

Heavy Duty CNC Vertical Turning Lathe  
with Double Ram

# **VTB 160FD**





## Heavy Duty CNC Vertical Turning Lathe with Double Ram **VTB 160FD**

*The Hankook Heavy Duty CNC vertical turning lathe VTB-160FD is designed for the turning and boring of railway wheels, bearing cases, marine gears and other low height, large diameter parts. The Double Ram configuration can perform both outside diameter and face turning simultaneously, offering a significant improvement in productivity.*

### ■ High Productivity

- Maximum 2000mm turning capacity
- 10 tons load capable table
- Automatic tool changing system up to 24.(Turning-12/Turning-12 tools)

### ■ High Reliability

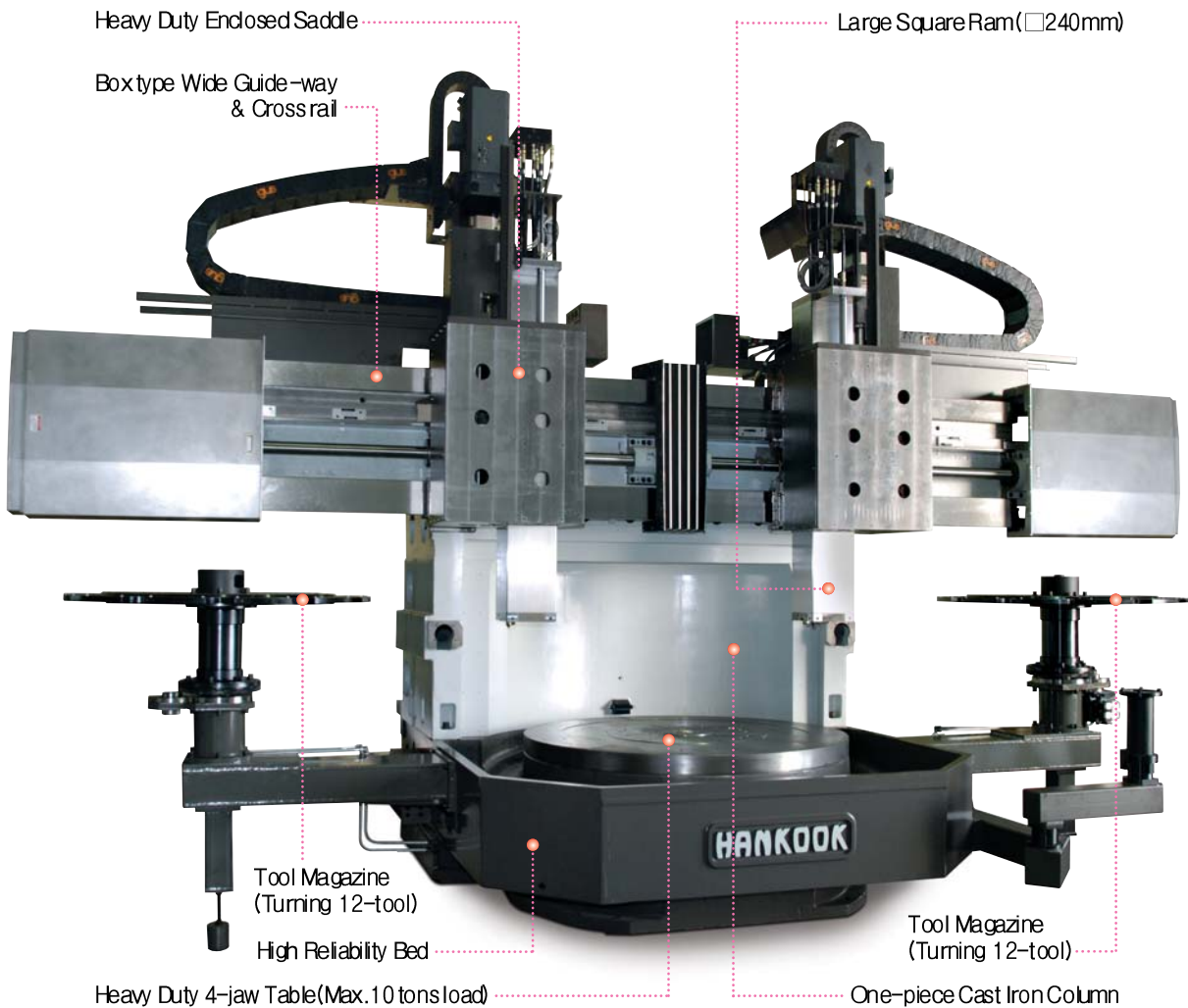
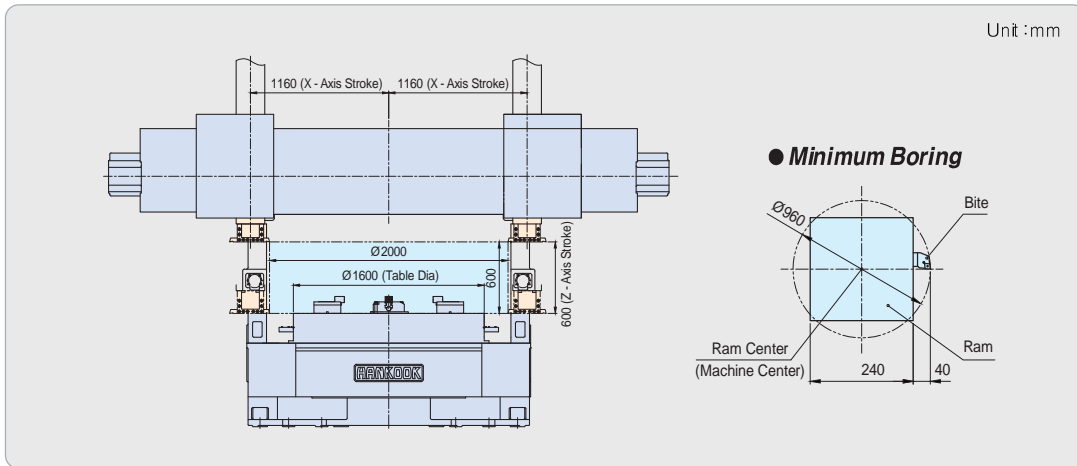
- Heavy duty wide guide ways of box type
- Massive one-piece cast iron bed, column, cross rail and saddle
- Induction-hardened and precise-ground guide ways
- Extra large 240mm square spherical-graphite-iron ram
- The saddle enclosing the ram is one-piece casting to keep the high rigidity.
- Fully enclosed splash guard

### ■ High Accuracy

- Qualified precision bearings & ball screws
- Fluoroplastic-bonded & hand-scraped guide ways
- Full automatic lubrication to all critical areas



## Machining Range





**Machine Specifications**

항목	Items	Unit	VTB-160FD	
			2-Path	1-Path
Capacity	최대 스윙	Maximum swing	mm (inch) 2000 (78.7)	
	최대 가공경	Maximum turning diameter	mm (inch) 2000 (78.7)	
	최대 가공높이	Maximum turning height	mm (inch) 600 (23.6)	
	최대 가공물 중량	Maximum load on table	kg (lbs) 10,000 (22,100)	
Table	테이블 직경	Table diameter	mm (inch) 1600 (63)	
	테이블 회전속도	Table speed	rpm 0.7~280	
	회전속도 변환수	Number of table speed range	step Automatic 2	
	최대 토크	Maximum torque	N.m (lbf.ft) 23,860 (17,600)	
Ram Head	램 단면크기	Ram cross section	□240×240 (□9.4×9.4)	
	사용 공구수	No. of tool	EA 1	
	사용공구 크기	Tool size	□40×40(□1.57×1.57)	
Travel & Feerate	X축 이송거리 (새들 좌우)	X-axis travel (Saddle cross)	1180 (46.5)	1180 (46.5)
	Z축 이송거리 (램 상하)	Z-axis travel (Ram vertical)	mm (inch) 600 (23.6)	
	X/Z축 절삭 이송속도	X/Z-axis cutting feed	mm/min (ipm) Max. 7500 (295)	
	X/Z축 급 이송속도	X/Z-axis rapid traverse	mm/min (ipm) 7500 (295)	
ATC	공구홀더 형식	Type of tool holder	MAS BT50	
	매거진 공구 수납수량	Tool magazine capacity	12 (Turning)	12 (Turning)
	최대 공구중량	Maximum tool weight	kg (lbs) 50 (110)	
	Pull stud 형식	Type of pull stud	P50T- I	
Motor	테이블 모터	Table motor	kW (Hp) AC 37/45 (50/60)	
	X축 서보 모터	X-axis servo motor	kW (Hp) AC 7 (9.3)	
	Z축 서보 모터	Z-axis servo motor	kW (Hp) AC 7 (9.3)	
Machine Size	기계높이	Machine height	mm (inch) 4500 (177)	
	기계평면	Floor space (W×L)	mm (inch) 6660×2800(260×110)	
	기계중량	Machine Weight	kg (lbs) 30,000 (66,140)	
CNC Controller		-	FANUC 32i-A	

**Standard Accessories**

- CNC controller (FANUC 32i-A)
- Table and servo drives and motors
- 4-jaw independent chuck, Ø1600mm
- Automatic tool changers system
- Table gears & bearings oil cooling unit
- Hydraulic power unit
- Automatic lubrication system for guides
- Coolant system and washer coolant
- Splash guard
- X-axis telescopic stand cover
- Work light
- Patrol lamp (Red, Yellow, Green)
- Levelling block & Foundation bolt & nut
- Operating tool box & tool kits

**Optional Accessories**

- Hyd. 3-jaw & manual 4-jaw combination chuck
- Chip conveyor & bucket
- Scale feedback (X/Z-Axis)
- Tool setter
- Work probe
- Air-conditioner for electrical cabinet
- High cooler for operation panel
- Transformer
- Tool holders

**Standard CNC Control Features**

**FANUC 32i-A Control Features**

- Simultaneously controllable axes: 2
- Minimum programmable increment: 0.001mm(0.0001")
- Part program storage size: 512KB(1280M)
- Registerable programs: 63
- Backlash compensation
- Pitch error compensation
- Constant surface speed control
- Self diagnostic functions

**Programming Features**

- Circular interpolation by radius designation
- Tool nose radius compensation(G40-G42)
- Combined use of absolute/incremental command
- Inch/metric programming
- Chamfering, corner R
- Multiple repetitive cycles(G70-G76)
- Canned cycles(G90, G92, G94)

- Decimal point programming
- Reference point return(G27-G30)
- Sub-program 4 holds nested
- Custom macro B

**Operation Features**

- 15" color LCD
- Geometry and wear offsets
- 64 pairs of tool offsets
- Run hour display
- Automatic tool offset value measured
- Input/output interface(RS232C)
- Keyboard type manual data input(MDI full key)
- Program protect key
- Incremental offset
- Rapid traverse override
- Feed rate override
- Spindle speed override
- Tape code: EIA, ISO automatic recognition

Specifications and features are subject to change without prior notice.



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