

Double Turret CNC Lathes

| Powerful | Fast | Efficient | For Different Industry |



With 55 years of technical background in design and manufacturing of high precision CNC lathes, L&L is committed to offering customers CNC lathes with quality and competitive prices that they have come to expect. This drive to meet customers' expectations has produced a remarkable number of outstanding features.

L&L offers a wide range of CNC lathes in combination with various brands of CNC controls and painting colors to meet your specific requirements.

Each machine from L&L will represent L&L's tradition of Insisting on Quality.

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CNC LATHES

MA

MA-U

The New Series of Customized CNC Lathes
To The Pursuit of Innovation Customers

L&L
L&L Machinery Industry Co., Ltd.

26
YEAR



Single System With Double Turret One-piece Fabricated Bed

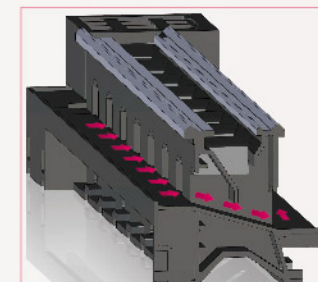
The massive bed is one-piece manufactured from high quality Meehanite cast iron, and stress relieved for deformation-free year after year.

Bedways are induction hardened to hardness of HRC 52~54, and precision ground to achieve high straightness accuracy.

E

Dust Removing Hole

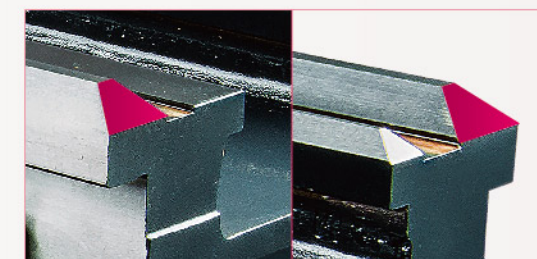
The dust removing hole in the bed allows chips to be delivered to the chip conveyor, located at the rear side of the machine.



F

Triple "V" and Flat Bedways

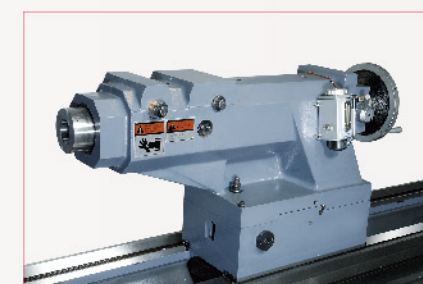
The bed is designed with triple "V" and one flat slideway to increase machining dependability and more high precision.



G

Tailstock (Optional)

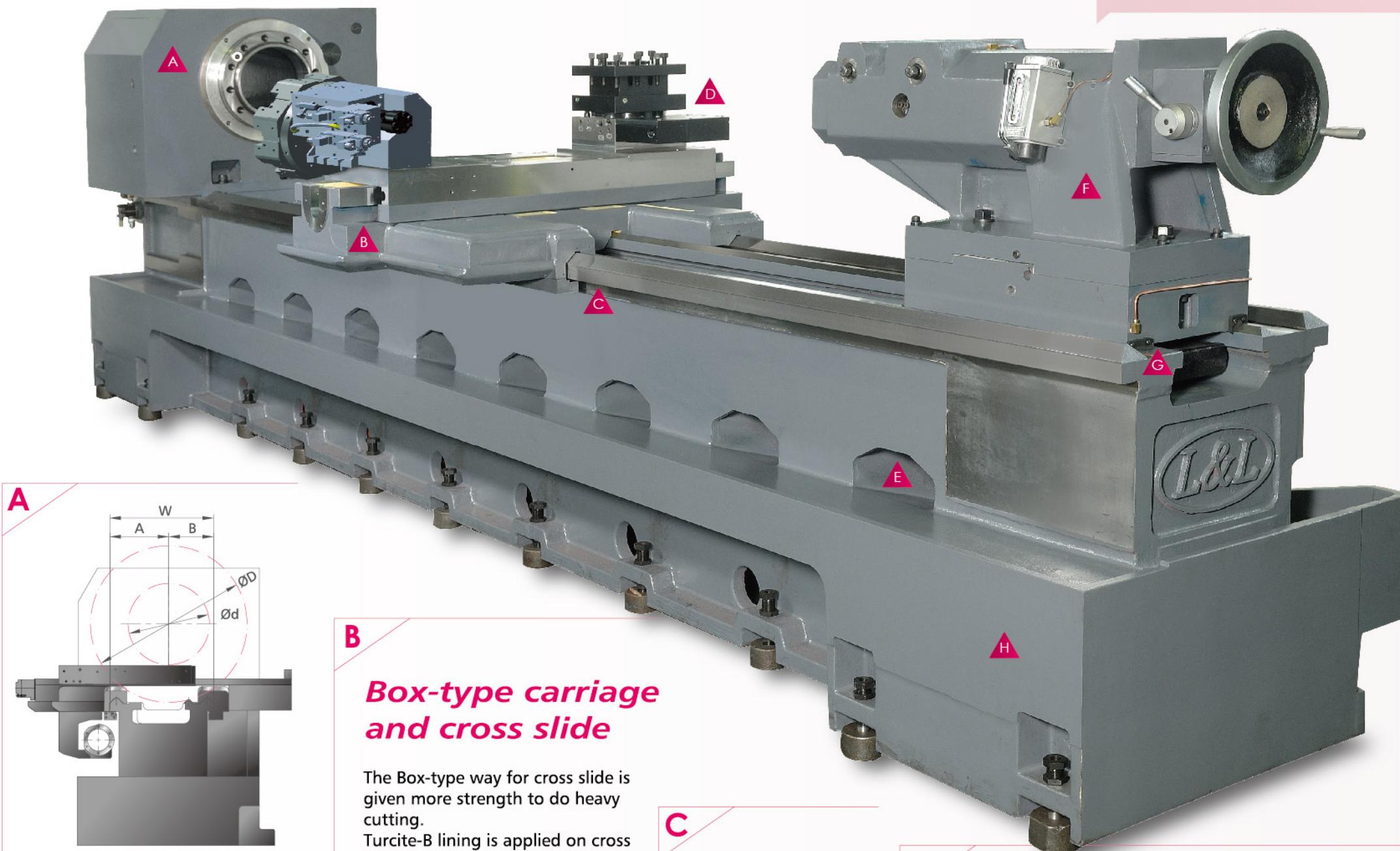
The tailstock accommodates a MT#6 live center. Ø 125 mm quill diameter can hold workpiece firmly.



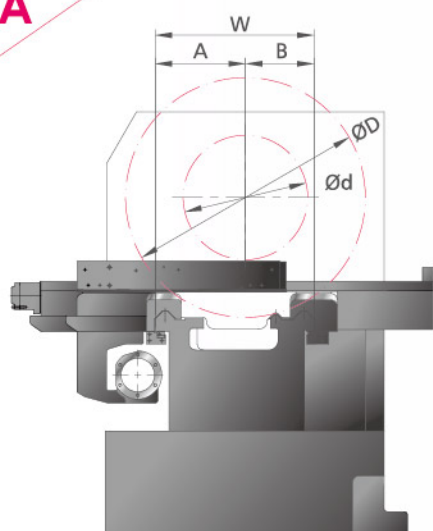
H

Heavily Ribbed Bed for Increased Rigidity

The bed is scientifically ribbed to achieve ultra high rigidity and stability during cutting.



A



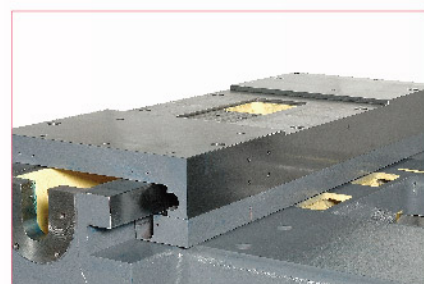
Carriage Bed Width /
Max Workpiece Dia>0.5

	MA30
Swing over bed (D)	770
Swing over cross slide (d)	400
A	290
B	270
W	560
ØD	770
Ød	400

B

Box-type carriage and cross slide

The Box-type way for cross slide is given more strength to do heavy cutting. Turcite-B lining is applied on cross slide and carriage to reduce friction.



C

X, Z-axis Ball Screws

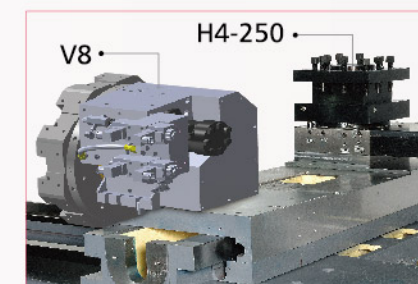
X-axis ball screw: diameter Ø40mm, pitch 5mm

Z-axis ball screw: diameter Ø63mm, pitch 10mm

D

Double Turret

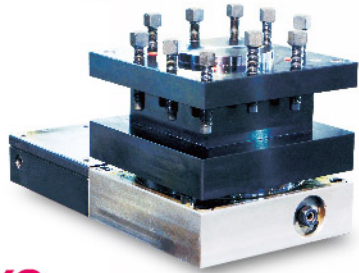
- A combination of two turrets for machining
- Complex work-pieces at one time
- Enhance capacity for mass production
- More efficient for processing



Turret

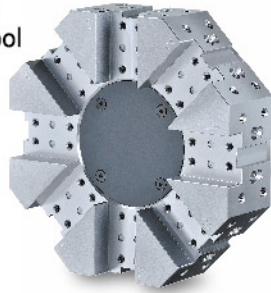
H4 Hydraulic Turret (Standard)

The H4 hydraulic turret holds 4 tools and can be quickly swivelled to cutting position.



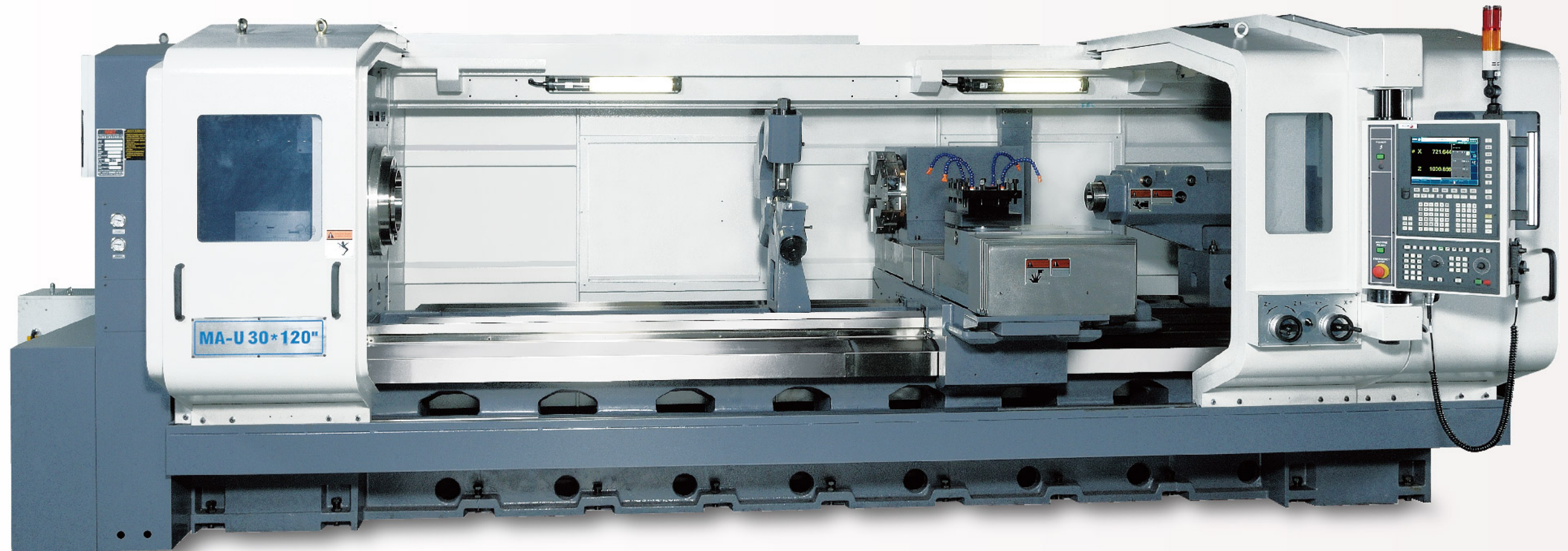
V8 Hydraulic Turret (Standard)

The V8 hydraulic turret holds 8 tools. It features high indexing accuracy, random tool selection and fast tool change.



MA-U
SERIES

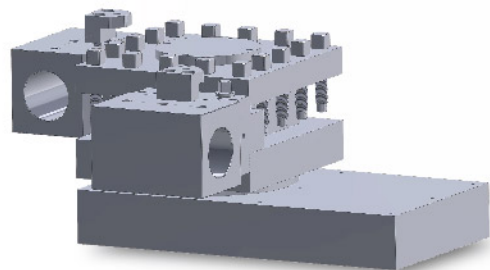
Double System With Double Turret



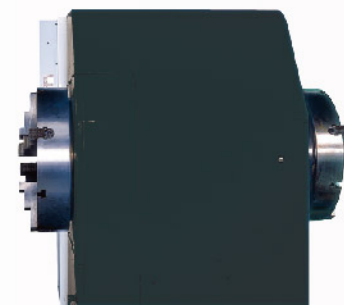
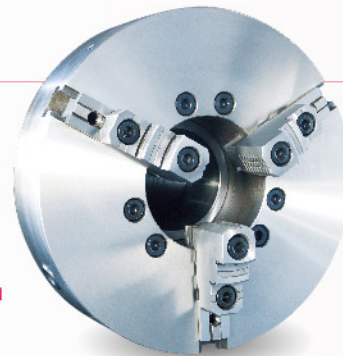
Chuck

Quick-change toolholder (Optional)

- Can increase type of tool change
- Increase the speed of quick tool change
- Shorten the processing time and tool change time

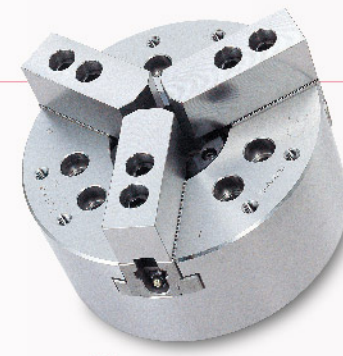


3 JAW Manual , Chuck Ø 16" ~ 30" (Optional)



4 JAW Manual , Chuck Ø 15" ~ 30" (Optional)

3 Jaw Hollow Power Chucks Hydraulic Chuck Ø 12" ~ 24" (Optional)

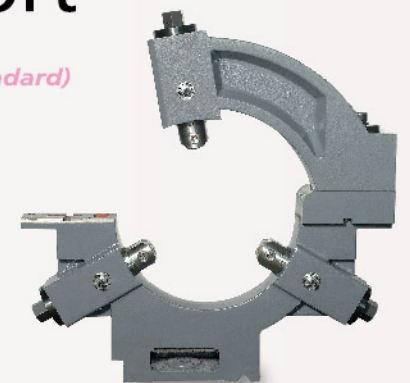


3 Jaw Solid Power Chucks Hydraulic Chuck Ø 15" ~ 24" (Optional)

Rigid Support

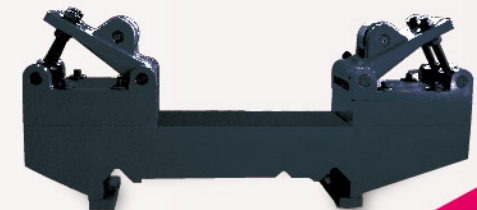
STEADY REST (Standard)

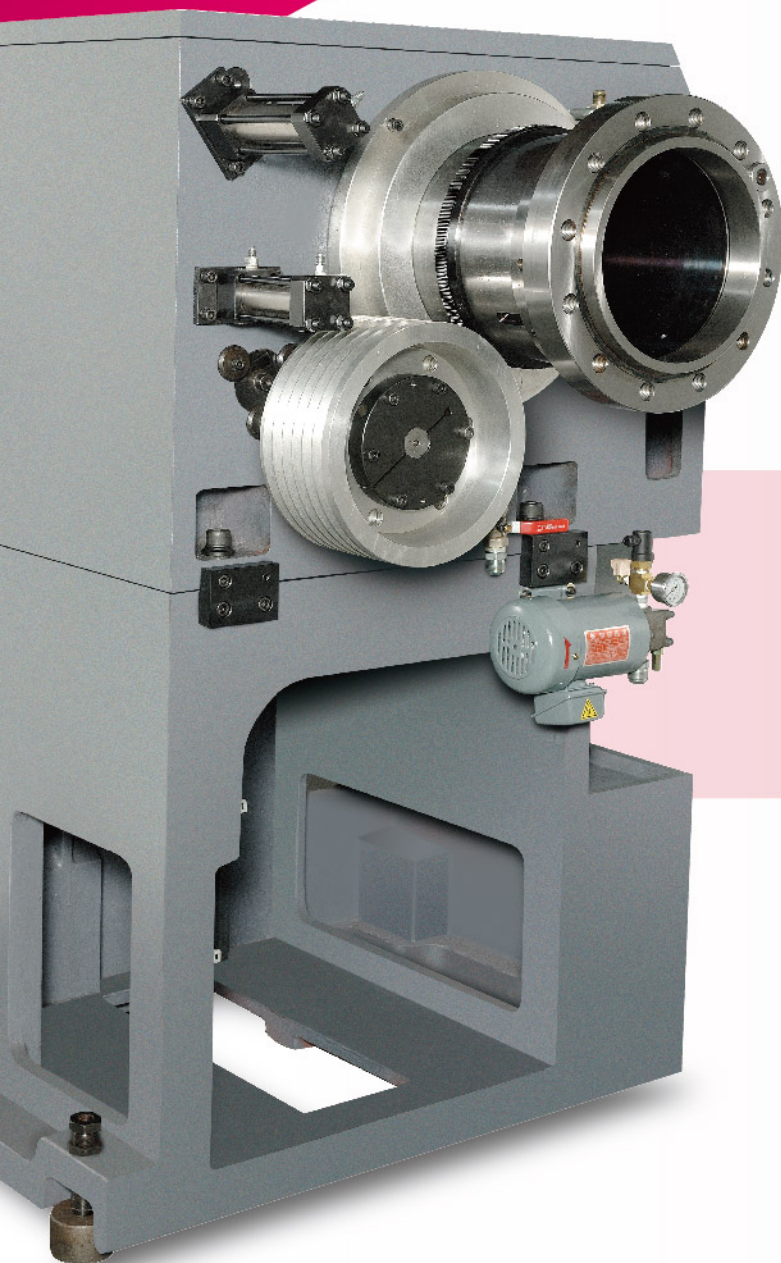
- 80mm quill diameter with heavy loaded bearing.
- Enhance rigidity and stable performance in machining.
- Ø30 - 300 mm
- Ø255 - 455 mm



ROLLER BRACKET

- Equipped on the machine especially for heavy duty large diameter workpieces.
- Has a wide range of clamping capacity 300mm-500mm.

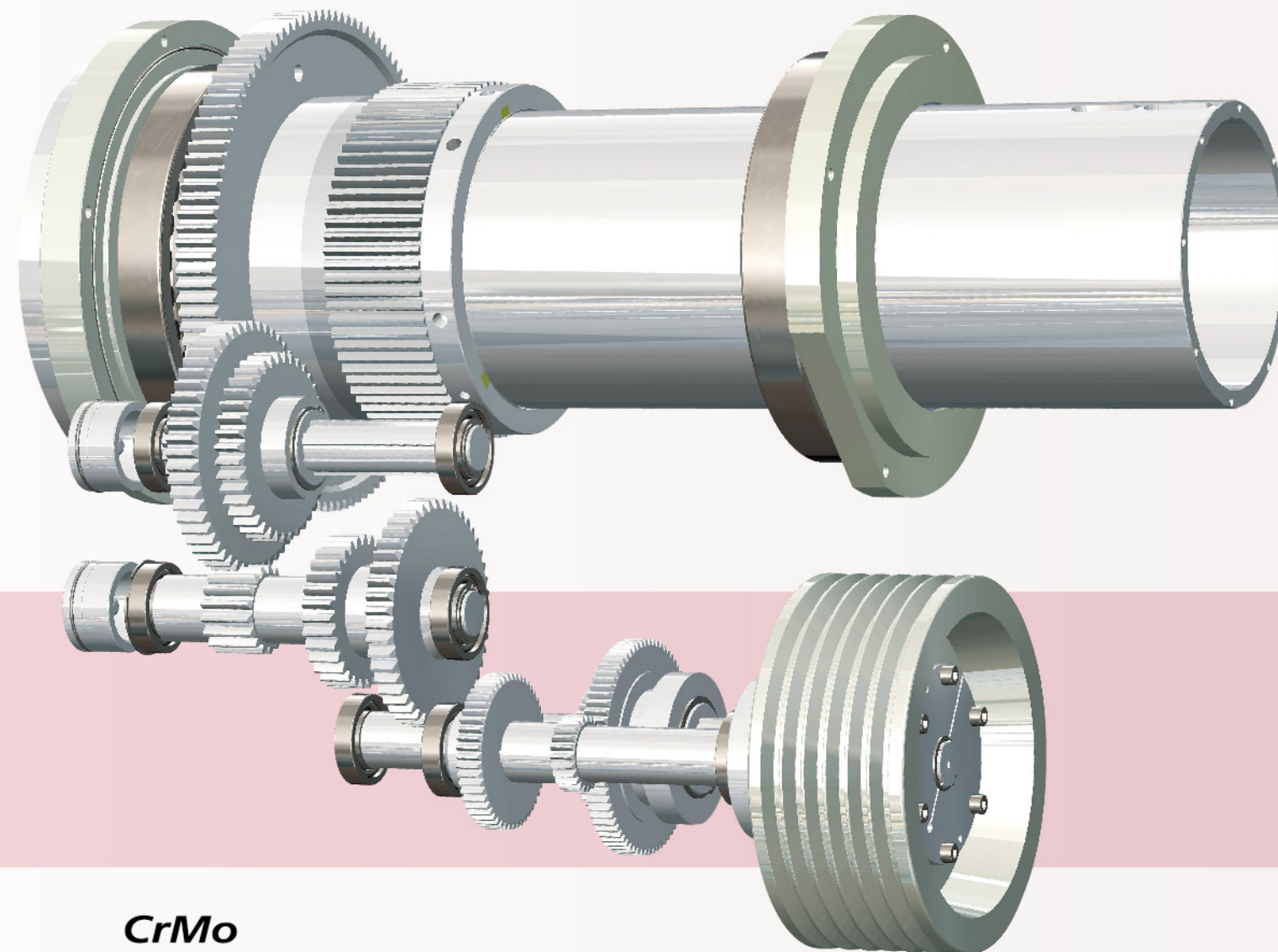




Rigid Spindle

All gears are manufactured from high quality nickel chrome-molybdenum alloy steel in combination with a large module design.

- Our precision lathes are turned for ultimate performance through dynamic balance testing
- All gears in headstock are hardened and precisely ground
- The spindle is supported by high precision taper roller bearings
- An auto-lubrication system is equipped for headstock gears and spindle bearings



CrMo Spindle – HRC50

Superb Design

To ensure the spindle accuracy and durability, all of our machines are built to last. We use the best SCM-435-440 chromium molybdenum steel material for our spindles.

SNCM 220 Gear Materials Gear Module:

MA / MA-U: M3.5, M4

New

8"(A2-15)
Heavy Duty Machining

10"(A2-15)
Oil Pipe

6"(A2-11)
Heavy Duty Machining

9"(A2-15)
Oil Pipe

12"(A2-20)
Oil Pipe

DYNAMIC BALANCED COMPONENTS

Motor-Pulley-Spindle

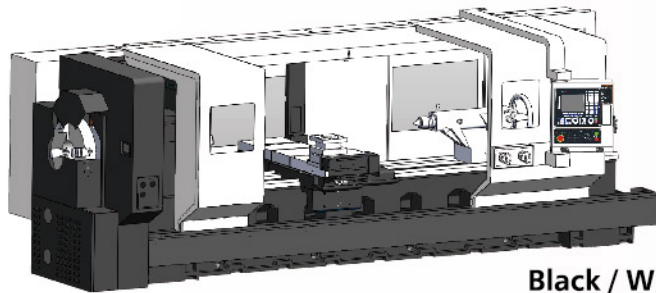
All L&L precision lathes are turned for ultimate performance through dynamic balance testing. We test all three of the key components, the Motor, the Pulley and the spindle to ensure that together, they deliver the performance our customers need. This is key to delivering the very best surface finish and quiet operation.



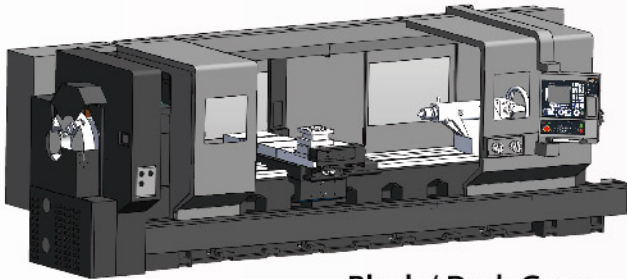
Elegant And Neat Appearance Design

Cables and flexible are concealed at the top of the splash guard, and deployed from the machine top to bottom. This unique design avoids chips depositing, protects wires, and increases attractiveness.

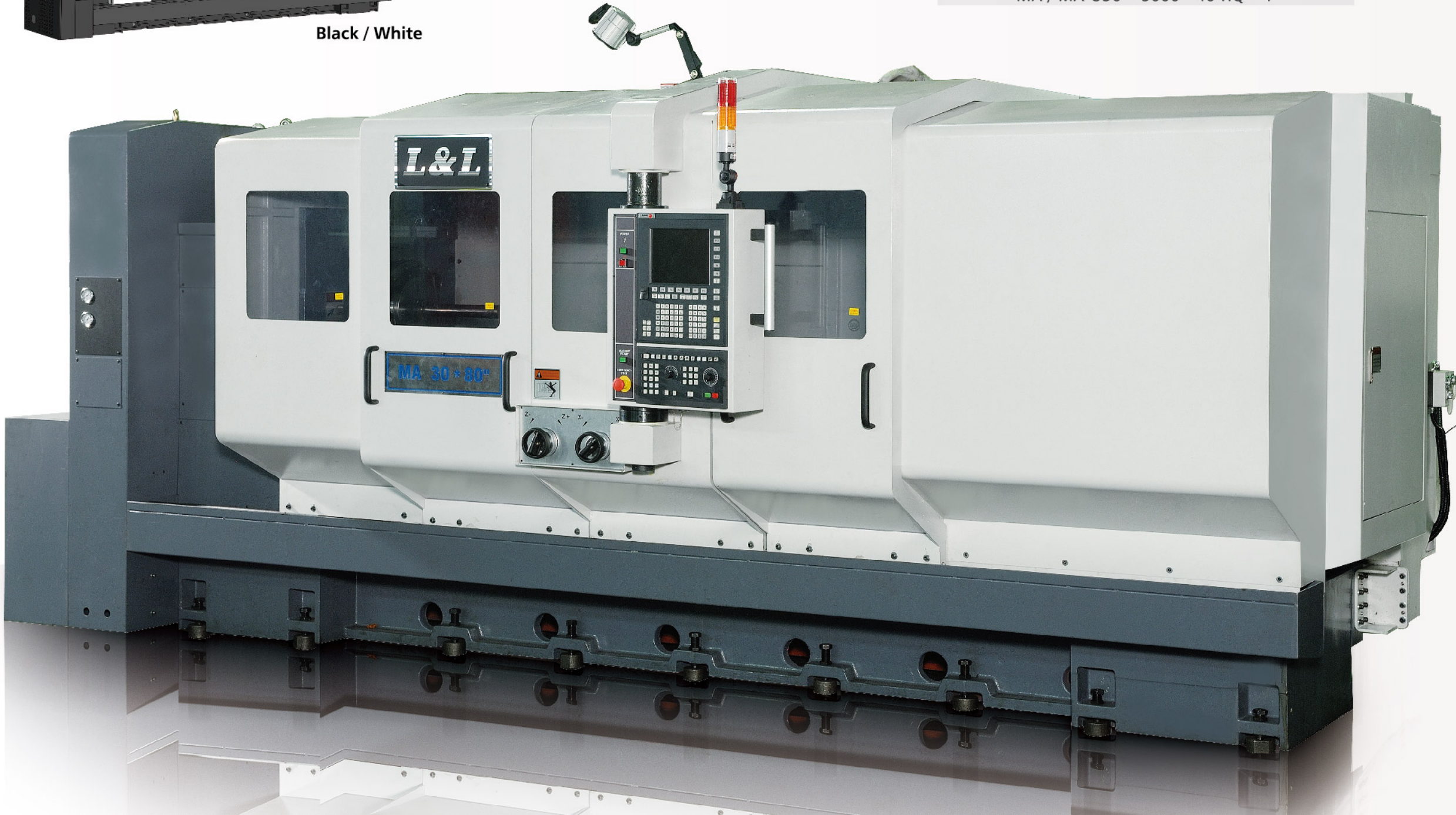
Choice of Various Painting Colors



Black / White



Black / Dark Gray



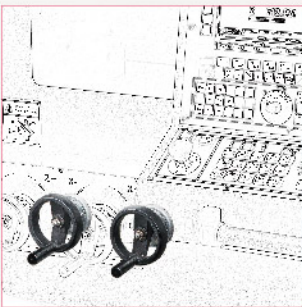
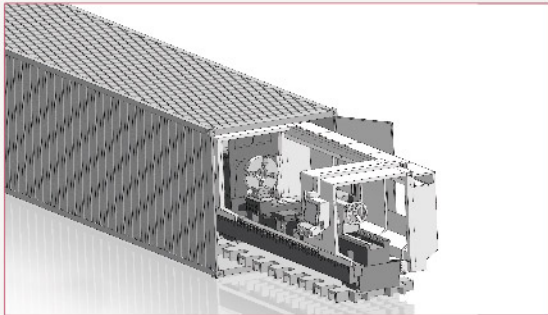
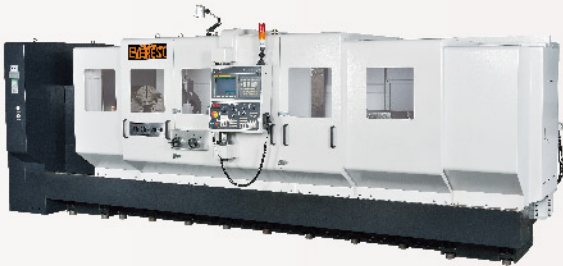
Fully Enclosed Splash Guard (Optional)

The machine appearance is designed with the concept of aesthetics and is not traditional and dull, while featuring a fashionable and simple appearance.

Container Loading for Saving Costs

Everest cares for every detail, even the transportation cost is also taken into consideration. For saving on set-up time, the machine width design enables the machine to be loaded into a container without dismantling the rear splash guard.

CONTAINER TYPE PER MODEL			
MA / MA-U30 * 1000	40'HQ	* 1	
MA / MA-U30 * 2000	40'HQ	* 1	
MA / MA-U30 * 3000	40'HQ	* 1	
MA / MA-U30 * 4000	40'HQ	* 1	
MA / MA-U30 * 5000	40'HQ	* 1	



There are two hand wheels on the safety door for two-axes simultaneous control.



User Friendly
Can be adjusted up and down by 100mm for users' height.

L&L Offers 3 World-famous Brands of Controls to Meet Market Demands.

Fagor

BRAND	FAGOR
Model	8060
Spindle Power	18.5/26 Kw
X-axis Servo Motor	12.5Nm (3.9Kw)
Z-axis Servo Motor	23.5Nm (7.4Kw)



FANUC

BRAND	FANUC
Model	Oi-TF
Spindle Power	18.5/22 Kw
X-axis Servo Motor	12Nm (3Kw)
Z-axis Servo Motor	22Nm (4Kw)

SIEMENS

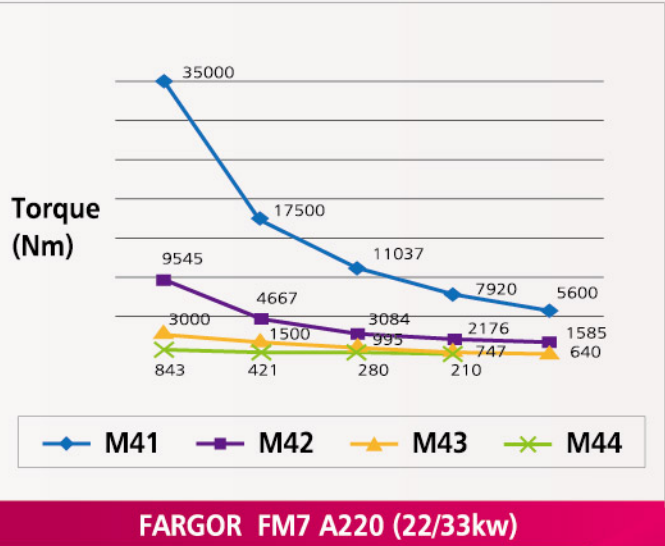
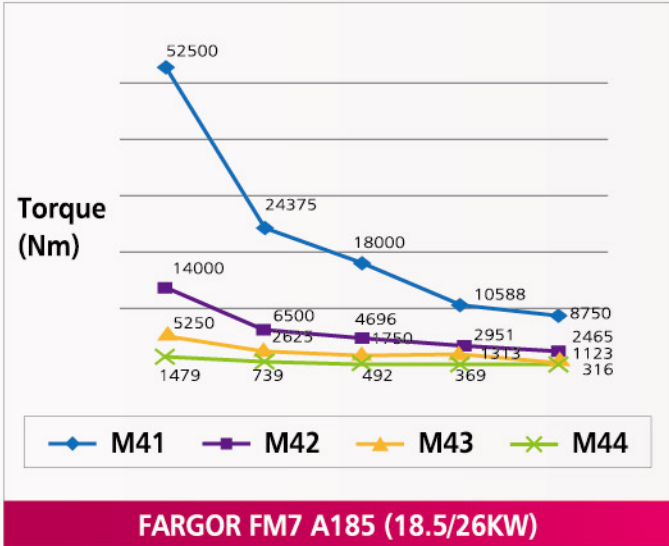
BRAND	SIEMENS
Model	828D
Spindle Power	18.5 Kw
X-axis Servo Motor	12Nm (3.8Kw)
Z-axis Servo Motor	26Nm (8.2Kw)



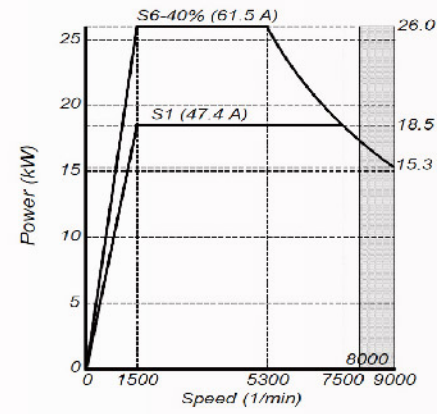
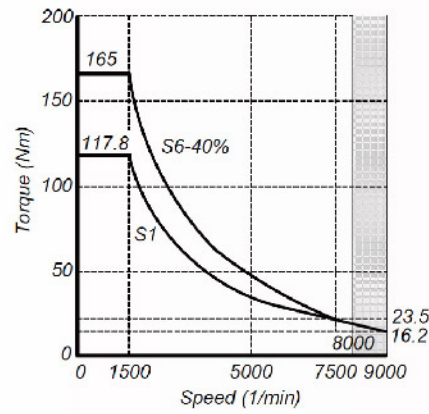
SPINDLE POWER & TORQUE CHART

SPINDLE FARGOR MODEL FM7 A185 (18.5/26KW)										
Spindle Bore	6"		8"		9"		10"		12"	
	RPM	Torque(Nm)	RPM	Torque(Nm)	RPM	Torque(Nm)	RPM	Torque(Nm)	RPM	Torque(Nm)
M41	6	35000	5	42000	5	42000	5	42000	4	52500
	12	14750	10	17700	10	17700	10	17700	8	22125
	19	9237	15	11700	15	11700	15	11700	12	14625
	25	7200	21	8571	21	8571	21	8571	17	10588
M42	22	9545	18	11667	18	11667	18	11667	15	14000
	45	3933	37	5270	37	5270	37	5270	30	5900
	68	2581	56	3134	56	3134	56	3134	46	3815
M43	91	1978	74	2432	74	2432	74	2432	61	2951
	70	3000	52	4038	52	4038	52	4038	40	5250
	140	1500	104	2019	104	2019	104	2019	80	2625
M44	211	995	156	1346	156	1346	156	1346	120	1750
	281	747	208	1010	208	1010	208	1010	160	1313
	249	843	184	1141	184	1141	184	1141	142	1479
	499	421	369	569	369	569	369	569	284	739
	749	280	554	379	554	379	554	379	427	492
	998	210	739	284	739	284	739	284	569	369

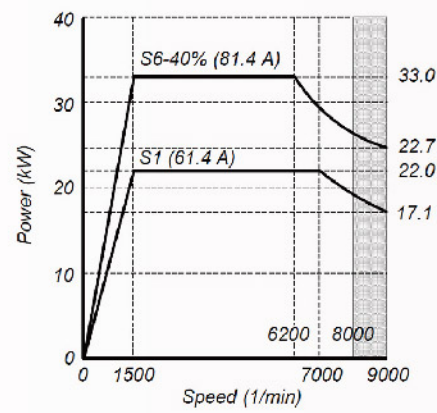
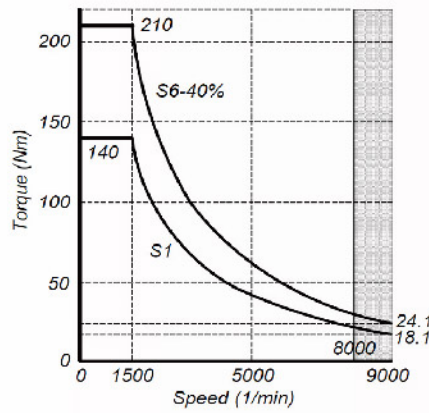
SPINDLE FARGOR MODEL FM7 A220 (22/33kw)										
Spindle Bore	6"		8"		9"		10"		12"	
	RPM	Torque(Nm)	RPM	Torque(Nm)	RPM	Torque(Nm)	RPM	Torque(Nm)	RPM	Torque(Nm)
M41	6	35000	6	35000	5	442000	5	42000	4	52500
	12	14500	11	19091	10	21000	10	21000	8	26250
	19	11037	17	11118	15	12600	15	12600	12	17475
	25	8400	23	8609	21	9429	21	9429	17	12353
M42	22	9545	20	10500	18	11667	18	11667	15	14000
	45	4667	37	567	37	5676	37	5676	30	7000
	68	3084	61	3098	56	3375	56	3375	46	4559
M43	91	2308	81	2444	74	2676	74	2676	61	3443
	70	3000	56	3750	52	4038	52	4038	40	5250
	140	1500	113	1858	104	2019	104	2019	80	2625
M44	211	994	169	1243	156	1346	156	1346	120	1750
	281	747	225	933	208	1010	208	1010	160	1313
	249	843	200	1050	184	1141	184	1141	142	1479
	499	421	399	526	369	569	369	569	284	739
	749	280	599	351	554	379	-	-	427	492
	-	-	-	-	-	-	-	-	-	-



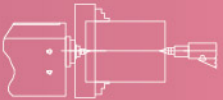
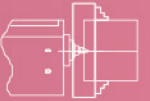
Model FM7 A185(18.5/22KW)
Motor speed [min⁻¹]



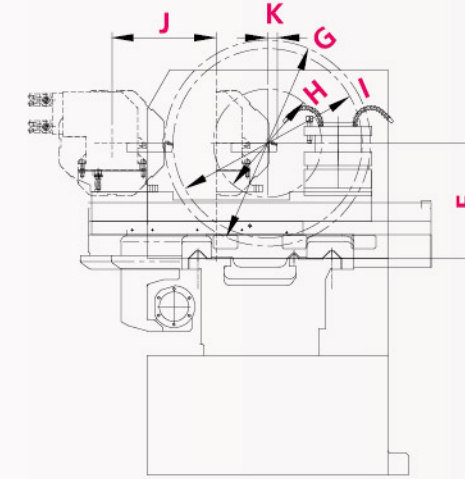
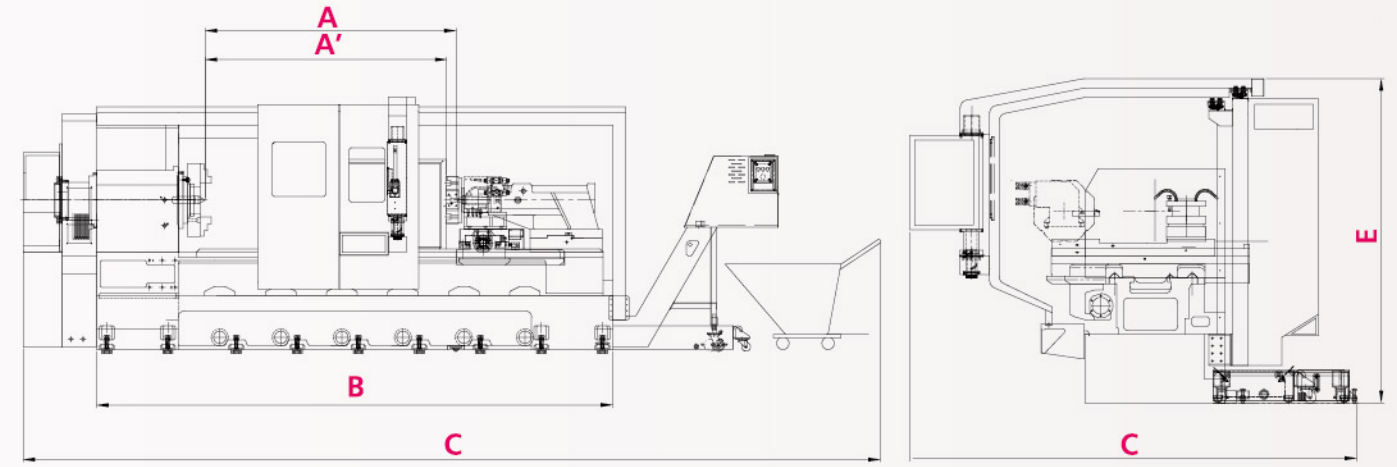
Model FM7 A220(22/23KW)
Motor speed [min⁻¹]



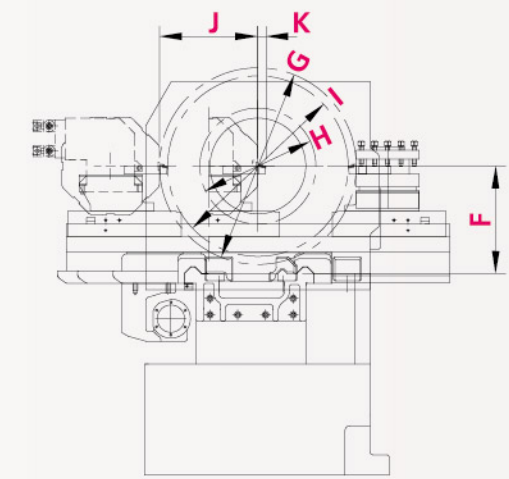
LOADING CAPACITY

MODEL	MA	MA	MA	MA	MA
SPINDLE BORE	6" A2-11	8" A2-15	9" A2-15	10" A2-15	12" A2-20
TAILSTOCK QUILL DIAMETER	125 mm	125 mm	125 mm	125 mm	125 mm
1 Max. load between centers 	5000kgs	5300kgs	5500kgs	5500kgs	7000kgs
2 Max. load between centers plus 1 steady rest 	6000kgs	6300kgs	6500kgs	6500kgs	7000kgs
3 Max. load between centers plus 2 steady rests 	7000kgs	7300kgs	7500kgs	7500kgs	8500kgs
4 Max. load with one chuck only 	2200kgs	2300kgs	2400kgs	2400kgs	2600kgs

DIMENSIONAL DRAWINGS



MA
Single System with Double Turret



MA-U
Double Systems with Double Turret

		1000	2000	3000	4000	5000
30	LxWxH(MM)	5400x2850x2100	6400x2850x2100	7400x2850x2100	8400x2850x2100	9400x2850x2100
	N.W/G.W (KG)	5820/6180	8230/8780	10640/11280	13050/13830	15460/16360

Unit: mm

		MA 30	MA-U 30
A	Distance Between Centers	1300 / 2300 / 3300 / 4300 / 5300	
A'	Maximum Cutting Length	V8-100 & H4-250: 1035 / 2035 / 3035 / 4035 / 5035	
B	Bed Length	3230 / 4230 / 5230 / 6230 / 7230	
C	Machine Length	6100 / 7100 / 8100 / 9100 / 10100	
D	Machine Width	2850	
E	Machine Height	2000	
F	Center Hight	425	
G	Swing Over Bed	Ø770	
H	Swing Over Cross Slide	Ø400	
I	Maximum Cutting Diameter	V8 & H4: Ø 400	
J	X-axis Traverse	390	
K	Over Spindle Center	ONLY V8-100:3	V8-100:5 & H4-250:5

Specifications

MA SERIES

MODEL		MA 30				
Swing over bed		770 mm (30")				
Swing over cross slide		400 mm				
Center height		425 mm				
Width of carriage		950 mm (Box Slide)				
Width of cross slide		400 mm				
Control	STD.	FAGOR 8060				
	OPT.	FANUC 0i-TF / SIEMENS 828D				
Width of bed		22"(560 mm)				
Bed way		3 V way with 1 flat way				
HEADSTOCK						
Spindle bore		6" (Ø 153 mm)	8" (Ø 205 mm)	9" (Ø 230 mm)	10" (Ø 255 mm)	12" (Ø 305 mm)
Spindle nose		A2-11	A2-15	A2-15	A2-15	A2-20
Spindle speed		6-850 rpm	6~600 rpm	5~500 rpm	5~500 rpm	18~450 rpm
Spindle center		MT#6				
Spindle Motor	STD.	FAGOR 18.5 / 26 KW		FANUC 18.5 / 22 KW		SIEMENS 18.5 KW
	OPT.	FAGOR 22 / 33 KW		FANUC 22 / 26 KW		SIEMENS 22 / 33 KW
Turret						
Turret model	STD.	Single System with Double Turret				
Turret model		V8-100 on the front				
Turret model		H4-250 on the back				
Tool size		32mm(1.25")				
TAILSTOCK						
Quill diameter	OPT.	5" (125 MM) + Live center (MT#6)				
Quill traverse		200 mm (7.9")				
Tailstock center		MT#6				
Body movement		Move by carriage				
Quill movement	STD.	Manual				
	OPT.	Hydraulic				
FEED						
X-axis rapid traverse		6 M/min				
X-axis ballscrew diameter		Ø40 mm*P5				
X-axis feed range		0.1~3000 mm/min				
X-axis traverse		500 mm				
X-axis servo motor		Fagor: 3.9 KW (12.5 Nm) Fanuc: 3 KW (12 Nm) Siemens: 3.8 KW (12 Nm)				
Z-axis rapid traverse		1~5M: 6 M/min				
Z-axis ballscrew diameter		1~5M: Ø63 mm*P10				
Z-axis feed range		0.1~3000 mm/min				
Z-axis traverse		39.3" / 77.7" / 118" / 157" / 196" 1000 mm / 2000 mm / 3000 mm / 4000 mm / 5000 mm				
Z-axis transmitting		1~3M: Directly By Coupling, 4~5M: +1:4Precision Gear Reducer				
Z-axis servo motor		Fagor : 7.4 KW (23.5 Nm) Fanuc: 4 KW (22 Nm) Siemens: 8.2 KW (26 Nm)				
STANDARD ACCESSORIES						
Lubrication system Carriage		Pressure-Relief Electric Lubricator 25W				
Lubrication system spindle		1/4 HP PUMP				
Coolant pump	STD.	5 bar high pressure				
	OPT.	15 bar high pressure				
Hydraulic pump		2 HP				
Chip removing		Front chip tank and Rear chip conveyor; One chip cart				
Guard	STD.	Fully enclosed guard				
Machine color	STD.	Machine body dark gray (RAL7015) + Splash white (RAL7047)				

MA-U SERIES

MODEL		MA-U30				
Swing over bed		770 mm (30")				
Swing over cross slide		400 mm				
Center height		425 mm				
Width of carriage		950 mm (Box Slide)				
Width of cross slide		400 mm				
Control	STD.	FAGOR 8060				
	OPT.	FANUC 0i-TF / SIEMENS 828D				
Width of bed		22"(560 mm)				
Bed way		3 V way with 1 flat way				
HEADSTOCK						
Spindle bore		6" (Ø 153 mm)	8" (Ø 205 mm)	9" (Ø 230 mm)	10" (Ø 255 mm)	12" (Ø 305 mm)
Spindle nose		A2-11	A2-15	A2-15	A2-15	A2-20
Spindle speed		6-850 rpm	6~600 rpm	5~500 rpm	5~500 rpm	18~450 rpm
Spindle center		MT#6				
Spindle Motor	STD.	FAGOR 18.5 / 26 KW		FANUC 18.5 / 22 KW		SIEMENS 18.5 KW
	OPT.	FAGOR 22 / 33 KW		FANUC 22 / 26 KW		SIEMENS 22 / 33 KW
Turret						
Turret model	STD.	Double Systems with Double Turret				
Turret model		V8-100 on the front				
Turret model		H4-250 on the back				
Tool size		32mm(1.25")				
TAILSTOCK						
Quill diameter	OPT.	5" (125 MM) + Live center (MT#6)				
Quill traverse		200 mm (7.9")				
Tailstock center		MT#6				
Body movement		Move by carriage				
Quill movement	STD.	Manual				
	OPT.	Hydraulic				
FEED						
X-axis rapid traverse		6 M/min				
X-axis ballscrew diameter		Ø40 mm*P5				
X-axis feed range		0.1~3000 mm/min				
X-axis traverse		X1:390mm ; X2:390mm				
X-axis servo motor	X1, X2	Fagor: 3.9 KW (12.5 Nm)				
		Fanuc: 3 KW (12 Nm)				
		Siemens: 3.8 KW (12 Nm)				
Z-axis rapid traverse		1~5M: 6 M/min				
Z-axis ballscrew diameter		1~5M: Ø63 mm*P10				
Z-axis feed range		0.1~3000 mm/min				
Z-axis traverse		39.3" / 77.7" / 118" / 157" / 196"				
Z-axis transmitting		1000 mm / 2000 mm / 3000 mm / 4000 mm / 5000 mm				
Z-axis servo motor		1~3M: Directly By Coupling, 4~5M: +1:4Precision Gear Reducer				
		Fagor : 7.4 KW (23.5 Nm)				
		Fanuc: 4 KW (22 Nm)				
		Siemens: 8.2 KW (26 Nm)				
STANDARD ACCESSORIES						
Lubrication system Carriage		Pressure-Relief Electric Lubricator 25W				
Lubrication system spindle		1/4 HP PUMP				
Coolant pump	STD.	5 bar high pressure				
	OPT.	15 bar high pressure				
Hydraulic pump		2 HP				
Chip removing		Front chip tank and Rear chip conveyor; One chip cart				
Guard	STD.	Fully enclosed guard				
Machine color	STD.	Machine body dark gray (RAL7015) + Splash white (RAL7047)				