

HL-160/HL-160M
HL-250/HL-250M
HL-400/HL-400M



FEMCO GROUP SINCE 1949

T +886-5-2133-166

F +886-5-2205293

E global@femco.com.tw

No. 26, Zhongshan Rd., Fule Village, Minxiong Township,
Chiayi County, Taiwan, R.O.C

BRANCH :

USA +1-714-898-2066 THA +66 (0)2 309 3612

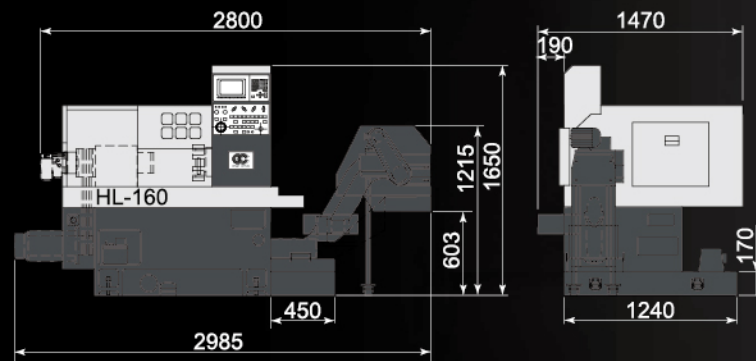
IND +91-20-66787600 CHN +86-755-26007522

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1
HIGH STABILITY
HIGH EFFICIENCY

CNC HORIZONTAL LATHE **HL-160(M)**



INCREASED SPINDLE RIGIDITY

The spindle is specially designed to increase rigidity. It still maintains high torque output and stable running even in low speed conditions, making the machine suitable for heavy and precision cutting.

MULTI-FUNCTION HYDRAULIC TAILSTOCK

The hydraulic tailstock is applied for holding long workpieces, ensuring high stability during cutting.

2
HIGH CAPABILITY
HIGH EFFICIENCY
8 or 12-STATION
TOOLING SYSTEM

PRECISION MACHINING WITH **STANDARD SERVO TURRET: HL-160** **C-AXIS AND LIVE TOOL MILLING: HL-160M**

- Maximum machining diameter 160 mm. Maximum machining length 280 mm.
- HL-160 choice of 8 or 12 station servo turret or HL-160M 12 station live tool turret.
- Highly rigid compact structure provides long-term stable machining performance and high machining accuracy.
- The turret is driven by a servomotor for fast tool change times of only 0.1 seconds, thus upgrading machining efficiency and productivity.
- Can be equipped with a hydraulic tailstock for stable holding of long workpieces.

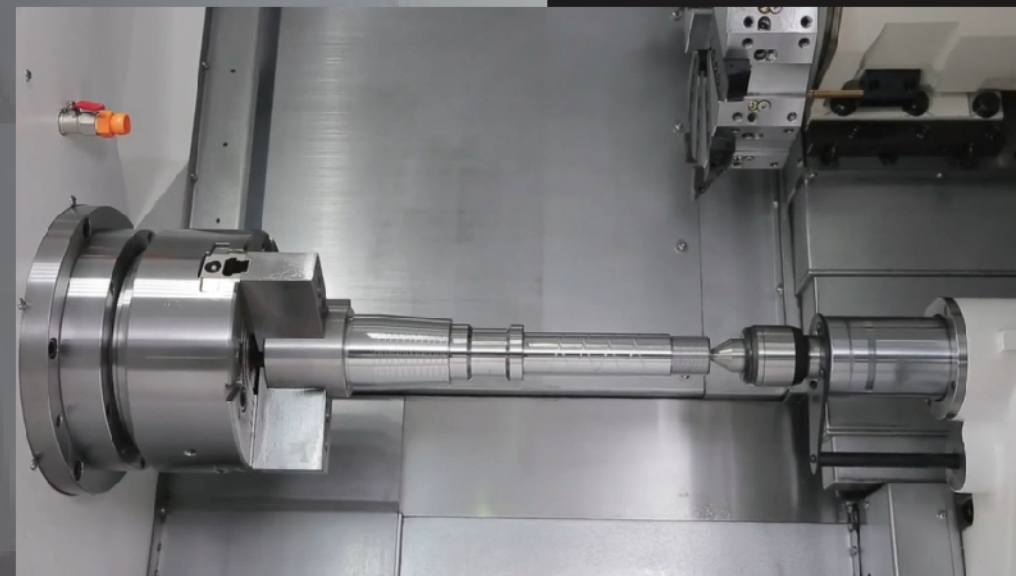
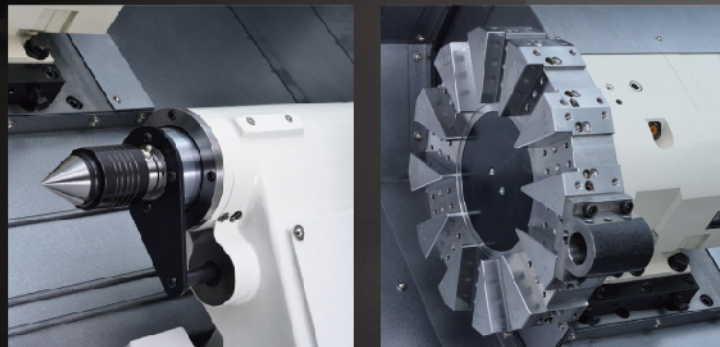


THE ULTIMATE IN HIGH SPEED MACHINING

CNC HORIZONTAL LATHE HL-250(M)

HL-250

Designed for heavy cutting applications. This machine integrates the features of quick servo turret, high precision, powerful spindle drive, and excellent structural rigidity.

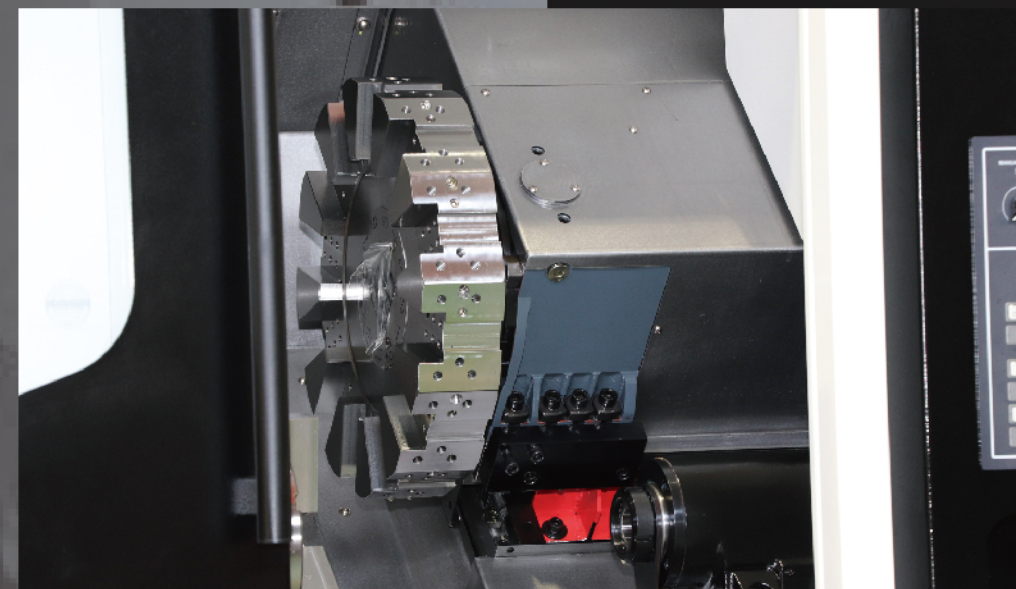


CHUCK

Standard specification: A2-6

TAILSTOCK

Designed with steel rail. The built-in type hydraulic cylinder not only reduces the tailstock volume, but also increases its travel.

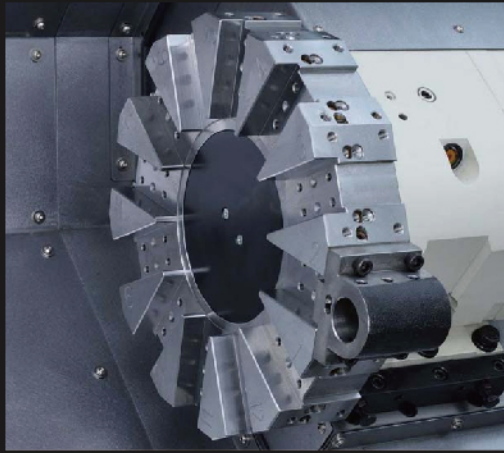


SAUTER TURRET

The Sauter Turret Tool can be adopted to standard coolant through tool 50 bar (opt. 70 bar). The Saucer Live Tool turret with C-axis capability enables the HL-250M version to achieve complete part machining. It allow turning, milling, drilling, and tapping operations to be accomplished on a lathe.

HIGH RIGIDITY HIGH EFFICIENCY

CNC HORIZONTAL LATHE HL-400



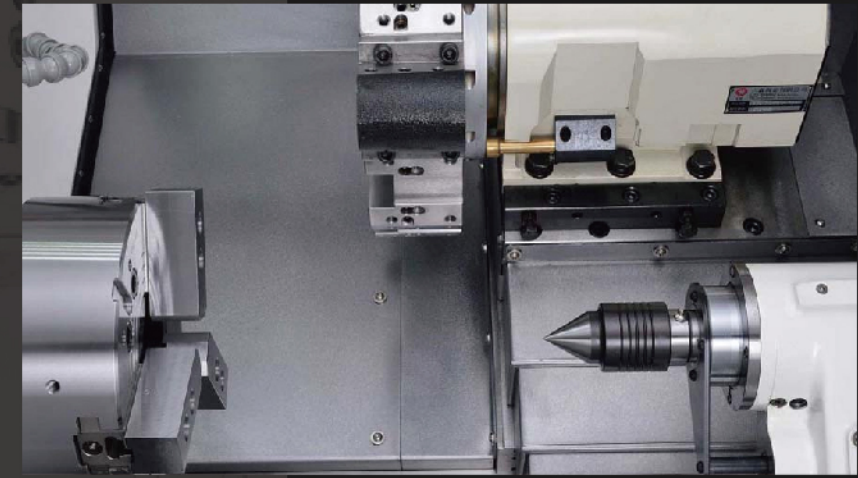
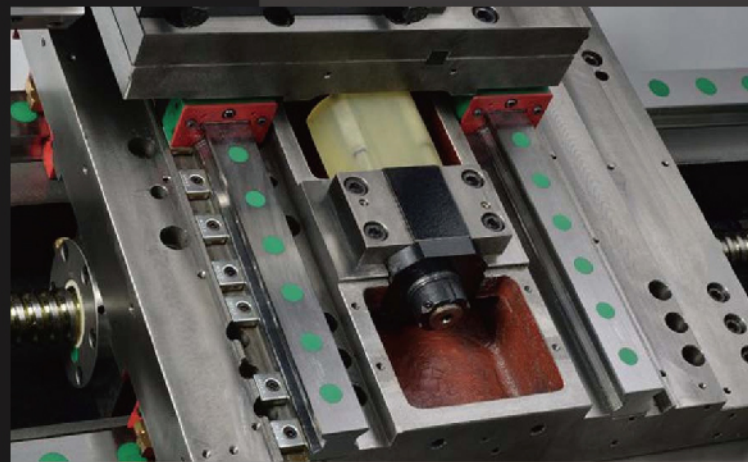
12-STATION SERVO TURRET

The turret accommodates 12 turning tools. The tool disk rotation and indexing are driven by a high performance servomotor, featuring great torque and low noise. Tool change for adjacent tools is only 0.4 sec..

The turret can move on X & Z axes with rapid traverse rates reaching 20 m/min and 24 m/min respectively.

ROLLER TYPE LINEAR GUIDEWAYS WITH GREAT SPAN DESIGN

The turret moves on roller type linear guideways with great span design, that helps to reduce vibration during heavy cutting while maintaining optimal accuracy.



SLANT BED

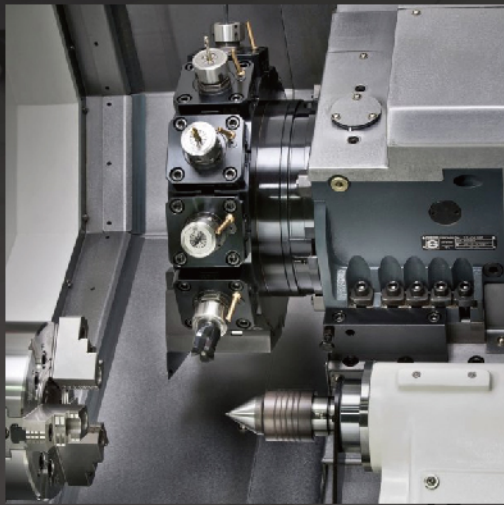
The slant bed is a one-piece cast iron structure that features low center of gravity, reinforced rigidity, and outstanding vibration damping capacity to ensure the long service life of the machine.

The 45° slant bed structure facilitates chip evacuation and is ergonomic. It also provides the operator with a better sight, making workpiece loading/unloading easier.



HIGH RIGIDITY HIGH EFFICIENCY

CNC HORIZONTAL LATHE HL-400M



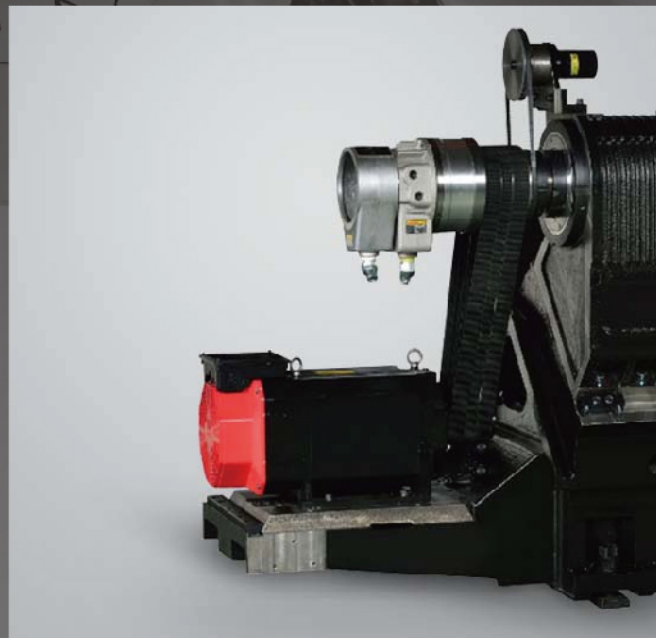
POWER TURRET WITH LIVE TOOL CAPABILITY FAST X-AXIS & Z-AXIS RAPIDS

The HL-400M turret's Live Tools are driven by a 3.7KW (5HP) Spindle Motor producing 6,000 RPM. HL-400M rapid traverse rates reach 20 m/min and 24 m/min reducing idle time and increasing productivity.

Choice of 8" or 10" chuck. The maximum max. speed of A-8 type is 3500 RPM and A-6 type can reach 4500 RPM.

Cs SPINDLE DRIVEN BY SERVOMOTOR

The spindle power is transmitted by belts and the spindle motor provides a wide range of speeds. Ensure machining stability at high spindle speed while maintaining max. torque output at low spindle rpm.



12-STATION LIVE TOOL TURRET

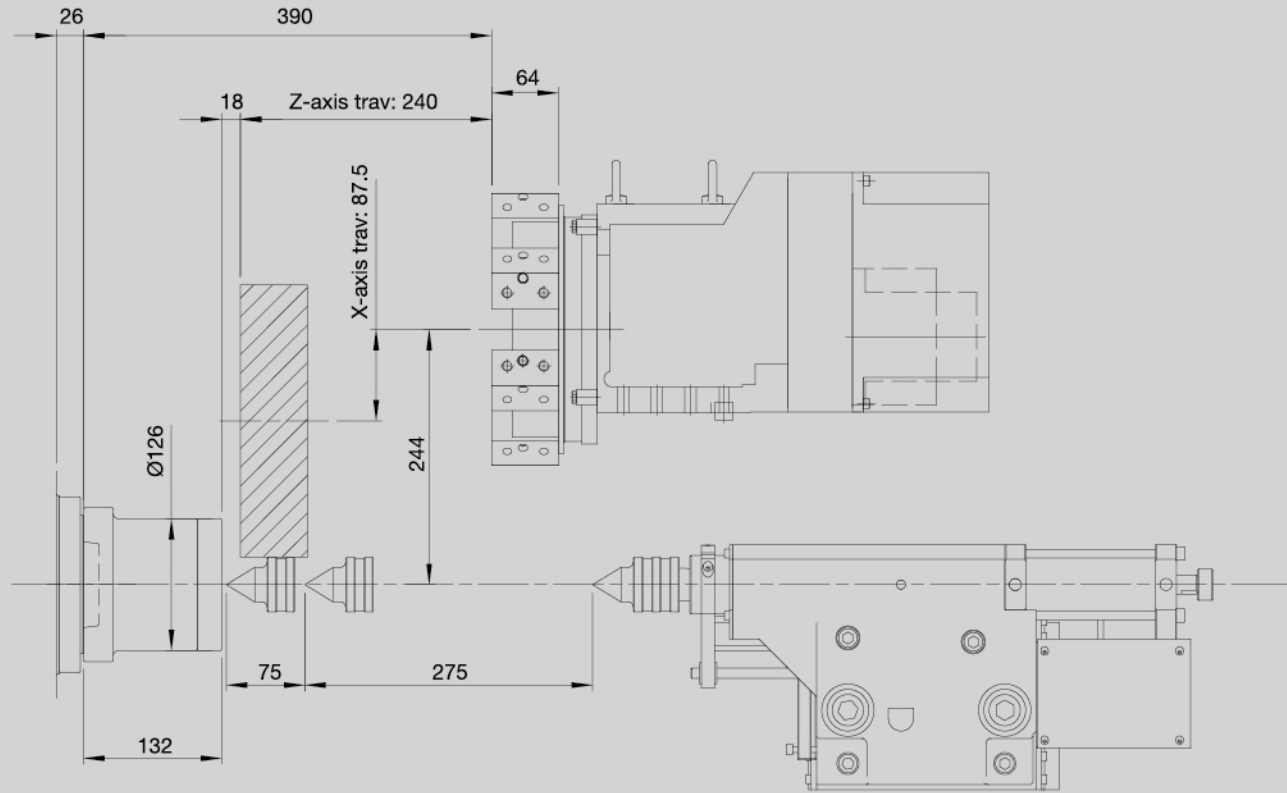
This machine employs a SAUTER 12-station Live Tool turret with BMT55 specification. Tool change time for adjacent tool is only 0.15 seconds. Fast tool change and high positioning accuracy.

High pressure coolant through turret is 50 bar (70 bar optional).

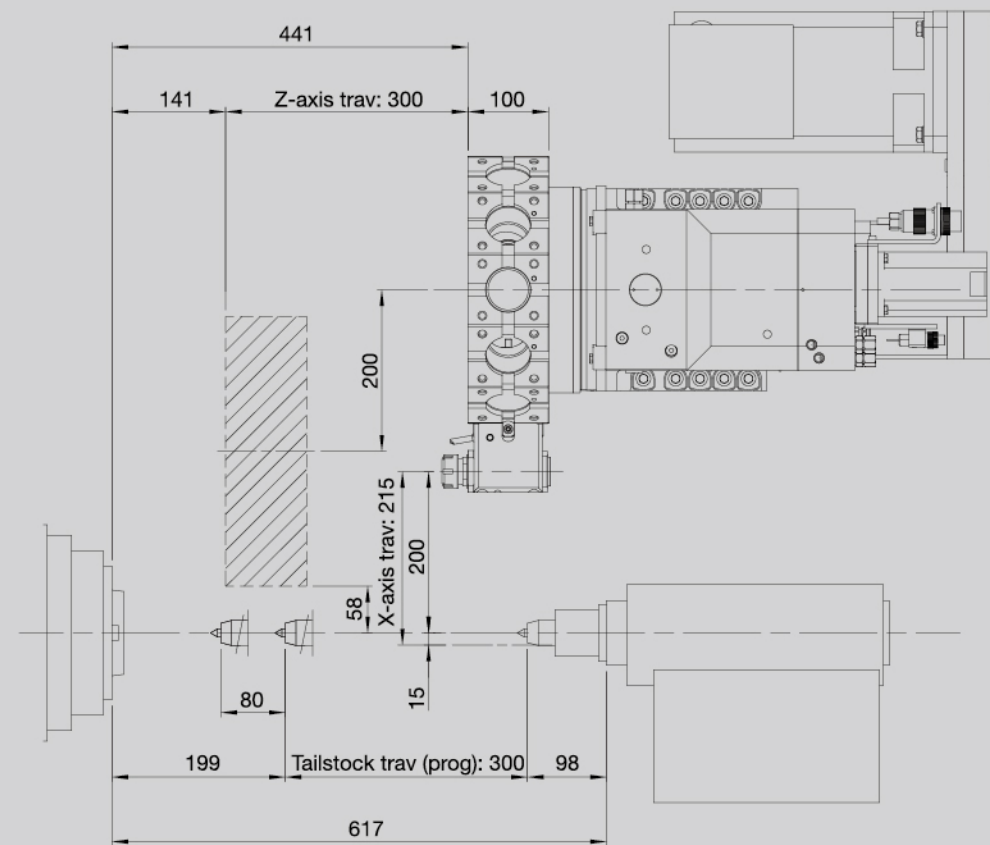


TRAVEL DIAGRAM

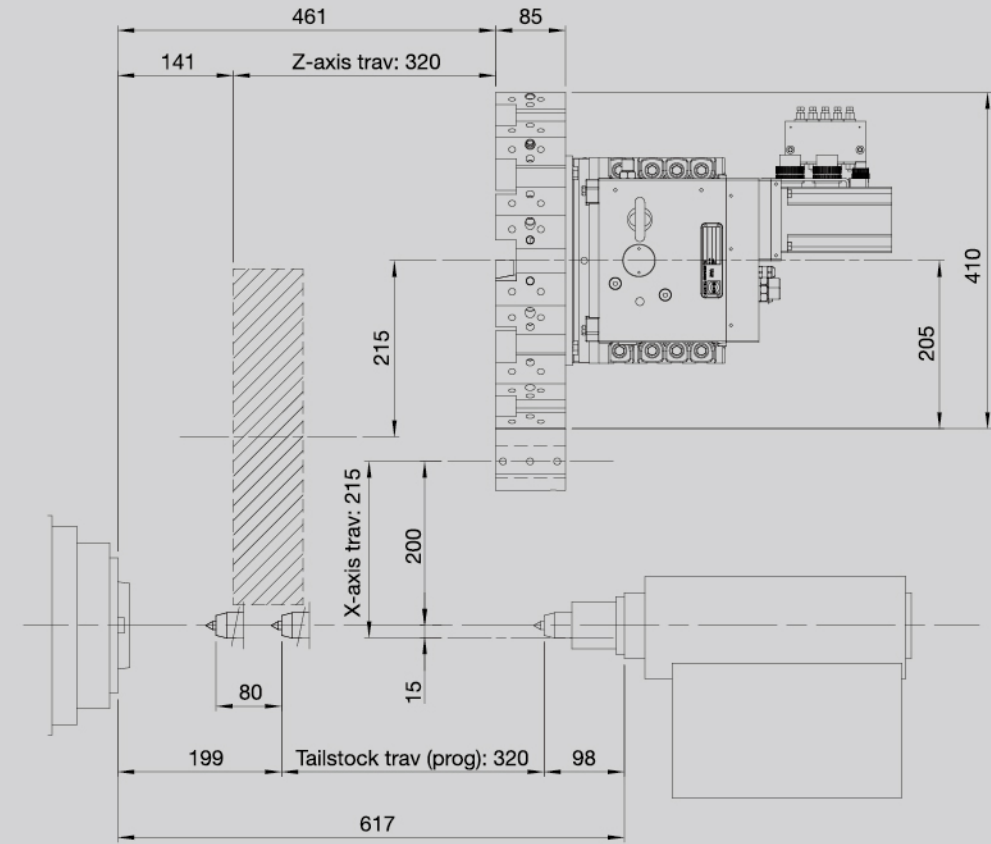
HL-160



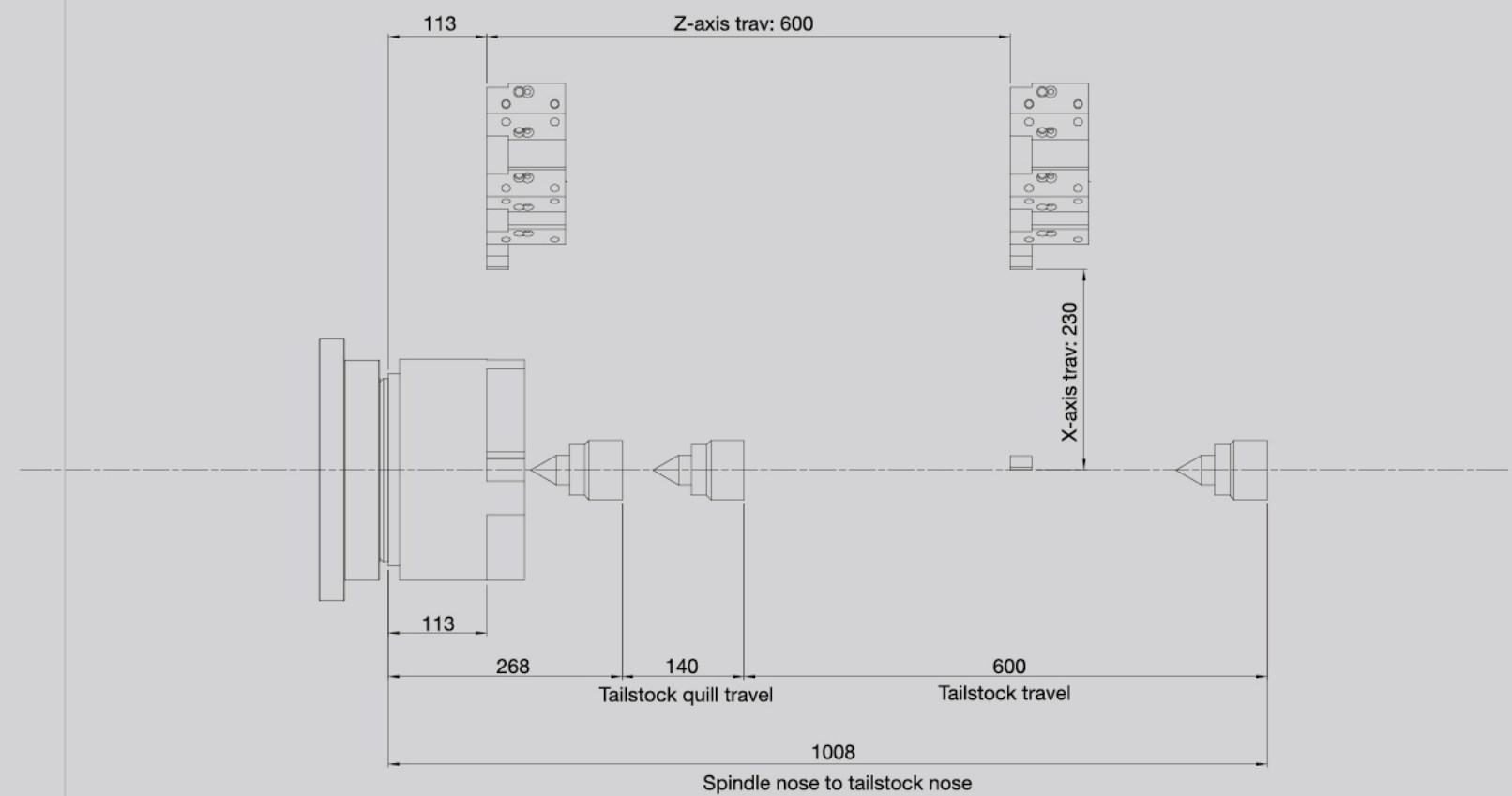
HL-250M



HL-250



HL-400



MODEL		HL-160 / HL-160M	HL-250 / HL-250M	HL-400 / HL-400M	
CAPACITY	Dist. from spindle nose to turret surface	-	461 mm	713 mm	
	Spindle-swing over bed	Ø420 mm	Ø525 mm	Ø590 mm	
	Dist. between centers	-	628 mm	1008 mm	
	Turret-swing over bed	-	Ø560 mm	Ø560 mm	
	Max. length of bar machining	280 mm	300 mm	600 mm	
	Max. machining length	Ø160 mm	Ø250 mm	Ø400 mm	
AXES	X-axis travel (mm)	120 mm	200 mm	225 mm	
	Z-axis travel (mm)	350 mm	320 mm	600 mm	
	X-axis screw specif.	-	Ø32 mm, pitch 6	Ø32 mm, pitch 10	
	Z-axis screw specif.	-	Ø36 mm, pitch 10	Ø40 mm, pitch 10	
	X-axis motor	-	αF8/3000	βis-12B / 1.8 kw	
	Z-axis motor	-	αF8/3000	βis-12 / 1.8 kw	
	Max. torque on Z-axis motor	-	(T.B.A)	βis-12 / 1.8 kw: 11 Nm	
	X-axis rapid traverse rate	12 m/min	18 m/min	20 m/min	
	Span betw. X-axis linear ways	-	247 mm	200 mm	
	Z-axis rapid traverse rate	18 m/min	30 m/min	24 m/min	
	Span betw. Z-axis linear ways	240 mm	319 mm	306 mm	
	SPINDLE	Spindle chuck dia. (inch)	6"	8"	10"
		Hole through spindle (mm)	#42:Ø46 mm / #52:Ø52 mm	Ø62 mm	Ø88 mm
Max. bar size (mm)		#42:Ø45	Ø51.5 mm	Ø78 mm	
Max. spindle speed (RPM)		4000 RPM (Opt: 6000 RPM)	4500 RPM	3500 RPM	
Max. torque of spindle motor		M:35 Nm, F:47.7 Nm	(T.B.A)	236 Nm	
Spindle nose		A2-5	A2-6	A2-8	
Tooth ratio on pulley		-	1:1	1:1.755	
TURRET		Number of stations	8 / 12	12	12
	Adjacent tool change time	-	0.4	0.4	
	Adjacent tool change and clamping time	-	0.5	0.5	
	Farthest tool change time	-	1.5	1.5	
	Farthest tool change and clamping time	-	1.7	1.7	
	Turret drive motor	0.85 kw	βis-12/3000	HG0SR81JK / 0.85 kw	
	OD tool size	Ø20 mm	Ø25 mm	Ø25 mm	
	ID tool size	Ø25 mm	Ø40 mm	Ø40 mm	
	Power turret (For HL-250M & HL-400M)	Number of stations	-	12	12
Adjacent tool change time		-	0.4	0.4	
Adjacent tool change and clamping time		-	0.5	0.5	
Farthest tool change time		-	1.5	1.5	
Farthest tool change and clamping time		-	1.7	1.7	
Turret drive motor		0.85 kw	βis-12/3000	HG-SR81JK / 0.85 kw	
Max. power of live tools		-	2.2/3.7 kw	oil 2/10000 / 3.7 kw (30 min. rating)	
Max. torque of live tools		-	(TBA)	oil 2/10000 / 14 Nm	
Live tool speed		-	6000 RPM	6000 RPM	
OD tool size		-	Ø25 mm	Ø25 mm	
PUMP	Coolant pump (for turret and coolant)	3/4HP / 0.53 kw	0.75 kw	0.75 kw x 1 (0.75 kw x 2 for HL-400M)	
	Hydraulic oil pump	-	2HP	2HP / 1.5 kw	
TAILSTOCK	Tailstock travel	-	320 mm	600 mm	
	Quill travel	-	80 mm	140 mm	
	Center specification	-	M.T.#4	M.T.#5	
	Quill diameter	-	Ø80	Ø85	
	Span of tailstock	-	240 mm	130 mm	
OIL TANK CAPACITY	Coolant tank capacity	110 L	300 L	340 L	
	Hydraulic oil tank capacity	20 L	30 L	20 L	

OPTIONAL ACCESSORIES FOR HL-160

Chip conveyor with cart	Screw type chip conveyor with cart
High pressure coolant through tool	Auto parts catcher
Tailstock	Voltage stabilizer/transformer
Oil mist collector	6" hydraulic chuck
Automatic product take out device and conveyor belt	Robot

MODEL	HL-250	HL-250M	HL-400	HL-400M
X, Z-axis linear guideways	●	●	-	-
Single hole boring tool holders x 4 pcs	●	●	●	●
Facing tool holder x 1 pc	●	●	●	●
Leveling bolts and pads	●	●	●	●
Operation manual and parts list	●	●	●	●
Air conditioner for electric cabinet	●	●	●	●
Coolant pump 0.75 kW	●	●	●	●
Chip conveyor	●	●	-	-
Roller type linear guideways on X, Z axes	-	-	●	●
8 tools (turret)	-	-	●	●
12 tools (turret)	-	-	●	●
16 tools (turret)	-	-	●	●
20 tools (turret)	-	-	●	●
25 tools (turret)	-	-	●	●
32 tools (turret)	-	-	●	●
Transformer (40 kVA)	○	○	○	○
Manual tool presetter	○	○	○	○
Interface of bar feeder	○	○	○	○
Air conditioner for electric cabinet	○	○	○	○
Programmable tailstock	○	○	○	○
Flow detector for chip flushing air flow device	○	○	○	○
Oil mist collector	○	○	○	○
Oil coolant separator	○	○	○	○
External parts counter	○	○	○	○
0° live tool holder	-	○	-	○
90° live tool holder	-	○	-	○
Spindle motor upgrade: BIP-40/6000/15/18.5kW/220.4Nm	-	-	○	○
10.4" LCD (Manual guide i)	-	-	○	○
1M chip conveyor with coolant tank	-	-	○	○

● Standard accessories ○ Optional accessories