

**QUASER**

*we cut faster*

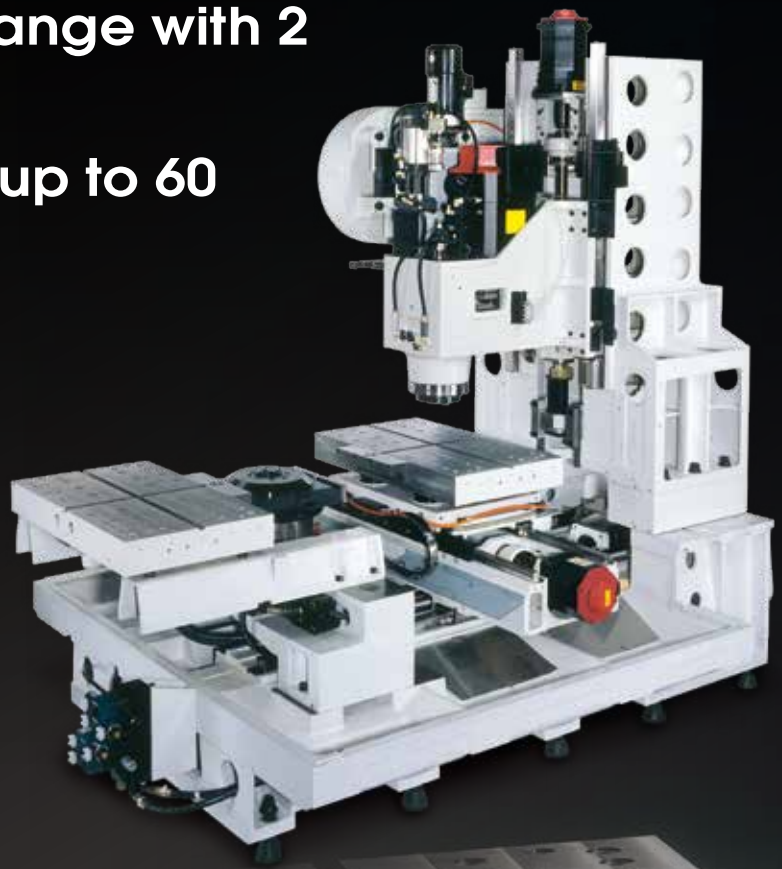
# MV154APC SERIES

## 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<sup>2</sup>

Chip to chip : 4 sec

Spindle 0~15,000 min<sup>-1</sup> : 2.9 sec

Magazine rotation #1~#31 : 9.8 sec

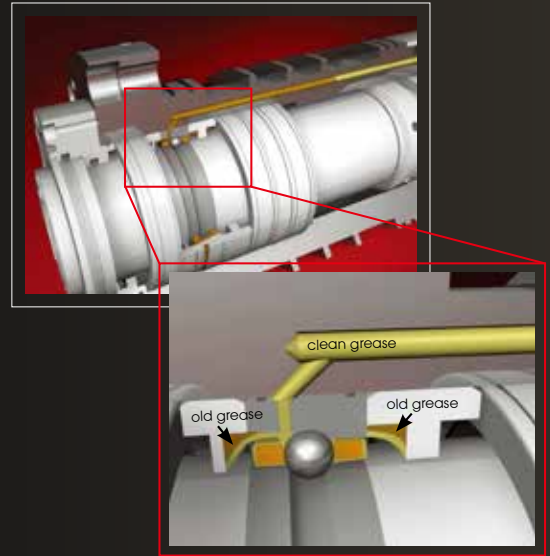
FANUC = **F**

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

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

# Grease replenishing system

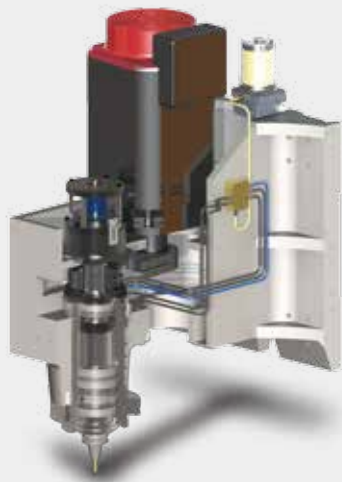
- Use car industry re-greasing principle to supply "clean grease" at 60~100 hr interval by 25~50 mm<sup>3</sup> / shoot.



## Transmission

## Lubrication

- Belt driving



Re-grease system

- Coupling



Re-grease system

● The grease volume in 1st installation can support 30,000 hr or 3 years.

● Standard on all models

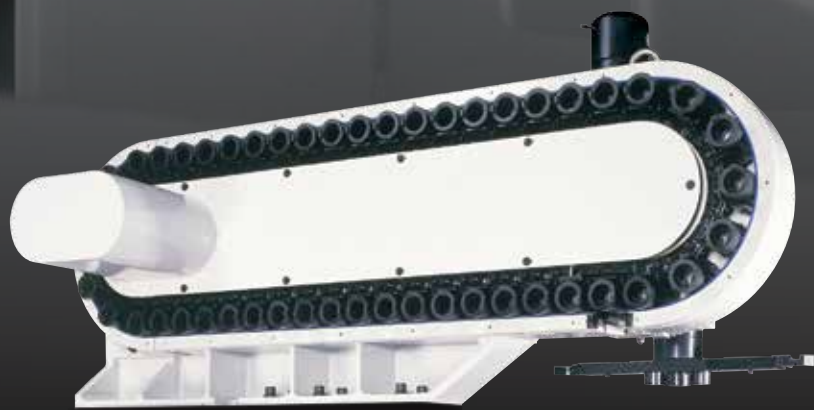


Spindle code	Speed range	Model
		ISO40
GB-4.1R	9,000 / 12,000 min <sup>-1</sup>	MV154APC/E MV154APC/P
GC-4.0R GC-4.1R (2017-Q3)	15,000 min <sup>-1</sup>	
MC-4.1R (Future versions)	15,000 min <sup>-1</sup>	MV154APC/P MV154APC/HS
MC-4.0R (Future versions)	20,000 min <sup>-1</sup>	





48 ATC (std.)





Tool to tool :  
2.6 seconds (/HS)  
Chip to chip :  
4 seconds (/HS)

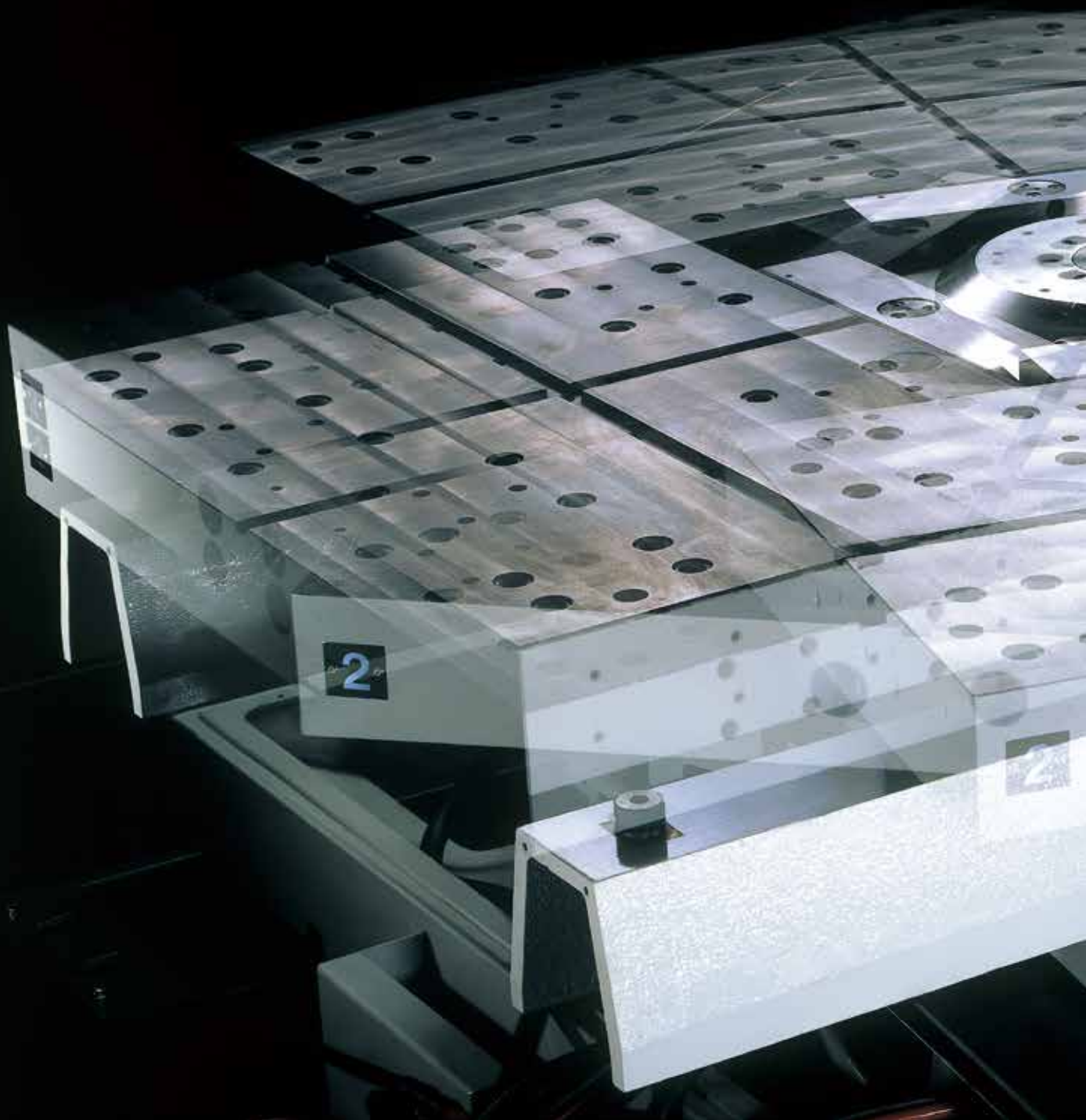
60 ATC (opt.)



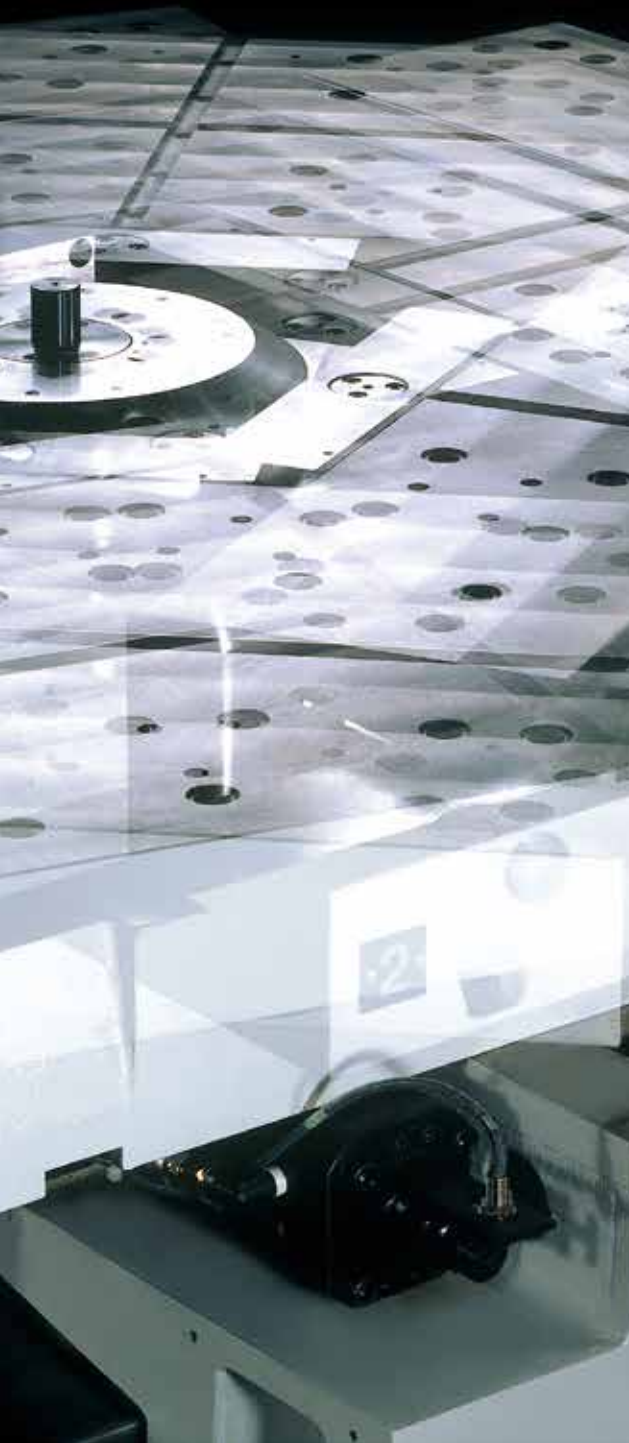
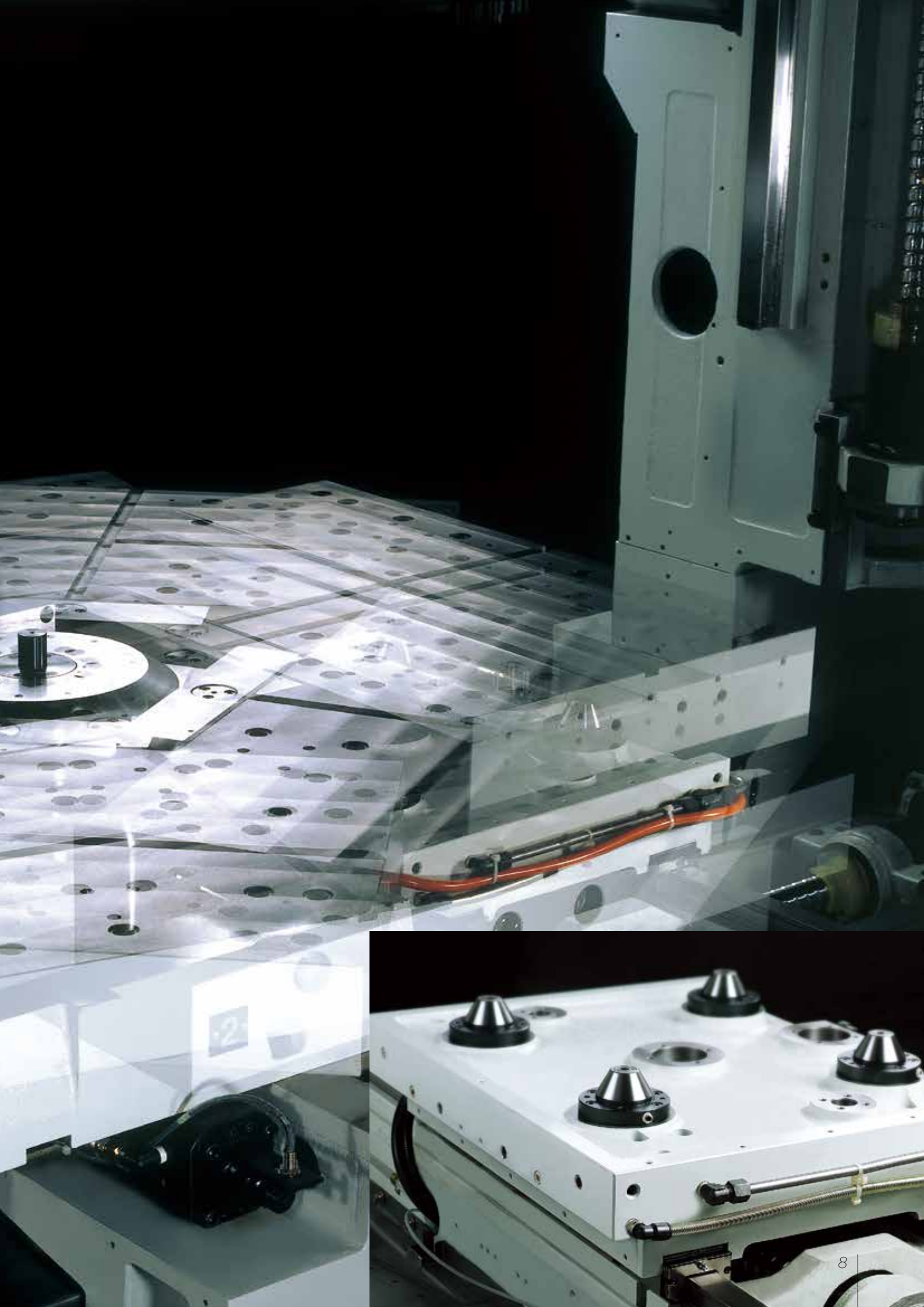
**45,000 N hydraulic clamping force through four taper cones which use the same mechanism from our long proven horizontal center.**

**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.**



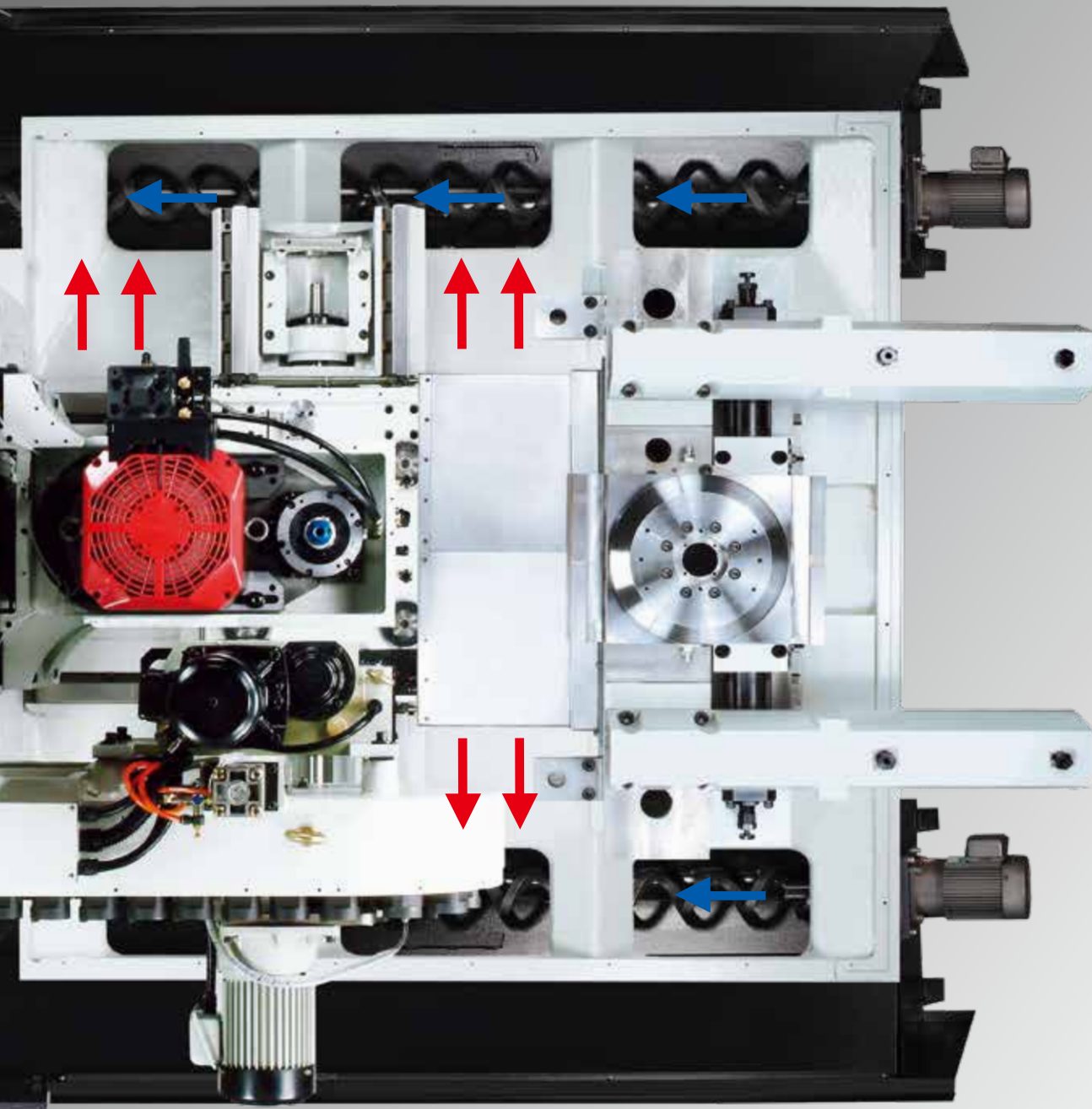
Note: Machine might be different form the photo if there is any update.







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
<b>Work range</b>								
Table 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 <sup>2</sup> )	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	
<b>Accuracy Positioning / Repeatability</b>								
ISO 230-2	0.008 / 0.004							
JIS 6338 (300 mm)	± 0.003 / ± 0.002							
VDI 3441	0.008 / 0.004							
<b>Main spindle</b>								
Spindle taper	BBT40							
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 (S3-25%)	18.5		25		26	15 <sup>(2)</sup>	26	15 <sup>(2)</sup>
Spindle output torque Nm (S3-25%)	157	118	212	159	177	96 <sup>(2)</sup>	177	96 <sup>(2)</sup>
Spindle transmission	Belt				Coupling		Coupling	
Spindle diameter (mm)	Ø70				Ø70 / Ø80	Ø70	Ø70 / Ø80	Ø70
<b>Tool changer</b>								
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.)*	5		4.3				4	
<b>Pallet changer</b>								
Number of pallet	2							
APC method	Swing type							
APC cycle time (sec)*	12							

Note: \* At 60 Hz \*\* The GC-4.0R expect upgrade as GC-4.1R from Q3.2017 shipment. \*\*\* Future versions

(1) Standard for EU area. (2) S3-60%

- Machine specification might be different from the catalog if there is any specification update.



## Main spindle

## Control

Belt spindle -9,000 / 12,000 min<sup>-1</sup>  
 Coupling spindle -15,000 / 20,000 min<sup>-1</sup>

(F) : QUASER mill i (For E type)  
 FANUC 31iB (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
<b>Coolant system</b>								
Coolant tank capacity (Liter)	433							
Pump capacity*								
- Nozzle coolant	75 L / min., 3 bar							
- Through spindle coolant	25 L / min., 20 bar							
- Wash down	75 L / min., 3 bar							
<b>Machine size</b>								
Height (mm)	3,080				3,150			
Floor space W x D (mm)	3,400 x 4,340							
Weight (kg)	9,500							
<b>Connections</b>								
Main power	220V / 60 Hz, 400 V / 50 Hz							
Power consumption (KVA)	25		30	36	31		37	36

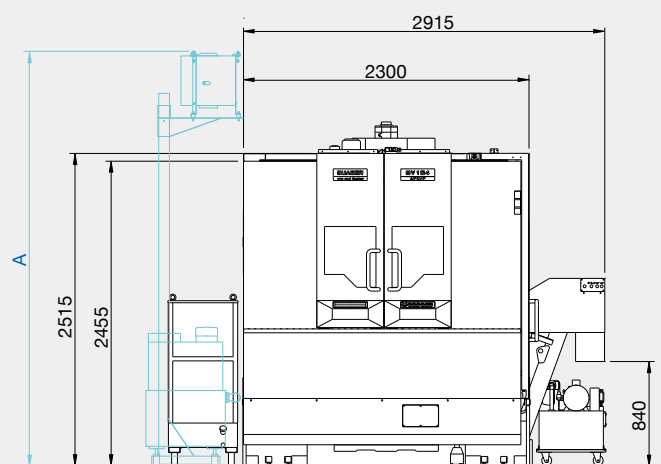
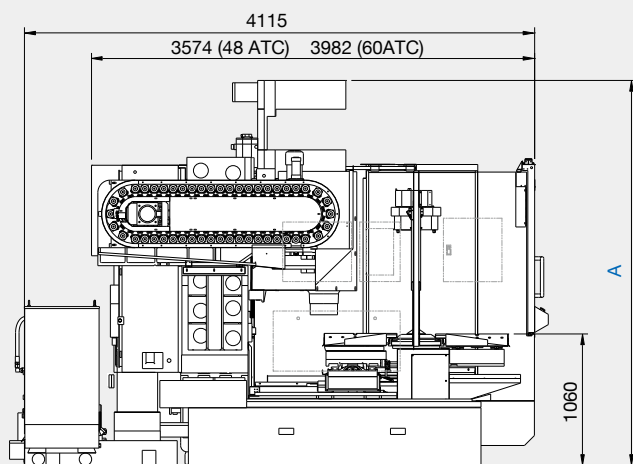
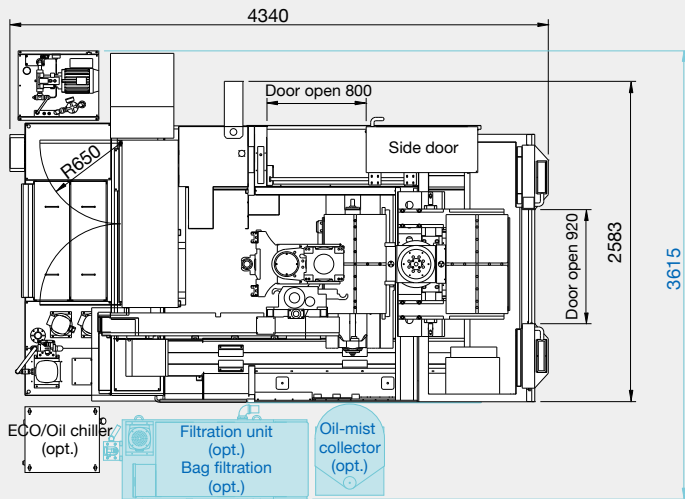
● = Standard ○ = Option ✕ = N / A

Standard / Option accessories	MV154APC/E		MV154APC/P				MV154APC/HS	
	Economic		Performance				Super high speed	
Spindle code	9B	12B	9B	12B	15C	20C	15C	20C
■ QUASER mill i	●	●	✕	✕	✕	✕	✕	✕
■ FANUC 31iB	✕	✕	●	●	●	●	●	●
■ AICC II (Look-ahead 200 blocks)	○	○	●	●	●	●	●	●
■ FANUC - data server	○	○	○	○	○	○	○	○
■ FANUC - high speed processing (Look ahead 600 blocks)	✕	✕	○	○	○	○	○	○
■ 9,000 min <sup>-1</sup> Belt spindle (GB-4.1R)	●	✕	●	✕	✕	✕	✕	✕
■ 12,000 min <sup>-1</sup> Belt spindle (GB-4.1R)	✕	●	✕	●	✕	✕	✕	✕
■ 15,000 min <sup>-1</sup> Coupling spindle (GC-4.0R** / MC-4.1R****)	✕	✕	✕	✕	● / ○	✕	● / ○	✕
■ 20,000 min <sup>-1</sup> Coupling spindle (MC-4.0R****)	✕	✕	✕	✕	✕	●	✕	●
■ 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	●	●	●	●	●	●	●	●
■ Cutter air blast	●	●	●	●	●	●	●	●
■ Oil-mist collector	○	○	○	○	○	○	○	○
■ Bag filtration	○	○	○	○	○	○	○	○
■ Filtration unit	○	○	○	○	○	○	○	○
■ Documentation & hand tools shelf	●	●	●	●	●	●	●	●
■ Foundation bolts & blocks	●	●	●	●	●	●	●	●
■ Tools with tool box	●	●	●	●	●	●	●	●
■ Work light	●	●	●	●	●	●	●	●
■ Machine status light	●	●	●	●	●	●	●	●
■ CE & EMC <sup>(1)</sup> / GB	○	○	○	○	○	○	○	○

# MV154APC

## Installation dimension

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







**QUASER MACHINE TOOLS, INC.**

Address: No. 3, Gong 6th Rd., Youshih  
Industrial Park, Dajia Dist,  
Taichung City 437, Taiwan  
Tel: +886 4 26821277  
Fax: +886 4 26822045  
E-mail: sales@qmt.com.tw  
Web: www.quaser.com

**QUASER EUROPE TECHNIC CENTER  
- SWITZERLAND**

Address: Unterlettenstrasse 16 Postfach  
162 CH-9443 Widnau Switzerland  
Tel: +41 71 722 43 43  
Fax: +41 71 722 43 08  
Mobile phone: +41798229028

**KUNSHAN QUASER MACHINE  
TOOLS, INC.**

Address: (B) No. 287, Kangzhuang Road,  
Zhoushi Town, Kunshan City,  
Jiangsu, P.R. China  
Tel: 0512-82627139  
Fax: 0512-82627138

**Fold here for filing!**