

Asia & Pacific Dept.

Tel: +86-24-25191509

Fax: +86-24-25876317

E-mail: peng_wang@smtcl.com

Europe Dept.

Tel: +86-24-25191518

Fax: +86-24-25876317

E-mail: feng_li@smtcl.com

Middle East Dept.

Tel: +86-24-25191511

Fax: +86-24-25876320

E-mail: chaowei_shen@smtcl.com

North America Dept.

Tel: +86-24-25191579

Fax: +86-24-25876320

E-mail: syntcl@hotmail.com

South America Dept.

Tel: +86-24-25191526

Fax: +86-24-25876320

E-mail: yan_gao@smtcl.com

SMTCL Vietnam Office

Tel: +84-04-6402719

Fax: +84-04-6405344

E-mail: peng_wang@smtcl.com

Service Dept.

Tel: +86-24-25191552

Fax: +86-24-25876317

E-mail: yantao_wang@smtcl.com

Business Supporting Department

Tel: +86-24-25191532

Fax: +86-24-25191551

E-mail: jiufeng_wang@smtcl.com

SMTCL USA, INC.

17038E. Gale Avenue, City of Industry, CA 91745 USA

Tel: +1-626-733-7190

Fax: +1-626-737-1169

E-mail: smtclusa@smtcl.com

SMTCL CANADA INC.

2783 Portland Drive, Oakville, ON L6H 6M6 CANADA

Tel: +1-905-829-1579

Fax: +1-905-829-8692

E-mail: nayongyan@hotmail.com

SMTCL TURKEY BRANCHEskoop Sanayi Sitesi C4/181-183 İkitelli, Küçükçekmece
ISTANBUL/TURKEY

Tel: +90-212-671-4133

Fax: +90-212-671-4139

E-mail: chaowei_shen@smtcl.com

SMTCL DEUTSCHLAND GMBH

Orber Strasse 8 D-60386 Frankfurt, Germany

E-mail: smtcleu@smtcl.com

**SHENYANG MACHINE TOOL CO., LTD.**Add: No.1, 17A, Kaifa Road, Shenyang Economic & Technological Development Area, China
<http://www.smtcl.com> After-sales Service Dept.: +86-24-25191552 Post Code: 110142**SHENYANG MACHINE TOOL CO., LTD.**

CA SERIES CONVENTIONAL LATHE

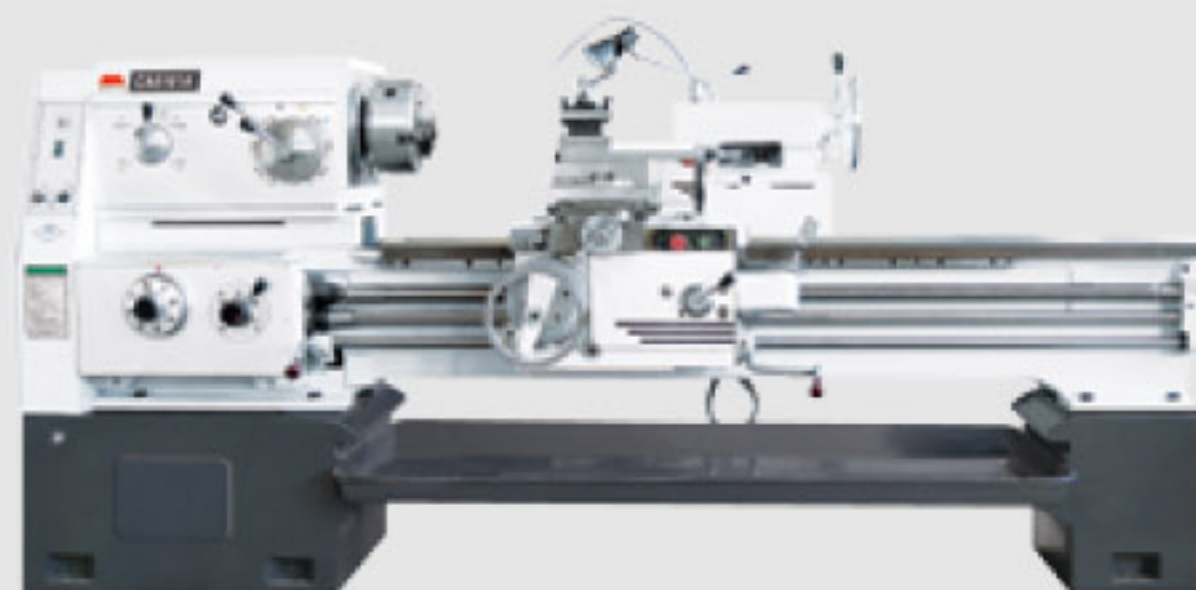
CA SERIES CONVENTIONAL LATHE

Design feature

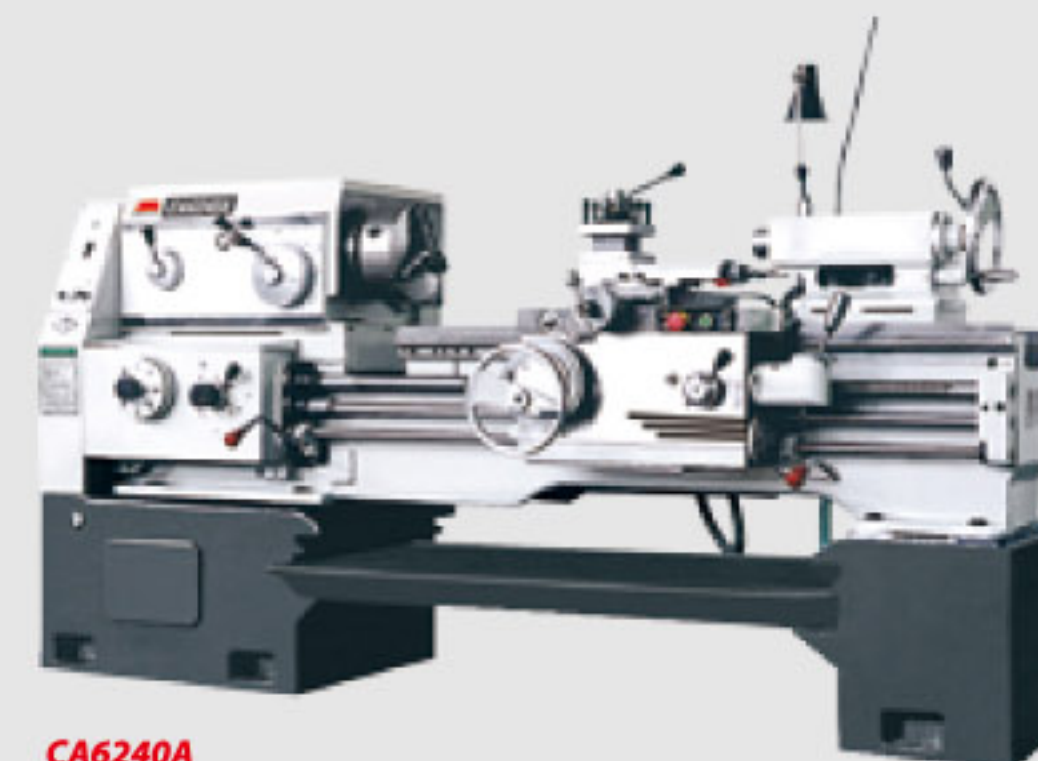
Bed ways are wider than normal for greater accuracy and strength, and induction hardened for long service life.

Controls are conveniently located, including joystick-operated feed/rapid feature, to make operation a pleasurable experience.

This machine is structurally designed to be more rigid, and this makes it more suitable for high-speed and heavy cutting.



CA6161A



CA6240A

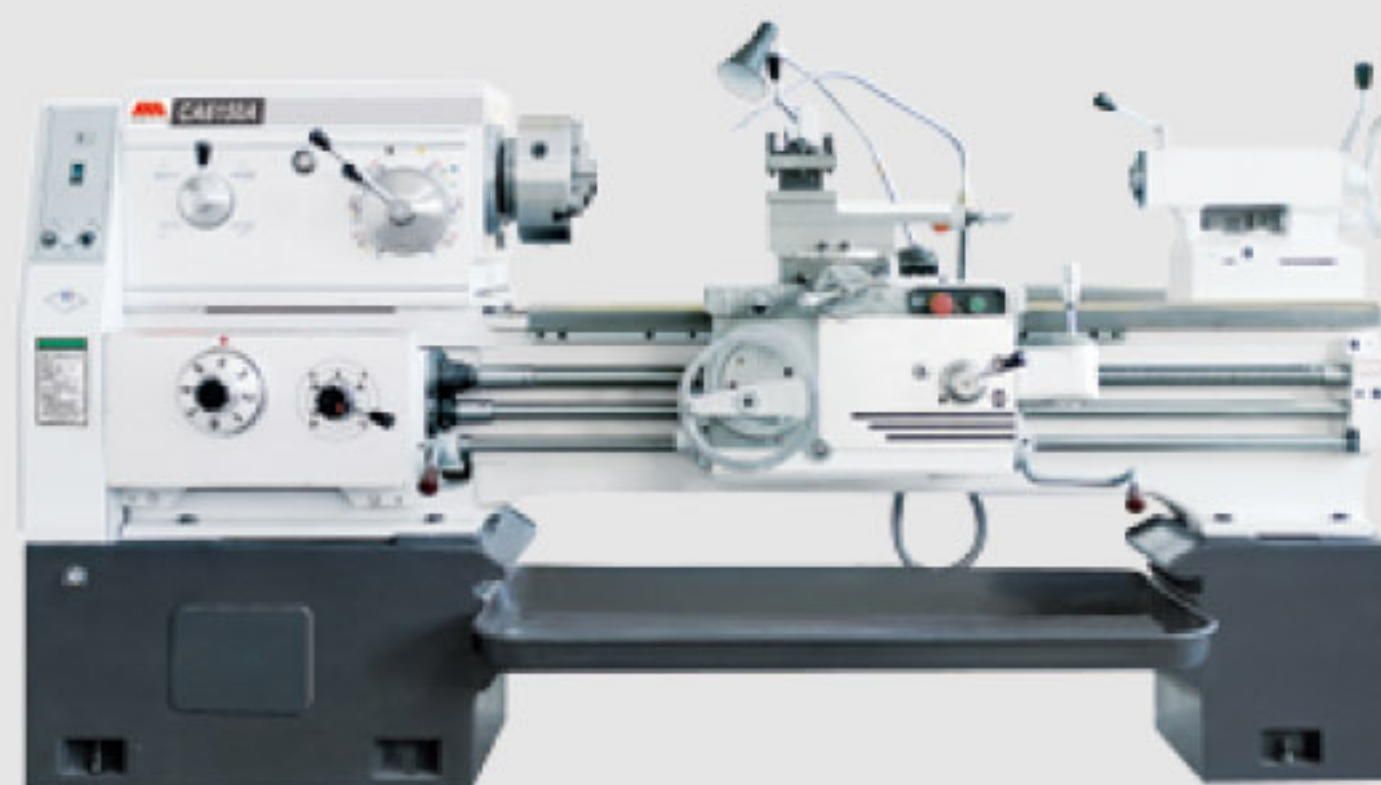
CA-A^{SERIES}

Main feature

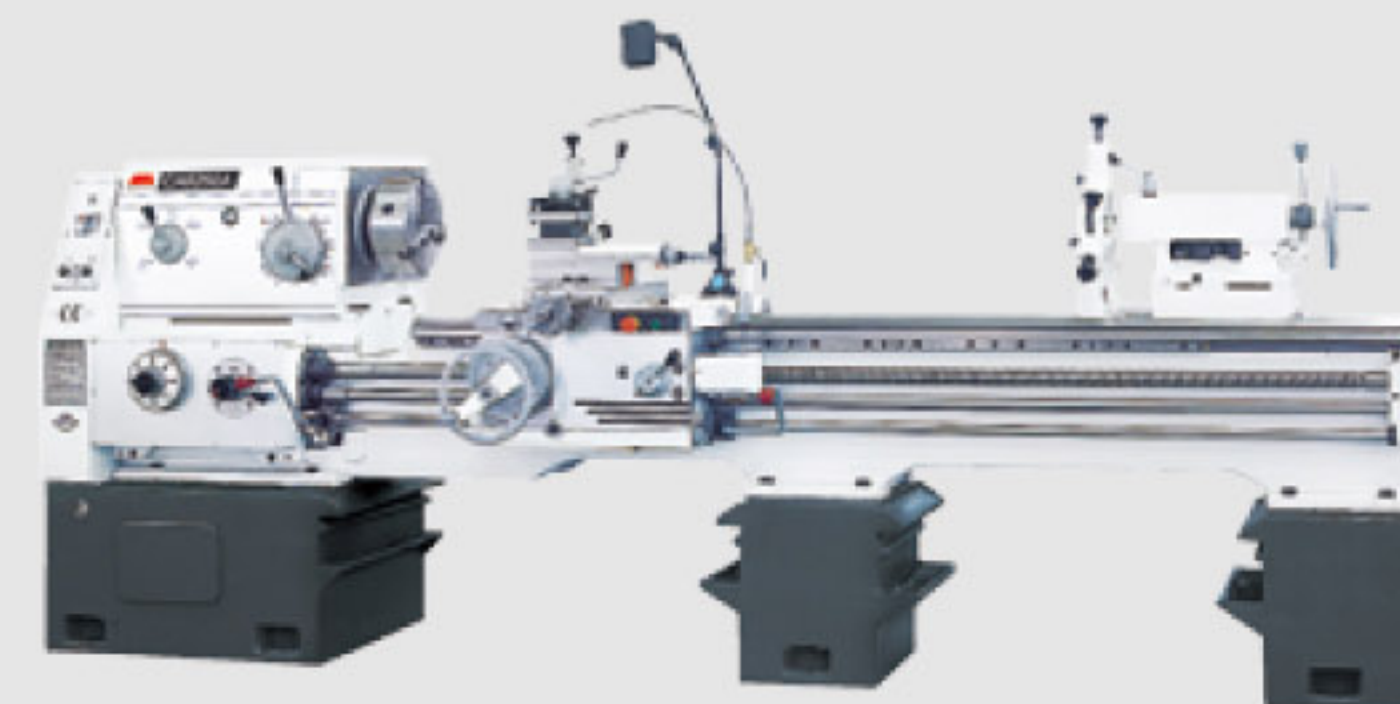
- Max speed of spindle 1600r/min
- Noise of the machine less than 83dB
- Fully upgraded electrics
- Main motor starter is equipped with both current and thermal overloads
- Larger diameter handwheels for greater ease of use
- Modernized design and appearance

Application

This series of lathe is suitable for turning both external and internal cylindrical surfaces, tapered surfaces and other rotary surfaces, reaming holes and cutting oil grooves. It also can produce a large number of threads of different kinds, including Whitworth, metric, diametral and module threads.



CA6150A

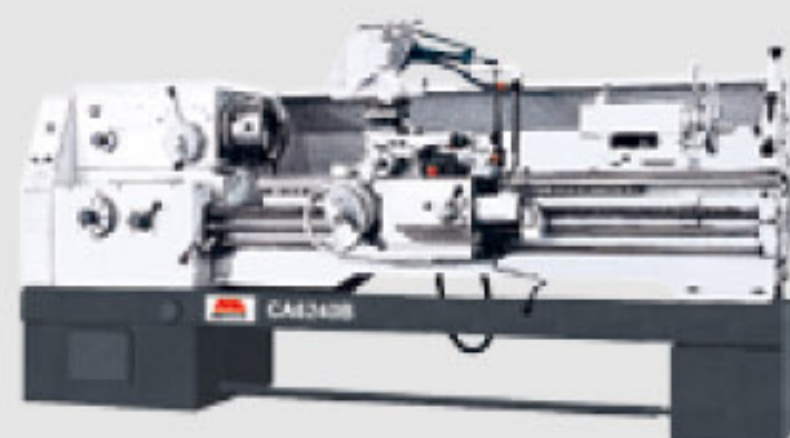


CA6250A

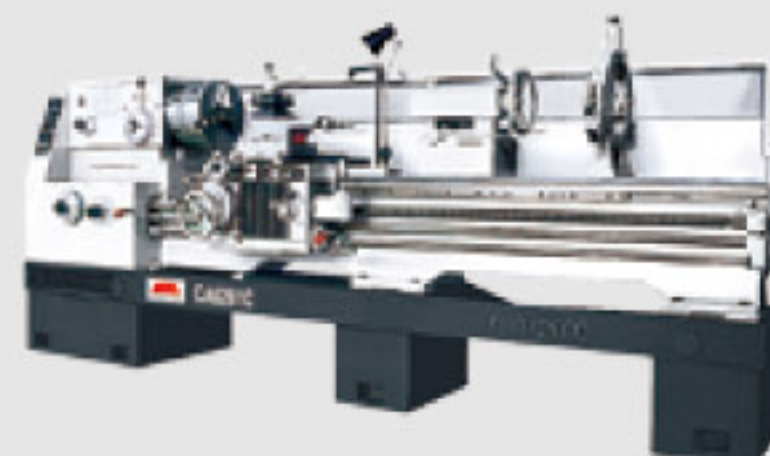
CA SERIES CONVENTIONAL LATHE

CA-B^{SERIES} CA-C

CA-B & CA-C series are developed from CA-A series. Spindle bore of CA-B series is 80mm, while CA-C series is 104mm. CA-B & CA-C have same technical data except for spindle bore, spindle speed and taper of spindle nose.



CA6240B



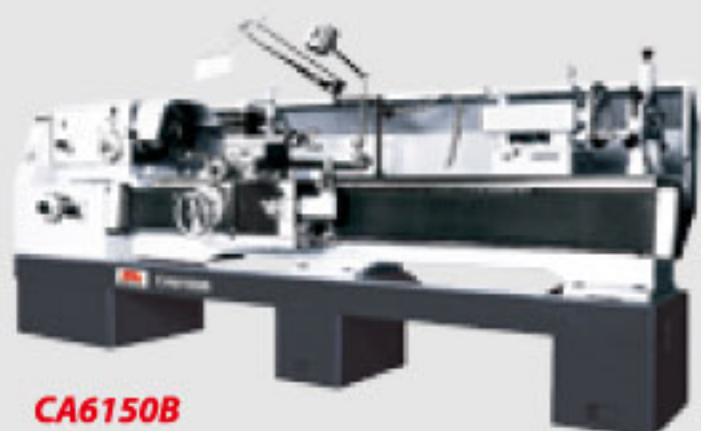
CA6261C



CA6266C



CA6250B



CA6150B



CA6261B



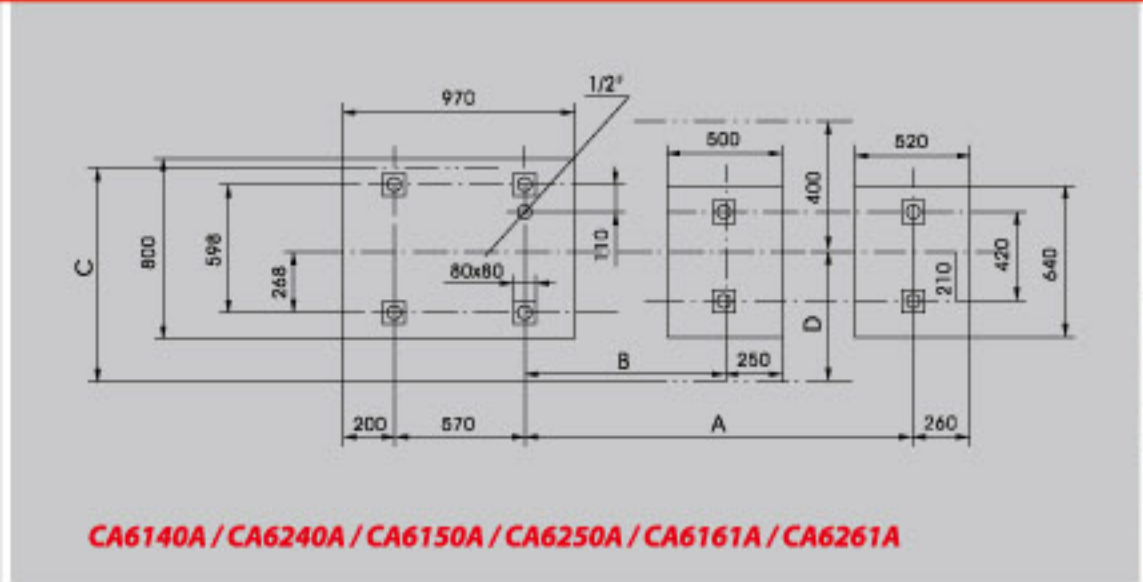
CA6250C(With optional accessories)

CA SERIES
CONVENTIONAL LATHE

CA6136^{SERIES}



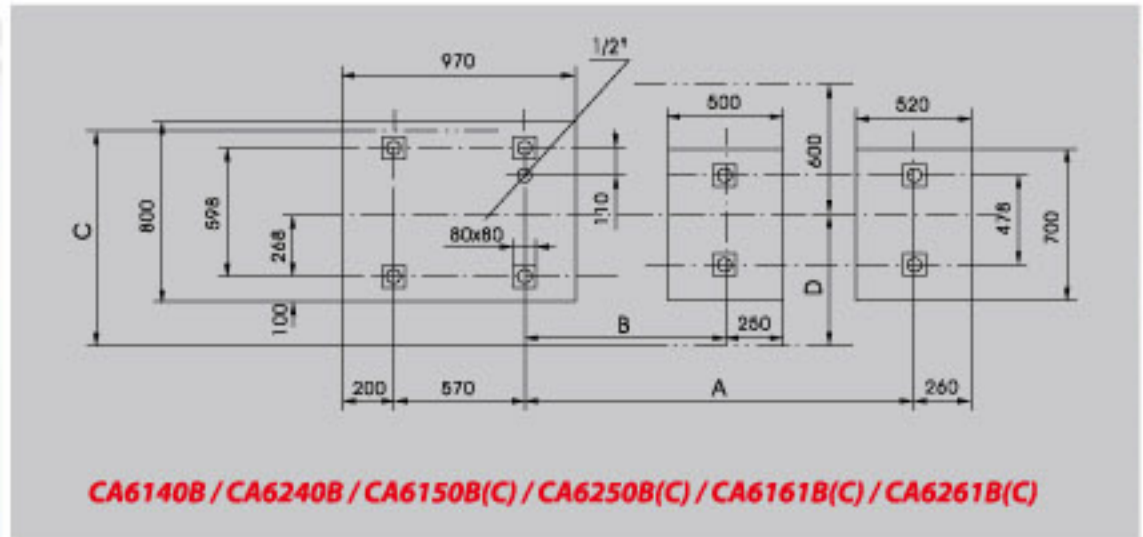
CA6136



Foundation drawing-size

Max. workpiece length	A	B	Max. swing diameter	C	D
750	1370		400	1000	600
1000	1620		500	1037	640
1500	2120		610	1065	666
2000	2620	1380			

Note: The lathe has an additional pedestal under the bed when max length of workpiece is over 2000mm



Foundation drawing-size

Max. workpiece length	A	B	Max. swing diameter	C	D
750	1410		400	1000	600
1000	1660		500	1040	640
1500	2160		610	1070	666
2000	2660	1380	660	1100	700

Note: The lathe has an additional pedestal under the bed when max length of workpiece is over 2000mm

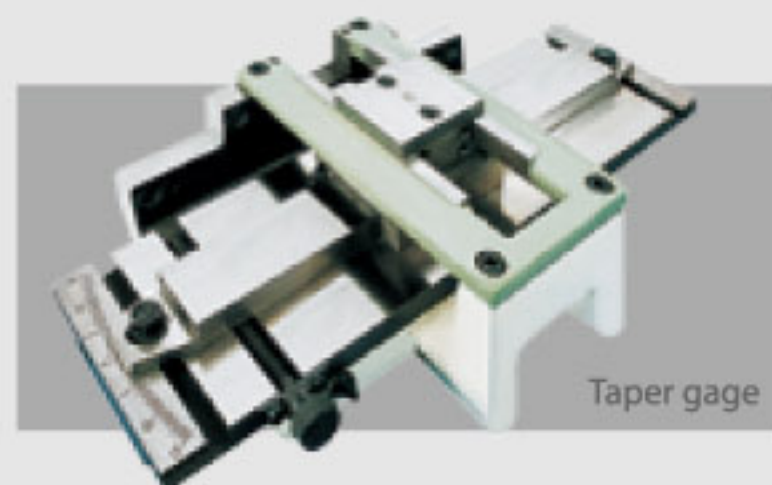
FOUNDATION DRAWING
FOR LATHE SERIES A, B, C



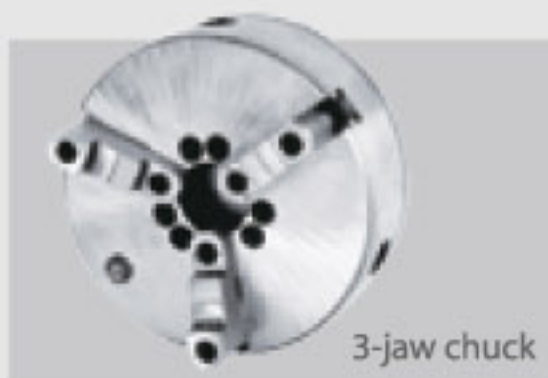
Standard Accessories
Optional AccessoriesMAIN TECHNICAL
SPECIFICATIONS

Name	Specification	Qty	Unit	A type						B type						Remarks
				6140	6240	6150	6250	6161	6261	6140	6240	6150	6250	6161	6261	
3-Jaw chuck	Ø250K11250 C/A16	1	Set	*	*	*	*	*	*							
	Ø250K11250C/D8	1	Set							*	*	*	*	*	*	
4-Jaw chuck	Ø400L72400/A6	1	Set		*		*		*				*		*	
	Ø400K72400/A ₂ 8	1	Set							*		*			*	
Face plate	Ø600	1	Set		*		*			*		*				
	Ø700	1	Set						*						*	
Steady rest	Ø20-Ø125	1	Set	*	*	*	*	*	*	*	*	*	*	*	*	
Follow rest	Ø20-Ø80	1	Set	*	*	*	*	*	*	*	*	*	*	*	*	
Centers	5 S25-2	1	Set	*	*	*	*	*	*	*	*	*	*	*	*	
Centers sleeve	6/5 S25-10	1	Set	*	*	*	*	*	*	*	*	*	*	*	*	
Cooling device		1	Set	*	*	*	*	*	*	*	*	*	*	*	*	
Illuminating work lamp		1	Set	*	*	*	*	*	*	*	*	*	*	*	*	
Oil gun		1	Set	*	*	*	*	*	*	*	*	*	*	*	*	
Tools		1	Set	*	*	*	*	*	*	*	*	*	*	*	*	
Drive plate		1	Set	*	*	*	*	*	*	*	*	*	*	*	*	
Medium-sized live center	5 S26-2A	1	Set	*	*	*	*	*	*	*	*	*	*	*	*	
Taper turning attachment		1	Set	*	*	*	*	*	*	*	*	*	*	*	*	
Taper gauge		1	Set	*	*	*	*	*	*	*	*	*	*	*	*	
Quick-change tool post		1	Set	*	*	*	*	*	*	*	*	*	*	*	*	
Adjustable levelling pads		1	Set	*	*	*	*	*	*	*	*	*	*	*	*	
Oversize steady rest	Ø100-Ø205	1	Set	*	*					*	*					
	Ø125-Ø250	1	Set			*	*	*	*			*	*	*	*	
	Roller type	1	Set							*	*	*	*	*	*	
	Sliding type	1	Set							*	*	*	*	*	*	
Digital display unit		1	Set	*	*	*	*	*	*	*	*	*	*	*	*	
Foot brake		1	Set	*	*	*	*	*	*	*	*	*	*	*	*	
Chuck cover		1	Set	*	*	*	*	*	*	*	*	*	*	*	*	

• Standard accessories * Optional accessories
Except for spindle nose D11, 3-jaw chuck Ø315mm, 4-jaw chuck Ø400mm, other data of type C are the same as type B.



Taper gage



3-jaw chuck



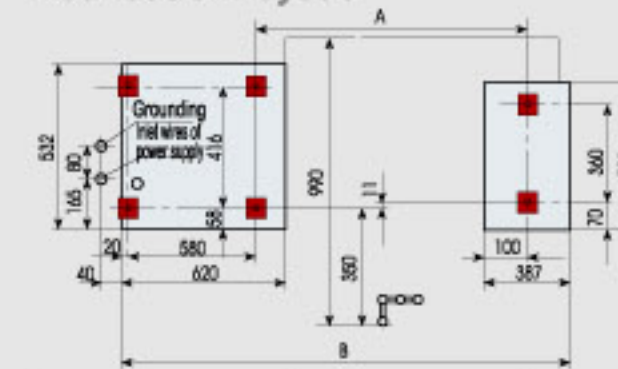
4-jaw chuck

Model			Units	CA6140A	CA6240A	CA6150A	CA6250A	CA6161A	CA6261A
Max.swing diameter over bed			mm	400		500		610	
Max.swing diameter over carriage			mm	210		300		370	
Swing in gap-Width of gap			mm	—	630×210	—	720×210	—	830×210
Max.turning length of bed			mm	750/650; 1000/900; 1500/1400; 2000/1900					
Bed-way width and hardness			mm	400, Rc52					
Section of turning tool			mm	25×25					
Spindle	Spindle speed range	Forward	r/min	11-1600(24)					
		Reverse	r/min	14-1580(12)					
	Spindle bore and nose		mm	52 A6					
	Inner taper of spindle nose			Morse No.6					
Feeds	Longitudinal feed of spindle per revolution (64 feeds)	Normal	mm/r	0.08-1.59					
		Fine	mm/r	0.028-0.054					
		Coarse	mm/r	1.71-6.33					
	Cross feed of spindle per revolution (64 feeds)	Normal	mm/r	0.04-0.79					
		Fine	mm/r	0.014-0.027					
		Coarse	mm/r	0.86-3.16					
Turret	Travel of cross slide		mm	320				420	
	Travel of compound slide		mm	140					
	Swing angle of compound slide		°	±90					
	Rapid travel of carriage		m/min	4					
	Rapid travel of cross slide		m/min	2					
Tailstock	Max.travel of tailstock spindle		mm	150					
	Diameter of tailstock spindle		mm	75					
	Taper of tailstock spindle			Morse No.5					
Scope of threads	Number of metric threads		mm	1-192					
	Number of whitworth threads		t.p.i	2-24					
	Number of module threads		mm	0.25-48					
	Number of dimetral threads		D.P	1-96					
Main motor power			kW	7.5					
Machine weight (Net weight)	750mm	kg	1990		2060		2180		
	1000mm	kg	2070		2140		2260		
	1500mm	kg	2220		2290		2437		
	2000mm	kg	2570		2640		2787		
Overall dimensions (L×W×H)	750mm	mm	2418×1000×1267		2418×1037×1312		2418×1130×1367		
	1000mm	mm	2668×1000×1267		2668×1037×1312		2668×1130×1367		
	1500mm	mm	3168×1000×1267		3168×1037×1312		3168×1130×1367		
	2000mm	mm	3668×1000×1267		3668×1037×1312		3668×1130×1367		

Model		Units	CA6140B	CA6240B	CA6150B CA6150C	CA6250B CA6250C	CA6161B CA6161C	CA6261B CA6261C	CA6266B CA6266C
Max. swing diameter over bed		mm	400		500		610		660
Max. swing diameter over carriage		mm	210		300		370		400
Swing over gap width in gap		mm	—	630×210	—	720×210	—	830×210	830×210
Max. turning length of bed		mm	750/650; 1000/900; 1500/1400; 2000/1900; 3000/2900						
Width and hardness		mm	400, Rc52						
Section of turning tool		mm	25×25						
Spindle	Spindle speed range	B series	r/min	10-1400(24)					
		C series	r/min	14-1250(24)					
	Spindle bore and nose	B series	mm	80 A ₂ 8					
		C series	mm	104 D11					
	Inner taper of spindle nose	B series		∅90(1:20)					
		C series		∅120(1:20)					
Feeds	Longitudinal feed of spindle per revolution (64 feeds)	Normal	mm/r	0.11-1.6					
		Fine	mm/r	0.028-0.11					
		Coarse	mm/r	1.76-6.4					
	Cross feed of spindle per revolution (64 feeds)	Normal	mm/r	0.05-0.8					
		Fine	mm/r	0.014-0.05					
		Coarse	mm/r	0.88-3.2					
Turret	Travel of cross slide	mm		320			420		
	Travel of compound slide	mm				140			
	Swing angle of compound slide	°				±90			
	Rapid travel of carriage	m/min				4			
	Rapid travel of cross slide	m/min				2			
Tailstock	Max. travel of tailstock spindle	mm				150			
	Diameter of tailstock spindle	mm				75			
	Taper of tailstock spindle					Morse No.5			
Scope of threads	Number of metric threads	mm				1-192			
	Number of whitworth threads	t.p.i				1/2 - 24			
	Number of module threads	mm				0.25-48			
	Number of dimetral threads	D.P				1/2 - 96			
Main motor power		kW	7.5						
Machine weight (Net weight)	750mm	kg	2000	2000	2070	2070	2130	2180	2235
	1000mm	kg	2080	2080	2150	2150	2210	2260	2310
	1500mm	kg	2230	2230	2300	2300	2350	2437	2492
	2000mm	kg	2580	2580	2650	2650	2700	2787	2842
Overall dimensions (L×W×H)	3000mm	kg					3200	3287	3542
	750mm	mm	2418×1000×1267		2418×1037×1312		2418×1130×1367		2418×1130×1392
	1000mm	mm	2668×1000×1267		2668×1037×1312		2668×1130×1367		2668×1130×1392
	1500mm	mm	3168×1000×1267		3168×1037×1312		3168×1130×1367		3168×1130×1392
	2000mm	mm	3668×1000×1267		3668×1037×1312		3668×1130×1367		3668×1130×1392
	3000mm	mm					4668×1130×1367		4668×1130×1392

Model			Units	CA6136-2	CA6236-2	CA6136	CA6236
Max. swing diameter over bed			mm	∅360			
Max. swing diameter over carriage			mm	∅210			
Swing in gap-Width of gap			mm	—	∅500×160	—	∅500×160
Max. turning length of bed			mm	750/650		1000/900	
Bed-way width and hardness			mm	324		HB200	
Section of turning tool			mm	20×20			
Spindle	Spindle speed range	Forward	r/min	45-2000(12)		37-1600(12)	
		Reverse	r/min	45-2000(12)		102-1570(6)	
	Spindle bore and nose		mm	53 C6 or D6			
	Inner taper of spindle nose			1:19.18			
Feeds	Longitudinal feed of spindle per revolution	mm/r	0.05-1.12(20)		0.05-1.6(40)		
	Cross feed of spindle per revolution	mm/r	0.05-1.12(20)		0.04-1.28(40)		
Turret	Travel of cross slide	mm	200				
	Travel of compound slide	mm	140				
	Swing angle of compound slide	°	±90				
Tailstock	Max. travel of tailstock spindle	mm	140				
	Diameter of tailstock spindle	mm	60				
	Taper of tailstock spindle			Morse No.4			
Scope of threads	Number of metric threads	mm	0.5-10(19)		0.5-10(19)		
	Number of whitworth threads	t.p.i	-		1 3/4-40(29)		
	Number of module threads	mm	-		0.25-5(14)		
	Number of dimetral threads	D.P	-		1 1/2-80(24)		
Main motor power			kW	4			
Machine weight (Net weight)	750mm	kg	1400		1400		
	1000mm	kg	1450		1450		
Overall dimensions (L×W×H)	750mm	mm	1992×1000×1170		1992×1000×1170		
	1000mm	mm	2242×1300×1170		2242×1300×1170		

Foundation Layout



Center distance	750	1000
A	1105	1355
B	1992	2242

Accessories

Name	Specifications	Qty.	Remarks
Flange plate		1	
3-jaw chuck	k11200	1	
Drive palte	200 0401	1	
Face plate	400 1911	1	For CA6236
Center	M4 s77-1	1	
Center	M5 s77-1	1	
Center sleeve	20143	1	
Attachment tools		1	
Following rest	80 0101	1	Optional
Steady rest	120 0201	1	Optional
Taper gage	200 0701	1	Optional
Threading dial	0601	1	Optional
Digimatic gage		1	Cannot be assembled together with taper gage
Foot pedal brake		1	Optional

Asia & Pacific Dept.

Tel: +86-24-25191509

Fax: +86-24-25876317

E-mail: peng_wang@smtcl.com

Europe Dept.

Tel: +86-24-25191518

Fax: +86-24-25876317

E-mail: feng_li@smtcl.com

Middle East Dept.

Tel: +86-24-25191511

Fax: +86-24-25876320

E-mail: chaowei_shen@smtcl.com

North America Dept.

Tel: +86-24-25191579

Fax: +86-24-25876320

E-mail: symtcl@hotmail.com

South America Dept.

Tel: +86-24-25191526

Fax: +86-24-25876320

E-mail: yan_gao@smtcl.com

SMTCL Vietnam Office

Tel: +84-04-6402719

Fax: +84-04-6405344

E-mail: peng_wang@smtcl.com

Service Dept.

Tel: +86-24-25191552

Fax: +86-24-25876317

E-mail: yantao_wang@smtcl.com

Business Supporting Department

Tel: +86-24-25191532

Fax: +86-24-25191551

E-mail: jiufeng_wang@smtcl.com

SMTCL USA, INC.

17038E. Gale Avenue, City of Industry, CA 91745 USA

Tel: +1-626-733-7190

Fax: +1-626-737-1169

E-mail: smtclusa@smtcl.com

SMTCL CANADA INC.

2783 Portland Drive, Oakville, ON L6H 6M6 CANADA

Tel: +1-905-829-1579

Fax: +1-905-829-8692

E-mail: nayongyan@hotmail.com

SMTCL TURKEY BRANCHEskoop Sanayi Sitesi C4/181-183 İkitelli, Küçükçekmece
ISTANBUL/TURKEY

Tel: +90-212-671-4133

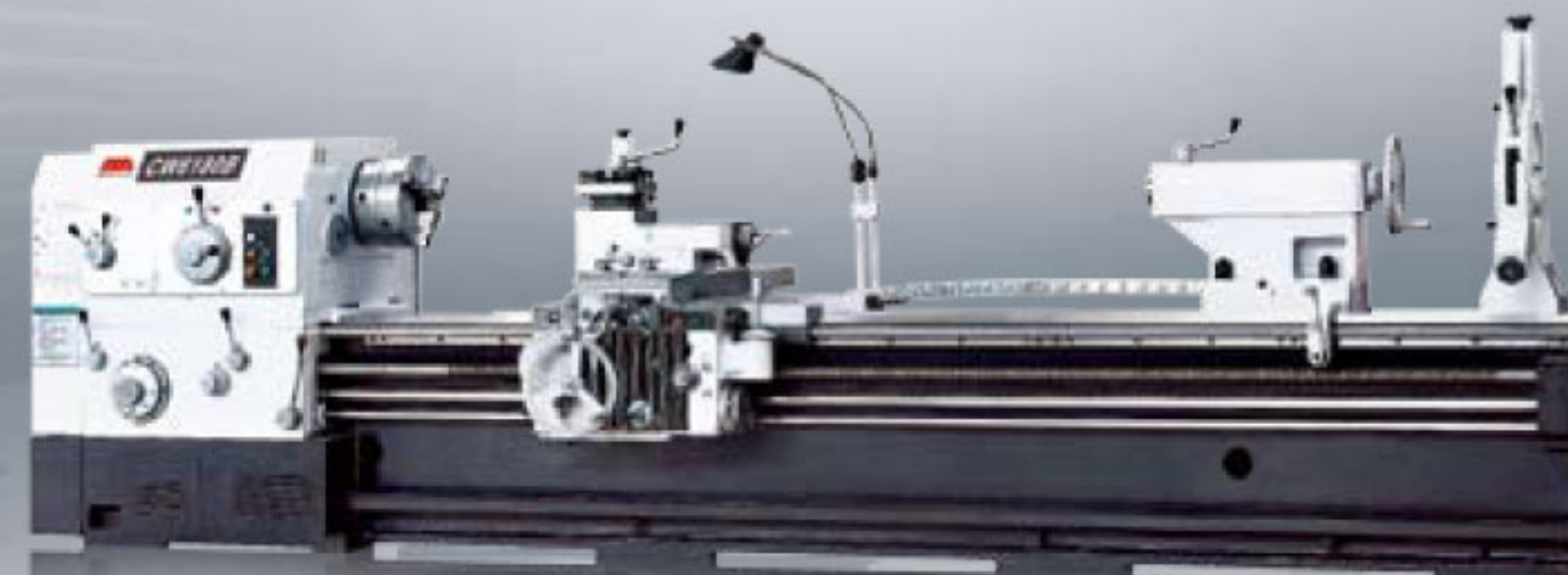
Fax: +90-212-671-4139

E-mail: chaowei_shen@smtcl.com

SMTCL DEUTSCHLAND GMBH

Orber Strasse 8 D-60386 Frankfurt, Germany

E-mail: smtcleu@smtcl.com

**SHENYANG MACHINE TOOL CO., LTD.**Add: No.1, 17A, Kaifa Road, Shenyang Economic & Technological Development Area, China
<http://www.smtcl.com> After-sales Service Dept.: +86-24-25191552 Post Code: 110142**SHENYANG MACHINE TOOL CO., LTD.**

CW SERIES CONVENTIONAL LATHE

CW6163B/C
CW6263B/C
CW6180B/C
CW6280B/C

This series of machines adopts a complex body casting with a combination of both box and angular internal ribbing resulting in a wide base and bed structure that is at least 1/3 more rigid than machines of more common design.

The carriage is equipped with a feed/rapid joystick control that is intuitive and easy to use.

Spindle forward/reverse and braking incorporates an hydraulic control.

Manual or foot braking are convenient for the operator to use. The brake is sensitive, safe, and reliable.

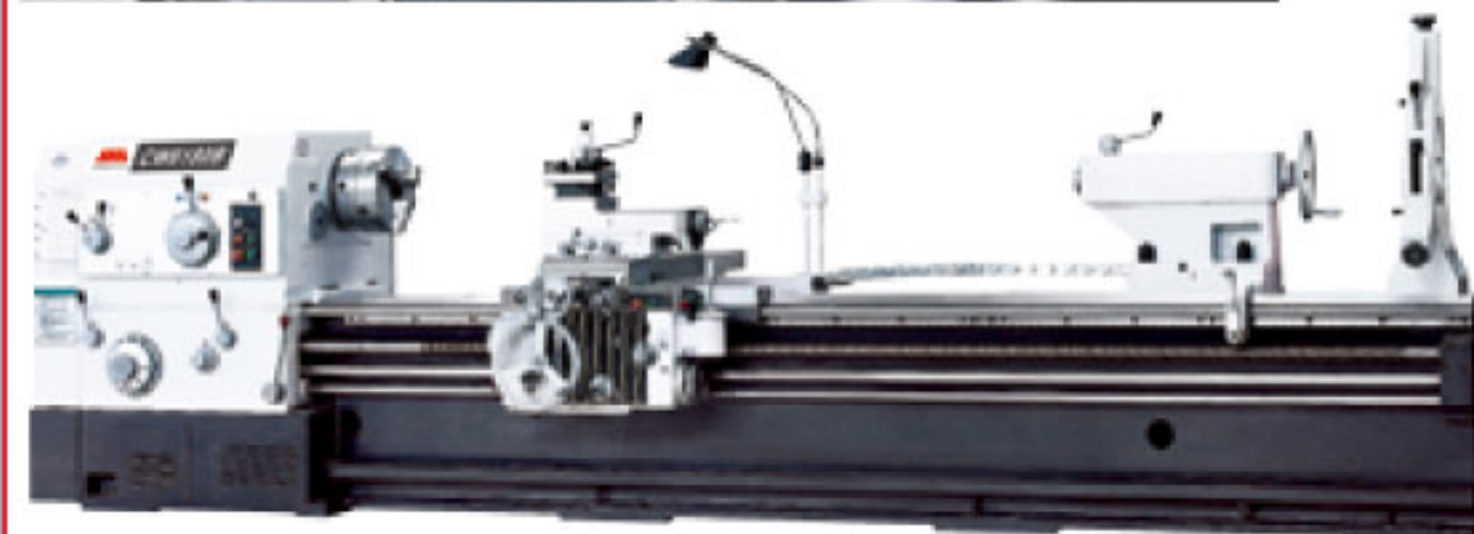
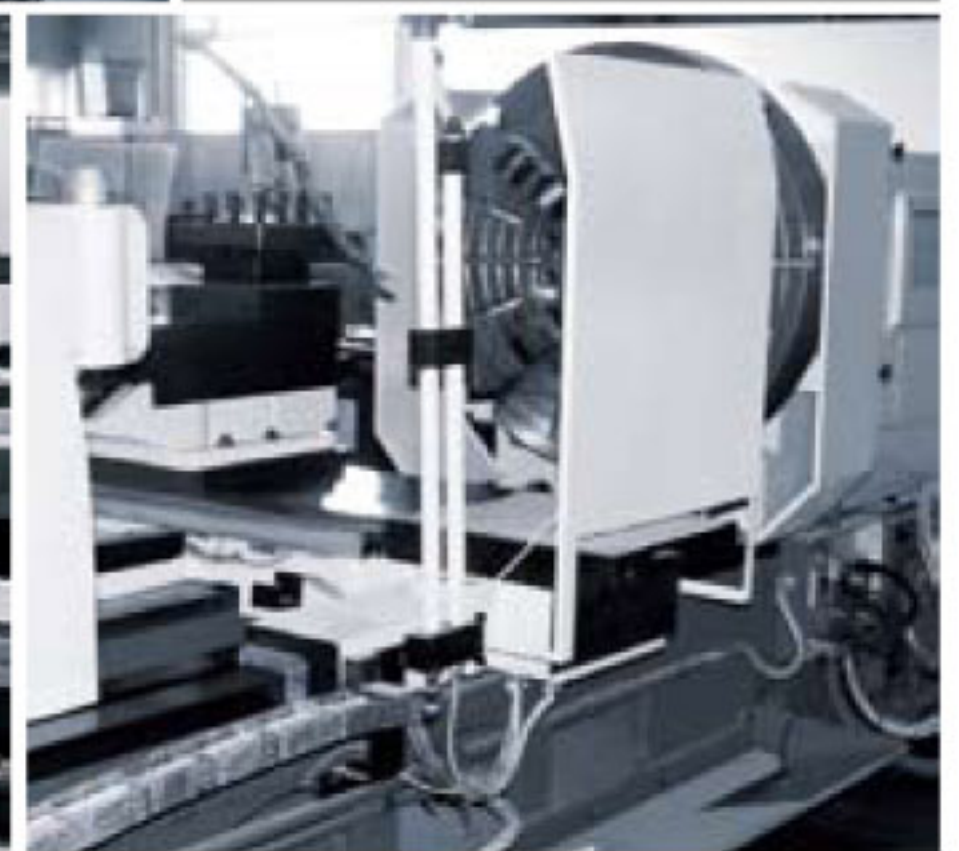
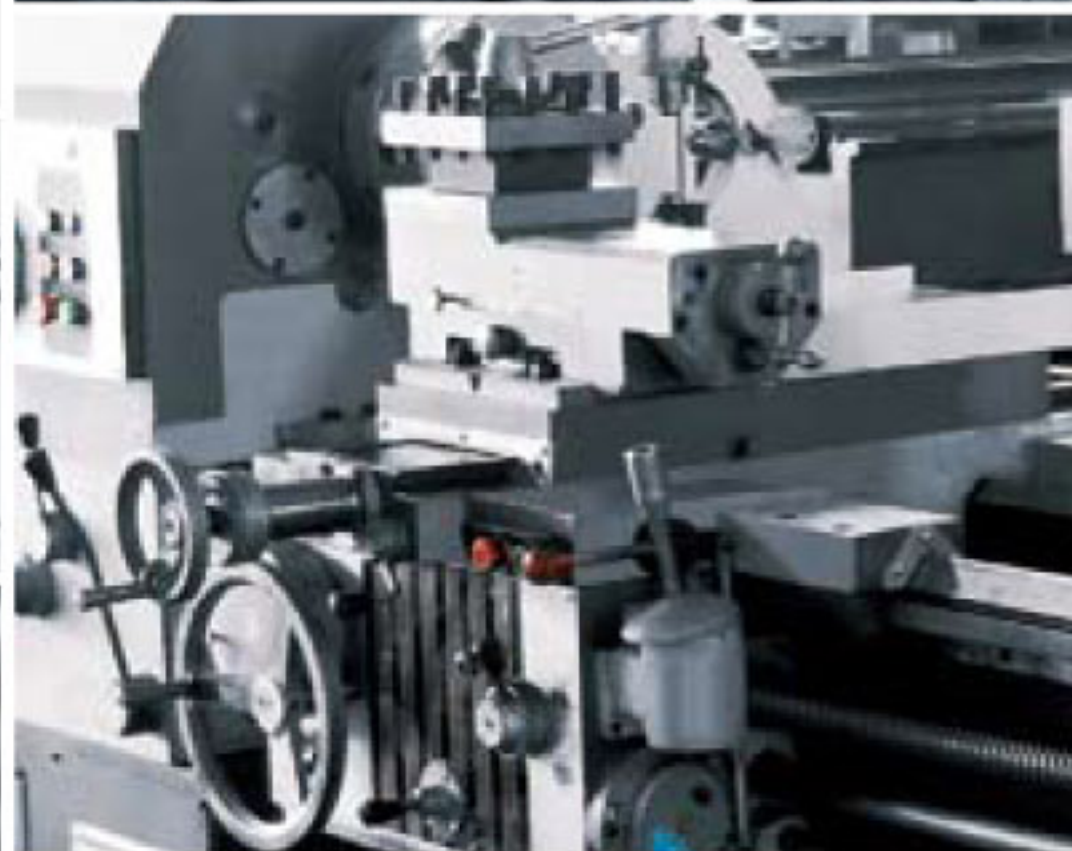
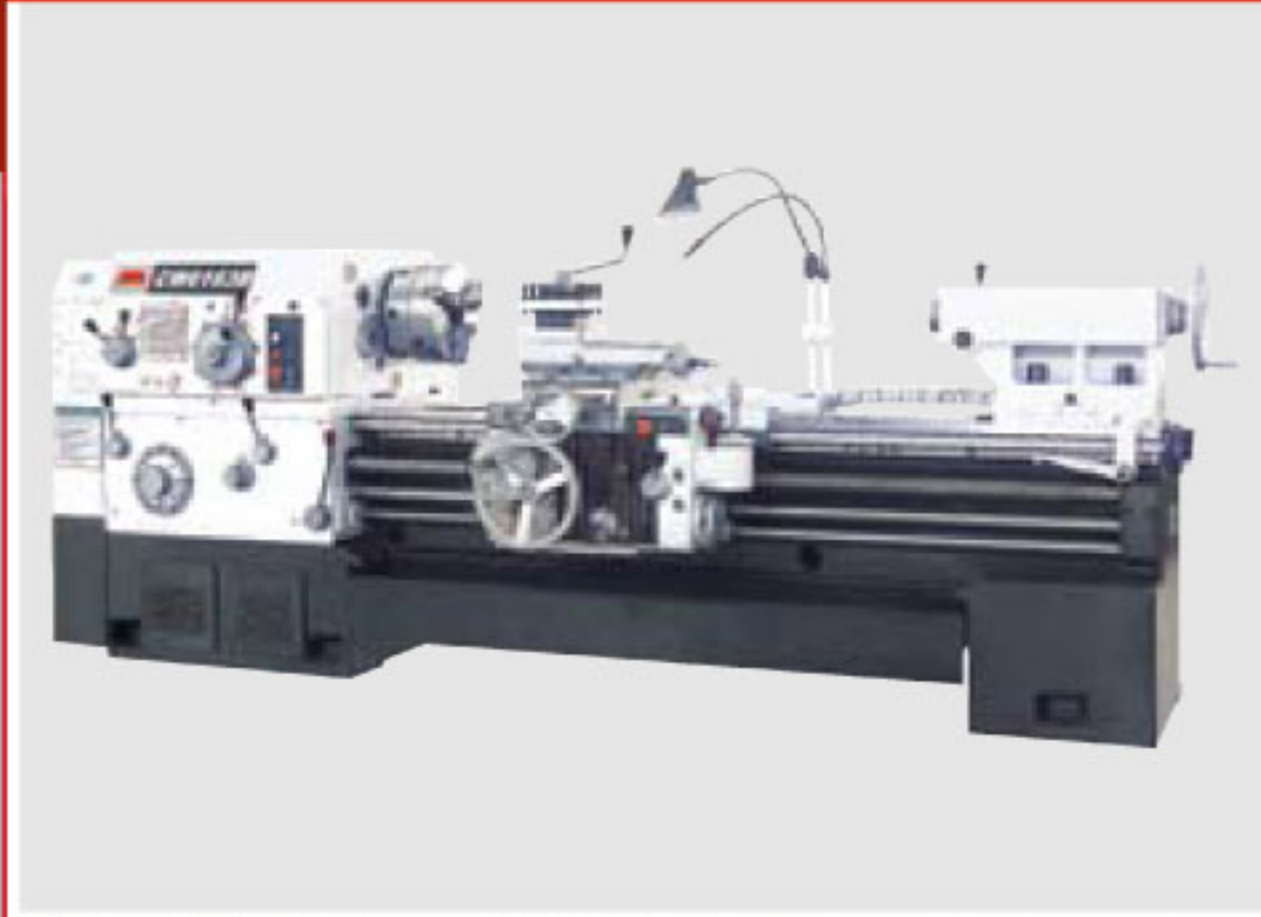
The machine has good rigidity, in terms of both structure, but also power transmission. The machine has stable accuracy, and can also take heavy cuts. The underside of slideways are coated with TSF improved turcite-style anti-friction material, giving the machine lighter, easier movement and longer service life. The lubrication system adopts an automatic external reservoir, which improves machining accuracy and reduces wear. The tailstock is equipped with a scale dial which makes feeding of the quill intuitive to the user.

This series of machine has good aesthetic appearance, and is easy to clean and maintain. The inside of the headstock has a forced lubrication system that uses hydraulic oil, making sure that all moving parts are constantly lubricated.

A separate coolant system is included with the machine.

This series of machines can be used for all kinds of turning processes; internal and external cylindrical surfaces, internal and external tapers, other types of rotary surfaces, all kinds of common straight or tapered threads - inch, metric, diametral, and module pitches. They can also be used to broach oil grooves and keyways, etc.

This series of machine can be used to machine cast iron, steel, non-ferrous metals, and other materials as well.



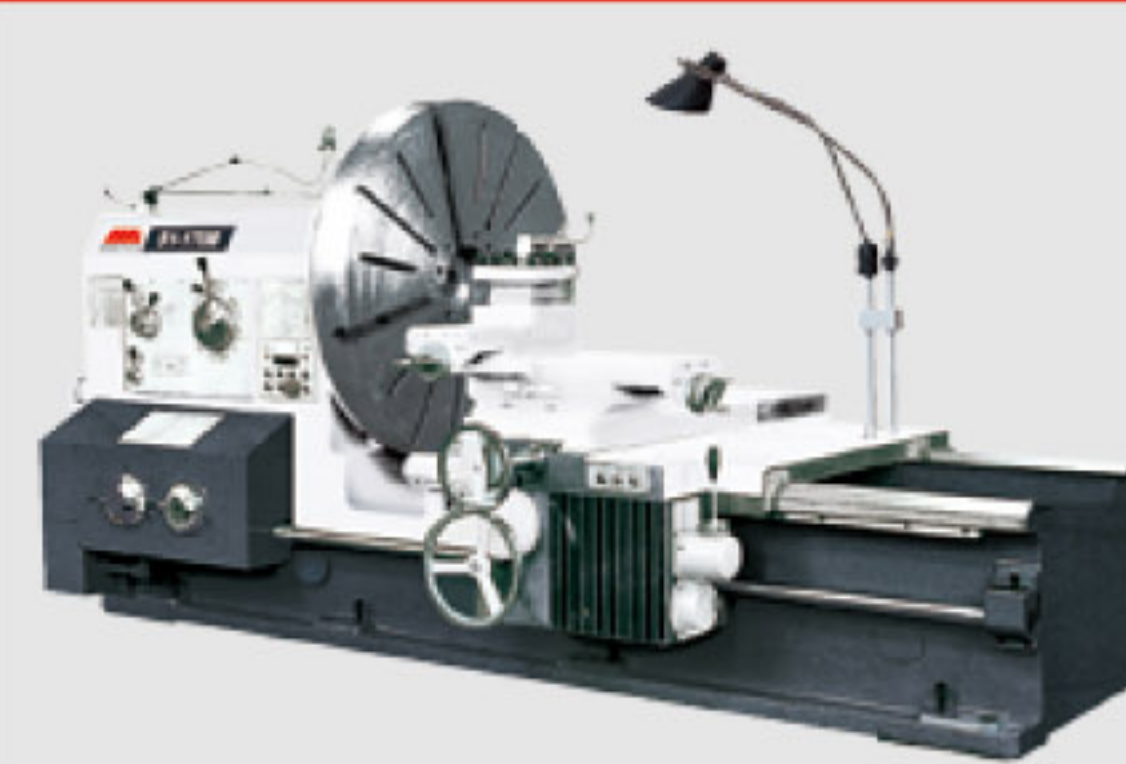
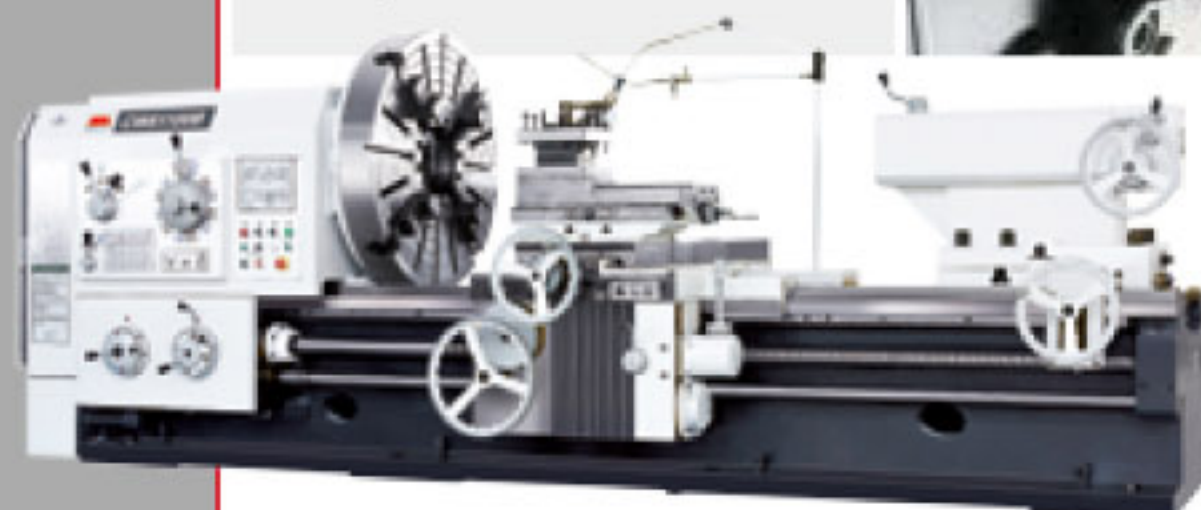
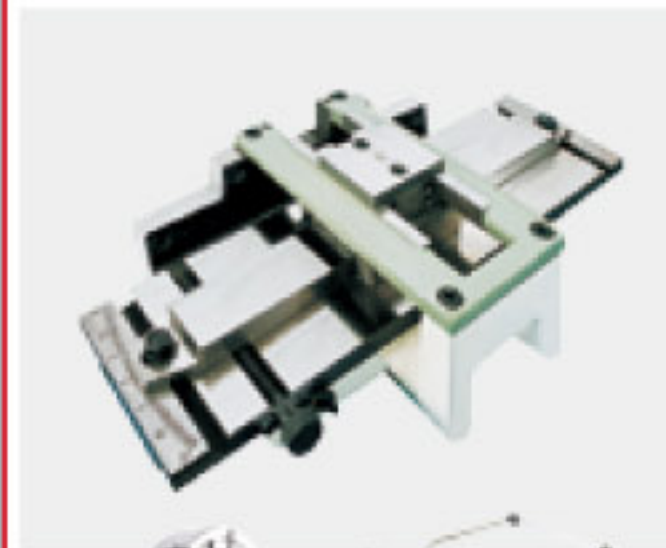
CW SERIES CONVENTIONAL LATHE

CW6193B/C
CW6293B/C
CW61110B/C
CW62110B/C

CW SERIES CONVENTIONAL LATHE

CW61100B
CW61125B
CW61160
CW61200

The carriage of this series of machine is equipped with an overload device that disengages the carriage to avoid damage. The compound slide is power driven, for making short conic cuts, for example. The longitudinal and compound slide feeds can be coupled to turn longer tapers. The operation controls and handles are logically arranged for convenience and ease of operation. The forward-reverse rotation engagement and braking of the spindle are hydraulically operated. The brake is sensitive and reliable. The spindle speed can be changed with one button without having to stop the spindle. This series of machines feature high power, strong rigidity, and wide spindle speed range. The machines are suitable for end-facing, turning inside and outside straight cuts or tapers, and can do a wide variety of thread pitches, inch, metric, diametral, or module. They can also be applied to operations such as drilling, trepanning, and boring, etc. There are several ranges of spindle speeds available to the user.



FACING LATHE S1-170B

This machine is equipped with a unidirectional override clutch on the left side of the carriage, which allows for rapid feed to be entered even while the feed-shaft is engaged in normal feed mode, no matter which direction the spindle rotates. The spindle is supported at three points. Spindle braking is by means of hydraulic clutch. This machine is suitable for turning processes of rough finishing and fine finishing internally and externally, and face turning. It can also be used for turning a taper in power feed mode.

PIPE THREAD LATHE

S1-245B
S1-262A
S1-320

This series of special purpose machines is designed primarily for the cutting of cylindrical and tapered metric or inch threads on pipe. However they can also be used for turning externally or internally, for boring holes, turning male or female tapers, face turning, among other operations. These machines are useful in the petrochemical, chemical, hydroelectric power generation, and geological industries, and also for repairing drill string, drill collar, square Kelly, well casing, and so forth. It is especially suitable for the repair of pipe in the petroleum related industries.



HORIZONTAL MEDIUM HEAVY LATHE (18 TONS FOR MAX. WEIGHT OF WORKPIECE)

CW61160A

This machine is a heavy conventional lathe which is developed on the basis of CW61160 conventional lathe. It has all functions that CW61160 possesses and characteristic of fulfilling turning requirements for heavy and complex parts. The maximum load of the machine is 18 tons. The main motor adopts variable-frequency motor with stepless speed change function. The speed change is convenient and reliable. The main application of this machine includes machining motor rotor, steam turbine rotor, roller and other large size parts in the fields of energy and power, heavy mining and so on.



Item	Specification	CW6163B	CW6263B	CW6180B	CW6280B	CW6193B	CW6293B	CW61110B	CW62110B
3-jaw chuck	Ø315	•	•	•	•	•	•	•	•
	Ø380	★	★	★	★	★	★	★	★
	Ø400	★	★	★	★	★	★	★	★
	Ø500	★	★	★	★	★	★	★	★
4-jaw chuck	Ø400	★	★	★	★	★	★	★	★
	Ø500	★	★	★	★	★	★	★	★
	Ø630	★	★	★	★	★	★	★	★
	Ø800					★	★	★	★
	Ø1000							★	★
Face plate	Ø650		•		★				
	Ø800			★	•	★	★	★	★
	Ø930					•	•	★	★
	Ø1120							•	•
Steady rest	Ø20-170	•	•	★	★				
	Ø40-350			•	•				
	Ø30-420					•	•		
	Ø40-460							•	•
	Ø160-350	★	★						
	Ø130-480			★	★				
	Ø150-500			★	★				
	Ø300-640					★	★	★	★
Follow rest	Ø20-130	•	•						
	Ø30-130			•	•				
	Ø30-180					•	•	•	•
	Ø50-220			★	★				
	Ø200-310	★	★						
Center and Sleeve	Mertic120; Morse No.5	•	•	•	•	•	•	•	•
Illumination, cooling		•	•	•	•	•	•	•	•
Tools		•	•	•	•	•	•	•	•
Thread cutting dial	L=500	★	★	★	★	★	★	★	★
Taper attachment		★	★	★	★	★	★	★	★
Digital display unit		★	★	★	★	★	★	★	★
Adjustable pads		★	★	★	★	★	★	★	★

• Standard accessories ★ Optional accessories

Note: 1 For 750mm/1500mm size machine, follow rest and steady rest are not supplied as standard accessories.

2 For machine of length 8000mm-10000mm, the standard accessories include 2 units steady rest; for machine of length ≥ 11000mm, the standard accessories include

4 units steady rest; or machine of length ≥ 8000mm, the standard accessories include adjustable metal pads.

3 380mm three-jaw chuck is standard accessory for C type machine. The rest standard accessories for C type machine are same as B type machine.

Item	Specification	CW61100B	CW61125B	CW61160	CW61200
3-jaw chuck	Ø500	★	★		
	Ø500	★	★		
4-jaw chuck	Ø630	★	★		
	Ø800	★	★		
	Ø1000	•	•	★	★
	Ø1600			•	•
	Ø2000				★
Rolling steady rest	Ø50-300		★		
	Ø50-400	•			
	Ø50-540		•		
	Ø80-500				★
	Ø80-800			•	
	Ø180-600	★	★		
	Ø300-800				★
	Ø360-850		★		
	Ø500-1000				•
	Ø1000-1500				★
Follow rest	Ø50-220	•	•		
	Ø80-350			•	★
Face plate	Ø1000	★	★		
	Ø1600			★	★
Center and Sleeve	Mertic140; Morse No.6	•	•		
Live center	Morse No.6	•	•		
	Mertic80; Morse No.6			•	•
Illumination, cooling		•	•	•	•
Tools		•	•	•	•
Thread cutting dial		★	★	★	★
Roller support		★	★	★	★
Digital display unit		★	★		
Adjustable pads		★	★	★	★

• Standard accessories ★ Optional accessories

Note: 1 CW61100B/1500mm and CW61125B/1500mm machines have no option for follow rest and steady rest.

2 For machine of length 8000mm-10000mm, the standard accessories include 2 units steady rest; for machine of length ≥ 11000mm, the standard accessories include 4 units steady rest; or machine of length ≥ 8000mm, the standard accessories include adjustable metal pads.

Item	Specification	S1-245B 1000/1500	S1-262A 1000/1500	S1-262A 3000	S1-320 1500	S1-320 3000
Digimatic micrometer		★	★	★		
Steady rest	Ø40-Ø350	★				
	Ø80-Ø330		★	★		
	Ø100-Ø350		★	•		
	Ø114-Ø340		★	★		
	Ø219-Ø520		★	★		
	Ø219-Ø508				★	★
T-slot slide	Inch and Metric Comparison Table	★	★	★		
Cooling	2 pitch/inch	★	★	•	•	•
Thread cutting dial	2 pitch/inch	★	★	★		
Center	5 S25-2	•	•	•	•	
Live center for tailstock	5 S26-2A	•	•	•	•	
Tools		•	•	•	•	•

Item		Units	CW6163B/C CW6263B/C	CW6193B/C CW6293B/C	CW6180B/C CW6280B/C	CW61110B/C CW62110B/C	
Max. swing diameter over bed		mm	630	930	800	1100	
Max. swing diameter over carriage		mm	350	650	480	800	
Max. workpiece length		mm	750, 1500, 3000 4000, 5000, 7000	750, 1500, 3000 4000, 5000, 7000	1500, 3000, 4000, 5000-14000		
Max. swing diameter and width in gap		mm	800/300	1100/300	1000/310	1300/310	
Spindle bore and nose			104, C11(B series) 130, D11(C series)				
Taper in spindle nose and center			120(B series) 140(C series), Morse No.5				
Steps and range of spindle speeds		r/min	18speeds 7.5-1000(B series) 18speeds 8.5-800(C series)	18speeds 6-800(B series) 18speeds 8.5-800(C series)	18speeds 5.4-720	18speeds 4.8-640	
Steps and range of longitudinal feeds		mm/r	64feeds 0.05-24.3	64feeds 0.05-24.3	64feeds 0.06-24.3	64feeds 0.05-24.3	
Range 1:1		mm/r	0.1-1.52				
Range 16:1		mm/r	1.6-24.3				
Range of fine feed with change gears		mm/r	0.05-0.912		0.06-0.912	0.05-0.76	
Longitudinal and cross feed rate			1/2				
Rapid speed of carriage		mm/min	4000				
Pitch of leadscrew			12(Metric); 1/2"(Inch system)				
Number, range of metric thread		mm	50threads	1-240(There are additional 14 kinds non-standard threads)			
Number, range of whitworth thread		t.p.i	26kinds 14-1				
Number, range of module thread		mm	53kinds 0.5-120				
Number, range of diametral thread		DP	24kinds 28-1				
Max. cross travel of lower slide		mm	420	500	500	500	
Max. travel of top slide		mm	200	200	200	200	
Max. travel of tailstock quill		mm	250	250	250	250	
Taper of tailstock quill			Morse No.5	Morse No.5	Morse No.5	Morse No.5	
Width and hardness of bed guidways		mm	550 RC52	550 RC52	600 RC52	600 RC52	
Main motor power		kW	11	11	11 or 15	11 or 15	
Rapid motor power		kW	1.1	1.1	1.1	1.1	
Power of coolant pump motor		W	120	120	120	120	
Machine WxH/Packing WxH		mm	1380x1450/1780x1890	1440x1835/1700x2100	1550x1630/1880x1910	1560x1900/1800x2140	
Machine length/ Packing case length(mm)	Max. length of workpiece	750	mm	2890/3440			
		1500	mm	3690/4240	3690/3900	3700/4150	3700/3900
		3000	mm	5190/5740	5190/5400	5250/5650	5250/5400
		4000	mm	6120/6640	6100/6350	6250/6650	6250/6450
		5000	mm	7200/7750	7200/7430	7250/8050	7250/7630
N.W/G.W of machine(kg)	Max. length of workpiece	750	mm	3400/4400			
		1500	mm	3700/4700	4200/4950	4900/6000	5500/6350
		3000	mm	4700/5900	5200/6250	5500/6900	6100/7250
		4000	mm	5800/7700	6300/7500	6100/8000	6700/8150
		5000	mm	6800/8800	7300/8700	6900/9000	7500/9200
Max. weight of workpiece		kg	2000	2000	2000	2000	

Note: 1 CW(93B/C, 110B/C) serials lathes are height increased products developed basing on CW(63, 80) serials lathes respectively.
2 For machine of distance between centers ≥ 11000mm, the standard accessories include double saddles, double turrets and double carriages.

Item	Units	CW61100B/CW61125B	CW61160	CW61200	S1-170B
Max. swing diameter over bed	mm	1000/1250	1600	2000	1400
Max. length of workpiece (L)	mm	1500/3000/5000-15000	3000/5000/8000-15000	3000/5000/8000-15000	1500
Max. swing diameter over carriage	mm	610/865	1200	1580	800
Max. swing diameter over carriage	mm				1600
Max. swing diameter over gap	mm				440
Spindle bore	mm	130, A ₂ 15	130, A ₂ 15	130, A ₂ 15	100
Taper in spindle nose		Metric 140	Metric 140	Metric 140	Metric120 Taper: 120
Number of speeds Forward		21kinds	21kinds	21kinds	21speeds
Number of speeds Reverse		12kinds	12kinds	12kinds	12kinds
Spindle speed range (Either of the following ranges may be selected by users as required)					
n ¹ *Forward	r/min	3.15-315	2-200	2-200	2-200
n ¹ *Reverse	r/min	3.5-278	2.24-178	2.24-178	2.24-178
n ² Forward	r/min	2-200			
n ² Reverse	r/min	2.24-178			
Range of feeds per spindle revolution		56kinds	56kinds	56kinds	56feeds
Longitudinal	mm	0.1-12	0.1-12	0.1-12	0.06-7.2
Cross	mm	0.05-6	0.05-6	0.05-6	0.03-3.6
Top slide	mm	0.025-3	0.025-3	0.025-3	0.015-1.8
Range of metric threads	mm	44kinds 1-120	44kinds 1-120	44kinds 1-120	
Range of whitworth threads		31kinds 24-1/4t.p.i	31kinds 24-1/4t.p.i	31kinds 24-1/4t.p.i	
Range of module threads	mm	45kinds 0.5-60	45kinds 0.5-60	45kinds 0.5-60	
Range of diametral pitch threads		38kinds 1/2-56DP	38kinds 1/2-56DP	38kinds 1/2-56DP	
Max. travel of saddle	mm	L-50	L-200	L-200	1500
Max. cross travel of lower slide	mm	520/630	960	1010	980
Max. travel of mid slide	mm		300	300	300
Max. travel of top slide	mm	300	200	200	200
Rapid traverse speed of tool post Longitudinal/Cross	mm/min	3740/1870	3740/1870	3740/1870	3740/1870
Mid slide	mm/min	935	935	935	935
Diameter of tailstock quill	mm	160	180	180	
Max. travel of tailstock quill	mm	300	300	300	
Taper in bore of tailstock quill		Morse No.6	Metric 80	Metric 80	
Power of main motor	kW	22	22	22	22
Overall dimensions	Length	mm	L+2700	L+3100	4287
	Width	mm	2150	2320	2410
	Height	mm	1700/1825	2600	2770
Width of bed	mm	755	1100	1100	1100
Max. torque	KN.m	12.85	12.85	12.85	
Max. weight of workpiece	kg	6000	12000	12000	12000

★ Standard rotating speed

Note: 1 For machine length over 10000mm, the standard spindle speed is 2-200r/m.

2 To machine a shaft part, adding a roller support in the middle increases 2 tons load; adding 2 roller supports increases 4 tons support.

3 For machine of distance between centers ≥ 11000mm, the standard accessories include double saddles, double turrets and double carriages.

4 To machine a disk part, the maximum load is 2 tons.

		1.5m	3m	5m	6m	7m	8m	9m	10m	11m	12m	13m	14m	15m
Machine net weight (kg)	CW61100B	9200	10700	13000	13700	14700	15700	165000	17300	18900	19700	20500	21300	22100
	CW61125B	10200	11900	14500	15400	16300	17200	18000	18800	20400	21200	22000	22800	23600
	CW61160		21500	23600	24500	25700	27000	28200	29400	31500	32700	33900	35100	36300
	CW61200		23500	25600	26500	27700	29000	30200	31400	33500	34700	35900	37100	38300

Item		Units	CW61160A
Max. swing diameter over bed		mm	1600
Max. length of workpiece		mm	5000/6000/8000
Max. swing diameter for max.workpiece over carriage		mm	1200
Max. length of turning		mm	4800/5700/7700
Max. weight of workpiece		t	18
Width of bed		mm	1100
Max. torque		KN.m	44/54
Headstock	Dia.of spindle bore	mm	100
	Dia.of spindle fore-bearing	mm	280
	Taper in spindle nose		Metric140; 1:7
	Number of spindle speeds		3-step stepless
	Spindle speed range per minute	r/min	n1: 1-6-18 n2: 3-18-55 n3: 9-55-160
Feeding box	Number of longitudinal and cross feeds per spindle revolution	kinds	56
	Longitudinal feeds per spindle revolution	mm	0.10-12(0.004"-0.473")
	Cross feeds per spindle revolution	mm	0.05-6(0.002"-0.0236")
	Feeds of mid-carriage per spindle revolution	mm	0.025-3(0.001"-0.118")
	Range of metric thread pitche	mm	44kinds 1-120
	Range of teeth number per inch whitworth threads		31threads 24-1/4t.p.i
	Range of module threads	mm	45kinds 0.5-60
	Range of diametral pitch threads		38kinds 1/2-56DP
Carriage	Vertical distance from spindle center to base of installing tool	mm	52
	Cross-section dimension of tool shank	mm	50×50
	Swing angel of carriage		±90°
	Max. travel of saddle	mm	4800/5700/7700
	Max. cross travel of lower slide	mm	960
	Max. travel of mid slide	mm	300
	Max. travel of top slide	mm	200
	Travel of carriage per turning one scale for lower slide dial	mm	0.05(0.002")
	Travel of carriage per turning one scale for mid and top slide dial	mm	0.02
	Rapid traverse speed of tool post Longitudinal/Cross	mm/min	3740/1870
Tailstock	Diameter of center quill	mm	280
	Max. travel of center quill	mm	300
	Taper in bore of center quill		Metric80; 1:7
Motor	Main motor	kW	AC37(Variable-frequency)/AC45(Variable-frequency)
	Rapid motor	kW	AC1.5
Overall dimensions		mm	Width×Height
Total length of machine		mm	8400/9400/11400
Net weight of machine		kg	28000/29400/32000

Item		Units	S1-245B	S1-262A	S1-320
Main spec.	Max. outer diameter of pipe	mm	60-219	114-340	219-508
	Max. length of turning (travel of saddle)	mm	1000/1500	1000/1500/3000	1500/3000
	Max. center distance (for tailstock)	mm	1000/1500	1000/1500/3000	1500/3000
	Height from spindle center to guideway surface	mm	400	450	500
	Height from spindle center to ground	mm	1100	1150	1200
Spindle	Dia. of spindle bore	mm	240	355	515
	Taper in front and rear taper bore of spindle bore		1:50	1:50	1:50
	Step of spindle speeds		12	12	12
	Range of spindle speeds	r/min	8-306	5.6-254	6-200
Feed system	Amount of longitudinal and cross feed: number of kind		32	32	32
	Range of longitudinal feed	mm/r	0.095-1.44	0.095-1.44	0.1-1.5
	Range of cross feed	mm/r	0.095-1.44	0.095-1.44	0.1-1.5
	Range of whitworth threads	t/in	1-14	1-14	2-28
	Range of metric threads	mm	1-15	1-15	1-15
	Range of module threads	mm	0.5-7.5	0.5-7.5	0.5-7.5
	Range of diametral pitch threads	t/in	28-2	28-2	56-4
Slide and saddle	Vertical distance from spindle center to bearing surface of tool	mm	33	33	48
	Cross-section dimension of tool	mm	32×32	32×32	45×45
	Swing angle of middle slide		±90°	±90°	±90°
	Max. cross travel of lower slide	mm	300	300	560
	Max. travel of top slide	mm	200	200	300
Taper ratio and tailstock	Cross rapid moving speed of tool post	m/min	4	4	4
	Max. length of taper of continuous turning workpiece	mm	500	500	500
	Max. lateral taper attachment adjustment	mm	100	100	100
	Diameter of center quill	mm	100	100	160
	Travel of center quill	mm	250	250	800
	Taper in center quill		Morse No.5	Morse No.5	Morse No.6
	Taper in center		Morse No.5	Morse No.5	Morse No.6
	Distance of cross moving of tailstock	mm	±15	±15	±20
	Power of main motor	kW	18.5	18.5	22
Motor and bed	Speed of main motor	r/min	1500	1500	1500
	Overall dimensions Length	mm	3882.5/4190	3700/4190/5690	4829/6309
	Overall dimensions Width	mm	1908/1974	1908/1974/1974	2230/2230
	Overall dimensions Height	mm	1500/1500	1620/1620/1620	1750/1832
	Net weight of machine	kg	7876/8500	7876/8500/11200	12500/15000

Asia & Pacific Dept.

Tel: +86-24-25191509

Fax: +86-24-25876317

E-mail: peng_wang@smtcl.com

Europe Dept.

Tel: +86-24-25191518

Fax: +86-24-25876317

E-mail: feng_li@smtcl.com

Middle East Dept.

Tel: +86-24-25191511

Fax: +86-24-25876320

E-mail: chaowei_shen@smtcl.com

North America Dept.

Tel: +86-24-25191579

Fax: +86-24-25876320

E-mail: symtcl@hotmail.com

South America Dept.

Tel: +86-24-25191526

Fax: +86-24-25876320

E-mail: yan_gao@smtcl.com

SMTCL Vietnam Office

Tel: +84-04-6402719

Fax: +84-04-6405344

E-mail: peng_wang@smtcl.com

Service Dept.

Tel: +86-24-25191552

Fax: +86-24-25876317

E-mail: yantao_wang@smtcl.com

Business Supporting Department

Tel: +86-24-25191532

Fax: +86-24-25191551

E-mail: jiufeng_wang@smtcl.com

SMTCL USA, INC.

17038E. Gale Avenue, City of Industry, CA 91745 USA

Tel: +1-626-733-7190

Fax: +1-626-737-1169

E-mail: smtclusa@smtcl.com

SMTCL CANADA INC.

2783 Portland Drive, Oakville, ON L6H 6M6 CANADA

Tel: +1-905-829-1579

Fax: +1-905-829-8692

E-mail: nayongyan@hotmail.com

SMTCL TURKEY BRANCHEskoop Sanayi Sitesi C4/181-183 İkitelli, Küçükçekmece
ISTANBUL/TURKEY

Tel: +90-212-671-4133

Fax: +90-212-671-4139

E-mail: chaowei_shen@smtcl.com

SMTCL DEUTSCHLAND GMBH

Orber Strasse 8 D-60386 Frankfurt, Germany

E-mail: smtcleu@smtcl.com

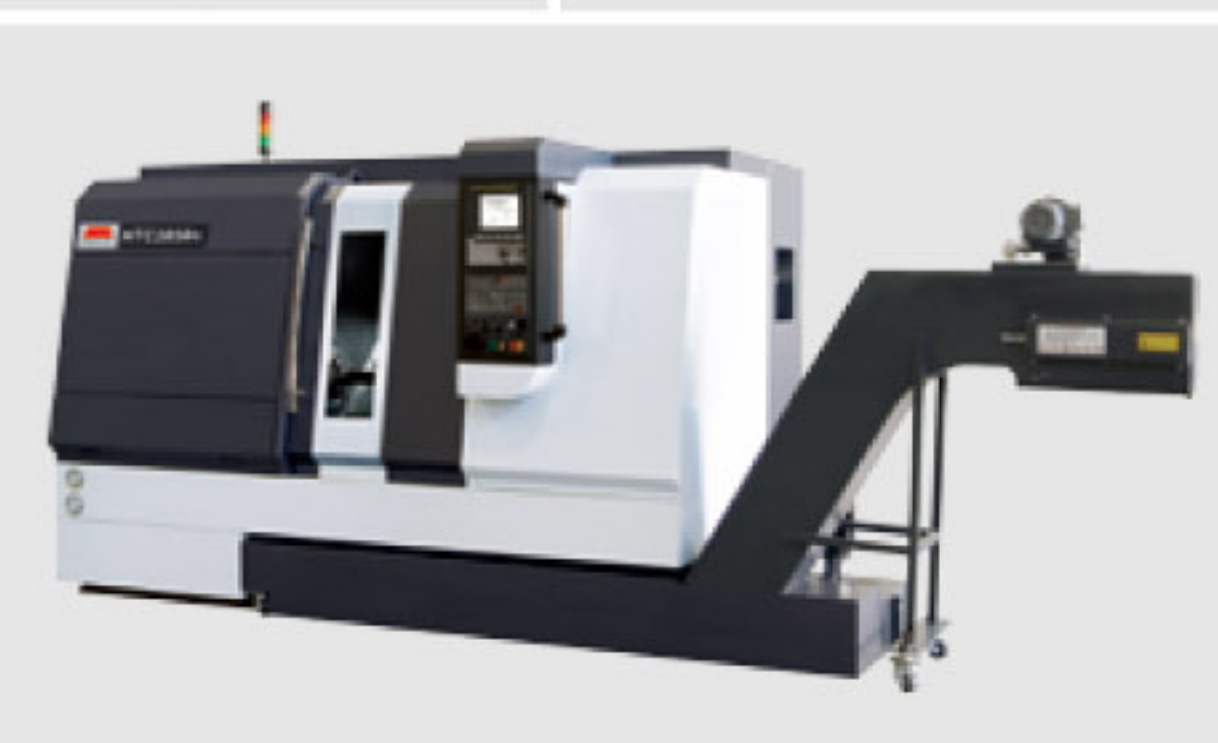
**SHENYANG MACHINE TOOL CO., LTD.**Add: No.1, 17A, Kaifa Road, Shenyang Economic & Technological Development Area, China
<http://www.smtcl.com> After-sales Service Dept.: +86-24-25191552 Post Code: 110142

SHENYANG MACHINE TOOL CO., LTD.

NEW HTC SERIES CNC LATHE

HTC2050n

The HTC2050n is a horizontal-axis CNC machine which permits high-speed machining, highly intelligent, efficient, and safe operation. Its structure has been designed using finite element analysis software, breaking through previous limitations of design engineering, producing a machine of high accuracy and repeatability, with consistent results. This ideal combination of spindle assembly and feed mechanism raises the level of high speed performance. The work area of the machine has been increased in volume by nearly 50% despite little change in the overall dimensions of the machine, and this means that the machine will be much more efficient for the user. The patented oil-water separation unit can improve environmental conformity, and reduce production costs to the user. This is a world class machine that is competitive with any other machine in the marketplace.



NEW HTC SERIES CNC LATHE

HTC32n^{SERIES} HTC40n HTC50n

HTCn series lathes have been upgraded based on the original horizontal CNC lathes built by Shenyang No.1 Machine Tool Works. The machine design has benefited from our extensive manufacturing experience in CNC horizontal lathes, and advanced modular design philosophy. The design of these machines benefits from such processes as finite element analysis, vibration analysis, and thermal analysis to intelligently configure the structure of the spindle, bed, saddle, and tail-stock, etc. This greatly increases the rigidity of the machine, improving its stability during heavy cutting. Also, the functions of the C and Y axes are fully taken into consideration during the structural design process, and are therefore fully integrated into the structure of the machine, which means that the 3rd and 4th axes are fully incorporated functions of the machine, and not merely add-on concepts.



NEW HTC SERIES CNC LATHE

HTC63n^{SERIES} HTC80n

HTC63/80n series machines are derived from the original horizontal lathes from the Shenyang No.1 Machine Tool Works. The design of the machines benefits from the manufacturing expertise of that factory for horizontal CNC lathes and the incorporation of advanced modular design philosophy.

These machines are designed using such technologies as finite element analysis, vibration analysis, and thermal analysis, in order to intelligently configure the structure of the bed, spindle, saddle, and tail-stock, which greatly improves the rigidity of the structure, ensuring greater stability under heavy cutting loads. Also, the functions of the C and Y axes are fully taken into consideration during the structural design process, and are therefore fully integrated into the structure of the machine, which means that the 3rd and 4th axes are fully incorporated functions of the machine, and not merely add-on concepts.



NEW HTC SERIES CNC LATHE

HTC50t^{SERIES} HTC63t HTC80t HTC100t

HTCt series

The machine is designed and developed complying with the market demand, and is a mainstream product. The design for the machine aims to maximally satisfy the demands of customer. The machine applies integrated slant bed of 75° in order to make the machining position of the machine maximally close operators. In addition, the steady rest is normal to the floor, which on the one hand is convenient for customers installing, on the other hand avoids the damage of the steady rest due to mistaken operation. Advanced finite element analysis and dynamic stiffness and thermal stability analysis ensure the accuracy of the machine, which will make the series machines become a leader in the industry.



Item		Units	HTC2050n
Max. swing over bed		mm	Ø480
Max. cutting length		mm	500
Max. cutting dia.		mm	Ø200(Shaft type), Ø260(Disc type)
Max. swing over slide		mm	Ø300
Width of Z-axis guideway		mm	275
Width of X-axis guideway		mm	200
Form and code of spindle nose			A2-6
Dia. of through spindle bore		mm	Ø52 Ø62
Max thru-barstock diameter		mm	Ø38 Ø48
Range of spindle speed		r/min	50-4000
Max. output torque of spindle		Nm	200
Steps of spindle speed			Stepless
Output power of main motor	30 min/rated	kW	11(βIIIP18/6000)
	Continuous rated value	kW	9
Standard chuck	Chuck diameter	inch	8"
Rapid traveling speed of X-axis		m/min	10 Sliding 16 Rolling
Rapid traveling speed of Z-axis		m/min	12 Sliding 24 Rolling
Travel of X-axis		mm	152
Travel of Z-axis		mm	530
Dia. of tailstock sleeve		mm	80
Travel of tailstock sleeve		mm	100
Bore taper of tailstock sleeve		Morse	4#
Tailstock travel		mm	360
Accuracy of workpiece			IT6
Surface roughness of workpiece		μm	Ra1.6
Positioning accuracy		mm	0.010
Positioning accuracy		mm	0.012
Repositioning accuracy		mm	0.004
Repositioning accuracy		mm	0.005
Guideway form			Rolling guideway Sliding guideway
Form of turret			Horizontal, 8 stations Horizontal, 12 stations
Indexing time of turret		s	0.22
Size of tool	Tool for turning O.D.	mm	20×20×125
	Boring tool	mm	Ø32 Ø25 Ø20 Ø16
Max. weighted load	Disc workpiece	kg	200(Including accessories such as chuck, etc)
	Shaft workpiece	kg	500(Including accessories such as chuck, etc)
Machine weight		kg	5000
Center height from bottom of bed		mm	860
Overall dimensions of machine		mm	2948×1758×1746

Item		Units	HTC32n series	HTC40n/50n series
Max. swing over bed		mm	520	700
Max. cutting length		mm	500	1000 1500 2000
Max. cutting dia.		mm	400	400/500
Machining disc-type parts as recommendation		mm	320	250/320
Max. swing over slide		mm	320	400/500
Machining disc-type parts as recommendation		mm	250	180/250
Span of Z-axis guideway		mm	360	400
Span of X-axis guideway		mm	230	280
Form and code of spindle nose			A2-8	A2-8/A2-11(50n Optional)
Dia. of through spindle bore		mm	Front 70, rear 60	80/104
Max thru-barstock diameter		mm	45	65/80
Range of spindle speed		r/min	30-4000	35-3500/35-3000
Max. output torque of spindle		Nm	193	470(αP30), 630(1PH7167-2QB)860(αP50)
Steps of spindle speed			Stepless	Stepless
Output power of main motor	30 min/rated	kW	15	18.5(αP30/6000isP) 21.5(1PH7167-2QB) 30(αP50/6000isP)
	Continuous rated value	kW	11	15(αP30/6000isP) 16(1PH7167-2QB) 22(αP50/6000isP)
Standard chuck	Chuck diameter	inch	10"	10", 12"/15"(A2-11)
Rapid traveling speed of X-axis		m/min	20(Imported ballscrew)/16(Domestic ballscrew)	Rolling guideway 24
Rapid traveling speed of Z-axis		m/min	30(Imported ballscrew)/24(Domestic ballscrew)	Rolling guideway 30(1000 spec.)
Travel of X-axis		mm	225	220/270
Travel of Z-axis		mm	630	1100 1600 2100
Dia. of tailstock sleeve		mm	100	120
Travel of tailstock sleeve		mm	100	150
Bore taper of tailstock sleeve		Morse	4#	5#
Tailstock travel		mm	500	1000/1500/2000
Accuracy of workpiece			IT6	IT6
Surface roughness of workpiece		μm	Ra1.6	Ra1.6
Positioning accuracy		mm	0.010	0.010
Positioning accuracy		mm	0.013	0.015, 0.020, 0.025
Repositioning accuracy		mm	0.005	0.005
Repositioning accuracy		mm	0.007	0.007, 0.010, 0.013
Guideway form			Rolling guideway	Roller guideway
Form of turret			Hydraulic, horizontal, 8 stations/ Hydraulic, horizontal, 12 stations	Horizontal, 12 stations
Indexing time of turret		s	0.25	0.25
Size of tool	Tool for turning O.D.	mm	25×25×150	25×25×150
	Boring tool	mm	∅40	∅40, ∅32, ∅25, ∅20/∅50, ∅40, ∅32, ∅25
Max. weighted load	Disc workpiece	kg	200(Including accessories such as chuck, etc)	200(Including accessories such as chuck, etc)
	Shaft workpiece	kg	1000(Including accessories such as chuck, etc)	800(Including accessories such as chuck, etc)
Machine weight		kg	5500	7500/8500/9500
Center height from bottom of bed		mm	1004	1100
Overall dimensions of machine		mm	3275×1930×2040	4100/4850/5420×2200×2400

Item	Units	HTC63n series	HTC63y series	HTC80n series
Max. cutting length	mm	1500 2000 3000 4000 6000	1500 2000 3000 4000 6000	1500 2000 3000 4000 6000
Max. swing over bed	mm	850 820 800 750	1000 970 950 900	1000 970 950 900
Max. cutting dia.	mm	630	630	800
Max. swing over slide	mm	630	630	800
Form and code of spindle nose		A ₂ -11		
Dia. of spindle nose	mm	96	130	130
Range of spindle speed/Max. output torque of spindle/ Steps of spindle speed	r/min/Nm	20-2000/768/2	20-1200/2500/2	20-1200/2500/2
Output power of main motor (30min/rated)	kW	30(FANUC)/37(FANUC)/51(SIEMENS)		
Output power of main motor (Continuous rated value)	kW	22(FANUC)/30(FANUC)/37(SIEMENS)		
Chuck diameter	inch	15"		
Rapid traveling speed of X/Y/Z-axis	m/min	12/12/12		
Travel of X/Y-axis	m/min	325	410/±100	410
Travel of Z-axis	mm	1600 2100 3100 4100 6100		
Dia./travel of tailstock sleeve	mm	180/160		
Bore taper of tailstock sleeve		Morse No.6		
Max thrust of tailstock sleeve	N	20000		
Tailstock travel	mm	Z-axis travel 200		
Form of turret		Horizontal, 12 stations		
Indexing time of turret	s	1.8/3.8(Hydraulic) 1.25/3.18(Power)		
Size of tool	Tool for turning O.D.	mm	32×32	
	Boring tool	mm	∅50, ∅40, ∅32, ∅25	
Diameter of fluted disc	mm	320		
Available for selecting tool in the nearest station		Available		
Max. weighted load (disc/shaft workpiece)	kg	500/1500-4000		
Machining accuracy		IT6		
Surface roughness of workpiece	μm	Ra1.6		
Positioning accuracy of X/Y-axis	mm	0.013/0.013		
Positioning accuracy of Z-axis	mm	0.026 0.035 0.040 0.048 0.056		
Repositioning for X/Y-axis	mm	0.006/0.006		
Repositioning for Z-axis	mm	0.010 0.013 0.016 0.016 0.016		
Machine weight (net weight)	kg	12000 15000 18000 20000 30000		
Center height from bottom of bed	mm	1240	1300	1300
Overall dimensions of machine LxWxH (Not include chip conveyor)	mm	5150×2570×2400(1500 spec.)		
		5650×2630×2450(2000 spec.)		
		6650×2630×2450(3000 spec.)		
		7650×2630×2450(4000 spec.)		
		9650×2630×2450(6000 spec.)		
Power of general power supply	kVA	60(FANUC)/70(SIEMENS)		

Item		Units	HTC50t	HTC63t	HTC80t	HTC100t
Max. cutting length		mm	2500	3000	3500	3000
Max. swing over bed		mm	780	1000	1000	1150
Max. cutting dia.		mm	500	630	800	1000
Max. swing over slide		mm	500	630	800	1000
Form and code of spindle nose			A ₂ -11			A ₂ -11
Dia. of spindle nose		mm	80/104	104/130	130	130
Range of spindle speed/Max. output torque of spindle/ Steps of spindle speed		r/min/Nm	20-2000/768	20-2000/768 20-1600/768	20-1200/2500/2	20-1200/2500/2
Output power of main motor (30min/rated)		kW	30(FANUC)/37(FANUC)/51(SIEMENS)			37(FANUC)/51(SIEMENS)
Output power of main motor (Continuous rated value)		kW	22(FANUC)/30(FANUC)/37(SIEMENS)			30(FANUC)/37(SIEMENS)
Chuck diameter		inch	15"			15"
Rapid traveling speed of X/Y/Z-axis		m/min	12/12			10/10
Travel of X/Y-axis		m/min	260	315	410	550
Travel of Z-axis		mm	2600	3100	3600	3100
Dia./travel of tailstock sleeve		mm	180/160			Spindle structure
Bore taper of tailstock sleeve			Morse No.6			A2-11(Spindle nose)
Max thrust of tailstock sleeve		N	20000			
Tallstock travel		mm	Z-axis travel 200			2700
Form of turret			Horizontal, 12 stations			12 stations
Indexing time of turret		s	1.8/3.8(Hydraulic) 1.25/3.18(power)			1.8/3.8
Positioning accuracy	X-axis	mm	32×32			32×32, 40×40
	Z-axis	mm	∅50, ∅40, ∅32, ∅25			∅80, ∅60, ∅50, ∅40, ∅32
Available for selecting tool in the nearest station			Available			Available
Max. weighted load (disc/shaft workpiece)		kg	500/2000			800/2000
Machining accuracy			IT6			IT6
Surface roughness of workpiece		μm	Ra1.6			Ra1.6
Positioning accuracy of X/Y-axis		mm	0.011	0.013	0.013	0.016
Positioning accuracy of Z-axis		mm	0.040	0.050	0.055	0.050
Repositioning for X/Y-axis		mm	0.006	0.006	0.006	0.007
Repositioning for Z-axis		mm	0.012	0.020	0.020	0.020
Machine weight (net weight)		kg	18000	23000	28000	30000
Center height from bottom of bed		mm	1240	1300	1300	1750
Overall dimensions of machine L×W×H (Not include chip conveyor)		mm	8200×2600×2680	8842×3130×3100	9342×3130×3100	9470×2910×3680
Power of general power supply		kVA	60(FANUC)/70(SIEMENS)			87

HTC SERIES CNC LATHE

HTC16 HTC32 HTC45 HTC54

SERIES

HTC16/32/45/54 series CNC lathe are used for the machining of cylindrical, arc, and conic surfaces, grooves and threads in either metric or inch execution, on rotary parts. They can batch process with high efficiency and accuracy, and are therefore suitable for such industries as automotive, electronic, aerospace, military, etc.

The incorporation of an integral slant bed design ensures that the machines maintain accuracy while taking heavy cuts. Wide rectangular box-type guideways prevent twisting, bending and lifting of the tool-post. Guideways are laminated with anti-friction material to ensure the optimum positioning accuracy during rapid feeding.

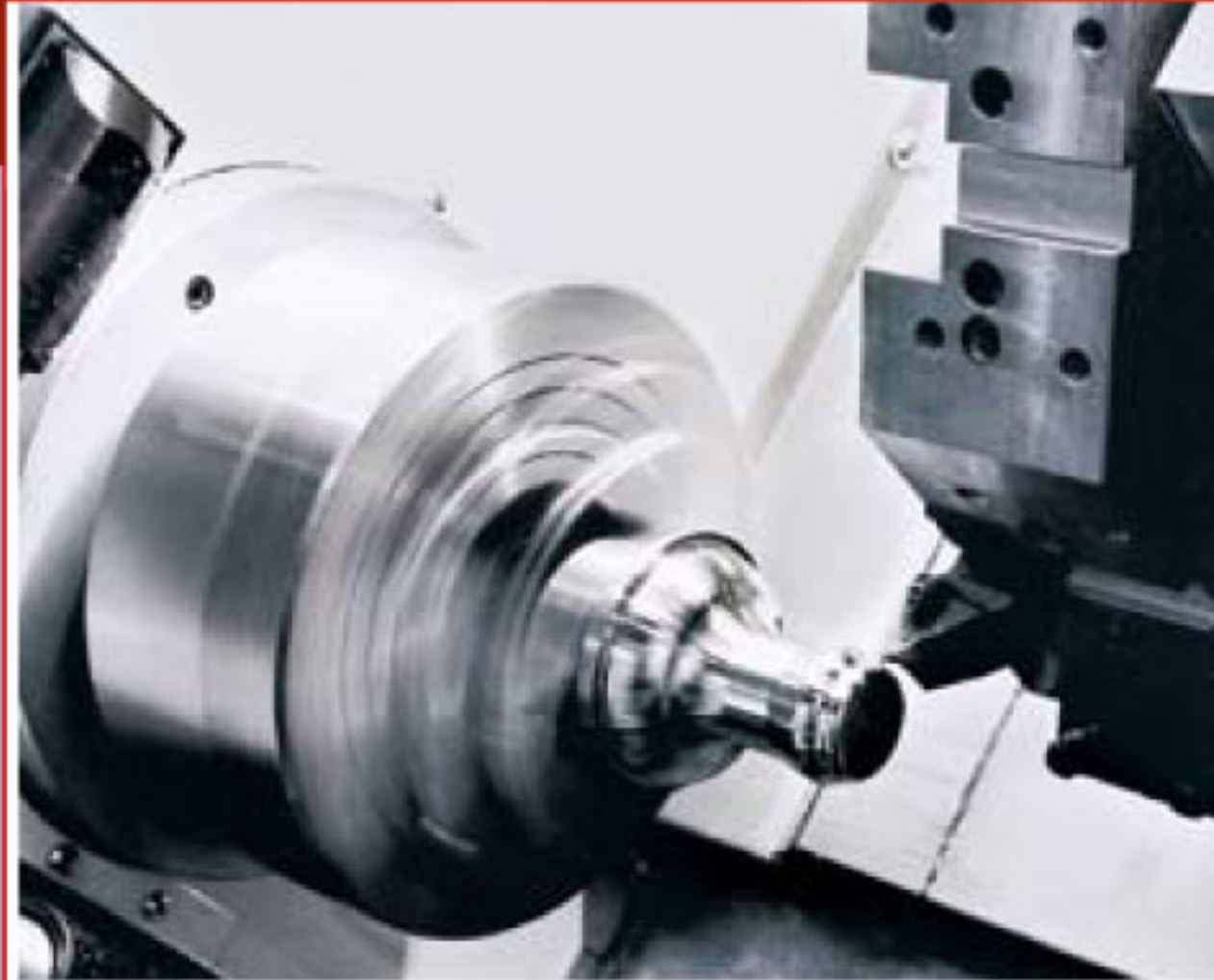
Linear guideways permit high speed movement, minimizing friction resistance and thermal deformation, improving machining accuracy over the longer term.

X and Z axis servomotors are connected to precision ball screws with flexible couplings, maintaining high cutting accuracy.

The design of the spindle also reduces thermal deformation, thus keeping the spindle axis stable over long work cycles.

The horizontal-axis turret incorporates a large disc coupling to fix its position, thus ensuring precise positioning and little deformation due to cutting pressures.

The tool detection device can automatically input the tool-tip position into the CNC, which greatly reduces the adjustment time resulting from a tool change. It can also compensate automatically for tool wear. The machine has fully enclosed workspace, and separate cooling tank and chip conveyor, which prevent the machine from losing accuracy from cutting heat.



HTC SERIES CNC LATHE

HTC1608

This machine integrates electrical mechanical, and hydraulic systems into a compact, space-saving, well laid-out, aesthetically attractive unit, which is easy to maintain and promotes efficient chip removal.

The machine spindle is driven by an inverter motor and drive system, which permits step-less speed range from 100-5000 rpm.

Customers can choose between different axis servo systems according to their needs, which will render high accuracy positioning, reliable performance, and flexible operation.

Longitudinal and cross-slide guideways are equipped with precision linear bearings for highly accurate positioning and rapid movement. The rapid positioning speed in longitudinal and cross axes is 16m/min., which greatly reduces the total machining time. The machine has an automatic centralized lubrication system which has pressure and volume alarms to increase productivity and reduce the possibility of damage.

The work area is fully enclosed with a sliding door which is very easy to operate, superior sealing against leaks, which makes the machine easy, safe, and reliable to operate, not to mention aesthetically pleasing to the eye.

The coolant system incorporates a high-lift pump which makes for large flow and high pressure.

The cross-slide saddle is 730mm. in length, and can be equipped with a gang-style tool system which multiple tool-holders which can save tool-change times and reduce the error that might be caused by a rotating turret style system. An 8-position tool turret is offered as an option if required by the user, in order to machine more complex parts.



HTC SERIES CNC LATHE

SERIES

HTC50

This machine has full 2-axis machining functions. The bed is made with advanced sand casting technology, imparting excellent damping characteristics to the finished structure. It has high power and rigidity, and can be used to turn straight, oblique, and arc contours, threading, taper threading, tapping, surface threading, and multiple-entry threads. Radius compensation makes it suitable for the accurate machining of shaft-type, disc-shaped, and sleeve-type work-pieces of complex shape.

Model HTC5020b with integral slant-bed and 8-station vertical hydraulic turret is specially designed for machining disc-type work-pieces, and pipe coupling. It has good clearance for tooling and is suitable for heavy cutting and minimal chance of adjacent station tool interference. This machine is not equipped with a tailstock.



HTC SERIES CNC LATHE

HTC63/80 SERIES HTC63b/80b

HTC63/80 series machines are an updated version of the original CK6263 CNC turret lathes which were awarded the National Quality Gold Prize. The machines build on the merits of the original series, and have the additional features of higher power and strong rigidity. They can cut cylindrical, taper, and arc contours, can thread in metric or inch execution, straight, tapered, or multiple-lead threads, with tool radius compensation. The machine is therefore suitable for machining shaft-type, disc-type, and sleeve-type work-pieces with complex shape, all with high accuracy.

HTC63b/80b series machines with integral slant-bed and 8-position vertical turret are especially designed for machining disc-type work-pieces, and are the first choice for machining this kind of work-piece or for pipe couplings. They have good tool clearance and are suitable for heavy cutting with little tool interference from adjacent stations. This machine is not equipped with a tailstock.



Item	Units	HTC1635	HTC32 series	HTC45 series	HTC54 series
Max. swing over bed	mm	400	460	520	630 615(1000/1500)
Max. cutting dia.	mm	160	320	450	540
Max. swing over slide	mm	160	260	320	420
Max. cutting length	mm	350	550/970	540/960/1500	650 1000 1500
Spindle speed		Stepless	Stepless	Stepless	Stepless
Range of spindle speed	Main servo	High speed bed 60-5000 High rigidity headstock 40-4000	35-4000(A ₂ -6) 31.5-3150(A ₂ -8)	30-3000	20-2500 (Main motor a50/6000ip)
	Inverter motor	200-4000	200-3000(A ₂ -6) 200-2600(A ₂ -8)	200-2400	
Power of main motor (30min/rated)	FANUC 0i-Mate	11/7.5	(Frequency conversion)15 (Frequency conversion)18.5		
	FANUC 0i-TD	7.5/5.5	15/11	18.5/15	30/22
	SIEMENS 802D	12/9	30/22	30/21.5	30/21.5
Form and code of spindle nose		A2-5	A2-6/A2-8	A2-8	A2-11
Dia. of through spindle bore	mm	43	62/80	80	85(104)
Hydraulic chuck		6"	8"/10"	10"	12"
Form of turret		Horizontal, 8-station	Horizontal, 8-station	Horizontal, 12-station	Horizontal, 8-station
Size of tool	Tool for turning O.D.	□ 20×20	□ 25×25	□ 25×25	32×32×170
	Bore	∅20	∅40/∅32/∅25	∅40/∅32/∅25	∅50/∅40/∅32/∅25
Indexing time of turret	s	0.29/0.48	0.7/1.8	0.7/2	0.8/1.5(Power-driven)
Repeat positioning accuracy of turret indexing	"	±2"	±2"	±2"	
Rapid traveling speed of X/Z-axis	Rolling guideway	12/20	12/18	12/18	12/18
	Sliding guideway		10/12	10/12	12/15
Travel of X-axis	mm	110	208	275	325
Travel of Z-axis	mm	380	600/1020	600/1020/1580	670/1020/1520
Dia./travel of tailstock sleeve	mm	60/80	100/130	100/130	120/150
Taper bore of tailstock sleeve	mm	MT4	MT4	MT4	MT5
Accuracy of workpiece		IT6	IT6	IT6	IT6
Surface roughness of workpiece	μm	Ra1.6-0.8	Ra1.25	Ra1.25	Ra1.25
Max. weighted load (disc/shaft workpiece)	kg	70/300	200/800	250/1000	200/1000
Machine weight	kg	3000	5500/6000	5500/6400/6900	7500/8000/8500

Item	Units	HTC1608
Chuck diameter	"	6"
Max. swing over bed	mm	∅480
Max. swing over carriage	mm	∅380
Max. machining diameter	mm	∅160
Max. cutting length	mm	80
Spindle bore diameter	mm	∅40
Form of spindle nose		A ₂ -4
Max. travel of X-axis	mm	280
Max. travel of Z-axis	mm	220(Gang tool) 100(Turret)
Main motor power	kW	5.5/7.5
Single spindle headstock	Frequency main motor	A ₂ -4 r/min 100-5000
		A ₂ -5 r/min -
		A ₂ -6 r/min -
Motor torque for X/Z-axis	Nm	6/6
Rapid speed (X/Z-axis)	m/min	12/16
No. of tool stations	Station	3(Gang tool) 8(Turret)
Size of tool shank	mm	20×20
Diameter of tool hole	mm	∅25
Positioning accuracy of turret	arc-second(")	±4"
Repositioning accuracy of turret	arc-second(")	±1.6"
Workpiece accuracy		IT6
Positioning accuracy	mm	0.013/0.016
Repositioning accuracy	mm	0.005/0.006
Roughness	μm	Ra1.6-0.8
Overall dimensions of machine (L×W×H)	mm	2000×1300×1650
Machine weight (net weight)	kg	1800

Item		Units	HTC50 Series			HTC5020b
Chuck diameter		mm	12"			12"
Max. swing over bed		mm	Ø600			Ø600
Max. swing over slide		mm	Ø430			Ø430
Max. dimension of disc workpiece		mm				Ø500×200
Max. travel of X/Z-axis		mm	270/1000	270/1500	270/2500	330/500
Max. cutting length		mm	1000	1500	2500	200
Spindle bore diameter		mm	Ø75			Ø75
Range of spindle speed		r/min	30-2000 (Harbin bearing 1500)			35-2000 (Harbin bearing 1500)
Form of spindle nose			A ₂ -8			A ₂ -8
Diameter of tailstock sleeve		mm	Ø140			
Travel of tailstock sleeve		mm	160			
Taper of tailstock sleeve		Morse	No.5			
Main motor power		Nm	22/26			22/26
Motor torque for X/Z-axis		m/min	12/22			12/22
Rapid speed (X/Z-axis)		Station	12/16			10/12
No. of tool stations		mm	8(12)			8
Size of tool shank		mm	25×25			25×25
Diameter of tool hole		arc-second(")	Ø40			Ø50
Positioning accuracy of tool turret		arc-second(")	±4"			
Repositioning accuracy of tool turret			±1.6"			±1.6"
Workpiece accuracy			IT6			IT6
Roughness		kW	Ra1.6-0.8			Ra1.6-0.8
Positioning accuracy	X-axis	mm	0.011	0.011	0.011	0.011
	Z-axis	mm	0.015	0.020	0.040	0.015
Repositioning accuracy	X-axis	mm	0.006	0.006	0.006	0.006
	Z-axis	mm	0.008	0.012	0.020	0.008
Overall dimensions of machine (L×W×H)		mm	3950×2020×1900			4079×2004×2236
			4460×2020×2150			
			5640×2260×2262			
Machine weight (net weight)		kg	9000/10000			9000

Item		Units	HTC63 Series				HTC80 Series				HTC6330b	HTC8030b
Chuck diameter		"	15"				15"				Ø500	Ø500
Max. cutting length		mm	970	1250	2700	3600	970	1250	2700	3600	300	300
Max. swing over bed		mm	Ø800/Ø750/Ø710/Ø670				Ø1000/Ø950/Ø910/Ø870				Ø790	Ø980
Max. swing over carriage		mm	Ø580				Ø780				Ø550	Ø750
Max. range of disc workpiece		mm	Ø630				Ø800				Ø630	Ø800
Max. travel of X/Z-axis		mm	410/1000 410/1300 410/2750 410/3650				500/1000 500/1300 500/2750 500/3650				420/800	515/800
Spindle bore diameter		mm	85/100/125(A ₂ -11) 85/100/140(A ₂ -15)								85/100/140	85/100/140
Range of spindle speed		r/min	50-1200				50-1200				50-1200	50-1200
Form of spindle nose			A ₂ -11(A ₂ -15)				A ₂ -11(A ₂ -15)				A ₂ -15	A ₂ -15
Diameter of tailstock sleeve		mm	Ø160				Ø160				-	-
Travel of tailstock sleeve		mm	120				120				-	-
Taper of tailstock sleeve		Morse	No.5				No.5				-	-
Main motor power		kW	30/37				30/37				30/37	30/37
Motor torque for X/Z-axis		Nm	22/30				22/30				22/30	22/30
Rapid speed (X/Z-axis)		m/min	10/12	10/12	10/10	10/12	10/12	10/12	10/10	10/12	8/10	8/10
No. of tool stations		Station	12				12				8	8
Size of tool shank		mm	32×32				32×32				32×32	32×32
Diameter of tool hole		mm	Ø50				Ø50				Ø80	Ø80
Positioning accuracy of tool turret		arc-second(")	±6"				±6"					
Repositioning accuracy of tool turret		arc-second(")	±2"				±2"				0.005	0.005
Workpiece accuracy			IT6				IT6				IT6	IT6
Roughness			Ra1.6				Ra1.6				Ra1.6	Ra1.6
Positioning accuracy	X-axis	mm	0.013	0.013	0.013	0.013	0.013	0.013	0.013	0.013	0.012	0.012
	Z-axis	mm	0.020	0.025	0.050	0.060	0.020	0.025	0.050	0.060	0.02	0.02
Repositioning accuracy	X-axis	mm	0.007	0.007	0.007	0.007	0.007	0.007	0.007	0.007	0.007	0.007
	Z-axis	mm	0.010	0.013	0.03	0.04	0.010	0.013	0.03	0.04	0.010	0.010
Overall dimensions of machine (L×W×H)		mm	4650×2600×2640				4650×2600×2640				4650×2600×2640	
			5190×2600×2640				5190×2600×2640					
			6740×2600×2640				6740×2600×2640					
			7690×2600×2640				7690×2600×2640					
Machine weight (net weight)		kg	14500	16500	22500	26500	15000	17000	23000	27000	14000	14500

* Thru-hole diameter of the spindle changes with different configuration of the spindle.

Asia & Pacific Dept.

Tel: +86-24-25191509

Fax: +86-24-25876317

E-mail: peng_wang@smtcl.com

Europe Dept.

Tel: +86-24-25191518

Fax: +86-24-25876317

E-mail: feng_li@smtcl.com

Middle East Dept.

Tel: +86-24-25191511

Fax: +86-24-25876320

E-mail: chaowei_shen@smtcl.com

North America Dept.

Tel: +86-24-25191579

Fax: +86-24-25876320

E-mail: symtcl@hotmail.com

South America Dept.

Tel: +86-24-25191526

Fax: +86-24-25876320

E-mail: yan_gao@smtcl.com

SMTCL Vietnam Office

Tel: +84-04-6402719

Fax: +84-04-6405344

E-mail: peng_wang@smtcl.com

Service Dept.

Tel: +86-24-25191552

Fax: +86-24-25876317

E-mail: yantao_wang@smtcl.com

Business Supporting Department

Tel: +86-24-25191532

Fax: +86-24-25191551

E-mail: jiufeng_wang@smtcl.com

SMTCL USA, INC.

17038E. Gale Avenue, City of Industry, CA 91745 USA

Tel: +1-626-733-7190

Fax: +1-626-737-1169

E-mail: smtclusa@smtcl.com

SMTCL CANADA INC.

2783 Portland Drive, Oakville, ON L6H 6M6 CANADA

Tel: +1-905-829-1579

Fax: +1-905-829-8692

E-mail: nayongyan@hotmail.com

SMTCL TURKEY BRANCHEskoop Sanayi Sitesi C4/181-183 İkitelli, Küçükçekmece
ISTANBUL/TURKEY

Tel: +90-212-671-4133

Fax: +90-212-671-4139

E-mail: chaowei_shen@smtcl.com

SMTCL DEUTSCHLAND GMBH

Orber Strasse 8 D-60386 Frankfurt, Germany

E-mail: smtcleu@smtcl.com

**SHENYANG MACHINE TOOL CO., LTD.**Add: No.1, 17A, Kaifa Road, Shenyang Economic & Technological Development Area, China
<http://www.smtcl.com> After-sales Service Dept.: +86-24-25191552 Post Code: 110142

SHENYANG MACHINE TOOL CO., LTD.

HTC SERIES LARGE-TYPE CNC LATHE

There are light, medium, heavy, and super-heavy versions of this series of machine. Maximum swing diameter from 1000 mm. to 3150 mm. and maximum weight of work-piece held between centers of from 5-tonnes to 160 tonnes.

The light series adopts vee-and-flat type of guideway; the medium series has either double rectangular "box" type ways, or integral triple guideways; the heavy series incorporates integral "quad" box-ways; the super-heavy series has separate quad box-ways.

This series can machine various shaft and disc-type work-pieces. It can also turn thread, circular, arc, cone, inside and outside curved surfaces of rotary parts, and can meet the speed requirements of ferrous and non-ferrous metals for high-speed cutting.

This series of machine is designed principally for the machining of rotary work-pieces with high efficiency, in large batches, and with high accuracy in the fields of ship-building, railway locomotive, aerospace, military, metallurgy, etc.

The rigid configuration of the bed, spindle, and tail-stock greatly enhance the overall rigidity of the machine, ensuring stability during heavy cutting.



HIGH RIGIDITY, HIGH STRENGTH, HIGH ACCURACY,
HIGH EFFICIENCY AND EXCELLENT STABILITY



HTC SERIES LARGE-TYPE CNC LATHE

Headstock

Western-made high precision bearings, high precision hardened and ground gears, and hydraulic range change mechanism are incorporated into the headstock.

Chuck

Highly reliable 4-jaw chuck with high clamping force is included as standard. Other 3-jaw and 4-jaw chucks are available according to the customer's requirements.

Turret

Heavy duty tool turrets are incorporated, with optional name brand horizontally and vertically revolving turrets are available as options.

Operation panel

Internationally recognized CNC systems such as Fanuc or Sinumerik are options which can be specified for familiarity of use, high speed and accuracy.

Tailstock

The tailstock may be supplied as 2-piece or single piece type, with high accuracy bearings. Mechanical, hydraulic, or electric options are available.

Saddle & slide

The saddle and slide are cast with structural ribbing. Western-made ball screws or high precision rack and pinion components are incorporated for high precision.

Bed

The bed is of cast iron with ample ribbing throughout. Separate apron guideway makes for an extremely rigid overall machine structure.

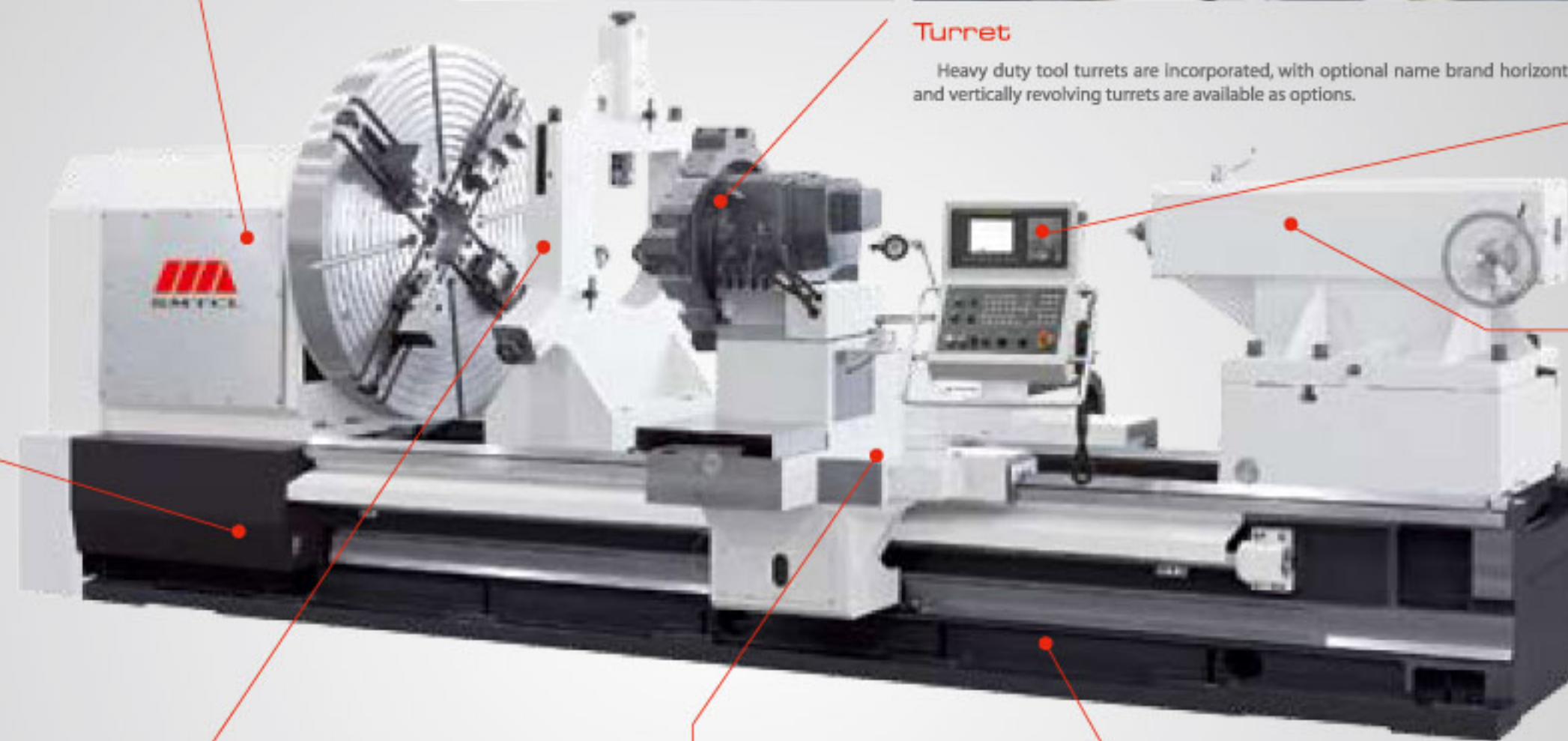
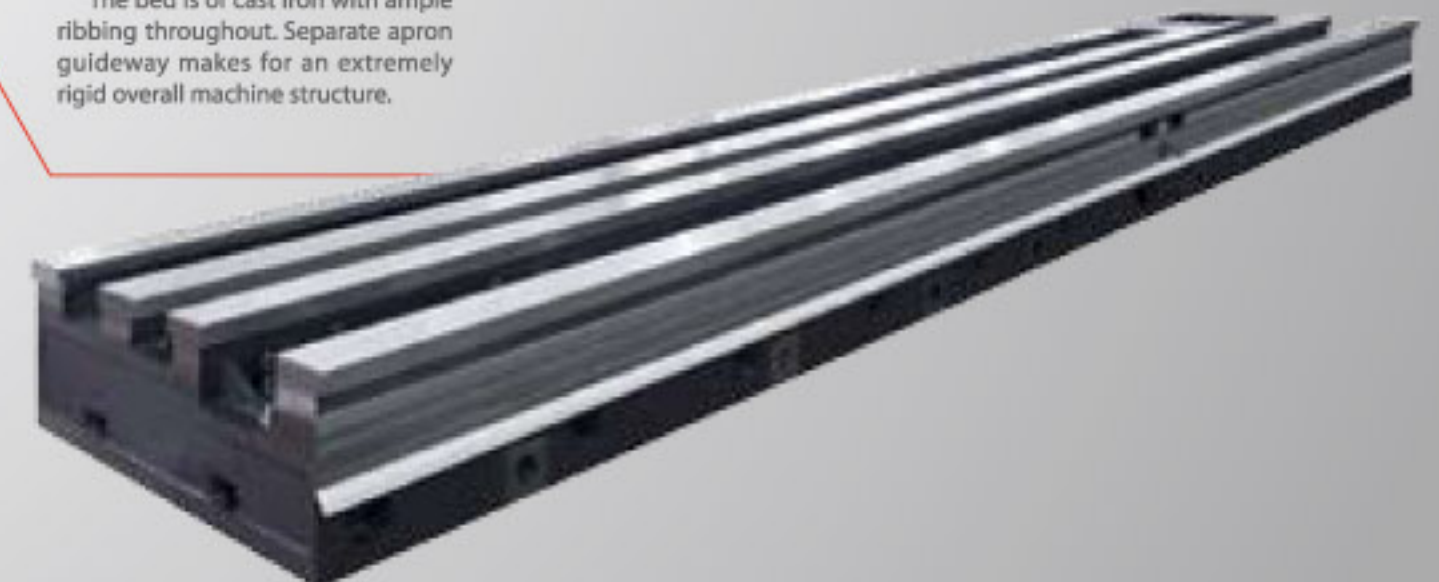
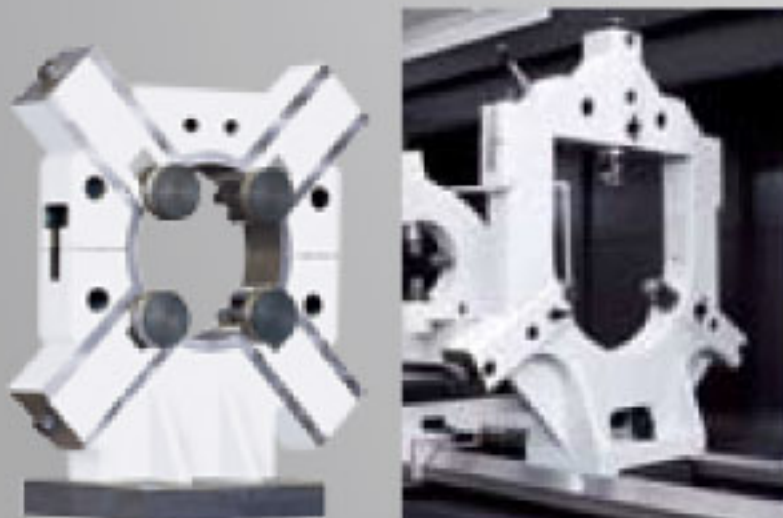
Steady rest

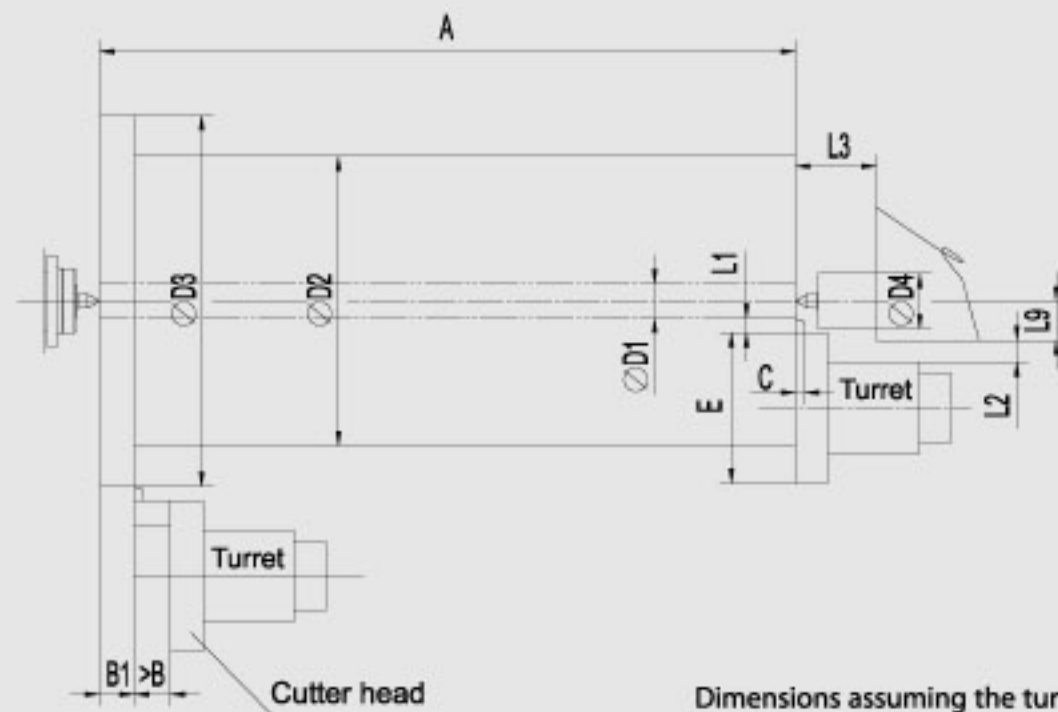
A variety of open and closed steady rests are available if required.



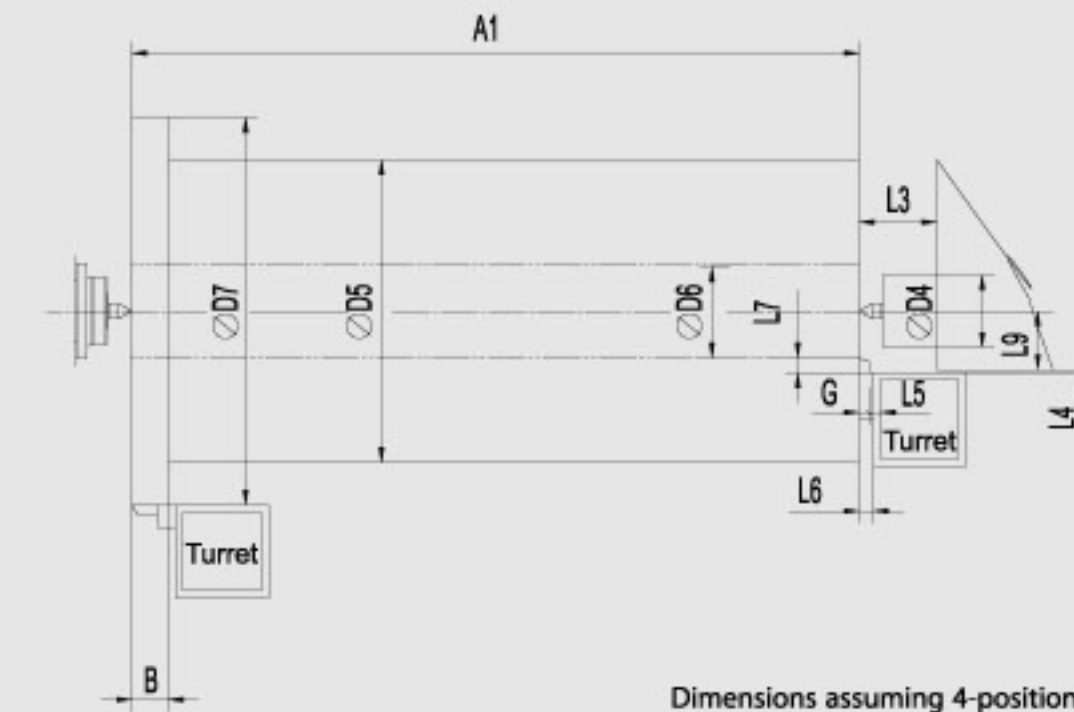
Servo motor

Original FANUC or SINUMERIK AC servo motor with fast response speed and high reliability.





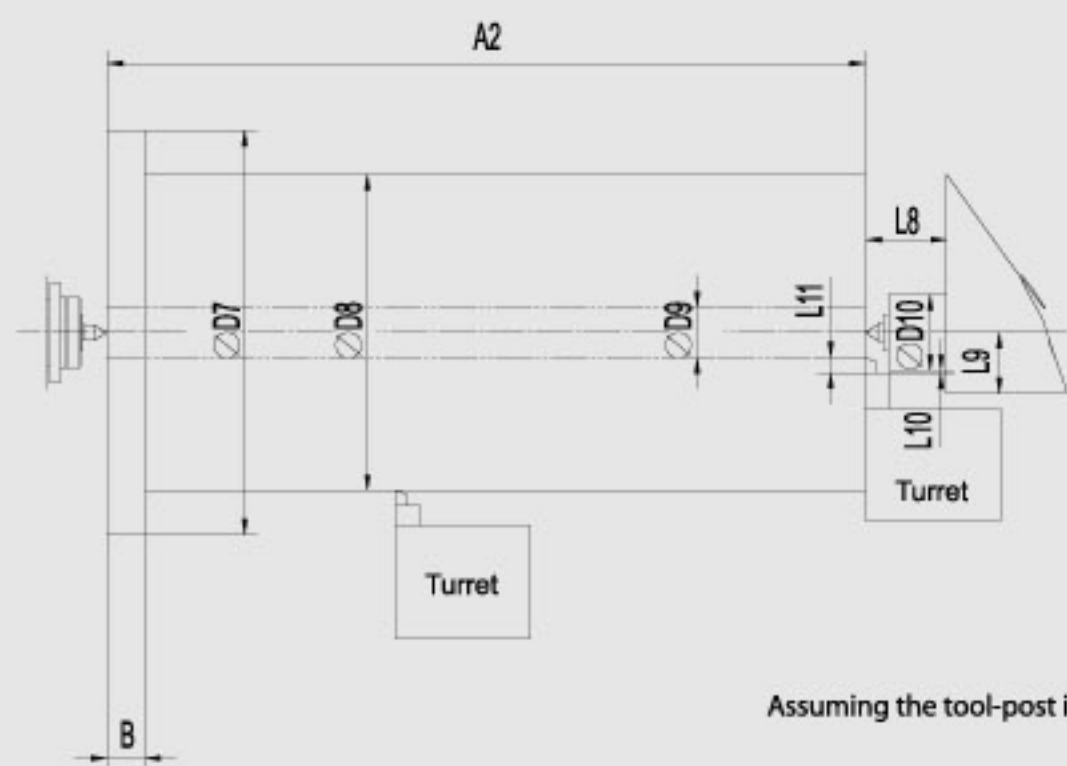
Dimensions assuming the turret is horizontal-axis type with 8 tool stations.



Dimensions assuming 4-position vertical-axis tool turret.

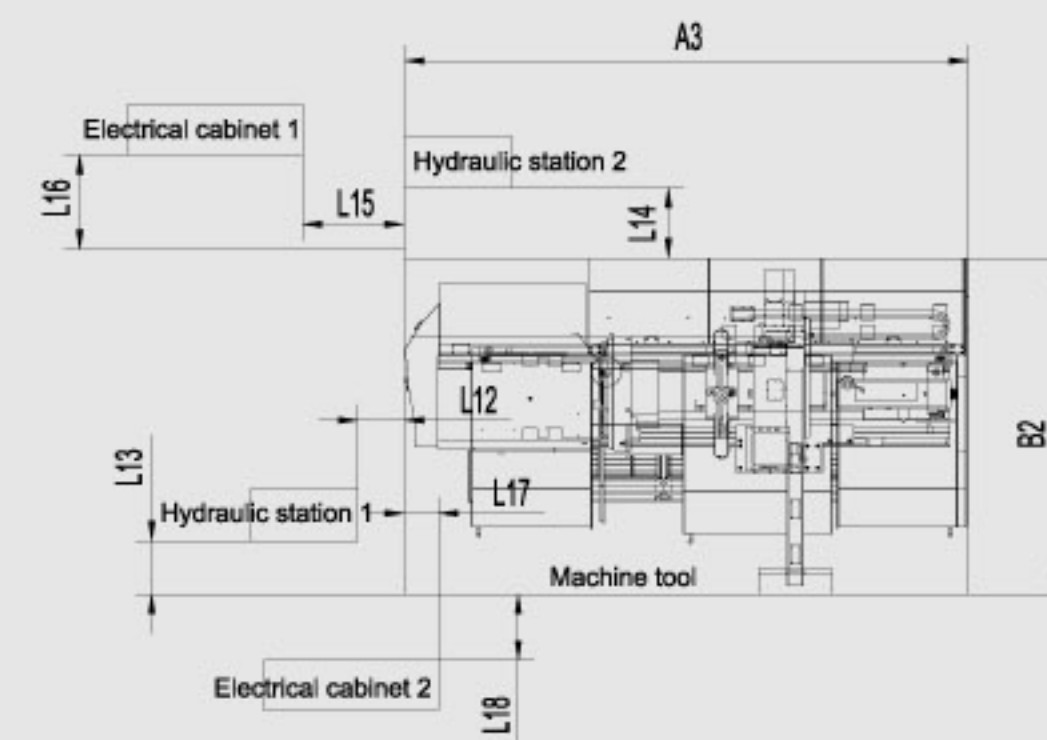
Item	Units	Light series				Middle series (Double guideways)				Middle series (Triple guideway)				Heavy series						Super series			
		HTC100	HTC125	HTC160	HTC200	HTC100	HTC125	HTC160	HTC200	HTC100	HTC125	HTC 160	HTC200	HTC100	HTC125	HTC160	HTC200	HTC220	HTC250	HTC160	HTC200	HTC250	HTC315
A	mm	1300, 2800, 4800, 5800, 7800, 10800	1300, 2800, 4800, 5800, 7800, 10800	3000, 5000, 8000, 11000	3000, 5000, 8000, 11000	3000-16000	3000-16000	3000-16000	3000-16000	-	-	-	-	-	-	-	-	-	-	-	-	-	-
A1	mm	1400, 2900, 4900, 5900, 7900, 10900	1400, 2900, 4900, 5900, 7900, 10900	3000, 5000, 8000, 11000	3000, 5000, 8000, 11000	3000-16000	3000-16000	3000-16000	3000-16000	5000-16000	5000-16000	5000-16000	5000-16000	5000-16000	5000-16000	5000-16000	5000-16000	5000-16000	5000-16000	-	-	-	-
B	mm	Determined by extended tool shank length				Determined by extended tool shank length				Determined by extended tool shank length				Determined by extended tool shank length						400	400	400	400
C	mm	40	40	40	40	40	40	40	40	-	-	-	-	-	-	-	-	-	-	-	-	-	-
D1	mm	60	60	Ø150	Ø150	Ø400/Ø150	Ø400/Ø150	Ø300	Ø300	-	-	-	-	-	-	-	-	-	-	-	-	-	-
D2	mm	610	820	Ø1250	Ø1600	650	825	1250	1600	-	-	-	-	-	-	-	-	-	-	-	-	-	-
D3	mm	750	1000	Ø1600	Ø2000	1000	1250	1600	2000	-	-	-	-	-	-	-	-	-	-	-	-	-	-
D4	mm	160	160	Ø240	Ø240	300/240	300/240	300	300	260/280	260/280	280/300	280/300	300	300	300/350/380	300/350/380	300/350/380	300/350/380	-	-	-	-
D5	mm	610	820	Ø1250	Ø1600	650	825	1250	1600	750	900	1250	1600	850	1000	1250	1600	1800	2000	-	-	-	-
D6	mm	60	60	Ø240	Ø240	240	240	320	320	384	384	384	384	384	384	384	384	384	384	-	-	-	-
D7	mm	1000	1250	Ø1600	Ø2000	1000	1250	1600	2000	1000	1250	1600	2000	1000	1250	1600	2000	2200	2500	Ø1600	Ø2000	Ø2500	Ø3150
E	mm	480	480	650	650	650	650	320	320	-	-	-	-	-	-	-	-	-	-	-	-	-	-
G	mm	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	-	-	-	-
L1	mm	60	60	60	60	60	60	60	60	-	-	-	-	-	-	-	-	-	-	-	-	-	-
L2	mm	10	10	90	90	90	90	90	90	-	-	-	-	-	-	-	-	-	-	-	-	-	-
L3	mm	300	300	348	348	260/348	260/348	260/360	260/360	180	180	180	180	320	320	320	320	320	320	-	-	-	-
L4	mm	-	-	13	13	10/13	10/13	10	10	40	40	40	40	40	40	40	40	40	40	-	-	-	-
L5	mm	-	-	-	-	40	40	40	-	10	10	10	10	10	10	10	10	10	10	-	-	-	-
L6	mm	-	-	58	58	58	58	58	-	58	58	58	58	58	58	58	58	58	58	-	-	-	-
L7	mm	60	60	60	60	60	60	60	-	60	60	60	60	60	60	60	60	60	60	-	-	-	-
L9	mm	-	-	170	170	420/170	420/170	220	210	242	242	242	242	242	242	242	242	242	242	250	350	475	560

Diagram of turning dimensions



Assuming the tool-post is of the fixed-frame type

Diagram of machine tool layout dimensions

[illegible]

Item	Light series				Middle series (Double guideways)				Middle series (Triple guideway)				Heavy series						Super series			
	HTC100	HTC125	HTC160	HTC200	HTC100	HTC125	HTC160	HTC200	HTC100	HTC125	HTC160	HTC200	HTC100	HTC125	HTC160	HTC200	HTC220	HTC250	HTC160	HTC200	HTC250	HTC315
Chinese spindle bearing	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Imported spindle bearing	★	★	★	★	★	★	★	★	★	★	★	★	★	★	★	★	★	★	★	★	★	★
Sliding guideway (Vee and flat guideways)	●	●	●	●	●	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sliding guideway (Box type guideways)	-	-	-	-	★	★	●	●	●	●	●	●	●	●	●	●	●	●	●	●	★	-
Sliding guideway (Steel insert guideways)	-	-	-	-	-	-	-	-	★	★	★	★	★	★	★	★	★	★	★	★	-	-
Hydrostatic guideway	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	●	●
Chinese vertical 4-stations turret	●	●	●	●	●	●	●	●	●	●	-	-	-	-	-	-	-	-	-	-	-	-
Imported vertical 4-stations turret	★	★	★	★	★	★	★	★	★	★	-	-	●	●	★	★	★	★	-	-	-	-
Imported horizontal 8-stations turret	★	★	★	★	★	★	★	★	★	★	★	★	★	★	-	-	-	-	-	-	-	-
Frame turret	-	-	-	-	-	-	-	-	★	★	●	●	★	★	●	●	●	●	●	●	●	●
Mechanical tailstock	●	●	●	●	●	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hydraulic tailstock	★	★	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Electric tailstock	-	-	-	-	★	★	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Chinese ballscrew for X/Z-axis	★	★	★	★	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Imported ballscrew for X/Z-axis	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Imported scale for X/Z-axis	★	★	★	★	★	★	★	★	★	★	★	★	★	★	★	★	★	★	★	★	★	★
AC spindle servo motor	●	●	●	●	●	●	●	●	●	●	●	●	★	★	★	★	★	★	★	★	★	★
DC spindle motor	-	-	-	-	-	-	-	-	★	★	★	★	●	●	●	●	●	●	●	●	●	●
FANUC 0i FANUC 31i	●	●	●	●	●	●	●	●	★	★	★	★	★	★	★	★	★	★	★	★	★	★
SINUMERIK 802D sl SINUMERIK 840D	★	★	★	★	★	★	★	★	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Closed steady rest	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Open steady rest	★	★	★	★	★	★	★	★	★	★	★	★	★	★	★	★	★	★	★	★	★	★
Follower rest	●	●	-	-	★	★	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chip conveyor (Chain)	★	★	★	★	★	★	★	★	★	★	★	★	★	★	★	★	★	★	●	●	●	●
Half enclosure protective cover	●	●	★	★	★	★	★	★	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Boring device	★	★	★	★	★	★	★	★	★	★	★	★	★	★	★	★	★	★	★	★	★	★
Belt grinding device	★	★	★	★	★	★	★	★	★	★	★	★	★	★	★	★	★	★	★	★	★	★

● Standard accessories ★ Optional accessories

Remark: (1) The standard control of triple guideway series is SINUMERIK 802D.

(2) The standard control of heavy series is SINUMERIK 840D.

(3) The standard control of super series is SINUMERIK 840D.

Item	Units	Light series				Middle series (Double guideways)			
		HTC100	HTC125	HTC160	HTC200	HTC100	HTC125	HTC160	HTC200
Max. swing dia. over bed	mm	1000	1250	1600	2000	1000	1250	1600	2000
Max. swing dia. over saddle	mm	610	820	1250	1600	650	860	1250	1600
Max. turning length	mm	1400-10900(Vertical 4-stations turret) 1300-10800(Horizontal 8-stations turret)	1400-10900(Vertical 4-stations turret) 1300-10800(Horizontal 8-stations turret)	1500-10900	1500-10900	3000-11000	3000-11000	3000-16000	3000-16000
Max. weight of workpiece between two centers	t	5	5	10	10	10/15/25	10/15/25	25	25
Range of spindle speed	r/min	5-500	5-500	2-250	2-250	2-250	2-250	2-250	2-250
Main motor power	kW	22/30	22/30	37/45	37	30/37/45	30/37/45	45/51	45/51
Diameter of chuck/form of chuck	mm	Ø1000/4-jaw manual	Ø1000/4-jaw manual	Ø1600/4-jaw manual	Ø1600/4-jaw manual	Ø1000/4-jaw manual	Ø1250/4-jaw manual	Ø1250/4-jaw manually	Ø1600/4-jaw manually
Rapid moving speed of X- axis	m/min	6	6	4	4	6	6	6	6
Rapid moving speed of Z-axis	m/min	6/5	6/5	6	6	5	5	5	5
Travel of X-axis	mm	530	630	850	1050	530	630	850	1050
Travel of Z-axis	mm	1500-11000	1500-11000	1500-11000	1500-11000	3000-16000	3000-16000	3000-16000	3000-16000
Transmission of Z-axis		BallscREW or pinion and rack				BallscREW or pinion and rack			
Diameter of tailstock sleeve	mm	160/200	160/200	240	240	240/280/300	240/280/300	300	300
Travel of tailstock sleeve	mm	300/250	300/250	250	250	200	200	200-300	200-300
Form of turret		Vertical 4-stations turret/Horizontal 8-stations turret				Vertical 4-stations turret/Horizontal 8-stations turret			
Max. cutting force of single turret	kN	25	25	25	25	30/50	30/50	50	50
Form of bed guideway		V-type-guideway				V-type-guideway/Double-rectangle guideway			
Width of bed guideway	mm	755	755	1100	1100	1100	1100	1100	1100

Remark: The machining length without in the table can be consulted.



Item	Units	Middle series (Triple guideway)				Heavy series						Super series			
		HTC100	HTC125	HTC160	HTC200	HTC100	HTC125	HTC160	HTC200	HTC220	HTC250	HTC160	HTC200	HTC250	HTC315
Max. swing dia. over bed	mm	1000	1250	1600	2000	1000	1250	1600	2000	2200	2500	1600	2000	2500	3150
Max. swing dia. over saddle	mm	750	900	1250	1600	850	1000	1250	1600	1800	2200	1250	1600	2000	2500
Max. turning length	mm	5000-16000	5000-16000	5000-16000	5000-16000	5000-16000	5000-16000	5000-16000	5000-16000	5000-16000	5000-16000	5000-16000	5000-16000	5000-16000	5000-16000
Max. weight of workpiece between two centers	t	18/25	18/25	25/32	25/32	25/40	25/40	25/40/50	25/40/50	25/40/50	25/40/50	40/50/63	40/50/63	40/50/63/80/125/160	40/50/63/80/125/160
Range of spindle speed	r/min	3-315	3-315	2-200	2-160	2-200/1-160	2-200/1-160	2-200/1-160	2-200/1-160	2-220/1-160	2-200/1-160	0.8-160	0.8-160/0.6-120	0.8-160/0.6-120/0.5-100	0.8-160/0.6-120/0.5-100
Main motor power	kW	55	55	55	55	55/75	55/75	55/75/90/100/130	55/75/90/100/130	55/75/90/100/130	55/75/90/100/130	55/75/90	55/75/90/130	55/75/90/110/125/132	55/75/90/110/125/132
Diameter of chuck/form of chuck	mm	Ø1000/4-jaw manual	Ø1250/4-jaw manual	Ø1600/4-jaw manual	Ø1600/4-jaw manual	Ø1000/4-jaw manual	Ø1250/4-jaw manual	Ø1600/4-jaw manual	Ø1800/4-jaw manual	Ø1800/4-jaw manual	Ø2000/4-jaw manual	Ø1250/4-jaw manual	Ø1600/4-jaw manual	Ø2000/Ø2500/4-jaw manual	Ø2000/Ø2500/4-jaw manual
Rapid moving speed of X- axis	m/min	4	4	4	4	5	5	5	5	5	5	6	6	4/5/6	4/5/6
Rapid moving speed of Z-axis	m/min	5	5	5	5	6	6	6	6	6	6	6	6	4/5/6	4/5/6
Travel of X-axis	mm	530	630	820	820	520	630	820	1020	1120	1270	850	1050	1300	1650
Travel of Z-axis	mm	5000-16000	5000-16000	5000-16000	5000-16000	5000-16000	5000-16000	5000-16000	5000-16000	5000-16000	5000-16000	5000-16000	5000-16000	5000-16000	5000-16000
Drive mechanism of Z-axis		Pinion and rack				Pinion and rack						Pinion and rack			
Diameter of tailstock sleeve	mm	260-280	260/280	280/300	280/300	300/350	300/350	300/350/380	300/350/380	300/350/380	300/350/380	350/450/600	350/450/600	350/450/600/750/850	350/450/600/750/850
Travel of tailstock sleeve	mm	200	200	200	200	200	200	200	200	200	200	200/100	200/100	200/100	200/100
Form of turret		4 stations electric turret		frame turret		Vertical 4-stations/frame turret		Frame turret	Frame turret	Frame turret	Frame turret	Frame turret	Frame turret	Frame turret	Frame turret
Max. cutting force of single turret	kN	40/60	40/60	50/80	50/80	40/60	40/60	40/60/80/100	40/60/80/100	40/60/80/100	40/60/80/100	80/100	80/100/150	80/100/125/150	80/100/125/160/200
Form of bed guideway		Integral triple guideway				Integral quadri guideway						Separate quadri guideway			
Width of bed guideway	mm	1440	1440	1760	1760	2200	2200	2200	2200	2200	2200	1200; 1600	1200; 1600	1200; 1600/1400; 1800/1600; 2000	1200; 1600/1400; 1800/1600; 2000

Remark: The machining length without in the table can be consulted.

