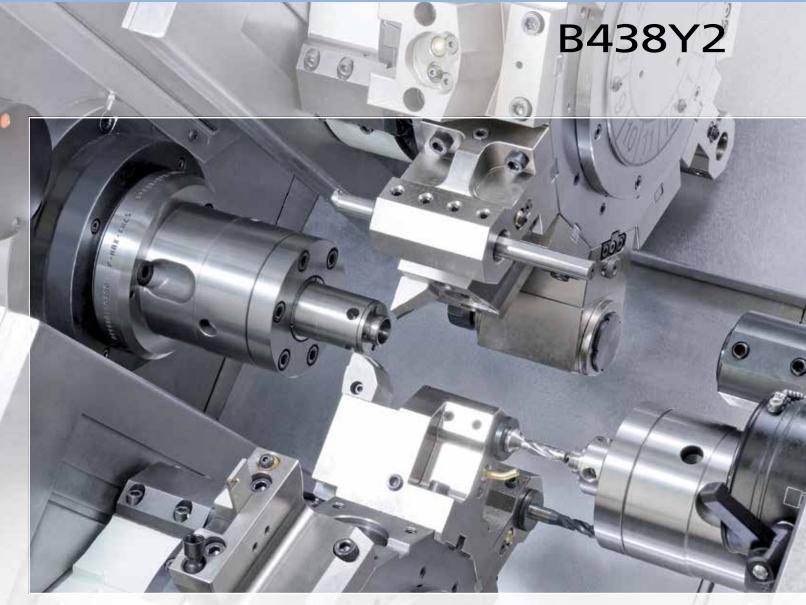
#### **MULTITURRET BAR TURNING**









## 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 twinturret 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

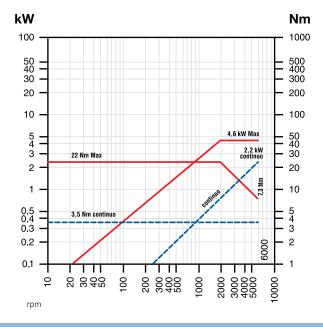






## **Eurotech turrets Live tooling**

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

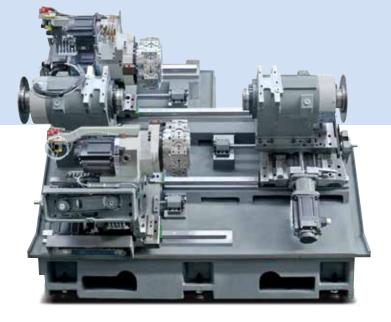


### 2 C-axes: high productivity in machining complex parts from the bar

#### Machine construction and bed

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





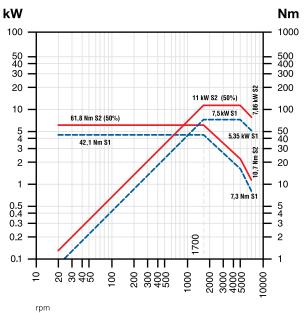
## Generous machining area to

# 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





### achieve top-level performance.





#### **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).

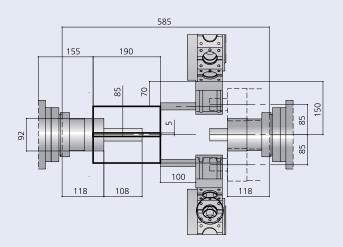
## Tailstock on the sub-spindle (option)

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

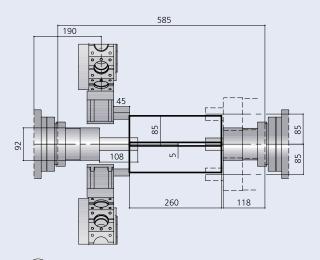


## **Machining fields**

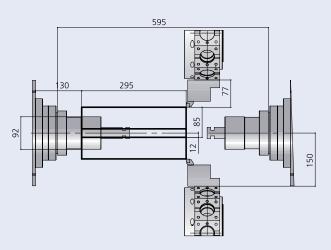
# B438Y2



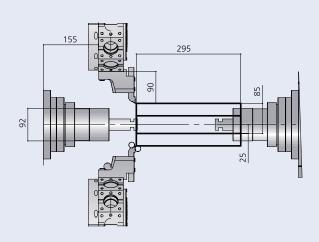
(1) Simultaneous machining of T1 on M1 and T2 on M1



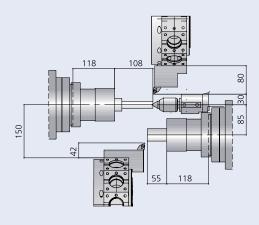
2 Simultaneous machining of T1 and T2 on M2



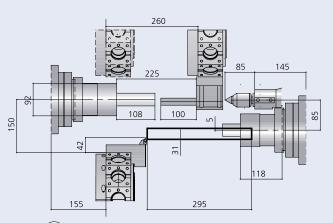
3 Simultaneous machining of T1 and T2 on M1



(4) Simultaneous machining of T1 and T2 on M2

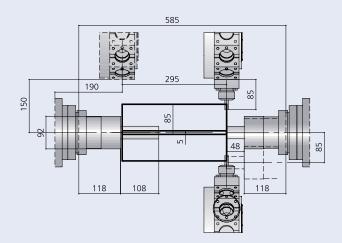


Simultaneous machining of T1 on M1 and T2 on M2 using tailstock to hold the component

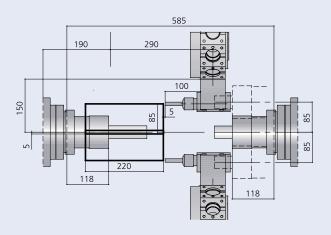


6 Simultaneous machining of T1 on M1 and T2 on M2 using tailstock

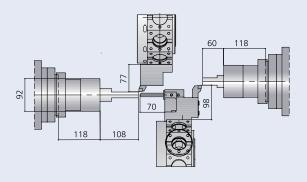




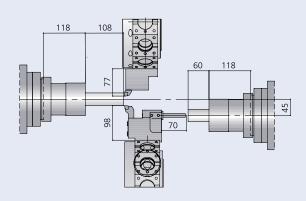
Simultaneous machining of T1 and T2 on M1 using radial driven tools



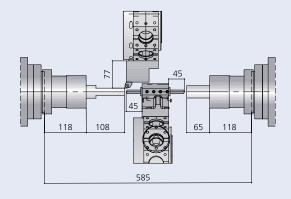
Simultaneous machining of T1 and T2 on M1 using axial driven tools



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



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



thanks to the "Superimposition" function

Simultaneous machining of T1 on M1 and T2 on M1 and M2

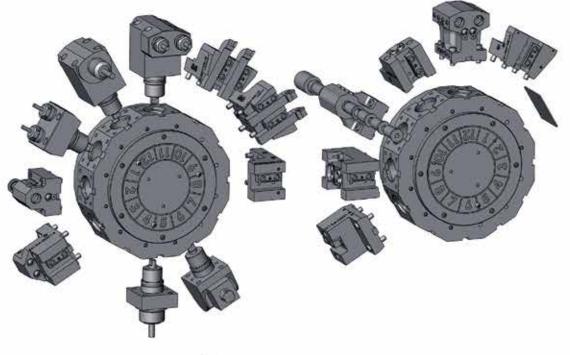
using three tools in "follow up" machining between Z2/Z3

11

M2 = Sub-spindle

Y axis









D183-00006







D183-00002



























D236-00013









T134-00127





# 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.



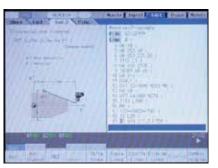




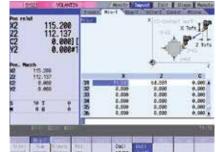
## **CNC-Unit.**



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







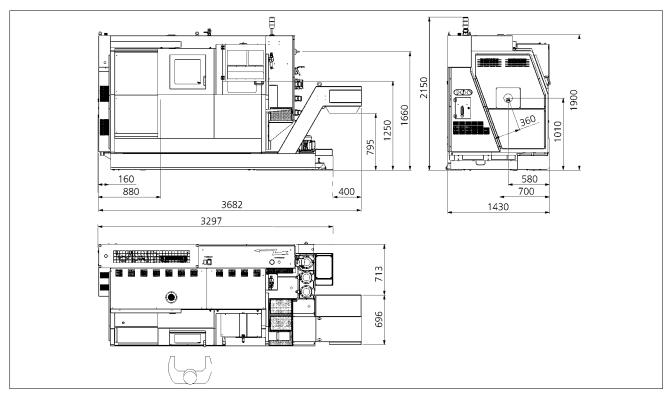
**SSS Control** (Super Smooth Surface for determining appropriate shapes and avoiding unnecessary decelerations),

**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

Turret indexing (1 pos)  Max number of tools for both turrets  Max speed live tools  Motor power  Motor power  Max torque  Max	TECHNICAL SPECIFI	CAIIONS	B438-Y2
Aax, machining diameter         in         3.94           Aax, swing over diameter         in         5.51           AALN SPINDLE - SUB-SPINDLE         TEXT TO THE MACK SPINDLE TO THE MACK SPIND		in	1 50
Max. swing over diameter         in         5.51           MAIN SPINDLE - SUB-SPINDLE         7000           Aax. speed         rpm         7000           pindle nose (flange connection)         in         4.53           pindle bore         in         1.81           prawtube inside diameter         in         1.47           oner diameter of bearings         in         2.95           chuck diameter         in         4.33           Max. motor power         HP         15           Max. motor power         HP         15           Aax. torque         Ib.ft         45.2           c-axis: min. programmable value         deg         0.001°           G3-axis: sub-spindle offset stroke         in/ipm         6.7 - 590           G3-axis: sub-spindle stroke - rapid traverse         in/ipm         13.4 - 1181           UPPER TURRET 1 - LOWER TURRET 2         Image: Contract of the c	• •		
ALAIN SPINDLE - SUB-SPINDLE	_		
Anax. speed   rpm   7000   rpm   r		ın	5.51
pindle nose (flange connection) pindle bore pindle bore pindle bore pindle bore prawtube inside diameter prawtube inside			7000
prindle bore	•	·	
Or awt ube inside diameter         in         1.47           Inner diameter of bearings         in         2.95           Chuck diameter         in         4.33           Aax. motor power         HP         15           Max. torque         Ib. ft         45.2           C-axis: min, programmable value         deg         0.001°           C3-axis: sub-spindle offset stroke         in/ipm         6.7 - 590           C3-axis: sub-spindle stroke - rapid traverse         in/ipm         13.4 - 1181           UPPER TURRET 1 - LOWER TURRET 2         Image: Color of the stroke of the str			
Inner diameter of bearings   In	·		
In   A   A   A   A   A   A   A   A   A			
Max. motor power       HP       15         Max. torque       Ib.ft       45.2         6-axis: min. programmable value       deg       0.001°         63-axis: sub-spindle offset stroke       in/ipm       6.7 - 590         63-axis: sub-spindle stroke - rapid traverse       in/ipm       13.4 - 1181         JPPER TURRET 1 - LOWER TURRET 2       Jumber of stations       12         Jurret 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       Ib.ft       16.23         X1-X2 axes stroke - rapid traverse       in/ipm       3.3 - 590         X1-Y2 axes stroke - rapid traverse       in/ipm       11.8 - 1181         X1-Y2 axes stroke - rapid traverse       in/ipm       1.97 [98/+.98] - 1181         X1-Y2 axes stroke - rapid traverse       in/ipm       1.97 [98/+.98] - 1181         X1-Y2 axes stroke - rapid traverse       in/ipm       1.97 [98/+.98] - 1181         X2-Y2 axes stroke - rapid traverse       in/ipm       1.97 [98/+.98] - 1181         X3-Y4 - Y2 axes stroke - rapid traverse       in/ipm       1.97			
Max. torque       Ib.ft       45.2         G-axis: min. programmable value       deg       0.001°         G-axis: sub-spindle offset stroke       in/ipm       6.7 - 590         G-axis: sub-spindle stroke - rapid traverse       in/ipm       13.4 - 1181         JPPER TURRET 1 - LOWER TURRET 2       Jumber of stations       12         Jurret 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       (1-X2 axes stroke - rapid traverse       in/ipm       3.3 - 590         Max torque       (1-Y2 axes stroke - rapid traverse       in/ipm       11.8 - 1181         M-1-Y2 axes stroke - rapid traverse       in/ipm       1.97 [98/+.98] - 1181         DOLING SYSTEM       ToolLING SYSTEM         Gank capacity       gal       52.7         Gressure with standard pump       psi       101.5         DIMENSIONS AND WEIGHT         Machine with chip conveyor       in			
As a speed live tools for both turrets for the form for for the form	·		· · ·
As axis: sub-spindle offset stroke in/ipm 6.7 - 590 As axis: sub-spindle stroke - rapid traverse in/ipm 13.4 - 1181  DEPER TURRET 1 - LOWER TURRET 2  Jumber of stations 12  Jumber of tools for both turrets 48 Ax x speed live tools rpm std. 6000 / 16000 max Actor power HP (cont.) 3 / 5.9 (30 min.) Ax torque Ib.ft 16.23  Ax torque Ib.ft 16.23  Ax axes stroke - rapid traverse in/ipm 3.3 - 590  Ax 2 axes stroke - rapid traverse in/ipm 11.8 - 1181  Ax 2 axes stroke - rapid traverse in/ipm 1.97 [98/+.98] - 1181  COLING SYSTEM  Tank capacity gal 52.7  Aressure with standard pump psi 101.5  DIMENSIONS AND WEIGHT  Machine with chip conveyor in 145 x 56.3 x 74.8  pindle center height in 39.96	·		
As axis: sub-spindle stroke - rapid traverse in/ipm 13.4 - 1181  IMPER TURRET 1 - LOWER TURRET 2  Imper of stations 12  Imper of stations 12  Imper of tools for both turrets 48  Imper of tools for both turrets			
Author of stations 12  Author of stations 12  Author of stations 12  Aux 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.)  Aux torque Ib.ft 16.23  Aux torque Ib.ft 16.23  Aux 2 axes stroke - rapid traverse in/ipm 3.3 - 590  Aux 2 axes stroke - rapid traverse in/ipm 11.8 - 1181  Aux 1-Y2 axes stroke - rapid traverse in/ipm 1.97 [98/+.98] - 1181  COLING SYSTEM  For exsure with standard pump psi 101.5  DIMENSIONS AND WEIGHT  Machine with chip conveyor in 145 x 56.3 x 74.8  pindle center height in 39.96	•	in/ipm	6.7 - 590
Turnet indexing (1 pos)  Furnet indexing (1 po		in/ipm	13.4 - 1181
Turret indexing (1 pos)  Max number of tools for both turrets  Max speed live tools  Motor power  Motor power  Max torque  Max	UPPER TURRET 1 - LOWER TURRET 2		
Max number of tools for both turrets  Max speed live tools  Motor power  Motor power  Max torque  Max	Number of stations		12
Max speed live tools  Motor power  Motor power  Max torque  Max to	Turret indexing (1 pos)	sec	0.15
Motor power  Max torque  Max t	Max number of tools for both turrets		48
Max torque Ib.ft 16.23 (1-X2 axes stroke - rapid traverse in/ipm 3.3 - 590 (1-Z2 axes stroke - rapid traverse in/ipm 11.8 - 1181 (1-Y2 axes stroke - rapid traverse in/ipm 1.97 [98/+.98] - 1181 (2-	Max speed live tools	rpm	std. 6000 / 16000 max
A canal stroke - rapid traverse in/ipm 3.3 - 590 A canal stroke - rapid traverse in/ipm 11.8 - 1181 A canal stroke - rapid traverse in/ipm 1.97 [98/+.98] - 1181 COLING SYSTEM A canal capacity gal 52.7 A cressure with standard pump psi 101.5  DIMENSIONS AND WEIGHT A canal stroke - rapid traverse in/ipm 1.97 [98/+.98] - 1181 A canal capacity gal 52.7 A cressure with standard pump in 1.95  DIMENSIONS AND WEIGHT A canal stroke - rapid traverse in/ipm 1.97 [98/+.98] - 1181 A canal stroke - rapid traverse in/ipm 1.97 [98/+.98] - 1181  A canal stroke - rapid traverse in/ipm 1.97 [98/+.98] - 1181  A canal stroke - rapid traverse in/ipm 1.97 [98/+.98] - 1181  A canal stroke - rapid traverse in/ipm 1.97 [98/+.98] - 1181  A canal stroke - rapid traverse in/ipm 1.97 [98/+.98] - 1181  A canal stroke - rapid traverse in/ipm 1.97 [98/+.98] - 1181  A canal stroke - rapid traverse in/ipm 1.97 [98/+.98] - 1181  A canal stroke - rapid traverse in/ipm 1.97 [98/+.98] - 1181  A canal stroke - rapid traverse in/ipm 1.97 [98/+.98] - 1181  A canal stroke - rapid traverse in/ipm 1.97 [98/+.98] - 1181  A canal stroke - rapid traverse in/ipm 1.97 [98/+.98] - 1181  A canal stroke - rapid traverse in/ipm 1.97 [98/+.98] - 1181  A canal stroke - rapid traverse in/ipm 1.97 [98/+.98] - 1181  A canal stroke - rapid traverse in/ipm 1.97 [98/+.98] - 1181  A canal stroke - rapid traverse in/ipm 1.97 [98/+.98] - 1181  A canal stroke - rapid traverse in/ipm 1.97 [98/+.98] - 1181  A canal stroke - rapid traverse in/ipm 1.97 [98/+.98] - 1181  A canal stroke - rapid traverse in/ipm 1.97 [98/+.98] - 1181	Motor power	HP	(cont.) 3 / 5.9 (30 min.)
11-Z2 axes stroke - rapid traverse in/ipm 11.8 - 1181 11-Y2 axes stroke - rapid traverse in/ipm 1.97 [98/+.98] - 1181 11-Y2 axes s	Max torque	lb.ft	16.23
71-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 pindle center height in 39.96	X1-X2 axes stroke - rapid traverse	in/ipm	3.3 - 590
COOLING SYSTEM  Tank capacity Pressure with standard pump	Z1-Z2 axes stroke - rapid traverse	in/ipm	11.8 - 1181
ressure with standard pump psi 101.5  DIMENSIONS AND WEIGHT  Machine with chip conveyor in 145 x 56.3 x 74.8  pindle center height in 39.96	Y1-Y2 axes stroke - rapid traverse	in/ipm	1.97 [98/+.98] - 1181
Pressure with standard pump psi 101.5  DIMENSIONS AND WEIGHT  Machine with chip conveyor in 145 x 56.3 x 74.8 pindle center height in 39.96	COOLING SYSTEM	-	
Machine with chip conveyor in 145 x 56.3 x 74.8 pindle center height in 39.96	Tank capacity	gal	52.7
Machine with chip conveyor in 145 x 56.3 x 74.8 pindle center height in 39.96	Pressure with standard pump	psi	101.5
pindle center height in 39.96	DIMENSIONS AND WEIGHT		
	Machine with chip conveyor	in	145 x 56.3 x 74.8
Machine weight with chip conveyor Ib 10362	Spindle center height	in	39.96
	Machine weight with chip conveyor	lb	10362

#### MACHINE DIMENSIONS



#### EUROTECH CNC PRODUCT LINES



B545S

835S

Trofeo B446SLLY

**Trofeo B465SLLY** 

main spindle, sub-spindle, Y-axis upper turret, with live tools on both turrets

main spindle.

main spindle

sub-spindle. 1-turret

sub-spindle, 1-turret

Forza TTC300SL52

Forza TTC300SL 65

main spindle, spindle, with tools on upper or lower turret

main spindle, sub-spindle, with ive tools on upper or lower turret

#### 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

main spindle, spindle, 1-turre with live tools

main spindle, spindle, 1-turret-

with live tools

1.50"

Models:

#### **Single Turret Series**

Forza TTC300SLLY 52

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

Forza TTC300SLLY 65

main spindle, sub-spindle, Y-axis upper turret, with live tools on both turrets

Trofeo R465SV2

2.00" Models:

2.75"

Models:

3.15"

Models:

2.00"

Models:

2.625"

Models:

2.75"

Models:

3.15"

Models:

2.00", 2.75

and 3.15"

Models:

1.65"

and 2.56'







B620LY

**B620LY** 

TC600LY

main spindle, tailstock, Y-axis rret with live tools

Rapido B438Y2

main spindle, tailstock, Y-axis turretwith live tools

B620SLY main spindle, sub-spindle, Y-axis turret with live tools



B620SLY main spindle,

sub-spindle, Y-axis turret with live tools

main spindle. sub-spindle, Y-axis turret with live tools

"Eurotech is so much faster than the competition that it's speed

for the machine."

difference alone completely pays

Tom Hassett, Owner, T&L Automatics -



#### 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





## **Programming Classes**



up to

4.02"

#### main and sub-spindles, Y-axis upper turret, Y-axis lower turret, live tools on both turrets main spindle, sub-spindle, Y-axis upper turret, with live tools on both turrets

B545L

main spindle,

main spindle, tailstock,

**Dual Turret Series** 

main spindle, tailstock, 1-turret with live tools

tailstock, 1-turret with live tools

1-turret with live tools

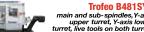
4

Trofeo B481SY2 ia.

#### **Trofeo B481SLLY**



## main spindle, sub-spindle, Y-axis upper turret, with live tools on both turrets





日福

Forza TTC300SIL 52

Forza TTC300SIL 65

main spindle, sub-

main spindle, sub-spindle, with live tools on both turrets









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



main spindle, (2) Y-axis turrets, sub-spindle, C-axis, live tools on all 3 turrets, and 1.65" bar capacity

Multipla B446T3Y3

main spindle, (3) Y-axis turrets, sub-spindle, C-axis, live tools on all 3

turrets, & 2.00" bar cap.



main spindle, (2) Y-axis turrets, sub-spindle, C-axis, live tools on all 3 turrets, and 2.56" bar capacity

Models:

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! Sectional contained been are approximate and subject to change without notice. EUROTECH 11/2015

B Axis with Automatic Tool Change

**UROTEC** 

**EUROTECH** 21125 Cortez Blvd. Brooksville, Florida 34601 tele: 352.799.5223 352.799.4662

email: info@eurotechelite.com web: www.eurotechelite.com