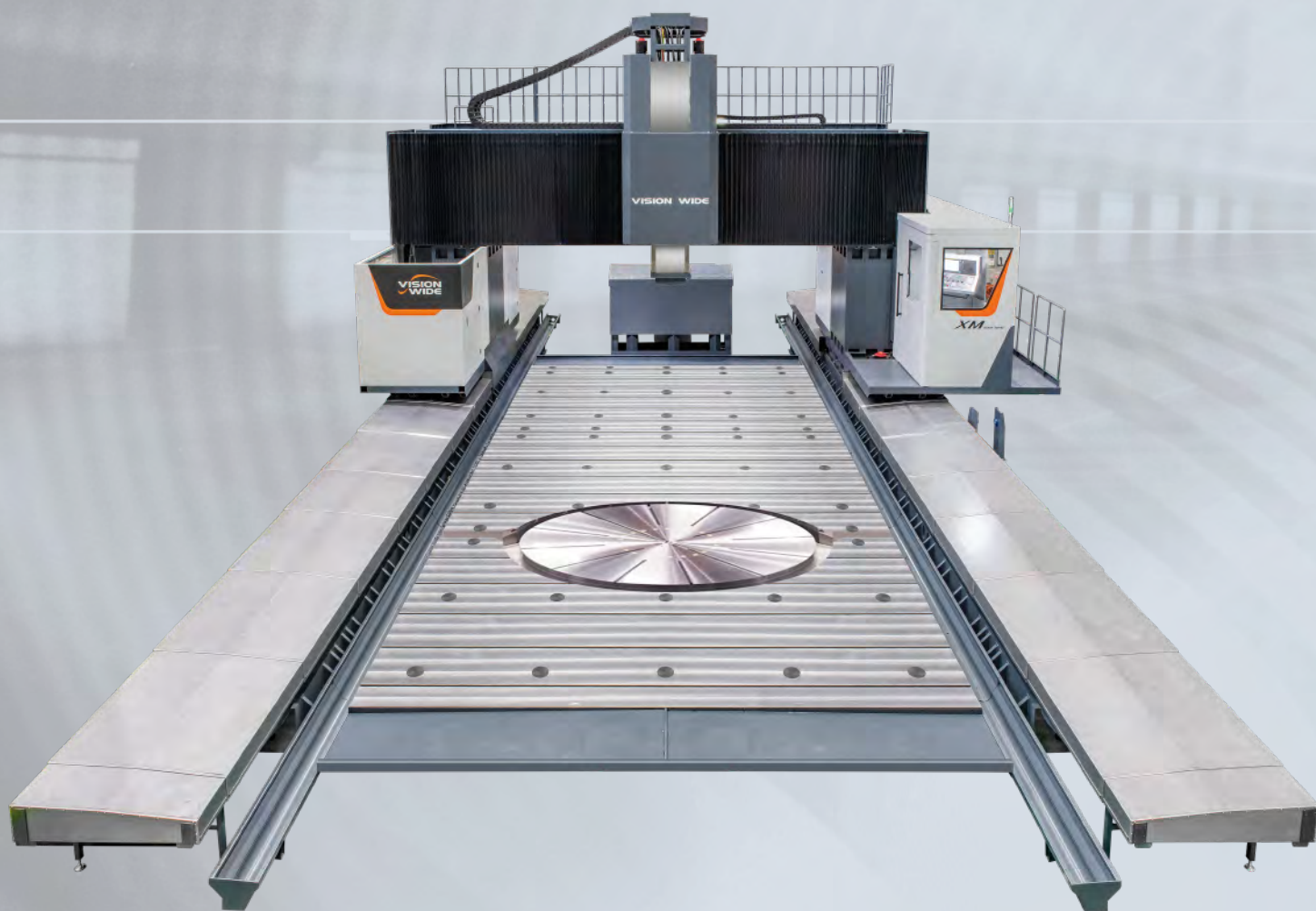


XM/XML

SERIES

Extremely Mighty Machining Center



Huge Workpiece
Machining Space.
Excellent Moving Column
Positioning Accuracy.
Fully Automatic Multi-face
Machining.

- High torque spindle with heavy cutting capability.
- Fully automatic tool changer.
- Friendly operation.
- Milling and turning compound solution.
- Straightness 0.02mm/ 20m structural machining equipment.

Multi-Angel
Machining



XM Specification

Model	Unit	XM-32	XM-37	XM-42
Travel				
X axis	mm	8,200~60,200 (Per meter added is one specification.)		
Y axis	mm	3,200	3,700	4,200
Z axis	mm	1,000 / 1,200(Opt.) / 1,400(Opt.)		
Distance from spindle nose to table	Ram size	mm	470 x 460	
	Z axis=1,000(STD)	mm	750~1,750	
	Z axis=1,200	mm	750~1,950	
	Z axis=1,400	mm	750~2,150	
Distance between columns (Distance between X axis cover)	mm	3,120 (2,700)	3,620 (3,200)	4,120 (3,700)
Table				
Table size (Y direction x X direction)	m	2.5 x (8~60)	3 x (8~60)	3.5 x (8~60)
T-slot (width x pitch)	mm	28 x 500		
Max. table load	kg/m ²	5,000		
Spindle				
Spindle speed	2-step gear	rpm	4,000 / 6,000(Opt.)	
	Built-in driven	rpm	8,000(Opt.) / 12,000(Opt.)	
Spindle power (cont. / 30 min.)	kW	22 / 26		
Spindle taper	-	BBT-50		
Feed				
Cutting feed rate	mm/min	1~10,000		
Rapid traverse (X/Y/Z)	m/min	20 / 20 / 12		
3 axes motor power (FANUC) (X/Y/Z)	kW	4.5 x 4 / 4.5 / 4.5 x 2		
ATC				
Tool magazine capacity	pcs	32 / 40(Opt.) / 60(Opt.)		
Max. tool diameter (full / next pockets empty)	mm	Ø125 / Ø250		
Max. tool length	mm	450		
Max. tool weight	kg	20		
Tool shank	-	BBT-50		
Pull stud	-	P50T-1		
General				
Power requirement	kVA	60		
Pneumatic requirement	kg/cm ²	6		
Machine net weight	kg	68,000	73,000	78,000
Floor space (L x W x H) *	m	17 x 8.8 x 5.1	17 x 9.3 x 5.1	17 x 9.8 x 5.1

* Floor space: X axis travel is set as 8,200 mm and Z axis travel is set as 1,500 mm.

* For details, please refer to Machine Specification.

* The manufacture reserves the right to modify the design, specifications mechanism, etc.

XML Specification

Model	Unit	XML-37	XML-42	XML-47	XML-57
Travel					
X axis	mm	8,200~60,200 (Per meter added is one specification.)			
Y axis	mm	3,700	4,200	4,700	5,700
Z axis	mm	1,500 / 2,000(Opt.) / 2,200(Opt.)			
Distance from spindle nose to table	Ram size	mm	580 x 580		
	Z axis=1,500(STD)	mm	850~2,350		
	Z axis=2,200	mm	850~2,850		
	Z axis=2,200	mm	850~3,050		
Distance between columns (Distance between X axis cover)	mm	4,050 (3,600)	4,550 (4,100)	5,050 (4,600)	6,050 (5,600)
Table					
Table size (Y direction x X direction)	m	3 x (8~60)	3.5 x (8~60)	4 x (8~60)	5 x (8~60)
T-slot (width x pitch)	mm	28 x 500			
Max. table load	kg/m ²	5,000			
Spindle					
Spindle speed	2-step gear	rpm	4,000 / 6,000(Opt.)		
	Built-in driven	rpm	8,000(Opt.) / 12,000(Opt.)		
Spindle power (cont. / 30 min.)	kW	22 / 26			
Spindle taper	-	BBT-50			
Feed					
Cutting feed rate	mm/min	1~10,000			
Rapid traverse (X/Y/Z)	m/min	20 / 20 / 12			
3 axes motor power (FANUC) (X/Y/Z)	kW	4.5 x 4 / 5.5 / 14 x 2			
ATC					
Tool magazine capacity	pcs	32 / 40(Opt.) / 60(Opt.)			
Max. tool diameter (full / next pockets empty)	mm	Ø125 / Ø 250			
Max. tool length	mm	450			
Max. tool weight	kg	20			
Tool shank	-	BBT-50			
Pull stud	-	P50T-1			
General					
Power requirement	kVA	80			
Pneumatic requirement	kg/cm ²	6			
Machine net weight	kg	95,000	100,000	105,000	110,000
Floor space (L x W x H) *	m	17 x 10.2 x 6.9	17 x 10.7 x 6.9	17 x 11.2 x 6.9	17 x 12.2 x 6.9

* Floor space: X axis travel is set as 8,200 mm and Z axis travel is set as 1,500 mm.

* For details, please refer to Machine Specification.

* The manufacture reserves the right to modify the design, specifications mechanism, etc.

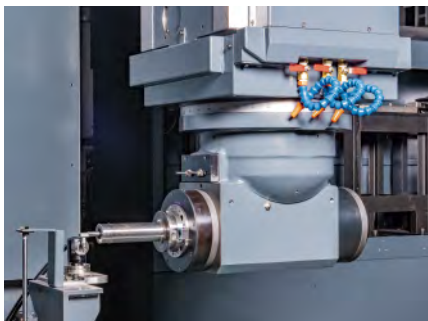
XM/XML SERIES

Standard Accessory & Function

- 1 FANUC 0iMF Plus Controller
- 2 4,000 rpm 2-step gear type spindle
- 3 Spindle cooling system
- 4 Z axis travel 1,000 mm
(enclosed box ram) /XM series only
Z axis travel 1,500 mm
(enclosed box ram) /XML series only
- 5 X axis dual linear scale
- 6 Z axis linear scale
- 7 Y axis ball screw supporting device
- 8 Vertical type tool magazine 32 tools
- 9 Centralized auto lubrication system
- 10 Independent lubrication oil collector for 3 axes
- 11 Air blast through spindle
- 12 Wash gun & pneumatic interface
- 13 Cutting coolant system
- 14 Sheet metal guard (four-piece type)
- 15 Confrontable operation room
- 16 Wireless manual pulse generator
- 17 Screw type chip conveyor on table sides
- 18 Steel belt chip conveyor / coolant tank
- 19 Air conditioner for electrical cabinet
- 20 Working lamp
- 21 Operation cycle finish and alarm light
- 22 Footswitch for tool clamping
- 23 RJ45 interface
- 24 X/Y/Z axis travel hard limits protection
- 25 Auto power off
- 26 Spindle overloading protected by software
- 27 Remote monitoring software (standard)
- 28 Vision Wide FX graphical user interface
(only for FANUC Controller)
- 29 Foundation pads and bolts kits
- 30 Adjustment tool and tool kits
- 31 Technical manuals
(operation, maintenance manual and circuit diagram)

Optional Accessory & Function

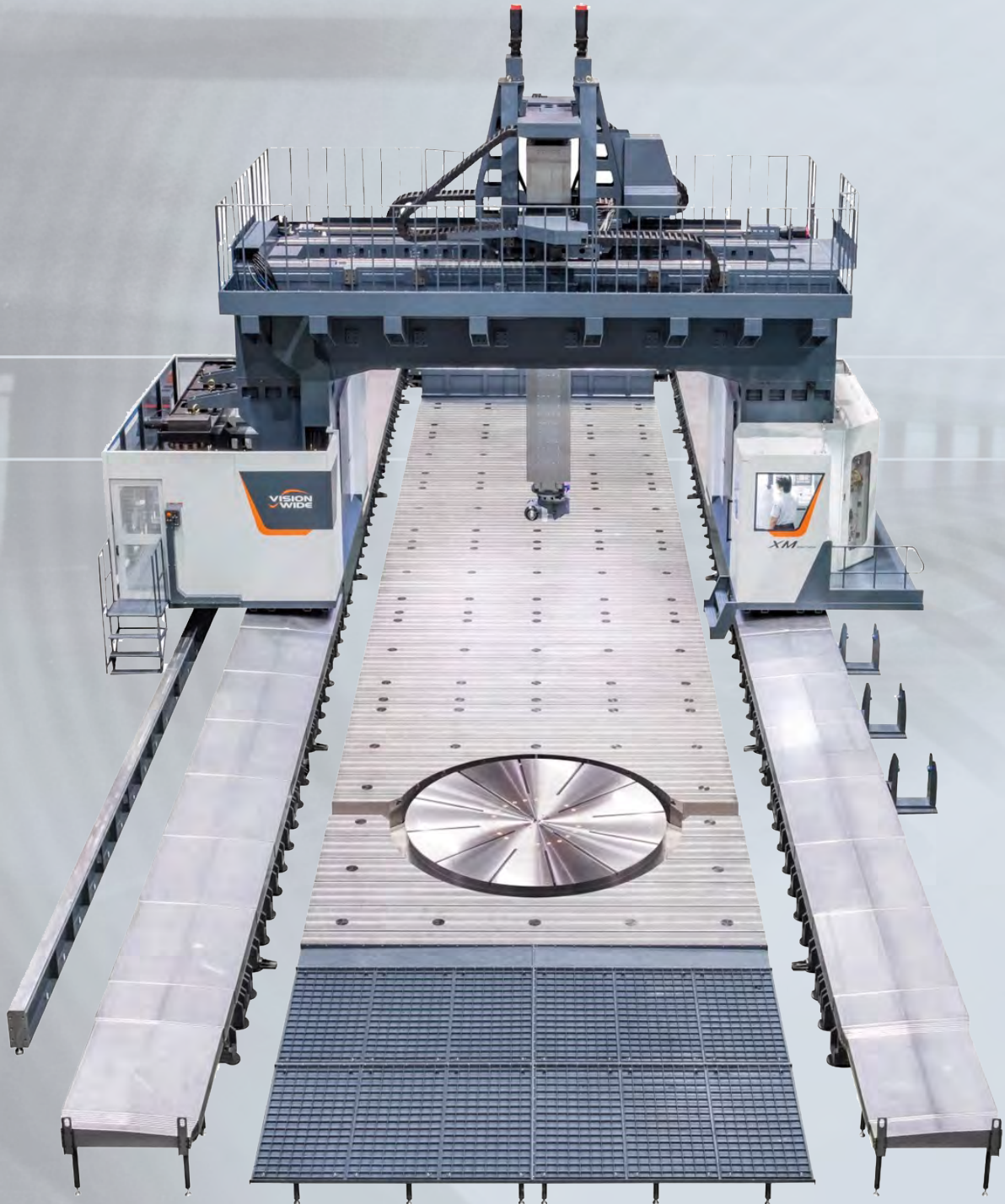
- 1 FANUC 31iB / HEIDENHAIN TNC 640 /
SIEMENS ONE Controller
- 2 6,000 rpm 2-step gear spindle
- 3 8,000 rpm built-in spindle
- 4 12,000 rpm built-in spindle
- 5 Z axis travel 1,200 / 1,400 mm
(enclosed box ram) /XM series only
- 6 Z axis travel 2,000 / 2,200 mm
(enclosed box ram) /XML series only
- 7 Y axis linear scale
- 8 Without tool magazine
- 9 Vertical type tool magazine 40 / 60 tools
- 10 Vertical-horizontal type tool magazine 32 / 40 / 60 tools
- 11 Coolant through spindle system 20 / 70 bar
- 12 Oil skimmer
- 13 Oil mist cooling device (MQL)
- 14 Spindle ring cutting coolant device
(vertical spindle / for no head attachment)
- 15 Tool axis retract function at power failure
- 16 Helical blade screw conveyor on table sides
- 17 Chip cart
- 18 Sub working table
- 19 Auto workpiece measurement
- 20 Auto tool measurement
- 21 Movable operation panel
- 22 Interface reserved for fourth axis
(hydraulic device and electrical interface)
- 23 Transformer
- 24 AC attachment head
- 25 Multi-heads magazine
- 26 Anti-collision and process simulation software
- 27 Remote monitoring software (professional)



XMF / XMS

SERIES

Extremely Mighty Machining Center



Traveling Column Huge-Scale & Multi-Angle Machining Center

- Huge workpiece machining space.
- Excellent moving column positioning accuracy.
- High torque spindle with heavy-duty capability.
- Fully automatic tool changer.
- Fully automatic multi-face machining.
- Friendly operation interface.
- Milling and turning compound solution.
- Thermal friendly Box-in-Box cross beam.
- High geometric accuracy.

Multi-Angel
Machining



XMF Specification

MODEL	Unit	XMF-42	XMF-47	XMF-52	XMF-57
TRAVEL					
X axis	mm	8,200(+1m)~60,200			
Y axis	mm	4,200	4,700	5,200	5,700
Z axis	mm	2,500 / 3,000(OPT.)			
Distance from spindle nose to table	Ram size	680x680			
	Z axis=2,500	500~3,000			
	Z axis=3,000	500~3,500			
Max. workpiece width	mm	4,600	5,100	5,600	6,100
TABLE					
Dimension (Width x Length)	m	4 x 8~60		5 x 8~60	
T-slot (Dimension x Pitch)	mm	28 x 500			
Max. table load	kg/m ²	5,000			
SPINDLE					
Spindle motor (continuous/30 minute rated)	kW	22 / 26			
Spindle speed	2-step gear	4,000 / 6,000(OPT.)			
	Built-in	8,000(OPT.) / 12,000(OPT.)			
Spindle taper	-	ISO NO.50			
FEEDRATE					
Cutting federate	mm/min	1-10,000			
Rapid traverse (X/Y/Z)	m/min	20 / 20 / 12			
X,Y,Z power capacity	kW	5.5 / 5.5 / 14			
ATC					
ATC capacity	pcs	32 / 40(OPT.) / 60(OPT.)			
Max. tool weight	kg	18			
Max. tool size(Full tools)	mm	Φ125			
Max. tool size(Next pockets empty)	mm	Φ215			
Tool shank	-	ISO NO.50			
Pull stud	-	P50T-1			
OTHER					
Electric power consumption	kVA	85			
Pneumatic input pressure	kg/cm ²	6			
Net weight*	kgs	125,400	129,100	139,500	143,200
Max. floor space (LxWxH)*	m	17 x 11.4 x 8.88	17 x 11.9 x 8.88	17 x 12.4 x 8.88	17 x 12.9 x 8.88

* The specification is X axis travel 8m

※ All specifications and designs are subject to change without notice.

XMS Specification

MODEL	Unit	XMS-37	XMS-42	XMS-52
TRAVEL				
X axis	mm	8,200(+1m)~60,200		
Y axis	mm	3,700	4,200	5,200
Z axis	mm	1,500(OPT.) / 1,800(OPT.) / 2,000 / 2,200(OPT.)		
Distance from spindle nose to table	Ram size	mm	580 x 580	
	Z axis=1,500	mm	1,000~2,500	
	Z axis=1,800	mm	700~2,500	
	Z axis=2,000	mm	500~2,500	
	Z axis=2,200	mm	500~2,700	
Max. workpiece width	mm	4,100	4,600	5,600
TABLE				
Dimension (Width x Length)	m	3.5 x 8 ~ 60	4 x 8 ~ 60	5 x 8 ~ 60
T-slot (Dimension x Pitch)	mm	28 x 500		
Max. table load	kg/m ²	5,000		
SPINDLE				
Spindle motor (continuous/30 minute rated)	kW	22 / 26		
Spindle speed	2-step gear	rpm	4,000 / 6,000 (OPT.)	
	Built-in	rpm	8,000 (OPT.) / 12,000 (OPT.)	
Spindle taper	-	ISO NO.50		
FEEDRATE				
Cutting federate	mm/min	1-10,000		
Rapid traverse (X/Y/Z)	m/min	20 / 20 / 12		
X,Y,Z power capacity	kW	4.5 / 5.5 / 5.5		
ATC				
ATC capacity	pcs	32 / 40 (OPT.) / 60 (OPT.)		
Max. tool weight	kg	18		
Max. tool size(Full tools)	mm	Φ125		
Max. tool size(Next pockets empty)	mm	Φ215		
Tool shank	-	ISO NO.50		
Pull stud	-	P50T-1		
OTHER				
Electric power consumption	kVA	60		
Pneumatic input pressure	kg/cm ²	6		
Net weight*	kgs	70,000	75,000	84,000
Max. floor space (LxWxH)*	m	16.7 x 10.15 x 7.96	16.7 x 10.65 x 7.96	16.7 x 11.65 x 7.96

* The specification is X axis travel 8m

※ All specifications and designs are subject to change without notice.

Standard Accessory & Function

- 1 Fanuc 0iMF PLUS controller
- 2 4,000rpm 2-step gear type spindle
- 3 Spindle oil cooling system
- 4 Z travel
XMF : 2,500mm
XMS : 2,000mm
- 5 X Dual linear scale /Z axis linear scale
- 6 Y axis Ballscrew supporting device
- 7 Vertical type tool magazine 32 tools
- 8 Centralized auto lubrication system
- 9 Independent lubrication oil collector
- 10 Air blast through spindle
- 11 Wash gun & pneumatic interface
- 12 Cutting coolant system
- 13 Four piece sheet metal guard
- 14 Wireless manual pulse generator
- 15 Confrontable operation room
- 16 Screw type chip conveyor on table sides
- 17 Caterpillar type chip conveyor / Water tank
- 18 Air conditioning for electrical cabinet
- 19 Working lamp
- 20 Operation cycle finish and alarm light
- 21 Footswitch for tool clamping
- 22 RJ45 interface
- 23 XYZ-axis travel hard limits protection
- 24 Auto power off
- 25 Remote monitoring software-standard
- 26 Vision Wide FX graphical user interface
- 27 Foundation pads and bolts kits
- 28 Adjustment tool and tool kits
- 29 Technical manuals
(operation, maintenance manual and circuit diagram)

Optional Accessory & Function

- 1 Fanuc 31iB controller
- 2 HEIDENHAIN TNC640 controller
- 3 SIEMENS ONE controller
- 4 6,000 rpm box way type 2-step gear spindle
- 5 8,000rpm Built-in spindle
- 6 12,000rpm Built-in spindle
- 7 Z axis travel
XMF : 3,000mm
XMS : 1,500/ 1,800/ 2,200mm
- 8 Y axis linear scale
- 9 Z axis hydrostatic guideway
- 10 Without Tool magazine
- 11 Vertical type tool magazine 40T / 60T
- 12 Vertical-horizontal type tool magazine 32T/40T/60T
- 13 Coolant through spindle system 20/70 bar
- 14 Oil skimmer
- 15 Oil mist cooling device
- 16 Spindle ring cutting coolant device
(for no head attachment)
- 17 Z-axis retract function at power failure
- 18 Helical bladed screw conveyor on table sides
- 19 Chip cart
- 20 Sub working table
- 21 Auto tool length measurement
- 22 Auto workpiece coordinate measurement
- 23 Interface reserved for fourth axis
- 24 Transformer
- 25 AC attachment head
- 26 Multi-heads magazine
- 27 Anti-collision and process simulation software
- 28 Remote monitoring software-standard