Humanity. Innovation. Technology

- Robust Structure
- Heavy Cutting
- Reduced Production Costs

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Safenet Certified

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YIDA PRECISION

Box Way

CNC LATHES

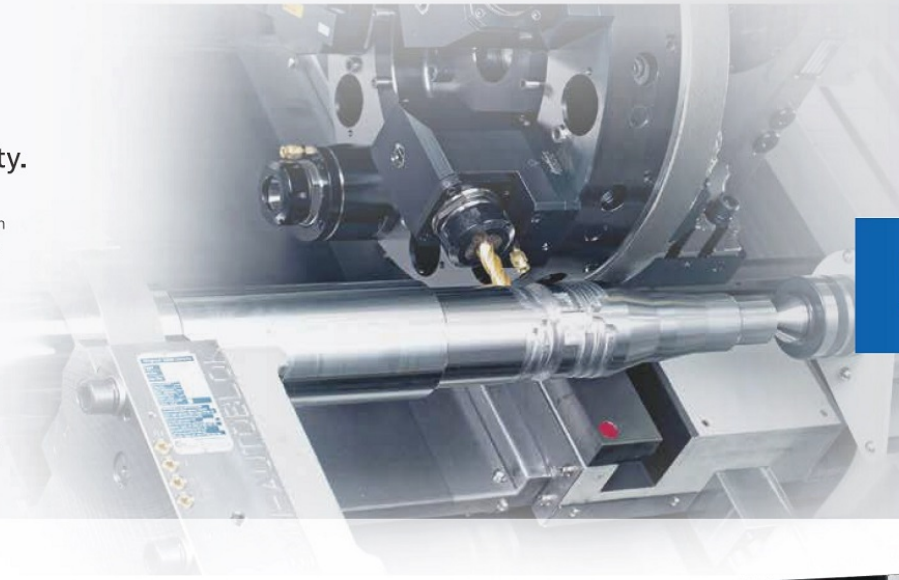
BML Series

- Single spindle or twin spindle configuration
- Box ways with wide span
- Various tool turrets to select from
- Mill turn complex machines
- Fully automated production system is available

SLANT BED CNC LATHE

Providing users with higher stability, better cut quality, and greater cutting capacity.

The YIDA BML Series comprises a wide range of dependable slant bed CNC lathes with outstanding features for increased machining efficiency. Every model in the BML Series performs with the high standards you've come to expect from YIDA. The YIDA BML Series is designed with box ways on X, Y, Z axes to withstand heavy cutting. The massive one-piece fabricated slant bed design ensures maximum stability during the cutting process. The high precision, high rigidity spindle is carefully designed and built for heavy cutting, with low temperature build up, ideal for long time continuous machining. Choice of hydraulic, servo, and live-tooling turret meets flexible machining requirements. To achieve high machining efficiency, versatility and accuracy, consider a cost-effective CNC lathe from YIDA.



For cost-saving production with high productivity

MULTITASKING MACHINES

Stay ahead of the competition with multitasking machines like YIDA's mill turn lathes, developed to perform multitasking machining. Achieve higher efficiency and higher quality parts with single setups on YIDA mill turn lathes, eliminating the accuracy errors that can result from multiple setups. The mill turn lathe, in combination with a twin spindle design for simultaneous front and back machining further boosts efficiency. Combining a twin spindle design for simultaneous front and back machining with the mill turn lathe further boosts efficiency.

Advantages of Slant Bed Lathe
Easy chip evacuation, small footprint and ergonomic operation.

MASSIVE SLANT BED STRUCTURE

A guarantee of rigidity and stability

With an aim to build a CNC lathe that provides high productivity, the design of YIDA BML lathes focuses on minimizing vibration in heavy cutting. All structural parts are ruggedly constructed throughout to ensure deformation-free performance even after years of operation. The outstanding structural rigidity and stability allows for increased cutting depth and feed rates, which in turn reduces machining time.

Highly rigid machine structure

Slant Bed

YIDA BML series CNC lathes are designed with a highly rigid slant bed that provides excellent damping capacity and smooth chip evacuation.

High Quality Cast Iron

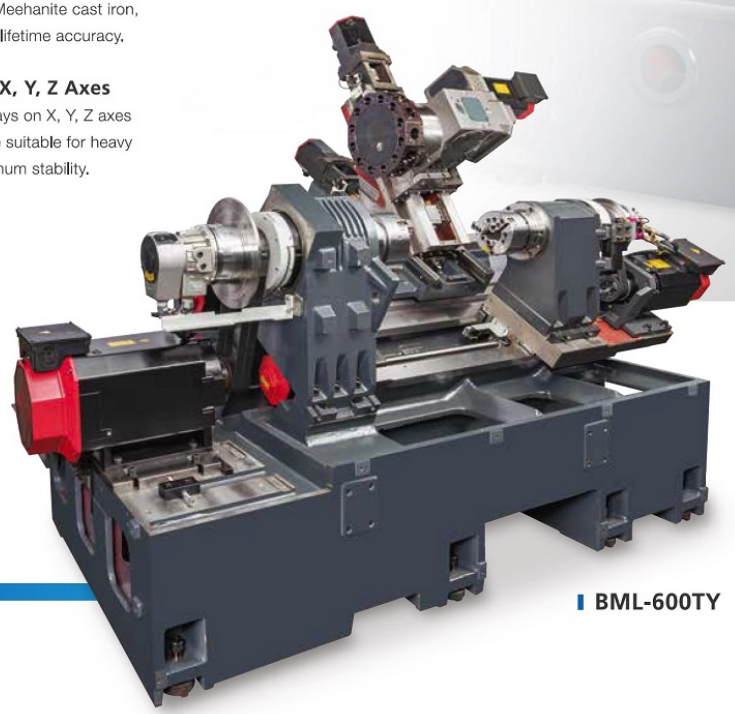
The machine structure is manufactured from high quality Meehanite cast iron, stress relieved for lifetime accuracy.

Box Ways on X, Y, Z Axes

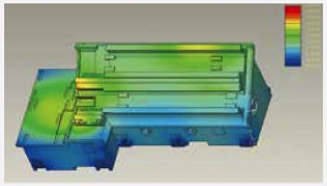
Extra-wide box ways on X, Y, Z axes make the machine suitable for heavy cutting with maximum stability.

Twin Spindles / Single Turret

- The combination of the main spindle and sub-spindle and a power turret enable a workpiece to be machined completely with just a single setup.
- Designed for elimination secondary machining, ensuring machining accuracy and boosting productivity.



BML-600TY



Finite Element Analysis (FEA)

Precise, Powerful Spindle

- The spindle is driven by a FANUC α/P type spindle motor (featuring wide constant power range), which is combined with timing belt transmission for quick orientation and higher torque output.
- The spindle housing is designed with larger space for increasing maintenance convenience.
- Outstanding ribs deployment on the headstock also allows for efficient heat dissipation, preventing thermal displacement on the spindle.
- The specially designed headstock base allows for convenient adjustment of the headstock and prevents slippage.

Automatic Tailstock

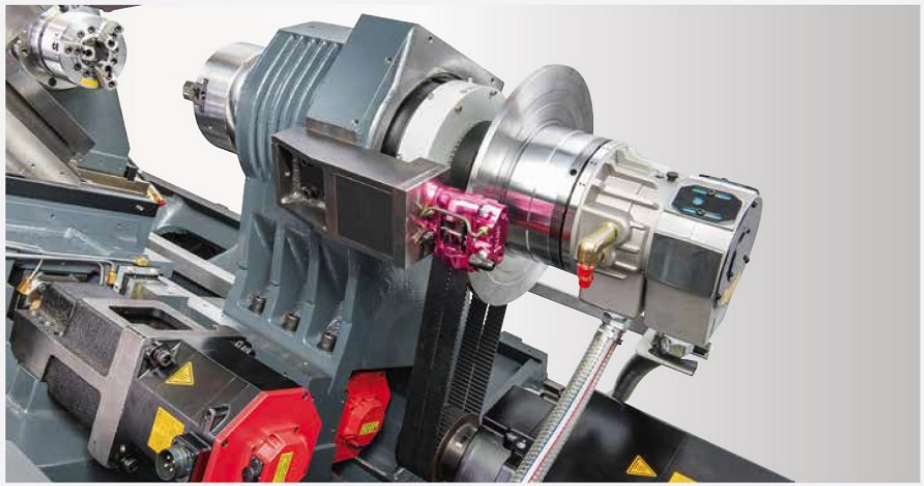
The saddle drives the tailstock via a lock pin on the tailstock.

BML-500

BML-560S/M

BML-600S/M/L

CS-AXIS / Y-AXIS / Sub-Spindle



CS-Axis Function

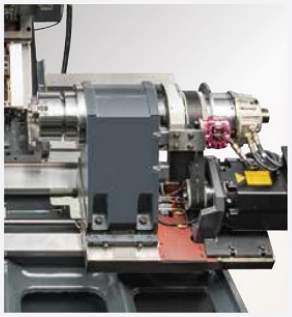
- The CS-axis function in combination with the live tooling turret enable the machine to perform milling, drilling and tapping operations with only a single setup.
- CS-axis is equipped with a rotary encoder for high orientating accuracy.

Brake Discs

The brake discs for the main spindle and sub-spindle are calibrated by balancing together with the use of Heidenhain rotary encoders, providing high positioning accuracy.

Y-Axis Function

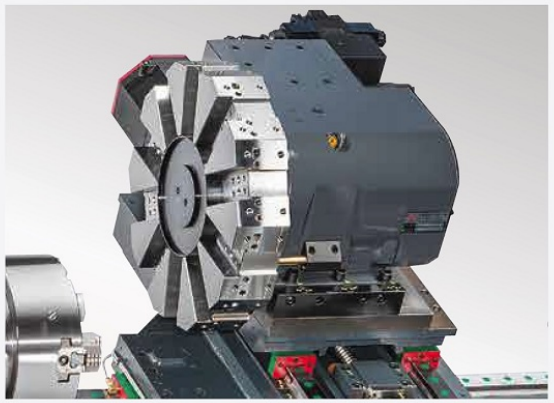
- The Y-axis features a lightweight structure and is directly driven by a servo for high positioning accuracy.
- Box ways on the Y-axis help to increase stability during cutting.
- Y-axis travel is 100mm (±50mm), allowing for machining various workpieces with high efficiency.

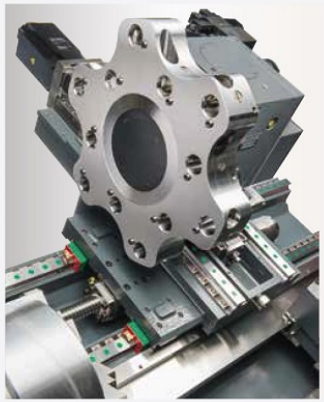


Sub-Spindle

The sub-spindle can pick the workpiece directly from the main spindle by programming, allowing for machining of the other side of the workpiece. This saves machining time as the spindle does not stop for loading or unloading the workpiece.

TURRET





Hydraulic Turret (Standard)

Live Tooling Turret (Optional)

Servo Turret (Optional)

VDI or BMT Turret Disc (Optional)

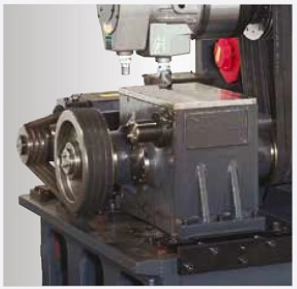
Heidenhain ERM Magnetic Encoder

C-axis for lathe application is usually for machining bar material. The precision and repeatability provide by the ERM magnetic encoder can improve milling performance on C-axis applications.

GEARBOX

Gearbox and Shaft

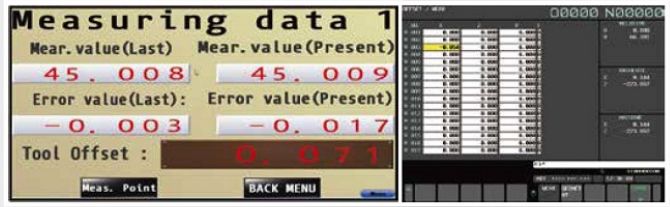
- The shaft runs on high precision SP grade special bearings with high rigidity.
- Special lubrication prevents heat distortion while ensuring shaft rigidity and accuracy.
- The shaft is equipped with a unique cooling system that effectively suppresses thermal deformation, ensuring consistent cutting performance at high speeds.



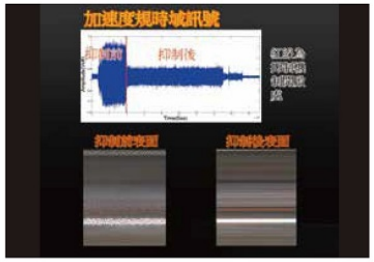
GTP or ZF gear box (Optional)

AUTOMATIC MACHINING COMPENSATION

Comparing the error value between the measured point data and the measured workpiece data, then outputting the error value to the NC for calculating tool wear compensation.

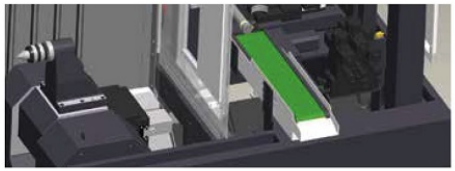


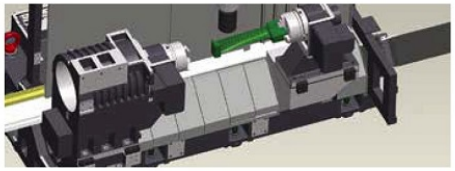
VIBRATION SUPPRESSION



Our system provides instant adjustment of cutting parameters for suppressing vibration on a smart production line. This function is designed to meet the requirements of smart production lines. It helps to upgrade machining surface quality, reduce tool wear, reduce vibration, and reduce energy consumption of a cutting motor, thus resulting in an overall energy saving effect.

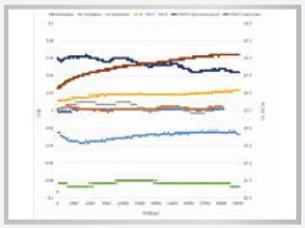
YIDA collaborates with universities, industrial research centers and institutes in many areas, with many efforts leading to awards and prizes. The anti-vibration features of the BML-500 earned it the Award of Eminence at TIMTOS 2015.



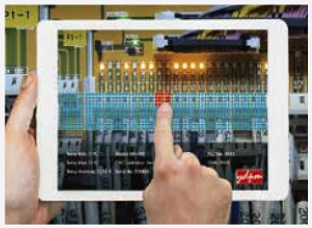


CONTROL: **AI, IOT, ITRI CONTROL SYSTEM**

Since maintenance has a direct influence on performance, productivity and product quality, we're improving the process through recent developments in Augmented Reality technologies.



The FANUC AI Thermal Displacement Compensation module was implemented on EV-860. The thermal displacement after applying AI adjustment is within 0.002 mm, compared to 0.08 mm without AI.

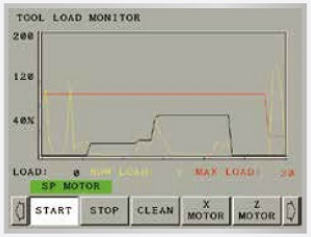


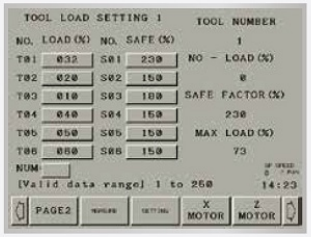
Current efforts are focused on developing AR applications for maintenance.

SMART MACHINE ENGINE

PRODUCTION MANUFACTURER / PROCESS RECORDS

SPINDLE OR SERVO **LOAD INSPECTION**





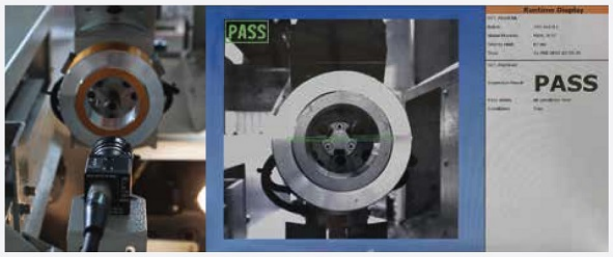
Spindle or Servo-axis Load Inspection

This function is used to inspect the spindle load or servo axis load through the controller. If the spindle load or servo axis load exceeds a set value, the machine will stop and an alarm will occur.

AUTOMATION

Features

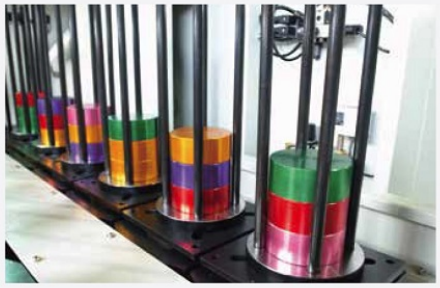
- Can be equipped with a built-in gantry type automation device with automatic detection function.
- Outstanding features of parts supply equipment are low investment cost, fast parts change, small space occupation, and excellent scalability. Applicable for parts loading and unloading for metalworking on a CNC lathe, which can reduce parts changing time and achieve high automation efficiency.
- Help customers to save investment capital and working costs, which in turn creates automation efficiency and competitiveness.
- Available to select various types of modular parts supply equipment for increased efficiency and time sharing.



Designed to meet the requirements in an automated production line, the device provides positioning and quality inspection, size measurement, identification and confirmation. Using the controller's image treatment to conduct visual inspection functionality can eliminate human error in judgment and inspection. As a result, product quality and machining yield rate can be upgraded.

Smart Machine Industrialization

To meet specific machining requirements, various automation devices and automatic detection functions can be selected (such as vibration suppression, collision compensation, measurement and image).



Rotating Elevating Type Part Supply Device

Suitable for circular discs, stackable parts with specific angle. Transmitted by conveyor chain. Standard design is 16 pallets. Custom designs to meet customer's workpiece requirements are available.

Rotating Change Type Twin Jaw

The pneumatic twin jaws design upgrades part clamping stability. Fast clamping / unclamping without damage to the workpiece.

Specifications

Automatic Gantry Loader System	
Claming range	Ø30 mm (Ø1.18")
Max. machining diameter	Ø160 mm (Ø6.3")
Max. weight of workpiece	3 (x2) kg
X axis travel	550 mm
Z axis travel	1,770 mm
X axis feed rate	90 m/min
Z axis feed rate	120 m/min
Clamping type	3-jaw (pneumatic)
Travel of clamping jaws	8 mm

* X axis - up / down; Z axis - right / left

Feeding System	
Pallet no.	16 pcs
Max. loading	40 kg
Max. height	410 mm

ACTUAL **MACHINING DATA**

O.D. Heavy Cutting

- Material: **S45C**
- Cutting tool: **Ø25** mm
- Feed rate: **0.4** mm/rev
- Cutting depth: **4** mm
- Chip removal: **215** c.c/min

Slot Cutting

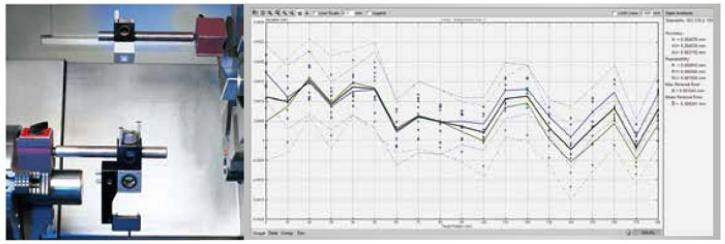
- Material: **S45C**
- Cutting tool: **Ø25** mm
- Feed rate: **0.2** mm/rev
- Cutting width: **4** mm
- Cutting position length: **120** mm

End Mill

- Material: **S45C**
- Cutting tool: **Ø20** mm
- Cutting width: **16** mm
- Cutting depth: **7** mm
- Feed rate: **500** mm/min

QUALITY ASSURANCE

Each machine has been inspected before shipping to ensure optimal operation performance.

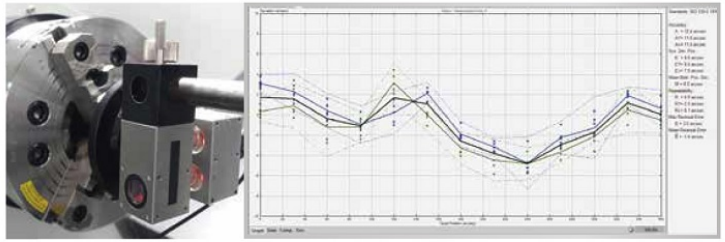


Laser Calibration

Calibration of the positioning and repeatability for axial.

Ball Bar Circularity Inspection

Calibration of roundness deviation for CW / CCW.



C-axis positioning and repeatability accuracy inspection.

MACHINE **SPECIFICATIONS - 500 / 560** SERIES

			500 series	560 series			
ITEM		UNIT	BML-500	BML-560S		BML-560M	
				Standard	C-axis	Standard	C-axis
CAPACITY	Swing over bed	mm	Ø500	Ø560		Ø560	
	Swing over saddle	mm	Ø390	Ø420		Ø420	
	Distance between centers	mm	633	652		902	
	Max. machining dia.	mm	Ø360	Ø320	Ø300	Ø320	Ø300
	Max. machining length	mm	300	320		570	
	Slant angle of bed		30°	30°		30°	
TRAVELS	X-axis	mm	195 (180+15)	190 (160+30)	190 (150+40)	190 (160+30)	190 (150+40)
	Y-axis	mm	-	-		-	
	Z-axis	mm	330	360		610	
	C-axis	mm	-	-	360° (0.001°)	-	360° (0.001°)
	W-axis	mm	-	-		-	
SPINDLE	Spindle speeds	rpm	STD: 50~6,000 (A2-5)	STD: 4,500 (A2-6); OPT: 6,000 (A2-5)		STD: 4,500 (A2-6); OPT: 6,000 (A2-5)	
	Spindle nose		A2-5	STD: A2-6; OPT: A2-5		STD: A2-6; OPT: A2-5	
	Spindle bore dia.	mm	Ø56	STD: Ø62; OPT: Ø79 (A2-6), Ø56 (A2-5)		STD: Ø62; OPT: Ø79 (A2-6), Ø56 (A2-5)	
	Front bearing inner dia.	mm	Ø80	STD: Ø100 (A2-6); OPT: Ø80 (A2-5)		STD: Ø100 (A2-6); OPT: Ø80 (A2-5)	
	Draw bar dia.	mm	Ø45	STD: Ø52; OPT: Ø66, Ø45		STD: Ø52; OPT: Ø66, Ø45	
CHUCK	Chuck diameter	inch	6"	STD: 8"; OPT: 6"		STD: 8"; OPT: 6"	
TURRET	Type		STD: hydraulic; OPT: servo	STD: servo; OPT: hydraulic	Live-tooling	STD: servo; OPT: hydraulic	Live-tooling
	Station	pcs	STD: 10; OPT: 8	STD: 10; OPT: 8, 12	12	STD: 10; OPT: 8, 12	12
	Model		STD: LS-160; OPT: YL-200A	STD: YDPM YT-200; OPT: LS-160A	LS-160SP	STD: YDPM YT-200; OPT: LS-160A	LS-160SP
	Square tool shank	mm	STD: 20 x 20; OPT: 25 x 25	STD: 25 x 25; OPT: 20 x 20 (12T)		STD: 25 x 25; OPT: 20 x 20 (12T)	
	Boring bar shank diameter	mm	STD: Ø32; OPT: Ø40	STD: Ø40; OPT: Ø32 (12T)		STD: Ø40; OPT: Ø32 (12T)	
	Indexing time (0~180°)	sec	2.0	1.7 (8T), 2.1(10T), 2.4 (12T)	0.85	1.7 (8T), 2.1(10T), 2.4 (12T)	0.85
LIVE-TOOLING	Spindle speeds	rpm	-	-	4,000	-	4,000
FEEDRATE	Rapid traverse	M/min	X: 20, Z: 24	X: 20, Z: 20		X: 20, Z: 20	
TAILSTOCK	Type		Manual	Automatic		Automatic	
	Quill diameter	mm	Ø55	Ø65		Ø65	
	Quill bore taper		MT-4	MT-4		MT-4	
	Quill travel	mm	80	100		100	
	Tailstock travel	mm	300	360		610	
MOTORS	Main spindle	kW	β8/12,000 (7.5/11)	STD: β12/10,000 (11/15 kW); OPT: α8/8,000 (7.5/11)		STD: β12/10,000 (11/15 kW); OPT: α8/8,000 (7.5/11)	
	Sub-spindle	kW	-	-		-	
	Live-tool	kW	-	-	α2 / 10,000 (2.2/3.7)	-	α2 / 10,000 (2.2/3.7)
	X/Z-axis servo motor	kW	β8/3,000 (1.2)	X/Z: β12 (1.8); OPT: X/Z: α8 (1.6)		X/Z: β12 (1.8); OPT: X/Z: α8 (1.6)	
	Hydraulic oil pump	kW	0.745	0.745		0.745	
	Chip conveyor	kW	0.2	0.2		0.2	
	Coolant pump	kW	0.95	0.96		0.96	
ACCURACY	Positioning	mm	±0.003	±0.003		±0.004	
	Repeatability	mm	±0.002	±0.002		±0.003	
POWER	Requirements	KVA	380-415 / 220V 15 KVA	380-415 / 220V 15 KVA		380-415 / 220V 15 KVA	
MACHINE SIZE	Height	cm	150	181		181	
	Floor space (L x W)	cm	200 x 200	354 x 191		385 x 191	
	Packing (w/conveyor)	cm	265 x 227 x 191	364 x 228 x 218		404 x 228 x 218	
	Net weight (w/conveyor)	kgs	3,050	3,380		3,720	
	Gross weight (w/conveyor)	kgs	3,275	3,670		4,070	

MACHINE **SPECIFICATIONS - 600** SERIES

ITEM		UNIT	600 series					
			BML-600S		BML-600Y	BML-600T		BML-600TY
			Standard	C-axis	C-axis	Standard	C-axis	
CAPACITY	Swing over bed	mm	Ø600		Ø600	Ø600		Ø600
	Swing over saddle	mm	Ø450		Ø450	Ø450		Ø450
	Distance between centers	mm	STD: 763 (A2-6); OPT: 753 (A2-8)		STD: 753 (A2-6); OPT: 743 (A2-8)	STD: 744 (A2-6); OPT: 734 (A2-8)		STD: 744 (A2-6); OPT: 734 (A2-8)
	Max. machining dia.	mm	Ø420	Ø340	BMT65: 380; VDI40: 285	Ø420	Ø340	BMT65: 380; VDI40: 285
	Max. machining length	mm	STD: 560 (8"); OPT: 540 (10")		BMT65: STD: 480(8"); OPT: 470 (10") VDI40: STD: 520 (8"); OPT: 510 (10")	STD: 475 (8"); OPT: 465 (10")	BMT65: STD: 450 (8"); OPT: 440 (10") VDI40: STD: 475 (8"); OPT: 465 (10")	BMT65: STD: 450 (8"); OPT: 440 (10") VDI40: STD: 475 (8"); OPT: 465 (10")
	Slant angle of bed		30°		60°	30°		60°
TRAVELS	X-axis	mm	230 (210+20)	225 (170+55)	BMT65: 206 (190+16); VDI40: 206 (142.5+63.5)	230 (210+20)	218 (170+48)	BMT65: 206 (190+16); VDI40: 206 (142.5+63.5)
	Y-axis	mm	-		100 (50+50)	-		100 (50+50)
	Z-axis	mm	590 (10"); 600 (8")		BMT65: 525; VDI40: 565	600		BMT65: 450; VDI40: 495
	C-axis	mm	-	360° (0.001°)	360° (0.001°)	-	360° (0.001°)	360° (0.001°)
	W-axis	mm	-		-	450		450
SPINDLE	Spindle speeds	rpm	STD: 50~4,500 (A2-6); OPT: 50~3,500 (A2-8)		STD: 50~4,500 (A2-6); OPT: 50~3,500 (A2-8)	Main spindle STD: 50~4,500 (A2-6); OPT: 50~3,500 (A2-8)		Sub-spindle 6,000(A2-5)
	Spindle nose		STD: A2-6; OPT: A2-8		STD: A2-6; OPT: A2-8, built-in spindle A2-6	STD: A2-6; OPT: A2-8, built-in spindle A2-6		STD: A2-5
	Spindle bore dia.	mm	STD: Ø62 (A2-6); OPT: Ø86 (A2-8)		STD: Ø62 (A2-6); OPT: Ø86 (A2-8)	STD: Ø62 (A2-6); OPT: Ø86 (A2-8)		Ø56
	Front bearing inner dia.	mm	STD: Ø100 (A2-6); OPT: Ø120 (A2-8)		OPT: Ø100 (A2-6); STD: Ø120 (A2-8)	STD: Ø100 (A2-6); OPT: Ø120 (A2-8)		Ø80
	Draw bar dia.	mm	STD: Ø52; OPT: Ø75		STD: Ø52; OPT: Ø75	STD: Ø52; OPT: Ø75		Ø45
CHUCK	Chuck diameter	inch	STD: 8"; OPT: 10"		STD: 8"; OPT: 10"	STD: 8" + 6" (W); OPT: 10" + 6" (W)		STD: 8" + 6" (W); OPT: 10" + 6" (W)
TURRET	Type		STD: hydraulic; OPT: servo	VDI Live-tooling	Live-tooling	Hydraulic	Live-tooling	Live-tooling
	Station	pcs	STD: 10; OPT: 12	STD: 12	STD: 12	STD: 10; OPT: 12	STD: 12	STD: 12
	Model		STD: LS-240; OPT: LS-240SV	TBMA200	TBMR200/12DX (short)	LS-240	TBMR200/12DX (long)	TBMR200/12DX (long)
	Square tool shank	mm	25	25	25	25	25	25
	Boring bar shank diameter	mm	Ø40	Ø40	Ø40	Ø40	Ø40	Ø40
	Indexing time (0~180°)	sec	LS-240: 1.4 (8T), 1.6 (10T), 1.7(12T) LS-240SV: 0.8	0.73	0.73	LS-240: 1.4 (8T), 1.6 (10T), 1.7 (12T)	0.73	0.73
LIVE-TOOLING	Spindle speeds	rpm	-	50~4,000	50~4,000	-	50~4,000	50~4,000
FEEDRATE	Rapid traverse	M/min	X: 16, Z: 20		X: 16, Z: 20, Y: 8, C: 200 rpm	X: 16, Z: 20, W: 16, C: 200 rpm		X: 16, Z: 20, Y: 8, W: 16, C: 200 rpm
TAILSTOCK	Type		Automatic		Automatic	-		-
	Quill diameter	mm	Ø85		Ø85	-		-
	Quill bore taper		MT-5		MT-5	-		-
	Quill travel	mm	120		120	-		-
	Tailstock travel	mm	500		450	-		-
MOTORS	Main spindle	kW	STD: α30ip/6,000 (15/18.5); OPT: α15/8000 (gear box)		STD: α30ip/6,000 (15/18.5); OPT: α22ip/ (11/15 kW)	STD: α30ip/6,000 (15/18.5); OPT: α22ip/ (11/15 kW)		STD: α30ip/6,000 (15/18.5); OPT: α22ip/ (11/15 kW)
	Sub-spindle	kW	-		-	α6 5.5/7.5		α6 5.5/7.5
	Live-tool		-	α3/10,000 (3.7/5.5)	α3/10,000 (3.7/5.5)	-	α3/10,000 (3.7/5.5)	α3/10,000 (3.7/5.5)
	X/Z-axis servo motor	kW	X: α12 3.0; Z: α12 3.0		X: α12 3.0, Z: α12 3.0, Y: α12 3.0	X: α12 3.0, Z: α12 3.0, W: α12 3.0		X: α12 3.0, Z: α12 3.0, Y: α12 3.0, W: α12 3.0
	Hydraulic oil pump	kW	1.5		1.5	1.5		1.5
	Chip conveyor	kW	0.2		0.2	0.2		0.2
	Coolant pump	kW	0.8		0.8	0.8		0.8
ACCURACY	Positioning	mm	±0.004		±0.004	±0.005		X/Z: ±0.005, Y: ±0.002
	Repeatability	mm	±0.003		±0.003	±0.004		X/Z: ±0.004, Y: ±0.002
POWER	Requirements	KVA	380-415 / 220V 26 KVA		380-415 / 220V 30 KVA	380-415 / 220V 30 KVA		380-415 / 220V 30 KVA
MACHINE SIZE	Height	cm	186		228	186		228
	Floor space (L x W)	cm	401 x 214		441 x 233	441 x 214		441 x 233
	Packing (w/conveyor)	cm	383 x 212 x 212		402 x 229 x 255	402 x 229 x 212		402 x 229 x 253
	Net weight (w/conveyor)	kgs	5,430		6,100	5,990		6,200
	Gross weight (w/conveyor)	kgs	5,730		6,370	6,328		6,700

MACHINE **SPECIFICATIONS - 600** SERIES

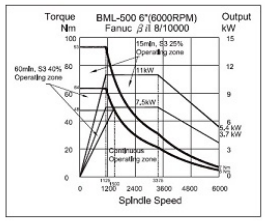
ITEM		UNIT	600 series					
			BML-600M		BML-600MY	BML-600MT		BML-600MTY
			Standard	C-axis	C-axis	Standard	C-axis	C-axis
CAPACITY	Swing over bed	mm	Ø600		Ø600	Ø600		Ø600
	Swing over saddle	mm	Ø450		Ø450	Ø450		Ø450
	Distance between centers	mm	STD: 1,005 (10"); OPT: 995 (12")		STD: 1,003 (10"); OPT: 993 (12")	STD: 994 (A2-8) ; OPT: 974 (A2-10)		STD: 994 (A2-8); OPT: 974 (A2-10)
	Max. machining dia.	mm	Ø420	Ø340	BMT65: 380; VDI40: 285	Ø420	Ø340	BMT65: 380; VDI40: 285
	Max. machining length	mm	STD: 780 (10"); OPT: 760 (12")		BMT65: STD: 720 (10"); OPT: 700 (12") VDI40: STD: 760 (10"); OPT: 740 (12")	STD: 710 (10"); OPT: 690 (12")	BMT65: STD: 690 (10"); OPT: 670 (12") VDI40: STD: 710 (10"); OPT: 690 (12")	BMT65: STD: 690 (10"); OPT: 670 (12") VDI40: STD: 710 (10"); OPT: 690 (12")
	Slant angle of bed		30°		60°	30°		60°
TRAVELS	X-axis	mm	230(210+20)	225 (170+55)	BMT65: 206 (190+16); VDI40: 206 (142.5+63.5)	230 (210+20)	218 (170+48)	BMT65: 206 (190+16); VDI40: 206 (142.5+63.5)
	Y-axis	mm	-		100 (50+50)	-		100 (50+50)
	Z-axis	mm	10": 830 / 12": 820		BMT65: 765; VDI40: 805	830		BMT65: 690; VDI40: 735
	C-axis	mm	-	360° (0.001°)	360° (0.001°)	-	360° (0.001°)	360° (0.001°)
	W-axis	mm	-		-	686		686
SPINDLE	Spindle speeds	rpm	STD: 50~3,500 (A2-8, 75 mm 10"); OPT: 50~3,000 (A2-8, 78 mm 10"); OPT: 50~2,500 (A2-8, 91 mm 12")		STD: 50~3,500 (A2-8, 75 mm 10"); OPT: 50~3,000 (A2-8, 78 mm 10"); OPT: 50~2,500 (A2-8, 91 mm 12")	Main spindle STD: 50~3,500 (A2-8, 75 mm 10"); OPT: 50~3,000 (A2-8, 78 mm 10"); OPT: 50~2,500 (A2-8, 91 mm 12")		Sub-spindle 6,000 (A2-5)
	Spindle nose		STD: A2-8		STD: A2-8	STD: A2-8		STD: A2-5
	Spindle bore dia.	mm	STD: Ø86 (10"); OPT: Ø91 (10"), Ø105 (12")		STD: Ø86 (10"); OPT: Ø91 (10"), Ø105 (12")	STD: Ø86 (10"); OPT:Ø91 (10"), Ø105 (12")		Ø56
	Front bearing inner dia.	mm	STD: Ø120 (10"); OPT: Ø130 (10",12")		STD: Ø120 (10"); OPT: Ø130 (10", 12")	STD: Ø120 (10"); OPT: Ø130 (10",12")		Ø80
	Draw bar dia.	mm	STD: Ø75 (10"); OPT: Ø78 (10"), Ø91 (12")		STD: Ø75 (10"); OPT: Ø78 (10"), Ø91 (12")	STD: Ø75 (10"); OPT: Ø78 (10"), Ø91 (12")		Ø45
CHUCK	Chuck diameter	inch	STD: 10"; OPT: 12"		STD: 10"; OPT: 12"	STD: 10" + 6" (W); OPT: 12" + 6" (W)		STD: 10" + 6" (W); OPT: 12" + 6" (W)
TURRET	Type		STD: hydraulic; OPT: servo	Live-tooling	Live-tooling	Hydraulic	Live-tooling	Live-tooling
	Station	pcs	STD: 10; OPT: 12	STD: 12	STD: 12	STD: 10; OPT: 12	STD: 12	STD: 12
	Model		STD: LS-240; OPT: LS-240SV	TBMA200	TBMR200/12DX (short)	LS-240	TBMR200/12DX (long)	TBMR200/12DX (long)
	Square tool shank	mm	25	25	25	25	25	25
	Boring bar shank diameter	mm	Ø40	Ø40	Ø40	Ø40	Ø40	Ø40
	Indexing time (0~180°)	sec	LS-240: 1.4 (8T), 1.6(10T), 1.7 (12T); LS-240SV: 0.8	0.73	0.73	LS-240: 1.4 (8T), 1.6 (10T), 1.7(12T)	0.73	0.73
LIVE-TOOLING	Spindle speeds	rpm	-	50~4,000	50~4,000	-	50~4,000	50~4,000
FEEDRATE	Rapid traverse	M/min	X: 16; Z: 20		X: 16, Z: 20, Y: 8; C: 200 rpm	X: 16, Z: 20, W: 16, C: 200 rpm		X: 16, Z: 20, Y: 8, W: 16, C: 200 rpm
TAILSTOCK	Type		Automatic		Automatic	-		-
	Quill diameter	mm	Ø85		Ø85	-		-
	Quill bore taper		MT-5		MT-5	-		-
	Quill travel	mm	120		120	-		-
	Tailstock travel	mm	600		600	-		-
MOTORS	Main spindle	kW	STD: α30ip/6,000 (15/18.5); OPT: α15/8,000 (gear box)		STD: α30ip/6,000 (15/18.5); OPT: α22ip/ (11/15)	STD: α30ip/6,000 (15/18.5); OPT: α22ip/ (11/15)		STD: α30ip/6,000 (15/18.5); OPT: α22ip/ (11/15)
	Sub-spindle	kW	-		-	α6 5.5/7.5		α6 5.5/7.5
	Live-tool		-	α3/10,000 (3.7/5.5)	α3/10,000 (3.7/5.5)	-	α3/10,000 (3.7/5.5)	α3/10,000 (3.7/5.5)
	X/Z-axis servo motor	kW	X: α12 3.0, Z: α12 3.0		X: α12 3.0, Z: α12 3.0, Y: α12 3.0	X: α12 3.0, Z: α12 3.0, W: α12 3.0		X: α12 3.0, Z: α12 3.0, Y: α12 3.0, W: α12 3.0
	Hydraulic oil pump	kW	1.5		1.5	1.5		1.5
	Chip conveyor	kW	0.2		0.2	0.2		0.2
	Coolant pump	kW	0.8		0.8	0.8		0.8
ACCURACY	Positioning	mm	±0.005		±0.004	±0.005		X/Z: ±0.005, Y: ±0.002
	Repeatability	mm	±0.004		±0.003	±0.004		X/Z: ±0.004, Y: ±0.002
POWER	Requirements	KVA	380-415 / 220V 26 KVA		380-415 / 220V 30 KVA	380-415 / 220V 30 KVA		380-415 / 220V 30 KVA
MACHINE SIZE	Height	cm	186		228	186		228
	Floor space (L x W)	cm	422 x 214		462 x 233	462 x 214		462 x 233
	Packing (w/conveyor)	cm	432 x 230 x 221		451 x 230 x 255	451 x 230 x 221		451 x 230 x 253
	Net weight (w/conveyor)	kgs	6,050		6,720	6,610		6,820
	Gross weight (w/conveyor)	kgs	6,470		7,110	7,040		7,440

MACHINE **SPECIFICATIONS - 600 / 630** SERIES

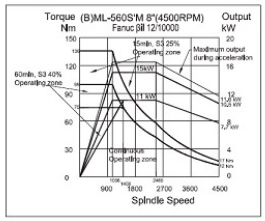
ITEM		UNIT	600 series						630 series	
			BML-600L		BML-600LY	BML-600LT		BML-600LTY	BML-630	
			Standard	C-axis	C axis	Standard	C-axis	C-axis	Standard	C-axis
CAPACITY	Swing over bed	mm	Ø600		Ø600	Ø600		Ø600	Ø630	
	Swing over saddle	mm	Ø450		Ø450	Ø450		Ø450	Ø450	
	Distance between centers	mm	STD: 1,504 (10"); OPT: 1,494 (12")		STD: 1,503 (10"); OPT:1,493 (12")	STD: 1,494 (A2-8); OPT: 1,474 (A2-10)		STD: 1,494 (A2-8); OPT: 1,474 (A2-10)	STD: 2,060 (A2-8) ; OPT: 2,023 (A2-11)	
	Max. machining dia.	mm	Ø420	Ø340	BMT65: 380; VDI40: 285	Ø420	Ø340	BMT65: 380; VDI40: 285	Ø510	Ø410
	Max. machining length	mm	STD: 1,280 (10"); OPT: 1,260 (12")		BMT65: STD: 1,220 (10"); OPT: 1,200 (12") VDI40: STD: 1,260 (10"); OPT: 1,240 (12")	STD: 1,210 (10"); OPT: 1,190 (12")	BMT65: STD: 1,190 (10"); OPT: 1,170 (12"); VDI40: STD: 1,210 (10"); OPT: 1,190 (12")	BMT65: STD: 1,190 (10"); OPT: 1,170 (12") VDI40: STD: 1,210 (10"); OPT: 1,190 (12")	1,500 (A2-8); OPT: 1,450 (A2-11)	
	Slant angle of bed		30°		60°	30°		60°	45°	
TRAVELS	X-axis	mm	230 (210+20)	225 (170+55)	BMT65: 206 (190+16); VDI40: 206 (142.5+63.5)	230 (210+20)	218 (170+48)	BMT65: 206 (190+16); VDI40: 206 (142.5+63.5)	290 (255+35)	290 (205+85)
	Y-axis	mm	-		100 (50+50)	-		100 (50+50)	-	
	Z-axis	mm	10": 1,330; 12": 1,320		BMT65: 1,265; VDI40: 1,305	1,330		BMT65: 1,190; VDI40: 1,235	12": 1,560; 15": 1,520	
	C-axis	mm	-	360° (0.001°)	360° (0.001°)	-	360° (0.001°)	360° (0.001°)	-	360° (0.001°)
	W-axis	mm	-		-	1,186		1,186	-	
SPINDLE	Spindle speeds	rpm	STD: 50~3,500 (A2-8, 75 mm 10"); OPT: 50~3,000 (A2-8, 78 mm 10"); OPT: 50~2,500 (A2-8, 91 mm 12")		STD: 50~3,500 (A2-8, 75 mm 10"); OPT: 50~3,000 (A2-8, 78 mm 10"); OPT: 50~2,500 (A2-8, 91 mm 12")	Main spindle STD: 50~3,500 (A2-8, 75 mm 10"); OPT: 50~3,000 (A2-8, 78 mm 10"); OPT: 50~2,500 (A2-8, 91 mm 12")		Sub-spindle 6,000 (A2-5)	STD: 50~2,500 (A2-8); OPT: 50~1,500 (A2-11)	
	Spindle nose		STD: A2-8		STD: A2-8	STD: A2-8		STD:A2-5	STD: A2-8; OPT: A2-11	
	Spindle bore dia.	mm	STD: Ø86 (10"); OPT: Ø91 (10"), Ø105 (12")		STD: Ø86 (10"); OPT: Ø91 (10"), Ø105 (12")	STD: Ø86 (10"); OPT: Ø91 (10"), Ø105 (12")		Ø56	STD:Ø105 (A2-8) ; OPT: Ø134 (A2-11)	
	Front bearing inner dia.	mm	STD: Ø120 (10"); OPT: Ø130 (10", 12")		STD: Ø120 (10"); OPT: Ø130 (10", 12")	STD: Ø120 (10"); OPT: Ø130 (10", 12")		Ø80	STD:Ø130 (A2-8) ; OPT: Ø180 (A2-11)	
	Draw bar dia.	mm	STD: Ø75 (10"); OPT: Ø78 (10"), Ø91 (12")		STD: Ø75 (10"); OPT: Ø78 (10"), Ø91 (12")	STD: Ø75 (10"); OPT: Ø78 (10"), Ø91 (12")		Ø45	STD: Ø91 (A2-8); OPT: 120 (A2-11)	
CHUCK	Chuck diameter	inch	STD: Ø10"; OPT: Ø12"		STD: Ø10"; OPT: Ø12"	STD: 10" + 6" (W); OPT: 12" + 6" (W)		STD: 10" + 6" (W); OPT: 12" + 6" (W)	STD: Ø12"; OPT: Ø15"	
TURRET	Type		STD: hydraulic; OPT: servo	Live-tooling	Live-tooling	Hydraulic	Live-tooling	Live-tooling	Hydraulic	Live-tooling
	Station	pcs	STD: 10; OPT: 12	STD:12	STD: 12	STD: 10; OPT: 12	STD:12	STD: 12	STD: 10; OPT: 12	STD: 12
	Model		STD: LS-240; OPT: LS-240SV	TBMA200	TBMR200/12DX (short)	LS-240	TBMR200/12DX (long)	TBMR200/12DX (long)	LS-250H	TBMA250
	Square tool shank	mm	25	25	25	25	25	25	32	32
	Boring bar shank diameter	mm	Ø40	Ø40	Ø40	Ø40	Ø40	Ø40	Ø50	Ø50
	Indexing time (0~180°)	sec	LS-240: 1.4 (8T), 1.6 (10T), 1.7 (12T); LS-240SV: 0.8	0.73	0.73	LS-240: 1.4 (8T), 1.6 (10T), 1.7 (12T)	0.73	0.73	LS-250H: 1.5 (8T), 1.9 (10T), 2.1 (12T)	0.73
LIVE-TOOLING	Spindle speeds	rpm	-	50~4,000	50~4,000	-	50~4,000	50~4,000	-	50~4,000
FEEDRATE	Rapid traverse	M/min	X: 16, Z: 20		X: 16, Z: 20, Y: 8, C: 200 rpm	X:16, Z: 20, W: 16, C: 200 rpm		X: 16, Z: 20, Y: 8, W: 16, C: 200 rpm	X: 20, Z: 20	
TAILSTOCK	Type		Automatic		Automatic	-		-	Automatic	
	Quill diameter	mm	Ø85		Ø85	-		-	Ø125	
	Quill bore taper		MT5		MT-5	-		-	STD: MT-5	
	Quill travel	mm	120		120	-		-	120	
	Tailstock travel	mm	1,000		1,000	-		-	1,550	
MOTORS	Main spindle	kW	STD: α30ip/6,000 (15/18.5); OPT: α15/8,000 (gear box)		STD: α30ip/6,000 (15/18.5); OPT: α22ip/ (11/15)	STD: α30ip/6,000 (15/18.5); OPT: α22ip/ (11/15)		STD: α30ip/6,000 (15/18.5); OPT: α22ip/ (11/15)	STD: α22 22/26; OPT: α30 30/37	α40ip 18.5/22
	Sub-spindle	kW	-		-	α6 5.5/7.5		α6 5.5/7.5	-	
	Live-tool		-	α3/10,000 (3.7/5.5)	α3/10,000 (3.7/5.5)	-	α3/10,000 (3.7/5.5)	α3/10,000 (3.7/5.5)	-	α6/10,000 (5.5/7.5)
	X/Z-axis servo motor	kW	X: α12 3.0, Z: α12 3.0		X: α12 3.0, Z: α12 3.0, Y: α12 3.0	X: α12 3.0, Z: α12 3.0, W: α12 3.0		X: α12 3.0, Z: α12 3.0, Y: α12 3.0, W: α12 3.0	X: α22 4.0, Z: α22 4.0	
	Hydraulic oil pump	kW	1.5		1.5	1.5		1.5	2.25	
	Chip conveyor	kW	0.2		0.2	0.2		0.2	0.2	
	Coolant pump	kW	0.8		0.8	0.8		0.8	0.96	
ACCURACY	Positioning	mm	±0.006		±0.004	±0.005		X/Z: ±0.005; Y: ±0.002	±0.006	
	Repeatability	mm	±0.005		±0.003	±0.004		X/Z: ±0.004; Y: ±0.002	±0.005	
POWER	Requirements	KVA	380-415 / 220V 26 KVA		380-415 / 220V 30 KVA	380-415 / 220V 30 KVA		380-415 / 220V 30 KVA	380-415 / 220V; STD: 30 KVA; OPT: 40 KVA	
MACHINE SIZE	Height	cm	186		228	186		228	220	
	Floor space (L x W)	cm	484 x 214		524 x 233	524 x 214		524 x 233	638 x 200	
	Packing (w/conveyor)	cm	472 x 229 x 221		521 x 229 x 255	521 x 229 x 221		521 x 229 x 253	588 x 229 x 250	588 x 229 x 250
	Net weight (w/conveyor)	kgs	7,000		7,670	7,560		7,770	10,330	9,620 (steady rest)
	Gross weight (w/conveyor)	kgs	7,450		8,090	8,020		8,420	10,725	10,757 (w/steady rest) 9,820 (w/sling frame)

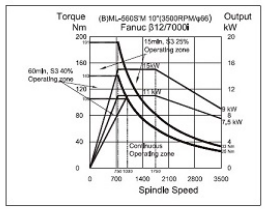
SPINDLE **POWER** & **TORQUE** DIAGRAM

BML-500

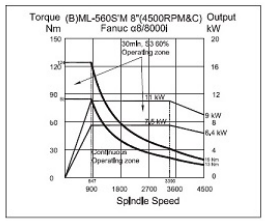


BML-560S/M

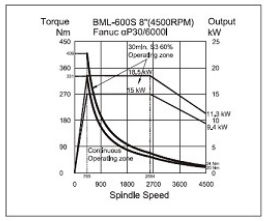




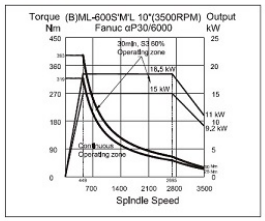
BML-560S/M + C axis

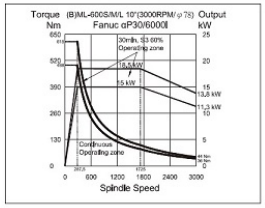


BML-600S

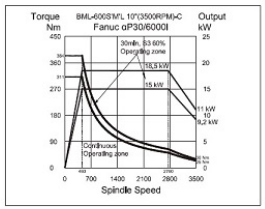


BML-600S/M/L

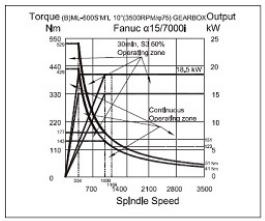




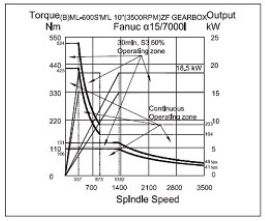
BML-600S/M/L + C axis (Y/T/TY)



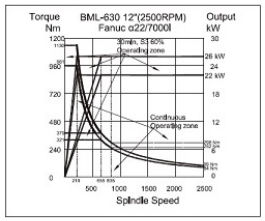
BML-600S/M/L YDPM Gearbox

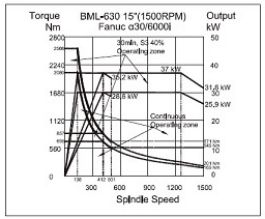


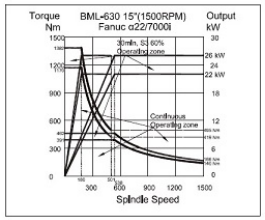
BML-600S/M/L ZF Gearbox



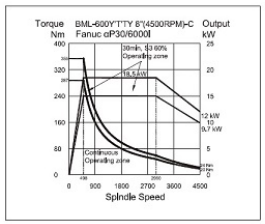
BML-630



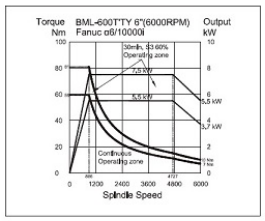




BML-600Y/T/TY



BML-600Y/T/TY Sub-Spindle

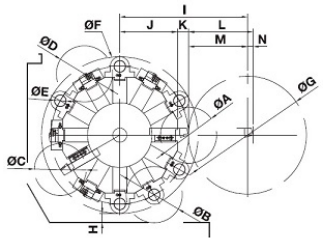


TOOL **INTERFERENCE** DIAGRAM

Hydraulic / Servo Turret

unit: mm

BML-500 BML-560S/M BML-600S/M/L/T/MT/LT BML-630



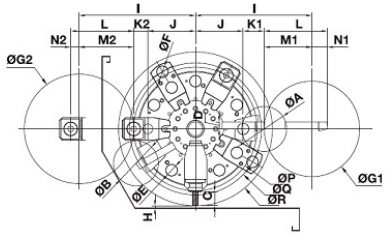
MODEL	CAPACITY	DIMENSION						
		A	B	C	D	E	F	G
BML-500	10-TOOL	180	180	125	185	32	405	360
BML-560S/M	10-TOOL	205	205	185	210	40	478	320
BML-560S/M	12-TOOL	170	170	155	175	32	455	320
BML-600S/M/L/T/MT/LT	10-TOOL	255	255	230	255	40	558	420
BML-600S/M/L/T/MT/LT	12-TOOL	205	205	185	210	40	558	420
BML-630	10-TOOL	265	265	245	280	50	605	510
BML-630	12-TOOL	215	215	195	225	50	605	510

MODEL	CAPACITY	DIMENSION						
		H	I	J	K	L	M	N
BML-500	10-TOOL	77.5	355	140	35	195	180	15
BML-560S/M	10-TOOL	46	360	165	35	190	160	30
BML-560S/M	12-TOOL	57.5	360	165	35	190	160	30
BML-600S/M/L/T/MT/LT	10-TOOL	32	455	205	40	230	210	20
BML-600S/M/L/T/MT/LT	12-TOOL	32	455	205	40	230	210	20
BML-630	10-TOOL	10.9	515	220	40	290	255	35
BML-630	12-TOOL	10.9	515	220	40	290	255	35

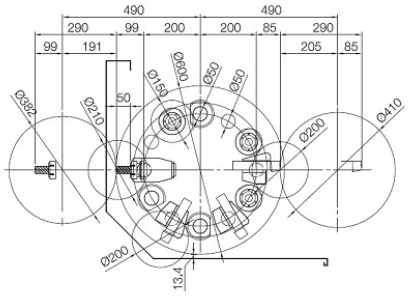
Live Tooling Turret

unit: mm

BML-560S/M (VDI30) BML-600S/M/L (VDI40)



BML-630 (VDI40)

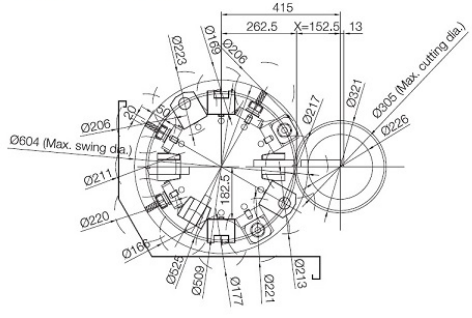


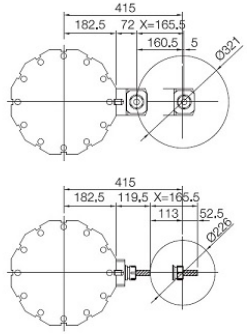
MODEL	CAPACITY	DIMENSION																		
		A	B	C	D	E	F	G1	G2	H	I	J	K1	K2	L	M1	M2	N1	N2	P	Q	R
BML-560S/M	12-TOOL	140	140	50	20	30	25	300	380	67.5	360	135	75	35	190	150	190	40	0	340	340	435
BML-600S/M/L	12-TOOL	160	160	50	25	40	40	340	390	7.9	415	170	75	50	225	170	195	55	30	440	470	548

Live Tooling Turret

unit: mm

BML-600T/MT/L BMT65



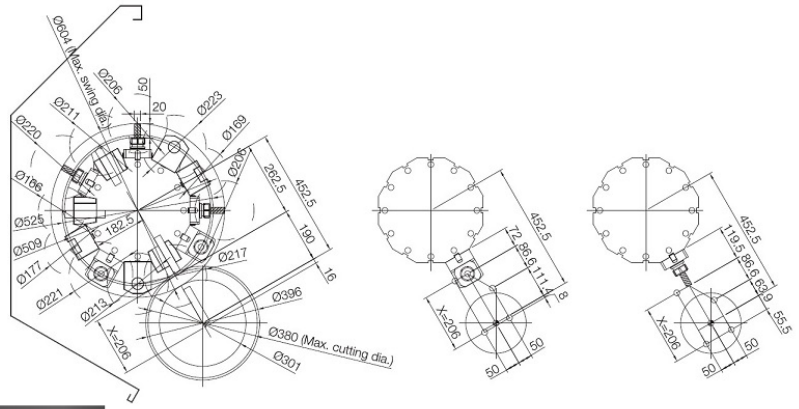


TOOL INTERFERENCE DIAGRAM

Live Tooling Turret

unit: mm

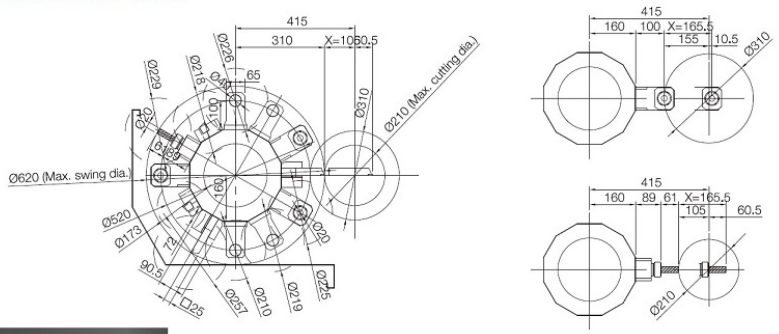
BML-600Y/MY/LY/TY/MTY/LTY BMT65 Y-axis ±50 mm



Live Tooling Turret

unit: mm

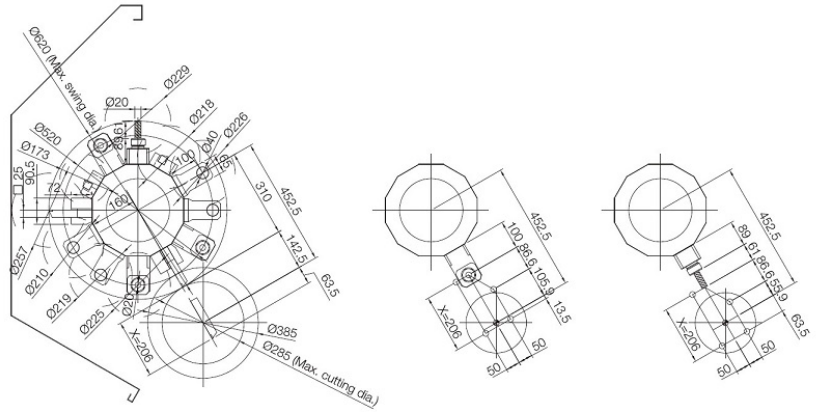
BML-600T/MT/LT VDI40



Live Tooling Turret

unit: mm

BML-600Y/MY/LY/TY/MTY/LTY VDI40 Y-axis ±50 mm

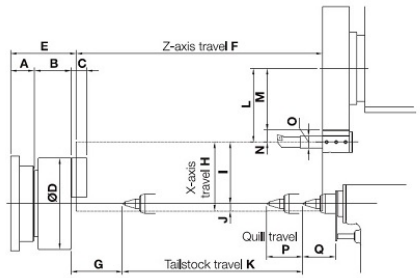


WORK ENVELOPE

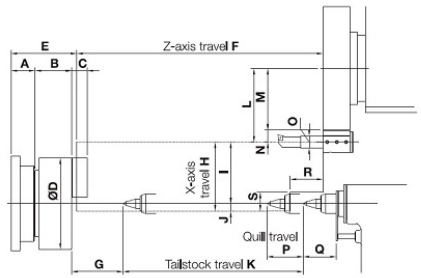
Hydraulic / Servo Turret - I.D. Tool Holder

unit: mm

BML-500



BML-560S/M BML-600S/M/L BML-630

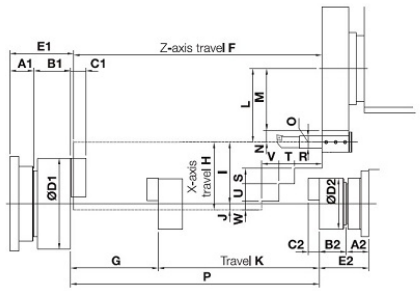


MODEL	SPINDLE	DIMENSION																	
		A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S
BML-500	6"	69	96	37	169	196	330	152.3	195	180.5	14.5	300	174.5	140	34.5	32	80	84.7	X	X
BML-560S	8"	80	103	39	210	189.3	360	104.6	190	155	35	360	205	165	40	40	100	84.7	13	80
BML-560M	8"	80	103	39	210	189.3	610	104.6	190	155	35	610	205	165	40	40	100	84.7	13	80
BML-600S	8"	80	103	38	210	183	600	50	230	210	20	500	245	205	40	40	120	110	150	111
BML-600M	10"	80	113	43	254	193	830	182	230	210	20	600	245	205	40	40	120	110	150	111
BML-600L	10"	80	113	43	254	193	1330	281	230	210	20	1000	245	205	40	40	120	110	150	111
BML-630	12"	80	122	51	304	202	1560	278	290	255	35	1550	260	220	40	50	120	110	195	13

Hydraulic / Servo Turret - I.D. Tool Holder

unit: mm

BML-600T/MT/LT



MODEL	TWIN SPINDLE	DIMENSION													
		A1	A2	B1	B2	C1	C2	D1	D2	E1	E2	F	G	H	I
BML-600T	8" + 6"	80	74	103	91	38	37	210	169	183	165	600	100	230	210
BML-600MT	10" + 6"	80	74	113	91	43	37	254	169	192	165	830	104	230	210
BML-600LT	10" + 6"	80	74	113	91	43	37	254	169	192	165	1330	104	230	210

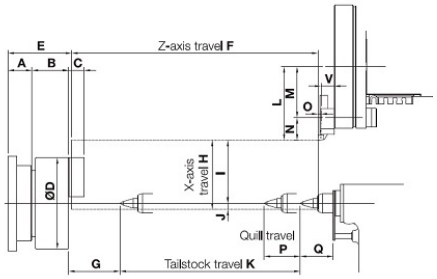
MODEL	TWIN SPINDLE	DIMENSION												
		J	K	L	M	N	O	P	R	S	T	U	V	W
BML-600T	8" + 6"	20	450	245	205	40	40	550	23	26	176	114	256	30
BML-600MT	10" + 6"	20	686	245	205	40	40	790	12	26	176	114	256	30
BML-600LT	10" + 6"	20	1186	245	205	40	40	1290	12	26	176	114	256	30

WORK **ENVELOPE**

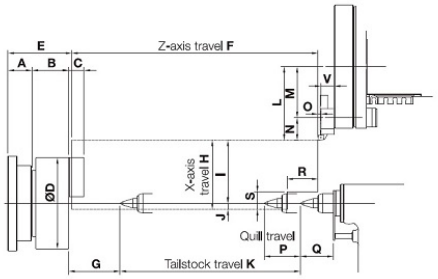
Live Tooling Turret - O.D. Tool Holder

unit: mm

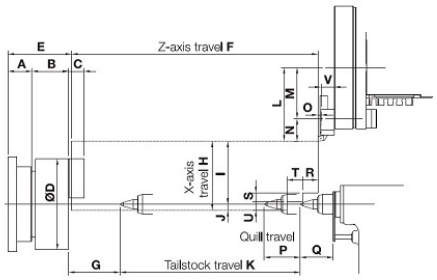
BML-630



BML-560S/M



BML-600S/M/L

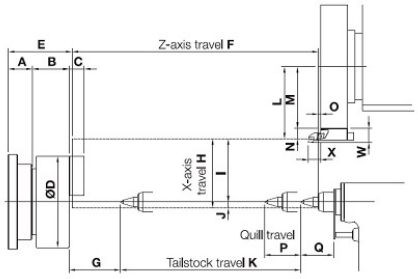


MODEL	SPINDLE	DIMENSION																					
		A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V
BML-500S	8"	80	103	39	210	196.7	360	104.6	190	150	40	360	210	135	75	5	100	84.7	190	54	X	X	40
BML-560M	8"	80	103	39	210	196.7	610	104.6	190	150	40	610	210	135	75	5	100	84.7	190	54	X	X	40
BML-600S	8"	78	103	38	210	181	600	72	225	170	55	500	245	170	75	10	120	110	100	24	129	64	44
BML-600M	10"	79	113	43	254	192	830	202	225	170	55	600	245	170	75	10	120	110	100	24	129	64	44
BML-600L	10"	79	113	43	254	192	1330	302	225	170	55	1000	245	170	75	10	120	110	100	24	129	64	44
BML-630	12"	80	122	51	304	202	1560	323.2	290	205	85	1550	285	200	85	15	120	110	X	X	X	X	55.5

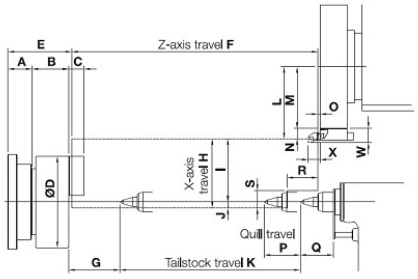
Hydraulic / Servo Turret - O.D. Tool Holder

unit: mm

BML-500 BML-560S/M



BML-600S/M/L BML-630

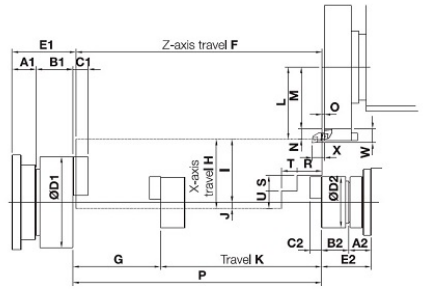


MODEL	SPINDLE	DIMENSION																					
		A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	W	X	
BML-500	6"	69	96	37	169	196	330	152.3	195	180	15	300	175	140	35	5	80	84.7	X	X	44.6	35	
BML-560S	8"	80	103	39	210	189.3	360	104.6	190	160	30	360	200	165	35	7	100	84.7	X	X	47	40	
BML-560M	8"	80	103	39	210	189.3	610	104.6	190	160	30	610	200	165	35	7	100	84.7	X	X	47	40	
BML-600S	8"	80	103	38	210	183	600	50	230	210	20	500	245	205	40	7	120	110	93	58	47	40	
BML-600M	10"	80	113	43	254	193	830	182	230	210	20	600	245	205	40	7	120	110	93	58	47	40	
BML-600L	10"	80	113	43	254	193	1330	281	230	210	20	1000	245	205	40	7	120	110	93	58	47	40	
BML-630	12"	80	122	51	304	202	1560	278	290	255	35	1550	260	220	40	8	120	110	195	13	58	40	

Hydraulic / Servo Turret - O.D. Tool Holder

unit: mm

BML-600T/MT/LT



MODEL	TWIN SPINDLE	DIMENSION												
		A1	A2	B1	B2	C1	C2	D1	D2	E1	E2	F	G	H	I
BML-600T	8" + 6"	80	74	103	91	38	37	210	169	183	165	600	100	230	210
BML-600MT	10" + 6"	80	74	113	91	43	37	254	169	192	165	830	104	230	210
BML-600LT	10" + 6"	80	74	113	91	43	37	254	169	192	165	1330	104	230	210

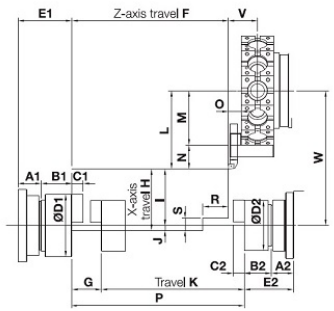
MODEL	TWIN SPINDLE	DIMENSION											
		J	K	L	M	N	O	P	R	S	T	U	W	X
BML-600T	8" + 6"	20	450	245	205	40	7	500	200	80	255	30	47	40
BML-600MT	10" + 6"	20	686	245	205	40	7	790	190	80	260	30	47	40
BML-600LT	10" + 6"	20	1186	245	205	40	7	1290	190	80	260	30	47	40

WORK **ENVELOPE**

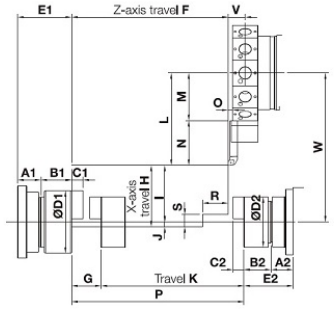
Live Tooling Turret - O.D. Tool Holder

unit: mm

BML-600T/MT/LT BMT65



BML-600T/MT/LT VDI40



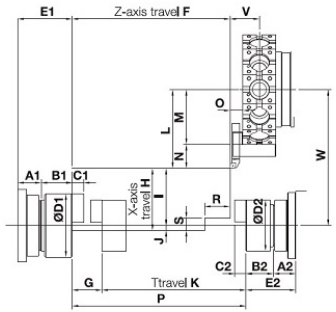
MODEL	TWIN SPINDLE	TURRET	DIMENSION												
			A1	A2	B1	B2	C1	C2	D1	D2	E1	E2	F	G	H
BML-600T	8" + 6"	BMT65	78	74	103	91	38	37	210	169	181	165	450	100	165.5
BML-600MT	10" + 6"	BMT65	79	74	113	91	42	37	254	169	192	165	690	104	165.5
BML-600LT	10" + 6"	BMT65	79	74	113	91	42	37	254	169	192	165	1190	104	165.5
BML-600T	8" + 6"	VDI40	78	74	103	91	38	37	210	169	181	165	495	100	165.5
BML-600MT	10" + 6"	VDI40	79	74	113	91	42	37	254	169	192	165	735	104	165.5
BML-600LT	10" + 6"	VDI40	79	74	113	91	42	37	254	169	192	165	1235	104	165.5

MODEL	TWIN SPINDLE	TURRET	DIMENSION											
			I	J	K	L	M	N	O	P	R	S	V	W
BML-600T	8" + 6"	BMT65	152.5	13	450	262.5	182.5	80	48	550	120	75.5	103	415
BML-600MT	10" + 6"	BMT65	152.5	13	686	262.5	182.5	80	48	790	120	75.5	103	415
BML-600LT	10" + 6"	BMT65	152.5	13	1186	262.5	182.5	80	48	1290	120	75.5	103	415
BML-600T	8" + 6"	VDI40	105	60.5	450	310	160	150	15	550	106	157.5	57.5	415
BML-600MT	10" + 6"	VDI40	105	60.5	686	310	160	150	15	790	106	157.5	57.5	415
BML-600LT	10" + 6"	VDI40	105	60.5	1186	310	160	150	15	1290	106	157.5	57.5	415

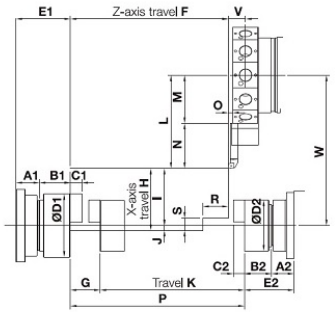
Live Tooling Turret - O.D. Tool Holder

unit: mm

BML-600TY/MTY/LTY BMT65 Y-axis ±50mm



BML-600TY/MTY/LTY VDI40 Y-axis ±50mm



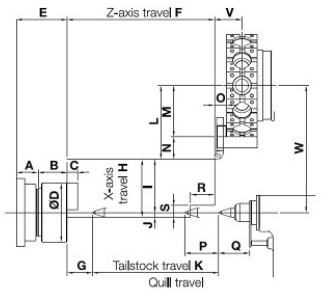
MODEL	TWIN SPINDLE	TURRET	DIMENSION													
			A1	A2	B1	B2	C1	C2	D1	D2	E1	E2	F	G	H	I
BML-600TY	8" + 6"	BMT65	78	74	103	91	38	37	210	169	181	165	450	100	206	190
BML-600MTY	10" + 6"	BMT65	79	74	113	91	42	37	254	169	192	165	690	104	206	190
BML-600LTY	10" + 6"	BMT65	79	74	113	91	42	37	254	169	192	165	1190	104	206	190
BML-600TY	8" + 6"	VDI40	78	74	103	91	38	37	210	169	181	165	495	100	206	142.5
BML-600MTY	10" + 6"	VDI40	79	74	113	91	42	37	254	169	192	165	735	104	206	142.5
BML-600LTY	10" + 6"	VDI40	79	74	113	91	42	37	254	169	192	165	1235	104	206	142.5

MODEL	TWIN SPINDLE	TURRET	DIMENSION											
			J	K	L	M	N	O	P	R	S	V	W	
BML-600TY	8" + 6"	BMT65	16	450	262.5	182.5	80	48	500	145	106	103	452.5	
BML-600MTY	10" + 6"	BMT65	16	686	262.5	182.5	80	48	790	145	106	103	452.5	
BML-600LTY	10" + 6"	BMT65	16	1186	262.5	182.5	80	48	1290	145	106	103	452.5	
BML-600TY	8" + 6"	VDI40	63.5	450	310	160	150	15	500	95	151	57.5	452.5	
BML-600MTY	10" + 6"	VDI40	63.5	686	310	160	150	15	790	95	151	57.5	452.5	
BML-600LTY	10" + 6"	VDI40	63.5	1186	310	160	150	15	1290	95	151	57.5	452.5	

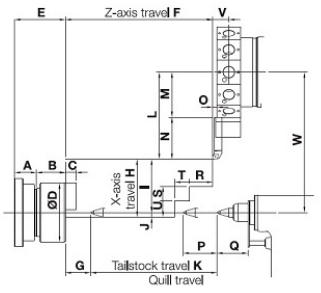
Live Tooling Turret - O.D. Tool Holder

unit: mm

BML-600Y/MY/LY BMT65 Y-axis ±50 mm



BML-600Y/MY/LY VDI40 Y-axis ±50 mm



MODEL	SPINDLE	TURRET	DIMENSION											
			A	B	C	D	E	F	G	H	I	J	K	L
BML-600Y	8"	BMT65	78	103	38	210	181	525	90	206	190	16	450	262.5
BML-600MY	10"	BMT65	79	113	42	254	192	765	180	206	190	16	600	262.5
BML-600LY	10"	BMT65	79	113	42	254	192	1265	280	206	190	16	1000	262.5
BML-600Y	8"	VDI40	78	103	38	210	181	565	90	206	142.5	63.5	450	310
BML-600MY	10"	VDI40	79	113	42	254	192	805	180	206	142.5	63.5	600	310
BML-600LY	10"	VDI40	79	113	42	254	192	1305	280	206	142.5	63.5	1000	310

MODEL	SPINDLE	TURRET	DIMENSION										
			M	N	O	P	Q	R	S	T	U	V	W
BML-600Y	8"	BMT65	182.5	80	43	120	110	85	41	X	X	98	452.5
BML-600MY	10"	BMT65	182.5	80	43	120	110	85	41	X	X	98	452.5
BML-600LY	10"	BMT65	182.5	80	43	120	110	85	41	X	X	98	452.5
BML-600Y	8"	VDI40	160	150	15	120	110	60	60	65	21	57.5	452.5
BML-600MY	10"	VDI40	160	150	15	120	110	60	60	65	21	57.5	452.5
BML-600LY	10"	VDI40	160	150	15	120	110	60	60	65	21	57.5	452.5

OPTIONAL ACCESSORIES

Built-in Type Spindle

The built-in type spindle provides full power output and low speeds, leading to superior conditions.

Parts Catcher

Once part machining is completed, the parts catcher will move to collect the finished parts, providing convenience for parts collection.

Hydraulic Steady Rest

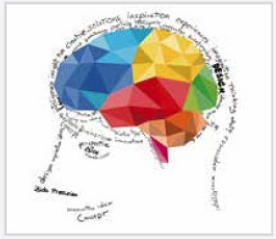
The hydraulic steady rest provides a stable support for long workpieces, and can prevent workpiece springing and bending.

Tool Measuring Device

The tool is program controlled automatically (or manually) touches the measuring probe to accomplish the setup process. It effectively reduces the setup time and automatically compensates for the wear on tools.

Expansion Tank for High Pressure Coolant Through Tool

10 bar or 20 bar for option.



Automation and TURN KEY Solutions

Robot

*Fanuc, Yazkawa, Mitsubishi robots and more.

Oil Mist Collector

Fan Cooler

Bar Feeder

MACHINE **ACCESSORIES**

Standard Accessories

- Fanuc 0i-TF(3) PLUS (BML-500, BML-560S/M)
  Fanuc 0i-TF(1) PLUS (BML-600S/M/L, BML-630)
- Spindle motor
- Hydraulic chuck
- YDPM servo turret (BML-560S/M)
  Hydraulic turret (BML-500, BML-600S/M/L, BML-630)
- O.D. Turning Tools
- I.D. Boring Bar tools
  Ø8,10,12,16,20,25 x O.D.32 (BML-500)
  Ø8,10,12,16,20,25,32 x O.D.40 (BML-560S/M, BML-600S/M/L)
  Ø12,16,20,25,32,40 x O.D.50 (BML-630)
- Taper sleeves
  MT No. 1,2 x O.D.32 (BML-500)
  MT No. 2,3,4 x O.D.40 (BML-560S/M, BML-600S/M/L)
  MT No. 3,4 x O.D.50 (BML-630)
- Tailstock quill
  MT 4 (BML-500, BML-560S/M)
  MT 5 (BML-600S/M/L, BML-630)
- Coolant system
- Automatic tailstock (exclude BML-500)
- Coolant tank
- Chain type chip conveyor + chip bucket
- Leveling bolts and pads
- Auto. lubrication system
- Work lamp
- Foot pedal for chuck
- Tool kit
- End of program light
- Chip flush from upper
- Air blow for chuck (exclude BML-630)
- 2-step gear box (BML-630)
- Manual steady rest (BML-630)

Optional Accessories

- Mitsubishi controller
- Siemens controller
- Collet chuck (exclude BML-630)
- Bar feeder
- Bar feeder interface
- VDI / BMT turret (10 or 12 Tool)
- Oil mist collector
- Live tooling (C-axis)
  (BML-560S/M, BML-600S/M/L, BML-630)
- Automatic door
- Manual tool setter
- Automatic tool setter
- Transformer
- CE
- GTP, ZF or YDPM 2-step gear box
- Sling frame
- Stabilizer
- Cooler for coolant thank
- Air conditioner for electrical cabinet
- Hydraulic steady rest
- Parts catcher
- Oil skimmer
- Coolant gun
- Scraper type chip conveyor
- 10 or 20 bar high pressure coolant through tool
- Tool load monitoring
- Linear scale