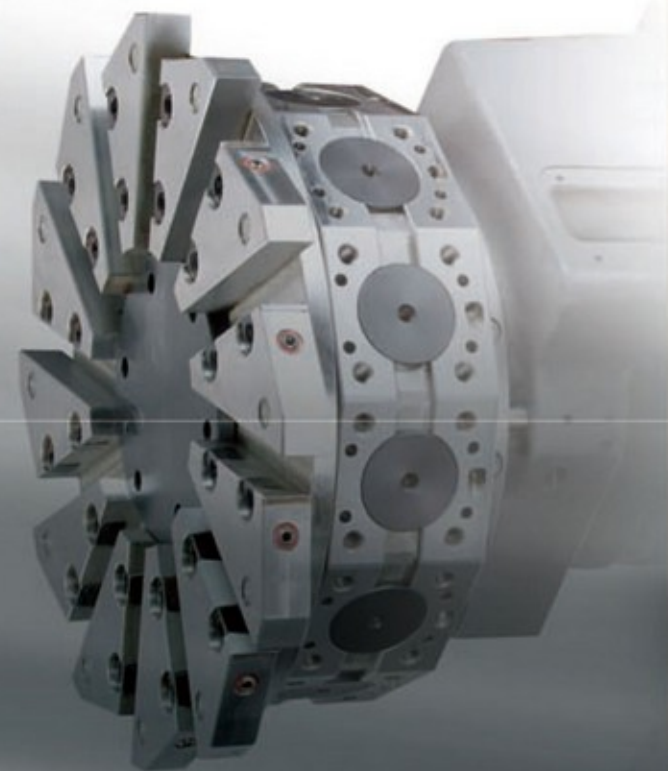




Quality & Productivity Specialist



CNC HORIZONTAL LATHE

www.femco.com.tw



HL-25N / 25D

UNSURPASSED HIGH SPEED
HIGH PERFORMANCE AND HIGH PRECISION



HL-25N SPECIAL FEATURES

- Swing over bed $\varnothing 515\text{mm}$.
- Max. turning diameter $\varnothing 250\text{mm}$.
- Max. turning length 600mm.
- Choice of 8, 12, 23 station turret or power turret.
- Modular design provides variety of options for cost effective combination from bar feeder, parts conveyor, tool presetter, bar puller to genie robot.
- $\varnothing 51.5\text{mm}$ bar capacity.
- FANUC α P22i wide speed range, spindle drive provides 11/15KW output.
- Meehanite base, saddle and headstock casting.
- Precision heavy duty linear ball guide ways.
- Choice of FANUC or Siemens CNC control.
- The smallest footprint in its class.
- Automatic lubrication system.
- Straight bed construction.
- Bed slideways are fitted with linear motion guides.



LINEAR GUIDE WAYS

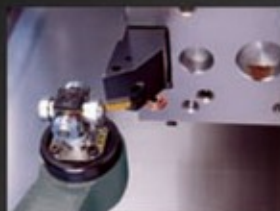
X and Z axis precision linear guide ways provide stable cutting capability. Automatic lubrication system extends the lifespan and reduce the friction of linear guide ways.

MACHINE STRUCTURE

All major components are made from High tensile strength MEEHANITE casting which has been heat-treated, vibration and antideform tested and ground. Unique and compact design of machine bed occupies less floor space, only 2.1mx1.35m (without chip conveyor) , allowing more spaces usage.

SCRAPING WORKS

Scraping is the fundamental of machine accuracy. Our experienced and specialized scraping assembly works provide the best and accurate sliding surfaces with the accuracy better than CNS and JIS standard.



AUTOMATIC LUBRICATOR

The automatic lubricator delivers lubricant, 3~6cc in 15min. Intervals to both slidewys and ballscrews.

TOOL PRESETTER

Reduces setup time by 4 point contacts of each tool with the measuring sensor. Allows for automatic monitoring of tool wear. Controller can automatically select a spare tool or suspend operation when programmed by custom macro.

HYDRAULIC CHUCK

Each FEMCO CNC lathe is furnished standard with a hydraulic chuck, with soft and hard jaws.



DRIVE SYSTEM & BALL SCREWS

X/Z axis is powered by a maintenance free digital AC servo motors that are coupled directly to the ball screws. Without gears installed, there is no risk of backlash or servo drag. Double pretensioned ball screws provide outstanding positioning repeatability with no thermal growth.

MANUAL TAILSTOCK

The hydraulically actuated tailstock is fixed with a protruding quill and clamped securely on the bed.

HIGH-SPEED TURRET

Innovative double disc turret with 23 tools: OD 12 Tools, ID 11 Tools.

RIGHT SIDE SLIDING OPERATING BOX CORRESPONDS TO ERGONOMICS



HL-25DM

23 TOOLS STATIONS DESIGN REDUCE TOOL
CHANGING TIME PLUS MAXIMUM TOOL LOAD CAPACITY



HL-25DM SPECIAL FEATURES

- Innovative Double disc Turret, OD 12 Tools, ID 11 Tools. All ID tools position can be equipped with power tool.
- Biggest Machining Capacity in same size machines.
- Max Swing : $\phi 515\text{mm}$.
- Max Turning Length : 550mm.
- Max Turning Diameter : $\phi 350\text{mm}$.
- Bigger three pieces Curvic Coupling, Higher Rigidity.
- Innovative tooling diagram design, same tool for front side and rear side machining.
- One servo motor driven two turret discs, tool position changing is faster and higher accuracy.
- Innovative pneumatic-driven clamping system, no hydraulic less pollution.
- Built-in parts catcher, no interference when door opens and closes.
- Smaller turret swing in same size power turret, less tooling interference.



HIGH-SPEED TURNING

With the New generation 23-station turret you can machine a wide range of workpieces including those for which automation used to be difficult because they require many processes.

LINEAR GUIDE WAYS

X and Z axis precision linear guide ways provide stable cutting capability. Automatic lubrication system extends the lifespan and reduce the friction of linear guide ways.

Heat Exchanger System

Provides stable temperature environment lower electrical cabinet temperature, stabilize electrical control system, avoid electrical cabinet overheat.

HIGH-SPEED TURRET

High speed servo driven turret provides prominent indexing and accurate positioning. Fast bi-directional index selects tools at 0.13 second for 8-station turret; 12-station turret for 0.09 second. All tool holders adopt FCD rotundity graphite casting within measured 0.01mm accuracy enduring the vibrations during the machine.

FIRST PRIZE

Taiwan Machine Tools Show(TIMTOS) Winning Award.

HYDRAULIC CHUCK

Each FEMCO CNC lathe is furnished standard with a hydraulic chuck, with soft and hard jaws.

DRIVE SYSTEM & BALL SCREWS

X/Z axis is powered by a maintenance free digital AC servo motors that are coupled directly to the ball screws. Without gears installed, there is no risk of backlash or servo drag. Double pretensioned ball screws provide outstanding positioning repeatability with no thermal growth.

PARTS CONVEYOR

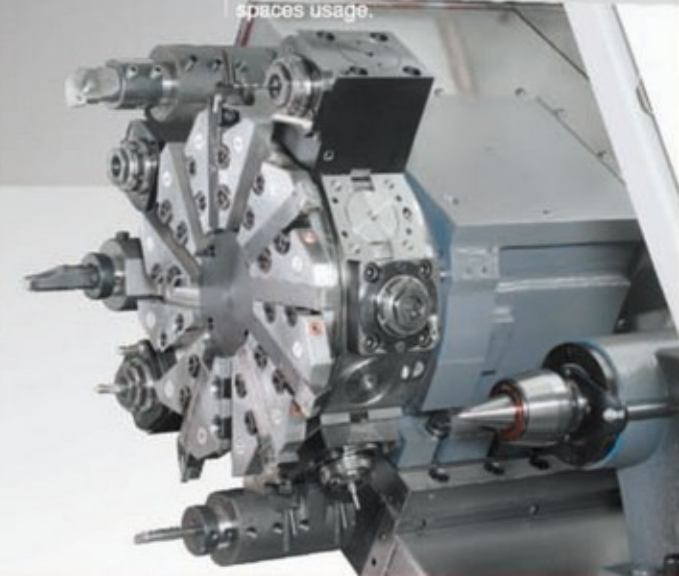
Built-in parts conveyor can avoid the left out of the chips and coolants.

MACHINE STRUCTURE

All major components are made from High tensile strength MEEHANITE casting which has been heat-treated, vibration and antideform tested and ground. Unique and compact design of machine bed occupies less floor space, only 2.1mx1.35m (without chip conveyor), allowing more spaces usage.

THE REVOLUTIONARY 23 STATION DUAL DISK TURRET

The 23-station dual-disk turret accommodates more tools than any other machine of its type in the industry. A maximum of 11 I.D. drilling or milling tools can be held by the rear disk while a maximum of 23 tools can be loaded on both the front and the rear disks. Set-ups are faster and easier and tool changes are minimized. With the fastest chip-to-chip time in the industry, the bi-directional programming of the dual-disk design can index O.D. tools on separate disks, further CUT your cutting time.



HL-25DMS

FEMCO LATEST TECHNOLOGY,
WHICH ALLOWS HIGH-EFFICIENCY PRODUCTION

CNC LATHE HL-25DMS SPECIAL FEATURES

- Innovative double disc turret with 23 tools: OD 12 Tools, ID 11 Tools.
- Every 11 ID tools can be equipped with power tool.
- Max Swing : $\phi 400$ mm.
- Max Turning Length : 530 mm.
- Max Turning Diameter : $\phi 300$ mm.
- Power turret with the rear turning and milling function and sub-spindle combine to satisfy one set up machining.
- Innovative pneumatic-driven clamping system, less pollution and energy saving.





LINEAR GUIDE WAYS

X and Z axis precision linear guide ways provide stable cutting capability. Automatic lubrication system extends the lifespan and reduce the friction of linear guide ways.

TOOL PRESETTER

With automatic tool presetter, it enables quick tool setting time.

SCRAPING WORKS

Scraping is the fundamental of machine accuracy. Our experienced and specialized scraping assembly works provide the best and accurate sliding surfaces with the accuracy better than CNS and JIS standard.



PARTS CONVEYOR

Built-in parts conveyor can avoid the left out of the chips and coolants.

SPECIAL FEATURES

23-station turret specifications equipped with Sub-spindle for long-term operation and complex machining.

HYDRAULIC CHUCK

Each FEMCO CNC lathe is furnished standard with a hydraulic chuck, with soft and hard jaws.



DRIVE SYSTEM & BALL SCREWS

X/Z axis is powered by a maintenance free digital AC servo motors that are coupled directly to the ball screws. Without gears installed, there is no risk of backlash or servo drag. Double pretensioned ball screws provide outstanding positioning repeatability with no thermal growth.

ERGONOMICS

Right side sliding operating box corresponds to ergonomics.

SUB-SPINDLE

Power turret with the rear turning and milling function and sub-spindle combine to satisfy one set up machining.

HIGH-PRECISION EQUIPMENT

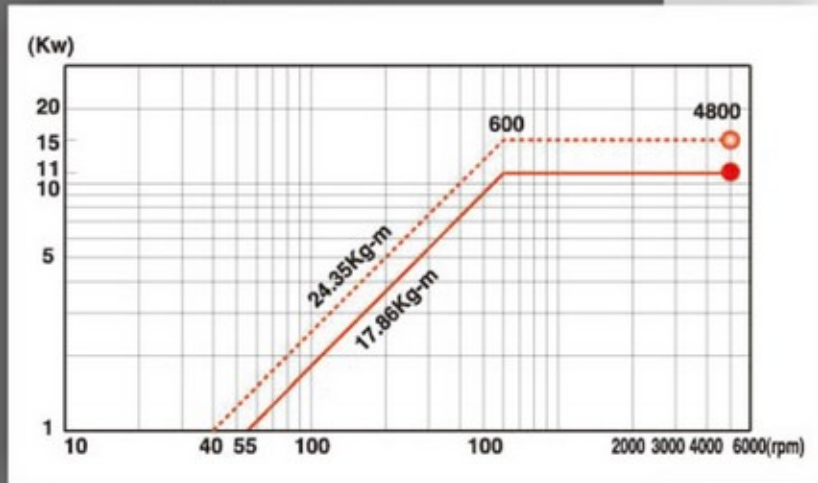
With the new generation 23-station turret you can machine a wide range of workpieces including those for which automation used to be difficult because they require many processes



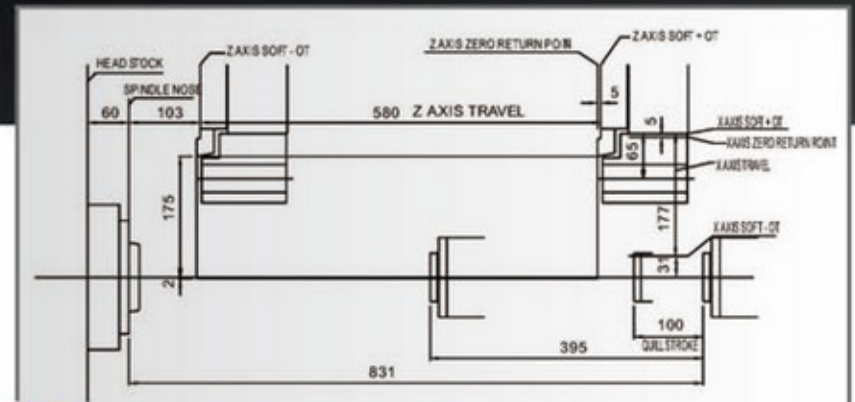
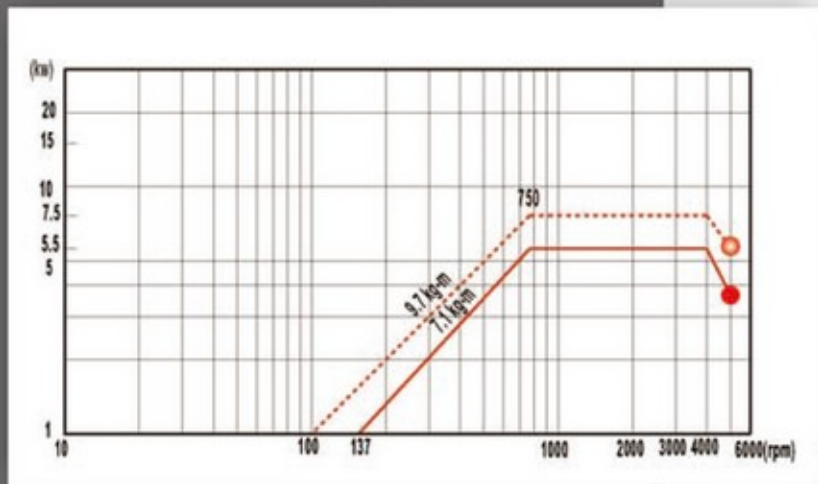
PRECISION SPINDLE

High precision cylindrical roller bearings and angular thrust ball bearings supports optimized span to withstand radial, axial and combined loading. High-speed grease usage and pretension angular thrust ball bearings minimize the thermal effect and enhance the rigidity and tenacity for heavy-duty cutting.

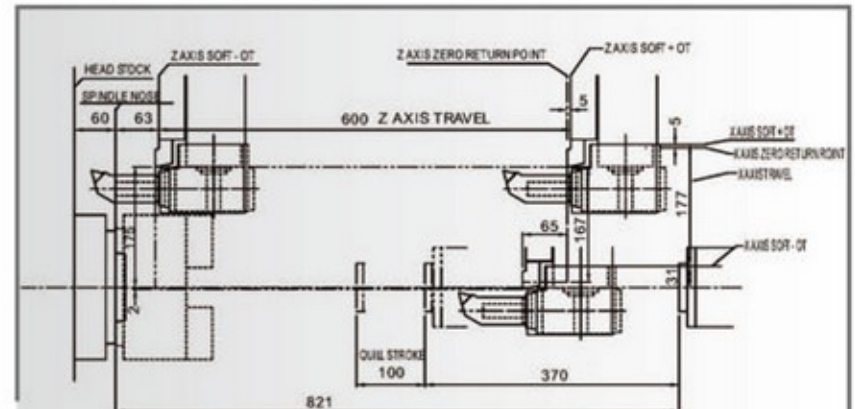
MAIN - TORQUE CHART



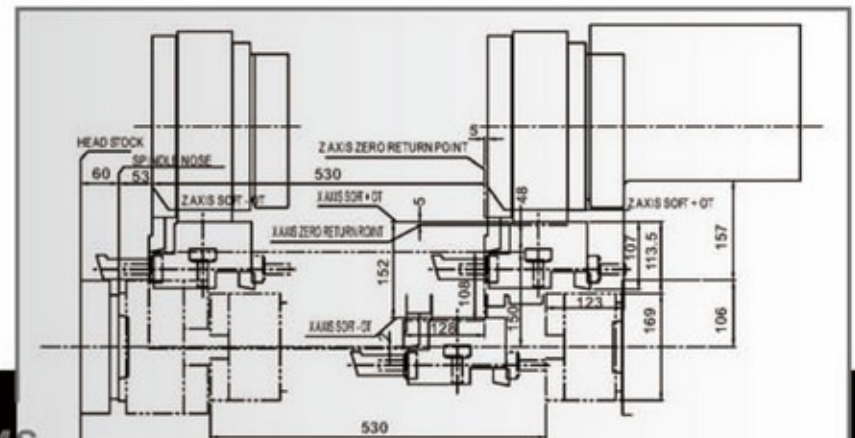
SUB - SPINDLE TORQUE CHART



HL-25N/25D
TURRET MACHINING FIELD



HL-25DM
TURRET MACHINING FIELD



HL-25DMS
TURRET MACHINING FIELD

HL-35 / 35D / 35DM

UNSURPASSED HIGH SPEED
HIGH PERFORMANCE AND HIGH PRECISION



CNC LATHE HL-35 SPECIAL FEATURES

- Swing over bed \varnothing 500 mm.
- Max. turning diameter \varnothing 360 mm.
- Max. turning length 675 mm.
- Spindle speed 4000 rpm.
- Choice of 12, 23 station turret or 12 station power turret.
- Modular design with many options for cost effective combination of bar feeder, parts catcher, bar puller.
- \varnothing 74.5 mm bar capacity.
- FANUC α P30i wide speed range spindle drive provides 15/18.5 KW output.
- 10" chuck.
- Meehanite base, saddle and headstock casting.



LINEAR GUIDE WAYS

X and Z axis precision linear guide ways provide stable cutting capability. Automatic lubrication system extends the lifespan and reduce the friction of linear guide ways.

MACHINE STRUCTURE

All major components are made from High tensile strength MEEHANITE casting which has been heat-treated, vibration and antideform tested and ground. Unique and compact design of machine bed occupies less floor space, (without chip conveyor), allowing more spaces usage.

SCRAPING WORKS

Scraping is the fundamental of machine accuracy. Our experienced and specialized scraping assembly works provide the best and accurate sliding surfaces with the accuracy better than CNS and JIS standard.



AUTOMATIC LUBRICATOR

The automatic lubricator delivers lubricant, 3-6cc in 15min. Intervals to both slidewys and ballscrews.

HIGH-SPEED TURRET

Innovative double disc turret with 23 tools: OD 12 Tools, ID 11Tools.

HYDRAULIC CHUCK

Each FEMCO CNC lathe is furnished standard with a hydraulic chuck, with soft and hard jaws.



DRIVE SYSTEM & BALL SCREWS

X/Z axis is powered by a maintenance free digital AC servo motors that are coupled directly to the ball screws. Without gears installed, there is no risk of backlash or servo drag. Double pretensioned ball screws provide outstanding positioning repeatability with no thermal growth.

PROGRAMMABLE TAILSTOCK

Programmable tailstock quill can be controlled from the operator's panel or NC program. It reduces set up time while increasing productivity.

HIGH PRECISION SPINDLE

High precision cylindrical roller bearings and angular trust ball bearings supports optimized span to withstand radial, axial and combined loading. High-speed grease usage and pretensioned angular trust ball bearings minimize the thermal effect and enhance the rigidity and tenacity for heavy-duty cutting.

THE ULTIMATE PERFORMANCE

23 stations turret specifications equipped with 12 live tools, 11 I.D. and 12 O.D. for long term operation and complex machining



HL-35DMSY

THE ULTIMATE TURNING AND
MILLING CAPABILITY

HL-35DMSY SPECIAL FEATURES

- Power turret with Y-axis ± 60 mm traverse, equips with facing and eccentric drilling function.
- Main spindle (A2-8) with 10" hollow chuck to max 4000 rpm and 400mm max turning dia.
- Spindle and sub-spindle both have precision C-axis control function and patterned braking system.
- Single motor drive VDI and dual disc turret tool selecting is capable of machining in front and rear simultaneously.





POWER TURRET

With Y-axis ± 60 mm traverse equips with facing, milling and drilling function.

SPINDLE MOTOR TYPE

FANUC α P30 / 6000i Sub-spindle motor type FANUC α 12 / 10000i W-axis traverse 600 mm (Sub-spindle traverse).

DISC BRAKE

In main and sub spindles ensure the machining accuracy.



PARTS CATCHER

Bar capacity $\varnothing 74.5$ mm (max), parts catcher in spindle side with automatic bar feeder for automatic machining.

DUAL-SPINDLE DESIGN

Main spindle nose A2-8 with 10" chuck, spindle speed 4000rpm(max)
Sub spindle nose A2-6 with 8" chuck, spindle speed 5000rpm(max).

TOOL PRESETTER

With automatic tool presetter, it enables quick tool setting time.



SPINDLE MOTOR

All live tools and double disc turret drive by servo motor.

CONTROL SYSTEM

FANUC, Siemens, Heidenhain.

DOUBLE DISC TURRET

Double disc turret with 34 tools, OD 12 Tools, ID 24 Tools (max). Pneumatic-driven clamping system, no pollution and energy saving.

THE ULTIMATE TURNING AND MILLING PERFORMANCE

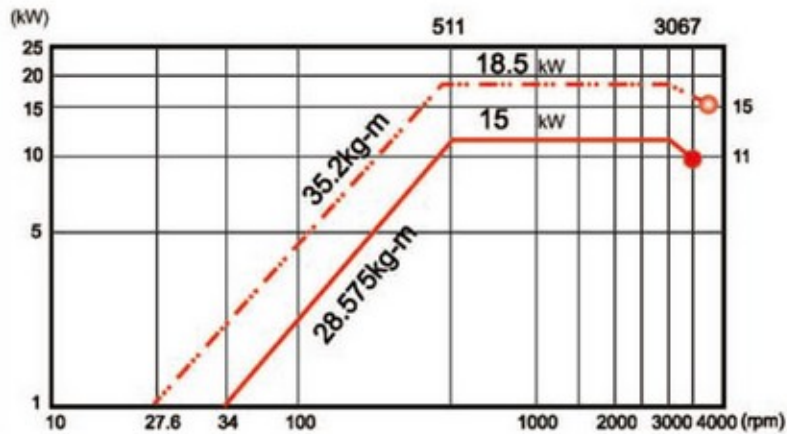


23-station turret specifications equipped with Y-axis and Sub-spindle for long-term operation and complex machining

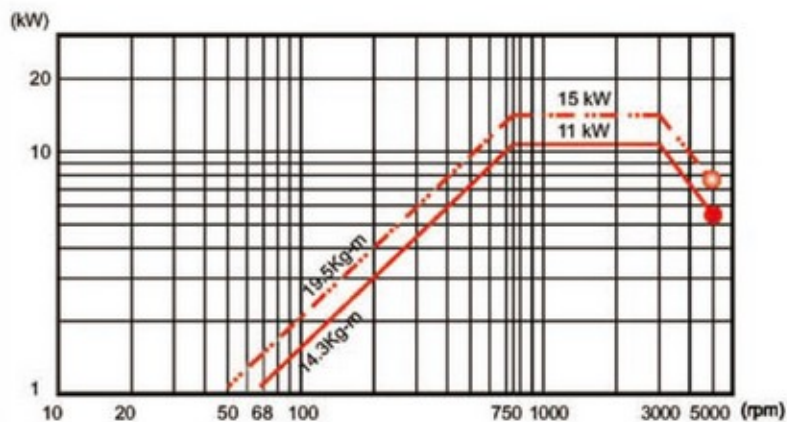
PRECISION SPINDLE

High precision cylindrical roller bearings and angular thrust ball bearings supports optimized span to withstand radial, axial and combined loading. High-speed grease usage and pretension angular thrust ball bearings minimize the thermal effect and enhance the rigidity and tenacity for heavy-duty cutting.

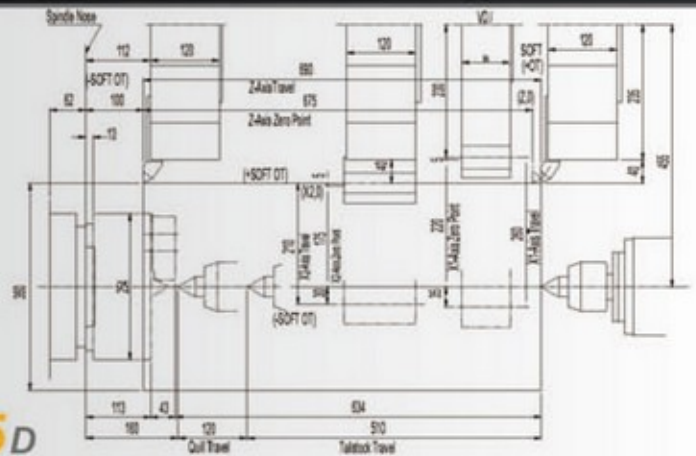
MAIN - TORQUE CHART



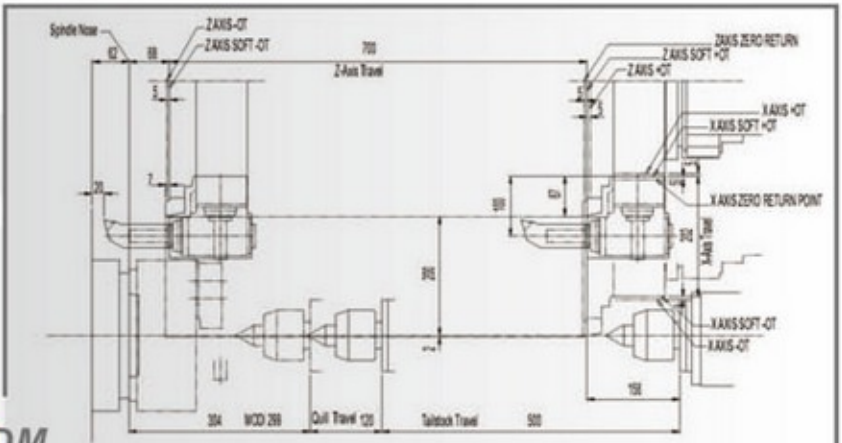
SUB - SPINDLE TORQUE CHART



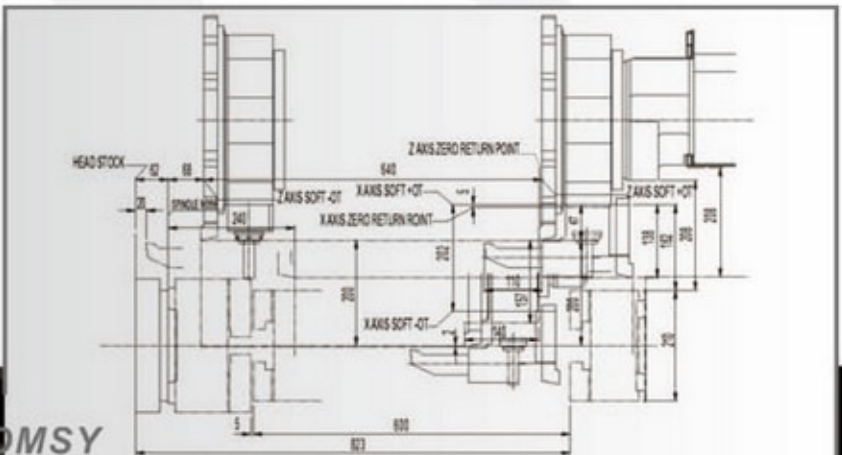
HL-35/35D TURRET MACHINING FIELD



HL-35DM TURRET MACHINING FIELD

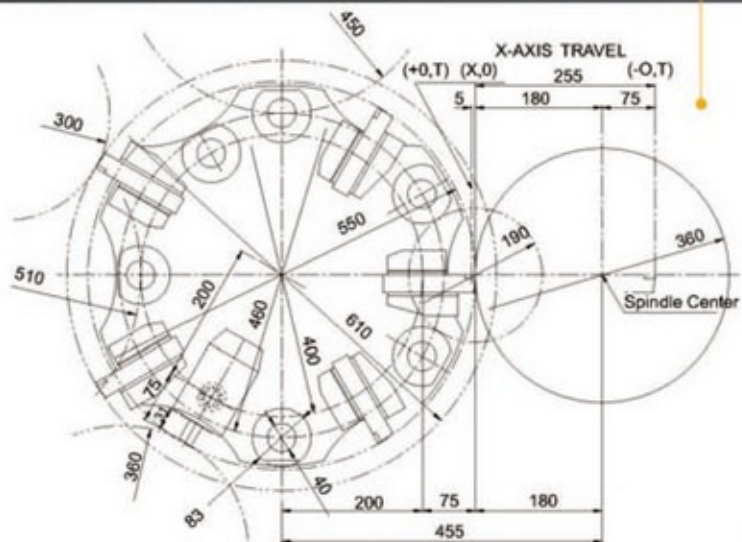


HL-35DMSY TURRET MACHINING FIELD



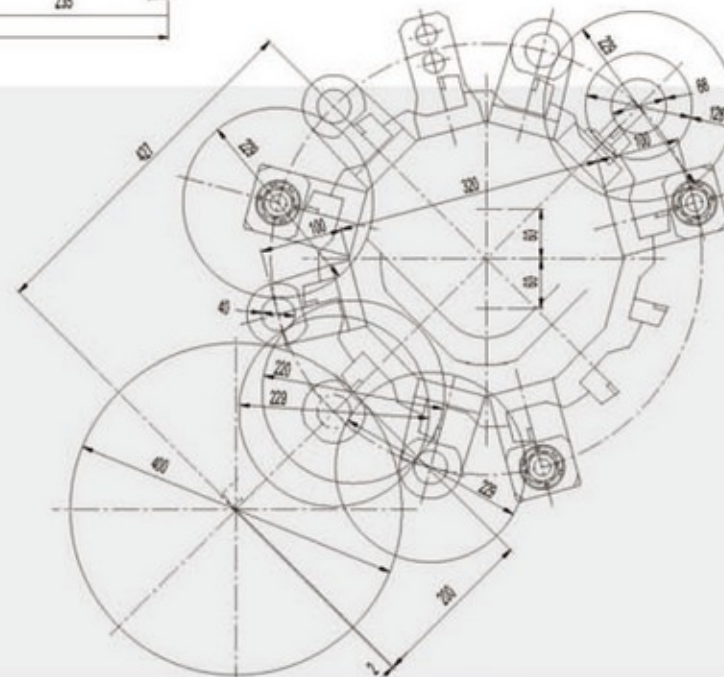
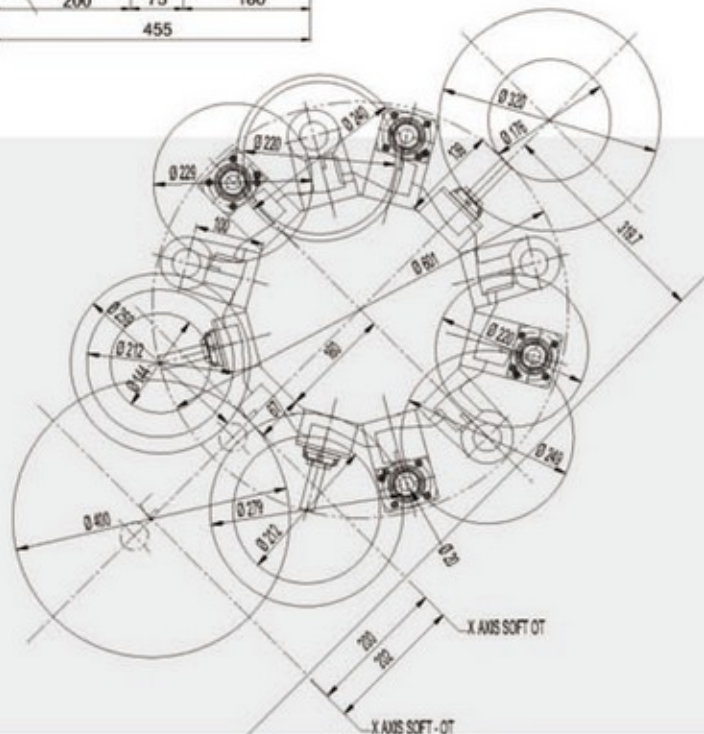
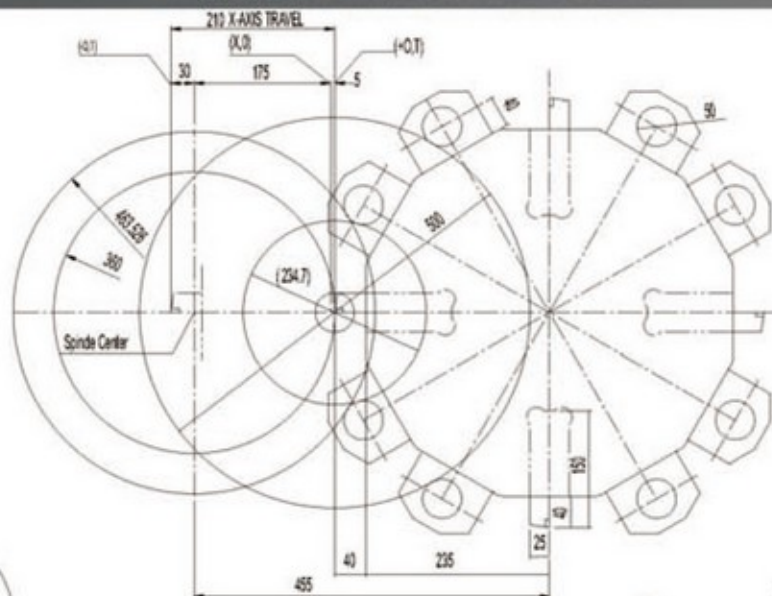
HL-35 / C-AXIS

POWER TURRET INTERFERENCE



HL-35

TURRET INTERFERENCE



HL-35_{DM}

POWER TURRET INTERFERENCE

HL-35_{DMSY}

POWER TURRET INTERFERENCE

HL-45_{1000 / 1500}

SUPERIOR AND DEPENDABLE PERFORMANCE



HL-45 SPECIAL FEATURES

- Swing over bed $\varnothing 635$ mm.
- Max. turning diameter $\varnothing 600$ mm.
- Max. turning length 940/1440 mm.
- Spindle speed 2500 rpm.
- Choice of 12, 23 station turret or 12 station power turret.
- Modular design with many options for cost effective combination of bar feeder, parts catcher, bar puller.
- $\varnothing 89.5$ mm bar capacity.
- FANUC α P40i wide speed range spindle drive provides 18.5/22 kW output.
- 12" chuck.
- Meehanite base, saddle and headstock casting.



LINEAR GUIDE WAYS

X and Z axis precision linear guide ways provide stable cutting capability. Automatic lubrication system extends the lifespan and reduce the friction of linear guide ways.

MACHINE STRUCTURE

All major components are made from High tensile strength MEEHANITE casting which has been heat-treated.

SCRAPING WORKS

Scraping is the fundamental of machine accuracy. Our experienced and specialized scraping assembly works provide the best and accurate sliding surfaces with the accuracy better than CNS and JIS standard.



AUTOMATIC LUBRICATOR

The automatic lubricator delivers lubricant, 3-6cc in 15min. Intervals to both slidewys and ballscrews.

C-AXIS POWER TURRET

With a new-generation turret design dramatically improved milling and turning ability.

HYDRAULIC CHUCK

Each FEMCO CNC lathe is furnished standard with a hydraulic chuck, with soft and hard jaws.



DRIVE SYSTEM & BALL SCREWS

X/Z axis is powered by a maintenance free digital AC servo motors that are coupled directly to the ball screws. Without gears installed, there is no risk of backlash or servo drag. Double pretensioned ball screws provide outstanding positioning repeatability with no thermal growth.

PROGRAMMABLE TAILSTOCK

Programmable tailstock quill can be controlled from the operator's panel or NC program. It reduces set up time while increasing productivity.

HIGH PRECISION SPINDLE

High precision cylindrical roller bearings and angular thrust ball bearings supports optimized span to withstand radial, axial and combined loading. High-speed grease usage and pretension angular thrust ball bearings minimize the thermal effect and enhance the rigidity and tenacity for heavy-duty cutting.



(Opt.)

The highly rigid body with roller guides, offer stable machining and excellent cost performance

HL-55S 1250 / 2000 / 2500

A STRUCTURE WITH GREATER RIGIDITY AND
SLANT BED DESIGN



HL-55S SPECIAL FEATURES

- Swing over bed $\varnothing 727$ mm.
- Max. turning diameter $\varnothing 640$ mm.
- Max. turning length up to 2320 mm.
- FANUC $\alpha 22$ wide speed range motor with ZF gearbox.
- Choice of 8,12 station turret .
- 15" chuck.(up to 22" opt.)
- Meehanite base, saddle and headstock casting.
- Precision heavy duty box ways.
- Overload protection on X, Z axis.
- Automatic lubricating system.
- Highly rigid hydraulic tailstock .



SLANT BED CONSTRUCTION

45 degree slant bed design allows for easy loading, changing and inspection of tools and facilitate chips drain.

FULLY PROGRAMMABLE TAILSTOCK

Fully programmable tailstock and tailstock quill can be controlled from the operator's panel or NC program. It reduces set up time while increasing productivity.

HIGH-RIGIDITY BOX WAYS

Large span of high-rigidity box ways are made in the same plane of machine bed that eliminate thermal distortion and provide perfect stability in heavy-duty cutting. The guide ways are induction hardened and precision ground with turcite B to maintain feeding and positioning accuracy.

SCRAPING WORKS

Scraping is the fundamental of machine accuracy. Our experienced and specialized scraping assembly works provide the best and accurate sliding surfaces with the accuracy better than CNS and JIS standard.

HIGH-SPEED TURRET

High speed servo driven turret provides prominent indexing and accurate positioning.

HYDRAULIC CHUCK

Each FEMCO CNC lathe is furnished standard with a hydraulic chuck, with soft and hard jaws.

DRIVE SYSTEM & BALL SCREWS

X/Z axis is powered by a maintenance free digital AC servo motors that are coupled directly to the ball screws. Without gears installed, there is no risk of backlash or servo drag. Double pretensioned ball screws provide outstanding positioning repeatability with no thermal growth.

MACHINE STRUCTURE

All major components are made from High tensile strength MEEHANITE casting which has been heat-treated, vibration and antideform tested and ground. Unique and compact design of machine bed occupies less floor space, (without chip conveyor), allowing more spaces usage.

SPINDLE MOTOR

Adopting FANUC Alpha Series spindle motor and servomotor shorten the time of acceleration and deceleration, which improves the machining efficiency and curtails the program running time.

RIGID AND PRECISE SLANT BED DESIGN

The Ultimate Line-up

HL-55S 1250 / 2000 / 2500

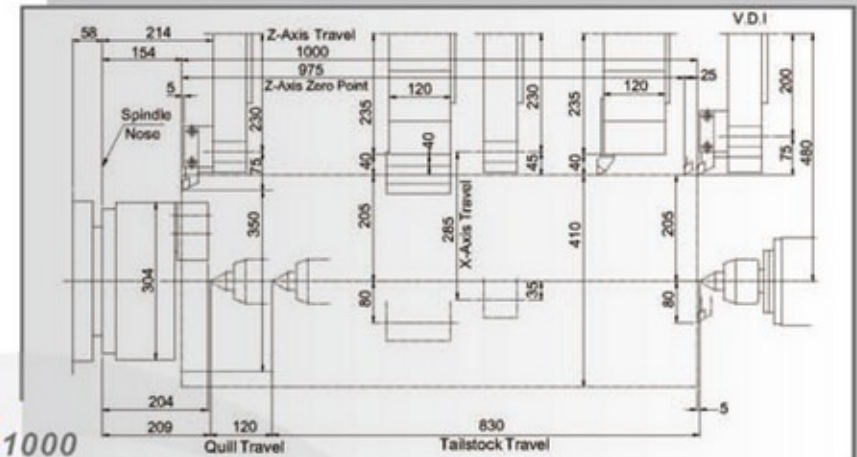
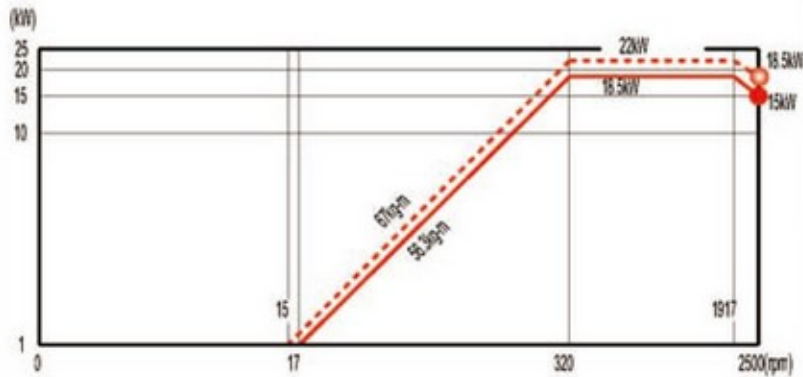


PRECISION SPINDLE

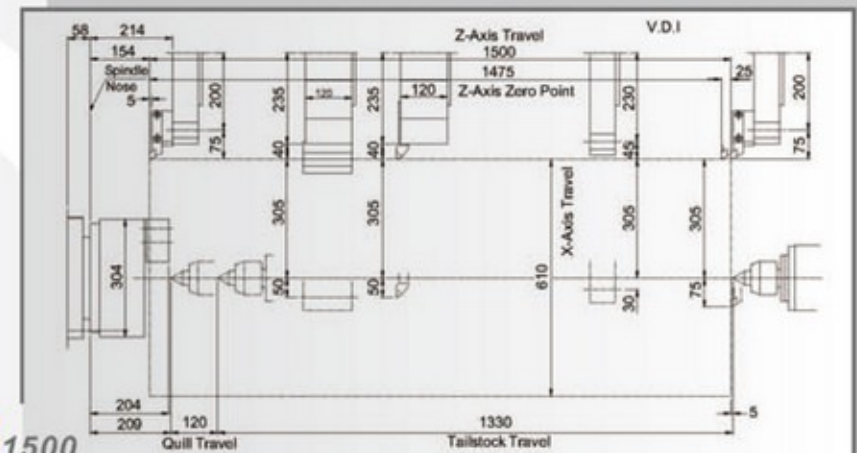
High precision cylindrical roller bearings and angular thrust ball bearings supports optimized span to withstand radial, axial and combined loading. High-speed grease usage and pretension angular thrust ball bearings minimize the thermal effect and enhance the rigidity and tenacity for heavy-duty cutting.

HL-45^{1000/1500}

MAIN - TORQUE CHART



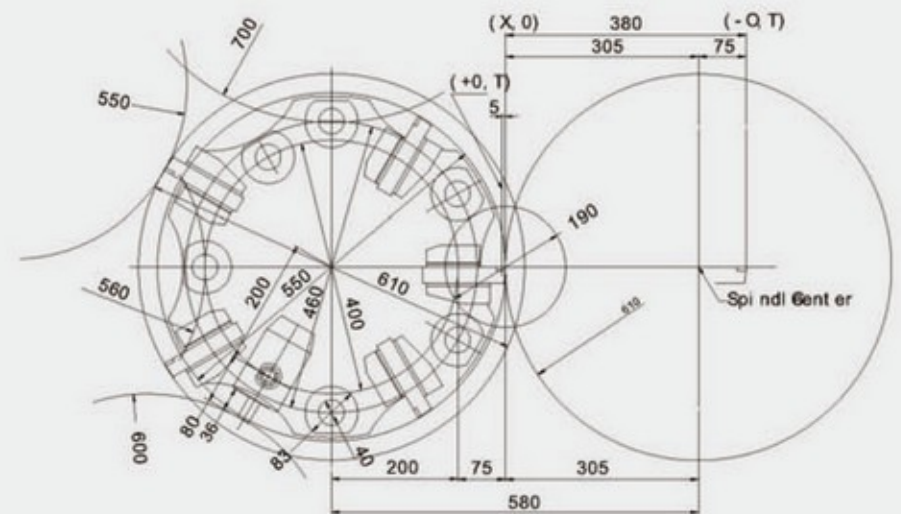
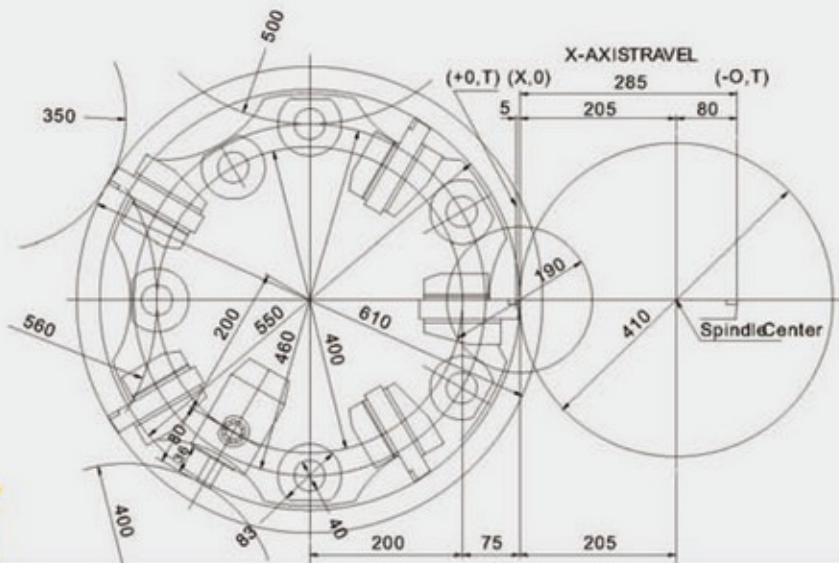
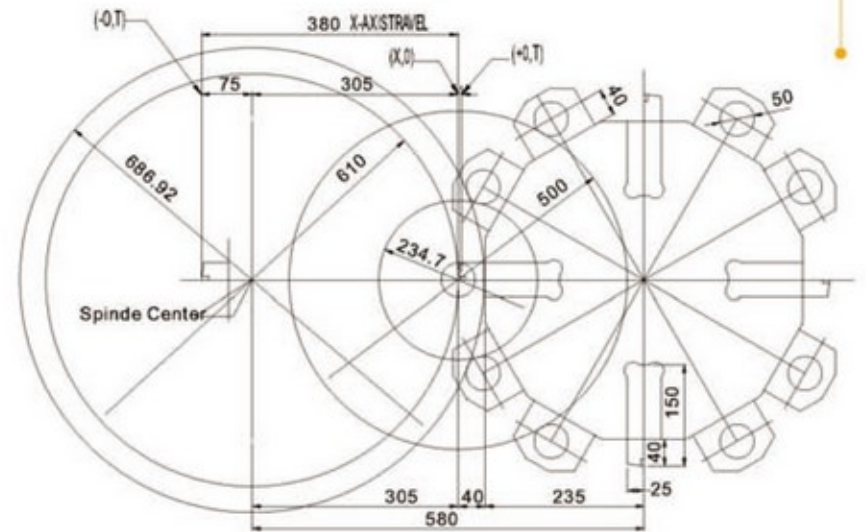
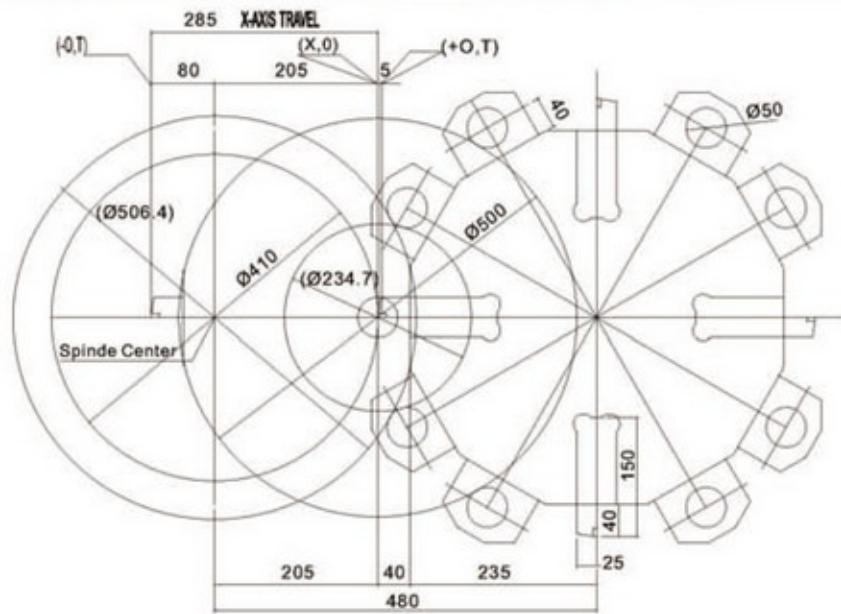
HL-45¹⁰⁰⁰
TURRET MACHINING FIELD



HL-45¹⁵⁰⁰
TURRET MACHINING FIELD

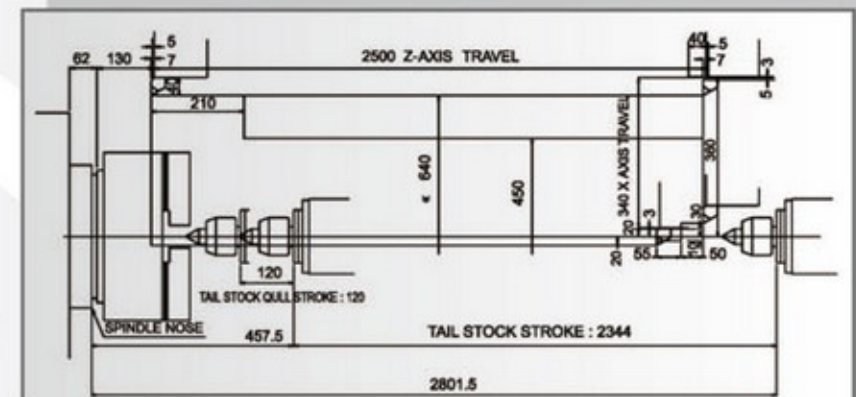
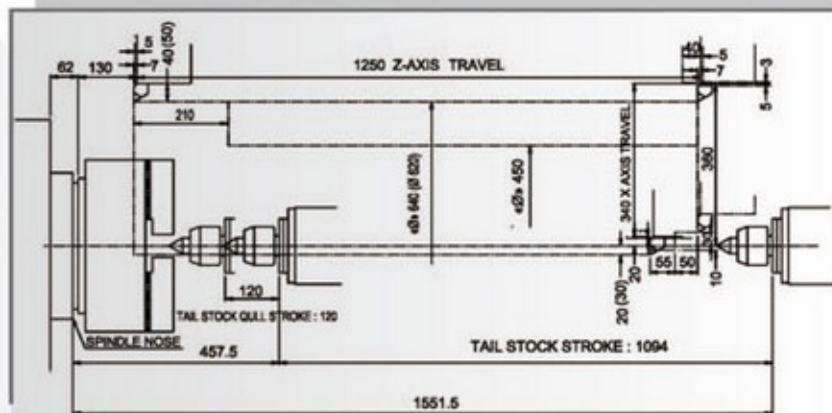
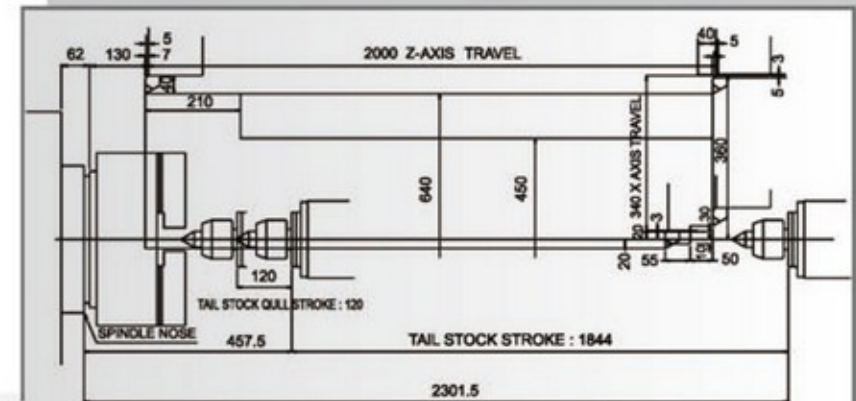
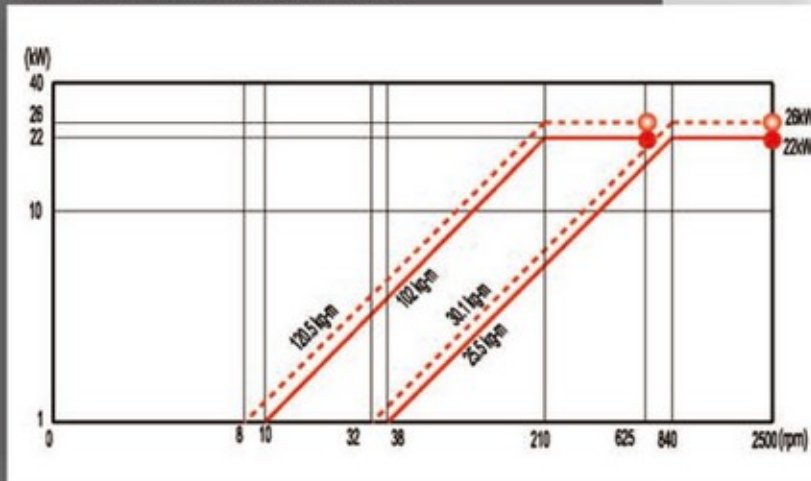
HL-45

TURRET INTERFERENCE



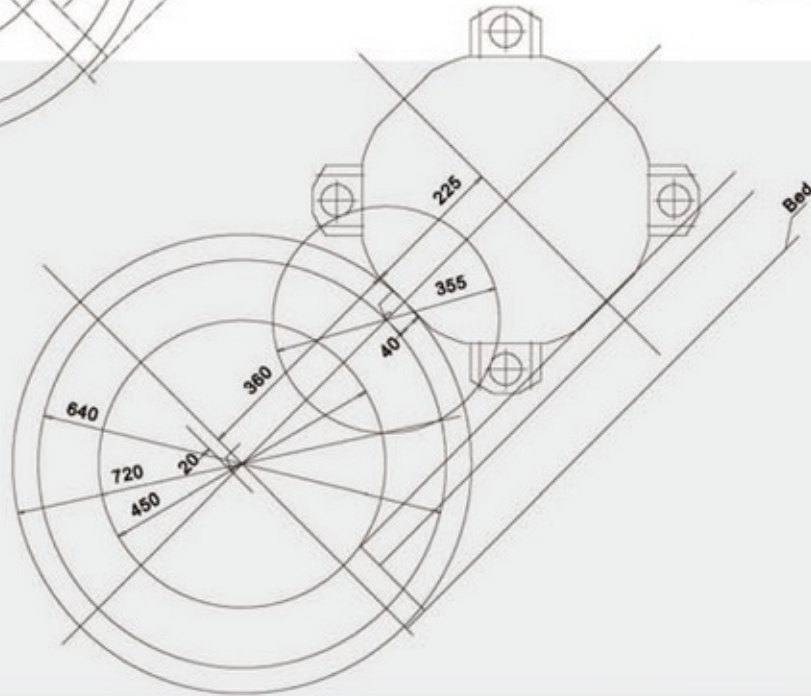
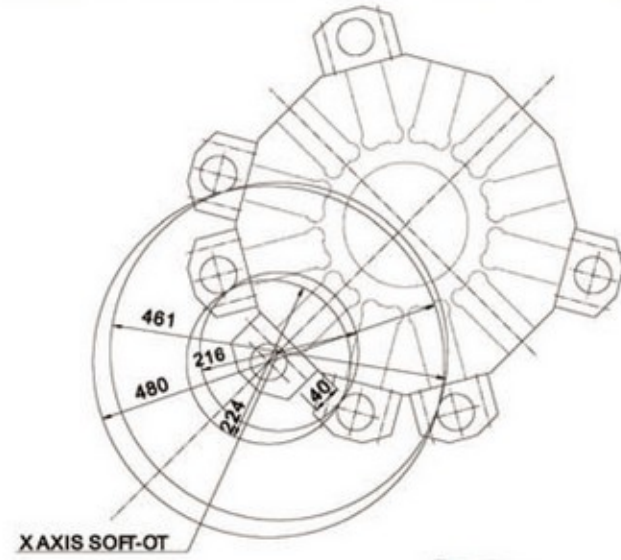
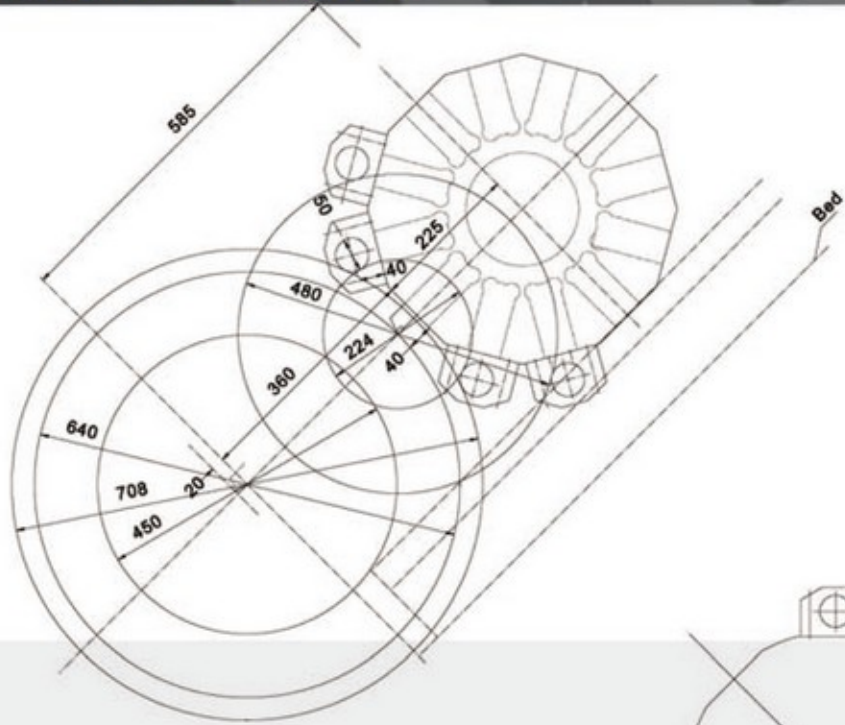
HL-55s 1250 / 2000 / 2500

MAIN - TORQUE CHART



HL-55s

TURRET INTERFERENCE



HL-55s

8 STATION TURRET INTERFERENCE

OPTIONAL ACCESSORIES



PARTS CATCHER / CONVEYOR

The parts catcher / conveyor permits for efficient parts collection and unmanned operation.



BAR PULLER

Capacity $\varnothing 12$ - $\varnothing 45$ mm, adjusted easily by screw.



GENIE ROBOT

Parts handing root and carrousel for full automatic operation.



BAR FEEDER

The optional bar feeder allows for fully automatic loading of stock.



ELECTRIC CABINET COOLING SYSTEM

4000BUT capacity provides constant temperature in the electrical cabinet to ensure designed performance at all climate conditions.



POWER TRANSFORMER

380V / 415V / 440V



WORKPIECE TRANSFER ROBOT



CE SAFETY GUARD

OPTIONAL FEATURES ▼

23-station "Durga" Power Turret	3 color alarm lamp
X-axis linear scale	Collet chuck
Automatic Bar feeder	Parts catcher / conveyor
Auto door	Electric Cabinet cooling system
Bar puller	Power tool turret (C-axis)
Workpiece counter (external)	VDI driven tool holder

STANDARD & OPTION

○ STANDARD ● OPTION

ITEM	HL-25	HL-25D	HL-25DM	HL-25DMS	HL-35	HL-35D	HL-35DM	HL-35DMSY	HL-451000	HL-451500	HL-55S1250	HL-55S2000	HL-55S2500
1 8-Station Turret	●										●	●	●
2 12-Station Turret	●				●				●	●	●	●	●
3 23-Station "Durga" Turret		●				●							
4 12-Station VDI Power Turret (C-axis)	●				●				●	●			
5 23-Station Power Turret (C-axis)			●	●			●	●					
6 Hydraulic chuck with 1 set of Hard jaws	●	●	●	●	●	●	●	●	●	●	●	●	●
7 Soft jaws (3 sets)	●	●	●	●	●	●	●	●	●	●	●	●	●
8 Hydraulic power unit	●	●	●	●	●	●	●	●	●	●	●	●	●
9 Automatic lubricating system	●	●	●	●	●	●	●	●	●	●	●	●	●
10 Boring bar holders & sockets	●	●	●	●	●	●	●	●	●	●	●	●	●
11 OD Turning tool holders	●	●	●	●	●	●	●	●	●	●	●	●	●
12 Built-in work light	●	●	●	●	●	●	●	●	●	●	●	●	●
13 Bolts & leveling pads for installation	●	●	●	●	●	●	●	●	●	●	●	●	●
14 Operator's & maintenance manuals	●	●	●	●	●	●	●	●	●	●	●	●	●
15 Chuck air blow	●	●	●	●	●	●	●	●	●	●	●	●	●
16 Workpiece counter (internal)	●	●	●	●	●	●	●	●	●	●	●	●	●
17 Heat exchanger	●	●	●	●	●	●	●	●	●	●	●	●	●
18 Automatic tailstock	●	●	●	●	●	●	●	●	●	●	●	●	●
19 Coolant supply system	●	●	●	●	●	●	●	●	●	●	●	●	●
20 Chip conveyor & bucket	●	●	●	●	●	●	●	●	●	●	●	●	●
21 Power transformer	●	●	●	●	●	●	●	●	●	●	●	●	●
22 Sub-spindle				●				●					
23 X-axis linear scale	●	●	●	●	●	●	●	●	●	●	●	●	●
24 Automatic Bar feeder	●	●	●	●	●	●	●	●	●	●	●	●	●
25 Auto door	●	●	●	●	●	●	●	●	●	●	●	●	●
26 Bar puller	●	●	●	●	●	●	●	●	●	●	●	●	●
27 Workpiece counter (external)	●	●	●	●	●	●	●	●	●	●	●	●	●
28 3 color alarm lamp	●	●	●	●	●	●	●	●	●	●	●	●	●
29 Collet chuck	●	●	●	●	●	●	●	●	●	●	●	●	●
30 Parts catcher / conveyor	●	●	●	●	●	●	●	●	●	●	●	●	●
31 Electric cabinet cooling system	●	●	●	●	●	●	●	●	●	●	●	●	●
32 Power driven tool holder	●		●	●	●		●	●	●	●			
33 Robot system	●	●	●	●	●	●	●	●					
34 CE safety guard	●	●	●	●	●	●	●	●	●	●	●	●	●

Design and specifications are subject to change without prior notice.

SPECIFICATIONS

ITEM			HL-25N	HL-25D	HL-25DM	HL-25DMS
CAPACITY	Max. Swing Overbed	mm	Ø515	Ø515	Ø515	Ø400
	Max. Turning Diameter	mm	Ø250	Ø250	Ø350	Ø300
	Max. Turning Length	mm	600	600	550	530
	Max. Swing over slide bed	mm	—	—	—	—
	Hole (Bar Capacity)	mm	Ø51.5	Ø51.5	Ø51.5	Ø51.5
TRAVEL	X-axis	mm	150	127	177	152
	Z-axis	mm	630	625	600	530
	Y-axis	mm	—	—	—	—
	W-axis	mm	—	—	—	550
SPINDLE	Speed	rpm	4800	4800	4800	4800
	Chuck Size	inch	8"	8"	8"	8"
	Spindle Nose		A2-6	A2-6	A2-6	A2-6
	Through Spindle Hole Diameter	mm	Ø61	Ø61	Ø61	Ø61
	Front Bearing ID./OD.	mm	Ø100 / Ø150	Ø100 / Ø150	Ø100 / Ø150	Ø100 / Ø150
	Rear Bearing ID./OD.	mm	Ø90 / Ø140	Ø90 / Ø140	Ø90 / Ø140	Ø90 / Ø140
	Spindle Motor		α P22 / 6000i	α P22 / 6000i	α P22 / 6000i	α P22/6000i
	Spindle Motor Output(cont/30 mins)	kW	11 / 15	11 / 15	11 / 15	11 / 15
Spindle Motor Torque	Nm	238	238	238	238	
SUB-SPINDLE	Sub-spindle Speed	rpm	—	—	—	5000
	Sub-spindle Chuck Size		—	—	—	6"
	Sub-spindle Nose		—	—	—	A2-5
	Hole(Bar Capacity)	mm	—	—	—	—
	Sub-spindle Front Bearing ID./OD.	mm	—	—	—	Ø85 / Ø130
	Sub-spindle Rear Bearing ID./OD.	mm	—	—	—	Ø75 / Ø115
	Sub-spindle Motor		—	—	—	FANUC α 6/10000
	Sub-spindle Motor Output(cont/30 mins)	kW	—	—	—	5.5 / 7.5
Sub-spindle Motor Torque	kg-m	—	—	—	95	
TURRET	Number of Tool Station		8.12	23(O.D.:12 Stations) (I.D.:11 Stations)	23(O.D.:12 Stations) (I.D.:11 Stations)	23(O.D.:12 Stations) (I.D.:11 Stations)
	Turning Tool OD.	mm	□25 / □20	□20	□20	□20
	Turning Tool ID.	mm	Ø40 / Ø32	Ø32	Ø40	Ø32
POWER TURRET WITH C-AXIS	Power Tool Shank Diameter	mm	VDI-30	—	Ø20	Ø16(ER25)
	Power Tool Speed Range at Axial	rpm	3000	—	3000	3000
	Power Tool Speed Range at Radial	rpm	3000	—	3000	3000
	Power Tool Motor		α 2 / 10000i	—	α 2 / 10000i	α 30/3000
	Power Tool Motor Output	kW	2.2 / 3.7	—	2.2 / 3.7	7
TAILSTOCK	Travel	mm	370	370	370	—
	Quill Diameter	mm	Ø70	Ø70	Ø70	—
	Quill Travel	mm	100	100	100	—
	Quill Taper		MT#4	MT#4	MT#4	—
	Axial Thrust of Quill	kgf	560	560	560	—
FEEDRATE	X-axis Rapid Traverse	mm/min	20000	20000	20000	20000
	Z-axis Rapid Traverse	mm/min	24000	24000	24000	24000
	Y-axis Rapid Traverse	mm/min	—	—	—	—
	W-axis Rapid Traverse	mm/min	—	—	—	16000
DIMENSION	Width	mm	2150	2150	2400	2600
	Depth	mm	1500	1500	1550	1700
	Height	mm	1600	1600	1600	1600
WEIGHT	Weight	kg	3250	3250	3350	3700

SPECIFICATIONS

ITEM		HL-35	HL-35D	HL-35DM	HL-35DMSY
CAPACITY	Max. Swing Overbed	mm	Ø500	Ø500	Ø500
	Max. Turning Diameter	mm	Ø360	Ø400	Ø400
	Max. Turning Length	mm	675	600	600
	Max. Swing over slide bed	mm	—	—	—
	Hole (Bar Capacity)	mm	Ø74.5	Ø74.5	Ø74.5
TRAVEL	X-axis	mm	260	202	202
	Z-axis	mm	690	700	700
	Y-axis	mm	—	—	120(+60/-60)
	W-axis	mm	—	—	600
SPINDLE	Speed	rpm	4000	4000	4000
	Chuck Size	inch	10"	10"	10"
	Spindle Nose		A2-8	A2-8	A2-8
	Through Spindle Hole Diameter	mm	Ø87	Ø87	Ø87
	Front Bearing ID./OD.	mm	Ø130 / Ø200	Ø130 / Ø200	Ø130 * Ø200
	Rear Bearing ID./OD.	mm	Ø120 / Ø180	Ø120 / Ø180	Ø120 * Ø180
	Spindle Motor		α P30/6000i	α P30/6000i	α P30/6000i
	Spindle Motor Output(cont/30 mins)	kW	15 / 18.5	15 / 18.5	15 / 18.5
	Spindle Motor Torque	Nm	345	345	345
SUB-SPINDLE	Sub-spindle Speed	rpm	—	—	5000
	Sub-spindle Chuck Size		—	—	8"
	Sub-spindle Nose		—	—	A2-6
	Hole(Bar Capacity)	mm	—	—	Ø52(Ø51.5)
	Sub-spindle Front Bearing ID./OD.	mm	—	—	Ø100 / Ø150
	Sub-spindle Rear Bearing ID./OD.	mm	—	—	Ø90 / Ø140
	Sub-spindle Motor		—	—	FANUCα12/10000
	Sub-spindle Motor Output(cont/30 mins)	kW	—	—	11 / 15
	Sub-spindle Motor Torque	kg-m	—	—	140
TURRET	Number of Tool Station		12	23(O.D.:12 Stations) (I.D.:11 Stations)	23(O.D.:12 Stations) (I.D.:11 Stations)
	Turning Tool OD	mm	□25	□25	□25
	Turning Tool ID	mm	Ø50	Ø40	Ø40
POWER TURRET WITH C-AXIS	Power Tool Shank Diameter	mm	VDI-40	—	Ø20(ER32)
	Power Tool Speed Range at Axial	rpm	3000	—	3000
	Power Tool Speed Range at Radial	rpm	3000	—	3000
	Power Tool Motor		α 3/10000i	—	α 2/10000i
	Power Tool Motor Output	kW	3.7 / 5.5	—	2.2 / 3.7
TAILSTOCK	Travel	mm	510	510	510
	Quill Diameter	mm	Ø120	Ø120	Ø120
	Quill Travel	mm	120	120	120
	Quill Taper		MT#5	MT#5	MT#5
	Axial Thrust of Quill	kgf	11780	11780	11780
FEEDRATE	X-axis Rapid Traverse	mm/min	20000	20000	20000
	Z-axis Rapid Traverse	mm/min	24000	24000	24000
	Y-axis Rapid Traverse	mm/min	—	—	10000
	W-axis Rapid Traverse	mm/min	—	—	16000
DIMENSION	Width	mm	4270	4270	3370
	Depth	mm	1942	1942	1942
	Height	mm	1960	1960	2070
WEIGHT	Weight	kg	6000	6000	6200

SPECIFICATIONS

ITEM			HL-45 /1000	HL-45 /1500	HL-55S /1250	HL-55S / 2000	HL-55S / 2500
CAPACITY	Max. Swing Overbed	mm	Ø635	Ø635	Ø727	Ø710	Ø710
	Max. Turning Diameter	mm	Ø600	Ø600	Ø640	Ø640	Ø640
	Max. Turning Length	mm	940	1440	1070	1820	2320
	Max. Swing over slide bed	mm	—	—	—	—	—
	Hole (Bar Capacity)	mm	Ø89.5	Ø89.5	Ø117	Ø117	Ø117
TRAVEL	X-axis	mm	285	335	340	340	340
	Z-axis	mm	1000	1500	1250	2000	2500
	Y-axis	mm	—	—	—	—	—
	W-axis	mm	—	—	—	—	—
SPINDLE	Speed	rpm	2500	2500	2500	2500	2500
	Chuck Size	inch	12"	12"	15"	15"	15"
	Spindle Nose		A2-8	A2-8	A2-11	A2-11	A2-11
	Through Spindle Hole Diameter	mm	Ø110	Ø110	Ø132	Ø132	Ø132
	Front Bearing ID./OD.	mm	Ø160 / Ø240	Ø160 / Ø240	Ø170 / Ø230	Ø170 / Ø230	Ø170 / Ø230
	Rear Bearing ID./OD.	mm	Ø150 / Ø225	Ø150 / Ø225	Ø160 / Ø220	Ø160 / Ø220	Ø160 / Ø220
	Spindle Motor		α P40/6000i	α P40/6000i	α 22 / 7000i	α 22 / 7000i	α 22 / 7000i
	Spindle Motor Output(cont/30 mins) kW		18.5 / 22	18.5 / 22	22 / 26	22 / 26	22 / 26
Spindle Motor Torque	Nm	656	656	1181	1181	1181	
SUB-SPINDLE	Sub-spindle Speed	rpm	—	—	—	—	—
	Sub-spindle Chuck Size		—	—	—	—	—
	Sub-spindle Nose		—	—	—	—	—
	Hole(Bar Capacity)	mm	—	—	—	—	—
	Sub-spindle Front Bearing ID./OD.	mm	—	—	—	—	—
	Sub-spindle Rear Bearing ID./OD.	mm	—	—	—	—	—
	Sub-spindle Motor		—	—	—	—	—
	Sub-spindle Motor Output(cont/30 mins) kW		—	—	—	—	—
Sub-spindle Motor Torque	Nm	—	—	—	—	—	
TURRET	Number of Tool Station		12	12	8.12	8.12	8.12
	Turning Tool OD	mm	□25	□25	□25	□25	□25
	Turning Tool ID	mm	Ø50	Ø50	Ø50	Ø50	Ø50
POWER TURRET WITH C-AXIS	Power Tool Shank Diameter	mm	VDI-40	VDI-40	—	—	—
	Power Tool Speed Range at Axial	rpm	3000	3000	—	—	—
	Power Tool Speed Range at Radial	rpm	3000	3000	—	—	—
	Power Tool Motor		α 3 / 10000i	α 3 / 10000i	—	—	—
	Power Tool Motor Output	kW	3.7 / 5.5	3.7 / 5.5	—	—	—
TAILSTOCK	Travel	mm	830	1330	1094	1844	2344
	Quill Diameter	mm	Ø120	Ø120	Ø120	Ø120	Ø120
	Quill Travel	mm	120	120	120	120	120
	Quill Taper		MT#5	MT#5	MT#5	MT#5	MT#5
	Axial Thrust of Quill	kgf	11780	11780	11544	11544	11544
FEEDRATE	X-axis Rapid Traverse	mm/min	20000	20000	16000	16000	16000
	Z-axis Rapid Traverse	mm/min	24000	24000	20000	20000	20000
	Y-axis Rapid Traverse	mm/min	—	—	—	—	—
	W-axis Rapid Traverse	mm/min	—	—	—	—	—
DIMENSION	Width	mm	3885	5035	5225	5975	6475
	Depth	mm	2131	2131	2000	2000	2000
	Height	mm	2040	2040	2130	2130	2130
WEIGHT	Weight	kg	6400	7500	9000	11000	13000

QUALITY ASSURANCE

- To ensure the machine high quality requirement, FEMCO develop a inspection standard process depends on features of every models.
- To achieve a comprehensive test of the autonomy, Our FEMCO engineer will follow the CNS/JIS standard.
- Guarantee the best performance and quality assurance.



I. Dynamic balance testing

To satisfy the higher rotating and positioning accuracy.



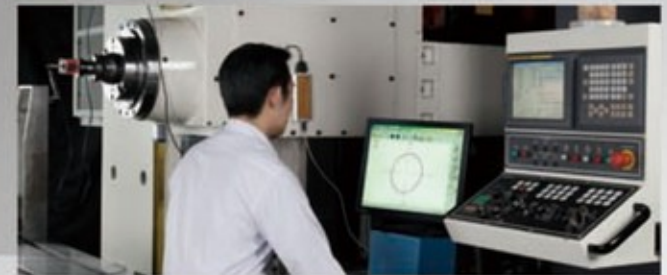
II. Laser testing

International Certificated Laser Testing maintain the Positioning & Repeatability accuracy.



III. Circularity testing

Dynamic check to secured the contouring performance is ensured by the ballbar testing devices.



IIII. Table load testing

The rotary table is clamped securely by a hydraulic system, ensure excellent stability even when machining large workpieces.





PRODUCT LINE-UP

HL SERIES



HL-25N



HL-25D



HL-25DM



HL-25DMS

WHL SERIES



WHL-55



WHL-55SP



WHL-68

BMC SERIES



BMC-110R1



BMC-110R2



BMC-110R3



BMC-135R

VL SERIES



VL-12/25



Flexible design for optimal line reconstruction



HL-35 / 35D / 35DM



HL-35DMSY



HL-45(1000 / 1500)



HL-55S(1250 / 2000 / 2500)



WHL-68SP



WVL-F24



WVL-F24A



WVD-24



BMC-110T2 / T3 / T4 / P



BMC-110FT2 / FT3 / FT4



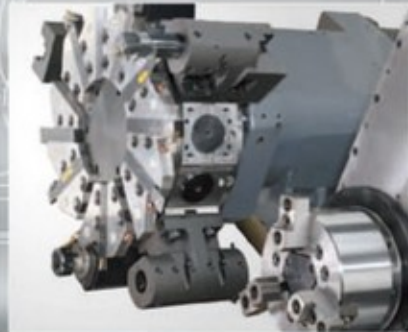
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3 / 5 AXIS MACHINE



F3X / 5X-630



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NEW GENERATION 23 STATION POWER TURRET

The 23-station dual-disk turret accommodates more tools than any other machine of its type in the industry. A maximum of 11 I.D. drilling or milling tools can be held by the rear disk while a maximum of 34 tools can be loaded on both the front and the rear disks. Set-ups are faster and easier and tool changes are minimized. With the fastest chip-to-chip time in the industry, the bi-directional programming of the dual-disk design can index O.D. tools on separate disks, further with y-axis ± 60 mm traverse equips with sub-spindle for long-term operation and complex machining.

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Chiayi Hsien, Taiwan, R.O.C

TEL : 886 - 5 - 2205295 FAX : 886 - 5 - 2205293