

Ganesh

2021 MACHINE CATALOG

Ganesh

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COMPANY HISTORY ROOM



It began with a dream in 1985 to deliver superior quality machine tools to the market that provided the highest value and productivity available. We are still driven by this same commitment to you.





Expand Machinery produces incredible quality equipment with utmost capability, giving us the resource to compete and win at the highest level."

Nick Snyder SPM Engineering Manager

PROUD PARTNER OF





9"X 42" Precision Milling Machine

- + 3-Horsepower Variable Speed Head
- Class-7 Super Precision Spindle Bearings
- + Hard-Chrome Plated and Mirror Ground Quill
- + Hard-Chrome Plated X & Y Axis Ways

- + 9" x 42" Table Dimensions
- Coolant Proof Halogen Lamp Standard







9"X 50" Precision Milling Machine

- + 3-Horsepower Variable Speed Head
- + Class-7 Super Precision Spindle Bearings
- + Hard-Chrome Plated and Mirror Ground Quill
- + Hard-Chrome Plated X & Y Axis Ways

- + 9" x 50" Table Dimensions
- Coolant Proof Halogen Lamp Standard
- 4,000 RPM Digital Variable Speed
 Option Available





Table		
	Table Size (W x L)	9" x 50" (230 x 1270mm)
	T-slot Width / Quantity	5/8" / 3 on 2.5" centers
	Table Load Capacity	440 lbs. (200kg)
	Table Load Capacity (Evenly Distributed)	900 lbs. [408kg]
	Table Surface to Floor Dimension	32" – 48" [820-1226mm]
Machine T	ravels & Capacity	
	Table Travel – Longitudinal – X Axis	38" (966mm)
	Table Travel with Power Feed	33.07" [840mm]
	Cross Travel – Y Axis	12" (305mm)
	Vertical Knee Travel – Z Axis	16" (406mm)
	Overarm (ram) Travel	12" (305mm)
	Overarm Swivel	360°
	Spindle Nose-to-Table Surface	0" - 18.5" (0 - 469mm)
	Spindle Centerline to Column Face	6.75" - 18.75" (171 - 476mm)
	Leadscrews with ground pitch surface (X & Y)	0.200" per rev. (ballscrews optional)
	Adjustable scale ring display resolution	0.001" (5mm)
	Ways – X, Y & Z Axes – Hard Chrome Plated	Hardened & Ground Dovetail Ways
Spindle He	ad (Vari-Speed)	
	Spindle Motor	3-HP / 3-Phase 220 volts (440 Optional)
	Spindle Taper (hardened & ground)	R-8
	Spindle Runout	0.00008" maximum runout (0.002mm)
	Spindle Bearings ABEC-7 matched set	Class-7 Bearings
	Variable Speed Spindle	60 – 4,500 RPM
	Head Tilt (Left-to-Right)	90° – 0 – 90°
	Head Tilt (Front-to-Back / Up-Down)	+45° - 038°
	Head Swivel on Turret	360°
Quill		
	Quill Diameter	3-3/8" (85.725mm)
	Quill Travel – Manual & Power Feed	5" (127mm)
	Quill feeds – With Trip Release – Inch	0.0015" / 0.003" / 0.006"
	Quill feeds – With Trip Release – Metric	0.04mm / 0.08mm / 0.16mm
Dimension	ıs & Weight	
	Machine Weight	2,222 lbs. (1010 Kgs)
	Electrical Requirements – 220 volts	3-Ph / 60 Hz / 9.5 amps
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10" X 54" Heavy Duty Milling Machine

- + Class-7 Precision Spindle Bearings
- + 3-Horsepower Variable Speed Spindle
- Square Box Slideways on Y & Z Axes
- + Hard-Chrome Plated, Ground & Lapped Quill
- + R-8 Taper Spindle

- Coolant Proof Halogen Lamp Standard
- + 10" X 54" Table Dimensions
- + 4,000 RPM Digital Variable Speed Option Available





Table		
	Table Size (W x L)	10" x 54" (254 x 1372mm)
	T-slot Width / Quantity	5/8" (15.9mm wide) 3 on 2.5" centers
	Table Load Capacity	440 lbs. (200kg)
	Table Load Capacity (Evenly Distributed)	950 lbs. (430kg)
	Table Height - Surface to floor adjustment	37.4" – 52.8" (950 - 1340mm)
Machine T	ravels & Capacity	
	Table Travel – X Axis (Optional Power Feed)	35" / 30.3" (889mm) / (770mm)
	Cross Travel – Y Axis	17.5" (444.5mm)
	Vertical Knee Travel – Z Axis	15.05" (383.27mm)
	Ram Travel (Overarm) / Swivel	18.5" (470mm) / 360°
	Spindle Nose-to-Table Surface Travel	5.3" - 20.7" (135 - 525mm)
	Z ² - Quill Travel - Manual & Power Feed	5" (127mm)
	Quill Feeds - With Trip Release - Inch	0.0015" / 0.003" / 0.006"
	Quill Feeds - With Trip Release - Metric	0.04mm / 0.08mm / 0.16mm
	Quill Diameter	3 - 3/8" (85.725mm)
	Leadscrew ground pitch (X & Y)	0.2" per rev. (ballscrews optional)
	Scale ring resolution in inches	0.001" (5mm) (with adjustable zero position)
	Ways - Hardened & Ground	Dovetail Ways in X axis / Square Box Ways in Y & Z axes
Spindle He	ead-Twin Swivel (Forward-Back & Left right)	
	Spindle Motor	3-HP / 3-Phase 220 volts (440 Optional)
	Spindle Taper (hardened & ground)	R-8
	Spindle Runout	0.0002" maximum runout (0.005mm)
	Spindle Bearings ABEC-7 matched set	ABEC-7 matched set Class-7 bearings
	Variable Speed Drive - Dual Range	60 - 500 rpm (low-range) / 500 - 4500 rpm (high-range)
	Head Tilt (Left-to-Right)	90° – 0 – 90°
	Head Tilt (Front-to-Back / Up-Down)	+45° – 0 – -38°
	Head Swivel on Turret	360°
Dimension	ns & Weight	
	Power Requirements 3-Phase Power	220vac/15 amps (440vac optional)
	Machine Weight	2750 lbs. [1250Kgs]
	Machine Dimensions L x W x H	65" x 66" x 87"



12" X 54" Heavy Duty 40-Taper Milling Machine

- + 5-HP spindle motor
- + #40 taper heavy duty spindle
- Hardened and ground square boxways in "Y" and "Z"
- + Hardened and ground table and T-slots

- Hardened, ground and chromeplated quill
- + ABEC class-7 precision spindle bearings
- + Built-in 1.5-HP knee powerfeed





Table		
	Table Size (W x L)	12" x 54" (305 x 1372mm)
	T-slot Width (3 Ground T-Slots)	5/8" with ground reference edges (15.9mm wide)
	Table Capacity	1200lbs
Machine Trave	ls & Capacity	
	Table Travel – X Axis (With Power Feed)	36" / 33.8" (914 / 860mm) / 32" [812mm]
	Cross Travel – Y Axis	16" (400mm)
	Vertical Knee Travel – Z Axis	16" (406mm)
	Ram Travel (Overarm) / Swivel	17.7" (450mm)
	Spindle Nose-to-Table Surface Travel	2" – 18" (50 – 457mm)
	Quill Travel - Manual & Power Feed	5" (127mm)
	Quill Feeds - With Trip Release - Inch	0.0015" / 0.003" / 0.006"
	Quill Feeds - With Trip Release - Metric	0.04mm / 0.08mm / 0.16mm
	Quill Diameter	4.13" (105mm)
	Leadscrew ground pitch (X & Y)	0.2" per rev. (5mm)
Slide Ways		
	Hardened & Ground Meehanite Cast Iron	
	Longitudinal Table –X Axis	Hardened & Ground Dovetail Ways
	Cross Slide to Knee –Y Axis	Hardened & Ground Square Box Ways
	Knee to Column – Z Axis	Hardened & Ground Square Box Ways
Spindle Head		
	Head Tilt (Left-to-Right)	90° – 0 – 90°
	Head Tilt (Front-to-Back / Up-Down)	45° – 0 – 45°
	Head Swivel	360°
	Spindle Motor	5 HP / 3 Phase / 220 Vac.
	Spindle Taper	NT #40 NMTB N.S. Spindle Taper
	Spindle Runout	0.0002" maximum runout (0.005mm)
	Spindle Bearings	ABEC-7 matched set of Class-7 bearings
	Variable Speed Drive - Dual Range	80 –520 rpm (low-range) / 520 –4000 rpm (high-range)
	NOTE: 5,000 RPM Electronic Variable-Speed Spindle available with optional AC Inverter Spindle Head	
Dimensions &	Weight	
	Power Requirements 3-Phase Power	220 vac @ 22-amps
	Machine Weight	3520 lbs. (1,600 kg)
	Coolant Capacity	11-Gallons (41 liters)



12" X 58" Super Heavy Duty 40 Taper Milling Machine

- + 5-HP spindle motor
- + #40 taper heavy duty spindle
- + Hardened and ground square boxways in "Y" and "Z"
- Hardened and ground table and T-slots
- + Hardened, ground and chrome- plated quill

- ABEC class-7 precision spindle bearings
- + Less than 0.0002-inch spindle runout
- + Built-in 1.5-HP knee powerfeed





<u> </u>		
	Table Size (W x L)	12" x 58" (305 x 1473mm)
	T-slot Width (3 Hardened & Ground T-Slots)	5/8" with ground reference edges (15.9mm wide)
	Table Capacity	1500 lbs
Machine Trav	els & Capacity	
	Table Travel – X Axis (With or without Power Feed)	40.5" (1028mm)
	Cross Travel – Y Axis	15.75" (400mm)
	Knee Travel – Z Axis	16" (406mm)
	Ram Travel (Overarm) / Swivel	17.7" (450mm)
	Spindle Nose-to-Table Surface Travel	2" – 18" (50 – 457mm)
	Quill Travel - Manual & Power Feed	5" (127mm)
	Quill Feeds - With Trip Release - Inch	0.0015" / 0.003" / 0.006"
	Quill Feeds - With Trip Release - Metric	0.04mm / 0.08mm / 0.16mm
	Quill Diameter	4.13" (105mm)
	Leadscrew ground pitch (X & Y)	0.2" per rev. (5mm)
Slide Ways		
	Hardened & Ground Meehanite Cast Iron	
	Longitudinal Table –X Axis	Hardened & Ground Doevetail Ways
	Cross Slide to Knee –Y Axis	Hardened & Ground Square Box Ways
	Knee to Column – Z Axis	Hardened & Ground Square Box Ways
Spindle Head		
	Head Tilt (Left-to-Right)	90° – 0 – 90°
	Head Tilt (Front-to-Back / Up-Down)	45° – 0 – 45°
	Head Swivel	360°
	Spindle Motor	5 HP / 3 Phase / 220 Vac.
	Spindle Taper	NT #40-Taper
	Spindle Runout	0.0002" maximum runout (0.005mm)
	Spindle Bearings	ABEC-7 matched set of Class-7 bearings
	Variable Speed Drive - Dual Range	80 – 520 rpm (low-range) / 600 – 4000 rpm (high-range)
	NOTE: 5,000 RPM Spindle available with optional AC Inverter Spindle Head	
Dimensions 8	k Weight	
	Power Requirements 3-Phase Power	220 vac @ 26-amps
	Machine Weight	3740 lbs. (1700 kg)
	Coolant Capacity	13.5 - Gallons (51 liters)



9" X 42" - 50" CNC Plus Mill

- + 3-Horsepower Variable Speed Head
- Class-7 Super Precision Spindle Bearings
- + Hard-Chrome Plated and Mirror Ground Quill
- + Hard-Chrome Plated X & Y Axis Ways

- + 9" x 42" Table Dimensions
- + Coolant Proof Halogen Lamp Standard





Table				
	GMV-1F Table Size (W x L)		9" x 42"	
	GMV-2F Table Size (W x L)		9" x 50"	
	T-Slot Width (3 T-Slots)		5/8" T-Slots v	with ground reference edges (15.9mm)
	Table Load Capacity (Evenly Distributed)	GMV-1F (850lbs) GMV-2F (900lbs.)		
Machine Tra	ovels & Capacity			
	Travels may be reduced by limit switches, ballscrew bur	npers, CNC etc	c	
	Table Travel – X Axis (under CNC control)		GMV-1F 26"	GMV-2F 31.5"
	Cross Travel – Y Axis		11.4"	
	Knee Travel –Z Axis		16"	(406mm)
	Ram Travel		17.7"	(450mm)
	Spindle Nose-to-Table Surface Travel		2" - 18"	(50 – 457mm)
	Quill Travel - Z Axis in 3-Axis Version		5"	(127mm) (manual & Powerfeed travel w/o 3rd
	Quill Feeds - With Trip Release - Inch		0.0015" / 0.003	3" / 0.006"
	Quill Feeds - With Trip Release - Metric		0.04mm / 0.08	8mm / 0.16mm
	Quill Diameter		3 –3/8"	(85.725mm)
	Ballscrews (X & Y)		0.200" per rev.	
	Adjustable scale ring display resolution		0.001"	(5mm)
Spindle Hea	d			
	Head Tilt (Left-to-Right)		90° – 0 – 90°	
	Head Tilt (Front-to-Back / Up-Down)		45° – 0 – 38°	
	Head Swivel		360°	
	Spindle Motor		3 HP / 3 Phase	e / 208 –240 vac.
	Spindle Taper		R-8 (ISO 30-tap	per optional)
	Spindle Runout		0.0002" maxim	num runout (0.005mm)
	Spindle Bearings		Fafnir ABEC-7	matched set of Class-7 bearings
	Variable Speed Drive - Dual Range		60 –500 rpm (ld	ow-range) / 500 - 4500 rpm (high-range)
	NOTE: 6,000 RPM Spindle available with optional AC Inve	rter Spindle F	lead	

Dimensions & Weight

Power Requirements	220 vac ±5% / 3-Phase
Machine Weight	2407 lbs. [1200 Kgs]



10" X 54" CNC Plus Mill

- + Full Manual & CNC Capability
- Ideal for R&D Toolroom shops
- + Easy to use CNC Control
- + Precision Ball Screws
- Rugged Meehanite castings with high density cast iron
- Hardened & Ground Table ways

- Class 7 Spindle Bearings
- + 3rd Axis DRO included with 2 Axis CNC Mills





Table			
Ta	ble Size (W x L)	10" X 54"	(254 x 1372mm)
T-	Slot Width (3 T-Slots)	5/8" T-Slots v	vith ground reference edges (15.9mm)
Ta	ble Load Capacity (Evenly Distributed)	950 lbs.	(430kg)
Machine Travels & Co	pacity		
Tr	avel may be reduced by CNC limit switches		
Ta	ble Travel – X Axis (under CNC control)	34.5"	(875mm)
Cr	ross Travel – Saddle / Y Axis	16.3"	(415mm)
Kr	nee Travel –Z Axis	15.75"	(400mm)
Sp	nindle Nose-to-Table Surface Travel	2" - 18"	(50 – 457mm)
Qu	uill Travel - CNC Z Axis	5"	(127mm) (manual & Powerfeed travel w/o 3rd
Qu	uill Feeds - With Trip Release - Inch	0.0015" / 0.003	3" / 0.006"
Qu	uill Feeds - With Trip Release - Metric	0.04mm / 0.08	mm / 0.16mm
Qu	uill Diameter	3 –3/8"	(85.725mm)
Ва	allscrew ground pitch (X & Y)	0.2" per rev.	
Ac	ljustable scale ring resolution	0.001"	(5mm)
W	ays - Hardened & Ground	Dovetail Ways in	n X-Axis
Spindle Head			
Sp	oindle Motor	3 HP	
Sp	indle Taper	R-8 #30 taper 8	& #40 taper optional)
Sp	oindle Runout	0.0002" maxim	um runout (0.005mm)
Sp	oindle Bearings	ABEC-7 match	ed set Class-7 bearings
Не	ead Tilt (Left-to-Right)	90° - 0 - 90°	
Не	ead Tilt (Front-to-Back / Up-Down)	45° - 0 - 45°	
Не	ead Swivel	360°	
Dimensions & Weigh	t		
Po	ower Requirements 3-Phase	220 vac	21amps
M	achine Dimensions L x W x H	65" x 66" x 87"	
M	achine Weight	3482 lbs.	(1580 Kgs)



12" X 54" 40-Taper Heavy Duty CNC Plus Mill

- + Full Manual & CNC Capability
- Ideal for R&D Toolroom shops
- + Easy to use CNC Control
- + Precision Ball Screws
- + Rugged Meehanite castings with high density cast iron
- + Hardened & Ground Table ways

- Class 7 Spindle Bearings
- + 3rd Axis DRO included with 2 Axis CNC Mills





Table			
	Table Size (W x L)	12" x 54" (254 x 1372mm)	
	Table Travel with CNC Control	33.5" (850mm)	
	Travel Capacity	1200lbs	
	T-Slot Width (3 T-Slots)	5/8" T-Slots with ground reference edges (15.9mm wid	
Machine Travels &	, Capacity		
	Table Travel – X Axis	34.75"	
	Cross Travel – Y Axis	14"	
	Knee Travel	16" (406mm)	
	Ram Travel	17.7" (450mm)	
	Spindle Nose-to-Table Surface Travel	2" – 18" (50 – 457mm)	
	Ballscrew ground pitch (X & Y)	0.2" per rev.	
	Adjustable scale ring resolution	0.001" (0.0254mm)	
Slide Ways	,		
-	Hardened & Grounded Meehanite® Processed Cast Iron		
	Longitudinal Table - Z Axis	Hardened & Ground Dovetail Ways	
	Cross Slide to Knee - Y Axis	Hardened & Ground Square Box Ways	
	Knee to Column	Hardened & Ground Square Box Ways	
Spindle Head			
	Head Tilt (Left-to-Right)	90° – 0 – 90°	
	Head Tilt (Front-to-Back / Up-Down)	45° – 0 – 45°	
	Head Swivel	360°	
	Spindle Motor	5-HP / 3 Phase 208 - 240 vac.	
	Spindle Taper	NMTB #40 N.S. Taper	
	Spindle Runout	0.0002" maximum runout (0.005mm)	
	Spindle Bearings	Fafnir ABEC-7 Matched set of Class-7 Bearings	
	Variable Speed Drive - Dual Range	80 - 520 rpm (low-range) / 600 - 4000 rpm (high-range)	
	Note: 5,000 RPM Electronic Variable-Speed Spindle		
Quill	available with the optional AC Inverter Spindle Head		
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	Quill Travel - CNC Z-Axis	5" (127mm) Manual & Power Feed w/o 3rd CNC Axis	
	Quill feeds (per rev.) with Trip Release - Inch	0.0015" / 0.003" / 0.006"	
	Quill feeds (per rev.) with Trip Release - Metric	0.04mm / 0.08mm / 0.16mm	
	Quill Diameter	4.13" (105mm)	
Dimensions & Wei	_		
	Power Requirements 3-Phase	208 - 220 vac. ±5% @ 22 amps (440 vac optional) / 110 vac 20-am dedicated service required for CNC Control	
	Coolant Capacity	11 Gallons. (41 liters)	
	Machine Weight	1600 Kgs	



High Accuracy Toolroom Lathe

- + 3-Horsepower Electronic Variable-Speed Inverter Motor
- + 130 4000 RPM Infinitely Variable Spindle Speeds
- + 11" Swing x 18" Between Centers
- + Power Feeds in Both Cross and Longitudinal Axis





Work Holding Capacity		
With Round 5C Collets	1 - 1/16"	(27mm)
With Hex 5C Collets	7/8"	(22mm)
With Square 5C Collets	3/4"	(19mm)
With Expanding Collets	3"	(76mm)
With Step Chucks	1 - 1/16" to 6"	(27 to 152.4mm)
With 3 & 4 Jaw Chucks	6"	(152mm)
Machine Capacity		
Swing over bed	11"	(280mm)
Swing over carriage	9"	(228.6mm)
Swing over cross slide	6"	(152.44mm)
Distance between centers	18"	(457mm)
Tailstock quill	MT#2	
Main Motor	3-HP / 220 vac 3-pha	se 20 amps, or single phase 35-amp service (peak
Coolant Pump	1/8-HP / 220 vac 3-phase only (with coolant nozzle & flow control	
Machine Travel & Specifications		
Cross Slide Travel	6"	(152mm)
Compound Slide Travel	3"	(76mm)
Quick Action Compound Slide Motion	0.1"	(2.5mm) (eg. For thread pull out)
Tailstock Quill Travel	3 - 3/4"	(95mm) features inch & metric quill graduation
Inch Threads (36)	11 - 108 TPI	Threading gearbox selectable w/o change gear
Metric Threads (36)	0.275 - 2.7mm	Threading gearbox selectable w/o change gear
Carriage Slide Powerfeed Range	3/16" - 4" per minute	(8 to 178mm)
Cross Slide Powerfeed Range	5/16" - 7" per minute	(5 to 102mm)
Net Weight	2420 lbs.	(1098 Kg)
Machine Shipping Dimensions L x D x H	74" x 30" x 66"	(1880mm x 762mm x 1676mm)



13" X 40" Toolroom Engine Lathe

- + Hardened and ground Turcite® coated bed ways
- Hardened and ground gears
- + 8-speed geared head spindle
- + Safety foot brake
- + Safety chuck guard

- + Coolant pump included
- Chucks, steady rest and follow rest included





Capacity & Dir	mensions		
	Swing over Bed	13"	
	Center Height	6 - 1/2"	
	Swing over Cross Slide	7 - 25/32"	
	Swing thru Gap	18 - 3/4"	
	Length of Gap in front of face plate, D1-4	4 - 1/2"	
	Distance between Centers	40"	
	Bed casting width, length, depth	7-3/8" / 65-1/8" / 11-13/32"	
Spindle			
	Spindle Motor Horsepower	3-HP HIGH 1255 2000 755	460
	Spindle Speeds - 8 speed geared head rpm	70 - 2000 LOW 190 300 115	70
	Spindle Bore	1 - 1/2"	
	Spindle Nose	D1 - 4	
	Spindle taper in Spindle Nose	MT-5 Morse Taper-5	
Carriage			
	Cross Slide Travel	6 - 5/16" (160mm)	
	Cross Slide Width	4 - 5/8" (118mm)	
	Cross Slide Lead Screw Pitch	8 TPI	
	Cross Slide Resolution per division	0.25"/rev. (on diameters)	
	Carriage Lead Screw Diameter / Pitch	7/8" / 8 TPI 22mm / 3mm pitch	
	Feed Rod Dimension	3/4" hexagon 19mm hexagon	
Compound			
	Compound Top Slide Travel	2 - 11/16" (68mm)	
	Compound Top Slide Width	3" (76mm)	
	Cutting Tool Height Maximum	5/8" x 5/8" 16mm x 16mm	
Tailstock			
	Quill Diameter	1 - 21/32" (42mm)	
	Quill Stroke	4 - 1/2" (114mm)	
	Quill Taper	MT - 3 Morse Taper #3	
	Quill Tang Drive and Drift-Slot for Tailstock	included	
	Tailstock Body set-over adjustment	±0.04" ±1mm	
Thread Cutting]		
	Thread Cutting Range - 31 inch pitches	4 - 56 TPI	
	Thread Cutting Range - 26 metric pitches	0.4 - 7mm	
	Thread Cutting Range - 32 diametral pitches	8 - 120 D.P. (optional)	
	Thread Cutting Range - 21 module pitches	0.2 - 3 M.P. (optional)	
Feeds			
	Feeds - Longitudinal - 32 Feeds	0.002" - 0.548" / rev.	
	Feeds - Cross - 32 Feeds	0.0007" - 0.0187" / rev.	
Weight & Dim			
	Machine Dimensions - L x W	76 3/8" x 29 3/4" (1940 x 755mm)	
	Machine Height	48 3/4" (1238mm)	
	Overall Machine Weight	1345 lbs. 610 Kgs	
	Electrical Power Requirements	220 volts / 3 Phase @ 8.50 amps	



16" X 40"/60" Heavy Duty Engine Lathe

- + Hardened and ground Turcite® coated bed ways
- Hardened and ground gears
- + 12-speed geared head spindle
- + Safety foot brake
- + Safety chuck guard

- + Coolant pump included
- Chucks, steady rest and follow rest included





	Swing over Bed	16"	(410mm)				
	Center Height	8 1/6"	(205mm)				
	Swing over Cross Slide	9 7/16"	(240mm)				
	Swing thru Gap	23 7/16"	(595mm)				
	Length of Gap in front of face plate (D1-6 / A1-6)	6 1/8" / 6 7/8"	(155mm / 17	′5mm opti	onal)		
	Bed casting width / bed casting height	11 13/16" / 12.20"	(300mm/31	0mm)			
Spindle					ı		
	Spindle Motor Horsepower	7.5 HP	+ 540	1600	325	1000	700
	Spindle Speeds - 12 speeds 30 - 2000rpm	30 - 2000 rpm	- 55	160	30	95	70
	Spindle Bore	2 1/16"	(52mm)				
	Spindle Nose	D1 - 6	A1-6 Option	nal			
	Spindle taper in Spindle Nose	MT-6	Morse Tap	er#6			
Carriage							
	Cross Slide Travel / Cross Slide Width	9" / 7 3/32"	(230mm / 1	180mm)			
	Cross Slide Lead Screw Pitch	4TPI					
	Cross Slide Resolution per division	0.50" / rev.	(on diamet	ers)			
	Carriage Lead Screw Diameter / Pitch	1 1/4" / 4 TPI	(32mm / 6r	mm pitch)			
	Feed Rod Dimension	7/8" hexagon	23mm hex	agon			
Compound							
	Compound Top Slide Trave / Compound Width	4 3/4" / 4 11/32"	(120mm / 1	110mm)			
	Cutting Tool Height Maximum	1.0" x 1.0"	25mm x 25	īmm			
Tailstock							
	Quill Diameter	2 1/8"	ō4mm)				
	Quill Stroke	4 3/4"	120mm)				
	Quill Taper	MT-4	Morse Taper #4				
	Quill Tang Drive and Drift-Slot for Tailstock	included					
	Tailstock Body set-over adjustment	±0.04" ±	1mm				
Thread Cutting							
	Thread Cutting Range - 40" pitches	2 - 56 TPI					
	Thread Cutting Range - 53 metric pitches	0.4 - 14mm					
	Thread Cutting Range - 32 diametral pitches	4 - 32 D.P.	optional)				
	Thread Cutting Range - 44 module pitches	0.4 - 7 M.P.	optional)				
Feeds							
	Feeds - Longitudinal - 40 Feeds	0.0012" - 0.0252" / rev. (0.032mm - 0.898mm/rev.)					
	Feeds - Cross - 40 Feeds	0.0006" - 0.0126"/ rev. (0.016mm - 0.449mm/rev.)					
	Feed stop control shaft	4 adjustable autom	atic feed stops	to diseng	age the lo	ngitudina	l feed
Power			·				
	Coolant Pump motor	220 vac. / 1/8 HP	/ 3 Phase				
	Power Requirements	220 vac. / 7.5 HP	/ 3 Phase @ 2	20 amps			

2000



20" Heavy Duty Engine Lathe

- + Heavy duty 10-HP D1-8 spindle with 20" Swing
- + Hardened and ground Turcite® coated bed ways
- + Hardened and ground gear
- + 12-speed geared head spindle
- Safety foot brake

- + Safety chuck guard
- Coolant pump standard





Capacity & D	limensions							
	Swing over Bed	20"	(510mm)					
	Center Height	10"	(255mm)					
	Swing over Cross Slide	13"	(330mm)					
	Swing thru Gap	26 3/8"	(680mm)					
	Length of Gap in front of D1-8 face plate	7 1/16"	(180mm)					
	Bed Casting - width / height	16 1/8" / 12 7/32"	(400mm)	/310mm)			
Spindle								
	Spindle Motor Horsepower	10 HP 3 Phase	+	1550	150	680	60	1100
	Spindle Speeds - 12 speeds 20 - 1550rpm (high to low)		-	490	45	210	20	350
	Spindle Bore	3 1/8"	(80mm)					
	Spindle Nose	D1-8 Cam lock						
	Spindle taper in Spindle Nose	MT-7	Morse Taper #7					
	Spindle taper reduction sleeve provided	MT-7 to MT-5						
Carriage								
	Cross Slide Travel	12 1/2"	(320mm)					
	Cross Slide Width	7 3/32"	(180mm)					
	Cross Slide Lead Screw Pitch	.200" / rev						
	Cross Slide Resolution per division	0.001"	(on diameters)					
	Carriage Lead Screw Diameter	1 1/2"	(38mm)					
	Carriage Lead Screw Pitch	4 TPI	(6mm pitch)					
	Feed Rod Dimensions	7/8" hexagon	23mm he	exagon				
Compound								
	Compound Top Side Travel	10"	(255mm)					
	Compound Top Slide Width	4 11/32"	(110mm)					
	Cutting Tool Height Maximum	1.0" x 1.0"	(25mm x	25mm)				
Tailstock (2	speed quill advance)							
	Quill Diameter	2-15/16"	(255mm)					
	Quill Stroke	6 5/16"	(160mm)					
	Quill Taper	MT-5	Morse Ta	per #5				
	Quill Tang Drive and Drift-Slot for Tailstock	included						
	Tailstock Body set-over adjustment	±0.04"	±1mm					
Thread Cutti	ng							
	Leadscrew Diameter / Pitch	1 1/2" / 4 TPI	38mm / 6	mm pitc	h			
	Thread Cutting Range - 60" pitches	2 – 112 TPI						
	Thread Cutting Range - 60 metric pitches	0.2 –14mm						
	Thread Cutting Range - 50 diametral pitches	4 –112 M.P.						
	Thread Cutting Range - 50 module pitches	0.2 -7 M.P						
Feeds								
	Feeds - Longitudinal - 50 Feeds	0.0014" - 0.0387"/	rev. (0.037	7 – 1.04m	ım / rev)			
	Feeds - Cross - 50 Feeds	0.0007" - 0.01935"	75"/rev. (0.0185 – 0.52mm/ rev)					
	Feed stop shaft		stable automatic feed stops to disengage the longitudinal feed			feed		
	Coolant Pump	1/8 HP						
	Machine Power Requirements (440vac optional)	220 vac / 3 Phase	/ 30 amps					

100 30



22" Heavy Duty Engine Lathe

- + Hardened and ground Turcite® coated bed ways
- + Hardened and ground gear
- + 12-speed geared head spindle
- + Safety foot brake
- + Safety chuck guard

- + Coolant pump standard
- + Heavy duty 15-HP D1-11 spindle





	Swing over Bed	22"	(560mm)					
	Center Height	11"	(280mm)					
	Swing over Cross Slide	14 1/8"	(360mm)					
	Swing thru Gap	29 3/8"	(745mm)					
	Length of Gap in front of D1-11 face plate	6 1/2"	(165mm)					
	Bed Width	16 1/8"	(400mm)					
Spindle								
	Spindle Motor Horsepower	15 HP	12kw HIGH	1200	120	520	50	8
	Spindle Speeds - 12 speeds 15 - 1200rpm (high to low)	15111	LOW	375	35	160	15	2
	Spindle Bore	4 1/8"	(105mm)					
	Spindle Nose	D1-11 Camlock	(A1-11 optional)					
	Spindle taper in Spindle Nose	MT-8	Morse Taper #8					
	Spindle taper reduction sleeve provided	MT-5	MT-8 to MT-5					
	Spindle Max Weight Capacity (Chuck Only)	660 lbs	(300 kgs)					
	Spindle Max Weight Capacity (Chuck and Tailstock)	1650 lbs	(750 kgs)					
	Spindle Max Weight Capacity (Chuck, Steady Rest & Tailstock)	3300 lbs	(1500 kgs)					
Carriage			,					
ourriage	One of Clide Trevel	1/ 0/"	(200)					
	Cross Slide Travel Cross Slide Width	14.96" 7 3/32"	(380mm) (180mm)					
		.200" / rev	(Tournin)					
	Cross Slide lead screw pitch	.200 / rev 0.001"	(on diameters)					
	Cross Slide resolution per division	1 1/2"	(38mm)					
	Carriage Lead Screw Diameter	4 TPI						
Compound	Carriage Lead Screw Pitch	4 171	(6mm pitch)					
Compound			/ >					_
	Compound Top Side Travel	10"	(255mm)					
	Compound Top Slide Width	4 11/32"	(110mm)					
	Cutting Tool Height Maximum	1.0" x 1.0"	(25mm x 25mm)					
Tailstock (2 spe	ed quill advance)							
	Quill Diameter	2 15/16"	(75mm)					
	Quill Stroke	6 5/16"	(160mm)					
	Quill Taper	MT-5	Morse Taper #5					
	Quill advance – 2 gear selected advance speeds	1:1 2:1						
	Tailstock body set-over adjustment	±0.04"	±1mm					
Thread Cutting								
	Thread Cutting Range - 60 inch pitches	2 –112 TPI	2 –112 TPI					
	Thread Cutting Range - 60 metric pitches	0.2 –14mm	0.2 – 14mm					
	Thread Cutting Range - 50 diametral pitches	4 –112 D.P.	4 – 112 D.P.					
	Thread Cutting Range - 50 module pitches	0.2 -7 M.P.	0.2 –7 M.P.					
Feeds								
	Feeds - Longitudinal - 50 Feeds	0,0014" - 0.0387"	/ rev. (0.037 – 1.04m	ım / rev	/]			
	Feeds - Cross - 50 Feeds	0.0007" – 0.01935"/rev. (0.0185 – 0.52mm/ rev)						
	Coolant System	1/8 HP Pump Motor / 5 Gallon (20L) Tank Capacity						
	Power Requirements		se / 40 Amps (440 vac					



26" Heavy Duty Engine Lathe

- + Hardened and ground Turcite® coated bed ways
- + Hardened and ground gear
- + 12-speed geared head spindle
- + Safety foot brake
- + Safety chuck guard

- + Coolant pump standard
- Heavy duty 15-HP D1-11 spindle





Swing over Bed 26" (660mm)
Center Height 13" (330mm)
Swing thru Gap 33 1/4" [845mm]
Length of Gap in front of D1-11 face plate Bed Width Spindle Spindle Motor Horsepower Spindle Speeds - 12 speeds 15 - 1200rpm (high to low) Spindle Bore Spindle Nose Spindle Nose Spindle Motor Horsepower Spindle Speeds - 12 speeds 15 - 1200rpm (high to low) Spindle Nose Spindle Motor Horsepower Spindle Motor Horsep
Spindle Spindle Motor Horsepower Spindle Speeds - 12 speeds 15 - 1200rpm (high to low) Spindle Bore Spindle Nose Spindle Nose Spindle Nose Spindle Speeds Spindle Spi
Spindle Spindle Motor Horsepower 15 HP 12kw HIGH LOW 1200 120 520 50 86 86 120 15 26 15 120 15 26 15 120 15 26 15 120 15 15 16 15 15 16 15 15
Spindle Motor Horsepower 15 HP 12kw HIGH LOW 375 120 120 520 50 86 LOW 375 35 160 15 26 Spindle Speeds - 12 speeds 15 - 1200rpm (high to low) 4 1/8" (105mm) Spindle Nose D1-11 Camlock (A1-11 optional)
Spindle Motor Horsepower Spindle Speeds - 12 speeds 15 - 1200rpm (high to low) Spindle Bore Spindle Nose 15 HP 12kw Low 375 35 160 15 26 15 HP 17 HP 10 HP 10 HP 10 HP 11 LOW 10 HP 10 HP 10 HP 10 HP 11 HP 12 HP 10 HP
Spindle Speeds - 12 speeds 15 - 1200rpm (high to low) Spindle Bore 4 1/8" [105mm] Spindle Nose D1-11 Camlock (A1-11 optional)
Spindle Bore 4 1/8" (105mm) Spindle Nose D1-11 Camlock (A1-11 optional)
Spindle Nose D1-11 Camlock (A1-11 optional)
Spiriate taper in Spiriate 14036
Spindle taper reduction sleeve provided MT-5 MT-8 to MT-5
Spindle Max Weight Capacity (Chuck Only) 660 lbs (300 kgs)
Spindle Max Weight Capacity (Chuck and Tailstock) 1650 lbs (750 kgs)
Spindle Max Weight Capacity (Chuck, Steady Rest & Tailstock) 3300 lbs (1500 kgs)
Carriage
Cross Slide Travel 14.96" (380mm)
Cross Slide Width 7 3/32" (180mm)
Cross Slide lead screw pitch .200" / rev
Cross Slide resolution per division 0.001" (on diameters)
Carriage Lead Screw Diameter 1 1/2" (38mm)
Carriage Lead Screw Pitch 4 TPI (6mm pitch)
Compound
Compound Top Side Travel 10" (255mm)
Compound Top Slide Width 4 11/32" (110mm)
Cutting Tool Height Maximum 1.0" x 1.0" (25mm x 25mm)
Tailstock (2 speed quill advance)
Quill Diameter 2 15/16" [75mm]
Quill Stroke 6 5/16" (160mm)
Quill Taper MT-5 Morse Taper #5
Tailstock body set-over adjustment ±0.04" ±1mm
Thread Cutting
Thread Cutting Range - 60 inch pitches 2 –112 TPI 2 –112 TPI
Thread Cutting Range - 60 metric pitches 0.2 – 14mm 0.2 – 14mm
Thread Cutting Range - 50 diametral pitches 4 –112 D.P. 4 – 112 D.P.
Thread Cutting Range - 50 module pitches 0.2 –7 M.P. 0.2 –7 M.P.
Feeds
Feeds - Longitudinal - 50 Feeds 0.0014" - 0.0387"/ rev. [0.037 - 1.04mm / rev]
Feeds - Cross - 50 Feeds 0.0007" - 0.01935"/rev. (0.0185 - 0.52mm/ rev)
Coolant System 1/8 HP Pump Motor / 5 Gallon (20L) Tank Capacity
Power Requirements 220 vac. / 3 Phase / 40 Amps [440 vac optional]



30" Heavy Duty Engine Lathe

- + Rapid Feeds for longitudinal and & cross motion
- + 15-HP Spindle motor
- + 12-Spindle Speed Gear-Ranges for High-Torque
- Spindle Speeds from 23 1300 RPM
- + A2-11 Spindle with 4-1/8" spindle bore

- + Swings 40.5" Through the Gap Bed
- Tailstock features 2-Speed quill advance
- + 4-Adjustable longitudinal feed stops





	Swing over Bed	29.92"	(760mm)		
	Swing over Cross Slide	19.69"	(500mm)		
	Swing thru Gap	40.55"	(1030mm)		
	Width of Gap (measured from spindle nose)	12"	(305mm)		
	Bed Width	16.54"	(420mm)		
Spindle					
	Spindle Motor Horsepower	15 HP	11.5 KW HIGH 370 730 1300 145		
	Spinale Motor Horsepower Spinale Speeds - 12 speeds 15 - 1200rpm (high to low)	15 HP	Low 60 115 210 23		
	Spindle Bore	4 1/8"	(105mm)		
	Spindle Nose	A2 - 11	A2 - 11		
	Spindle taper in Spindle Nose	MT-7	MT-7		
	Spindle taper reduction sleeve provided	MT-5	MT-5		
	Spindle Max Weight Capacity (Chuck Only)	1100 lbs	(500 kgs)		
	Spindle Max Weight Capacity (Chuck and Tailstock)	2200 lbs	(1000 kgs)		
	Spindle Max Weight Capacity (Chuck, Steady Rest & Tailstock)	4400 lbs	(2000 kgs)		
Carriage			3		
	Cross Slide Travel	15.75"	(400mm)		
	Carriage Width	26.38"	(670mm)		
ompound	and the second s	20.00	(6, 6,)		
	Compound Rest Travel	9.45"	(240mm)		
	Cutting Tool Height Maximum	1.0"	(25mm)		
Tailstock (2 speed	nuill advance)				
•	Quill Diameter	3.15"	[80mm]		
	Quill Stroke	7.87"	(200mm)		
	Quill Taper	MT-5	Morse Taper #5		
	Quill Tange Drive and drift-slot for tailstock	included	included		
	Tailstock Body set-over adjustment	±1/2"	(±13mm)		
Thread Cutting	· · ·				
I	Lead screw diameter & pitch	1.77" x 2 T.P.I			
-	Thread Cutting Range - 36" pitches	2 – 28 TPI			
-	Thread Cutting Range - 65 metric pitches	0.8 - 14mm			
-	Thread Cutting Range - 36 diametral pitches	4 – 56 D.P.			
-	Thread Cutting Range - 22 module pitches	0.5 – 7 M.P.			
Feeds					
	Feeds - Longitudinal	0.0019" - 0.027'	"/ rev. 0.057 mm/rev		
	Feeds - Cross	0.00098" - 0.013	0.00098" - 0.0137"/rev. 0.025 - 0.35 mm/rev.		
	Feed shaft stop control	4 adjustable aut	tomatic feed stops to disengage the longitudinal feed		
	Feed Rod Diameter	1.26"	[32mm]		
lectrical Requiren	nents				
	Connected Load - 12kw	10kva / 220 vac	c. / 42 amps / (440 vac. optional)		
	Rapid Traverse Motor	1/4 HP	(0.1875 kw)		
	Coolant Motor / Coolant Tank Capacity	1/8 HP / 11 gal.	(40 liters)		

510 82



34" Heavy Duty Engine Lathe

- + 15-HP spindle motor for efficient metal removal capability
- + Hardened & ground A2-11 spindle and 4" spindle bore
- + 12-speed geared-headstock with 23 1300 rpm spindle speeds
- + Alloy Steel Hardened & Ground Headstock Gears
- + Safety gated spindle control lever to protect from accidental engagement
- + Footbrake provided for added safety and operational convenience



	Swing over Bed	33.86"	(860mm)
	Swing over Cross Slide	21.26"	(540mm)
	Swing thru Gap	47.24"	(1200mm)
	Width of Gap (measured from spindle nose)	9.44"	(240mm)
	Bed Width	20.07"	(510mm)
Spindle	Dea Width	20.07	(31011111)
оринато — — — — — — — — — — — — — — — — — — —	Spindle Motor Horsepower 4" Bore (20HP 6" Bore)	15 HP	11.5 KW HIGH 370 730 1300 145
	Spindle Speeds - 12 speeds 23 - 1300rpm (high to low)	13 ПР	LOW 60 115 210 23
	Spindle Bore	4 1/8"	(105mm)
	Spindle Nose	4 1/8 A2 - 11	A2 - 11
	Spindle Hose Spindle taper in Spindle Nose	MT-7	MT-7
	Spindle taper in Spindle Nose Spindle taper reduction sleeve provided	MT-5	MT-5
	Spindle Max Weight Capacity (Chuck Only)	1100 lbs	(500 kgs)
	Spindle Max Weight Capacity (Chuck and Tailstock)	2200 lbs	(1000 kgs)
	Spindle Max Weight Capacity (Chuck, Steady Rest & Tailstock)	4400 lbs	(2000 kgs)
Carriage	opinate max meight outsity (oracly steady heat a fallotott)	4400 (33	(2000 Ng5)
	Cross Slide Travel	20.08"	(510mm)
	Carriage Width	26.00"	(660mm)
Compound	ournage main	20.00	(65511111)
-unipound		44.548	(070)
	Compound Rest Travel	14.56"	(370mm)
	Cutting Tool Height Maximum	1.26"	(32mm)
Tailstock (2 spe	ed quill advance)		
	Quill Diameter	4.92"	(125mm)
	Quill Stroke	11.81"	(300mm)
	Quill Taper	MT-6	Morse Taper #6
	Quill Tange Drive and drift-slot for tailstock	included	included
	Tailstock Body set-over adjustment	±1/2"	(±13mm)
Thread Cutting			
	Lead screw diameter & pitch	1.77" x 12mm.	
	Thread Cutting Range - 36" pitches	2 – 28 TPI	
	Thread Cutting Range - 65 metric pitches	0.8 - 14mm	
	Thread Cutting Range - 36 diametral pitches	4 – 56 D.P.	
	Thread Cutting Range - 22 module pitches	0.5 – 7 M.P.	
Feeds			
	Feeds - Longitudinal	0.0019" - 0.027	7"/ rev. 0.057 mm/rev
	Feeds - Cross		37"/rev. 0.025 - 0.35 mm/rev.
	Feed shaft stop control	4 adjustable au	itomatic feed stops to disengage the longitudinal feed
	Feed Rod Diameter	1.26"	(32mm)
Electrical Requi			
	Connected Load - 12kw	10kva / 220 va	c. / 42 amps / (440 vac. optional)
	Rapid Traverse Motor	1/4 HP	(0.1875 kw)
	Coolant Motor / Coolant Tank Capacity	1/8 HP / 11 gal.	

510 82



44" - 55" Heavy Duty Big Bore Lathes

- + Hardened and ground Turcite® coated bed ways
- + Hardened and ground gears
- + 30-HP spindle motor
- + 16-speed geared head spindle
- + Rear spindle mount optional

- + Safety chuck guard
- Coolant pump standard
- + Up to 315-inch bed length available





Capacity & Di	imensions		
	Swing over Bed	44"	(1120mm)
	Swing over Cross Slide	31.89"	(810mm)
	Swing thru Gap	61"	(1550mm)
	Width of Gap (measured from spindle nose)	22.05"	(560mm)
	Distance between Centers (Dependent upon bed selected)	39" – 315"	(1000 - 8000mm)
	Bed Width	24"	(610mm)
Spindle			1909 4/5 005 (00 05 40 4/
	Spindle Motor Horsepower	30 HP	HIGH 165 225 420 35 19 14 LOW 48 65 120 10 5.5 4
	Spindle Speeds - 6" Bore = 16 speeds from 4 - 420rpm		1511 46 66 125 16 6.6 4
	Spindle Bore - (10", 12" & 15" spindle bores optional)	6"	(152mm)
	Spindle Nose	A2 - 11	A2 - 15 & A2 - 20 optional
	Spindle taper in Spindle Nose	MT-7	MT-7
	Spindle center height to base	49"	(1245mm)
Spindle Weig	ht Capacity		
	Workpiece weight limit when held by chuck only	4400 lbs	(2000 kgs)
	Workpiece weight limit when held by chuck and tailstock	13200 lbs	(6000 kgs)
	Workpiece weight limit when held by chuck, tailstock & steady	yrest 17600 lbs	(8000 kgs)
Carriage			
	Cross Slide Travel	20.87"	(530mm)
	Carriage Slide Width	11.81"	(300mm)
	Width of Carriage	31.10"	(790mm)
	Compound Rest Travel	14.57"	(370mm)
	Cutting Tool Height Maximum	1.26" x 1.26"	(32 x 32mm)
Tailstock (2 s	speed quill advance)		
	Quill Diameter (5.9" diameter optional)	4.92"	(125mm)
	Quill Stroke	11.8"	(300mm)
	Quill Taper	MT-6	MT-7 Optional
	Quill advance - 2 speed ratios	1:1 and 5:1	5X Thrust Force Multiplier
	Tailstock body set-over adjustment	±0.4"	(±10mm)
Thread Cuttin	ng e		
	Lead screw diameter & pitch	2.36" x 2 TPI	
	Thread Cutting Range - 70" pitches	0.25 - 30 TPI	
	Thread Cutting Range - 62 metric pitches	1 - 120mm	
	Thread Cutting Range -70 diametral pitches	1 - 120 D.P.	
	Thread Cutting Range - 53 module pitches	0.25 - 30 M.P.	
Feeds			
	Feed Shaft Diameter	1.26"	(32mm)
	Feeds - Longitudinal	0.0028" - 0.34/rev	(0.072 - 8.68mm/rev)
	Feeds - Cross Sign	0.0014" 0.17"/rev	(0.036 - 4.34mm/rev)
Power			
	Connected load - 86 Amps Full Load	Wired 440 vac (22	20/440 vac motor)
	Coolant Motor (coolant capacity shown with pricing)	0.25 HP	(0.2kw)
	Rapid Traverse Motor	1 HP	(0.75 kw)

310



44" - 55" Super Heavy Duty Big Bore Lathes

- + Hardened and ground Turcite® coated bed ways
- + Hardened and ground gears
- + 40-HP spindle motor
- Double-set of spindle bearings
- + Rear spindle mount optional

- + Safety chuck guard
- + Coolant pump standard
- + Heavy duty 32" bed width



Capacity & Di	imensions		
	Swing over Bed	44"	(1120mm)
	Swing over Cross Slide	27.95"	(710)
	Swing thru Gap	55.11"	(1400mm)
	Width of Gap (measured from spindle nose)	21.26"	(540mm)
	Distance between Centers (Dependent upon bed selected)	39" – 315"	(1000 - 8000mm)
Spindle	Bed Width	32"	(810mm)
, pu.o	Spindle Bore - (9" , 10", 12" & 15" spindle bores optional)	6"	(152mm)
	Spindle Nose	A2-11	A2-15 & A2-20 optional
	Spindle taper in spindle nose	MT-7	MT-7
	Spindle center height to base	49"	(1245mm)
	Spindle Motor Horsepower	40-HP	
	Spindle Speedsq	16 gears	4 - 420 RPM
Spindle Weig		J	
	Workpiece weight limit when held by chuck only	4400 lbs	(2000 kgs)
	Workpiece weight limit when held by chuck and tailstock	15400 lbs	(7000 kgs)
	Workpiece weight limit when held by chuck, tailstock & steadyrest	19800 lbs	(9000 kgs)
Carriage			-
	Cross Slide Travel	23.62"	(600mm)
	Carriage Slide Width	13.75"	(350mm)
	Width of Carriage	34.65"	(880mm)
	Compound Slide Travel	15.75"	(400mm)
	Compound Slide Width	10"	(250mm)
	Cutting tool height maximum	1.5" x 1.5"	[40 x 40mm]
Inilstock (Fla	ectric motor driven body & quill)		
unotook (Eic	Quill Diameter	7.87"	(200mm)
	Quill Stroke	11.87"	(300mm)
	Quill Taper	MT-6	MT-7 optional
	Tailstock body set-over adjustment	±0.4"	(±10mm)
	Tailstock body movement		P electric motor driven
	Quill Drive		P electric motor driven
hread Cuttin			
	Lead screw diameter (60mm, 12mm pitch metric order)	2.36" x 2 T.P.I	
	Thread Cutting Range - 70" pitches	0.25 - 30 TPI	
	Thread Cutting Range - 62 metric pitches	1 - 120mm	
	Thread Cutting Range -70 diametral pitches	1 - 120 D.P.	
	Thread Cutting Range - 53 module pitches	0.25 - 30 M.P.	
eeds			
	Feed Shaft Diameter	1.26"	(32mm)
	Feeds - Longitudinal	0.0028" - 0.34/rev	(0.072 - 8.68mm/rev)
	Feeds - Cross Sign	0.0014" 0.17"/rev	(0.036 - 4.34mm/rev)
ower			
	Connected load - 86 Amps Full Load	Wired 440 vac (22	20/440 vac motor)
	Coolant Motor / Coolant tank capacity	0.25 HP	(0.2kw)
	Rapid Traverse Motor for cross & longitudinal motion	1 HP	(0.75 kw)



18" X 40" CNC Lathe

- + 18" X 40" CNC Lathe
- + 18" Swing Diameter over Bedways
- + 40" Between Center
- + Compact Footprints make it ideal for R&D and Toolroom shops
- + Easy to use Fanuc or Fagor CNC Control
- + Safety chuck guard
- + Coolant pump standard

- Meehanite casting help minimize vibration for superior finish and tool life
- Hardened & Precision ground double-Vee / Double-Flat bedways for high rigidity
- Automatic Metered lubrication system for ball screws and ways
- Built in high capacity coolant system





	Swing over Bed	18"	(460mm)
	Swing over Cross Slide	9"	(230mm)
	-	9"	(230mm)
	Center Height Center Distance	⁷ 39.37"	
			(1000mm)
	Bed Length	82.5"	(2095mm)
	Bed Way Width	14 1/2"	(370mm)
Spindle	Bed Casting Height	13 3/8"	(340mm)
opiliuic		45110.0	(40.170.00 1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1
	Spindle Motor Horsepower (7.5kw - 11kw Inverter Type)	15 HP Peak	(10 HP 30min duty rating)
	Spindle Speeds - 2 gear ranges L, H	43 - 2500 RPM	infinitely variable, in 2 gear ranges
	Spindle Speed per gear range	L= 43 - 850	H= 125 - 2500 RPM
	Constant Torque Ranges	L= 43 - 270	H= 125 - 800 RPM
	Constant Power Ranges	L= 270-850	H-800 - 2500 RPM
	Spindle Bore	2 3/8" (2.385")	(60mm)
	Spindle Nose - Camlock	D1-6 Camlock	(A2-6, 4000 RPM optional)
	Spindle ID Taper in Spindle Nose	MT-6	MT#6
Cross Slide X Axi	S		
	Rapid Traverse Feedrate	393 IPM	(10m/min)
	X-Axis motor	FANUC	Beta IS4 0.75 kw (4,000 rpm)
	Cross Slide Travel	10.63"	(270mm)
	Cross Slide Dimensions - width x length	8.26" x 27.5"	(210 x 700m)
	Cross Slide Ballscrew diameter / pitch	1" / 5mm	(25mm) Accuracy Grade C3
	4-Way Programmable Toolpost - height / index speed	20mm tool height,	/ 4 second tool change time
	Cross Slide Thrust	1190 lbs.	(540 Kg Force)
Carriage Z Axis			
	Rapid Traverse Feedrate	472 IPM	(12m/min)
	Z-Axis Motor	Fanuc	Beta IS4 0.75kw (4000rpm)
	Z-Axis Travel	38.58"	(980mm)
	Cutting Tool Height Maximum	0.79"	(20mm)
	Carriage ballscrew diameter	1 1/4"	(32mm)
	Carriage ballscrew pitch	5mm	Accuracy Grade C3 (H-P Laser Tested)
	Carriage Slide Thrust	1190 lbs.	(540 Kg Force)
Tailstock			
	Quill Diameter	2 15/16"	(75mm)
	Quill Stroke	6 5/16"	(160mm)
	Quill Taper	MT-5	Morse Taper #5
	Quill Tang Drive and drift-slot for tailstock	included	
	Tailstock body set-over adjustment	±0.4"	(±1mm)
Specifications	ransour body set over adjustment	±0.4	(=111111)
սի շ բաբարությու	Ocalent Donor Mater / Ocalent O	1/0 HD / 40 0	(FO literal)
	Coolant Pump Motor / Coolant Capacity	1/8 HP / 13.2 gal.	(50 liters)
	Electrical Requirements	220 vac ±5%	60 Hz / 60 amp service
	Machine Weight	5072 lbs	(2300 kgs)
	Shipping Weight	5734 lbs.	(2600 kgs)
	Machine Dimensions (L x W x H)	100" x 55" x 73"	(2525 x 1400 x 1840mm)
	Shipping Dimensions (L x W x H)	108" x 73" x 83"	(2743 x 1854 x 2108mm)



24" X 60" Heavy Duty CNC Lathe

- + 4.09" Bar Capacity
- + 24" Swing Diameter over Bedways
- + 60" Between Centers
- + Compact Footprints make it ideal fo R&D and Toolroom shops
- + Easy to use Fanuc or Fagor CNC Control
- Meehanite casting help minimize vibration for superior finish and tool life

- Hardened & Precision ground double-Vee / Double-Flat bedways for high rigidity
- Automatic Metered lubrication system for ball screws and way
- Inch/metric threading, Left or right hand threading
- + Built in high capacity coolant system





	Swing over Bed	24"	(610mm)
	Swing over Cross Slide	14.5"	(370mm)
	Center Height	12"	(305mm)
	Center Distance	59.05"	(1500mm)
	Bed Length	102.36"	(2600mm)
	Bed Way Width	15.75"	(400mm)
	Bed Casting Height	13 3/8"	(340mm)
Spindle	Ded Gasting Height	10 0/0	(04011111)
	Spindle Motor Horsepower	20 HP Peak	(15 HP 30min duty) (11Kw - 15Kw)
	Spindle Speeds - Programmable	30 - 1600 RPM	infinitely variable, in 2 gear ranges
	Spindle Speed 2 Gear Ranges - Programmable	M41=30 - 600	M42 = 80 - 1600 RPM
	Spindle Speed	H = 80 - 1600 RPM	
	Spindle Bore	ø4.09"	(104mm) (90mm with hydraulic chuck)
	Spindle Nose - Camlock	D1-8 Camlock	75mm Draw tube
	Spindle Bearings - 2 bearing spindle		rings front, roller bearing rear
	Spindle ID taper in spindle nose	MT-8	MT#8 Taper
Cross Slide X Ax		5	
	Rapid Traverse Feedrate	197 IPM	[5m/min]
	X-Axis motor power	FANUC	Beta IS4 0.75Kw 4000RPM
	Cross Slide Travel	12.63"	(320mm)
	Cross Slide Dimensions - width x length	9.05" x 29.9"	[230 x 760mm]
	Cross Slide Ballscrew diameter	.984"	(25mm)
	Cross Slide Ballscrew Pitch	5mm	Accuracy Grade C3 (H-P Laser Tested)
	Cross Slide Thurst	1190 lbs	(540 Kg Force)
Carriage Z Axis			
	Rapid Traverse Feedrate	197 IPM	(5m/min)
	Z-Axis Motor Power	FANUC	Beta IS4 0.75kw (4000rpm)
	Z-Axis Travel	59.05"	(1500mm)
	Cutting Tool Height Maximum	1"	(25mm)
	Carriage ballscrew diameter	1.26"	(32mm)
	Carriage ballscrew pitch	5mm	Accuracy Grade C3 (H-P Laser Tested)
	Carriage Slide Thrust	1190 lbs.	(540 Kg Force)
Tailstock			
	Quill Diameter	2.95"	(75mm)
	Quill Stroke - w/ selectable 2 speed Quill Advance	6.30"	(160mm)
	Quill Taper	MT-5	Morse Taper #5
	Quill Tang Drive and drift-slot for tailstock	included	
	Tailstock body set-over adjustment	±0.4"	(±1mm)
Specifications			
	Coolant Pump Motor	1/8 HP / 13.2 gal.	
	Coolant Tank Capacity	10.5 gal.	(40 liters)
	Electrical Requirements	220 vac ±5%	60 Hz / 75 amp service
	Machine Weight	8820 lbs.	(4000 kgs)
	Shipping Weight	9260 lbs.	(4200 kgs)
	Machine Dimensions (L x W x H)	129" x 75" x 80"	(3260 x 1900 x 2030mm)
	Shipping Dimensions (L x W x H)	133" x 79" x 86"	



30" Heavy Duty CNC Big Bore Lathe

- + A2-11 Spindle w/ 6-5/8" Bore
- + 10 1000 RPM Standard
- + A2-15 Spindle w/ 10" Bore, 18 600 RPM Optional
- + 2-Gear Ranges for Increased Cutting Torque
- + 8-Station Tool Turret Any combination of ID/OD tools
- + Dual-Turrets (Front & Rear of cross slide) Available

- + Bore-Bar Holder Available for rear of cross slide
- + Available in 60", 80", 120" & 160" Center Distances
- + FANUC 0i-TF Control and FANUC Axis & Spindle Drives





-	Swing over Bed	30"	(760mm)
	Turning Diameter (in front of cross slide w/8 station turret turning tool	22"	(560mm)
	Swing over Cross-Slide (turning diameter over cross-slide)	19"	(480mm)
	Center Height	15"	(380mm)
		18"	
	Bed width of ways		(460mm)
Spindle	Bed Casing Height	15.75"	(400mm)
ohiiinie	C : II A : II (F 45K 40K)	20 LID	(05.115.00 :
	Spindle Motor Horsepower (Fanuc 15Kw - 18Kw)	30 HP	(25 HP 30min. rated)
	Spindle Speeds	10 - 1000 RPM	
	Spindle Gear Ranges - 2 automatically selected gear ranges	L= 30 - 300RPM	H= 10 - 1000 RPMS
	Spindle Bore (10" bore optional)	6.69"	(170mm)
	Spindle Nose (front & rear) / bearing	A2-11 / Taper Roll	
	Spindle Torque for 6 5/8" bore - low gear / high gear	1180 / 346 ft. lbs.	(1600 / 470 Nm)
	Big-Bore Spindle Option - Bore Size	10" (255mm)	A2 - 15 spindle
	Big Bore Spindle Speeds	18-600 rpm in 2 ra	nges
	Big Bore Spindle Gear Ranges	Low 18-186rpm	High 60-600rpm
	Big Bore Spindle Torque for 10" bore - low gear/high gear	1475 / 442 ft. lbs	(2000 / 600 Nm)
Axis			
	Rapid Traverse Feedrate X & Z	394 IPM	(10m/min)
	X-Axis Cross Slide Travel	19 5/8"	(500mm)
	Z-Axis Travel (listed with each bed length)		
	X-Axis Ballscrew Diameter / Servo Motor Power	1.25" (32mm)	2.0 HP (1.6kw)
	Z-Axis Ballscrew Diameter / Servo Motor Power	2" (50mm)	4.0 HP (2.9kw)
	X-Axis Thrust	2020 lbs	(920 Kgf)
	X-Axis Thrust	3020 lbs	(1370 Kgf)
	Cross Slide Dimensions W x L	39" x 10"	(1000mm x 258mm)
Tool Turret	Minimum input unit	0.0001"	(0.001mm = 40 millionths)
IOUI IUIIGL			
	Hydraulic type / LS-200R		
	Tool stations - any combination of ID/OD tooling / Index time	8 stations	
	O.D. Tooling (additional I.D. & O.D. tool holders in stock)	1" tools w/8 tool cl	amps provided
	I.D. Tooling (40mm when specified for metric users)	4 ID (1.5" bore) hol	ders provided
Tailstock			
	Air-Assisted Manual Positioning - Quill engraved with inch/metric o	quill graduations	
	Quill Diameter	4.92"	(125mm)
	Quill Stroke (manual quill advance, hydraulic optional)	7.87"	(200mm)
	Quill Taper	MT-6	Morse Taper#6
	Tailstock body set-over adjustment	±0.4"	(±1mm)
Electrical / Hy	ydraulic / Coolant		
	Power Requirements - FANUC 0i - TF control, motors & drives	30kVA / 220vac / ±5% 2 HP	
	Tower Requirements TANOO of The control, motors & drives		
	Hydraulic Motor Power	2 HP	
	•	2 HP 435 PSI / Mobil #3	2oil



34-42" Swing Heavy Duty CNC Big Bore Lathes

- + A2-11 Spindle with a 6-5/8" Bore (10" & 14" Spindle Bores Optional)
- + 5 550 RPM Spindle Speeds (4 - 440 RPM with 14" bore)
- + A2-15 Spindle w/ 10" Bore, 18 - 600 RPM Optional
- + 3 Automatically Selected Gear Ranges for High Torque
- + 8-Station Vertical Tool Turret

- Rear Spindle Chuck Mount provided for long workpieces
- Large Boring Bar Holder Available for back of Cross Slide
- + FANUC 0i-TF Control & FANUC Alpha Axis & Spindle Drive





	Swing over Bed	34 1/4"	(870mm) 42" available
	Swing over Cross Slide	20"	(510mm) 27.94" available
	Center Height	17 5/8"	(450mm) 21.6" available
	Distance between centers	78" - 236"	(2000 - 6000mm)
	Bed Width	22"	(560mm)
Spindle			
	Spindle Motor Horsepower (Fanuc 22Kw - 26Kw)	40 HP Peak	(35 HP 30min. duty rating)
	Spindle Speeds (Low = 5-50 / High = 50-550)	5-5550rpm	(4-400 with 13.98" spindle bore)
	Spindle Speed Gear Ranges automatically selected	3 gear ranges	(infinitely variable speeds in each range)
	Spindle Bore	6 5/8"	(170mm) (Optional 10" and 14" available)
	Spindle Nose	A2-11	(Optional A2-15, 255mm bore / A2-20, 355mm bo
Axis			
	Cross Slide Travel	21.65"	(550mm)
	Cross Slide Surface Dimensions W x L	13" x 39 3/8"	(330mm x 1000mm)
	X-Axis Ballscrew / Servo Motor	40mm	Pitch 5mm / 4 HP (3kw) Servo motor
	Z-Axis Ballscrew / Servo Motor	63mm	Pitch 10mm / 5.5 HP (4kw) Servo motor
	X and Z Axis rapid feed rate	240"/min	(6000mm/min)
	X and Z Axis cutting feed rate	120"/min	(3000mm/min)
	Minimum input unit	0.0001" (0.001mr	m = 40 millionth of an inch)
	Cross Slide Thrust	2500 lbs	1140 kg Force
	Carriage Slide Thrust	5500 lbs	2500 kg Force
Tool Turret			
	8 Station tool turret with any mix of ID and 0D tools		
	Turret Index Time	0.55 seconds sta	tion-to-Station (adjacent)
	OD Tool Size (8 O.D. Tool Wedges included)	1.25" x 1.25"	(32mm x 32mm)
	ID Tool Holder Bore (4 ID Toolholders included)	2" standard (50m	nm optional)
Tailstock			
	Engraved with inch/metric quill graduations		
	Quill Diameter	6.5"	(165mm)
	Quill Stroke	9.8"	(250mm)
	Quill Taper	MT-6	Morse Taper #6
	Body Movement	Hydraulic Motor	Driven w/ Hydraulic Clamping
Specifications			
	Hydraulic Systems	5 HP (3.7kw) pur	mp
	Coolant Pump	3/4 HP	
	Electrical - FANUC 0i - TF Control, motors & drives	220 vac ±5%	



44"-55" Swing Heavy Duty Big Bore Lathes

- + 30-HP Spindle Motor (40-HP optional)
- + 6 500 RPM Spindle Speeds
- + 4 Automatically Selected Gear Ranges for High Torque
- + A2-11 Spindle with a 6" Bore (9", 10", 12" & 15" Spindle Bores Optional)
- + Rear Spindle Chuck Mount available to support long workpieces

- Boring Bar Holder Available for back of Cross Slide
- Optional Tool Turrets Available
- Dual Tool Turrets Available for front & back of Cross Slide





	Swing over Bed	44"	(1120mm)
	Swing over Cross Slide	27.95"	(710mm)
	Distance between centers	78" - 236"	(2000 - 6000mm)
	Bed Width	32"	(810mm)
Spindle			
	Spindle Motor Horsepower - up to 160" bed lengths	30 HP	(22kw Fanuc) / (40 HP Optional)
	Spindle Motor Horsepower - 200" + bed lights	40 HP	(30kw)
	Spindle Speeds	6-500 rpm	(6-292 with A2 - 15 & A2 - 20 spindles)
	Spindle speed gear ranges - automatically selected	4-gear ranges	(infinetely variable speeds in each range)
	Spindle Bore	6"	(152mm) (Optional 9", 10" , 12" & 15" available
	Spindle Nose	A2-11	(Optional A2-15 / A2-20 spindle nose)
Axis			
	Cross Slide Travel	23.62"	(600mm) (varies with turret selected)
	X-Axis Ballscrew / Servo Motor	40mm	Pitch 5mm / 4 HP (3kw) Servo motor
	Z-Axis Ballscrew / Servo Motor	63mm	Pitch 10mm / 5.5 HP (4kw) Servo motor
	X and Z Axis rapid feed rate	196"/min	(5000 mm/min)
	X and Z Axis cutting feed rate	118" / min	(3000 mm/min)
	Minimum input unit	0.0001" (0.001mr	m = 40 millionth of an inch)
Tool Turret			
	Turret Tool Stations	8 Station tool turret with any mix of ID and 0D tools	
	OD Tool Size	1.25" x 1.25"	(32 x 32mm)
	ID Tool Holder Bore (4 ID Toolholders included)	1.97"	(50mm) (63mm Optional)
Tailstock			·
	Engraved with inch/metric quill graduations		
	Quill Diameter	7.87"	(200mm)
	Quill Stroke	11.81"	(300mm) with 2 speed quill gearing
	Quill Taper	MT-6	Morse Taper #6
	Body Movement	Carried by saddle	e - manual lockdown
	Optional Hydraulic Tailstock available	Carried by saddle - hydraulic quill & bed lockdown	
Specifications		,	,
, poomoutions	Cooling System	1.7 HP (1.275kw) coolant pump	
	Electrical needs - Fanuc 0i-TF, Drives & Motors		
	Warranty - 1 Year Machine	220 vac / ±5% / 3 Phase / 60 Hz 2 Year FANUC control and drives	
	Machines need stable 220 Volts, 3 Phase - Please use appropri		