



MV2 SERIES

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CONTENTS

03-04 *MV2 SERIES*

05-08 *Unique spindle technology*

09-10 *ATC system*

11-12 *Coolant system & chip
management*

13-14 *Easy operation*

15-16 *MV204 & MV214 technical data*

17-18 *MV234 technical data*

19-20 *MV205 & MV215 & MV235
technical data*

21-24 *Layout*

25-26 *We build machines in a hybrid
way*

MV2 SERIES:

MV204 / MV205

MV214 / MV215

MV234 / MV235



Note: The object might be different from the photos of catalogue if there is any specification update.

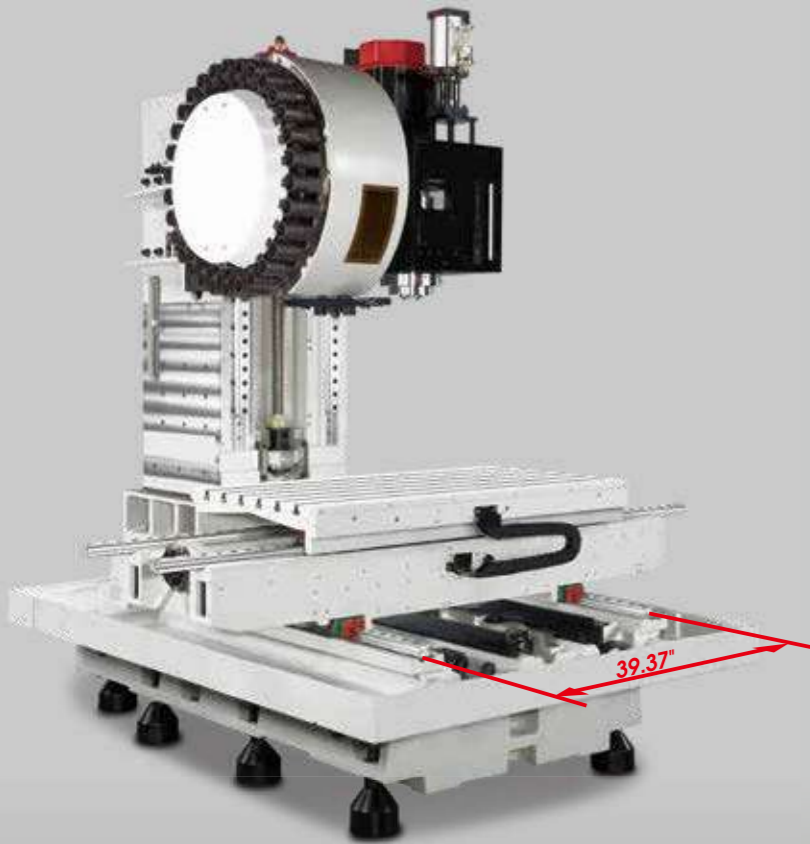
MV2 SERIES

Travel X / Y / Z

MV204 & MV205:
50" / 27.56" / 24.02"

Table size

MV204 & MV205:
55.12" x 27.56"

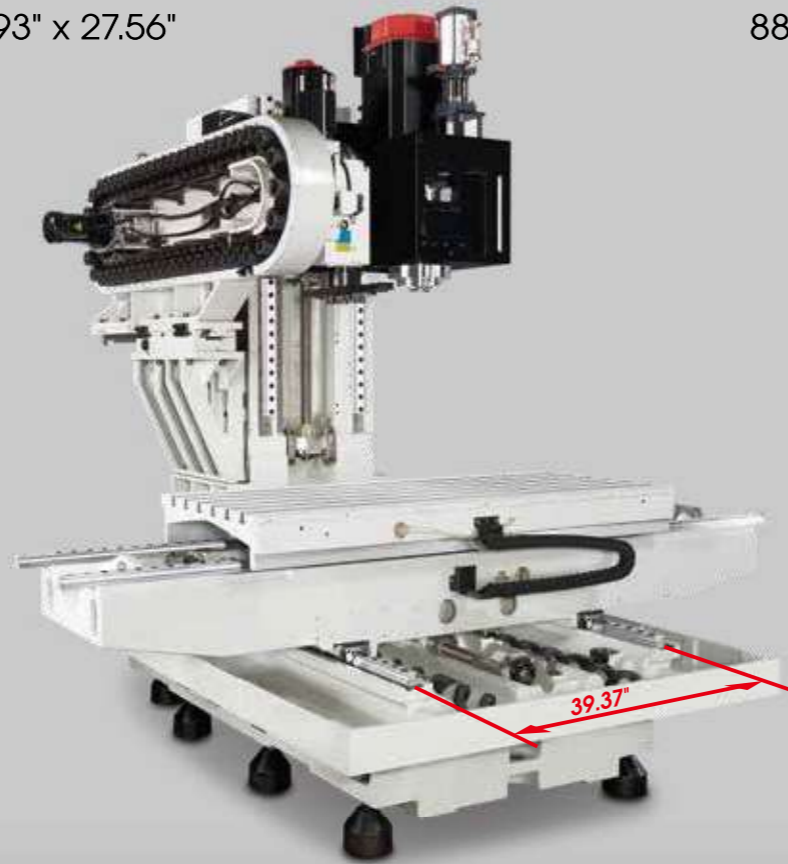


Travel X / Y / Z

MV214 & MV215:
60" / 27.56" / 24.02"

Table size

MV214 & MV215:
66.93" x 27.56"

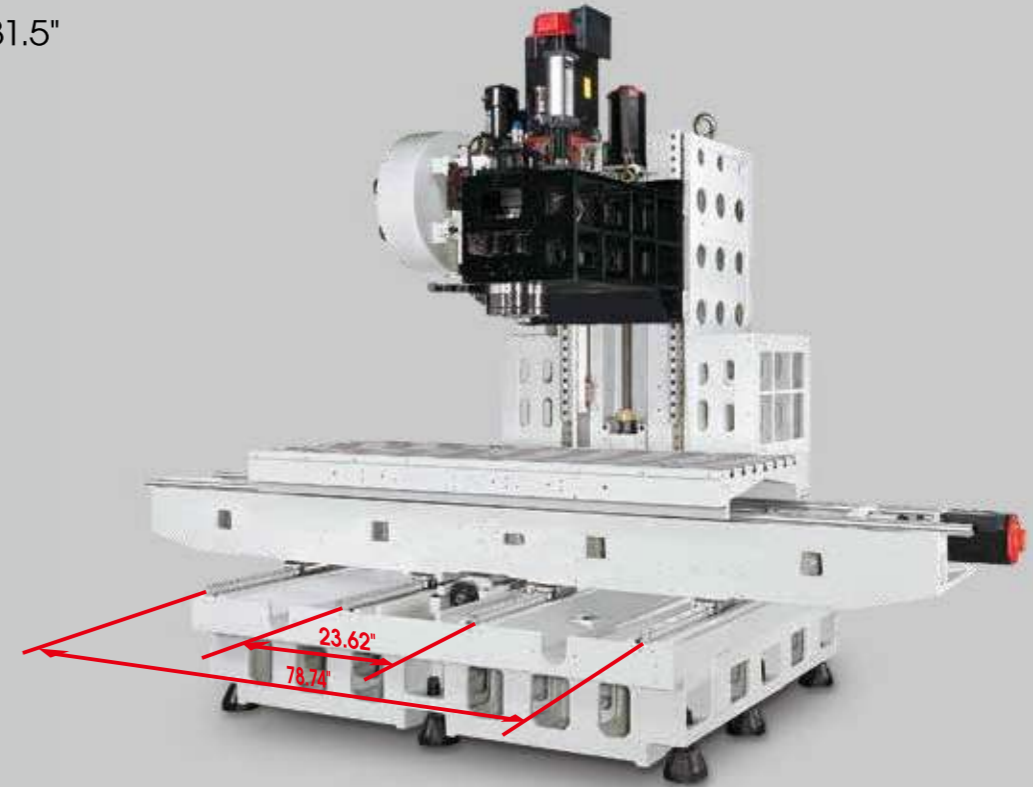


Travel X / Y / Z

MV234 & MV235:
80.31" / 31.5" / 26.02"

Table size

MV234 & MV235:
88.58" x 31.5"



MV204 & MV205



MV214 & MV215

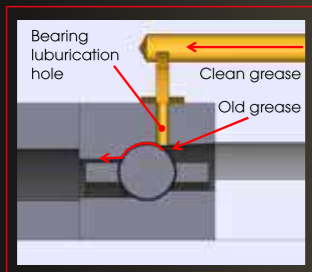
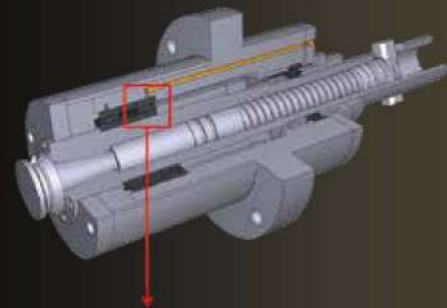


MV234 & MV235

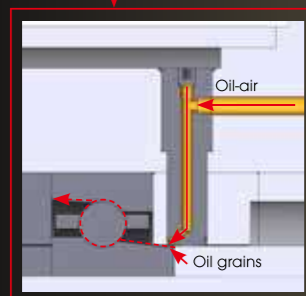
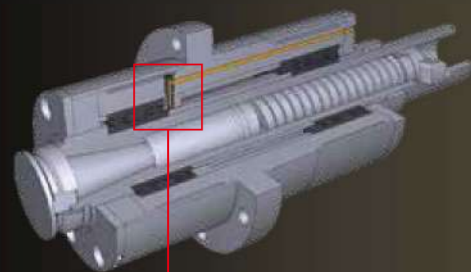


Unique spindle technology

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



- Oil-Air lubrication system realizes stable operation on high speed rotation with large diameter spindles by utilizing compressed air to supply very little oil intermittently to the bearings.



40 Taper

50 Taper



New spindle code	MB-4.0				SC-4.2		MC-4.1R		MC-4.0R		SB-5.0	SB-5.0A	MC-5.0A
Shaft diameter	Ø2.76" / Ø2.56"				Ø3.15" / Ø2.76"		Ø3.15" / Ø2.56"		Ø2.76" / Ø2.36"		Ø3.94"	Ø3.94" / Ø3.54"	Ø3.54"
Spindle Taper	ISO-40				ISO-40		ISO40 / HSK A63		ISO-50		ISO-50	ISO-50	ISO-50
Bearing arrangement	< > =				<< >>		< > =		< > =		<< >>	= << > =	<< >>
Ball bearing type	Ceramic				Ceramic		Ceramic		Ceramic		Steel	Ceramic	Ceramic
Roller bearing type	Steel				-		Steel		Ceramic		-	Steel	-
Bearing lubrication	Grease packed				Grease packed		Re-Grease		Grease packed		Oil-Air	Oil-Air	Oil-Air
Transmission	Belt				Coupling		Coupling		Coupling		Belt	Belt + Gear box	Coupling
Spindle Speed	9,000	12,000	9,000	12,000	10,000	12,000	15,000	20,000	6,000	7,500	15,000		
FANUC													
Spindle base speed	1,125	1,500	1,125	1,500	-	-	1,400	600	1,150	817.5	375	600	
Spindle output hp (S3-25%)	33.5	33.5	46.9		-	-	34.9	40.2 ⁽¹⁾	20.1	24.8	46.9	40.2 ⁽¹⁾	
Spindle output torque ft-lb (S3-25%)	156.5	117.3	219.2	164.6	-	-	130.6	258.3 ⁽³⁾	92.3	159.4	657.6	258.3 ⁽³⁾	
HEIDENHAIN													
Spindle base speed	1,125	1,500	1,500	2,000	-	-	2,000	-	-	-	437.5	-	
Spindle output power hp (S6-25%)	42.9	42.9	62.4		-	-	62.4	-	-	-	54.8	-	
Spindle output torque ft-lb (S6-25%)	200.7	150.6	218.4	163.8	-	-	163.8	-	-	-	658.3	-	
SIEMENS													
Spindle base speed	1,125	1,500	1,500	2,000	-	1,500	2,000	-	-	-	437.5	-	
Spindle output power hp (S6-25%)	38.2	38.2	62.4		-	23.6 ⁽²⁾	62.4	-	-	-	54.8	-	
Spindle output torque ft-lb (S6-25%)	178.6	134.3	218.4	163.8	-	82.7 ⁽²⁾	163.8	-	-	-	658.3	-	
MITSUBISHI													
Spindle base speed	-	-	-	-	1,500	1,400	-	-	-	-	-	-	
Spindle output power hp (30min.)	-	-	-	-	20.1	24.8	-	-	-	-	-	-	
Spindle output torque ft-lb (30min.)	-	-	-	-	70.8	75.3	-	-	-	-	-	-	
CTS Availability	●	●	●	●	X	○	●	●	●	●	●	●	●
Available NC	FANUC = ● HEIDENHAIN = ● SIEMENS = ● MITSUBISHI = ●												
40 Taper													
MV204C	-	-	-	-	●	●	-	-	-	-	-	-	-
MV204E	●	●	-	-	-	-	-	-	-	-	-	-	-
MV204V	●	●	-	-	-	-	-	-	-	-	-	-	-
MV204P / MV214P	-	-	●	●	-	-	●	●	●	●	-	-	-
MV234E	●	●	-	-	-	-	-	-	-	-	-	-	-
MV234P	-	-	●	●	-	-	●	●	●	●	-	-	-
50 Taper													
MV205E / MV215E	-	-	-	-	-	-	-	-	-	-	●	-	-
MV205P / MV215P	-	-	-	-	-	-	-	-	-	-	-	●	●
MV235E	-	-	-	-	-	-	-	-	-	-	●	-	-
MV235P	-	-	-	-	-	-	-	-	-	-	-	●	●

Note : ⁽¹⁾S3-60% ⁽²⁾S6-40% ⁽³⁾S3-40%



F = FANUC **M** = MITSUBISHI **S** = SIEMENS **T** = HEIDENHAIN

Motor	MV204C		MV204E		MV204V		MV204P & MV214P				
	10C	12C	9B	12B	9B	12B	9B	12B	15C	20C	
X / Y / Z (hp)	F	-	4 / 4 / 5		4 / 4 / 5.4		5.4 / 5.4 / 5.4				
	T	-	-		6 / 6 / 6.8		6.8 / 6.8 / 11.5				-
	S	-	4.2 / 4.2 / 5.8	-	-		6.6 / 6.6 / 6.6				-
	M	2.7 / 2.7 / 4		-		-		-			

Motor	MV205E & MV215E	MV205P & MV215P		MV234E		MV234P				MV235E	MV235P		
	7.5B	7.5B	15C	9B	12B	9B	12B	15C	20C	6B	7.5B	15C	
X / Y / Z (hp)	F	5.4 / 5.4 / 5.4		5.4 / 5.4 / 5.4		5.4 / 9.4 / 9.4		5.4 / 9.4 / 9.4				5.4 / 9.4 / 9.4	
	T	-	6.8 / 6.8 / 11.5	-	-	-		11.5 / 11.5 / 11.5		-	-	11.5 / 11.5 / 11.5	-
	S	-	-	-	-	-		7 / 7 / 10.3		-	-	7 / 7 / 10.3	-
	M	-	-	-	-	-		-		-	-	-	-

ATC system



40 Taper

50 Taper



30 ATC



48 ATC



60 ATC



30 ATC / 40 ATC

Coolant system & Chip management

	MV204C	MV204 MV205	MV214 MV215	MV234 MV235
A Chip slot		4		
B Augers plus chip conveyor		2		6
C Wash gun		1	2	2
D Coolant through spindle*	-	290.1 psi		
E Nozzle coolant		50.8 psi		
F Auto flushing on stainless	50.8 psi	65.3 psi		
G Coolant tank		158.4 gal		187.4 gal
H External chip auger	std.		-	
I External chip conveyor	opt.		std.	

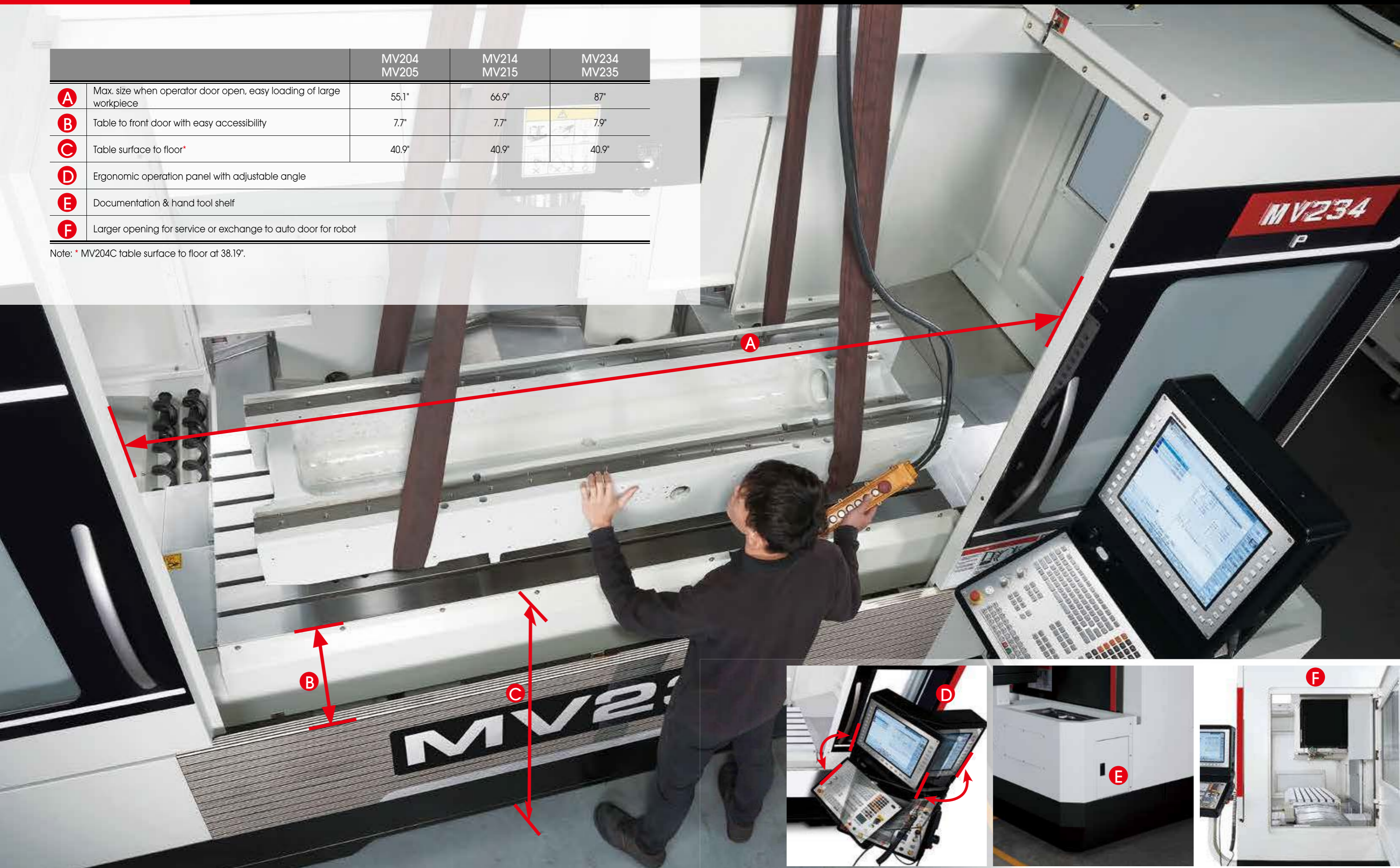
Note: * MV204C not available.



Easy operation

		MV204 MV205	MV214 MV215	MV234 MV235
A	Max. size when operator door open, easy loading of large workpiece	55.1"	66.9"	87"
B	Table to front door with easy accessibility	7.7"	7.7"	7.9"
C	Table surface to floor*	40.9"	40.9"	40.9"
D	Ergonomic operation panel with adjustable angle			
E	Documentation & hand tool shelf			
F	Larger opening for service or exchange to auto door for robot			

Note: * MV204C table surface to floor at 38.19".



Technical data	MV204				MV204 MV214			
	C		E / V		P			
Spindle code	10C	12C	9B	12B	9B	12B	15C (2)	20C (3)
Work range								
Table size	55.12" x 27.56"				55.12" x 27.56" 66.93" x 27.56"			
Travel X / Y / Z	50" / 27.56" / 24.02" (1)				50" / 27.56" / 24.02" (1) 60" / 27.56" / 24.02" (1)			
Spindle nose to table surface	5.91" ~ 29.92" (1)				5.91" ~ 29.92" (1)			
Table load capacity (lb)	2205				3968 / 4409			
Feed drive								
Feed force X / Y / Z (lb)	F	-		1412.48/1412.48/2589.59		2589.59 / 2589.59 / 2589.59		
	T	-		2083.54/2083.54/2542.6		2542.6 / 2542.6 / 4473.04		
	M	1612.56 / 1612.56 / 2648.49		-		-		
	S	2354.21/2354.21/3178.14		-		3178.14 / 3178.14 / 3178.14		
Rapid movement X / Y / Z (ipm)	945 / 945 / 630		1417 (F) / 1417 (F) 1260 (T)		1417			
*Acceleration X / Y / Z (ft/s ²)	F	-		9.84 / 8.2 / 9.84		11.48 / 9.84 / 13.12		
	T	-		8.2 / 6.56 / 13.12		16.4 / 16.4 / 13.12 13.12 / 13.12 / 13.12		
	M	9.84 / 9.84 / 9.84		-		-		
	S	8.2 / 8.2 / 9.84		-		11.48 / 8.2 / 9.84 9.84 / 8.2 / 9.84		
Dia. & pitch of the ball screw	Ø1.77" / P = 0.47" / 0.47" / 0.47" (M)		Ø1.77" / P = 0.47" / 0.47" / 0.47" (F) (T)		Ø1.77" / P = 0.47" / 0.47" / 0.47" (F) (T) (S)			
Accuracy Positioning / Repeatability								
ISO 230-2					0.00031" / 0.00016"			
JIS 6338 (11.81")					±0.00012" / ±0.00008"			
VDI 3441					0.00031" / 0.00016"			
Main spindle								
Spindle taper					40 Taper			
Tool changer								
Tool selection					Random			
Magazine positions	Std.	30				30 / 48		
	Opt.	-		48 / 60		48 & 60 / 60		
Max. tool diameter					3"			
Max. tool dia. Due to neighbor pots are empty					4.92"			
Max. tool length					11.81"			
Max. tool weight (lb)					15.43			
CTC time-ISO 10791-9 (sec.)-60Hz	4.2 (M)	4.2 (M) 4.7 (S)	5.2		4.7			
Coolant system								
Coolant tank capacity (gal)					158.4			
Pump capacity								
- Nozzle coolant					15.84 gal / min, 50.76 psi			
- Coolant through spindle	-	opt.				6.6 gal / min, 290.08 psi		
- Wash down	15.84 gal / min, 50.76 psi				15.84 gal / min, 65.27 psi			
Machine size								
Height	129.9"		129.9"		129.9" 137.8"		129.9" 133.9"	
Floor space W x D	30 ATC	154.3" x 140.6"		145.7" x 140.6"		145.7" x 140.6"		
	48 ATC	-		145.7" x 147.6"		145.7" x 147.6" / 178" x 148.8"		
	60 ATC	-		145.7" x 159.5"		145.7" x 159.5" / 178" x 160.6"		
Weight (lb)	20503		20944 - 22046		20944 - 22266 / 22666 - 24251			
Connections								
Main power					220V or 380V or 400V or 415V / 50Hz or 60Hz			
Power consumption (KVA)	20 (M)	30 (M) 28 (S)	28 (F) 30 (T)		36 (F) 42 (T) 42 (S)	33 (F) 42 (T) 42 (S)	31 (F)	

Note: (1) For detailed specification of Z axis travel 31.5", please refer to page 22 ~ 24.

(2) When MC-4.1 R equipped with option item α L26, its KVA would be 44.

(3) Only for FANUC control.

*Test condition: values are measured by half of the maximum table load capacity.

Standard / Option accessories	MV204 MV214							
	C		E / V		P			
Spindle code	10C	12C	9B	12B	9B	12B	15C	20C
■ QUASER mill i for MV204E only	✕	✕	○ / ✕	● / ✕	✕	✕	✕	✕
Mold machining pack (R660)								
AICC II (Look-ahead 200 blocks)								
Smooth tolerance control	✕	✕	○ / ✕	● / ✕	✕	✕	✕	✕
Jerk control								
Machining quality level adjust function								
FANUC - data server	○	○	○	○	○	○	○	○
■ FANUC 31IB	✕	✕	✕ / ○	✕ / ○	○	●	○	○
AICC II (Look-ahead 200 blocks)	✕	✕	✕ / ○	✕ / ○	○	●	○	○
FANUC - data server	○	○	○	○	○	○	○	○
FANUC - high speed processing (Look-ahead 600 blocks)	✕	✕	✕ / ○	✕ / ○	○	○	○	○
■ HEIDENHAIN TNC640	✕	✕	✕ / ○	✕ / ○	○	○	○	✕
HEIDENHAIN advanced function set2								
■ SIEMENS 828D	✕	●	✕	✕	○	○	○	✕
■ MITSUBISHI M80 (package A)	○	○	✕	✕	✕	✕	✕	✕
■ MITSUBISHI M830	○	○	✕	✕	✕	✕	✕	✕
■ Column raiser (5.91")	○	○	○	○	○ / ✕	○ / ✕	○ / ✕	○ / ✕
■ Tall column (one piece column) / Z axis travel 31.5"	○	○	○	○	○	○	○	○
■ Oil chiller	●	●	●	●	●	●	●	●
■ 4th axis preparation	✕	✕	●	●	●	●	●	●
■ 40 Taper 30 position tool magazine	●	●	●	●	● / ✕	● / ✕	● / ✕	● / ✕
■ 40 Taper 48 position tool magazine	✕	✕	○	○	○ / ●	○ / ●	○ / ●	○ / ●
■ 40 Taper 60 position tool magazine	✕	✕	○	○	○	○	○	○
■ ATC auto door	✕	✕	○	○	○	○	○	○
■ Tooling - BT40	●	●	●	●	●	●	●	●
- ISO40 & DIN40	○	○	○	○	○	○	○	○
- HSK A63	✕	✕	✕	✕	✕	✕	○	○
- CAT40	○	○	○	○	○	○	○	○
■ Pull stud for BT tooling	○	○	●	●	●	●	●	●
■ Balance tooling for spindle warm up	○	○	●	●	●	●	●	●
■ BBT spindle attachment (simultaneous contact)	●	●	●	●	●	●	●	●
■ Remote manual pulse generator	●	●	●	●	●	●	●	●
■ Transformer (1)	○	○	○	○	○	○	○	○
■ Linear scale	✕	✕	○	○	○	○	○	○
■ Thermal compensation	✕	✕	✕	✕	✕	✕	○	○
■ Work probe receiver OMI-2T	✕	✕	○	○	○	○	○	○
■ Work Probe	✕	✕	○	○	○	○	○	○
■ Tool length / breakage measurement	○	○	○	○	○	○	○	○
■ Coolant system	●	●	●	●	●	●	●	●
■ Coolant wash gun / wash down	●	●	●	●	●	●	●	●
■ Air gun	○	○	○	○	○	○	○	○
■ Coolant through spindle 290.08 psi	✕	○	●	●	●	●	●	●
■ Coolant through spindle 725.19 psi	✕	○	○	○	○	○	○	○
■ Cutter air blast	●	●	●	●	●	●	●	●
■ External chip auger	●	●	✕	✕	✕	✕	✕	✕
■ External chip conveyor	○	○	●	●	●	●	●	●
■ Oil-mist collector	○	○	○	○	○	○	○	○
■ Oil skimmer	○	○	○	○	○	○	○	○
■ Bag filtration	○	○	○	○	○	○	○	○
■ Filtration unit	✕	○	○	○	○	○	○	○
■ Documentation (USB) (2)	●	●	●	●	●	●	●	●
■ Total Enclosure Guard (with Top side cover)	●	●	●	●	●	●	●	●
■ Foundation bolts & blocks	●	●	●	●	●	●	●	●
■ Work light	●	●	●	●	●	●	●	●
■ Machine status light	●	●	●	●	●	●	●	●
■ CE & EMC (3) / GB	○	○	○	○	○	○	○	○

Note: (1) Transformer as standard or option item will be varied according to control system and power supply condition.

(2) Paper documentation is option. (3) Standard for Eu area except C type.

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

Technical data	MV234					
	E		P			
Spindle code	9B	12B	9B	12B	15C ⁽²⁾	20C ⁽³⁾
Work range						
Table size (mm)	88.58" x 31.5"					
Travel X / Y / Z (mm)	80.31" / 31.5" / 26.02" ⁽¹⁾					
Spindle nose to table surface (mm)	5.91" ~31.93" ⁽¹⁾					
Table load capacity (lb)	4409					
Feed drive						
Feed force X / Y / Z (lb)	F	2589.59 / 3531.32 / 3531.32	2589.59 / 3531.32 / 3531.32			
	T	-	4473.04 / 4473.04 / 4473.04		-	
	S	-	4237.44 / 4237.44 / 5650.15		-	
Rapid movement X / Y / Z (ipm)	787 / 787 / 630					
*Acceleration X / Y / Z (ft/s ²)	F	6.56 / 6.56 / 6.56				
	T	-	11.48 / 11.48 / 11.48		-	
	S	-	11.48 / 11.48 / 11.48		-	
Dia. & pitch of the ball screw	Ø1.97" / P=0.47" / 0.47" / 0.47"					
Accuracy Positioning / Repeatability						
ISO 230-2	0.00031" / 0.00016"					
JIS 6338 (11.81")	±0.00012" / ±0.00008"					
VDI 3441	0.00031" / 0.00016"					
Main spindle						
Spindle taper	40 Taper					
Tool changer						
Tool selection	Random					
Magazine positions	48 (std.) 60 (opt.)					
Max. tool diameter	3"					
Max. tool dia. Due to neighbor pots are empty	4.92"					
Max. tool length	11.81"					
Max. tool weight (lb)	15.43					
CTC time-ISO 10791-9 (sec.)-60Hz	5.2	4.7 (F) 5.7 (T)			4.7 (F)	
Coolant system						
Coolant tank capacity (gal)	187.4 gal					
Pump capacity						
- Nozzle coolant	15.8 gal / min, 50.76 psi					
- Coolant through spindle	6.6 gal / min, 290.08 psi					
- Wash down	15.8 gal / min, 65.27 psi					
Machine size						
Height	133.9"			137.8"		
Floor space W x D	48 ATC	226.8" x 167.7"				
	60 ATC	226.8" x 167.7"				
Weight (lb)	30203 (48ATC) 30423 (60ATC)					
Connections						
Main power	220V or 380V or 400V or 415V / 50Hz or 60Hz					
Power consumption (KVA)	38 (F)	44 (F) 46 (T) 47 (S)		38 (F) 46 (T) 47 (S)		38 (F)

Note: ⁽¹⁾ For detailed specification of Z axis travel 31.5", please refer to page 22 ~ 24.⁽²⁾ When MC-4.1 R equipped with option item α L26, its KVA would be 48.⁽³⁾ Only for FANUC control.

*Test condition: values are measured by half of the maximum table load capacity.

Standard / Option accessories	MV234					
	E		P			
Spindle code	9B	12B	9B	12B	15C	20C
■ QUASER mill i	○	●	✕	✕	✕	✕
Mold machining pack (R660)						
AICC II (Look-ahead 200 blocks)						
Smooth tolerance control	○	●	✕	✕	✕	✕
Jerk control						
Machining quality level adjust function						
FANUC - data server	○	○	○	○	○	○
■ FANUC 31IB	✕	✕	○	●	○	○
AICC II (Look-ahead 200 blocks)						
FANUC - data server	○	○	○	○	○	○
FANUC - high speed processing (Look-ahead 600 blocks)	✕	✕	○	○	○	○
■ HEIDENHAIN TNC640	✕	✕	○	○	○	✕
HEIDENHAIN advanced function set2						
■ SIEMENS 828D	✕	✕	○	○	○	✕
■ SIEMENS 840D	✕	✕	○	○	○	✕
■ Z axis travel 31.5" (column raiser)	○	○	○	○	○	○
■ Oil chiller	●	●	●	●	●	●
■ 4 th axis preparation	●	●	●	●	●	●
■ 40 Taper 48 position tool magazine	●	●	●	●	●	●
■ 40 Taper 60 position tool magazine	○	○	○	○	○	○
■ ATC auto door	○	○	○	○	○	○
■ Tooling - BT40	●	●	●	●	●	●
- ISO40 & DIN40	○	○	○	○	○	○
- HSK A63	✕	✕	✕	✕	○	○
- CAT40	○	○	○	○	○	○
■ Pull stud for BT tooling	●	●	●	●	●	●
■ Balance tooling for spindle warm up	●	●	●	●	●	●
■ BBT spindle attachment (simultaneous contact)	●	●	●	●	●	●
■ Remote manual pulse generator	●	●	●	●	●	●
■ Transformer ⁽¹⁾	○	○	○	○	○	○
■ Linear scale	○	○	○	○	○	○
■ Thermal compensation	✕	✕	✕	✕	○	○
■ Work probe receiver OMI-2T	○	○	○	○	○	○
■ Work Probe	○	○	○	○	○	○
■ Tool length / breakage measurement	○	○	○	○	○	○
■ Coolant system	●	●	●	●	●	●
■ Coolant wash gun / wash down	●	●	●	●	●	●
■ Air gun	○	○	○	○	○	○
■ Coolant through spindle 290.08 psi	●	●	●	●	●	●
■ Coolant through spindle 725.19 psi	○	○	○	○	○	○
■ Cutter air blast	●	●	●	●	●	●
■ External chip conveyor	●	●	●	●	●	●
■ Oil-mist collector	○	○	○	○	○	○
■ Oil skimmer	○	○	○	○	○	○
■ Bag filtration	○	○	○	○	○	○
■ Filtration unit	○	○	○	○	○	○
■ Documentation (USB) ⁽²⁾	●	●	●	●	●	●
■ Total Enclosure Guard (with Top side cover)	●	●	●	●	●	●
■ Foundation bolts & blocks	●	●	●	●	●	●
■ Work light	●	●	●	●	●	●
■ Machine status light	●	●	●	●	●	●
■ CE & EMC ⁽³⁾ / GB	○	○	○	○	○	○

Note: ⁽¹⁾ Transformer as standard or option item will be varied according to control system and power supply condition.⁽²⁾ Paper documentation is option. ⁽³⁾ As standard for Europe area.

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

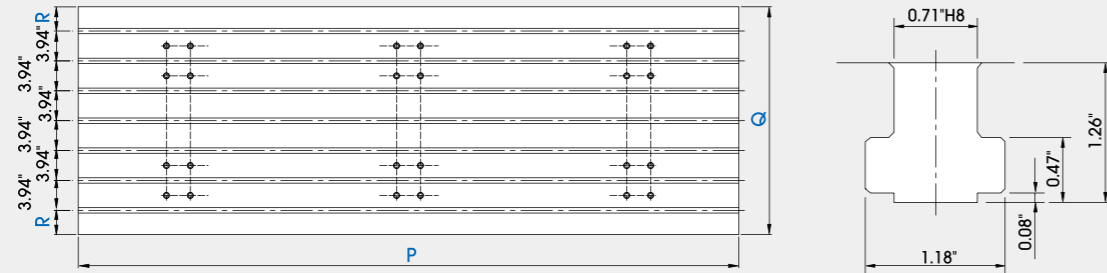
Technical data	MV205 MV215			MV235		
	E	P		E	P	
Spindle code	7.5B	7.5B	15C	6B	7.5B	15C
Work range						
Table size	55.12" x 27.56" 66.93" x 27.56"			88.58" x 31.5"		
Travel X / Y / Z	50" / 27.56" / 24.02" ⁽¹⁾ 60" / 27.56" / 24.02" ⁽¹⁾			80.31" / 31.5" / 26.02" ⁽¹⁾		
Spindle nose to table surface	7.48" ~ 31.5" ⁽¹⁾			5.91" ~ 31.93" ⁽¹⁾		
Table load capacity (lb)	3968 / 4409			4409		
Feed drive						
Feed force X / Y / Z (lb)	F	2589.59 / 2589.59 / 2589.59		2589.59/2589.59 /2589.59	2589.59/3531.32 /3531.32	2589.59/3531.32 /3531.32
	T	-	2542.6 / 2542.6 / 4473.04	-	-	4473.04/4473.04 /4473.04
	S	-	-	-	-	4237.44/4237.44 /5650.15
Rapid movement X / Y / Z (ipm)	1417			787 / 787 / 630		
*Acceleration X / Y / Z (ft/s ²)	F	11.48 / 9.84 / 6.56		6.56 / 6.56 / 6.56		
	T	-	16.4 / 16.4 / 13.12 13.12 / 13.12 / 13.12	-	11.48 / 11.48 / 11.48	
	S	-	-	-	11.48 / 11.48 / 11.48	
Dia. & pitch of the ball screw	Ø1.77" / P = 0.47" / 0.47" / 0.47"			Ø1.97" / P = 0.47" / 0.47" / 0.47"		
Accuracy Positioning / Repeatability						
ISO 230-2	0.00031" / 0.00016"			0.00031" / 0.00016"		
JIS 6338 (11.81")	±0.00012" / ±0.00008"			±0.00012" / ±0.00008"		
VDI 3441	0.00031" / 0.00016"			0.00031" / 0.00016"		
Main spindle						
Spindle taper	50 Taper			50 Taper		
Tool changer						
Tool selection	Random			Random		
Magazine positions	30 (std.) 40 (opt.)			30 (std.) 40 (opt.)		
Max. tool diameter	4.92"			4.92"		
Max. tool dia. Due to neighbor pots are empty	7.87"			7.87"		
Max. tool length	13.78"			13.78"		
Max. tool weight (lb)	33			33		
CTC time-ISO 10791-9 (sec.)-60Hz	9			10		
Coolant system						
Coolant tank capacity (gal)	158.4 gal			187.4 gal		
Pump capacity						
- Nozzle coolant	15.8 gal / min, 50.8 psi			15.8 gal / min, 50.8 psi		
- Coolant through spindle	6.6 gal / min, 290.1 psi			6.6 gal / min, 290.1 psi		
- Wash down	15.8 gal / min, 65.3 psi			15.8 gal / min, 65.3 psi		
Machine size						
Height	143.7"		131.9"	137.8"		133.9"
	149.6"		133.9"	137.8"		133.9"
Floor space W x D	30 ATC	145.7" x 153.5" / 178" x 154.7"		226.2" x 167.7"		
	40 ATC	145.7" x 175.2" / 178" x 176.4"		226.2" x 174.4"		
Weight (lb)	22046 - 23369 / 24251 - 26455			30864 (30 ATC) 31967 (40 ATC)		
Connections						
Main power	220V or 380V or 400V or 415V / 50Hz or 60Hz			220V or 380V or 400V or 415V / 50Hz or 60Hz		
Power consumption (KVA)	40 (F)	40 (F) 47 (T)	45 (F)	44 (F)	44 (F) 52 (T) 47 (S)	49 (F)

Standard / Option accessories	MV205 MV215			MV235		
	E	P		E	P	
Spindle code	7.5B	7.5B	15C	6B	7.5B	15C
■ QUASER mill I	●	✕	✕	●	✕	✕
Mold machining pack (R660)						
AICC II (Look-ahead 200 blocks)						
Smooth tolerance control	●	✕		●	✕	
Jerk control						
Machining quality level adjust function						
FANUC - data server	○	○	○	○	○	○
■ FANUC 31iB	✕	●	○	✕	●	○
AICC II (Look-ahead 200 blocks)						
FANUC - data server	○	○	○	○	○	○
FANUC - high speed processing (Look-ahead 600 blocks)	✕	○	○	✕	○	○
■ HEIDENHAIN TNC640	✕	○	✕	✕	○	✕
HEIDENHAIN advanced function set2						
■ SIEMENS 828D	✕	✕	✕	✕	○	✕
■ SIEMENS 840D	✕	✕	✕	✕	○	✕
■ Tall column (one piece column)/Z axis travel 31.5"	○	○	○	✕	✕	✕
■ Z axis travel 31.5" (column raiser)	✕	✕	✕	○	○	○
■ Oil chiller	●	●	●	●	●	●
■ 4 th axis preparation	●	●	●	●	●	●
■ 50 Taper 30 position tool magazine	●	●	●	●	●	●
■ 50 Taper 40 position tool magazine	○	○	○	○	○	○
■ ATC auto door	○	○	○	○	○	○
■ Tooling - BT50	●	●	●	●	●	●
- ISO50 & DIN50	○	○	○	○	○	○
- CAT50	○	○	○	○	○	○
■ Pull stud for BT tooling	●	●	●	●	●	●
■ Balance tooling for spindle warm up	●	●	●	●	●	●
■ BBT spindle attachment (simultaneous contact)	●	●	●	●	●	●
■ Remote manual pulse generator	●	●	●	●	●	●
■ Transformer ⁽¹⁾	○	○	○	○	○	○
■ Linear scale	○	○	○	○	○	○
■ Thermal compensation	✕	✕	○	✕	✕	○
■ Work probe receiver OMI-2T	○	○	○	○	○	○
■ Work Probe	○	○	○	○	○	○
■ Tool length / breakage measurement	○	○	○	○	○	○
■ Coolant system	●	●	●	●	●	●
■ Coolant wash gun / wash down	●	●	●	●	●	●
■ Air gun	○	○	○	○	○	○
■ Coolant through spindle 290.08 psi	●	●	●	●	●	●
■ Coolant through spindle 725.15 psi	○	○	○	○	○	○
■ Cutter air blast	●	●	●	●	●	●
■ External chip conveyor	●	●	●	●	●	●
■ Oil-mist collector	○	○	○	○	○	○
■ Oil skimmer	○	○	○	○	○	○
■ Bag filtration	○	○	○	○	○	○
■ Filtration unit	○	○	○	○	○	○
■ Documentation (USB) ⁽²⁾	●	●	●	●	●	●
■ Total Enclosure Guard (with Top side cover)	●	●	●	●	●	●
■ Foundation bolts & blocks	●	●	●	●	●	●
■ Work light	●	●	●	●	●	●
■ Machine status light	●	●	●	●	●	●
■ CE & EMC ⁽³⁾ / GB	○	○	○	○	○	○

Note: ⁽¹⁾ Transformer as standard or option item will be varied according to control system and power supply condition.
⁽²⁾ Paper documentation is option. ⁽³⁾ Standard for Eu area.
 - Machine specification might be different from the catalog if there is any specification update.

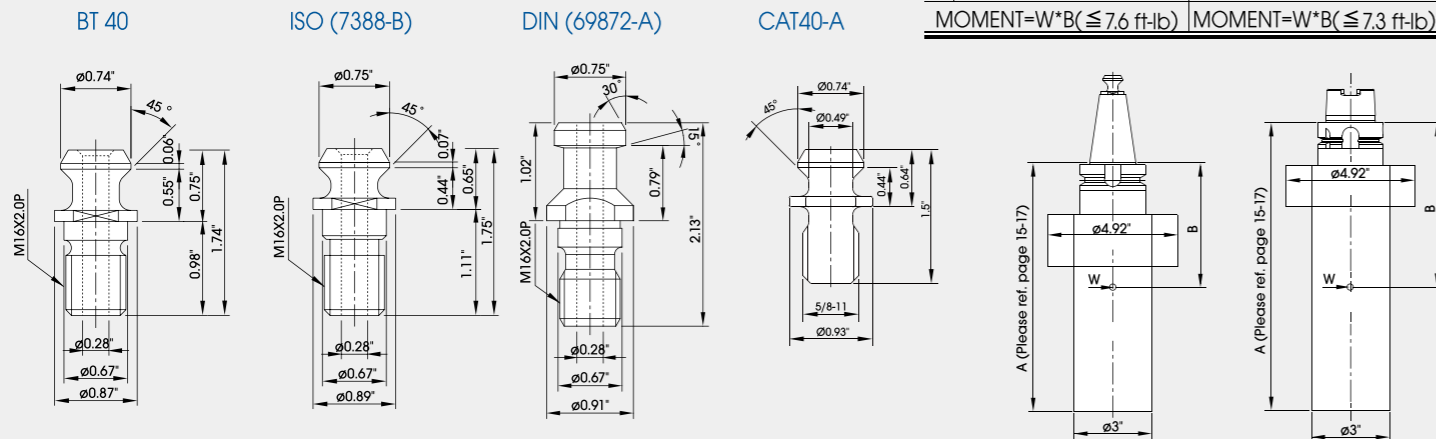
Table dimension

	MV204C	MV204/205	MV214/215	MV234/235
P	55.12"	55.12"	66.93"	88.58"
Q	27.56"	27.56"	27.56"	31.5"
R	3.94"	3.94"	3.94"	3.94"
T-Slots No.	6	6	6	7



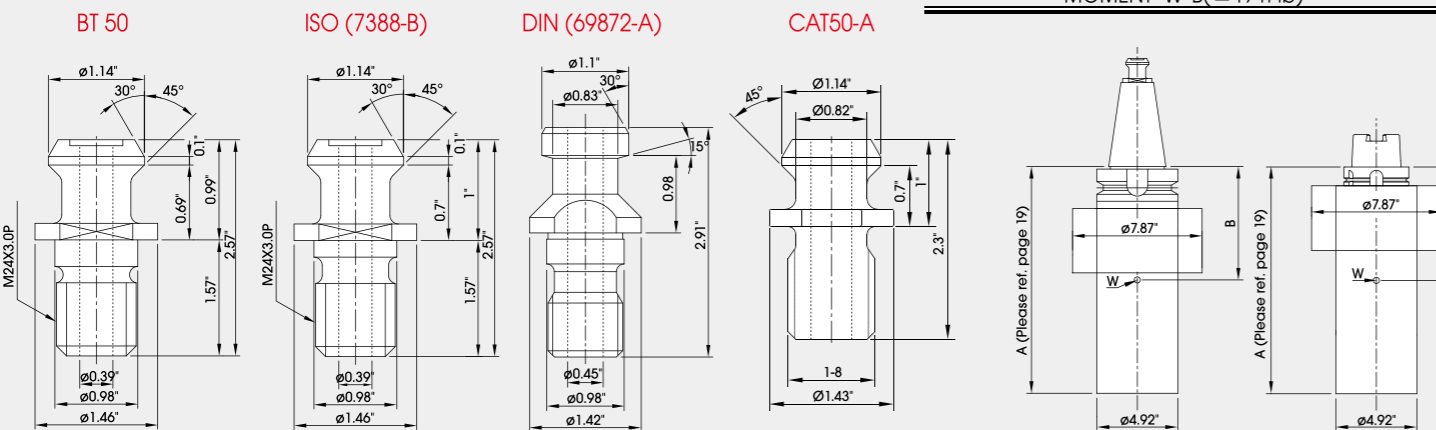
Pull stud and applicable tools 40 Taper

B	tool median point distance	tool middle point distance
W	tool weight	tool weight
MOMENT=W*B(≤ 7.6 ft-lb)		MOMENT=W*B(≤ 7.3 ft-lb)



Pull stud and applicable tools 50 Taper

B	tool median point distance
W	tool weight
MOMENT=W*B(≤ 19 ft-lb)	

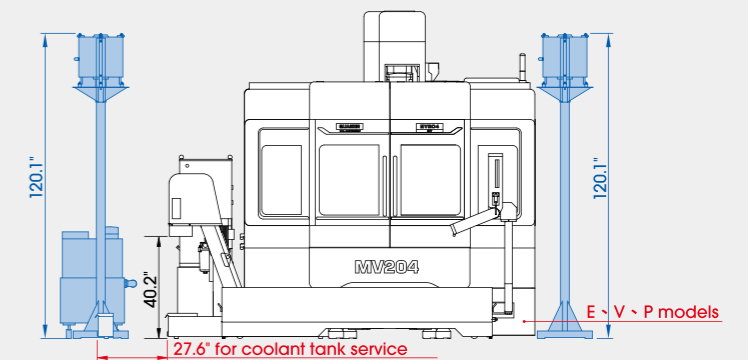
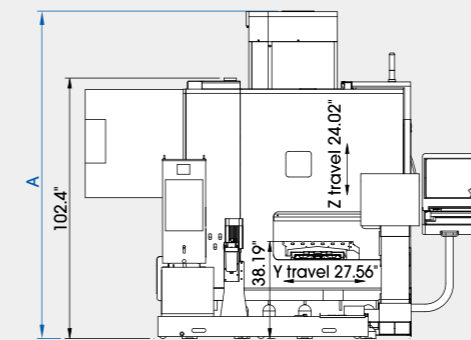
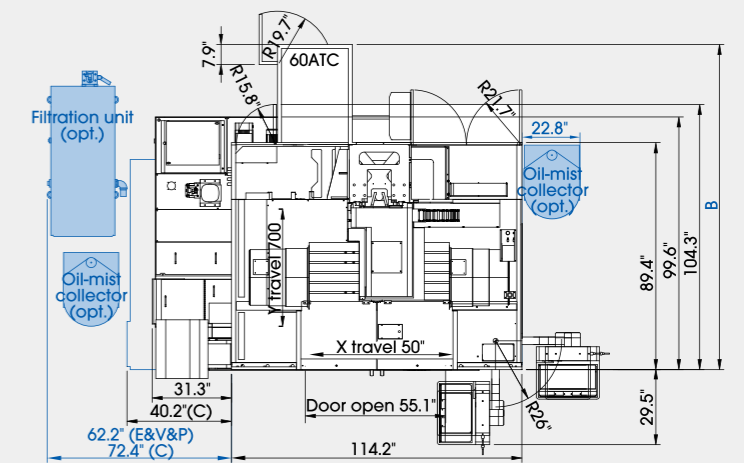


Unit: inch

Max. Machine Height	MV204			MV205	
	C	E & V & P	P	E & P	P
Spindle code	10C / 12C	9B / 12B	15C / 20C	7.5B	15C
A Standard column					
1. Z axis travel 24.02"					
2. Spindle nose to table surface	129.9"	129.9"	129.9"	143.7"	131.9"
5.91"~29.92" (#40)					
7.48"~31.5" (#50)					
A Column raiser (5.91")					
1. Z axis travel 24.02"					
2. Spindle nose to table surface	135.8"	135.8"	135.8"	-	-
11.81"~35.83" (#40)					
13.39"~37.4" (#50)					
A Tall column (one piece column)					
1. Z axis travel 31.5"					
2. Spindle nose to table surface	137.8"	137.8"	137.8"	151.6**	139.8**
5.91"~ 37.4" (#40)					
7.48"~38.98" (#50)					

*Container shipment is not possible

MV204	B	40 Taper	30 ATC	100.4"
			48 ATC	118.1"
		60 ATC	129.9"	
MV205		50 Taper	30 ATC	124"
	40 ATC		145.7"	



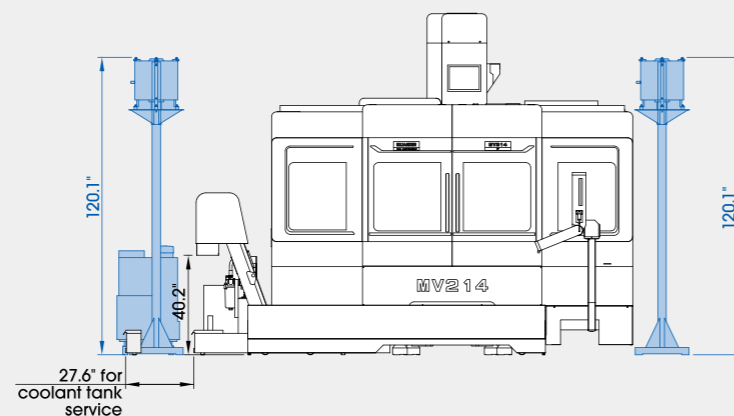
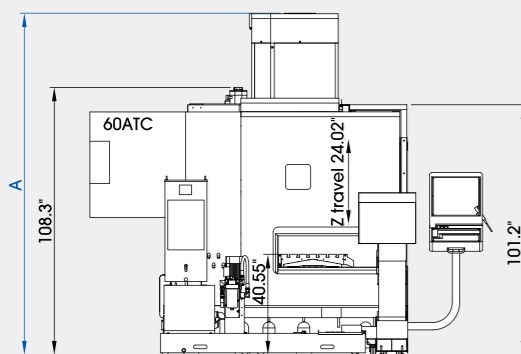
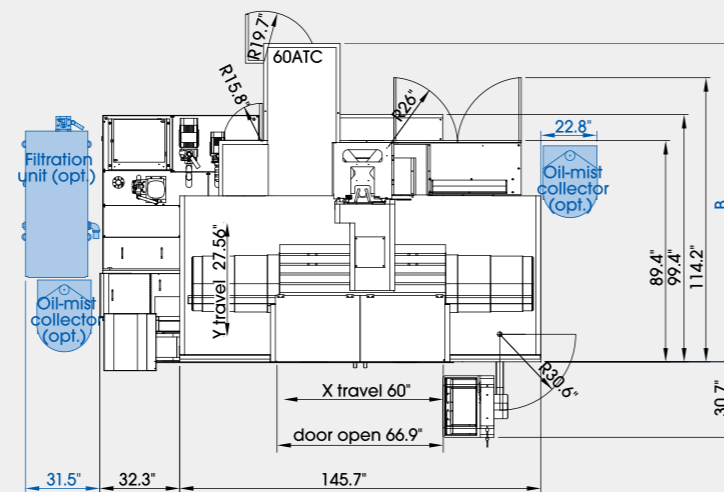
Unit: inch

MV214 & MV215 Layout

Installation dimension

Max. Machine Height	MV214		MV215	
	P		E & P	P
Spindle code	9B / 12B	15C / 20C	7.5B	15C
A Standard column 1. Z axis travel 24.02" 2. Spindle nose to table surface 5.91"~29.92" (#40) 7.48"~31.5" (#50)	137.8"	133.9"	149.6"	133.9"
A Tall column (one piece column) 1. Z axis travel 31.5" 2. Spindle nose to table surface 5.91"~37.4" (#40) 7.48"~38.98" (#50)	145.7**	141.7**	157.5**	141.7**

MV214	B	40 Taper	48 ATC	118.1"
MV215			60 ATC	129.9"
		50 Taper	30 ATC	124"
			40 ATC	145.7"



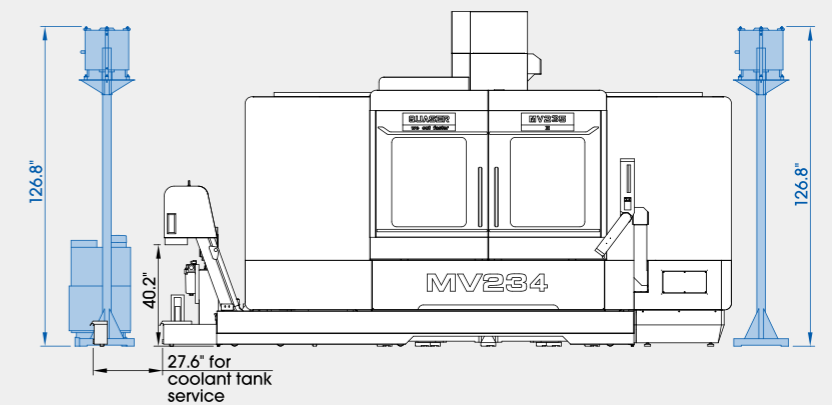
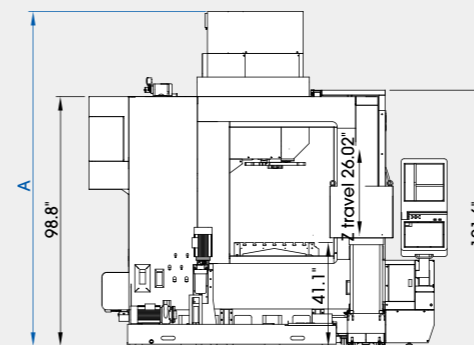
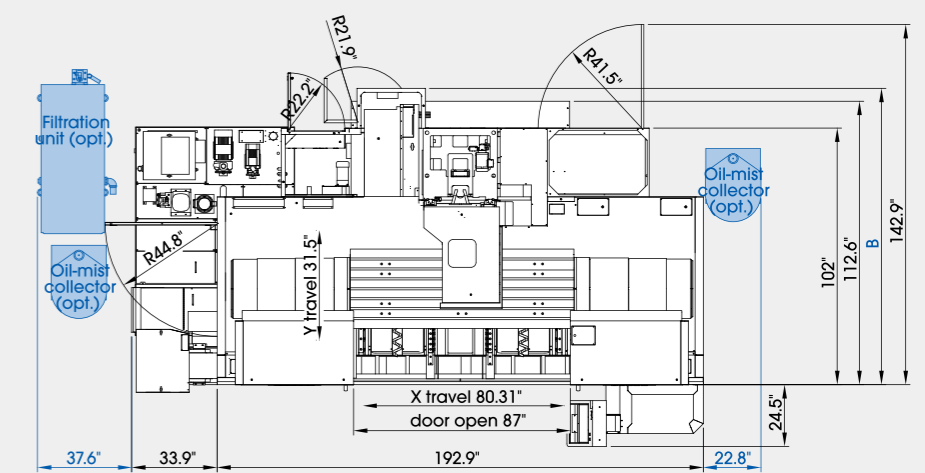
Unit: inch

MV234 / MV235 Layout

Installation dimension

Max. Machine Height	MV234		MV235	
	E & P	P	E & P	P
Spindle code	9B / 12B	15C / 20C	6B / 7.5B	15C
A Standard column 1. Z axis travel 26.02" 2. Spindle nose to table surface 5.91"~31.93" (#40 & #50)	133.9"	137.8"	137.8"	133.9"
A Tall column (column raiser) 1. Z axis travel 31.5" 2. Spindle nose to table surface 5.91"~37.4" (#40 & #50)	141.7**	143.7**	145.7**	141.7**

MV234	B	40 Taper	48 ATC	122.1"
MV235			60 ATC	137.8"
		50 Taper	30 ATC	126"
			40 ATC	149.6"



Unit: inch

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