

# HEAVY DUTY LATHE

HL / HK series 

Efficiency

Precision

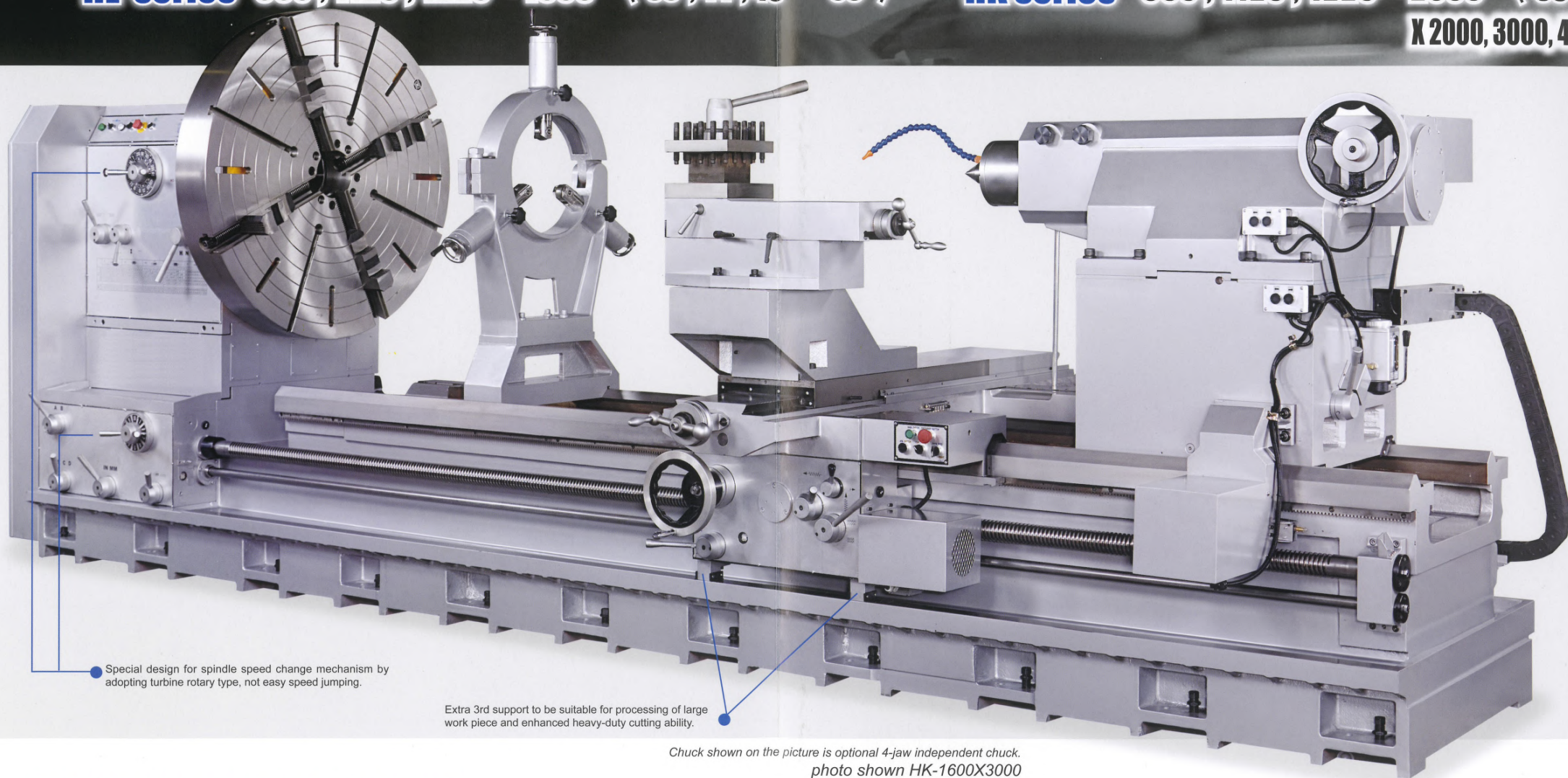
Quality



*photo shown HL-1120X4000*

**HL series 960, 1120, 1220~1600 < 38", 44", 48"~ 63" >**

**HK series 960, 1120, 1220~2000 < 38",  
X 2000, 3000, 4000 >**



● Special design for spindle speed change mechanism by adopting turbine rotary type, not easy speed jumping.

● Extra 3rd support to be suitable for processing of large work piece and enhanced heavy-duty cutting ability.

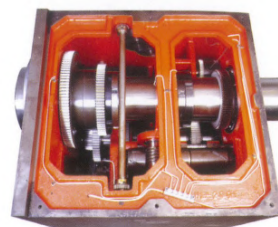
● Chuck shown on the picture is optional 4-jaw independent chuck.  
photo shown HK-1600X3000

## SPINDLE BORE : 6" , 9" , 12" , 15"

BED WIDTH : 24" ( HL series ) / 32" ( HK series )

- Swing over bed above 1220~1600 / 2000 mm is available to be customized on request.
- Distance between centers above 8 meter is available to be customized on request.

**FEATURES :** It is suitable for turning and cutting of large work piece and steel rod materials for heavy industries like oil pipe network, aerospace and heavy-duty shaft processing.

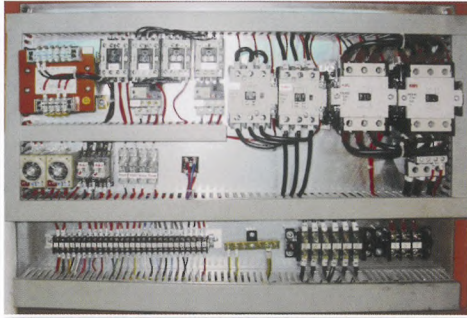


### Spindle & headstock

- Bore 6", 9", 12", turbine speed change mechanism with on easy speed jumping and three-point support for the box.
- Fitted with adjustable, electromagnetic brake for easy braking adjustment according to different work piece materials and speed.
- Gear and shaft are made of super alloy material with bearings to offer durable cutting and low production noise.
- Sealed oil bath lubrication system with enforced oil supply by mechanical pump to achieve better lubrication effects.

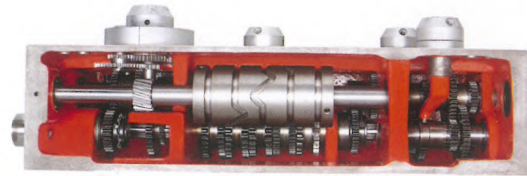
44", 48" ~ 79" >

10, 5000, 6000, 7000, 8000 < 80", 120", 160", 200", 240", 280", 315" >



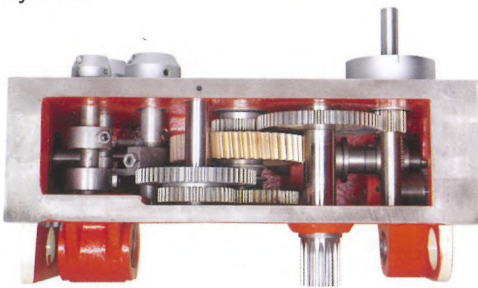
### Electric component :

20HP/30HP motor, 2 stage safety start-up device and overloading power cut system.



### Gear box :

Adopt quick-change universal metric/inch gearbox for inch, metric, DP, MP, threading and multiple threads, all function is reached without any change gear, wide and complete range of threads and operating easily to improve production efficiency.

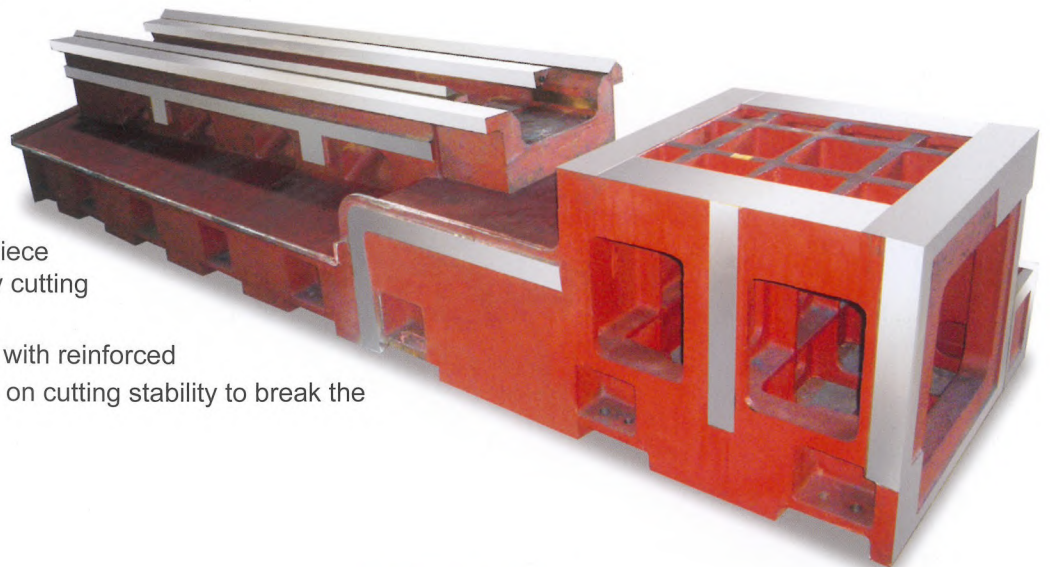


### Apron :

Equipment with rapid feeding, rapid transmission, forward and reverse movement and safety device matched with sealed oil bath auto-lubricating system.

### Base :

- One piece casting work with reinforced inner structure, extra 3rd support to be suitable for processing of large work piece and enhanced heavy-duty cutting ability.
- The gap part base special with reinforced structure, it is no influence on cutting stability to break the gap for necessary.



### Saddle :

Anti-friction processed surface with regular oil injection, lubricated and friction endurable.

### Casting :

FC-30 steel are used for main structures like base, spindle, saddle and tailstock, which are annealed and have no deformation.

### Processing :

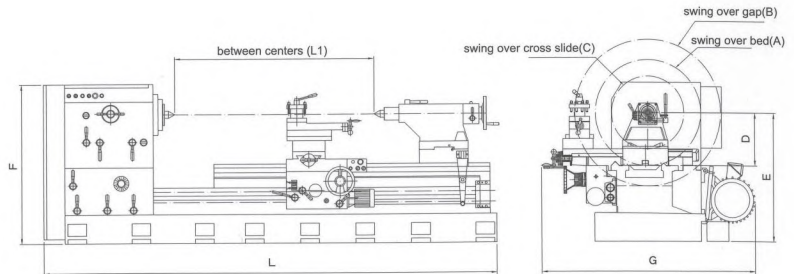
Base, spindle, saddle, dovetail slot surface of cross slide, top slide and tailstock quill are high frequency treated, precision ground for extending service life.

### Tailstock :

Two stage feeding device, swing arm movement to have smooth and labor saving operation.

# LAYOUT

HL/HK	L1	2000	3000	4000	5000	6000	7000	8000
HL	L	4100	5100	6100	7100	8100	9100	10100
HK	L	4740	5740	6740	7740	8740	9740	10740
ITEM	A	B	C	D	E	F	G	
HL	960	1390	650	480	1165	1460	2050	
HL	1120	1550	810	560	1245	1540	2050	
HK	960	1240	550	480	1165	1510	2170	
HK	1120	1400	710	560	1245	1590	2170	



# SPECIFICATION

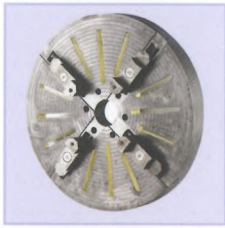
Unit: mm / inch

MODEL / WIDTH OF BED 24" (610)		HL-960		HL-1120		HL-1220-1600			
MODEL / WIDTH OF BED 32" (810)		HK-960		HK-1120		HK-1220-2000			
MODEL		2000	3000	4000	5000	6000	7000	8000	
CAPACITY	Swing over bed	HL	960 (37.8")		1120 (44")		1220 (48")~1600 (63")		
		HK	960 (37.8")		1120 (44")		1220 (48")~2000 (78.7")		
	Swing over cross slide	HL	650 (25.6")		810 (32")		910 (35.83")~1290 (50.79")		
		HK	550 (21.65")		710 (27.95")		810 (31.89")~1590 (62.6")		
	Swing over gap	HL	1390 (54.72")		1550 (61.02")		1650 (64.96")~2030 (79.92")		
		HK	1240 (48.82")		1400 (55.11")		1500 (59.06")~2280 (89.76")		
Distance between centers		2000 (80")	3000 (120")	4000 (160")	5000 (200")	6000 (240")	7000 (280")	8000 (315")	
BED	Height from floor to the spindle center	HL-960	1165 (45.87")						
		HL-1120	1245 (49.02")						
	Width of bed	610 (24")							
		570 (22.44") actual turning diameter changed by different chuck size							
	Length of bed	3900 (154")	4900 (193")	5900 (232")	6900 (272")	7900 (311")	8900 (350")	9900 (390")	
		Height from floor to the spindle center	HK-960	1165 (45.87")					
	HK-1120		1245 (49.02")						
	Width of bed	810 (32")							
		595 (23.43") actual turning diameter changed by different chuck size							
	Length of bed	4390 (172.84")	5390 (212.21")	6390 (251.58")	7390 (290.95")	8390 (330.32")	9390 (369.69")	10390 (409.06")	
Spindle bore diameter		ø152 (6")		OP: 230 (9")		OP: 305 (12")		OP: 380 (15")	
	Spindle nose	A2-11 / OP: A2-15		A2-15 / OP: A2-20		A2-20		A2-20	
Number of spindle speeds		16 steps							
	Range of spindle speeds	4-420 r.p.m.				7-266 r.p.m.			
CARRIAGE		HL	800 (31.5")						
	600 (23.6")								
	370 (14.57")								
	HK	32 x 32 (1.26"x1.26")							
		880 (34.65")							
		700 (27.56")							
Compound rest travel	400 (15.75")								
	32 x 32 (1.26"x1.26")								
TAILSTOCK	Diameter of barrel	HL	HL- ø115 (4.53") OP: ø150 (5.91")						
		HK	HK-ø200 (7.88") OP: ø 200 (7.88")						
	Travel of barrel	300 (11.8")							
		Taper of barrel movement	MT 6 OP: MT 7						
THREADS	Lead screw diameter and pitch		Dia.60mm Pitch 12mm / Dia 2.36"x2 T.P.I.						
		Range of metric pitches 1~120mm (62 Nos)							
	Range of inch pitches 0.25-30 T.P.I (70 Nos)								
	Range of diametral pitches 1-120 D.P. (70 Nos)								
	Range of module pitches 0.25~30 M.P. (53 Nos)								
	FEEDS	Feed rod diameter	32 (1.26")						
0.06-7.04 mm / rev (0.0024"-0.28" in/rev)									
Range of longitudinal feeds		0.03-3.52 mm / rev (0.0012"-0.14" in/rev)							
	Range of cross feeds	0.03-3.52 mm / rev (0.0012"-0.14" in/rev)							
MOTOR		Main spindle motor	20HP (15KW) for HL-2000~5000 30HP (22.5KW) for HL-6000~8000 OP: 30HP (22.5KW) / 40HP (30KW) / 50HP (37.5KW)						
	Coolant pump motor 1/8HP (0.1kw)								
	Rapid motor 1HP (0.75kw)								
MEASUREMENT	N.W. / G.W. (approx) kgs	HL-960	8000/8800	9000/9900	10000/11000	11000/12100	12000/13200	13000/14300	14000/15400
		HL-1120	8300/9100	9300/10200	10300/11300	11300/12400	12300/13500	13300/14600	14300/15700
	HK-960	12700/13600	13800/14800	14900/16000	16000/17200	17100/18400	18200/19600	19300/20800	
	HK-1120	13000/13900	14100/15100	15200/16300	16300/17500	17400/18700	18500/19900	19600/21100	
	Machine size (LxWxH)	HL	4100 / 5100 / 6100 / 7100 / 8100 / 9100 / 10100 X 2050 X 1460 (HL-960) – 1540 (HL-1120) 161" / 201" / 240" / 280" / 319" / 358" / 398" X 81" X 58" – 61"						
HK		4740 / 5740 / 6740 / 7740 / 8740 / 9740 / 10740 X 2170 X 1510 (HK-960) – 1590 (HK-1120) 187" / 226" / 265" / 305" / 344" / 383" / 423" X 85" X 60" – 63"							
Shipping dimensions (LxWxH)	HL	(L) 4600 / 5600 / 6600 / 7600 / 8600 / 9600 / 10600 x (W) 2100 x (H) 2200 (L) 181" / 220" / 260" / 299" / 339" / 378" / 417" x (W) 83" x (H) 79"							
	HK	(L) 5100 / 6100 / 7100 / 8100 / 9100 / 10100 / 11100 x (W) 2270 x (H) 2300 (L) 201" / 240" / 280" / 319" / 359" / 398" / 437" x (W) 89" x (H) 91"							
Standard color	HL	Upper part :RAL-7035 light gray + lower parts :RAL-5015 blue							
	HK	RAL-9022							

● We reserve the right to modify and improve our products without notice.

● Welcome to check with us for other specification and special purpose of functions, which is accepted to be customized.

# ACCESSORIES



**ST10**  
Face plate with  
4-jaw 40"



**OP2**  
Follow rest



**OP3**  
4-jaw independent  
chuck 40" , 50"



**OP4**  
3-jaw chuck  
(strong type) 20" , 25"



**OP5**  
Steady rest  $\phi 16"$ ,  $\phi 24"$



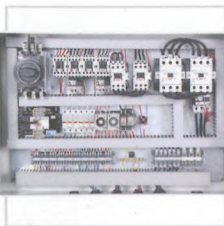
**OP8**  
Back splash guard



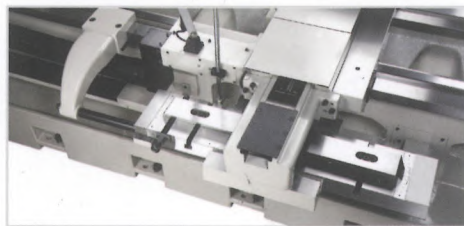
**OP9**  
Quick change tool post  
(Standard style)



**OP9**  
Quick change tool post  
(European style)



**OP10**  
CE electric



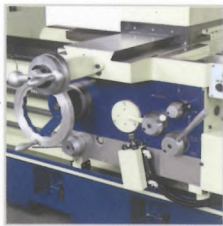
**OP11**  
Taper turning attachment



**OP12**  
Grinder



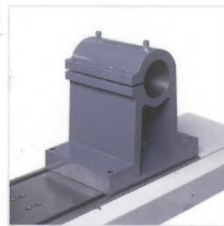
**OP14**  
Automated rapid tool  
post



**OP15**  
Longitudinal adjustable  
position feed stop



**OP17**  
Tailstock with quill dia.  
150 / 200mm



**OP19**  
Boring attachment



**OP20**  
Rear tool post

## STANDARD ACCESSORIES :

1. Lubricating device for headstock
2. Spindle motor 20HP
3. Electromagnetic brake
4. Metric / Inch gear box
5. Longitudinal & cross rapid feeding
- 6-1. Tailstock two steps device for HL
- 6-2. Strong electric tailstock (quill 200mm) for HK
7. X,Z-axes auto lubrication system
8. X,Z-axes with Turcite-B
9. Steady rest  $\phi 16"$
10. Face plate with 4-jaw 40"
11. Dead center
12. Center Sleeve MT-6
13. Toolpost screw wrench
14. Level pads
15. Tools & Tool Box
16. Operation manual

## OPTIONAL ACCESSORIES :

1. Coolant device
2. Follow rest
3. 4-jaw independent chuck 40" , 50"
4. 3-jaw chuck (strong type) 20" , 25"
5. Steady rest  $\phi 16"$ ,  $\phi 24"$
6. Halogen light
7. Digital readout
8. Back splash guard
9. Quick change tool post (instead of tool post ) (standard style) (European style only for 960series)
10. CE equipment
11. Taper turning attachment
12. Grinder
13. Hydraulic copy attachment
14. Automated rapid tool post
15. Longitudinal adjustable position feed stop
16. Five position carriage stop
17. Tailstock with quill dia. 150 / 200mm
18. Tailstock with self-rotary quill
19. Boring attachment
20. Rear tool post
21. Double chuck

Actual standard accessories shall be subject to the quotation sheet.