

MOMENTUM
CNC-TAKANG

www.momentumna.com

THE HEAVY DUTY **FLATBED LATHE**

MLC / MLC PLUS / MLD / MFA



AMERICAN MACHINE STANDARDS TAIWANESE PRECISION MANUFACTURING

MOMENTUM: AMERICAN STANDARDS



American owned since 2015, Momentum specializes in building heavy-duty Vertical Turning Lathes (VTLs) and horizontal lathes.

Momentum's U.S. team leads product management, electrical design, PLC programming, and support documentation.

Mechanical design, supply chain management, and final assembly are carried out in Taiwan—at our wholly owned facility for VTLs and at our nearby partner, CNC-Takang, for flatbed lathes.

CNC-TAKANG: TAIWAN PRECISION



For over fifty years, CNC-Takang has built flatbed and horizontal lathes known for durability, performance, and long service life.

Neighboring Momentum's factory in Taichung, Taiwan, the company builds all machines in-house to ensure rigorous quality control and consistent results.

CNC-Takang continues to refine its proven designs to deliver reliable turning performance worldwide.

THE MOMENTUM + CNC-TAKANG PARTNERSHIP

Momentum and CNC-Takang integrate Takang's robust flatbed mechanical designs with Momentum's U.S.-engineered electrical systems and PLC platforms.

The result is advanced, heavy-duty machines built to meet American electrical standards and documentation requirements, with optional streamlined NRTL certification, backed by Momentum's established distribution and service network across the Americas.

THE BUILT-IN PRODUCT ADVANTAGES

- **HEAVY-DUTY FOUNDATION** – Each flatbed model features a rigid base designed for stability and long service life. Many features typically considered premium elsewhere are included as standard.
- **TAILORED TO YOUR NEEDS** – A modular design approach enables flexible configuration, allowing customers to select features and capabilities. Lead times are often shorter than for competing platforms.
- **RELIABLY SUPPORTED** – Momentum's experienced distributor network across the Americas provides expert installation, responsive service, and dependable long-term support.

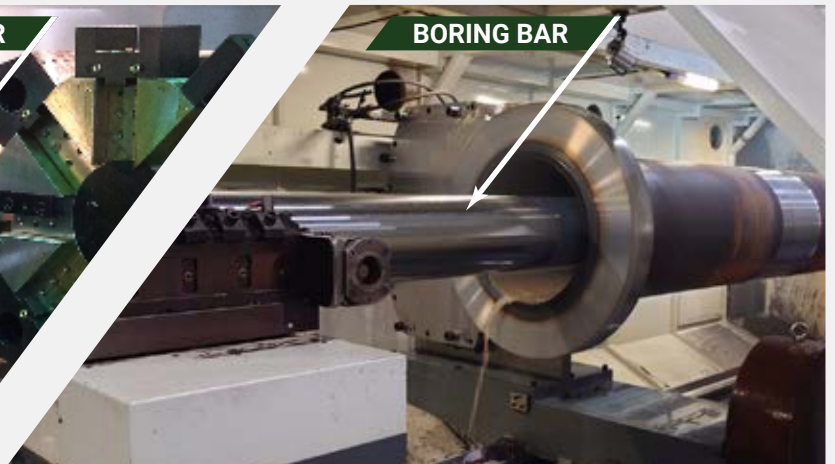
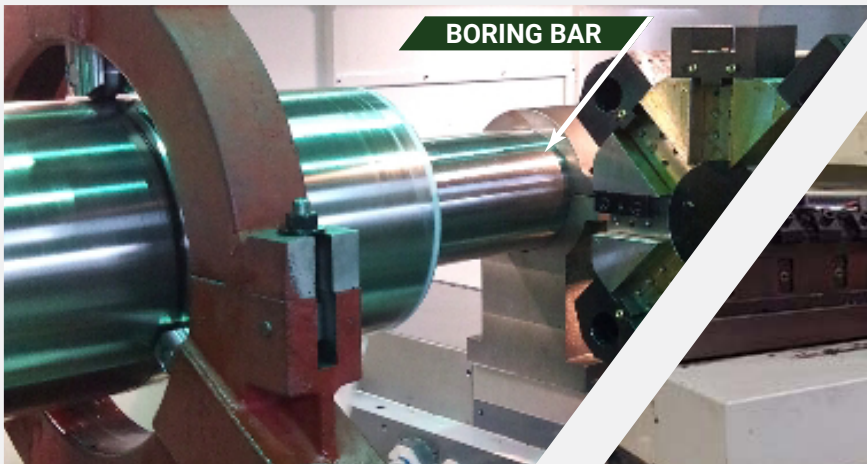
STANDARD AND OPTIONAL ACCESSORIES

STANDARD ACCESSORIES

1. Fanuc Oi-TF Plus Control
2. 6" spindle bore all models
3. H4 or V12 hydraulic turret
4. Auto coolant, hydraulic, lubrication
5. Box way on cross slide
6. Boring holder carriage prep.
7. Splash guard
8. Hydraulic tailstock, rotating quill
9. Front and rear chip conveyors
10. Work light
11. Tool box with tools

OPTIONAL ACCESSORIES

1. Increase bore size, power, speeds
2. Spindle oil chiller
3. Chuck, hydraulic or manual
4. Face plate
5. Cf-gearbox axis with brake
6. Live turret and Y-axis
7. Driven tool turret
8. Steady rest, hydraulic or manual
9. Large boring holder on cross slide
10. Heavy duty milling attachment
11. Grinding head, on turret or slide
12. Tool presetter
13. Higher coolant pressure
14. NRTL, CE, CSA etc.



MLC SERIES

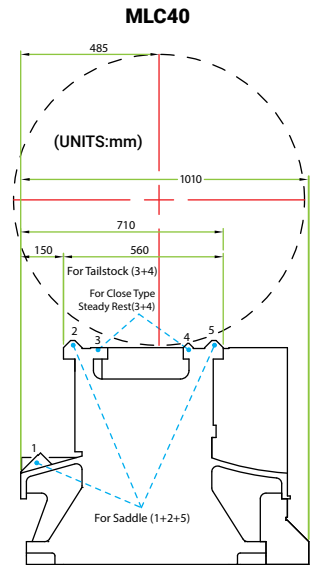


TWO WAY BED (Turret cannot pass steady rests)

Single set of ways for:

- Tailstock
- Boring Bar Holder
- Turret
- Steady Rest

Swing over bed: 770 - 1270 mm
 Between centers: 1200 - 12200 mm
 B/C Weight capacity: 8,000 kg, (Opt. 12,000 kg)



SPECIFICATIONS

MODEL	DESCRIPTION	MLC 30	MLC 35	MLC 40	MLC 45	MLC 50
Capacity	Swing over bed	770 mm (30")	895 mm (35")	1020 mm (40")	1145 mm (45")	1270 mm (50")
	Swing over cross slide	350 mm (13.7")	480 mm (18.8")	610 mm (24")	740mm (29.1")	870 mm (34.2")
	Center height	390 mm (15.3")	455 mm (17.9")	520 mm (20.4")	585 mm (23")	650 mm (25.5")
	Distance between centers	1200 (47.2") / 2200 (86.6") / 3200 (125.9") / 4200 (165.3") 5200 (204.7") / 6200 (244.1") / 7200 (283.4") / 8200 (322.8") 9200 (362.2") / 10200 (401.5") / 11200 (440.9") / 12200 (480.3")				
Bed width / Auxiliary guide		560 mm (22") / 710 mm (27.9")				
Spindle	Spindle speeds	Spindle nose				
		A2-11 (6")	600 rpm (Opt. 800 rpm)			
		A2-15 (9")	450 rpm (Opt. 600 rpm)			
		A2-20 (12", 14.5")	400 rpm (12")	400 rpm (12"), 300 rpm (14.5")		
		A2-28 (16")				
	A2-28 (21")					
	Spindle center	MT6				
Width of cross slide	380 mm (14.9")					
Width of carriage	885 mm (34.8")					
Turret	Turret	H4-250 or V12 Hydraulic (Opt. H4-350, BMT-65 with Y axis, BMT75 w/o Y-axis)				
	Tool size	32 x 32 mm (1.25")				
	X axis travel	530 mm (20.8")				630 mm (24.8)
	Z axis travel	1200 mm (47.2") – 8200 mm (322.8")				
	X axis rapid travel	6M / min dia. 40 mm x P5				
	Z axis rapid travel	6M / min, 1M-5M (dia. 63 mm x P10), 6M-7M (dia. 80 mm x P10), 8M-12M (Rack and Pinion Driver)				
Tailstock	Tailstock quill diameter	Dia. 185 mm (7.2") Rotating quill, Opt. dia. 250 mm (9.8")				
	Tailstock quill travel	250 mm (9.8")				
	Tailstock center	MT6				
Motor	X axis servo motor	FANUC aiF22 4 kw				
	Z axis servo motor	1-3M FANUC aiF22 4 kw, 4-7M FANUC aiF22 4 kw (Gear box) 8-12M aiF40 6 kw (Rack and Pinion Driver)				
	Spindle motor	FANUC ail 30 30 / 37 kw (Opt. FANUC ail 40 37/45 kw)				
Machine Weight	1000 mm center distance	10,200 kg	10,600 kg	11,000 kg	11,400 kg	11,800 kg
	Each extra 1000 mm weight	1200 kg				

(All specifications subject to change.)

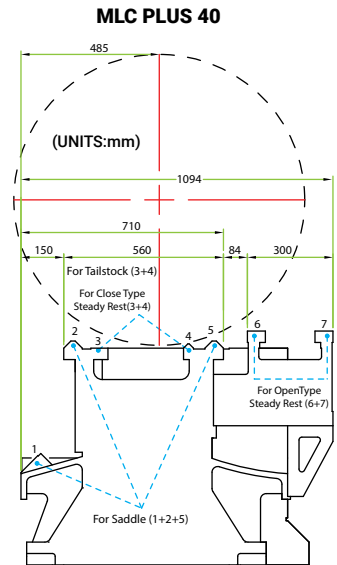
MLC PLUS SERIES



TWO WAY PLUS BED (Turret can pass steady rests)

- Front Ways for:
 - Tailstock
 - Turret
 - Boring Bar Holder
- Rear Ways for:
 - Open Front (C-type) Steady Rest

Swing over bed: 770 - 1270 mm
 Between centers: 1200 - 12200 mm
 B/C Weight capacity: 8,000 kg, (Opt. 12,000 kg)



SPECIFICATIONS

MODEL	DESCRIPTION	MLC 30 PLUS	MLC 35 PLUS	MLC 40 PLUS	MLC 45 PLUS	MLC 50 PLUS
Capacity	Swing over bed	770 mm (30")	895 mm (35")	1020 mm (40")	1145 mm (45")	1270 mm (50")
	Swing over cross slide	350 mm (13.7")	480 mm (18.8")	610 mm (24")	740mm (29.1")	870 mm (34.2")
	Center height	390 mm (15.3")	455 mm (17.9")	520 mm (20.4")	585 mm (23")	650 mm (25.5")
	Distance between centers	1200 (47.2") / 2200 (86.6") / 3200 (125.9") / 4200 (165.3") 5200 (204.7") / 6200 (244.1") / 7200 (283.4") / 8200 (322.8") 9200 (362.2") / 10200 (401.5") / 11200 (440.9") / 12200 (480.3")				
Bed width / Auxiliary guide		560 mm (22") / 710 mm (27.9")				
Spindle	Spindle speeds	Spindle nose				
		A2-11 (6")	600 rpm (Opt. 800 rpm)			
		A2-15 (9")	450 rpm (Opt. 600 rpm)			
		A2-20 (12", 14.5")	400 rpm (12")	400 rpm (12"), 300 rpm (14.5")		
		A2-28 (16")				
	A2-28 (21")					
	Spindle center	MT6				
Width of cross slide	380 mm (14.9")					
Width of carriage	885 mm (34.8")					
Turret	Turret	H4-250 or V12 Hydraulic (Opt. H4-350, BMT-65 with Y axis, BMT75 w/o Y-axis)				
	Tool size	32 x 32 mm (1.25")				
	X axis travel	530 mm (20.8")				630 mm (24.8)
	Z axis travel	1200 mm (47.2") – 8200 mm (322.8")				
	X axis rapid travel	6M / min dia. 40 mm x P5				
	Z axis rapid travel	6M / min, 1M-5M (dia. 63 mm x P10), 6M-7M (dia. 80 mm x P10), 8M-12M (Rack and Pinion Driver)				
Tailstock	Tailstock quill diameter	Dia. 185 mm (7.2") Rotating quill, Opt. dia. 250 mm (9.8")				
	Tailstock quill travel	250 mm (9.8")				
	Tailstock center	MT6				
Motor	X axis servo motor	FANUC αiF22 4 kw				
	Z axis servo motor	1-3M FANUC αiF22 4 kw, 4-7M FANUC αiF22 4 kw (Gear box) 8-12M αiF40 6 kw (Rack and Pinion Driver)				
	Spindle motor	FANUC αil 30 30 / 37 kw (Opt. FANUC αil 40 37/45 kw)				
Machine Weight	1000 mm center distance	10,200 kg	10,600 kg	11,000 kg	11,400 kg	11,800 kg
	Each extra 1000 mm weight	1200 kg				

(All specifications subject to change.)

MLD SERIES

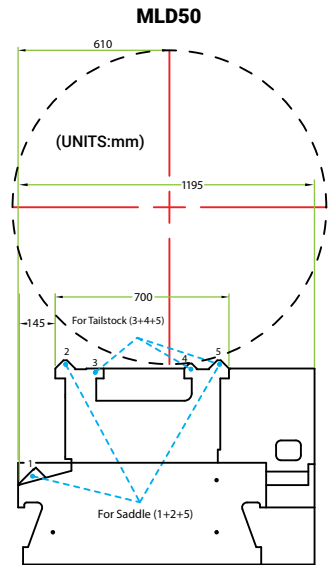


TWO WAY BED (Turret cannot pass steady rests)

Single Set of Ways for:

- Tailstock
- Turret
- Boring Bar Holder
- Steady Rests

Swing over bed: 1135-1770 mm
 Between centers: 1400 - 12400 mm
 B/C Weight capacity: 9,000 kg, (Opt. 13,000 kg, 18,000 kg)



SPECIFICATIONS

MODEL	DESCRIPTION	MLD 45	MLD 50	MLD 55	MLD 60	MLD 65	MLD 70	
Capacity	Swing over bed	1135 mm (45")	1265 mm (50")	1395 mm (55")	1520 mm (60")	1645 mm (65")	1770 mm (70")	
	Swing over cross slide	720 mm (28.3")	850 mm (33.4")	980 mm (38.5")	1110 mm (43.7")	1240 mm (48.8")	1360 mm (53.5")	
	Center height	585 mm (23")	650 mm (25.5")	715 mm (28.1")	780 mm (30.7")	845 mm (33.2")	910 mm (35.8")	
	Distance between centers	1400 (55.1") / 2400 (94.4") / 3400 (132.8") / 4400 (173.2") / 5400 (212.5") 6400 (251.9") / 7400 (291.3") / 8400 (330.7") / 9400 (370") 10400 (409.4") / 11400 (448.8") / 12400 (488.1")						
	Bed width / Auxiliary guide	700 mm (27.5") / 850 mm (33.4")						
Spindle	Spindle speeds	Spindle nose						
		A2-11 (6")						600 rpm (Opt. 800 rpm)
		A2-15 (9")						450 rpm (Opt. 600 rpm)
		A2-20 (12", 14.5")						400 rpm (12"), 300 rpm (14.5")
		A2-28 (16")						250 rpm
	A2-28 (21")						220 rpm	
	Spindle center	MT6						
Width of cross slide	420 mm (16.5")							
Width of carriage	950 mm (37.4")							
Turret	Turret	H4-350 or V12 Hydraulic (opt. BMT-75 with or w/o Y-axis)						
	Tool size	32 x 32 mm (1.25")						
	X axis travel	730 mm (28.7")						
	Z axis travel	1-8M: 1300 mm (51.1") – 8300 mm (326.7") 9-10M: 9150 (360.2") – 10150mm (399.6")						
	X axis rapid travel	6M / min dia. 40 mm x P5						
	Z axis rapid travel	6M / min, 1M-5M (dia. 63 mm x P10), 6M-7M (dia. 80 mm x P10), 8M-12M (Rack and Pinion Driver)						
Tailstock	Tailstock quill diameter	Dia. 185 mm (7.2") Rotating quill, Opt. dia. 250 mm (9.8") / 350 mm (13.7")						
	Tailstock quill travel	250 mm (9.8"), Opt. 300 mm (9.8") for tailstock quill diameter 350 mm						
	Tailstock center	MT6						
Motor	X axis servo motor	FANUC aiF22 4 kw						
	Z axis servo motor	1-3M FANUC aiF22 4 kw, 4-7M FANUC aiF22 4 kw (Gear box) 8-12M aiF40 6 kw (Rack and Pinion Driver)						
	Spindle motor	FANUC ail 30 30 / 37 kw (Opt. FANUC ail 40 37/45 kw)						
Machine Weight	1000 mm center distance	16,400 kg	17,000 kg	17,600 kg	18,200 kg	18,800 kg	19,400 kg	
	Each extra 1000 mm weight	1500 kg						

(All specifications subject to change.)

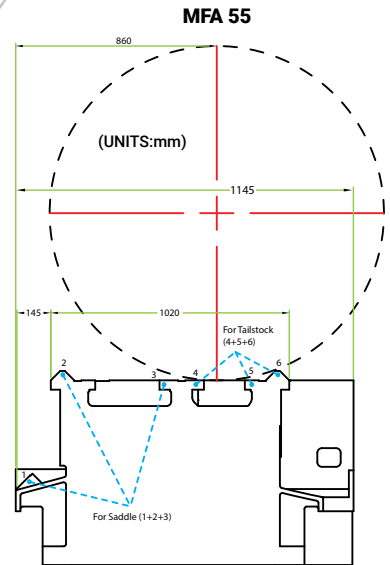
MFA SERIES



FOUR WAY BED (Turret can pass steady rests)

- Front Ways for:
 - Turret
 - Boring carriage
- Rear Ways for:
 - Tailstock
 - Steady Rest
 - Rear Turret

Swing over bed: 1170 - 2550 mm
 Between centers: 2150 - 14150 mm
 B/C Weight capacity: 15,000 kg, (Opt. 20,000 kg, 30,000 kg)



SPECIFICATIONS

MODEL	DESCRIPTION	MFA 45	MFA 50	MFA 55	MFA 60	MFA 70	MFA 80	MFA 100		
Capacity	Swing over bed	1170 mm (45")	1300 mm (50")	1430 mm (55")	1560 mm (60")	1800 mm (70")	2050 mm (80")	2550 mm (100")		
	Swing over cross slide (Half length)	845mm (33.2")	965mm (37.9")	1090mm (42.9")	1215mm (47.8")	1465mm (57.6")	1715mm (67.5")	2220mm (87.4")		
	Swing over cross slide (Full length)	720mm (28.3")	850mm (33.4")	980mm (38.5")	1110mm (43.7")	1370mm (53.9")	1630mm (64.1")	2150mm (84.6")		
	Center Height	585mm (23")	650mm (25.5")	715mm (28.1")	780mm (30.7")	910mm (35.8")	1040mm (40.9")	1300mm (51.1")		
	Distance between centers	2150 (84.6") / 3150 (124") / 4150 (163.3") / 5150 (202.7") / 6150 (242.1") 7150 (281.4") / 8150 (320.8") / 9150 (360.2") / 10150 (399.6") 11150 (438.9") / 12150 (478.3") / 13150 (517.7") / 14150 mm (557")								
	Bed width / Auxiliary guide	1020mm (40.1") 1170 (46")								
	Width of cross slide	420 mm (16.5")								
	Width of carriage	950 mm (37.4")								
Spindle	Spindle nose	A2-11 (6") / A2-15 (9") / A2-20 (12", 14") on MFA45 - MFA100 A2-28 (16") on MFA55N - MFA100 only A2-28 (21") on MFA60 - MFA100 only								
	Spindle speeds	A2-11 153 mm (6")	585 rpm (Opt. 800 rpm)							
		A2-15 230 mm (9")	450 rpm (Opt. 600 rpm)							
		A2-20 305 mm (12")	400 rpm							
		A2-20 369 mm (14")	300 rpm							
		A2-28 408 mm (16")	250 rpm							
	A2-28 534 mm (21")	220 rpm								
Spindle center	MT6									
Turret	Turret	H4-350 or V12 Hydraulic (opt. BMT-75 with or w/o Y-axis)								
	Tool size	32 x 32 mm (1.25")								
	X axis travel (Half length cross slide)	600 mm (23.6")								
	X axis travel (Full length cross slide)	900 mm (35.4")								
	Z axis travel	2150mm (84.6") - 14150mm (557")								
	X axis rapid travel	6M / min, dia. 40 mm x P5								
	Ball screw diameter	6M / min, 1-5M (dia. 63 mm x P10); 5M / min, 6-7M (dia. 80 mm x P10) (Gear box)								
	Z axis rapid travel	5M / min, 8-14M (Rack and Pinion Driver)								
Tailstock	Tailstock quill diameter	Dia. 250mm (9.8") Opt. dia. 350 mm (13.7") / 450 mm (15.7")								
	Tailstock quill travel	250mm (9.8") / Opt. 300 mm (11.8")								
	Tailstock center	MT6								
Motor	X axis servo motor	FANUC aiF22 4kw								
	Z axis servo motor	22-3M FANUC aiF22 4kw, 4-7M FANUC aiF22 4kw (Gear Box) 8-14M FANUC aiF40 6kw (Rack and Pinion Driver)								
	Spindle motor	FANUC ail 40 37/45kw (Opt. FANUC ail 50 45/55kw)								
Machine Weight	2000mm center distance	17,500 kg	18,000 kg	18,600 kg	19,200 kg	20,400 kg	21,600 kg	25,500 kg		
	Each extra 1000 mm weight	1500 kg								

(All specifications subject to change.)

ENGINEERED TO CUSTOMER REQUIREMENTS



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