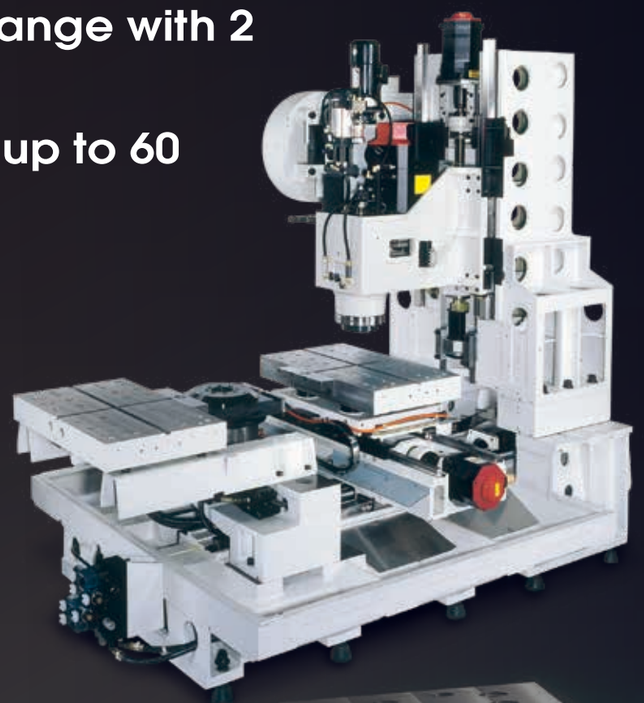
QUASER

we cut faster

MV154APC SERIES

High speed VMC
One piece base and rigid frame.
Automatic pallet change with 2 pallets as standard.
Large tool capacity up to 60 (opt.)



HIGH PRODUCTIVITY M / C
Rapid : 60 m/min
Axes acc / dec : 7 / 7 / 6 m/s^2
Chip to chip : 4.7±0.2 sec
Spindle 0~15,000 min^{-1} : 2.9 sec
Magazine rotation #1~#31 : 9.8 sec

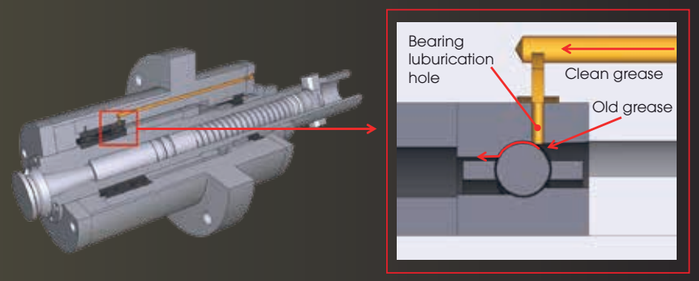
FANUC = F

		MV154APC/E		MV154APC/P				MV154APC/HS	
Spindle code		9B	12B	9B	12B	15C	20C	15C	20C
Motor power X / Y / Z (kW)	F	3 / 3 / 4		3 / 4 / 4				4 / 7 / 7	

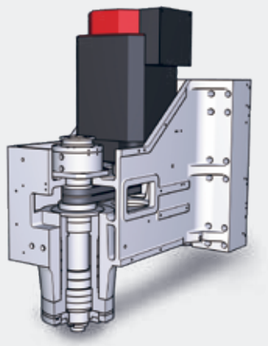
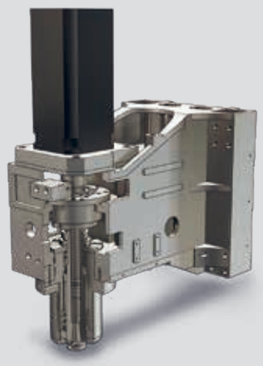
(Covers & Middle wall removed for explanation)
MODEL MV154APC / HS

Unique spindle technology

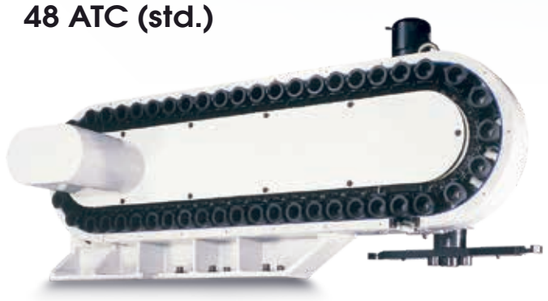
- Re-grease supply system is stableand eco-friendly by supplying new grease intermittently to bearings during high speed rotation.



- Standard on all models

Transmission	Lubrication	Spindle code	Speed range	Model ISO40
● Belt driving 	Grease packed	MB-4.0	9,000 / 12,000 min^{-1}	MV154APC/E MV154APC/P
● Coupling 	Re-grease system	MC-4.1R	15,000 min^{-1}	MV154APC/P MV154APC/HS
		MC-4.0R	20,000 min^{-1}	

48 ATC (std.)

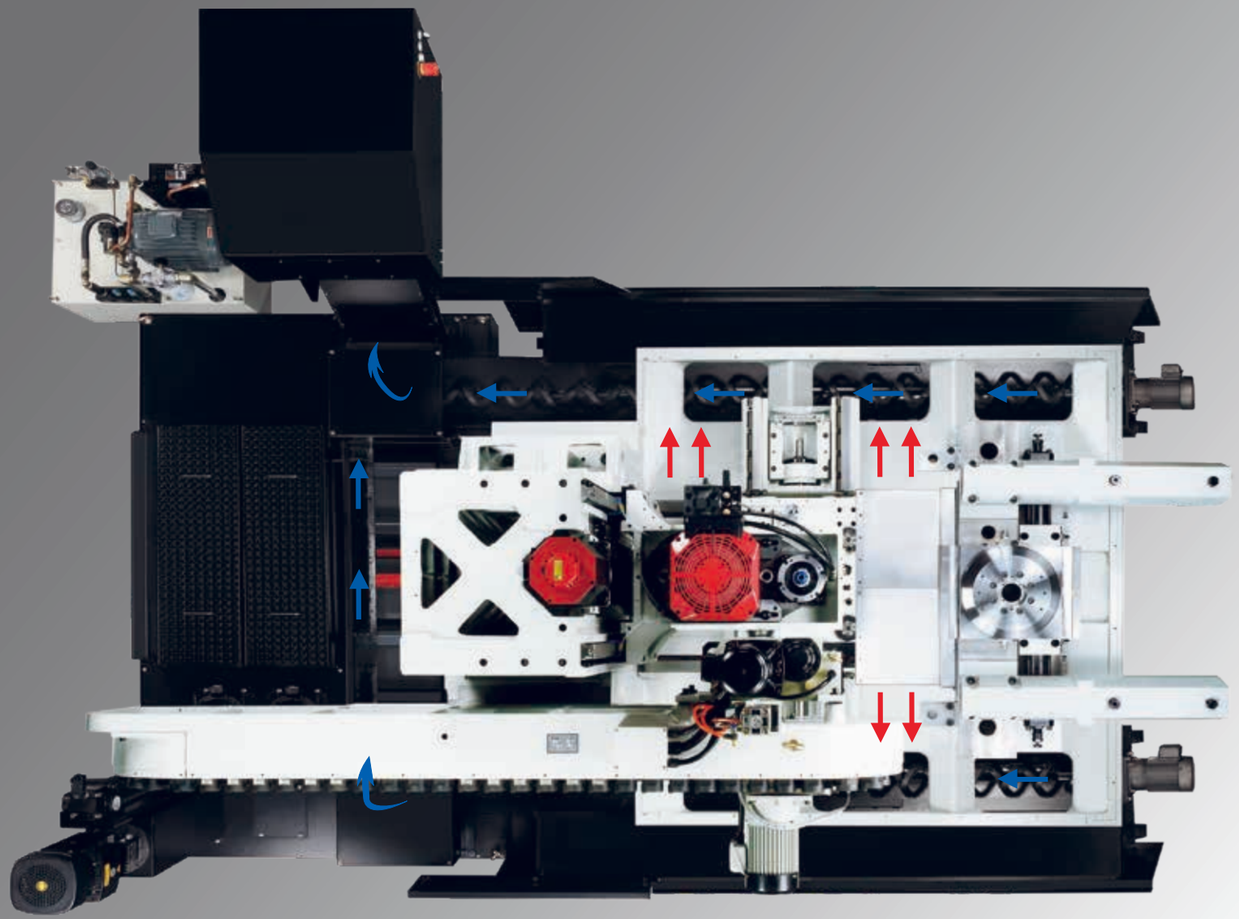


60 ATC (opt.)

45,000 N hydraulic clamping force through four taper cones which use the same mechanism from our long proven horizontal center.
Special cares against swarfs have been built-in include:
- Air blasting at cones connection
- Air pressure monitor against swarf envision

Large side operation door offers easy workpiece & tool checking;
The 920 mm width loading / unloading doors with top free design for heavy work piece.

Note: Machine might be different form the photo if there is any update.



Dual auger + main conveyor at the back for large volume swarf management.

Options:

- Dual rotary table
- Dual tool length measurement plus work probe by single optical interface
- Dual hydraulic fixture preparation

Technical data

Technical data		MV154APC/E		MV154APC/P				MV154APC/HS	
		Economic		Performance				Super high speed	
Spindle code		9B	12B	9B	12B	15C	20C	15C	20C
Work range									
Pallet size (mm)		800 x 500							
Travel	X (mm)	700							
	Y (mm)	500							
	Z (mm)	560							
Spindle nose to table surface (mm)		150 ~ 710							
Max. work piece size X / Y / Z (mm)		800 x 500 x 370							
Table load capacity (kg)		250							
Feed force	X (N)	6,283		4,712				6,912	
	Y (N)	6,283		8,639				9,425	
	Z (N)	11,519		11,519				9,425	
Rapid movement X / Y / Z (m/min)		32		40 / 40 / 32				60	
Acceleration X / Y / Z (m/s^2)		5 / 5 / 5		6 / 6 / 5				7 / 7 / 6	
Dia. & pitch of the ball screw		Ø45 / P=12 / 12 / 12		Ø45 / P=16 / 16 / 12				Ø45 / P=20 / 20 / 20	
Accuracy Positioning / Repeatability									
ISO 230-2		0.008 / 0.004							
JIS 6338 (300 mm)		± 0.003 / ± 0.002							
VDI 3441		0.008 / 0.004							
Main spindle									
Spindle taper		40Taper							
Max. spindle speed		9,000	12,000	9,000	12,000	15,000	20,000	15,000	20,000
Spindle base speed		1,125	1,500	1,125	1,500	1,400	1,500	1,400	1,500
Spindle output power kW (S6-25%)		18.5		25		26	15	26	15
Spindle output torque Nm (S6-25%)		157	118	212	159	177	125	177	125
Spindle transmission		Belt				Coupling		Coupling	
Spindle diameter (mm)		Ø70 / Ø65				Ø80/Ø65	Ø70/Ø60	Ø80/Ø65	Ø70/Ø60
Tool changer									
Tool selection		Random							
Magazine positions		48 (std.) / 60 (opt.)							
Max. tool diameter (mm)		76.2							
w/o adjacent tool (mm)		125							
Max. tool length (mm)		280							
Max. tool weight (kg)		7							
CTC time – ISO 10791-9 (sec.)*		4.7±0.2							
Pallet changer									
Number of pallet		2							
APC method		Swing type							
APC cycle time (sec)*		12±0.2							

Note: * At 60 Hz
(1) Paper documentation is option. (2) Standard for EU area.
- Machine specification might be different from the catalog if there is any specification update.

Main spindle

Belt spindle –9,000 / 12,000 min^{-1}
Coupling spindle –15,000 / 20,000 min^{-1}

Control

(F) : FANUC 0i (For E type)
FANUC 31i (For P / HS type)

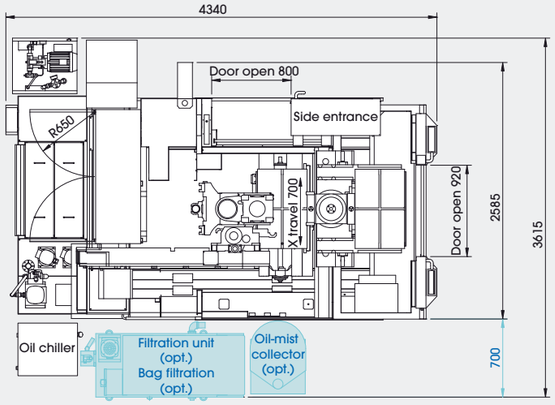
Technical data	MV154APC/E		MV154APC/P				MV154APC/HS	
	Economic		Performance				Super high speed	
Spindle code	9B	12B	9B	12B	15C	20C	15C	20C
Coolant system								
Coolant tank capacity (Liter)	433							
Pump capacity								
- Nozzle coolant	75 L / min., 3 bar							
- Coolant through spindle	25 L / min., 20 bar							
- Wash down	75 L / min., 3 bar							
Machine size								
Height (mm)	3,080				3,150			
Floor space W x D (mm)	3,400 x 4,340							
Weight (kg)	9,500							
Connections								
Main power	220~230V / 50-60Hz, 380~415V / 50-60Hz							
Power consumption (KVA)	27		31		33	29	37	33

● = Standard ○ = Option × = N / A

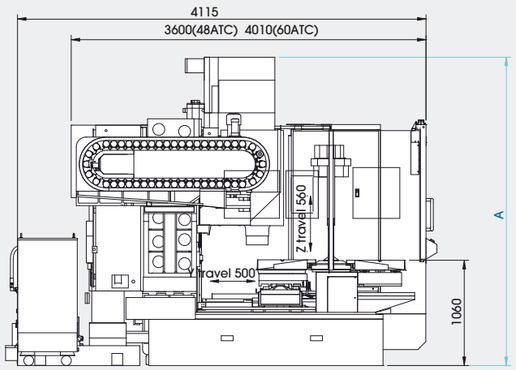
Standard / Option accessories	MV154APC/E		MV154APC/P				MV154APC/HS	
	Economic		Performance				Super high speed	
Spindle code	9B	12B	9B	12B	15C	20C	15C	20C
FANUC 0i	○	●	×	×	×	×	×	×
FANUC - data server	○	○	×	×	×	×	×	×
FANUC 31i <AICC II (Look-ahead 200 blocks)>	×	×	○	●	○	○	●	○
FANUC - data server	×	×	○	○	○	○	○	○
FANUC – high speed processing (Look-ahead 600 blocks)	×	×	○	○	○	○	○	○
Pull stud for BT tooling	●	●	●	●	●	●	●	●
Balance tooling for spindle warm up	●	●	●	●	●	●	●	●
BBT spindle attachment (simultaneous contact)	●	●	●	●	●	●	●	●
48 position tool magazine	●	●	●	●	●	●	●	●
60 position tool magazine	○	○	○	○	○	○	○	○
Linear encoder	○	○	○	○	○	○	●	●
Remote manual pulse generator	●	●	●	●	●	●	●	●
Dual tool measurement	○	○	○	○	○	○	○	○
Work probe	○	○	○	○	○	○	○	○
Hydraulic fixture preparation	○	○	○	○	○	○	○	○
Ø255 rotary table, 1 unit (factory mount only)	○	○	○	○	○	○	○	○
Ø255 rotary table, 2 units (factory mount only)	○	○	○	○	○	○	○	○
Coolant system	●	●	●	●	●	●	●	●
Chip conveyor	●	●	●	●	●	●	●	●
2 Channel air/ coolant spray	●	●	●	●	●	●	●	●
Oil-mist collector	○	○	○	○	○	○	○	○
Bag filtration	○	○	○	○	○	○	○	○
Filtration unit	○	○	○	○	○	○	○	○
Documentation (USB)(1)	○	○	○	○	○	○	○	○
Hand tools shelf	●	●	●	●	●	●	●	●
Foundation bolts & blocks	●	●	●	●	●	●	●	●
Tools with tool box	●	●	●	●	●	●	●	●
Work light	●	●	●	●	●	●	●	●
Machine status light	●	●	●	●	●	●	●	●
CE & EMC (2) / GB	○	○	○	○	○	○	○	○

MV154APC

Installation dimension



	Spindle code	A
MV154APC/E	9B/12B	3,080
MV154APC/P		
MV154APC/HS	15C/20C	3,150



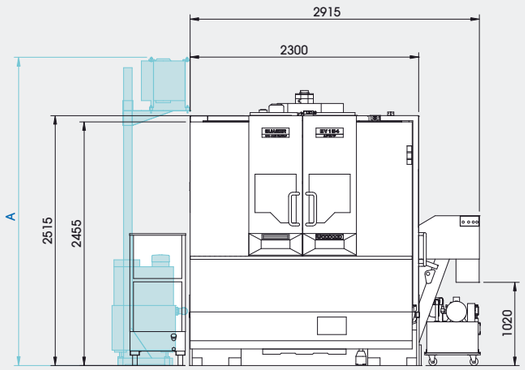
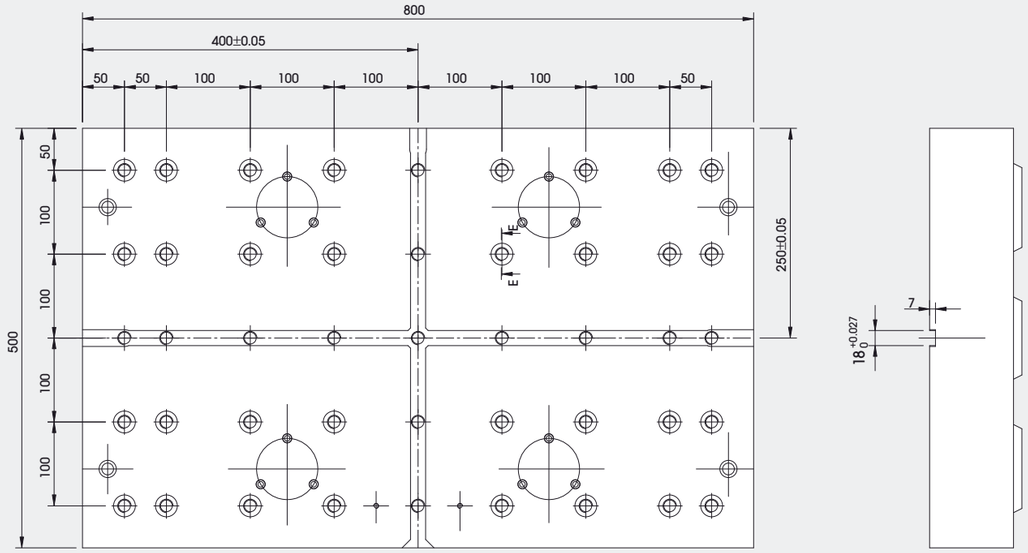
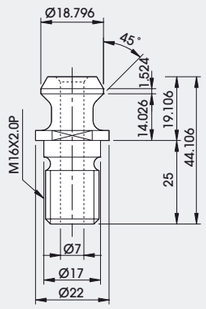


Table dimension

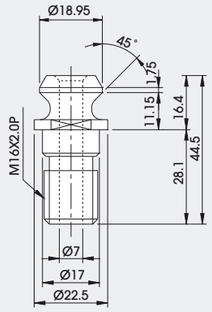


Pull stud and applicable tools

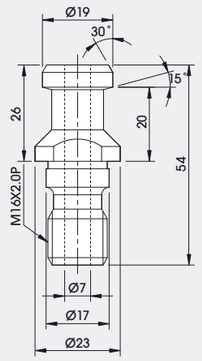
BT 40 (QUASER SUPPLY)



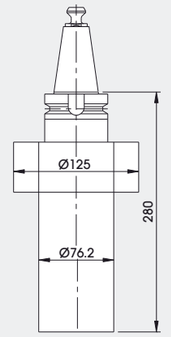
ISO (7388-B)



DIN (69872-A)



B	tool median point distance
W	tool weight
MOMENT=W*B(≦10.29N-m)	



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