

Hanwha Precision Machinery / Machine Tool Division

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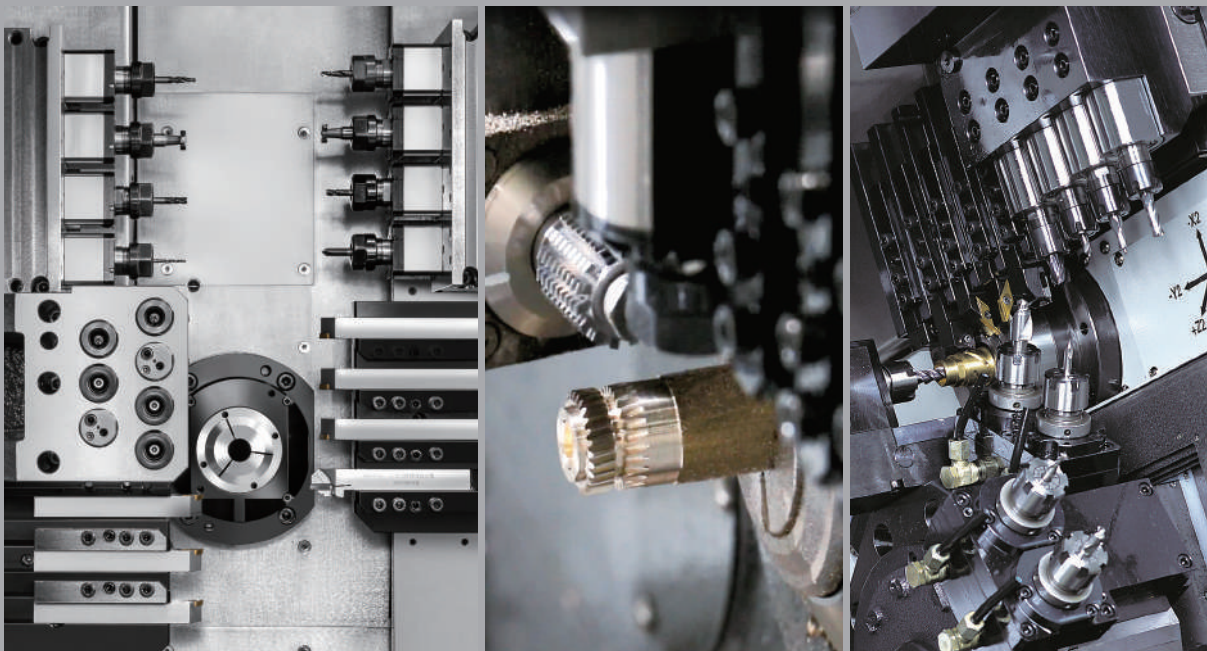
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Experience Your **SMART FACTORY**

Hanwha Machine Tool

CNC Swiss Turning Lathe



Enjoy Total Engineering Solution

After starting the machine tool business in 1977, Hanwha Precision Machinery has become a leading worldwide Smart Factory solutions provider, offering Surface Mount Technology (SMT) mounters, Machine Tool, industrial automation equipment, and integrated software solutions. We do this to develop customer-oriented solutions that deliver greater efficiency, versatility and value.

Machine Tool Division

CNC Swiss turning Lathe

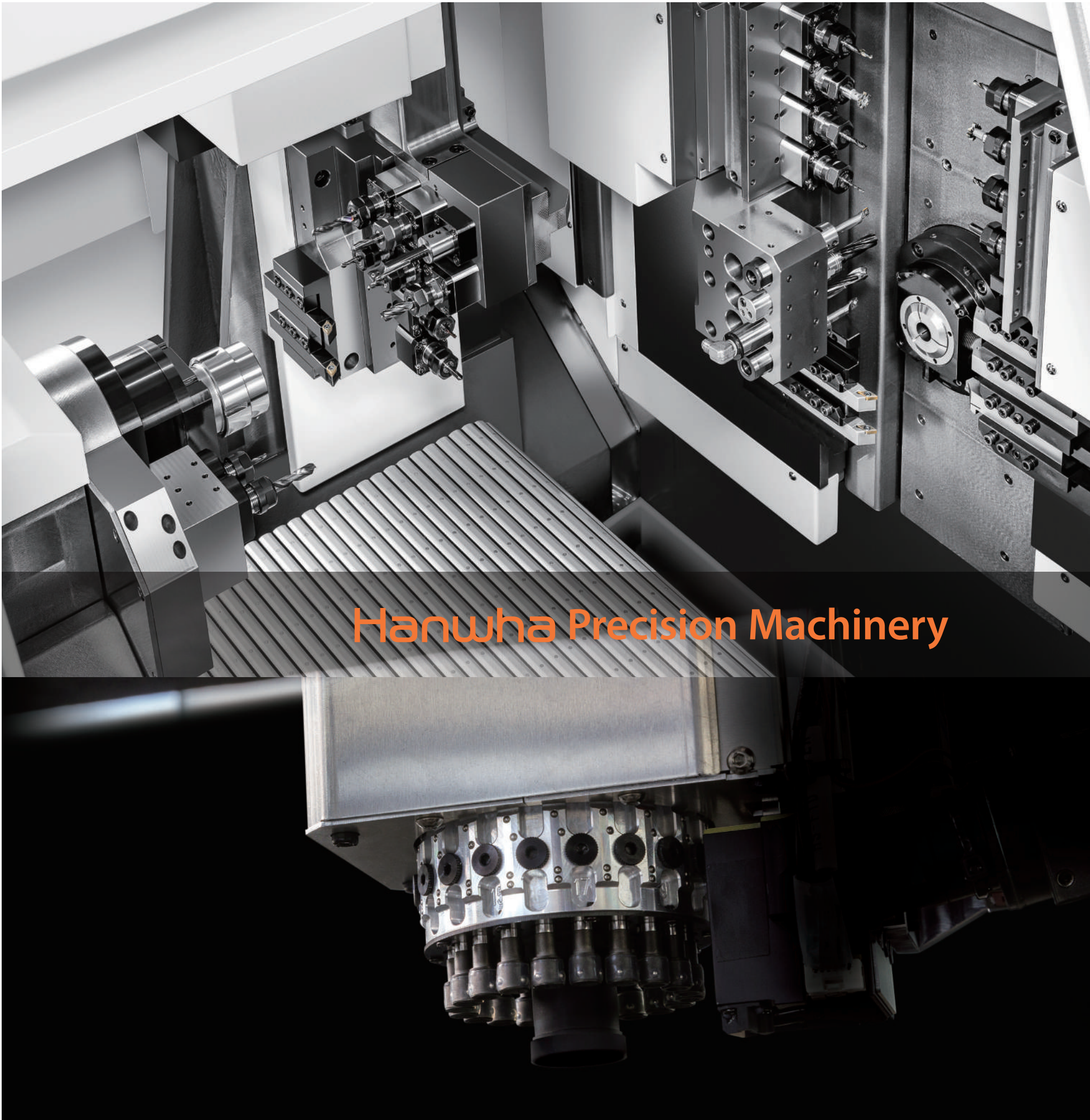
Offers customized solutions with a wide range of line-up for automatic lathes in gang & turret type.

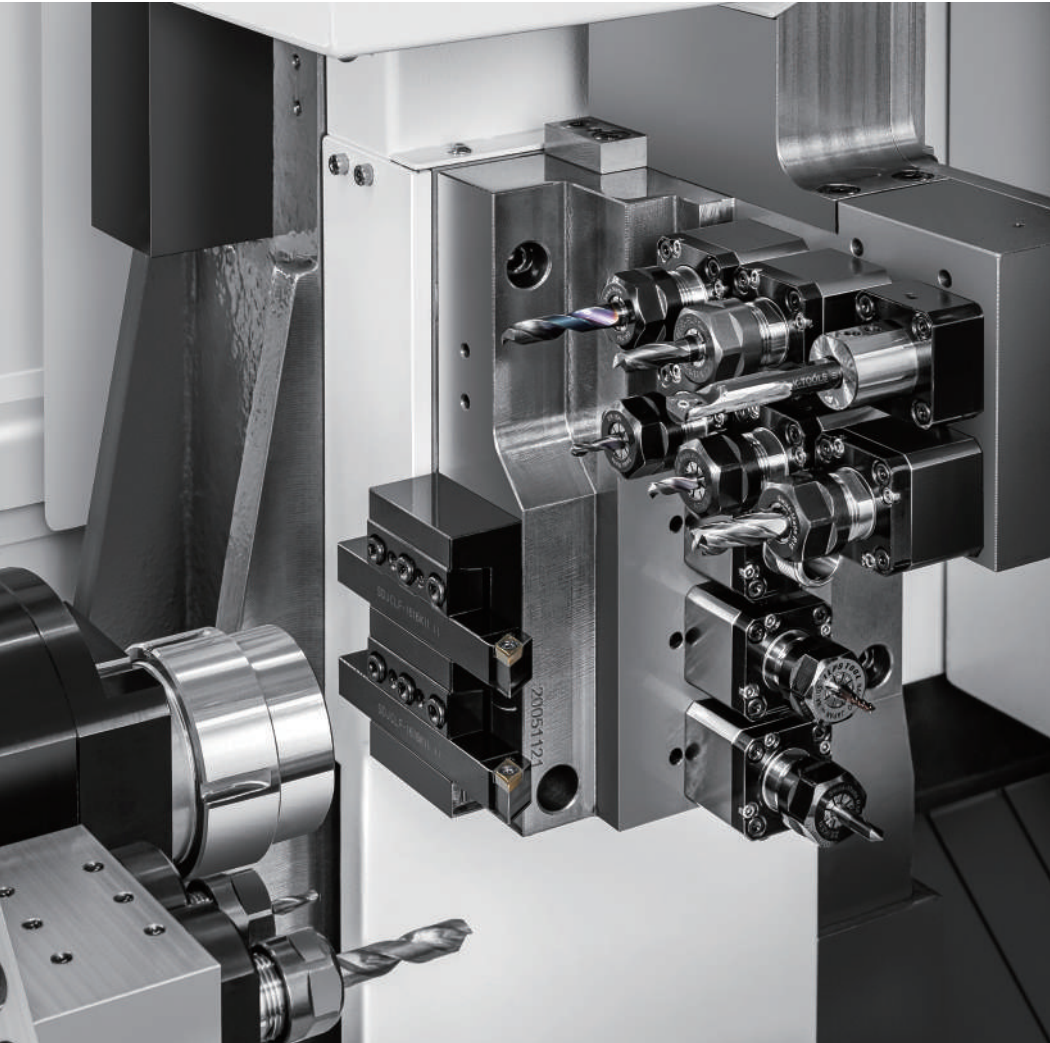


Surface Mounter Technology Division

Chip Mounter • Screen Printer • Semiconductor Equipment

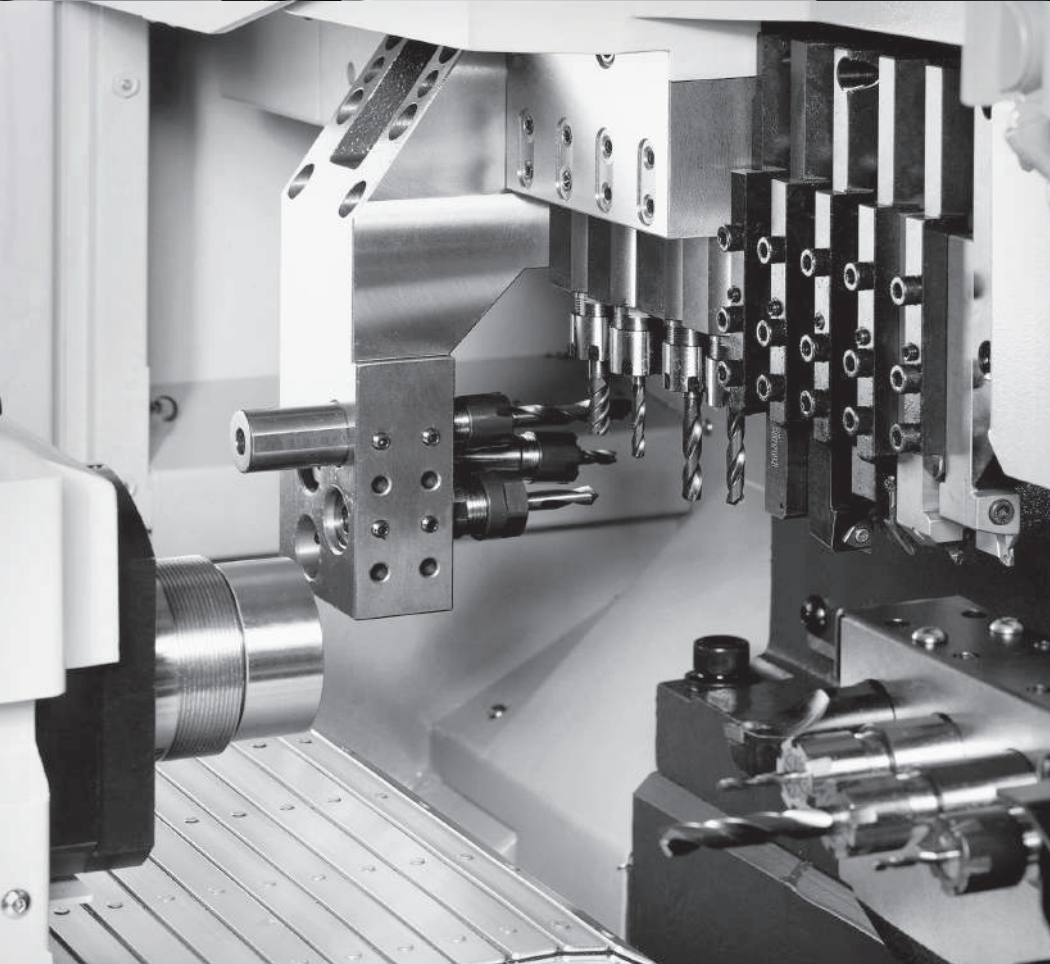
After developing its first chip mounter, offers SMT mounters, semiconductor equipment, industrial automation equipment and software solutions.





CNC Swiss Turning Lathe

Provides the best customized machining solution with a wide range of line-up from Ø10mm to Ø42mm and various options



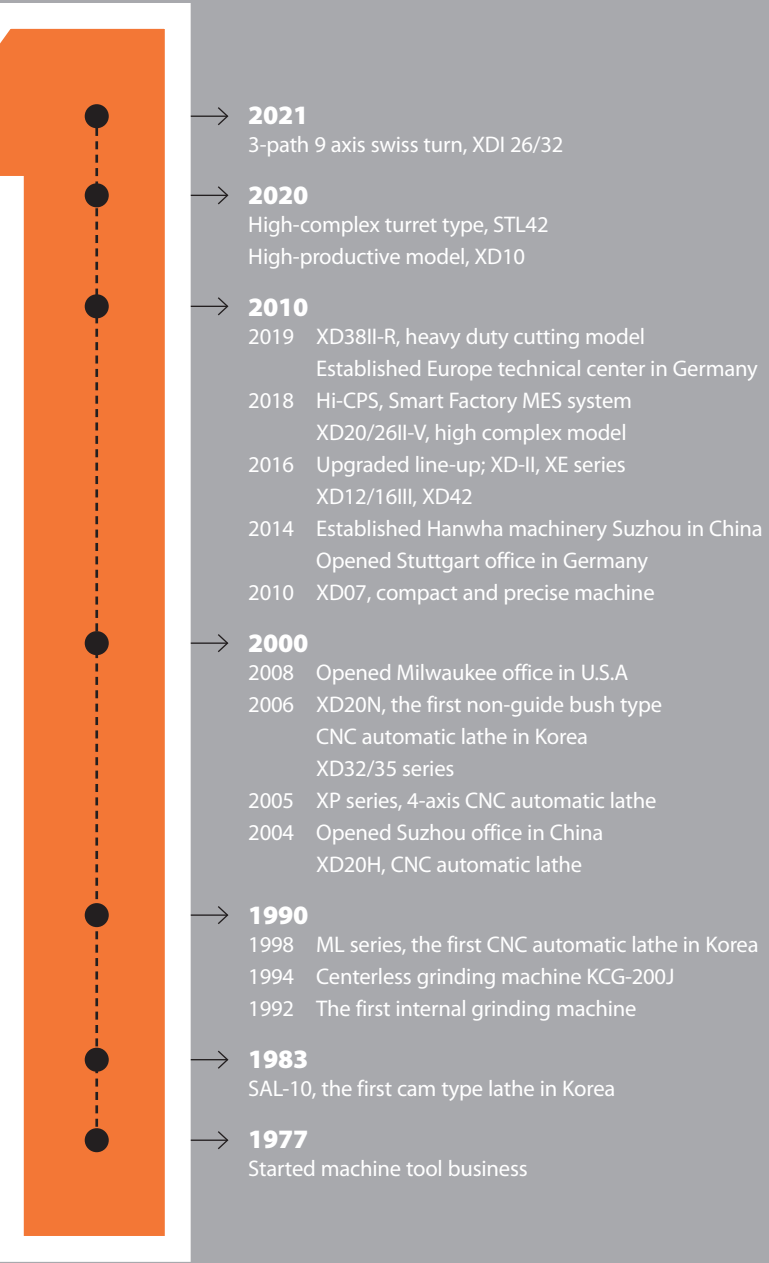
Machine Tool Division

Turning forward to the Future

Starting the machine tool business 1977 and developing its first CNC Swiss turning machine in 1998, Hanwha machine tool division has been focusing on product development to best fit customer's various needs and resulted in a wide range of line-up of excellent gang & turret type series. We, as a leading Swiss turning solution provider, will continue to strive to reach the top position in the machine tool business, accelerating our innovation and growth based on our +50 years of business experience and ever-expanding Hanwha global network.

To be the Global
No.

Exports to more than
30 countries in the world





High Precision & Complex Machining Based on the Rigid Design Policy

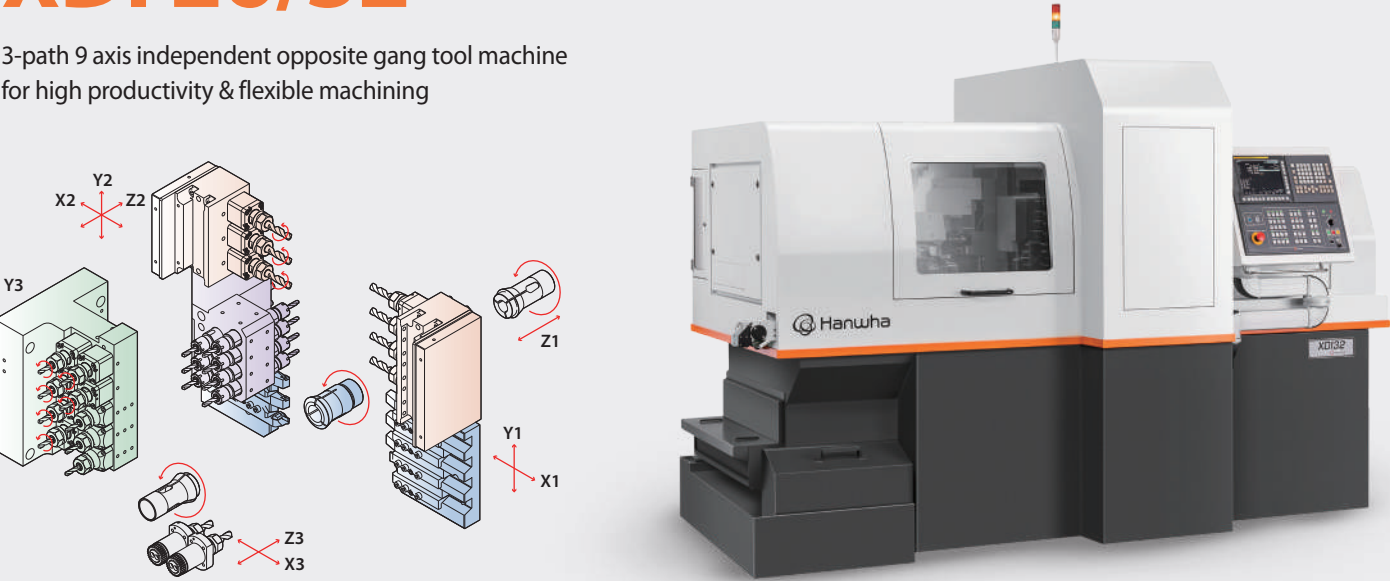
Hanwha CNC Swiss turning machines with a full line-up ranging from Ø10mm to Ø42mm, featured with high-grade CNC unit, complex tooling and high-rigidity machine structure can achieve high complex and precision machining. The Hanwha sliding headstock machines offer various range of models with optimized design combination as per customer's requirement.

Model	STL42	STL38	XDI 26/32	XD42	XD38II-R	XD38II	XD20/26II-V
Max. machining diameter (mm)	42	38	26 32	42	38	38	20 26
Z1 stroke (mm)	H 420 NH 282/125	H 320	NH 350/100	H 320 N 100 NH 207/100	NH 320	H 320 N 80 NH 142/80	H 210 N 50 NH 210/50
Tool layout							
NC	Siemens	Siemens	Fanuc	Fanuc	Fanuc / Siemens	Fanuc	Fanuc / Siemens

Model	XD20/26II	XE35	XE20/26	XD16III	XD10	XP20/26/32S	XP12/16S
Max. machining diameter (mm)	20 26	35	20 26	16	10	20 26 32	12 16
Z1 stroke (mm)	H 210 N 60 NH 160/50	H 210 N 60	H 210 N 60 NH 160/50	H 155	H 155	20 210 26/32 205	12/16 140
Tool layout							
NC	Fanuc / Siemens	Fanuc	Fanuc	Fanuc	Fanuc	Fanuc	Fanuc

XDI 26/32

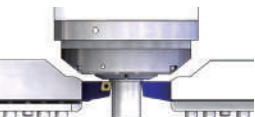
3-path 9 axis independent opposite gang tool machine
for high productivity & flexible machining



Model		XDI 26	XDI 32
NC		Fanuc – 31iB	
Max. machining diameter (mm)		Ø26	Ø32
Z1 Stroke / NH (mm)		350 (H), 100 (N)	
Main spindle	Speed (rpm)	8,000	6,500
	Motor (kW)	2.2 / 5.5	
Turning tool	No. of tools	□ 16mm x 7 (4 + 3)	
	No. of tools	ER16M x 4 (Front 4 / Rear 7)	
Cross drill	Speed (rpm)	6,000	
	Motor (kW)	1.0	2.2
B-axis cross (op.)	No. of tools	ER16 x 4 (Front 4 / Rear 4)	
	Speed (rpm)	6,000	
Sub spindle	Speed (rpm)	8,000	6,500
	Motor (kW)	2.2 / 5.5	
Back tool	No. of tools	ER16 x 9 (Fixed 3 + Driven 6) (Option : Driven 6 + Cross 3 + Turning 2)	
	Speed (rpm)	6,000	
	Motor (kW)	1.0	
Machine size (L x W x H) (mm)		2,910 x 1,710 x 2,010	
Weight (kg)		6,300	
Power consumption (Cable size)		34.7 KVA, 28.8 KW (VCTF16SQ x 4C)	37.4 KVA, 31.2 KW (VCTF16SQ x 4C)
Air flow rate (Liter/Min)		120 ~ 150	

VARIOUS SIMULTANEOUS MACHINING

Reduced cutting time by simultaneous machining capacity with
balance turning, drilling and milling



Balance turning



Balance drilling & Milling

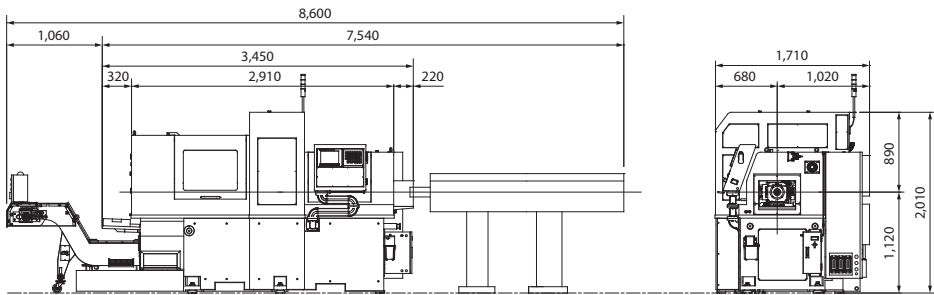


Simultaneous machining
(Turning & Front drilling)



Pre-positioning of the next tool

DIMENSION



Option Tooling

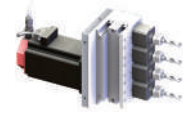
Providing variable option tools for the flexible machining

Cross Drilling / Milling Unit

- Cross drill / Double-hinged B-axis tool

Option Specification

- 4 cross drill (ER16, 1kW or 2.2 kW)
- The same cross modular with XD38II

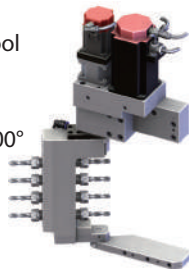


1 kW



2.2 kW

- Double-hinged B-axis tool (ER16x8, Front 4/Back 4)
- Motor power : 1.0 kW
- Swivel angle : -40°~+100°

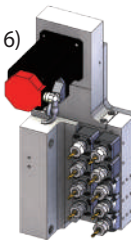


Back Tool Unit

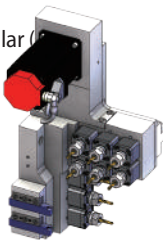
- Y3-axis 9 back tool / Y3-axis back tool cross

Option Specification

- Standard 9 back tool
- 6 Driven/3 Fixed Modular (ER16)
- Motor power : 1.0 kW
- The same back tool modular with XD38II
- Whole gear driven system



- Option Y3-axis back tool cross
- 6 Back(Driven) /3 Cross Modular (ER16)
- Motor power : 1.0 kW
- The same back tool modular with XD38II
- Whole gear driven system

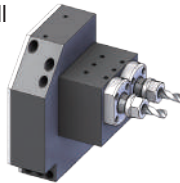


Sub Off-center & Gun Drill Unit

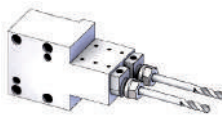
- 2 off-center drills / 2 gun drills

Option Specification

- 2 off-center dill modular (ER16)
- Motor power : 2.2/5.5 kW
- The same off-center drill modular with XD26II-V



- 2 gun drill (ER16)
- Max. drill length 190 mm



Standard

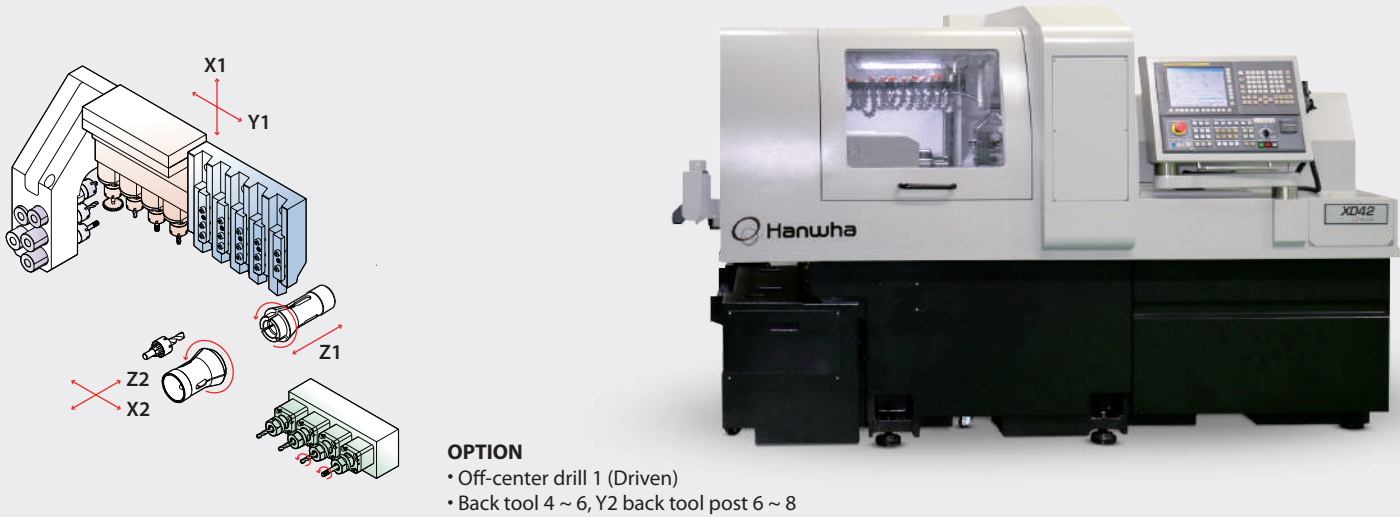
- Main · Sub Cs control (0.001°)
- Rotary Guide bush holder
- Cross drilling · milling unit
- 2 MPG
- Door interlock
- Coolant flow sensor
- Work light
- Signal lamp (3color)
- LAN port
- Tool monitoring function
- Cut off detector (S/W)
- Super imposed control
- Auto power off
- Bar feeder interface
- Part conveyor

Option

- Bar feeder
- Chip conveyor
- Extended coolant tank
- Transformer
- Tap breakage detector
- Pipe type ejection unit
- B-axis cross drill unit(4)
- Off-center drill unit(2)
- Gun drill unit(2)
- Cross turning back tool post
- Middle / High pressure pump
- Oil mist collector
- Oil chiller
- Memory card
- Tooling & Programming
- Additional M-code
- Helical interpolation
- 3 dimension conversion
- NC warranty for 2 years

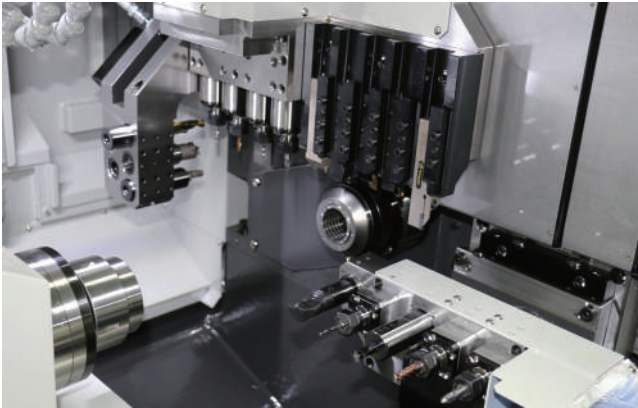
XD42

Specialized 5/6-axis for larger dia. machining (42mm)



- OPTION**
- Off-center drill 1 (Driven)
 - Back tool 4 ~ 6, Y2 back tool post 6 ~ 8

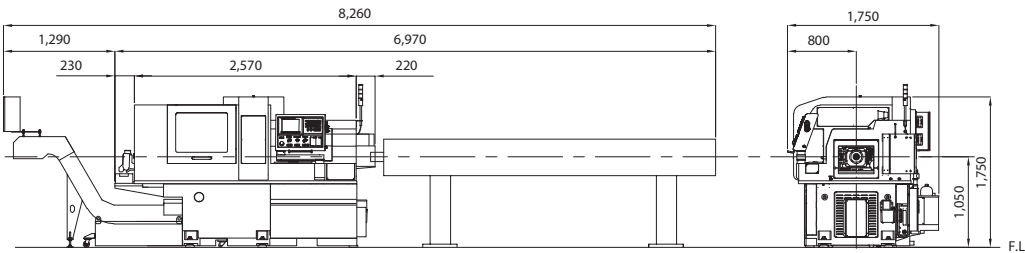
Model		XD42		
		H	NH	N
NC		Hanwha Fanuc-i		
Max. machining diameter (mm)		Ø42		
Z1 Stroke (mm)		320	207 (H), 100 (N)	100
Main spindle	Speed (rpm)	6,000		
	Motor (kW)	5.5/7.5		
OD tool	No. of tools	5 (□20mm)		
Front tool	No. of tools	5 (ER20M, Ø32)		
Cross drill	No. of tools	4 (ER20M)		
	Speed (rpm)	6,000		
	Motor (kW)	2.2		
Off-center drill (Option)	No. of tools	1 (ER20M)		
	type	Gear drive (Modular type drill)		
Sub spindle	Speed (rpm)	6,000		
	Motor (kW)	2.2/5.5		
Back tool	No. of tools	5 (ER20M) (3 Fixed + 2 Driven)		
	Speed (rpm)	6,000		
	Motor (kW)	1.0		
Machine size (L x W x H) (mm)		2,570 x 1,750 x 1,750		
Weight (kg)		4,100		
Power consumption (Cable size)		25kVA, 16.7kW (VCTF 16SQ x 4C)		
Air flow rate (Liter/Min)		120 ~ 150		



- Strong machining performance & high-productivity for large bore material
- Strong chucking force with hydraulic cylinder
- Improved bearing system for accuracy
- High rigidity of feed unit (Adopted linear roller guide)

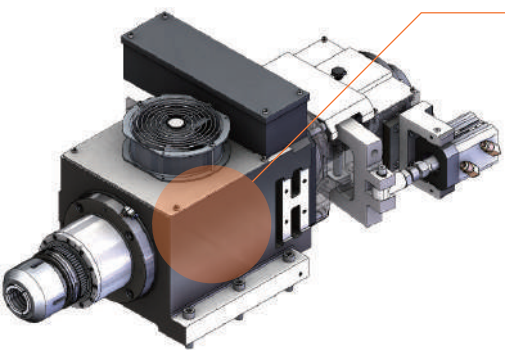
* H : G/B, N : Non-G/B, NH : Convertible G/B

Dimension



Option Tooling

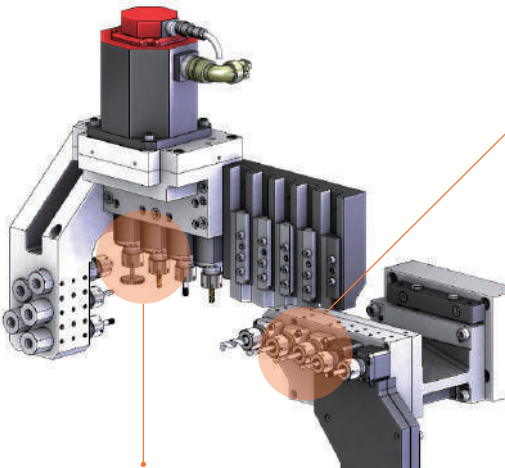
Offers various and flexible toolings for enhancing productivity and covering a variety of customer's needs



Spindle Unit

- Adopted built-in motor, hydraulic chucking cylinder & 3 toggle system for strong chucking power for Ø42mm material

Specification
6,000rpm
5.5/7.5kW (20 ~ 49Nm)



Back Tool Unit

- A total of 8 tools with Y2-axis and modular type for easy tool change / maintenance

Specification
6,000rpm, 1.0kW (3 ~ 7.5Nm)
5 tools (ER20M)

Option tool



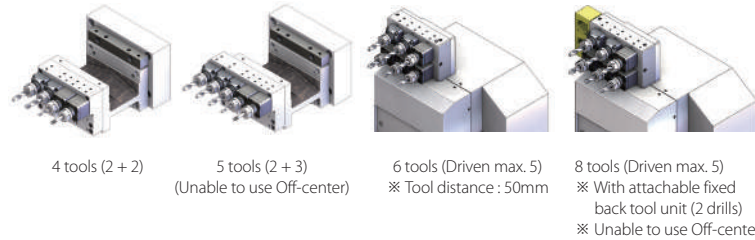
Cross Drilling / Milling Unit

- Powerful cross machining with upper size of tools and the best-in-class motor
- Cross unit with gear modular type as standard for various tooling and easy tool change / maintenance

Specification
6,000rpm, 2.2kW (8 ~ 22Nm)
4 tools (ER20M)

Selectable modules of back tool

Driven max.4



Standard

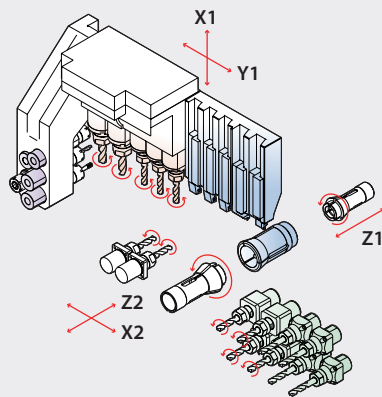
- Main · Sub Cs control (0.001°)
- Rotary Guide bush holder
- Cross drilling · milling unit (4, Gear modular type)
- MPG
- Part conveyor
- Door interlock
- Coolant flow sensor
- Work light
- Signal lamp (3color)
- LAN port
- Tool monitoring function
- Cut off tool breakage detector (S/W)
- Auto power off
- Bar feeder interface

Option

- Bar feeder
- Chip conveyor
- Transformer
- Tap breakage detector
- Pipe type ejection unit
- Off center drill unit (2)
- Middle / High pressure pump
- Oil mist collector
- Oil chiller
- Memory card
- Tooling & Programming
- Internal coolant driven tool (cross, back, off-center)
- 3 Face/counterface driven tool (cross)
- 3 Face/counterface angle driven tool (cross)
- Extended coolant tank
- NC warranty for 2 years

XD38II-R

The latest 5/6-axis, specialized in heavy duty cutting/ milling of max. dia. 38mm



- OPTION**
- Off-center drill 2 (Driven, Fixed)
 - Cross 6
 - Y2 back tool cross unit (Max. Cross 2)



Model		XD38II-R
		NH
NC		Fanuc 32i-B / Siemens 828D
Max. machining diameter (mm)		Ø38 (Option : Ø40)
Z1 Stroke (mm)		320 (H), 120 (N)
Main spindle	Speed (rpm)	6,500
	Motor (kW)	5.5/7.5 (Fanuc), 23 (Siemens)
OD tool	No. of tools	5 (□20mm x 2, □16mm x 3)
Front tool	No. of tools	5 (ER20M, Ø32)
Cross drill	No. of tools	5 (ER20 x 2, ER16 x 3)
	Speed (rpm)	6,000
Off-center drill (Option)	Motor (kW)	2.2 (Fanuc), 2.13 (Siemens)
	No. of tools	2 (ER16) Modular
Sub spindle	Speed (rpm)	6,500
	Motor (kW)	2.2/5.5 (Fanuc), 23 (Siemens)
Back tool	No. of tools	8 (ER16) (4 Fixed + 4 Driven)
	Speed (rpm)	6,000
Machine size (L x W x H) (mm)	Motor (kW)	1.0 (Fanuc), 1.02 (Siemens)
	Weight (kg)	2,650 x 1,600 x 1,790
Power consumption (Cable size)		25kVA (Siemens : 40kVA), 16.7kW (VCTF 16SQ x 4C)
Air flow rate (Liter/Min)		120 ~ 150

* NH : Convertible G/B

Specification of G/B & Chuck

Model	XD38II-R	XD38II		
NC	Fanuc / Siemens	Fanuc	Siemens (※ Production stop)	
Type	NH	H/N/NH/He	H	N/NH
Guide bush	BRA-42	TD38	BRA-42	
Main chuck	TF48	TF44	TF48	TF44
Sub chuck	TF48	TF44	TF48	

- Enhanced machining performance with optimized structure/ layout & widened distance between tools
- Easy switching between G/B & Non G/B and enhanced stroke, rigidity and chip disposal
- Flexible material feeding solution (bar feeder, automation unit and robot)

Optimized Structure & Spec for Ø38mm

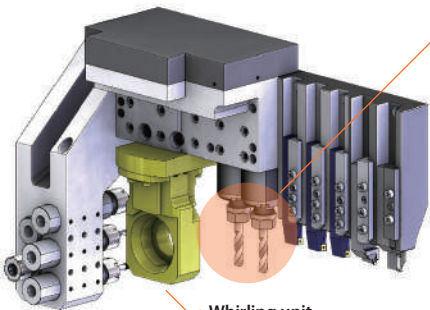
Possible to machine max. Ø40mm (Option)

Stroke

- Extended stroke to cover various & flexible processing
 - Widened distance between tools
 - Upper size of tools
 - Extended stroke of Z1 for convertible type of G/B (G/B : 205mm → 320mm, Non-G/B : 80mm → 120mm)

Z1	X1	Y1	Z2	X2	Y2
320 (G/B) 120 (Non-G/B)	80	467 (+55*)	350 (+70*)	450 (+55*)	67.7

* : increased stroke compared to XD38II

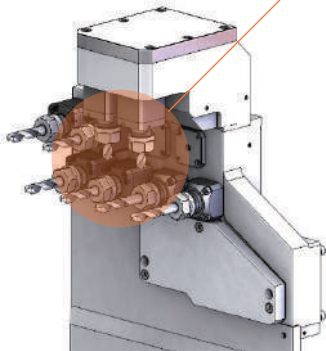


Cross Drilling / Milling Unit

- Powerful cross machining
 - Adopted the best-in-class motor (Capacity : Fanuc 2.2kW, Siemens 2.13kW)
- Gear driven modular
 - Gear modular type as standard for various tooling and easy tool change / maintenance

Specification

6,000rpm, 2.2kW(Fanuc), 2.13kW(Siemens)
5 tools (ER20 x 2, ER16 x 3)



Back Tool Unit

- Optimized structure for machining large bore material
- Extended tooling layout (Distance between tools : 52mm)
- Various option toolings are available
- Less chip trouble structure

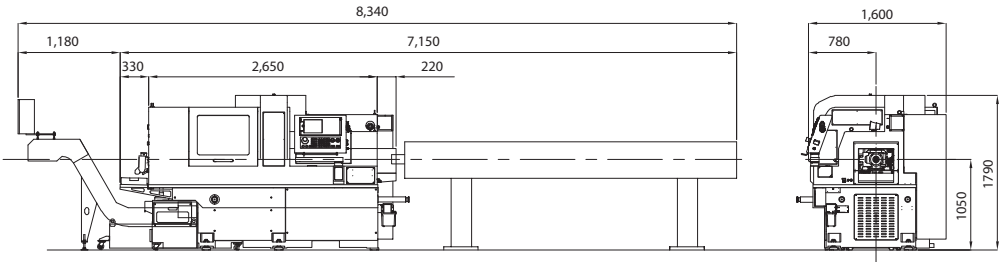
Specification

6,000rpm, 1.0kW(Fanuc), 1.02kW(Siemens)
8 tools (4 Driven + 4 Fixed)

Option tool



Dimension



Standard

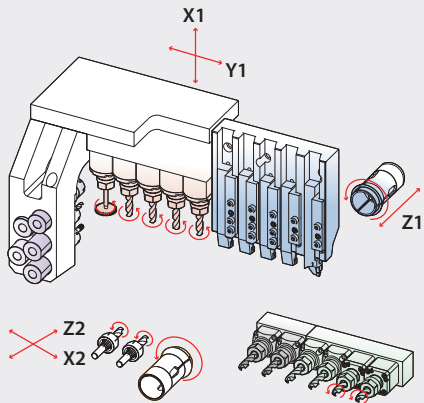
- Main · Sub Cs control (0.001°)
- Rotary Guide bush holder
- Cross drilling · milling unit (5, Gear modular type)
- MPG
- Part conveyor
- Door interlock
- Coolant flow sensor
- Work light
- Signal lamp (3color)
- LAN port
- Tool monitoring function
- Cut off tool breakage detector (S/W)
- Auto power off
- Bar feeder interface

Option

- Bar feeder
- Chip conveyor
- Right-way part conveyor
- Transformer
- Tap breakage detector
- Pipe type ejection unit
- Off center drill unit (2)
- Middle / High pressure pump
- Oil mist collector
- Oil chiller
- Memory card
- Tooling & Programming
- Internal coolant driven tool (cross, back, off-center)
- 3 Face/counterface driven tool (cross)
- 3 Face/counterface angle driven tool (cross)
- Extended coolant tank
- NC warranty for 2 years

XD38II

Specialized 5/6/7-axis model for heavy duty cutting / milling



- OPTION**
- Off-center drill 2 (Driven, Fixed)
 - Cross 6
 - B-axis tool post 6 (Front 3 + Back 3)
 - Back tool 4 ~ 6
 - Y2 back tool cross unit (Max. Cross 2)

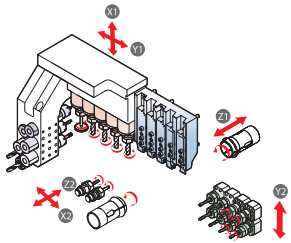


Model		XD32/38II			
		H	N	NH	He
NC		Fanuc 32i-B			Hanwha Fanuc-i
Max. machining diameter (mm)		Ø32/38			
Z1 Stroke (mm)		320	80	142 (H), 80 (N)	320
Main spindle	Speed (rpm)	6,500			
	Motor (kW)	5.5/7.5			
OD tool	No. of tools	5 (□16mm)			
Front tool	No. of tools	5 (ER20M, Ø32)			
Cross drill	No. of tools	5 (ER16)			
	Speed (rpm)	6,000			
	Motor (kW)	2.2			
Off-center drill (Option)	No. of tools	2 (ER16) Modular			2 (ER16) Non-modular
	type	Motor drive (6,000rpm, 1.0kW)			Gear drive
Sub spindle	Speed (rpm)	6,500 (Built-in motor)			6,500 (Spindle motor)
	Motor (kW)	2.2/5.5			1.1/3.7
Back tool	No. of tools	6 (ER16) (4 Fixed + 2 Driven)			4 (ER16) (2 Fixed + 2 Driven)
	Speed (rpm)	6,000			
	Motor (kW)	1.0			
Machine size (L x W x H) (mm)		2,570 x 1,440 x 1,740			
Weight (kg)		3,600			
Power consumption (Cable size)		25kVA, 16.7kW (VCTF 16SQ x 4C)			
Air flow rate (Liter/Min)		120 ~ 150			

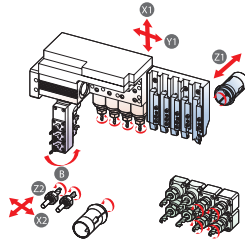
* **H** : G/B, **N** : Non-G/B, **NH** : Convertible G/B, **He** : Hanwha Fanuc-i NC (with G/B)

TOOLING VARIATION

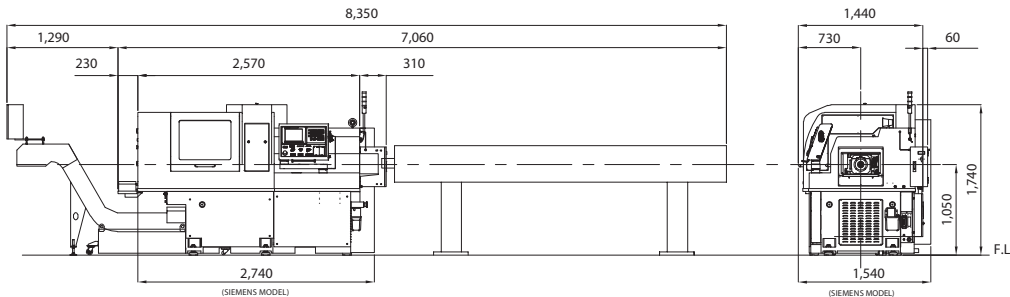
- Y2 Back tool 8 (Driven max. 8)
- Off-center drill (Driven) 2



- B-axis tool post 6 (Front 3 + Back 3)

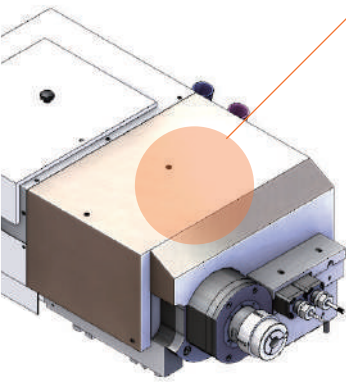


Dimension



Option Tooling

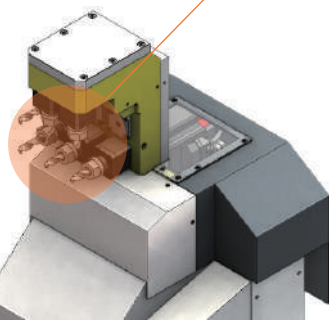
Various tooling options & sub-spindle type are offered for high-quality performance depending on product & machining condition



Sub Spindle Unit

- Built-in motor for powerful cutting and spindle motor for high productivity are both available
- ※ Choose a right type of motor to generate the best performance depending on processing material and condition

Sub spindle			Spec
Max. machining diameter			Ø38 mm
Rotating speed			6,500 rpm
Motor spec	Built-in motor	Fanuc 32i-B	2.2/5.5kW, 20/49Nm
	Spindle motor	Hanwha Fanuc-i	1.1/3.7kW, 7/28Nm

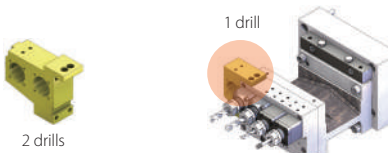


Back Tool Unit

- A total of 8 tools with Y2-axis and modular type for easy tool change / maintenance

Option unit

Attachable fixed drill unit
Off-center can be available with 1 drill unit

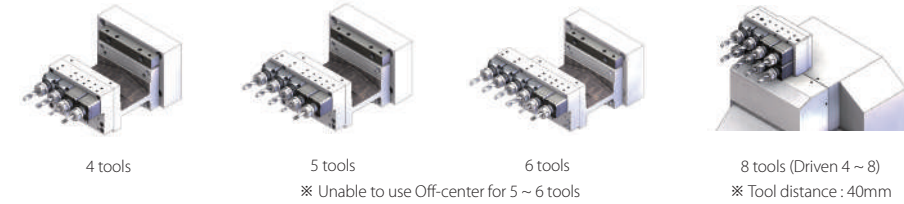


Option tool



Selectable modules of back tool

Driven max. 4



Standard

- Main-Sub Cs control (0.001°)
- Rotary Guide bush holder
- Cross drilling · milling unit (5, Gear modular type)
- MPG
- Part conveyor
- Door interlock
- Coolant flow sensor
- Work light
- Signal lamp (3color)
- LAN port
- Tool monitoring function
- Cut off tool breakage detector (S/W)
- Auto power off
- Bar feeder interface

Option

- Bar feeder
- Chip conveyor
- Transformer
- Tap breakage detector
- Pipe type ejection unit
- Off center drill unit (2)
- Middle / High pressure pump
- Oil mist collector
- Oil chiller
- Memory card
- Tooling & Programming
- Internal coolant driven tool (cross, back, off-center)
- 3 Face/counterface driven tool (cross)
- 3 Face/counterface angle driven tool (cross)
- Extended coolant tank
- NC warranty for 2 years

XD20/26II

The best selling 5-axis for max. dia. 20/26mm

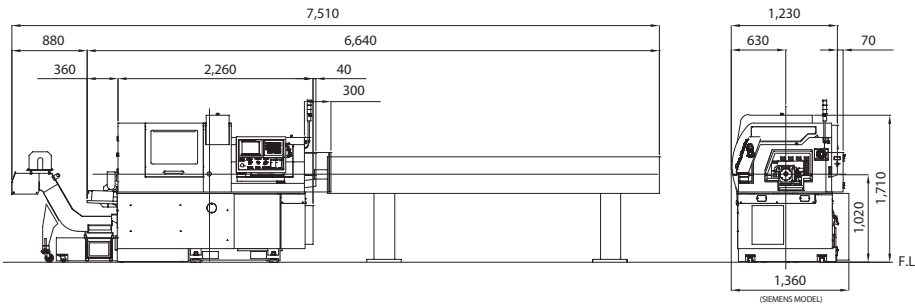


- OPTION**
- Off-center drill 2 (Driven, Fixed)
 - Cross drill 5 ~ 6
 - Back tool 5 ~ 6

Model		XD20/26II			
		H	N	NH	M
NC		Fanuc 32i-B / Siemens 828D			
Max. machining diameter (mm)		Ø20/Ø26			
Z1 Stroke (mm)		210 (Fanuc), 240 (Siemens)	60mm	160 (H), 50 (N)	210
Main spindle	Speed (rpm)	10,000 (Ø20), 8,000 (Ø26)			
	Motor (kW)	Fanuc : 2.2/3.7 (Ø20), 2.2/5.5 (Ø26) Siemens : 14.4			
OD tool	No. of tools	6 (□12mm) (Ø20), 5 (□16mm) (Ø26)			5 (□12mm)
Front tool	No. of tools	5 (ER16M, Ø25)			
Cross drill	No. of tools	4 (ER16 (Ø20), ER16M (Ø26))			5 (ER16M)
	Speed (rpm)	6,000			
Off-center drill (Option)	Motor (kW)	Fanuc : 1.0, Siemens : 1.02			
	No. of tools	2 (ER16) Driven			2 (ER16M) Fixed long drill
Sub spindle	Speed (rpm)	8,000			
	Motor (kW)	Fanuc : 1.5/2.2, Siemens : 2.59			
Back tool	No. of tools	4 (ER16) (2 Fixed + 2 Driven)			
	Speed (rpm)	6,000			
	Motor (kW)	Fanuc : 1.0, Siemens : 1.02			
	Machine size (L x W x H) (mm)	2,260 x 1,230 x 1,710			
Weight (kg)		2,700			
Power consumption (Cable size)		15kVA, 10kW (VCTF 105Q x 4C)			
Air flow rate (Liter/Min)		120 ~ 150			

* **H** : G/B, **N** : Non-G/B, **NH** : Convertible G/B, **M** : Cross 5-axis+Long drills

Dimension



Option Tooling

Offers various and flexible toolings for enhancing productivity and covering a variety of customer's needs

Option Tool Layout

Cross unit 4 (standard)
- OD 6 (□12),
Cross 4 (ER16),
Front 5 (ER16M)

Cross unit 5
- OD 5 (□16),
Cross 5 (ER16M),
Front 3 (ER16M)

Cross unit 6
- OD 6 (□16 x 1, □11 x 5),
Cross 6 (ER11M x 2, ER16 x 4)

Off-Center Unit

- Sub spindle unit provides 2 driven drills or 2 fixed long drills for deep hole machining (option)

Option tool

Long drill

Internal coolant driven tool

Tailstock

Back Tool Unit

- A total of 6 tools as an option and modular type for easy tool change / maintenance

Option unit Option tool

Attachable fixed drill unit

Internal coolant driven tool

Back and cross tool

Burr removal

Selectable modules of back tool
Driven max. 4

4 tools

5 tools

6 tools

※ Unable to use Off-center for 5 ~ 6 tools

Standard

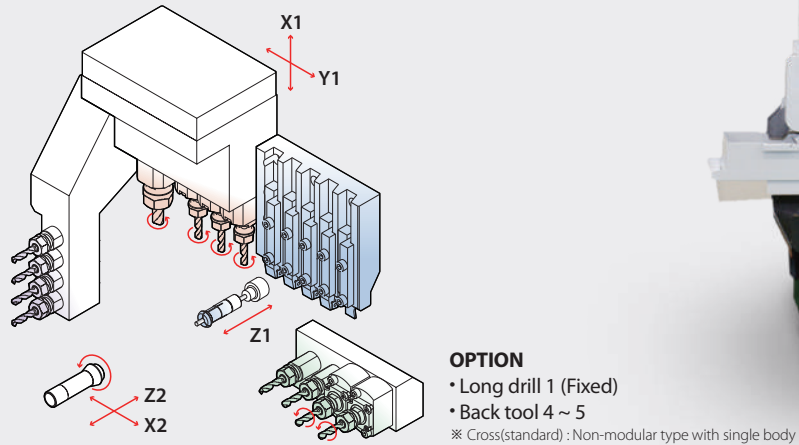
- Main-Sub Cs control (0.001°)
- Rotary Guide bush holder
- Cross drilling · milling unit (4, Gear modular type)
- MPG
- Part conveyor
- Door interlock
- Coolant flow sensor
- Work light
- Signal lamp (3color)
- LAN port
- Tool monitoring function
- Cut off tool breakage detector (S/W)
- Auto power off
- Bar feeder interface

Option

- Bar feeder
- Chip conveyor
- Transformer
- Tap breakage detector
- Pipe type ejection unit
- Off center drill unit (2)
- Middle / High pressure pump
- Oil mist collector
- Oil chiller
- Memory card
- Tooling & Programming
- Internal coolant driven tool (cross, back, off-center)
- 3 Face/counterface driven tool (cross)
- 3 Face/counterface angle driven tool (cross)
- Extended coolant tank
- NC warranty for 2 years

XD16III

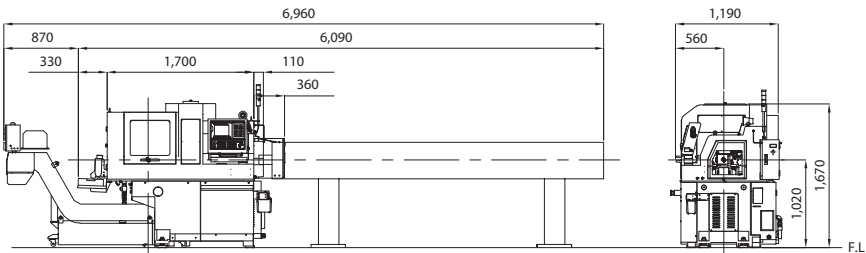
High-speed 5-axis solution for max. dia. 16mm



Model	XD16III	
	H	J
NC	Hanwha Fanuc-i	
Max. machining diameter (mm)	Ø16	
Z1 Stroke (mm)	155	
Main spindle	Speed (rpm)	15,000
	Motor (kW)	2.2/3.7
OD tool	No. of tools	5 (□12mm)
Front tool	No. of tools	4 (ER11, Ø20)
	No. of tools	4 (ER11 x 3 + ER16 x 1)
Cross drill	Speed (rpm)	6,000(ER16), 9,000(ER11)
	Motor (kW)	1.0
Long drill (Option)	No. of tools	1 (ER11) drilling depth : 76.5mm
	Speed (rpm)	10,000
Sub spindle	Motor (kW)	0.55/1.1
	No. of tools	4 (ER11) (2 Fixed + 2 Driven)
Back tool	Speed (rpm)	9,000
	Motor (kW)	1.0
	No. of tools	4 (ER11) (4 Fixed)
Machine size (L x W x H) (mm)	1,700 x 1,190 x 1,670	
Weight (kg)	2,200	
Power consumption (Cable size)	15kVA, 10kW (VCTF 10SQ x 4C)	
Air flow rate (Liter/Min)	120 ~ 150	

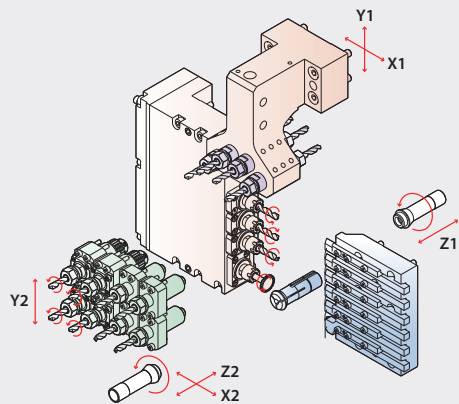
* H : G/B & Driven back tool(2), J : G/B & Fixed back tool

Dimension



XD10

High productivity & precision 5/6-axis solution for max. dia. 10mm

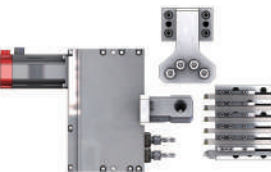


Model	XD10	
	Hanwha Fanuc-i	
NC	Hanwha Fanuc-i	
Max. machining diameter (mm)	Ø10	
Z1 Stroke (mm)	155	
Main spindle	Speed (rpm)	15,000
	Motor (kW)	2.2/3.7
Turning tool	No. of tools	□8mm x 6
Front tool	No. of tools	ER11 x 4
	No. of tools	ER11M x 4 (Option: ER11M x 5)
Cross drill	Speed (rpm)	10,000
	Motor (kW)	0.55
Sub spindle	Speed (rpm)	10,000
	Motor (kW)	0.55 / 1.1
Back tool	No. of tools	ER11 x 8 (Y2: Fixed 4 + Driven 4) (Option: Fixed 2 + Driven 2)
	Speed (rpm)	9,000
	Motor (kW)	0.55
Machine size (L x W x H) (mm)	1,810 x 1,150 x 1,770	
Weight (kg)	2,200	
Power consumption (Cable size)	15kVA, 10kW (VCTF 10SQ x 4C)	
Air flow rate (Liter/Min)	120 ~ 150	

OPTION TOOLING

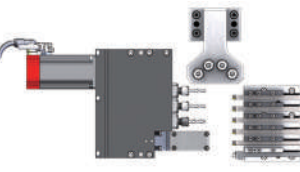
Whirling Tool

- ER11M x 2,
Modular Whirling x 1



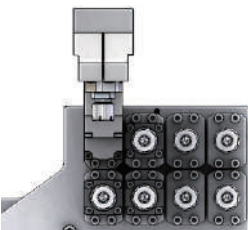
Cross unit 4 (modular 1)

- ER11M x 3,
Modular ER11M x 1



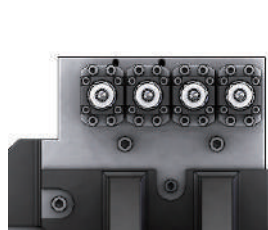
Back tool 8 (Driven max. 4)

- ER11 x 8

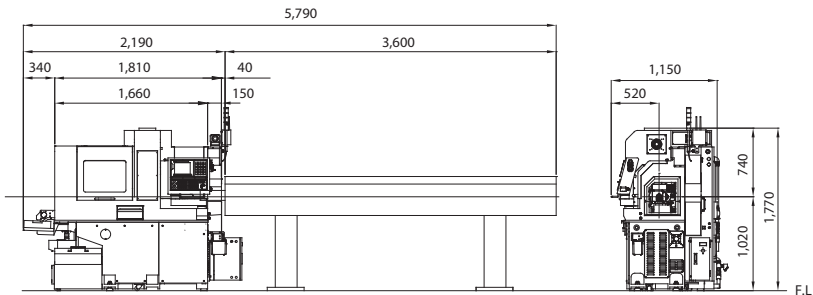


Back tool 4 (Driven max. 4)

- ER11 x 4



Dimension



Options

Customized special option units are available for qualified performance, enhanced productivity and convenience

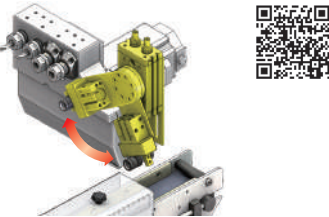
Standard & Option Accessory			STL series		XDI series	XD series						XD series		XE series		XP series	
			STL42	STL38	XDI 26/32	XD42	XD38II-R	XD38II	XD20/26II-V	XD20/26II		XD16III	XD10	XE35	XE20/26	XP20/26/32S	XP12/16S
Off-cent unit	Driven(2)		-	-	★	★(1)	★	★	★	★		-	-	★(1)	★	-	-
	Fixed (long drill, 2)		-	-	★	-	★(1)	★(1)	★	★		★(1)	-	-	★	-	-
	Off-center Tailstock		-	-	▲	★	★	★	★	★		-	-	★	★	-	-
Option tool unit	Intenal coolant driven unit	Cross	★	★	★	★	★	★	★	★		★(Modular)	▲	★	★	-	-
		Back	★	★	★	★	★	★	★	★		-	▲	★	★	-	-
		Off-center	-	-	▲	★	★	★	★	★		-	-	★	★	-	-
	Fixed angle drilling unit	Cross, 1	★	★	★	★	★	★	▲	▲		-	-	▲	▲	-	-
		Back, 1	★	★	★	★	★	★	▲	▲		-	▲	▲	▲	-	-
	Triple speed cross drill	Cross	★	★	▲	★	★	★	★	★		★(Modular)	▲	★	★	-	-
	Triple speed reduction cross drill	Cross	★	★	▲	★	★	★	★	★		★(Modular)	▲	★	★	-	-
	3 Face/counterface driven tool	Cross	-	-	▲	★	★	★	★	★		-	-	★	★	-	-
	3 Face/counterface angle driven tool	Cross	-	-	▲	★	★	★	★	★		-	-	★	★	-	-
	Gear hobbing	Cross	★(Turret)	★(Turret)	▲	★	★	★	★	★		▲	▲	★	★	-	★
	Whirling	Cross	★	★	▲	★	★	★	★	★		★	-	★	★	-	-
	Side cutter	Back	★(Turret)	★(Turret)	▲	★	★	★	★	★		★	★	★	★	-	-
	Back tool cross	Modular(Y2)	-	-	★	★	★	★	★	-		-	★	-	-	-	-
		Single body(Y2)	★(Y3)	-	-	-	★	★	★	-		-	▲	-	-	-	-
		Horizontal	-	-	★	★	★	★	★	★		-	▲	★	★	-	-
Coolant unit	Chiller integrated High pressure coolant pump		★	★	★	★	★	★	★	★		★	★	★	★	★	▲
	Extended coolant tank		-	-	★	★	★	★	★	★		★	★	★	★	★	★
Chip conveyor	Standard chip conveyor		-	-	★	★	★	★	★	★		★	★	★	★	★	★
	Smart chip conveyor		-	-	▲	★	★	★	★	★		-	-	-	★	-	-
	Lower type chip conveyor		★	★	▲	★	★	★	★	★		★	-	★	★	★	★

★ : Option ▲ : Discussable - : N/A

Special Accessories

Swing Gripper

Gripper fingers to grip and release finished parts on to conveyor belt for ejection
- Applied example : vulnerable material, long parts
• XD20/26II, XD38II, XD42, XE20/26



Parts Auto Loading unit

Auto loader for forged or diecasted parts to supply through main spindle door
• XD20/26II, XD38II, XD42, XE20/26



Auto stacking unit for machined parts

Auto loader for ejected parts onto a stacking pallet
• XD38II

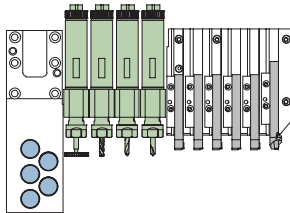


Tooling Variation

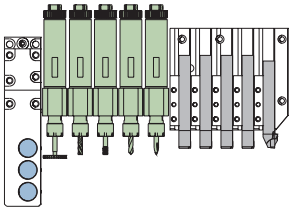
XD20/26II

- Front/Back Tool
- Cross Drill
- Special Option Tool
- OD Tool

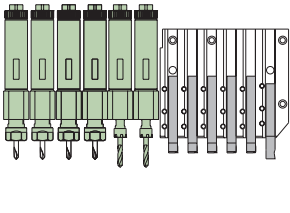
Cross 4



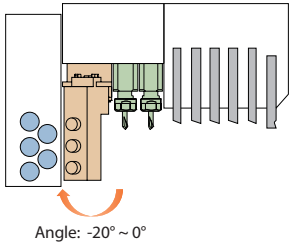
Cross 5



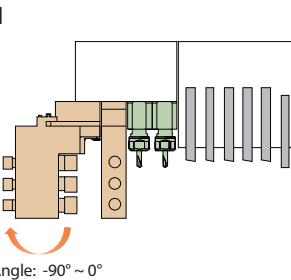
Cross 6



3 Face/counterface angle driven tool

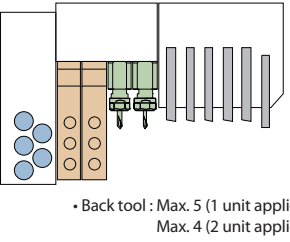


Angle: -20° ~ 0°



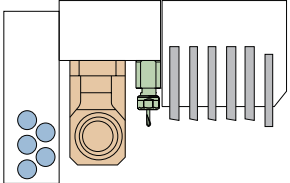
Angle: -90° ~ 0°

3 Face/counterface driven tool

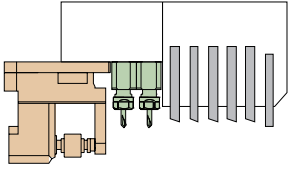


• Back tool : Max. 5 (1 unit applied)
Max. 4 (2 unit applied)

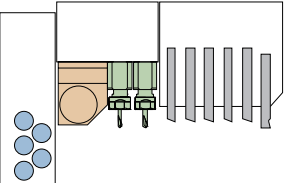
Whirling



Gear Hobbing



Polygon

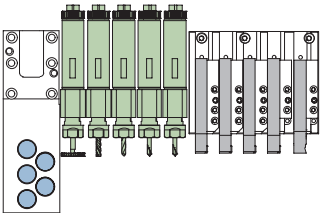


※ When special tool is installed, back tool unit should have max. 4 tools

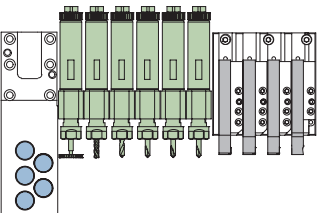
XD38II

- Front/Back Tool
- Cross Drill
- Special Option Tool
- OD Tool

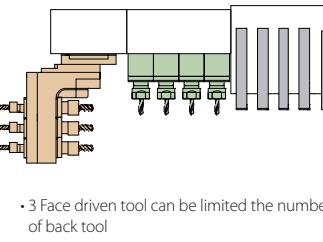
Cross 5



Cross 6

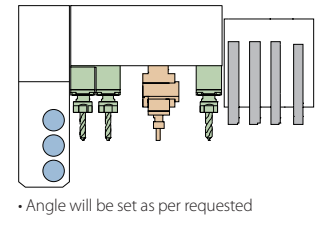


B-axis unit



• 3 Face driven tool can be limited the number of back tool

Fixed Angle Drilling



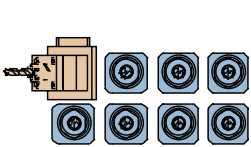
• Angle will be set as per requested

Back Tool Option Unit (Y2)

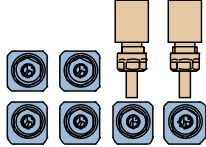
※ When special tool is installed, back tool unit should have max. 4 tools
※ Back tool option is available for both 6(Y2) and 8(Y2)

Fixed Angle Drilling

• Angle will be set as per requested



Back tool cross
(Modular, Single body)



Hi-CPS

Hanwha Intelligence CNC Prognostic System

Hi-CPS is a kind of smart factory solution to enable customers to manage factory in a smart & convenient way by providing real time onitoring on running status of machines at the facility. It is a cloud-based system so that one can access with ease from anywhere through internet.

Function

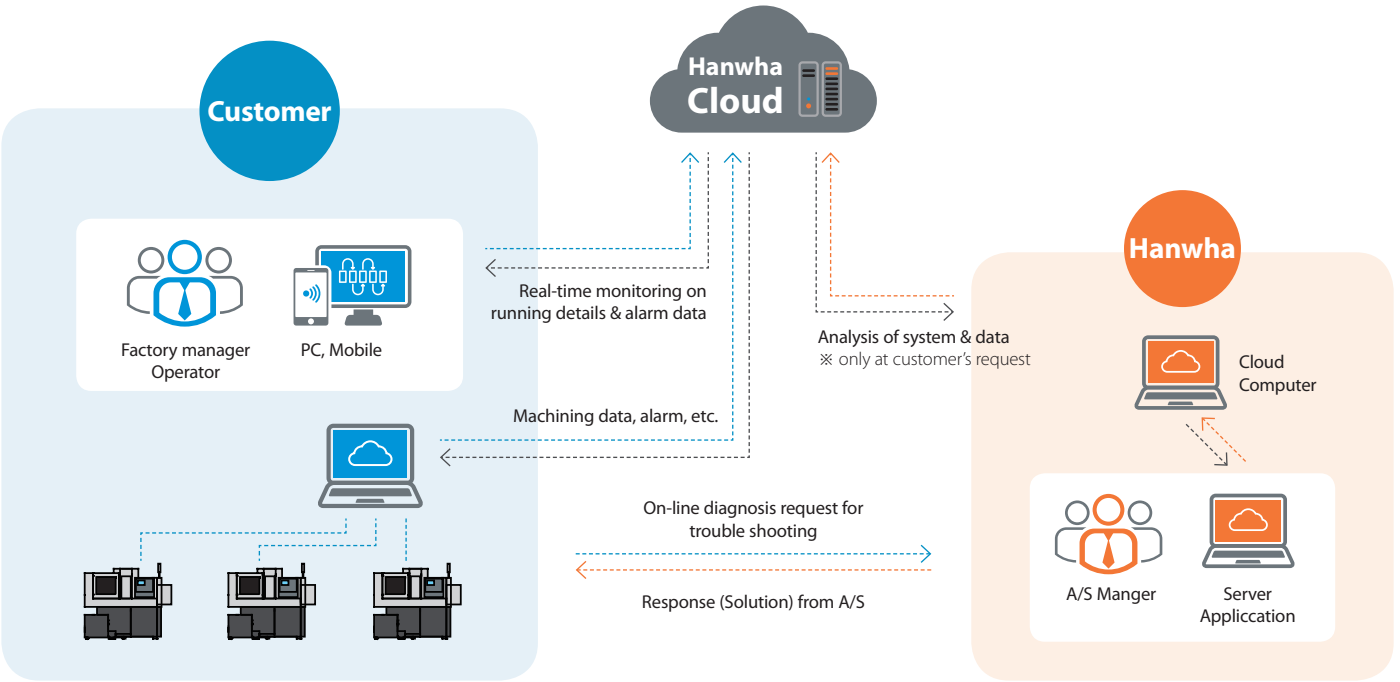
- 1

Monitoring
 - Monitors machine operation status from PC & Mobile
 - Check machining, repair, alarm, cycle time, etc.
- 2

Diagnosis
 - Remotely examines alarmed machines at user's online request

※ Only at customer's request, relevant machine data will be auto-transferred to Hanwha for analysis
- 3

Prognosis
 - Analyzes cutting load, tool change and offset



PCR / PCRS & Oscillation

Chip breaking solution

Hanwha provides chip cutting solution to break long and curled chips into small pieces through macro program.

Advantage

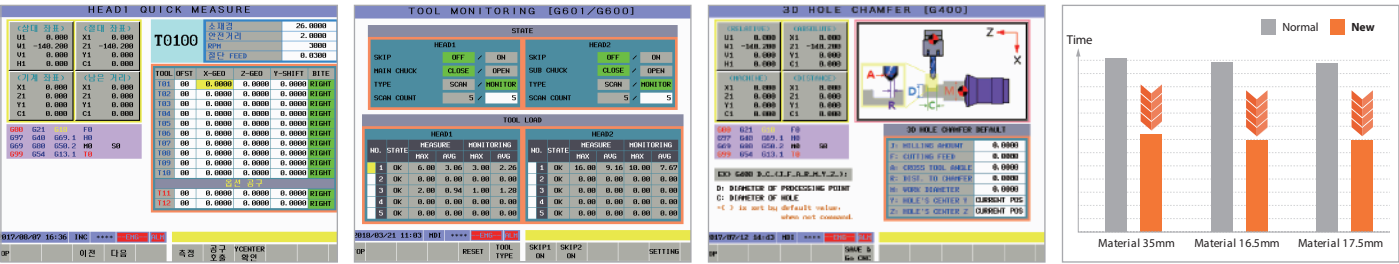
- Better tool life
- Build-up edge free
- Chip trouble free
- Coolant usage saved



Model	PCR	PCRS	Oscillation
NC	FANUC 32i-B	SIEMENS 828D/840D	Fanuc Oi-TD / Oi-TF / 32i-B
Machining function	Front turning	●	●
	Back turning	●	●
	Back drilling	Fixed drills	Fixed drills
	Taper	●	45° angle
	Circular interpolation	●	●
	Synchronous control	●	x
	Threading	●	x
	Nose R compensation	x	●

Customer & Performance Supporting Function

Hanwha offers various software for enhancing machining performance & supporting customer's convenience.



- Quick Measuring**
Setting time reduce system
Supports tools setting with minimal control and none of screen change
- Tool Load Monitoring**
Alarms when abnormal load on tools are detected
- 3D Chamfer Solution**
Uniform chamfer machining on cross hole with input of single code
- Motion Optimization**
C/T reduce system
Reduces cycle time by minimizing unnecessary motion (non processing time)
- Collision Protection**
Easy setting of value to protect collision before occurring
- M7**
Single code to command cut-off of material
- G301**
Single code to set the position of Z2-axis for cut-off of material
- Help function**
Provides description & graphic information about codes & alarms with



Automobile sample



Electronic sample



Industrial sample



Medical sample

NO.	A001	A002	A003
Material	SUM22	SUS304	SCM440H
NO.	A004	A005	A006
Material	SUS304	SUS304	SUS304
NO.	A007	A008	A009
Material	SUM22	SUS630	SUM24
NO.	A010	A011	A012
Material	AL6062-T8	AL6062-T8	AL6062-T9
NO.	A013	A014	A015
Material	Brass	AL-Die Casting	SUM22
NO.	A016	A017	A018
Material	SUS316	SUS304	SUS303
NO.	A019	A020	A021
Material	SCM315	AL6062	Brass
NO.	A022	A023	A024
Material	AL6061	SUS304	SUM202

NO.	E001	I001	M001
Material	SUS316	AL6062	Titanium
NO.	E002	I002	M002
Material	AL6061	SUS316	SUS316L
NO.	E003	I003	M003
Material	AL6062	AL2024	Titanium
NO.	E004	I004	M004
Material	AL6061	AL2024	Titanium
NO.	E005	I005	M005
Material	Brass	AL6062	Titanium, Brass
NO.	E006	I006	M006
Material	AL6061	AL6062	Titanium, Brass
NO.	E007	I007	M007
Material	Brass	SUS316	SUS316
NO.	E008	I008	M008
Material	AL6062	Brass	Titanium