

INSPIRER Series

Gantry Type Machining Center



Specification

VTG-1520 (3 axes technology X Y Z with high speed / high torque)

Technical data			
1.1	Work table		
	Table size	mm	1,640x2,140
	Max. load on table	kg	4,000
	Min. distance from spindle nose to table	mm	50
	Max. distance from spindle nose to table	mm	850
	T slots size/pitch/number	mm	18 H9/125/13
	Central T slot	mm	18H7
1.2	Feed		
	Rapid feed X, Y, Z	mm/min	40,000
	Work feed X, Y, Z	mm/min	Up to 20,000
	Acceleration X, Y, Z	m/s ²	2.5
1.3	Strokes		
	X axis	mm	1,500
	Y axis	mm	2,000
	Z axis	mm	800
	X stroke maximum up to 3000mm (option)		
1.4	Spindle (electrospindle)		
	Spindle taper		HSK-A63
	Spindle power	kW	S1/S6 25/30
	Spindle speed	RPM	12,000 (Opt. 18,000)
	Spindle torque	NM	S1/S6 96/140
1.5	Auto Tool Changer for HSK A63		
	Tool pockets		24T (Opt. 16T/32T)
	Max. tool diameter	mm	80
	Max. tool diameter with gap	mm	120
	Max. tool length	mm	300
	Max. tool weight	kg	6
	Max. chip to chip time approx.	sec.	10
1.6	Auxiliary data		
	Machine weight	kg	24,000
	Machine overall dimensions	W	mm 5,360
		D	mm 3,250
		H	mm 3,300
	Power supply voltage	V	400, 50 Hz
	Installed power	kVA	40
	Compressed air	bar	6

5Ax-VG1520H

(3 axes X Y Z+2 axes milling head C A with high speed / high torque)

Technical data			
1.1	Work table		
	Table size	mm	1,640x2,140
	Max. load on table	kg	4,000
	Min. distance from spindle nose to table	mm	50
	Max. distance from spindle nose to table	mm	850
	T slots size/pitch/number	mm	18 H9/125/13
	Central T slot	mm	18H7
1.2	Feed		
	Rapid feed X, Y, Z	mm/min	40,000
	Work feed X, Y, Z	mm/min	Up to 20,000
	Acceleration X, Y, Z	m/s ²	2.5
1.3	Strokes		
	X axis	mm	1,500
	Y axis	mm	2,000
	Z axis	mm	800
	C axis	Deg.	± 185
	A axis	Deg.	+95 ~ -120
	X stroke maximum up to 3000mm (option)		
1.4	2 axes fork type milling head		
	A axis: Tilt angle	Deg.	+95 ~ -120
	Rapid tilt feed	Deg./sec.	100
	Max. tilt torque	Nm	500
	Clamping torque	Nm	1,500
	C axis: Rotation angle	Deg.	± 185
	Rapid rotation feed	Deg./sec.	180
	Max. rotation torque	Nm	500

	Clamping torque	Nm	2,000
1.5	Work volume (5 faces)		
	With cutting tool 100 mm long	mm	800x1,300x800
1.6	Spindle (electrospindle)		
	Spindle taper		HSK-A63
	Spindle power	kW	S1/S6 28/28
	Spindle speed	RPM	18,000
	Spindle torque	Nm	S1/S6 63/83
1.7	Auto Tool Changer for HSK A63		
	Tool pockets		24T (Opt. 16T/32T)
	Max. tool diameter	mm	80
	Max. tool diameter with gap	mm	120
	Max. tool length	mm	300
	Max. tool weight	kg	6
	Max. chip to chip time approx.	sec.	10
1.8	Auxiliary data		
	Machine weight	kg	25,000
	Machine overall dimensions W	mm	5,360
	D	mm	3,250
	H	mm	3,300
	Power supply voltage	V	400, 50 Hz
	Installed power	kVA	40
	Compressed air	bar	6

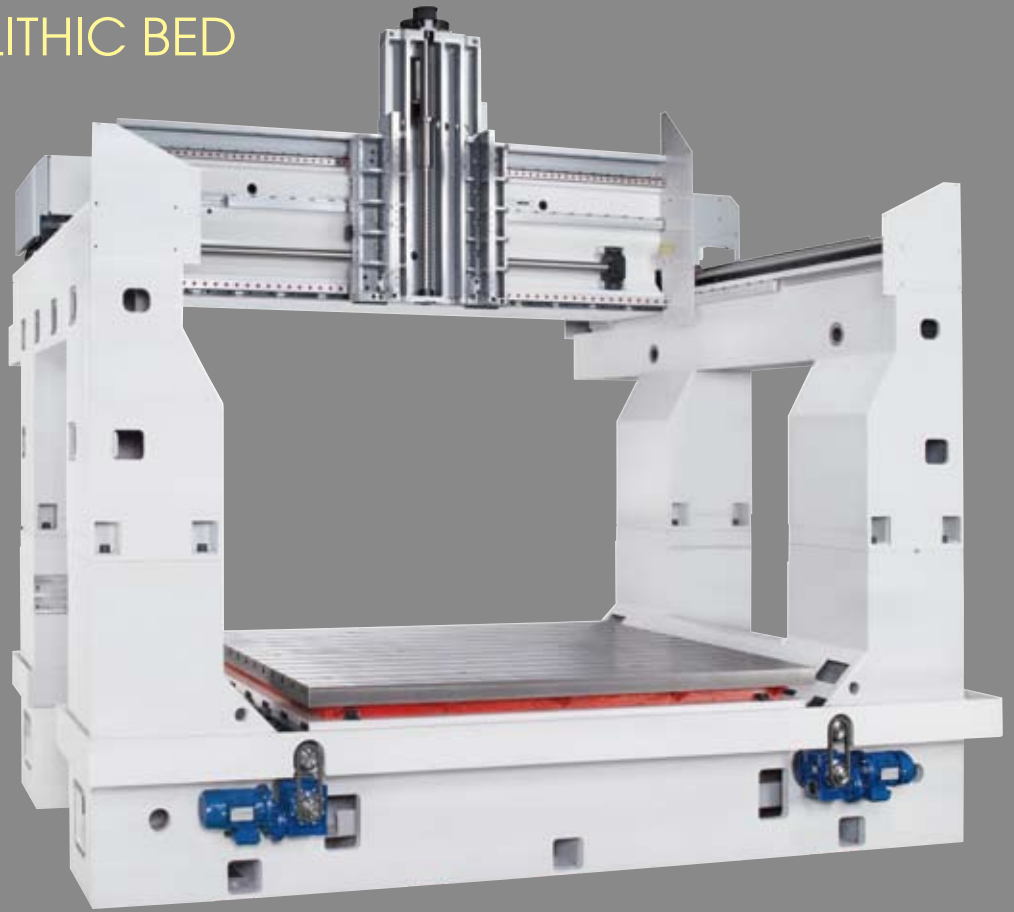
5Ax-VG1520HR (3 axes X Y Z+milling head A-ax+CNC rotary table B-ax with high speed / high torque)

Technical data			
1.1	Work table		
	Table size	mm	1,640x2,140
	Max. load on table	kg	4,000
	Min. distance from spindle nose to table	mm	50
	Max. distance from spindle nose to table	mm	850
	T slots size/pitch/number	mm	18 H9/125/13
	Central T slot	mm	18H7
1.2	Feed		
	Rapid feed X, Y, Z	mm/min	40,000
	Work feed X, Y, Z	mm/min	Up to 20,000
	Acceleration X, Y, Z	m/s ²	2.5
1.3	Strokes		
	X axis	mm	1,500
	Y axis	mm	2,000
	Z axis	mm	800
	B axis	Deg.	0.001
	A axis	Deg.	+95 ~ -120
	X stroke maximum up to 3000mm (option)		
1.4	1 axis milling head		
	A axis: Tilt angle	Deg.	+95 ~ -120
	Rapid tilt feed	Deg./sec.	100
	Max. tilt torque	Nm	500
	Clamping torque	Nm	1,500
1.5	1 axis rotary table		
	B axis: Table Size	mm	800
	Max. tilt torque	Nm	1,280/2,330(S1/S6)
	Clamping torque	Nm	4,400
	Max. load on table	Kg	3,000
1.6	Spindle (electrospindle)		
	Spindle taper		HSK-A63
	Spindle power	kW	S1/S6 28/28
	Spindle speed	RPM	18,000
	Spindle torque	NM	S1/S6 63/83
1.7	Auto Tool Changer for HSK A63		
	Tool pockets		24T (Opt. 16T/32T)
	Max. tool diameter	mm	80
	Max. tool diameter with gap	mm	120
	Max. tool length	mm	300
	Max. tool weight	kg	6
	Max. chip to chip time approx.	sec.	10
1.8	Auxiliary data		
	Machine weight	kg	Approx. 25,500
	Machine overall dimensions W	mm	5,360
	D	mm	3,250
	H	mm	3,300
	Power supply voltage	V	400, 50 Hz
	Installed power	kVA	40
	Compressed air	bar	6

Main Feature

RIGID MONOLITHIC BED

Offering high stability even at poor foundation condition

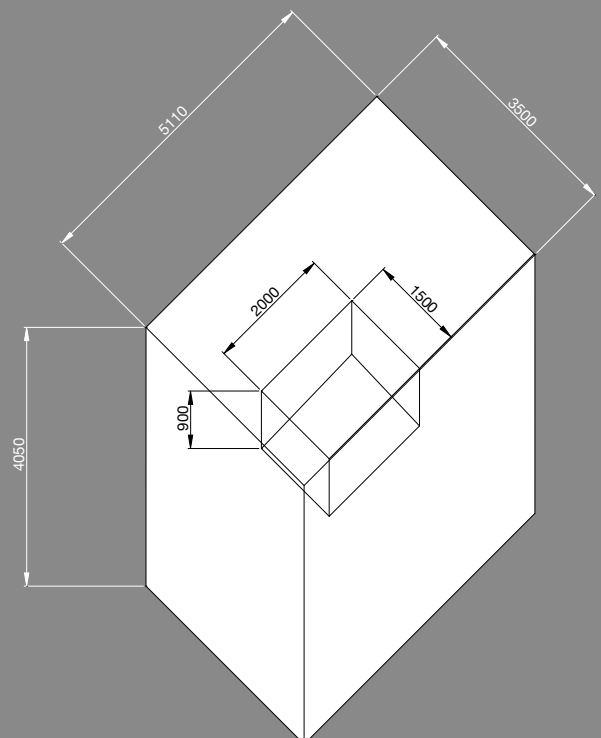


COMPACT & RIGID STRUCTURE

Obtain high performance in geometrical stability, dynamics and accuracy standards.

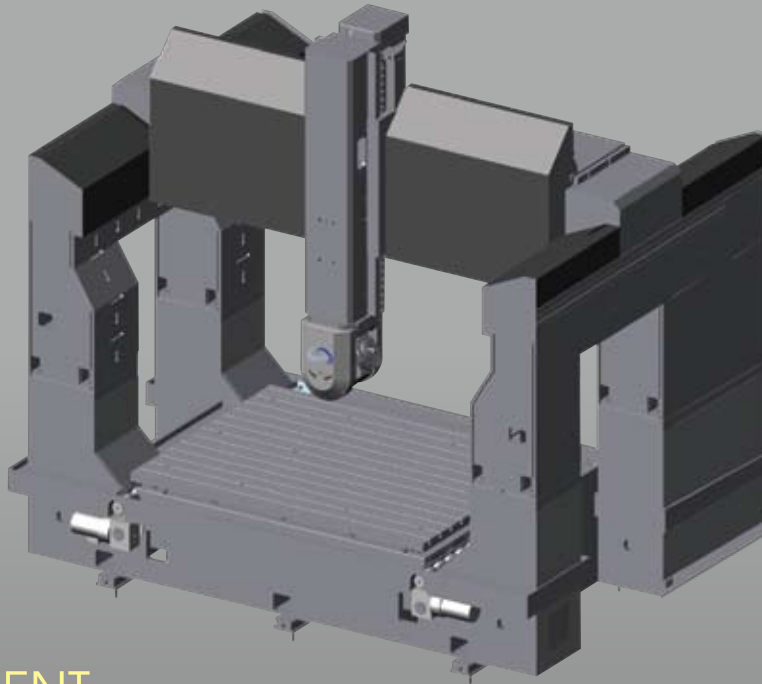
WORK VOLUME RATIO & SPACE SAVING

Advantageous ratio "work volume to machine volume." It's important nowadays with rising prices of space. (Basic machine just with XYZ axes)



ERGONOMETRY DESIGN

Easy operator access to work table. Easy load and unload of heavy and large workpiece will be possible also with the use of an overhead crane.



ENVIRONMENT

Fully enclosed work volume to avoid coolant and chip contamination of work environment.

HIGH TORQUE & POWERFUL SPINDLE

Electro spindle allows for a wide range of applications, including roughing, semifinish and finish milling operations.

HIGH PRECISION

All axes equipped with optical scale tracking system.

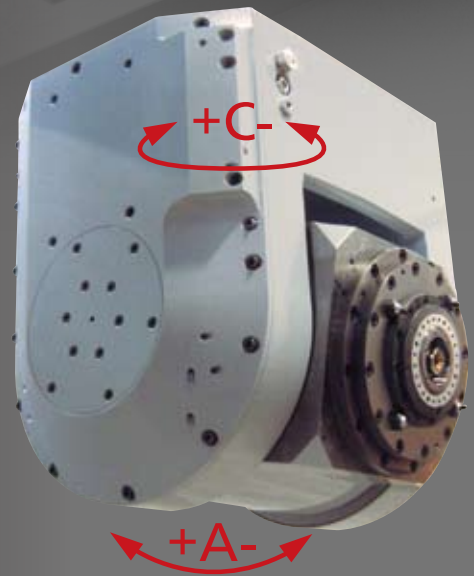
DYNAMIC RESPONSE

Travelling bridge configuration allows for good and constant dynamic response when machining with high speed technology small as well as big/heavy workpieces.

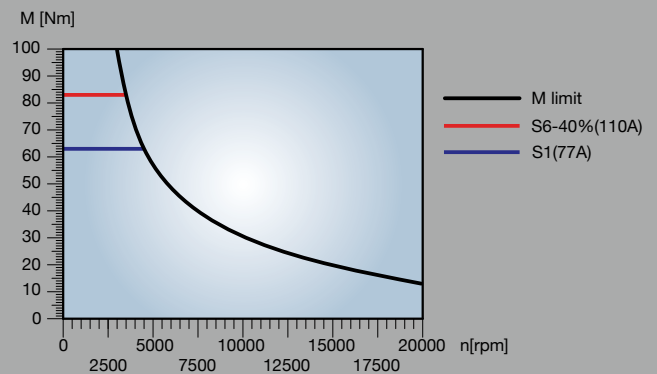
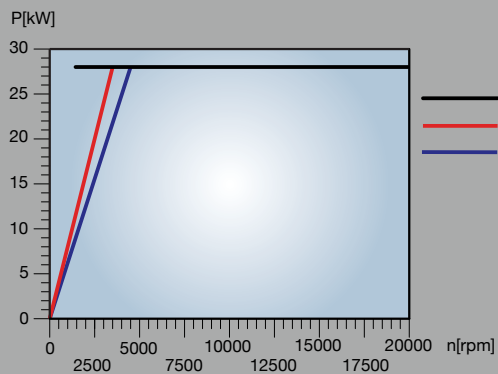


5 AXES MILLING HEAD

Allow 3+2 (spindle index + clamping + milling in 3 axes mode – for example multiface milling in a single set-up) or continuous 5 axes milling.



5 AXES SPINDLE MOTOR TORSION DIAGRAM



PART VARIETY

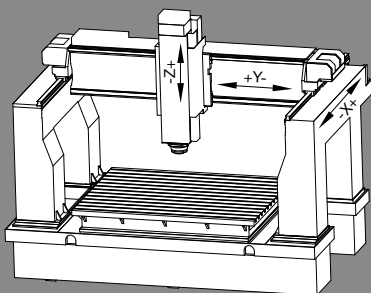
The configuration with fix work table will allow for the machining of a single heavy / large workpiece, as well as for multiple set-up of smaller workpieces.

MODULAR ATC

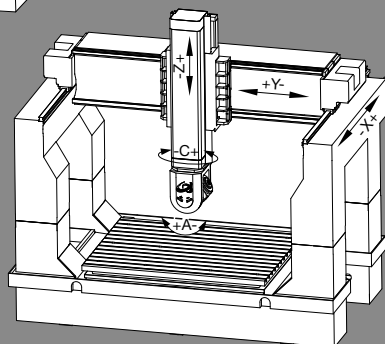
Based on application requirement 16T, 24T, 32T or even large ATC system configured to satisfy a specific requirement.



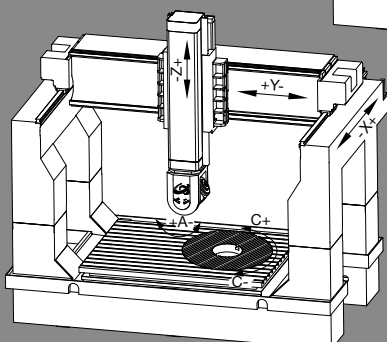
DIFFERENT CONFIGURATION AVAILABLE



VTG-2015: machine in 3 axes (X Y Z)



5Ax-VG2015H: machine in 3+2 (XYZ+CA) utilizing a 2 axes milling head



5Ax-VG2015HR: machine in 3+2 (XYZ+BA) utilizing a 1-ax milling head (A-ax) combined with a CNC rotary table (B-ax)

Machine Dimension

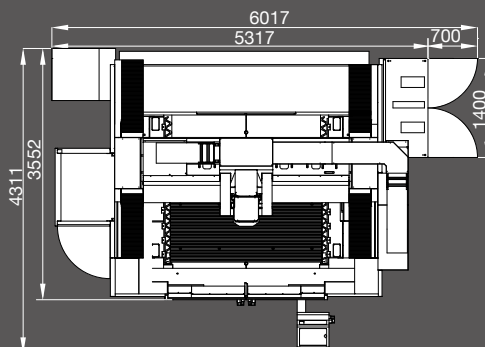
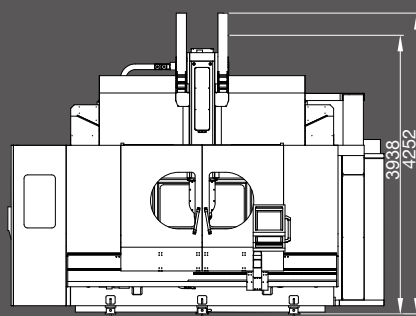
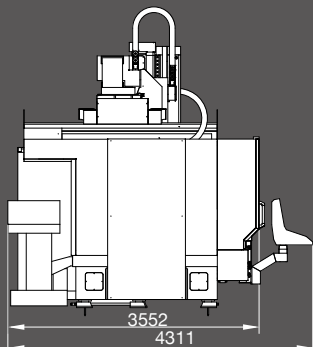
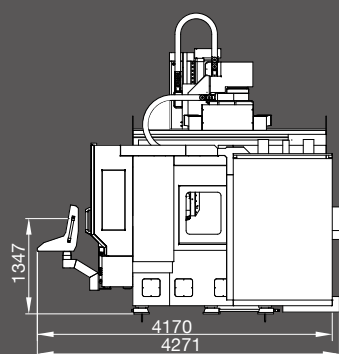
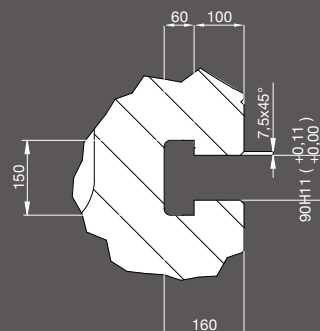
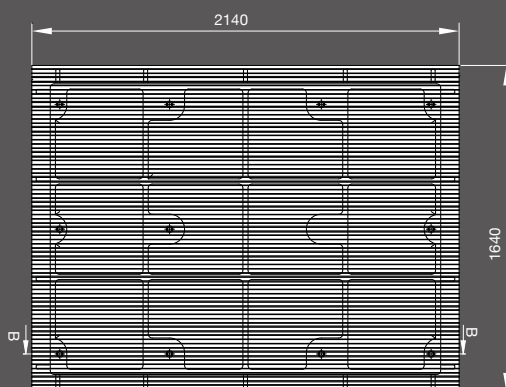


Table Dimension



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