

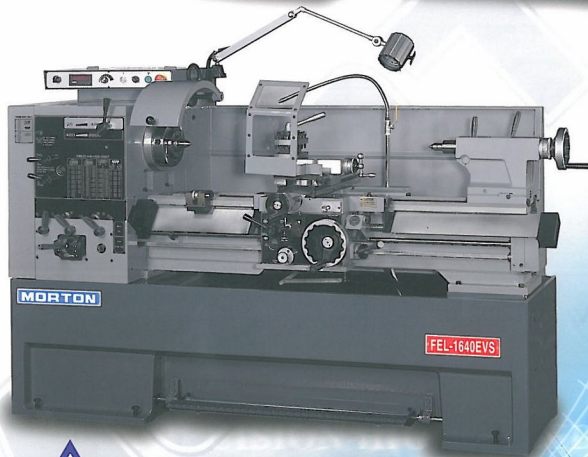
MORTON®

PRECISION HIGH SPEED ENGINE LATHE

PRECISION AC VARIABLE SPEED LATHE

FEL-1440 / 1460HG FEL-1440 / 1460EVS

FEL-1640 / 1660HG FEL-1640 / 1660EVS



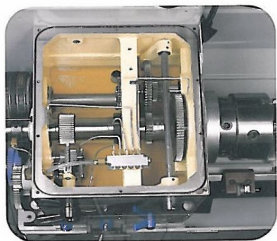
THE LEADER IN QUALITY AND RELIABILITY

~ SINCE 1973 ~



HEAVY DUTY SPINDLE

- Machined from forged alloy steel, hardened, ground & dynamically balance.
- Three point support by high grade precision, machine tool taper roller & ball bearings.



EVS MODEL HEAD-STOCK

- 2 steps infinite variable spindle speeds.
- Highest speed up to 2500 rpm.
- LED spindle speed display.
- Forced lubrication system for head stock.

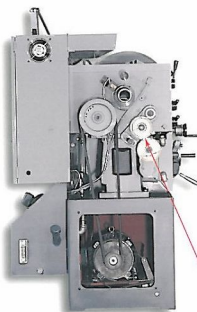


ELECTRICAL SWITCH BOX

- CE electric available.
- The electric switch cabinet is sealed, protected and against dirties and other contaminates.
- A safety-disconnecting switch provides.

BED & STAND

- One piece cast iron floor stand with foot brake.
- Front move chip tray floor stand or rear chip floor stand selected.
- Bed width 260mm (10.236") bed meehanite casting, vibration stress relieved.
- Induction hardened and precision ground bed ways.
- Precision hand scraped removable gap bed.



- Electric 1/4HP pump for headstock pressure lubrication.
- Prolong life expectancy of gears and spindle.
- Combination of forces lubrication and oil bath system in headstock.

Nylon safety gears in end train.



Front moveable chip tray (OPTIONAL)

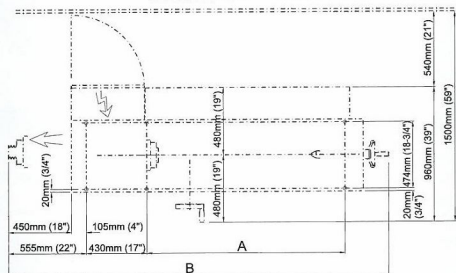
- R.P.M. LED display indicator makes it easy to obtain the optional constant surface speed also improves cutting tool life.
- Electronic control panel located on top headstock with RPM display unit, light indicator power ON-OFF, speed control electric knob, emergency stop and spindle inching push button.
- Electronic infinitely variable speed with A.C. motor inverter.
- Two headstock gear speed ranges supply a high torque in low range from 20 up to 400 R.P.M. and in high range from 400 up to 2500 R.P.M.

HEAVY DUTY PRECISION ENGINE LATHE

MODEL		FEL-1440 / 1460HG FEL-1440 / 1460EVS	FEL-1640 / 1660HG FEL-1640 / 1660EVS
Capacity	Height of centers	180mm (7.08")	205mm (8.07")
	Swing over bed	360mm (14.16")	φ 410mm (16.14")
	Swing in gap	533mm (20.98")	φ 583mm (22.95")
	Swing over cross slide	214mm (8.42")	φ 264mm (10.39")
	Distance between centers	1000mm (40") / 1500mm (60")	1000mm (40") / 1500mm (60")
	Width of bed	260mm (10.236")	
Headstock & Main spindle	Gap width in front of faceplate	135mm (5.31")	135mm (5.31")
	Spindle nose, internal taper	D1-6 , MT. No.6	
	Spindle center sleeve	MT. No.6 x MT. No.4	
	Spindle bore	φ 52.5mm (2.066")	
	Gear steps	8 steps / 70-1800 RPM	EVS - 2steps
	Spindle speed: Range	16 step / opt-8 pole-40~1000 RPM 4 pole-80~2000 RPM	L- 20-400 RPM H-400-2500 RPM infinitely variable
Carriage	Length on bed / Width of carriage	513mm (20.19")	412mm (16.22")
	Cross slide travel	220mm (8.6")	
	Top slide travel	140mm (5.5")	
Threads & Feeds	Whitworth threads: Kinds	45 Kinds	
	Range		2 ~ 72 T.P.I.
	Metric threads: Kinds	39 Kinds	
	Range		0.2 ~ 14mm
	D.P. threads: Kinds	21 Kinds	
	Range		8 ~ 44 D.P.
	M.P. threads: Kinds	18 Kinds	
	Range		0.3 ~ 3.5 M.P.
Tailstock	Longitudinal feeds	0.05 ~ 1.7mm (0.002" ~ 0.067")	
	Cross feeds	0.025 ~ 0.85mm (0.001" ~ 0.034")	
	Quill diameter	φ 52mm (2.047")	
	Quill travel	152mm (6")	
	Taper of center	MT. No.4	
Motor	Main spindle	HG - 3.75Kw (5HP)	EVS - 3.75Kw (5HP) + Inverter
	Coolant pump	1/8HP	
Measurement	Weight (Net / Gross) Approx.	1440kgs (3173 lbs) / 1500kgs (3306 lbs) 1460kgs (3217 lbs) / 1600kgs (3526 lbs)	1640kgs (3614 lbs) / 1650kgs (3636 lbs) 1660kgs (3658 lbs) / 1750kgs (3857 lbs)
	Packing sizes	2270mm (89.4")	2785mm (109.7")
	Width x Height	Width 1120mm (44.1") x Height 1745mm (68.7")	

•We reserve the right to modify and improve above specification without notice.

MORTON

FOUNDATION PLAN


(ONE PIECE SOLID STAND COMBINED WITH THE CHIP TRAY IN THE MIDDLE)

Model	A	B
FEL - 1440HG, FEL - 1440EVS FEL - 1640HG, FEL - 1640EVS	1415 mm (56")	2710 mm (107")
FEL - 1460HG, FEL - 1460EVS FEL - 1660HG, FEL - 1660EVS	1923 mm (76")	3218 mm (127")

STANDARD ACCESSORIES

- ▶ Main motor.
- ▶ Coolant system.
- ▶ Chip and coolant tray.
- ▶ Back plate for chuck.
- ▶ 4-way tool post.
- ▶ Two centers.
- ▶ Center sleeve.
- ▶ Tools and toolbox.
- ▶ Leveling pad-6 pcs.
- ▶ Halogen work lamp.
- ▶ Emergency stop switch.
- ▶ Steady rest w/ball bearing.
- ▶ Follow rest w/bronze tip.
- ▶ Face plate 300mm (12").
- ▶ Operational manual and spare parts list.
- ▶ Full length splash guard.

OPTIONAL ACCESSORIES

- ▶ 3 jaws scroll chuck 200mm / 250mm (8"/10").
- ▶ 4 jaws scroll chuck 200mm (8").
- ▶ 4 jaws independent chuck 250mm / 320mm (10"/12").
- ▶ 5C collet closer attachment.
- ▶ 5C collets (metric and imperial).
- ▶ Driving plate with dog.
- ▶ Carbide tipped center MT No.4.
- ▶ Live center MT No.4
- ▶ Inter-changeable insert live center MT No.4
- ▶ Bull nose live center MT No.4
- ▶ 13mm (1/2") drill chuck with key and chuck arbor.
- ▶ 13mm (1/2") keyless drill chuck and chuck arbor.
- ▶ Micro carriage stop.
- ▶ Turret type carriage stopper.
- ▶ Quick change tool post.
- ▶ Taper turning attachment.
- ▶ Tool post gridner.
- ▶ Digital readout system.
- ▶ Chuck safet guard.
- ▶ CE norms.