

List of Tool Room Machineries with specification

1. Centre Lathe with Standard Accessories			
Sl. No.	Items	Unit	Specification
1	Height of the Center	mm	220-250
2	Centre distance	mm	1000
3	Maximum Swing over bed	mm	440-500
4.1	Swing over cross slide	mm	250-300
4.2	Swing over carriage wings	mm	420-480
4.3	Swing in Gap	mm	650-750
4.4	Width of Bed	mm	410-450
5	Carriage		
5.1	Cross slide travel	mm	280-310
5.2	Dial Graduation of Cross slide	mm	0.05
5.3	Top slide travel	mm	130-170
5.4	Dial Graduation of Top slide	mm	0.05
5.5	Angular Swivel graduation	degree	±45
5.6	Tool Shank Size	mm x mm	25x25
6	Tailstock		
6.1	Sleeve travel	mm	180-220
6.2	Spindle Sleeve diameter/taper.	mm	90/MT 5
7	Spindle		
7.1	Spindle nose/bore	mm	A2-6/53
7.2	Spindle socket taper	Metric	60/53mm bore
7.3	Spindle speed	RPM	16 from 40-2040 or better Forward 8 from 60-2375 or better Reverse
7.4	Power Main Motor	KW	11
8	Feeds & Threads		
8.1	Longitudinal feeds	mm	60 from 0.04-2.24
8.2	Cross feeds	mm	60 from 0.02-1.12
8.3	Metric threads	mm	320/0.15-12
8.4	US & Whitworth threads	TPI	39/80-2
8.5	Module threads	mm	37/0.1 to 3.5
8.6	Lead Screw Pitch	mm	6-8
9	Accessories		
9.1	Ø160 mm x 3jaw self center chuck	Set of accessories suitable to the machine	
9.2	Four Jaw chuck (Ø 160 mm) with Adapter		
9.3	MT5 – MT3 centre sleeve		
9.4	MT3 – male center		
9.5	Quick change tool post		
9.6	Electric coolant system with splash guard		
9.7	4 way Tool post		
9.8	5c Quick acting collet attachment		
9.9	Hand wheel type collet attachment		

9.10	Set of collets -size 5 mm to 20 mm -step of 1 mm	
9.11	Collet Holders	
9.12	Dog carriers dia. 20 mm , dia. 30 mm	
9.13	Splash Guards	
9.14	Revolving Center	
9.15	Drill Chuck	
9.16	Reduction sleeve- MT3-MT2, MT2-MT1	
9.17	Fixed & Traveling steady rest	
9.18	Extra change gears –for inches, module & DP threads	
9.19	Face plate(200mm)	
9.2	Driver plate	
9.21	Service tools	
9.22	Machine Lamp	
9.23	Live & Dead Center	
9.24	Foot Brake	
9.25	Chuck guard	
9.26	One set of manuals	
10	Others	Bidder to specify and quote if any other accessories available /required for smooth running of the machine
11	General features :	
11.1	The specification of feed drive motors with make, model no., max. & nominal torque	
11.2	Preferably the guideways of all axes should have telescopic type protective covers with adequate sealing on joints to prevent seepage of dust & coolant oil inside. Guide ways should be of hardened steel with hardness HRC60 or more	
11.3	The machine must have rigid streamlined and vibration free construction. All gears must be case hardened and ground and all the slides should be rigid to withstand heavy stock removal. It should have independent main drive and feed drive motors.	
11.4	Each axis should have electrical limit switches interlocked with feed/ rapid drive as well as mechanical stopper	
		Bidder to specify the features of the machine

2. Pedestal Grinder			
S.No	Items	Units	Specification
1	Wheel Size (Outer dia. x width x bore dia.)	mm	(250-300) x (25-40) x (25.4 - 31.75)
2	Wheel Center Distance	mm	600 – 650
3	Distance between base and wheel spindle	mm	800-950
4	Motor Power	HP	1 or better
5	Speed of motor	rpm	1400 or better
6	Accessories		
6.1	One set of wheels	Set of accessories suitable to the machine	
6.2	Wheel guard		
6.3	Tool Rest		
6.4	One set of Service Tools , spanners		
7	Others	Bidder to specify and quote if any other accessories available /required for smooth running of the machine	
8	General features :	Bidder to specify the features of the machine	
8.1	The specification of feed drive motors with make, model no., max. & nominal torque		
8.2	Preferably the guideways of all axes should have telescopic type protective covers with adequate sealing on joints to prevent seepage of dust & coolant oil inside. Guide ways should be of hardened steel with hardness HRC60 or more		
8.3	The machine must have rigid streamlined and vibration free construction. All gears must be case hardened and ground and all the slides should be rigid to withstand heavy stock removal. It should have independent main drive and feed drive motors.		
8.4	Each axis should have electrical limit switches interlocked with feed/ rapid drive as well as mechanical stopper		

3. Pillar Type Drilling Machine			
Sl.No	Items	Units	Specification
1	Drilling Capacity		
1.1	In Mild Steel	mm	25-32
1.2	In cast iron	mm	25-32
2	Pillar Diameter	mm	100-125
3	Spindle nose to table distance	mm	550-650
4	Spindle nose to base distance	mm	1000-1100
5	Distance from Spindle centre to Pillar face	mm	240-260
6	Morse Taper in Spindle	MT.3	MT.3
7	Number of Speeds		8
8	Range of Speed	RPM	100-2000
9	Table Size	mm	300-350
10	Base working surface	mm	300 x 300
11	Spindle Travel	mm	125-175
12	Motor	1 HP	1 HP
12	Standard Accessories		
12.1	Drill Chuck with key and arbor	Set of accessories suitable to the machine	
12.2	Machine Lamp		
12.3	Machine Vice		
12.4	Reduction Sleeves		
12.5	D.O. L Starter with No Volt Coil		
12.6	Set of Manuals / CD		
13	Others	Bidder to specify and quote if any other accessories available /required for smooth running of the machine	
14	General features :	Bidder to specify the features of the machine	
14.1	The specification of feed drive motors with make, model no., max. & nominal torque		
14.2	Preferably the guideways of all axes should have telescopic type protective covers with adequate sealing on joints to prevent seepage of dust & coolant oil inside. Guide ways should be of hardened steel with hardness HRC60 or more		
14.3	The machine must have rigid streamlined and vibration free construction. All gears must be case hardened and ground and all the slides should be rigid to withstand heavy stock removal. It should have independent main drive and feed drive motors.		
14.4	Each axis should have electrical limit switches interlocked with feed/ rapid drive as well as mechanical stopper		

4. Bench Type Drilling Machine			
Sl.No	Items	Units	Specification
1	Drilling Capacity		
1.1	In Mild Steel	mm	13
2	Spindle Travel	mm	80
3	Spindle Taper	----	Solid
4	No. of Spindle Speed	mm	4
5	Range of Spindle Speed	mm	500- 2825
6	Column Diameter	mm	46.8
7	Max. Distance Between Spindle Centre to Column face	mm	152
8	Max. Distance between spindle Nose to Working Table	mm	280
9	Max. Distance between Spindle Nose to base plate	mm	495
10	Size of Square Table	mm	210 x 215
11	Size of base plate	mm	235 x 360
12	Electric Motor	----	3 Phase , 0.5 HP,1440 RPM
13	V Belt Size		M-2360
14	Weight of the Machine	Kgs	48
15	Standard Accessories		
15.1	Drill Chuck with key and arbor	Set of accessories suitable to the machine	
15.2	Machine Lamp		
15.3	Drill Drift		
15.4	V-Belt		
15.5	Machine Vice		
15.6	Reduction Sleeves		
15.7	D.O. L Starter with No Volt Coil		
15.8	Set of Manuals / CD		
16	Others	Bidder to specify and quote if any other accessories available /required for smooth running of the machine	
17	General features :	Bidder to specify the features of the machine	
17.1	The specification of feed drive motors with make, model no., max. & nominal torque		
17.2	Preferably the guideways of all axes should have telescopic type protective covers with adequate sealing on joints to prevent seepage of dust & coolant oil inside. Guide ways should be of hardened steel with hardness HRC60 or more		
17.3	The machine must have rigid streamlined and vibration free construction. All gears must be case hardened and ground and all the slides should be rigid to withstand heavy stock removal. It should have independent main drive and feed drive motors.		

5.Heavy Duty Lathe Machine with Standard Accessories			
Sl. No.	Items	Unit	Specification
1	Height of the Center	mm	260-280
2	Centre distance	mm	1500
3	Maximum Swing over bed	mm	575-600
4.1	Swing over cross slide	mm	350-360
4.2	Swing over carriage wings	mm	545-560
4.3	Swing in Gap	mm	800
4.4	Width of Bed	mm	415
5	Carriage		
5.1	Cross slide travel	mm	300
5.2	Dial Graduation of Cross slide	mm	0.05
5.3	Top slide travel	mm	150
5.4	Dial Graduation of Top slide	mm	0.05
5.5	Angular Swivel graduation	degree	45 (+ & -)
5.6	Tool Shank Size	mmxmm	25x25
6	Tailstock		
6.1	Sleeve travel	mm	200
6.2	Spindle Sleeve diameter/taper.	mm	90/MT 5
7	Spindle		
7.1	Spindle nose/bore	mm	A2-6/53
7.2	Spindle socket taper	Metric	60/53mm bore
7.3	Spindle speed	RPM	16 from 40-2040 or better Forward 8 from 60-2375 or better Reverse
	Power Main Motor	KW	11
8	Feeds & Threads		
8.1	Longitudinal feeds	mm	60 from 0.04-2.24
8.2	Cross feeds	mm	60 from 0.02-1.12
8.3	Metric threads	mm	320/0.15-12
8.4	US & Whitworth threads	TPI	39/80-2
8.5	Module threads	mm	37/0.1 to 3.5
8.6	Lead Screw Pitch	mm	6
9	Accessories		
9.1	Ø160 mm x 3jaw self center chuck	Set of accessories suitable to the machine	
9.2	Four Jaw chuck (Ø 160 mm) with Adapter		
9.3	MT5 – MT3 centre sleeve		
9.4	MT3 – male center		
9.5	Quick change tool post		
9.6	Electric coolant system with splash guard		
9.7	4 way Tool post		
9.8	5c Quick acting collet attachment		
9.9	Hand wheel type collet attachment		
9.10	Set of collets -size 5 mm to 20 mm -step of 1 mm		

9.11	Collet Holders	
9.12	Dog carriers dia. 20 mm , dia. 30 mm	
9.13	Splash Guards	
9.14	Revolving Center	
9.15	Drill Chuck	
9.16	Reduction sleeve- MT3-MT2, MT2-MT1	
9.17	Fixed & Traveling steady rest	
9.18	Extra change gears –for inches, module & DP threads	
9.19	Face plate(200mm)	
9.2	Driver plate	
9.21	Service tools	
9.22	Machine Lamp	
9.23	Live & Dead Center	
9.24	Foot Brake	
9.25	Chuck guard	
9.26	One set of manuals	
10	Others	Bidder to specify and quote if any other accessories available /required for smooth running of the machine
11	General features :	Bidder to specify the features of the machine
11.1	The specification of feed drive motors with make, model no., max. & nominal torque	
11.2	Preferably the guideways of all axes should have telescopic type protective covers with adequate sealing on joints to prevent seepage of dust & coolant oil inside. Guide ways should be of hardened steel with hardness HRC60 or more	
11.3	The machine must have rigid streamlined and vibration free construction. All gears must be case hardened and ground and all the slides should be rigid to withstand heavy stock removal. It should have independent main drive and feed drive motors.	
11.4	Each axis should have electrical limit switches interlocked with feed/ rapid drive as well as mechanical stopper	

6. Tool & Cutter Grinder with standard Accessories			
S.No	Items	Units	Specification
1	Centre height	mm	130
2	Swing	mm	280
3	Swing with raising block	mm	370
4	Admit between tailstock centres	mm	760
5	Admit between work head & tailstock centre	mm	615
6	Table		
6.1	Longitudinal travel	mm	510
6.2	Clamping area	mm	980 X 140
6.3	Cross traverse	mm	250
6.4	Swivel with centre locking	deg.	Plus/Minus 45
6.5	Fine Swivel with end locking	deg.	Plus/Minus 9
7	Tilting Wheel Head		
7.1	Eccentricity with central line of column	mm	40
7.2	Vertical adjustment	mm	250-300
7.3	Spindle Axis		
7.4	Above the axis of centres	mm	200-230
7.5	Below the axis of centres	mm	60-80
8	Swivel		
8.1	vertical plane	deg.	Plus/Minus 20
8.2	Horizontal plane	deg.	350
8.3	Wheel speed in either sense of rotation	rpm	2800/5800 or better
8.4	Motor Power	kW	0.75 or better
9	Work Head		
9.1	Spindle bore taper		MT5
9.2	Speed range	rpm	10,01,60,250
9.3	Power	kW	0.18 or better
10	Tail stock taper		MT2
11	Internal Grinding		
11.1	Dia. Range Min./Max	mm	14/56
11.2	Max. Spindle speed	rpm	18000 or better
12	Total power	kW	3
13	Accessories:		
13.1	Cylindrical grinding attachment	Set of accessories suitable to the machine	
13.2	Internal grinding attachment		
13.3	Universal vice for surface grinding		
13.4	Radius grinding attachment		
13.5	Radius trueing attachment		
13.6	Hydraulic equipment for table movement		
13.7	fine cross feed attachment		
13.8	PTFE guide way for cross movement		
13.9	Tape relief grinding attachment		
13.10	Rough reamer/core drills relief grinding attachment		
13.11	Attachment for grinding and relief of disc cutter		
13.12	Spiral milling and hob grinding attachment		
13.13	Twist drill sharpening attachment		
13.14	Permanent magnetic chuck		
13.15	Dust Exhausting device		
13.16	Water cooling device		
13.17	3-Jaw chuck		
13.18	Indexing unit		

13.19	Collect chucking attachment	
13.20	Attachment for grinding carbide tip tools	
13.21	Precision radius grinding attachment.	
13.22	DRO for all slides.	
13.23	Grinding wheel guards	
13.24	Grinding wheel flanges (different sizes)	
13.25	Machine Lamp	
13.26	Diamond Tool with holder	
13.27	One set of manuals	
13.28	One set of Service Tools	
13.29	Different Grinding wheel (Cup, saucer, taper, straight etc.)	Bidder to specify and quote if any other accessories available /required for smooth running of the machine
13.30	Anti vibration pads	
14	Others	
15	General features :	Bidder to specify the features of the machine
15.1	The specification of feed drive motors with make, model no., max. & nominal torque	
15.2	Preferably the guideways of all axes should have telescopic type protective covers with adequate sealing on joints to prevent seepage of dust & coolant oil inside. Guide ways should be of hardened steel with hardness HRC60 or more	
15.3	The machine must have rigid streamlined and vibration free construction. All gears must be case hardened and ground and all the slides should be rigid to withstand heavy stock removal. It should have independent main drive and feed drive motors.	
15.4	Each axis should have electrical limit switches interlocked with feed/ rapid drive as well as mechanical stopper	

7. PVC Pipe Threading Lathe Machine with Standard Accessories

Sl. No.	Items	Unit	Specification
1	Height of the Center	mm	250-300
2	Maximum Swing over bed	mm	600
3	Length of the Bed	mm	1800 - 3050
4	Width of the Bed	mm	400
5	Spindle Bore Diameter	mm	250
6	Size of 4 Jaw Dog Chuck	mm	450
7	Motor Power	HP	3 -5
9	Accessories		
9.1	14 inch DiaFour Jaw chuck with Adapter		
9.2	Quick change tool post		
9.3	Electric coolant system with splash guard		
9.4	4 way Tool post		
9.5	5c Quick acting collet attachment		
9.6	Hand wheel type collet attachment		
9.7	Set of collets -size 5 mm to 20 mm -step of 1 mm		
9.8	Collet Holders		
9.9	Dog carriers dia. 20 mm , dia. 30 mm		
9.10	Splash Guards		
9.11	Boring Bar		
9.12	ID Threading Bar		
9.13	OD Threading Bar		
9.14	Fixed & Traveling steady rest		
9.15	Extra change gears –for inches, module & DP threads		
9.16	Driver plate		
9.17	Service tools		
9.18	Machine Lamp		
9.19	Live & Dead Center		
9.20	Foot Brake		
9.21	Chuck guard		
9.22	One set of manuals		
10	Others	Bidder to specify and quote if any other accessories available /required for smooth running of the machine	
11	General features :	Bidder to specify the features of the machine	
11.1	The specification of feed drive motors with make, model no., max. & nominal torque		

11.2	Preferably the guideways of all axes should have telescopic type protective covers with adequate sealing on joints to prevent seepage of dust & coolant oil inside. Guide ways should be of hardened steel with hardness HRC60 or more	
11.3	The machine must have rigid streamlined and vibration free construction. All gears must be case hardened and ground and all the slides should be rigid to withstand heavy stock removal. It should have independent main drive and feed drive motors.	
11.4	Each axis should have electrical limit switches interlocked with feed/ rapid drive as well as mechanical stopper	

8. Horizontal Hydraulic Surface Grinding Machine			
S.No	Items	Units	Specification
1	Table Clamping Area	mm	1000 x 500
2	Maximum Grinding Width	mm	500
3	Maximum Distance between Grinding Wheel & Table	mm	600
4	Self Acting Longitudinal traverse of the table	mm	1050
5	Cross table traverse , hydraulic	mm	570
6	Table traverse speed range per minute	Mtr.	1.5 to 18 meters
7	Automatic cross feed range per stroke at each reversal	mm	0.5 to 10
8	Fine feed graduation- Vertical	mm	0.001
9	Fine feed graduation-Cross	mm	0.001
10	Max. Vertical traverse of wheel head spindle from table	mm	750
11	Size of Grinding Wheel (Dia.x Width x Bore)& Speed of the Wheel	mm , RPM	300 x 50 x 76 , 2000
12	Accessories		
12.1	Machine Lamp	Set of accessories suitable to the machine	
12.2	Diamond Tool with holder		
12.3	Coolant splash guard		
12.4	Wheel balancing stand		
12.5	wheel Puller with extracting nut		
12.6	Wheel guard		
12.7	One set of manuals		
12.8	One set of Service Tools, Keys, allen keys, Spanner		
12.9	Grinding wheel (Al ₂ O ₃) – 02 Nos.		
13	Others	Bidder to specify and quote if any other accessories available /required for smooth running of the machine	
14	General features :	Bidder to specify the features of the machine	
14.1	Bed is a single piece high tensile strength casting, heavily ribbed for better vibration damping and shock absorption ensuring rigidity to the machine		

14.2	Precision scraped V & Flat guideways for table with forced feed continuous lubrication.
14.3	Rectangular, box type turcite lined guideways for wheel head.
14.4	Rapid movement of wheel head by electric motor for faster setting.
14.5	Hydraulically operated auto infeed at each table reversal along with inching feed.
14.6	Built in motor drive to the grinding wheel head.
14.7	Hollow spindle for better coolant supply to ensure full power utilisation.
14.8	Grinding head tilting facility for hollow grinding.
14.9	Speed regulation of table with remote operated proportional valve. Table stroke sensed by limit switches.
14.10	Built in safety interlocks&Hydraulic table traverse for infinitely variable speed and smooth reversal.