

Maximart®
CE / EMC ISO 9001

HIGH PRECISION FLAT BED CNC LATHE



MAXIMART HEAVY DUTY CNC LATHE

Designed and built with efficiency and accuracy in mind, MAXIMART CNC lathe will significantly boost your productivity and profitability.

QUALITY FEATURES:

- Highly rigid machine structure provides maximum stability in heavy cutting.
- The massive bed is manufactured from high quality cast iron with stress relieved to achieve outstanding rigidity and stability.
- Ruggedly constructed headstock features superior stability in heavy cutting.
- All-gear headstock design provides great torque output and extra smooth and no-noise running.
- High precision spindle features minimum thermal growth, quiet running and long service life.
- Great cutting capacity leads to higher chip removal rate and increased efficiency.
- Choice of various brands of CNC controllers.
- Recognized operational performance with optimal cost-to-performance ratio.
- A wide range of madels to select.



MODEL IDENTIFICATION

C	L	-	3	3	6	0
CNC Lathe			Swing Over Bed (inch)		Between Centers (inch)	

The Most Comprehensive Range of Heavy Duty Lathes

Whatever your turning requirements may be, MAXIMART's wide range of heavy duty lathes provide you with the most flexible models for your specific machining applications. Each lathe is backed by MAXIMART's tradition of superiority and dependability.

HIGH PRECISION SPINDLE

Extra Large Spindle Hole Available

- Certain models in the range of Maximart lathes are available to equip with an extra large spindle hole of Ø 410 mm



ROBUST BED A Solid Support for The Entire Machine

Rigid Bed And Base

- Both of machine bed and base are manufactured from high quality cast iron and tempered to relieve stress, thus a deformation-free structure can be achieved.

Scientific Rib Reinforcement

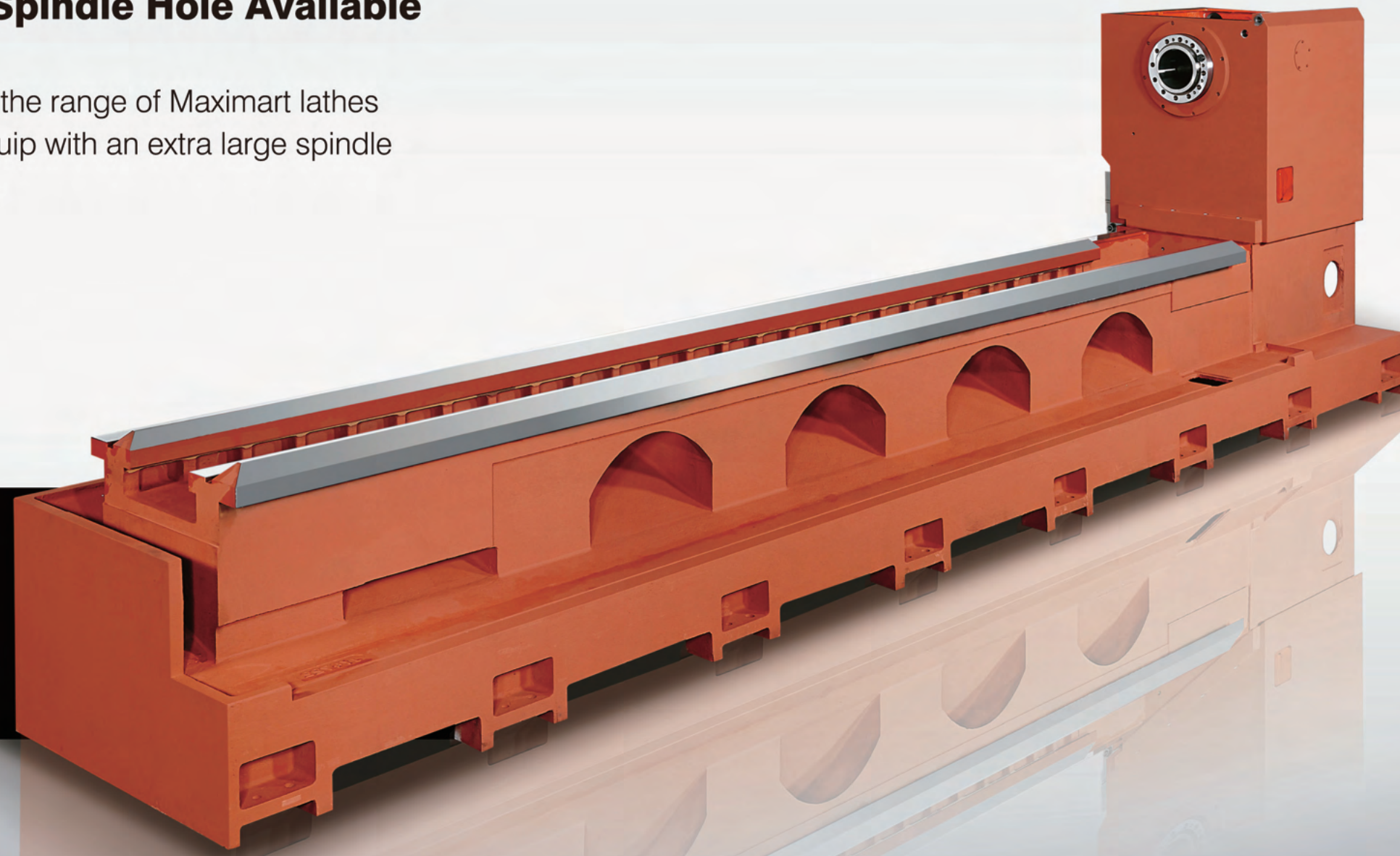
- The extra heavy bed with internal rib reinforcement allows the machine to withstand heavy load, dampen vibration and reduce deformation to a minimum.

Wild Span Between Bed Slideways

- The bed is an oversized box type construction with wild span between slideways that not only increase rigidity, but also reduces vibration and tool chattering to a minimum during cutting.

Accurate Slideways

- Bed slideways are hardened and precision ground for outstanding wear-resistance and smooth movement of the carriage.





Dynamic Test of Spindle

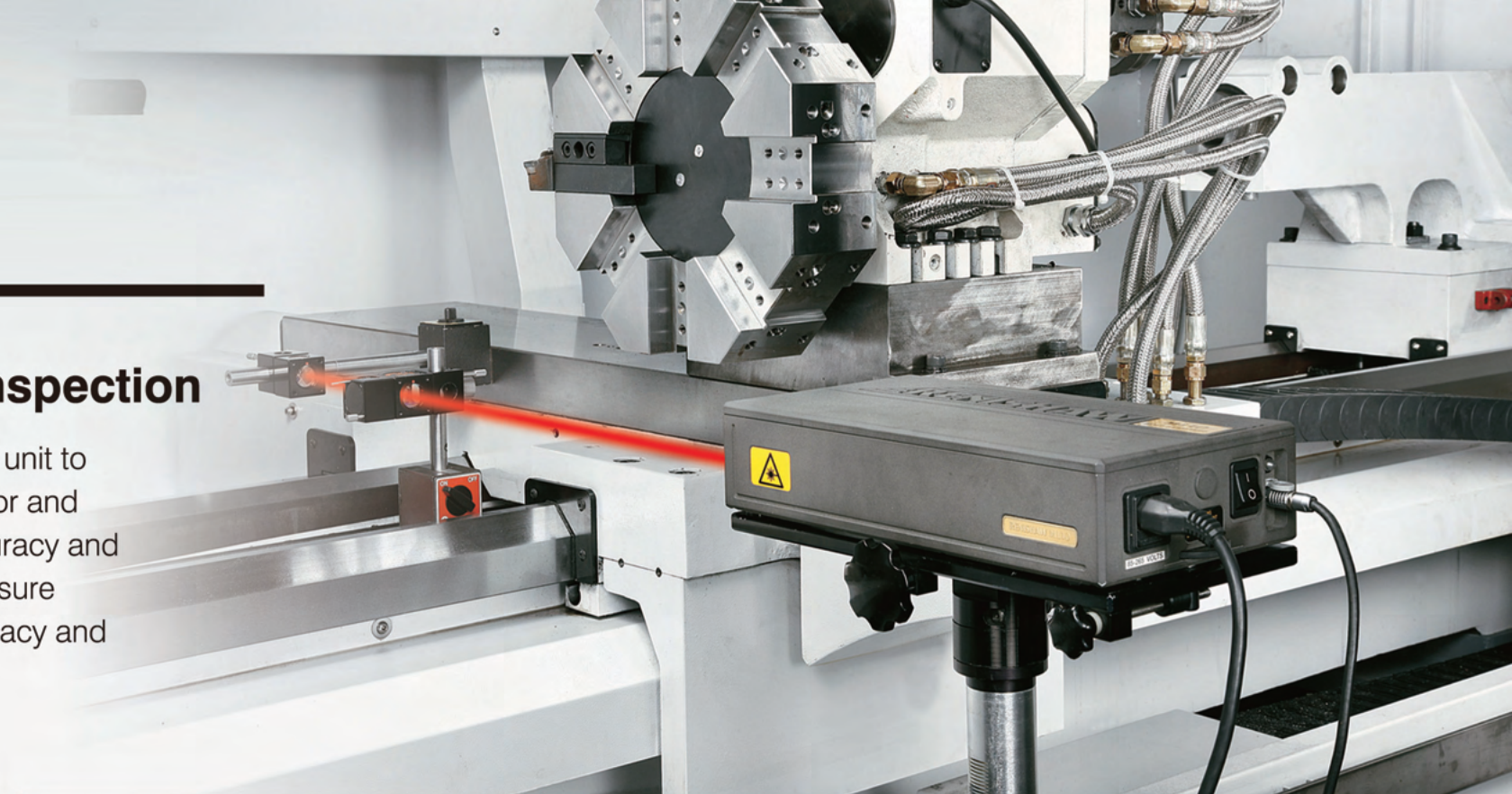
The spindle dynamic test makes the spindle running smooth at all times.

Rigorous Quality Inspection

Machine quality is the cornerstone of everything we do at Maximart. To meet this commitment, we conduct thorough quality inspection at each stage during the manufacturing process. Our objective is to ensure each machine from maximart will fully develop its superb performance with minimum trouble.

Advanced Laser Inspection

We utilize a sophisticated laser unit to inspect the ball screw pitch error and backlash, axis positioning accuracy and repeatability, which helps to ensure dynamic accuracy, static accuracy and machine accuracy.



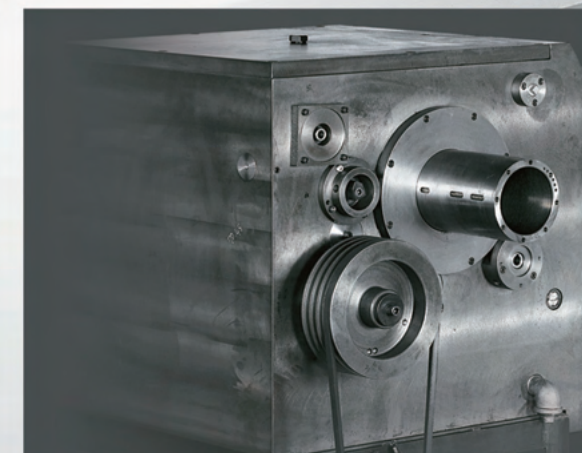
Perpendicularity inspection



Straightness inspection on bed slideways



Spindle run-out inspection at the rear end



Headstock Running Test

After a headstock is well assembled, it is then subject to a continuous long-time running test before it is installed to a machine.

Ruggedly Constructed High Rigidity

CL-1840 / 1860 / 1880

- Swing over bed: 460 mm
- Distance between centers : 1000/1500/2000 mm
- Spindle bore: Ø56 mm
- Spindle speed: 33~3100 rpm

CL-2140 / 2160 / 2180

- Swing over bed: 540 mm
- Distance between centers : 1000/1500/2000 mm
- Spindle bore: Ø85 mm
- Spindle speed: 27~2250 rpm

CL-2540 / 2560 / 2580

- Swing over bed: 630 mm
- Distance between centers : 1000/1500/2000 mm
- Spindle bore: Ø85 mm
- Spindle speed: 27~2250 rpm



Built to Boost Efficiency and Productivity

CL-2660 / 2680 / 26120 / 26160 / 26200

- Swing over bed: 670 mm
- Distance between centers : 1600/2100/3100/4100/5100 mm
- Spindle bore: Ø85 mm
- Spindle speed: 27~2250 rpm

CL-3060 / 3080 / 30120 / 30160 / 30200

- Swing over bed: 770 mm
- Distance between centers : 1600/2100/3100/4100/5100 mm
- Spindle bore: Ø105 mm
- Spindle speed: 20~1500 rpm

CL-3360 / 3380 / 33120 / 33160 / 33200

- Swing over bed: 840 mm
- Distance between centers : 1600/2100/3100/4100/5100 mm
- Spindle bore: Ø105 mm
- Spindle speed: 20~1500 rpm





Big Capacity up to 6M Length

CL-4260 / 4280 / 42120

CL-42160 / 42200 / 42240

- Swing over bed: 1070 mm
- Distance between centers : 1750/2250/3250/4250/5250/6250 mm
- Spindle bore: Ø155 mm
- Spindle speed: 7~710 rpm

CL-5060 / 5080 / 50120

CL-50160 / 50200 / 50240

- Swing over bed: 1270 mm
- Distance between centers : 1750/2250/3250/4250/5250/6250 mm
- Spindle bore: Ø155 mm
- Spindle speed: 7~710 rpm

Extra Heavy Duty up to 1.6M Swing Over Bed



CL-5160 / 5180 / 51120 / 51160 / 51200 / 51240

- Swing over bed: 1300 mm
- Distance between centers : 1700/2200/3200/4200/5200/6200 mm
- Spindle bore: Ø155 mm
- Spindle speed: 6~750 rpm

CL-6360 / 6380 / 63120 / 63160 / 63200 / 63240

- Swing over bed: 1600 mm
- Distance between centers : 1700/2200/3200/4200/5200/6200 mm
- Spindle bore: Ø155 mm
- Spindle speed: 6~750 rpm



Full-enclosure guarding for certain models are available on request.

CHOICE OF VARIOUS CNC CONTROLLER PACKAGES



Fagor CNC Controller



Siemens CNC Controller

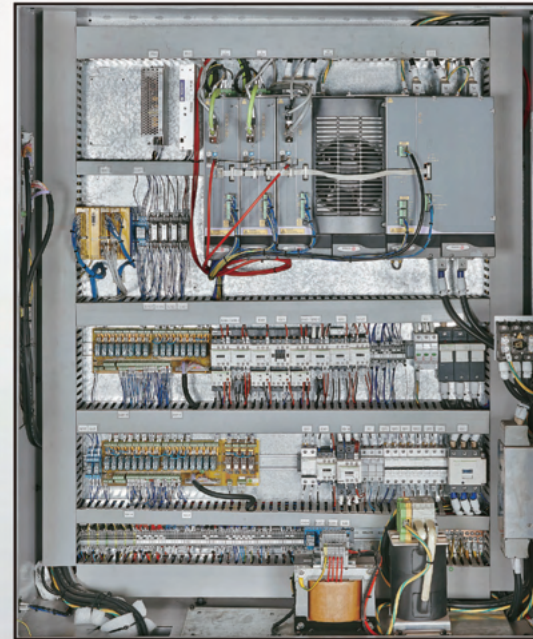


Fanuc CNC Controller

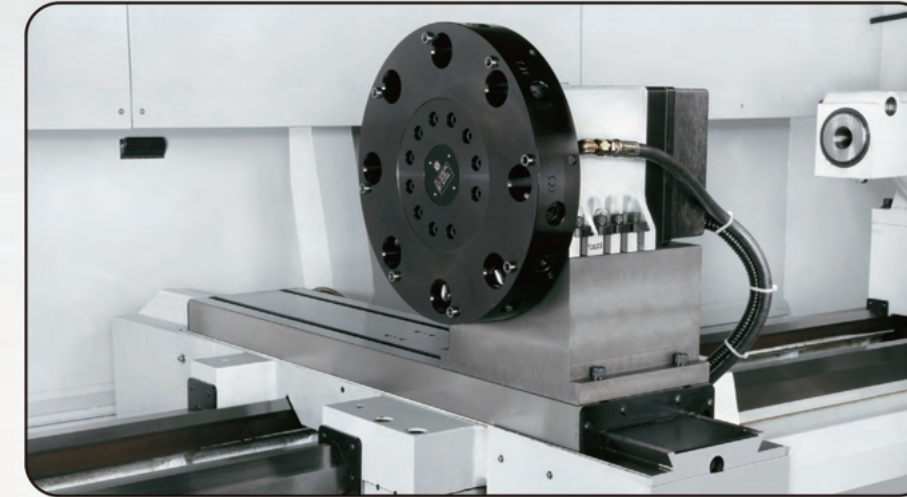
Electrical Cabinet

CLEAN AND NEAT WIRING LAYOUT WITH ADVANCED SAFETY CIRCUITS.

- The control circuit in the electrical cabinet is well designed and arranged for easy access, making trouble shooting and maintenance more convenient.
- The use of high quality electrical and electronic components helps to upgrade control performance.
- Low voltage of control circuit provides a protection for the operator in case electric shock occurs.
- Upon request, CE certified electric control is available (optional).



OPTIONAL EQUIPMENT



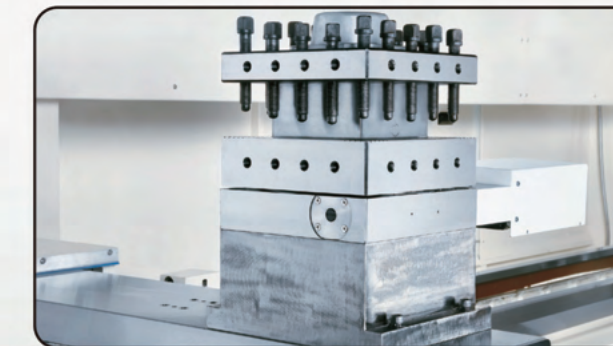
Power Turret

- The turret rotation and indexing is driven by a motor, providing fast tool change.
- High positioning accuracy.
- High repeatability reaches 0.003 mm.



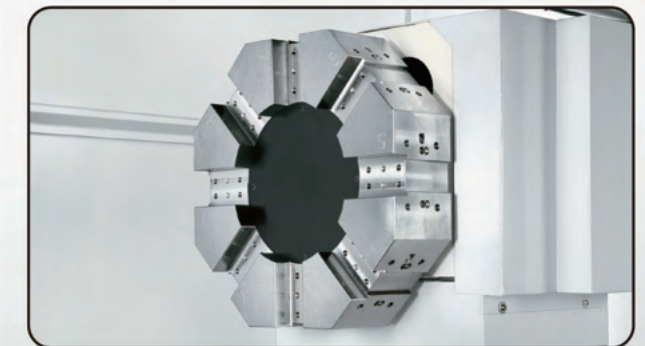
Sauter VDI H4 Electric Turret 40% Tool Resetting Time Reduced

- High indexing accuracy.
- High repeatability accuracy.
- Compact construction saves space occupation by 25%.



H4 Electric Tool Post

- Tool holding capacity: 4 tools
- Tool swiveling is driven by a motor for fast tool positioning.



Eight-Position Hydraulic Turret

- Highly rigid turret construction for outstanding stability in heavy cutting.
- Quick tool change saves non-cutting time.

OPTIONAL EQUIPMENT



4-Jaw Independent Chuck

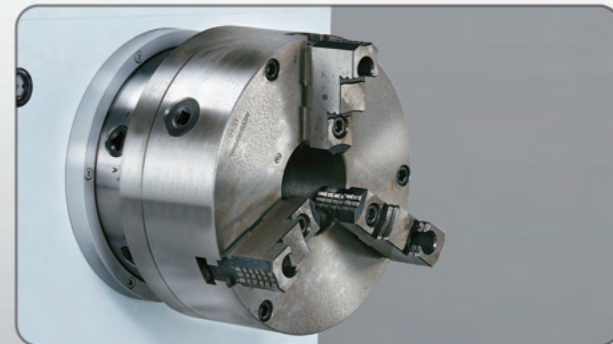
- The 4-jaw independent chuck is used for clamping irregularly shaped workpieces.

Reversible Jaws

- 4 jaws are reversible for gripping the inside or outside of a workpiece.

3-Jaw Scroll Chuck

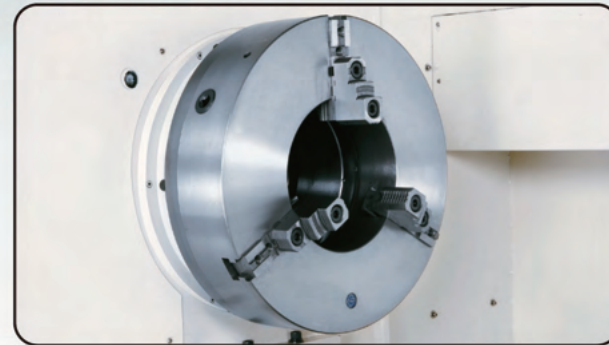
- The 3 jaws on the chuck move in and out simultaneously for quickly clamping a workpiece.



Various Sizes To Select

- Maximart provides various diameters of chucks to select depending on lathe models.

Front Chuck



Dual Chuck System (Front & Rear Chucks)

- Maximart lathes are available to equip with an additional chuck at the rear end of the spindle.
- The optional rear chuck is available for models with spindle bore over Ø105 mm.
- With the use of a rear chuck, a long workpiece can be clamped at two positions that helps to increase the stability of the workpiece.

Rear Chuck



Hydraulic 3-Jaw Chuck

- The hydraulically actuated three-jaw chuck provides fast and convenient clamping and unclamping of workpiece.
- Powerful clamping force makes the machine suitable for high speed cutting.



OPTIONAL EQUIPMENT



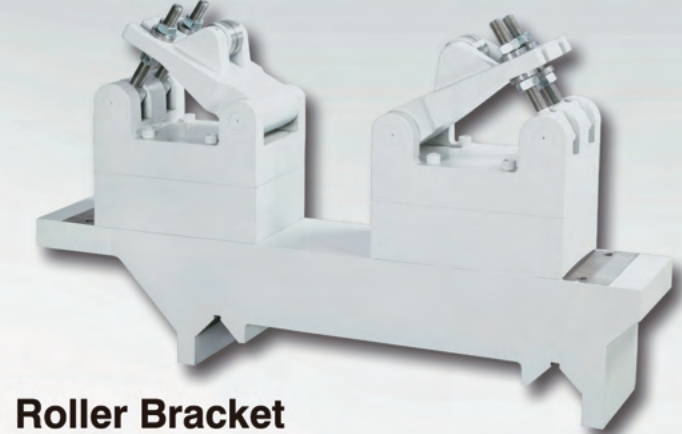
Steady Rest

- The steady rest is used to support a long workpiece during turning, boring or threading operations. It may prevent the workpiece from springing or bending and eliminate chattering.
- Adjustable jaws can hold the workpiece in exact position.



Follow Rest

- The follow rest is installed to the saddle of the carriage and moves together with the carriage.
- To prevent a workpiece from springing away from the point of the cutting tool during a turning process, the follow rest shall be applied.



Roller Bracket

- The roller bracket is installed on the lathe bed and is applicable for supporting an extra large diameter of workpiece.

Easy to adjust

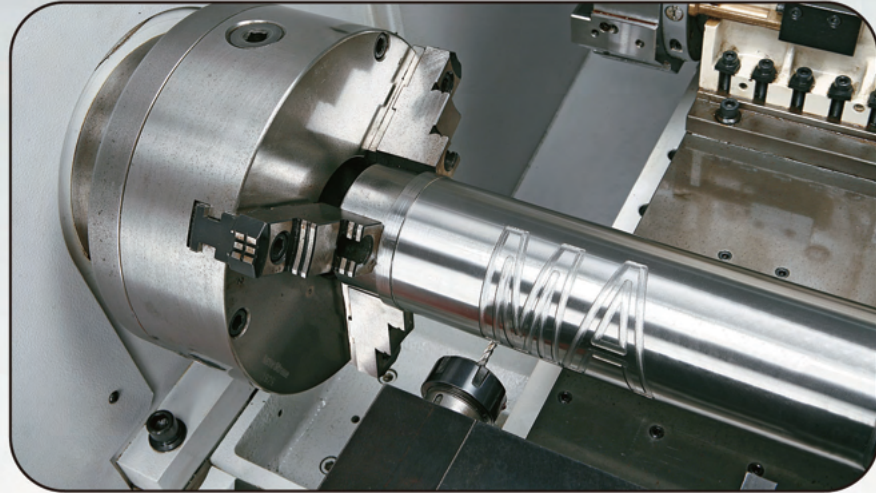
- The roller bracket is easy to adjust to suit various diameters of workpieces.

Chip Conveyor with Chip Cart

- Designed for efficient removal of chips during cutting, the chip conveyor helps to save manual removal of chips.



OPTIONAL EQUIPMENT



C-Axis A Contour Cutting Function

- The C-axis function of the spindle in combination with the use of a power turret make it possible to perform contour machining on a workpiece.

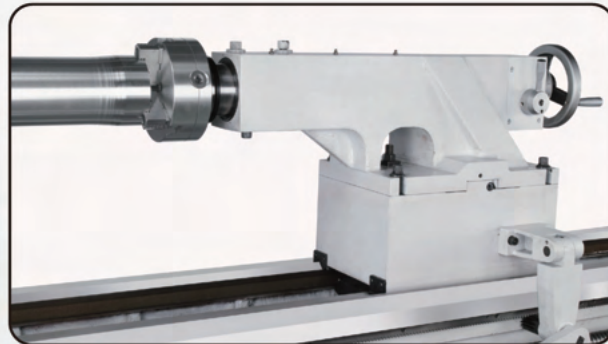
Milling, Drilling And Tapping

- The C-axis function also allows the machine to perform milling, drilling and tapping operations.



Boring Bar Attachment

- The boring bar attachment is mounted on the cross slide for boring operations.
- It consists of a boring bar and a rigid boring bar support.
- Various sleeves are available that provide convenient adjustment for straight or angular cutting tool.



Tailstock with Rotating Quill

- The rotating quill design on a tailstock helps to increase loading capacity.
- Designed specifically for holding a long workpiece.



Motor Driven Tailstock

- Convenient and fast tailstock can be achieved through motor drive.
- Available for models MLC-5100 and MEL-6300.

OPTIONAL EQUIPMENT



Hydraulic Tailstock with Built-in Quill

- The tailstock quill movement is actuated by a hydraulic power that provides an increase in convenience and efficiency.



Hydraulic Power Unit

- The hydraulic power unit consists of high quality hydraulic parts, featuring low thermal growth, low noise and long service life.



Air Conditioner for Electrical Cabinet

- The air conditioner provides a constant temperature control in the electrical cabinet, thus dependable control performance at all times can be achieved.



Spindle Oil Cooler

- The spindle oil cooler is used for cooling the internal parts of the spindle head that not only extends the service life of the spindle bearings, but also contributes to machining accuracy.

MACHINE SPECIFICATIONS

MODEL	Unit	CL-1840	CL-1860	CL-1880	CL-2140	CL-2160	CL-2180	CL-2540	CL-2560	CL-2580	CL-2660	CL-2680	CL-26120	CL-26160	CL-26200	
CAPACITY																
Swing over bed	mm	460			540			630			670					
Swing in gap (option)	mm	640			720			810			880					
Swing over cross slide	mm	230			310			400			400					
Distance between center	mm	1000	1500	2000	1000	1500	2000	1000	1500	2000	1600	2100	3100	4100	5100	
Suitable 3-jaw hydr. chuck size (option)	inch	8" or 10"			10" or 12"			10" or 12"			12"					
Hole through with hydr. chuck	mm	46			75			75			75					
Gap length from spindle nose surface	mm	270 (D1-6)			270 (D1-8)			270 (D1-8)			370 (D1-8)					
Max. work piece weight (with tailstock)	kg	700			2000			2000			3000					
Bed width	mm	350			350			350			450					
TRAVEL																
X axis	mm	280			350			350			450					
Z axis	mm	810	1310	1810	810	1310	1810	810	1310	1810	1500	2000	3000	4000	5000	
SPINDLE																
Spindle hole	mm	56 D1-6			85 D1-8 105 (opt.) A1-11			85 D1-8 105 (opt.) A1-11 155 (opt.) A2-11			85 D1-8					
Spindle nose																
Spindle range	rpm	H: 681~3100 M: 153~680 L : 33~152			H: 491~2250 M: 126~490 L : 27~125			H: 331~1500 M: 93~330 L : 20~92			H: 491~2250 M: 126~490 L : 27~125					
Suitable 3-jaw scroll chuck size (option)	mm	200/250			250/305			250/305			310/405					
Spindle motor inverter drive	HP	7.5 / 10 (opt.)			10 / 15 (opt.)			10 / 15 (opt.)			15 / 20 (opt.)					
TURRET (OPTION)																
Number of tool stations		8			8			8			8					
Tool allowance	mm	20x20			25x25			25x25			25x25					
TURRET (OPTION)																
Number of tool stations		4			4			4			4					
Tool allowance	mm	25x25			25x25			25x25			32x32					
FEED RATE																
X axis rapid traverse	M/min.	5			5			5			5					
Z axis rapid traverse	M/min.	7			7			7			7	6				
FEED MOTORS																
X axis power	Nm	6.3			6.3			6.3			6.3					
Z axis power	Nm	6.3			6.3			6.3			11.6					
BALL SCREW																
X axis	mm	Ø25 x P5			Ø25 x P5			Ø25 x P5			Ø28 x P5					
Z axis	mm	Ø40 x P10			Ø40 x P10			Ø40 x P10			Ø50 x P10		Ø63 x P12			
TAILSTOCK																
Quill stroke	mm	170			170			170			220					
Quill diameter	mm	Ø75			Ø75			Ø75			Ø105					
Quill inside taper	MT	5			5			5			5					
COOLANT																
Pump motor	HP	1/6			1/6			1/6			1/4					
LUBRICATION																
Pump motor	W	12			12			12			12					
Pump capacity	cc/time	6			6			6			6					
DIMENSION																
Length	cm	272	322	372	272	322	372	272	322	372	381	431	531	631	731	
Width	cm	176			176			176			212					
Height	cm	191			191			191			184					
WEIGHT																
Net weight	kg	2900	3200	3500	3100	3400	3700	3200	3600	3900	4100	4600	5600	6600	7600	

• Above specifications are subject to change without prior notice.

MACHINE SPECIFICATIONS

MODEL	Unit	CL-3060	CL-3080	CL-30120	CL-30160	CL-30200	CL-3360	CL-3380	CL-33120	CL-33160	CL-33200
CAPACITY											
Swing over bed	mm	770					840				
Swing in gap (option)	mm	1010					1080				
Swing over cross slide	mm	500					570				
Distance between center	mm	1600	2100	3100	4100	5100	1600	2100	3100	4100	5100
Suitable 3-jaw hydr. chuck size (option)	inch	15"					15"				
Hole through with hydr. chuck	mm	91 / 117.5					91 / 117.5				
Gap length from spindle nose surface	mm	390					390				
Max. work piece weight (with tailstock)	kg	4000					4000				
Bed width	mm	450					450				
TRAVEL											
X axis	mm	450					450				
Z axis	mm	1500	2000	3000	4000	5000	1500	2000	3000	4000	5000
SPINDLE											
Spindle hole	mm	105			155 (opt.)		105	155 (opt.)	230 (opt.)	255 (opt.)	305 (opt.)
Spindle nose		A1-11			A2-11		A1-11	A2-11	A2-15	A2-15	A2-20
Spindle range	rpm	H: 331~1500 M: 93~330 L : 20~92			H: 155~700 M: 46~154 L : 10~45		H: 331~1500 M: 93~330 L : 20~92	H: 155~700 M: 46~154 L : 10~45	H: 106~480 M: 21~105 L : 4~20	H: 95~430 M: 19~94 L : 4~18	H: 82~370 M: 17~81 L : 3~16
Suitable 3-jaw scroll chuck size (option)	mm	310/405					310/405				
Spindle motor inverter drive	HP	15 / 20 (opt.)					15 / 20 or 25 (opt.)				
TURRET (OPTION)											
Number of tool stations		8					8				
Tool allowance	mm	25x25					25x25				
TURRET (OPTION)											
Number of tool stations		4					4				
Tool allowance	mm	32x32					32x32				
FEED RATE											
X axis rapid traverse	M/min.	5					5				
Z axis rapid traverse	M/min.	7	6				7	6			
FEED MOTORS											
X axis power	Nm	6.3					6.3				
Z axis power	Nm	11.6					11.6				
BALL SCREW											
X axis	mm	Ø28 x P5					Ø28 x P5				
Z axis	mm	Ø50 x P10			Ø63 x P12		Ø50 x P10			Ø63 x P12	
TAILSTOCK											
Quill stroke	mm	220					220				
Quill diameter	mm	Ø105					Ø105				
Quill inside taper	MT	5					5				
COOLANT											
Pump motor	HP	1/4					1/4				
LUBRICATION											
Pump motor	W	12					12				
Pump capacity	cc/time	6					6				
DIMENSION											
Length	cm	381	431	531	631	731	381	431	531	631	731
Width	cm	212					212				
Height	cm	184					184				
WEIGHT											
Net weight	kg	4300	4800	5800	6800	7800	4500	5000	6000	7000	8000

MACHINE SPECIFICATIONS

MODEL	Unit	CL-4260	CL-4280	CL-42120	CL-42160	CL-42200	CL-42240	CL-5060	CL-5080	CL-50120	CL-50160	CL-50200	CL-50240		
CAPACITY															
Swing over bed	mm	1070						1270							
Swing over cross slide	mm	744						944							
Distance between center	mm	1700	2200	3200	4200	5200	6200	1700	2200	3200	4200	5200	6200		
Suitable 3-jaw hydr. chuck size (option)	inch	18"						18"							
Hole through with hydr. chuck	mm	117.5						117.5							
Max. work piece weight (with tailstock)	kg	4000						4000							
Bed width	mm	610						610							
TRAVEL															
X axis	mm	580						680							
Z axis	mm	1500	2000	3000	4000	5000	6000	1500	2000	3000	4000	5000	6000		
SPINDLE															
Spindle hole	mm	155				230 (opt.)		155		230 (opt.)		305 (opt.)		410 (opt.)	
Spindle nose		A2-11				A2-15		A2-11		A2-15		A2-20		A2-28	
Speed range	rpm	H: 188~710				H: 136~515		H: 188~710		H: 136~515		H: 54~270		H: 43~215	
		M: 40~187				M: 33~135		M: 40~187		M: 33~135		M: 11~53		M: 9~42	
		L : 7~39				L : 4~32		L : 7~39		L: 4~32		L : 2~10		L : 1.5~8	
Suitable 3-jaw scroll chuck size (option)	mm	400/500/625						400/500/625							
Spindle motor AC servo drive	HP	29/44 (22/33 kW)						29/44 (22/33 kW)							
TURRET (OPTION)															
Number of tool stations		8						8							
Tool allowance	mm	32x32						32x32							
Tool shank (Ø)	mm	Ø50						Ø50							
TURRET (OPTION)															
Number of tool stations		4						4							
Tool allowance	mm	40x40						40x40							
FEED RATE															
X axis rapid traverse	M/min.	5						5							
Z axis rapid traverse	M/min.	6		5		4		6		5		4			
FEED MOTORS															
X axis power	Nm	17.3						17.3							
Z axis power	Nm	33.6						33.6							
BALL SCREW															
X axis	mm	Ø40 x P8						Ø40 x P8							
Z axis	mm	Ø80 x P16						Ø80 x P16							
TAILSTOCK															
Quill stroke	mm	300						300							
Quill diameter	mm	Ø165						Ø165							
Quill inside taper	MT	6						6							
COOLANT															
Pump motor	kW	0.96 (50Hz) / 1.34 (60Hz)						0.96 (50Hz) / 1.34 (60Hz)							
Pump capacity	L/min	min. 35 / max. 130						min. 35 / max. 130							
LUBRICATION															
Pump motor	W	12						12							
Pump capacity	cc/time	6						6							
WEIGHT															
Net weight	kg	10000	10800	12400	14000	15600	17200	10600	11400	13000	14600	16200	17800		

• Above specifications are subject to change without prior notice.

MACHINE SPECIFICATIONS

MODEL	Unit	CL-5160	CL-5180	CL-51120	CL-51160	CL-51200	CL-51240	CL-6360	CL-6380	CL-63120	CL-63160	CL-63200	CL-63240	
CAPACITY														
Swing over bed	mm	1300						1600						
Swing over cross slide	mm	900						1200						
Distance between center	mm	1700	2200	3200	4200	5200	6200	1700	2200	3200	4200	5200	6200	
Suitable 3-jaw hydr. chuck size (option)	inch	18"						18"						
Hole through with hydr. chuck	mm	117.5						117.5						
Max. work piece weight (with tailstock)	kg	5000						5000						
Bed width	mm	770						770						
TRAVEL														
X axis	mm	680						830						
Z axis	mm	1500	2000	3000	4000	5000	6000	1500	2000	3000	4000	5000	6000	
SPINDLE														
Spindle hole	mm	155 A2-11	230 (opt.) A2-15	305 (opt.) A2-20	410 (opt.) A2-28	large spindle bores are available on request		155 A2-11	230 (opt.) A2-15	305 (opt.) A2-20	410 (opt.) A2-28	large spindle bores are available on request		
Spindle nose														
Speed range	rpm	H: 151~750 M: 31~150 L : 6~30	H: 121~600 M: 25~120 L : 4~24	H: 76~375 M: 16~75 L : 3~15	H: 61~300 M: 13~60 L : 2~12		H: 151~750 M: 31~150 L : 6~30	H: 121~600 M: 25~120 L : 4~24	H: 76~375 M: 16~75 L : 3~15	H: 61~300 M: 13~60 L : 2~12				
Suitable 3-jaw scroll chuck size (option)	mm	400/500/625						400/500/625						
Sepindle motor AC servo drive	HP	29/44 (22/33 kW)						29/44 (22/33 kW)						
TURRET (OPTION)														
Number of tool stations		8						8						
Tool allowance	mm	32x32						32x32						
Tool shank (Ø)	mm	Ø50						Ø50						
TURRET (OPTION)														
Number of tool stations		4						4						
Tool allowance	mm	40x40						40x40						
FEED RATE														
X axis rapid traverse	M/min.	5						5						
Z axis rapid traverse	M/min.	6		5		4		6		5		4		
FEED MOTORS														
X axis power	Nm	23.5						23.5						
Z axis power	Nm	33.6						33.6						
BALL SCREW														
X axis	mm	Ø40 x P8						Ø40 x P8						
Z axis	mm	Ø80 x P16						Ø80 x P16						
TAILSTOCK														
Quill stroke	mm	300						300						
Quill diameter	mm	Ø165						Ø165						
Quill inside taper	MT	6						6						
COOLANT														
Pump motor	kW	1.8 (50Hz) / 2.6(60Hz)						1.8 (50Hz) / 2.6(60Hz)						
Pump capacity	L/min	min. 35 / max. 130						min. 35 / max. 130						
LUBRICATION														
Pump motor	W	12						12						
Pump capacity	cc/time	6						6						
WEIGHT														
Net weight	kg	12000	12800	14400	16000	17600	19200	13000	13800	15400	17000	18600	20200	



MAXIMART CORPORATION

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