

Hanwha Precision Machinery / Machine Tool Division

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EUROPE

Germany · Italy · Russia · Switzerland · Spain
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Hungary · Romania · Belarus · Bulgaria
Finland · Sweden · Turkey

ASIA

China · Hong Kong · India · Philippines
Israel · Thailand · Indonesia · Malaysia
Vietnam

AMERICA

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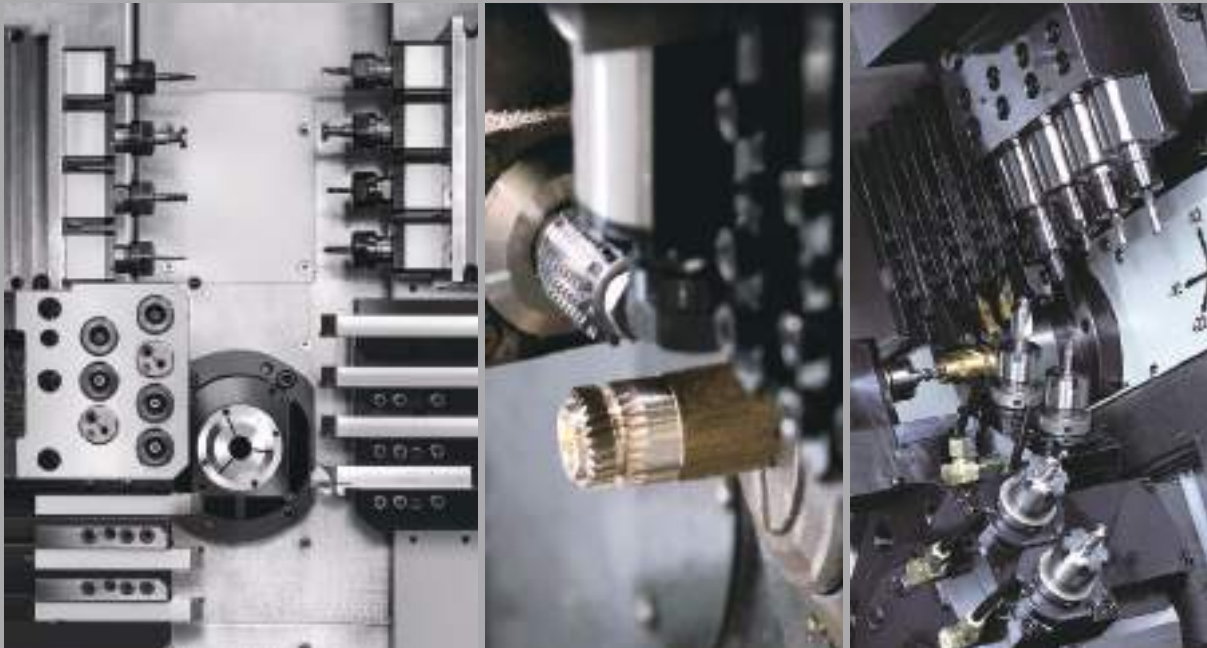
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Experience Your **SMART FACTORY**

Hanwha Machine Tool

CNC Swiss Turning Lathe



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Hanwha
Machinery America



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

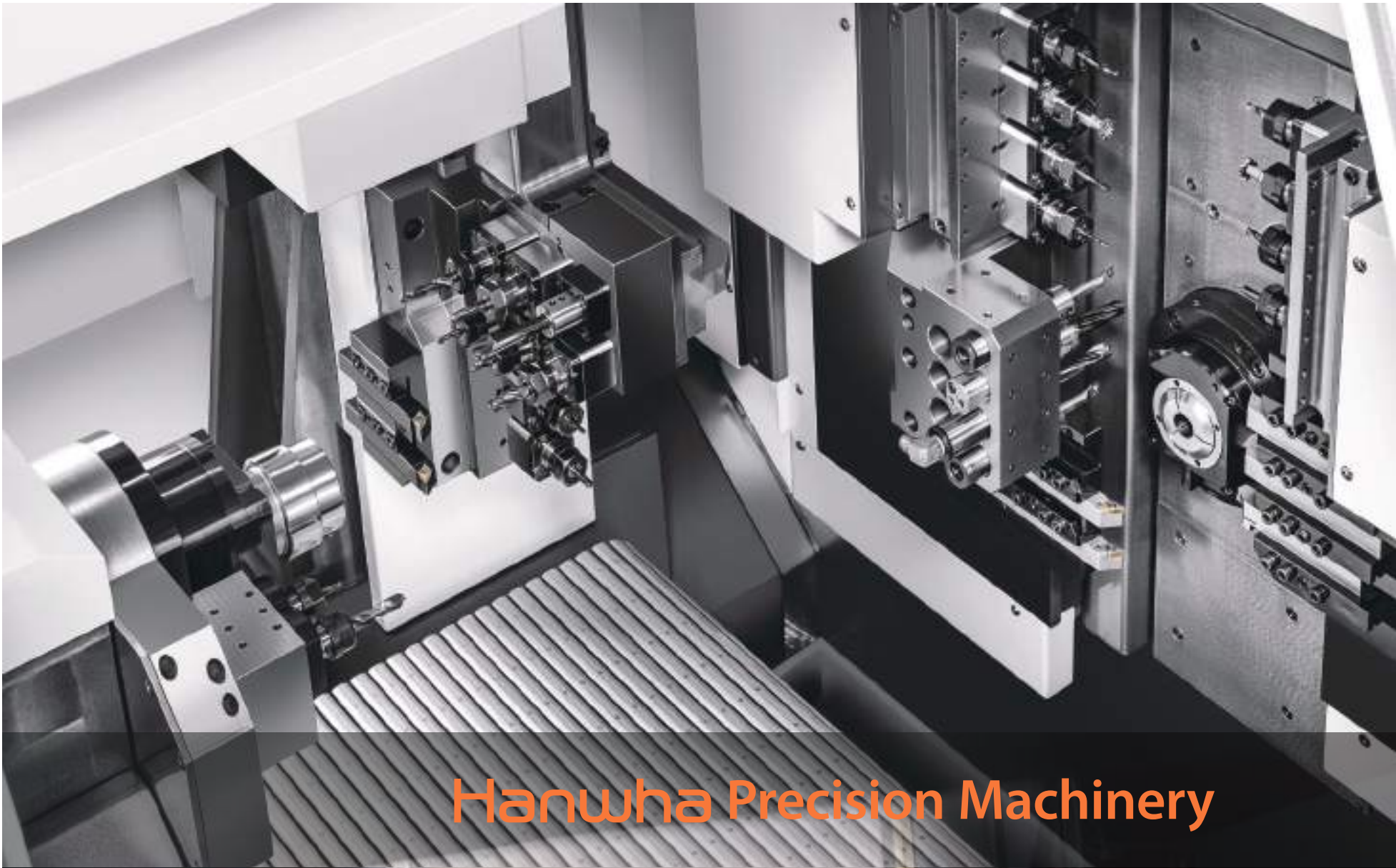
Offers customized solutions with a wide range of line-up for automatic lathes in gang & turret type.



Surface Mounter Technology Division

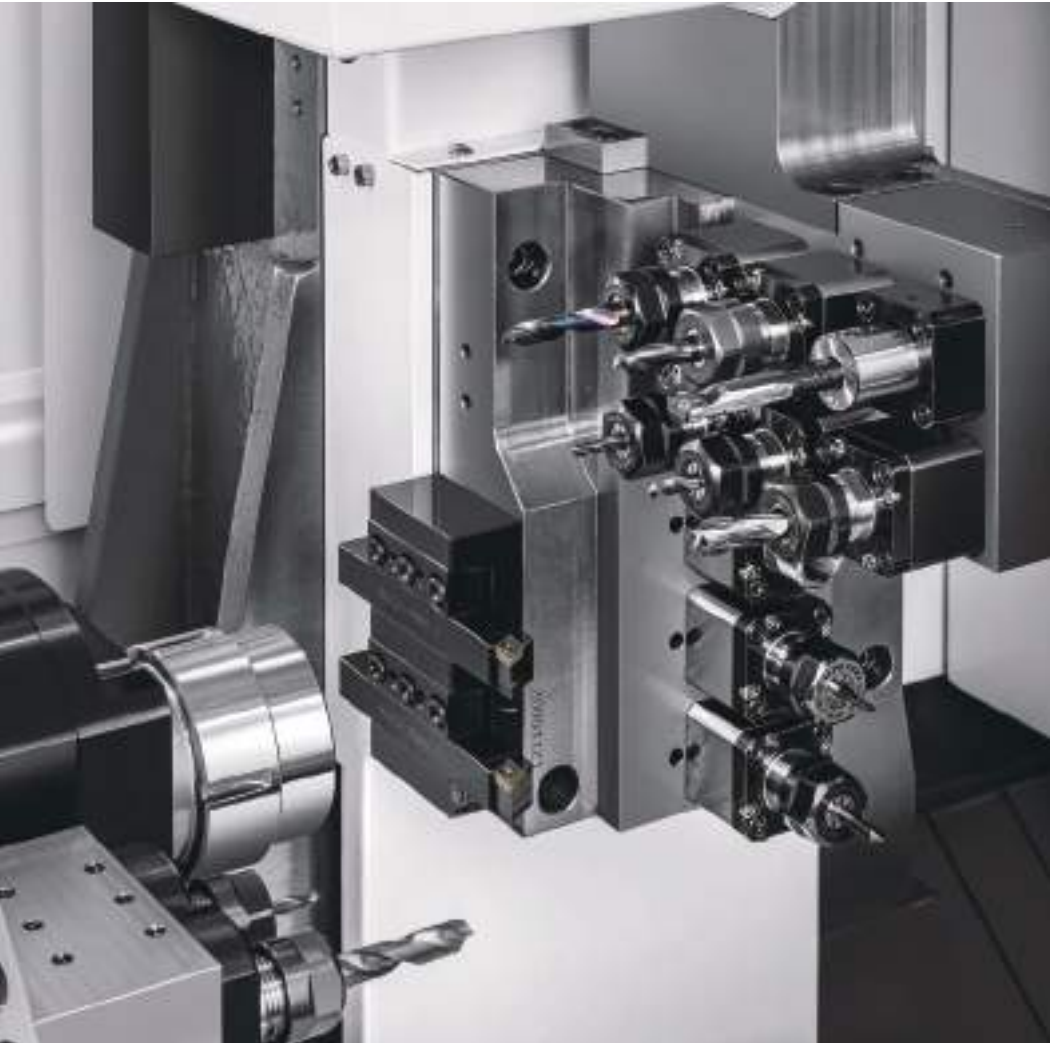
Chip Mounter • Screen Printer • Semiconductor Equipment

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



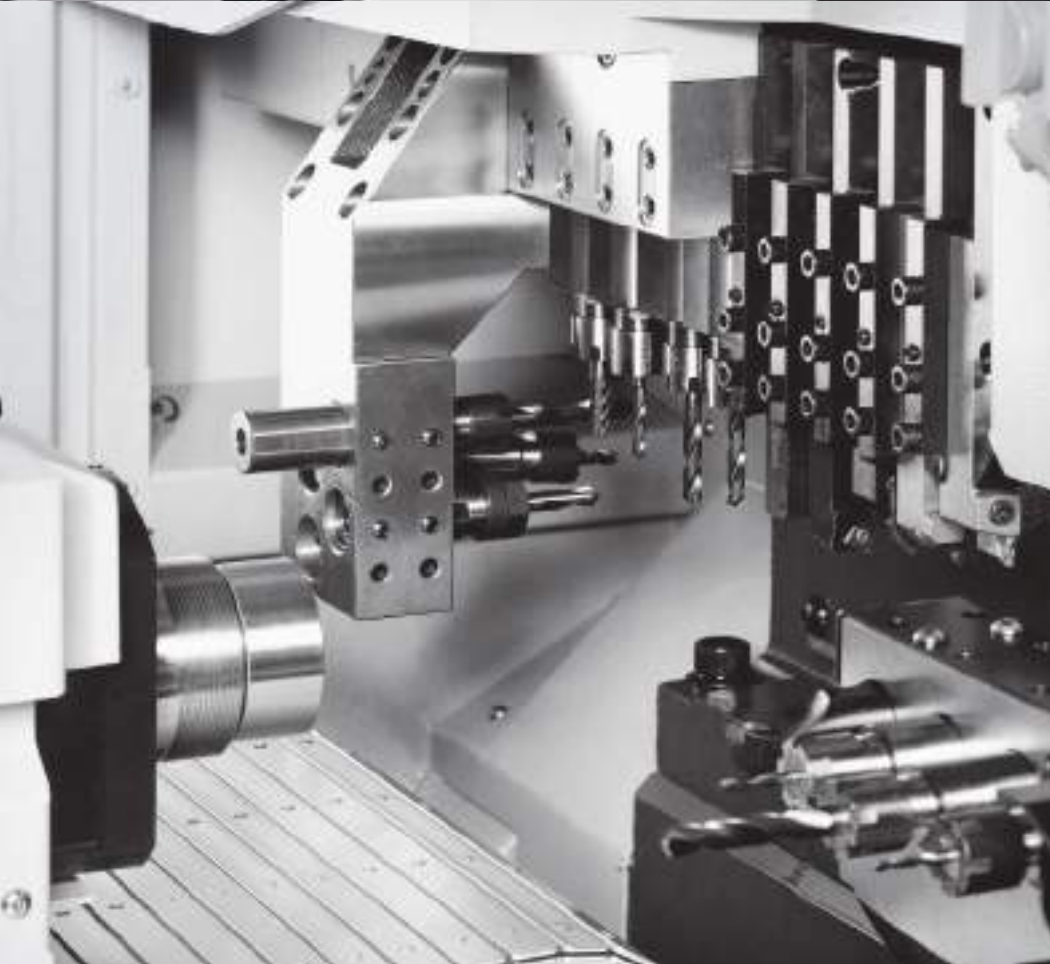
Hanwha Precision Machinery





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.

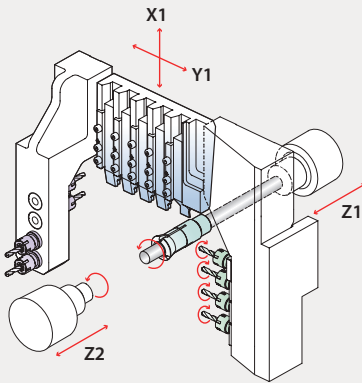
To be the Global
No.

Exports to more than
30 countries in the world

- 
- **2021**
3-path 9 axis swiss turn, XDI 26/32
 - **2020**
High-complex turret type, STL42
High-productive model, XD10
 - **2010**
2019 XD38II-R, heavy duty cutting model
Established Europe technical center in Germany
2018 Hi-CPS, Smart Factory MES system
XD20/26II-V, high complex model
2016 Upgraded line-up; XD-II, XE series
XD12/16III, XD42
2014 Established Hanwha machinery Suzhou in China
Opened Stuttgart office in Germany
2010 XD07, compact and precise machine
 - **2000**
2008 Opened Milwaukee office in U.S.A
2006 XD20N, the first non-guide bush type
CNC automatic lathe in Korea
XD32/35 series
2005 XP series, 4-axis CNC automatic lathe
2004 Opened Suzhou office in China
XD20H, CNC automatic lathe
 - **1990**
1998 ML series, the first CNC automatic lathe in Korea
1994 Centerless grinding machine KCG-200J
1992 The first internal grinding machine
 - **1983**
SAL-10, the first cam type lathe in Korea
 - **1977**
Started machine tool business

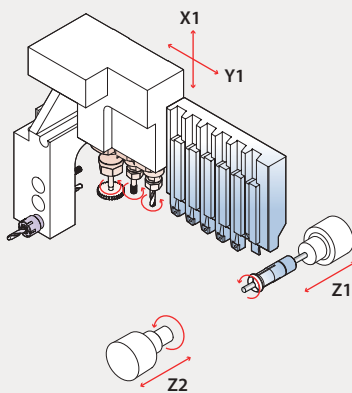
XP20/26/32S

Compact, in-budget 4-axis model for max. dia. 20/26/32mm (with side cross tool)



XP12/16S

Compact, in-budget 4-axis model for max. dia. 12/16mm



- OPTION**
- Cross 4
 - Gear hobbing unit

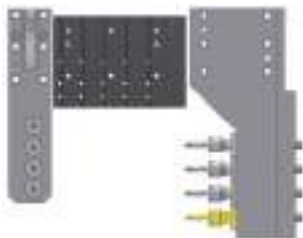


Model		XP20S	XP26S	XP32S
NC		Hanwha Fanuc-i		
Max. machining diameter (mm)		Ø20	Ø26	Ø32
Z1 Stroke (mm)		210	205	
Main spindle	Speed (rpm)	8,000		
	Motor (kW)	2.2/3.7	5.5/7.5	
OD tool	No. of tools	6 (□12mm)	5 (□16mm)	
Front tool	No. of tools	4 (ER16M, Ø25)		
Cross drill	No. of tools	4 (ER16M)		
	Speed (rpm)	6,000	5,000	
	Motor (kW)	1.0		
Sub spindle	Speed (rpm)	8,000		
	Motor (kW)	0.55/1.1	1.5/2.2	
Machine size (L x W x H) (mm)		2,030 x 1,140 x 1,710		
Weight (kg)		2,300	2,500	
Power consumption (Cable size)		XP20S : 10kVA, 6.7kW (VCTF 10SQ x 4C) XP26/32S : 15kVA, 10kW (VCTF 16SQ x 4C)		
Air flow rate (Liter/Min)		120 ~ 150		

OPTION TOOLING

Cross unit 4 (1 modular)

- ER16M x 4
- ※ Standard cross : Non-modular



- Right choice for old cam lathe users who need better precision and productivity
- Steady selling model with proven performance & quality

Model		XP12S	XP16S
NC		Hanwha Fanuc-i	
Max. machining diameter (mm)		Ø12	Ø16
Z1 Stroke (mm)		140	
Main spindle	Speed (rpm)	12,000	
	Motor (kW)	2.2/5.5	
OD tool	No. of tools	6 (□12mm)	
	No. of tools	3 (ER11, Ø20)	
Cross drill	No. of tools	3 (ER11 x 2, ER16 x 1)	
	Speed (rpm)	6,000	
Sub spindle	Speed (rpm)	8,000	
	Motor (kW)	0.55/1.1	
Machine size (L x W x H) (mm)		1,650 x 1,090 x 1,640	
Weight (kg)		1,800	
Power consumption (Cable size)		10kVA, 6.7kW (VCTF 10SQ x 4C)	
Air flow rate (Liter/Min)		120 ~ 150	

OPTION TOOLING

Cross unit 4

- OD 5 (□12),
- Cross 4 (ER16x1, ER11x3),
- Front 3 (ER11)

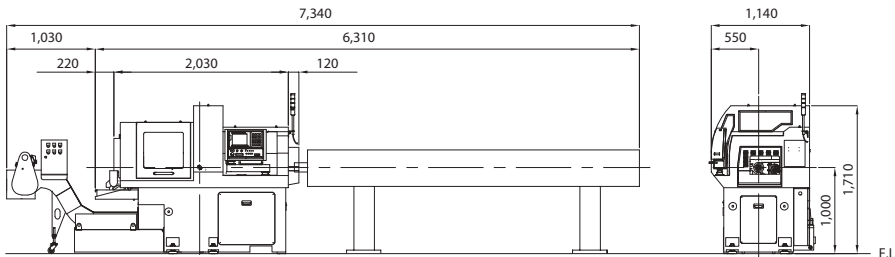


Gear hobbing unit

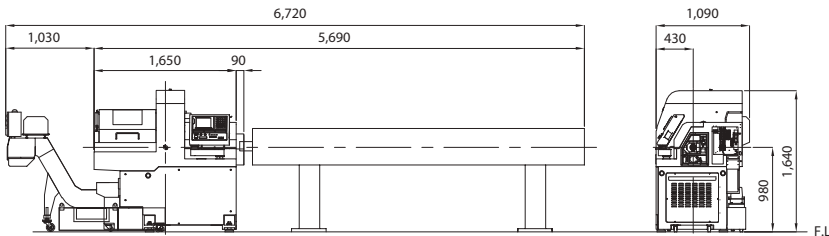
- Maker : Pibomulti
- Angle : -2° ~ 2°



Dimension



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



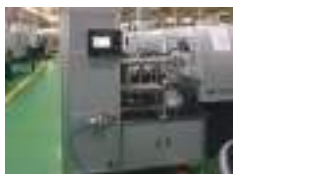
Parts Auto Loading unit

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

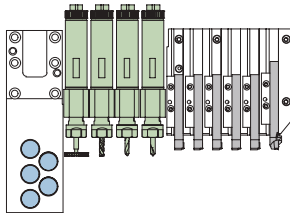


Tooling Variation

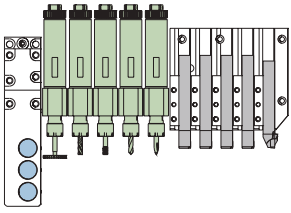
XD20/26II

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

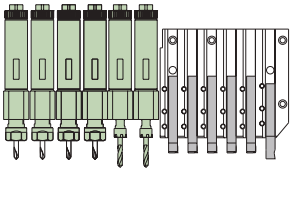
Cross 4



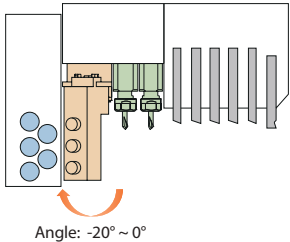
Cross 5



Cross 6

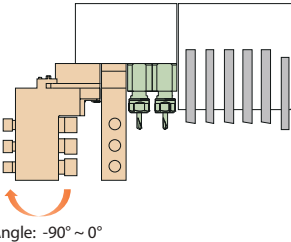


3 Face/counterface angle driven tool



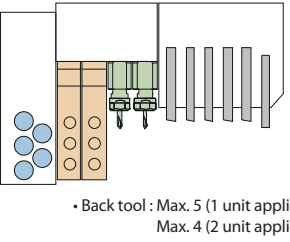
Angle: -20° ~ 0°

3 Face/counterface driven tool



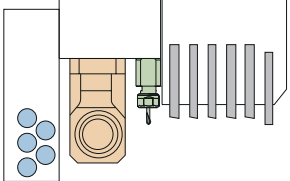
Angle: -90° ~ 0°

3 Face/counterface driven tool

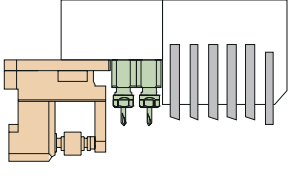


• Back tool : Max. 5 (1 unit applied)
Max. 4 (2 unit applied)

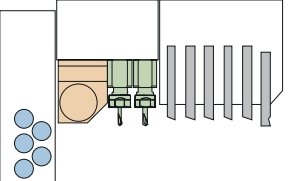
Whirling



Gear Hobbing



Polygon

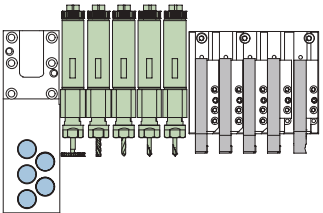


※ When special tool is installed, back tool unit should have max. 4 tools

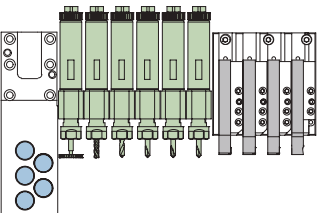
XD38II

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

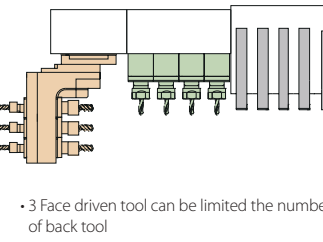
Cross 5



Cross 6

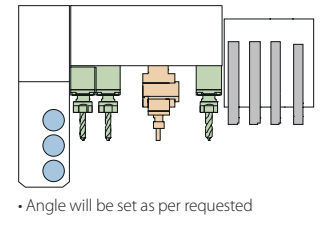


B-axis unit



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

Fixed Angle Drilling



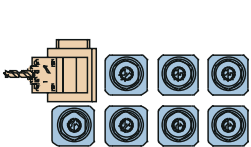
• Angle will be set as per requested

Back Tool Option Unit (Y2)

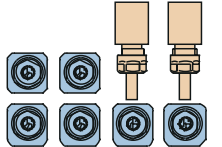
※ When special tool is installed, back tool unit should have max. 4 tools
※ Back tool option is available for both 6(Y2) and 8(Y2)

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

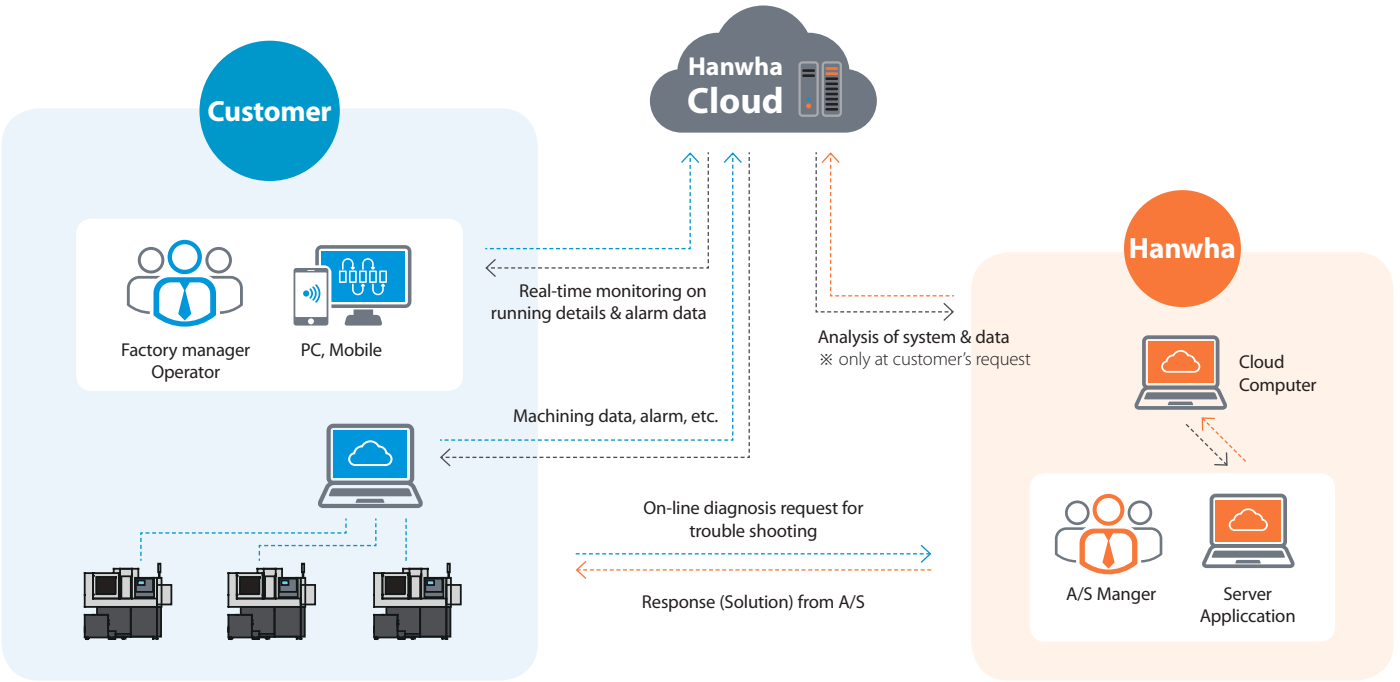
※ Only at customer's request, relevant machine data will be auto-transferred to Hanwha for analysis

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

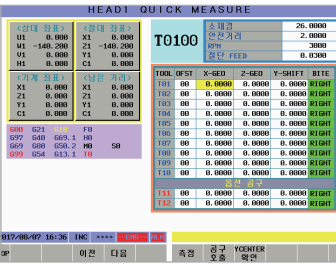
- Better tool life
- Build-up edge free
- Chip trouble free
- Coolant usage saved



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	●

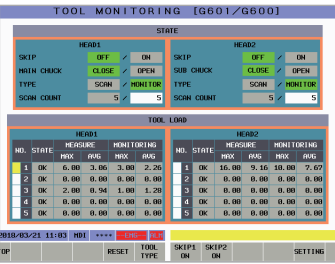
Customer & Performance Supporting Function

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

Collision Protection
Easy setting of value to protect collision before occurring



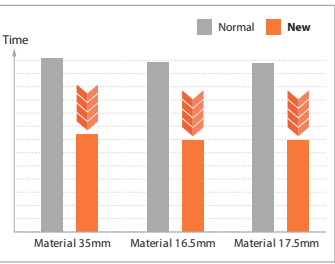
Tool Load Monitoring
Alarms when abnormal load on tools are detected

M7
Single code to command cut-off of material



3D Chamfer Solution
Uniform chamfer machining on cross hole with input of single code

G301
Single code to set the position of Z2-axis for cut-off of material



Motion Optimization
C/T reduce system
Reduces cycle time by minimizing unnecessary motion (non processing time)

Help function
Provides description & graphic information about codes & alarms with



Automobile sample



Electronic sample



Industrial sample



Medical sample

NO.	A001	A002
Material	SUM22	SUS304
NO.	A004	A005
Material	SUS304	SUS304
NO.	A007	A008
Material	SUM22	SUS630
NO.	A010	A011
Material	AL6062-T8	AL6062-T8
NO.	A013	A014
Material	Brass	AL-Die Casting
NO.	A016	A017
Material	SUS316	SUS304
NO.	A019	A020
Material	SCM315	AL6062
NO.	A022	A023
Material	AL6061	SUS304
NO.	A024	
Material	SUM202	

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