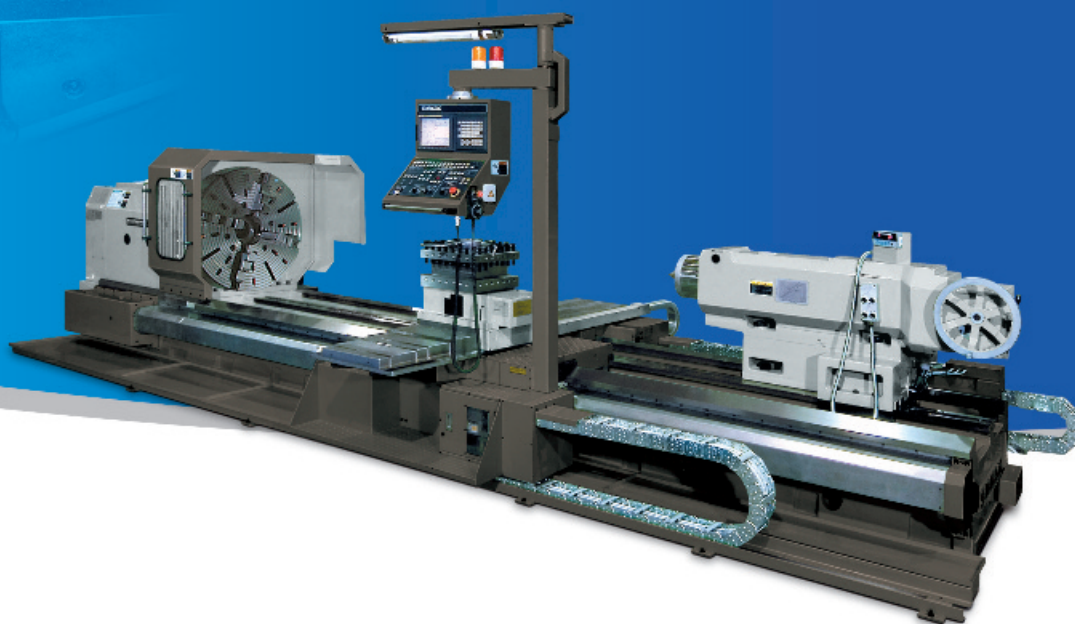
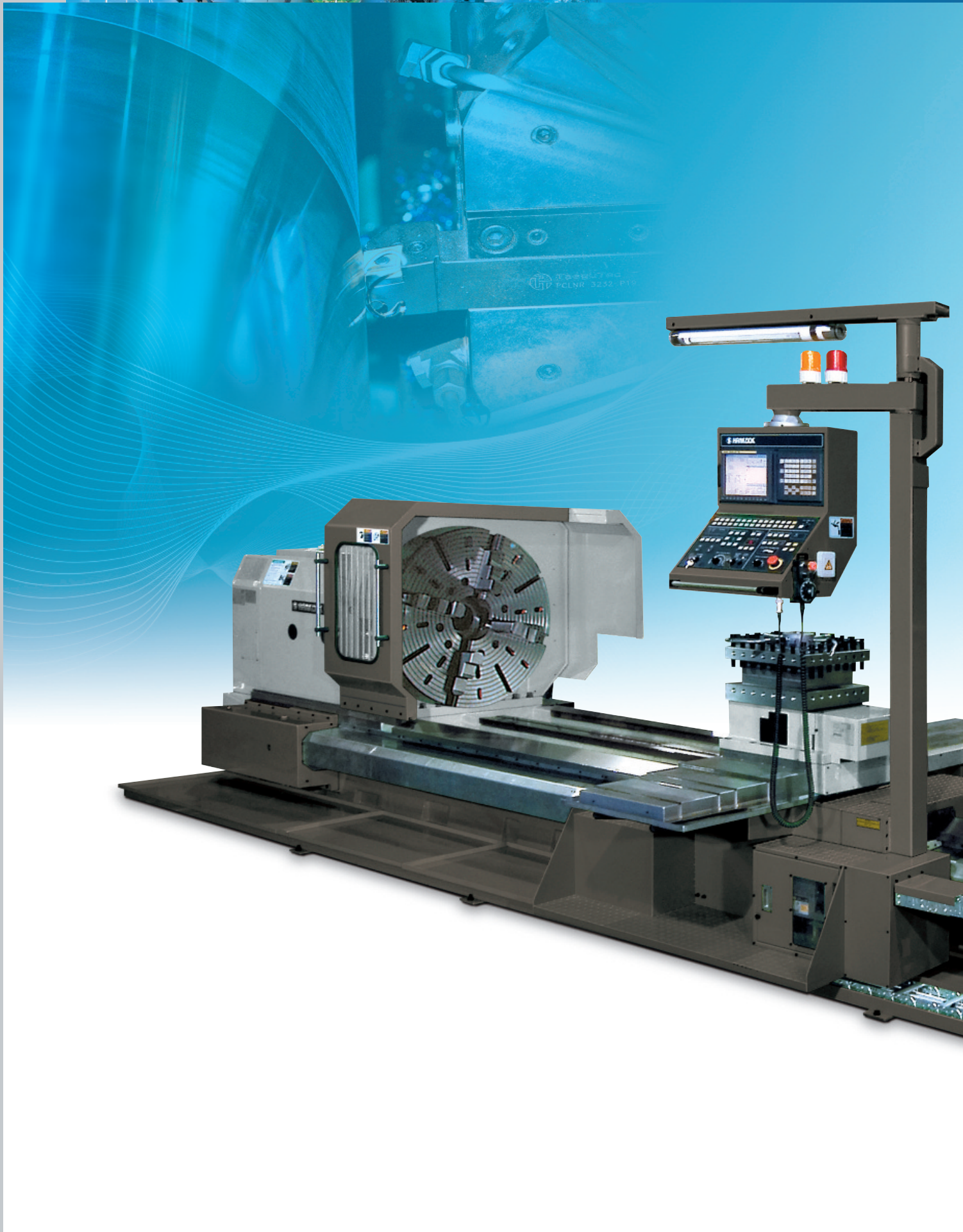


High Capacity, Heavy Duty CNC Turning Lathe
DYNATURN Series

DYNATURN-1100/1300/1500/1700



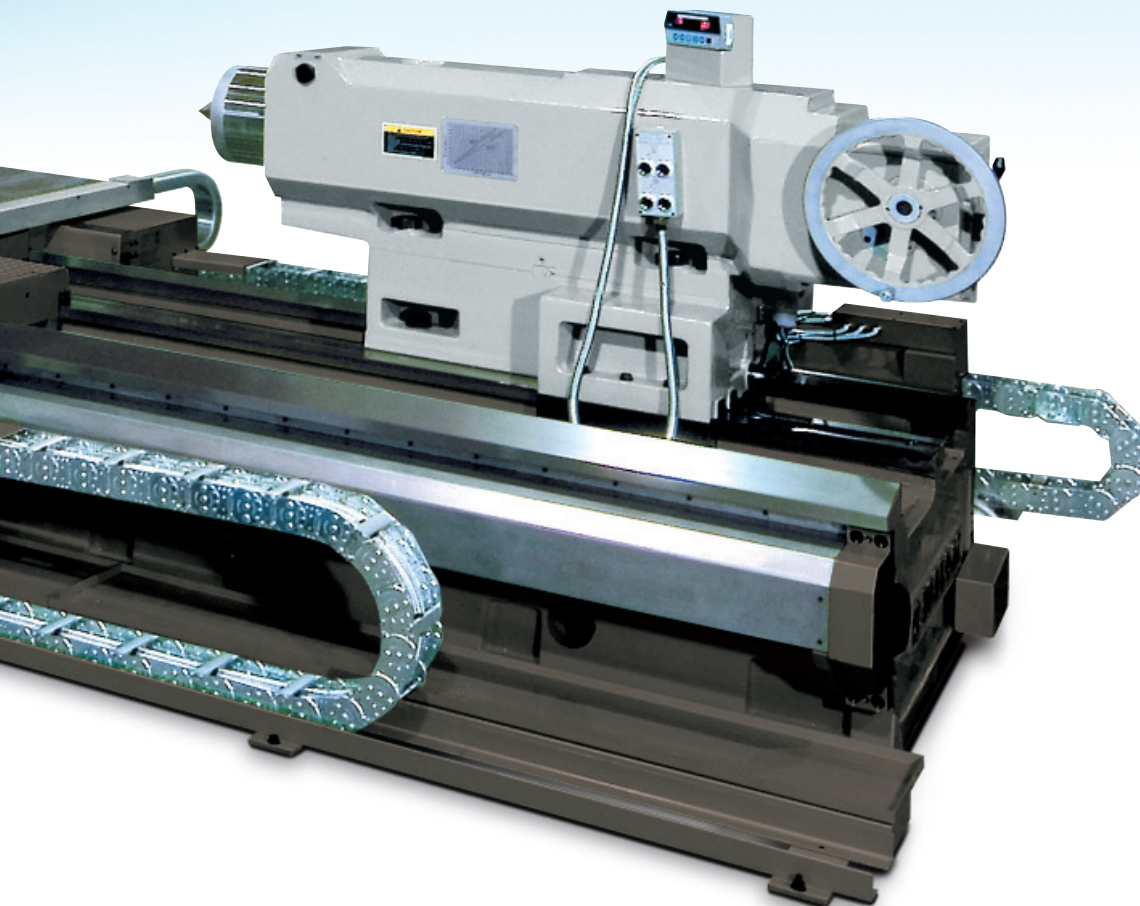


High Capacity, Heavy Duty CNC Turning Lathe
DYNATURN 1100/1300/1500/1700

This Machine is Tough Enough for Machining "Hard Rolls" for Steel Mills.
Think About What It Can Do for You with Your Large Turning Needs!

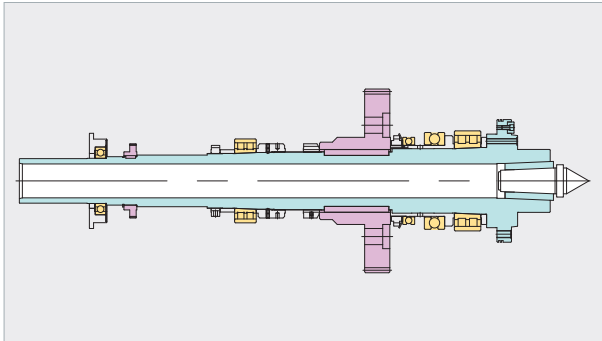
Features

- Automatic shifting 4 speed geared headstock
- Swing up to $\varnothing 1700\text{mm}$ and 8000mm shaft turning capacity
- Powerful 1500kgf.m spindle torque
- Extra wide (1150mm) one-piece 3-way cast iron bed
- Induction-hardened and precision-ground guide ways
- Built-in tailstock spindle ($\varnothing 270\text{mm}$ quill dia.)
- Tailstock load meter
- Heavy duty bi-directional H-4 turret
- Full automatic lubrication to all critical areas





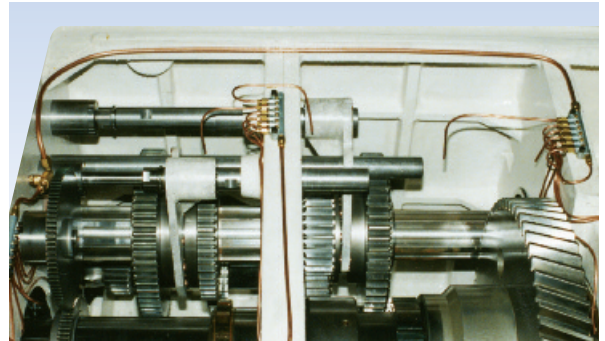
Main Spindle



The massive A2-15" spindle is dynamically balanced and supported at three points by a large (200mm i.d.) diameter super precision class bearings.

The special alloy steel, forged and heat treated, used for its rigidity and toughness and the three point supports are the essence of the uncompromised rigidity of this heavy duty spindle. The main spindle delivers up to 1500kgf.m. of torque. A high volume forced lubrication system with safety interlock is provided for lubrication and heat dissipation.

Head Stock



The construction of this heavy duty box type headstock is reinforced thick wall cast iron for maximum rigidity.

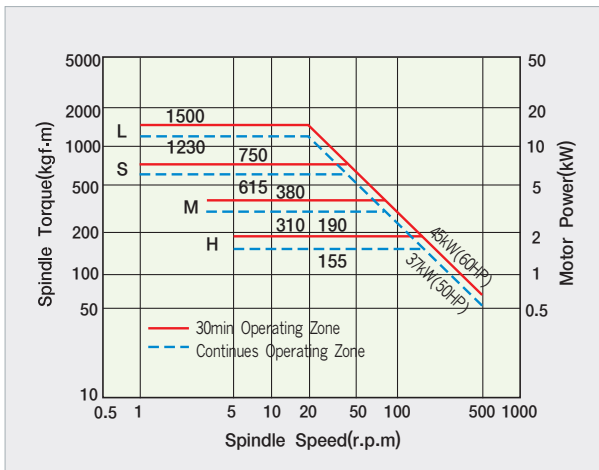
The design of this robust headstock features heavily ribbed double wall support for spindle front bearings and the reinforced thick wall positioned in the middle to provide the true three point spindle supports.

The four hydraulically shifted gear ranges provide a broad range of constant power, speed and torque to suit a wide variety of turning operations.

All bearings used in the headstock are high precision class.

High volume forced lubrication system with safety interlock provided.

Spindle Torque



Tailstock



The heavy duty box type tailstock of high quality cast iron construction boasts a large 270mm diameter quill and a built-in rotating spindle.

The tailstock is designed to handle workpieces of up to 12 tons pounds between centers without steady rest.

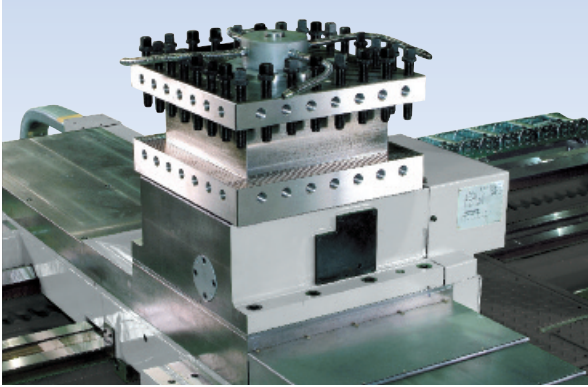
All tailstock spindle bearings are high precision class to assure superior machining accuracy.

The ratchet lock device manually engaged with the racks embedded along the bed casting prevents the tailstock from slippage.

The hydraulic tailstock load meter permits precise setting of quill thrust : work weight vs. thrust requirement chart provided at the tailstock.

Motorized rapid traverse systems are provided for fast positioning of both quill and tailstock body.

Carriage & Tool Post



The extremely rigid extended H-style saddle and wide cross slide (480mm) driven by a large diameter high precision ballscrews are designed to handle the enormous 1500kgf.m. of full spindle torque. Heavy and interrupted cuts are no match for the rigid saddle, cross slide and the drive mechanisms.

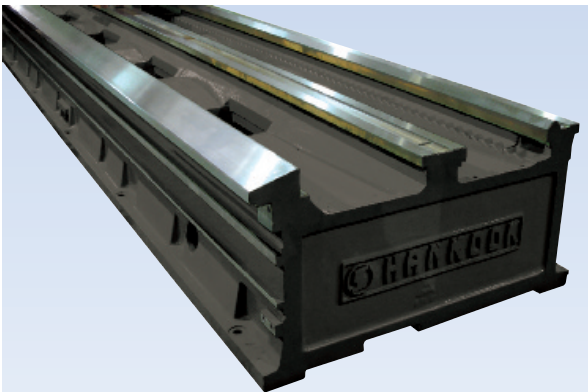
The floropastic resin bonded onto the sliding surfaces of saddle and cross slide combined with fully automatic metered lubrication system assures smooth machining operations and low friction surface.

The fully automatic horizontal 4-station turret features bidirectional indexing. Rugged high quality cast iron construction, large diameter Curvic couplings and the powerful 2000kgf. hydraulic clamping force

of this heavy duty turret guaranties unmatched metal removal rate, extended tool life and superb finish and accuracy.

Vertical 8-station turret as any combination of dual turret configurations is available as an option. Horizontal 4-station power tool turret and special deep hole boring device is also available.

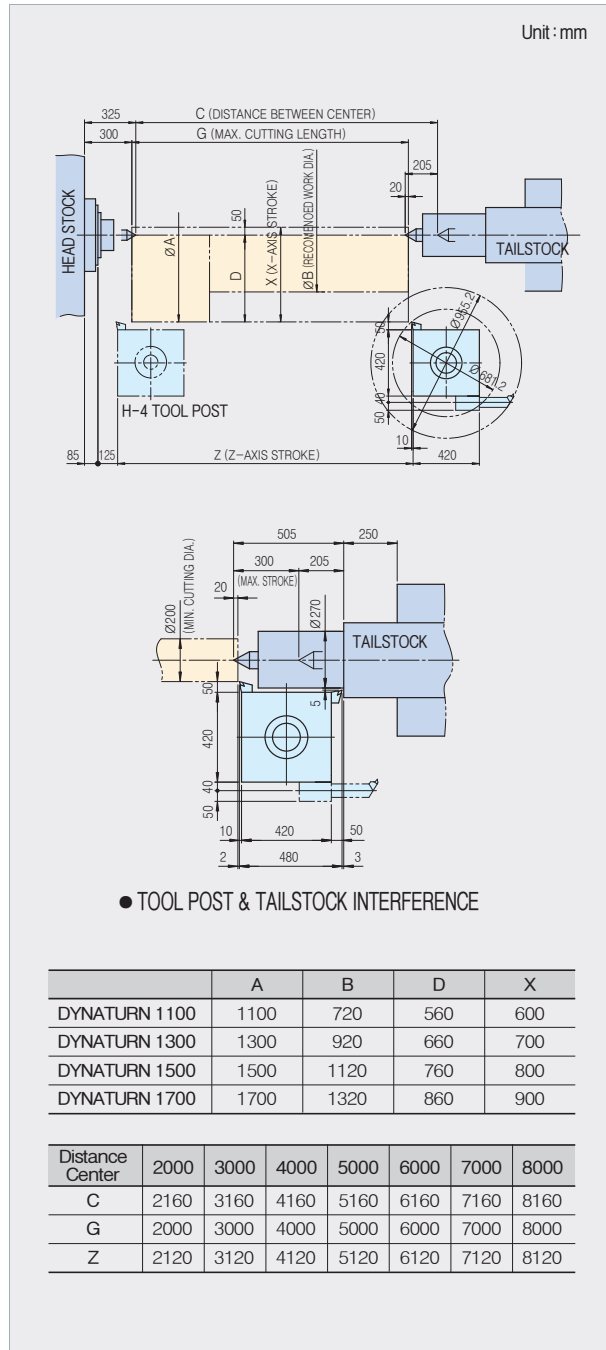
Bed



The extra wide (1150mm) one-piece (up to BC 6m) solid bed of Meehanite cast iron construction is densely ribbed to withstand the brutal forces of heavy cutting and loading. This extremely rigid bed is fully stress relieved, induction hardened, and then precision ground in one set up for inherent accuracy.

For easy disposal of chips, steep angle chutes are provided in between the bed ways.

Tool Travel Range (H-4 Turret)





Machine Specifications

Items		Unit	DYNATURN								
			1100		1300		1500		1700		
Capacity	Swing over bed	mm (inch)	1100(43.3)		1300(51.2)		1500(59.1)		1700(66.9)		
	Swing over cross slide	mm (inch)	720(28.3)		920(36.2)		1120(44.1)		1320(52.0)		
	Maximum turning diameter	mm (inch)	1100(43.3)		1300(51.2)		1500(59.1)		1700(66.9)		
	Distance between centers	mm (inch)	2000(79)	3000(118)	4000(157)	5000(197)	6000(236)	7000(276)	8000(315)		
	Maximum turning length	mm (inch)	Same as center distance								
	Maximum load between centers	kg (lbs)	12000(26455)								
Spindle	Spindle nose	ASA	A2-15								
	Spindle speed (inf. variable)	rpm	1-500								
	Spindle speed range	-	Auto 4 ranges								
	Spindle bore diameter	mm (inch)	105(4.1)								
	Spindle front bearing diameter	mm (inch)	Ø200(7.9)								
	Maximum spindle torque	kg.m (ft.lb)	1500(10850)								
Turret	Standard turret	-	Hydraulic Automatic H-4 Turret [V-8 Turret: Option]								
	Cutting tool size	mm (inch)	□50(□2) [V-8 Turret: □32(□1.26)]								
Travel	Maximum X-axis travel	mm (inch)	600(23.6)		700(27.6)		800(31.5)		900(35.4)		
	Maximum Z-axis travel	mm (inch)	Center distance +120(4.72)								
	X-axis rapid traverse	m/min (ipm)	4(157)								
	Z-axis rapid traverse	m/min (ipm)	6(236)								
Tailstock	Tailstock quill diameter	mm (inch)	270(10.6)								
	Tailstock quill traverse	mm (inch)	300(11.8)								
	Tailstock spindle taper	-	1/10 Metric taper #80								
Bed	Bed type	-	3-silde, 4-bearing way								
	Bed width	mm (inch)	1150(45.3)								
Motors	Spindle motor (Cont. / 30min)	kW (Hp)	AC 37/45(50/60)								
	X/Z-axis servo motor	kW (Hp)	AC 3(4)/7(9.3)								
	Hydraulic pump motor	kW (Hp)	AC 3.7(5)								
	Tailstock body rapid feed motor	kW (Hp)	AC 1.5(2)								
Machine Weight	Dynaturn 1100	kg (lbs)	16200	17700	19300	20800	22400	23900	25400		
	Dynaturn 1300		(35800)	(39100)	(42600)	(45900)	(49400)	(52700)	(56000)		
	Dynaturn 1500		Add. 900(1980)								
	Dynaturn 1700		Add. 1800(3960)								
CNC Controller		-	FAUNC Oi series								

Standard Accessories

- CNC controller, FAUNC Oi series
- Spindle motor & electrical equipments
- 4-jaw independent chuck, Ø40" (Ø1000mm)
- Automatic index turret (Hydraulic H-4)
- Coolant system
- Rotary tailstock spindle
- Rapid feed device for tailstock body & quill
- Tailstock load-meter (6-ton)
- Hydraulic power unit
- Automatic lubrication system for guides
- Center sleeve (1/10 taper #120×Metric taper #80)
- Center (for haedstock and tailstock)
- Patrol lamp & work light
- Chuck cover
- O.D turning tool holder (1)
- Boring tool holder (Ø63mm)
- Boring bar sleeve (Ø63×40, 32mm)
- Drill sleeve (Ø63×MT#4, 3)
- Levelling block
- Foundation bolt & nut
- Tool box with maintenance tools

Optional Accessories

- 4-jaw independent chuck, Ø32", Ø40", Ø50", Ø56", Ø63"
- 4-jaw independent chuck (2-step heavy duty jaw, Short taper) Ø32", Ø40", Ø50", Ø56", Ø63"
- Steady rest, roller jaws (Ø50-350, Ø300-600mm)
- Steady rest, metal jaw (Ø50-350, Ø300-600mm)
- Follow rest, metal jaws (Ø30-200mm)
- Roll chock stand (Ø400-800mm, Ø800-1200mm)
- Hydraulic automatic turret (V-8, H-4+H-4, H-4+V-8)
- O.D turning tool holder (1)
- Boring tool holder (Ø63mm)
- Boring bar sleeve (Ø63×50, 40, 32, 25, 20, 16mm)
- Drill sleeve (Ø63×MT#4, 3, 2)
- Boring bar device (Bar excluded Ø100, Ø150, Ø200mm)
- Face plate, Ø40" (Ø1000mm)
- Tailstock load-meter (8, 10 ton)
- Hydraulic tailstock spindle (Only for Quill in & out)
- Hydraulic clamping tailstock body (Only for Dynaturn-1500/1700)
- Chip conveyor & bucket
- Transformer
- Rear side full splash guard & single front door

Standard CNC Control Features

FANUC 0i series Control Features

- Simultaneously controllable axes : 2
- Minimum programmable increment : 0.001mm(0.0001")
- Part program storage size : 512KByte
- Registerable programs : 1,000EA
- Backlash compensation
- Constant surface speed control
- Self diagnostic functions

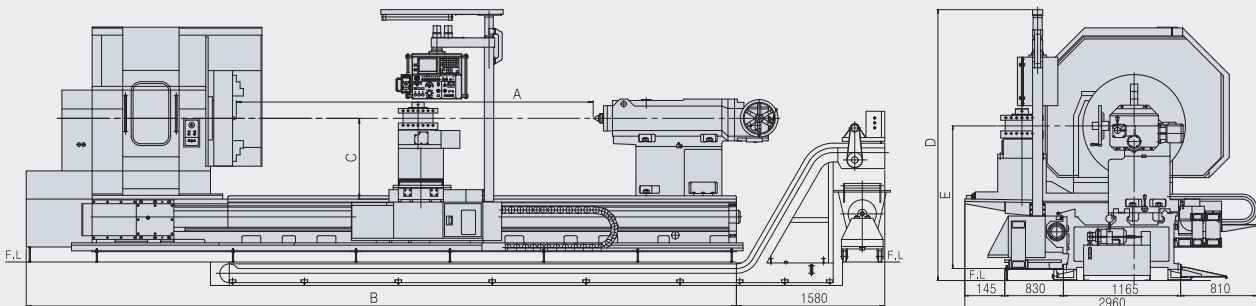
Programming Features

- Circular interpolation by radius designation
- Tool nose radius compensation (G40–G42)
- Combined use of absolute/incremental command
- Inch/Metric programming
- Chamfering, coner R
- Multiple repetitive cycles (G70–G76)
- Decimal point programming
- Reference point return (G27–G30)
- Sub-program–4 holds nested
- Extended part program editing
- Workpiece Coordinate System (G54–G59)

Operation Features

- High resolution 10.4" color LCD
- Absolute position encoders (no zero return required)
- Geometry and wear offsets
- 32 pairs of tool offsets
- Run hour display
- Thread cutting retract
- Direct input of offset valve 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

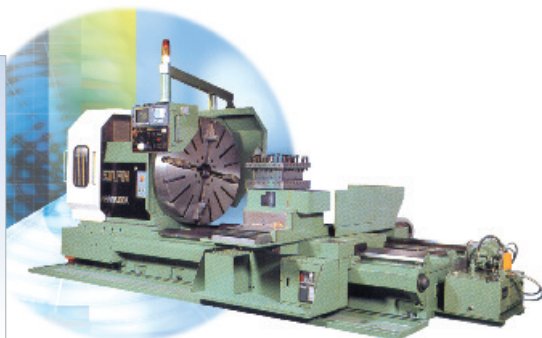
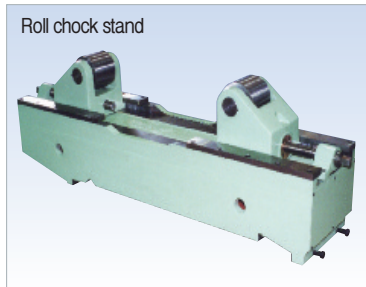
External Dimensions



unit:mm

A (Distance center)	2000	3000	4000	5000	6000	7000	8000	C	1100	1300	1500	1700
B	5382	6382	7382	8382	9382	10382	11382	D	2360	2460	2560	2660
								E	1120	1220	1320	1420

Optional Equipments





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