PERFECT JET

TRAVELING COLUMN VERTICAL/HORIZONTAL MACHINE CENTER
VERTICAL MACHINE CENTER
DEEP HOLE DRILLING & BORING MACHINE
FLOOR TYPE BORING & MILLING MACHINE
CNC & CONVENTIONAL BED-TYPE MACHINE
DOOBLE COLUMNS MACHINING CENTER
CUSTOMIZATION MACHINE

PING JENG MACHINERY INDUSTRY CO., LTD.
No.30,Shan Shia Lane, Feng Shin Rd., Shin Kang District,
Taichung City 42271, Taiwan
Tel：04-2572-2520 (Rep.)　Fax：04-2572-2525 / 04-2572-2741
E-mail：ping.jeng@msa.hinet.net

201605

PERFECT JET

PING JENG MACHINERY

TRAVELING COLUMN VERTICAL MACHINING CENTER

http://www.perfect-jet.com.tw

Profile

Mission: Sincerity Progress Harmony

Vision : Cultivate Good Karma in the business, Benefit All People

History of Timeline

1981~Ping Jeng Company starts in Taichung, Taiwan. Capital 2.1 million.Launch :RD-600&600BL

1982~As costumer needs to produce Bed Type Milling Machine:BM-2Vand Radial Drill Machine: CNC-RAMILL-VI.

1983~Launch: BM-3V&BM-4V。

1984~Launch:BM-3MV&BM-4MV。

1985~Launch:BM-3DS&4DS

1986~Launch:CNC-MGD-500&1000。

1987~Launch:CNC-MGD-1015&1020

1988~Launch:CNC-MGD-1520&1525，TRAK-3S(BM-22VDA)

1989~Launch:DH-1500&3000&6000. Cooperate with American well-known NC Company and entered the U.S. market with CNC Milling Machine successfully. Capital increasing to 19.8 million.

1990~Launch:CNC-MGD-613&813，TRAK-5S(BM-24VDA)

1991~Launch:CNC-MGD-816&820

1992~Launch:CNC-MGD-1016&1020，TRAK-2S(BM-21VCA)

1993~Launch:CNC-51-VI/GA/GF(BM-1687). Expand European market & start to develop Box Ways machining centers. CE -TUV of Germany Authentication approved for CNC Milling Machines. Capital increasing to 30 million.

1994~Launch:CNC-61-VI/GA/GD(BM-2087)

1995~Launch:CNC-71-VI/GA/GD(BM-2587)，CNC-81-VI/GA/GD(BM-3087)

1996~Launch:MCV-64BT

1997~MCV-85B&85G

1998~MCV-100B&100G

1999~Launch:MCV-168G&168B.All plants destroyed by 921 earthquake and almost forced to close down the business; after financing and capital increasing to 68 million, and enable to reconstruct the plants.

2000~Launch:MCV-86&116B. Merge a machinery company and acquire related technical staffs and some outstanding European agents. Develop Linear Guide Way machine center.

2001~Launch:MCV-127B &147B&147G

2002~Launch:MB-4R372 -4axes ROUTING. & MCV-M8 & M6

2003~Launch:CNC-24MA(740) CNC-34/36/46MB (1050-1350)，MCV-M10. Attend EMO and international exhibitions actively to expand global market.

2004~Launch:CNC-12ME(QCM)，MCV-M11. CE-TUV of Germany Authentication approved for all machine tools and successfully expanded Turkey and East Europe.

2005~ Launch:MB-1207/1210，MCV-M5. As Europe market need to R&D the Moving Column machining centers serial. New CIS & Logo – PERFECT JET & implement ERP management and target management.

2006~Launch:MHD-2678，DH-3100，MCV-M7

2007~Launch:MV-107P&107U，MV-64P&64U. Italy well-known machinery dealer ask to be the exclusive agent for Moving Column serial and sign up 10 machines per year quota.

2008~Launch:MV-86P&86U, MB-1220.

2009~Launch:MCV-2010G, MV-308. R&D Submicron high precision machining center, and joint program of Ministry of Economic Affairs.

2010~Launch:MV-308-5X, MCV-188G.

As European Auto parts and Aero parts market needs, to develop 5-axis swiveling head MV-308-5x and gain the Patent.

2011~Launch:MH-1500D, MH-800P, MCV-435 v . MCV-435 v is launched in TIMTOS Exhibition and wins Grand Award and IENA in Germany invention competition for Grand Champion Award also. Capital increasing to 168 million.

2012~Launch:MH-1213, MH-500P, MH-630P, MCV-2510B/G

2013~Launch:BM-1620, CNC-GD-4axes, CNC-GD-6axes, CNC-GD-8axes

All machines are developed in-house. We have an outstanding R&D team who is dedicated to researching and developing new machines many years with expertise. Using AUTOCAN R14 software and AUTODESK3D/ INVENTOR SERIES.

COMPANY SCOPE:
Land Area:30000m2，Factory Area:16000 m2，Office Area:22000 m2，Capital increasing to 168 million.

Patent

Perfect World, Perfect Jet, Perfect Efficiency:
Creating job opportunity and supporting educational constitution are the main principles of Ping Jeng.
To build a better society, Ping Jeng keeps doing its best to benefit the community for now and the future.

Geagraphic Location

Traveling Column Family
Germany Specification & High Quality

PERFECT JET

Designed and Built with Excellent Quality, Efficiency and Accuracy


MV-308-5X


MV-206


MV-107P


MV-86P


MV-64P


MV-107U

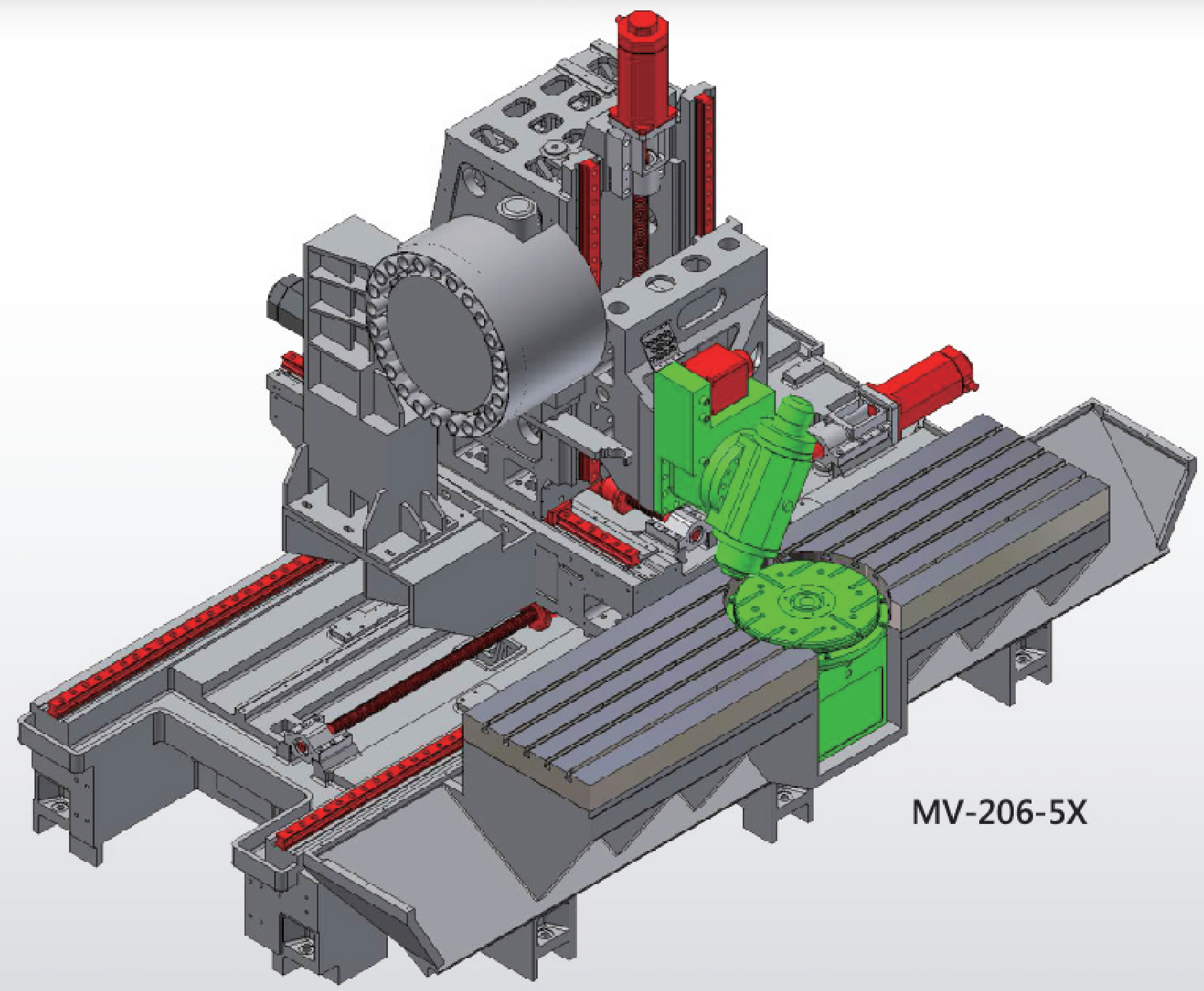

MV-64U

Traveling Column Family

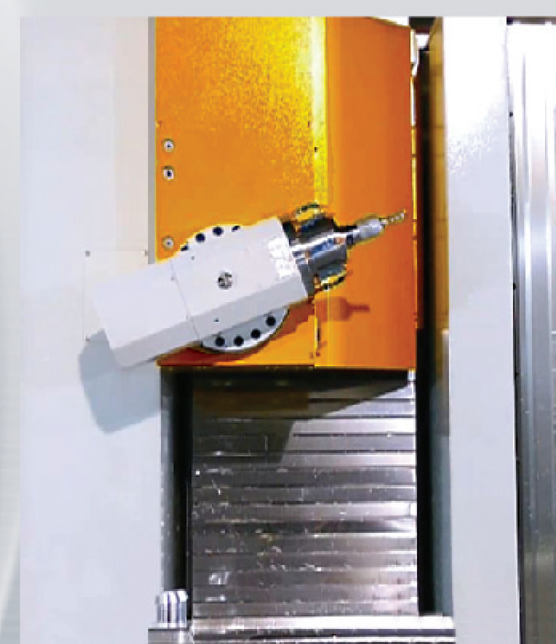
Germany Specification & High Quality

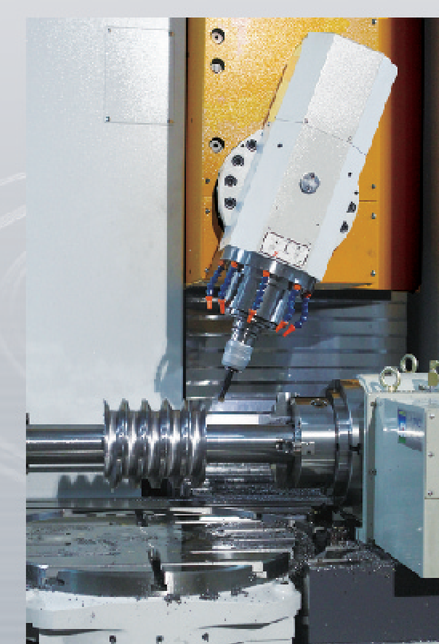
PERFECT JET

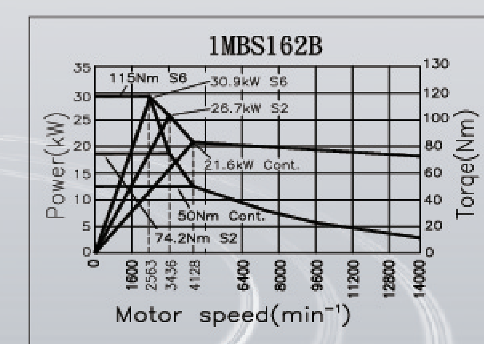
MV-206-5X/306-5X/406-5X/606-5X

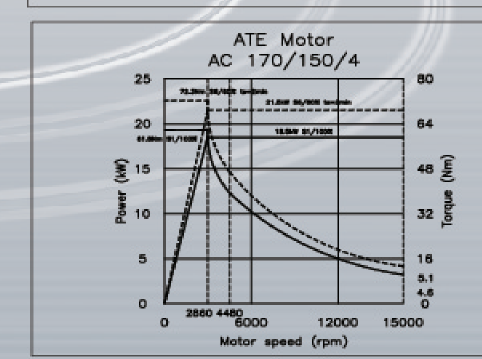


MV-206-5X



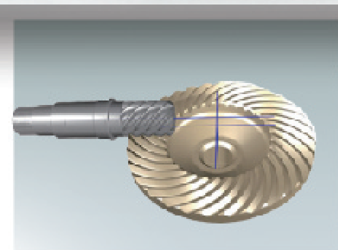




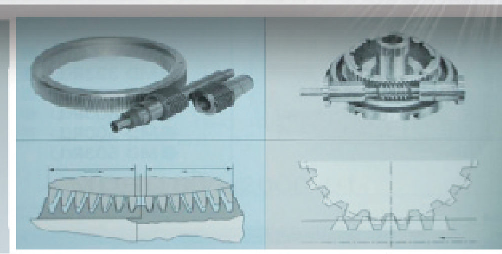


Traveling Column Family
Germany Specification & High Quality

PERFECT JET

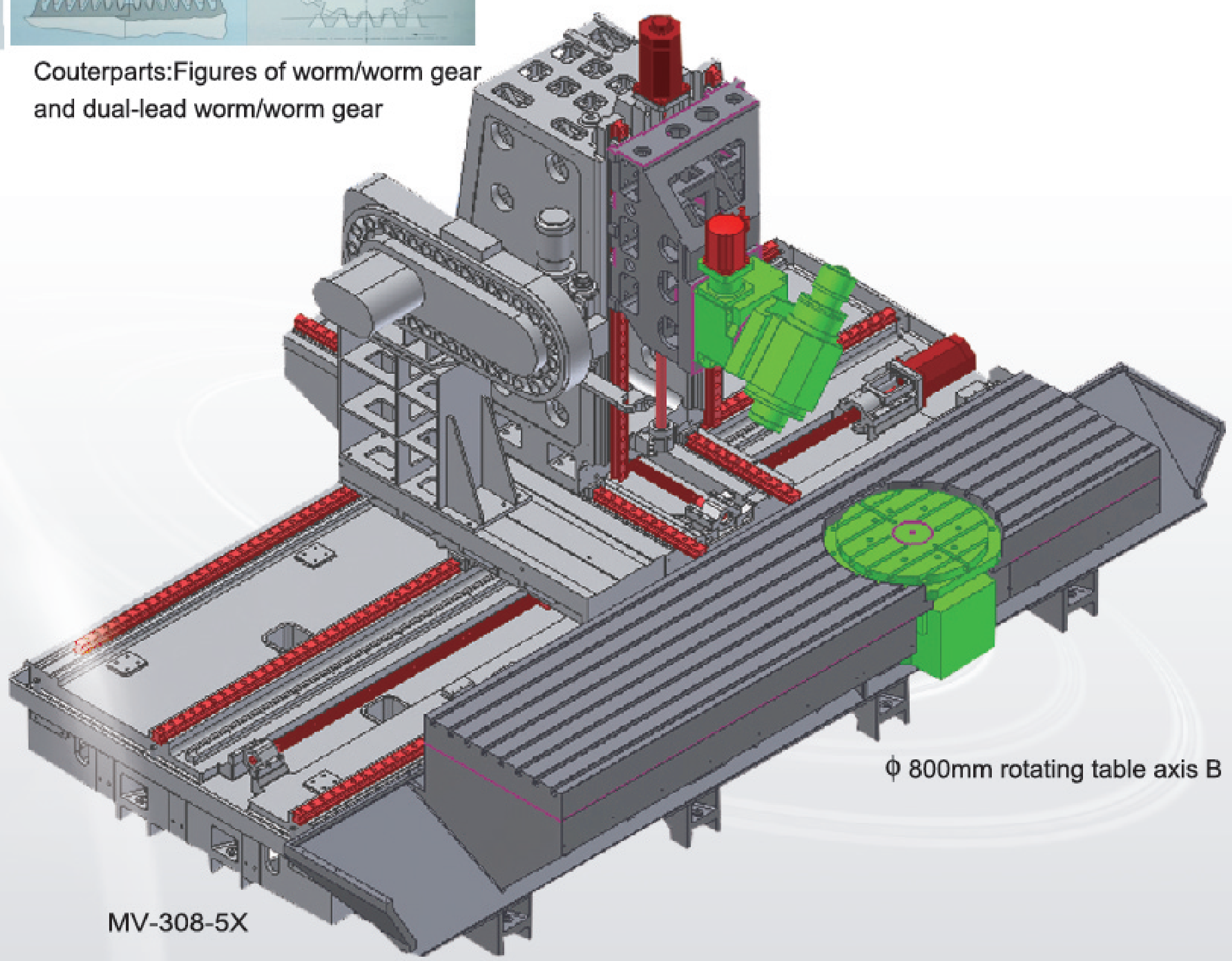


Perfect Jet: Hypoid gears for Swiveling angle:±110° and Rotating degree:360°



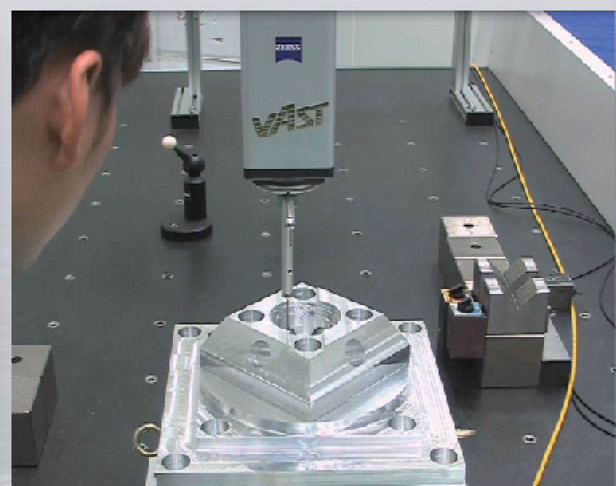
Couterparts:Figures of worm/worm gear and dual-lead worm/worm gear

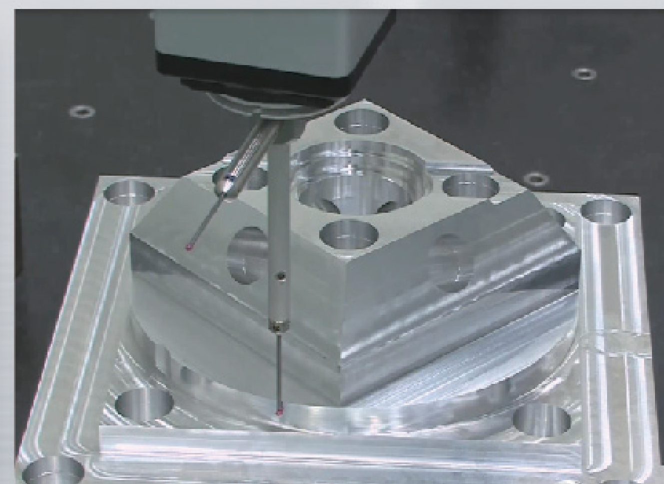
MV-208-5X/308-5X/408-5X/608-5X

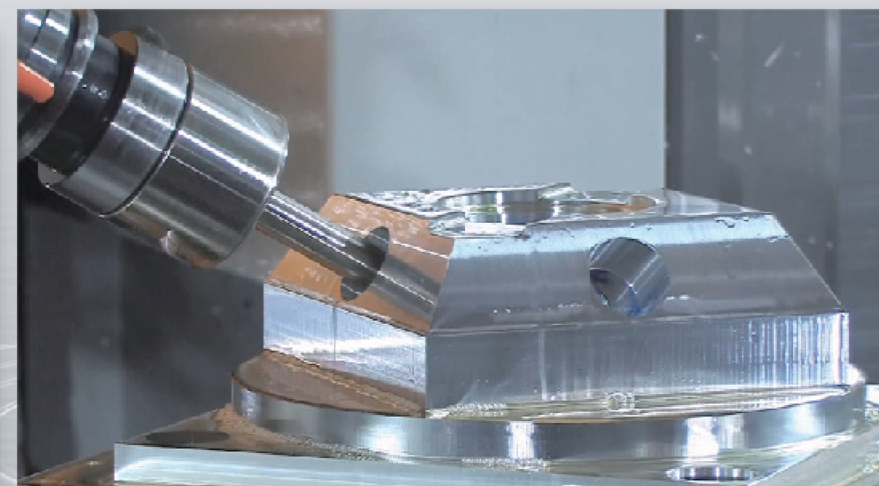


ϕ 800mm rotating table axis B

MV-308-5X







Traveling Column Family
Germany Specification & High Quality

PERFECT JET

MV-206-/306-/406-/606-5X、MV-208-/308-/408-/608-5X				
	Model	單位	MV-206/306/406/606-5X	MV-208/308/408/608-5X
Travel	X axis	mm	2000/3000/4000/6000	2000/3000/4000/6000
	Y axis vertical	mm	600	800
	Y axis horizontal boring	mm	500	700
	Z axis vertical	mm	525	700
	Z axis horizontal boring	mm	625	800
	Spindle nose to table surface (V)	mm	50-575	50-750
	Spindle nose to table surface (H)	mm	260-885	260-1060
	Spindlecenter to column surface	mm	715	915
	X/Y/Z way span	mm	1100/550/550	1500/550/550
	Position/Repeatability accuracy	mm	±0.003 (o.p. encoder)	
	Ball bar accuracy	mm	≦0.01	
Spindle	Spindle taper		HSK-63 (O.P.BBT#40)	
	Spindle transmission		Built-in	
	Spindle speed	rpm	15000 (0.P.12000)	
Control	CNC control			
	Spindle motor	kw	18.5KW (0.P.21.6KW)	
	X/Y/Z moter	kw	9.6/9.6/12.2	
Table	Table size(WxL)	mm	2500/3650/4800/7200X610	2400/3500/4600/7000X800
	T-slot(WidthxNo.xPitch)	mm	18X5X100	18X8X00
Rotary Table	Table Size	mm	φ500	φ630op800
	Max - load	kg	500	700
	Min. incremet	deg.	0.001°	
	C motor	kw	4.1	
	Feetd	rpm	22.2	
Swiving Head	Angle	deg.	±110	
	Feed	rpm	16.7	
	Min. incremet	deg.	0.001°	
	B motor	kw	2.6	
Feed	Rapid feed rate(X/Y/Z)	m/min	2M~~3M:30/30/20mm	4M~~6M:15/30/20mm
	Balkcrew OD/pitch	mm	2M:φ50Xφ50Xφ50 3M~~4M:φ63Xφ50Xφ50 6M:φ80Xφ50Xφ50	
	XYZ linear way	mm	M55XM55XM55	
	Cutting feed rate	m/min	1~~10	
	Min.input increment	mm	0.001°	
Magazine	Max.tool dia./with adjacent tool	mm	φ77.5 (φ135)	
	Max. tool weight	kg	7	
	Max.tool length	mm	300	
	Tool selection		Automatic random	
	Tool capacity		24/30/40	
	Pull stud	deg.	45°	
	Tool change time (T to T)	sec	2.5	
Motor	Spindle oil cooler	L	45	
	Lubrication capacity	L/W	4	
	Heat exchanger	wait	40X2	
	Coolant tant	L	300/350/400/450	
	Pneumatic Unit	kg/cm²	6	
	Power	kva	45	50
Weight & Dimension	N.W.	kg	14500 /18500 /22500 /30500	18500 /24500 /30500 /42500
	Packing(LxWxH)	m	6.2 /7.2 /8.7 /11.0 x3.4 x3.1	6.2 /7.2 /8.7 /11.0 x3.6 x3.3
	Floor space(LxWxH)	m	5.8 /6.8 /8.5 /10.8 X3.4X3.1	5.9/ 6.8 /8.3 /10.8 X3.6X3.3

Specifications subject to change without notice.

Standard accessories:

1. Dire coupled drive XYZ axis
2. M.P.G.
3. Fully splash guard
4. Direcrt drive 10,000RPM
5. Spindle air blast
6. Spindle chiller unit
7. Spindle voice-proof
8. Auto lubrication system
9. Coolant system
10. Rubber Stopper
11. XYZ Roller type guide way
12. Washing gun and air gun
13. Wash down nozzles
14. Halogen working lamp & alarm light
15. RS-232 interface + 10M cables
16. Heat exchanger on electric cabinet
17. M30 auto power off
18. Leveling pads & adusting screws
19. Tool box & adusting screws
20. Operating manual and part list
21. Rigid tapping
22. Chain type conveyor

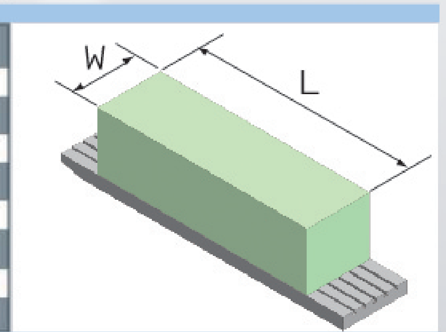
Optional accessories:

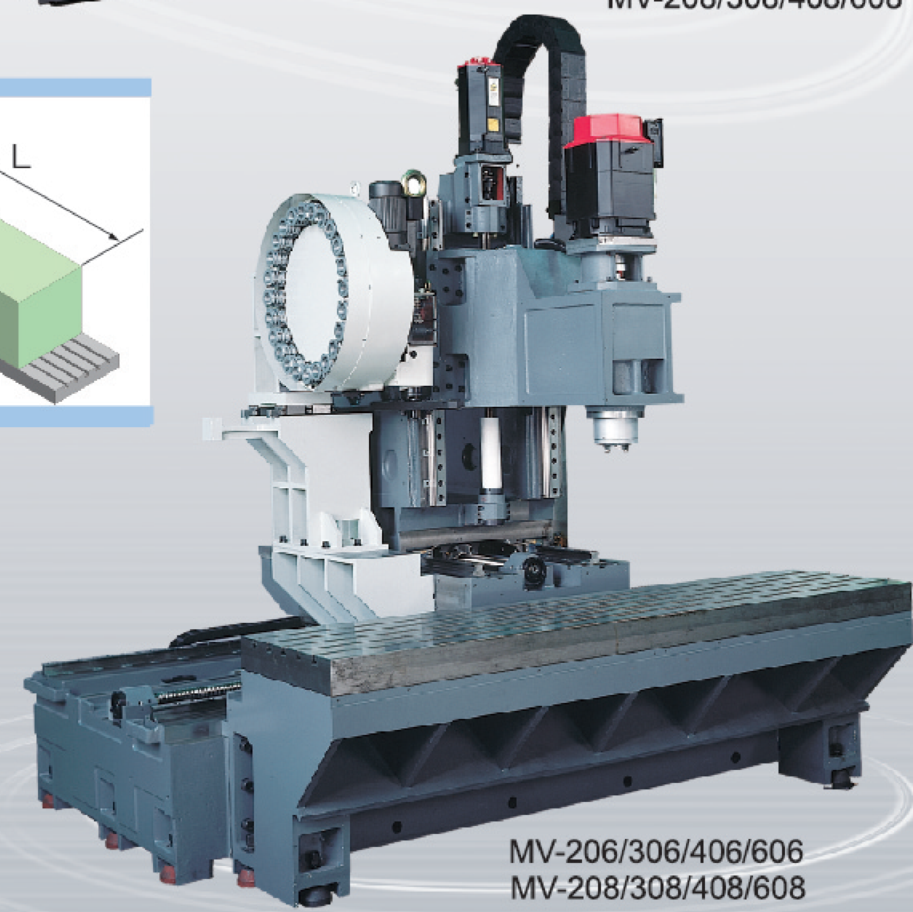
1. Coolant ring around spindle system
2. Coolant through spindle system
3. C.T.S. with separate coolant tank(100L)
4. Upgrade spindle motor
5. 12,000/15,000/24,000 RPM HSK
6. Scraper type conveyor
7. Chip auger
8. Oil skimmer
9. Transformer
10. Voltgae regulater
11. Seaworthy packing
12. xyz.roller type guide eay

MV-206/306/406/606
MV-208/308/408/608

Max.Workpiece Dimensions

ITEM / MODEL	L	W	H
MV-206	2000	600	550
MV-306	3000	600	550
MV-406	4000	600	550
MV-606	6000	600	550
MV-208	2000	800	700
MV-308	3000	800	700
MV-408	4000	800	700
MV-608	6000	800	700





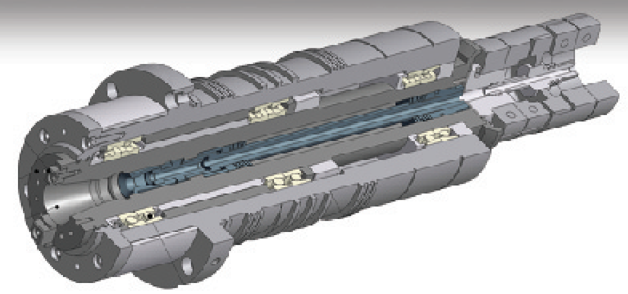
MV-206/306/406/606
MV-208/308/408/608

Moving control box offers convenient operation to operator

PERFECT JET

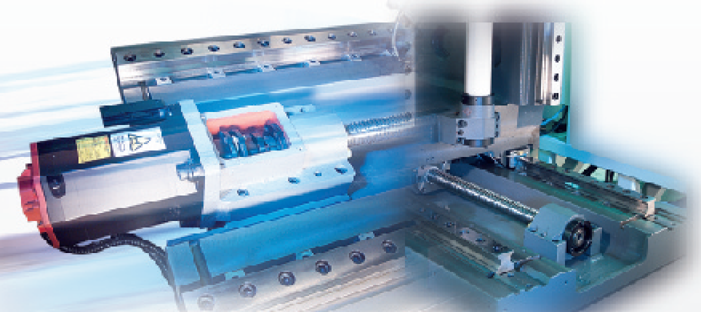
RAPID TOOL CHANGE SYSTEM

*Rapid feet rate 30M/min.
*ATC tool changing time 2.5 second
*ATC unit is mounted in the middle of the column so that the weight is directly transferred to the base.



DIRECT-COUPLED SPINDLE

FAG ceramic ball bearing, P4

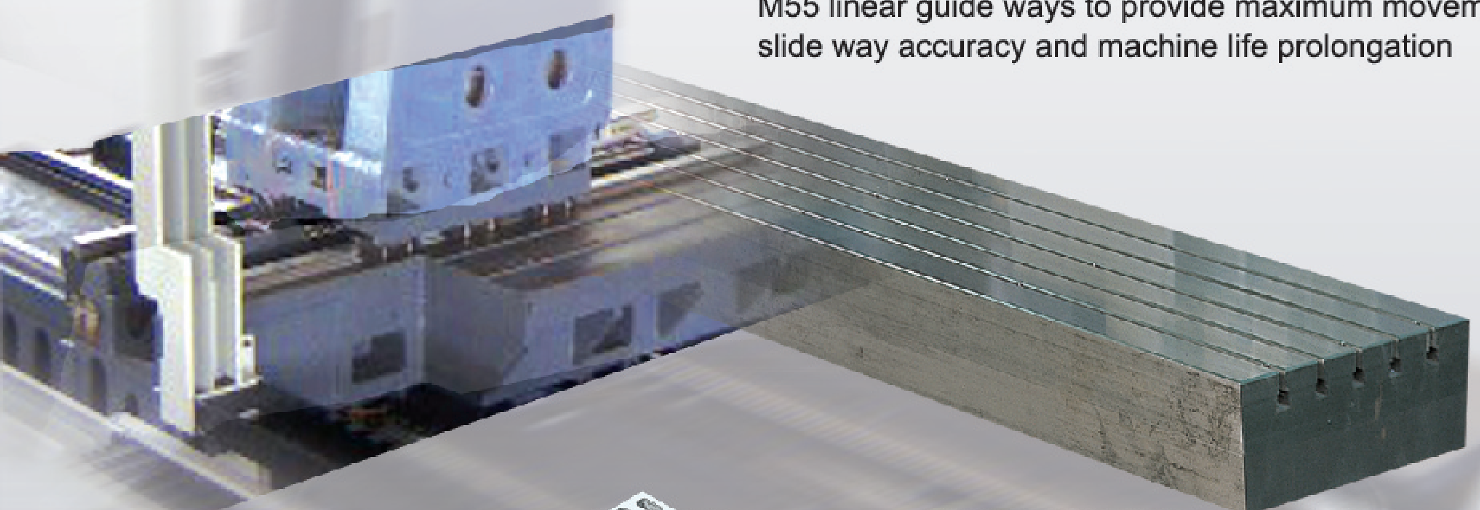


SERVO SYSTEM

All axes movements are extremely ridged through direct-coupled servo motor. Z-axis uses 4kw servo motor which ensures smooth movement. All axes are applied with M55 linear guide ways to provide maximum movement rigidity, slide way accuracy and machine life prolongation

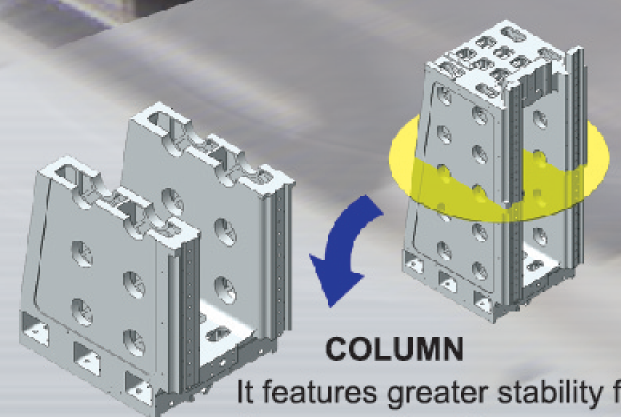
EXTENSION SADDLE

Insure front-rear and left-right moving stability and accuracy.



FIXED LONG TABLE DESIGN

Full support of the fixed table design ensures machining precision and structure rigidity, heavy loads and fast cutting feed.



COLUMN

It features greater stability for heavy cutting than the conventional honeycomb shaped rib reinforcement.

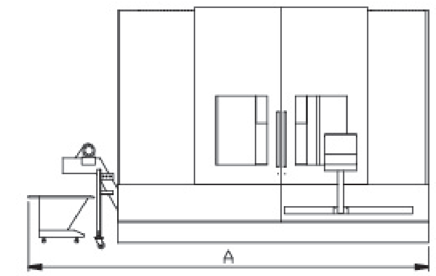
MV-206 / 306 / 406 / 606、MV-208 / 308 / 408 / 608 SPECIFICATIONS:

	Model	Unit	MV-206/306/406/606	MV-208/308/408/608
Travel	X axis	mm	2000/3000/4000/6000	2000/3000/4000/6000
	Y/Z axis	mm	600 / 550	800 / 700
	Spindle nose to table surface	mm	160-710	160-860
	Spindlecenter to column surface	mm	675	915
	X/Y/Z way span	mm	1100 / 550 / 550	1500 / 550 / 550
	Position/Repeatability accuracy	mm	±0.005	
	Ball bar accuracy	mm	0.01（以內）	
Spindle	Spindle taper		BT-40	
	Spindle transmission		Direct-coupled（OP. Built -in）	
	Spindle speed	rpm	10000	
Control	CNC control		As customer's request	
	Spindle motor	kw	11 / 15 (OP. 15 / 18.5)	
	X/Y/Z moter	kw	9 / 7 / 9	
Table	Table size(WxL)	mm	2500/3500/4500/6500 x 600	2500/3500/4500/6500x800
	T-slot(WidthxNo.xPitch)	mm	18 x 5 x 100	18 x 8 x 100
Feed	Rapid feed rate(X/Y/Z)	m/min	30 / 30 / 24	
	Ballscrew OD/pitch	mm	2Mϕ50x ϕ50xϕ50 3M 4Mϕ63xϕ50xϕ50 6Mϕ80xϕ50xϕ50	
	XYZ Linear way	mm	M55xM55xM55	
	Cutting feed rate	m/min	1-15	
	Min.input increment	mm	0.001	
Magazine	Max.tool dia./with adjacent tool	mm	ϕ 77.5 (ϕ 135)	
	Max. tool weight	kg	7 (15)	
	Max.tool length	mm	300/400	
	Tool selection		Automatic random	
	Tool capacity		24 / 30 / 40	
	Pull stud	degree	45°	
	Tool change time (T to T)	sec	2.5	
Motor	Spindle oil cooler	ℓ	40	
	Lubrication capacity	ℓ	4/250	
	Heat exchanger	wait	40 x2	
	Coolant tant	ℓ	300 / 350 / 400 / 450	300 / 350 / 400 / 450
	Pneumatic Unit	kg/cm2	6	
	Power	KVA	45	50
Weight & Dimension	N.W.	Kg	14000/18000/22000/30000	18000/2400/30000/42000
	Packing(LxWxH)	m	6.2 / 7.2 / 8.2 / 10.2x3.4x3.1	6.2/7.2 /8.2 /10.2x3.6x3.3
	Floor space(LxWxH)	m	6.2 / 7.2 / 8.2 / 10.2x3.4x3.1	6.2/7.2 /8.2 /10.2x3.6x3.3

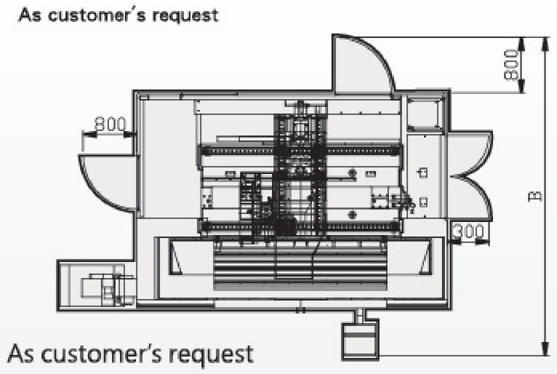
Specifications subject to change without notice.

Standard accessories:

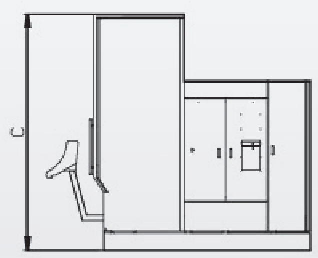
1. Dire coupled drive XYZ axis
2. M.P.G.
3. Fully splash guard
4. Direcrt drive 10,000RPM
5. Spindle air blast
6. Spindle chiller unit
7. Spindle voice-proof
8. Auto lubrication system
9. Coolant system
10. Rubber Stopper
11. XYZ Roller type guide way
12. Washing gun and air gun
13. Wash down nozzles
14. Halogen working lamp & alarm light
15. RS-232 interface + 10M cables
16. Heat exchanger on electric cabinet
17. M30 auto power off
18. Leveling pads & adusting screws
19. Tool box & adusting screws
20. Operating manual and part list
21. Rigid tapping
22. Chain type conveyor



As customer's request



As customer's request



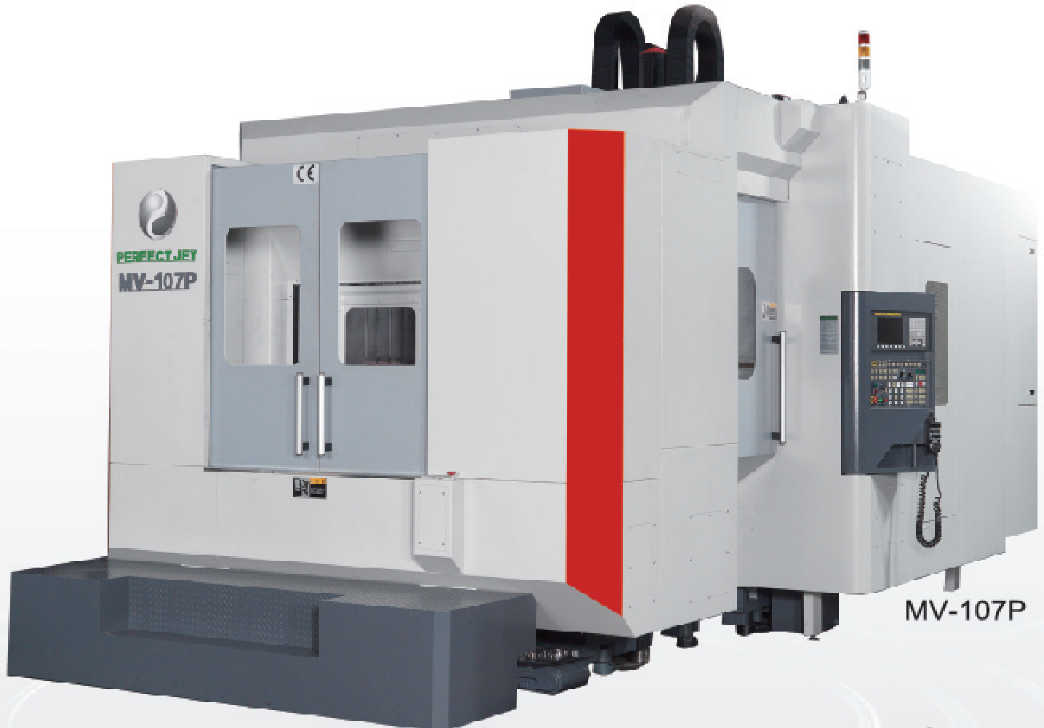
機型 尺寸	MV-206	MV-306	MV-406	MV-606
A	6400	7400	8400	10400
B	4650			
C	3100			
機型 尺寸	MV-208	MV-308	MV-408	MV-608
A	6600	7600	8600	10600
B	5000			
C	3100			

Optional accessories:

1. Coolant ring around spindle system
2. Coolant through spindle system
3. C.T.S. with separate coolant tank(100L)
4. Upgrade spindle motor
5. 12,000/15,000/24,000 RPM HSK
6. Scraper type conveyor
7. Chip auger
8. Oil skimmer
9. Transformer
10. Voltgae regulater
11. Seaworthy packing
12. **xyz.roller type guide eay**

Traveling Column Family
Germany Specification & High Quality

PERFECT JET



MV-107P

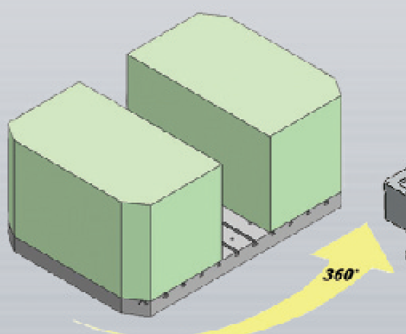
MV-86P

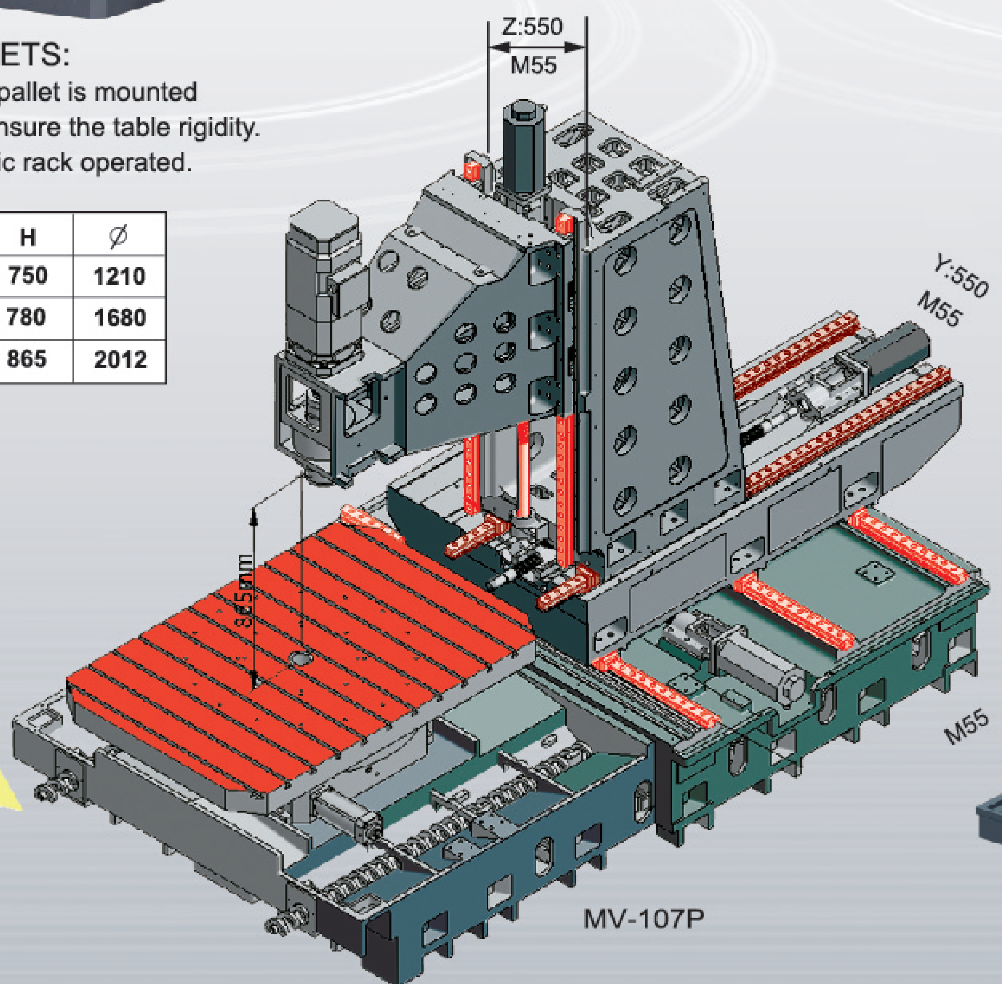
MV-64P

ROTATING DUAL PALLETS:

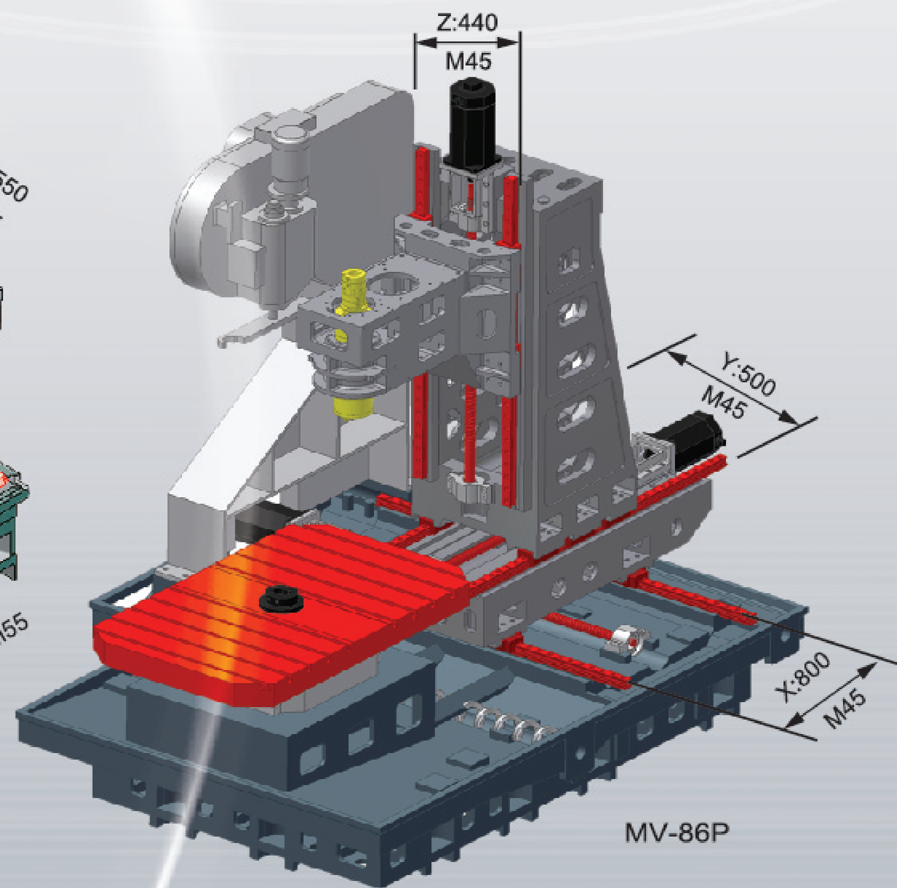
The automatic 180° rotating pallet is mounted directly on machine bed to ensure the table rigidity. The rotating pallet is hydraulic rack operated.

MODRL \ ITEM	L	W	H	Ø
MV-64P	600	400	750	1210
MV-86P	800	600	780	1680
MV-107P	1200	700	865	2012

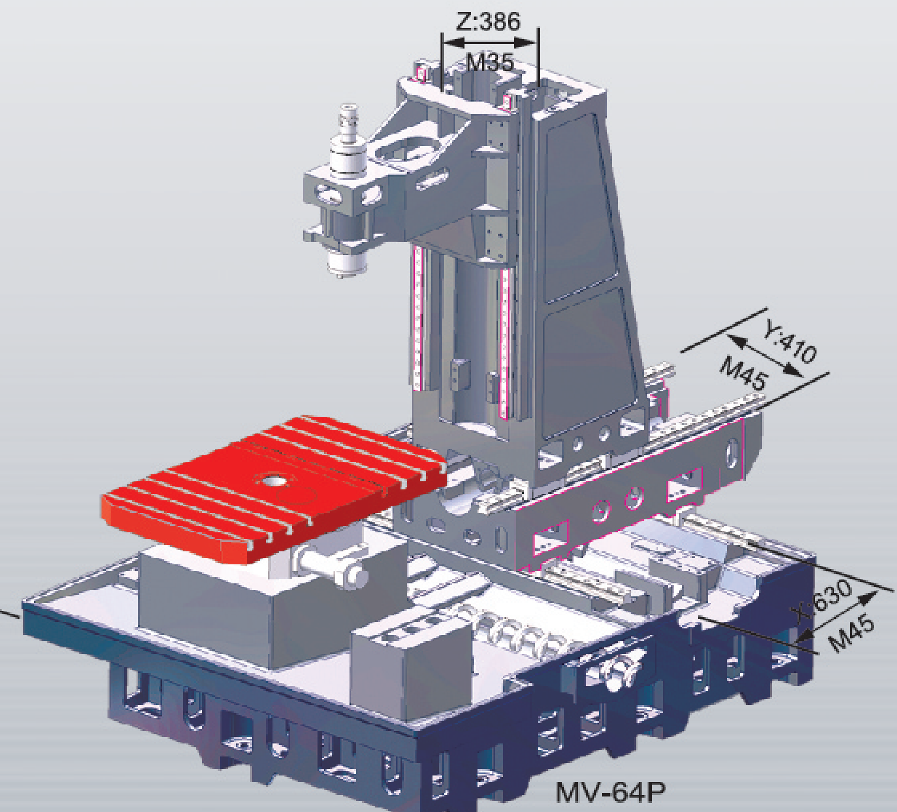




MV-107P



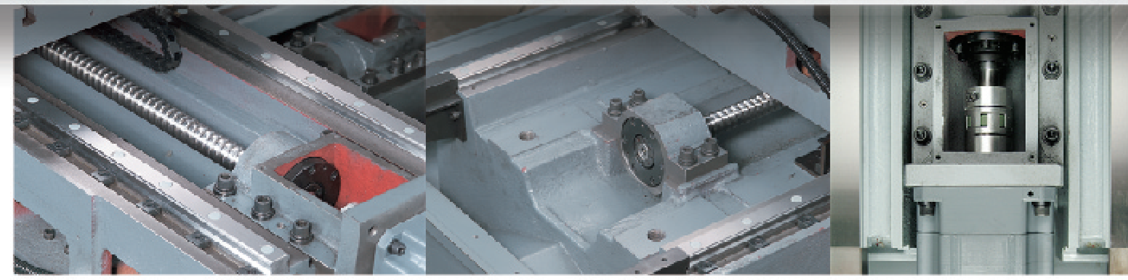
MV-86P



MV-64P

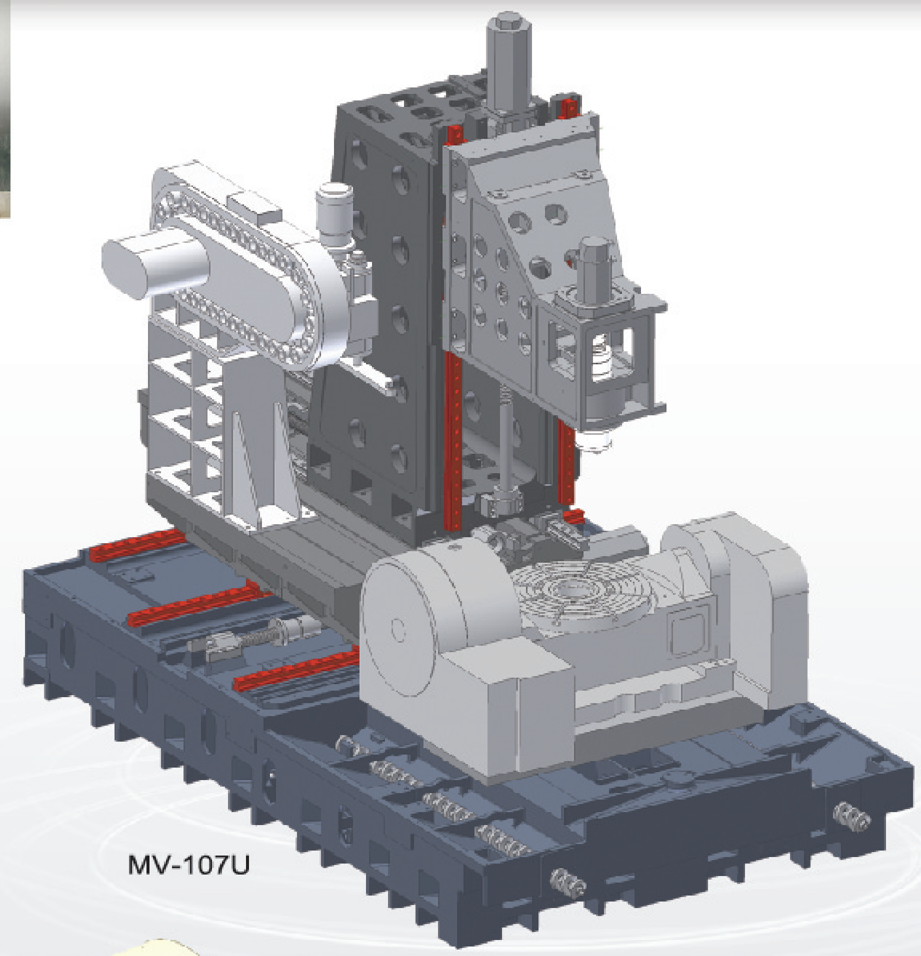
Traveling Column Family
Germany Specification & High Quality

PERFECT JET



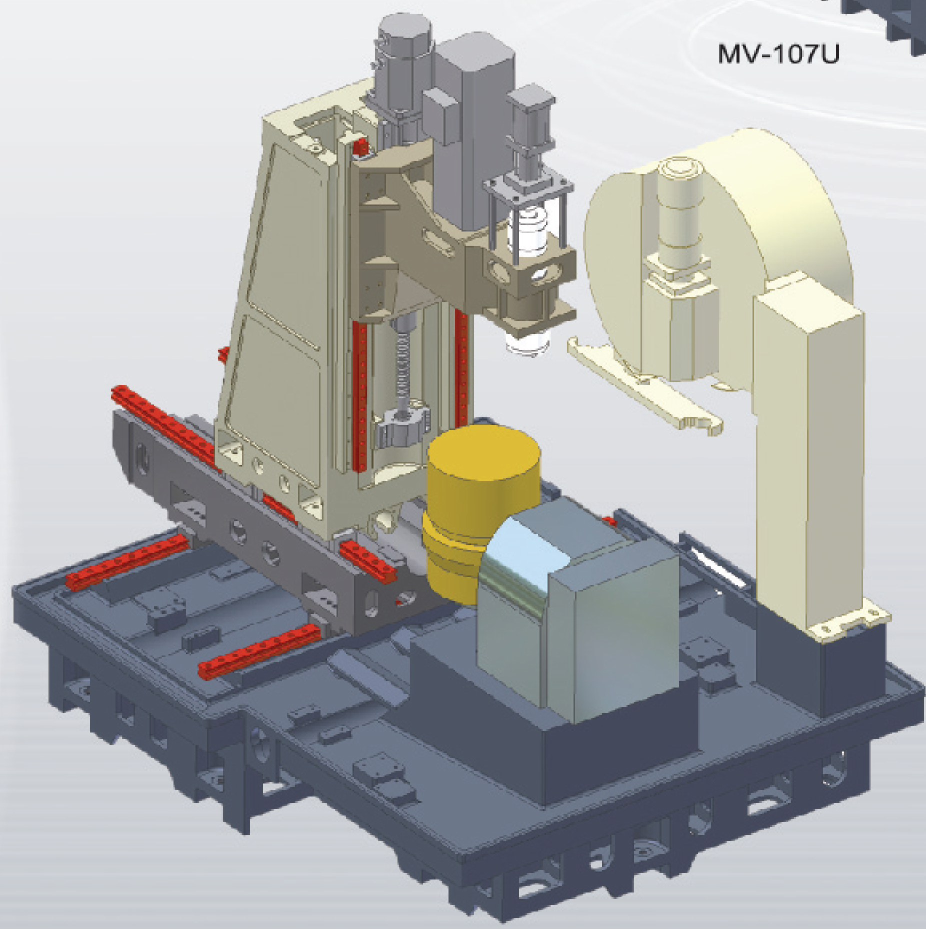
The extraordinary stiffness of the column and bed box construction, combined with large contacting surfaces provides unmatched rigidity. The massive box shaped spindle head casting with generously proportioned internal ribs maximizes rigidity.
The perfect combination of a full enclosure and a properly shaped base provides leak-free operation and ease of chip removal.
The machine is equipped with a separating system for water and oil.24M/min.(36m/min.) rapid feed.

MV-107U



MV-107U

MV-64U

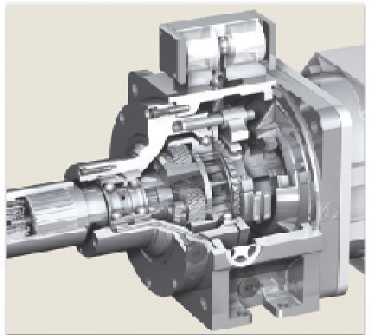


MV-64U

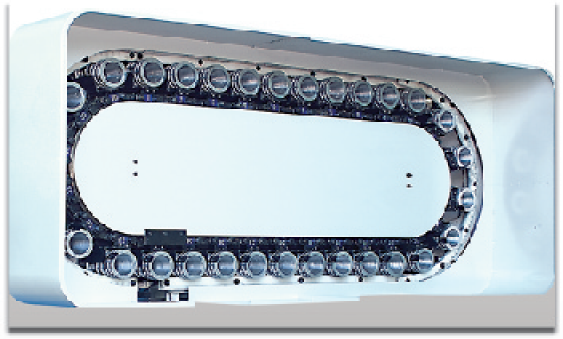
Traveling Column Family
Germany Specification & High Quality

PERFECT JET

Accessories :

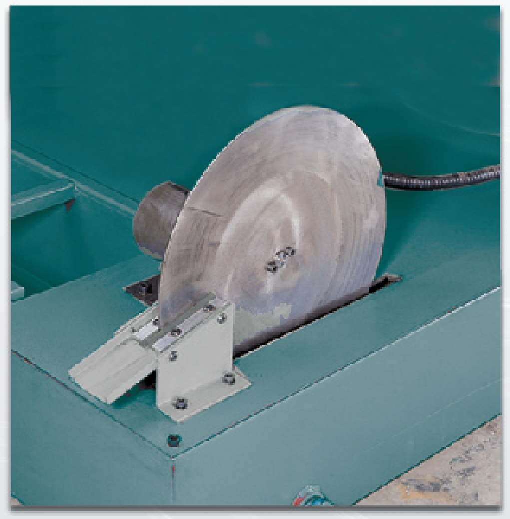

OP: ZF 1:4 GEAR BOX


24/30 Tools Arm type ATC

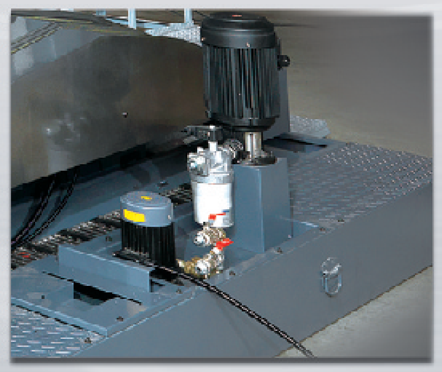

40 Tools Chain type ATC


Oil skimmer :
Eco-friendly coolant disposal system

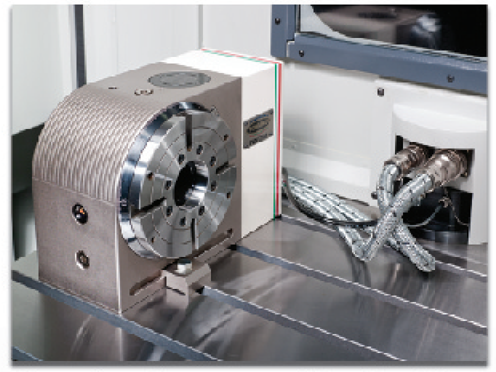

Powerful air and wash down gun are conveniently built-in.

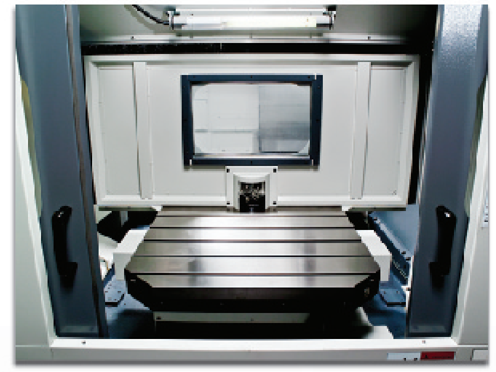

Equipped with high reliability lubrication pump and solenoid valves.


Dual vertical coolant pumps are concealed inside the machine cover for a compact design

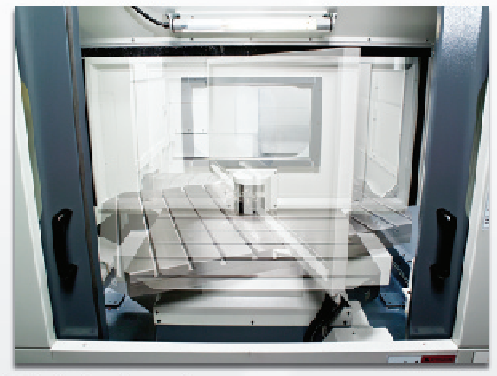

20 BAR Pump for CTS

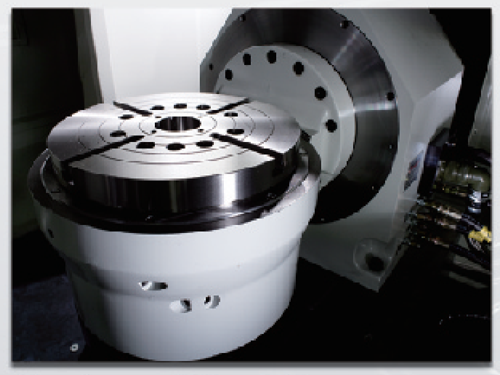

Z axis telescopic cover
X&Y axis slope telescopic cover

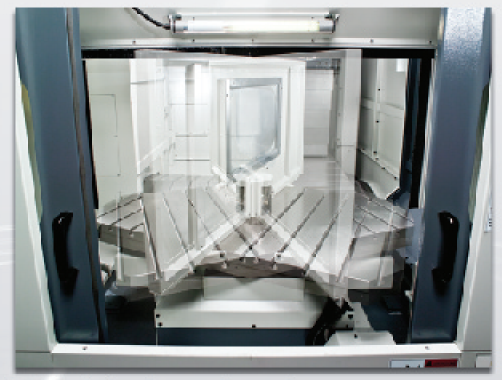

Signal and power cables for 4th axis


Automatic pallet changer


Tilting table


Pallet changing


Single arm tilting table


Pallet & door changing

RECOMMENDED TYPES OF CHIP CONVEYORS

Cutting Shape	Material	Standard Chip Conveyor	Screw Type Conveyor
Metallic Chip		O	O
Cast Chip		O	
Curly Aluminum Chip		O	O
Aluminum Chip		O	O
Non-Metallic Chip		O	


Scraper Type Chip Conveyor


Chain Type Chip Conveyor

Traveling Column Family
Germany Specification & High Quality

PERFECT JET

MV-64P、64U /86P、86U /107P、107U 系列規格表

	Model	單位	MV-64P	MV-64U	MV-86P	MV-86U	MV-107P	MV-107U
Travel	X axis	mm	610/410/550	400/400/550	800/600/600	500/600/500	1000/700/700	700/700/700
	Y/Z axis	mm	180-730	120-670	210-810	120-620	165-865	160-700
	Spindle nose to table surface	mm	560	550	665	750	915	905
	Spindlecenter to column surface	mm	680/410/386		800/500/440		1500/550/550	
	X/Y/Z way span	mm	±0.005					
	Position/Repeatability accuracy	mm	0.01（以內）					
Spindle	Ball bar accuracy		BT-40 (OP 50)					
	Spindle taper		直結式					
	Spindle transmission	rpm	10000					
Control	Spindle speed		依客戶選擇					
	CNC control	kw	7.5/11		11/15		15/18.5	
	Spindle motor	kw	3 / 3 / 4		4 / 4 / 7		7 / 7 / 8	
Table	X/Y/Z moter	mm	650 x 410 x 2(ϕ320)		900 x 600 x 2(ϕ400)		1200 x 700 x 2(ϕ630)	
	Table size(WxL)	mm	18x4x100(ϕ320xH200)		18x5x125(ϕ400Hx300)		18x3x150(ϕ630xH400)	
	T-slot(WidthxNo.xPitch)	kg	250 x 2(180 / 110)		400 x 2(200 / 150)		1000 x 2(500 /300)	
Feed	Rapid feed rate(X/Y/Z)	m/min	36 / 36 / 30				30 / 30 / 24	
	Ballscrew OD/pitch	mm	ϕ50Xϕ50Xϕ50 /10					
	XYZ Linear way	mm	M55XM55XM55					
	Cutting feed rate	m/min	1-15					
	Min.input increment	mm	0.001					
Magazine	Max.tool dia./with adjacent tool	mm	ϕ77.5 (ϕ135)					
	Max. tool weight 40/50	kg	7(15)					
	Max.tool length 40/50	mm	300 /400					
	Tool selection		任意選刀					
	Tool capacity		24 / 30 / 40					
	Pull stud	角度	45°					
	Tool change time (T to T)	sec	2.5					
	Spindle oil cooler	ℓ	18		40			
Motor	Lubrication capacity	ℓ/W	4 /250					
	Heat exchanger	wait	70					
	Coolant tant	ℓ	270		400		450	
	Pneumatic Unit	kg/cm²	6					
	Power	kva	25		35		45	
Weight & Dimension	N.W.	kg	7000/8500		11000/13000		15000/17500	
	Packing(LxWxH)	m	2.4x3.2x2.9	2.5x4.9x3.0	2.7x4.3x3.2	5.8x5.1x3.2	2.9x4.5x3.3	4.5x5.7x3.7
	Floor space(LxWxH)	m	2.4x3.2x2.9	2.5x4.9x3.0	2.7x4.3x3.2	5.8x5.1x3.2	2.9x4.5x3.3	4.5x5.7x3.7

Specifications subject to change without notice.

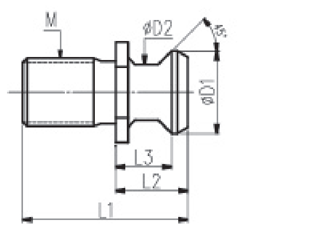
Standard accessories:

1. Dire coupled drive XYZ axis
2. M.P.G.
3. Fully splash guard
4. Direcrt drive 10,000RPM
5. Spindle air blast
6. Spindle chiller unit
7. Spindle voice-proof
8. Auto lubrication system
9. Coolant system
10. Rubber Stopper
11. XYZ Roller type guide way
12. Washing gun and air gun
13. Wash down nozzles
14. Halogen working lamp & alarm light
15. RS-232 interface + 10M cables
16. Heat exchanger on electric cabinet
17. M30 auto power off
18. Leveling pads & adusting screws
19. Tool box & adusting screws
20. Operating manual and part list
21. Rigid tapping
22. Chain type conveyor

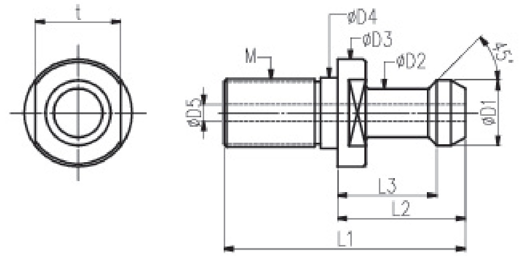
Optional accessories:

1. Coolant ring around spindle system
2. Coolant through spindle system
3. C.T.S. with separate coolant tank(100L)
4. Upgrade spindle motor
5. 12,000/15,000/24,000 RPM HSK
6. Scraper type conveyor
7. Chip auger
8. Oil skimmer
9. Transformer
10. Voltgae regulater
11. Seaworthy packing
12. xyz.roller type guide eay

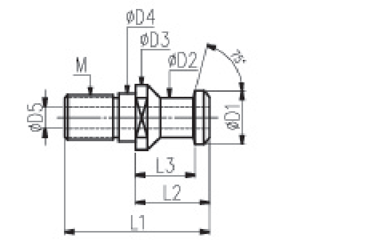
拉拴的說明



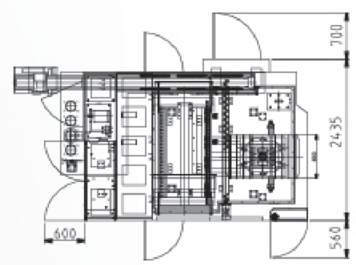
Model No.	D1	D2	L1	L2	L3	M
CAT40-A	0.74	0.49	1.5	0.64	0.44	5/8"-11
CAT50-A	1.14	0.82	2.3	1.0	0.7	1"-8

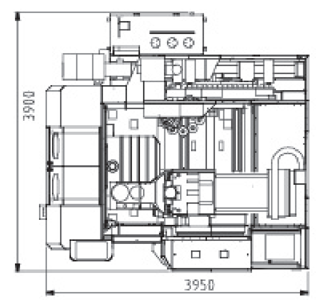


Model No.	D1	D2	D3	D4	D5	L1	L2	L3	M	t
BT40	15	10	23	17	X	60	35	28	M16x2.0	19
BT40-CTS					4					
BT50	23	17	38	25	X	85	45	35	M24x3.0	30
BT50-CTS					6					

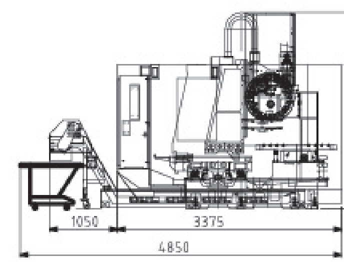


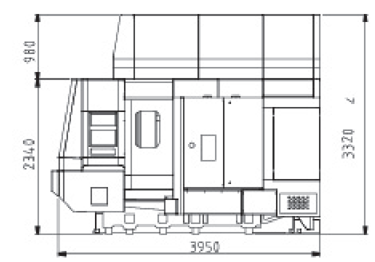
Model No.	D1	D2	D3	D4	D5	L1	L2	L3	M
DIN69872A-16	19	14	23	17		54	26	20	M16x2.0
DIN69872B-16					7.5				
DIN69872A-24	28	21	36	25		74	34	25	M24x3.0
DIN69872B-24					11.5				



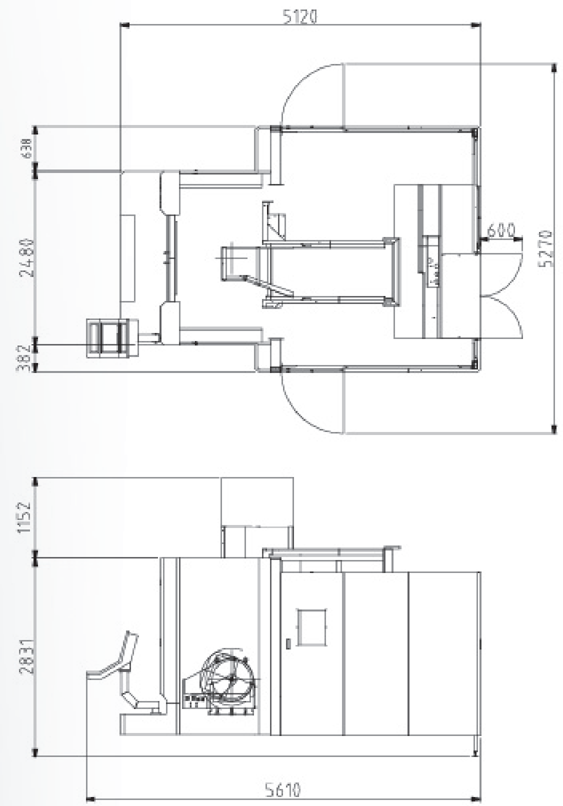


MV-64P/64U

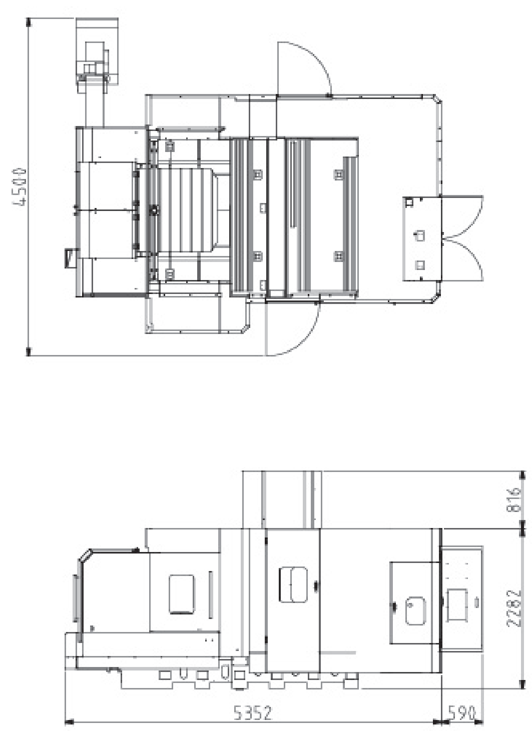




MV-86P/86U



MV-107U

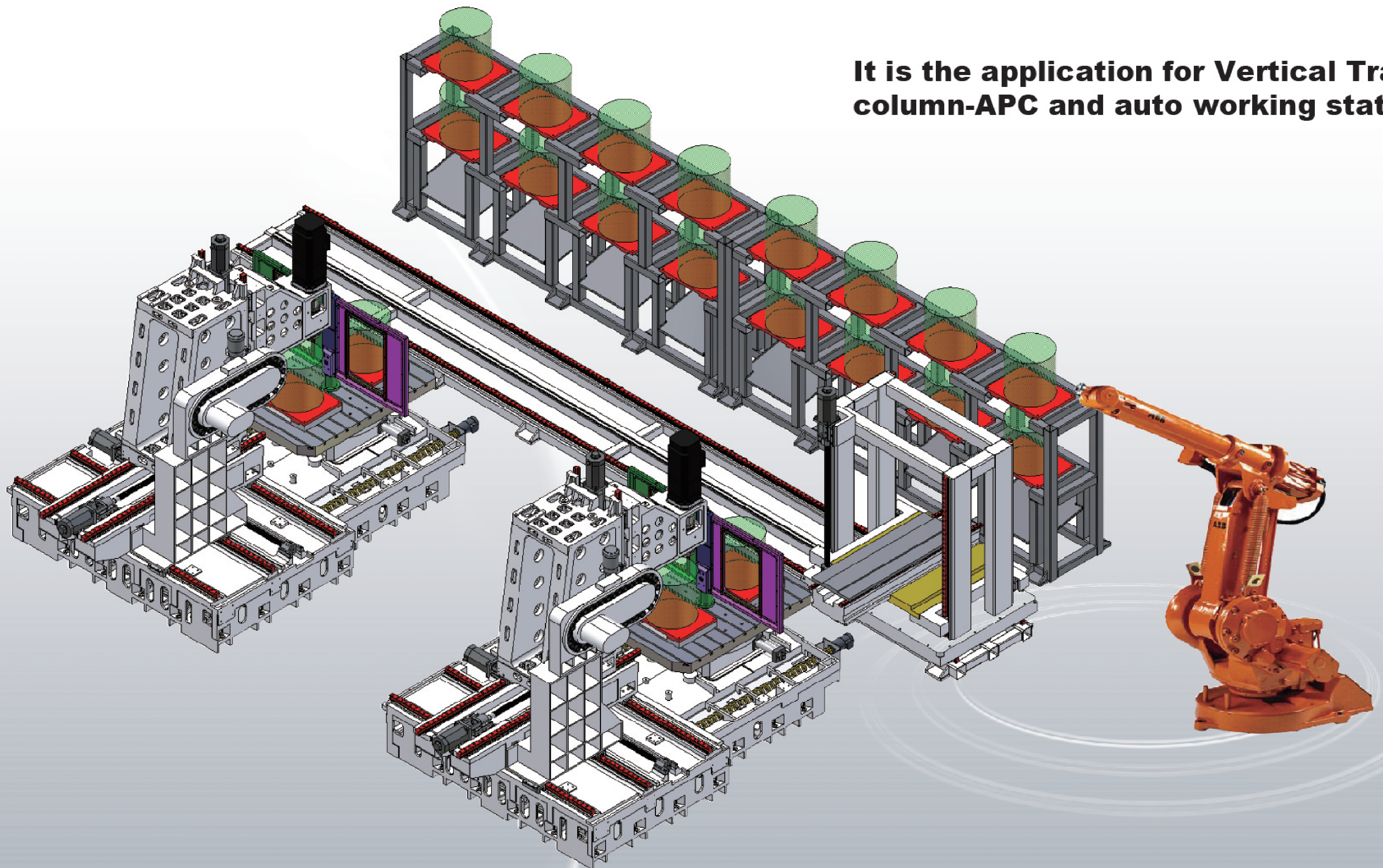


MV-107P

Traveling Column Family

Germany Specification & High Quality

PERFECT JET



It is the application for Vertical Traveling column-APC and auto working stations.

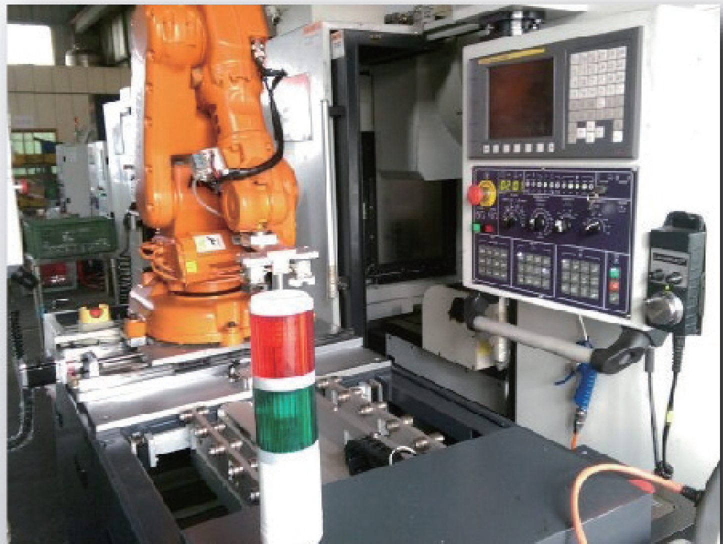
Traveling Column Family

Loading & Unloading Equipment for Automated Warehouse

PERFECT JET

1-to-2 robotics for machine centers

1-to-2



Making CNC process smart

H800

H800 Loading & Unloading Equipment for Automated Warehouse
【Patent pending】

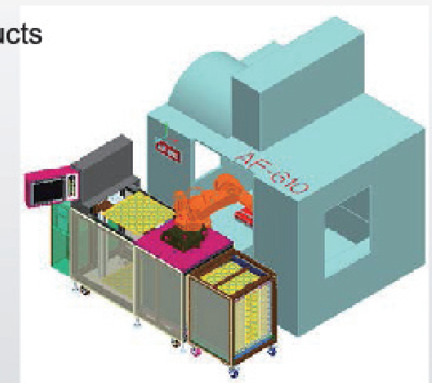
Addresses labor shortage /

Aims quality stability /

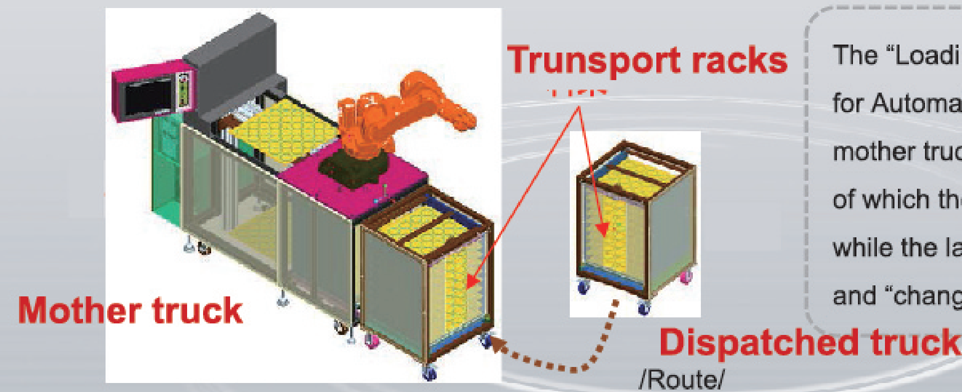
Increases productivity/utilization

Loading & Unloading Equipment for Automated Warehouse

Planning of production line automation addressing issues like products of various small batches, shortage of labor and quality control, to increase machine utilization for CNC process industry.
The robot places, with its grippers, workpieces into a CNC machine center and, when the process is done, picks them to place in the product area.
The transport platform that moves up and down automatically is capable of supplying workpieces for extended hours, enabling automated robotics.

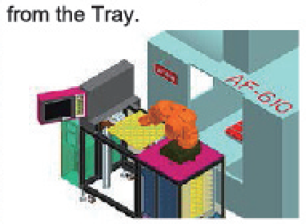


Description of specs and actions: Loading & Unloading Equipment for Automated Warehouse (mother truck + dispatched trucks)



The “Loading & Unloading Equipment for Automated Warehouse” includes a mother truck and dispatched trucks, of which the former serves to “supply” while the latter serve to “transport racks” and “change parts”.

The robot picks workpiece from the Tray.



It unloads them inside the processing machine and grips the completed workpieces back to tray.

When a tray-load is completed, the storage unit rises and lowers to change trays to continue supply.