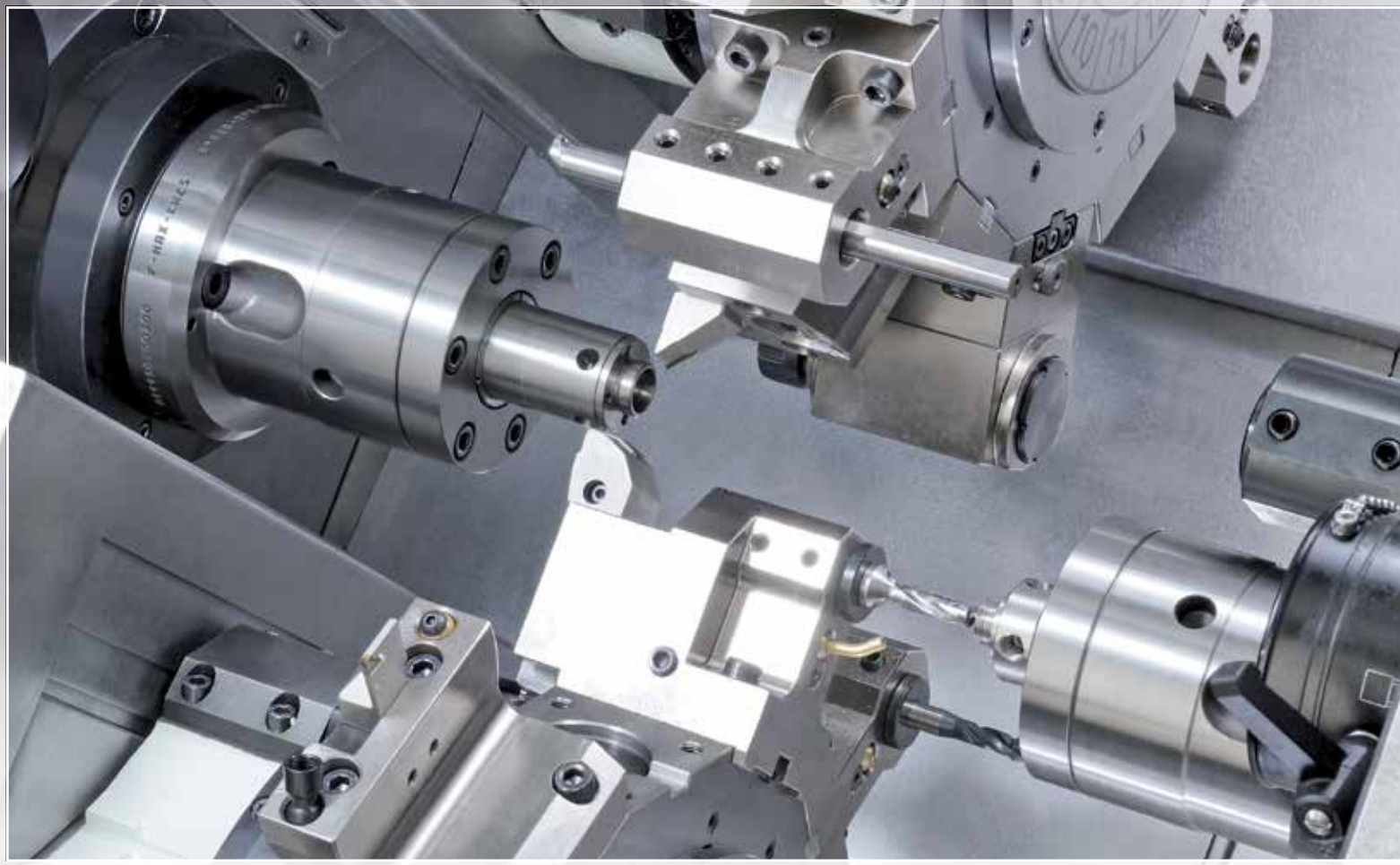
MULTITURRET BAR TURNING

B438Y2



EUROTECH
RUNS FASTER, SLEEPS LESS!

B438Y2

The range of **QUATTRO** machines have been produced by Eurotech since 1990 and celebrating the third generation is now further enhanced by the B438Y2 model. This new model is launched to meet with the specific market requirements for bar machining in automatic turning: a twin-turret and twin-spindle CNC-lathe with fixed headstock, compact, versatile and quick for combined turning, milling and drilling of small-sized parts.

The B438Y2 has a very compact structure offering optimum use of available space in the workshop (less than 5 sqm). The sturdy cast-iron construction, the robust components such as the main bed, linear rails, turrets and spindles combined with powerful spindle motors (15 hp) and live tools (max. 5.9 hp) will allow you to achieve significant results:

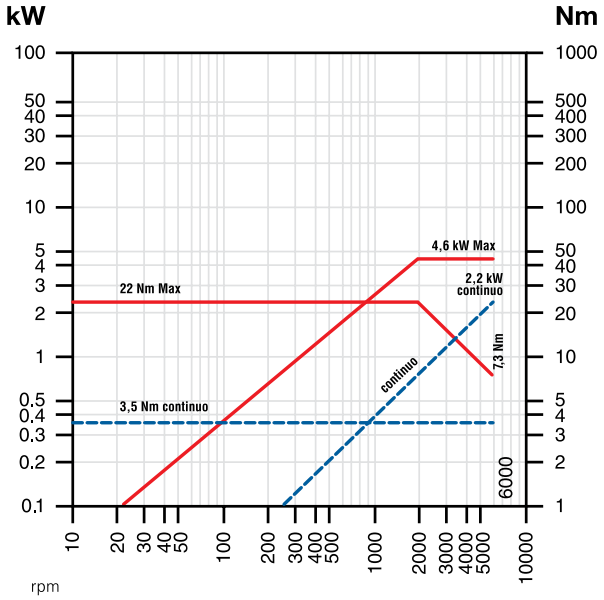
- optimal machining of all materials, especially tough alloys
- reduction of cycle times and longer tool service life
- perfect and efficient method of 'Chip' removal
- ergonomics and easy access for setup and retooling operations.

Double-spindle and double-turret turning centre featuring 2 Y-axes and

- **Quick cycles**
- **From bar to the finished part in one set-up**
- **Higher productivity (up to 50%)**
- **Compact**

Eurotech turrets
Live tooling

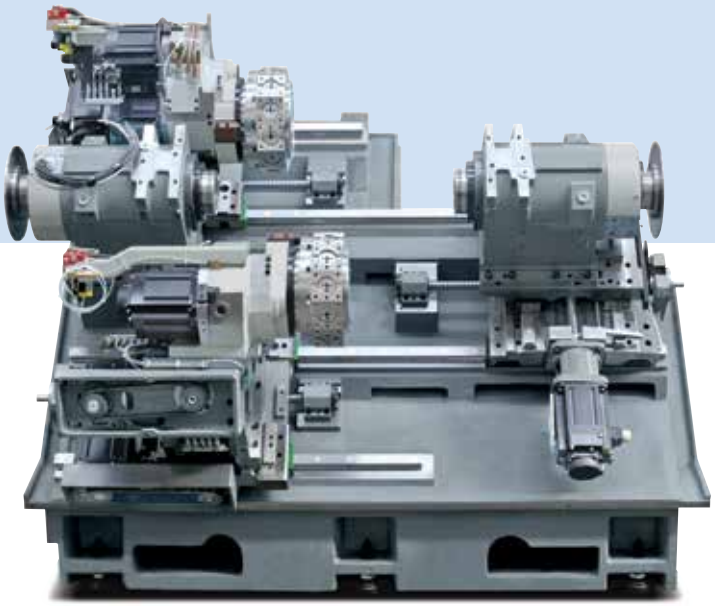
The B438Y2 is equipped with two rugged and quick Eurotech servo turrets (index time 0.15 sec). Live tooling on all positions. Up to 30 tools can work simultaneously. The rotary tools are driven by a motor with 16.23 lb-ft torque, 3/5.9 hp power and speed range of 6000 rpm



2 C-axes: high productivity in machining complex parts from the bar

Machine construction and bed

The massive rigid cast iron 45° slant bed embodying linear rails ensures high rigidity, exceptional vibration dampening and thermal stability.

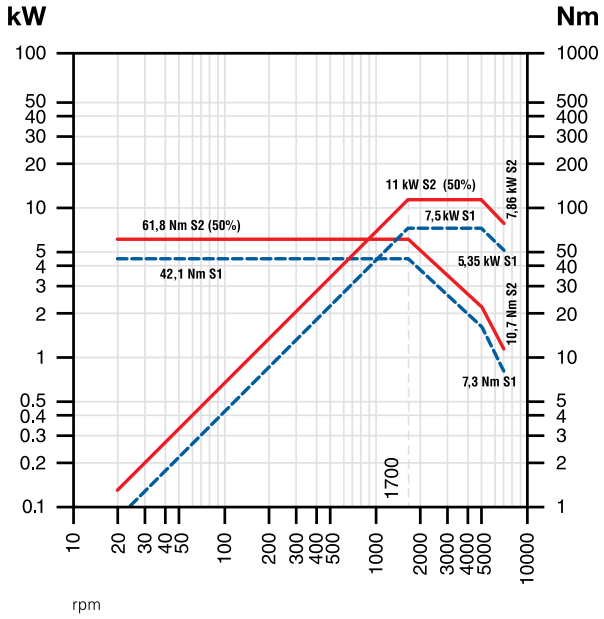


B438Y2

Spindles

The B438Y2 is equipped with two liquid cooled integral motor-spindles with 38 mm bar capacity which are driven by high-performance motors (15 hp power and 7000 rpm spindle speed). These spindles allow powerful cutting as well as exceptional surface finish and roundness accuracy.

Main spindle - Sub-spindle



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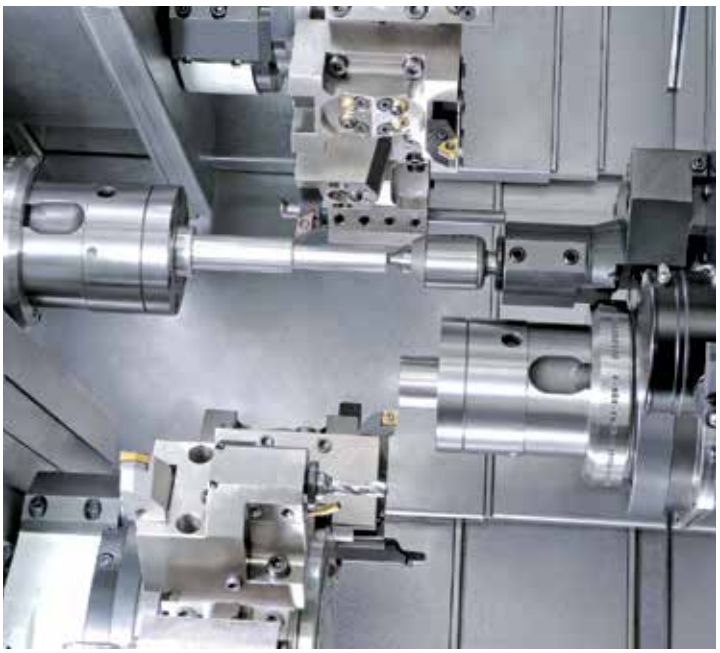
Sub-spindle

The position of the CNC-operated sub-spindle featuring a double movement (longitudinal and transversal - Z3 and X3 axes) enables reliable and flexible machining operations.
The sub-spindle can be offset from the main spindle.
The main advantages are:
- elimination of interference problems between the two turrets
- possibility to use the sub-spindle as a regular tailstock to hold the component machined on the main spindle with T1 and simultaneously perform finishing with T2 (drawing 5 on page 6)
- Simultaneous "follow up" machining using three tools thanks to the "Superimposition" function (drawings 9, 10 and 11 on page 7).

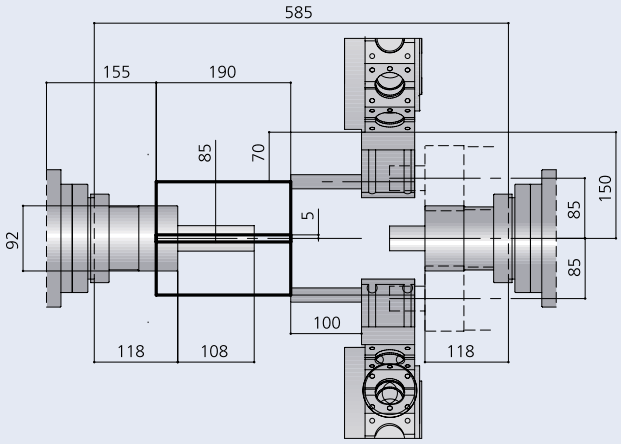
Tailstock on the sub-spindle

(option)

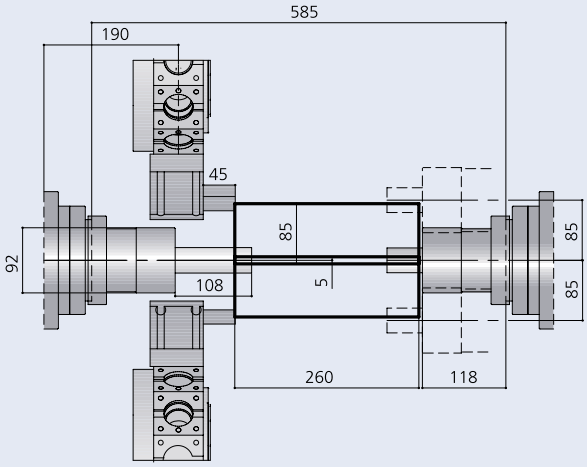
Upon installation of a support with rotating center, the sub-spindle can be used as a regular tailstock to machine small-sized shafts.



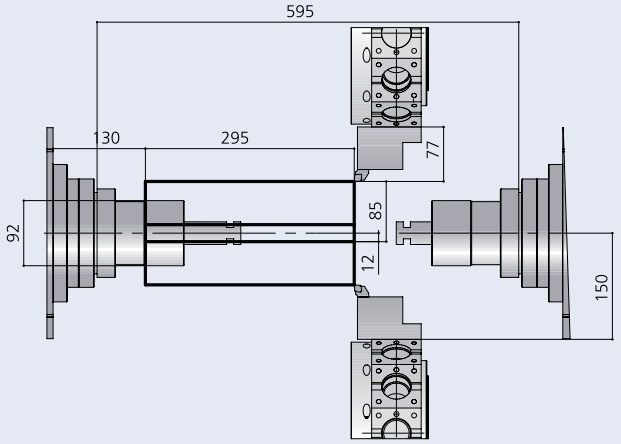
Machining fields



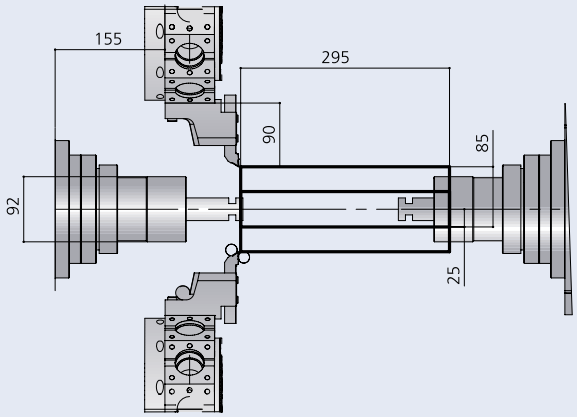
1 Simultaneous machining of T1 on M1 and T2 on M1



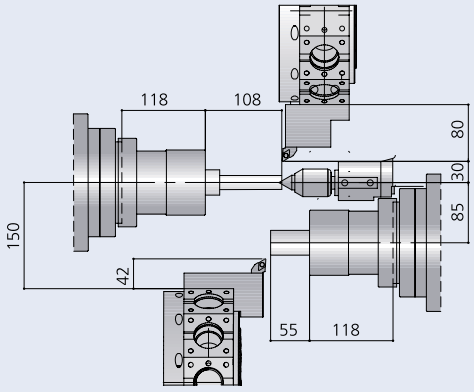
2 Simultaneous machining of T1 and T2 on M2



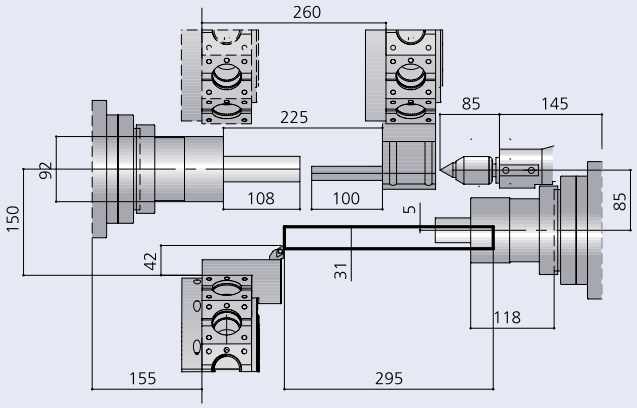
3 Simultaneous machining of T1 and T2 on M1



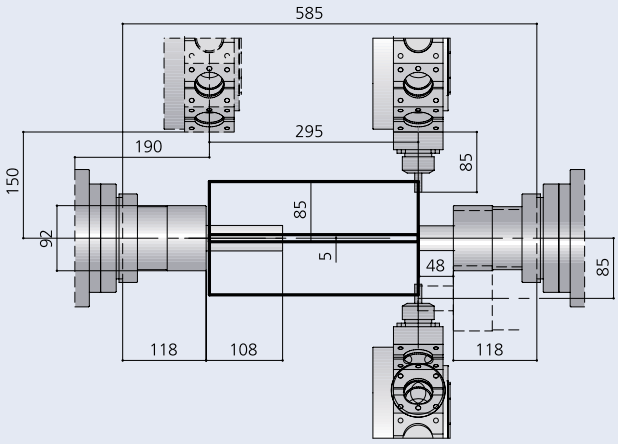
4 Simultaneous machining of T1 and T2 on M2



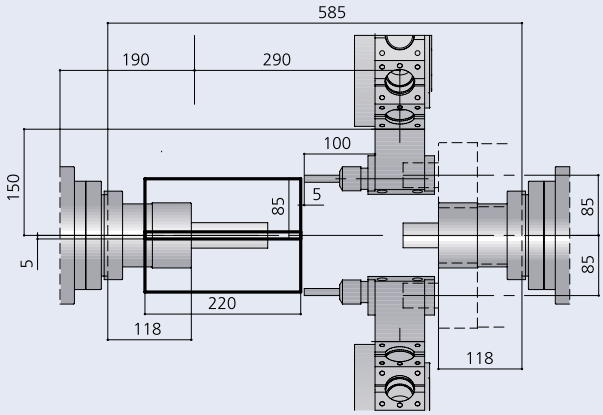
5 Simultaneous machining of T1 on M1 and T2 on M2 using tailstock to hold the component



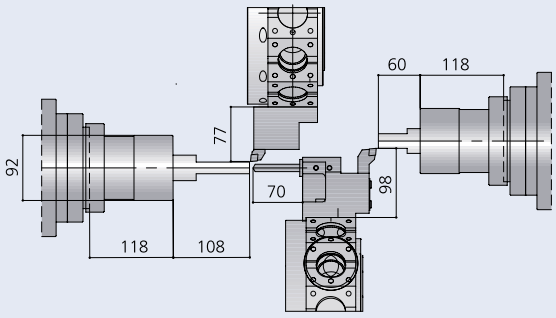
6 Simultaneous machining of T1 on M1 and T2 on M2 using tailstock



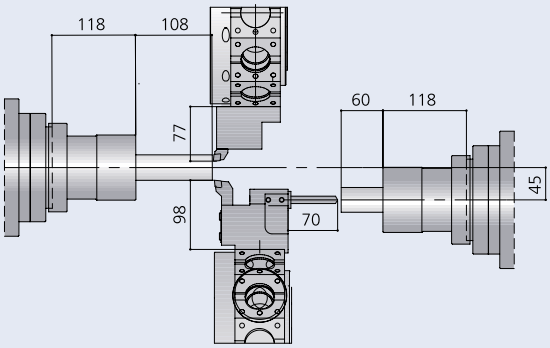
7 Simultaneous machining of T1 and T2 on M1 using radial driven tools



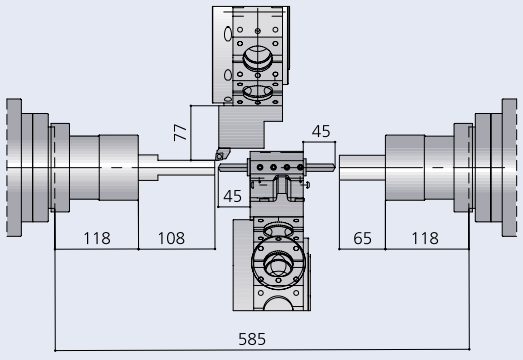
8 Simultaneous machining of T1 and T2 on M1 using axial driven tools



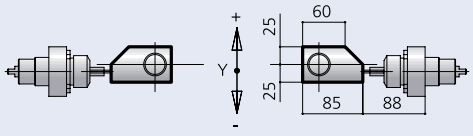
9 Simultaneous machining of T1 on M1 and T2 on M1 and M2 using three tools in "follow up" machining with Z2/Z3 thanks to the "Superimposition" function



10 Simultaneous machining of T1 on M1 and T2 on M2 using three tools in "follow up" machining with Z2/Z3 thanks to the "Superimposition" function



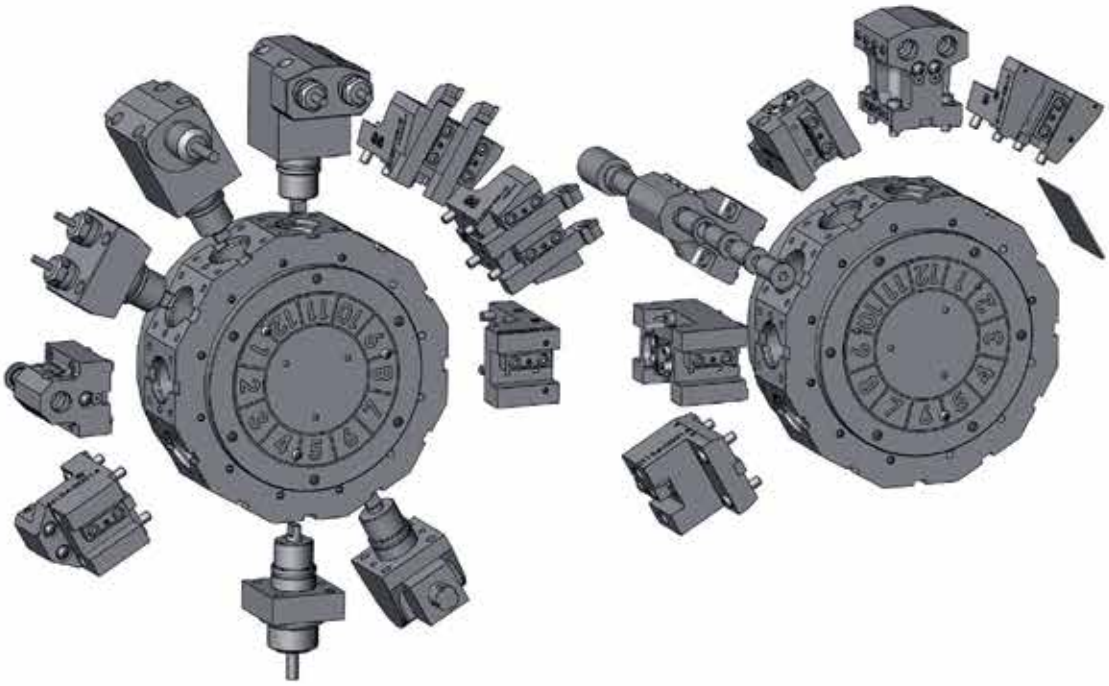
11 Simultaneous machining of T1 on M1 and T2 on M1 and M2 using three tools in "follow up" machining between Z2/Z3 thanks to the "Superimposition" function



Y axis

Legend
M1 = Main spindle
M2 = Sub-spindle
T1 = Upper turret
T2 = Lower turret

Toolholders



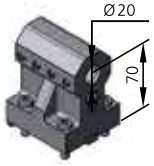
D183-00004

D183-00006

D183-00010

D183-00015

D183-00012



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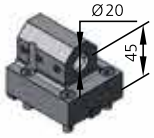
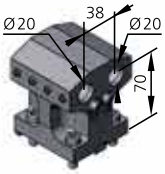
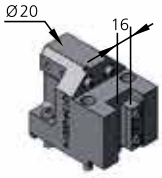


D183-00019



D183-00011



D183-00014

D183-00013

D183-00005

T189-00006

D030-00015

D030-00016

D030-00017

D030-00018

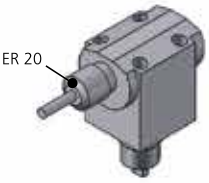
D049-00001

D236-00005

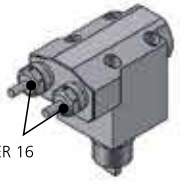
D067-00057

D236-00013

T134-00128

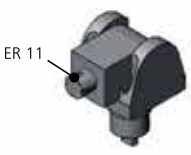


T134-00129



T134-00126

T134-00127



T134-00130

Wide range of equipment and optionals.

Standard features

- 2 integral motor-spindles (38 mm bar capacity)
- 2 Eurotech 12-station servo turrets featuring two Y-axes
- Sub-spindle with axial/radial movement, parts ejector and air blower
- Bar-feeder interface
- Rigid tapping
- Automatic parts-catcher
- Finished parts conveyor
- Chip conveyor
- Coolant system featuring 7 bar pumps and filters
- Two color alarm lamp
- Electrical cabinet - air conditioned
- Load detection on all axes
- Part present check on the sub-spindle

Optional main features

- Tool Probing System
- High-pressure pump (18/25/30 bar)
- Mist extractor
- Polygon turning
- Tool wear and breakage monitoring system

Programmable automatic parts-catcher

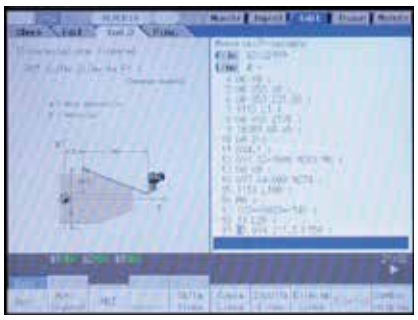
The automatic parts-catcher allows the unloading of finished parts up to 3.94 in. long in automatic mode and idle time.

Tool setter
(option)

This device makes tool-setting faster and easier.
The two tool setting sensors offers tool offsets to be measured on both turrets, thus reducing set up times.

CNC-Unit.

USB gate, Memory Card



Quick and easy for program reliability

CNC-unit mod. Mitsubishi M700:
- 10.4" color liquid crystal display
- Alphanumeric full-keyboard
- CPU RISC 64 bit
- Eurotech operator panel featuring softkeys
- Data transmission: USB gate, Ethernet gate, Memory Card, RS232 gate

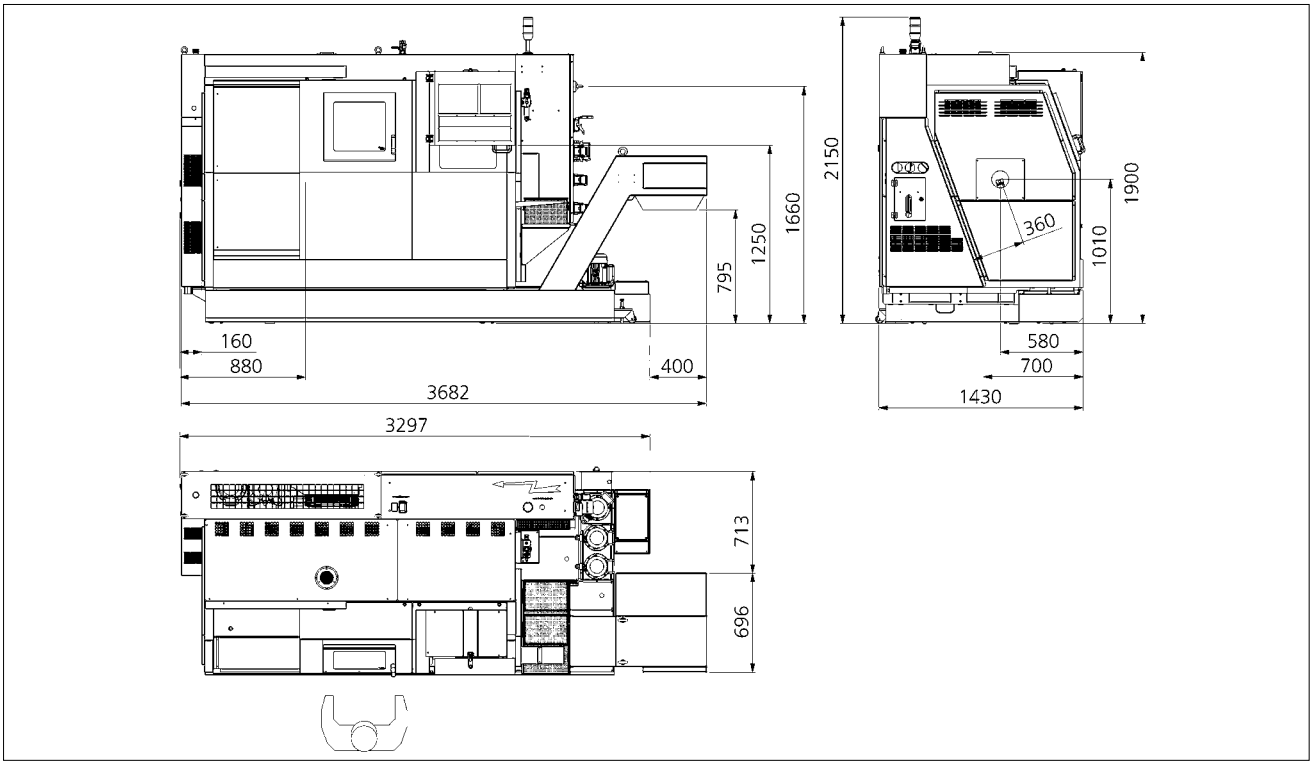
SSS Control OMR Control Complete NANO Control

SSS Control (Super Smooth Surface for determining appropriate shapes and avoiding unnecessary decelerations),
Nano Interpolation (controls everything from NC's operation to servo processing in the least command increment of 1 nm) and
OMR Control (high speed and accuracy control of driving system by estimating paths of machine-end) to obtain higher-speed and higher-accuracy machining.

RAPIDO B438-Y2

TECHNICAL SPECIFICATIONS		B438-Y2
MACHINING CAPACITY		
Bar capacity	in	1.50
Max. machining diameter	in	3.94
Max. swing over diameter	in	5.51
MAIN SPINDLE - SUB-SPINDLE		
Max. speed	rpm	7000
Spindle nose (flange connection)	in	4.53
Spindle bore	in	1.81
Drawtube inside diameter	in	1.47
Inner diameter of bearings	in	2.95
Chuck diameter	in	4.33
Max. motor power	HP	15
Max. torque	lb.ft	45.2
C-axis: min. programmable value	deg	0.001°
X3-axis: sub-spindle offset stroke	in/ipm	6.7 - 590
Z3-axis: sub-spindle stroke - rapid traverse	in/ipm	13.4 - 1181
UPPER TURRET 1 - LOWER TURRET 2		
Number of stations		12
Turret indexing (1 pos)	sec	0.15
Max number of tools for both turrets		48
Max speed live tools	rpm	std. 6000 / 16000 max
Motor power	HP	(cont.) 3 / 5.9 (30 min.)
Max torque	lb.ft	16.23
X1-X2 axes stroke - rapid traverse	in/ipm	3.3 - 590
Z1-Z2 axes stroke - rapid traverse	in/ipm	11.8 - 1181
Y1-Y2 axes stroke - rapid traverse	in/ipm	1.97 [-.98/+.98] - 1181
COOLING SYSTEM		
Tank capacity	gal	52.7
Pressure with standard pump	psi	101.5
DIMENSIONS AND WEIGHT		
Machine with chip conveyor	in	145 x 56.3 x 74.8
Spindle center height	in	39.96
Machine weight with chip conveyor	lb	10362

MACHINE DIMENSIONS



EUROTECH CNC PRODUCT LINES

EUROTECH
ADVANCED CNC MACHINERY

66 Models - for Lightning Fast Production of Parts in One-Operation.

From 1/2 in. to 4.5 in. Bar Capacity / up to 15 in. Chucks

Single Turret Series

2.00" Models:	**B545S** main spindle, sub-spindle, 1-turret	**B545L** main spindle, tailstock, 1-turret with live tools	**B545SL** main spindle, sub-spindle, 1-turret with live tools	**B620LY** main spindle, tailstock, Y-axis turret with live tools	**B620SLY** main spindle, sub-spindle, Y-axis turret with live tools
2.75" Models:	**735S** main spindle, sub-spindle, 1-turret	**735L** main spindle, tailstock, 1-turret with live tools	**735SL** main spindle, sub-spindle, 1-turret with live tools	**B620LY** main spindle, tailstock, Y-axis turretwith live tools	**B620SLY** main spindle, sub-spindle, Y-axis turret with live tools
3.15" Models:	**835S** main spindle, sub-spindle, 1-turret	**835L** main spindle, tailstock, 1-turret with live tools	**835SL** main spindle, sub-spindle, 1-turret with live tools	**TC600LY** main spindle, tailstock, Y-axis turret with live tools	**TC600SLY** main spindle, sub-spindle, Y-axis turret with live tools

Dual Turret Series

2.00" Models:	**Forza TTC300SL 52** main spindle, sub-spindle, with live tools on upper or lower turret	**Forza TTC300SLL 52** main spindle, sub-spindle, with live tools on both turrets	**Forza TTC300SLLY 52** main spindle, sub-spindle, Y-axis upper turret, with live tools on both turrets
	Trofeo B446SLLY main spindle, sub-spindle, Y-axis upper turret, with live tools on both turrets	**Trofeo B446SY2** main and sub-spindles, Y-axis upper turret, Y-axis lower turret, live tools on both turrets	
2.625" Models:	**Forza TTC300SL 65** main spindle, sub-spindle, with live tools on upper or lower turret	**Forza TTC300SLL 65** main spindle, sub-spindle, with live tools on both turrets	**Forza TTC300SLLY 65** main spindle, sub-spindle, Y-axis upper turret, with live tools on both turrets
2.75" Models:	**Trofeo B465SLLY** main spindle, sub-spindle, Y-axis upper turret, with live tools on both turrets	**Trofeo B465SY2** main and sub-spindles, Y-axis upper turret, Y-axis lower turret, live tools on both turrets	
3.15" Models:	**Trofeo B481SLLY** main spindle, sub-spindle, Y-axis upper turret, with live tools on both turrets	**Trofeo B481SY2** main and sub-spindles, Y-axis upper turret, Y-axis lower turret, live tools on both turrets	

1.50" Models:

Rapido B438Y2 two-turrets, two Y-axes, SuperShift sub-spindle that can super-impose on either upper or lower turret, 8,000 RPM main and sub-spindles.

"Eurotech is so much faster than the competition that it's speed difference alone completely pays for the machine."
- Tom Hassett, Owner, T&L Automatics -

EUROTECH FREE Lifetime Programming Classes

NATIONWIDE Engineering and Service

- Factory Certified Training
- Proven to Increase R.O.I.
- Reduces Machine Downtime
- 100% Guaranteed Better Cycle Time
- New and Unique Ideas for Parts Processing

Triple Turret Series

2.00", 2.75" and 3.15" Models:	**Multipla B446T3Y3** main spindle, (3) Y-axis turrets, sub-spindle, C-axis, live tools on all 3 turrets, & 2.00" bar cap.	**Multipla B465T3Y3** main spindle, (3) Y-axis turrets, sub-spindle, C-axis, live tools on all 3 turrets, & 2.75" bar cap.	**Multipla B481T3Y3** main spindle, (3) Y-axis turrets, sub-spindle, C-axis, live tools on all 3 turrets, & 3.15" bar cap.
1.65" and 2.56" Models:	**TTS Triplex 42** main spindle, (2) Y-axis turrets, sub-spindle, C-axis, live tools on all 3 turrets, and 1.65" bar capacity	**TTS Triplex 65** main spindle, (2) Y-axis turrets, sub-spindle, C-axis, live tools on all 3 turrets, and 2.56" bar capacity	

B Axis with Automatic Tool Change

up to 4.02" Models:

SmartTurn 1200 variable B-axis, main spindle, sub-spindle or tailstock, 40 tool magazine, and up to 4.02" bar and 15" chuck

SmartTurn 1200EX variable B-axis, main spindle, sub-spindle or tailstock, 40 tool magazine, and up to 4.02" bar and 15" chuck

STRIKER - GLENAIR - TIMKEN - HONEYWELL - WESTINGHOUSE - EMERSON - TEXTRON - HENRY RIFLE - FESTO - COLEMAN

Designed with all the Automation Required for Unmanned Operation - Over 10,000 Systems Worldwide.

All Eurotech factories and products are compliant with CE, ISO, DIN and UL standards. **Runs Faster, Sleeps Less!** Specifications contained herein are approximate and subject to change without notice. EUROTECH 11/2015

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RUNS FASTER, SLEEPS LESS!

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