- AMERICA

  U.S.A | Canada | Brazil | Argentina | Mexico | Venezuela

- EUROPE

  Germany | Italy | Russia | Switzerland | Turkey | Belgium | Netherland | Estonia | Ukraine
  France | Portugal | Czech Republic | Poland | Spain | Hungary | Romania | Sweden

- ASIA

  China | Hong Kong | India | Philippines | Israel | Thailand | Dubai
  Singapore | Indonesia | Malaysia | Vietnam | Pakistan | Iran

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ISO9001/14001 REGISTERED FIRM FIRM QM HANWHA

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Global Technology & Machinery

Hanwha Corporation

History

"To be the Global No.1 CNC Automatic Lathe Manufacturer, Hanwha will keep moving forward and never stop technology innovation."

Machine tool division has released unique gang type models such as SAL, ML, SL, XD, XDII, XE so far and is now focusing on developing customized products through constant investment in R&D ever since starting the business in 1977 and developing the first turning machine in the nation in 1983.
Now we are striving to carry on the momentum of growth towards the top of the machine tool industry through globalization with 50 years of accumulated expertise and affiliates overseas in China, Europe & USA.

1950
1953. Founded Shinhan Bearing Industry

1970
1977. Started machine tool business
1983. Developed centerless/surface grinding machine
Developed **SAL-10**, the first cam type automatic lathe in Korea

1990
1992. Developed the first internal grinding machine
1993. Developed NC GANG TYPE(TG-1G)
Participated in the ministry of commerce and industry's industrial base technology process(developed schematic of CNC automatic lathe for mirror surface manufacturing)
1994. Developed KCG-200J, centerless grinding machine
1998. Developed **ML** series, the first automatic lathe in Korea

2000
2002. Developed **SL32HPD**, the first 3 paths control CNC automatic lathe
2003. Established Hanwha Machinery America Inc(U.S.A)
2004. Developed **XD20H**, 7 axes BEST selling model
Developed **STL** series, turret type & 11 axes machine
2005~2006. Developed **XD32/35/38**, high productivity & precision
Developed **XD20N**, non-guide bush type machine
2008~2009. Developed **XD03** for small precision parts
Developed **HCG-400**(CNC TYPE), centerless grinding machine

2010
2013. Developed **XD12II, XD38II**
2014. Developed **XD20/26II, XE20/26**
Established Hanwha TechM (Suzhou) Co., Ltd(China)
Established Hanwha Corporation Stuttgart Representative office(Germany)
2016. Developed **XD42/45, XD12/16III**

SAL Series

ML Series

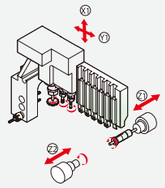
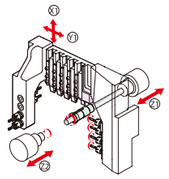
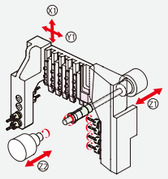
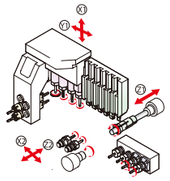
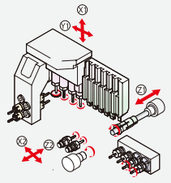
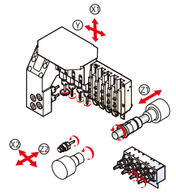
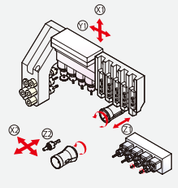
SL Series

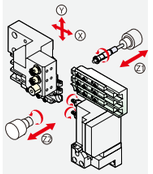
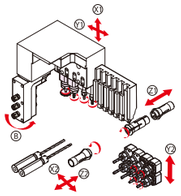
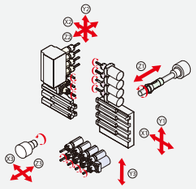
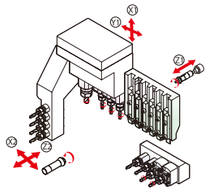
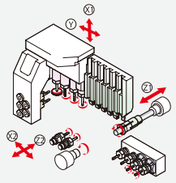
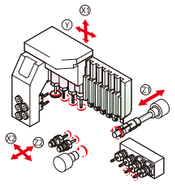
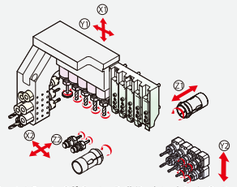
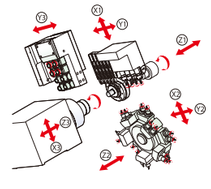
XD Series

XE, XDII, XDIII Series

PRODUCT GUIDE

	Max. Ø									
	ø3	ø7	ø12	ø16	ø20	ø26	ø32	ø35	ø38	ø42~
NX series Ultra-precision model with nano NC control				●						
▪ 1 micron tolerance control for roundness and cylindricity ▪ 10 nano ultra precision control										
STL Series The most powerful 3 paths turret model							●	●	●	
▪ Ultimate tooling capability with 10 station turret(VDI, BMT) ▪ Synchronous machining & 3 paths control system										
XDIII Series New version of best selling line-up, XDIII			●	●						
▪ Optimized specification & structure ▪ Various tooling capacity										
XDII Series Leading Hanwha CNC swiss type lathes with enhanced out put, precision and rigidity					●	●	●	●	●	
▪ Improved C/T with enhanced rigidity and stability Minimized vibration and thermal deformation										
XE Series New generation of best selling economic model					●	●		●		
▪ Attractive price with stable machining & high productivity All-around machine with great value										
XD Special Series Specialized tool layout for complex parts of medical & electric parts	●	●			●					●
▪ Ultimate tooling capability with B-axis & Y2-axis(XD20V) Perfect solution for small precision parts(XD03/07) Best model of high cost-effectiveness for Ø42mm machning (XD42)										
XP Series Best solution for simple parts machining			●	●	●	●	●			
▪ Cost-effective machine with high productivity ▪ Optimized structure for better space utilization										

MACHINE	NAME	XP12	XP16	XP20	XP26	XP32	XE20					XE26					XE35				XD42	
	TYPE	S		S	S		H	N	NH	J	Ne	H	N	NH	J	Ne	H	N	J	Ne	H	N
	NC	Fanuc		Fanuc	Fanuc		Fanuc					Fanuc					Fanuc				Fanuc/Siemens	
SPECIFICATION	PHOTO																					
	TOOL LAYOUT																					
	SIZE(LxWxH) [mm]	1,650 X 1,090 X 1,640		2,030 X 1,140 X 1,720	2,030 X 1,140 X 1,720		2,330 X 1,230 X 1,670					2,330 X 1,230 X 1,670					2,060 X 1,440 X 1,760				2,580 x 1,690 x 1,750	
	WEIGHT [kg]	1,800		2,300	2,500		2,500					2,500					2,750				4,100	
MAIN SPINDLE	MAX. RPM [rpm]	12,000		8,000	8,000		10,000					8,000					6,500				6,000	
	POWER [kW]	2.2/5.5		2.2/3.7	5.5/7.5		2.2/3.7					2.2/5.5					2.2/5.5				5.5/7.5 (Fanuc), 23 (Siemens)	
	MAX. TURNING Ø(MAIN) [mm]	Ø12	Ø16	Ø20	Ø26	Ø32	Ø20					Ø26					Ø35				Ø42	Ø45
SUB SPINDLE	MAX. RPM [rpm]	8,000		8,000	8,000		8,000					8,000					6,500				6,000	
	POWER [kW]	0.55/1.1		0.55/1.1	1.5/2.2		1.5/2.2					1.5/2.2					1.5/2.2				2.2/5.5 (Fanuc), 23 (Siemens)	
SPECIFICATION																						
	MAX. TOOLING [EA]	15		18	17		24					23					21				24	
MAIN – OD	NO. OF TOOLS [EA]	6		6	5		6					5					5				5	
	BITE SIZE [mm]	□ 12 x 12		□ 12 x 12	□ 16 x 16		□ 12x12					□ 16x16					□ 16x16				□ 20x20	
MAIN – FRONT	NO. OF TOOLS [EA]	6 (FRONT 3, BACK 3)		8 (FRONT 4, BACK 4)	8 (FRONT 4, BACK 4)		10 (FRONT 5, BACK 5)					10 (FRONT 5, BACK 5)					8 (FRONT 4, BACK 4)				10 (FRONT 5, BACK 5)	
MAIN – CROSS	MAX. RPM [rpm]	6,000		6,000	5,000		6,000					6,000					6,000				6,000	
	POWER [kW]	0.5		1.0	1.0		1.0					1.0					1.0				2.2 (Fanuc), 2.13 (Siemens)	
	NO. OF TOOL [EA]	3		4	4		4					4					4				4	
MAIN – OFF CENTER	NO. OF TOOL [EA]						2 (OPTION)					2 (OPTION)					1 (OPTION)				1 (OPTION)	
BACK TOOL	MAX. RPM [rpm]						6,000					6,000					6,000				6,000	
	POWER [kW]						1.0					1.0					1.0				1.0 (Fanuc), 1.02 (Siemens)	
	NO. OF TOOL (BACK TOOL) [EA]						4 (2 FIXED, 2 DRIVEN)			4 (FIXED)		4 (2 FIXED, 2 DRIVEN)			4 (FIXED)		4 (2 FIXED, 2 DRIVEN)			4 (FIXED)		5 (3 FIXED,2 DRIVEN)
COOLANT TANK	TANK CAPACITY [Liter]	120		160	160		170					170					170				230	
	PUMP POWER [kW]	0.25		0.4	0.4		0.4					0.4					0.4				1.1	
STROKE	Z1 [mm]	140		210	205		210	60	210(H) 50(N)	210	60	210	60	210(H) 50(N)	210	60	210	60	210	60	320	100
	X1 [mm]	50		145	145		70					70					62				80	
	Y1 [mm]	272		253	250		340					340					340				472	
	Z2 [mm]	140		210	204		215					211					205				276	
	X2 [mm]						315					315					312				395	
ETC	POWER CONSUMPTION(CABLE SIZE) [kVA]	10 (VCTF 10SQ x 4C)		12 (VCTF 10SQ x 4C)	15 (VCTF 16SQ x 4C)		15 (VCTF 10SQ x 4C)					15 (VCTF 16SQ x 4C)					15 (VCTF 16SQ x 4C)				25 (VCTF 16SQ x 4C)	
	AIR FLOW RATE [Liter/min]	120~150		120~150	120~150		120~150					120~150					120~150				120~150	
PAGE		Page. 8		Page. 9	Page. 9		Page. 10					Page. 10					Page. 11				Page. 12	

MACHINE	NAME		XD07	XD20V	XDI 20	XD12/16III		XD20II				XD26II				XD32/38II				STL38H	
	TYPE		-	-	-	H	J	H	N	NH	M	H	N	NH	M	H	N	NH	He	-	Y3
	NC		Fanuc	Fanuc/Siemens	Fanuc	Fanuc		Fanuc/Siemens				Fanuc/Siemens				Fanuc/Siemens			Fanuc	Siemens	
SPECIFICATION	PHOTO																				
	TOOL LAYOUT			 * B-AXIS: OPTION												 * B-axis, Y2-axis, Off-Center Drill (Back tool 4ea) : Option				 * Y3-AXIS: OPTION	
	SIZE(LxWxH)	[mm]	1,230 X 910 X 1,520	2,160 X 1,160 X 1,690	2,680 X 1,250 X 1,850	1,950 x 1,130 x 1,680		2,340 X 1,230 X 1,720				2,340 X 1,230 X 1,720				2,580 X 1,390 X 1,750				2,800 X 1,850 X 1,790	
	WEIGHT	[kg]	1,000	2,500	4,000	2,200		2,700				2,700				3,600				4,600	4,700
MAIN SPINDLE	MAX. RPM	[rpm]	16,000	10,000	10,000	15,000		10,000				8,000				6,500				6,500	
	POWER	[kW]	1.1/1.5	2.2/3.7(Fanuc),14.4(Siemens)	2.2/3.7	2.2/3.7		2.2/3.7(Fanuc),14.4(Siemens)				2.2/5.5(Fanuc),14.4(Siemens)				5.5/7.5(Fanuc),23(Siemens)				23	
	MAX. TURNING Ø(MAIN)	[mm]	Ø7	Ø20	Ø20	Ø12/16		Ø20				Ø26				Ø32/38				Ø38	
SUB SPINDLE	MAX. RPM	[rpm]	16,000	8,000	8,000	10,000		8,000				8,000				6,500				6,500	
	POWER	[kW]	1.1/1.5	1.5/2.2(Fanuc),7.4(Siemens)	2.2/3.7	0.55/1.1		1.5/2.2(Fanuc),2.59(Siemens)				1.5/2.2(Fanuc),2.59(Siemens)				2.2/5.5(Fanuc)/23(Siemens)			1.1/3.7	23	
SPECIFICATION																					
	MAX. TOOLING	[EA]	14	29	29	21		24			26	23			26	26			24	34 (Max. 43)	38 (Max. 47)
MAIN / OD	NO. OF TOOLS	[EA]	6	6	6	5		6			5	5				5				5	
	BITE SIZE	[mm]	□ 8 x 8	□ 12 x 12	□ 12 x 12	□ 12 x □ 12		□ 12 x 12				□ 16 x 16			□ 12 x 12	□ 16 x 16				□ 16 x 16	
MAIN / FRONT	NO. OF TOOLS	[EA]	6(FRONT 3, BACK 3)	8(FRONT 4, BACK 4)	8(FRONT 4, BACK 4)	8(FRONT 4, BACK 4)		10(FRONT 5, BACK 5)				10(FRONT 5, BACK 5)				10(FRONT 5, BACK 5)					
MAIN / CROSS	MAX. RPM	[rpm]	9,000	6,000	6,000	6,000 (ER16), 9,000 (ER11)		6,000				6,000				6,000				6,000	
	POWER	[kW]	0.35	1.0(Fanuc),1.02(Siemens)	1.0	1.0		1.0(Fanuc),1.02(Siemens)				1.0(Fanuc), 1.02(Siemens)				2.2(Fanuc),2.13(Siemens)				1.07	
	NO. OF TOOL	[EA]	2	5	7	4 (ER11 x 3, ER16 x 1)		4			5	4			5	5				4	
MAIN / OFF CENTER	NO. OF TOOL	[EA]		2(GUN DRILL)		1(GUN DRILL, OPTION)		2(OPTION)			2(GUN DRILL)	2(OPTION)			2(GUN DRILL)	2(OPTION)					
BACK TOOL	MAX. RPM	[rpm]		6,000	6,000	9,000		6,000				6,000				6,000					6,000
	POWER	[kW]		0.5(Fanuc),0.57(Siemens)	1.0	1.0		1.0(Fanuc),1.02(Siemens)				1.0(Fanuc),1.02(Siemens)				1.0(Fanuc),1.02(Siemens)					1.07
		[EA]		8 (4 FIXED, 4 DRIVEN)	8 (4 FIXED, 4 DRIVEN)	4 (2 FIXED, 2 DRIVEN)	4 (FIXED)	4 (2 FIXED, 2 DRIVEN)				4 (2 FIXED, 2 DRIVEN)				6 (4 FIXED, 2 DRIVEN)			4 (2 FIXED, 2 DRIVEN)	4 (FIXED)	8 (4 FIXED, 4 DRIVEN)
COOLANT TANK	TANK CAPACITY	[Liter]	100	170	180	140		170				170				230				300	
	PUMP POWER	[kW]	0.18	0.4	0.4	0.25		0.4				0.4				1.1				1.1	
STROKE	Z1	[mm]	125	210	210 (Stationary G/B : 227)	155		210	60	160 (H), 50 (N)	210	210	60	160 (H), 50 (N)	210	320	80	142 (H), 80 (N)	320	320	
	X1	[mm]	26	77	45	74		70				70				80				60	
	Y1	[mm]	92	354	290	290		340				340				422				296	
	Z2	[mm]	105	210	50	175		215				211				280				120	
	X2	[mm]		306	45	230		315				315				395				115(VDI), 105(BMT)	
ETC	POWER CONSUMPTION(CABLE SIZE)	[kVA]	8(VCTF 6SQ x 4C)	15(VCTF 10SQ x 4C)	20(VCTF 16SQ x 4C)	12(VCTF 10SQ x 4C)		18(VCTF 10SQ x 4C)				20(VCTF 16SQ x 4C)				25(VCTF 16SQ x 4C)				40(VCTF 16SQ x 4C)	
	AIR FLOW RATE	[Liter/min]	120~150	120~150	120~150	120~150		120~150				120~150				120~150				20~30	
PAGE			Page. 12	Page. 13	Page. 14	Page. 15		Page. 16~17				Page. 16~17				Page. 18~19				Page. 20~21	

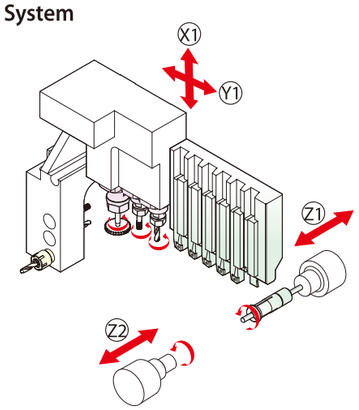
Cost-effective machine with high productivity

XP12/16S

Efficient structure
Optimized structure enabling better space utilization

High productivity
Excellent chip discharge and rapid traverse

Tooling System



High productivity

- Achieving shorten cycle time
- High productivity by rapid traverse rate in the same class

Easy maintenance

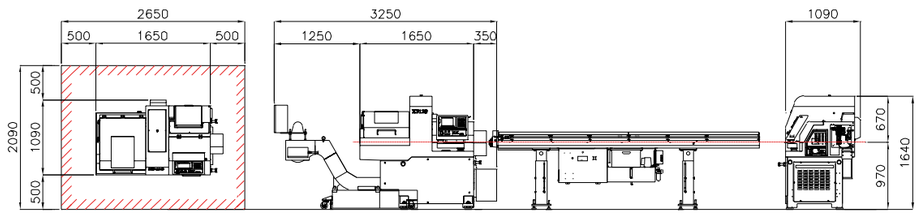
- Built-in spindle motor with low vibration
- Easy to maintenance and repair
- Movable OP for convenient work

Stroke	Z1	X1	Y1	Z2
XP12/16S	140mm	50mm	272mm	140mm

Specification

	MODEL			XP12	XP16
				S	
MAIN	NC			Hanwha Fanuc-i	
	Max. Turning Ø(Main)			Ø12	Ø16
	Max. Stroke			140mm	
	No. of Tools	OD Tool		6EA	
		Front Tool		6EA(Front 3, Back 3)	
		Cross Tool		3EA	
	Motor	Main spindle	rpm	12,000rpm	
			Power	2.2/5.5kW	
		Cross Drill	rpm	6,000rpm	
			Power	0.5kW	
	Pump	Coolant	Capacity	120L	
			Pump Motor	0.25kW	
SUB	Motor	Sub spindle	rpm	8,000rpm	
			Power	0.55/1.1kW	
ETC	Weight			1,800kg	
	Size(L x W x H)			1,650 X 1,090 X 1,640	
	Power Consumption(Cable size)			10kVA(VCTF 10SQ x 4C)	
	Air Flow Rate			120~150Liter/Min	

Dimension



* These products are dual-use items of strategic goods and strictly prohibited from manufacturing illegal weapons. We are not responsible for any effects resulting from the illegal use.

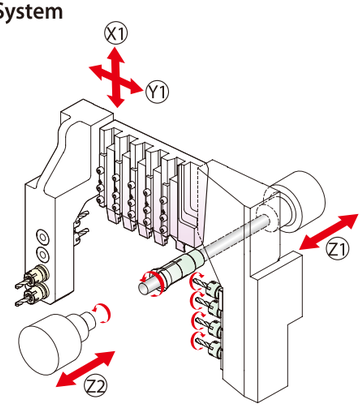
Best 4-axes machine in same class

XP20/26/32S

Best tooling capacity in the same class
Max. 18ea tooling capacity

Built-in motor
Optimized for high precision and high speed

Tooling System



Efficient tool layout

- Various tooling(Max. 18ea)
- Improved C/T and high productivity by horizontal type cross tool

Optimized structure

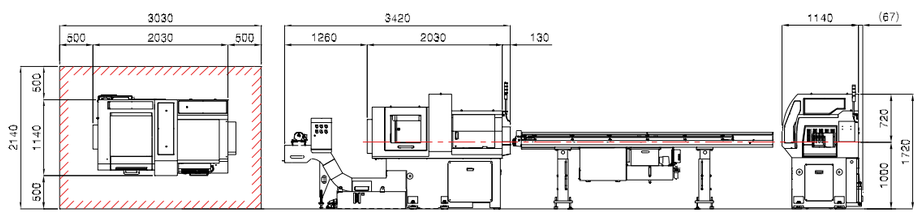
- Solid and single bed structure
- High rigidity and high precision for long time operation

Stroke	Z1	X1	Y1	Z2
XP20S	210mm	145mm	253mm	210mm
XP26/32S	205mm	145mm	250mm	204mm

Specification

	MODEL			XP20	XP26	XP32
				S		
MAIN	NC			Hanwha Fanuc-i		
	Max. Turning Ø(Main)			Ø20	Ø26	Ø32
	Max. Stroke			210mm	205mm	
	No. of Tools	OD Tool		6EA	5EA	
		Front Tool		8EA(Front 4, Back 4)		
		Cross Tool		4EA		
	Motor	Main spindle	rpm	8,000rpm		
			Power	2.2/3.7kW	5.5/7.5kW	
		Cross Drill	rpm	6,000rpm	5,000rpm	
			Power	1.0kW		
	Pump	Coolant	Capacity	160L		
			Pump Motor	0.4kW		
SUB	Motor	Sub spindle	rpm	8,000rpm		
			Power	0.55/1.1kW	1.5/2.2kW	
ETC	Weight			2,300kg	2,500kg	
	Size(L x W x H)			2,030 X 1,140 X 1,720		
	Power Consumption(Cable size)			12kVA(VCTF 10SQ x 4C)	15kVA(VCTF 16SQ x 4C)	
	Air Flow Rate			120~150Liter/Min		

Dimension



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All-around machine with great value

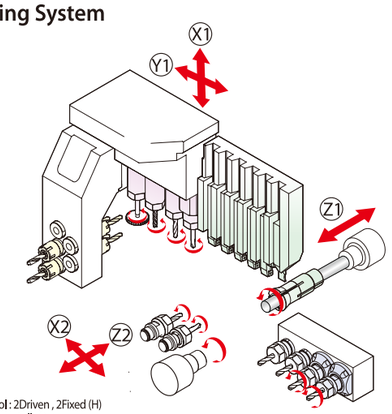
XE20/26

Strong and rigid tool post
Cross live tool motor(1kW), modular type

Great value for 5-axis machine
Achieving cost effective 20mm machine

Compact design to minimize the floor space

Tooling System



* Back Tool : 2Driven , 2Fixed (H)
* Off Center Drill : Option

Gear type modular live tool

- Optimal for heavy drilling & milling
- Improved live motor power

Enhanced durability

- Powerful chucking by outer toggle
- Increased belt strength and applied air purge on spindle

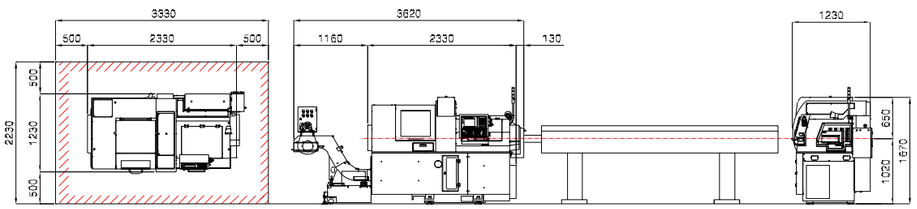
Stroke	Z1	X1	Y1	Z2	X2
XE20/26	210mm (N:60mm) NH:160(H),50(N)	70mm	340mm	215mm (Ø26:211mm)	315mm

* N : Non G/B type, NH : G/B convertible type

Specification

	MODEL			XE20/26				
				H	N	NH	J	Ne
MAIN	NC			Hanwha Fanuc-i				
	Max. Turning Ø(Main)			Ø20/Ø26				
	Max. Stroke			210mm	60mm	160mm(H), 50mm(N)	210mm	60mm
	No. of Tools	OD Tool		6EA(Ø20)/5EA(Ø26)				
		Front Tool		10EA(FRONT 5, BACK 5)				
		Cross Tool		4EA				
		Back Tool		4EA(2Fixed,2Driven)			4EA(Fixed)	
		Off Center Drill		2EA(Option)				
	Motor	Main spindle	rpm	10,000rpm(Ø20)/8,000rpm(Ø26)				
			Power	2.2/3.7kW(Ø20), 2.2/5.5kW(Ø26)				
		Cross Drill	rpm	6,000rpm				
			Power	1.0kW				
	Pump	Coolant	Capacity	170L				
			Pump Motor	0.4kW				
SUB	Motor	Sub spindle	rpm	8,000rpm				
			Power	1.5/2.2kW				
		Back Tool	rpm	6,000rpm			-	
			Power	1.0kW			-	
ETC	Weight			2,500kg				
	Size(L x W x H)			2,330 x 1,230 x 1,670				
	Power Consumption(Cable size)			Ø20:15kVA(VCTF 10SQ x 4C), Ø26:15kVA(VCTF 16SQ x 4C)				
	Air Flow Rate			120~150Liter/Min				

Dimension



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All-around machine with great value

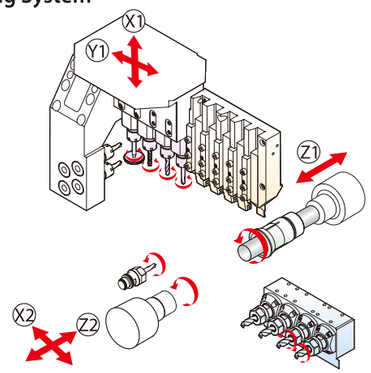
XE35

Strong and rigid tool post
Cross live tool motor(1kW), modular type

Great value for 5-axis machine
Achieving cost effective 20mm machine

Compact design to minimize the floor space

Tooling System



* Back Tool : 2Driven , 2Fixed (H)
* Off Center Drill : Option

Excellent motor power

- Built-in motor
- Rigid machining with high power of motor

Convenient tooling system

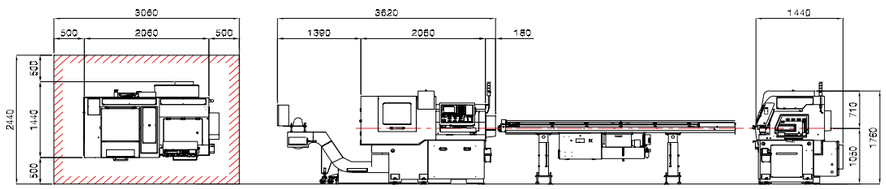
- Easy tool change & installation
- Modular type of drills

Stroke	Z1	X1	Y1	Z2	X2
XE35	210mm N:60mm	62mm	340mm	205mm	312mm

Specification

	MODEL			XE35			
				H	N	J	Ne
MAIN	NC			Hanwha Fanuc-i			
	Max. Turning Ø(Main)			Ø35			
	Max. Stroke			210mm	60mm	210mm	60mm
	No. of Tools	OD Tool		5EA			
		Front Tool		8EA(FRONT 4, BACK 4)			
		Cross Tool		4EA			
		Back Tool		4EA(2Fixed, 2Driven)		4EA(Fixed)	
		Off Center Drill		1EA(Option)			
	Motor	Main spindle	rpm	6,500rpm			
			Power	2.2/5.5kW			
		Cross Drill	rpm	6,000rpm			
			Power	1.0kW			
	Pump	Coolant	Capacity	170L			
			Pump Motor	0.4kW			
SUB	Motor	Sub spindle	rpm	6,500rpm			
			Power	1.5/2.2kW			
		Back Tool	rpm	6,000rpm		-	
			Power	1.0kW		-	
ETC	Weight			2,750kg			
	Size(L x W x H)			2,060 x 1,440 x 1,760			
	Power Consumption(Cable size)			15kVA(VCTF 16SQ x 4C)			
	Air Flow Rate			120~150Liter/Min			

Dimension



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Perfect solution for small precision parts

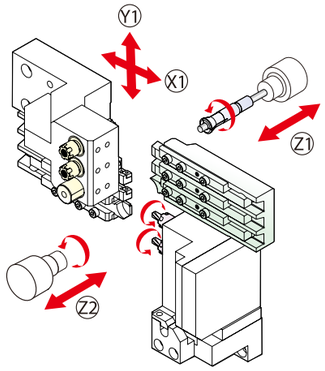
XD07

Various tooling
Cutting edge compact machine for 7mm workpiece

High precision
Pursue high productivity with oil cooling system

Compact design
Minimum installation space is required and guarantee high productivity

Tooling System



Excellent performance

- High precision and ultra speed built-in motor(16,000rpm)
- Realized various tooling with cross rotary tool
- Shortened cycle time and reinforced productivity

Easy maintenance

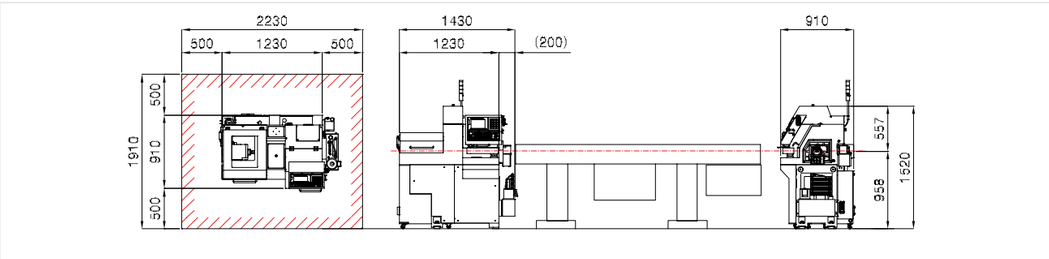
- Opposed gang type tool post
- Efficient chip discharge and smooth coolant flow enables stable continuous machining

Stroke	Z1	X1	Y1	Z2
XD07	125mm	26mm	92mm	105mm

Specification

	MODEL			XD07
MAIN	NC			Hanwha Fanuc-i
	Max. Turning Ø(Main)			Ø7
	Max. Stroke			125mm
	No. of Tools	OD Tool		6EA
		Front Tool		6EA(Front 3, Back 3)
		Cross Tool		2EA(3EA Option)
	Motor	Main spindle	rpm	16,000rpm
			Power	1.1/1.5kW
		Cross Drill	rpm	9,000rpm
			Power	0.35kW
	Pump	Coolant	Capacity	100L
			Pump Motor	0.18kW
SUB	Motor	Coolant	rpm	16,000rpm
			Power	1.1/1.5kW
		Back Tool	rpm	-
			Power	-
ETC	Weight			1,000kg
	Size(L x W x H)			1,230 X 910 X 1,520
	Power Consumption(Cable size)			8kVA(VCTF 6SQ x 4C)
	Air Flow Rate			120~150Liter/Min

Dimension



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Ultimate tooling capability with B-axis & Y2-axis, 32i-B5

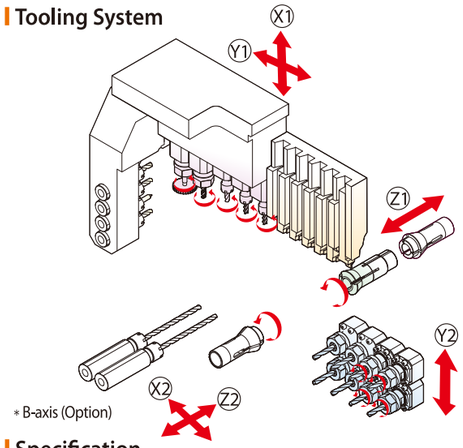
XD20V

Outstanding machining capability
Y2-axis & B-axis(Op) available for complex parts

Enhanced C/T and productivity
Ensure better C/T by reduction of idle time

Strong casting structure
Secured both stable machining and high rigidity

Tooling System

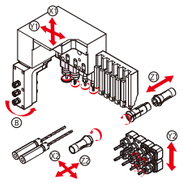


* B-axis (Option)

Various tooling capability

- Y2-axis(8ea, 4Driven/4Fixed)
- Back tool cross tool(Op)
- Rapid traverse 40m/min
- Fixed long gun drill 2ea(Max.110mm)

B-axis live tool



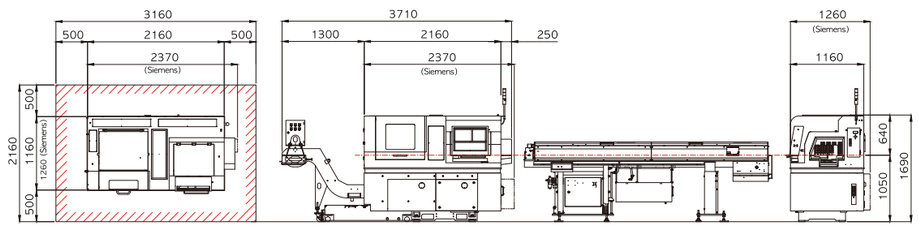
- B-axis(6ea, ER16x3ea/ER11x3ea)
- Motor power/rpm : 1kW/6,000rpm
- Gear hobbing & angle adjustment
- Simultaneous 5-axis machining with 32i-B5(Option)

Stroke	Z1	X1	Y1	Z2	X2	Y2
XD20V	210mm	77mm	354mm	210mm	306mm	60mm

Specification

	MODEL			XD20V
MAIN	NC			Fanuc 32i-B/Siemens 840D
	Max. Turning Ø(Main)			Ø20
	Max. Stroke			210mm
	No. of Tools	OD Tool		6EA
		Front Tool		8EA(Front 4, Back 4)
		Cross Tool		5EA
		Gun Drill		2EA(Fixed, Gun Drill Max 110mm)
		Back Tool		8EA(4Driven, 4Fixed)
	Motor	Main spindle	rpm	10,000rpm
			Power	2.2/3.7kW(Fanuc), 14.4kW(Siemens)
		Cross Drill	rpm	6,000rpm
			Power	1.0kW(Fanuc), 1.02kW(Siemens)
	Pump	Coolant	Capacity	170L
			Pump Motor	0.4kW
SUB	Motor	Sub spindle	rpm	8,000rpm
			Power	1.5/2.2kW(Fanuc), 7.4kW(Siemens)
		Back Tool	rpm	6,000rpm
			Power	0.5kW(Fanuc), 0.57kW(Siemens)
ETC	Weight			2,500kg
	Size(L x W x H)			2,160 X 1,160 X 1,690(Siemens : 2,370 X 1,260 X 1,690)
	Power Consumption(Cable size)			15kVA(VCTF 10SQ x 4C)
	Air Flow Rate			120~150Liter/Min

Dimension



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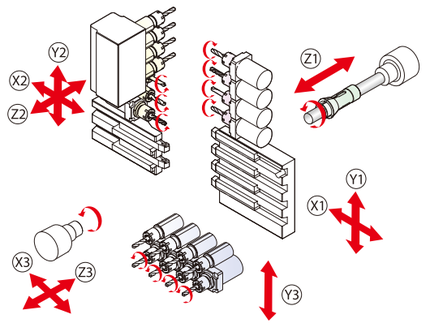
3 channels, 11axes gang type machine

XDI20

Innovative tooling system
Y2-axis, various machining capability
(Balance cutting)

Enhanced C/T and productivity
Powerful built-in motors on main & sub spindle

Tooling System



Innovative tool layout

- Opposed gang type tool post
- Synchronized control between main spindle and rotary guide bush unit by spindle motor
- Various special tools are available

Various machining capabilities

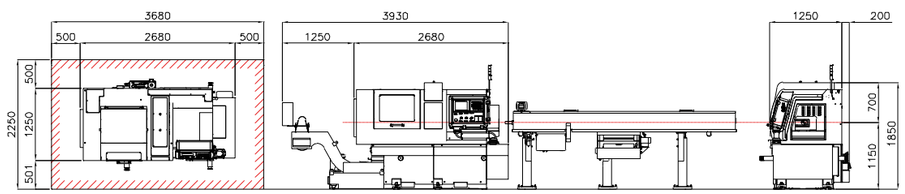
- Y2-axis(8ea, 4Driven/4Fixed)
- Ideal machine for manufacturing various parts utilizing simultaneous machining with 3 path controller

Stroke	Z1	X1	Y1	Z2	X2	Y2	Z3	X3	Y3
XDI20	210mm	45mm	290mm	50mm	45mm	290mm	300mm	295mm	60mm

Specification

	MODEL			XDI20
MAIN	NC			FANUC 31i-A
	Max. Turning Ø(Main)			Ø20
	Max. Stroke			210mm
	No. of Tools	OD Tool		6EA
		Front Tool		8EA(Front 4, Back 4)
		Cross Tool		7EA
		Back Tool		8EA(4Driven, 4Fixed)
	Motor	Main spindle	rpm	10,000rpm
			Power	2.2/3.7kW
		Cross Drill	rpm	6,000rpm
			Power	1.0kW
	Pump	Coolant	Capacity	180L
			Pump Motor	0.4kW
SUB	Motor	Sub spindle	rpm	8,000rpm
			Power	2.2/3.7kW
		Back Tool	rpm	6,000rpm
			Power	1.0kW
ETC	Weight			4,000kg
	Size(L x W x H)			2,680 X 1,250 X 1,850
	Power Consumption(Cable size)			20kVA(VCTF 16SQ x 4C)
	Air Flow Rate			120~150Liter/Min

Dimension



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Great cost-effective model with high-productivity & high-precision

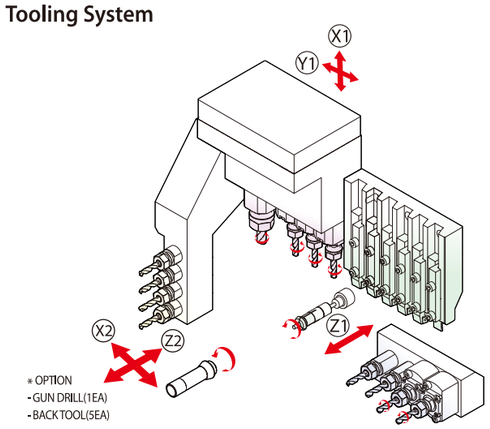
XD12/16Ⅲ

Precision
Optimized machining with stable structure and high-speed for short machining cycle

Productivity
Best productivity with great performance & reasonable price

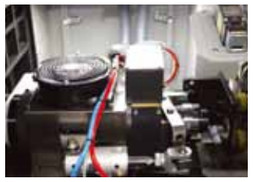
Efficiency
High efficiency of performance with wide space and various options for machining

Tooling System



* OPTION
- GUN DRILL(1EA)
- BACK TOOL(5EA)

High speed & stable structure



- Various tooling options for complex machining (Modular cross drill, Back drill 5EA, Gun drill 1EA option)
- Wide tooling and machining space for high-effeciency
- Great machining performance with strong motor power for back

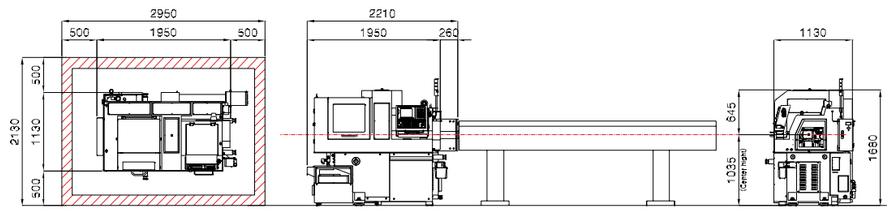
- High speed and precise drive of spindle for high productivity
- Minimized vibration of stable guide structure and enhanced balancing
- Reduction of thermal-deformation and vibration by optimization of structure

Stroke	Z1	X1	Y1	Z2	X2
XD12/16Ⅲ	155mm	74mm	290mm	175mm	230mm

Specification

	MODEL			XD12/XD16Ⅲ	
				H	J
MAIN	NC			Hanwha Fanuc i	
	Max. Turning Ø(Main)			Ø12	Ø16
	Max. Stroke			155mm	
	No. of Tools	OD Tool		5EA	
		Front Tool		8EA(FRONT 4, BACK 4)	
		Cross Tool		4EA	
		Gun Drill		1EA(Option)	
	Motor	Main spindle	rpm	15,000rpm	
			Power	2.2/3.7kW	
		Cross Drill	rpm	6,000rpm(ER16),9,000rpm(ER11)	
			Power	1.0kW	
	Pump	Coolant	Capacity	140L	
			Pump Motor	0.25kW	
	No. of Tools	Back Tool		4EA(Fixed 2, Driven 2)	4EA(Fixed)
SUB	Motor	Sub spindle	rpm	10,000rpm	
			Power	0.55/1.1kW	
		Back Tool	rpm	9,000rpm	-
			Power	1.0kW	-
ETC	Weight			2,200kg	
	Size(L x W x H)			1,950 x 1,130 x 1,680	
	Power Consumption(Cable size)			12kVA(VCTF 10SQ x 4C)	
	Air Flow Rate			120~150Liter/Min	

Dimension



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The evolutionary best selling machines ever

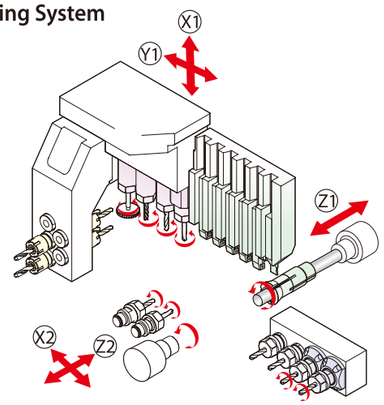
XD20/26II

High precision & rigidity
Improved machining accuracy by minimizing vibration and thermal deformation

Best structure for hard material machining
Applied strong tool post and modular live tool with gear

Convertible guide bush type available
Shorten remnant length

Tooling System



* Off Center Drill : Option

Efficient tool layout

- Extended spindle stroke
- Max. 26ea tool(Max. 20ea live tool)

Improved durability

- External toggle type, Stronger belt
- Air purge in G/B & spindle

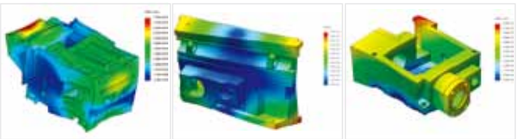
Various special tool holders

- Easy set up & various tool holder available
- Coolant through live tool(Option)

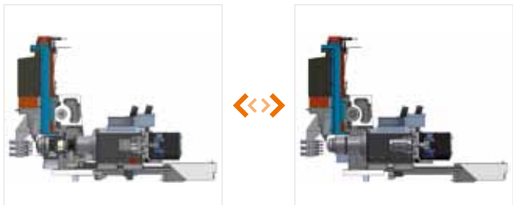
Convertible guide bush type available

- Easy to switch from G/B to non G/B to shorten remnant length

1 Enhance precision and minimize dimensional change with Integrated X2 base on bed structure



2 Easy to convert G/B to Non G/B



〈 Z1 Stroke:160mm 〉 〈 Z1 Stroke:50mm 〉

Various special options are available

Special Tool

SIDE CUTTER UNIT (Back tool)	THREAD WHIRLING UNIT (Cross tool)	3-AXIS FACE UNIT (Cross tool)	3-AXIS ADJUSTABLE FACE UNIT(0~90°) (Cross tool)	3-AXIS COUNTER FACE UNIT (Cross tool)	GEAR HOBBING UNIT (Cross tool)
▪Slotting for back tool	▪Screw for cross tool	▪Drilling/Milling/Tapping for cross tool	▪Drilling/Milling/Tapping for cross tool (angle)	▪Drilling/Milling/Tapping for cross tool	▪Hobbing for cross tool

Specification

	MODEL			XD20/26 II			
				H	N	NH	M
MAIN	NC			Fanuc 32i-B/Siemens 828D			
MAIN	Max. Turning Ø(Main)			Ø20/Ø26			
MAIN	Max. Stroke			210mm 240mm(Siemens)	60mm	160mm(H) 50mm(N)	210mm
MAIN	No. of Tools	OD Tool		6EA(Ø20), 5EA(Ø26)			5EA
MAIN	No. of Tools	Front Tool		10EA(Front 5, Back 5)			
MAIN	No. of Tools	Cross Tool		4EA			5EA
MAIN	No. of Tools	Back Tool		4EA(2Driven, 2Fixed)			
MAIN	No. of Tools	Off Center Drill		2EA, Gun Drill 2EA(M Type)			
MAIN	Motor	Main spindle	rpm	10,000rpm(Ø20), 8,000(Ø26)			
MAIN	Motor	Main spindle	Power	Fanuc:2.2/3.7kW(Ø20), 2.2/5.5kW(Ø26), Siemen :14.4kW			
MAIN	Motor	Cross Drill	rpm	6,000rpm			
MAIN	Motor	Cross Drill	Power	1.0kW(Fanuc), 1.02kW(Siemens)			
MAIN	Pump	Coolant	Capacity	170L			
MAIN	Pump	Coolant	Pump Motor	0.4kW			
SUB	Motor	Sub spindle	rpm	8,000rpm			
SUB	Motor	Sub spindle	Power	1.5/2.2kW(Fanuc), 2.59kW(Siemens)			
SUB	Motor	Back Tool	rpm	6,000rpm			
SUB	Motor	Back Tool	Power	1.0kW(Fanuc), 1.02kW(Siemens)			
ETC	Weight			2,700kg			
ETC	Size(L x W x H)			2,340 X 1,230 X 1,720			
ETC	Power Consumption(Cable size)			Ø20:18kVA(VCTF 10SQ x 4C), Ø26:20kVA(VCTF 16SQ x 4C)			
ETC	Air Flow Rate			120~150Liter/Min			

* N: Non G/B type
* NH: G/B convertible type

Stroke	Z1	X1	Y1	Z2	X2
XD20II	210mm (N: 60mm)	70mm	340mm	215mm	315mm
XD26II	NH : 160(H),50(N)	70mm	340mm	211mm	315mm

* Siemens H type : 240mm

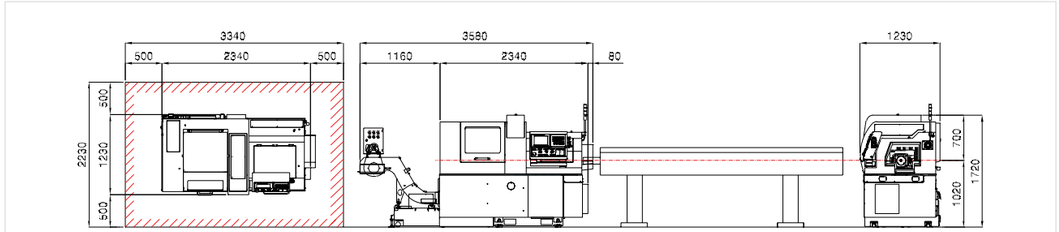
Standard

- Full c axis control on main & sub spindle
- V-pulley type indexing unit on main spindle
- Rotary guide bush holder unit(h, nh , m type)
- Cross drill/milling unit(4ea, modular type)
- Mpg
- Door interlock
- Coolant flow sensor
- Coolant unit
- Lubricaton unit
- Work light
- Signal lamp(3color)
- Lan port
- Tool monitoring function
- Tool box
- Drill holders
- Bar feeder interface
- Part conveyor
- Cut off tool breakage detector(s/w)
- Auto power off

Option

- Transformer
- Chip conveyor
- Off center drill unit (2ea, driven)
- Tap breakage detector
- Pipe type ejection unit
- Additional 1 pipe set
- Middle / high pressure pump
- Spare m code kit
- Oil mist collector
- Oil chiller
- Chiller united h/p unit
- Nc warranty for 2 years
- Cross / back internal coolant driven tool
- 4 driven back tool
- Bar feeder
- Memory cards
- Tooling & programming
- Gripper unit
- Power guide bush unit
- Rs232c i/o interface

Dimension



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The ultimate machine in high rigidity

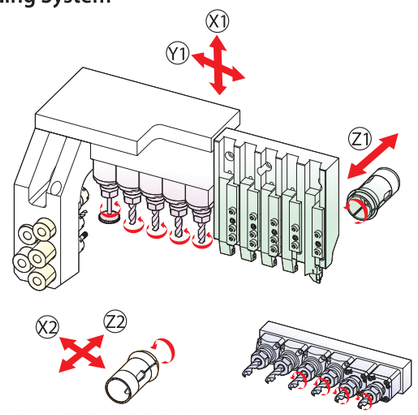
XD32/38Ⅱ

Strong casting structure allows for high rigidity

Complex machining by various tooling
Modular cross live drill(5ea), Y2-axis & B-axis(Option)

Improved C/T and productivity
Reduced idle time by the latest NC
Powerful cross motor output(2.2kW)

Tooling System

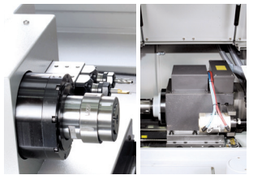


* B-axis, Y2-axis, Off-Center Drill : Option
* Off-center Drills can be attached with only back tool 4ea

Optimized tool layout

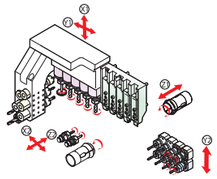
- Secure accuracy and minimized heat displacement
- Easy chip discharge and efficient coolant circulation system

Excellent motor power



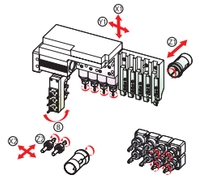
- Stability of hard cutting by high output motor and built-in motor
- Increase rigidity by direct connecting motor

Y2-axis



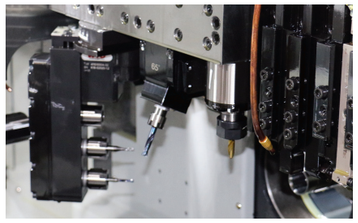
- Y2 & B-axis allow for complex machining parts

B-axis

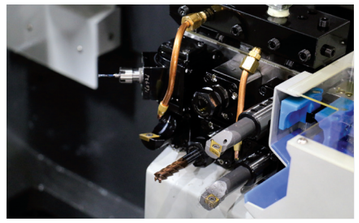


- Easy to use various special tool holders

Various special option tools are available

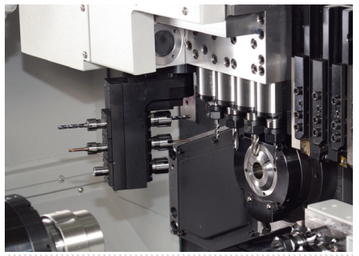


<Cross tool>



<Back tool>

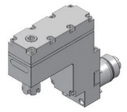
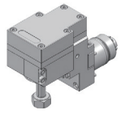
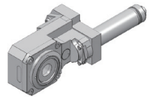
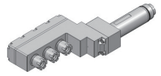
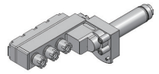
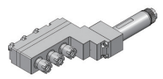
1-axis angle modular unit



B-axis unit

Various special options are available

Special Tool

BACK TOOL CROSS UNIT (Back tool)	SIDE CUTTER UNIT (Back tool)	THREAD WHIRLING UNIT (Cross tool)	3-AXIS FACE UNIT (Cross tool)	3-AXIS ADJUSTABLE FACE UNIT(0~90˚) (Cross tool)	3-AXIS COUNTER FACE UNIT (Cross tool)
					
▪Drilling for back tool	▪Slotting for back tool	▪Screw for cross tool	▪Drilling/Milling/Tapping for cross tool	▪Drilling/Milling/Tapping for cross tool (angle)	▪Drilling/Milling/Tapping for cross tool

Specification

	MODEL			XD32/38Ⅱ				
				H	N	NH	He	
MAIN	NC			Fanuc 32i-B/Siemens 828D				Hanwha Fanuc-i
MAIN	Max. Turning Ø(Main)			Ø32/Ø38				
MAIN	Max. Stroke			320mm	80mm	142mm 80mm	320mm	
MAIN	No. of Tools	OD Tool		5EA				
MAIN	No. of Tools	Front Tool		10EA(Front 5, Back 5)				
MAIN	No. of Tools	Cross Tool		5EA				
MAIN	No. of Tools	Back Tool		6EA(2Driven, 4Fixed) 8EA(4Driven, 4Fixed)-Option				4EA(2Driven, 2Fixed)
MAIN	No. of Tools	Off Center Drill		2EA(Option)				
MAIN	Motor	Main spindle	rpm	6,500rpm				
MAIN	Motor	Main spindle	Power	5.5/7.5kW(Fanuc), 23kW(Siemens)				
MAIN	Motor	Cross Drill	rpm	6,000rpm				
MAIN	Motor	Cross Drill	Power	2.2kW(Fanuc), 2.13kW(Siemens)				
MAIN	Pump	Coolant	Capacity	230L				
MAIN	Pump	Coolant	Pump Motor	1.1kW				
SUB	Motor	Sub spindle	rpm	6,500rpm				
SUB	Motor	Sub spindle	Power	2.2/5.5kW(Fanuc),23kW(Siemens)			1.1/3.7kW	
SUB	Motor	Back Tool	rpm	6,000rpm				
SUB	Motor	Back Tool	Power	1.0kW(Fanuc), 1.02kW(Siemens)				
ETC	Weight			3,600kg				
ETC	Size(L x W x H)			2,580 X 1,390 X 1,750				
ETC	Power Consumption(Cable size)			25kVA(VCTF 16SQ x 4C)				
ETC	Air Flow Rate			120~150Liter/Min				

* N: Non G/B type
* NH: G/B convertible type

Stroke	Z1	X1	Y1	Z2	X2	Y2
XD32/38II	320mm(N:80mm), NH:142(H),80(N)	80mm	422mm	280mm	395mm	72mm

* Y2, B is not available for He Type

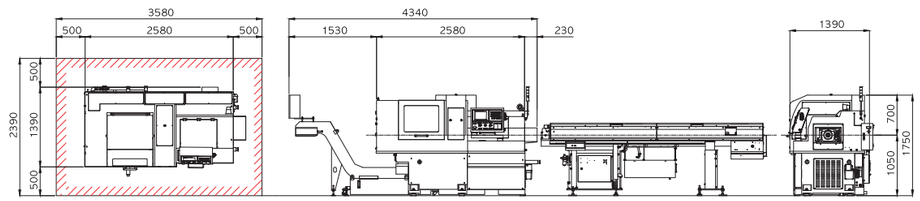
Standard

- Full c axis control on main & sub spindle
- V-pulley type indexing unit on main spindle
- Rotary guide bush holder unit
- Cross drill/milling unit(5ea, modular type)
- Mpg
- Door interlock
- Coolant flow sensor
- Coolant unit
- Lubricaton unit
- Work light
- Signal lamp(3color)
- Lan port
- Tool monitoring function
- Tool box
- Drill holders
- Bar feeder interface
- Part conveyor
- Cut off tool breakage detector(s/w)
- Auto power off

Option

- Transformer
- Chip conveyor
- Off center drill unit(2ea, driven)
- Tap breakage detector
- Pipe type ejection unit
- Additional 1 pipe set
- Middle / high pressure pump
- Spare m code kit
- Oil mist collector
- Oil chiller
- Nc warranty for 2 years
- 4 driven back tool
- Bar feeder
- 2nd anti vibration unit
- Off center drill unit *h, n, nh type
- Memory cards
- Tooling & programming
- Gripper unit
- Power guide bush unit

Dimension



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The most powerful 3 paths turret machine

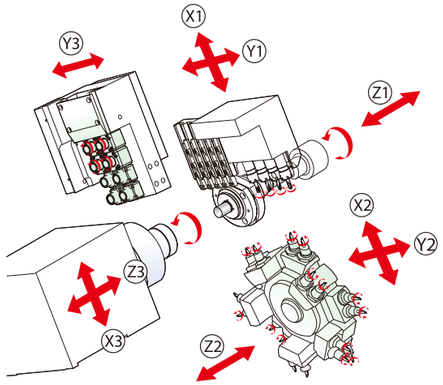
STL38H

Various tooling for complex parts
M8 rigid tapping & Y3-axis(Option)
Max 47ea tooling capacity

Innovative performance
High-performance built-in motor(23kW) for main & sub spindle

Enhanced durability
Enhance durability & stability with improved structure & function of slide cover

Tooling System



* Y3-axis (Option)

High power & rigidity

- The most powerful built-in motor (23.0kW) in same class for main & sub spindle
- Synchronous rotary guide bush unit by spindle motor
- Strong indexing & Cs contouring by hydraulic disk brake

Maximized tooling capabilities

- Turret indexing by servo motor enables to save tool changing time
- Rigid tapping on all spindles enables to expand the range of working
- Various special tools: polygon, thread whirling and angle adjustable driven tool BMT45 turret available

Conspicuous conveniences

- Free position typed operation panel
- Ethernet outlet & pendant MPG as standard
- Turret spindle locates on main spindle side for easy tooling and tool change(center height:1,050mm)height

SIEMENS SINUMERIK 840D

- WINDOWS 7and 15" color LCD display
- Contribute to save tooling time and improved productivity by advanced dialogic programing
- Programming guidance function (G/M code) & alarm help function

Complex Machining

Balance cutting
OD + Turret

Synchronous
OD + Turret

Endmill
Turret + Cross

Drilling
Turret + Cross

Stroke	Z1	Y1	X1	Z2	Y2	X2	Z3	Y3	X3
STL38H	320mm	296mm	60mm	120mm	100mm	115mm(VDI) 105mm(BMT)	330mm	40mm (Option)	300mm

Specification

	MODEL			STL32/38H	
				-	Y3
MAIN	NC			SIEMENS 840D	
	Max. Turning Ø(Main)			Ø32/Ø38	
	No. of Tools	OD Tool		5EA	
		Cross Tool		4EA	
		Turret Tool		10Station (ST : VDI30, OP : BMT45)	
		Back Tool		4EA(Fixed)	8EA(4Driven, 4Fixed)
	Motor	Main spindle	rpm	6,500rpm	
			Power	23kW	
		Cross Drill	rpm	6,000rpm	
			Power	1.07kW	
	Pump	Coolant	Capacity	300L	
			Pump Motor	1.1kW	
SUB	Motor	Sub spindle	rpm	6,500rpm	
			Power	23kW	
		Back Tool	rpm	-	6,000rpm
			Power	-	1.07kW
ETC	Weight			4,600kg	4,700kg
	Size(L x W x H)			2,800 X 1,850 X 1,790	
	Power Consumption(Cable size)			40kVA(VCTF 16SQ x 4C)	
	Air Flow Rate			20~30Liter/Min	

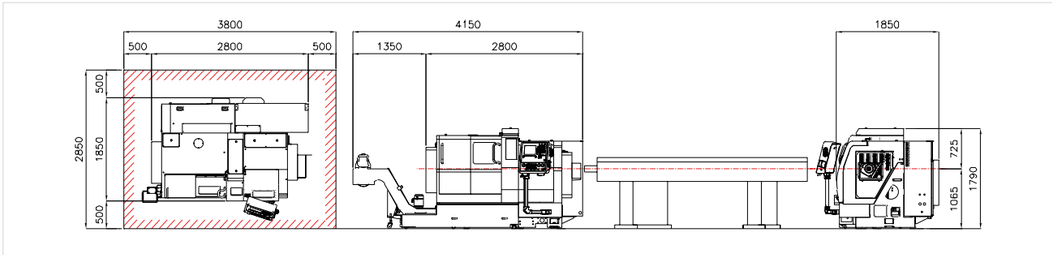
Standard

- Full c axis control on main & sub spindle
- Rotary guide bush holder unit
- Cross drill/milling unit(4ea, modular type)
- Mpg
- Door interlock
- Coolant flow sensor
- Coolant unit
- Lubricaton unit
- Work light
- Signal lamp(3color)
- Lan port
- Tool monitoring function
- Tool box
- Drill holders
- Bar feeder interface
- Part conveyor
- Cut off tool breakage detector(s/w)
- Auto power off
- Chip conveyor

Option

- Tap breakage detector
- Pipe type ejection unit
- Additional 1 pipe set
- Middle / high pressure pump
- Spare m code kit
- Oil mist collector
- Oil chiller
- Nc warranty for 2 years
- Y3-axis(4driven/4fixed)
- Turret tool holders
- Bar feeder / 2nd anti vibtation unit
- Transformer(for 220v)
- Memory cards

Dimension



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Best model of high cost-effectiveness with strong machining performance & high-productivity for large bore of material

XD42

High rigidity
Enhance bed rigidity and adopt profitable structure for stable chucking of large bore material

High effeciency
Best productivity with great performance &reasonable price

Optimization
High power of motor & optimized structure for stable machining of die casting, forging materials

High rigidity & User friendly mechanism

- Improved bearing system & rotationary accuracy
- Strong chucking force with hydraulic cylinder

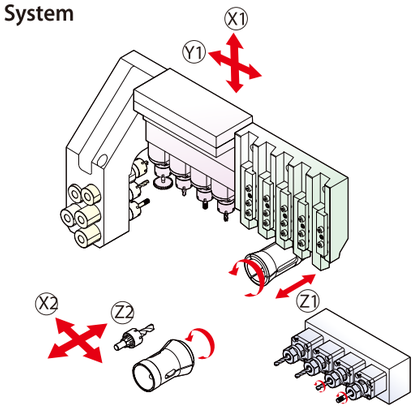
- High-rigidity of feed unit (Applied Linear Roller guide)
- Enhanced durability & great production quality

- Optimized tool layout
- Horizontal gang type tool post
- High-power of motor for cross & back drills

- Improved convenience with option for heavy bar lifting
- Realization of stable machining by lower vibration

Stroke	Z1	X1	Y1	X2	Y2
XD42	320(H)mm 100(N)mm	80mm	472mm	276mm	395mm

Tooling System



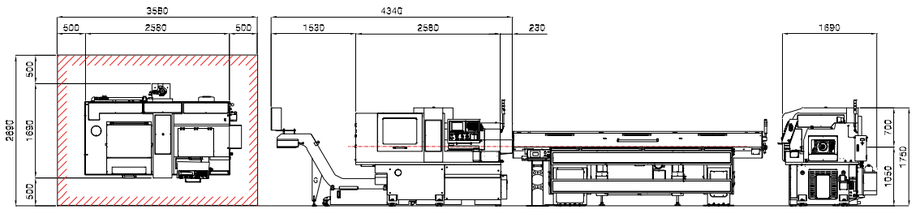
* OPTION : OFF-CENTER DRILL(1EA)

Specification

	MODEL			XD42 H Type	XD42 N Type
MAIN	NC			Hanwha Fanuc i/Siemens 828D	
	Max. Turning Ø(Main)			Ø42	Ø45
	Max. Stroke			320mm	100mm
	No. of Tools	OD Tool		5EA(□20)	
		Front Tool		10EA(FRONT 5, BACK 5)	
		Cross Tool		4EA	
		Back Tool		5EA(3Fixed, 2Driven)	
		Off Center Drill		1EA(Option)	
	Motor	Main spindle	rpm	6,000rpm	4,000rpm
			Power	5.5/7.5 kW(Fanuc), 23kW(Siemens)	
		Cross Drill	rpm	6,000rpm	
			Power	2.2kW(Fanuc), 2.13kW(Siemens)	
	Pump	Coolant	Capacity	230L	
			Pump Motor	1.1kW	
SUB	Motor	Sub spindle	rpm	6,000rpm	4,000rpm
			Power	2.2/5.5 kW(Fanuc), 23kW(Siemens)	
		Back Tool	rpm	6,000rpm	
			Power	1.0kW(Fanuc), 1.02kW(Siemens)	
ETC	Weight			4,100kg	
	Size(L x W x H)			2,580 X 1,690 X 1,750	
	Power Consumption(Cable size)			25kVA(VCTF 16SQ x 4C)	
	Air Flow Rate			120~150Liter/Min	

If Off-center dirll is seleted, back drill is only available for 4EA N: Non G/B type

Dimension



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Customized tools are available

GEAR HOBBING (CROSS)

THREAD WHIRLING (CROSS)

3-AXIS FACE UNIT 2SETS (CROSS)

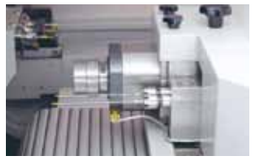
3-AXIS ADJUSTABLE FACE UNIT (CROSS)

THREAD ROLLER (OFF-CENTER DRILL)

CROSS (BACK)

BACK TOOL(5EA)

SIDE CUTTER (BACK)



HMS (Hanwha Monitoring System)

PC Version

Possible to check conditions of machines & plants even in your office through PC by Ethernet communication.

- Whole machine in the factory can be monitored by one PC
- Cycle Time / Work Count / Parts PG No/ Alarm
- Program Down loading, Uploading and Modification

See the whole machine status from the office

Tool life management

Offset screen

Operator panel

P/G down loading , uploading

Soft OP

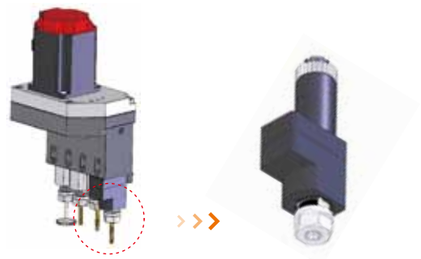
Alarm screen

Special option

"Machines with only Hanwha's special options could be utilized more than 100%"

Triple speed cross drill

- Enhance cross drilling performance with triple speed of cross drill rotation
- Achieving high-precision surface roughness with high rpm



Internal coolant driven tool

- Improve machining performance and extend tool life by supplying coolant through the inner drill and spraying the coolant to the machining point

Chiller united H/P unit (Stauff)

- Maker : STAUFF
- Double filtering system with Mesh & Bag filter within 30μm
- Tank capacity : 200 Liter (Chiller united)
- Chiller control : Inverter control
- Spec : 70bar (15ℓ/min) , 120bar (20ℓ/min)

Gear hobbing unit

- Model : XP12/16S, XD20/26II
- Angle : -2° ~ +2°
- Optimized hobbing unit for high-quality of gear parts

Cut off tool breakage detector

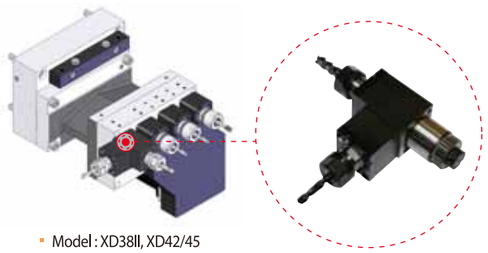
- Wave pin with air pressure and then when the pin tuches tool, it detects reflux of air then figures out whether drill is broken or not

Power G/B

- Manage chucking force of guide bush for bar in various diameters with pneumatic device (adjustment range : MAX -0.2mm of bore of material)

Back tool cross unit

Modular type



- Model : XD38II, XD42/45
- Part protrusion length (Back tool 30mm)
  - Modular type : 80mm
  - Single body type : 106mm

Single body type

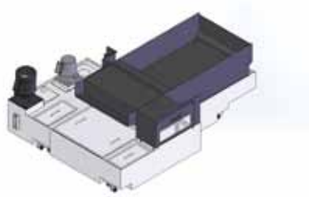
- Model : XD20V, XD38II
- Compact & Modular design adaptable to complex machining with cross for back
- Provide excellent productivity with simultaneous machining for main and sub cross drilling

Air/motor spindle

- MOTOR SPINDLE : Fine HOLE machining with high rpm of 60,000~80,000rpm by electric motors
- AIR SPINDLE : Air spindle rotating in range of 2,000~30,000rpm for burr removing, fine drilling

Extended coolant tank

- Model : XD38II, XD20II, XE20
- Tank Capacity
  - XD38II : 230Liter -> 470Liter
  - XD20II, XE20 : 170Liter -> 300Liter



Smart chip conveyor

- Model : XE20/26, XD20/26II, XD38II, XD20V, XD42
- Significant chip disposal system with Hinge chain and Solid & durable Filter Drum conveyor

Automobile samples

No	A001	A002	A003	A004
Photo				
Material	ADC12	SUS304	SCM440H	SUS304

No	A005	A006	A007	A008
Photo				
Material	SUS316	SUS304	SUM22	SUS630

No	A009	A010	A011	A012
Photo				
Material	SUM24	AL6062-T8	AL6062-T8	AL6062-T9

No	A013	A014	A015	A016
Photo				
Material	Brass	AL-Die Casting	SUM22	SUS316

No	A017	A018	A019	A020
Photo				
Material	SUS304	SUS303	SCM315	AL6062

No	A021	A022	A023	A024
Photo				
Material	Brass	AL6061	SUS304	SUM202

Electronic samples

No	E001	E002	E003	E004
Photo				
Material	SUS316	AL6061	AL6062	AL6061

No	E005	E006	E007	E008
Photo				
Material	Brass	AL6061	Brass	AL6062

Medical samples

No	M001	M002	M003	M004
Photo				
Material	Titanium	SUS316L	Titanium	Titanium

No	M005	M006	M007	M008
Photo				
Material	Titanium, Brass	Titanium, Brass	SUS316	Titanium

Industrial samples

No	I001	I002	I003	I004
Photo				
Material	AL6062	SUS316	AL2024	AL2024

No	I005	I006	I007	I008
Photo				
Material	AL6062	AL6062	SUS316	Brass