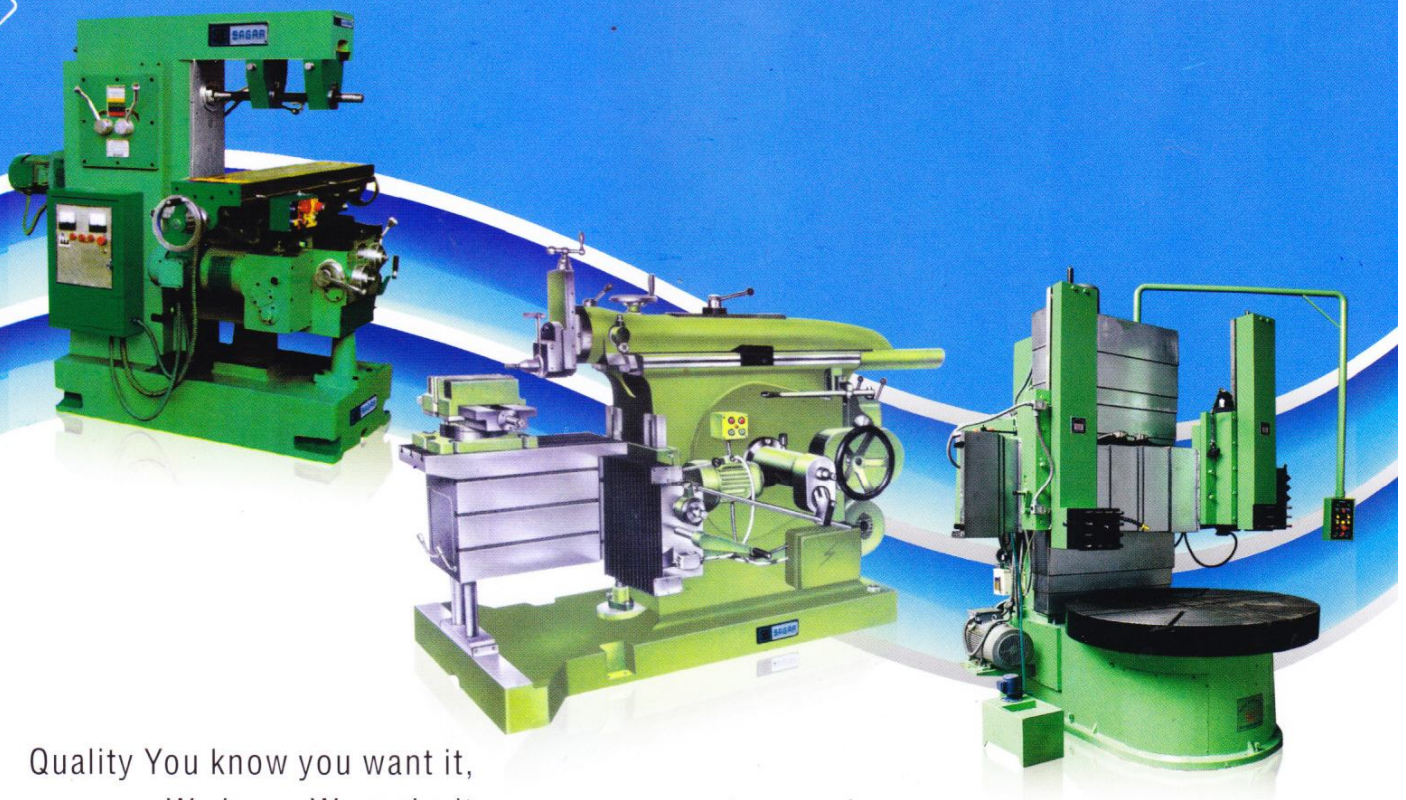


SAGAR

HEAVY ENGINEERINGS PVT. LTD.

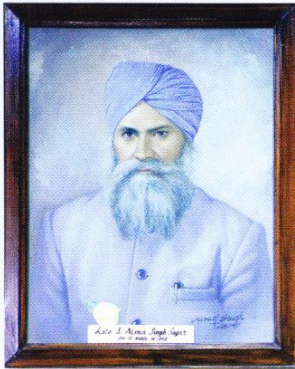


Quality You know you want it,
We know We make it

AN ISO 9001:2008 CERTIFIED CO.

IN THE SERVICE TO MACHINE TOOLS INDUSTRY SINCE 1936

COMPANY PROFILE



Founder :
Late S. Atma Singh Sagar

SAGAR HEAVY ENGINEERINGS PVT. LTD. is a well known name in the Manufacturing of SHAPING MACHINE, MILLING MACHINE, VTL MACHINE, SLOTTING MACHINE, HACKSAW MACHINE, DRILLING MACHINE, LATHE MACHINE and CNC MACHINES. The Company was established in 1936.

Since its inception, the Company has gone a long way in creating a mark of excellence and Best workmanship. Presently the company is spreading its wings all over India under the leadership and guidance of S. Kirpal Singh Sagar having understanding of customer's requirements with hardcore experience in machine tools and machinery parts industry. Today **SAGAR HEAVY ENGINEERINGS PVT. LTD** is a well established name in its products range.

Plant Facilities

We are having all in house Plant Facilities to support our production jobs. we produce quality products with modern techniques. we are having hard working, skilled and motivated working Force.

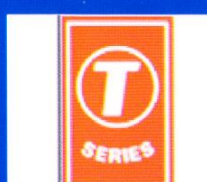
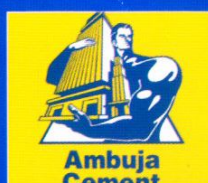
Quality Assurance

We are maintaining high quality under the supervision of qualified technical staff at every step. We have stringent quality control system to control the quality from raw material to end products.



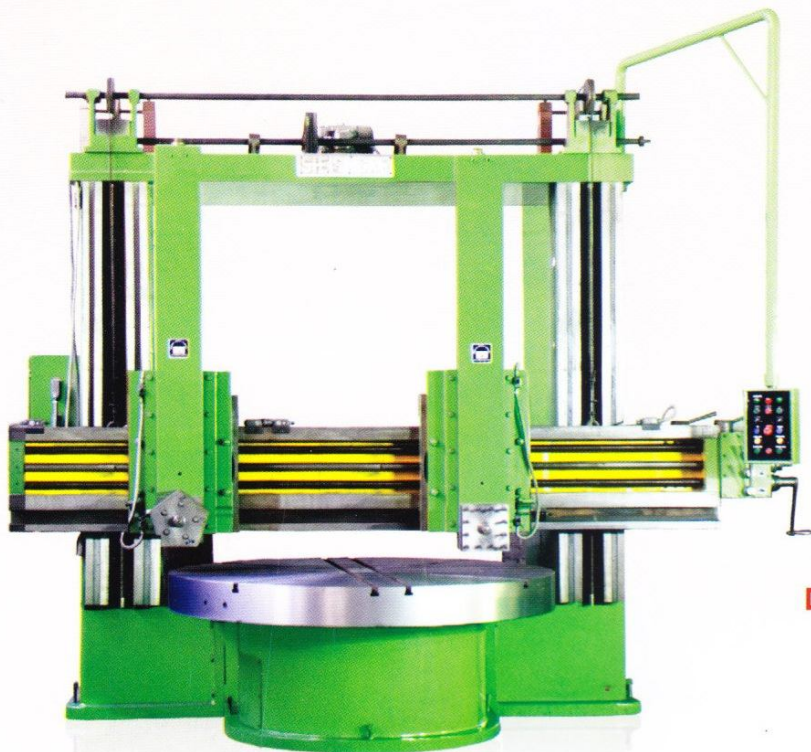
S. Kirpal Singh Sagar
CMD

OUR CLIENTS



Above Logos are Personal Properties of Respective Companies

VTL MACHINES



DOUBLE COLUMN VERTICAL TURNING LATHE

Specifications of SAGAR Vertical Boring cum Turning Lathe

SINGLE COLUMN

Model	600 mm	1000 mm	1500mm
Table Diameter Standard	600	1000	1500
Maximum Turning Diameter	700	1150	1600
Maximum Distance from Table	400	600	1000
Travel of Turret Head Centre towards right from Table Centre	400	575	800
Travel of R.H. Ram Head	400	500	800
No. of Table Speeds	9 Speeds	9	6
No. of Feeds per Revolution	3	3	3
H.P. of Main Motor Drive	3 HP	5 HP	10 H.P.

DOUBLE COLUMN

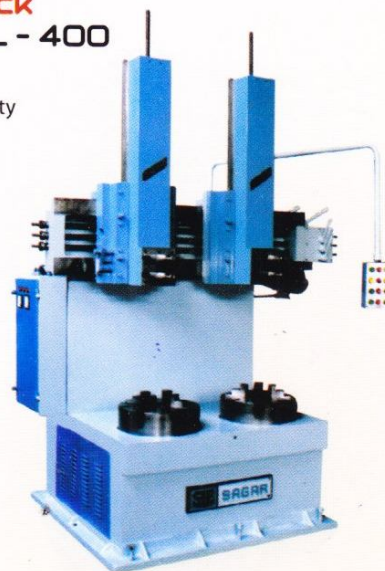
1500 mm	2000 mm	2500 mm	3000 mm
1500	2000	2500	3000
1700	2200	2700	3200
1400	1400	1500	1600
875	1150	1375	1625
1000	1100	1200	1300
6	6	6	6
3	3	3	3
15 HP	25 HP	30 HP	30 HP

SINGLE COLUMN VERTICAL TURNING LATHE



VTL Double Chuck DBL - 400

Each Chuck can be
Operated independently
Designed for High Productivity



SAGAR SHAPING MACHINE

• Standard Accessories

- Machine Handle
- Instruction Manual
- Automatic Oil Lubrication

• Extra Accessories

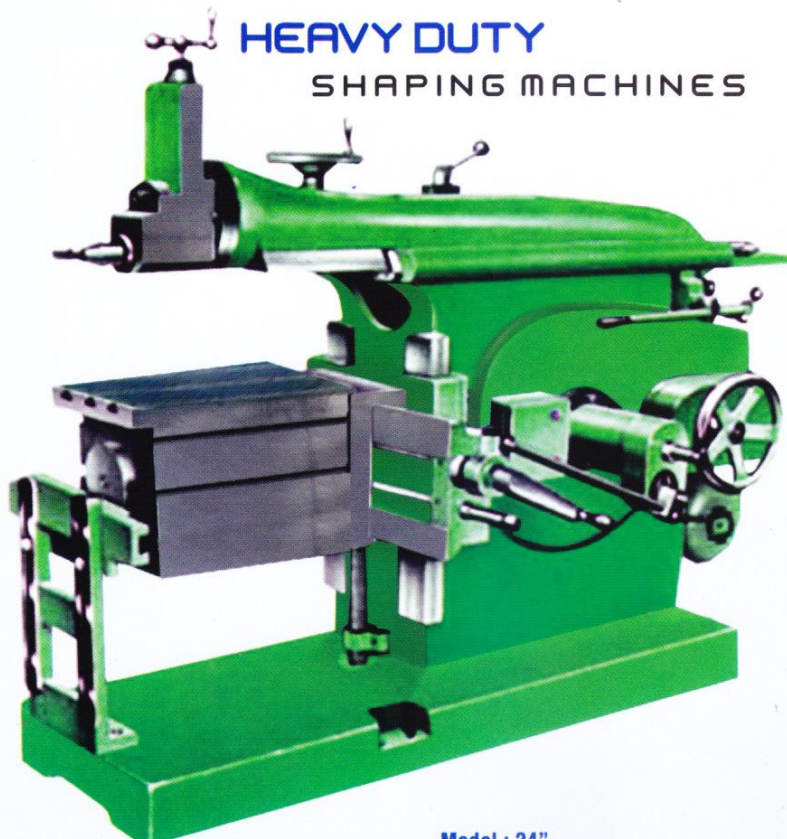
- Rapid Travel with motor, limit switches & electric Panel
- Automatic Down feed to Tool Slide
- Automatic Tool Lifting
- Keyway Cutting Attachment
- Hydro Copying Attachment
- Machine Vice
- Electricals
- Centralized Lubrication for Cross Slide
- Foot Emergency stop
- Bellows for Cross slide



Model : 18"

Also Available

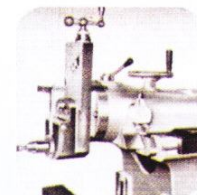
- New design with rapid drive, three guideway slide and automatic tool lifting.
- Hydraulic Shaper.
- Cone Pulley driven shaping machine is also available in 18" stroke to 36" stroke.
- Main Slide with Ball Screws
- Gear Box with 6 Speed or 8 Speed
- PLC Operated with Servo motors



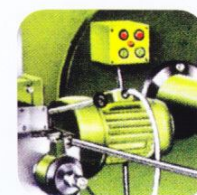
Model : 24"



Automatic Tool Lifting



Automatic Down Feed
to Tool Slide



Rapid Travel

HEAVY DUTY
SHAPING MACHINES

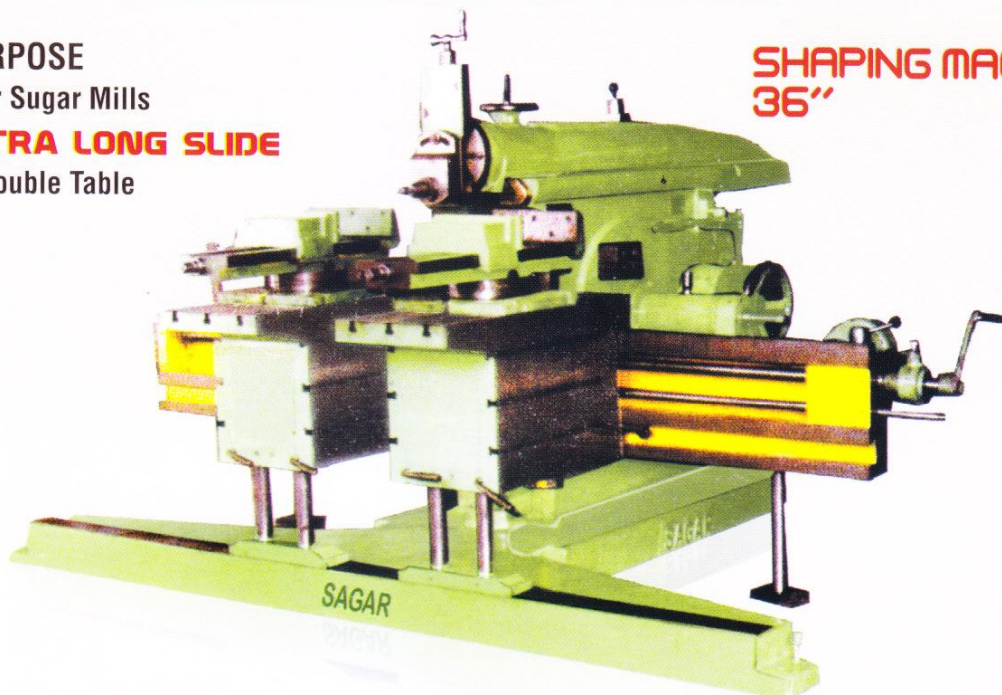
SPECIAL PURPOSE

For Sugar Mills

WITH EXTRA LONG SLIDE

With Double Table

SHAPING MACHINE 36"



Specifications of SAGAR Shaping Machines

MODEL	12"	18"	24" & 26"	30"	32"	36"	42"	48"
CAPACITY								
Length of Ram-Stroke	305	457	610/660	762	815	915	1070	1215
Length of Ram	660	914	1325	1400	1536	1640	2135	2285
Length x Width of Ram Bearing	660x178	711x245	995x280	995x280	1145x300	1145x300	1600x405	1650x430
Max/Min distance of Table from Ram	257/41	406/89	485/109	485/109	521/140	521/140	521/140	521/40
TABLE								
Working Surface of Table	300x228	457x279	610x330	762x370	810X387	915x387	1050x562	1200x570
Max. Horizontal Table Travel	419	457	665	670	762	865	1070	1215
Max. Vertical Table Travel	140	305	432	435	381	381	457	460
Angular Movement of Table	± 60 deg.	± 60 deg.	± 60 deg.	± 60 deg.	Fix	Fix	Fix	Fix
TOOL HEAD								
Max. Tool Shank Size	16x22	30x16	38x21	38x21	38x21	38x21	38x25	40x27
Max. Vertical Travel of Tool Slide	140	152	152	152	152	228	305	330
Max. Swivel of Tool Head	± 60 deg.	± 60 deg.	± 60 deg.	± 60 deg.	± 60 deg.	± 60 deg.	± 60 deg.	± 60 deg.
SPEEDS & FEEDS								
Diameter of Clutch Pulley	235	311	311	311	405	405	405	405
Number of Ram Speeds/Strokes	3	4	4	4	4	4	4	4
Range of Ram Strokes per minute	30 to 90	17 to 75	12 to 72	12 to 72	12 to 67	12 to 67	10 to 60	10 to 60
Diameter of Motor Pulley	76	89	89	89	100	100	100	100
Range of Table Feeds/Stroke	0.22-0.88	0.22-0.88	0.22-0.88	0.22-0.88	0.22-0.88	0.22-0.88	0.22-0.88	0.22-0.88
Tool Head Feed	Hand Feed	Hand Feed	Hand Feed	Hand Feed	Hand Feed	Hand Feed	Hand Feed	Hand Feed
ELECTRIC EQUIPMENTS								
Main Motor Drive 960 RPM	1.5 H.P.	2 H.P.	3 H.P.	3 H.P.	5 H.P.	5 H.P.	7.5 H.P.	7.5 H.P.
V-Belt Section	B-35	B-55	B-57	B-58	B-72	B-72	B-85	B-92
Motor Starter	3.5 AMP	3.5 AMP	5 AMP	5 AMP	15 AMP	15 AMP	15 AMP	15 AMP
Overall Dimentions								
Length	1290	1580	1980	2080	2100	2200	2400	2600
Width	838	948	1067	1117	1500	1650	1900	2100
Height	1371	1400	1600	1650	1900	2000	2150	2350
Weight (Approx.)	600 kg.	1250 kg.	1750 kg.	2000 kg.	3250 kg.	3750 kg.	4500 kg.	6000 kg.

Specification are subject to change without prior intimation due to constant upgradation model

RADIAL DRILLING MACHINE



Specifications of SAGAR Radial Drill Machine

MODEL	SHE-RD-40	SHE-RD-50	SHE-RD-65	SHE-RD-75
DRILL HEAD				
Drilling Capacity (in steel)	40	50	65	75
Drilling Depth	180	225	305	355
Taper Spindle Nose Socket	M.T.4	M.T.5	M.T.5	M.T.6
No. of Spindle Speed & Range R.P.M.	6 (45-660)	9 (40-790)	12 (18-810)	12 (18-810)
No. of Spindle feed & Range mm/Rev.	3 (0.05-0.15)	3 (0.05-0.15)	6 (.012-1.15)	6 (.012-1.15)
Drill Power	1.5 kw	2.2kw	3.7kw	5.5kw
CAPACITY				
Drilling Radius : Maximum	950	1100	1600	1800
Drilling Radius : Minimum	375	450	500	600
Drilling Head Traverse	575	650	1100	1200
Distance Base Plate to Spindle				
Max. (when the spindle is in upward position)	1150	1300	1500	1750
Min. (when the spindle is in Downward position)	150	150	100	200
Diameter of Column Sleeve	255	310	355	405
Working Surface of base Plate Length	800	915	1320	1625
Working Surface of base Plate width	550	660	865	900
OTHER DETAILS				
Arm Elevating Motor	0.75 KW	1.5 KW	2.2 KW	3.7 KW
Standard Box Table	300x300x300	550x400x400	600x450x450	600x450x450
Approximate Weight of Machine	2000 kg.	3000 Kg.	4800 Kg.	6500 Kg.

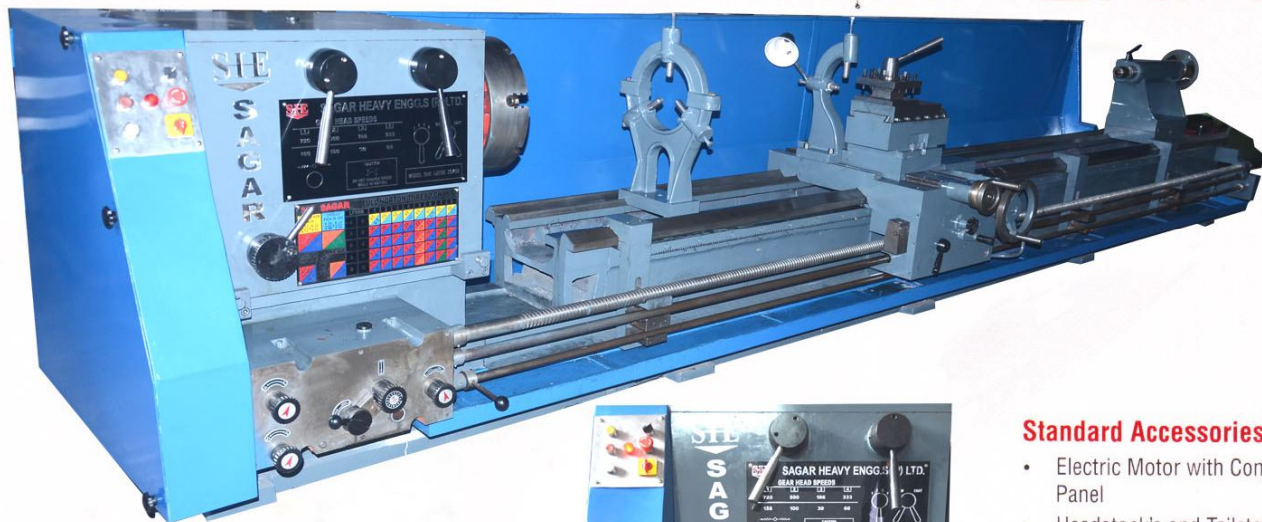
MILLING MACHINES

Specifications of SAGAR Milling Machines

Table	SHE-0A	SHE-1	SHE-1.5	SHE-2	SHE-3	SHE-4
Working Surface	900x210	1000x225	1125x250	1300x275	1400x325	1600x350
Number & Size of T-Slots	3x13	3x13	3x13	3x13	3x15	3x15
Distance Between of T-Slots	45	50	55	65	75	80
Feeds						
Cross	150	160	200	230	280	315
Vertical	300	325	375	435	510	610
Longitudinal	425	475	575	650	700	810
Spindle						
Arbor	25.4	25.4	25.4	25.4	25.4	25.4
Number of Speeds	6 (50 to 1000)	6 (50 to 1000)	6 (50 to 750)	6 (50 to 950)	6 (50 to 950)	6 (50 to 950)
Taper	ISO-30	ISO-30	ISO-40	ISO-40	ISO-40	ISO-40
Distance from Spindle to Top (min-max)	10-275	10-300	10-350	10-400	10-400	10-600
Motors (Required)						
Spindle	2 H.P 1400 RPM	2 H.P 1400 RPM	2 H.P 1400 RPM	3 H.P 1400 RPM	3 H.P 1400 RPM	5 H.P 1400 RPM
Feed Motor		1 H.P	2 H.P	2 H.P	2 H.P	3 H.P
Coolant	0.10 H.P 2800 RPM	0.10 H.P 2800 RPM	0.10 H.P 2800 RPM	0.10 H.P 2800 RPM	0.10 H.P 2800 RPM	0.10 H.P 2800 RPM
Vertical Attachment on Ram (Optional)						
Cross	110-225	125-275	125-350	135-425	135-400	135-535
Vertical	75-300	125-350	150-435	100-500	100-575	100-625
Speeds for Vertical Head (Ram Type)	3 (380-960)	3 (380-960)	6 (160-425)	6 (95-550)	6 (95-550)	6 (50-450)



LATHE MACHINE



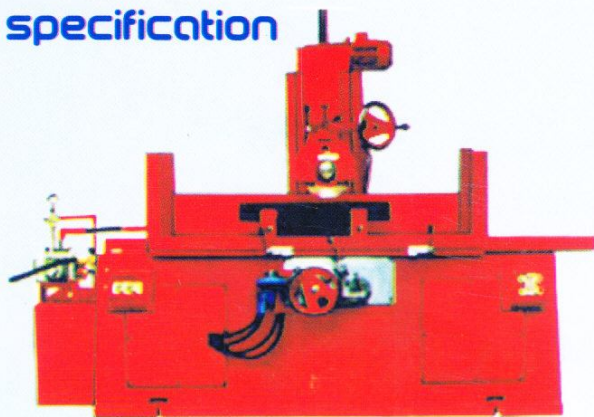
Standard Accessories

- Electric Motor with Control Panel
- Headstock's and Tailstock's Dead Center
- Thread Dial Indicator
- Quick Change Gear Box
- Square Tool Post
- Driving Plate
- Set of Spanners & Keys
- Instruction Manual

Specifications of Lathe Machines

Model Capacity	Model - 200	Model - 300	Model - 400	Model - 450	Model - 500	Model - 600
Height of Center	200 mm	300 mm	400 mm	450 mm	500 mm	600 mm
Swing Over Bed	400 mm	600 mm	800 mm	900 mm	980 mm	1150 mm
Swing Over Cross Slide	260 mm	325 mm	530 mm	610 mm	660 mm	760 mm
Swing in Gap	600 mm	865 mm	1200 mm	1300 mm	1350 mm	1600 mm
Bed Width	315 mm	375 mm	460 mm	510 mm	560 mm	660 mm
Distance Between Centers	750mm, 1000 mm, 1500 mm,	1000mm, 1500 mm, 2000 mm, 2500mm, 3000mm	1500mm, 2000 mm, 2500 mm, 3000mm, 3500mm	2000mm, 2500 mm, 3000 mm, 3500 mm, 4000 mm, 4500 mm, 5000 mm	2500mm, 3000 mm, 3500 mm, 4000 mm, 4500 mm, 5000 mm, 6000 mm	2500mm, 3000 mm, 3500 mm, 4000 mm, 4500 mm, 5000 mm, 6000 mm
Head Stock						
Main Spindle Speeds no.	8 nos.	8 nos.	8 nos.	8 nos.	8 nos.	8 nos.
Range of Spindle	45 - 1000 RPM	30 - 720 RPM	30 - 720 RPM	25 - 275 RPM	25-275 RPM	25-275 RPM
Spindle Bore	52 mm	62 mm	90 mm	105 mm	105 mm	105 mm
Threads & Feeds						
Metric Threads	0.5-6 mm	1-14 mm	1-14 mm	1 - 14 mm	1-14 mm	1-14 mm
Withworth Threads TPI	4 - 60 TPI	2 - 30 TPI	2 - 30 TPI	2 - 30 TPI	2 - 30 TPI	2 - 30 TPI
Thread of Lead Screw	4 TPI	2 TPI	2 TPI	2 TPI	2 TPI	2 TPI
No. of Feeds	30	30	30	30	30	30
Range of Longitudinal feed	0.20 - 3.0 mm / rev	0.20 - 3.0 mm / rev	0.20 - 3.0 mm / rev	0.20 - 3.0 mm / rev	0.20 - 3.0 mm / rev	0.20 - 3.0 mm / rev
Range of transverse feed	0.033 - 0.50 mm / rev	0.033 - 0.50 mm / rev	0.033 - 0.50 mm / rev	0.033 - 0.50 mm / rev	0.033 - 0.50 mm / rev	0.033 - 0.50 mm / rev
Tailstock						
Tailstock Sleeve Taper	MT 3	MT 4	MT 5	MT 5	MT 5	MT 5
Spindle Diameter	50 mm	62 mm	75 mm	95 mm	95 mm	95 mm
Electrical	2 H.P 1440 RPM	3 H.P 1440 RPM	5 H.P 1440 RPM	7.5 H.P 1440 RPM	10 H.P 1440 RPM	10 H.P 1440 RPM

SURFACE GRINDER specification



SAGAR Horizontal Surface Grinder

Standard accessories with the machine

- Grinding wheels One
- Guard for Grinding wheel
- Clamp bolts
- Bar for locking spindle
- Clamping jaws
- Diamond tool holder

Descriptions	Model SHE-SG-2410	Model SHE-SG-3010	Model SHE-SG-4012	Model SHE-SG-4814
Working surface of table	250 mm x 625 mm	250 mm x 800 mm	300 mm x 1050 mm	350 mm x 1300 mm
Grinding capacity	250 mm x 600 mm	250 mm x 750 mm	300 mm x 1000 mm	350 mm x 1200 mm
Maximum Height from table	300 mm	300 mm	400 mm	400 mm
Vertical graduations	0.02 mm	0.02 mm	0.02 mm	0.02 mm
Cross feed graduations	0.05 mm	0.05 mm	0.05 mm	0.05 mm
Spindle speed	2800 RPM	2800 RPM	2800 RPM	2800 RPM
Grinding stone dia x width x bore	200 mm x 19 mm x 32 mm	200 mm x 19 mm x 50 mm	250 mm x 25 mm x 76.2 mm	250 mm x 25 mm x 76.2 mm
Head motor	2 Hp.	2 Hp.	3 Hp.	3 Hp.
Hydraulic Pump Motor	2 Hp.	2 Hp.	3 Hp.	3 Hp.
Rapid Motor	1.0 Hp.	1.0 Hp.	1.0 Hp.	1.0 Hp.
Coolant pump	0.1 Hp.	0.1 Hp.	0.1 Hp.	0.1 Hp.

HACKSAW MACHINES specification



Model	HK-175	HK-200	HK-250	HK-300	HK-350	HK-400	HK-500	HK-600
Cap. of Round Bars	175	200	250	300	350	400	500	600
Cap. of Square Bar	125	150	200	250	275	325	350	425
Stroke	135	135	140	140	140	135	150	150
Strokes Per Min.(approx.)	100-120	100-120	85-100	85-100	85-100	70-85	70-85	70-85
Blade Size	12"-14"	14"-16"	16"-18"	18"-20"	20"-22"	18"-24"	24"-32"	30"-36"
Electric Motor	1 H.P.	1 H.P.	2 H.P.	2 H.P.	2 H.P.	3 H.P.	5 H.P.	5 H.P.
RPM of Motor	1440	1440	1440	1440	1440	1440	960	960
Length	1000	1000	1150	1250	1300	1500	1650	1750
Width	600	600	625	650	650	675	700	725
height	800	800	1000	1000	1100	1200	1300	1400
Weight(approx.)	325 Kg.	335 Kg.	450 Kg.	550 Kg.	650 Kg.	750 Kg.	1100 Kg.	1200 Kg.
V-Belt Required	4 Pcs.	4 Pcs.	4 Pcs.	4 Pcs.	4 Pcs.	5 Pcs.	6 Pcs.	6 Pcs.

SLOTING MACHINE



SAGAR Slotting Machine

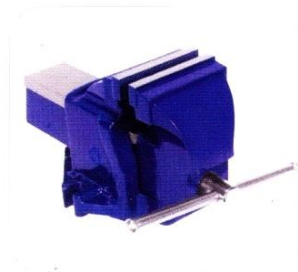
Optional Equipments

- Tilting head $\pm 5^\circ$
- Rapid to all Slides

In accordance with our continuous improvement, we reserve the right to change the specifications without any notice.

Model	SHE-SL-125	SHE-SL-150	SHE-SL-200	SHE-SL-250	SHE-SL-300	SHE-SL-375	SHE-SL-450	SHE-SL-500
Working Stroke	125	150	200	250	300	375	450	500
Length of Ram	200	560	560	735	810	900	1300	1300
Vertical Adjustment of Ram	90	150	150	250	300	300	325	325
Center of Cutting Tools to Col	165	250	250	380	455	550	750	750
Working Surface of Table	200	280	280	355	500	600	900	900
Longitudinal transverse of table	165	250	250	300	530	530	800	800
Bore of Base	28	38	38	75	75	75	100	100
Cross Transverse of table	215	250	250	300	455	500	600	600
Table Top to Ram	200	330	330	380	400	525	700	700
No. of Speeds / Range	2/90-170	2/60-150	2/60-150	2/46-70	4/20-70	4/20-70	6/20-70	6/20-70
Motor Recommended	1 H.P	1.5 H.P.	1.5 H.P.	2 H.P.	3 H.P.	3 H.P.	5 H.P.	7.5 H.P.
R.P.M.of Motor	1440	1440	1440	1440	960	960	960	960

MACHINE TOOLS ACCESSORIES



Complete Range of Machine Vice



Indexing Head



3 Jaw Self Centering Chucks
machine clamping chucks



Bench Grinders

TOOL & CUTTER GRINDING MACHINE

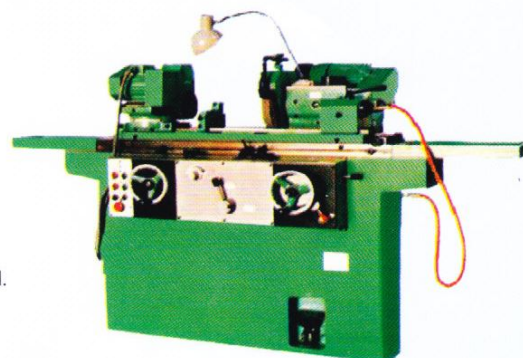
Standard Equipments

Set of Loose Centre Heads complete with centre,
Compound Universal Work support,
Universal Tooth Rest, Tool Sharpening Vice

Extra Equipments

Hob Cutter Grinding Attachment, Tap Relieving Attachment, Radius Grinding Attachment,
Index Attachment with Truechuck-80mm, Chaser Grinding Attachment,
Drill Grinding Attachment

Sr. No.	Specifications	SHE - TCG - 1	SHE - TCG - 2	SHE - TCG - 3
1	Swing Over Table	230 mm	270 mm	305 mm
2	Max Distance Between Center	305 mm	450 mm	560 mm
3	Table Longitudinal Traverse	325 mm	400 mm	510 mm
4	Table Cross Traverse	200 mm	210 mm	210 mm
5	Table Dimensions	530x142 mm	600x150 mm	805x156 mm
6	T Slots Width	10 mm	12mm	12 mm
7	Center of Wheel above Table	290 mm	310 mm	330 mm
8	Table Swivel	90°	90°	90°
9	Head Swivel	360°	360°	360°
10	Grinding Spindle Speed	2800 RPM	2800 RPM	2800 RPM
11	H.P. of Motor	1/1440	1.5/1440	1.5/1440
12	Height of Machine	1550 mm	1610 mm	1680 mm
13	Weight of Machine	500 kg	600 kg	700 kg



CYLINDRICAL GRINDER MACHINE

Standard Equipments :

1. Motor Pulley, 2. V-Belts, 3. Diamond Tools, 4. Dresser Attachment, 5. Water Tank, 6. Grinding Wheel.

Extra Attachments :

Automatic Feed, Internal Grinding Attachment, Electric Motors, Switches & Starters, Coolant Pump.

Models	SH - CG 1	SH - CG 2	SH - CG 3	SH - CG 4	SH - CG 5
Maximum Grinding Length	225	355	600	1000	1500
Maximum height of Centre	110	130	130	130	250
Maximum swing over table	202	254	254	254	500
Maximum Grinding Diameter	40	101	101	101	300
No. of Table Feeds	—	3	3	3	3
Range of table feeds per minute	—	100-175-275	100-175-275	100-175-275	25-55-75
Maximum table swivel	70	70	70	70	70
Electric motor for table drive	—	1.5 H.P.1440rpm	1.5 H.P. 1440rpm	1.5 H.P. 1440rpm	1 H.P. 1440rpm + D.C. Drive
Workhead swivel on either side	FIX	900	900	900	Fix
Work spindle speeds	—	4	4	4	4
Work spindle speeds range	—	58-80-105-130	58-80-105-130	58-80-105-130	58-80-105-130
Workhead motor with 1440 rpm	1 H.P.	1 H.P.	1 H.P.	1 H.P.	1.5 H.P.
Morse taper	MT-2	MT-3	MT-3	MT-3	MT-5
Traverse Movements of wheelhead max	88	88	88	88	300
Size of Grinding Wheel	304x25x801	355x38x127	355x38x127	355x38x127	750x50x250
RPM of Grinding wheel (two range)	—	1650-2200	1650-2200	1650x2200	1300
Wheel Head motor with 1440 rpm	2 H.P.	3 H.P.	3 H.P.	3 H.P.	5 H.P.
Motor rpm for internal Grinding Attachment	—	1 H.P. 2800 rpm	1 H.P. 2800 rpm	1 H.P. 2800 rpm	1 H.P. 2800 rpm
Max. internal grinding depth	—	101	101	101	105
Floor space	1150x1180	1400x1600	1400x1600	1500x2400	1800x4000

SAGAR CNC VTL MACHINE



VTC 600 mm



MODEL
CNC VTL 1200MM

Special Features

- Contant Surface finish feature
- Threading
- Taper Cutting
- Facing
- Optional hydraulic clamping chuck
- 8 Station turret head
- Coolant system programmable
- Lubrication automatic
- LM Guidways
- Heavy Ball Screws
- Chip Cabinet

Specifications of CNC VTL Machines

Model	SINGLE COLUMN			DOUBLE COLUMN			
	CNC 600mm	CNC 1000mm	CNC 1500mm	CNC 1500mm	CNC 2000mm	CNC 2500mm	CNC 3000mm
Table Diameter Standard	600	1000	1500	1500	2000	2500	3000
Maximum Turning Diameter	700	1150	1600	1700	2200	2700	3200
Maximum Distance from Table	400	600	1000	1400	1400	1500	1600
Travel of Turret Head center towards right from Table center	400	575	800	800	1150	1350	1650
Travel of R.H. Ram Head	400	500	800	800	1100	1200	1300

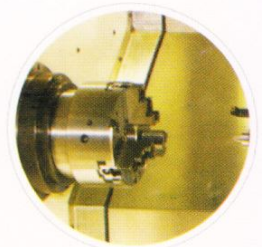


SPECIFICATIONS CNC LATHE MACHINE

SPECIFICATIONS	CNC 200
TURNING DIA. (MAX)	280 MM
CHUCK SIZE	210 MM
BAR CAPACITY (MAX)	50 MM
SPINDLE SIZE	A 2-6
SPINDLE SPEED - standard	40-4000
SPINDLE POWER (30 mins./cont.)	9/7.5 KW
X- TRAVEL	165 MM
Z- TRAVEL	522 MM
RAPID TRAVERSE	32 M/ MIN.

ACCURACIES

POSITIONING	±0.005 MM
REPEATABILITY	0.005 MM / 0.0025 MM
CNC PACKAGE	FANUC / SIEMENS



FEATURES

Precision Linear Motion Guides for X & Z Axis	Higher Spindle Speeds, Chucks Systems & Chip Conveyor (Options)
High Rapid Traverse X & Z Axis	Compact & Highly Reliable Interface Hardware Cabinet
High Precision Ball Screw for X & Z Axis	Powerful Interface Software for Machine Functions with High Safety
Lowest foot Print Area by compact Lay out of Machine Elements	High Level Man-Machine Interface for Easy Fault Diagnostic
Access doors to Machine Elements for Easy Maintenance	Ergonomically Designed Operator Panel
	Automatic Tool Changer ATC (Optional)



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