

TROFEO (2 turrets)

10-AXIS

MULTIPLA (3 turrets)

13-AXIS

- ✓ Powerful
- ✓ Accurate
- ✓ Smart
- ✓ Fast

"The Very Best ROI"

Runs Faster, Sleeps Less!

"We were making the part in 360 seconds on our generic brand; with Eurotech we are making it complete in under 150 seconds with far better accuracy and throughput. The Eurotech exceeded our expectations! Eurotech completes complex parts in one Op instead of several and thus relieves the bottlenecks in our manufacturing plant."

- Steve Thiele of
Bradhart Products, Brighton, MI



"The Eurotech is so much faster than the competition that its speed difference alone completely pays for the machine."

- Tom Hassett,
Owner of T&L Automatics

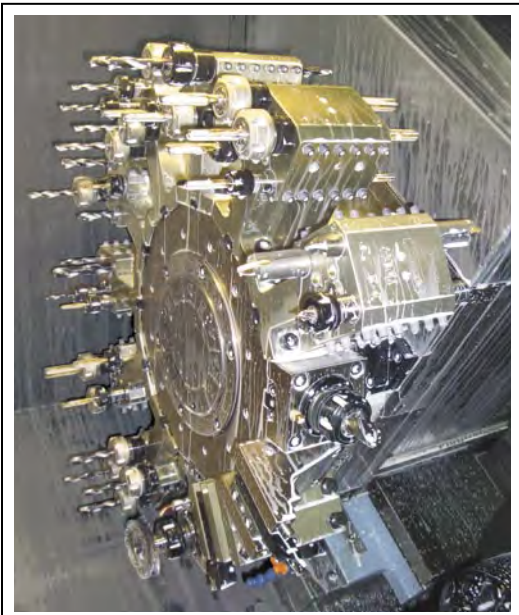
Trofeo/Multipla Standard Equipment

STANDARD HARDWARE FEATURES

- Thermal designed cast iron bed
- Main and sub-spindle equipped with Heidenhein scales
- Sub-spindle, equipped with ejector and air blow
- Bar-feeder interface
- Programmable parts-catcher
- Programmable gantry system
- Programmable parts conveyor
- Programmable chip conveyor
- Coolant system featuring 7 bar pumps and filters
- Coolant wash-down system to eliminate chips
- Air shield on main and sub-spindle
- Two color alarm lamps
- Air conditioned electrical cabinet
- Cooled hydraulic system
- Tool probe for all turrets
- 12-station servo-turrets with EGS tooling (up to 192 tools)

STANDARD SOFTWARE FEATURES

- Polygon turning
- Rigid tapping
- SBS tool load monitoring system
- Eurotech Gap Elimination software
- 500 -999 macro common variables
- Tool life management
- Stress load management
- Closed loop sub-spindle ejection system



Customer Turret - 94 tools

EUROTECH Speed Secret:

- Gap Elimination: Eurotech's logic software
- Indexing on the fly
- Elimination of dwell times
- Fast sub pick-off speeds
- Zero wait for C-axis engagement
- Built-in, no add-on automation CNC controls loaded with multiple options from Fanuc and custom software from Eurotech
- Zero part removal time



"Once we compared; it was clear from how Eurotech designed, built, and packaged the machine with all the hardware and software, they were the most serious about throughput."

- Dave Fricke, Millennium

Trofeo/Multipla Standard Equipment

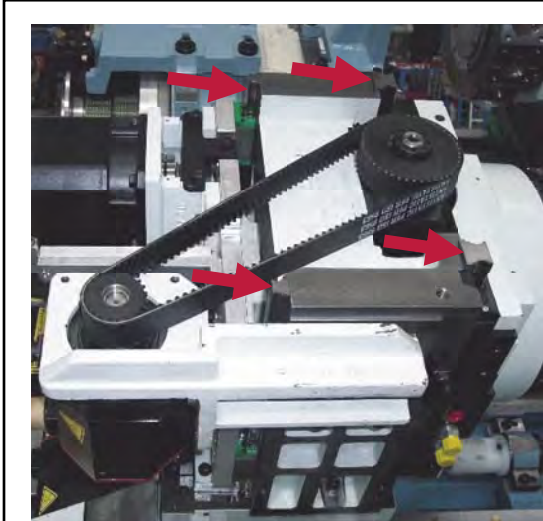
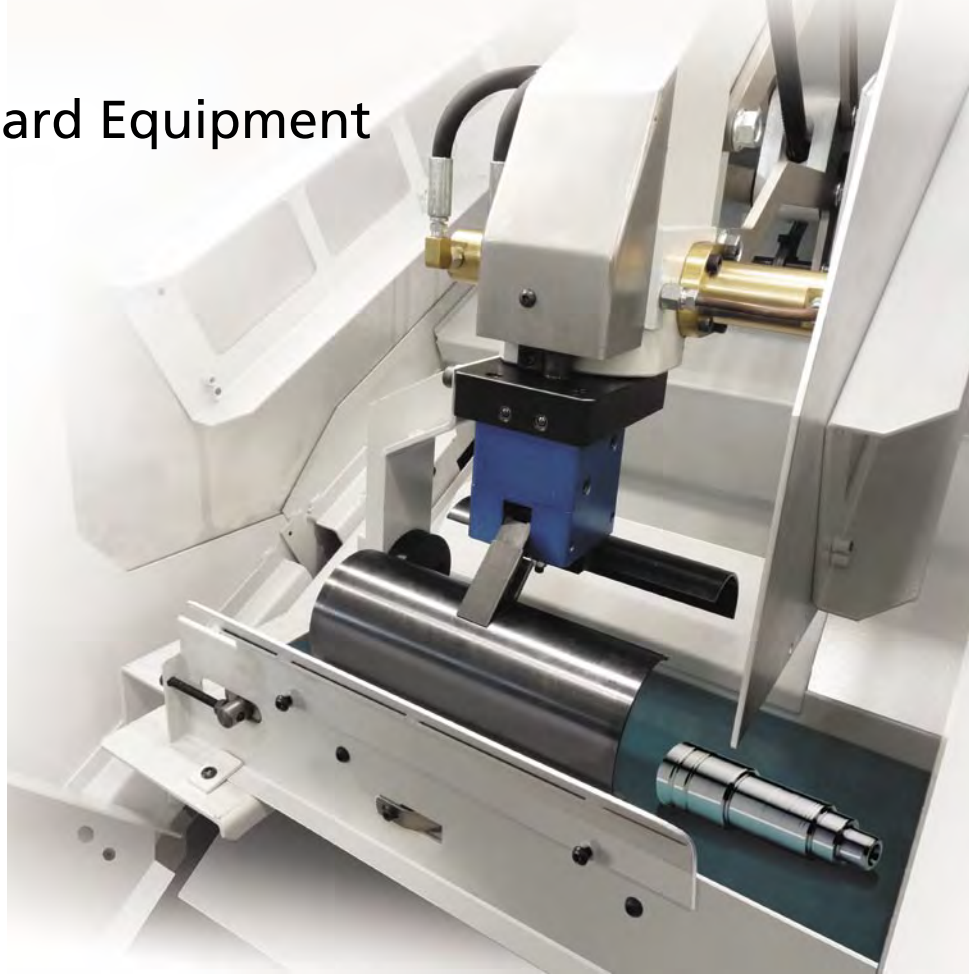
SERVO PROGRAMMABLE PARTS GANTRY AND CONVEYOR SYSTEM

to Optimize Throughput, Run Unattended, and give you "Lights-Out" Machining.

Optimized cycle times:

- Unloads parts while tools are in the cut
- Zero cycle time interruption
- Eliminates remnant retract time
- Reduces bar load time

Gantry is moved into position via a CNC axis. Also, the catcher rotates 180 degrees to enable both finished parts and remnant evacuation.



4 COLUMN Y-AXIS SLIDE

4 column design producing greater rigidity, higher accuracy, and superior thermal stability.

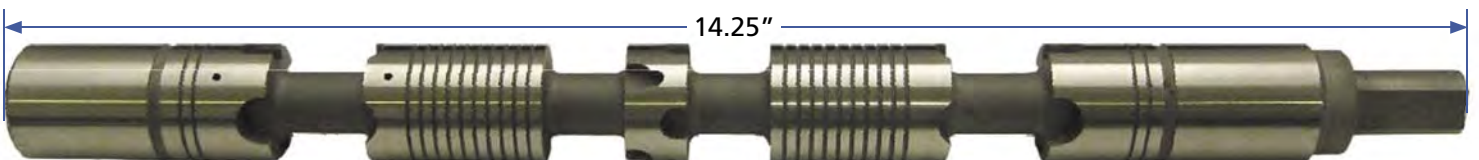


TOOL SETTER

The two probes allow tool offsetting on turrets, reducing set-up time. This device makes tool-setting faster and easier.

"Eurotech machines are out of the box automation, simple and easy to use! We run 24/7; the quality and customer service is top-notch! My automation change-over time on my other brand machines takes 3-6 hours and on Eurotech it's 5 minutes!"

Justin Franklin,
Kadon Precision



Trofeo/Multipla Standard Equipment

EUROTECH FREE CUSTOM SOFTWARE

Tool Load Monitoring: Real time monitoring of the servo and spindle motors utilizing predetermined values imported by the Auto Set feature or manually set values with a WEAR and BROKEN TOOL level to insure smooth unattended production.

Tool Life Management: A proprietary system that keeps track of the amount of times a tool has been in use along with a redundant tool selection once that tool has reached its life count. This feature can also be used in tandem with the TOOL LOAD MONITOR to call a redundant tool when the WEAR limit of a tool has been reached. A third feature allows incremental wear offsets to be applied to a tool when its life count has been reached.

EXAMPLE: Every 15 parts move the X-axis wear offset by .0001 in.

Stress Load Management: A programmable system that allows access to the loads on the servo to check for excess stress and/or interference.

EXAMPLE: (A) When using the sub-spindle to move over a part in the main spindle, this function can be used to check if there is any abnormal stress to the sub-spindle axis (B) to avoid damage to the part and/or the collet. This function can also be utilized with a supporting center in the turret or

sub-spindle to skip when a specific stress value is achieved. This insures a precise placement and pressure of the center or other device, such as, a steady support each time it is used.

Closed Loop Sub-spindle Ejection System:

A valuable and necessary system to have for ejecting finished parts from the sub-spindle. The position of the sub-spindle ejector is read and reported to the machine to verify that the part has been successfully evacuated from the sub-spindle before the sub-spindle feeds over the next part in the main spindle.

500-999 Macro Common Variables:

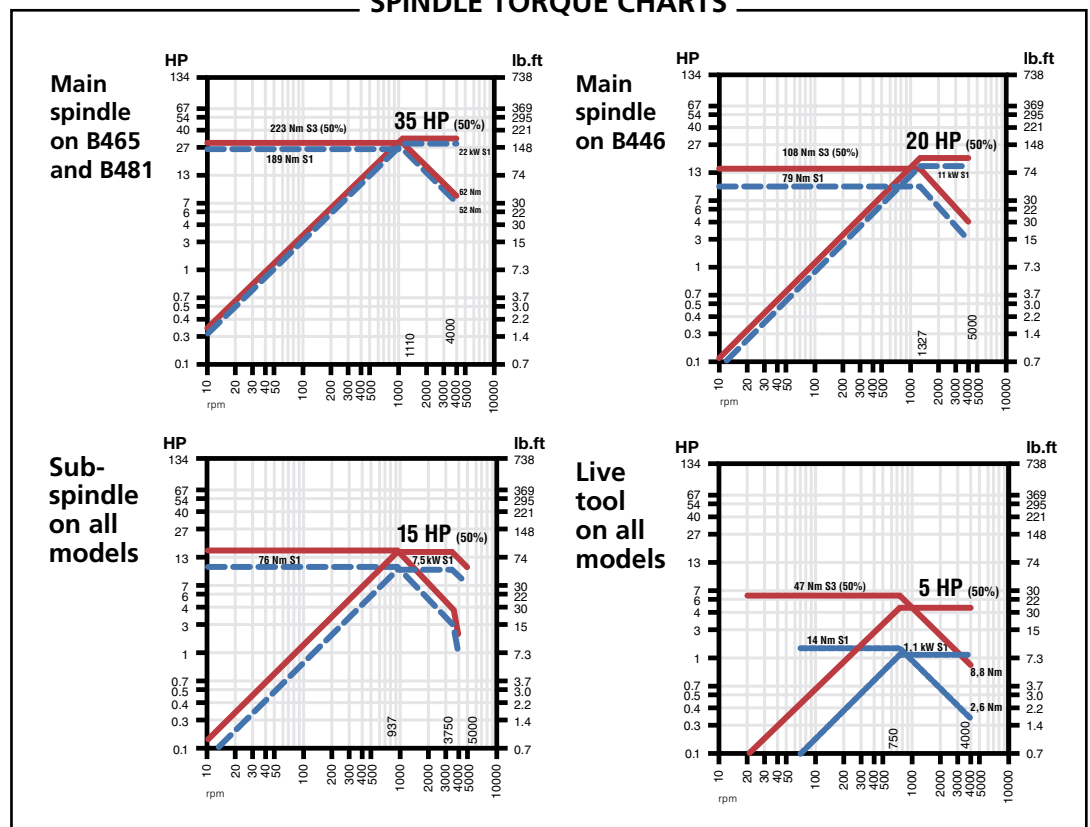
A maximum number of common variables that allow the programmer plenty of flexibility and capability for creating their own unique programming solutions.

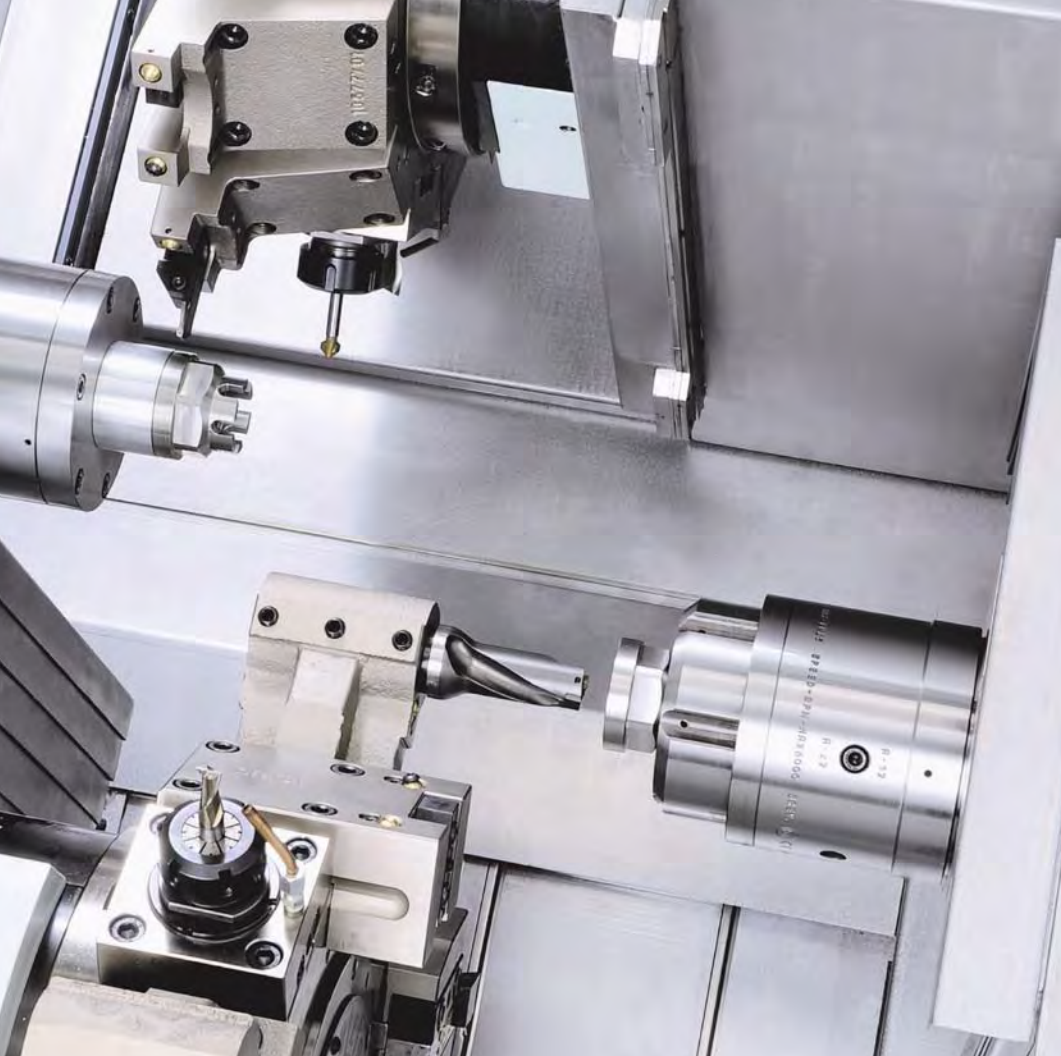
"Manufacturing hydraulic or aerospace parts require quick change over times and high throughput levels. The Eurotech Multipla machines have delivered on both. The quality, training and support from Eurotech is the best in the market."

– John Wilcox,
Model Screw Products



SPINDLE TORQUE CHARTS





CLEARSHIFT SUB-SPINDLE

Features 2-axis programmable (longitudinal and transversal); it is offset from the main spindle eliminating most interference problems between the two turrets, and improves cycle times and delivers safer, simpler and faster set-up times. Both turrets can machine on main or sub-spindle.

"We improved production by 52%, going from 4 processes and 3 different machines to 1 process and 1 machine. Nothing on the market really compares with Eurotech's machines. The machined products we turn out have to be extremely accurate so using Eurotech is just the best way to do business."

– Don Verzi, Owner of MIR

Double spindle and double turret turn/mill centers featuring two Y-axes and Clearshift sub-spindle: high productivity in machining complex parts from bar.

Trofeo Series

20 years after the launch of Eurotech's first 10-axis machine, double-spindle and double-turret turn/mill centers for bar machining, the third generation is now further enhanced by the new range of TROFEO Y2. The Trofeo Y2 turn/mill centers are available in five spindle sizes featuring 45mm, 52mm, 65mm, 70mm and 81mm bar capacity.



Trofeo models available

B446-465-481 S

- 2 turrets
- 2 spindles

B446-465-481 SSL

- 2 turrets equipped with live tooling
- 2 spindles featuring C-axis

B446-465-481 SY2

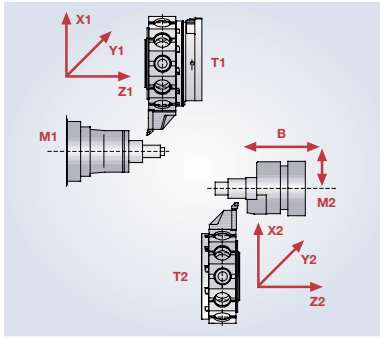
- 2 turrets equipped with live tooling
- 2 Y-axes
- 2 spindles featuring C-axis

Runs Faster, Sleeps Less!

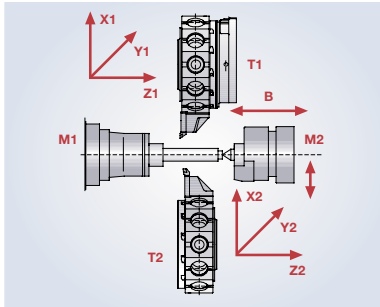


Trofeo Advantage

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



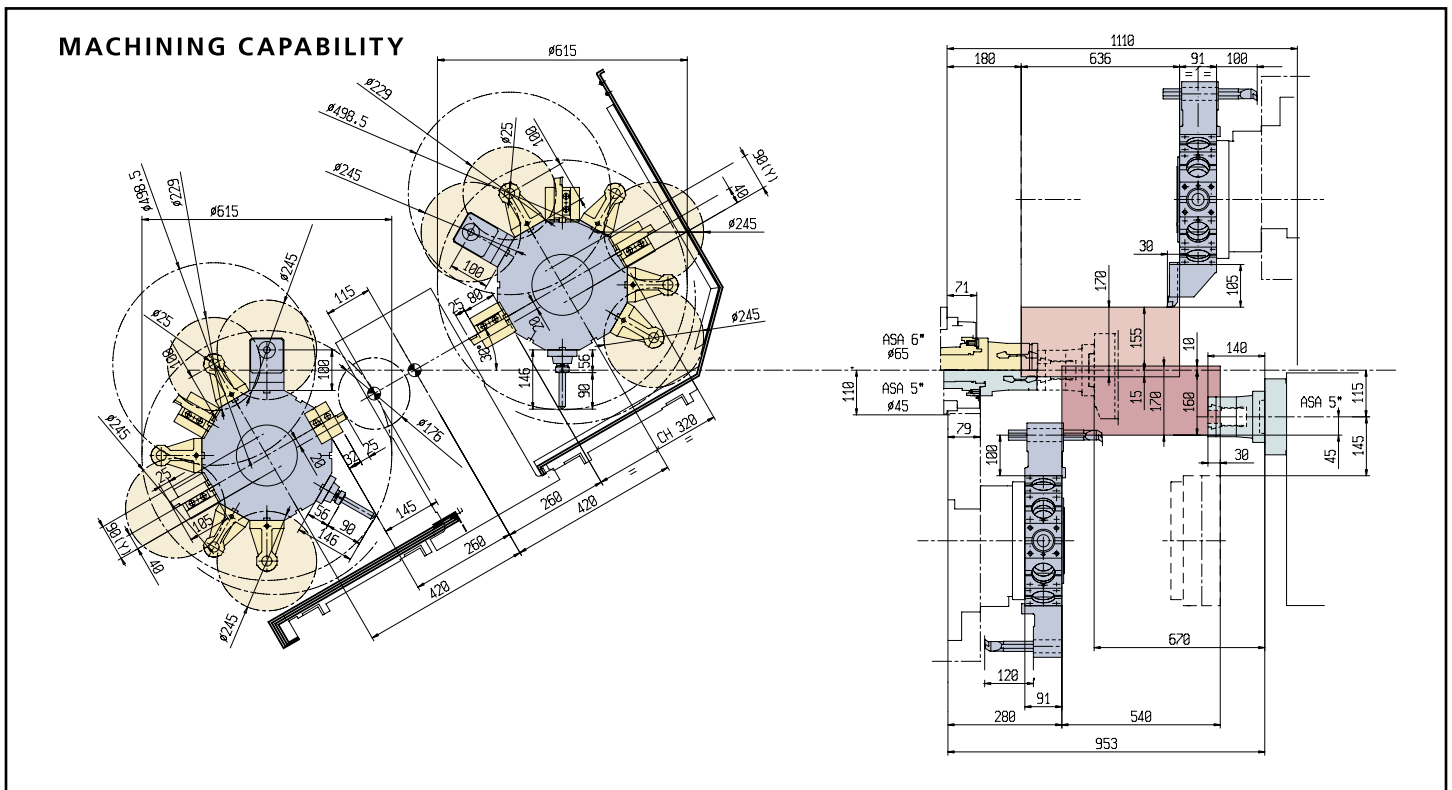
Simultaneous machining of T1 & T2 on M1 using M2 as regular tailstock



Legend: M1 -main spindle • M2 -sub-spindle • T1 -upper turret • T2 -lower turret



Generous machining area to achieve top-level performance



Trofeo Series

TECHNICAL SPECIFICATIONS

		B446 SY2	B465 SY2	B481 SY2
MACHINING CAPACITY				
Bar capacity	in	1.77 (2.00)	2.56 (2.75)	3.15
Chuck diameter	in	8	8	8
Max. length between spindle faces	in	37.5	37.5	37.5
Max. swing over diameter	in	20.0	20.0	20.0
MAIN SPINDLE				
Max. speed	rpm	5000	4000	3200
Spindle nose	ASA	5"	6"	8"
Spindle bore	in	2.17	3.15	3.15
Chuck diameter	in	8	8	8
Motor power	HP	20	35	35
C axis: min. programmable value	°	0,001°	0,001°	0,001°
SUB-SPINDLE				
Max. speed	rpm	5000	5000	5000
Spindle nose	ASA	5"	5"	5"
Spindle bore	in	2.17	2.17	2.17
Chuck diameter	in	6	6	6
Motor power	HP	15	15	15
C-axis: min. programmable value	°	0.001°	0,001°	0,001°
Offset stroke	in	4.72	4.72	4.72
B-axis: stroke - rapid traverse	in-ipm	26.35 - 1181	26.35 - 1181	26.35 - 1181
UPPER TURRET 1 - LOWER TURRET 2				
No. of stations / Max no. of tools	N°	12 / 192	12 / 192	12 / 192
Turret indexing (1 pos)	sec	0,15	0,15	0,15
No. of live tool stations / Max no. of live tools	N°	24 / 48	24 / 48	24 / 48
Speed std./ max	rpm	4000 / 60,000	4000 / 60,000	4000 / 60,000
Motor power	HP	5 geared	5 geared	5 geared
X1-X2 axes: stroke - rapid traverse	in-ipm	6.7 - 708	6.7 - 708	6.7 - 708
Z1-Z2 axes: stroke - rapid traverse	in-ipm	25-21.25 - 1181	25-21.25 - 1181	25-21.25 - 1181
Y1-Y2 axes: stroke - rapid traverse	in-ipm	3.54 [-1.57/+2.32] - 354	3.54 [-1.57/+2.32] - 354	3.54 [-1.57/+2.32] - 354
COOLING SYSTEM				
Tank capacity	gal	120	120	120
Motor rating of 3 electropumps	HP	5	5	5
DIMENSIONS AND WEIGHT				
Machine with chip conveyor	in	173 x 85 x 89 h		
Spindle center height	in	42	42	42
Machine weight with chip conveyor	lb.s	17,400	17,900	18,500

"We purchased our first 2 Eurotech machines in 1997, and they have been running daily with very little downtime. Eurotech solved our application needs and provides incredible concentricity, in fact we had a CPK above 2. We have been so happy with the Eurotech machines and support that we have since added an additional 12 machines!"

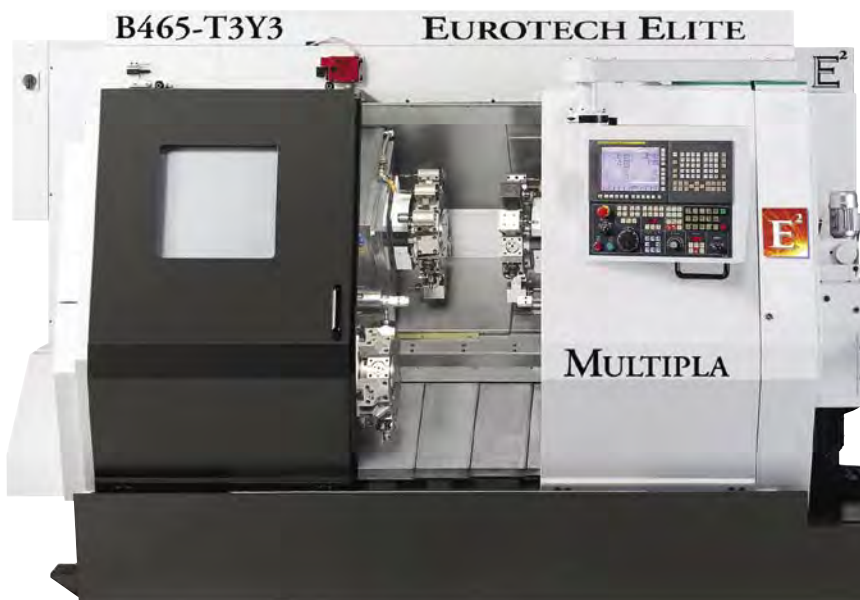
Bill Coll, Timken Bearing





13-Axis double-spindle turn/mill centers featuring three turrets and three Y-axes: high productivity in machining

Multipla Series

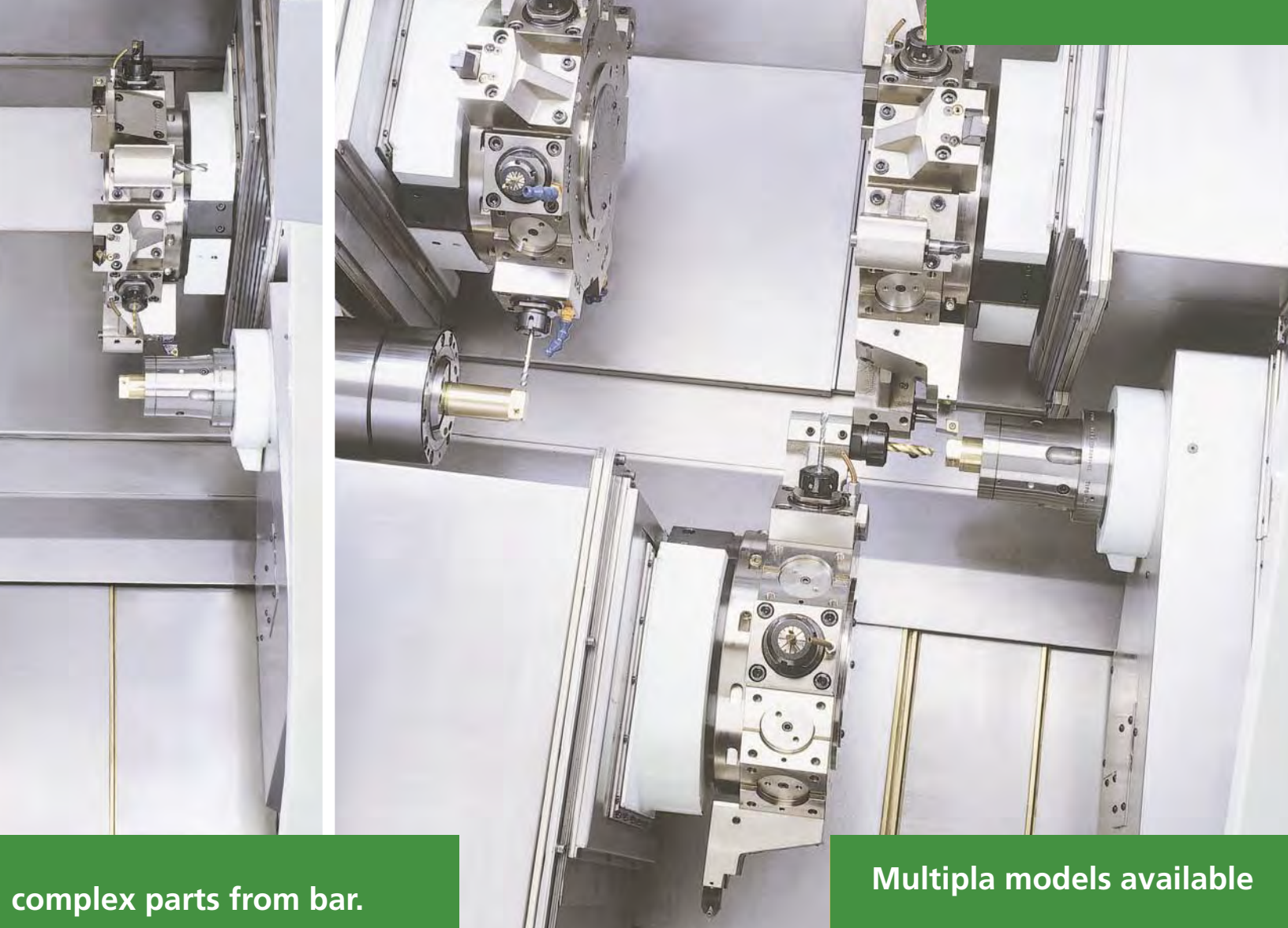


"We run the Eurotech Trofeo 24 hours per day, obtaining 20-22 hours per day uptime and the rest for tool change, quality, and set-up. We have put through \$500,000.00 on an annual basis on the one machine. We conducted our own test and proved that the Eurotech is faster! We are at about 70% Lights-Out, completing parts in one operation with the right accuracy and can offer our customers low prices. We wrote our own program to test Chip to Chip time of both static and live tool index and engagement. The Eurotech was 30% faster than the Japanese competition."

Charlie King of IDM



Runs Faster, Sleeps Less!



complex parts from bar.

The new Multipla T3 range of machines equipped with three turrets and thirteen axes is the latest product developed by Eurotech in the field of high performance, twin spindle bar turn/mill centers. The three turrets can perform simultaneous machining using three tools at the same time, thus reducing cycle time drastically. Thanks to the design of the MULTIPLA T3 range of machines, Eurotech can achieve faster cycle times in bar machining of complex parts in medium-sized batches. The new MULTIPLA T3 range comprises a wide range of specifications and function to deliver to customers high productivity (fast cycles), flexibility (quick

part change-over), and eliminate operations (completing parts in one operation).

- Great rigidity to allow the machining of tough materials
- Reduction of cycle times with Gap Elimination software
- Up to 192 tools available for machining of complex parts and reduced set-up times
- Ergonomics and easy access for retooling operations
- Superior design to reduce thermal growth and achieve tight tolerances in production.

Multipla models available

B446-465-481 T3 Y2

- 3 turrets equipped with live tooling
- 2 Y-axes
- 2 spindles featuring C-axis

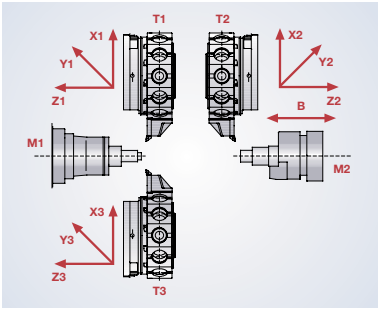
B446-465-481 T3 Y3

- 3 turrets equipped with live tooling
- 3 Y-axes
- 2 spindles featuring C-axis

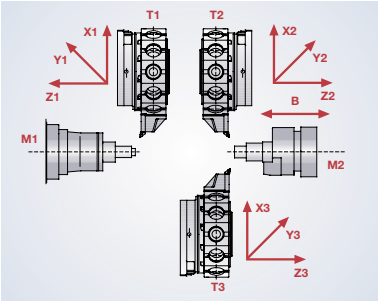


Multipla Advantage

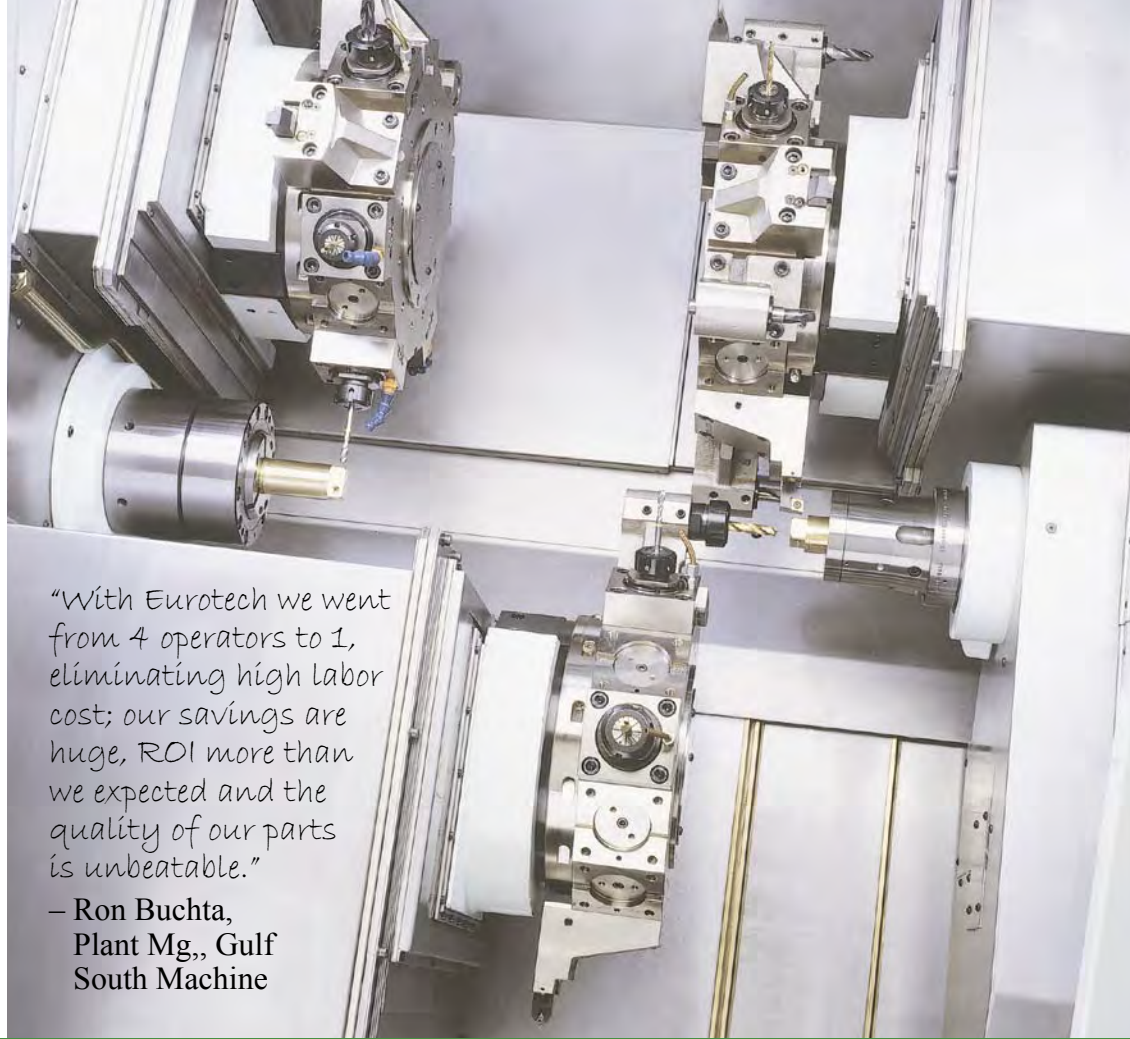
Simultaneous machining of T1 and T3 (4-axis) on the main spindle and T2 on the sub-spindle



Simultaneous machining of T1 on the main spindle and T2 & T3 (4-axis) on the sub-spindle



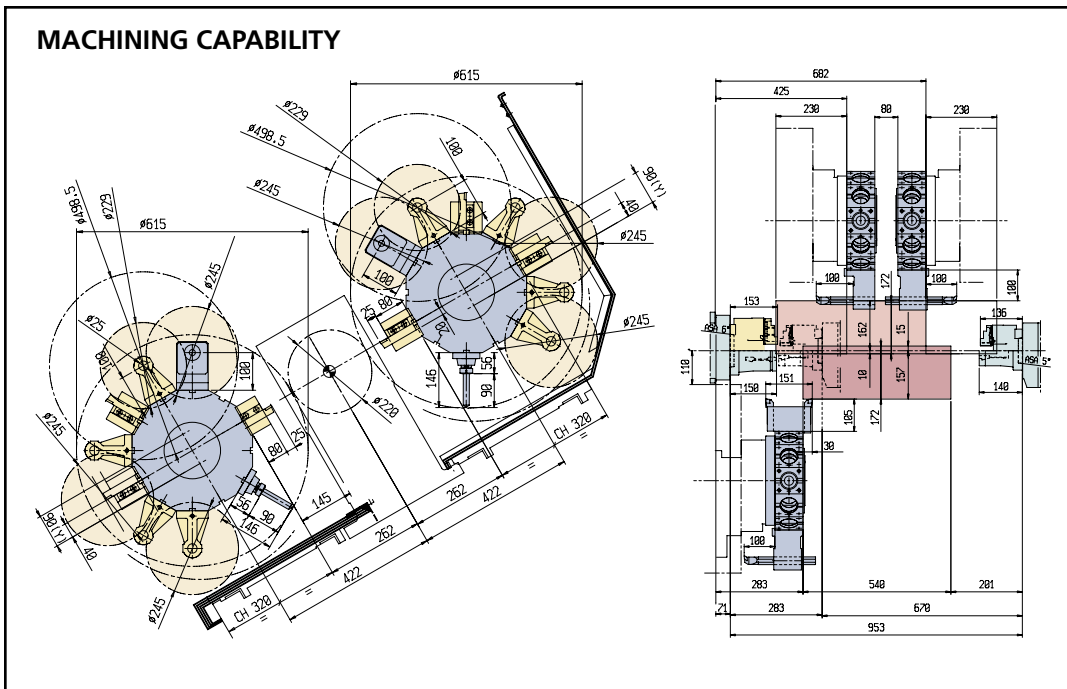
Legend: M1: main spindle M2: sub-spindle T1: upper turret (left) T2: upper turret (right) T3: lower turret



"With Eurotech we went from 4 operators to 1, eliminating high labor cost; our savings are huge, ROI more than we expected and the quality of our parts is unbeatable."

– Ron Buchta,
Plant Mg., Gulf South Machine

Generous machining area to achieve top-level performance



The position of the three turrets enables reliable and flexible machining operations on both spindles.

The main advantages are:

- Reduction of non-productive times up to 30% if compared to Trofeo machines
- Automatic and simultaneous machining on both sides of any workpiece
- 4-axis turning using the third lower turret on main or sub-spindle for simultaneous operation
- Zero parts unloading time performed on either spindles while two turrets are in the cut on the opposing spindle

The combination of 36 live tool stations (up to 48 live tools), 3 Y-axes, 2 C-axes, and the capability to accept more than 120 tools enables the complete machining of complex parts with the highest flexibility.



Multipla Series

T E C H N I C A L S P E C I F I C A T I O N S

		B446 T3	B465 T3	B481 T3
MACHINING CAPACITY				
Bar capacity	in	1.77 (2.00)	2.56 (2.75)	3.15
Chuck diameter	in	8	8	8
Max. length between spindle faces	in	37.5	37.5	37.5
Max. swing over diameter	in	20.0	20.0	20.0
MAIN SPINDLE				
Max. speed	rpm	5000	4000	3200
Spindle nose	ASA	5"	6"	8"
Spindle bore	in	2.17	3.15	3.15
Chuck diameter	in	8	10	10
Motor power	HP	20	35	35
C axis: min. programmable value	°	0,001°	0,001°	0,001°
SUB-SPINDLE				
Max. speed	rpm	5000	5000	5000
Spindle nose	ASA	5"	5"	5"
Spindle bore	in	2.17	2.17	2.17
Chuck diameter	in	6/8	6/8	6/8
Motor power	HP	15	15	15
C-axis: min. programmable value	°	0,001°	0,001°	0,001°
Offset stroke	in	4.72	4.72	4.72
B-axis: stroke - rapid traverse	in-ipm	26.35 - 1181	26.35 - 1181	26.35 - 1181
UPPER TURRET (1-left)				
UPPER TURRET (2-right)				
LOWER TURRET 3				
No. of stations / Max no. of tools	N°	12 / 192	12 / 192	12 / 192
Turret indexing (1 pos)	sec	0,15	0,15	0,15
No. of live tool stations / Max no. of live tools	N°	36 / 72	36 / 72	36 / 72
Max. speed	rpm	4000	4000	4000
Motor power	HP	5 geared	5 geared	5 geared
X1-X2-X3 axes: stroke - rapid traverse	in-ipm	6.7 - 708	6.7 - 708	6.7 - 708
Z1-Z2 axes: stroke - rapid traverse	in-ipm	9 - 1181	9 - 1181	9 - 1181
Z3 axis: stroke - rapid traverse	in-ipm	21.3 - 1181	21.3 - 1181	21.3 - 1181
Y1-Y2-Y3 axes: stroke - rapid traverse	in-ipm	3.54 [-1.57/+2.32] - 354	3.54 [-1.57/+2.32] - 354	3.54 [-1.57/+2.32] - 354
COOLING SYSTEM				
Tank capacity	gal	120	120	120
Motor rating of 4 electropumps	HP	5	5	5
DIMENSIONS AND WEIGHT				
Machine with chip conveyor	in	173 x 85 x 89 h		
Spindle center height	in	42	42	42
Machine weight with chip conveyor	lb.s	18,200	18,500	19,200

"We have two Eurotechs and we are hoping to get three more! These machines gave us what we were looking for, namely ONE & DONE. We get a finished part with less handling; tool production is a lot faster and of course we got a huge reduction in cycle time. We are amazed at the speed of the machine and simplicity of set-ups."

Susan Brader,
Co-Owner of BHI



PRODUCTION PROGRAM



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

Single Turret Series

2.00" Models:	B545 main spindle, tailstock, 1-turret	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	B545LY main spindle, tailstock, Y-axis turret with live tools	B545SLY main spindle, sub-spindle, Y-axis turret with live tools
2.75" Models:	735 main spindle, tailstock, 1-turret	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	735LY main spindle, tailstock, Y-axis turret with live tools	735SLY main spindle, sub-spindle, Y-axis turret with live tools
3.15" Models:	835 main spindle, tailstock, 1-turret	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	835LY main spindle, tailstock, Y-axis turret with live tools	835SLY main spindle, sub-spindle, Y-axis turret with live tools

Trofeo Dual Turret Series

2.00" Models:	B446S main spindle, sub-spindle, 2-turrets	B446SL main spindle, sub-spindle, with live tools on upper or lower turret	B446SLL main spindle, sub-spindle, with live tools on both turrets	B446SLLY main and sub-spindles, Y-axis upper turret, live tools both turrets	B446SY2 main and sub-spindles, Y-axis upper turret, Y-axis lower turret, live tools both turrets
2.75" Models:	B465S main spindle, sub-spindle, 2-turrets	B465SL main spindle, sub-spindle, with live tools on upper or lower turret	B465SLL main spindle, sub-spindle, with live tools on both turrets	B465SLLY main and sub-spindles, Y-axis upper turret, live tools both turrets	B465SY2 main and sub-spindles, Y-axis upper turret, Y-axis lower turret, live tools both turrets
3.15" Models:	B481S main spindle, sub-spindle, 2-turrets	B481SL main spindle, sub-spindle, with live tools on upper or lower turret	B481SLL main spindle, sub-spindle, with live tools on both turrets	B481SLLY main and sub-spindles, Y-axis upper turret, live tools both turrets	B481SY2 main and sub-spindles, Y-axis upper turret, Y-axis lower turret, live tools both turrets

Rapido Dual Turret

1.42" Models:

B436SY2
36mm bar capacity, two-turrets, two Y-axes, SuperShift sub-spindles that can super-impose on either upper or lower turret, 8,000 RPM main and sub-spindles.

Specifications contained herein are approximate and subject to change without notice.

Multipla Triple Turret Series

2.00", 2.75" and 3.15" Models:	B446-T3-Y3 main spindle, (3) Y-axis turrets, sub-spindle, C-axis, live tools on all 3 turrets, & 2.00" bar cap.	B465-T3-Y3 main spindle, (3) Y-axis turrets, sub-spindle, C-axis, live tools on all 3 turrets, & 2.75" bar cap.	B481-T3-Y3 main spindle, (3) Y-axis turrets, sub-spindle, C-axis, live tools on all 3 turrets, & 3.15" bar cap.
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With \$50,000 to \$100,000 of Unique Standard Features, You are Investing in a Complete EUROTECH System not just a machine.

Y/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

"It's out of the box automation, simple and easy to use! We run it 24/7, the quality is top-notch!"

Kadon Precision

Heavy Duty Machining

3.15", 3.66", and 4.02" Models:	B750 main spindle, tailstock, 1-turret	B750L main spindle, tailstock, 1-turret, C-axis and live tools	B750SL main spindle, sub-spindle, 1-turret, live tools, 2 C-axes	B750LY main spindle, automatic tail-stock, Y-axis turret, live tools, C-axis	B750SLY main spindle, sub-spindle, Y-axis turret, live tools, 2 C-axes
	B1250 main spindle, tailstock, 1-turret	B1250L main spindle, tailstock, 1-turret, C-axis and live tools	B1250SL main spindle, sub-spindle, 1-turret, live tools, 2 C-axes	B1250LY main spindle, automatic tail-stock, Y-axis turret, live tools, C-axis	B1250SLY main spindle, sub-spindle, Y-axis turret, live tools, 2 C-axes

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EUROTECH Multi-Axis Mill/Turn Centers: Designed and Built to Exceed the Technology Challenge of the 21st Century!

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View machining demos at www.EurotechElite.com **Runs Faster, Sleeps Less!**

EUROTECH 05/2014

"With Eurotech many parts went from 7 ops to 1 op! We not only reduced our operations, but we inspect a complete part 1 time instead of a partial part 7 times.

Eurotech has gone above and beyond the call of duty. We are extremely pleased with the Eurotech product and team."

-Ken Sutton, Fabco-Air



Free Eurotech Lifetime Training



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