



Ningbo Haitian Precision Machinery Co., Ltd.

H.Q.& Production Base1

No. 1688 Haitian road, Xiaogang, Beilun, Ningbo-315801, China.

Tel: +86-574-86182580/86182525

E-mail: hision@mail.haitian.com

Production Base2

No.235, Huangshan Road, Beilun District, Ningbo-315801 China.

Production Base3

No.188, Baodao Road, Lin'gang Industrial Zone, Changxing Island, Dalian-116317 China.

Haitian Precision Machinery (HONGKONG) Co., Ltd.

Office Address:

Unit,12/F, Seabright Plaza, 9-23 Shell Street, North Point, HONGKONG.

Website:

www.haitianprecision.com



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CNC LATHE

TC II - HTC II

HISION



PRODUCT INTRODUCTION

HTC II series CNC lathes, fully fit the needs of users, focusing on the function characteristics of high precision, high efficiency and high stability. The series is equipped with Haitian self-developed built-in spindle and servo power turret, the machine can cover ϕ 300- ϕ 520 processing diameter specifications, widely used in automotive parts, aerospace and general parts industry. Especially suitable for precision machining of small diameter and short shaft products.

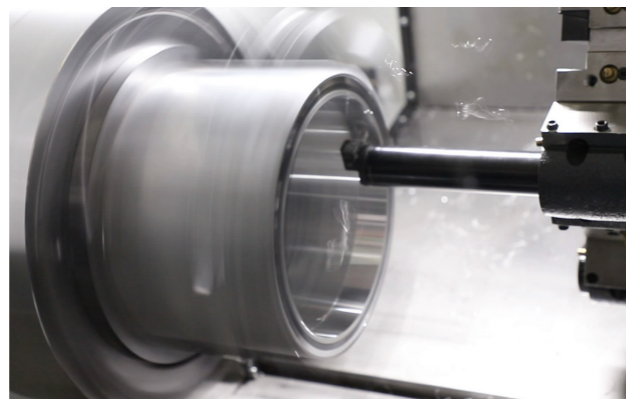
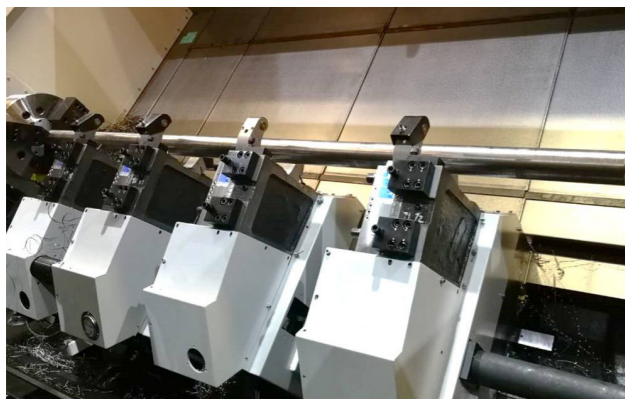
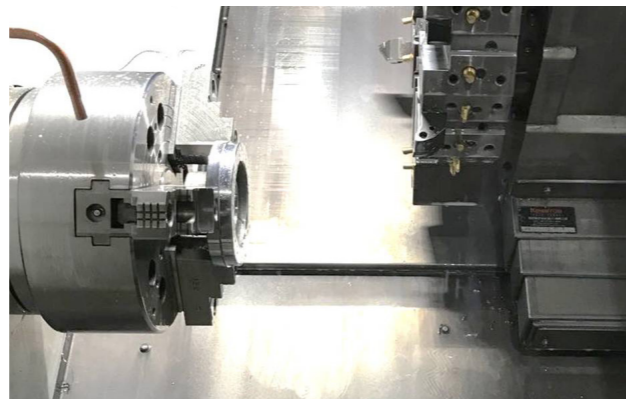
TC II series CNC lathes are dedicated to the functions of high rigidity and high stability, aiming to create a cost-effective classic product. This series is a hard rail machine tool, equipped with mechanical spindle and hydraulic turret, can cover ϕ 400- ϕ 800 processing diameter specifications, widely used in automotive parts and general industry. Especially suitable for heavy duty cutting of large diameter and long shaft products.

CNC LATHE

- HTC150 II _____ [Page 07]
- HTC200 II _____ [Page 07]
- HTC300 II _____ [Page 07]



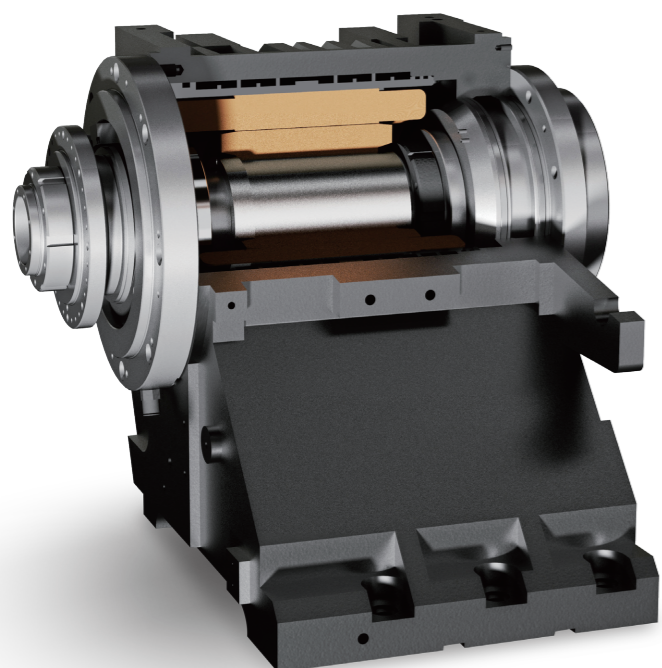
- TC25 II _____ [Page 08]
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- TC40A _____ [Page 10]





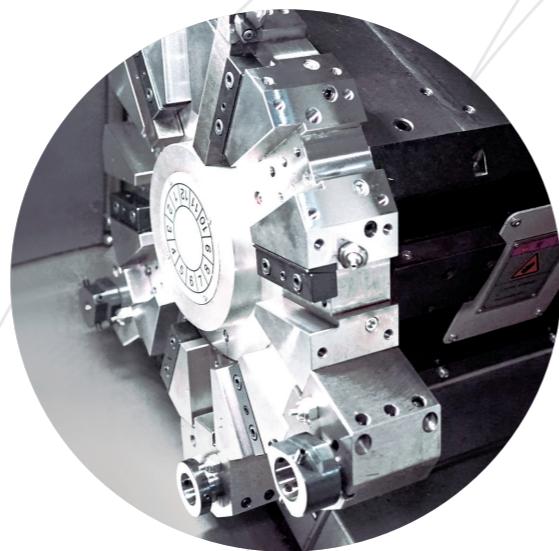
HTC II

The new generation HTC II series CNC lathe adopts the whole casting bed structure, reasonable reinforcement cavity layout, through the finite element analysis, minimizes the vibration, distortion and thermal deformation, with good thermal stability and long-term accuracy retention.



Full series servo turret (Optional power turret)

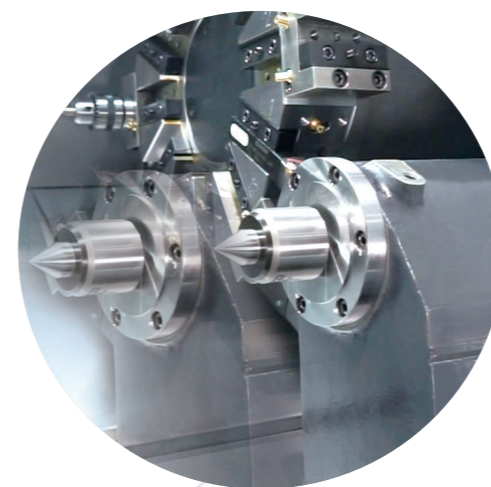
The whole series of HTCII lathes are equipped with servo turret, which is fast in positioning and reliable in transmission link. The application of servo turret realizes the synchronous tool change in the process of machine zeroing and improves the production efficiency.



Full Range Of Built-In Spindle

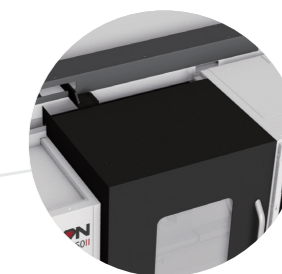
- The spindle is driven directly by the built-in motor, without other transmission links, to achieve "zero transmission" of the machine tool, good reliability.
- Static and dynamic high precision, good stability.
- Motorized spindle speed up and down, short start and stop time, improve production efficiency.
- It satisfies both low speed and high torque and high speed performance.

HTC II



Back row crumbs

HTC II series adopts rear chip mode, compact structure, small footprint, suitable for automatic processing.



Automatic protection module

Automatic door, automatic skylight modular design, convenient installation.



Servo tailstock (Option)

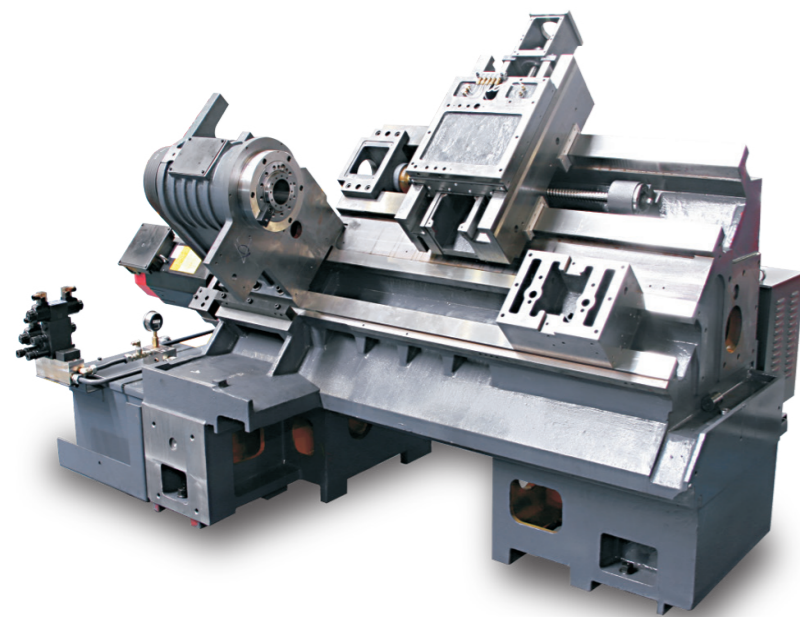
Servo motor control, quick response, accurate control of position and jacking force. Easy to automate.





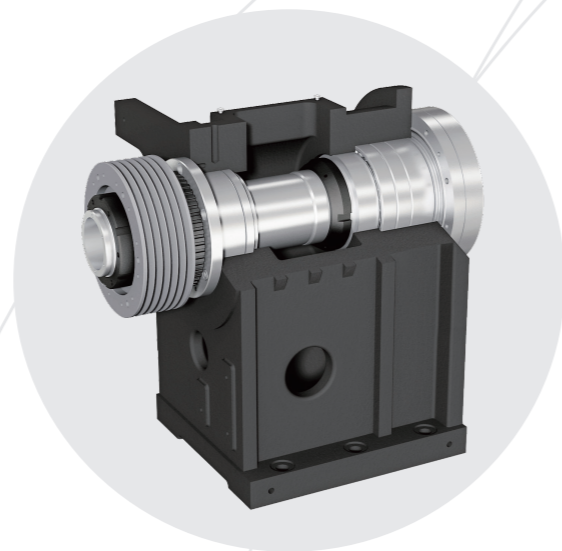
TC/ TC II

TC series CNC lathes adopt 45 ° integral casting bed structure and hardened grinding guide rail form. All castings are optimized by finite element analysis to ensure high precision and high stability of the machine tool. Perfect automatic interface, modular automatic protection design, for the rapid implementation of automation to provide a guarantee.



45° Integral inclined bed

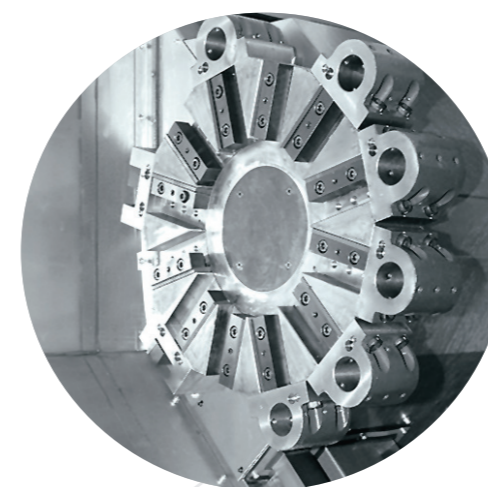
The integral 45° inclined bed realizes the high rigidity, high stability and easy chip removal of the lathe. The guide rail has been hardened and finely ground, and wear-resistant soft belt is pasted on the sliding surface.



High rigidity spindle

The whole series adopts imported bearings, two points support, front end adopts double row cylindrical roller bearings and high-speed thrust angular contact bearings, rear end adopts double row cylindrical roller bearings, strong rigidity, suitable for heavy cutting and precision cutting.

TC/ TC II



Customized cutter head (optional power cutter tower)

TC series standard with 12 station hydraulic turret, suitable for heavy cutting. Customize the cutter head, so that the rigidity of the cutter block and the tool interference area is small.

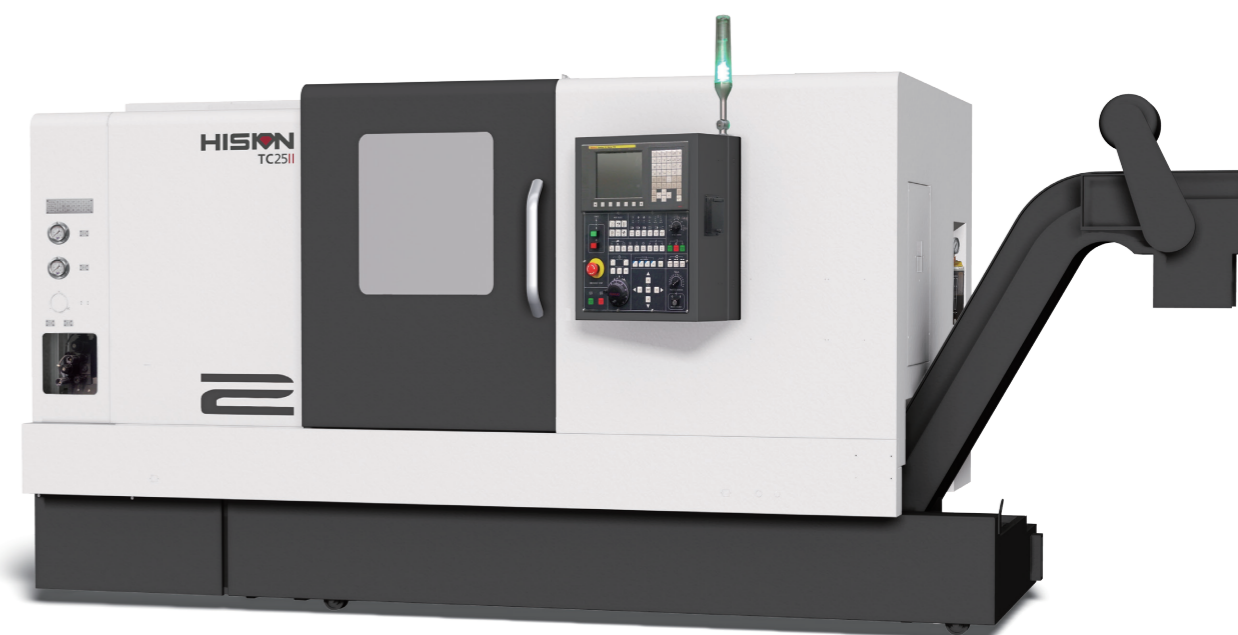
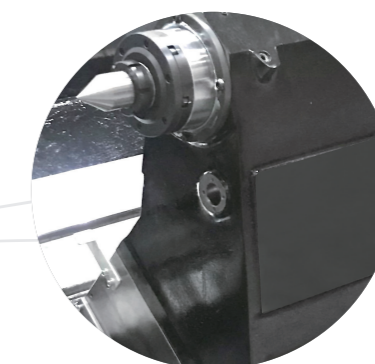
Hydraulic tailstock

Split tailstock structure, convenient and reliable adjustment; The whole movement of the tailstock is driven by the saddle; The telescopic sleeve is driven by hydraulic pressure and can be controlled programmatically.



Automatic protection module

Automatic door, automatic skylight modular design, convenient installation.





HTC II

Items	Unit	HTC150 IIx290	HTC200 II X 360	HTC200 II X 560	HTC300 II X 580
» Working Area					
Max.swing over bed	mm	Φ550	Φ620	Φ620	Φ620
Max.swing over saddle	mm	Φ300	Φ410	Φ410	Φ420
Max.turning diameter	mm	Φ300	Φ400	Φ400	Φ520
Max.turning length	mm	290	360	560	600
Spindle center to ground	mm	1030	1035	1035	1110
» High Speed Motorized Spindle					
Max.spindle speed	rpm	4500	4500	4500	3500
Spindle power (continuous/30min overload)	kW	15/22 (OP FANUC 11/15)	15/22 (OP FANUC 11/15)	15/22 (OP FANUC 11/15)	15/18.5
Spindle torque	Nm	159/252 (OP FANUC 158/211)	159/252 (OP FANUC 158/211)	159/252 (OP FANUC 158/211)	251/305
Spindle nose taper	-	JISA2-6	JISA2-6	JISA2-6	JISA2-8
Spindle through hole	mm	Φ62	Φ62	Φ62	Φ76
Max bar diameter	mm	Φ50	Φ50	Φ50	Φ65
Spindle bearing diameter	mm	Φ100	Φ100	Φ100	Φ120
Chuck size	inch	8	8	8	10
» Turret					
Type	-	Servo V8	Servo V12	Servo V12	Servo V12
OD tool size	mm	25x25	25x25	25x25	25x25
Max. boring bar size	mm	Φ32	Φ40	Φ40	Φ40
» Tailstock					
Tailstock type	-	-	-	Hydraulic	Hydraulic
Tailstock travel	mm	-	-	550	500
Quill taper	-	-	-	MT.NO.5	MT.NO.4
» Feed Shaft					
X/Z axis travel	mm	180/345	215/415	215/615	280/695
Rapid feed X/Z axis	m/min	30/30	24/30	24/30	24/30
Guideway type	-	Linear guideway	Linear guideway	Linear guideway	Box guideway
X/Z axis power	kW	2.2/2.2 (OP FANUC 1.2/1.2)	2.2/2.2 (OP FANUC 1.8/1.8)	2.2/2.2 (OP FANUC 1.8/1.8)	3/3
» Others					
Power capacity	kVA	35 (OP FANUC 30)	35	35	35
Machine size(LxWxH) (without conveyor)	cm	190×158×175	241×185×179	270×185×179	260×180×213
Machine weight	t	3.8	4.2	4.8	5.3

Standard Configuration

1. Controller: Fanuc Oi SIEMENS 828D
2. Cutting cooling
3. Full enclosure
4. Servo turret
5. Solid hydraulic chuck
6. Hydraulic tailstock with live center (without HTC150 II & HTC200 II ×360)
7. Tool holder
8. External chain type chip conveyor (rear)
9. Standard accessories
10. Common maintenance tool
11. Soft jaw
12. 3-Color signal lamp, working light
13. Foot switch
14. Trolley

TC II

Items	Unit	TC25 II X 500	TC25 II X 1000	TC30 II X 500	TC30 II X 1000	TC30 II X 1500
» Capacity						
Swing over bed dia	mm	Φ560	Φ560	Φ650	Φ650	Φ650
Swing over saddle	mm	Φ320	Φ320	Φ420	Φ420	Φ420
Max.turning dia	mm	Φ400	Φ400	Φ500	Φ500	Φ500
Max.turning length	mm	548(≤ Φ320)	1000(≤ Φ320)	500(≤ Φ420)	1000(≤ Φ420)	1490(≤ Φ420)
Chuck size	inch	8	8	10	10	10
Bar capacity dia	mm	Φ50(OptΦ65)	Φ50(OptΦ65)	Φ64(OptΦ88)	Φ64(OptΦ88)	Φ64(OptΦ88)
» Travel/rapid						
X/Z travel	mm	210/610	210/1050	260/580	260/1050	260/1550
X/Z rapid traverse	m/min	24/30	24/30	16/20	16/20	16/20
» Spindle						
Spindle type	-	Belt spindle	Belt spindle	Belt spindle	Belt spindle	Belt spindle
Max.spindle speed	rpm	4500	4500	3500	3500	3500
Main spindle motor power	kW	11/15	11/15	15/18.5	15/18.5	15/18.5
Max.Spindle torque	Nm	140/250	140/250	245/400	245/400	245/400
Spindle nose	-	A2-6	A2-6	A2-8	A2-8	A2-8
Spindle bearing diameter(Front)	mm	Φ100	Φ100	Φ120	Φ120	Φ120
» Turret						
Turret type	-	Hydraulic	Hydraulic	Hydraulic	Hydraulic	Hydraulic
Turret capacity	-	12	12	12	12	12
OD tool size	mm	25×25	25×25	25×25	25×25	25×25
Boring bar dia.	mm	Φ40	Φ40	Φ40	Φ40	Φ40
Tool changing time(including clamp)	s	0.55	0.55	0.58	0.58	0.58
» Tailstock						
Tailstock type	-	Hydraulic	Hydraulic	Hydraulic	Hydraulic	Hydraulic
Tailstock travel	mm	410	730	410	730	1100
Quill dia.	mm	Φ100	Φ100	Φ100	Φ100	Φ100
Quill travel	mm	120	120	120	120	120
Quill bore taper	-	MT NO.4 (Opt Dead MT NO.4)	MT NO.4 (Opt Dead MT NO.4)	MT NO.5 (Opt Dead MT NO.4)	MT NO.5 (Opt Dead MT NO.4)	MT NO.5 (Opt Dead MT NO.4)
» Motor						
X/Z motor power	kW	1.8/1.8	1.8/1.8	2.5/2.5	2.5/2.5	2.5/2.5
X/Z motor torque	Nm	11/11	11/11	20/20	20/20	20/20
» Others						
Power capacity	kVA	25	25	30	30	30
Coolant tank	L	200	250	200	250	250
Controller	-	FANUC Oi-TF	FANUC Oi-TF	FANUC Oi-TF	FANUC Oi-TF	FANUC Oi-TF
Machine size(LxWxH) (without conveyor)	cm	420x205x190	460x205x190	420x205x205	460x205x205	535x205x205
Machine weight	t	4.5	4.9	4.9	5.4	6.3

Standard Configuration

1. Controller: Fanuc Oi SIEMENS 828D
2. Hydraulic and lubrication system
3. Cutting cooling
4. Full enclosure
5. 12T hydraulic turret station
6. Solid hydraulic chuck
7. Tool holder
8. Tailstock with live quill
9. External chain type chip conveyor(side)
10. Standard accessories
11. Ground installation
12. Common maintenance tools
13. Soft jaw
14. 3-color signal lamp, working light
15. Foot switch
16. Trolley



TC

Items	Unit	TC35A×1000	TC35A×1500	TC35A×2000
» Capacity				
Swing over bed dia	mm	Φ700	Φ700	Φ700
Swing over saddle	mm	Φ600	Φ600	Φ600
Max.turning dia	mm	Φ630	Φ630	Φ630
Max.turning length	mm	1000(≤ Φ600)	1500(≤ Φ600)	2000(≤ Φ600)
Chuck size	inch	12	12	12
Bar capacity dia	mm	Φ88(OptΦ113)	Φ88(OptΦ113)	Φ88(OptΦ113)
» Travel/rapid				
X/Z travel	mm	345/1060	345/1560	345/2060
X/Z rapid traverse	m/min	16/20	16/20	16/16
» Spindle				
Spindle type	-	Belt spindle (Opt Gearbox)	Belt spindle (Opt Gearbox)	Belt spindle(Opt Gearbox)
Max.spindle speed	rpm	2500	2500	2500
Main spindle motor power	kW	15/18.5	15/18.5	15/18.5
Max.Spindle torque	Nm	485/600	485/600	485/600
Spindle nose	-	A2-11	A2-11	A2-11
Spindle bearing diameter(Front)	mm	Φ150	Φ150	Φ150
» Turret				
Turret type	-	Hydraulic	Hydraulic	Hydraulic
Turret capacity	-	12	12	12
OD tool size	mm	32×32	32×32	32×32
Boring bar dia.	mm	Φ50	Φ50	Φ50
Tool changing time(including clamp)	s	0.65	0.65	0.65
» Tailstock				
Tailstock type	-	Hydraulic	Hydraulic	Hydraulic
Tailstock travel	mm	700	1200	1700
Quill dia.	mm	Φ130	Φ130	Φ130
Quill travel	mm	120	120	120
Quill bore taper	-	Dead MT NO.5	Dead MT NO.5	Dead MT NO.5
» Motor				
X/Z motor power	kW	3.0/3.0	3.0/3.0	3.0/3.0
X/Z motor torque	Nm	20/20	20/20	20/20
» Others				
Power capacity	kVA	35	35	35
Coolant tank	L	250	290	330
Controller	-	FANUC 0I-TF	FANUC 0I-TF	FANUC 0I-TF
Machine size(LxWxH) (without conveyor)	cm	540x220x220	580x220x220	640x235x240
Machine weight	t	9	10.5	11

Standard Configuration

1. Controller: Fanuc 0i SIEMENS 828D
2. Hydraulic and lubrication system
3. Cutting cooling
4. Full enclosure
5. 12T hydraulic turret station
6. Solid hydraulic chuck
7. Tool holder
8. Tailstock with live center
9. External chain type chip conveyor(side)
10. Standard accessories
11. Ground installation
12. Common maintenance tools
13. Soft jaw
14. 3-color signal lamp, working light
15. Foot switch
16. Trolley

TC

Items	Unit	TC40A×1500	TC40A×2750
» Capacity			
Swing over bed dia	mm	Φ800	Φ800
Swing over saddle	mm	Φ650	Φ650
Max.turning dia	mm	Φ800	Φ800
Max.turning length	mm	1500(≤ Φ650)	2750(≤ Φ650)
Chuck size	inch	15	15
Bar capacity dia	mm	Φ98	Φ98
»Travel/rapid			
X/Z travel	mm	410/1570	410/2820
X/Z rapid traverse	m/min	12/12	12/12
»Spindle			
Spindle type	-	Gearbox	Gearbox
Max.spindle speed	rpm	2000	2000
Main spindle motor power	kW	15/18.5	15/18.5
Max.Spindle torque	Nm	Low 2434/3002 High 645/796	Low 2434/3002 High 645/796
Spindle nose	-	A2-11	A2-11
Spindle bearing diameter(Front)	mm	Φ170	Φ170
» Turret			
Turret type	-	Hydraulic	Hydraulic
Turret capacity	-	12	12
OD tool size	mm	32×32	32×32
Boring bar dia.	mm	Φ60	Φ60
Tool changing time(including clamp)	s	0.85	0.85
» Tailstock			
Tailstock type	-	Hydraulic	Hydraulic
Tailstock travel	mm	1100	2400
Quill dia.	mm	Φ160	Φ160
Quill travel	mm	150	150
Quill bore taper	-	Dead MT NO.5	Dead MT NO.5
» Motor			
X/Z motor power	kW	2.5/3.0	2.5/3.0
X/Z motor torque	Nm	20/27	20/27
» Others			
Power capacity	kVA	35	35
Coolant tank	L	270	350
Controller	-	FANUC 0I-TF	FANUC 0I-TF
Machine size(LxWxH) (without conveyor)	cm	645x260x2400	760x285x2600
Machine weight	t	12.5	14.5

Standard Configuration

1. Controller: Fanuc 0i SIEMENS 828D
2. Hydraulic and lubrication system
3. Cutting cooling
4. Full enclosure
5. 12T hydraulic turret station
6. Solid hydraulic chuck
7. Tool holder
8. Tailstock with live center
9. External chain type chip conveyor(side)
10. Standard accessories
11. Ground installation
12. Common maintenance tools
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14. 3-color signal lamp, working light
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