bearing - Quad-Duplex Pair Configuration
Main Spindle Servo Moto (2.2/3.7Kw)	10-Horsepower 15-minute Duty-Rated (7.5-HP Constant Duty-Rated)
Collet Style for Main & Subspindle	Traub-42 / 173E
Maximum Barstock Diameter	1-5/8" (42mm) (42mm Parts can Through the Subspindle)
Spindle Bore	Ø1.732" (Ø44mm) (uses Hydraulic Piston Lever Action Collet Closer)
Finished Parts Ejector & Air Blast	Included
Maximum Workpiece Length for Front Ejection	110mm Maximum Part Length for Front Ejection from Subspindle

Sub-Spindle Tooling

O.D. Turning Tool Holders – S2	3 - 16mm Square Shank Turning Tool Holders
I.D. Internal Tool Holders – S2	5 - 25mm Shank Round Tool Sleeve Bores
I.D. Internal Tool Holders – S2 (8 possible)	3 - ER-16 Fixed Tools – Ø3/8" Max.
Subspindle Axial Live Tools – S2 (8 possible)	3 - ER-16 Axial Live Tools, 4,000 rpm, 1.0 HP (0.75kw)
(8-subspindle tool block can mix live & fixed tools, or 2 radial live tools can be substituted for 2 axial tools on subspindle tool block)	
Maximum Drilling / Tapping Capacity	13mm Drilling Capacity / M10 Taping on Sub-Spindle
Maximum Cross Drilling / Tapping Capacity	8mm Drilling Capacity / M6 Tapping

Axis

Main Spindle Stroke	12.20" (310mm)
X1, Y1, Z1, X2, Y2, Z2 Rapid Traverse Rate	944 IPM (24m/minute)
X1, Z1 Axis Motor Power	2-Horsepower (1.4kw)
X2, Y1, Y2, Z2 Axis Motor Power	1-Horsepower (.75kw)
X1, Y2 Linear Ways	Ball-Bearing Linear Ways (Point Contact)
Z2, Y1, Z1, Z2 Linear Ways	Roller-Bearing Linear Ways (Line Contact - Twice as Rigid)
Minimum Input Unit	0.0001" (0.001mm = 40 millionths/inch)

Specifications

Machine Dimensions (L x W x H)	121" x 67" x 83" (2925x1690x2100) +29" for conveyor)
Machine Weight	11,024 lbs. (5000kgs)
Coolant Pump Power	1-3/4-Horsepower (1.3kw) with Flow Confirmation Monitor)
Coolant Tank Capacity	65-gallon Coolant Tank (250 L) (Cutting Oil Only, No Coolant)
Lubrication Distribution (2-liter Capacity)	Way Lube Distributed at 3-6 cc / 15-Minute Cycle
Machine Power Requirements	220vac ±5%, 80-amps, 30kva, 3-phase, 60Hz
Air Requirements	85-PSI at 6-CFM for Parts Catcher, Parts Ejector, & Air Blast