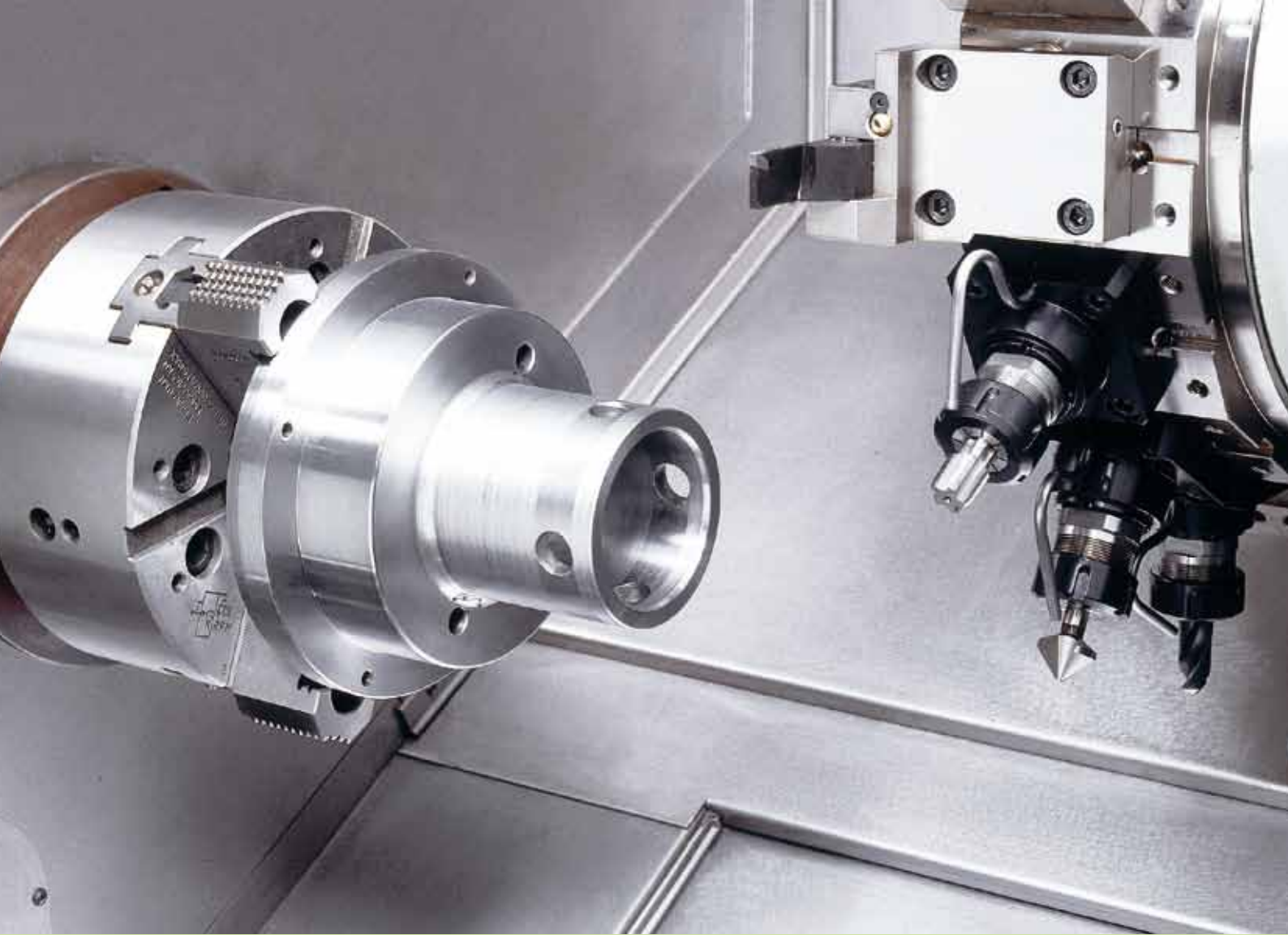


CNC TURNING CENTRES

B1200-M-Y

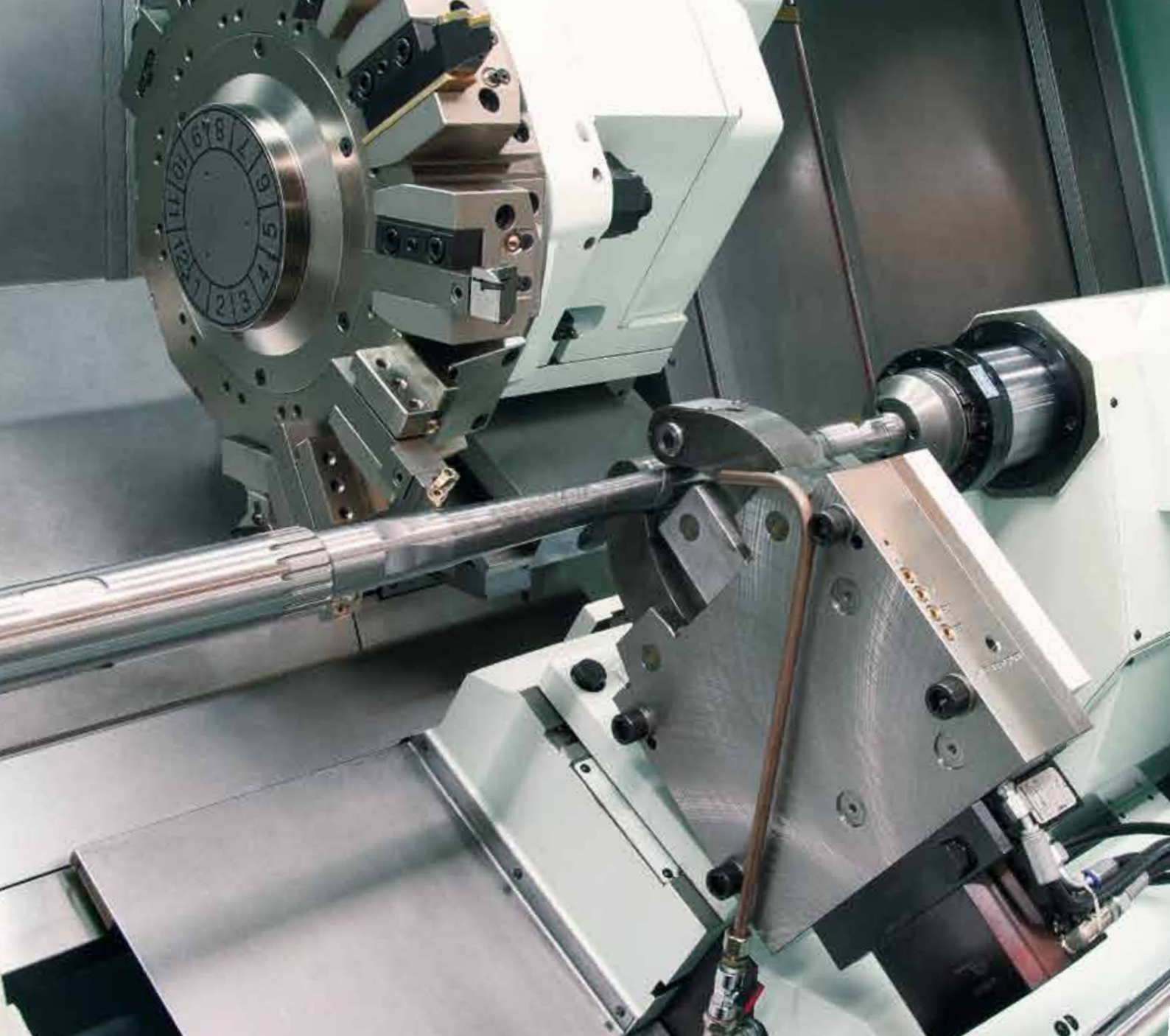




Great versatility and
superb chip removal.

B1200





The family of BIGLIA B1200 lathes universally appreciated for their rigidity, accuracy and durability, has been designed to guarantee greater rigidity for consistent, heavy-duty and accurate machining. Each of the three models feature a massive cast-iron slant bed, box type guideways and a rigid precision spindle to ensure high rigidity and exceptional vibration dampening, superior productivity combined with high precision.

The B1200 range of machines features a long bed with a longitudinal stroke of 1315 mm and a heavy-duty cartridge type ASA 8" spindle with large bar capacity (up to 102.5 mm) for the machining of long shafts and flanges up to 490 mm diameter. Thanks to the modular design the B1200 is available in three versions: base model (B1200), with live tools and C axis (B1200M) and with Y axis (B1200Y).

Machine configurations.

B1200

- Standard machine with tailstock

B1200M

- Rotary tools (12)
- C-axis
- Tailstock

B1200Y

- Rotary tools (12)
- C-axis
- Y-axis
- Tailstock



Designed to assure
more speed and more profit.

Frame and slides

The new massive rigid cast iron slant bed and the hardened, ground, box-type guideways ensure high rigidity and exceptional vibration dampening. The layout of the slide and the machine bed has been designed with F.E.M. analysis, to distribute the machining loads. This combination delivers both high accuracy and superior surface finishing.

STANDARD FEATURES

- Cast iron machine bed
- Electronic gearchange
- 12 position BIGLIA servo-turret
- Tooling kit (tool holders & bushings)
- Chip conveyor with coolant tank
- Coolant supply
- Programmable tailstock
- Electrical cabinet including air conditioning
- Two color lamp
- Foot-pedals for chuck / tailstock

OPTIONAL FEATURES

- Tool setter
- High pressure coolant
- Coolant filter
- Automatic steady-rest
- Automatic travelling steady-rest
- Parts catcher & bar-feeder interface
- Finished parts conveyor
- Oil skimmer
- Moist exhauster
- SBS tool load monitoring system
- Automatic door

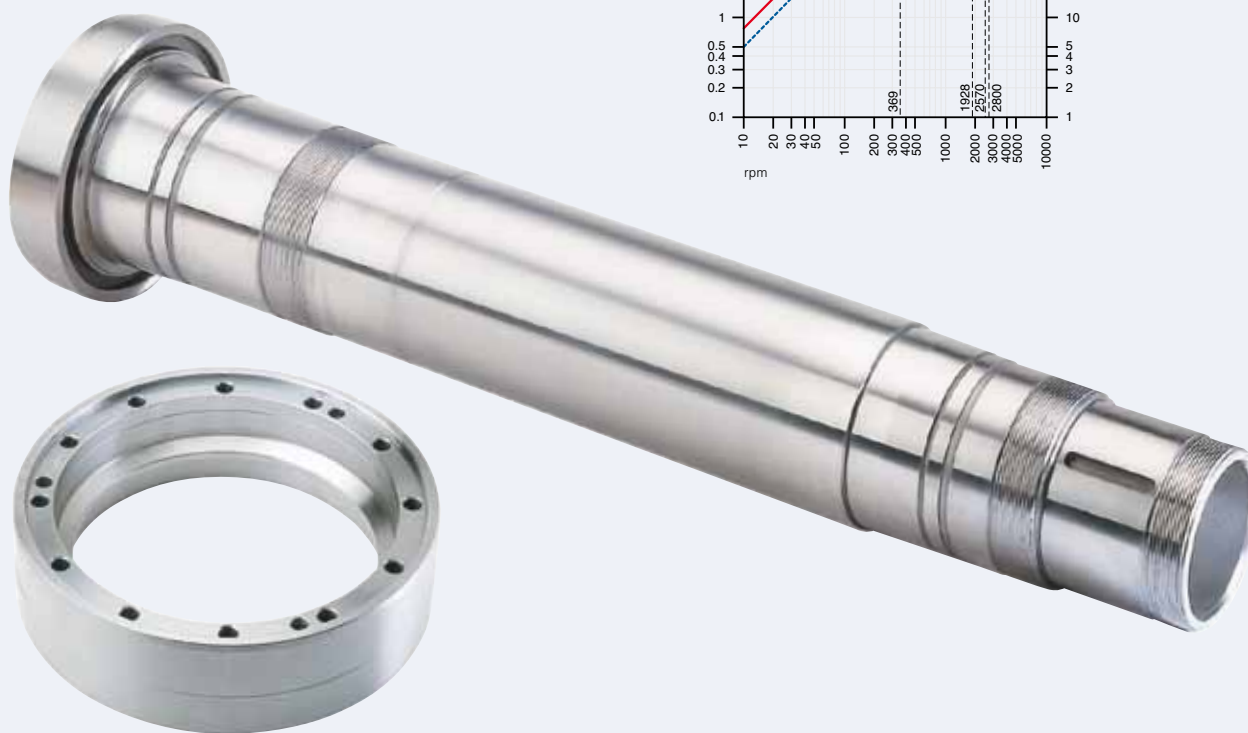
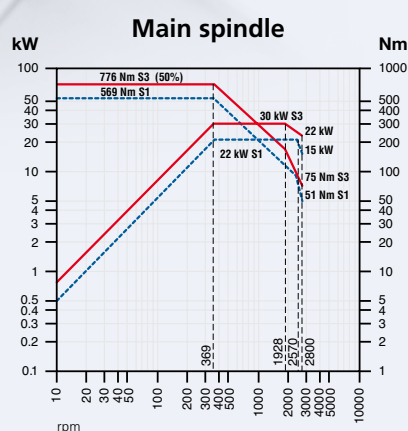
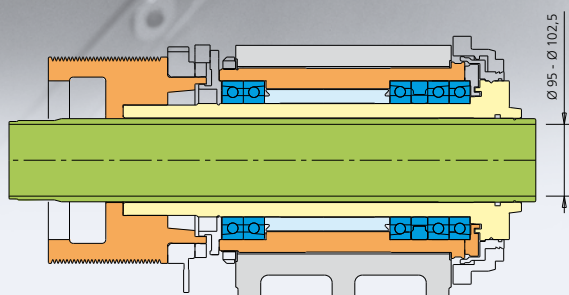
THERMAL STABILITY

To minimize dimensional changes and maintain the accuracy in the long-run, a fan cooling system is installed for the bed frame.



Spindles

The heavy duty BIGLIA cartridge type spindle is driven by a motor with electronic gearchange. Also, the combination of the rigid headstock and spindle construction with the high torque and power available at low rpm allows high chip removal rates and maximum accuracy.



Machining capability - Material C40

TURNING					
O.D. TURNING			DRILLING		
Turning diameter	mm	300	Insert drill diameter	mm	60
Spindle speed	rpm	230	Spindle speed	rpm	640
Cutting depth	mm	5	Cutting speed	m/min	120
Cutting speed	m/min	220	Feed rates	mm/rev	0,2
Feed rate	mm/rev	0,4	Volume of swarf removal	cm ³ /min	360
Volume of swarf removal	cm ³ /min	440			

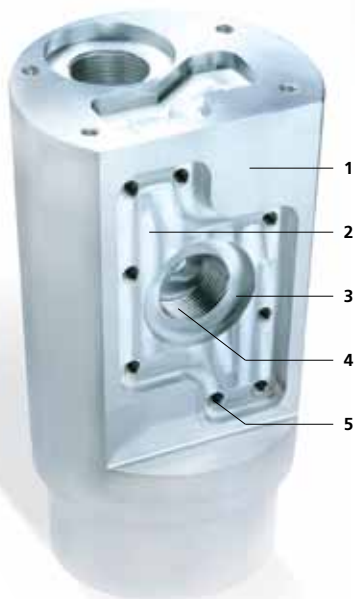
Combined turn and mill operations at high power.

Rotary tools, C-axis and Y-axis

The **M** model is equipped with a servo turret and C-axis allowing turn and mill operations. The rotary tools are driven by a motor with **70 Nm** torque and **5,5 kW** power available from 750 rpm.

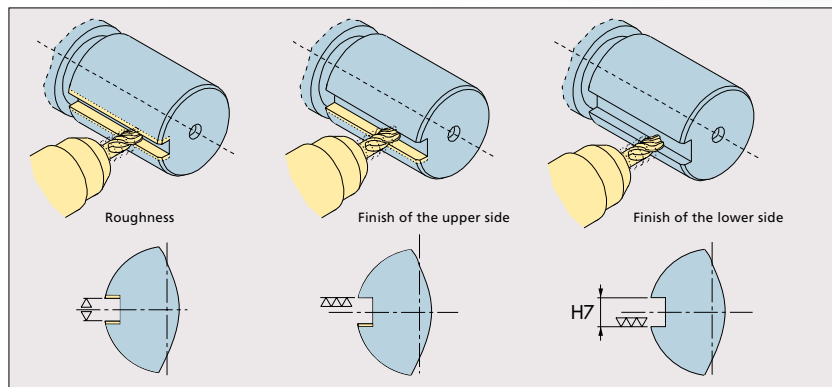
The **Y** model equipped with C and Y axis combines in a single machine turning and milling capability of a 4 axis machining center, enabling machining such as accurate key-ways, flat milling with high surface finish and perfect flatness as well as radial off-centre drilling and tapping.

Y-axis travel is achieved by the simultaneous movement of the two independent slides. This design distributes cutting force over the two slides assuring exceptional rigidity and maximum accuracy both in turning and milling operations.



- 1 Flat milling in repeated cuts
- 2 Irregular slot milling (roughness - finishing)
- 3 Key-way milling
- 4 Thread milling
- 5 Drilling and milling grid holes

The operations at point 2-3-4-5 can be performed also on the component face if axial tools are used.



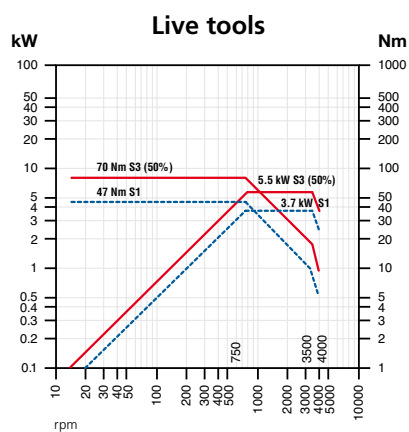
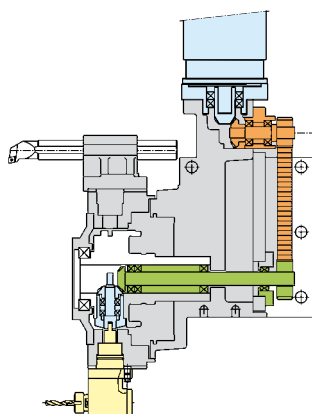
The Y-axis can mill an accurate keyway since after roughening it carries out contour finishing and compensates cutter wear. The same machining concept applies to various profiles that require exceptional accuracy and least roughness.



Live tools.

P O W E R - T O R Q U E D I A G R A M

B1200

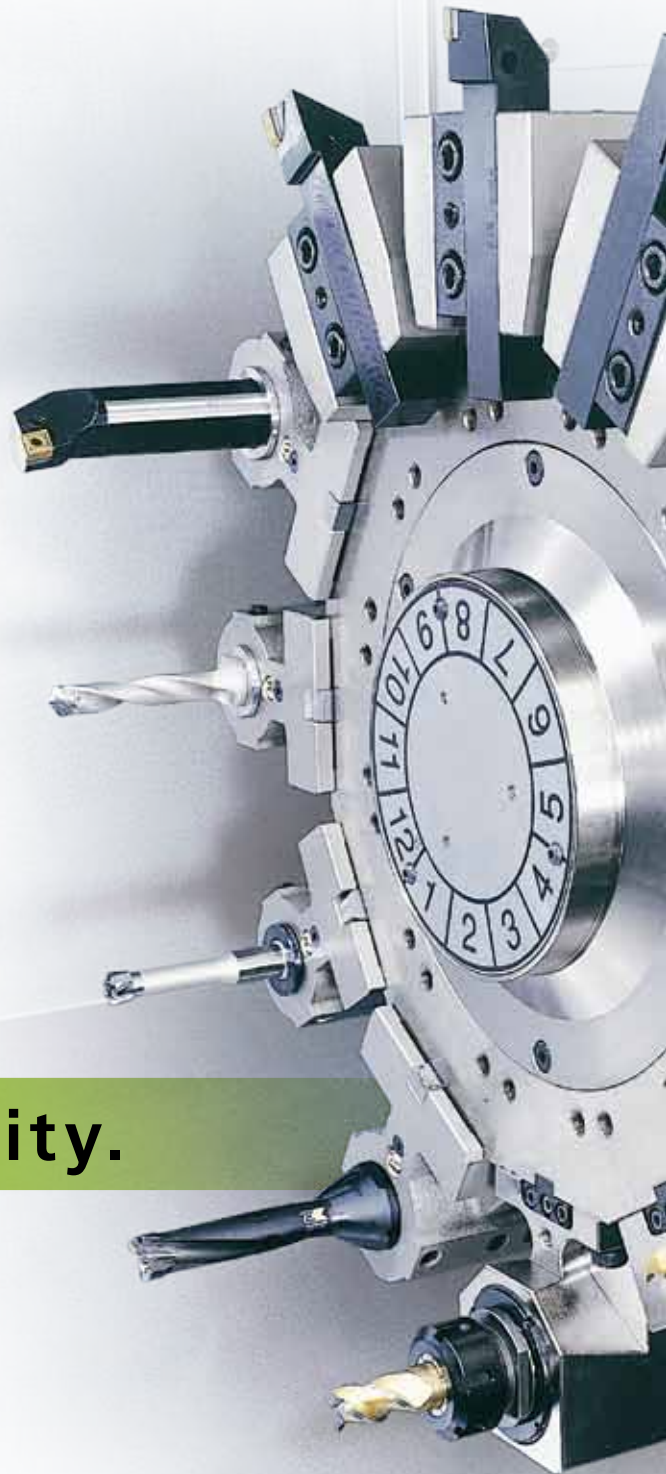
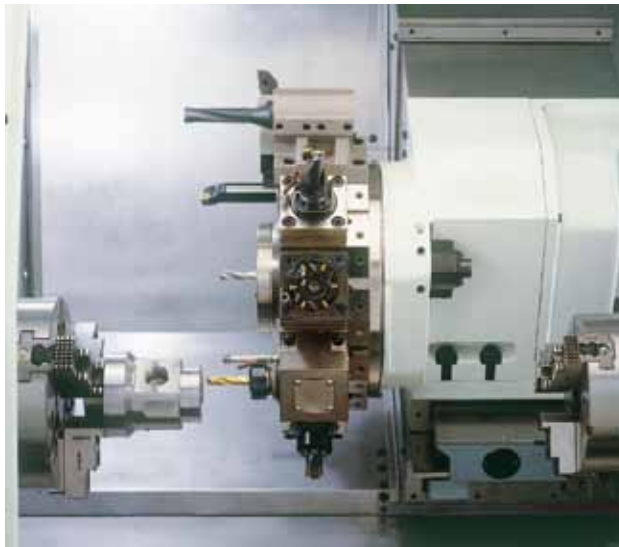


Machining capability - Material C40 (M-Y versions)

M A C H I N I N G W I T H L I V E T O O L S					
M I L L I N G			D R I L L I N G		
Face mill diameter	mm	40	Insert drill diameter	mm	30
No. of 45° inserts	N°	4	Spindle speed	rpm	1200
Spindle speed	rpm	1600	Cutting speed	m/min	85
Axial cutting depth	mm	3	Feed rates	mm/min	120
Radial cutting depth	mm	32	Feed rates	mm/rev	0,1
Cutting speed	m/min	200	Volume of swarf removal	cm³/min	56,5
Feed rate	mm/min	765			
Volume of swarf removal	cm³/min	73			

BIGLIA SERVO-TURRET

The fast BIGLIA 12-station servo-turret, featuring a large HIRTH coupling and powerful clamping force, assures exceptional rigidity in all machining conditions. Rotating tool holders can be mounted on all 12 stations. Up to 30 tools can work simultaneously.



Increased productivity.

PROGRAMMABLE TAILSTOCK

The programmable tailstock slides on T shaped hardened and ground guideways. Positioning is fully automatic by the turret-holding carriage. The stroke of the 115 mm dia. hydraulic quill is 150 mm. A rotating tailstock integrated to the quill is offered as an option.



AUTOMATIC STEADY-REST (option)

The automatic and self-centering steady-rest is suitable for shafts ranging up to 240 mm dia. 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.



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 CNC control.

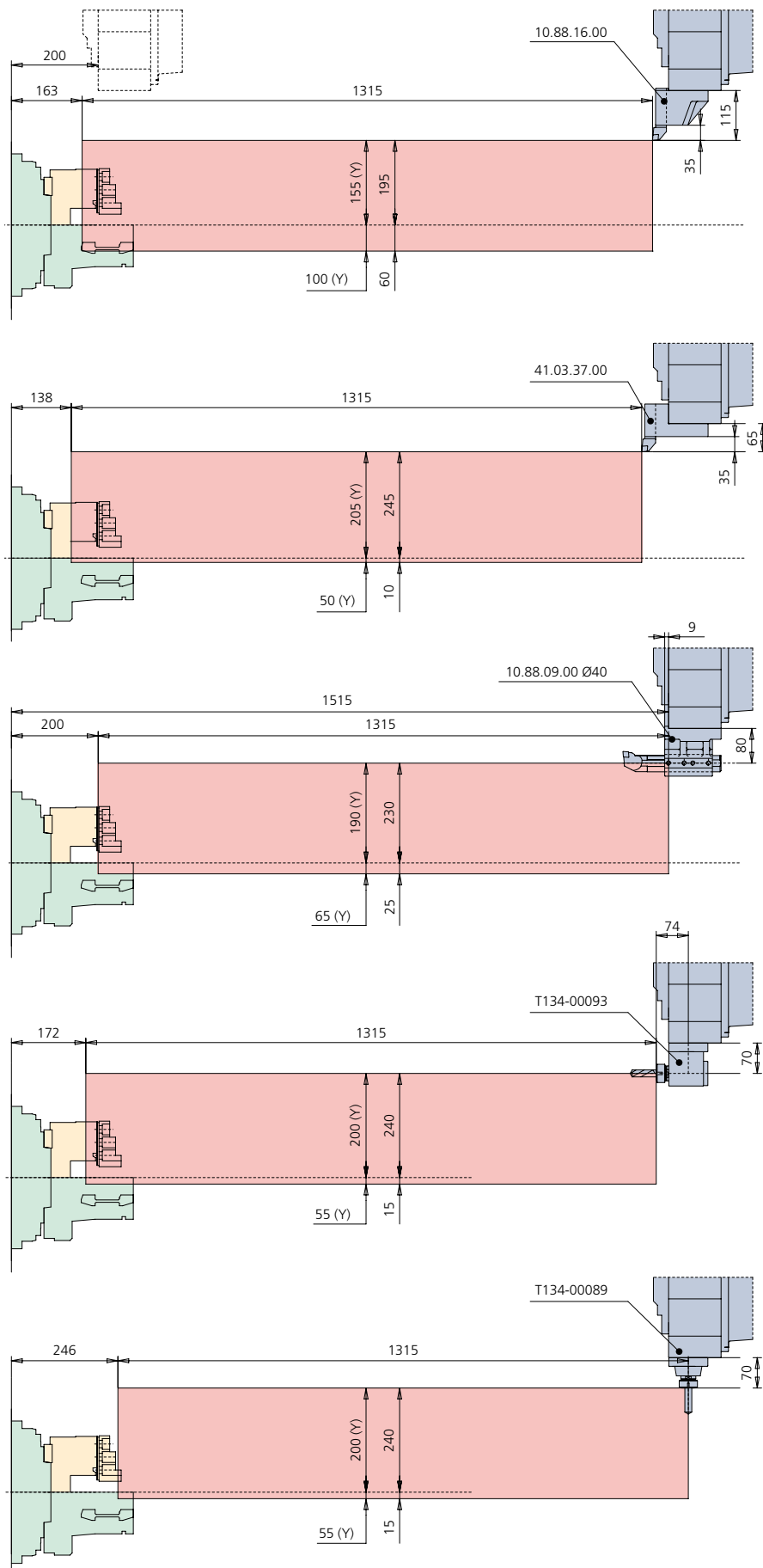


PARTS-CATCHER (option)

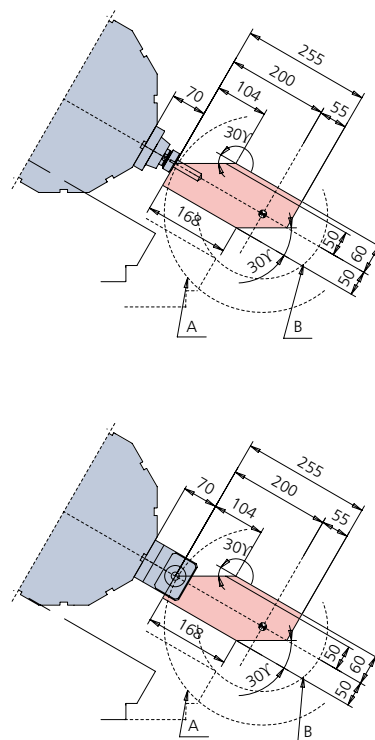
The automatic parts-catcher enables unloading of finished parts during unattended bar machining.



TURNING FIELD / MILLING FIELD

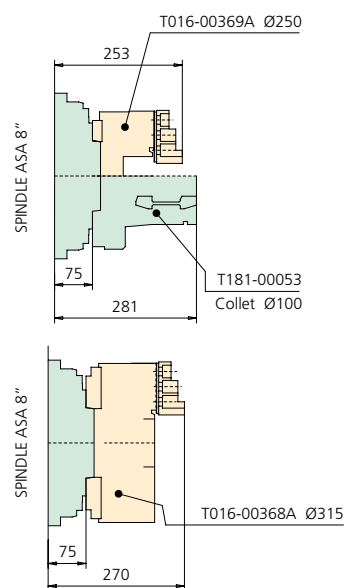


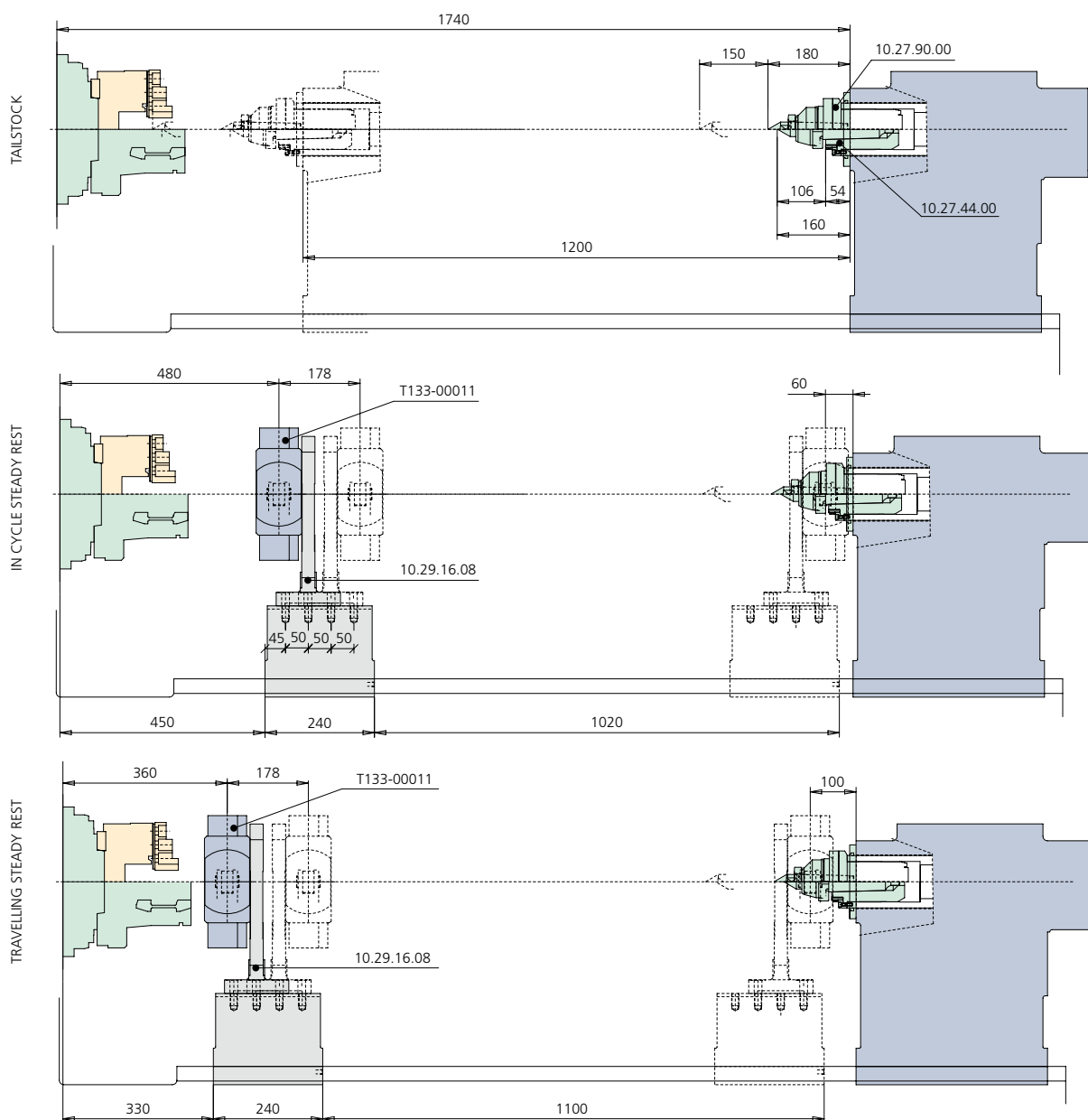
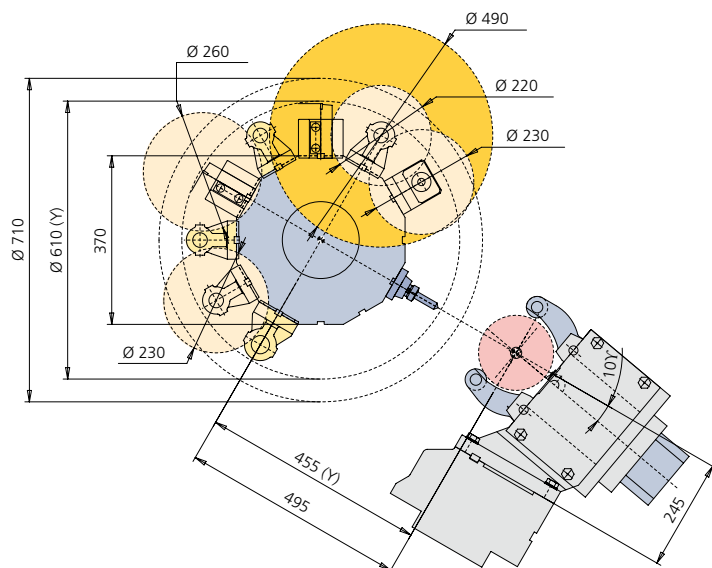
Y-AXIS FIELD

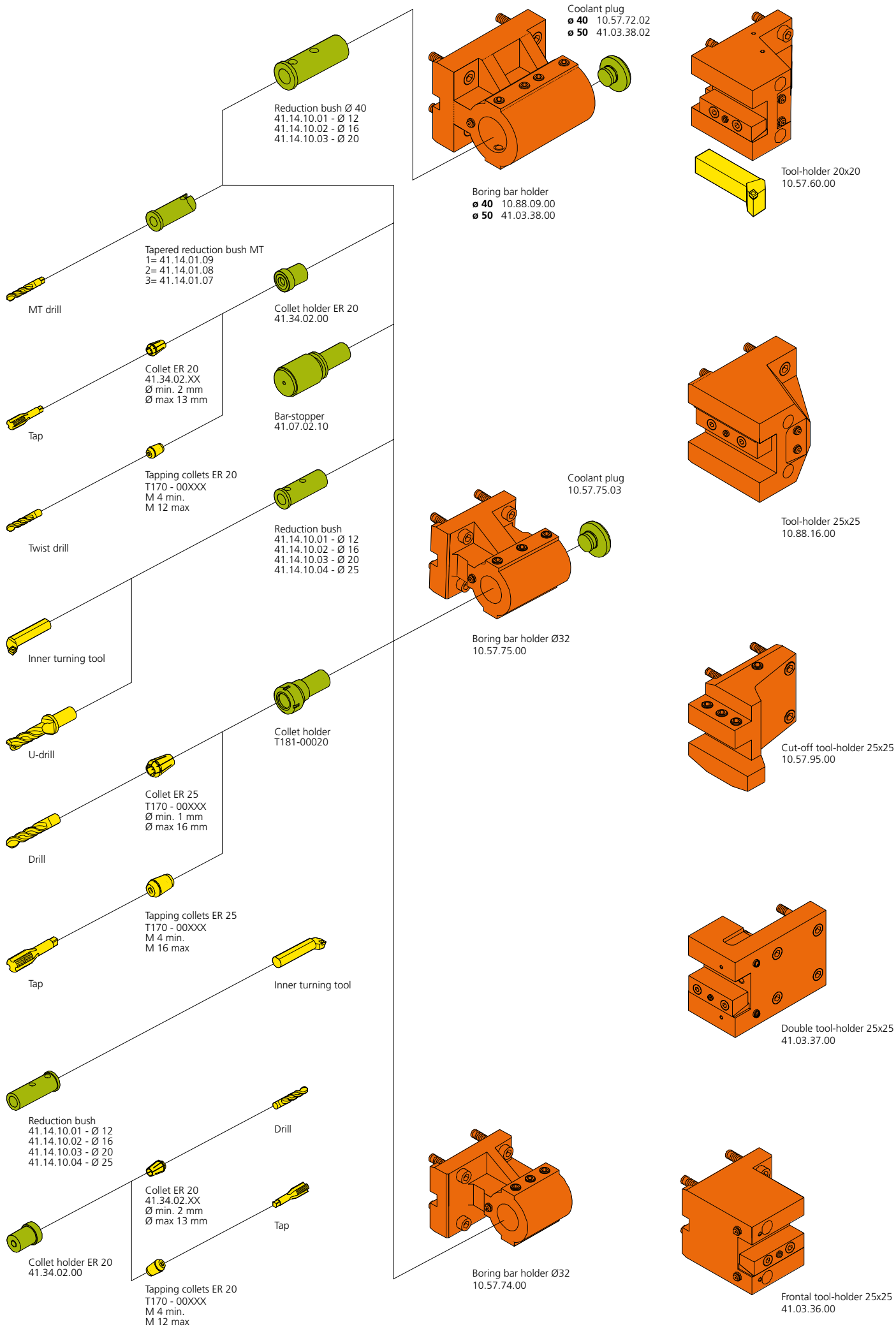


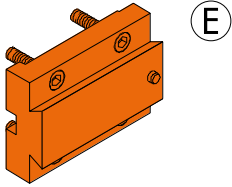
A = 390 Max swing dia. with turret in Y 0 up to - Y = 50 mm
 B = 256 Max swing dia. with turret in + Y = 60 mm

AREA OF FRONT PART OF THE SPINDLE

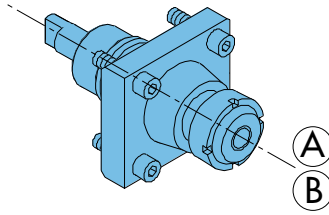




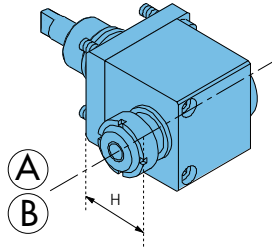




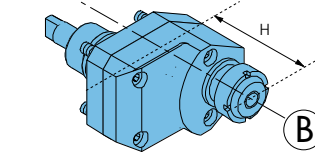
Base for multiple-holder
10.57.92.00



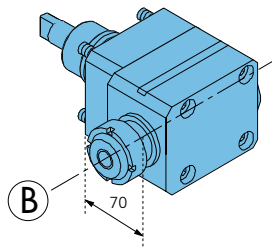
Radial live-spindle
10.57.88.00 ER25
T134-00061 ER32
● T134-00071 ER32
■ T134-00089 ER32



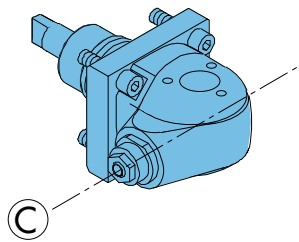
Axial live-spindle
H=70 10.57.87.00 ER25
H=70 T134-00062 ER32
■ **H=70** T134-00093 ER32



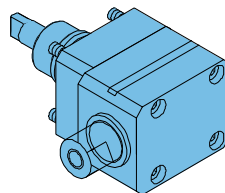
Radial live-spindle
8000 rpm
H=108 T134-00026
12000 rpm
H=70 T134-00060



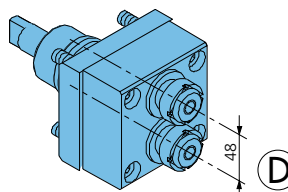
Axial live-spindle
8000 rpm
T134-00027
12000 rpm
T134-00070



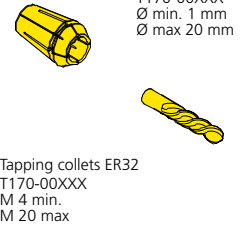
Adjustable live-spindle
T134-00057



Polygon live-spindle
42.47.10.43



★ Radial live-spindle, double
41.32.30.00



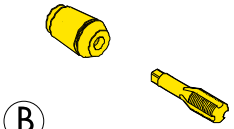
Collet ER32
T170-00XXX
Ø min. 1 mm
Ø max 20 mm

Tapping collets ER32
T170-00XXX
M 4 min.
M 20 max



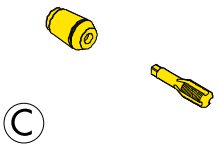
Collet ER25
T170-00XXX
Ø min. 1 mm
Ø max 10 mm

Tapping collets ER25
T170-00XXX
M 3 min.
M 10 max



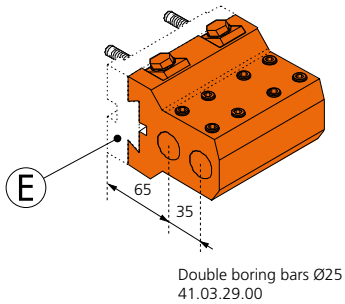
Collet ER20
T170-00XXX
Ø min. 1 mm
Ø max 13 mm

Tapping collets ER20
T170-00XXX
M 3 min.
M 13 max

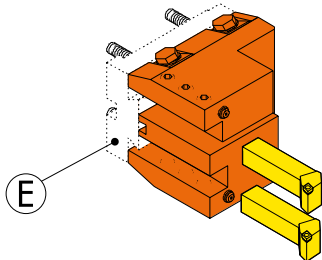


Collet ER16
T170-00XXX
Ø min. 1 mm
Ø max 10 mm

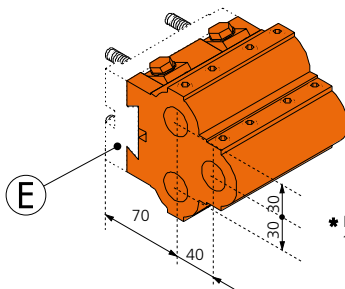
Tapping collets ER16
T170-00XXX
M 3 min.
M 10 max



Double boring bars Ø25
41.03.29.00



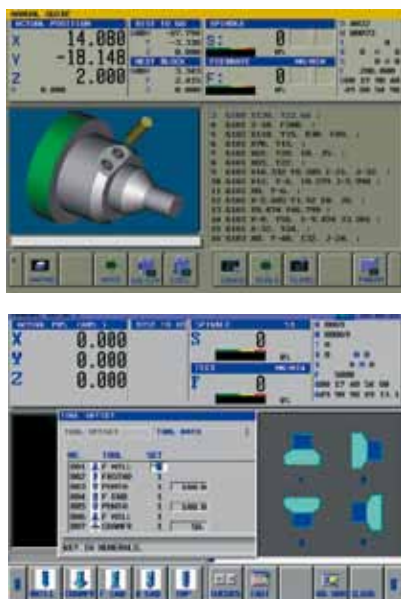
★ Vertical double tool-holder
41.03.25.00



★ Boring bar holder Ø 25
10.57.93.00

- ★ Only for B1200Y
- With internal coolant
- With stronger bearings

Automated process.

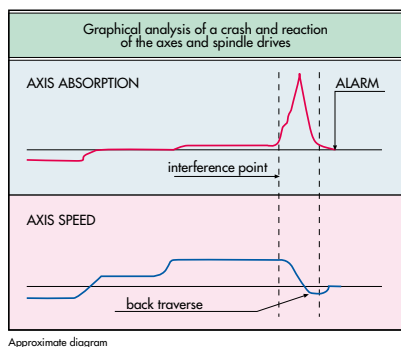


MANUAL GUIDE: QUICK AND EASY FOR PROGRAM RELIABILITY

The innovative MANUAL GUIDE software package provides operators with access to a very simple and user-friendly graphics interface, strong "editing" functions and offers a wide selection of machining cycles (turning, milling and drilling). This system allows the execution of even the most complex programs with ease of operation. The 3D simulation facilitates the checking of programmes before machining operations.

CNC UNIT

CNC unit mod. Fanuc 18 i-T:
 - 10.4" colour liquid crystal display
 - Alphanumeric full-keyboard
 - Biglia operator panel featuring softkeys
 - Data transmission: ethernet gate, memory card, RS 232 gate.



Approximate diagram

DAMAGE PROTECTION (AIR BAG)

This special software detects the abnormal load created by a collision during rapid traverse or within the machining process. When a collision occurs, spindle rotation is stopped and the axis movement is halted thus damping the interference and limiting damage to the tooling.
 NOTE: this function does not prevent from collision.

SBS: BIGLIA SAFETY SOFTWARE TOOL LOAD MONITORING

This system monitors the loading of the most heavily used tools: e.g. 1st op. cutting tools, roughening tools, drills or U-drills. It ensures safe automatic machining with limited operator presence (option).

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

B1200

MACHINE TYPE		B1200	B1200 M	B1200 Y
MACHINING CAPACITY				
Bar capacity	mm	92 (100)	92 (100)	92 (100)
Max. machining diameter	mm	490 (390)	490 (390)	410 (310)
Max. machining length	mm	1315	1315	1315
Max. swing over diameter	mm	700	700	700
MAIN SPINDLE				
Max. speed	rpm	2800	2800	2800
Spindle nose	ASA	8"	8"	8"
Spindle bore	mm	111	111	111
Inside diam. of bearings	mm	150	150	150
Chuck diameter	mm	315	315	315
Motor power	kW	30	30	30
Max. torque	Nm	776	776	776
TAILSTOCK				
Automatic quill stroke	mm	150	150	150
Quill diamter	mm	115	115	115
Morse taper	C.M.	5	5	5
Automatic positioning	mm	1200	1200	1200
TURRET				
No of tools	N°	12	12	12
Tool shank for OD turning	mm	20 x 20 - 25 x 25	20 x 20 - 25 x 25	20 x 20 - 25 x 25
Tool shank for ID turning	mm	32 - 40 - 50	32 - 40 - 50	32 - 40 - 50
Turret indexing (1 pos)	sec	0,15	0,15	0,15
LIVE TOOLING				
No of live tools	N°	--	12	12
Max. speed	rpm	--	4000	4000
Motor power	kW	--	5,5	5,5
Max. torque	Nm	--	70	70
C-AXIS				
Min. programmable value	°	--	0,001	0,001
Max. rapid traverse	rpm	--	100	100
AXES				
X-axis stroke	mm	255	255	255
Z-axis stroke	mm	1315	1315	1315
Y-axis stroke	mm	--	--	110 (+60/-50)
X-axis rapid traverse	m/min	20	20	20
Z-axis rapid traverse	m/min	24	24	24
Y-axis rapid traverse	m/min	--	--	7,5
COOLING SYSTEM				
Tank capacity	l	300	300	300
Pump nominal displacement	l/min	230	230	230
Electropump motor rating	kW	1,5	1,5	1,5
DIMENSIONS AND WEIGHT				
Machine with swarf conveyor	cm	510 x 200 x 210 h	510 x 200 x 210 h	510 x 200 x 210 h
Spindle centre height	mm	1060	1060	1060
Machine weight with swarf conv.	kg	7000	7100	7250

»» CNC TURNING CENTRES

	B545	B545M	B545S	B545SM	B545Y	B545YS
	B565	B565M	B565S	B565SM	B565Y	B565YS
	B650	B650M	B650SM	B650Y	B650YS	
	B658	B658M	B658SM	B658Y	B658YS	
	B1200	B1200M	B1200Y			
	B1700	B1700M	B1700Y			

»» MULTITURRET BAR TURNING

	B436Y2					
	B446S	B446S2M	B446Y	B446Y2		
	B465S	B465S2M	B465Y	B465Y2		
	B745Y3					
	B765Y3					

»» INTEGRATED TURN-MILL OPERATIONS

	SMART TURN		SMART TURN S			



THE TURNING TECH