

MODULAR MACHINES FROM THE EMAG GROUP



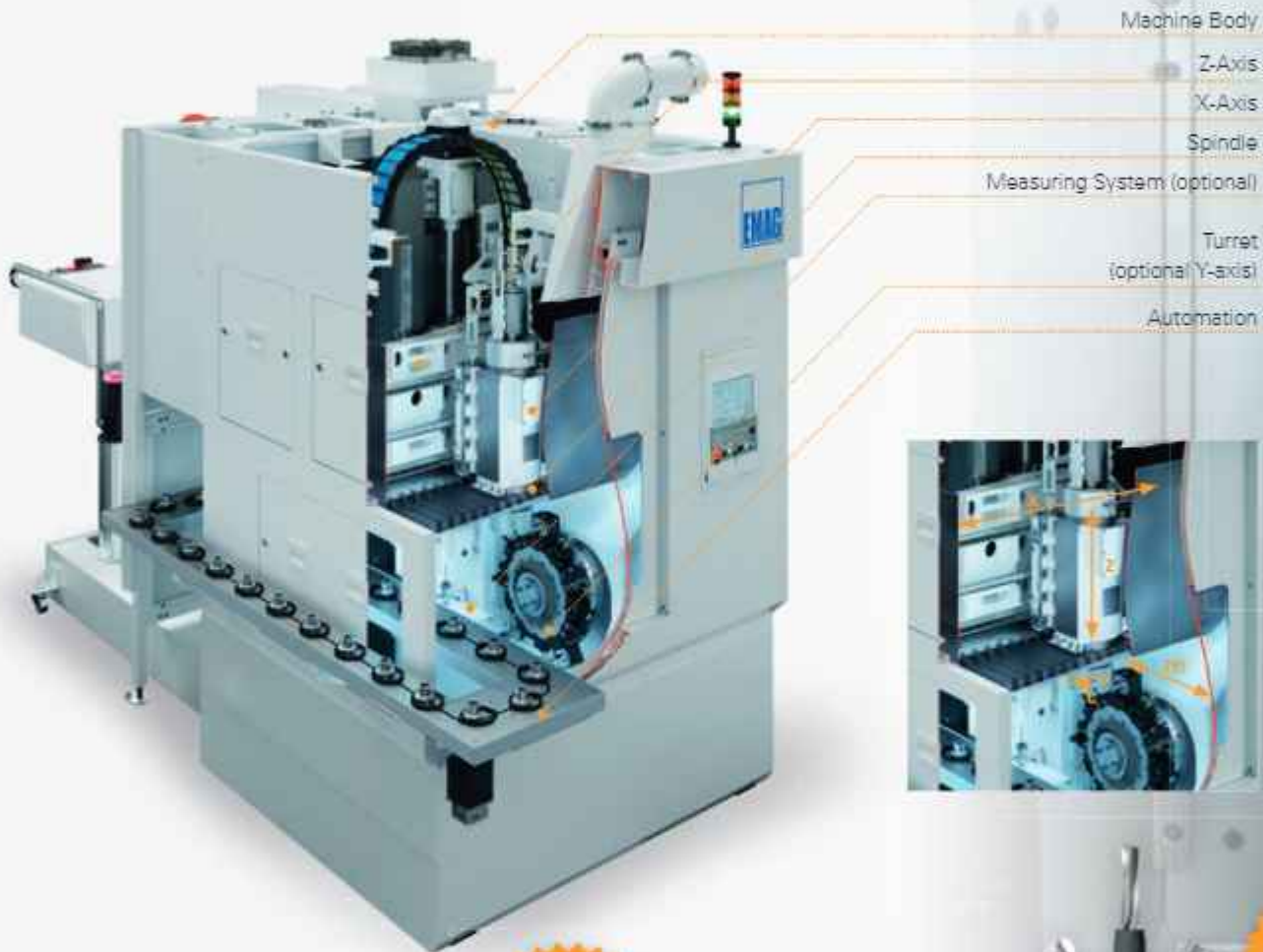
think
VERTICAL



PICK-UP TURNING MACHINES FOR CHUCKED PARTS

The VL Series vertical pick-up turning machines are examples of the modular standard platform from the EMAG Group.

The VL series was developed for the manufacturing of precision chucked parts. To cover the widest possible range of parts, the VL Series is available in four versions with workpiece diameters ranging from 0.4 to 15.7 inches.



HIGH PRECISION – DIRECT POSITION MEASURING SYSTEMS

- + **Glass scales** – Fully encapsulated linear glass scales in all linear axes.
- + **Standard** – Glass scales come standard on all EMAG machines!

THE PATENTED EMAG TURRET

- + **Fast, wear free** – the EMAG turret is equipped with a drive unit (torque motor) for swiveling.
- + **Precise** – Thermal stability is ensured thanks to an ambient temperature controlled cooling system.
- + **Flexible** – The turret has space for twelve tools (featuring either a VDI or BMT). Driven tools are available in all tool stations as an option. Choose to add a Y-axis to ensure maximum flexibility.



BENEFITS OF THE VL SERIES

- + **High strength**
Large working spindle bearing diameter
+ MINERALIT[®] polymer concrete machine base
- + **Complete automation**
Including raw and finished parts storage areas
- + **Simple handling**
All the service units are easy to reach
- + **Minimum footprint**
Compact machine design
- + **Maximum performance**
Short distances between the machining area
and pick-up automation system

VL MACHINES IN OPERATION

VL 2 and VL 4 for small and medium-sized workpieces

The VL 2 and VL 4 pick-up turning machines are ideal for workpieces with a maximum diameter of 4 and 8 inches. The machines feature an integrated automation system and a parts storage area that allows them to operate completely autonomously, relieving the strain on production personnel. Efficient mass production of various batch sizes is possible with these machines and, thanks to their flexible clamping systems, they can also easily machine entire part families.



**SIEMENS 840D SL
AVAILABLE**



VL 6 and VL 8 for large workpieces

If you want to efficiently machine larger workpieces, or are striving to achieve maximum flexibility in production, look no further than the VL 6 and VL 8 pick-up turning machines. The integrated conveyor belt makes loading the machines with heavy parts a breeze; the parts are simply placed on the conveyor belt by crane and the machine takes care of the rest.



TECHNICAL DATA

		VL 2	VL 4	VL 6	VL 8
Workpiece diameter, max.	mm inch	100 4	200 8	300 12	400 16
Chuck diameter	mm inch	160 6	260 10	400 16	500 20
Workpiece length, max.	mm inch	150 6	200 8	250 10	300 12
Travel distances X / Y (optional) / Z	mm inch	650 / ± 50 / 375 26 / ± 2 / 15	760 / ± 30 / 415 30 / ± 1 / 16	900 / ± 30 / 495 36 / ± 1 / 19	1,110 / ± 30 / 595 43 / ± 1 / 23
Main spindle					
▶ Power rating, 40% / 100%	kW hp	18 / 14 24 / 19	25 / 18 34 / 24	39 / 28 62 / 38	44 / 35 69 / 47
▶ Torque, 40% / 100%	Nm ft-lb	77 / 59 67 / 44	280 / 202 207 / 149	460 / 340 339 / 251	775 / 600 572 / 443
▶ Max. number of revolutions	rpm	6,000	4,500	3,100	2,850
Turret					
▶ Turret tool positions	Quantity	12	12	12	12
▶ Revolutions of driven tools	rpm	6,000	6,000	6,000	6,000
▶ Torque of driven tools at 30% / 100% duty cycle	Nm ft-lb	27 / 15 20 / 11	27 / 15 20 / 11	27 / 15 20 / 11	48 / 30 36 / 22
Rapid-traverse rate X / Y / Z	m/min ipm	60 / 30 / 30 2,362 / 1,181 / 1,181	60 / 15 / 30 2,362 / 601 / 1,181	60 / 15 / 30 2,362 / 601 / 1,181	60 / 15 / 30 2,362 / 601 / 1,181

THE TRACKMOTION AUTOMATION SYSTEM

TrackMotion combines the concept of conveyor belts integrated with gantries into one single automation solution.

The TrackMotion is a track that runs through multiple machines with a TransLift unit attached. The TransLift will grip parts, even parts with different heights, correctly position them and if necessary turn the part over. The way the TrackMotion is set up it can link a variety of machines very easily. To decrease cycle times even further, multiple TransLift units can be added.



Shown without safety fencing



Linking three VL machines using the EMAG TrackMotion system.



The raw components are supplied by a parts storage area. This has a capacity to hold up to 400 parts, depending on the geometry of the workpiece.



From small to large with no retooling. The universal NC gripper ensures that the machine can be reset very quickly.



EMAG TrackMotion to simply link multiple machines

THE ADVANTAGES OF THE TRACKMOTION SYSTEM

- + Minimal set-up time – the TrackMotion automation system is ready for use as soon as the workpiece height and part diameter have been entered into the standard CNC Code
- + Great reliability due to its simple, sturdy design
- + Flexible system – multiple TransLift units can be installed on a single system
- + The workpieces are positioned and turned over in one cycle
- + Save space - the whole system is installed behind the machines
- + Possibility to integrate measuring equipment, marking systems, cleaning machines and more
- + Easy to service – TrackMotion is easily accessible from all sides
- + Short part transport times with horizontal travel speeds of 492 ft/min and 92 ft/min vertically

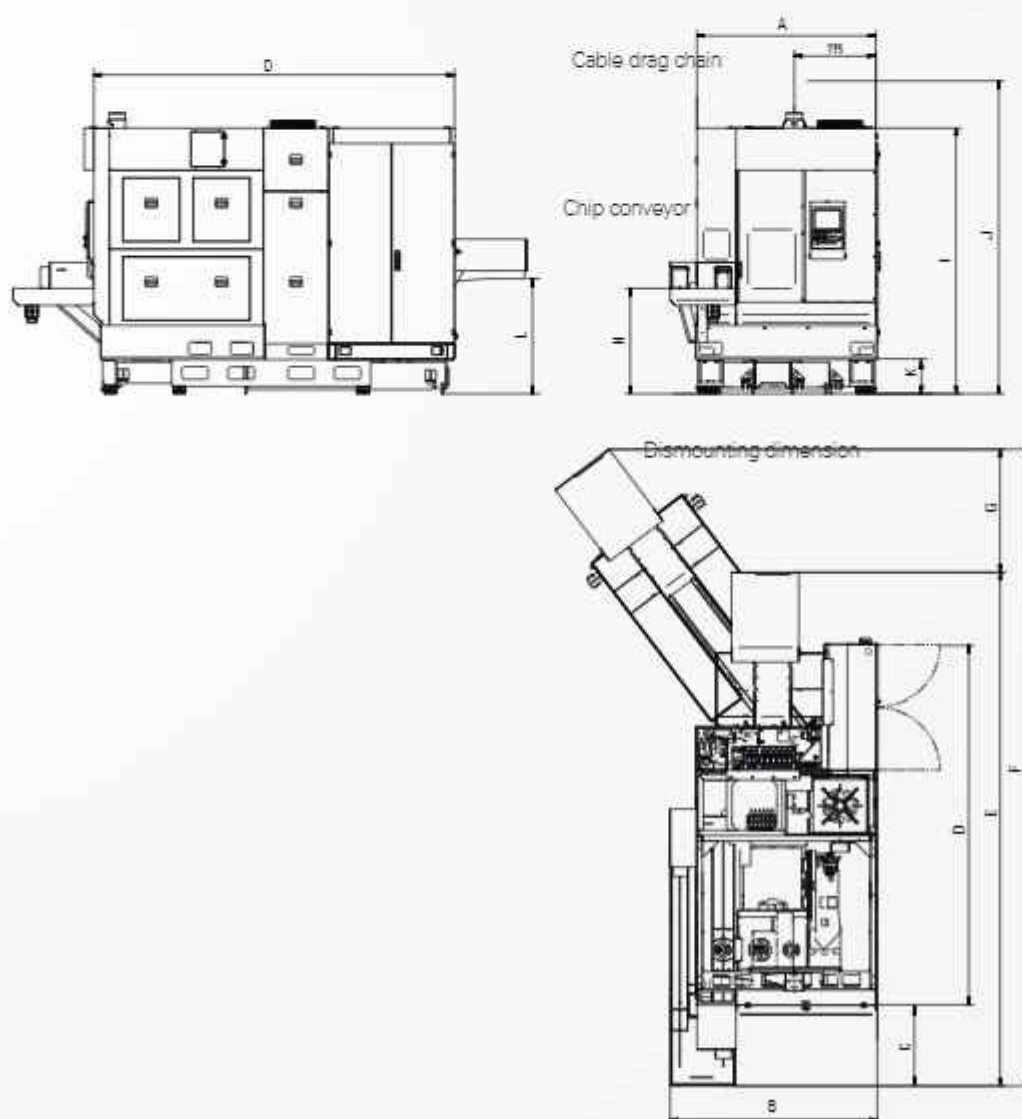


TECHNICAL DATA

MACHINES		VL 2	VL 4	VL 6	VL 8
Workpiece diameter, max.	mm inch	100 4	200 8	300 12	400 16
Chuck diameter	mm inch	160 6	260 10	400 16	500 20
Swing diameter	mm inch	210 8	260 11	420 17	520 20
Shortest / longest part	mm inch	30 / 160 1 / 6	30 / 200 1 / 8	30 / 250 1 / 10	30 / 300 1 / 12
Workpiece weight	kg lb	5 11	20 44	40 88	60 132
Weight, max.: clamping device + clamping cylinder + workpiece + draw bar	kg lb	86 190	150 331	300 661	700 1,543
Turret					
▶ Turret tool positions	Quantity	12	12	12	12
▶ Turret cutting circle	mm inch	710 / 610 (with Y) 28 / 24 (with Y)	860 34	920 36	1,000 39
▶ Turret width across flats	mm inch	330 13	360 14	360 / 380 14 / 15	440 17
▶ Tool connection	—	VDI 30 / BMT 55	VDI 40 / BMT 55	VDI 40 / BMT 65	VDI 50 / BMT 75
▶ Revolutions of driven tools	rpm	6,000	6,000	6,000	6,000
▶ Torque of driven tools, 30% / 100% duty cycle	Nm ft-lb	27 / 15 20 / 11	27 / 15 20 / 11	27 / 15 20 / 11	48 / 30 36 / 22
▶ Tool length, max.	mm inch	190 / 140 7 / 6	250 10	260 11	260 11
▶ Turret indexing time for one position (30°)	s	0.8	0.9	1.0	1.1
Travel distances					
▶ X stroke, turning only / with loading	mm inch	295 / 660 12 / 26	290 / 760 11 / 30	330 / 880 13 / 35	380 / 995 15 / 39
▶ Y stroke	mm inch	±50 ±2	±30 ±1	±30 ±1	±30 ±1
▶ Z stroke	mm inch	375 15	415 16	495 19	595 23
Rapid traverse [acceleration]					
▶ X	m/min, [m/s ²] ipm, [ft/s ²]	60, [4] 2,363 [13]	60, [4] 2,363 [13]	60, [4] 2,363 [13]	60, [4] 2,363 [13]
▶ Y (optional)	m/min, [m/s ²] ipm, [ft/s ²]	30, [4] 1,181 [13]	15, [4] 591 [13]	15, [4] 591 [13]	15, [4] 591 [13]
▶ Z	m/min, [m/s ²] ipm, [ft/s ²]	30, [4] 1,181 [13]	30, [4] 1,181 [13]	30, [4] 1,181 [13]	30, [4] 1,181 [13]
Feed pressure X / Y (optional) / Z	kN lbf	2.5 / 5 / 13.7 562 / 1,124 / 3,080	6.9 / 7.5 / 18.7 1,561 / 1,686 / 4,204	6.9 / 7.5 / 18.7 1,561 / 1,686 / 4,204	9.3 / 12 / 12.5 2,091 / 2,688 / 2,810
Ball screw dia. X / Y / Z	mm inch	32 / 32 / 40 1 / 1 / 1.2	40 / 40 / 40 1.6 / 1.6 / 1.6	40 / 40 / 40 1.6 / 1.6 / 1.6	50 / 40 / 50 2 / 1.6 / 2
Linear guides	Size	35	45	45	55
Working spindles					
▶ Spindle nose (DIN 55026)	Size	A5	A6	A8	A11
▶ Spindle bearing	dia. in mm Ø in inch	80 3	110 4	140 6	160 6
▶ Loading time (depending on clamping device)	s	5–6	7–8	8–9	10–12
Main spindle, standard version					
▶ Power rating, 40% / 100% duty cycle	kW hp	18.1 / 13.9 24 / 18	25 / 18 34 / 24	39 / 28 52 / 38	44 / 34.5 59 / 48
▶ Torque, 40% / 100% duty cycle	Nm ft-lb	77 / 59 57 / 44	250 / 202 207 / 149	460 / 340 339 / 251	775 / 600 572 / 443
▶ Full power at speed of	rpm	2,250	850	600	550
▶ Max. number of revolutions	rpm	6,000	4,500	3,100	2,850

MACHINES

		VL 2	VL 4	VL 6	VL 8
Machine dimensions					
▶ Width A	mm	1,600	1,254	1,850	2,120
	inch	63	49	73	83
▶ Width B	mm	1,870	2,320	2,260	2,620
	inch	74	91	89	103
▶ Length C	mm	720	590	700	720
	inch	28	23	28	28
▶ Length D	mm	2,970	3,440	3,900	4,000
	inch	117	135	154	157
▶ Length E	mm	4,800	5,368	5,900	6,500
	inch	189	211	232	256
▶ Length F	mm	6,550	7,870	7,700	8,300
	inch	258	310	303	327
▶ Length G	mm	1,750	2,500	1,800	1,800
	inch	69	98	71	71
▶ Height H	mm	1,000	1,000	1,000	1,000
	inch	39	39	39	39
▶ Height I	mm	2,525	2,525	2,525	2,525
	inch	99	99	99	99
▶ Height J	mm	3,100	3,600	3,600	3,500
	inch	122	142	142	138
▶ Height K	mm	325	325	325	325
	inch	13	13	13	13
▶ Height L	mm	800	800	800	800
	inch	31	31	31	31
Weight	kg	6,000	8,000	10,000	12,000
	lb	13,228	17,687	22,046	26,455



VLC 50 TWIN – HIGHLY PRODUCTIVE SIMULTANEOUS

Twin-spindle turning center for the highly productive manufacturing of workpieces up to 75 mm (3 in) in diameter

The VLC 50 TWIN has two main spindles in one machining area which can simultaneously machine two identical workpieces. This method allows for massive increases in output quantities and lowers cost per piece.

The diameter and length (X/Z direction) of both components can be corrected independently of one another using both spindles. In addition, the machine has a direct position measuring system and a linear motor in the X-axis to ensure the highest machining quality and maximum productivity.



TECHNICAL DATA

Max. workpiece diameter	mm	75
	inch	3.0
Chuck diameter	mm	140
	inch	5.5
Swing diameter	mm	160
	inch	6.3
Workpiece length, max.	mm	700
	inch	27.6
Workpiece weight	kg	6,000
	lb	13,228
X-axis / Z-axis travel	mm	605 / 200
	inch	24 / 8
Main spindle		
Power rating, 40% / 100% duty cycle	kW	13 / 11.7
	hp	17 / 16
Torque, 40% / 100% duty cycle	Nm	113 / 88
	ft-lb	83 / 66
Max. number of revolutions	rpm	6,000
Rapid-traverse rate, X / Z	m/min	60 / 30
	in	2,362 / 1,181
Tool stations	2 x 4 – VOI30 / BMT45	
CNC controller	Fanuc 3i with Manual Guide i	



S MACHINING

SIMULTANEOUS MACHINING



HIGHLIGHTS

- + **Maximum precision**
Machine base made of MINERALIT® polymer concrete with optimal vibration-damping properties, size 45 linear roller guides, as well as direct position measuring systems in the X-axis, for the highest positioning accuracy, repeat accuracy and long-term accuracy.
- + **Integrated automation**
Two pick-up working spindles for loading and unloading. "Automation ready": Linking with other EMAG machines / technologies (e.g., gear hobbing) possible thanks to TrackMotion automation system.
- + **Unique TWIN concept**
Simultaneous machining of two identical workpieces is possible, which means doubling the output and reducing the cost per piece. Diameter and length (X / Z direction) of both components can be adjusted independently of one another.
- + **Maximum dynamics**
Linear drive in the X-axis for maximum dynamics, minimal wear and maximum positioning accuracy.

Automation included



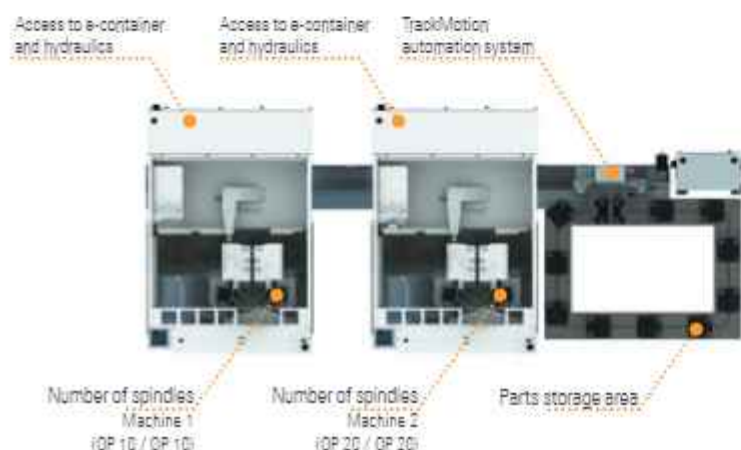
On the VL 1 TWIN machines, the working spindles are not only used to machine workpieces, but also to load and unload them. This saves money, space and unnecessary peripheral devices.

Fully integrated measuring system



Measuring systems installed between the machining area and the pick-up station are available as an option. To save time, these measurements are performed during the parts' movement to and from the loading/unloading station.

Linking two VLC 50 TWIN machines including parts storage area and TrackMotion automation system

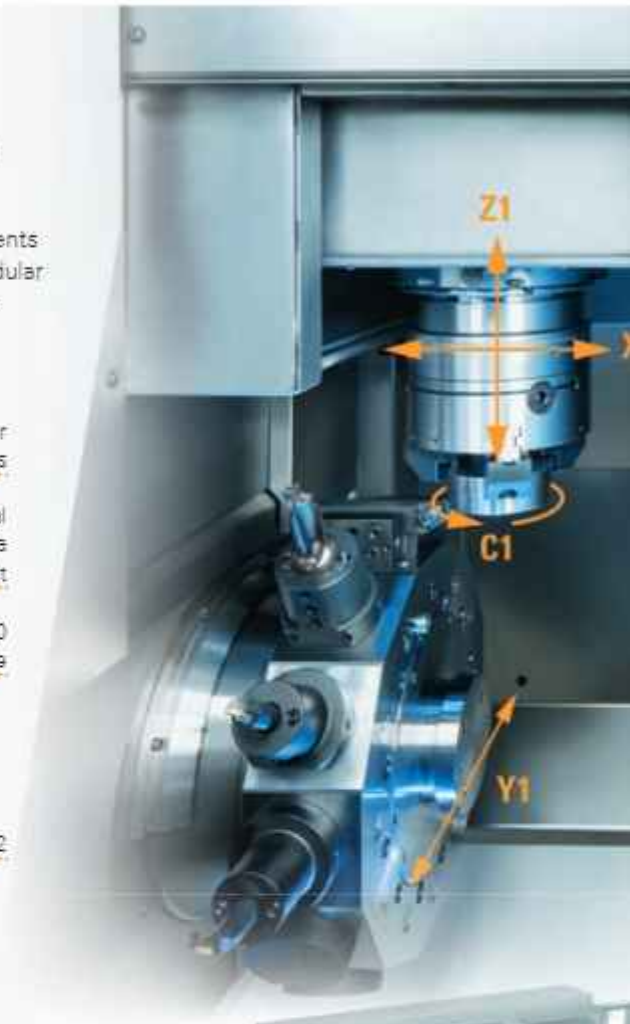
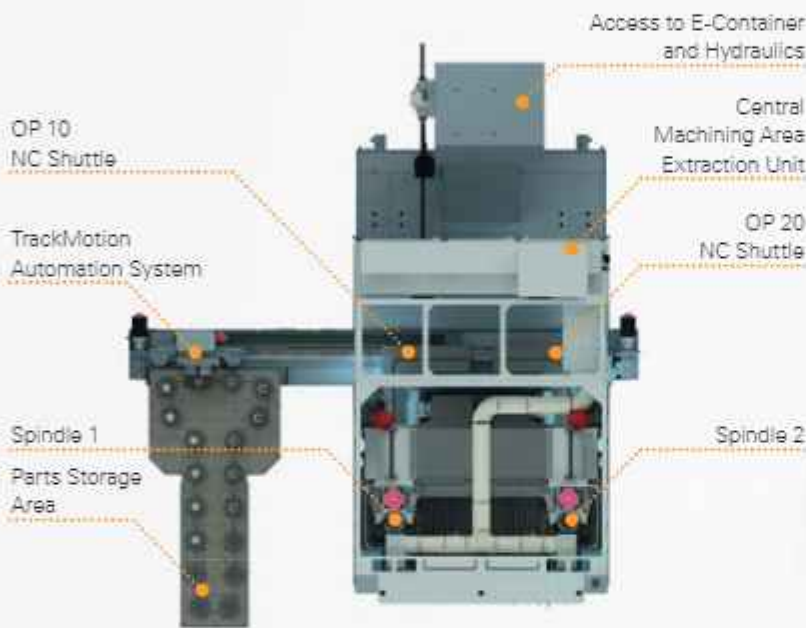


* Cycle time of 9 sec., for example, for a machining time of 16 sec. (2 spindles)

TWIN-SPINDLE TURNING MACHINE FOR THE HIGHLY PRODUCTIVE MANUFACTURING OF CHUCKED PARTS

EMAG has extended the VL series product range with the VL 3 DUO, a twin-spindle machine solution for the highly productive manufacturing of chucked parts up to 6 inches in diameter.

The VL 3 DUO integrates all of the most recent EMAG technological developments (including pick-up automation, the TrackMotion automation system and the modular design of the machine) to create a highly productive manufacturing system that delivers maximum productivity with a minimum footprint.



SIEMENS 840D SL AVAILABLE

HIGH-PERFORMANCE TURNING WITH THE VL 3 DUO

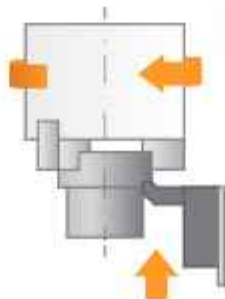
The VL 3 DUO is perfect for heavy-duty machining thanks to its rigid machine design. High feed forces with a large cutting depth allows for the reduction of machining time.

Standard Spindle:

$a_p = 4.75 \text{ mm}$
0.2 in
 $f = 0.4 \text{ mm/rev}$
0.02 in/rev
 $v_c = 250 \text{ m/min}$
1,000 in/min

High Torque Spindle:

$a_p = 8.5 \text{ mm}$
0.3 in
 $f = 0.4 \text{ mm/rev}$
0.02 in/rev
 $v_c = 250 \text{ m/min}$
1,000 in/min



*Fully equipped machine includes chip conveyor

Y PRODUCTIVE MANUFACTURING



MACHINING AREA OF THE VL 3 DUO:

Highly productive machining for chucked parts with a maximum diameter of 6 inches.



Precise Machining

Machine base made of MINERALUF polymer concrete, machine weighs 22,048 lbs., size 45 linear roller guides and direct position measuring systems in all axes

Integrated Automation

Pickup working spindle for loading and unloading

Unique Machine Concept

Two working spindles and two high-performance tool turrets with torque motor

Optimum Accessibility

Short distance to the turrets and working spindle ensure optimum accessibility

Increased Flexibility

Parts storage area for up to 400 workpieces and TrackMotion automation system for high-speed part transport between the parts storage area and machining areas as well as for turning the workpieces

Minimum Floor Space Required

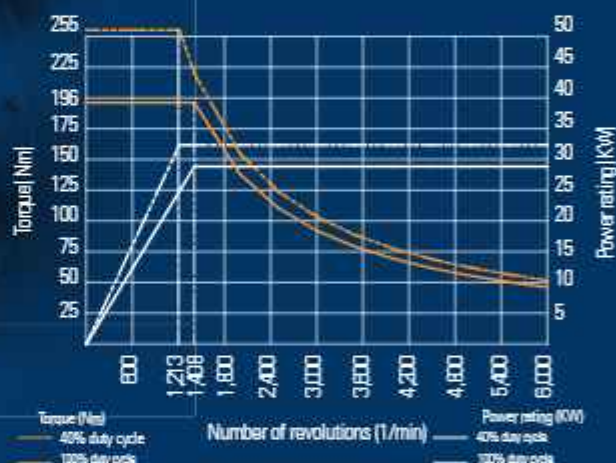
284 ft² for the complete machine: VL 3 DUO + TrackMotion + parts storage area + chip conveyor

Machines shown in trade show format.

TrackMotion and parts storage area for up to 400 workpieces (depending on the workpiece geometry)

VL 3 DUO FOR DEMANDING TURNING WORK

- + Working spindle with 5,000 rpm / 32 kW / 255 Nm at 40% duty cycle
- + Sturdy mechanical design – Spindle bearing, front: 4 in. diameter, Spindle flange to DIN 55 026, size 6
- + Motor spindle with DirectDrive to minimize run times, maximize true running and diameter tolerances
- + Maximum torque over a large range of speeds – baseline spindle speed: 1,408 rpm (at 100% duty cycle)
- + Water-cooled motor spindle for maximum thermal stability



TECHNICAL DATA

Workpiece diameter, max.	mm inch	150 6
Chuck diameter, max.	mm inch	210 8.3
Workpiece length, max.	mm inch	110 4.3
Travel distance: X (machining stroke) / Y (optional) / Z	mm inch	605 / ±30 / 250 24 / ±1 / 10
Main spindles (2x) – Standard		
• Power rating, 40% / 100%	kW hp	17.9 / 15.5 24 / 21
• Torque, 40% / 100%	Nm ft-lb	144 / 98 106 / 72
• Max. number of revolutions	rpm	5,000
• Spindle flange to DIN 55026	Size	6
• Spindle bearing dia., front	mm inch	100 4
High Torque Spindle – Optional		
• Power rating, 40% / 100%	kW hp	32.4 / 28.9 43 / 39
• Torque, 40% / 100%	Nm ft-lb	255 / 196 188 / 145
• Max. number of revolutions	rpm	6,000
Turrets (2x)		
• Turret tool positions	Qty	12
Rapid-traverse rate X / Y / Z	m/min in/min	60 / 30 / 30 2,362 / 1,181 / 1,181

TECHNICAL DATA

MACHINE

VL 3 DUO

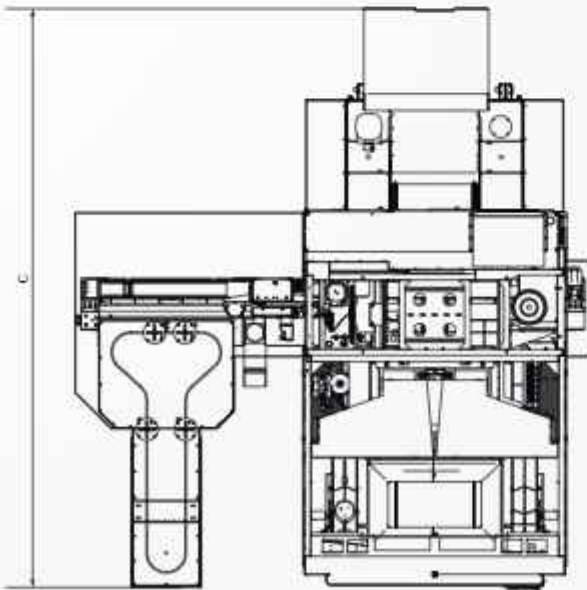
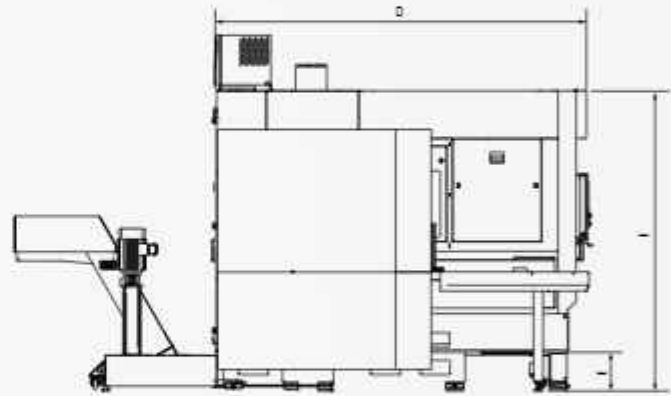
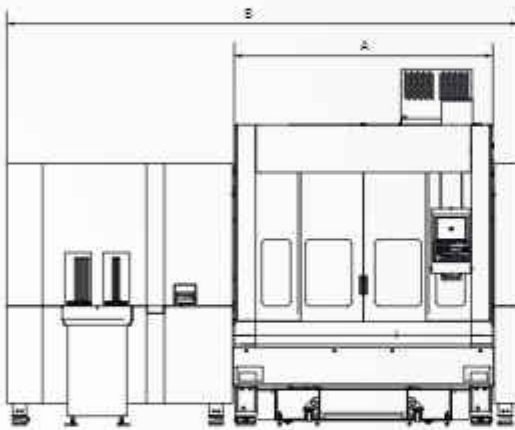
Workpiece diameter, max.	mm inch	150 6
Chuck diameter	mm inch	210 8
Swing diameter	mm inch	250 10
Workpiece length, max.	mm inch	110 4
Workpiece weight	kg lb	10 22
Weight, max.: clamping device + clamping cylinder + workpiece + draw bar	kg lb	145 319
Turrets (2x)		
▶ Turret tool positions	Quantity	12
▶ Turret cutting circle	mm inch	720 28
▶ Turret width across flats	mm inch	360 14
▶ Tool connection	-	VDI 40 / BMT 55
▶ Revolutions of driven tools	rpm	5,000
▶ Torque of driven tools, 30% / 100% duty cycle	Nm ft-lb	27 / 15 20 / 11
Travel distances:		
▶ X stroke, turning only / with loading	mm inch	180 / 605 7 / 20
▶ Y stroke	mm inch	±30 ±1
▶ Z stroke	mm inch	250 10
Rapid traverse (acceleration)		
▶ X	m/min, [m/s²] ipm, [ft/s²]	60, [4] 2,362 [13]
▶ Y (optional)	m/min, [m/s²] ipm, [ft/s²]	30, [4] 1,181 [13]
▶ Z	m/min, [m/s²] ipm, [ft/s²]	30, [4] 1,181 [13]
Feed pressure X / Y (optional) / Z	kN lbf	6 / 5 / 8 1,349 / 1,124 / 1,799
Bell screw dia. X / Y / Z	mm inch	40 / 32 / 40 2 / 1 / 2
Working spindles		
▶ Spindle bearing	Diameter in mm ø in inch	100 4
Main spindle, standard version		
▶ Power rating, 40% / 100% duty cycle	kW hp	17.9 / 15.5 24 / 21
▶ Torque, 40% / 100% duty cycle	Nm ft-lb	144 / 98 106 / 72
▶ Full power at speed of	rpm	1,509
▶ Max. number of revolutions	rpm	5,000
Main spindle, high performance version		
▶ Power rating, 40% / 100% duty cycle	kW hp	32.4 / 28.9 43 / 39
▶ Torque, 40% / 100% duty cycle	Nm ft-lb	255 / 192 189 / 142
▶ Full power at speed of	rpm	1,400
▶ Max. number of revolutions	rpm	5,000

MACHINE

VL 3 DUO

Machine dimensions

▶ Width A	mm	2,200
	inch	87
▶ Width B	mm	4,200
	inch	165
▶ Length C	mm	4,831
	inch	190
▶ Length D	mm	3,112
	inch	123
▶ Height E	mm	826
	inch	33
▶ Height F	mm	2,526
	inch	99



HEAVY-DUTY MACHINING OF COMPLEX WORKPIECES

The VM 9 vertical turning center is designed for the production of individual parts or small/medium production runs with a wide variety of parts. The machine's tool turret has twelve tool positions, and depending on the interface desired by the customer (BMT or VDI), the turret can be equipped with driven tools. This allows for additional manufacturing flexibility as the machine can be equipped for a variety of things, for example drilling operations. Based on customer requirements, the workpieces can either be loaded manually using a crane, or automatically through the side loading door. In order to guarantee consistently high workpiece quality, the machine has an integrated probe installed (first part = good part). With all of these features included, the VM 9 is extremely well equipped for a wide variety of production tasks.



Machine Body

Z-Axis

X-Axis

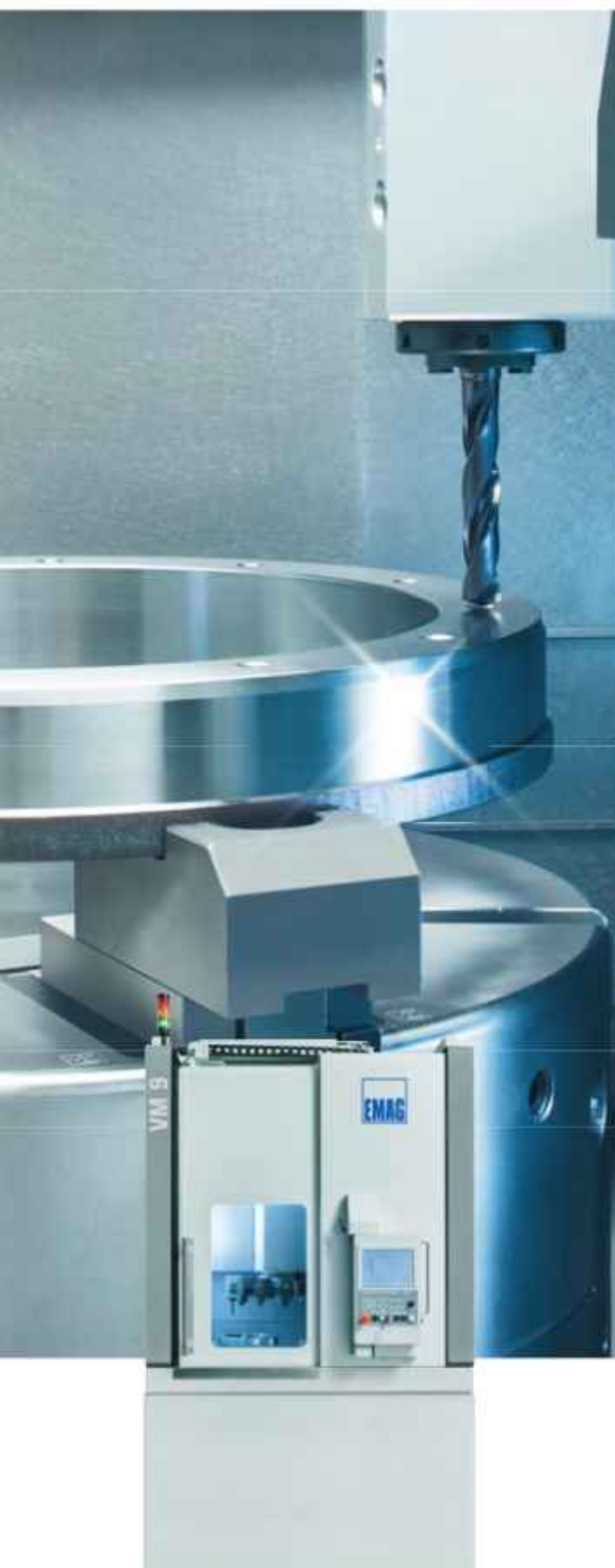
Spindle

Main Spindle

Control Panel



**WORKING
SPINDLE WITH
UP TO
83 KW
FULL
POWER**



- + **Maximum productivity:** Highly dynamic axes for short idle times and quick machining processes
- + **Simple handling:** All the service units are easy to reach
- + **Automation concept (optional):** Loading through the side loading hatch with a gantry or robot. Direct access to the machining area through the separate front door
- + **Maximum performance:** Thanks to short transport distances
- + **High surface accuracy:** Axis monitoring by rotary, indirect absolute encoders or with a fully encapsulated linear glass scale (optional)
- + **Ideal for heavy-duty machining:** Generously dimensioned main spindle, maintenance-free spindle motors and rigid guideways
- + **Very long workpiece service lives:**
Very rigid machine body made of MINERALIT® polymer concrete, six to eight times better damping properties than gray cast iron

TECHNICAL DATA

Chuck diameter	mm	450
	inch	18
Weight, max.	kg	300
	lb	661
Swing diameter over base	mm	650
	inch	26
Turning diameter, max.	mm	450
	inch	18
X-axis / Z-axis travel	mm	330 / 500
	inch	13 / 20
Spindle height (without clamping devices)	mm	970
	inch	38
Main spindle		
• Spindle flange to ISO 702-1: 2009	Size	8
• Spindle bearing	mm	140 / 180
	inch	6 / 6
Main drive unit		
• Synchronous motor 40% duty cycle / 100% duty cycle	kW	49/63 / 32/54
	hp	66/111 / 43/73
• Full power at speed of	rpm	800
• Torque 40% duty cycle / 100% duty cycle	Nm	586/990 / 380/650
	ft-lb	431/730 / 280/479
• Max. number of revolutions	rpm	3,000 / 2,400
• Spindle positioning accuracy (C-axis)	°	±0.01
Feed drive		
• Rapid-traverse rate X / Z	m/min	30 / 30
	ipm	1,181 / 1,181
• Feed force X / Z	kN	4 / 8
	lbf	899 / 1,799
• Ball screw dia. X / Z	mm	40 / 40
	inch	1 / 1
Disc-type turret		
• for cylindrical shanks to DIN 69 880		VDI 40 / BMT 66
• Turret tool positions		8 / 12
• Width across flats	mm	380 / 380
	inch	14 / 15
• Cutting circle	mm	690
	inch	27
• Torque of driven tools, 40 % / 100%	Nm	24 / 15
	ft-lb	20 / 11
• Revolutions of driven tools	rpm	8,000

HIGH PERFORMANCE SHAFT PRODUCTION

When it comes to producing a high quantity of shafts, fast manufacturing processes are crucial. In order to achieve this, the loading and unloading of the machine must be done very quickly.

The VT 2 and VT 4 machines guarantee maximum performance with their four axes, short travel distances and powerful main spindles. The benefits of this machine are obvious when required to produce high part volumes. Since this platform can machine the workpiece from two sides, the production time is dramatically reduced allowing for more parts to be machined, quicker. The machines flexibility is also guaranteed by the two tool turrets, each with eleven tool stations, that can be equipped with turning or driven tools.



**SIEMENS 840D SL
NOW AVAILABLE**



- Turret 1
- Working Spindle with C-Axis
- Turret 2
- Tailstock
- Automation

THE BENEFITS

- + The standard machine comes prepared for integration with the TrackMotion automation system.
- + Reduced machining times due to four-axis machining
- + Shorter idle times with simultaneous loading and unloading of components
- + Lower investment costs thanks to integrated automation

AUTOMATION SEQUENCE

The gripper in turret 1 takes a workpiece from the raw parts storage area and transports it to the main spindle/tailstock. At the same time, the gripper in turret 2 takes the machined workpiece from the main spindle/tailstock and transports it to the finished parts storage area.

THREE KEY FACTORS

- + **Reduced machining times**
due to four-axis machining
- + **Shorter idle times**
thanks to simultaneous loading and unloading of components
- + **Highly productive shaft manufacturing**
thanks to integrated automation

6 SEC.
WORKPIECE
CHANGEOVER
TIME



TECHNICAL DATA

		VT 2	VT 4	
Chuck diameter	mm	160	260	
	inch	6	10	
Swing diameter	mm	210	270	
	inch	8	11	
Workpiece diameter, max.	mm	100	200	
	inch	4	8	
Workpiece gripper diameter, max.	mm	63	80	
	inch	2	4	
Workpiece length, max.	mm	400	630	
	inch	16	25	
X-axis travel	mm	336	396	
	inch	13	16	
Z-axis travel	mm	625	810	
	inch	25	32	
Y-axis travel (optional)	mm	± 25	± 25	
	inch	± 1	± 1	
Main spindle				
	Power rating, 40% / 100%	kW hp	34 / 26.5 46 / 38	38 / 29 51 / 39
	Torque, 40% / 100%	Nm ft-lb	144 / 112 106 / 83	260 / 200 184 / 148
	Max. number of revolutions	rpm	6,000	4,500
Turret tool positions		2 x 11 (2 x 1 gripper)	2 x 11 (2 x 1 gripper)	
	Rapid-traverse rate X / Y / Z	m/min ipm	30 / 15 / 30 1,181 / 591 / 1,181	30 / 15 / 30 1,181 / 591 / 1,181
Max. revolutions of driven tools	rpm	6,000	6,000	
Torque of driven tools 25% / 100%	Nm ft-lb	24 / 12 18 / 9	30 / 15 22 / 11	

Workpiece diameter,
max.: 4 inches

Workpiece length,
max.: 16 inches

Workpiece diameter,
max.: 8 inches

Workpiece length,
max.: 25 inches

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