Hanwha Semitech

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※ Please note specifications are based on an optimized condition, and a subject to change without prior notification.

Hanwha

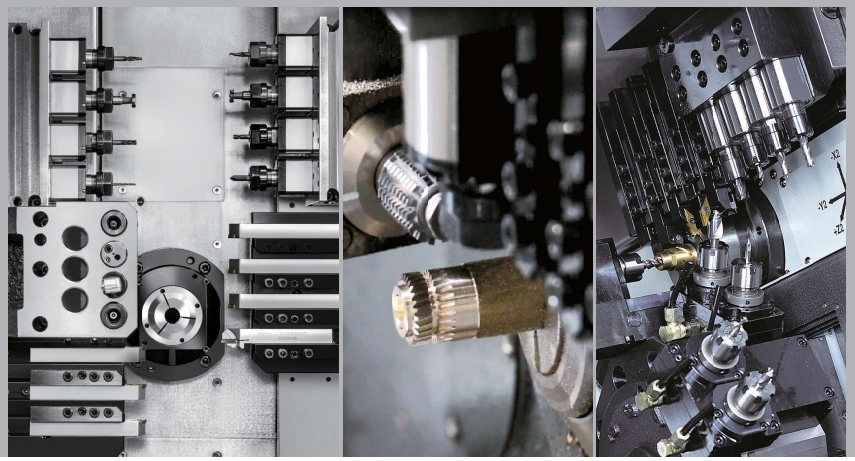
Hanwha YouTube LinkedIn

Advanced Manufacturing Solution Creator

ENGLISH

Hanwha Machine Tools

CNC Swiss Turning Lathe



Hanwha

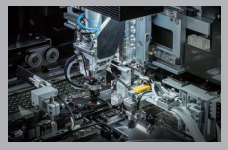
Advanced Manufacturing Solution Creator

Hanwha Semitech is a leading global equipment manufacturer with business in Machine Tools, Semiconductor, SMT and manufacturing software solutions for automation.
Machine Tools started back in 1977 and has been growing in both business and technology.
In 2025, using 48 years of expertise and experience in machine tools, Hanwha is launching a new business where an exquisite level of precision is required – machine tools for medical.
Hanwha Semitech will continue to work on creating innovative technology and advanced solution for our customers. Our value has been, and always will continue to be, centered on our customer - to enhance productivity, efficiency and quality.

Business Area

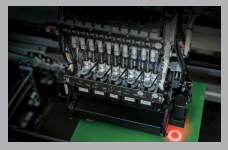
Machine Tool Division

Expert in CNC swiss lathes, medical component tool and dental milling machine.



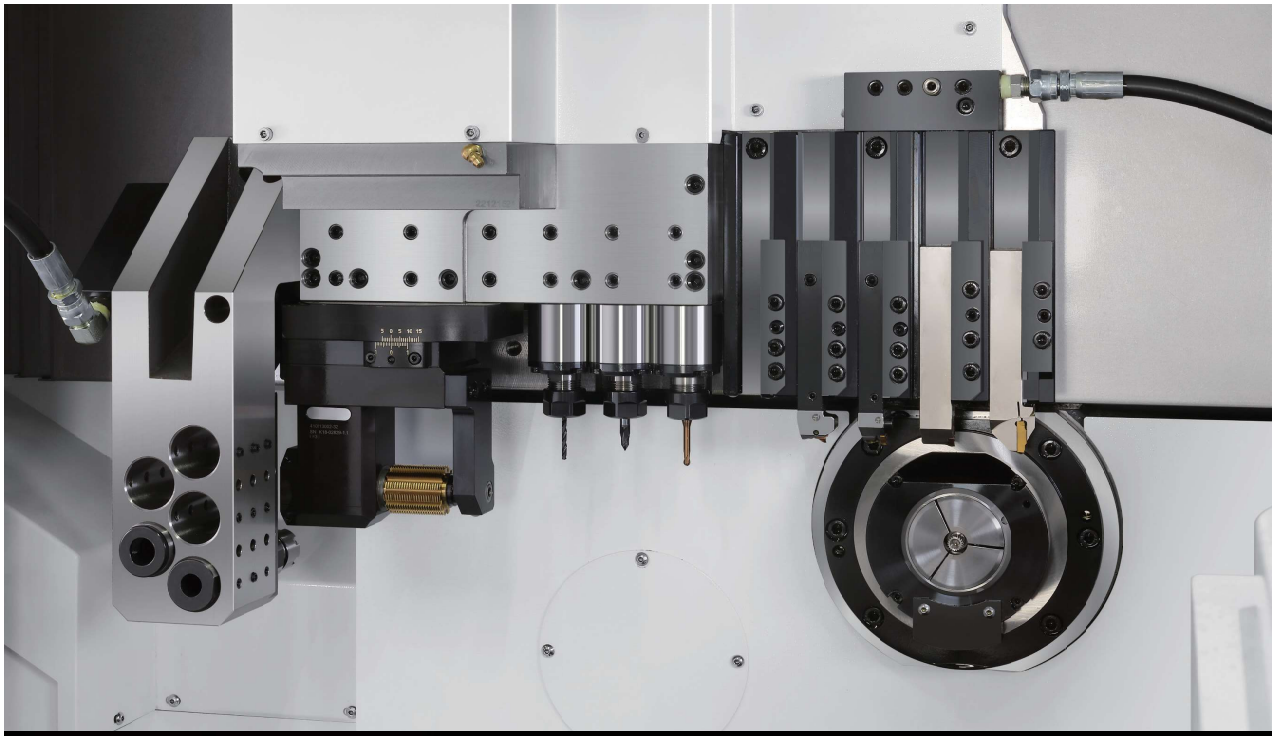
Semiconductor Division

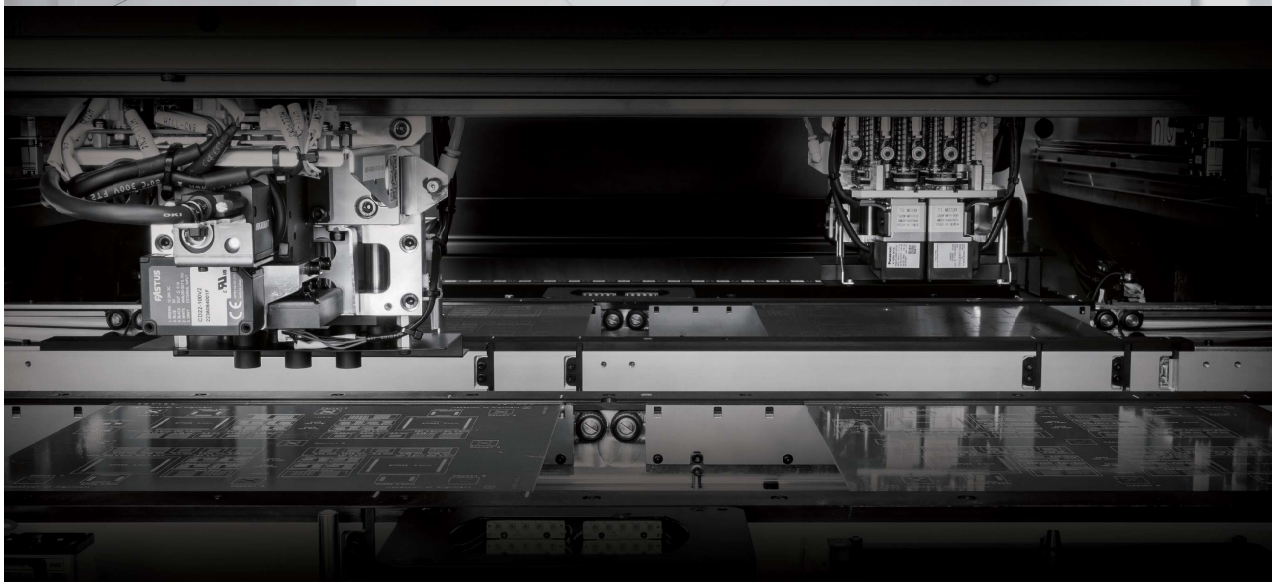
World's 1st front & back-end process equipment maker for AP, CPU and other semiconductors.

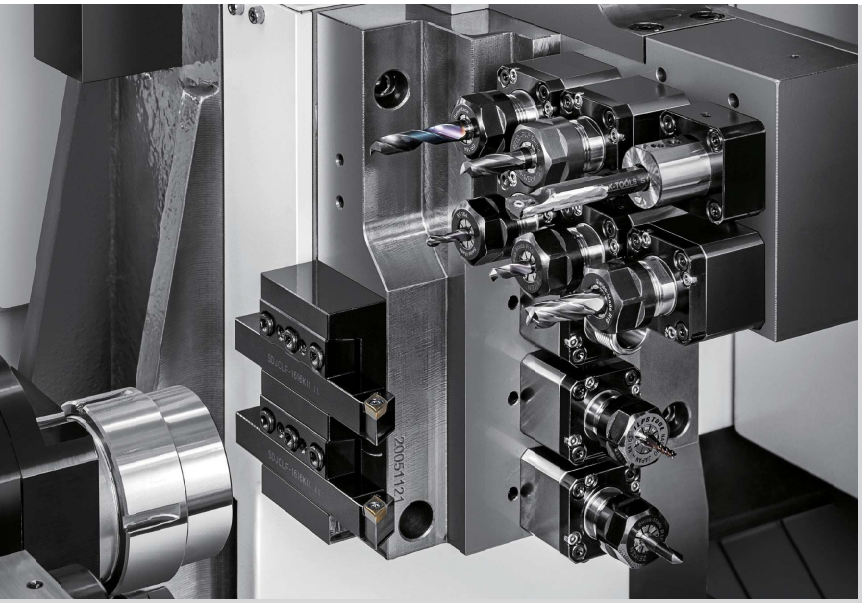


SMT Division

Automated component mounting equipment for electronic circuit boards with single and high-mix production.

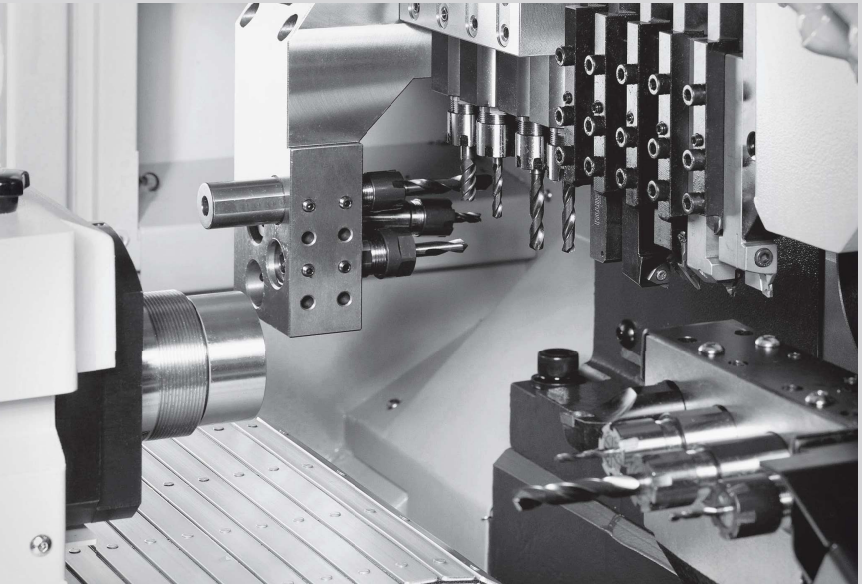






CNC Swiss Turning Lathe

Optimized machine tool solution with a wide coverage from Ø10 to Ø 42mm,
customizable with various options



Machine Tool Division

"Machine of Machines", Now Shaping the Future

48 years of experience and expertise in Machine Tools helped us to become a manufacturing solution provider – who creates both equipment and software solution to enhance customer's production experience. We will not stop moving forward to find a way to provide the best solution in machine tools. Our specialty in this business combined with our global networks around the globe will indeed help us to become the No. 1 in the market.

To be the World's

No.

48 Years of Expertise
Sold over **30 Countries**

2020s
- 2025 Integrated US offices for unified customer support (WI & IL)
- 2024 Release XM20, specialized for dental parts
  Established Istanbul branch office
- 2023 Launch of new machine XD38III
  New S/W release : PG solution
  New office opened in Chicago (USA)
- 2022 New product release : XD20/26III
- 2021 Released new 3-path 9-axis swiss turn lathe : XDI32
- 2020 Released high-complex turret type : STL42
  Released high-productivity model : XD10

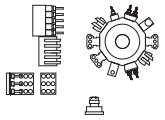
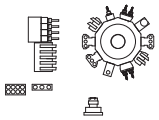
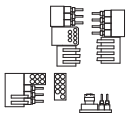
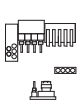
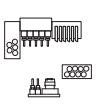
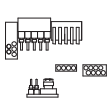
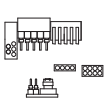
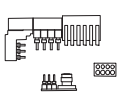
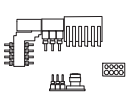
2010s
- 2019 XD38II-R, heavy duty cutting model
  Established Europe Technical Center in Germany
- 2018 Hi-CPS, smart factory MES system
  XD20/26II-V, high complex model
- 2017 New office opened in Cypress (USA)
- 2016 Upgraded line-up; XD-II, XE series
  XD12/16III, XD42
- 2014 Established hanwha machinery suzhou in China
  Opened Stuttgart office in Germany
- 2010 XD07, compact and precise machine

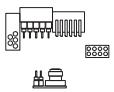
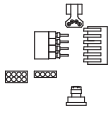
2000s
- 2008 Opened Milwaukee office in USA
- 2006 XD20N, the first non-guide bush type CNC automatic lathe in Korea
  XD32/35 series
- 2005 XP series, 4-axis CNC automatic lathe
- 2004 Opened Suzhou office in China
  XD20H, CNC automatic lathe

Prior to 2000s
- 1998 1st Automatic CNC lathe in Korea : ML series
- 1994 1st Centerless grinding machine : KCG-200J
- 1992 1st Internal grinding machine
- 1983 1st Cam type lathe in Korea : SAL-12
- 1977 Start of business

High Complexity & Precision Machining with a Rigid Design

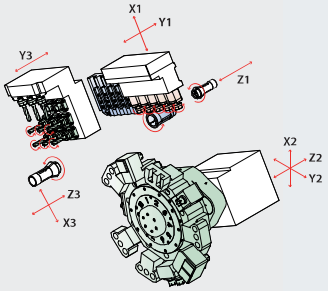
Hanwha's sliding headstock machines offer a wide range of models to meet each cutomer's need

Model	STL42	STL38	XDl32	XD42	XD38III	XD38II-R	XD38II	XM20	XM20 Y2+B
Max. Machining Diameter (mm)	42	38	32	42	38	38	38	20	20
Z1 Stroke (mm)	H 420 NH 282/125	H 320	NH 350/100	H 320 N 100 NH 207/100	NH 320/120	NH 320/120	H 320 N 80 NH 142/80	NH 205/55	NH 205/55
Tool Layout									
NC	Siemens	Siemens	Fanuc	Fanuc	Fanuc / Siemens	Fanuc / Siemens	Fanuc	Fanuc	Fanuc

Model	XD20/26III	XD20/26II	XD20/26II-V	XE35	XE20/26	XD16III	XD10	XP20/26/32S	XP12/16S
Max. Machining Diameter (mm)	20 26	20 26	20 26	35	20 26	16	10	20 26 32	12 16
Z1 Stroke (mm)	NH(Ø20) 240/60 NH(Ø26) 240/80	H 210 N 60 NH 160/50	H 210 N 50 NH 210/50	H 210 N 60	H 210 NH 160/50	H 155	H 155	20 210 26/32 205	12/16 140
Tool Layout									
NC	Fanuc / Siemens	Fanuc / Siemens	Fanuc / Siemens	Fanuc	Fanuc	Fanuc	Fanuc	Fanuc	Fanuc

STL42

Specialized 9-axis turret type sliding head machine with a powerful Siemens 840D controller (42mm)

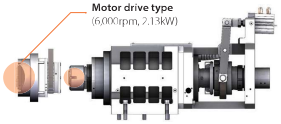


Model		STL42	
		H	NH
NC		Siemens 840D	
Max. Machining Diameter (mm)		Ø42	
Z1 Stroke (mm)		420	282 (H), 125 (N)
Chuck G/B	Main / Sub / Guide	TF48 / TF48 / BRA42	
Main Spindle	Speed (rpm)	6,000	
	Motor (kW)	22	
OD Tool	No. of Tools	5 (□20mm)	
Cross Drill	No. of Tools	5 (ER20)	
	Speed (rpm)	6,000	
	Motor (kW)	2.59	
Turret Unit	No. of unit	1 Unit (10 Station)	
	No. of Tools	max. 30EA (□20mm, ER20)	
	Tool type	VDI 30 (Option : BMT 45)	
	Motor (kW)	2.59	
Sub Spindle	Speed (rpm)	6,000	
	Motor (kW)	22	
Back Tool	No. of Tools	9 (ER20) (3 Fixed + 6 Driven)	
	Speed (rpm)	6,000	
	Motor (kW)	2.13	
Machine Size (L x W x H) (mm)		3,580 x 2,060 x 1,980	
Weight (kg)		7,330	
Power Consumption (Cable Size) *		7.8kVA (Rated : 40kVA) (16SQ)	
Air Flow Rate (Liter/Min)		20 ~ 30 (Hydraulic device capacity : 30L)	

* Based on Stainless Steel. May vary depending on machining condition.

OPTIMIZATION OF STRUCTURE & SPEC

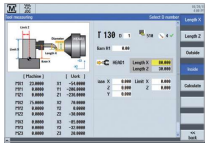
Adopted built-in motor with hydraulic chucking cylinder for a strong chucking power

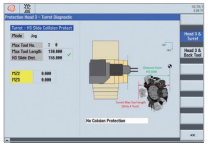


Unit	Spec
G/B	BRA-42
Chuck (Main, Sub)	TF48

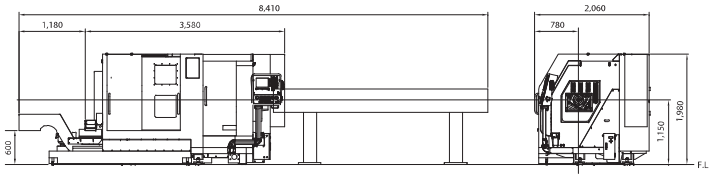
UPGRADED SOFTWARE PLATFORM

Provides a new HMI screen and improved software for machining & operating convenience


Tool Measuring

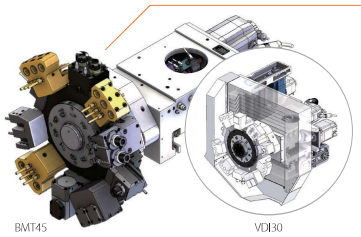

Collision Protection

Dimension



Option Tooling

Optimized for high-mix machining with up to 49 gang/turret tool posts for 42mm material

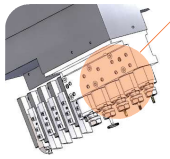


Turret Unit

- Turret unit (selectable) : VDI (standard) or BMT (option)
- SRG (Roller Retainer) LM guide used to strengthen to transfer the turret unit.

Specification

- Driven : 6,000rpm, 2.59kW
- Tool Size : □20, ER20
- 10 Station
- Max. Number of Tools : 30
- Tool Holder Type : VDI30 (standard), BMT45 (option)

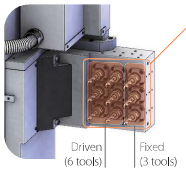


Cross Drilling / Milling Unit

- Enhance productivity & optimization with large material by extending tool distance, using high-powered motor and increasing number of tools

Specification (STL38 → **STL42**)

- Tool Distance : 35mm → **60mm**
- Tool Spec : 4(ER20M) → **5(ER20)**
- Motor Spec : 6,000rpm, 1.07kW → **2.59kW**

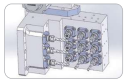


Back Tool Unit

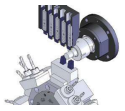
- Expand machining range with Y3 axis feed & increased tool numbers
- Simultaneous on main & sub, as well as, high-complex machining possible with back tool cross unit (option)

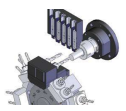
Specification (STL38 → **STL42**)

- Tool Distance : 40mm → **60mm**
- Tool Spec : 8(ER20M) → **9(ER20)**
- Motor Spec : 6,000rpm, 1.07kW → **2.13kW**

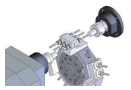

※ Back tool Cross unit (Option)
→ No. of Tools : Back Tool 6, Cross 3

COMPLEX MACHINING


Balance turning (OD +Turret)


Turning/drilling (OD+Turret)


Endmill (Cross+Turret)


Drilling (Front+Back)

Standard

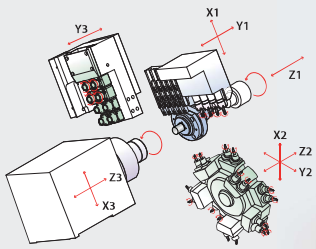
- Main-Sub Cs control (0.001°)
- Rotary Guide bush holder
- MPG
- Chip conveyor
- Part conveyor
- Door interlock
- Work light
- Signal lamp (3color)
- Tool monitoring function
- Cut-off tool breakage detector (S/W)
- Auto power-off
- Bar feeder interface
- Middle pressure pump

Option

- Bar feeder
- Transformer
- Tap breakage detector
- High pressure pump
- Oil mist collector
- Oil chiller
- Memory card
- Tooling & Programming
- Internal coolant-driven tool (cross, back, off-center)
- NC warranty for 2 years
- Turret unit (BMT45)
- Turret Tool Holder

STL38

Turret type, sliding head machine (9-axis) with a powerful Siemens 840D controller

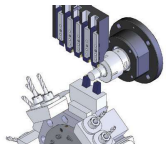


Model		STL38
		Y3
NC		Siemens 840D
Max. Machining Diameter (mm)		Ø32/38
Z1 Stroke (mm)		320
Chuck G/B	Main / Sub / Guide	TF48 / TF48 / HW38
Main Spindle	Speed (rpm)	6,500
	Motor (kW)	23
OD Tool	No. of Tools	5 (□16mm)
Cross Drill	No. of Tools	4 (ER20M)
	Speed (rpm)	6,000
	Motor (kW)	1.07
Turret Unit	No. of unit	1 Unit (10 Station)
	No. of Tools	max. 30 (□20mm, ER20)
	Tool type	VDI 30 (Option : BMT 45)
	Motor (kW)	2.59
Sub Spindle	Speed (rpm)	6,500
	Motor (kW)	23
Back Tool	No. of Tools	8 (ER20M) (4 Fixed + 4 Driven)
	Speed (rpm)	6,000
	Motor (kW)	1.07
Machine Size (L x W x H) (mm)		3,130 x 1,860 x 1,780
Weight (kg)		4,500
Power Consumption (Cable Size) *		7.7kVA (Rated : 40kVA) (16SQ)
Air Flow Rate (Liter/Min)		20 ~ 30 (Hydraulic device capacity : 30L)

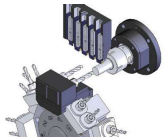
* Based on Stainless Steel. May vary depending on machining condition.

COMPLEX MACHINING

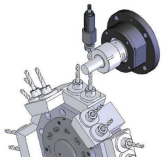
Supports complex machining with a combination of gang & turret units and 3-path control system.



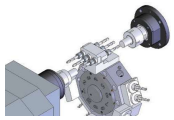
Balance cutting (OD +Turret)



Turning / drilling (OD +Turret)

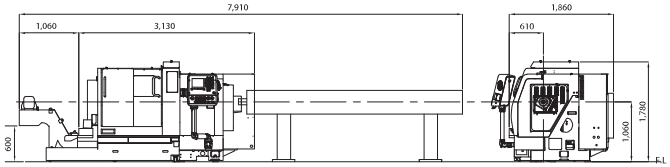


Endmill (Cross+Turret)



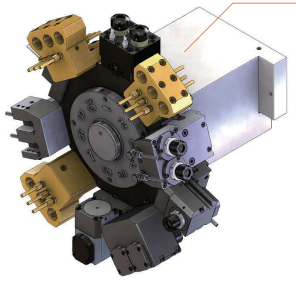
Drilling (Front+Back)

Dimension



Option Tooling

Customer optimized high-complex tooling is supported with ≤49 gang & turret tool posts and multiple layout options

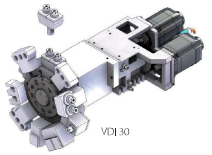


Turret Unit

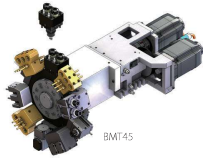
- Turret unit (selectable) : VDI (standard) or BMT (option)

Specification

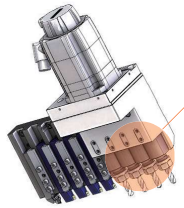
- 1set Turret (10 station)
- Tool Holder Type : VDI30, BMT45
- Tool Size : □20, ER20
- Max. Number of Tools : 30



VDI 30



BMT45

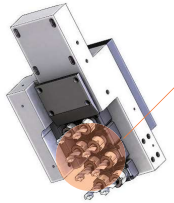


Cross Drilling / Milling Unit

- Easy tool change for maintenance & installation

Option Tool

Internal coolant-driven tool
※ Spline Modular



Back Tool Unit

- Standard : Fixed 3 tool
- Modular Type : 8 tools of Y3 (4 driven, 4 fixed, ER20M)

Option tool & unit

Internal coolant-driven tool

Multi finger tool
(Re-adjust machining point)

3 ~ 4 tools

8 tools
(Max. 4 Driven)

Standard

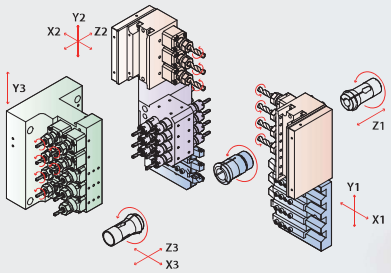
- Main-Sub Cs control (0.001°)
- Rotary Guide bush holder
- MPG
- Chip conveyor
- Part conveyor
- Door interlock
- Work light
- Signal lamp (3color)
- Tool monitoring function
- Cut-off tool breakage detector (S/W)
- Auto power-off
- Bar feeder interface
- Middle pressure pump

Option

- Bar feeder
- Transformer
- Tap breakage detector
- High pressure pump
- Oil mist collector
- Oil chiller
- Memory card
- Tooling & Programming
- Internal coolant-driven tool (cross, back, off-center)
- NC warranty for 2 years
- Turret unit (BMT45)
- Turret Tool Holder

XDI32

3-path, 9-axis, independent opposite-gang tool machine for higher productivity & flexibility

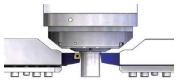


Model		XDI32
NC		Fanuc – 31iB
Max. Machining Diameter (mm)		Ø32
Z1 Stroke / NH (mm)		350 (H), 100 (N)
Chuck G/B	Main / Sub / Guide	TF37 / TF37 / TD32S
Main Spindle	Speed (rpm)	6,500
	Motor (kW)	2.2 / 5.5
Turning Tool	No. of Tools	□16mm x 7 (4 + 3)
Front Tool	No. of Tools	ER16M x 4 (Front 4 / Rear 7)
Cross Drill	No. of Tools	ER16 x 7 (4 + 3)
	Speed (rpm)	6,000
	Motor (kW)	2.2
B-axis Cross (op.)	No. of Tools	ER16 x 4 (Front 4 / Rear 4)
	Speed (rpm)	6,000
	Motor (kW)	1.0
Sub Spindle	Speed (rpm)	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) *		4.3kVA (Rated : 13.5kVA) (16SQ)
Air Flow Rate (Liter/Min)		120 ~ 150

* Based on Stainless Steel. May vary depending on machining condition.

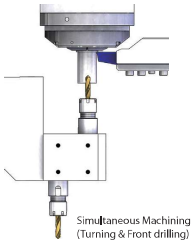
VARIOUS SIMULTANEOUS MACHINING

Reduced cutting time with simultaneous machining by using the stand-alone opposite tool stage



Balance Turning

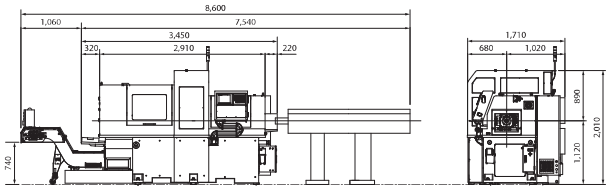
Balance Drilling & Milling



Simultaneous Machining
(Turning & Front drilling)

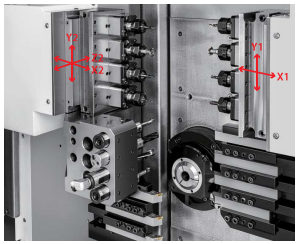
Pre-position of the Next Tool

DIMENSION



Option Tooling

Provides flexible option tools for a higher productivity on complex machining



Cross Drilling / Milling Unit

- Cross drill / Double-hinged B-axis Tool

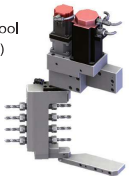
Option Specification

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°

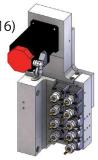


Back Tool Unit

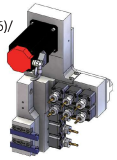
- Y3-axis 9 back tool / Y3-axis back tool cross

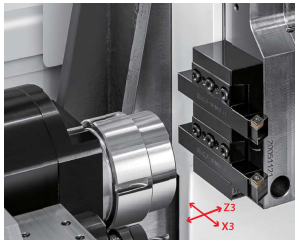
Option Specification

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



Y3-axis back tool cross
- 6 Back/3 Cross Modular (ER16)/ 2 Bite (□16)
- Motor Power : 1.0 kW
- The same back tool modular with XD38II
- Whole gear-driven system

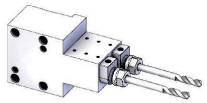




Sub Gun Drill Unit

- 2 gun drills

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



Standard

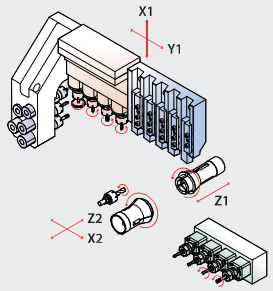
- Main · Sub Cs control (0.001°)
- Rotary Guide bush holder
- Cross drilling · milling unit
- 2 MPG
- Door interlock
- Coolant flow sensor
- Work light
- Signal lamp (3color)
- LAN port
- Tool monitoring function
- Cut-off detector (S/W)
- Super imposed control
- Auto power-off
- Bar feeder interface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

Option

- Bar feeder
- Chip conveyor
- Extended coolant tank
- Transformer
- Tap breakage detector
- Pipe type ejection unit
- B-axis cross drill unit(4)
- 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

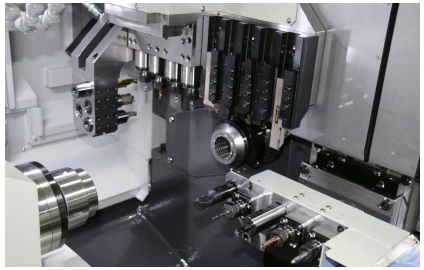
XD42

Specialized 5/6-axis for larger diameter machining



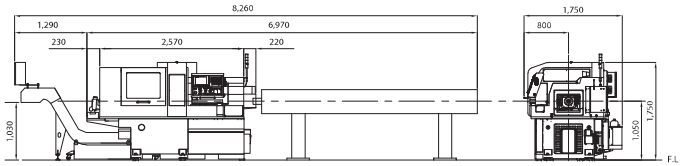
Model		XD42
		NH
NC		Fanuc 0i-TF Plus
Max. Machining Diameter (mm)		Ø42
Z1 Stroke (mm)		207 (H), 100 (N)
Chuck G/B	Main / Sub / Guide	HW42 / HW42 / BRA42
Main Spindle	Speed (rpm)	6,000
	Motor (kW)	5.5/7.5
OD Tool	No. of Tools	5 (□20mm)
Front Tool	No. of Tools	5 (ER20M, Ø32)
Cross Drill	No. of Tools	4 (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) *		4.3kVA (Rated : 13.3kVA) (16SQ)
Air Flow Rate (Liter/Min)		120 ~ 150

* Based on Stainless Steel. May vary depending on machining condition.
* H : G/B, N : Non-G/B, NH : Convertible G/B



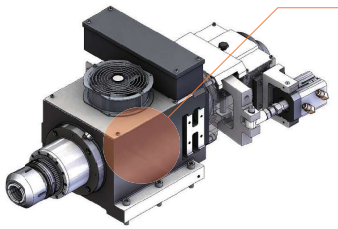
- Strong machining performance & high-productivity with large radii material
- Strong chucking force with hydraulic cylinder
- Improved bearing system for accuracy
- High rigidity of feed unit (with linear roller guide)

Dimension



Option Tooling

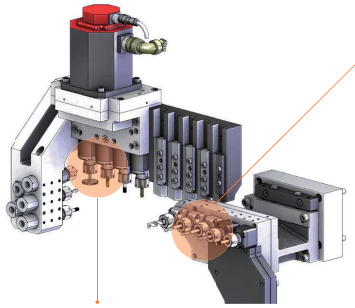
Offers flexible tool options to enhance productivity and to meet customer's needs



Spindle Unit

- Adopted built-in motor, hydraulic chucking cylinder & 3 toggle system for a stronger chucking power to process Ø42mm material

Specification
6,000 rpm
5.5/7.5kW



Back Tool Unit

- Total of 8 tools with Y2-axis & modular type for an easy tool change and maintenance

Specification
6,000rpm, 1.0kW
5 tools (ER20M)

Option tool


Internal coolant-driven tool


Fixed angle drilling unit (1-axis)

Selectable Modules on Back Tool
Max. 4 (driven)


4 Tools (2 + 2)


5 Tools (2 + 3)
(Unable to use Off-center)

Cross Drilling / Milling Unit

- Powerful cross-machining with the best-in-class motor and expanded tool size coverage
- Easy to change and maintain with a gear modular type cross unit and flexible option tool support

Specification
6,000 rpm, 2.2kW
4 Tools (ER20M)

Standard

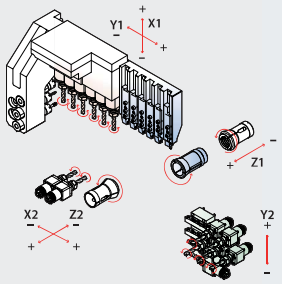
- Main · Sub Cs control (0.001°)
- Rotary Guide bush holder
- Cross drilling · milling unit (4, Gear modular type)
- MPG
- Part conveyor
- Door interlock
- Coolant flow sensor
- Work light
- Signal lamp (3color)
- LAN port
- Tool monitoring function
- Cut-off tool breakage detector (S/W)
- Auto power-off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

Option

- Bar feeder
- Chip conveyor
- Transformer
- Tap breakage detector
- Pipe type ejection unit
- Off center drill unit (1)
- Middle / High pressure pump
- Oil mist collector
- Oil chiller
- Memory card
- Tooling & Programming
- Internal coolant-driven tool (cross, back)
- 3 Face/counterface-driven tool (cross)
- 3 Face/counterface angle-driven tool (cross)
- Extended coolant tank
- NC warranty for 2 years

XD38III

The latest, 3rd Generation, of 38mm machine tool
with stronger structure from minimzied thermal deformity



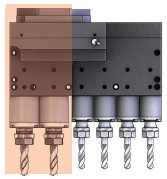
Model		XD38III
		NH
NC		Fanuc 0i-TF Plus/ Siemens 828D
Max. Machining Diameter (mm)		Ø38 (Option : Ø40)
Z1 Stroke (mm)		320 (H), 120 (N)
Cuck G/B	Main / Sub / Guide	TF48 / TF48 / BRA42
Main Spindle	Speed (rpm)	6,500
	Motor (kW)	5.5/7.5 (Fanuc), 23 (Siemens)
OD Tool	No. of Tools	5 (□20mm x 2, □16mm x 3), 6 (□16mm x 6)
Front Tool	No. of Tools	10 (Front 5, Back 5)
Cross Drill	No. of Tools	6(ER16 x 6), 6 (ER20 x 2, ER16 x 4)
	Speed (rpm)	6,000
	Motor (kW)	2.2 (Fanuc), 2.13 (Siemens)
Off-Center Drill (Option)	No. of Tools	2 (ER16) Modular
Sub Spindle	Speed (rpm)	6,500
	Motor (kW)	2.2/5.5 (Fanuc_Built in), 1.1/3.7 (Fanuc_Servo) 23 (Siemens)
Back Tool	No. of Tools	5 Back Tools (3 Fixed + 2 Driven), 2 Cross (ER16), 2 Turning (□16)
	Speed (rpm)	6,000
	Motor (kW)	1.0 (Fanuc), 2.13 (Siemens)
Machine Size (L x W x H) (mm)		2,690x1,580x1,820 (F) / 3,100x1,650x1,820 (S)
Weight (kg)		4,690
Power Consumption (Cable Size) *		3.7kVA (Rated: 14.6kVA) (16SQ) Siemens : 5.4kVA (Rated : 36kVA)
Air Flow Rate (Liter/Min)		120 ~ 150

* Based on Stainless Steel. May vary depending on machining condition.
* **NH** : Convertible G/B

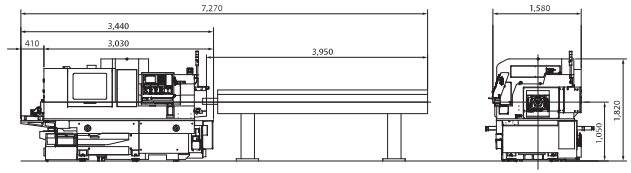
CROSS DRILLING / MILLING UNIT & OD TOOL POST

Specification of G/B & Chuck

- 6 cross drills (ER16x4, ER20x2)
- Motor Power : 2.2kW (Fanuc), 2.13kW(Siemens)
- The same cross-drill modular with XD38II, XD38II-R (ER16 Modular)
- OD Tool : 5 turning (□16x3, □20x2)



Dimension



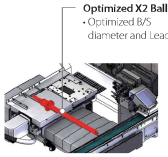
Enhanced Machining Performance

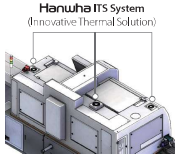
Stable machining performance with versatility from various option

Minimized Thermal Displacement

Optimized design to minimize thermal displacement
for more rigid structure

- Head 1 Thermal Displacement
  : Deacreased by 40% (Compare to Old Version)
- Head 2 Thermal Displacement
  : Deacreased by 55% (Compare to Old Version)

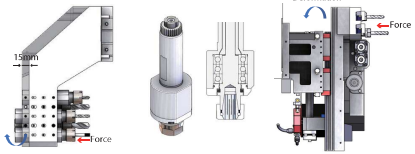




Stronger Structure for Tough Jobs

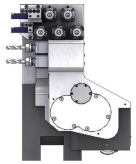
Powerful machining performance with rigid structure

- Front Tool Post : Increase Thickness by 15mm(Compare to Old Version)
  - Decrease Deformation by 38%
- ER20 Modular(Cross Drill) : Upgrade ER20 Modular by Using Bigger Brg.
  - Improve Surface Roughness by 34% (Compare to Old Version)
- Back Tool Post(Y2) : Rigid Structure for Heavy-Duty Work
  - Decrease Deformation by 70% (Compare to Old Version)



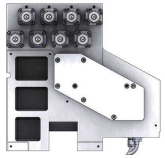
Back Tool Unit

- Y2-axis 8 back tool / Y2-axis back cross tool
- Upgraded power transmission method to a gear-based system, enhancing durability and rigidity compared to the previous model



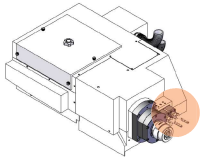
Option Specification
Back cross tools

- 5 back tools (3 driven 2 fix) / 2 cross (ER16) / 2 turning (□16) - 5 Driven OPT
- All XD38II & XD38II-R BT Option Tools are Avaliable for Common Use
- Moter Power
  : 1.0kW / 2.2kW (OPT)(Fanuc), 2.13kW (Siemens)
- Gear-driven modular



Option Specification
8 Back tools

- 8 back tools (4 driven 4 fix)
  - 8 Driven (OPT)
- All XD38II & XD38II-R BT Option Tools are Avaliable for Common Use
- Motor Power : 1.0kW/2.0kW (OPT)(Fanuc), 2.13kW (Siemens)
- Gear-Driven modular



Subspindle & Off-Center (OPT)

- Standard : Powerful Built-in Motor
- Option : Cost-Effective Spindle Motor (Fanuc), Powerful off-center drill with gear connected to spindle

Option Specification
2 off-center drill (ER16)

- Shared back tool driven modular
- Moter Power : 2.2/5.5 (Fanuc / Built in), 1.1/3.7 (Fanuc / Servo), 23kW (Siemens)

Standard

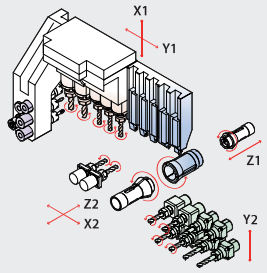
- Main · Sub Cs control (0.001°)
- Rotary Guide bush holder
- Cross drilling · milling unit (5, Gear modular type)
- MPG
- Part conveyor
- Door interlock
- Coolant flow sensor
- Work light
- Signal lamp (3color)
- LAN port
- Tool monitoring function
- Cut-off tool breakage detector (S/W)
- Auto power-off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

The latest special heavy duty cutting/milling with 5/6-axis,
Optimized for high-complexity



Model		XD38II-R
		NH
NC		Fanuc 32i-B / Siemens 828D
Max. Machining Diameter (mm)		Ø38
Z1 Stroke (mm)		320 (H), 120 (N)
Chuck G/B	Main / Sub / Guide	TF48 / TF48 / BRA42
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
	Motor (kW)	2.2 (Fanuc), 2.13 (Siemens)
Off-Center Drill (Option)	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
	Motor (kW)	1.0 (Fanuc), 1.02 (Siemens)
Machine Size (L x W x H) (mm)		2,650 x 1,600 x 1,790
Weight (kg)		4,600
Power Consumption (Cable Size) *		3.7kVA (Rated: 14.6kVA) (16SQ) Siemens : 5.4kVA (Rated : 36kVA)
Air Flow Rate (Liter/Min)		120 ~ 150

* Based on Stainless Steel. May vary depending on machining condition.
* **NH** : Convertible G/B

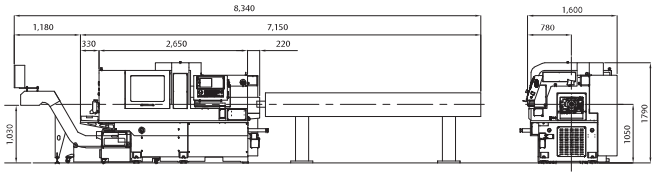
OPTIMIZATION OF STRUCTURE & SPEC

Specification of G/B & Chuck

Model	XD38II-R	XD38II
NC	Fanuc / Siemens	Fanuc
Type	NH	H/N/NH/He
Guide bush	BRA-42	HW38
Main chuck	TF48	HW38
Sub chuck	TF48	HW38

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

Dimension



Optimized Structure & Spec for Ø38mm

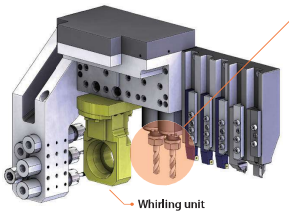
Possible to support up to Ø40mm (Option)

Stroke

- Extended stroke & expanded processing area
  - Larger distance between tools
  - Support upper size tools
  - Extended stroke in Z1 on the convertible type 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



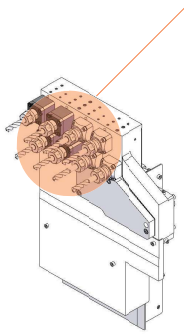
※ Other various option units are available

Cross Drilling / Milling Unit

- Powerful cross machining
  - The best-in-class motor (Capacity : Fanuc 2.2kW, Siemens 2.13kW)
- Gear-driven modular
  - Easy to change and maintain with a gear modular type cross unit and flexible option tool support

Specification

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



Back Tool Unit

- Optimized structure for large material
- Extended tooling layout (Distance between tools : 52mm)
- Various option toolings
- Structure to have a less chip trouble

Specification

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

Option tool

Internal coolant driven tool

Back tool cross unit (Modular)

Standard

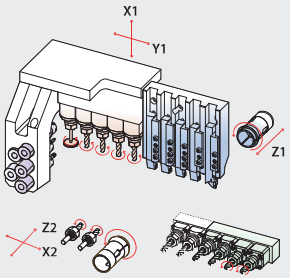
- Main · Sub Cs control (0.001°)
- Rotary Guide bush holder
- Cross drilling · milling unit (5, Gear modular type)
- MPG
- Part conveyor
- Door interlock
- Coolant flow sensor
- Work light
- Signal lamp (3color)
- LAN port
- Tool monitoring function
- Cut-off tool breakage detector (S/W)
- Auto power-off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



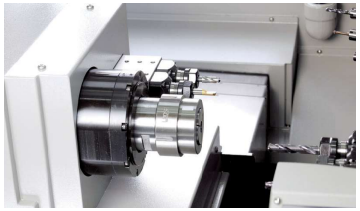
Model		XD38II			
		H	N	NH	He
NC		Fanuc 32i-B			Hanwha Fanuc-i
Max. Machining Diameter (mm)		Ø32/38			
Z1 Stroke (mm)		320	80	142 (H), 80 (N)	320
Chuck G/B	Main / Sub / Guide	HW38 / HW38 / HW38			
Main Spindle	Speed (rpm)	6,500			
	Motor (kW)	5.5/7.5			
OD Tool	No. of Tools	5 (□16mm)			
Front Tool	No. 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) *		3.7kVA (Rated : 15.8kVA) (16SQ)			
Air Flow Rate (Liter/Min)		120 ~ 150			

* Based on Stainless Steel. May vary depending on machining condition.
* H : C/B, N : Non-C/B, NH : Convertible C/B, He : Hanwha Fanuc-i NC (w.h C/B)

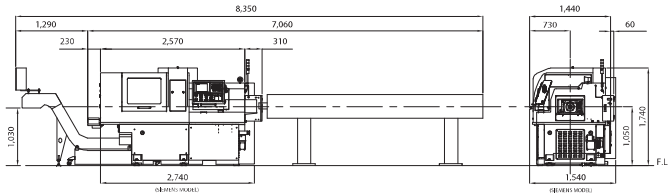
OFF-CENTER UNIT

2 off-center drills with an individual motor

- No. of Tools : 2 (ER16)
- Speed & motor power: 6,500rpm, 1.0kW

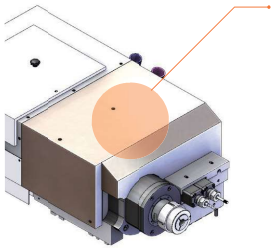


Dimension



Option Tooling

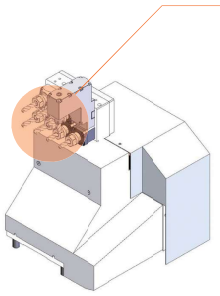
Customizable tooling layout and spindle structure to provide the most optimized solution for your machining condition & higher product quality



Sub Spindle Unit

- Choice available between the powerful built-in motor and cost-effective spindle for Ø38mm
  ※ Possible to choose the motor type suitable for each material and production 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



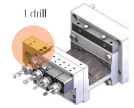
※ **Option** : Back tool cross unit (Modular)

Back Tool Unit

- Total of 8 tools with Y2-axis & modular type for an easy tool change/maintenance

Option Unit

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



Option Tool


Internal coolant-driven tool


Angle drilling unit (1 drill)


Back and cross tool

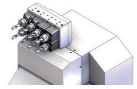
Selectable Modules on Back Tool
Max. 4 (driven)


4 tools


5 tools


6 tools

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


8 tools (Driven 4 ~ 8)
※ Tool Distance : 40mm

Standard

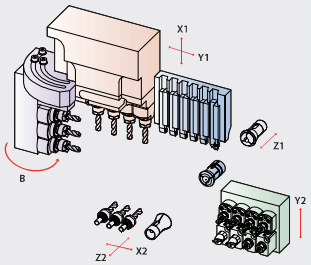
- Main-Sub Cs control (0.001°)
- Rotary Guide bush holder
- Cross drilling · milling unit (5, Gear modular type)
- MPG
- Part conveyor
- Door interlock
- Coolant flow sensor
- Work light
- Signal lamp (3color)
- LAN port
- Tool monitoring function
- Cut-off tool breakage detector (S/W)
- Auto power-off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

XM20 eXcellent Medical Dental

Powerful 7-axis automatic lathe, specialized in dental products

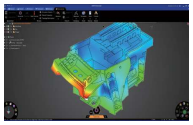


Model		XM20 Y2	XM20 Y2+B
NC		Fanuc 32i-B Plus	
Max. Machining Diameter (mm)		Ø20 (option : Ø25)	
Z1 Stroke (mm)		205 (H), 55 (N)	
Chuck G/B	Main / Sub / Guide	TF25 / TF25 / TD25-NS	
Main Spindle	Speed (rpm)	10,000	
	Motor (kW)	2.2/3.7	
OD Tool	No. of Tools	6 (□12mm)	
Front Tool	No. of Tools	3 (ER16)	
Cross Drill	No. of Tools	7 (4+3) (ER16)	3 (ER16)
	Speed (rpm)	6,000	
	Motor (kW)	2.5	
B-axis	No. of Tools	-	8 (ER11)
	Speed (rpm)	-	8,000
Sub Spindle	Speed (rpm)	10,000	
	Motor (kW)	2.2/3.7	
Back Tool Fixed : ER16 Driven : ER11	No. of Tools	8 (4 fixed + 4 driven)	
	Speed (rpm)	9,000	
	Motor (kW)	1.0	
Machine Size (L x W x H) (mm)		2,160 x 1,200 x 1,900	
Weight (kg)		2,950	3,000
Feed	X1 Moter (kW)	1.7	
	Other Motor (kW)	1	
Power Consumption (Cable Size) *		3kVA (Rated : 7kVA) (10SQ)	
Air Flow Rate (Liter/Min)		62	

* Based on Stainless Steel. May vary depending on machining condition.

PRECISE & STABLE STRUCTURE

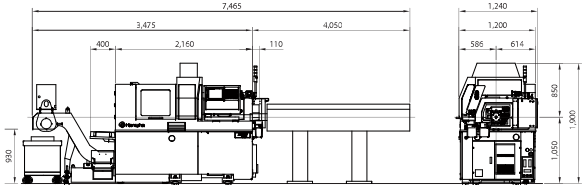
- High rigidity, low vibration structure with CAE technology
- Special structure to minimize thermal deformation
  - Lighter tool post &
    Coolling jacket on spindle



CONVENIENT & ECONOMICAL MODEL

- Latest energy efficient technology (Energy Saving)
- Reduced maintenance cost by using common parts
- Improved convenience with
  mountable window cover &
  a large oil tank (208ℓ)

DIMENSION



Excellent Performance for Dental Products

Specially designed for dental parts : minimized thermal deformation while performing a stable and high-precision work.

Cross Drilling / Milling Unit

- Improved surface roughness and tool life with a high-performance, a high-efficient cross motor & NC 32iB Plus - all supporting to cut difficult materials
- Compatible with various option tools (4x modular, back cross, 3-axis live tool, etc.)
- High precision LM and B/S applied to improve roughness on taper processing

Option Specification
Automatic B-axis cross drill unit
- ER16 x 3+ER11 x 8 (3+8)
- Motor power : 2.5kW
- Swivel angle : 0 ° ~ +90°

Standard Specification
Manually adjustable,
Side cross drill unit
- ER16 x 7 (4+3)
- Motor power : 2.5kW
- Angle : 0° ~ +135°

Back Tool Unit

- High rigidity Y2 structure design
- Reduced lead-time on fixed-tool replacement by using a guide pin

Standard Specification
8 Back Tools
- 4 Fixed (ER16) / 4 Driven (ER11)
- Motor Power : 1.0kW
- Gear-Driven Modular

Guide Bush

- NH (convertible guide bush)
- Easy setting for nozzle and tool

Z1 Stroke
- Guide bush 205mm
- Non Guide bush 55mm

Sub Spindle & Front Tool Post

- Powerful sub-spindle motor
- Sub-attached front tool

- Speed : 10,000rpm
- Motor power : 2.2/3.7kW
- Fixed tool : ER16 x 3

Standard

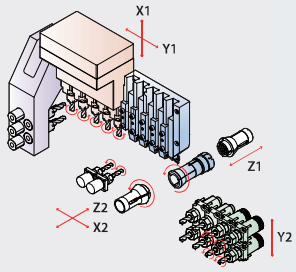
- Main-Sub Cs control (0.001°)
- Rotary guide bush holder
- Cross drilling · milling unit (7, Gear modular type)
- Sub-attached 3-axis front tool (ER16)
- MPG
- Part receiver (Drawer type)
- Door interlock
- Coolant flow sensor
- Work light
- Signal lamp (3color)
- LAN port
- Tool monitoring function
- Cut-off tool breakage detector (H/W)
- Auto power-off
- Bar feeder interface

Option

- Bar feeder
- Chip conveyor
- Transformer
- Modular type front tool holder
- Modular type OD tool holder
- Tap breakage detector
- Part conveyor
- Pipe type ejection unit
- Middle / High pressure pump
- Oil mist collector
- Oil chiller
- Memory card
- Tooling & Programming
- Extended coolant tank
- NC warranty for 2 years

XD20/26II-V

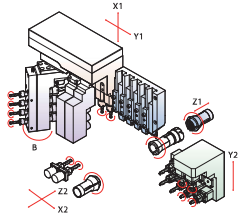
Multi-functional with B and Y2-axis



Model		XD20/26II-V		
		H	N	NH
NC		Fanuc 32i-B / Siemens 828D (B-axis 840D)		
Max. Machining Diameter (mm)		Ø20/26		
Z1 Stroke (mm)		210	50	210 (H), 50 (N)
Chuck G/B	Main / Sub / Guide	Ø20 : TF25 / TF25 / TD25-NS Ø26 : TF32 / TF32 / CD25		
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)		
Front Tool	No. of Tools	5 (ER16M, Ø25)		
Cross Drill	No. of Tools	5 (ER16 (Ø20), ER16M (Ø26))		
	Speed (rpm)	6,000		
	Motor (kW)	1.0 (Fanuc), 1.02 (Siemens)		
Off-Center Drill (Option)	No. of Tools	2 (ER16) Modular		
Sub Spindle	Speed (rpm)	8,000		
	Motor (kW)	2.2/3.7 (Fanuc), 14.4 (Siemens)		
Back Tool	No. of Tools	8 (ER16) (4 Fixed + 4 Drvien)		
	Speed (rpm)	6,000		
	Motor (kW)	1.0 (Fanuc), 1.02 (Siemens)		
Machine Size (L x W x H) (mm)		2,460 x 1,380 x 1,730		
Weight (kg)		2,900		
Power Consumption (Cable Size) *		4kVA (Rated : 7.7kVA) (10SQ)		
Air Flow Rate (Liter/Min)		120 ~ 150		

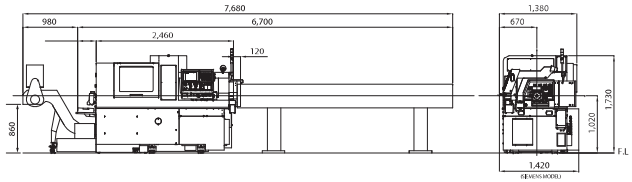
* Based on Stainless Steel. May vary depending on machining condition.
* **H** : G/B, **N** : Non-G/B, **NH** : Convertible G/B

OPTION TOOLING



- Ultimate tooling capability with B-axis and Y2-axis
- Minimized thermal deformation with cooling system on cross drilling/milling unit
- Poweful built-in motor for main & sub-spindle (2.2/3.7kW(Fanuc), 14.4kW(Siemens))

Dimension



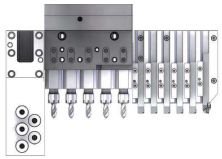
Option Tooling

Complex & productive machining for multi-shape parts with B-axis cross tooling and Y2-axis back tooling

Cross Drilling / Milling Unit

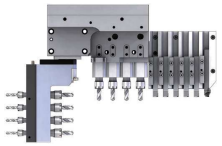
- Cross unit with gear modular type for various tooling and an easy tool change / maintenance
  ※ Various option tool units : Triple speed rotating drill, Internal coolant-driven tool, 3 Face / counterface-driven tool, 3 Face / counterface angle-driven tool

Option Specification



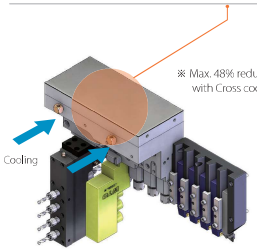
Cross unit 5
- OD 6 (□12)
- Cross 5 (ER16)
- Front 5 (ER16M)

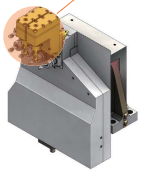
※ for XD20II-V



B-axis Cross unit
- OD 6 (□12)
- Cross 4 (ER16)
- B-axis 4 (ER16 x 4, ER11 x 4)

※ for XD20II-V





Back Tool Unit

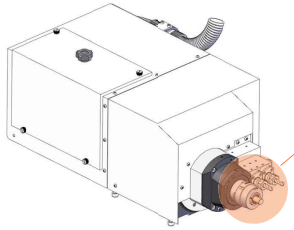
- Y2-axis tool post for flexible tooling
- Stable machining with enhanced structure & a powerful motor

Option Tool

Internal coolant driven tool

Back tool cross unit (Single body)

Back tool cross unit (Modular)



Sub Spindle & Off-Center Unit

- Built-in motor on sub-spindle for a precision machining
  ※ 2 Off-Center Drill (Driven, Fixed) available

Feature		Value
Sub-Spindle Unit	Max. Machining Diameter	Ø20/26 mm
	Rotation Speed	8,000 rpm
	Motor	2.2/3.7 kW (Fanuc) 14.4 kW (Siemens)
Off-Center Drill Unit (Option)	Drill	2 (ER16)
	Type	Gear Modular

Standard

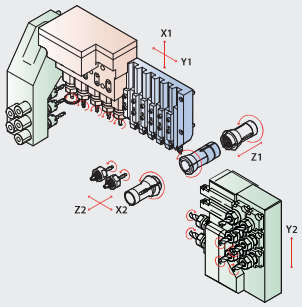
- Main · Sub Cs control (0.001°)
- Rotary Guide bush holder
- Cross drilling · milling unit (5, Gear modular type)
- MPG
- Part conveyor
- Door interlock
- Coolant flow sensor
- Work light
- Signal lamp (3color)
- LAN port
- Tool monitoring function
- Cut-off tool breakage detector (S/W)
- Auto power-off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

XD20/26III

The 3rd generation of Ø20/26,
equipped with a powerful back tool unit (Y2)

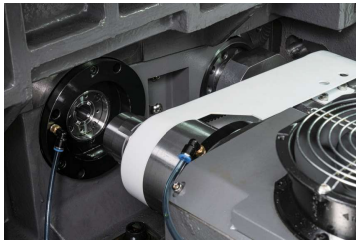


Model		XD20/26III
		NH
NC		Hanwha Fanuc i / Siemens 828D
Max. Machining Diameter (mm)		Ø20/26
Z1 Stroke (mm)		H : 240, N : 60 (Ø20), 80 (Ø26)
Chuck G/B	Main / Sub / Guide	Ø20 : TF25 / TF25 / TD25-NS Ø26 : TF32 / TF32 / CD25
Main Spindle	Speed (rpm)	10,000 (Ø20), 8,000 (Ø26)
	Motor (kW)	Fanuc : 2.2/3.7 (Ø20), 2.2/5.5 (Ø26) Siemens : 16
OD Tool	No. of Tools	6 (□12mm) (Ø20), 5 (□16mm) (Ø26)
Front Tool	No. of Tools	5 (ER16M, Ø25)
Cross Drill	No. of Tools	5 (ER16) (Ø20), 5 (ER16M) (Ø26)
	Speed (rpm)	6,000
	Motor (kW)	1.0 (Fanuc), 1.02 (Siemens)
Off-Center Drill (Option)	No. of Tools	2 (ER16)
Sub Spindle	Speed (rpm)	8,000
	Motor (kW)	1.5/2.2 (Fanuc) , 2.59 (Siemens)
Back Tool	No. of Tools	8 (ER16) (4 fixed + 4 driven)
	Speed (rpm)	8,000
	Motor (kW)	1.0 (Fanuc), 1.02 (Siemens)
Machine Size (L x W x H) (mm)		2,460 x 1,290 x 1,750
Weight (kg)		3,000
Power Consumption (Cable Size) *		5.3kVA (Rated : 9kVA) (10SQ)
Air Flow Rate (Liter/Min)		120 ~ 150

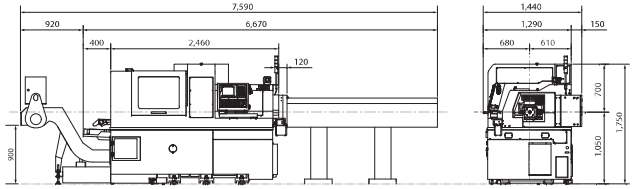
* Based on Stainless Steel. May vary depending on machining condition.

ADVANTAGES

- Optimized & flexible machining for both long and short workpiece with a convertible guide bush unit. (standard)
- Extended stroke of Z1 240mm with a guide bush.

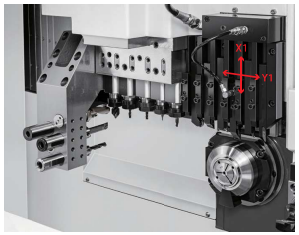


Dimension



Enhanced Machining Performance

Upgraded structure and performance with a wide range of options

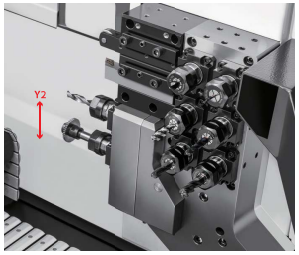


Cross Drilling / Milling Unit

- Improved cross machining performance with an increased cross tools
- More powerful cutting with an enhanced motor power (option)

Standard Specification
- 5 cross drills (ER16)
- Motor power : 1.0kW (Fanuc), P1.02kW (Siemens)
- The same cross-drill modular with XD20/26II

Option Specification
Powerful cross motor
- 5 cross drills (ER16)
- Motor Power : 2.2kW (Fanuc)
- The same cross-drill modular with XD20/26II



Back Tool Unit

- Y2-axis 8 back tool / Y2-axis back cross tool

Back cross tools
- 6 back tools (4 driven, 2 fix)
  3 turning (□12) (Ø20) or
  2 turning (□16) (Ø26)
- Motor Power : 1.0kW (Fanuc), 1.02kW (Siemens)
- Gear-driven modular

8 back tools
- 4 fixed, 4 driven (ER16)
  ※ Option : Max 8 driven (ER16)
- Motor Power : 1.0kW (Fanuc), 1.02kW (Siemens)
- The same back modular with XD20/26II
- Gear-driven modular

Sub-Spindle & Off-Center Unit

- Motor-driven, off-center drill sub-spindle

Option Specification
2 off-center drill (ER16)
- Motor Power : 1.5/2.2kW (Fanuc), 2.59kW (Siemens)
- Gear-driven one body type

Standard

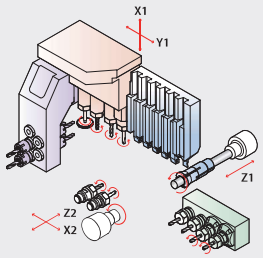
- Main Sub Cs control (0.001°)
- Rotary Guide bush holder
- Cross drilling · milling unit (5, Gear modular type)
- MPG
- Part conveyor
- Door interlock
- Coolant flow sensor
- Work light
- Signal lamp (3color)
- LAN port
- Tool monitoring function
- Cut-off tool breakage detector (S/W)
- Auto power-off
- 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 with max. Ø20/26mm

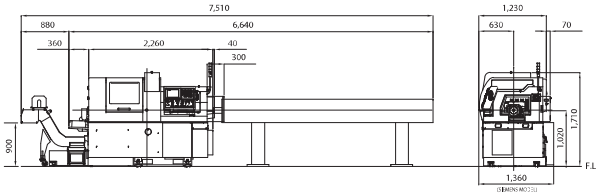


Model		XD20/26II			
		H	N	NH	M
NC		Fanuc 32i-B / Siemens 828D			
Max. Machining Diameter (mm)		Ø20/Ø26			
Z1 Stroke (mm)		210 (Fanuc), 240 (Siemens)	60mm	160 (H), 50 (N)	210
Chuck G/B	Main / Sub / Guide	Ø20 : TF25 / TF25 / TD25-NS Ø26 : TF32 / TF32 / CD25			
Main Spindle	Speed (rpm)	10,000 (Ø20), 8,000 (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			
	Motor (kW)	Fanuc : 1.0, Siemens : 1.02			
Off-Center Drill (Option)	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) *		2.5kVA (Rated : 6.9kVA) (10SQ)			
Air Flow Rate (Liter/Min)		120 ~ 150			

* Based on Stainless Steel. May vary depending on machining condition.
* **H** : G/B, **N** : Non-G/B, **NH** : Convertible G/B, **M** : Cross 5-axis+Long drills

- Maximized tooling capability with various customizable options
- The best-suited for a precision and accuracy

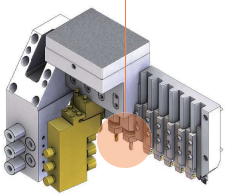
Dimension



Option Tooling

Offers a wide range of flexible tooling for a higher productivity and to cover customer's needs

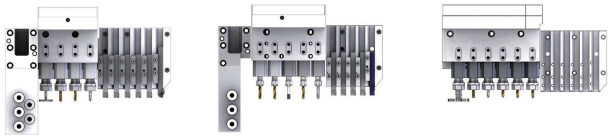
Option Tool Layout



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)

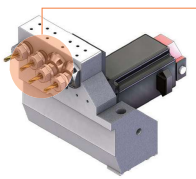


Off-Center Unit

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

Option tool

Long drill | Internal coolant-driven tool | Tailstock



Back Tool Unit

- Total of 6 tools as an option & a modular type for an easy tool change / maintenance

Option Unit | **Option Tool**

1 ~ 2 drills

Attachable fixed drill unit | Internal coolant driven tool | Back and cross tool | Burr removal

Choice of Back Tool Modules
Max. 4 (driven)

4 tools | 5 tools | 6 tools

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

Standard

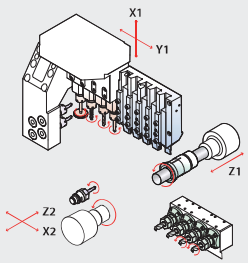
- Main-Sub Cs control (0.001°)
- Rotary Guide bush holder
- Cross drilling · milling unit (4, Gear modular type)
- MPG
- Part conveyor
- Door interlock
- Coolant flow sensor
- Work light
- Signal lamp (3color)
- LAN port
- Tool monitoring function
- Cut-off tool breakage detector (S/W)
- Auto power-off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

XE35

Reliable 5-axis model with max. Ø35mm



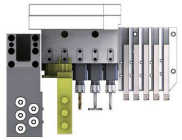
Model		XE35	
		H	N
NC		Hanwha Fanuc-i	
Max. Machining Diameter (mm)		Ø35	
Z1 Stroke (mm)		210	60
Chuck G/B	Main / Sub / Guide	HW35 / HW35 / TD45	
Main Spindle	Speed (rpm)	6,500	
	Motor (kW)	2.2/5.5	
OD Tool	No. of Tools	5 (□16mm)	
Front Tool	No. of Tools	4 (ER16M, Ø25)	
Cross Drill	No. of Tools	4 (ER16M)	
	Speed (rpm)	6,000	
	Motor (kW)	1.0	
Off-Center Drill (Option)	No. of Tools	1 (ER16)	
Sub Spindle	Speed (rpm)	6,500	
	Motor (kW)	1.5/2.2	
Back Tool	No. of Tools	4 (ER16) (2 Fixed + 2 Driven)	
	Speed (rpm)	6,000	
	Motor (kW)	1.0	
Machine Size (L x W x H) (mm)		2,050 x 1,490 x 1,760	
Weight (kg)		2,750	
Power Consumption (Cable Size) *		2.2kVA (Rated : 6.9kVA) (10S)	
Air Flow Rate (Liter/Min)		120 ~ 150	

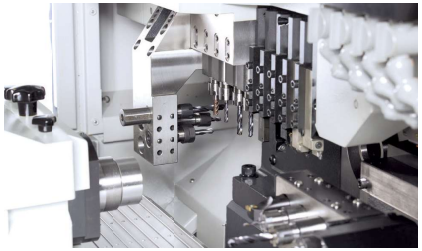
* Based on Stainless Steel. May vary depending on machining condition.
* **H** : G/B & Driven back tool(2), **J** : G/B & Fixed back tool
* **N** : Non-G/B & Driven back tool(2), **Ne** : Non-G/B & Fixed back tool

OPTION TOOLING

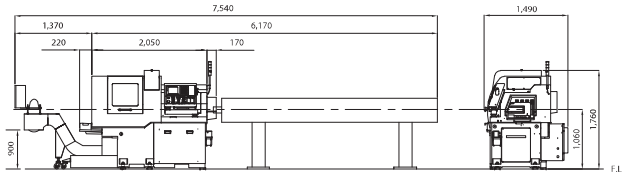
Cross Unit 5
- OD 5 (□12)
- Cross 5 (ER16M)
- Front 5 (ER16M)

※ Cross (standard): Spline modular type
※ Option : 3 Face/counterface-driven tool,
3 Face/counterface angle-driven tool



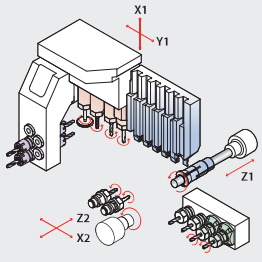


Dimension



XE20/26

Reliable 5-axis model with max. Ø20/26mm

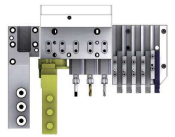


Model		XE20/26	
		H	NH
NC		Hanwha Fanuc-i	
Max. Machining Diameter (mm)		Ø20/26	
Z1 Stroke (mm)		210	160 (H), 50 (N)
Chuck G/B	Main / Sub / Guide	Ø20 : TF25 / TF25 / TD25-NS Ø26 : TF32 / TF32 / CD25	
Main Spindle	Speed (rpm)	10,000 (Ø20), 8,000 (Ø26)	
	Motor (kW)	2.2/3.7 (Ø20), 2.2/5.5 (Ø26)	
OD Tool	No. of Tools	6 (□12mm) (Ø20), 5 (□16mm) (Ø26)	
Front Tool	No. of Tools	5 (ER16M, Ø25)	
Cross Drill	No. of Tools	4 (ER16)	
	Speed (rpm)	6,000	
	Motor (kW)	1.0	
Off-Center Drill (Option)	No. of Tools	2 (ER16)	
Sub Spindle	Speed (rpm)	8,000	
	Motor (kW)	1.5/2.2	
Back Tool	No. of Tools	4 (ER16) (2 Fixed + 2 Driven)	
	Speed (rpm)	6,000	
	Motor (kW)	1.0	
Machine Size (L x W x H) (mm)		2,260 x 1,240 x 1,670	
Weight (kg)		2,500	
Power Consumption (Cable Size) *		2.2kVA (Rated : 6.9kVA) (10SQ)	
Air Flow Rate (Liter/Min)		120 ~ 150	

* Based on Stainless Steel. May vary depending on machining condition.
* **H** : G/B & Driven back tool(2), **J** : G/B & Fixed back tool
* **N** : Non-G/B & Driven back tool(2), **Ne** : Non-G/B & Fixed back tool, **NH** : Convertible G/B & Driven back tool(2)

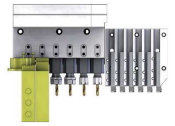
OPTION TOOLING

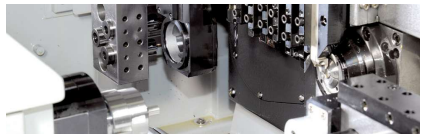
Cross Unit 5
- OD 5 (□16)
- Cross 5 (ER16M)
- Front 3 (ER16M)



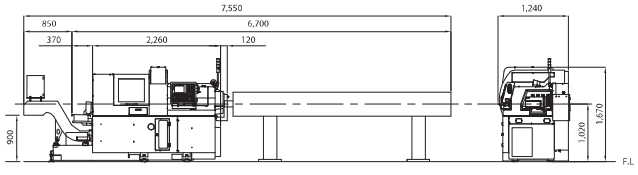
Cross Unit 6
- OD 6 (□16 x 1 + □11 x 5)
- Cross 6 (ER11M x 2, ER16 x 4)

※ Option : 3 Face/counterface-driven tool,
3 Face/counterface angle-driven tool



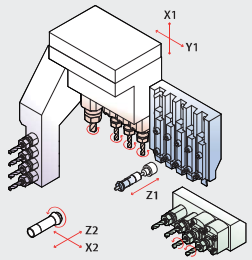


Dimension



XD16III

High-speed 5-axis solution for max. Ø16mm



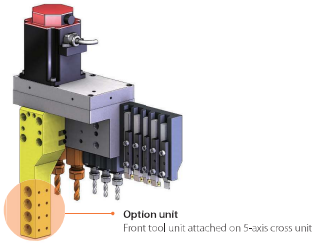
Model		XD16III	
		H	J
NC		Hanwha Fanuc-i	
Max. Machining Diameter (mm)		Ø16	
Z1 Stroke (mm)		155	
Chuck G/B	Main / Sub / Guide	TF22 / TF22 / TD20R	
Main Spindle	Speed (rpm)	15,000	
	Motor (kW)	2.2/3.7	
OD Tool	No. of Tools	5 (□12mm)	
Front Tool	No. of Tools	4 (ER11, Ø20)	
Cross Drill	No. of Tools	4 (ER11 x 3 + ER16 x 1)	
	Speed (rpm)	6,000(ER16), 9,000(ER11)	
	Motor (kW)	1.0	
Long Drill (Option)	No. of Tools	1 (ER11) drilling depth : 76.5mm	
Sub Spindle	Speed (rpm)	10,000	
	Motor (kW)	0.55/1.1	
Back Tool	No. of Tools	4 (ER11) (2 Fixed + 2 Driven)	4 (ER11) (4 Fixed)
	Speed (rpm)	9,000	-
	Motor (kW)	1.0	-
Machine Size (L x W x H) (mm)		1,700 x 1,190 x 1,670	
Weight (kg)		2,200	
Power Consumption (Cable Size) *		1.8VA (Rated : 5.6kVA) (10SQ)	
Air Flow Rate (Liter/Min)		120 ~ 150	

* Based on Stainless Steel. May vary depending on machining condition.
* H : G/B & Driven back tool(2), J : G/B & Fixed back tool

OPTION TOOLING

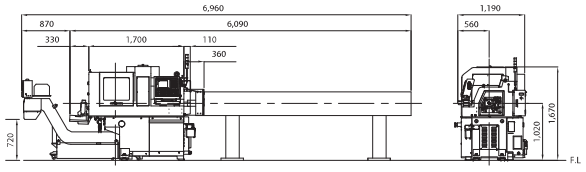
Cross Unit 5 (modular 2)

- ER11 x 3, Modular ER16 x 2



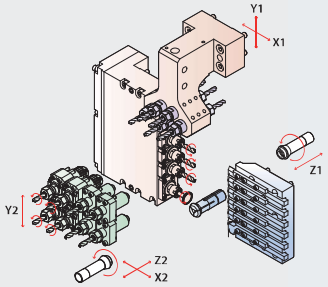
- Fast cycle time
- High speed spindle (Main : 15,000 rpm, Sub : 10,000 rpm)
- Great machining performance with a strong motor power on back tool (Capacity : 1.0 kW)

Dimension



XD10II

High productivity & precision 5/6-axis solution for max. Ø10mm



Model		XD10II
NC		Hanwha Fanuc-i
Max. Machining Diameter (mm)		Ø10
Z1 Stroke (mm)		155
Chuck G/B	Main / Sub / Guide	TF16 / TF16 / SD125R
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
Cross Drill	No. of Tools	ER11M x 4 (Option: ER11M x 5)
	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 970 x 1,850
Weight (kg)		2,200
Power Consumption (Cable Size) *		1.8kVA (Rated : 5.6kVA) (10SQ)
Air Flow Rate (Liter/Min)		120 ~ 150

* Based on Stainless Steel. May vary depending on machining condition.

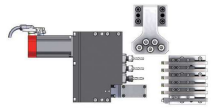
OPTION TOOLING

Whirling Tool

- ER11M x 2
- Modular Whirling x 1

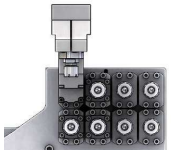
Cross Unit 4 (Modular 1)

- ER11M x 3
- Modular ER11M x 1



Back Tool 8 (Max. 4/Driven)

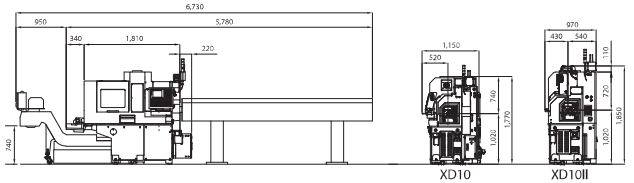
- ER11 x 8



Back Tool 4 (Max. 4/Driven)

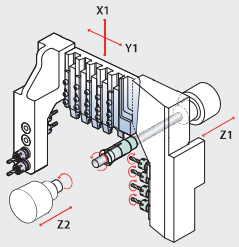
- ER11 x 4

Dimension



XP20/26/32S

Compact, cost-efficient 4-axis model
for max. Ø20/26/32mm (with a side cross tool)



Model		XP20S	XP26S	XP32S
NC		Hanwha Fanuc-i		
Max. Machining Diameter (mm)		Ø20	Ø26	Ø32
Z1 Stroke (mm)		210	205	
Chuck G/B	Main / Sub / Guide	TF25 / TF25 / TD25NS		
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) *		2.2VA (Rated : 4.7kVA) (10SQ)	2.2VA (Rated : 9.5kVA) (16SQ)	
Air Flow Rate (Liter/Min)		120 ~ 150		

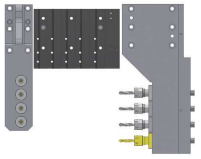
* Based on Stainless Steel. May vary depending on machining condition.

OPTION TOOLING

Cross Unit 4 (1 modular)

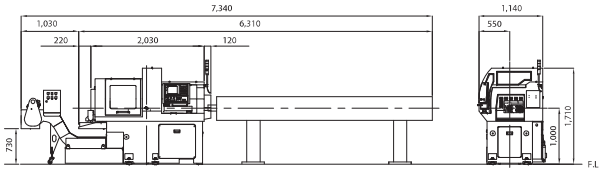
- ER16M x 4

※ Cross (standard) : Non-modular



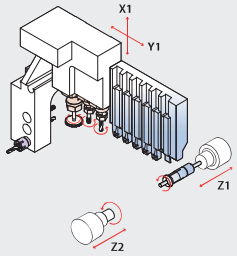
- Perfect for an old cam lathe user who seek a higher precision and productivity
- A long-runner with a proven record of performance & production quality

Dimension



XP12/16S

Compact & cost efficient 4-axis model
for max. Ø12/16mm



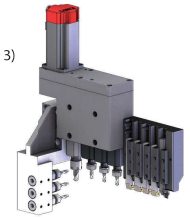
Model		XP12S	XP16S
NC		Hanwha Fanuc-i	
Max. Machining Diameter (mm)		Ø12	Ø16
Z1 Stroke (mm)		140	
Chuck G/B	Main / Sub / Guide	Ø12 : TF16 / TF16 / SD125R	
		Ø16 : TF22 / TF22 / TD20R	
Main Spindle	Speed (rpm)	12,000	
	Motor (kW)	2.2/5.5	
OD Tool	No. of Tools	6 (□12mm)	
Front Tool	No. of Tools	3 (ER11, Ø20)	
Cross Drill	No. of Tools	3 (ER11 x 2, ER16 x 1)	
	Speed (rpm)	6,000	
	Motor (kW)	0.5	
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) *		1.8VA (Rated : 3.9kVA) (10SQ)	
Air Flow Rate (Liter/Min)		120 ~ 150	

* Based on Stainless Steel. May vary depending on machining condition.

OPTION TOOLING

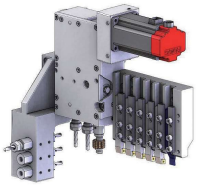
Cross Unit 4

- OD 5 (□12)
- Cross 4 (ER16 x 1, ER11 x 3)
- Front 3 (ER11)

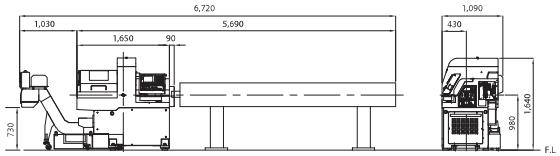


Gear-Hobbing Unit

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



Dimension



Options

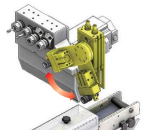
Your customizable choice in option units to enhance performance, productivity and convenience

Standard & Option Accessory			STL42	STL38	XDI32	XD42	XD38III	XD38II-R	XD38II	XD20/26II-V	XD20/26III		XM20	XD20/26II	XD16III	XD10II	XE35	XE20/26	XP20/26/32S	XP12/16S
Off-cent unit	Driven(2)		-	-	★	★(1)	★	★	★	★	★		N/A	★	-	-	★(1)	★	-	-
	Fixed (Long drill, 2)		-	-	★	-	★(1)	★(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	★	★	▲	★	★	★	★	★	★		★(4x Speed)	★	★(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)	Vertical(Y2)	-	-	★	★	★	★	★	★	▲		★	-	-	★	-	-	-	-
		Horizontal	-	-	★	★	★	★	★	★	▲		-	★	-	▲	★	★	-	-
Option Unit	B-axis cross unit		-	-	★	-	-	-	-	★	-		Standard	-	-	-	-	-	-	-
	Back tool cross unit		★(Y3)	-	Standard	-	☒	-	-	★	★		-	-	-	▲	-	-	-	-
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 grip and release finished parts onto the conveyor belt for ejection
- Application Example : Vulnerable material, Long parts

• XD20/26III, XD38II, XD42, XE20/26

Auto-Loading Parts Unit

Auto loader for a forged or diecasted part to supply via the main spindle door

• XD20/26III, XD38II, XD42, XE20/26

Auto-Stacking Unit for Machined Parts

Auto-loader for ejected parts onto the stacking pallet

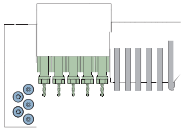
• XD38II

Tooling Variation

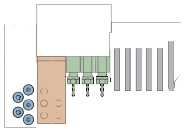
XD20/26III

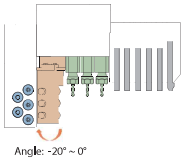
- Front/Back Tool
- Cross Drill
- Special Option Tool
- OD Tool

5-axis Cross



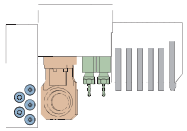
3-axis Face Drilling





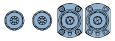
Angle: -20° ~ 0°

Whirling Unit

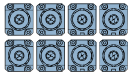


Back Tool Option Unit

Back Tool 4

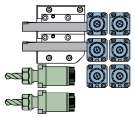


Back Tool Y2



Back Tool Y2 Cross

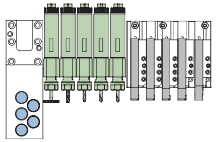
- XD20III : Front 12 x 12 3EA
- XD26III : Front 16 x 16 2EA



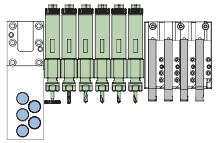
XD38II

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

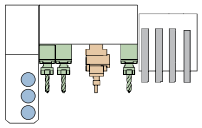
Cross 5



Cross 6



Fixed Angle Drilling



• Angle will be set as per requested

Back Tool Option Unit (Y2)

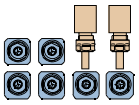
※ When a special tool is installed, the back tool unit should have max. 4 tools
※ Back tool option is available on both 6(Y2) and 8(Y2)

Fixed Angle Drilling

• Angle will be set as requested

Back Tool Cross

(Modular, Single body)



Hi-CPS Hanwha Intelligence CNC Prognostic System

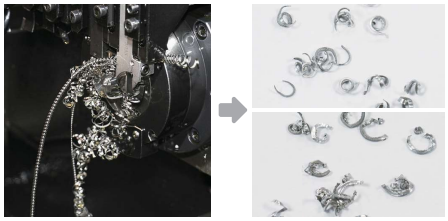
- Enable customers to manage factory in a smart & convenient way by providing a real-time monitoring on machine status
- Based on a Cloud system for an easier access with a simple internet service

Man Power & Cost Reduction	Management Efficiency Increase	Productivity & Quality Increase	Minimize Down time
MONITORING Possible to monitor and control all machines in real-time away from the production line with a PC & Mobile devices	**DIAGNOSIS** A simple click on "Request for Diagnosis" to request S/W alarm diagnostics - no need to make an additional report	**PROGNOSIS** A remote control to input offset value, transfer and modify programs without a direct access to the machine	**PRE-NOTIFY** Minimize machine down-time with forecasted notification before a machine stop from a simple tool wearing-off or an error

PCR III Programmable Chip Removal

Hanwha's Chip Control Technology

- Solves chip troubles from spiraling, entangling or piling-up around cutting tool edges
- Enhanced quality of machined surface with the finishing mode



Without PCR III applied

With PCR III

Advantage

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

Applied Process

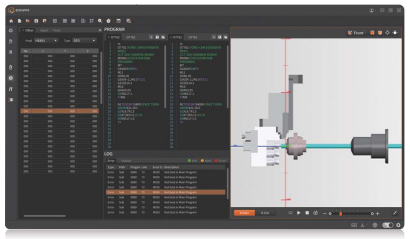
- Front turning, drilling & boring
- Back turning, drilling
- Taper, circular interpolation
- Synchronous control
- Threading
- Nose R compensation

PG Solution

Series of S/W solutions to support 3D Simulators, NC Programming, as well as, the overall production management, for an enhanced production experience.

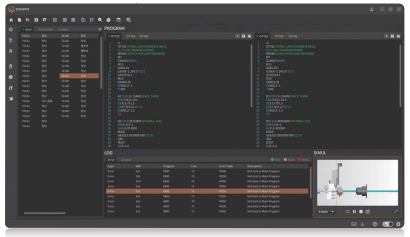
3D Processing Simulation
- Realistic, Accurate and Reliable

- Simulation based on the same tool layout and machining condition to actual operation
- Possible to prevent collision before performing actual job through accurate simulation
- Verifies with virtual machined parts identical to real products to produce



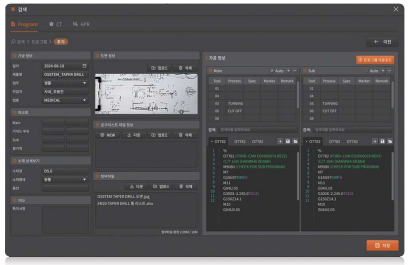
NC Programming Guide
- Easy-to-Use, Quick and Convenient

- Quick & Easy NC program creation
- Pre-check minimizes errors and saves time by validating process
- Possible to estimate 'Cutting-Time(CT)' before actual machining

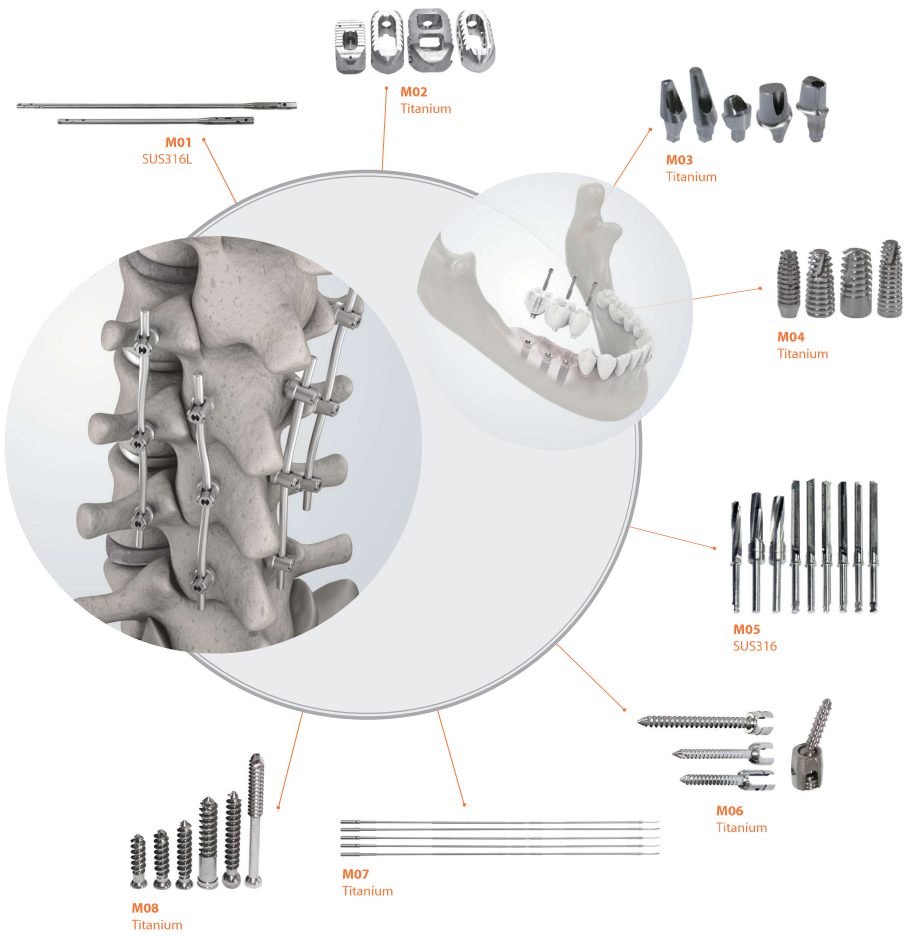


Production Data Management
- Simple, Efficient and Secure

- Store and manage drawings, programs, tools, and option lists
- Quick & Easy access on previous production data to bench-mark
- Optimize machining condition based on reference production data

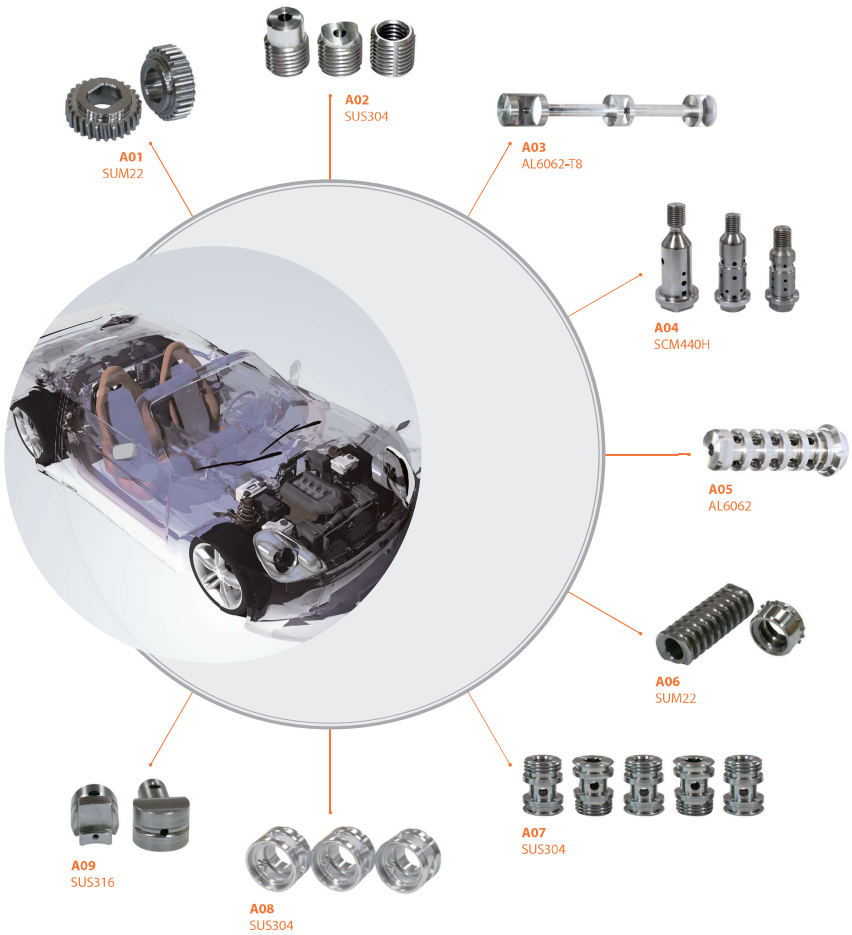


Medical



Electronic

Automobile



Industrial