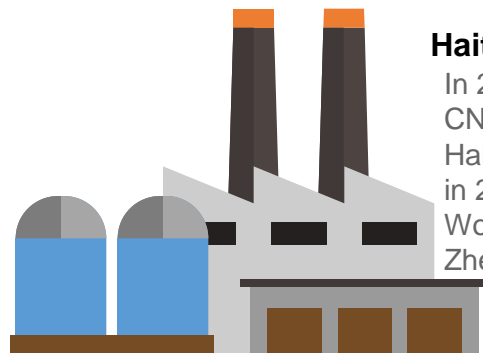


A close-up photograph of a CNC lathe machine in operation. A polished metal workpiece is being turned, with a cutting tool visible at the top. The background is dark and industrial.

TC series horizontal CNC lathe
-product description

Don't forget the original intention
Forge ahead



Haitian Precision Co., Ltd. was established

In 2001, Ningbo Haitian Group set foot in CNC machine tools
Haitian Precision Co., Ltd. was established in 2002
Won the title of Top 100 Enterprises in Zhejiang Province in 2004



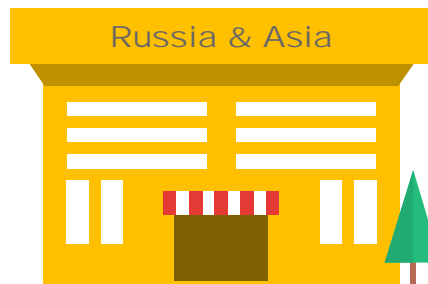
Multi-party cooperation, multi-site construction

In 2009, Haitian Precision's Yanshan manufacturing base was put into operation with a constant temperature plant of 100,000 square meters, and the product technology was expanded and extended; a joint venture with Canada Olympia was established: Ningbo Haitian Aolin Engineering Technology Co., Ltd. In 2012, 112,000 square meters of Haitian Precision's Dalian manufacturing base was put into operation; Ningbo Haitian Precision Co., Ltd. was established

Layout overseas

In 2010, Haitian Precision was awarded "National Major Technical Assembly Enterprise"; set foot in overseas markets

Held the first annual overseas sales conference in 2013 to expand sales channels in overseas markets



Award-winning glory

In 2016, won the top 30 enterprises in China's machine tool industry; national high-tech enterprise



Haitian Precision Co., Ltd. is listed on the Shanghai Stock Exchange

In November 2016, Haitian Precision Co., Ltd. was officially listed. It is the second largest industry of Haitian Group in China's capital market after the successful listing of Haitian International in Hong Kong in 2006.



TC series horizontal CNC lathe



Item	Unit	TC25II	TC30II	TC35A	TC40A
Max. swing over the bed	mm	Φ560	Φ650	Φ700	Φ800
Max. swing over the saddle	mm	Φ320	Φ420	Φ600	Φ650
Max. turning dia	mm	Φ400	Φ500	Φ630	Φ800
Spindle nose	-	JIS A2-6	JIS A2-8	JIS A2-11	JIS A2-11
Max. bar capacity	mm	Φ51 (Φ65 OP.)	Φ65 (Φ84 OP.)	Φ91 (Φ115 OP.)	Φ100
Chuck size	inch	8 (10 OP.)	10 (12 OP.)	12 (15 OP.)	15 (18 OP.)
Max. spindle speed	rpm	4500	3500	2500	2000

发展动态

Development trend

机床特点

Characteristics of
Machine Tools

竞争对比

Competition
Comparison

行业领先

Industry leading

切屑性能

Cutting Performance



Perfect pursuit, endless progress

HISON

T36

Originated from Dainichijin
Technology in Japan, The
predecessor of TC25

TC35A

Get involved in hard
guideway with a large
processing range

TC25

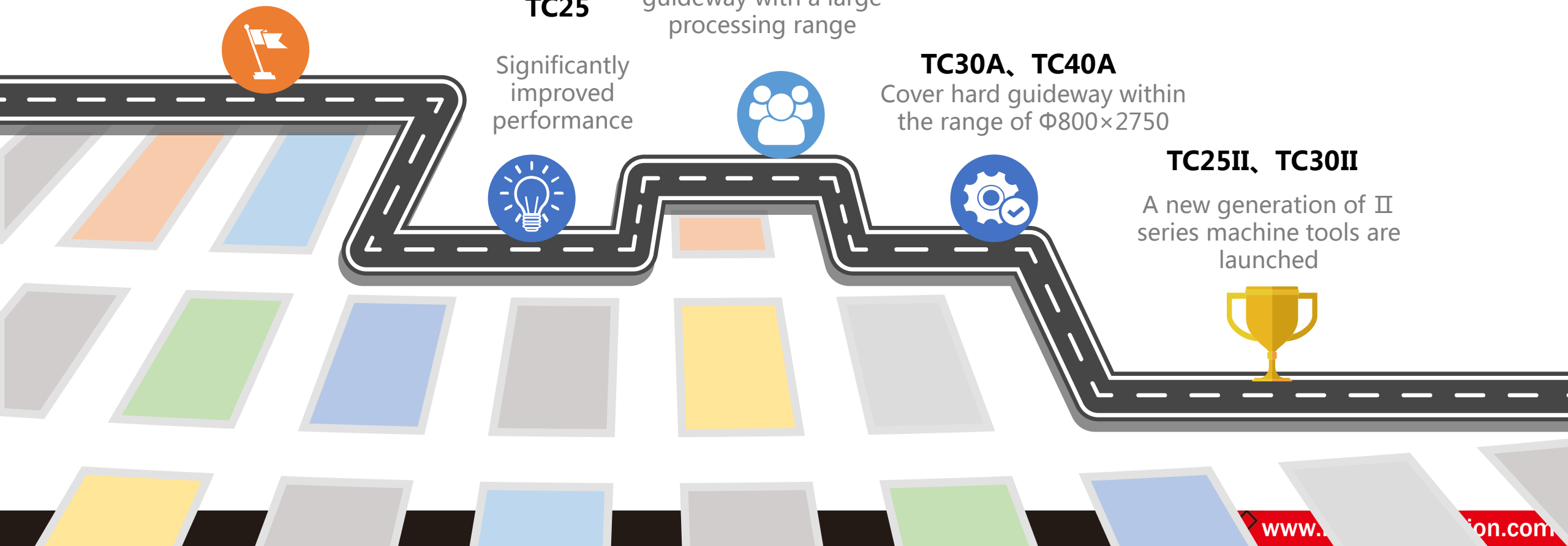
Significantly
improved
performance

TC30A, TC40A

Cover hard guideway within
the range of $\Phi 800 \times 2750$

TC25II, TC30II

A new generation of II
series machine tools are
launched



发展动态

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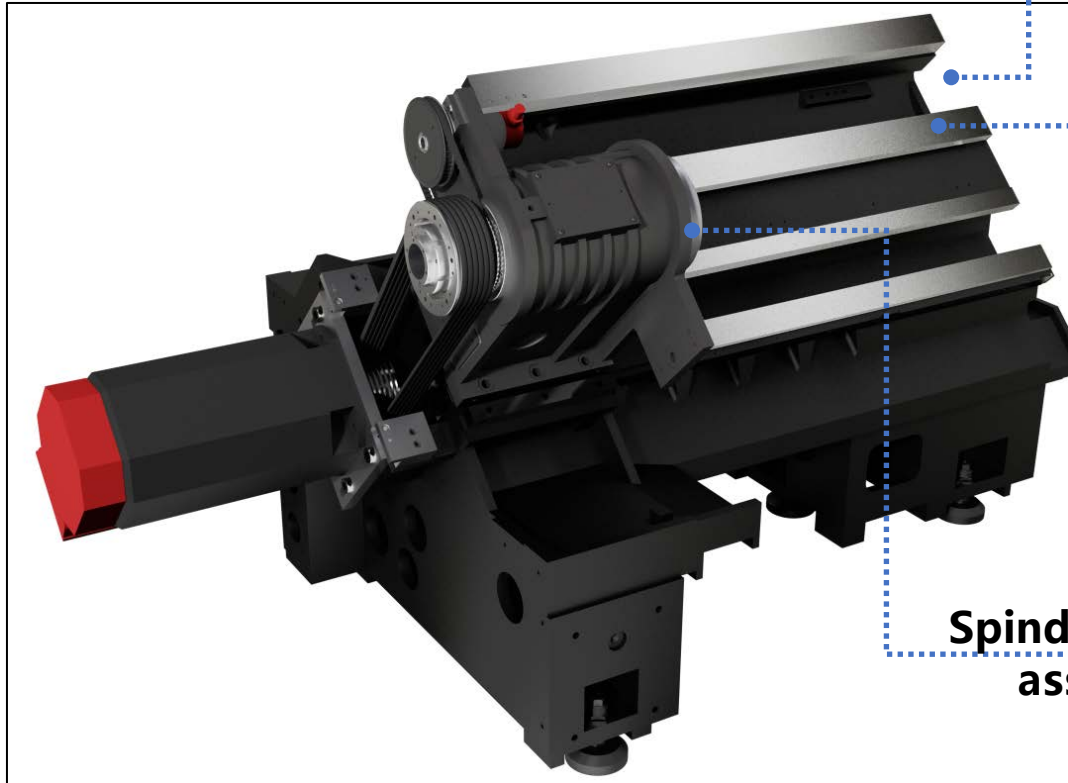
切屑性能

Cutting Performance



Characteristics of Machine Tools

Precision comes from
manufacturing strength



material : **HT300**
Overall inclined bed

Hard guideway
intermediate
frequency
quenching depth
2~4±0.1mm

**Spindle bearing
assembly**



HISON

- Metrology testing
- stress test
- Impact test
- Stretching test
- ...



Spain: **GH** guideway
hardening machine

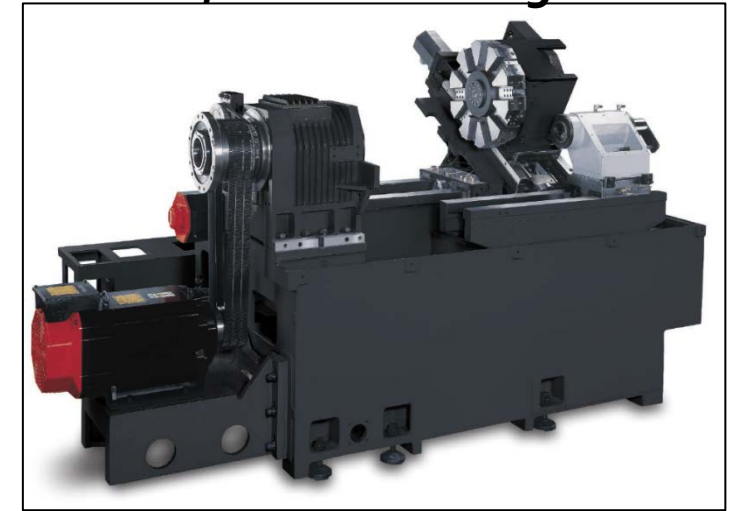


**One hundred thousand
class dust-free constant
temperature and
humidity assembly
workshop**

Characteristics of Machine Tools

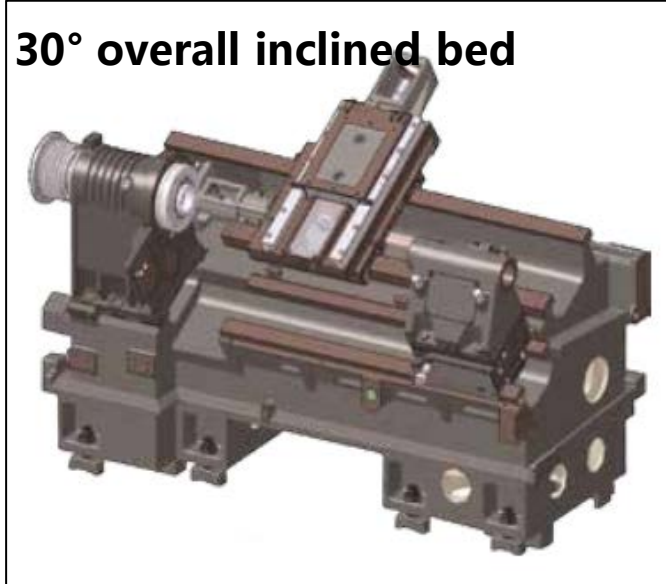


Flat bed, inclined sliding saddle

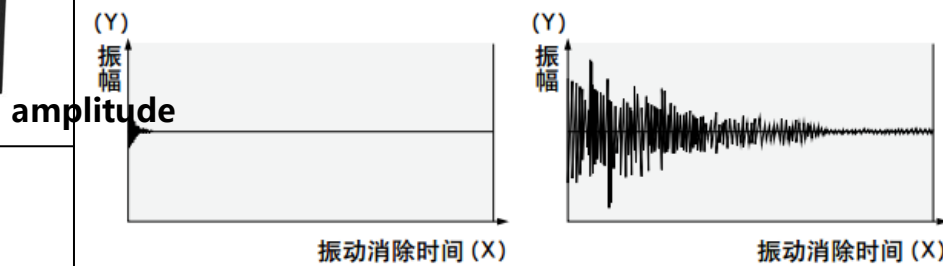


**45° overall inclined bed
hard guideway**

30° overall inclined bed



45° overall
inclined bed



硬轨结构

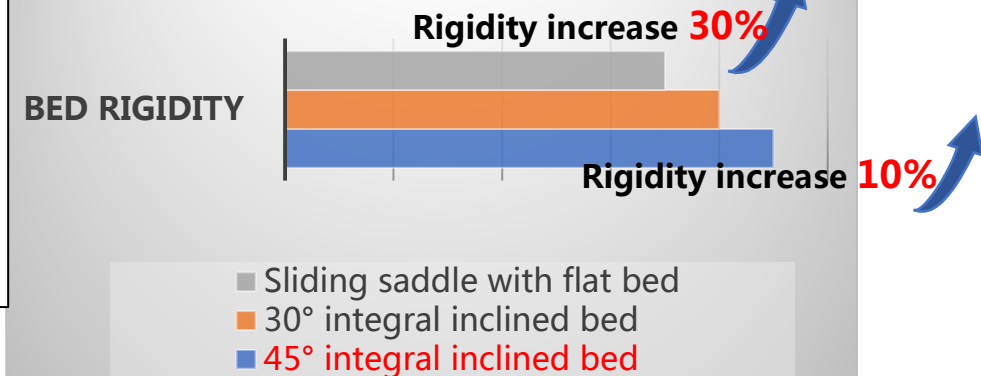
线轨结构

Vibration elimination time

Hard guideway

Linear guideway

Comparison of bed rigidity

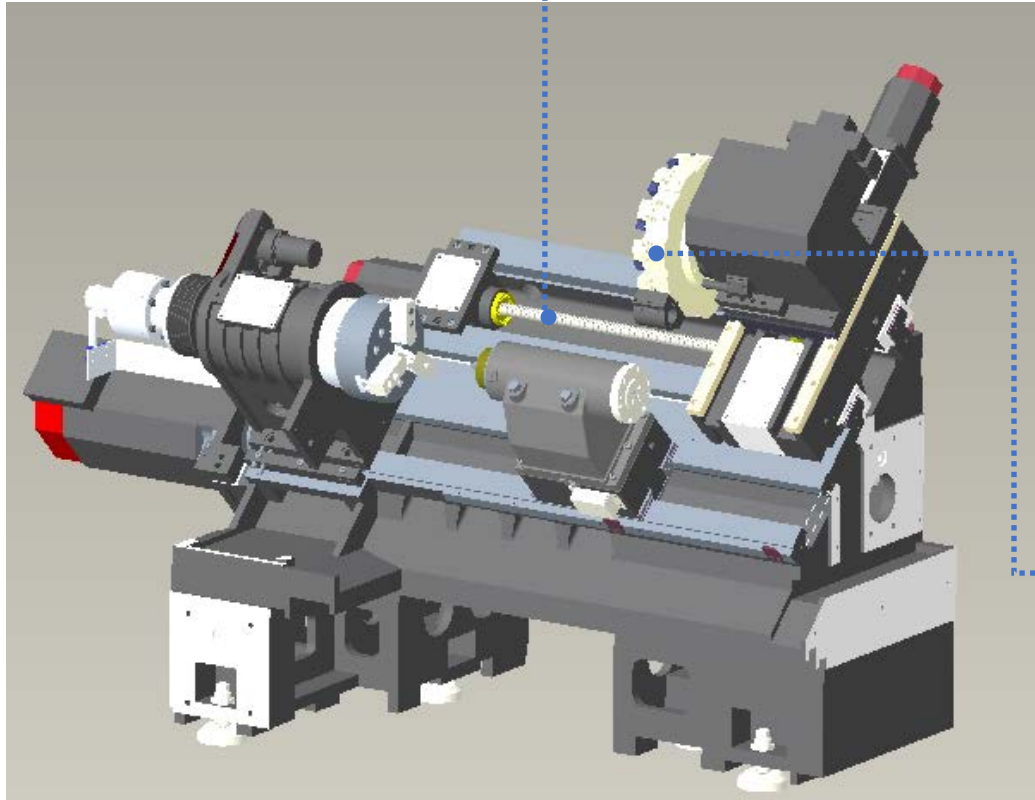


Characteristics of Machine Tools

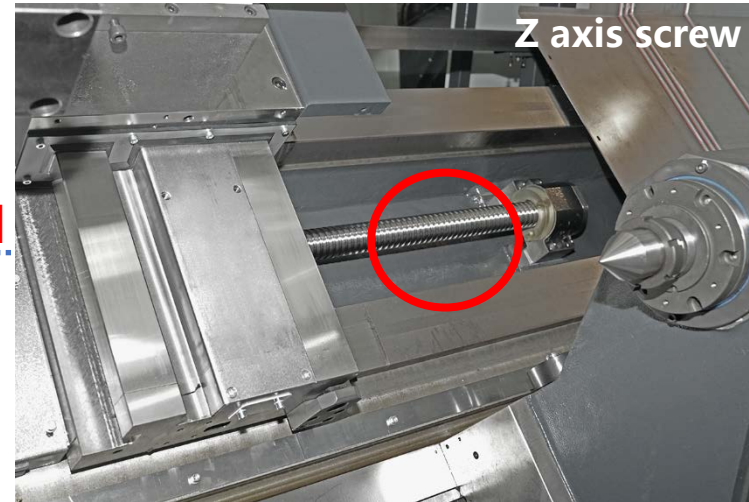


High-precision, high-rigidity

accessories



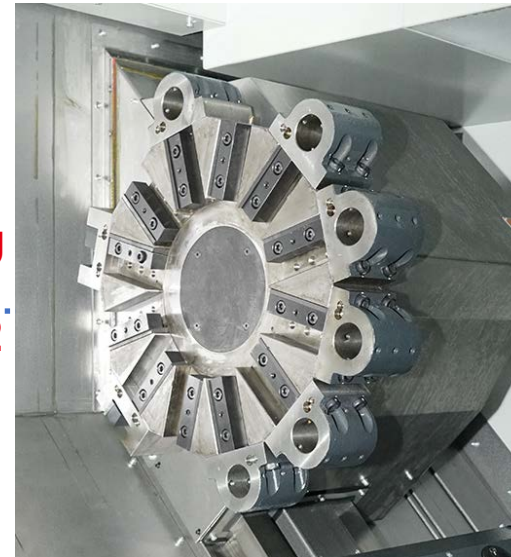
PMI **heavy load**
lead screw



Z axis screw

- TC25II screw dia. : **Φ32**mm
- TC30II screw dia. : **Φ32**mm
- TC35A screw dia. : **Φ50**mm
- TC40A screw dia. : **Φ63**mm

Taiwan **lioshing**
hydraulic turret
Full standard **12**
stations

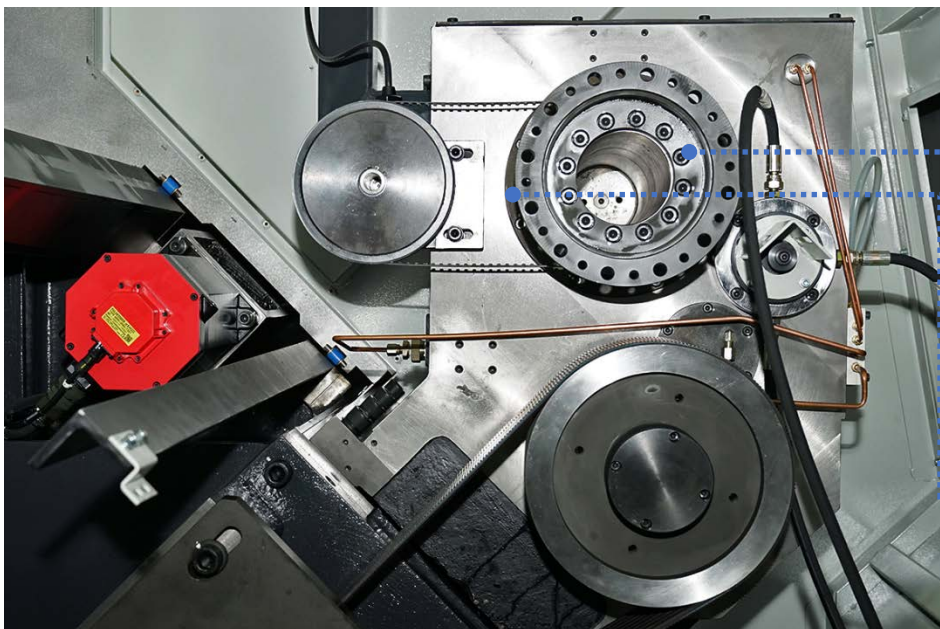


- TC25II刀盘对边尺寸 : **385**mm
- TC30II刀盘对边尺寸 : **420**mm
- TC35A刀盘对边尺寸 : **480**mm
- TC40A刀盘对边尺寸 : **580**mm

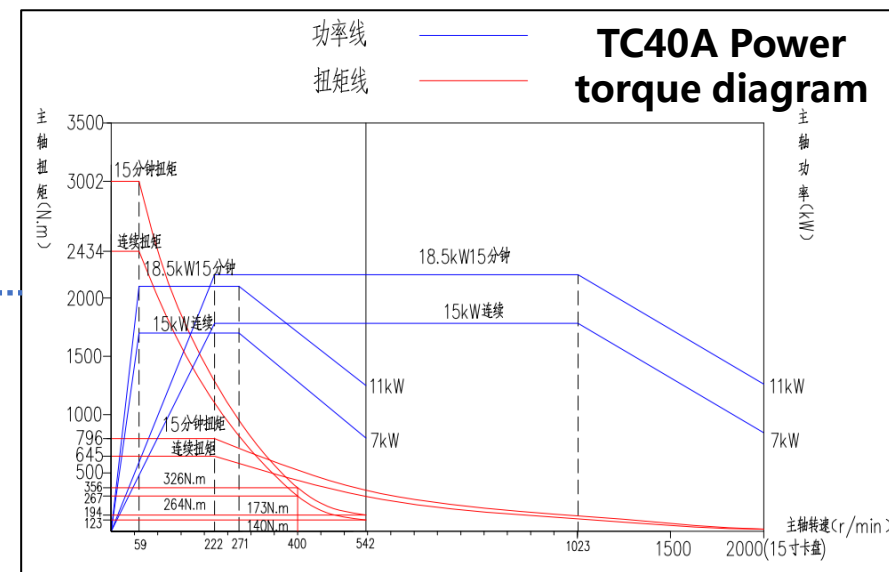
Characteristics of Machine Tools



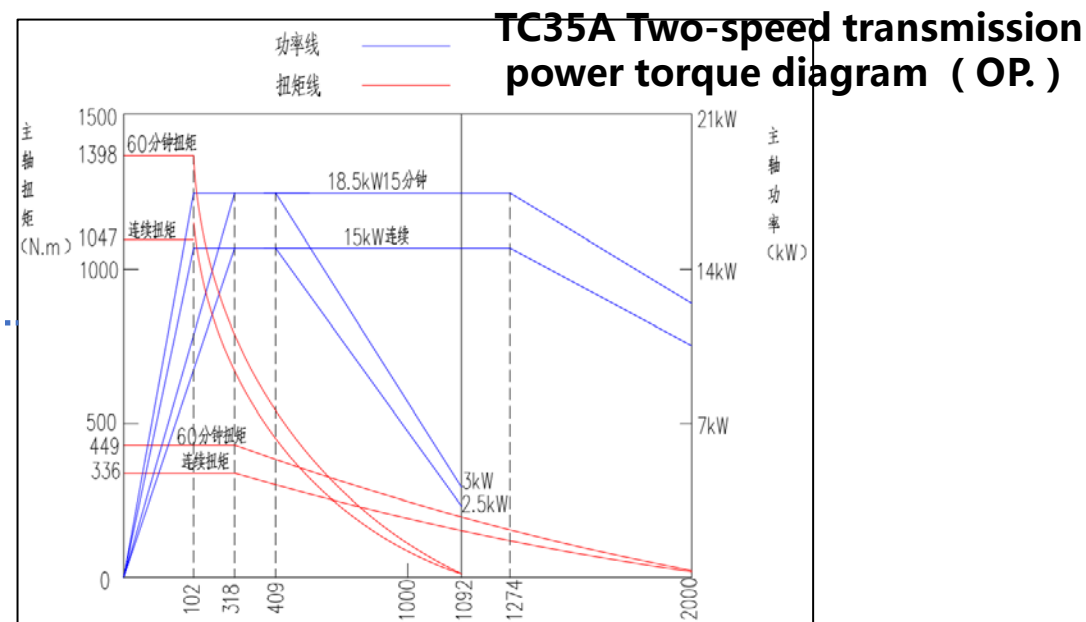
Two-speed transmission with high torque - TC35A option , TC40A standard



Maximum torque
3002Nm

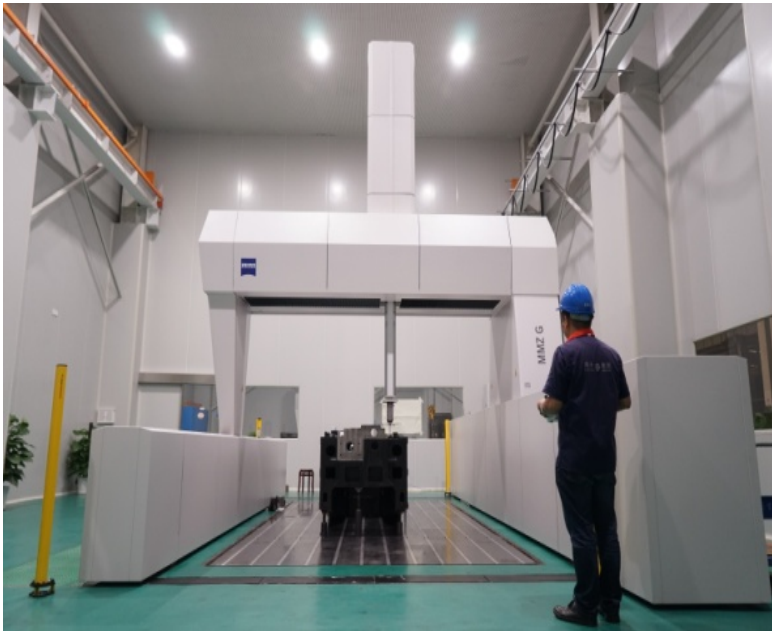


Maximum torque
1398Nm



Characteristics of Machine Tools

0.6 μ measurement accuracy, meticulous process, quality assurance



**ZEISS large-scale
precision three-
coordinate detection**



**Custom Taylor
Roundness
Tester**



**Dynamic
balance
detection**

发展动态

Development trend

机床特点

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Competition comparison

Technical parameters of major competitors in the market

Company		Haitian precision	Taiwan LITZ	Taiwan Goodway	Doosan
Item	Unit	TC25 II × 500	LT-400	GA-2000	PUMA GT2100
Max. swing over the bed	mm	Φ560	Φ400	Φ580	Φ600
Max. turning dia.	mm	Φ400	Φ320	Φ350	Φ390
Max. turning length	mm	548	530	309	562
Spindle structure	-	Mechanical spindle	Mechanical spindle	Mechanical spindle	Mechanical spindle
Max. spindle speed	rpm	4500	5000	4500	4500
Spindle nose	-	JISA2-6	JISA2-6	JISA2-6	JISA2-6
Max. bar capacity	mm	Φ51	Φ52	Φ52	Φ65
Chuck size	inch	8	8	8	8
Travel X/Z	mm	210/610	180/530	230/580	230/580
Rapid feed X/Z	m/min	24/30	20/24	24/30	24/30
Turret type	-	Hydraulic V12	Servo V12	Servo V12	Servo V12
Indexing time(T-T)	s	0.45	0.5	0.45	0.45
Tailstock center type	-	MT NO.4	MT NO.4	MT NO.4	MT NO.4
Tailstock stroke	mm	400	435	580	580
Tailstock drive mode	-	Manual	Manual	Manual	Manual
main motor power (Con./15 minutes)	kW	11/15	11/15	15/18.5	15/18.5

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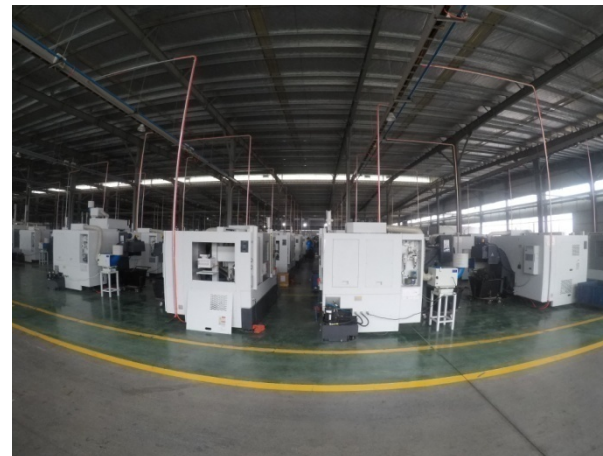
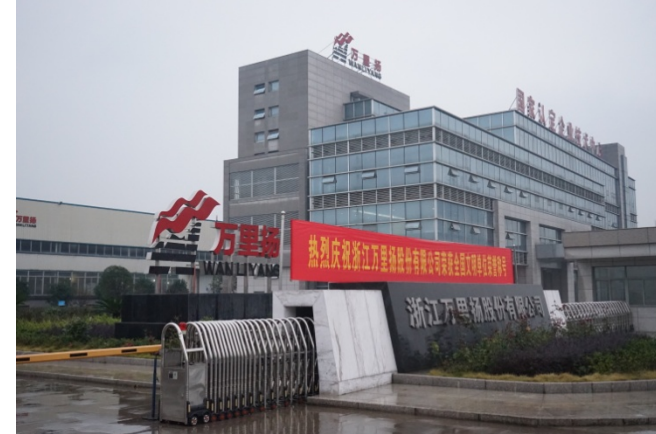


Industry leading

- Car parts : Bulk products, stable



Hard turning
after gear
heating



On behalf of customers -Zhejiang Wanliyang Co., Ltd.

Industry leading

- Aerospace parts : High hardness titanium alloy material



- Construction machinery : Shaft parts



发展动态

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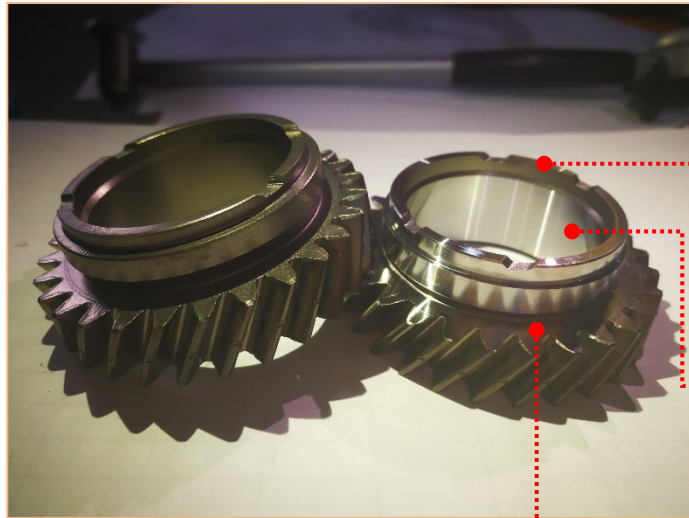
切削性能

Cutting Performance



Cutting Performance

Processing case - Hard turning after gear heating



Hard turning outer circle

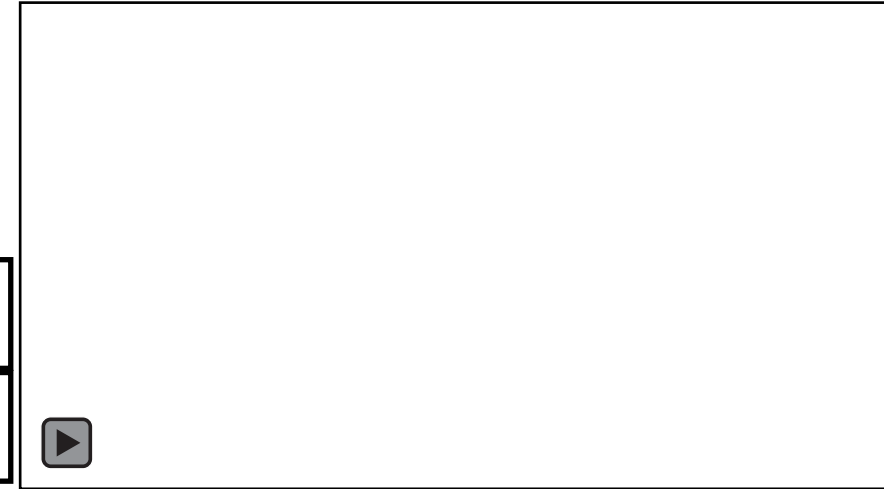
0.8		0.004
		0.005

Hard turning inner hole

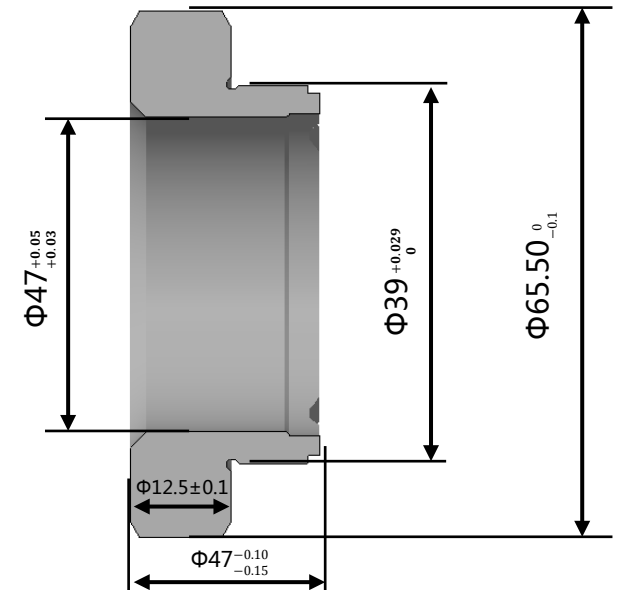
0.4		0.004
		0.005

Hard turning end face

1.6		0.03	A
		0.03	B



Hard turning video



Case	Hard turning after gear heating
Material	20CrMnTi
hardness	HRC52
Equipment	TC30A×500

Cutting Performance

External turning

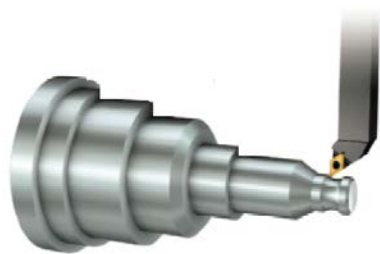
	Unit	TC25II series
Material	-	45
Spindle speed	rpm	560
Depth of cut	mm	4.5
Feed per tooth	mm/fz z	0.5
Metal removal rate	cm ³ / min	454

Inner hole turning

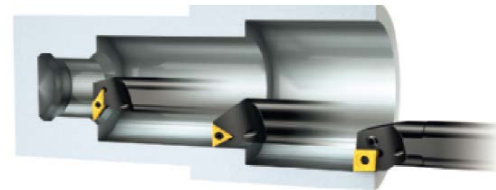
	Unit	TC25II series
Material	-	45
Spindle speed	rpm	560
Depth of cut	mm	3
Feed per tooth	mm/fz	0.35
Tool length	Length /dia.	3.5D

U drill processing

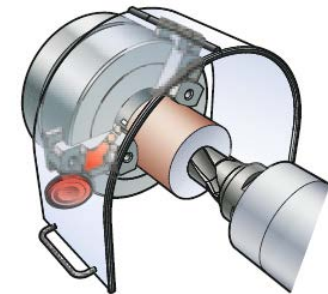
	Unit	TC25II series
Material	-	45
Spindle speed	rpm	1275
Feed speed	mm/min	230
U drill dia.	mm	Φ40
Metal removal rate	cm ³ / min	288



External turning



Inner hole turning



U drill processing

HISKON



海天精工微信公众号

Thanks for watching !

www.haitianprecision.com