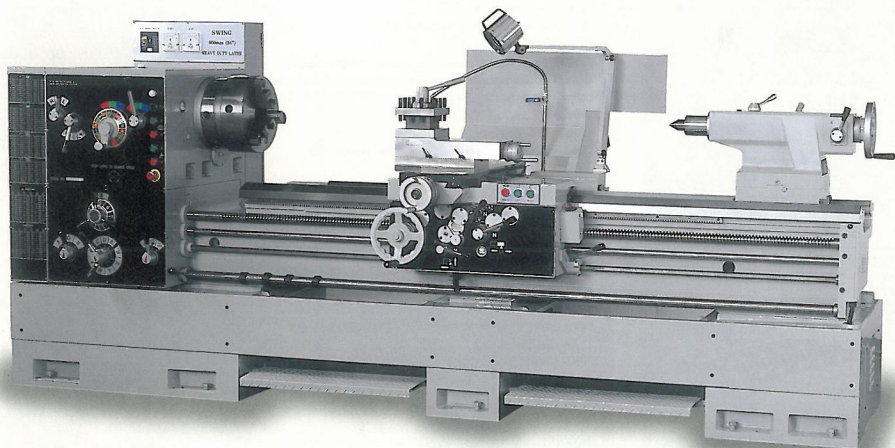




HEAVY DUTY LATHE

FSM-2400 / FSM-3000



FEATURES:

- * 4-1/8in. (105mm) Spindle bore; D1-11 camlock spindle nose;
- 3-bearing spindle support.
- * 18 Spindle speeds 10 - 1200rpm. With electro-magnetic brake.
- * Electro-magnetic clutch mounted in Headstock, for spindle speed changed without stopping motor.
- * Automatic forced lubrication in headstock is moved by a direct motor drive lubrication gear pump, and oil tank is equipped in the leg of machine to minimize the cooling of oil.
- * Heavy duty geared head; hardened and ground gears.
- * 15HP Main spindle motor.
- * Quick-change universal gearbox for inch, metric, DP, MP threading, and multiple thread, all function w/o any change gear.
- * Four-way rapid carriage movement.
- * Automatic lubrication in saddle and apron assembly.
- * Adjustable overload clutch in apron to ensure proper cutting load.
- * 2 speeds tailstock barrel.
- * 19in. (485mm) wide bed ways, induction hardened and ground.

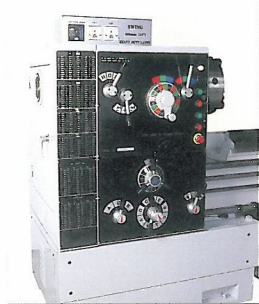
HEADSTOCK

- Headstock is made of rigid, high grade cast iron.
- The headstock provides 18 spindle speeds 10 - 1200 rpm. which are geometric progression and easily selected.
- Spindle is started, stopped and reversed by double electro-magnetic clutches, for spindle speed changed w/o stopping motor; and equipped with electro-magnetic brake.
- The D1-11 CAMLOCK spindle nose has a large hole of 4-1/8inch (105mm).
- Hardened and ground main spindle is supported by three bearings in three places (the front and middle are precision "TIMKEN" taper roller bearing, the rear is roller bearing).
- All geared headstock, Main gears are made from Chromium, Nickel, Molybdenum alloy steel and are case hardened and "REISHAUER" ground.
- The automatic forced lubrication system is made by a direct motor drive lubrication gear pump lubricate all running parts, oil tank is equipped in the leg of machine to minimize the cooling of oil.



GEARBOX

- The completely enclosed quick-change universal gearbox provides a wide range of thread cutting and feed rates, for inch, metric, DP, MP threading, including special threads: 11-1/2 TPI, 13 TPI, 13-1/2 TPI, 19 TPI, and with Multiple thread, all function without changing the end gears.
- Gearing is easily and quickly changed by levers, conveniently mounted in the front of the control panel.
- All gears are case hardened and are made of special alloy steel.
- Lubricated by oil bath, circulating lubrication system, lubricating oil from headstock flow into gearbox, after lubricating gears and shafts, and then drain into the oil tank, inside of the leg.
- Feedshaft and leadscrew equipped with overload protection.



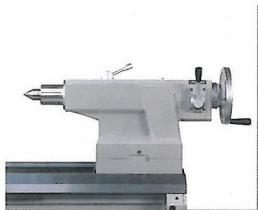
ELECTRICAL

- The electrical equipments use the highest quality components, offering low voltage protection with a 110V(24V for CE standard) magnetic starter, and with amper gauge and voltage gauge.
- The electrical panel is designed for easy access and fully prevent from dust and contamination.
- 15HP Main spindle motor.



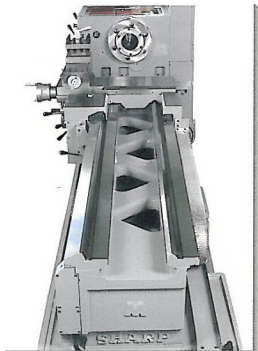
TAILSTOCK

- The hardened and ground barrel is graduated in inches and millimeters, and has a tang for driving tools.
- The tailstock handwheel has two-speed feed, both 1:1 and 1:4, for coarse or fine drill work, for controlling precise barrel position, and easy to drill a big hole.
- Quick-acting clamps are for locking tailstock on the bed and for locking quill.



BEDWAY

- Width of bedway 19inch (485mm).
- Meehanite cast iron bed are heavily ribbed.
- The bedways are induction hardened to BRINEL 400 and above (ROCKWELL HRC 43 and above) and then precision ground.

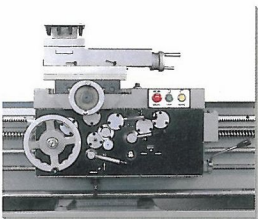


SADDLE AND COMPOUND SLIDE

- The carriage and cross-slide is equipped with four-way rapid moving system, cross and longitudinal, moved by a feed motor equipped in the apron.
- Rapid moving control button and a spindle brake button equipped in the front of saddle.
- Saddle, cross-slide and top slide is fitted up adjustable taper gib strips for abrasion compensation.
- Cross-slide screw incorporates backlash eliminator, and is immersed in the oil bath.
- Automatic lubrication system continuously supply lubricating oil to the saddle and cross-slides and apron during motion.
- Compound rest is with a four-way toolpost.

APRON

- Completely enclosed oil bath, double wall type apron with splash type and automatic lubrication.
- Apron handwheel disengages while thread cutting, feeding and rapid traversing.
- Automatic feeding and threading are fully interlocked to prevent simultaneous engagement of feeds and threads.
- Pull and push a knob in the front of apron, which can change the feed cutting direction from the apron, without stopping the lathe.
- Adjustable overload clutch in apron, while overload cutting, the slipping clutch system will automatically shut down the feed cutting.



STANDARD

ACCESSORIES:

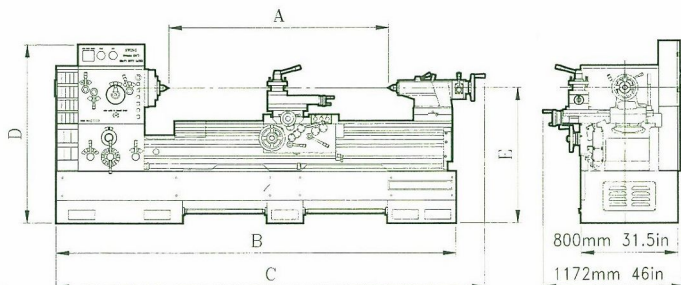
- * Back plate for chuck
- * Steady rest
- * Coolant system
- * 4-way toolpost
- * Threading dial indicator
- * 4-position auto carriage feed stop
- * Main motor 15HP 11KW
- * Tool box with tool kit
- * Center sleeve
- * Two dead centers
- * Camlock spindle wrench
- * Optional manual

OPTIONAL

ACCESSORIES:

- * 3-jaw scroll chuck 12"
- * 4-jaw independent chuck 18", 20"
- * Face plate 20"
- * Follow rest
- * Telescopic taper attachmet
- * Quick change toolpost
- * Chuck guard
- * Live center (MT. No. 5)
- * Drill chuck W/arbor
- * Work lamp (quartz halogen lamp)

SPECIFICATION



MODEL	A	B	C	D	E
2480	1840mm 73in	3330mm 131in	3570mm 140in	1500mm 59in	1135mm 45in
24120	3050mm 120in	4550mm 179in	4790mm 188in	1500mm 59in	1135mm 45in
24160	4050mm 160in	5560mm 219in	5790mm 228in	1500mm 59in	1135mm 45in
3080	1840mm 73in	3330mm 131in	3570mm 140in	1575mm 62in	1210mm 48in
30120	3050mm 120in	4550mm 179in	4790mm 188in	1575mm 62in	1210mm 48in
30160	4050mm 160in	5560mm 219in	5790mm 228in	1575mm 62in	1210mm 48in

BRIEF SPECIFICATION

BRIEF SPECIFICATION						
MODEL	2480	24120	24160	3080	30120	30160
NOMINAL SIZE						
Swing over bed	610mm 24in			760mm 30in		
Swing over cross slide	350mm 13-3/4in			500mm 19-3/4in		
Height of center	305mm 12in			380mm 30in		
Distance between centers	2033 80"	3050 120"	4050 160"	2033 80"	3050 120"	4050 160"
BED						
Width of bedways	485mm 19in					
Total length of bed	3320 130"	4380 172"	5470 215"	3320 130"	4380 172"	5470 215"
Gap type	Swing over gap	820mm 32-1/4in		970mm 38-1/4in		
	Length of gap	515mm 20-1/4in				
	Width in front of face plate	340mm 13-3/8in				
SPINDLE						
Spindle nose mounting	D1-11 CAMLOCK					
Spindle bore	105mm 4-1/8"					
Taper of spindle bore	M.T.#5(with center sleeve)					
Number of spindle speeds	18 steps (Forward Reversed by magnetic clutch control)					
Range of spindle speed	10-1200R.P.M.(With Magnetic brake)					
TOOL SLIDE						
Total travel of cross slide				375mm 14-3/4in		
Total travel of top slide				225mm 9in		
Max. size cutting tool				28mm 1-1/8in		
TAIL STOCK						
Total travel of barrel				195mm 6-5/8in		
Taper in barrel				M.T.#5		
Diameter of barrel				80mm 3-1/8in		
THREADS						
Lead screw diameter & pitch	Dia. 38mm. Pitch 12mm. 2 T.P.I.					
Number of Inch threads	60					
Range of Inch threads	1/4-84 TPI					
Number of Metric pitches	60					
Range of Metric pitches	0.2-112 mm					
Number of Diametric pitches	55					
Range of Diametric pitches	1-240 D.P.					
Number of Module pitches	55					
Range of Module pitches	0.05-28 M.P					
FEEDS						
Feed rod diameter	38mm 1-1/2in					
Number of feed change	40					
Range of longitudinal feeds	0.040-5.000 mm/rev. 0.0015-0.2000 mm/rev.					
Range of cross feeds	0.015-4.000mm/rev. 0.0006-0.1500 in/rev.					
MOTOR						
Main spindle motor	15 HP 11kw					
Coolant pump motor	1/8HP 0.1kw					
Machine net weight	3500kgs.	4000kgs.	4500kgs.	3800kgs.	4300kgs.	4800kgs.
We reserve the right to modify and improve our products.						

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