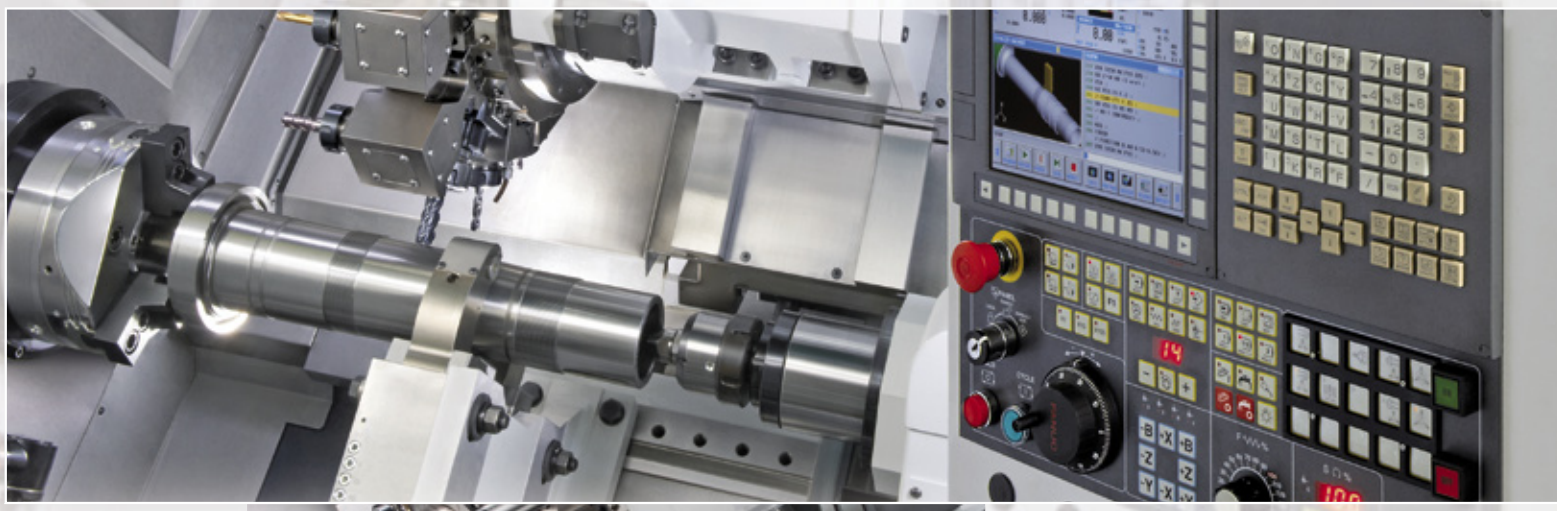
CNC TURNING CENTERS

STALLION SERIES

B750 | B1250

"Extreme power with Eurotech legendary speed and accuracy"



"We improved production by 52% with Eurotech, going from 4 processes / 3 different machines to 1 process / 1 machine."

- Don Verzi, MIR

The new machine is up and running! For the part it is making now, it makes it 2 minutes faster than before (previously used a Hardinge T42). At 3,000 pieces x 2 min., we have 100 hrs savings!"

- Don Burns, Owner of J.F. Burns

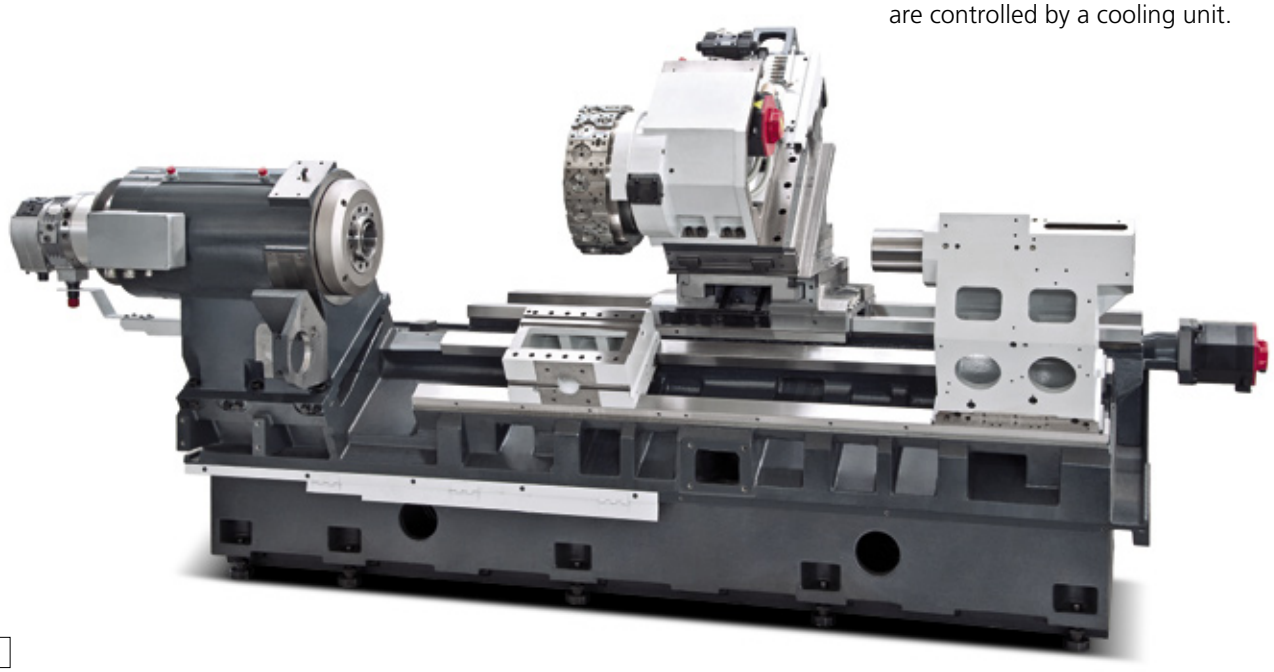
EUROTECH

RUNS FASTER, SLEEPS LESS!

The Stallion B1250 and B750 machines share the same turret style and heavy box-way X/Y slides. The B1250 is particularly suitable for the machining of long shafts. This machine features a long bed with a longitudinal stroke of 1310 mm and a sturdy CNC automatic tailstock with a 115 mm hydraulic quill. The B1250 can accept two versions of automatic steady-rests: "in-cycle" version with positioning by the 2-axis slide; "traveling version operated by the axis motor.

Thermal stability

To best maintain the accuracy in the long-run, the temperature of the main heat sources (integral motor-spindles, hydraulic unit) are controlled by a cooling unit.



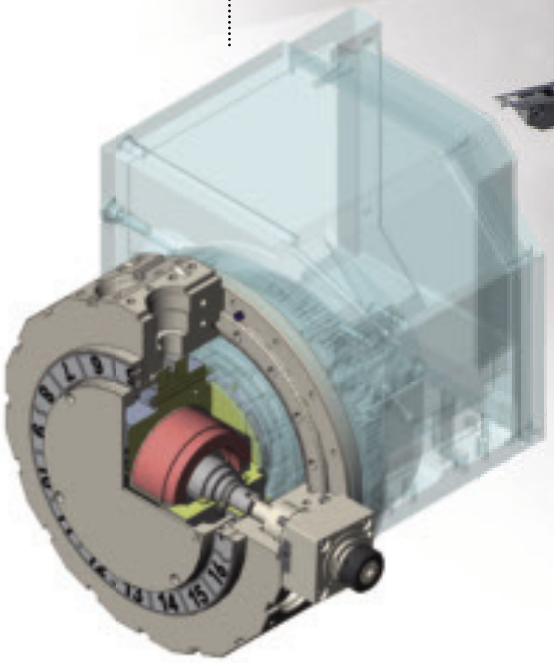
Stallion servo-turret with built-in motor.

Powerful live tools:

23.5 HP

56 Nm

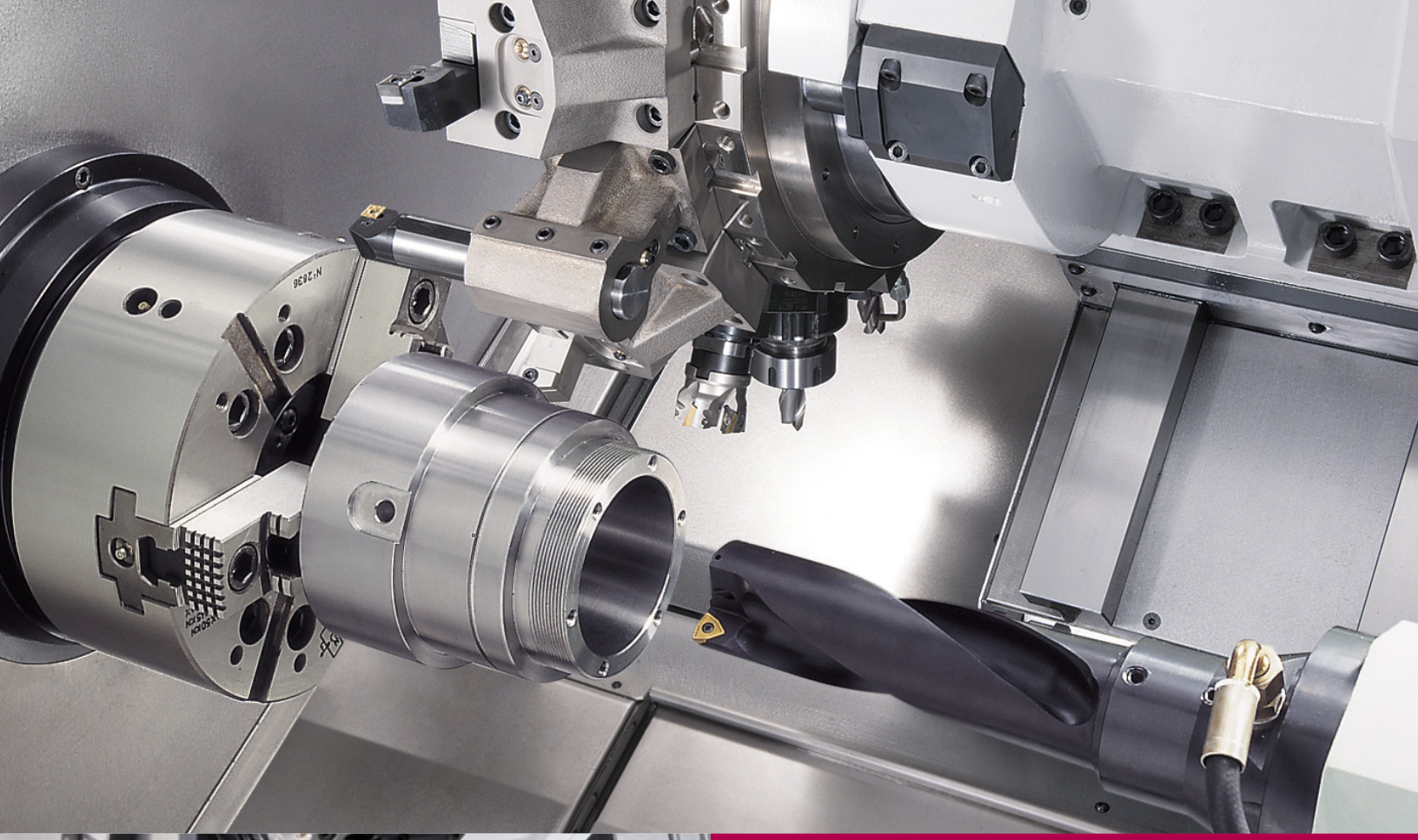
10,000*rpm



Eurotech Stallion servo-turret with direct drive.

The quick Stallion 12- or 16-station servo-turret (index time 0,3 sec.), featuring a large HIRTH coupling (230 mm diam.), The new live tooling system is the main feature of this new turret, with the rotary motion being transmitted by the built-in motor, integrated in the tool plate, directly to the rotary tool.

* Max. spindle speed limited to 6000 rpm by standard rotary tools.

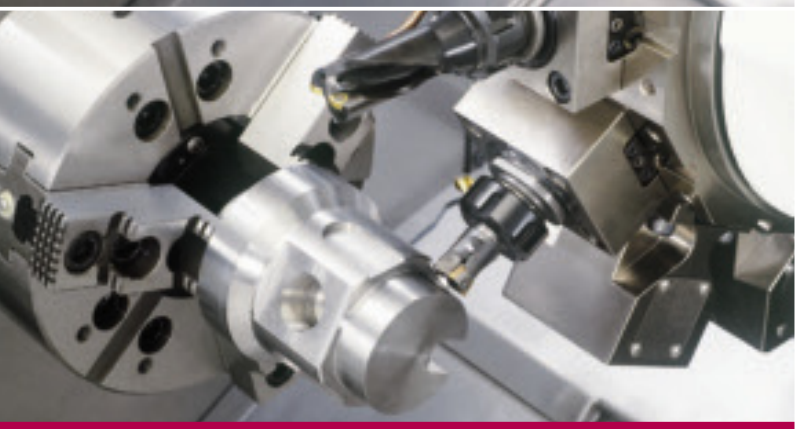


Stallion Spindles

Stallion B750 range of machines offer a wide range of spindle choices. Available with bar capacity of 2-5/8" to 4.02", the Eurotech integral motor-spindles are driven by powerful 29.5 to 53.5 HP and high torque from 286 to 1014 Nm.

The combination of the high precision spindles with roller and ball bearings, plus the high torque and power range available at low rpm, allow superb chip removal rates as well as exceptional surface finish and roundness accuracy.

(See torque diagrams on page 12)



Stallion Live tools

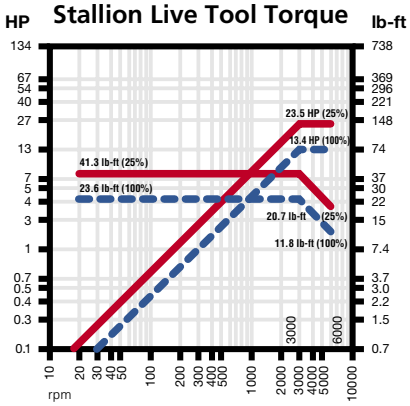
The Stallion turret, available with 12 or 16 stations, is equipped with the largest milling motor in its class to achieve unparallelled milling capability.

With the 16 station turret, Eurotech continues in its quest to allow customers to leverage their existing tool holder investment across the widest range of machines of any builder in the world. Additionally, larger heavy duty tool holders designed specifically for the previous heavy duty models can be used on the 16 station turret.

Utilizing Eurotech EGS Tooling with the large y-axis stroke, up to 96 cutting tool capacity can be realized.

The 12 station turret offers an entirely new, much larger, set of tool holders to be utilized that can further increase milling rigidity.

Below are some actual cutting examples using the live tool holders.



Stallion Machining capability - Material C40 (L-SL-Y-YS versions)

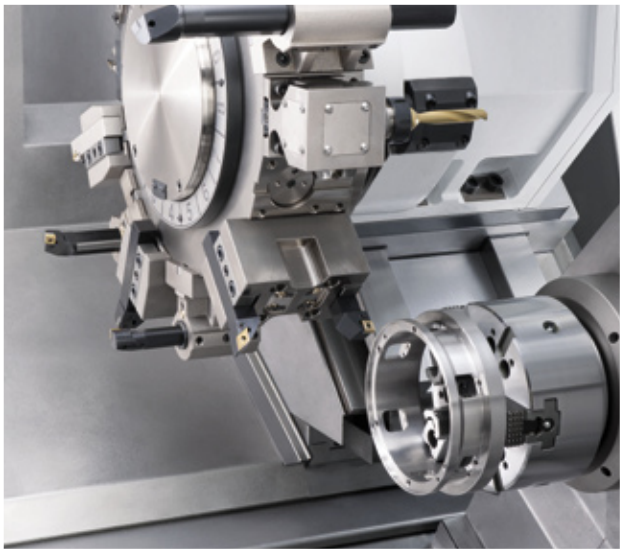
MACHINING WITH LIVE TOOLS					
MILLING			**DRILLING**		
Face mill diameter	in	1.57	Insert drill diameter	in	1.18
No. of 45° inserts	No.	4	Spindle speed	rpm	800
Spindle speed	rpm	1600	Cutting speed	ipm	334.6
Axial cutting depth	in	0.118	Feed rates	ipm	4.72
Radial cutting depth	in	1.26	Feed rates	in/rew	0.004
Cutting speed	ipm	787.4	Volume of swarf removal	cm^3/min	56.5
Feed rate	ipm	30.12	**TAPPING**		
Volume of swarf removal	cm^3/min	73	Tap	mm	20x1.5

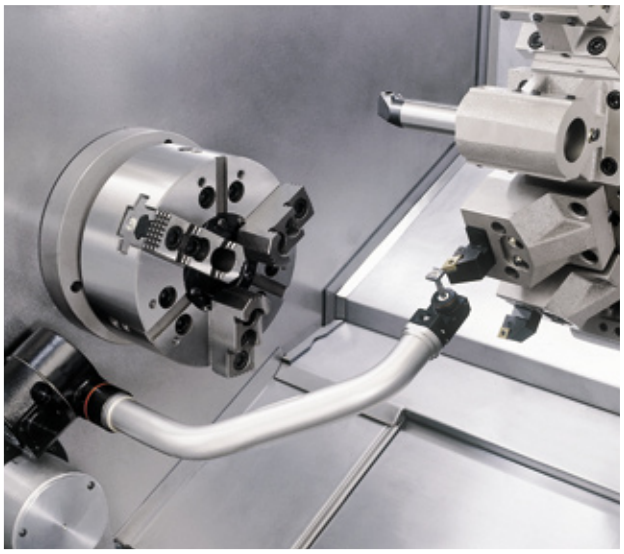
Spindle motor: 23.5 HP - max.* 10,000 rpm

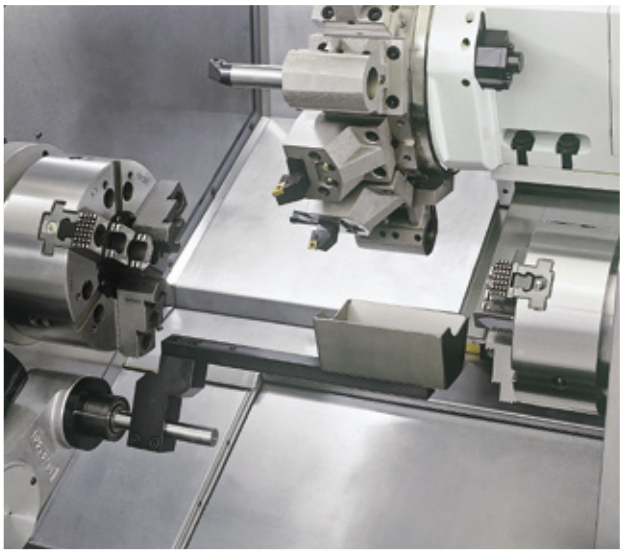
* Max. spindle speed limited to 6000 rpm by standard rotary tools.

Stallion Sub-spindle

The work-piece is automatically transferred from the main to the sub-spindle to allow the complete machining process on both sides. The sub-spindle is equipped with B-axis load detection system and pneumatic ejector to check presence of the component which allows you to perform safe machining operations.







Tool-setter (option)

This device makes tool-setting simple, fast and accurate. The tool tip is brought into contact with the probe and the tool offset value is automatically stored into relevant table of the Fanuc control.

Bar machining (option)

It includes the automatic parts-catcher and conveyor to unload finished parts and the models equipped with the sub-spindle. Also feature the pneumatic ejector with wash-down system to clean the clamping device.

Wide range of equipment and optionals.

Standard features

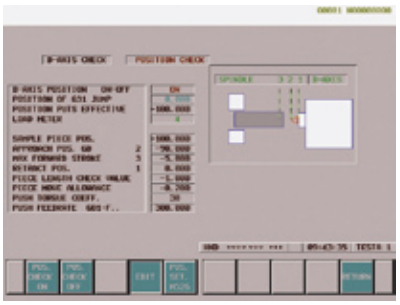
- Cast-iron machine bed
- 12/16 position Eurotech servo-turret
- Tooling kit (toolholders & bushings)
- Automatic tailstock
- Cooling system
- Chip conveyor
- Two color alarm lamp
- Coolant supply (medium pressure) including filter
- Electrical cabinet is cooled with air exchanger
- Air conditioned hydraulics
- Main and sub-spindle are conditioned and have air purge

Automatic steady-rest
(option on B1250 only)

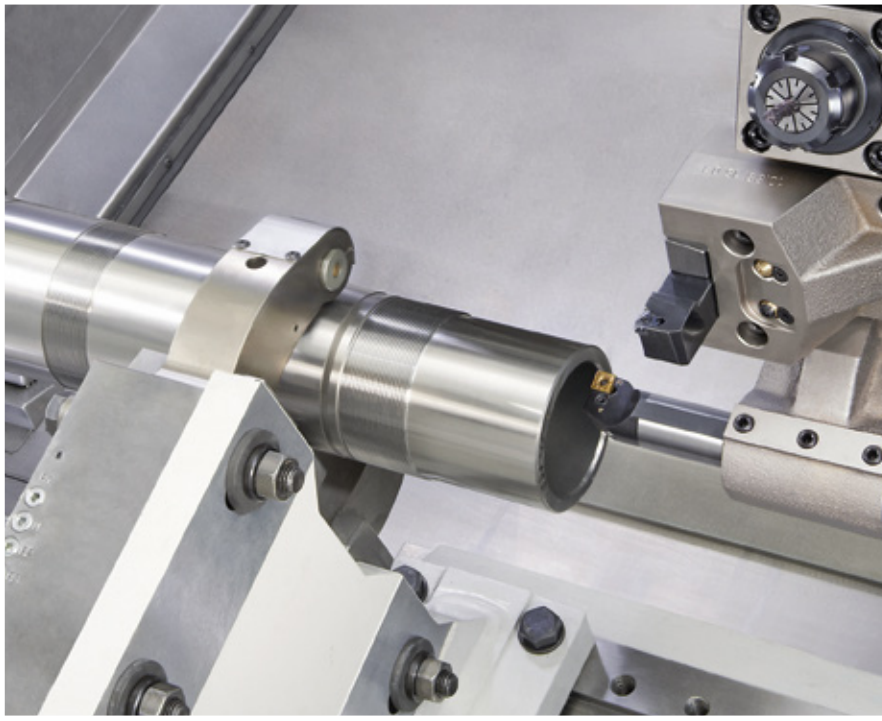
The programmable and self-center steady-rest is suitable for shaft ranging up to 240 mm diameter. Positioning as well as opening and closing of the arms is programmable. The steady-rest can be single or double and is available in two versions:
"in cycle" version with positioning by the Z-axis slide,
- "travelling" version operated by the axis motor.
The movement can be synchronized or independent from the Z-axis slide.

CNC automatic tailstock
(standard feature on base, M and Y models)

Both B750 and B1250 range of machines are equipped with the tailstock body that slides on rigid box slide-ways. Positioning is fully automatic. On the B750, the tailstock is operated by a servo motor and ballscrew (B axis). This solution improves operating flexibility since position and thrust are CNC-controlled. It can also be used to perform simultaneously both drilling and turning. On the B1250, the tailstock is positioned by the turret-holding carriage (Z-axis). The stroke of the 115 mm diameter hydraulic quill is 150 mm. A rotating tailstock integrated to the quill is offered as an option on both B750 and B1250.



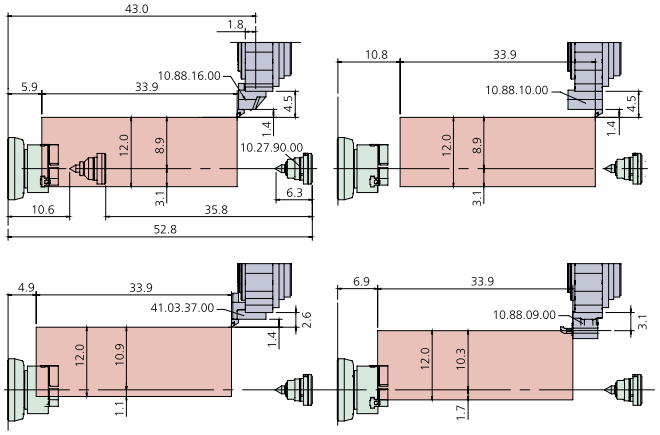
Tailstock thrust monitoring.



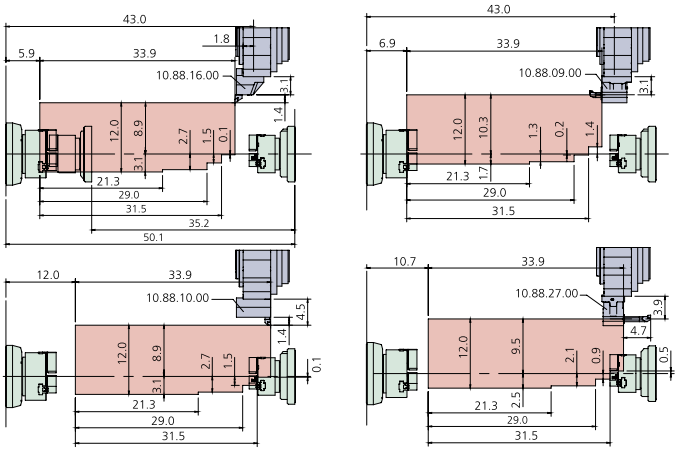
Programmable and self-center steady-rest (Option on B1250 only)

"B" axis tailstock (Standard on B750 / Option on B1250).

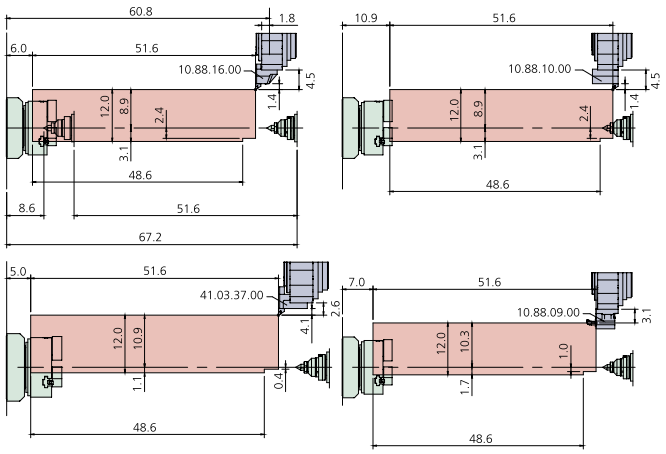
TURNING FIELD WITH TAILSTOCK B750
- 16-station turret



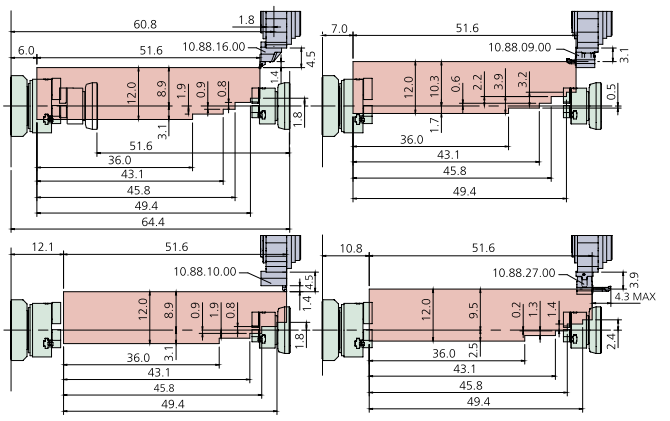
TURNING FIELD WITH SUB-SPINDLE B750
- 16-station turret



TURNING FIELD WITH TAILSTOCK B1250
- 16-station turret



TURNING FIELD WITH SUB-SPINDLE B1250
- 16-station turret



Stallion 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 redundate 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 live count has been reached.

EXAMPLE: Every 15 parts move the X-axis wear offset by 0.0001 in.

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

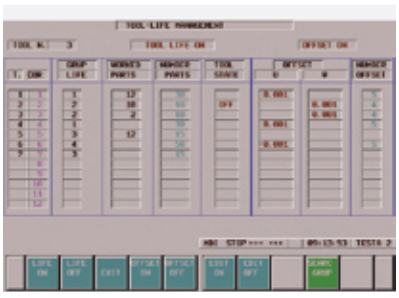
EXAMPLE: (A) When using the sub-spinde to move over a part in the main spindle, this function can be used to check if there is any abnormal stress to the sub-spindle axis (B) to avoid damage to the part and/or the collet. This function can also be utilized with a supporting center in the turret or sub-spindle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

CNC unit

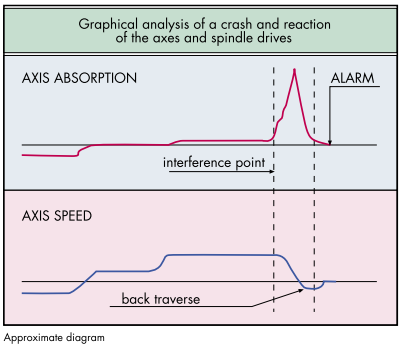
CNC Fanuc 32i-T:
- 10.4" color liquid crystal display
- Alphanumeric full-keyboard
- Eurotech operator panel featuring softkeys
- Data transmission: Ethernet gate, memory card, USB, RS 232 port.



Tool life management (standard)

SBS: Eurotech safety software tool load monitoring

This system monitors the loading of the most heavily used tools such as cutting tools, roughening tools, drills or U-drills. It ensures safe automatic machining with limited operator presence (option).



Approximate diagram

Damage protection (air bag)

This special software detects the abnormal load created by a collision. When a collision occurs, spindle rotation is stopped and the axis movement is halted thus damping the interference and limiting damage to the tooling.

MACHINE TYPE		B750			B750 L			B750 SL			B750 LY		
MACHINING CAPACITY													
Max. bar machining diameter	in	2.65	3.15	3.7/3.9	2.65	3.15	3.7/3.9	2.65	3.15	3.7/3.9	2.65	3.15	3.7/3.9
Max. suggested machining diameter	in	21.7/13.8	21.7/17.7	21.7	21.7/13.8	21.7/17.7	21.7	21.7/13.8	21.7/17.7	21.7	21.7/13.8	21.7/17.7	21.7
Max. machining length	in		30.1[1]			30.1[1]			30.1[1]			30.1[1]	
Max. swing over diameter	in		26.8/19.7			26.8/19.7			26.8/19.7			26.8/19.7	
MAIN SPINDLE													
Max. speed	rpm	4500	3500	3000	4500	3500	3000	4500	3500	3000	4500	3500	3000
Spindle nose	ASA	6"	8"	8"	6"	8"	8"	6"	8"	8"	6"	8"	8"
Spindle bore	in	3.0	3.6	4.2/4.4	3.0	3.6	4.2/4.4	3.0	3.6	4.2/4.4	3.0	3.6	4.2/4.4
Inside diam. of bearings	in	4.3	5.1	5.9	4.3	5.1	5.9	4.3	5.1	5.9	4.3	5.1	5.9
Chuck diameter	in	9.8	12.4	15.7	9.8	12.4	15.7	9.8	12.4	15.7	9.8	12.4	15.7
Motor power (S1-S3)	HP	40.2-53.6	20.1-29.5	40.2-51	40.2-53.6	20.1-29.5	40.2-51	40.2-53.6	20.1-29.5	40.2-51	40.2-53.6	20.1-29.5	40.2-51
Max. torque (S1-S3)	lb-ft	211	293-516	590-748	211	293-516	590-748	211	293-516	590-748	211	293-516	590-748
SUB-SPINDLE													
Max. speed	rpm		--			--			5000 - 4500			--	
Spindle nose	ASA		--			--			5" - 6"			--	
Spindle bore	in		--			--			2.2 - 3.0			--	
Drawtube inside diameter	in		--			--			1.8 - 2.6			--	
Inside diam. of bearings	in		--			--			3.5 - 4.3			--	
Chuck diameter	in		--			--			5.5-6.5 / 8.3-9.8			--	
Motor power	HP		--			--			22.8-33.5 / 40.2-53.6			--	
Max. torque	lb-ft		--			--			80-117 / 211			--	
B-axis automatic positioning	in		--			--			35.2			--	
B-axis rapid traverse	ipm		--			--			944.9			--	
TURRET													
No. of tools	No.		16 / 12			16 / 12			16 / 12			16 / 12	
Tool shank for OD turning	in		1x1			1x1			1x1			1x1	
Tool shank for ID turning	in		1.3-1.6 / 1.6-2.0			1.3-1.6 / 1.6-2.0			1.3-1.6 / 1.6-2.0			1.3-1.6 / 1.6-2.0	
Turret indexing (1 pos)	sec		0.3			0.3			0.3			0.3	
LIVE TOOLING													
No. of live tools	No.		--			16 / 12			16 / 12			16 / 12	
Max. speed	rpm		--			6,000 / 10,000			6,000 / 10,000			6,000 / 10,000	
Motor power	HP		--			23.5			23.5			23.5	
Max. torque	Nm		--			56			56			56	
C-AXIS													
Min. programmable value	deg		--			0.001			0.001			0.001	
Max. rapid traverse	rpm		--			100			100			100	
AXES													
X-axis stroke	in		12.0			12.0			12.0			12.0	
Y-axis stroke	in		--			--			--			5.5	
Z-axis stroke	in		33.9			33.9			33.9			33.9	
X-axis rapid traverse	ipm		708.7			708.7			708.7			708.7	
Y-axis rapid traverse	ipm		--			--			--			295.3	
Z-axis rapid traverse	ipm		944.9			944.9			944.9			944.9	
TAILSTOCK													
Automatic quill stroke	in		--			--			--			--	
Quill diameter	in		--			--			--			--	
Morse taper	MT		--			--			--			--	
Automatic positioning	in		--			--			--			--	
B-AXIS TAILSTOCK													
Morse taper	MT		4-5			4-5			--			4-5	
B-axis automatic positioning	in		35.8			35.8			--			35.8	
B-axis rapid traverse	ipm		590.6			590.6			--			590.6	
COOLING SYSTEM													
Tank capacity	gal		79.3			79.3			79.3			79.3	
Pump nominal displacement	gal/hr		951.0			951.0			951.0			951.0	
Electropump motor rating	HP		1.5			1.5			1.5			1.5	
DIMENSIONS AND WEIGHT													
Machine with swarf conveyor	in		199.6 x 79.9 x 87.4 h			199.6 x 79.9 x 87.4 h			199.6 x 79.9 x 87.4 h			199.6 x 79.9 x 87.4 h	
Spindle center height	in		42.1			42.1			42.1			42.1	
Machine weight with swarf conveyor	lb		15983			16204			16534			16424	

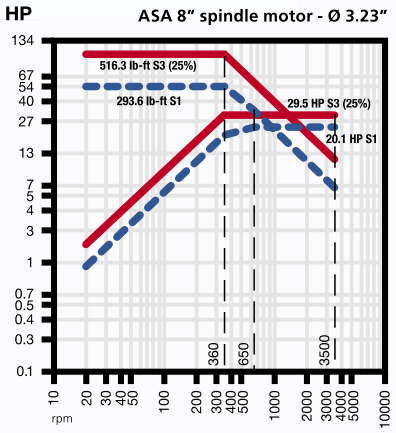
B750 SLY			B1250			B1250 L			B1250 SL			B1250 LY			B1250 SLY		
2.65	3.15	3.7 / 3.9	3.9	3.15	3.7 / 3.9	3.9	3.15	3.7 / 3.9	2.65	3.15	3.7 / 3.9	3.9	3.15	3.7 / 3.9	2.65	3.15	3.7 / 3.9
21.7/13.8	21.7/17.7	21.7	21.7	21.7/17.7	21.7	21.7	21.7/17.7	21.7	21.7	21.7/17.7	21.7	21.7	21.7/17.7	21.7	21.7/13.8	21.7/17.7	21.7
30.1 (1)			47.0 (2)			47.0 (2)			47.0 (2)			47.0 (2)			47.0 (2)		
26.8 / 19.7			26.8 / 19.7			26.8 / 19.7			26.8 / 19.7			26.8 / 19.7			26.8 / 19.7		
2800	3500	3000	2800	3500	3000	2800	3500	3000	4500	3500	3000	2800	3500	3000	4500	3500	3000
6″	8″	8″	8″	8″	8″	8″	8″	8″	6″	8″	8″	8″	8″	8″	6″	8″	8″
3.0	3.6	4.2 / 4.4	4.4	3.6	4.2 / 4.4	4.4	3.6	4.2 / 4.4	3.0	3.6	4.2 / 4.4	4.4	3.6	4.2 / 4.4	3.0	3.6	4.2 / 4.4
4.3	5.1	5.9	5.9	5.1	5.9	5.9	5.1	5.9	4.3	5.1	5.9	5.9	5.1	5.9	4.3	5.1	5.9
9.8	12.4	15.7	15.7	12.4	15.7	15.7	12.4	15.7	9.8	12.4	15.7	15.7	12.4	15.7	9.8	12.4	15.7
40.2-53.6	20.1-29.5	40.2-51	29.5-40.2	20.1-29.5	40.2-51	29.5-40.2	20.1-29.5	40.2-51	40.2-53.6	20.1-29.5	40.2-51	29.5-40.2	20.1-29.5	40.2-51	40.2-53.6	20.1-29.5	40.2-51
211	293-516	590-748	418-570	293-516	590-748	418-570	293-516	590-748	211	293-516	590-748	418-570	293-516	590-748	211	293-516	590-748
5000 - 4500			--			--			4500			--			4500		
5″ - 6″			--			--			6″			--			6″		
2.2 - 3.0			--			--			3.0			--			3.0		
1.8 - 2.6			--			--			2.6			--			2.6		
3.5 - 4.3			--			--			4.3			--			4.3		
5.5-6.5 / 8.3-9.8			--			--			8.3-9.8			--			8.3-9.8		
22.8-33.5 / 40.2-53.6			--			--			40.2-53.6			--			40.2-53.6		
80-117 / 211.0			--			--			211.0			--			211.0		
35.2			--			--			445			--			445		
944.9			--			--			944.9			--			944.9		
16 / 12			16 / 12			16 / 12			16 / 12			16 / 12			16 / 12		
1x1			1x1			1x1			1x1			1x1			1x1		
1.3-1.6 / 1.6-2.0			1.3-1.6 / 1.6-2.0			1.3-1.6 / 1.6-2.0			1.3-1.6 / 1.6-2.0			1.3-1.6 / 1.6-2.0			1.3-1.6 / 1.6-2.0		
0.3			0.3			0.3			0.3			0.3			0.3		
16 / 12			--			16 / 12			16 / 12			16 / 12			16 / 12		
10,000			--			10,000			10,000			10,000			10,000		
23.5			--			23.5			23.5			23.5			23.5		
56			--			56			56			56			56		
0.001			--			0.001			0.001			0.001			0.001		
100			--			100			100			100			100		
12.0			12.0			12.0			12.0			12.0			12.0		
5.5			--			--			--			5.5			5.5		
33.9			51.6			51.6			51.6			51.6			51.6		
708.7			708.7			708.7			708.7			708.7			708.7		
295.3			--			--			--			295.3			295.3		
944.9			944.9			944.9			944.9			944.9			944.9		
--			5.9			5.9			--			5.9			--		
--			4.5			4.5			--			4.5			--		
--			5			5			--			5			--		
--			51.6			51.6			--			51.6			--		
--			5 / 4			5 / 4			--			5 / 4			--		
--			44.9			44.9			--			44.9			--		
--			590.6			590.6			--			590.6			--		
79.3			79.3			79.3			79.3			79.3			79.3		
951.0			951.0			951.0			951.0			951.0			951.0		
1.5			1.5			1.5			1.5			1.5			1.5		
199.6 x 79.9 x 87.4 h			213.8 x 86.2 x 91.7 h			213.8 x 86.2 x 91.7 h			213.8 x 86.2 x 91.7 h			213.8 x 86.2 x 91.7 h			213.8 x 86.2 x 91.7 h		
42.1			42.1			42.1			42.1			42.1			42.1		
16755			17306			17526			18188			17857			18518		

(1) Ø 9.8″ Chuck - (2) Ø 12.4″ Chuck Belt-type main spindle

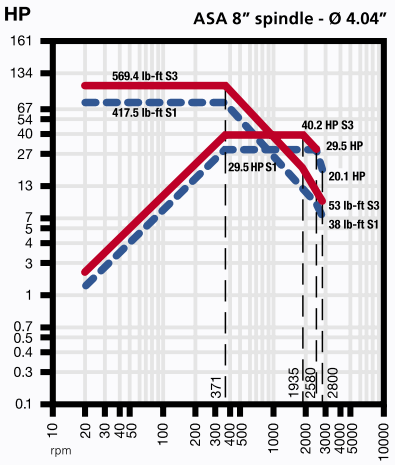
T O R Q U E D I A G R A M S

M A I N S P I N D L E C H O I C E S

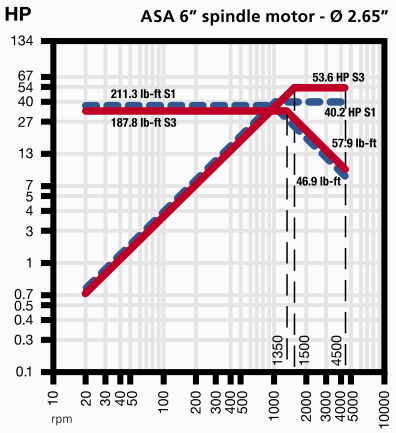
Standard on B750



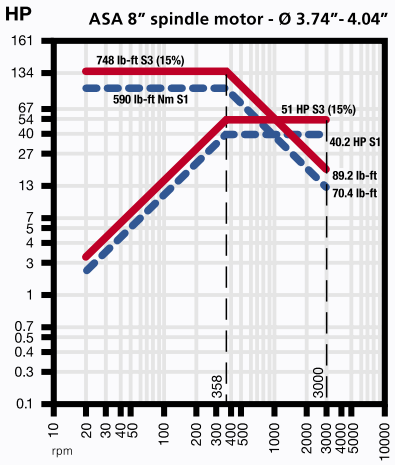
Standard on B1250



Optional on B1250

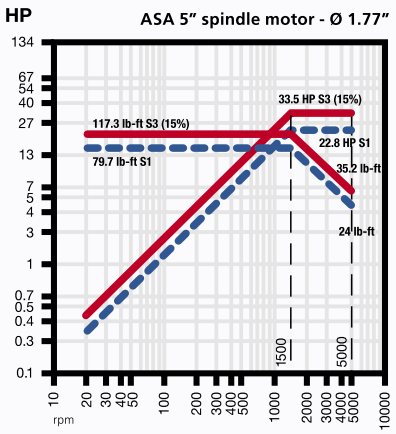


Optional on B750/B1250

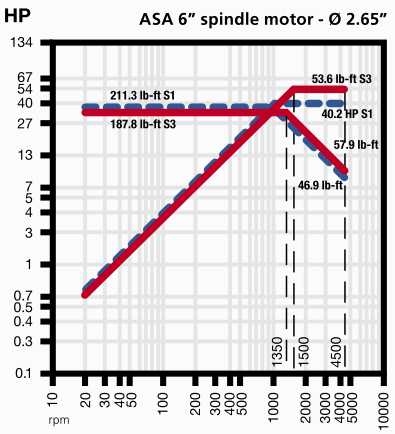


S U B - S P I N D L E C H O I C E S

Standard on B750



Std. on B1250 / Opt. on B750



EUROTECH
RUNS FASTER, SLEEPS LESS!

EUROTECH
tele: 352.799.5223
fax: 352.799.4662
email: sales@eurotechelite.com
web: www.eurotechelite.com