Quaser

MV1 / MV3



Vision Manufactured

At Quaser Group, we dedicate to

Creating a world where there is no gap between design concept and manufacturing to maximize the power of engineering. Whatever you design, we can make it to upgrade your competitive edge.

Series Overview

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Machine Structure

MV1

Travel X / Y / Z: 661 / 572 / 560 (mm)





Motor		MV1				
Spindle code		12C	15C	20C	18M	24M
X / Y / Z (kW)	F	3 / 3 / 4				
	T	3.1 / 3.1 / 4.5	4.5 / 4.5 / 5.4	-	4.5 / 4.5 / 5.4	
	S	3.55 / 4 / 4	3.55 / 4 / 5.5	-	3.55 / 4 / 5.5	

FANUC = F SIEMENS = S HEIDENHAIN = T

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

MV3

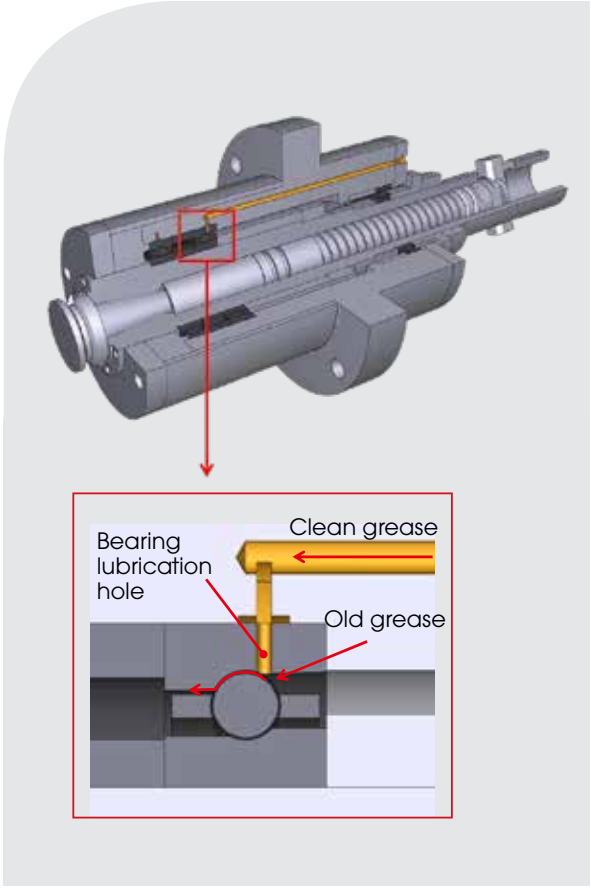
Travel X / Y / Z: 1,020 / 610 / 610 (mm)





	MV3				
	12C	15C	20C	18M	24M
	3 / 3 / 4				
	3.1 / 3.1 / 4.5	4.5 / 4.5 / 5.4	-	4.5 / 4.5 / 5.4	
	3.55 / 4 / 4	3.55 / 4 / 5.5	-	3.55 / 4 / 5.5	

Unique Spindle Technology



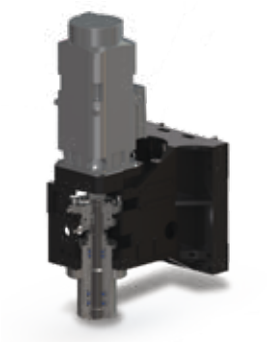
Re-grease supply system is stable and eco-friendly by supplying new grease intermittently to bearings during high speed rotation.



Standard on all models

Spindle	SC-4.2
Shaft diameter	Ø80 / Ø70
Spindle Taper	ISO-40
Bearing arrangement	<< >>
Ball bearing type	Ceramic
Roller bearing type	-
Bearing lubrication	Grease packed
Transmission	Coupling
Spindle Speed	12,000
FANUC (S6-25%)	
Motor	αilT12/12,000 (βiSVSP-18-B)
Spindle base speed (min^{-1})	1,500
Spindle power (kW)	18.5
Spindle torque (Nm)	118
HEIDENHAIN (S6-25%)	
Motor	QAN200UH (Compact inverter)
Spindle base speed (min^{-1})	1,500
Spindle power (kW)	17
Spindle torque (Nm)	108
SIEMENS (S6-25%)	
Motor	1PH8133-combi
Spindle base speed (min^{-1})	1,500
Spindle power (kW)	17.6 (S6-40%)
Spindle torque (Nm)	112 (S6-40%)
CTS Availability	
Available NC Adapting	

MV1	● ● ●
MV3	● ● ●







	MC-4.1R	MC-4.0R	MS30-20	MS30-24
	Ø80 / Ø65	Ø70 / Ø60	Ø80	Ø80
	ISO-40 / HSK A63	ISO-40 / HSK A63	HSK A63	HSK A63
	< >=	< >=	<<> >	<<> >
	Ceramic	Ceramic	Ceramic	Ceramic
	Steel	Ceramic	-	-
	Re-grease	Re-grease	Oil air	Oil air
	Coupling	Coupling	Built-in	Built-in
	15,000	20,000	18,000	24,000
	αilT15/15,000 (SPM30)	αilL8/20,000 (SPM30)	-	-
	1,400	1,500	2,420	2,650
	26	15	31.7	32.2
	177	125	125	116
	1PH8131	-	-	-
	2,000	-	3,330	3,460
	27.7	-	43.5	42
	132	-	125	116
	1PH8131	-	-	-
	2,000	-	3,330	3,460
	27.7	-	43.5	42
	132	-	125	116
	●			
	(F) FANUC (T) HEIDENHAIN (S) SIEMENS			
	○ ○ ○	○	○ ○ ○	○ ○ ○
	○ ○ ○	○	○ ○ ○	○ ○ ○

● (F) = FANUC ● (T) = HEIDENHAIN ● (S) = SIEMENS

ATC System

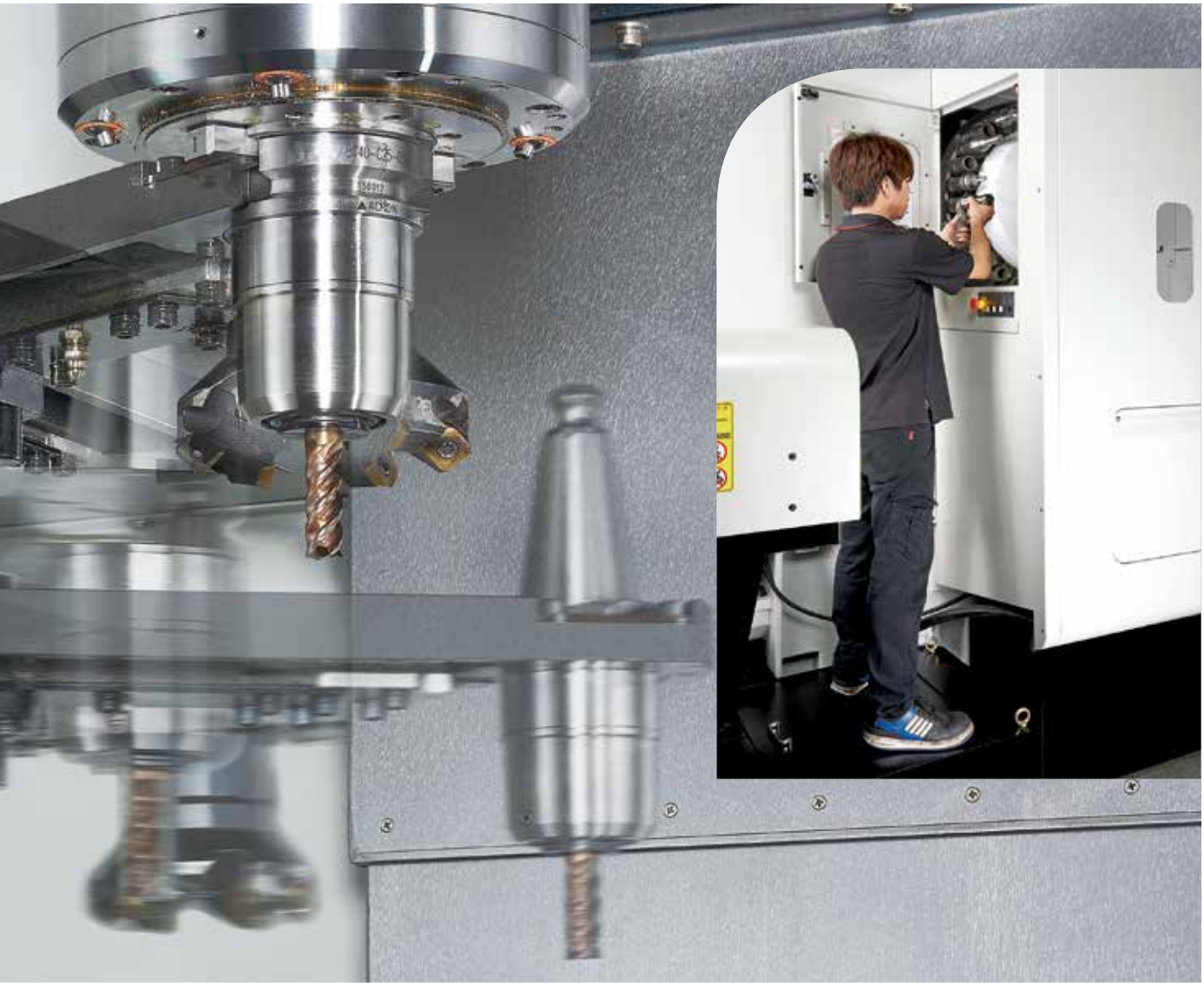


30 ATC (std.)



48 ATC (opt.)





60 ATC (opt.)



ATC auto door (std.)



Coolant system & Chip management



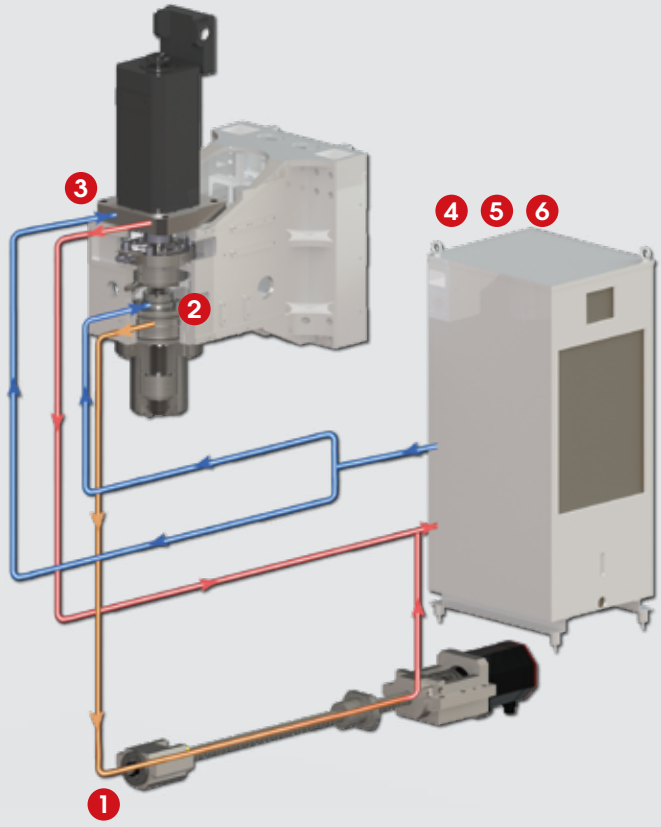
		MV1	MV3
A	Coolant tank	350L	480L
B	Coolant through spindle	8 bar	8 bar
C	Nozzle coolant	3 bar	3 bar
D	Wash gun	Std.	Std.
E	Chip augers	Std.	Std.
F	Chip conveyor – Scraper type	Std.	Std.
G	Filtration unit	Opt.	Opt.
H	High-angle telescopic cover design with excellent chip	Std.	-
I	Wash down	1.1 bar	3 bar


H
I

Thermal Management

To meet the rigorous requirements of working accuracy, here are the Thermal Management.

1. Coolant through ball screw.
2. Spindle cooling circuit.
3. Motor mounting block cooling circuit.
4. Oil chiller 6,000 BTU.
5. Oil chiller 12,000 BTU.
6. Oil chiller 18,000 BTU.



	MV1		MV3	
	Coupling	Built-in	Coupling	Built-in
1	○	○	○	○
2	● Note2	●	● Note2	●
3	●	×	●	×
4	● Note1	×	● Note1	×
5	● Note2	×	● Note2	×
6	×	● Note3	×	● Note3

Note1: 15,000 rpm / ● Note2: 15,000 rpm / ● Note3: 18,000 / 24,000 rpm / ●

Easy Operation







a **Front door opening at**
- MV1: 710 mm
- MV3: 1,050 mm

b **Ergonomic operation panel with adjustable angle**

c **Convenient distance from operator to the spindle**
- MV1: 715 mm
- MV3: 861 mm

d **Table to front door with easy accessibility**
- MV1: 154 mm
- MV3: 255 mm

Technical Data

Technical Data		MV1 / MV3
Spindle code		12C
Main spindle		
Spindle taper		40 Taper
Work range		
Table size (mm)		940 x 550 1,200 x 600
Travel X / Y / Z (mm)		661 / 572 / 560 1,020 / 610 / 610
Spindle nose to table surface (mm)		100 ~ 660 100 ~ 710
Table load capacity (kg)		500
Feed drive		
Feed force X / Y / Z (N)	F	6,283 / 6,283 / 11,519
	T	6,807 / 6,807 / 9,268
	S	11,519 / 14,137 / 14,137
Rapid movement X / Y / Z (m/min)		36 / 36 / 36 32 / 32 / 32
[(1)] Acceleration X / Y / Z (m/s^2)	F	6 / 5 / 4 3.5 / 3.5 / 3
	T	3 / 3 / 2.5 2 / 2 / 2
	S	4.5/ 4 / 5.5 3.5 / 2.5 / 2
Dia. & pitch of the ball screw (mm)		Ø40 / P = 12 / 12 / 12 Ø45 / P = 12 / 12 / 12
Tool changer		
Tool selection		Random
Magazine positions		30 (std.) 48 / 60 (opt.)
Max. tool diameter (mm)		Ø 76.2
w/o adjacent tool (mm)		Ø 150 Ø125
Max. tool length (mm)		300 280
Max. tool weight (kg)		10 7
T to T time-ISO 10791-9 (sec.)-60Hz		1.7±0.2
C to C time-ISO 10791-9 (sec.)-60Hz		4.7±0.2

Control: (F) FANUC (S) SIEMENS (T) HEIDENHAIN

MV1 / MV3			
15C	20C[2]	18M	24M
40 Taper			
940 x 550 1,200 x 600 661 / 572 / 560 1,020 / 610 / 610 100~660 100 ~ 710 500			
4,712 / 4,712 / 8,639 4,712 / 4,712 / 11,519 6,951 / 6,951 /10,249 6,951 / 6,951 /13,666 8,639 / 10,603 / 11,781 48 / 48 / 48 40 / 40 / 36 4.5 / 4 / 4 4 / 4 / 4 4.5 / 3.5 / 5.5 3.5 / 2.5 / 5 5 / 4.5 / 5.5 4 / 2.5 / 5 Ø40 / P = 16 / 16 / 16 Ø45 / P = 16 / 16 / 12			
Random 30 (std.) 48 / 60 (opt.) Ø 76.2 Ø 150 Ø125 300 280 10 7 1.7±0.2 4.7±0.2			

Technical Data

Technical Data	MV1 / MV3
Spindle code	12C
Main spindle	
Spindle taper	40 Taper
Coolant system	
Coolant tank capacity (Liter)	350L 480L
Pump capacity	
-Nozzle coolant	75L / min, 3bar
-Coolant through spindle	25L/min, 8bar
-Wash down	75L / min, 1.1bar 75L / min, 3bar
Machine size	
Height (mm)	3,005 3,030
Floor space W x D (mm)	
30ATC / 48ATC	2,470 x 3,305 2,800 x 3,430
60ATC	2,470 x 3,305 2,800 x 3,450
Weight (kg)	6,000 (30ATC) 6,400 (48ATC) 6,600 (60ATC) 7,090
Connections	
Main power	220~230V / 50~60 Hz, 380~415V/50~60Hz
Power consumption (KVA)	30(F)(T)(S)

Note: [1]Test condition: values are measured by half of the maximum table load capacity.
[2]Only for FANUC control.
- Machine specification might be different from the catalogue if there is any specification update.

MV1 / MV3			
15C	20C[2]	18M	24M
40 Taper			

350L 480L		
75L / min, 3bar		
25L/min, 8bar		
25L/min, 1.1bar 75L / min, 3bar		
3,005 3,030		
2,470 x 3,305 2,800 x 3,430		
2,470 x 3,305 2,800 x 3,450		
6,000 (30ATC) 6,400 (48ATC) 6,600 (60ATC) 7,090		
220~230V / 50~60 Hz, 380~415V/50~60Hz		
25(F) 30(T) 35(S) 30(F) 35(T)(S)	30(F)	25(F) 30(T)(S) 40(F) 50(T) 45(S)

Control: (F) FANUC (S) SIEMENS (T) HEIDENHAIN

Standard / Optional Accessories

Standard / Optional Accessories		MV1				
Spindle code		12C	15C	20C	18M	24M
FANUC 0iMF Plus		○	○	○	○	○
FANUC 31iB Plus		○	○	○	○	○
HEIDENHAIN TNC640		○	○	×	○	○
SIEMENS 828D		○	○	×	○	○
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	×	○	○	●	●
Balance tooling for spindle warm up		●	●	●	●	●
4th axis preparation		●	●	●	●	●
Ø255mm rotary table & tail stock		○	○	○	○	○
Transformer (1)		○	○	○	○	○
Linear scale		○	○	○	○	○
Work probe		○	○	○	○	○
Tool length / breakage measurement		○	○	○	○	○

●=Standard ○=Option X=N/A

Standard / Optional Accessories	MV1				
Spindle code	12C	15C	20C	18M	24M
Coolant system	●	●	●	●	●
Coolant wash down / wash gun	●	●	●	●	●
Coolant through ball screw	○	○	○	○	○
Coolant through spindle 8 bar	●	●	●	●	●
Coolant through spindle 20 bar	○	○	○	○	○
Coolant through spindle 50 bar	○	○	○	○	○
Cutter air blast	●	●	●	●	●
Chip auger	●	●	●	●	●
Scraper external lift-up conveyor	●	●	●	●	●
Oil-mist collector	○	○	○	○	○
Filtration unit	○	○	○	○	○
Documentation (USB) [2]	●	●	●	●	●
Total Enclosure Guard (with Top side cover)	●	●	●	●	●
Work light	●	●	●	●	●
Machine status light	●	●	●	●	●
CE	●	●	●	●	●

Note: [1] Transformer as standard or optional item will be varied according to control system and power supply condition.
[2] Paper documentation is optional.
- Machine specification might be different from the catalogue if there is any specification update.

Standard / Optional Accessories

Standard / Optional Accessories	MV3				
Spindle code	12C	15C	20C	18M	24M
FANUC 0iMF Plus	○	○	○	○	○
FANUC 31iB Plus	○	○	○	○	○
HEIDENHAIN TNC640	○	○	×	○	○
SIEMENS 828D	○	○	×	○	○
40 Taper 30 position tool magazine	●	●	●	●	●
40 Taper 48 position tool magazine	○	○	○	○	○
40 Taper 60 position tool magazine	○	○	○	○	○
ATC auto door	●	●	●	●	●
Tooling – BT40	●	●	○	×	×
Tooling - ISO40 & DIN40	○	○	○	×	×
Tooling - HSK A63	×	○	○	●	●
Balance tooling for spindle warm up	●	●	●	●	●
4th axis preparation	●	●	●	●	●
Ø255mm rotary table & tail stock	○	○	○	○	○
Transformer[(1)]	○	○	○	○	○
Linear scale	○	○	○	○	○
Work probe	○	○	○	○	○
Tool length / breakage measurement	○	○	○	○	○

●=Standard ○=Option X=N/A

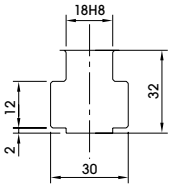
Standard / Optional Accessories	MV3				
Spindle code	12C	15C	20C	18M	24M
Coolant system	●	●	●	●	●
Coolant wash down / wash gun	●	●	●	●	●
Coolant through ball screw	○	○	○	○	○
Coolant through spindle 8 bar	●	●	●	●	●
Coolant through spindle 20 bar	○	○	○	○	○
Coolant through spindle 50 bar	○	○	○	○	○
Cutter air blast	●	●	●	●	●
Chip auger	●	●	●	●	●
Scraper external lift-up conveyor	●	●	●	●	●
Oil-mist collector	○	○	○	○	○
Filtration unit	○	○	○	○	○
Documentation (USB) [2]	●	●	●	●	●
Total Enclosure Guard (with Top side cover)	●	●	●	●	●
Work light	●	●	●	●	●
Machine status light	●	●	●	●	●
CE	●	●	●	●	●

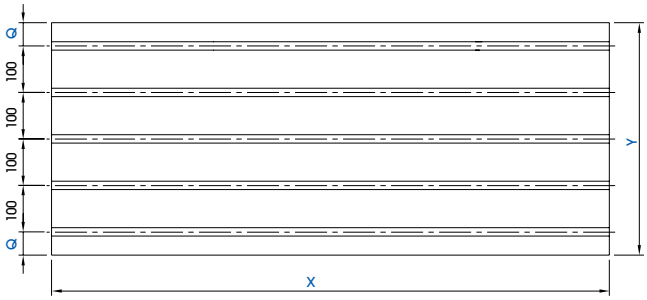
Note: [1] Transformer will be varied according to control system and power supply condition.
[2] Paper documentation is optional.
- Machine specification might be different from the catalog if there is any specification update.

Machine Dimensions

Table dimension

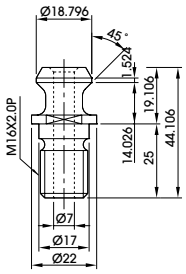
	MV1	MV3
X	940	1200
Y	550	600
Q	75	100



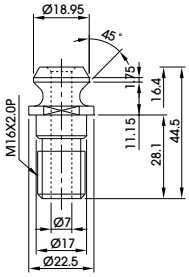


Pull stud and applicable tools

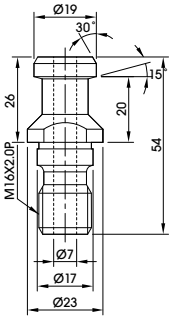
BT 40



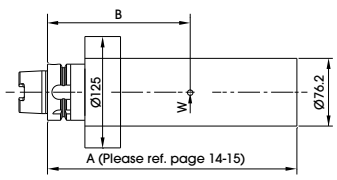
ISO (7388-B)

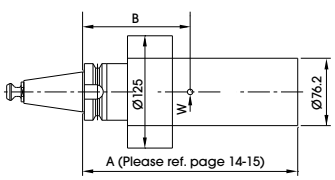


DIN (69872-A)



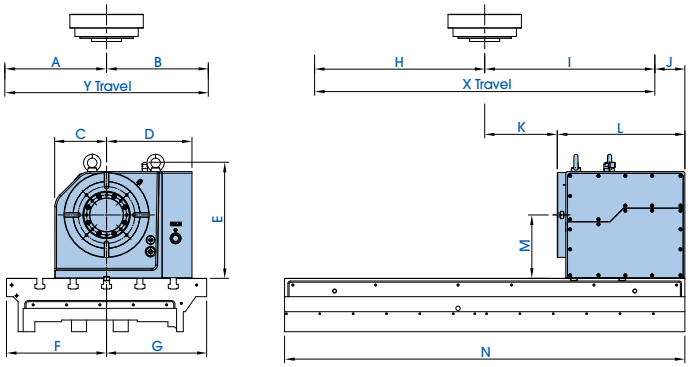
B	tool median point distance	
W	tool weight	
MOMENT=W*B(≦ 10.29N-m)		MOMENT=W*B(≦ 9.85N-m)



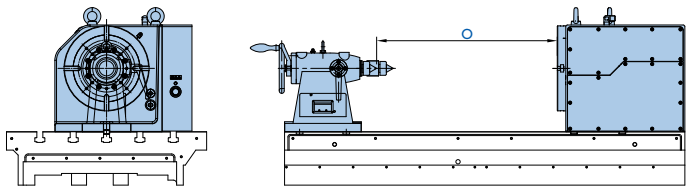


	MV1	MV3
A	286	305
B	286	305
C	155	155
D	256	256
E	348	348
F	375	300
G	175	300
H	330.5	510
I	330.5	510
J	139.5	90
K	87.5	217.5
L	382.5	382.5
M	190	190
N	940	1200
O	281.5	541.5
P	340	550
Q	391	346
R	35	35

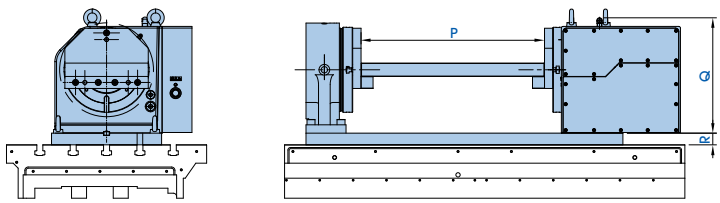
GVA255HBII



GVA255HBII+ST255



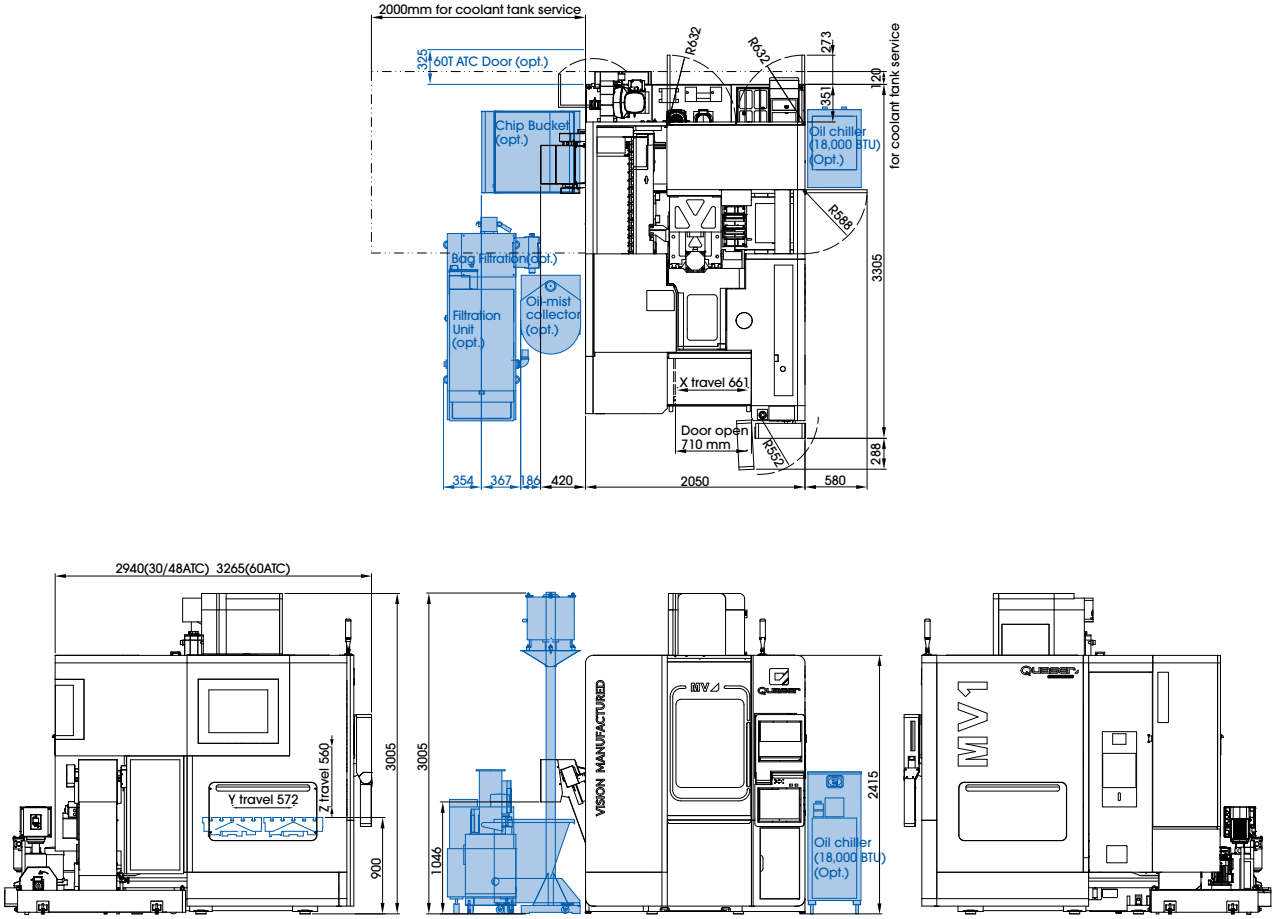
GVA255HBII-Flxture 2



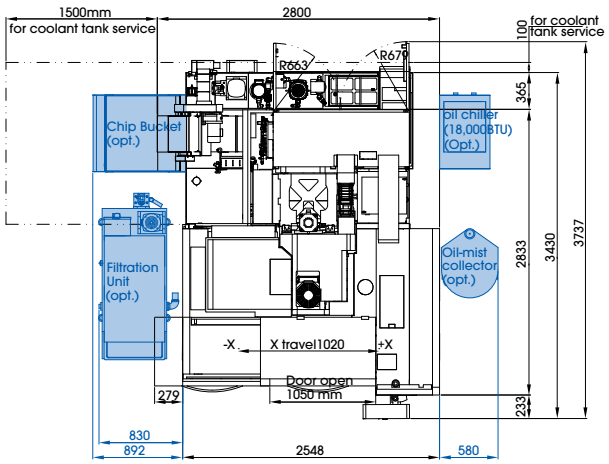
Machine Dimensions

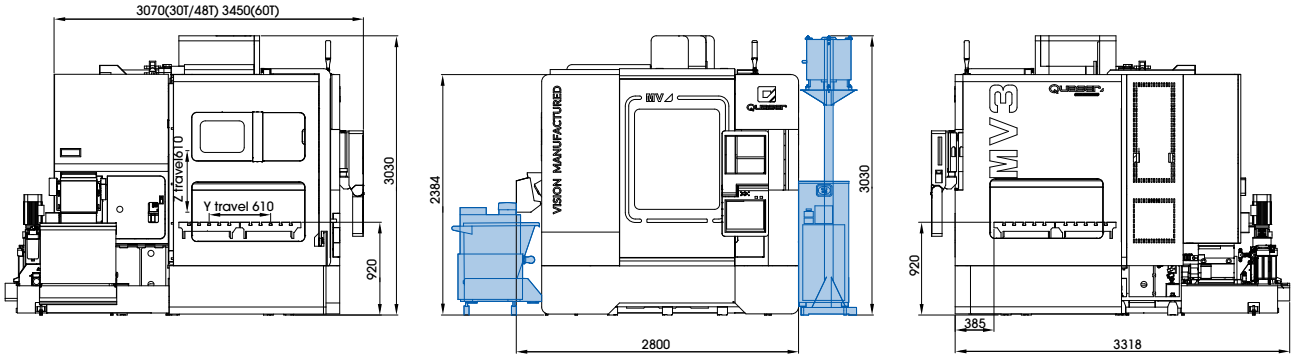
Dimension installation

MV1



MV3


1500mm
for coolant tank service
2800
100
for coolant tank service
R663
R670
365
Chip Bucket (opt.)
oil chiller (18,000BTU) (Opt.)
Filtration Unit (opt.)
Oil-mist collector (opt.)
2833
3430
3737
-X
X travel1020
+X
Door open 1050 mm
279
233
830
892
2548
580


3070(30T/48T) 3450(60T)
Z travel610
Y travel 610
3030
920
VISION MANUFACTURED
2384
3030
2800
MV3
920
385
3318

Carbon Reduction & Green Power

Quaser in the future will not only dedicate to technology in new field, but also contribute to escalating Cooperate Social Responsibility, such as obtain carbon neutral within 5 years. Instead of urging, we will lead stakeholders to reach the goal together.

We are trying to implement a sustainable economy, build healthy cities with the world, and create a prosperous future.
Business or Citizens, everyone is accountable to save the world.
We would never achieve it without your support.
Let's create a green future and start it from today, everyday!



ISO 9001 / ISO 14001 / ISO 14952-1

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MV1/MV3-E-16/12/2024

Quaser

MV4/MV5/MV6



Vision Manufactured

At Quaser Group, we dedicate to

Creating a world where there is no gap between design concept and manufacturing to maximize the power of engineering. Whatever you design, we can make it to upgrade your competitive edge.

Series Overview

Machine Structure 4

Design and Technology

Unique spindle technology 6
Direct Axes Transmission 8
ATC system 10
Coolant system & Chip management 12
Easy operation 14

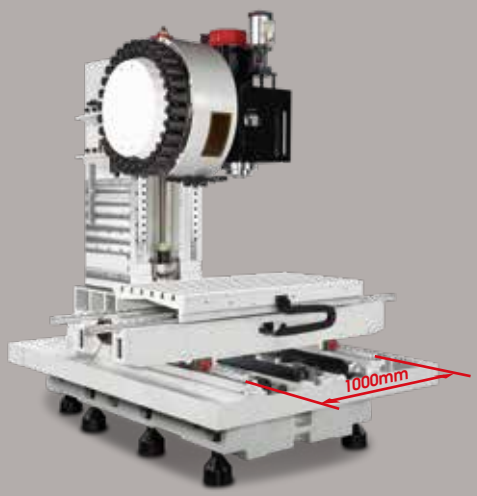
Detailed Info

Technical Data 16
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QUASER Group 31

Machine Structure

MV4

Travel X / Y / Z: 1,270 / 700 / 610 (mm)
Table size: 1,400 x 700 (mm)





MV5

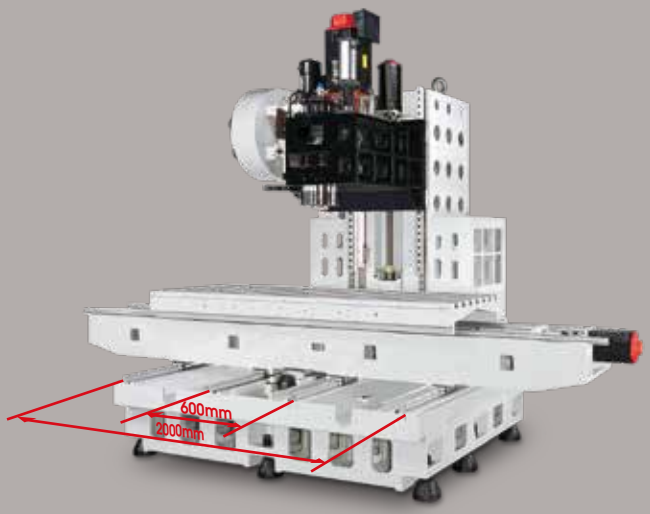
Travel X / Y / Z: 1,524 / 700 / 610 (mm)
Table size: 1,700 x 700 (mm)





MV6

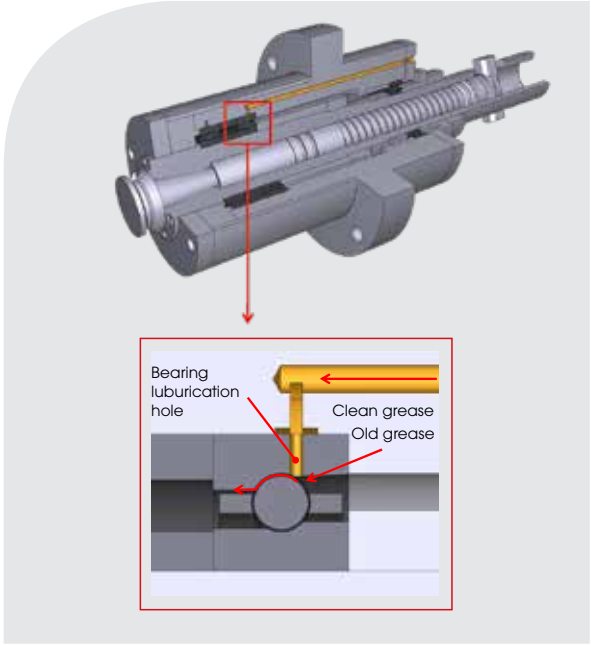
Travel X / Y / Z: 2,040 / 800 / 661 (mm)
Table size: 2,250 x 800 (mm)



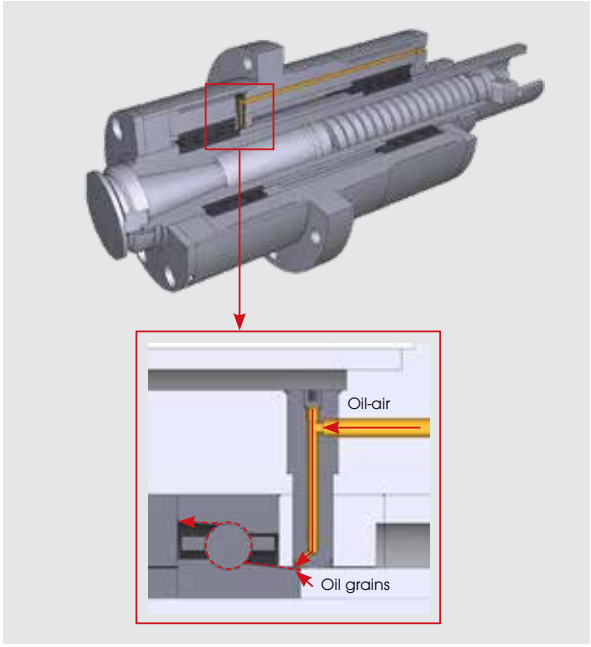


Note: The object might be different from the photos of catalogue if there is any specification update.

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



Spindle code	SC-4.2	
Shaft diameter	Ø80 / Ø70	
Spindle Taper	ISO-40	
Bearing arrangement	<< >>	
Ball bearing type	Ceramic	
Roller bearing type	-	
Bearing lubrication	Grease packed	
Transmission	Coupling	
Spindle Speed	12,000	
FANUC (S6-25%)		
Motor	αilT12/12,000 (βiSVSP-18-B)	αilT12/12,000 (SPM15)
Spindle base speed (min^{-1})	1,500	
Spindle power (kW)	18.5	
Spindle torque (Nm)	118	
HEIDENHAIN (S6-25%)		
Motor	QAN200UH (Compact inverter)	QAN200UH (Modular inverters)
Spindle base speed (min^{-1})	1,500	
Spindle power (kW)	17	
Spindle torque (Nm)	108	
SIEMENS (S6-25%)		
Motor	1PH8133-combi	1PH8131
Spindle base speed (min^{-1})	1,500	2,000
Spindle power (kW)	17.6 (S6-40%)	27.7
Spindle torque (Nm)	112 (S6-40%)	132
CTS Availability	●	●
Available NC adapting		

MV4	●●●	-
MV5	●	●●
MV6	-	●●●

● (F) = FANUC ● (T) = HEIDENHAIN ● (S) = SIEMENS

50 Taper







MC-4.1R	MC-4.0R	MS30-20	MS30-24	SB-5.0A	MC-5.0A
Ø80 / Ø65	Ø70 / Ø60	Ø80	Ø80	Ø100 / Ø90	Ø90
ISO-40 / HSK A63	ISO-40 / HSK A63	HSK A63	HSK A63	ISO-50	ISO-50
< >=	< >=	<<> >	<<> >	=<< >=	<<>>
Ceramic	Ceramic	Ceramic	Ceramic	Ceramic	Ceramic
Steel	Ceramic	-	-	Steel	-
Re-grease	Oil air	Oil air	Oil air	Oil air	Oil air
Coupling	Coupling	Built-in	Built-in	Belt + Gear box	Coupling
15,000	20,000	18,000	24,000	7,500	15,000
αilT15/15,000 (SPM30)	αilL8/20,000 (SPM30)	-	-	αil22/8,000 (SPM26)	αilL26/15,000 (SPM30)
1,400	1,500	2,420	2,650	375	600
26	15	31.7	32.2	35	30
177	125	125	116	891	350
1PH8131	-	-	-	1PH8135	-
2,000	-	3,330	3,460	437.5	-
27.7	-	43.5	42	40.9	-
132		125	116	892	
1PH8131	-	-	-	1PH8135	-
2,000	-	3,330	3,460	437.5	-
27.7		43.5	42	40.9	-
132	-	125	116	892	-
●	●	●	●	●	●
(F) FANUC (T) HEIDENHAIN (S) SIEMENS					
○ ○ ○	○	○ ○ ○	○ ○ ○	○ ○ ○	○
○ ○ ○	○	○ ○ ○	○ ○ ○	○ ○ ○	○
○ ○ ○	○	○ ○ ○	○ ○ ○	○ ○ ○	○

Direct Axes Transmission

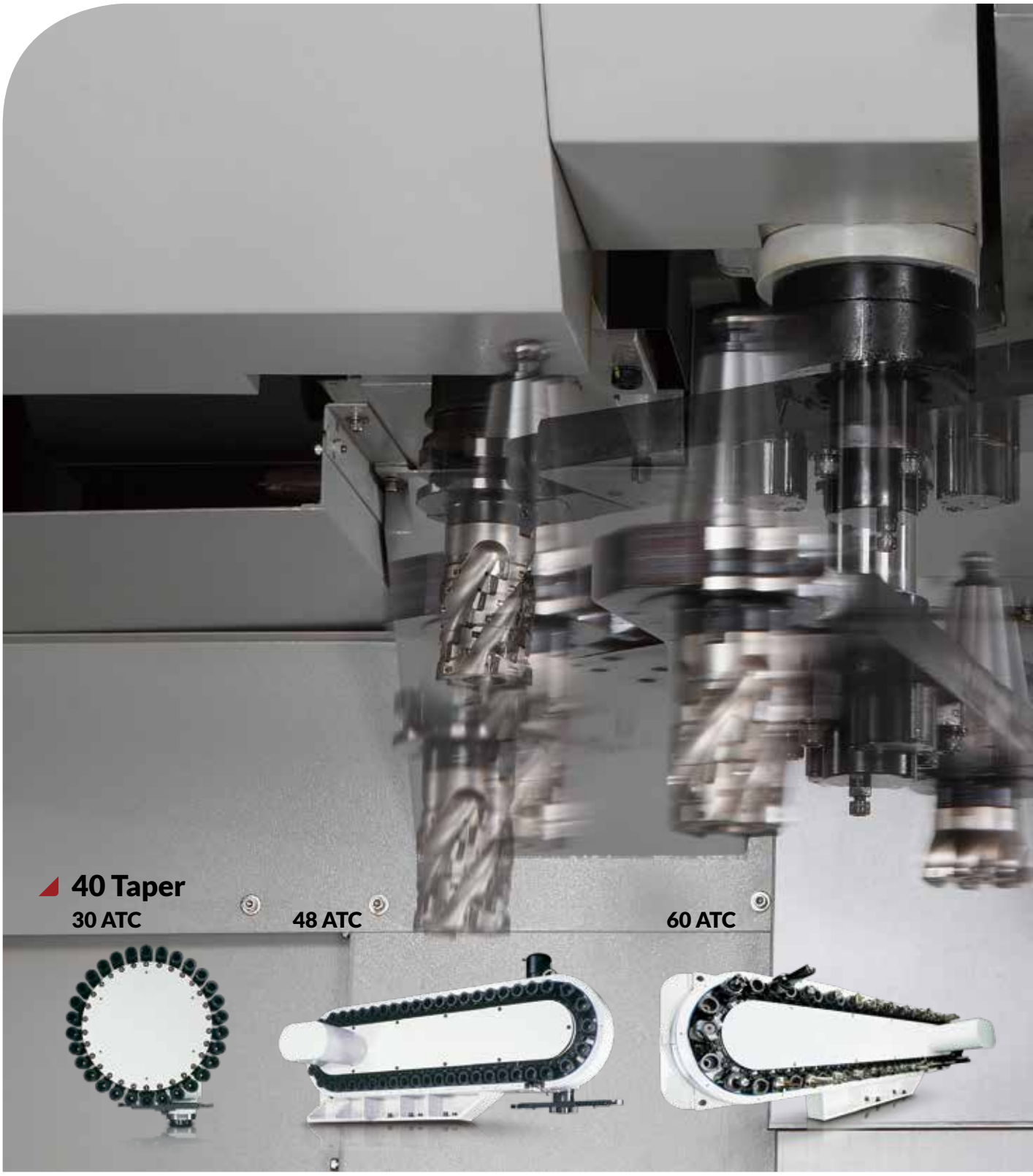


Motor		MV4 MV5 MV6			
Spindle code		12C	15C	20C	18M
		40Taper			
X / Y / Z (kW)	F	3 / 3 / 4 4 / 4 / 4 4 / 7 / 7	4 / 4 / 4 4 / 4 / 4 4 / 7 / 7		
	T	4.5 / 4.5 / 5.4 5.1 / 5.1 / 8.6 8.6 / 8.6 / 8.6	5.1 / 5.1 / 8.6 5.1 / 5.1 / 8.6 8.6 / 8.6 / 8.6	-	5.1 / 5.1 / 8.6 5.1 / 5.1 / 8.6 8.6 / 8.6 / 8.6
	S	3.55 / 4 / 5.5 5.5 / 5.5 / 5.5 6.4 / 6.4 / 7.1	5.5 / 5.5 / 5.5 5.5 / 5.5 / 5.5 6.4 / 6.4 / 7.1	-	5.5 / 5.5 / 5.5 5.5 / 5.5 / 5.5 6.4 / 6.4 / 7.1



Motor		MV4 MV5 MV6		
Spindle code		24M	7.5B	15C
		40Taper	50Taper	
X / Y / Z (kW)	F	4 / 4 / 4 4 / 4 / 4 4 /7/ 7		
	T	5.1 / 5.1 / 8.6 5.1 / 5.1 / 8.6 8.6 / 8.6 / 8.6		-
	S	5.5 / 5.5 / 5.5 5.5 / 5.5 / 5.5 6.4 / 6.4 / 7.1		-

ATC System



50 Taper

30 ATC / 40 ATC



Coolant system & Chip management

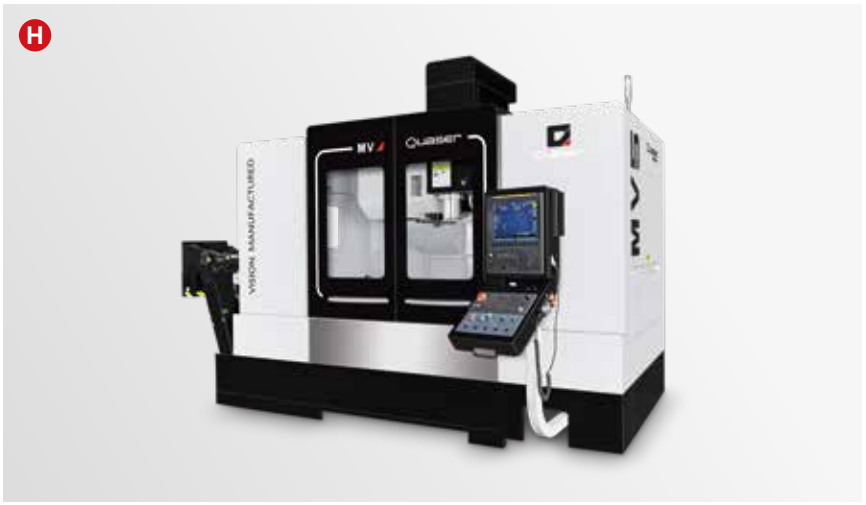


	MV4	MV5	MV6
A Chip slot	4		
B Augers plus chip conveyor	2		6
C Wash gun	1	2	2
D Coolant through spindle	20 Bar		
E Nozzle coolant	3.5 Bar		
F Auto flushing on stainless	3.5 Bar	4.5 Bar	
G Coolant tank	600 L		710 L
H External chip conveyor	std.		



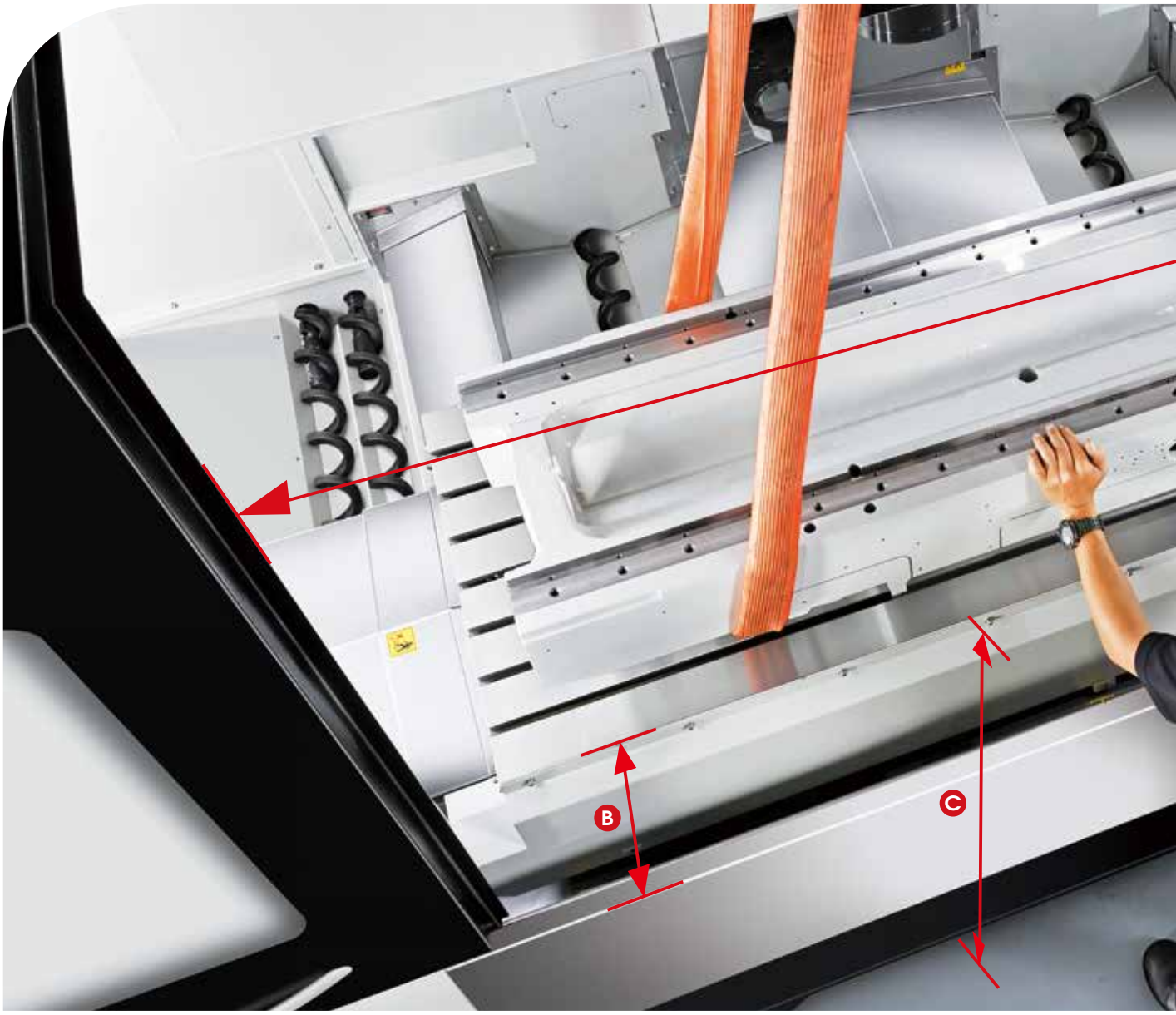

C


D


H
MV
Quaser
VISION MANUFACTURED


E

Easy operation



		MV4	MV5
A	Max. size when operator door open, easy loading of large workpiece (mm)	1,400	1,700
B	Table to front door with easy accessibility (mm)	195	195
C	Table surface to floor (mm)	970	1,030
D	Ergonomic operation panel with adjustable angle		
E	Documentation & hand tool shelf		



	MV6
	2,210
	200
	1,043





Technical Data

Technical Data		MV4 / MV5		
Spindle code		12C	15C	20C[2]
Main spindle				
Spindle taper		40 Taper		
Work range				
Table size (mm)		1,400 x 700 1,700 x 700		
Travel X / Y / Z (mm)		1,270 / 700 / 610[1] 1,524 / 700 / 610[1]		
Spindle nose to table surface (mm)		150~760[1]		
Table load capacity (kg)		1,000	1,800 2,000	
Feed drive				
Feed force X / Y / Z (N)	F	6,283 / 6,283 / 11,519 11,519 / 11,519 / 11,519	11,519 / 11,519 / 11,519	
	T	9,268 / 9,268 / 13,666 11,310 / 11,310 / 19,897	11,310 / 11,310 / 19,897	
	S	11,519 / 14,137 / 15,708 15,708 / 15,708 / 15,708	15,708 / 15,708 / 15,708	
Rapid movement X / Y / Z (m/min)		32 36	36 36	
*Acceleration X / Y / Z (m/s^2)	F	3 / 2.5 / 3 3.5 / 3 / 4	3.5 / 3 / 4 3.5 / 3 / 4	
	T	2.5 / 2 / 4 4 / 4 / 4	5 / 5 / 4 4 / 4 / 4	
	S	2.5 / 2.5 / 3 3 / 2.5 / 3	3.5 / 2.5 / 3 3 / 2.5 / 3	
Dia. & pitch of the ball screw (mm)		Ø45 / P = 12 / 12 / 12		
Tool changer				
Tool selection		Random		
Magazine positions		30 (std.) / 48 & 60 (opt.) 48 (std.) / 60 (opt.)		
Max. tool diameter (mm)		76.2		
Max. tool dia. Due to neighbor pots are empty (mm)		125		
Max. tool length (mm)		300		
Max. tool weight (kg)		7		
CTC time-ISO 10791.9(sec.)-60Hz		5.2±0.2 4.7±0.2	4.7±0.2	

MV4 / MV5			
18M	24M	7.5B	15C[2]
40 Taper		50 Taper	
1,400 x 700 1,700 x 700 1,270 / 700 / 610[1] 1,524 / 700 / 610[1]			
150 ~760[1]		190 ~800[1]	
1,800 2,000			
11,519 / 11,519 / 11,519			
11,310 / 11,310 / 19,897			-
15,708 / 15,708 / 15,708		-	
36			
3.5 / 3 / 4		3.5 / 3 / 2	
5 / 5 / 4 4 / 4 / 4			
3.5 / 2.5 / 3 3 / 2.5 / 3		-	
Ø45 / P = 12 / 12 / 12			
Random			
30 (std.) / 48 & 60 (opt.) 48 (std.) / 60 (opt.) 76.2 125 300 7		30 (std.) / 40 (opt.) 125 200 350 15	
4.7±0.2		9±0.2	

Technical Data

Technical Data		MV4 / MV5		
Spindle code		12C	15C	20C[2]
Main spindle				
Spindle taper		40 Taper		
Coolant system				
Coolant tank capacity (Liter)		600		
Pump capacity				
- Nozzle coolant		60L / min, 3.5bar		
- Coolant through spindle		25L/min, 20bar		
- Wash down		60L / min, 3.5bar	60L / min, 4.5bar	
Machine Size				
Height (mm)		3,300 / 3,400		
Floor space W x D (mm)	30 ATC	3,700 x 3,285 / -		
	40 ATC	-		
	48 ATC	3,700 x 3,750 / 4,555 x 3,780		
	60 ATC	3,700 x 4,050 / 4,555 x 4,080		
Weight (kg)		9,500 - 10,100 / 10,100 - 11,000		
Connections				
Main power		220~230V / 50~60 Hz, 380~415V/50~60Hz		
Power consumption (KVA)		30(F)(T) 35(S) 30(F) 35(T)(S)	35(F)(S) 40(T)	35 (F)

Note: [1] For detailed specification of Z axis travel 800mm, please refer to page 27 ~ 29.
[2] Only for FANUC control.
*Test condition: values are measured by half of the maximum table load capacity.

MV4 / MV5			
18M	24M	7.5B	15C[2]
40 Taper		50 Taper	
600 60L / min, 3.5bar 25L/min, 20bar			
60L / min, 4.5bar			
3,300 / 3,400		3,650 / 3,800	3,350 / 3,400
3,700 x 3,285 / - - 3,700 x 3,750 / 4,555 x 3,780 3,700 x 4,050 / 4,555 x 4,080		3,700 x 3,900 / 4,555 x 3,930 3,700 x 4,450 / 4,555 x 4,480 - -	
9,500 - 10,100 / 10,100 - 11,000		10,000-10,600 / 11,000-12,000	
220~230V / 50~60 Hz, 380~415V/50~60Hz			
40(F) 50(T)(S)		40(F) 45(T)(S)	45(F)

Control: (F): FANUC (T): HEIDENHAIN (S): SIEMENS

Technical Data

Technical Data		MV6		
Spindle code		12C	15C	20C[2]
Main spindle				
Spindle taper		40 Taper		
Work range				
Table size (mm)		2,250 x 800		
Travel X / Y / Z (mm)		2,040 / 800 / 661[1]		
Spindle nose to table surface (mm)		150~811[1]		
Table load capacity (kg)		2,000		
Feed drive				
Feed force X / Y / Z (N)	F	11,519 / 15,708 / 15,708		
	T	19,897 / 19,897 / 19,897		-
	S	20,944 / 20,944 / 26,180		-
Rapid movement X / Y / Z (m/min)		20 / 20 / 16		
*Acceleration X / Y / Z (m/s^2)	F	2 / 2 / 2		
	T	3.5 / 3.5 / 3.5		-
	S	3.5 / 3.5 / 3.5		-
Dia. & pitch of the ball screw (mm)		Ø50 / P = 12 / 12 / 12		
Tool changer				
Tool selection		Random		
Magazine positions		48 (std.) / 60 (opt.)		
Max. tool diameter (mm)		76.2		
Max. tool dia. Due to neighbor pots are empty (mm)		125		
Max. tool length (mm)		300		
Max. tool weight (kg)		7		
CTC time-ISO 10791.9(sec.)-60Hz		6±0.2		

MV6			
18M	24M	7.5B	15C[2]
40 Taper		50 Taper	
2,250 x 800 2,040 / 800 / 661[1] 150~811[1] 2,000			
11,519 / 15,708 / 15,708			
19,897 / 19,897 / 19,897 20,944 / 20,944 / 26,180			- -
20 / 20 / 16			
2 / 2 / 2			
3.5 / 3.5 / 3.5 3.5 / 3.5 / 3.5			- -
Ø50 / P = 12 / 12 / 12			
Random			
48 (std.) / 60 (opt.) 76.2 125 300 7 6±0.2		30 (std.) / 40 (opt.) 125 200 350 15 10±0.2	

Technical Data

Technical Data		MV6		
Spindle code		12C	15C	20C[2]
Main spindle				
Spindle taper		40 Taper		
Coolant system				
Coolant tank capacity (Liter)		710		
Pump capacity				
- Nozzle coolant		60L / min, 3.5bar		
- Coolant through spindle		25L/min, 20bar		
- Wash down		60L / min, 4.5bar		
Machine Size				
Height (mm)		3,500		
Floor space W x D (mm)	30 ATC	-		
	40 ATC	-		
	48 ATC	5,755 x 3,720		
	60 ATC	5,755 x 4,120		
Weight (kg)		13,700 (48ATC) 13,800(60ATC)		
Connections				
Main power		220~230V / 50~60 Hz, 380~415V/50~60Hz		
Power consumption (KVA)		35(F)(T) 40(S)	40(F)(T)(S)	40(F)

Note: [1] For detailed specification of Z axis travel 800mm, please refer to page 27 ~ 29.
[2] Only for FANUC control.
*Test condition: values are measured by half of the maximum table load capacity.

MV6			
18M	24M	7.5B	15C[(2)]
40 Taper		50 Taper	
710 60L / min, 3.5bar 25L/min, 20bar 60L / min, 4.5bar			
3,500		3,500	3,400
- - 5,755 x 3,720 5,755 x 4,120		5,755 x 3,820 5,755 x 4,420 - -	
13,700 (48ATC) 13,800(60ATC)		14,000 (30ATC) 14,500 (40ATC)	
220~230V / 50~60 Hz, 380~415V/50~60Hz			
45(F) 55(T) 50(S)		50(F)(T) 45(S)	50(F)

Control: (F): FANUC (T): HEIDENHAIN (S): SIEMENS

Standard / Optional Accessories

Standard / Optional Accessories		MV4 / MV5 / MV6				
Spindle code		12C	15C	20C	18M	24M
FANUC				○		
HEIDENHAIN		○	○	×	○	○
SIEMENS		○	○	×	○	○
Column raiser (150 mm)				○ / × / ×		
Tall column (one piece column) / Z axis travel 800mm				○ / ○ / ○		
Z axis travel 800mm (column raiser)				× / × / ○		
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	×	○	○	●	●
Balance tooling for spindle warm up				●		
Transformer[(1)]				○		
Linear scale				○		
Work probe				○		
Tool length / breakage measurement				○		
Coolant system				●		
Coolant wash down / wash gun				●		
Coolant through spindle 20 bar				●		
Coolant through spindle 50 bar				○		
Cutter air blast				●		
External chip conveyor				●		
Oil-mist collector				○		
Filtration unit				○		
Documentation (USB) [(2)]				●		
Total Enclosure Guard (with Top side cover)				●		
Work light				●		
Machine status light				●		
CE				●		

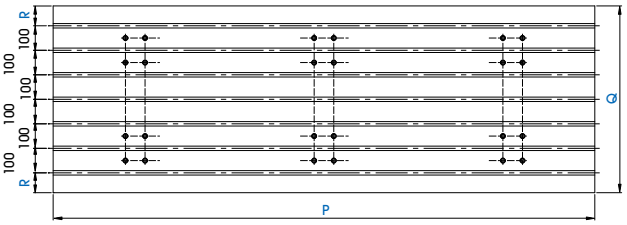
Standard / Optional Accessories	MV4 / MV5 / MV6	
Spindle code	7.5B	15C
FANUC	○	
HEIDENHAIN	○	×
SIEMENS	○	×
Tall column (one piece column) / Z axis travel 800mm	○ / ○ / ×	
Z axis travel 800mm (column raiser)	× / × / ○	
4th axis preparation	●	
50 Taper 30 position tool magazine	●	
50 Taper 40 position tool magazine	○	
ATC auto door	○	
Tooling - BT50	●	
- ISO50 & DIN50	○	
Balance tooling for spindle warm up	●	
Transformer(1)	○	
Linear scale	○	
Work probe	○	
Tool length / breakage measurement	○	
Coolant system	●	
Coolant wash down / wash gun	●	
Coolant through spindle 20 bar	●	
Coolant through spindle 50 bar	○	
Cutter air blast	●	
External chip conveyor	●	
Oil-mist collector	○	
Filtration unit	○	
Documentation (USB) (2)	●	
Total Enclosure Guard (with Top side cover)	●	
Work light	●	
Machine status light	●	
CE	●	

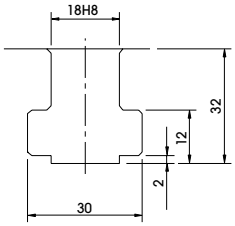
●=Standard ○=Option X=N/A

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

Layout & Dimension

Table dimension



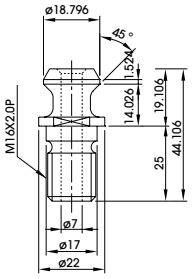


	MV4	MV5	MV6
P	1,400	1,700	2,250
Q	700	700	800
R	100	100	100
T-Slots No.	6	6	7

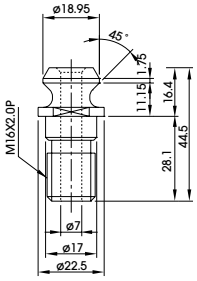
Pull stud and applicable tools

40 Taper

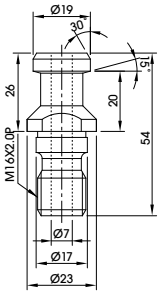
BT 40

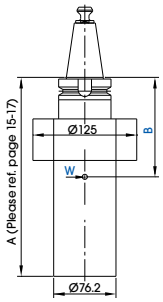


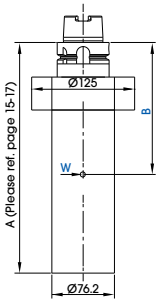
ISO (7388-B)



DIN (69872-A)



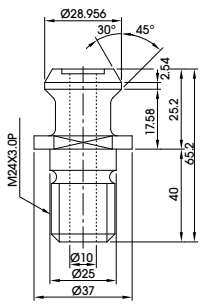




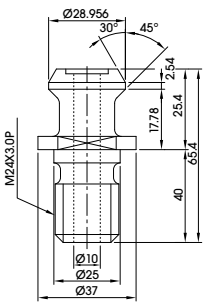
B	tool median point distance	tool middle point distance
W	tool weight	tool weight
MOMENT=W*B(≦ 10.29N-m)		MOMENT=W*B(≦ 9.85N-m)

50 Taper

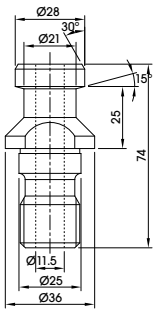
BT 50

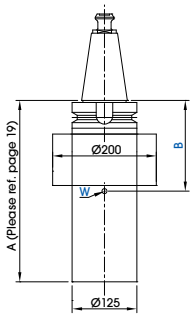


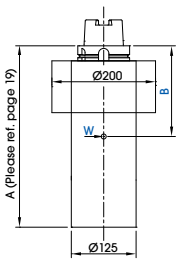
ISO (7388-B)



DIN (69872-A)

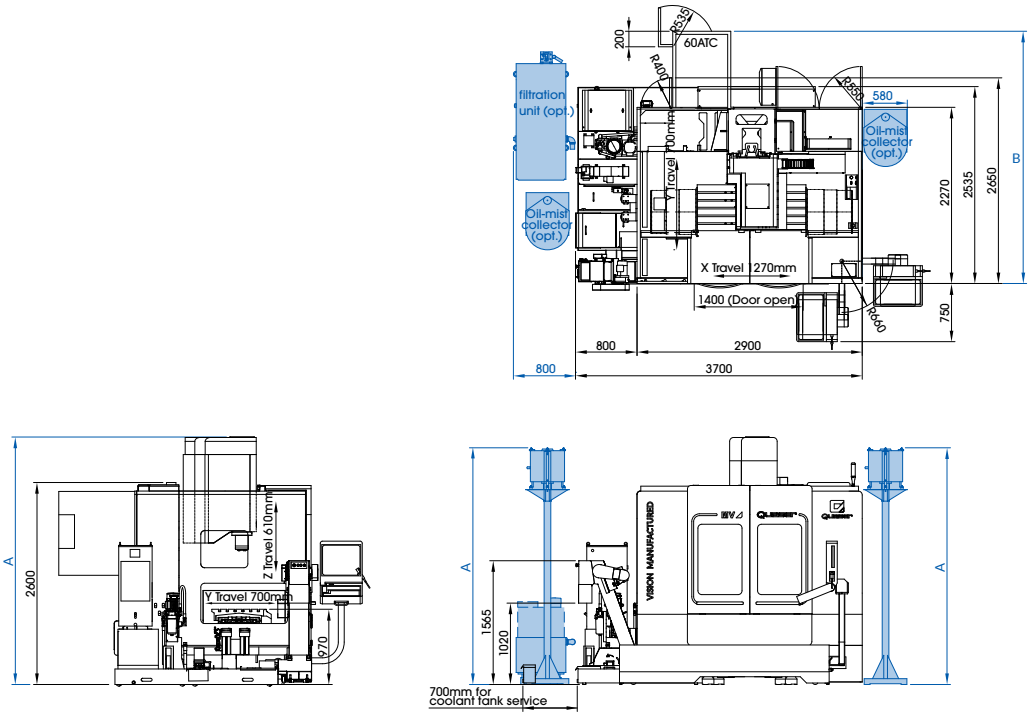






B	tool median point distance
W	tool weight
MOMENT=W*B(≦ 25.72N-m)	

MV4



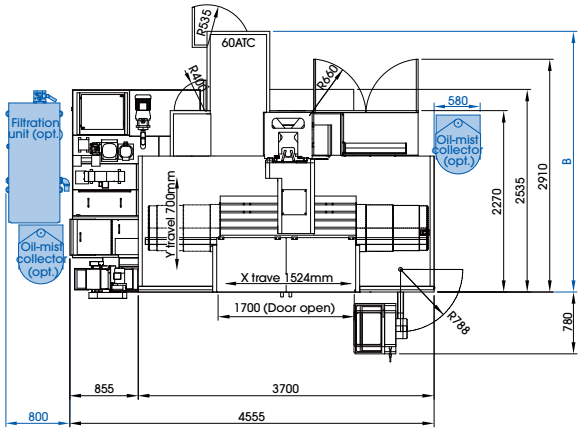
Max. Machine Height	MV4			
Spindle taper	40 Taper		50 Taper	
Spindle code	12C	15C / 20C	7.5B	15C
A Standard column 1. Z axis travel 610mm 2. Spindle nose to table surface 150~760 mm (#40) 190~800 mm (#50)	3,300	3,300	3,650	3,350
A Column raiser (150mm) 1. Z axis travel 610mm 2. Spindle nose to table surface 300~910 mm (#40) 340~950 mm (#50)	3,450	3,450	-	-
A Tall column (one piece column) 1. Z axis travel 800mm 2. Spindle nose to table surface 150~950 mm (#40) 190~990 mm (#50)	3,500	3,500	3,850*	3,550*

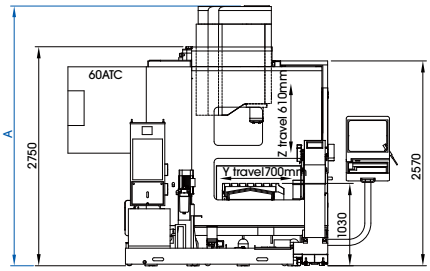
*Container shipment is not possible

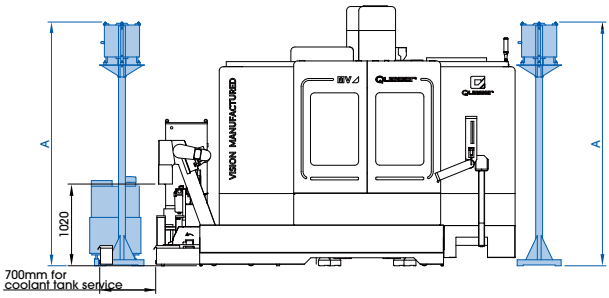
MV4	B	40 Taper	30 ATC	2,535
			48 ATC	3,000
			60 ATC	3,300
		50 Taper	30 ATC	3,150
			40 ATC	3,700

Layout & Dimension

MV5





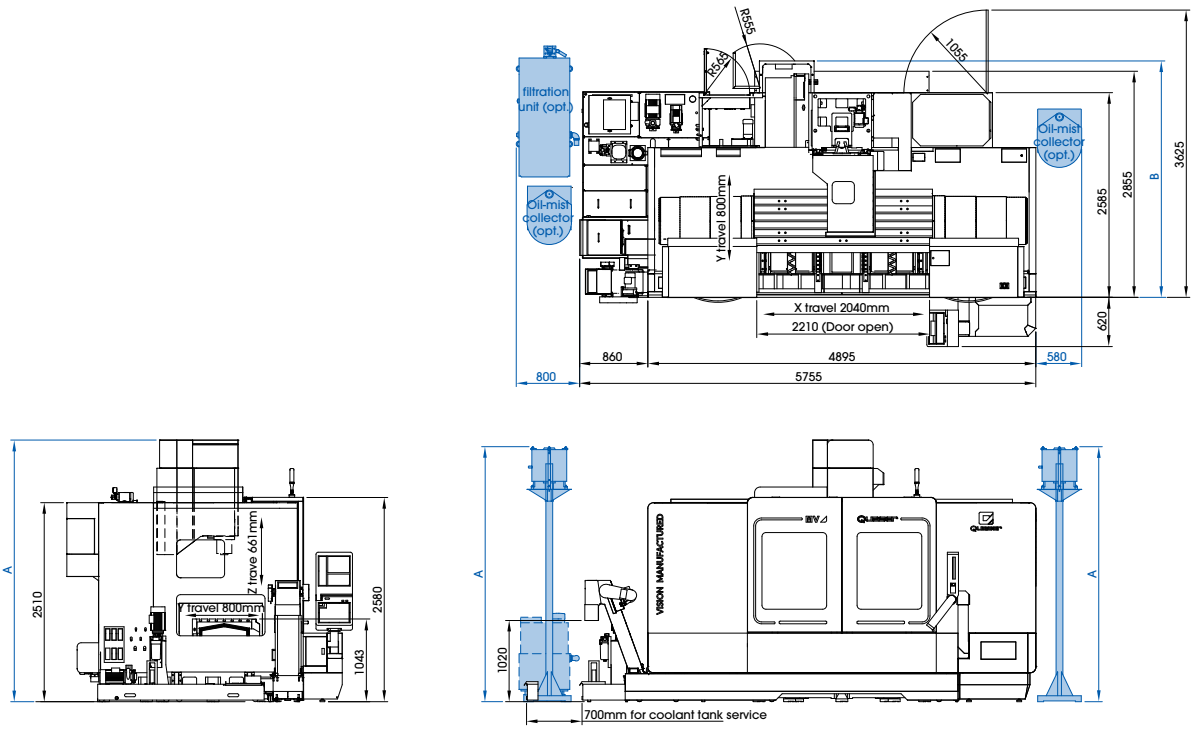


Max. Machine Height	MV5		
Spindle taper	40 Taper	50 Taper	
Spindle code	15C / 20C	7.5B	15C
A Standard column 1. Z axis travel 610mm 2. Spindle nose to table surface 150~760 mm (#40) 190~800 mm (#50)	3,400	3,800	3,400
A Tall column (one piece column) 1. Z axis travel 800mm 2. Spindle nose to table surface 150 ~ 950 mm (#40) 190 ~ 990 mm (#50)	3,600*	4,000*	3,600*

*Container shipment is not possible

MV5	B	40 Taper	48 ATC	3,000
			60 ATC	3,300
		50 Taper	30 ATC	3,150
			40 ATC	3,700

MV6



Max. Machine Height	MV6		
Spindle taper	40 Taper	50 Taper	
Spindle code	15C / 20C	7.5B	15C
A Standard column 1. Z axis travel 661mm 2. Spindle nose to table surface 150~811 mm (#40 & #50)	3,500	3,500	3,400
A Tall column (column raiser) 1. Z axis travel 800mm 2. Spindle nose to table surface 150~950 mm (#40 & #50)	3,650*	3,700*	3,600*

*Container shipment is not possible

MV6	B	40 Taper	48 ATC	3,100
			60 ATC	3,500
		50 Taper	30 ATC	3,200
			40 ATC	3,800

Carbon Reduction & Green Power

Quaser in the future will not only dedicate to technology in new field, but also contribute to escalating Cooperate Social Responsibility, such as obtain carbon neutral within 5 years. Instead of urging, we will lead stakeholders to reach the goal together.

We are trying to implement a sustainable economy, build healthy cities with the world, and create a prosperous future.
Business or Citizens, everyone is accountable to save the world.
We would never achieve it without your support.
Let's create a green future and start it from today, everyday!



ISO 9001 / ISO 14001 / ISO 14952-1

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MV4~6-E-16/12/2024

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