

**QUASER**

*we cut faster*

**MV204C SERIES**

**MV205C SERIES**

**With . . .**

**X & Y travels increase  
from 1,000 x 600 mm to  
1,270 x 700 mm while the  
floor space requirements  
are the same.**

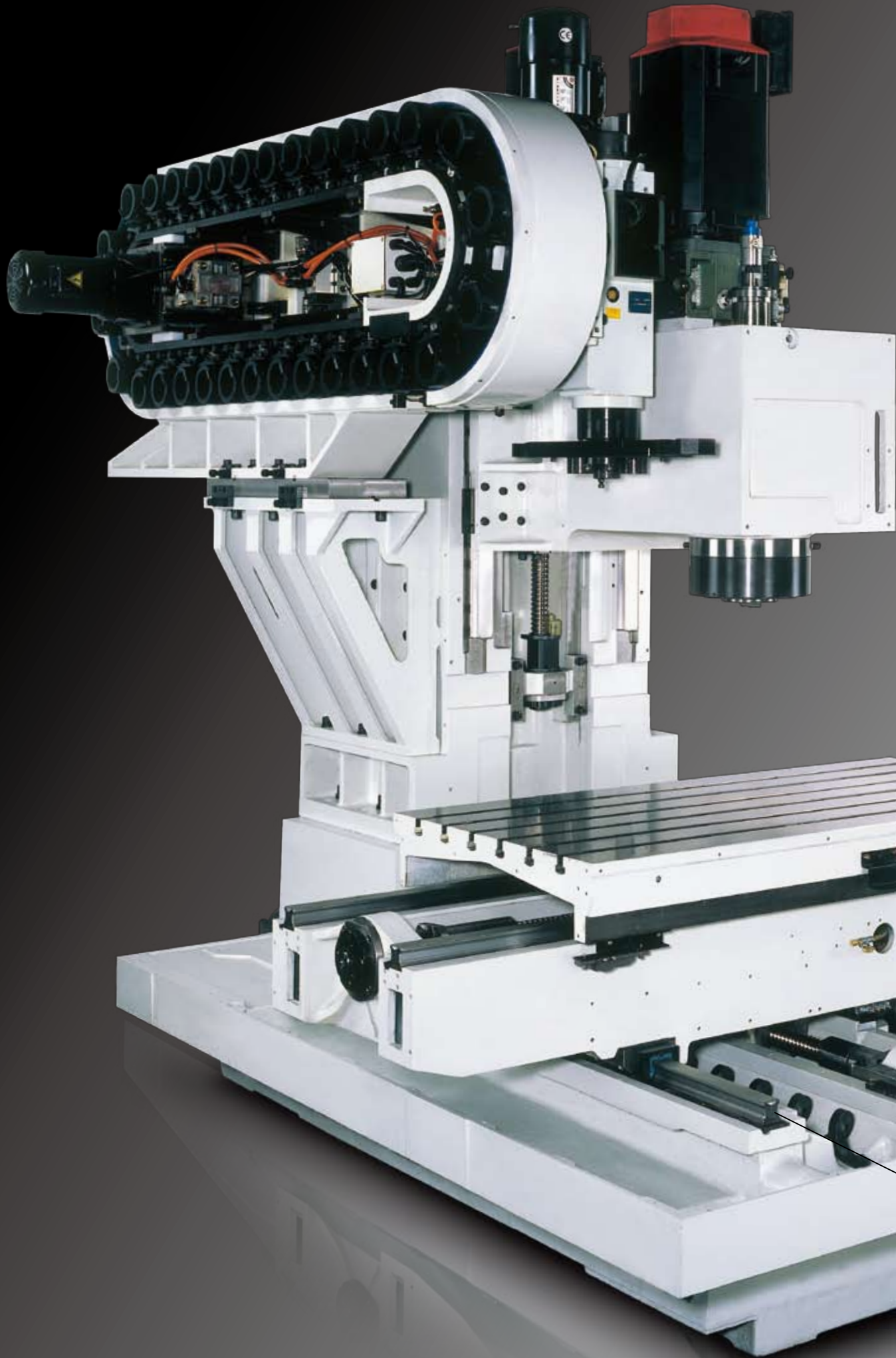


# MV204C

The evolution model of MV204II

(1,422 units built from 1999 to 2011)





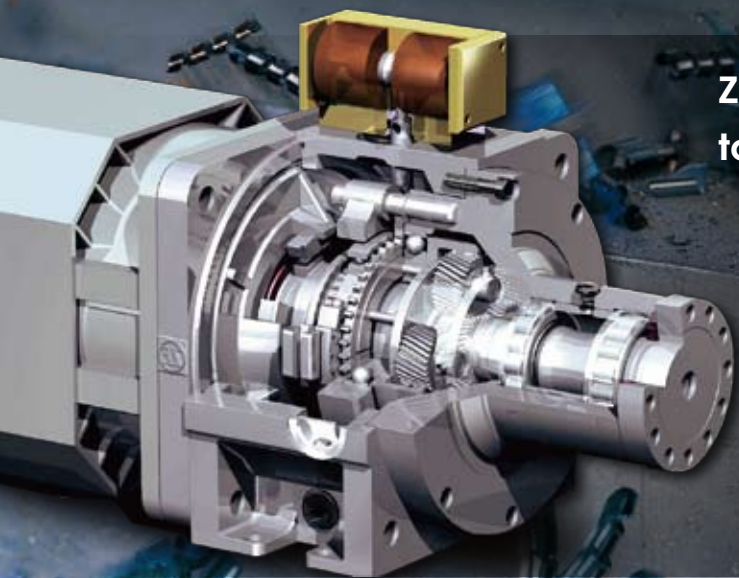
**Very rigid cast iron frame:**


- 1,000 mm Y-spacing
- Anti-deformation (bending & torsion) saddle
- Cross ribs column
- The weight of ATC unit is directly on the machine base





**ZF two speeds gear box for NO.50  
taper mega torque spindle**





**Various spindle systems to meet your requirements; from very affordable NO.40 taper 22 kW, 12,000 min<sup>-1</sup> belt spindle to NO.50 taper mega torque (955Nm) for detail, ref. 「SPINDLE SERIES」**

# 40 Taper



60 ATC

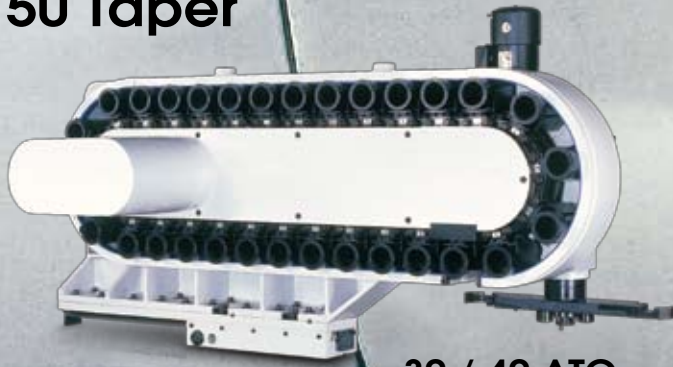


48 ATC



30 ATC

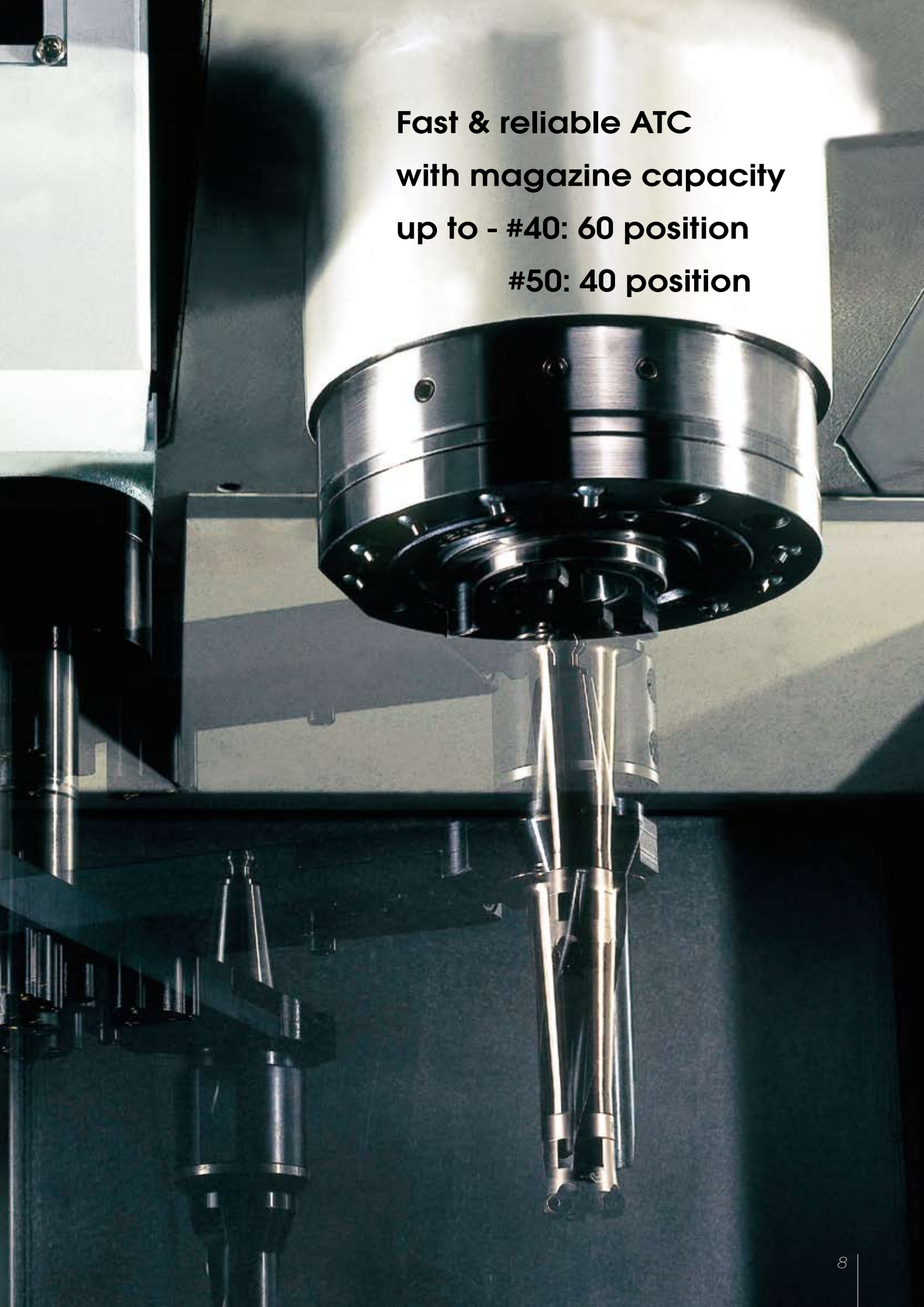
# 50 Taper



30 / 40 ATC



**Fast & reliable ATC  
with magazine capacity  
up to - #40: 60 position  
#50: 40 position**





## Ergonomics . . .

- Operator oriented panel
- View cutting through 3 sides



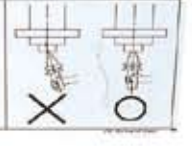


Well organized chip management including the following standards:

- chip augers to the front, large 4 openings & chip conveyers
- 4 bar nozzle coolants
- 4 bar auto flushing on stainless base slopes
- 20 bar T.S.C.
- 600 L tank

Keep hands clear of tool changer  
Tool changer rotates automatically.  
Can cause severe injury.  
Turn off and lock out power at electrical panel before servicing.

Keep hands, clothing and body clear of tool / spindle rotation  
Machine starts and stops automatically  
**SAFETY INSTRUCTION**  
Before working near spindle:  
1. Return all tools to magazine.  
2. Set to manual mode, stop spindle.  
3. Press "Do not touch" sign on operator's panel.  
4. Wear safety glasses.





**LASER**  
cut faster

1,400mm (1,700mm for CPL)

**Easy loading of  
large workpiece**



**MV204**  
CP

195 mm

# QUASER mill i FANUC 31iB

Black: ● ○ × MV204CE & MV204CV & MV204CP & MV204CPL & MV205CP & MV205CPL  
 Blue: ● ○ × MV204CP & MV205CP  
 Red: ● ○ × MV204CPL & MV205CPL

Technical Data	MV204CE / MV204CV		MV204CP / MV204CPL				MV205CP / MV205CPL
	Value		Performance				50 Taper
	/9B	/12B	/9B	/12B	/15C	/15D	/7.5B
<b>Work range</b>							
Table size (mm)	1,400 x 700		1,400 x 700 / 1,700 x 700				
Travel X (mm)	1,270		1,270 / 1,524				
Y (mm)			700				
Z (mm)			610				
Spindle nose to table surface (mm)	150 ~ 760		150 ~ 760				190 ~ 800
Table load capacity (kg)	1,000		1,800 / 2,000				
<b>Feed drive</b>							
Feed force X (N)	6,283		11,519				
Y (N)	6,283		11,519				
Z (N)	11,519		11,519				
Rapid movement X / Y / Z (m/min)			36				
Acceleration X / Y / Z (m/s <sup>2</sup> )	3 / 3 / 3		4 / 4 / 4				4 / 4 / 2
Dia. & pitch of the ball screw			Ø45 / P = 12 / 12 / 12				
<b>Accuracy Positioning / Repeatability</b>							
ISO 230-2			0.008 / 0.004				
JIS 6338 (300 mm)			±0.003 / ±0.002				
VDI3441			0.008 / 0.004				
<b>Main spindle</b>							
Spindle model			40 Taper				50 Taper
Spindle taper			BBT40		BBT40		BBT50
Max. spindle speed	9,000	12,000	9,000	12,000	15,000	15,000	7,500
Spindle base speed	1,125	1,500	1,125	1,500	1,400	500	312
Spindle output kw (S6-40%)	22*		30		22	30**	26*
Spindle output torque Nm (S6-40%)	187*	140*	255	191	150	350***	795*
Spindle transmission	Belt		Belt		Coupling		Gear box
Spindle diameter (mm)			Ø70				Ø100
<b>Tool changer</b>							
Tool selection			Random				
Magazine positions	Std.	30	30 / 48				30
	Opt.	48 / 60	48 & 60 / 60				40
Max. tool diameter (mm)	76.2		76.2				125
w/o adjacent tool (mm)			125				200
Max. tool length (mm)			300				350
Max. tool weight (kg)			7				15
CTC time – ISO 10791-9 (sec)	6		5.5				9

Note: \*(S3-25%) \*\*\*(S3-60%) \*\*\*\*(S3-40%)



## Main spindle

40 Taper	Belt spindle	- 9,000 min <sup>-1</sup> & 12,000 min <sup>-1</sup>
	Coupling spindle	- 15,000 min <sup>-1</sup>
50 Taper	Gear box	- 7,500 min <sup>-1</sup>

## Control

QUASER mill i	(For E type)
FANUC 31iB	(For V and P type)
MITSUBISHI M720	also available see separate sheet

Technical Data	MV204CE / MV204CV Value		MV204CP / MV204CPL Performance				MV205CP / MV205CPL 50 Taper
	/9B	/12B	/9B	/12B	/15C	/15D	/7.5B
<b>Coolant system</b>							
Coolant tank capacity (Liter)	600						
Pump capacity							
- Nozzle coolant	60 L / min, 4 bar						
- Through spindle coolant	25 L / min, 20 bar						
- Wash down	60 L / min, 4 bar						
<b>Machine size</b>							
Height (mm)	3,050		3,050 3,120		3,280 3,350		3,400 3,470
Floor space W x D (mm)							
40 Taper	30 ATC	3,700 x 2,530		3,700 x 2,530 / -			-
	48 ATC	3,700 x 2,900		3,700 x 2,900 / 4,520 x 2,900			-
	60 ATC	3,700 x 3,260		3,700 x 3,260 / 4,520 x 3,260			-
50 Taper	30 ATC	-	-	-	-	3,700 x 3,050 / 4,520 x 3,050	
	40 ATC	-	-	-	-	3,700 x 3,650 / 4,520 x 3,650	
Weight (kg)	9,500		9,500 - 10,100 / 10,100 - 11,000			10,000 - 10,600 / 11,000 - 12,000	
<b>Connections</b>							
Main power	220 V / 60 Hz or 400 V / 50 Hz						
Power consumption (KVA)	25		35		35	45	40

● = Standard ○ = Option × = N / A

Standard / option accessories	MV204CE / MV204CV		MV204CP / MV204CPL				MV205CP / MV205CPL
	/9B	/12B	/9B	/12B	/15C	/15D	/7.5B
■ QUASER mill i for MV204CE only	●	●	×	×	×	×	×
■ FANUC 31iB	●	●	●	●	●	●	●
■ AICC II (Look-ahead 200 blocks)	○/●	○/●	●	●	●	●	●
FANUC data server	○	○	○	○	○	○	○
FANUC high speed processing (Look-ahead 600 blocks)	×/○	×/○	○	○	○	○	○
■ Belt spindle 9,000 / 12,000 min <sup>-1</sup>	●	●	●	●	×	×	×
■ Coupling spindle 15,000 min <sup>-1</sup>	×	×	×	×	●	●	×
■ Gear box spindle 7,500 min <sup>-1</sup>	×	×	×	×	×	×	●
■ 40 Taper 30 position tool magazine	●	●	●×	●×	●×	●×	×
48 position tool magazine	○	○	○●	○●	○●	○●	×
60 position tool magazine	○	○	○	○	○	○	×
■ 50 Taper 30 position tool magazine	×	×	×	×	×	×	●
40 position tool magazine	×	×	×	×	×	×	○
■ ATC auto door	○	○	○	○	○	○	○
■ Linear encoder	○	○	○	○	○	○	○
■ Remote manual pulse generator	●	●	●	●	●	●	●
■ Spindle ECO cooler	●	●	●	●	×	×	×
■ Spindle oil chiller	○	○	○	○	●	●	●
■ 4th axis preparation	●	●	●	●	●	●	●
■ Coolant system	●	●	●	●	●	●	●
■ 20 bar through spindle coolant	●	●	●	●	●	●	●
■ 50 bar through spindle coolant	○	○	○	○	○	○	○
■ Coolant wash gun	●	●	●	●	●	●	●
■ Chip conveyor	●	●	●	●	●	●	●
■ Cutter air blast	●	●	●	●	●	●	●
■ Mist collector	○	○	○	○	○	○	○
■ Probe	○	○	○	○	○	○	○
■ Work light	●	●	●	●	●	●	●
■ Machine status light	●	●	●	●	●	●	●
■ CE & EMC <sup>(1)</sup>	○	○	○	○	○	○	○

Note: <sup>(1)</sup> Standard for Eu area.

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

# HEIDENHAIN iTNC530

Black: ●○× MV204CV & MV204CP & MV204CPL & MV205CP & MV205CPL  
 Blue: ●○× MV204CP & MV205CP  
 Red: ●○× MV204CPL & MV205CPL

Technical Data	MV204CV		MV204CP / MV204CPL			MV205CP / MV205CPL
	Value		Performance			50 Taper
	/9B	/12B	/9B	/12B	/15C	/7.5B
<b>Work range</b>						
Table size (mm)	1,400 x 700		1,400 x 700 / 1,700 x 700			
Travel X (mm)	1,270		1,270 / 1,524			
Y (mm)			700			
Z (mm)			610			
Spindle nose to table surface (mm)	150 ~ 760		150 ~ 760			190 ~ 800
Table load capacity (kg)	1,000		1,800 / 2,000			
<b>Feed drive</b>						
Feed force X (N)	9,268		11,310			
Y (N)	9,268		11,310			
Z (N)	13,666		19,897			
Rapid movement X / Y / Z (m/min)	32		36			
Acceleration X / Y / Z (m/s <sup>2</sup> )	4 / 3 / 4		5 / 5 / 4 4 / 4 / 4			
Dia. & pitch of the ball screw			Ø45 / P = 12 / 12 / 12			
<b>Accuracy Positioning / Repeatability</b>						
ISO 230-2			0.008 / 0.004			
JIS 6338 (300 mm)			±0.003 / ±0.002			
VDI3441			0.008 / 0.004			
<b>Main spindle</b>			40 Taper			50 Taper
Spindle model			BBT40			BBT50
Spindle taper			BBT40			BBT50
Max. spindle speed	9,000	12,000	9,000	12,000	15,000	7,500
Spindle base speed	1,125	1,500	1,125	1,500	1,500	375
Spindle output kw (S6-40%)	25		33			33
Spindle output torque Nm (S6-40%)	212	159	280	210	210	840
Spindle transmission	Belt		Belt		Coupling	Gear box
Spindle diameter (mm)			Ø70			Ø100
<b>Tool changer</b>						
Tool selection			Random			
Magazine positions	Std.	30	30 / 48			30
	Opt.	48 / 60	48 & 60 / 60			40
Max. tool diameter (mm)	76.2		76.2			125
w/o adjacent tool (mm)			125			200
Max. tool length (mm)			300			350
Max. tool weight (kg)			7			15
CTC time – ISO 10791-9 (sec)	6		5.5			9

## Main spindle

40 Taper	Belt spindle	- 9,000 min <sup>-1</sup> & 12,000 min <sup>-1</sup>
	Coupling spindle	- 15,000 min <sup>-1</sup>
50 Taper	Gear box	- 7,500 min <sup>-1</sup>

## Control

HEIDENHAIN iTNC 530  
SIEMENS 828D also available see separate sheet

Technical Data	MV204CV		MV204CP / MV204CPL			MV205CP / MV205CPL
	Value		Performance			50 Taper
	/9B	/12B	/9B	/12B	/15C	/7.5B
<b>Coolant system</b>						
Coolant tank capacity (Liter)	600					
Pump capacity						
- Nozzle coolant	60 L / min, 4 bar					
- Through spindle coolant	25 L / min, 20 bar					
- Wash down	60 L / min, 4 bar					
<b>Machine size</b>			3,050		3,280	3,400
Height (mm)	3,050		3,120		3,350	3,470
Floor space W x D (mm)						
40 Taper	30 ATC	3,700 x 2,530	3,700 x 2,530 / -			-
	48 ATC	3,700 x 2,900	3,700 x 2,900 / 4,520 x 2,900			-
	60 ATC	3,700 x 3,260	3,700 x 3,260 / 4,520 x 3,260			-
50 Taper	30 ATC	-	-			3,700 x 3,050 / 4,520 x 3,050
	40 ATC	-	-			3,700 x 3,650 / 4,520 x 3,650
Weight (kg)	9,500		9,500 - 10,100 / 10,100 - 11,000			10,000 - 10,600 / 11,000 - 12,000
<b>Connections</b>						
Main power	220 V / 60 Hz or 400 V / 50 Hz					
Power consumption (KVA)	25		35		45	40

● = Standard ○ = Option ✕ = N / A

Standard / option accessories	MV204CV		MV204CP / MV204CPL			MV205CP / MV205CPL
	/9B	/12B	/9B	/12B	/15C	/7.5B
■ HEIDENHAIN iTNC530	●	●	●	●	●	●
■ HEIDENHAIN option 2	○	○	○	○	○	○
■ SIEMENS 828D	✕	✕	●	●	●	✕
■ Belt spindle 9,000 / 12,000 min <sup>-1</sup>	●	●	●	●	✕	✕
■ Coupling spindle 15,000 min <sup>-1</sup>	✕	✕	✕	✕	●	✕
■ Gear box spindle 7,500 min <sup>-1</sup>	✕	✕	✕	✕	✕	●
■ 40 Taper 30 position tool magazine	●	●	●✕	●✕	●✕	✕
48 position tool magazine	○	○	○●	○●	○●	✕
60 position tool magazine	○	○	○	○	○	✕
■ 50 Taper 30 position tool magazine	✕	✕	✕	✕	✕	●
40 position tool magazine	✕	✕	✕	✕	✕	○
■ ATC auto door	○	○	○	○	○	○
■ Linear encoder	○	○	○	○	○	○
■ Remote manual pulse generator	●	●	●	●	●	●
■ Spindle ECO cooler	●	●	●	●	✕	✕
■ Spindle oil chiller	○	○	○	○	●	●
■ 4th axis preparation	●	●	●	●	●	●
■ Coolant system	●	●	●	●	●	●
■ 20 bar through spindle coolant	●	●	●	●	●	●
■ 50 bar through spindle coolant	○	○	○	○	○	○
■ Coolant wash gun	●	●	●	●	●	●
■ Chip conveyor	●	●	●	●	●	●
■ Cutter air blast	●	●	●	●	●	●
■ Mist collector	○	○	○	○	○	○
■ Probe	○	○	○	○	○	○
■ Work light	●	●	●	●	●	●
■ Machine status light	●	●	●	●	●	●
■ CE & EMC <sup>(1)</sup>	○	○	○	○	○	○

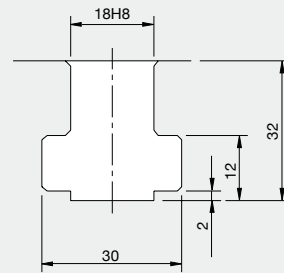
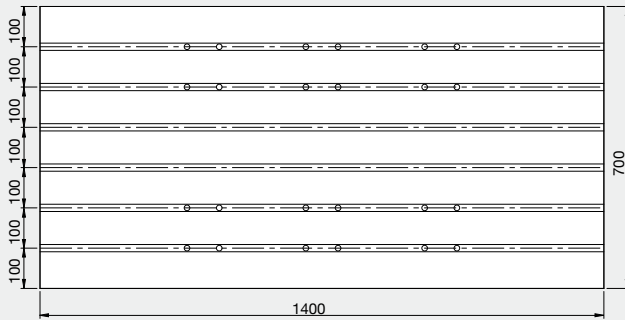
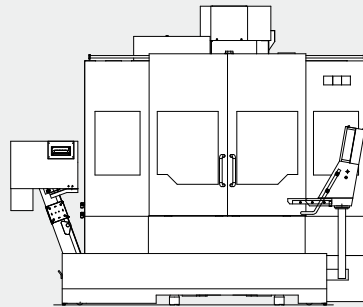
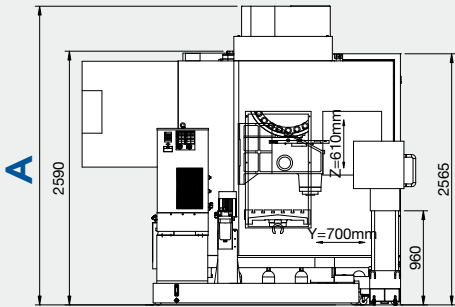
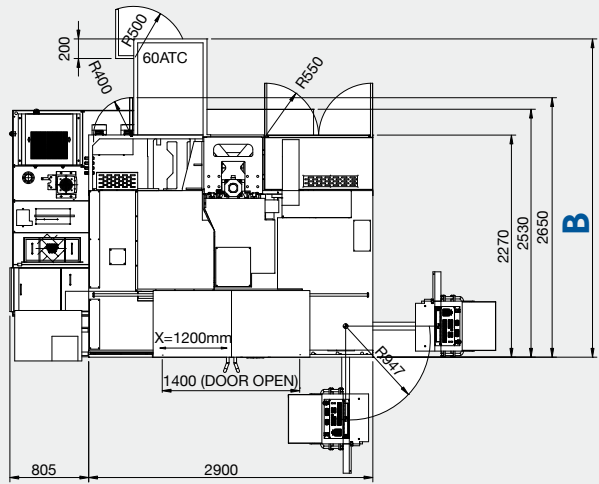
Note: <sup>(1)</sup> Standard for Eu area.

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

# MV204C & MV205C Series

<b>A</b>	E&V	9B / 12B	3,050
	P	9B	
		12B	
		15C / 15D	3,280
		7.5B	3,400

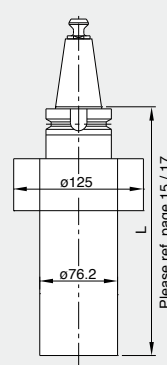
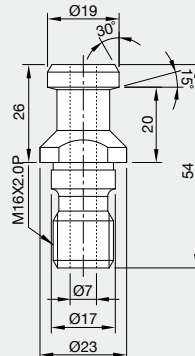
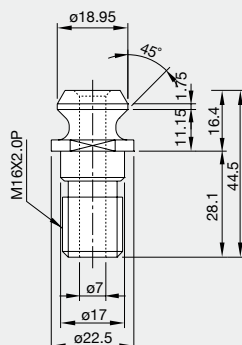
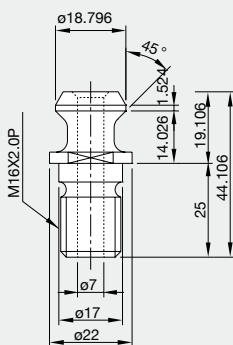
<b>B</b>	40Taper		50Taper	
	30ATC	2,530	30ATC	3,050
	48ATC	2,900	40ATC	3,650
	60ATC	3,260	-	-



BT 40 (QUASER SUPPLY)

ISO (7388-B)

DIN (69872-A)

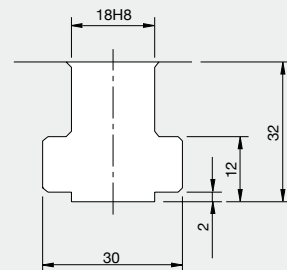
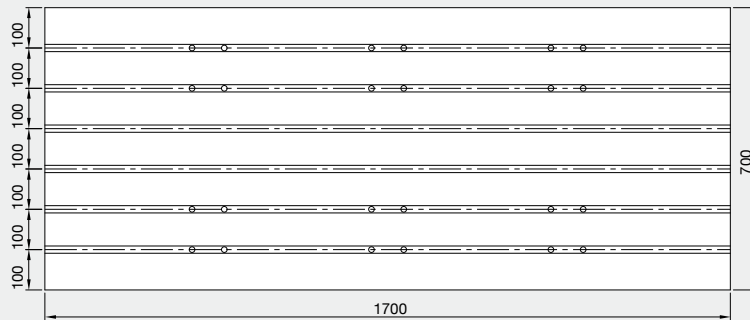
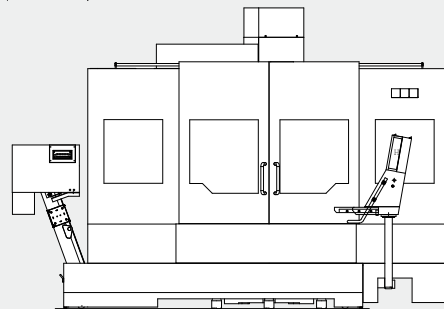
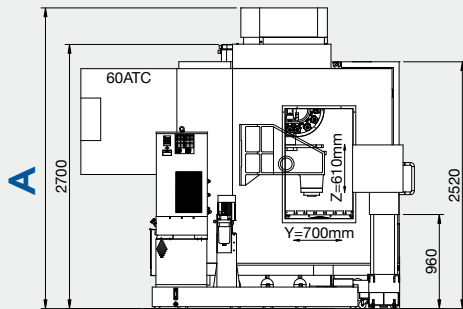
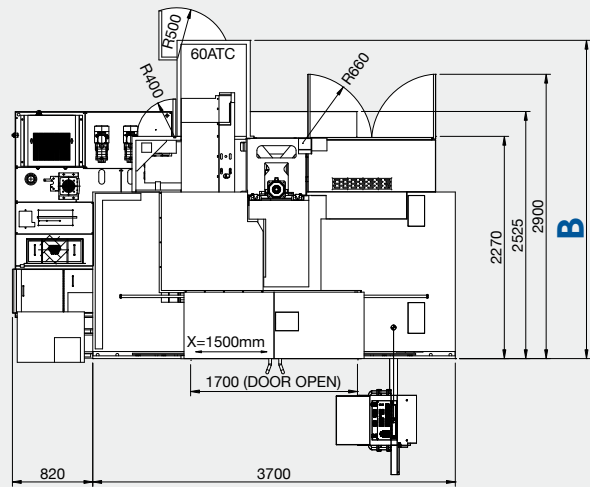


Please ref. page 15 / 17

# MV204CL & MV205CL Series

<b>A</b>	PL	9B	3,080
		12B	
		15C / 15D	3,350
		7.5B	3,120

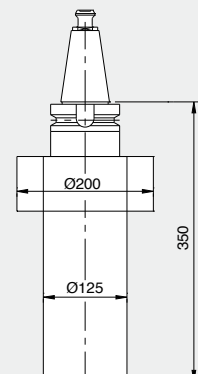
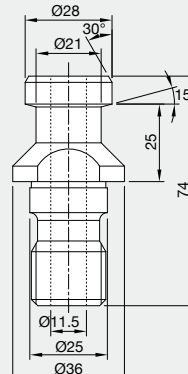
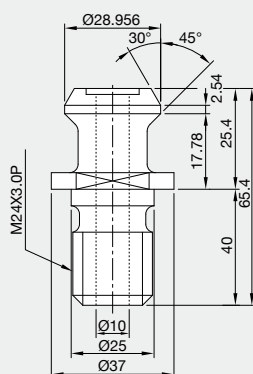
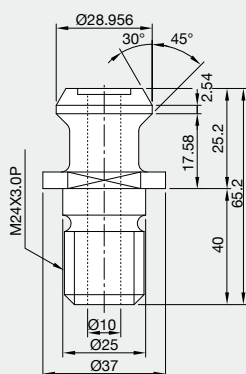
<b>B</b>	40Taper		50Taper	
	48ATC	2,900	30ATC	3,050
	60ATC	3,260	40ATC	3,650



BT 50 (QUASER SUPPLY)

ISO (7388-B)

DIN (69872-A)



# We build machines in a hybrid way

- Very classic craftsmanship combined with most advanced modern equipments in a clean environment...

## QUASER MACHINE TOOLS, INC.

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- SWITZERLAND**

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TOOLS, INC.**

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**Fold here for filing!**