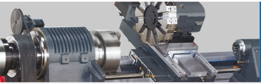
Humanity. Innovation. Technology



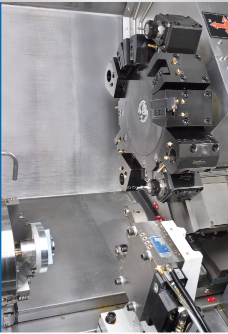
- Robust Structure
- Heavy Cutting
- Reduced Production Costs

Box Way

# CNC LATHES

## BML Series

- Single or Twin Spindle Configuration
- Box Ways with Wide Span
- Various Tool Turrets to Select From
- Mill Turn Complex Machines
- Fully Automated Production System Available



YIDA PRECISION MACHINERY CO., LTD.
No. 41, Alley 68, Lane 357, Sec. 1, Sinan Rd.,
Wuri Dist., Taichung City 41465, Taiwan
Tel : 886-4-2335 8368   Fax: 886-4-2335 6681
E-mail: yida.cnc@msa.hinet.net
http://www.yidacnc.com

Safenet Certified

BML 2024.01.1000E

# SLANT BED CNC LATHE

## Providing users with higher stability, better cutting 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 at 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. Choices 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.

**Cost-saving Production with High Productivity**

# MULTI-TASKING MACHINES

Stay ahead of the competition with Yida's mill turn lathes, developed to perform multi-tasking machining. Achieve higher efficiency and higher quality parts with single setups on Yida mill turn lathes, eliminating the accuracy errors from multiple setups. The mill turn lathe, in combination with a twin spindle design for simultaneous front and back machining further boosts efficiency.

Advantages of a 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 made up of a highly rigid slant bed that provides excellent damping capacity and smooth chip evacuation.

### High Quality Cast Iron

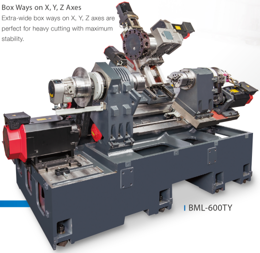
The machine structure is manufactured from high quality Meehanite cast iron, stress relieved for lifetime accuracy.

### Box Ways on X, Y, Z Axes

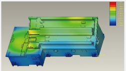
Extra-wide box ways on X, Y, Z axes are perfect for heavy cutting with maximum stability.

### Twin Spindles and Single Turret

- The combination of the main spindle and sub-spindle with a power turret finishes machining a workpiece with single setup.
- Designed for elimination secondary machining ensures machining accuracy while boosting productivity.

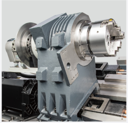


### Finite Element Analysis (FEA)



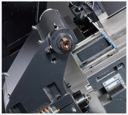
### Precise and Powerful Spindle

- The spindle is driven by a FANUC $\alpha$/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 a large space for maintenance convenience.
- Outstanding ribs deployment on the headstock 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.

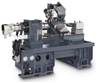


### Automatic Tailstock

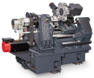
The saddle drives the tailstock via a lock pin on the tailstock.



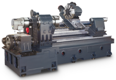
I BML-600TY



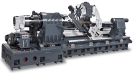
I BML-500



I BML-560S/M



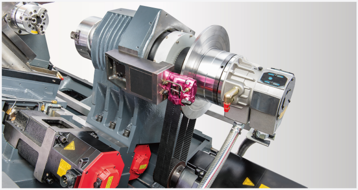
I BML-600S/M/L



I BML-800S/M/L

# PRECISION FOR FAST, ACCURATE MACHINING

## CS-AXIS / Y-AXIS / Sub-Spindle

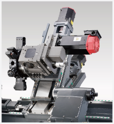


### CS-Axis Function

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

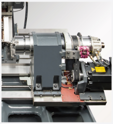
### Brake Discs

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

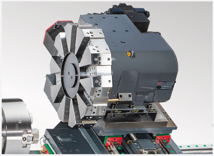
- The Y-axis features a lightweight structure and is directly driven by a servo for high positioning accuracy.
- Box ways on the Y-axis help to increase stability during cutting.
- The Y-axis travel is 100mm (±50mm), allowing for machining various workpieces with high efficiency.

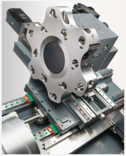


### Sub-Spindle

The sub-spindle can grab 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)

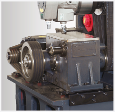
Servo Turret
(Optional)

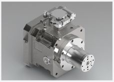
VDI or BMT Turret Disc
(Optional)

## 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.





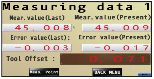
GTP or ZF Gear Box (Optional)

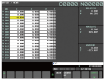

### Heidenhain ERM Magnetic Encoder

Applying a C-axis on lathes is usually for machining bar materials. The precision and repeatability provide by the ERM magnetic encoder can improve milling performance on C-axis applications.

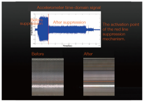
## AUTOMATIC MACHINING COMPENSATION


It compares the error value between the measured point data and the measured workpiece data, then outputs the error value to the NC for calculating tool wear compensation.

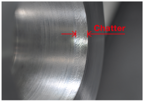


## VIBRATION SUPPRESSION



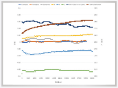

Our system provides instant adjustment of cutting parameters for suppressing vibration on a smart production line. This function is designed to meet the requirements of smart production lines. It upgrades machining surface quality, reduces tool wear, vibration, and energy consumption of a cutting motor,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



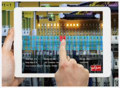

Yida collaborates with universities, industrial research centers and institutes in many areas, with many efforts leading to awards and prizes. The anti-vibration features of the BML-500 has won the Award of Eminence at TIMTOS 2015.

## 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.



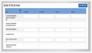
The FANUC AI Thermal Displacement Compensation module was implemented on EV-860. The thermal displacement after applying AI adjustment is within 0.002 mm, compared to 0.08 mm without AI.

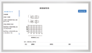


Current efforts are focused on developing AR applications for maintenance.

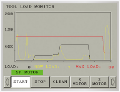
## SMART MACHINE ENGINE

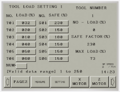
## PRODUCTION MANUFACTURER / PROCESS RECORDS





## SPINDLE OR SERVO LOAD INSPECTION



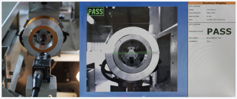




### Spindle or Servo-axis Load Inspection

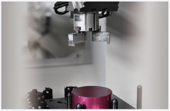
This function is used to inspect the spindle load or servo axis load through the controller. If the spindle load or servo axis load exceeds a set value, the machine will stop and an alarm will occur.

## Features

- A built-in gantry type automation device with automatic detection function can be equipped.
- Parts supply equipment with low investment cost, fast parts change, small space occupation, and excellent scalability is applicable for parts loading and unloading for metalworking on a CNC lathe. It ultimately reduces parts changing time and achieves high automation efficiency.
- It helps customers to save investment capital and labor costs, which in turn creates automation efficiency and competitiveness.
- Various types of modular parts supply equipment are available for increased efficiency and time saving.

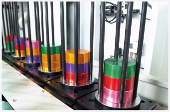



Designed to meet the requirements in an automated production line, the device provides positioning and quality inspection, size measurement, identification and confirmation. Using the controller's image treatment to conduct visual inspection functionality can eliminate human error in judgment and inspection.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



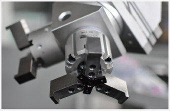
### Smart Machine Industrialization

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 a conveyor chain.The 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 damaging the workpieces.

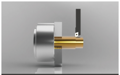
### Specifications

| Automatic Gantry Loader System | |
|---|---|
| **Clamping 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

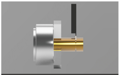
| Feeding System | |
|---|---|
| **Pallet no.** | 16 pcs |
| **Max. loading** | 40 kg |
| **Max. height** | 410 mm |

## ACTUAL MACHINING DATA



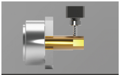
O.D. Heavy Cutting

- 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

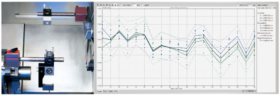


End Mill

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

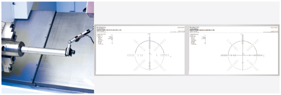
## QUALITY ASSURANCE

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



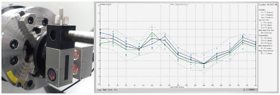
**Laser Calibration**

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 (6") | STD: 50~4,500 (8"); OPT: 50~6,000 (6") | | STD: 50~4,500 (8"); OPT: 50~6,000 (6") | |
| | 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: hydraulic; OPT: servo | Live-tooling | STD: hydraulic; OPT: servo | 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: LS-160SV | STD: LS-160A; OPT: LS-160SV | LS-160SP | STD: LS-160A; OPT: LS-160SV | 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 | LS-160:1.8 (8T),2.0 (10T) LS-160SV:2.3 (12T) | LS-160:1.6 (8T),2.0 (10T) LS-160SV:2.3 (12T) | 0.85 | LS-160:1.6 (8T),2.0 (10T) LS-160SV:2.3 (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 | | MT4 | MT4 | | MT4 | |
| | 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); OPT: α8/8,000 (7.5/11) | | STD: β12/10,000 (11/15); 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 | 0.8 | 0.8 | | 0.8 | |
| 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 | |

Note:Specifications are subject to change without further notice.

## MACHINE SPECIFICATIONS - 600 SERIES

| ITEM | | UNIT | 600 series BML-600S Standard | BML-600S C-axis | BML-600Y C-axis | BML-600T Standard | BML-600T C-axis | BML-600TY |
|---|---|---|---|---|---|---|---|---|
| CAPACITY | Swing over bed | mm | Ø600 | | Ø600 | Ø600 | | Ø600 |
| | Swing over saddle | mm | Ø450 | | Ø450 | Ø450 | | Ø450 |
| | Distance between centers | mm | STD: 763 (8"); OPT: 753 (10") | | STD: 753 (8"); OPT: 743 (10") | STD: 744 (8"); OPT: 734 (10") | | STD: 744 (8"); OPT: 734 (10") |
| | 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") | | 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 | - | | ±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 (8"); OPT: 50~3,500 (10") | | STD: 50~4,500 (8"); OPT: 50~3,500 (10") | Main-spindle STD: 50~4,500 (8"); OPT: 50~3,500 (10") | | Sub-spindle 50~6,000 (6") |
| | 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 | STD: hydraulic; OPT: servo | 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) | STD: LS-240; OPT: LS-240SV | 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) LS-240SV: 0.8 | 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 | | MT5 | | MT5 | - | | - |
| | Quill travel | mm | 120 | | 120 | - | | - |
| | Tailstock travel | mm | 500 | | 450 | - | | - |
| 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 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 |

Note:Specifications are subject to change without further notice.

## 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 (10") ; OPT: 974 (12") | | STD: 994 (10"); OPT: 974 (12") |
| | 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 | - | | ±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 50~6,000 (6") |
| | 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 | STD: hydraulic; OPT: servo | 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) | STD: LS-240; OPT: LS-240SV | 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); LS-240SV: 0.8 | 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 | | MT5 | | MT5 | - | | - |
| | 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 | | ±0.005 | ±0.005 | | X/Z: ±0.005, Y: ±0.002 |
| | Repeatability | mm | ±0.004 | | ±0.004 | ±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 |

Note:Specifications are subject to change without further notice.

| | | | 600 series | | | | | |
|---|---|---|---|---|---|---|---|---|
| ITEM | | UNIT | BML-600L | | BML-600LY | BML-600LT | | BML-600LTY |
| | | | 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: 1,504 (10"); OPT: 1,494 (12") | | STD: 1,503 (10"); OPT:1,493 (12") | STD: 1,494 (10"); OPT: 1,474 (12") | | STD: 1,494 (10"); OPT: 1,474 (12") |
| | Max. machining dia. | mm | Ø420 | Ø340 | BMT65: 380; VDI40: 285 | Ø420 | Ø340 | BMT65: 380; VDI40: 285 |
| | 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") |
| | 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 | - | | ±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 |
| | C-axis | mm | - | 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 50~6,000 (6") |
| | 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: Ø10"; OPT: Ø12" | | STD: Ø10"; OPT: Ø12" | 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 | STD: hydraulic; OPT: servo | 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) | STD: LS-240; OPT: LS-240SV | 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); LS-240SV: 0.8 | 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 | | MT5 | | MT5 | - | | - |
| | Quill travel | mm | 120 | | 120 | - | | - |
| | Tailstock travel | mm | 1,000 | | 1,000 | - | | - |
| 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 | | ±0.005 | ±0.005 | | X/Z: ±0.005; Y: ±0.002 |
| | Repeatability | mm | ±0.004 | | ±0.004 | ±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 | 484 x 214 | | 524 x 233 | 524 x 214 | | 524 x 233 |
| | Packing (w/conveyor) | cm | 472 x 229 x 221 | | 521 x 229 x 255 | 521 x 229 x 221 | | 521 x 229 x 253 |
| | Net weight (w/conveyor) | kgs | 7,000 | | 7,670 | 7,560 | | 7,770 |
| | Gross weight (w/conveyor) | kgs | 7,450 | | 8,090 | 8,020 | | 8,420 |

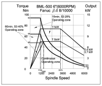
Note:Specifications are subject to change without further notice.

| ITEM | | UNIT | 800 series | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | BML-800S | | | BML-800M | | | BML-800L | | |
| | | | Standard | C axis | Y axis | Standard | C axis | Y axis | Standard | C axis | Y axis |
| CAPACITY | Swing over bed | mm | Ø 800 | | | Ø 800 | | | Ø 800 | | |
| | Swing over saddle | mm | Ø 600 | | | Ø 600 | | | Ø 600 | | |
| | Distance between center | mm | 1,342 | | | 2,342 | | | 3,342 | | |
| | Max. machining dia. | mm | Ø620 | | Ø600 | Ø620 | | Ø600 | Ø620 | | Ø600 |
| | Max. machining length | mm | 1,000 | | 925 | 2,000 | | 1,925 | 3,000 | | 2,925 |
| | Slant angle of bed | | 30° | | 60° | 30° | | 60° | 30° | | 60° |
| TRAVELS | X-axis | mm | 340 (310+30) | | | 340 (310+30) | | | 340 (310+30) | | |
| | Y-axis | mm | - | | ±80 | - | | ±80 | - | | ±80 |
| | Z-axis | mm | 1,150 | | | 2,150 | | | 3,150 | | |
| | C-axis | mm | - | 360˚ ( 0.001˚ ) | | - | 360˚ ( 0.001˚ ) | | - | 360˚ ( 0.001˚ ) | |
| | W-axis | mm | - | | | - | | | - | | |
| SPINDLE | Spindle speeds | rpm | STD: 50~2,000 (15") 2-step gear box; OPT: 2,500 (12") / 1,200 (15") / 1,000 (18") | | | STD: 50~2,000 (15") 2-step gear box; OPT: 2,500 (12") / 1,200 (15") / 1,000 (18") | | | STD: 50~2,000 (15") 2-step gear box; OPT: 2,500 (12") / 1,200 (15") / 1,000 (18") | | |
| | Spindle nose | | STD:A2-11; OPT: A2 -8 / A2-15 / A2-15 | | | STD:A2-11; OPT: A2 -8 / A2-15 / A2-15 | | | STD:A2-11; OPT: A2 -8 / A2-15 / A2-15 | | |
| | Spindle bore dia. | mm | STD: Ø134 ; OPT: Ø105 / Ø160 / Ø182 | | | STD: Ø134 ; OPT: Ø105 / Ø160 / Ø182 | | | STD: Ø134 ; OPT: Ø105 / Ø160 / Ø182 | | |
| | Front bearing inner dia. | mm | STD: Ø180 ; OPT: Ø140 / Ø220 / Ø240 | | | STD: Ø180 ; OPT: Ø140 / Ø220 / Ø240 | | | STD: Ø180 ; OPT: Ø140 / Ø220 / Ø240 | | |
| | Draw bar dia. | mm | STD: Ø120; OPT: Ø91 / Ø142 / Ø166.5 | | | STD: Ø120; OPT: Ø91 / Ø142 / Ø166.5 | | | STD: Ø120; OPT: Ø91 / Ø142 / Ø166.5 | | |
| CHUCK | Chuck diameter | mm | STD: 15"; OPT: 12" 15" Oversize / 18" | | | STD: 15"; OPT: 12" 15" Oversize / 18" | | | STD: 15"; OPT: 12" 15" Oversize / 18" | | |
| TURRET | Type | | STD:Hydraulic ; OPT: Servo | Live-tooling (BMT75) | | STD:Hydraulic ; OPT: Servo | Live-tooling (BMT75) | | STD:Hydraulic ; OPT: Servo | Live-tooling (BMT75) | |
| | Stations | pcs | STD:12;OPT:10 | 12 | | STD:12;OPT:10 | 12 | | STD:12;OPT:10 | 12 | |
| | Model | | STD: LS-320; OPT: LS-320SV | 434.025 | | STD: LS-320; OPT: LS-320SV | 434.025 | | STD: LS-320; OPT: LS-320SV | 434.025 | |
| | Square tool shank | mm | 32x32 | | | 32x32 | | | 32x32 | | |
| | Boring bar shank diameter | mm | Ø50 | | | Ø50 | | | Ø50 | | |
| | Indexing time (0~180°) | sec | STD: 2.2 ; OPT: 1.6 | 1.26 | | STD: 2.2 ; OPT: 1.6 | 1.26 | | STD: 2.2 ; OPT: 1.6 | 1.26 | |
| LIVE TOOL | Spindle speeds | rpm | - | 4,000 | | - | 4,000 | | - | 4,000 | |
| FEED RATE | Rapid traverse | M/min | X:24; Z:24; Y: 8 | | | X:20; Z:20; Y: 8 | | | X:20; Z:12; Y: 8 | | |
| TAILSTOCK | Type | | Automatic | | | Automatic | | | Automatic | | |
| | Quill diameter | mm | Ø125; OPT:Ø150 | | | Ø125; OPT:Ø150 | | | Ø125; OPT:Ø150 | | |
| | Quill bore taper | | STD:MT5 fixed type; OPT: MT5 rotation type | | | STD:MT5 fixed type; OPT: MT5 rotation type | | | STD:MT5 fixed type; OPT: MT5 rotation type | | |
| | Quill travel | mm | 160 | | | 160 | | | 160 | | |
| | Tailstock travel | mm | 1,100 | | | 2,100 | | | 3,100 | | |
| MOTORS | Main-spindle | kw | STD:α22/7,000 (22/26); OPT: α30/6,000 (30/37) | | | STD:α22/7,000 (22/26);OPT: α30/6,000 (30/37) | | | STD:α22/7,000 (22/26);OPT: α30/6,000 (30/37) | | |
| | Sub-spindle | kw | - | | | - | | | - | | |
| | Live-tool | kw | - | α6/10000i (5.5/7.5) | | - | α6/10000i (5.5/7.5) | | - | α6/10000i (5.5/7.5) | |
| | X/Z-axis servo motor | kw | X/Y/Z: α22 (4.0) | | | X/Y/Z: α22 (4.0) | | | X/Y/Z: α22 (4.0) | | |
| | Hydraulic oil pump | kw | 2.24 | | | 2.24 | | | 2.24 | | |
| | Chip conveyor | kw | 0.2 | | | 0.2 | | | 0.2 | | |
| | Coolant pump | kw | 1.3 | | | 1.3 | | | 1.3 | | |
| ACCURACY | Positioning | mm | X/Z: ±0.005; Y: ±0.003 | | | X/Z: ±0.006; Y: ±0.003 | | | X/Z: ±0.006; Y: ±0.003 | | |
| | Repeatability | mm | X/Z: ±0.004; Y: ±0.003 | | | X/Z: ±0.005; Y: ±0.003 | | | X/Z: ±0.005; Y: ±0.003 | | |
| POWER | Requirements | KVA | 380-415/220V 30KVA | | 380-415/220V 40KVA | 380-415/220V 30KVA | | 380-415/220V 40KVA | 380-415/220V | | 40KVA |
| MACHINE SIZE | Height | cm | 214 | | 256 | 214 | | 256 | 214 | | 256 |
| | Floor space (W x D) | cm | 505x229 | | 505x229 | 605x229 | | 605x229 | 705x229 | | 705x229 |
| | Packing (w/conveyor) | cm | 506x231x233 | | 506x231x252 | 606x231x233 | | 606x231x252 | 706x231x233 | | 706x231x252 |
| | Net weight (w/conveyor) | kg | 12,500 | | 12,710 | 15,000 | | 15,210 | 17,500 | | 17,710 |
| | Gross weight (w/conveyor) | kg | 13,280 | | 13,550 | 15,940 | | 16,220 | 18,600 | | 18,880 |

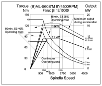
Note:Specifications are subject to change without further notice.

## SPINDLE POWER & TORQUE DIAGRAM

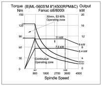
### BML-500



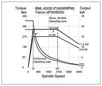

### BML-560S/M



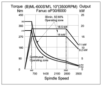

### BML-560S/M + C axis



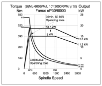

### BML-600S



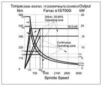

### BML-600S/M/L



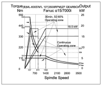

### BML-600S/M/L



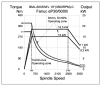

### BML-600S/M/L YDPM Gearbox



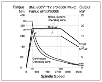

### BML-600S/M/L ZF Gearbox



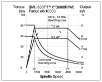

### BML-600S/M/L + C axis (Y/T/TY)



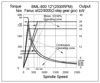

### BML-600Y/T/TY



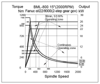

### BML-600Y/T/TY Sub-Spindle



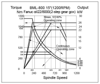

### BML-800S/M/L



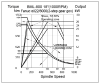

### BML-800S/M/L




### BML-800S/M/L




### BML-800S/M/L



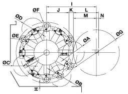



## TOOL INTERFERENCE DIAGRAM

### Hydraulic / Servo Turret

unit: mm

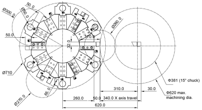
BML-500 BML-560S/M BML-600S/M/L/T/MT/LT




| 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 |

| 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 |

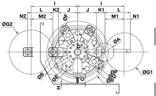
BML-800S/M/L




### Live Tooling Turret

unit: mm

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




| MODEL | CAPACITY | DIMENSION A | B | C | D | E | F | G1 | G2 | H | I | J |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| BML-560S/M | 12-TOOL | 140 | 140 | 50 | 20 | 30 | 25 | 300 | 380 | 67.5 | 360 | 135 |
| BML-600S/M/L | 12-TOOL | 160 | 160 | 50 | 25 | 40 | 40 | 340 | 390 | 7.9 | 415 | 170 |

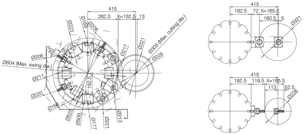
| MODEL | CAPACITY | DIMENSION K1 | K2 | L | M1 | M2 | N1 | N2 | P | Q | R |
|---|---|---|---|---|---|---|---|---|---|---|---|
| BML-560S/M | 12-TOOL | 75 | 35 | 190 | 150 | 190 | 40 | 0 | 340 | 340 | 435 |
| BML-600S/M/L | 12-TOOL | 75 | 50 | 225 | 170 | 195 | 55 | 30 | 440 | 470 | 548 |

## TOOL INTERFERENCE DIAGRAM

### Live Tooling Turret

unit: mm

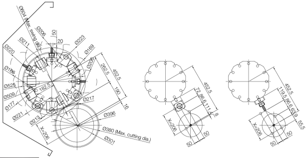
BML-600T/MT/L BMT65




### Live Tooling Turret

unit: mm

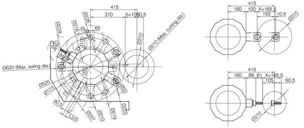
BML-600Y/MY/LY/TY/MTY/LTY BMT65 Y-axis ±50 mm




### Live Tooling Turret

unit: mm

BML-600T/MT/LT VDI40



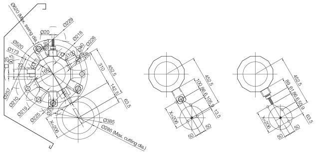



## TOOL INTERFERENCE DIAGRAM

### Live Tooling Turret

unit: mm

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

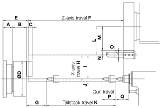



## WORK ENVELOPE

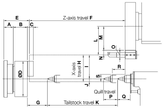
### Hydraulic / Servo Turret - I.D. Tool Holder

unit: mm

BML-500




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

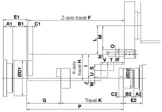



| MODEL | SPINDLE | DIMENSION | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S |
| BML-500 | 6” | 69 | 96 | 37 | 169 | 196 | 330 | 152.3 | 195 | 180.5 | 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 |

## Hydraulic / Servo Turret - I.D. Tool Holder

unit: mm

BML-600T/MT/LT



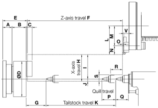

| MODEL | TWIN SPINDLE | DIMENSION A1 | A2 | B1 | B2 | C1 | C2 | D1 | D2 | E1 | E2 | F | G | H | I |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| BML-600T | 8" + 6" | 80 | 74 | 103 | 91 | 38 | 37 | 210 | 169 | 183 | 165 | 600 | 100 | 230 | 210 |
| BML-600MT | 10" + 6" | 80 | 74 | 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 | 500 | 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 |

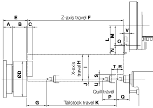
## Live Tooling Turret - O.D. Tool Holder

unit: mm

BML-560S/M




BML-600S/M/L



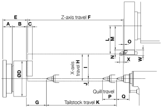

| MODEL | SPINDLE | DIMENSION A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| BML-500S | 8" | 80 | 103 | 39 | 210 | 196.7 | 360 | 104.6 | 190 | 150 | 40 | 360 | 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 |



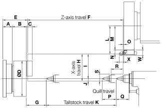
## Hydraulic / Servo Turret - O.D. Tool Holder

unit: mm

BML-500 BML-560S/M




BML-600S/M/L

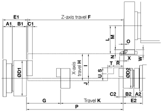



| MODEL | SPINDLE | DIMENSION A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | W | X |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| BML-500 | 6" | 69 | 96 | 37 | 169 | 196 | 330 | 152.3 | 195 | 180 | 15 | 300 | 175 | 140 | 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 |

## 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 |

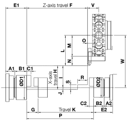
| MODEL | TWIN SPINDLE | DIMENSION J | K | L | M | N | O | P | R | S | T | U | W | X |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| BML-600T | 8" + 6" | 20 | 450 | 245 | 205 | 40 | 7 | 500 | 200 | 80 | 255 | 30 | 47 | 40 |
| BML-600MT | 10" + 6" | 20 | 686 | 245 | 205 | 40 | 7 | 790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

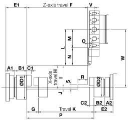
### Live Tooling Turret - O.D. Tool Holder

unit: mm

BML-600T/MT/LT BMT65




BML-600T/MT/LT VDI40



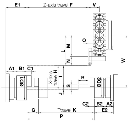

| MODEL | TWIN SPINDLE | TURRET | DIMENSION | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | A1 | A2 | B1 | B2 | C1 | C2 | D1 | D2 | E1 | E2 | F | G | H |
| BML-600T | 8" + 6" | BMT65 | 78 | 74 | 103 | 91 | 38 | 37 | 210 | 169 | 181 | 165 | 450 | 100 | 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 |

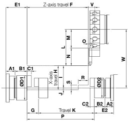
### Live Tooling Turret - O.D. Tool Holder

unit: mm

BML-600TY/MTY/LTY BMT65 Y-axis ±50mm




BML-600TY/MTY/LTY VDI40 Y-axis ±50mm



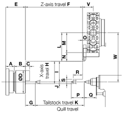

| MODEL | TWIN SPINDLE | TURRET | DIMENSION | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | A1 | A2 | B1 | B2 | C1 | C2 | D1 | D2 | E1 | E2 | F | G | H | I |
| BML-600TY | 8" + 6" | BMT65 | 78 | 74 | 103 | 91 | 38 | 37 | 210 | 169 | 181 | 165 | 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 |

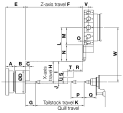
### Live Tooling Turret - O.D. Tool Holder

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 |

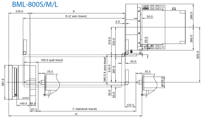
| MODEL | SPINDLE | TURRET | DIMENSION | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | M | N | O | P | Q | R | S | T | U | V | W |
| BML-600Y | 8" | BMT65 | 182.5 | 80 | 43 | 120 | 110 | 85 | 41 | X | X | 98 | 452.5 |
| BML-600MY | 10" | BMT65 | 182.5 | 80 | 43 | 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 |

## WORK ENVELOPE

### Hydraulic / Servo Turret – O.D. Tool Holder

unit: mm

BML-800S/M/L

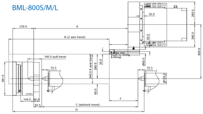


| MODEL | SPINDLE | DIMENSION | | | |
|---|---|---|---|---|---|
| | | A | B | C | D |
| ML-800S | 15" | 1071 | 1150 | 1100 | 1503 |
| ML-800M | 15" | 2071 | 2150 | 2100 | 2503 |
| ML-800L | 15" | 3071 | 3150 | 3100 | 3503 |

### Hydraulic / Servo Turret – I.D. Tool Holder

unit: mm

BML-800S/M/L



| MODEL | SPINDLE | DIMENSION | | | | | |
|---|---|---|---|---|---|---|---|
| | | A | B | C | D | E | F |
| ML-800S | 15" | 1070 | 1150 | 1100 | 1503 | 215 | 329.5 |
| ML-800M | 15" | 2070 | 2150 | 2100 | 2503 | 160 | 274.5 |
| ML-800L | 15" | 3070 | 3150 | 3100 | 3503 | 160 | 274.5 |

## MACHINE ACCESSORIES

### Standard Accessories

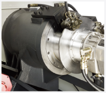
- Fanuc 0i-TF PLUS controller
- Spindle motor
- Hydraulic chuck
- Hydraulic turret
- O.D. Turning Tools
- I.D. Boring Bar tools
  Ø8,10,12,16,20,25 x O.D.32 (BML-500)
  Ø8,10,12,16,20,25,32 x O.D.40 (BML-560S/M, BML-600S/M/L)
  Ø12,16,20,25,32,40 x O.D.50 (BML-800S/M/L)
- Taper sleeves
  MT No. 1,2 x 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-800S/M/L)
- Tailstock quill
  MT 4 (BML-500, BML-560S/M)
  MT 5 (BML-600S/M/L, BML-800S/M/L)
- 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 (exclude BML-500)
- Tool kit
- End of program light
- Chip flush from upper
- Air blow for chuck
- 2-step gear box (BML-800S/M/L)
- Manual steady rest (BML-800S/M/L)

### Optional Accessories

- Mitsubishi controller
- Siemens controller
- Collet chuck (exclude BML-800S/M/L)
- 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-800S/M/L)
- 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



## OPTIONAL ACCESSORIES

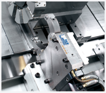


**Built-in Type Spindle**

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**