

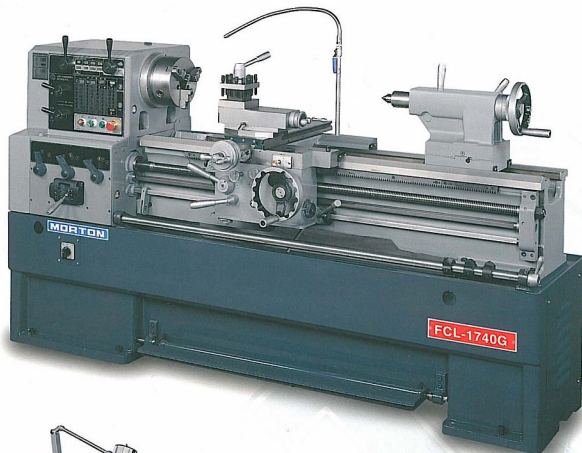
# MORTON®

**PRECISION HIGH SPEED ENGINE LATHE**

**PRECISION AC VARIABLE SPEED LATHE**

**FCL-1730 / 1740 / 1760G FCL - 1730 / 1740 / 1760EVS**

**FML-1740 / 1760 / 2040 / 2060G FML-1740V / 1760V / 2040V / 2060EVS**



**THE LEADER IN QUALITY AND RELIABILITY**

**~ SINCE 1973 ~**

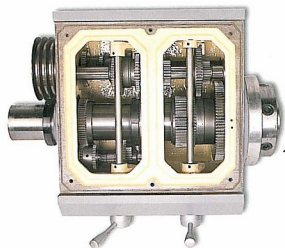




## ML MODELS:

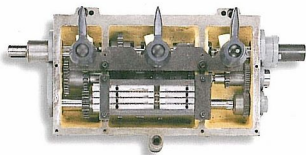
### HEAVY DUTY SPINDLE

- ◆ Proven design of same models but with big spindle bore(  $\phi$  80mm) to offer you more efficient, durable operation.



### HEAD STOCK

- Dynamic balanced spindle.
- Spindle is supported by 3 points precision bearings-2 taper roller and 1 Ball bearing.
- Housing are properly stabilized and deflection free.
- All gears and shafts are made by Chromium molybdenum steel with segmentation and precision ground.
- Forced lubrication system.
- Nylon safety gears in end train.

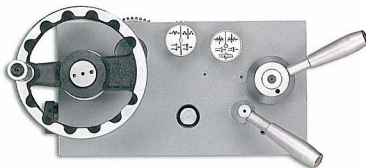


### UNIVERSAL GEAR BOX

- Wide threads cutting capacity for imperial, metric, module pitch and diametrical pitch.

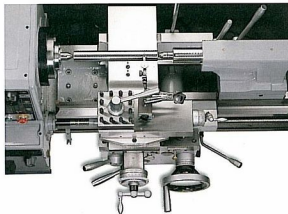
### BED & STAND

- One piece cast iron floor stand.
- Bed Meehanite casting, vibration stress relieved.
- Induction hardened and precision ground bed ways.
- Precision hand scraped removable gap bed.
- Foot brake.
- Turcite B coating between the bed and carriage.



### APRON

- Right hand side or left-hand size apron hand-wheel available as required.
- Integrated automatic device for longitudinal & cross feeds, forward and reverse feeds.
- Overload safety device.



### CARRIAGE & SLIDE

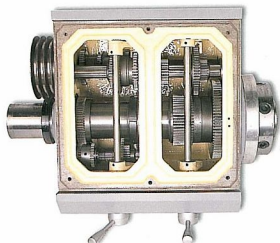
- Anti-float design, backlash eliminator fitted in cross slide nut.
- Safety clutches at feed shaft lever.
- Dual reading dials.
- One shut lubrication for carriage and tops slide.



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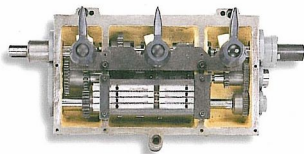
### HEAVY DUTY SPINDLE

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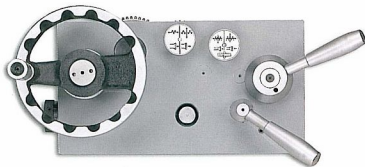


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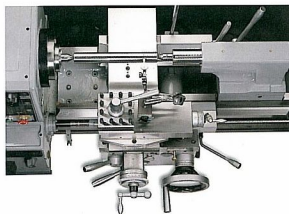
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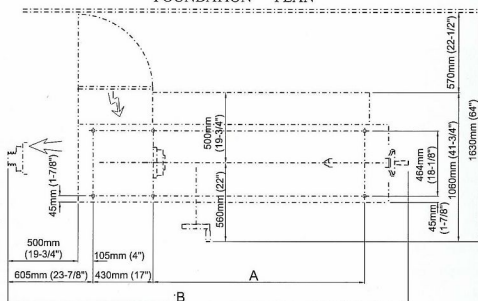
# HEAVEY DUTY PRECISION ENGINE LATHE

MODEL		FCL-1740 FCL-1760		FCL-2040 FCL-2060		FCL-1740EVS FCL-1760EVS		FCL-2040EVS FCL-2060EVS	
Capacity	Height of centers	216mm (8.5")		254mm (10")		216mm (8.5")		254mm (10")	
	Swing over bed	φ 435mm (17")		φ 508mm (20")		φ 435mm (17")		φ 508mm (20")	
	Swing in gap	φ 622mm (20.98")		φ 698mm (27.48")		φ 622mm (20.98")		φ 698mm (27.48")	
	Swing over cross slide	φ 227mm (10.9")		φ 353mm (13.89")		φ 227mm (10.9")		φ 353mm (13.89")	
	Distance between centers	1000mm (40")	1500mm (60")	1000mm (40")	1500mm (60")	1000mm (40")	1500mm (60")	1000mm (40")	1500mm (60")
	Width of bed	305mm (12")							
	Gap width in front of faceplate	195mm (7.67")							
Headstock & Main spindle	Spindle nose, Internal taper	D1-6 , φ 85mm Taper 1/19.18							
	Spindle center sleeve	φ 85mm Taper 1/19.18 x MT. No.5							
	Spindle bore	φ 80mm (3.149")							
	Spindle speed: <div><div>Gear steps</div><div>Range</div></div>	12 steps / 36 ~ 1800 R.P.M. A 36 50 70 105 B 130 180 250 380 C 620 900 1200 1800				3 steps / $\frac{L}{M} \frac{30}{125} \sim \frac{125}{450} \frac{R.P.M.}{R.P.M.}$ H 450 ~ 2200 R.P.M. Infinitely variable			
Carriage	Length on bed / Width of carriage	440mm (17.32") / 477mm (18.77")							
	Cross slide travel	270mm (10.62")							
	Top slide travel	120mm (4.72")							
Threads & Feeds	Whitworth threads: <div><div>Kinds</div><div>Range</div></div>	45 Kinds / 2 ~ 72 T.P.I.							
	Metric threads: <div><div>Kinds</div><div>Range</div></div>	39 Kinds / 0.2 ~ 14mm							
	D.P. threads: <div><div>Kinds</div><div>Range</div></div>	21 Kinds / 8 ~ 44 D.P.							
	M.P. threads: <div><div>Kinds</div><div>Range</div></div>	18 Kinds / 0.3 ~ 3.5 M.P.							
	Longitudinal feeds	0.04 ~ 1.0mm (0.0015" ~ 0.04")							
	Cross feeds	0.02 ~ 0.5mm (0.00075" ~ 0.02")							
	Tailstock	Quill diameter	φ 59mm (2.322")						
Quill travel		127mm (5")							
Taper of center		MT. No.4							
Motor		Main spindle	5.5kw (7.5HP)				AC 5.5kW (7.5HP),Inverter		
	Forced lubrication for HD.					1/4HP			
	Coolant pump	1/8HP							
Measurement	Weight (Net / Gross) Approx.	1700kgs (3746 lbs)	1850kgs (4077 lbs)	1750kgs (3857 lbs)	1900kgs (4187 lbs)	1700kgs (3746 lbs)	1850kgs (4077 lbs)	1750kgs (3857 lbs)	1900kgs (4187 lbs)
		2000kgs (4408 lbs)	2150kgs (4738 lbs)	2050kgs (4518 lbs)	2200kgs (4848 lbs)	2000kgs (4408 lbs)	2150kgs (4738 lbs)	2050kgs (4518 lbs)	2200kgs (4848 lbs)
	Packing sizes	Length Width x Height	2400mm (94.5")	2900mm (114.2")	2400mm (94.5")	2900mm (114.2")	2400mm (94.5")	2900mm (114.2")	2400mm (94.5")
		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
FCL - 1730 , FCL - 1730V	1255 mm (49")	2600 mm (102")
FCL - 1740 , FCL - 1740V FML - 1740 , FML - 1740V FML - 2040 , FML - 2040V	1505 mm (59")	2850 mm (112")
FCL - 1760 , FCL - 1760V FML - 1760 , FML - 1760V FML - 2060 , FML - 2060V	2005 mm (79")	3350 mm (132")

### 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-8 pcs.
- ▶ Halogen work lamp.
- ▶ Emergency stop switch.
- ▶ Ball bearing type steady rest.
- ▶ Ball bearing type follow rest.
- ▶ Face plate 40mm (16").
- ▶ Operational manual and spare parts list.
- ▶ Full length splash guard.

### OPTIONAL ACCESSORIES

- ▶ 3 jaws scroll chuck 250mm (10").
- ▶ 4 jaws scroll chuck 250mm (10").
- ▶ 4 jaws independent chuck 350mm (14").
- ▶ 5C collet closer attachment.
- ▶ 5C collets (metric and inch).
- ▶ Driving plate with dog.
- ▶ Carbide tipped center MT No.4
- ▶ Live center MT No.5
- ▶ Inter-changeable insert live center MT No.4
- ▶ Bull nose live center MT No.4
- ▶ 16mm (5/8") drill chuck with key and chuck arbor.
- ▶ 16mm (5/8") 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.

**FREJO TH INTERNATIONAL LTD.**

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