KAAST

V-Mill

1630 | 2060 | 2600

Vertical Machining Center 64x33x32" to 81x33x32"

STANDARD CONFIGURATION

- FANUC 10.4" Color LCD Display
- Spindle Oil Chilling
- Spindle Taper Air Blow
- Chip Conveyor
- Full Enclosure Splashguard
- Rigid Tapping
- Electrical Handwheel (MPG)
- Electrical Cabinet Heat Exchange
- Auto Power Off
- Automatic Lubrication

OPTIONAL CONFIGURATION

- CNC Controller Options
- Glass Linear Scales
- Electrical Cabinet Air Conditioner
- Renishaw Probes
- 4/5th-Axis Tilting Rotary Table
- 36/60 Tool Magazine
- Oil Mist Collector
- Through-Spindle Coolant

KAAST V-Mills are designed with operator convenience in mind, offering a range of advanced features that enhance usability and performance. Variable coolant solutions include **coolant through-spindle** and a **programmable coolant nozzle**, ensuring effective temperature control and lubrication during machining. Additional operator aids include integrated **tool** and **part measurement** systems, efficient **chip removal**, and **waste lubricant/coolant separation**.

V-Mill		1630	2060	2600
		64" x 33" x 32"	81" x 33" x 32"	102" x 40" x 32"
Controller		FANUC 0i-MF		
Travels - X/Y/Z-Axis	mm	1630/850/815 (64/33/32")	2060/850/815 (81/33/32")	2600/1030/815 (102/40/32")
Spindle-Table Distance	mm	100-915 (4-36")		1050 (41.3")
Spindle-Column Distance	mm	865 (34")		865 (34")
Table Dimensions (W/L)	mm	1750x800 (69x31.5")	2150x800 (84.7x31.5")	2750x950 (108.2x37.4")
T-Slots Size/Qty/Dist	mm	18x6x125 (0.7x6x4.9")		18x7x125 (0.7x7x4.9")
Max. Table Load	kg	2760 (6,085 lbs)	3240 (7,145 lbs)	4320 (9,520 lbs)
Speeds	rpm	12,000		
Spindle Taper		BT40 / CAT40		
Rapid Feed Rate X/Y/Z	m/min	33/33/25 (1300/1300/980"/min)		
Cutting Feed Rate X/Y/Z	m/min	12/12/12 (470/470/470"/min)		
Number of Tools	#	28 [Opt. 36, 60]		
Max. Tool Diameter (Full)	mm	65 (2.6")		
Max. Tool Diameter (Next Empty)	mm	130 (5.1")		
Max. Tool Length	mm	250 (9.8")		
Max. Tool Weight	kg	7 (15 lbs)		
Main Spindle Motor	kW	26 (35 Hp)		
Positioning	mm	+/- 0.015 (+/- 0.0006")		
Repeatability	mm	+/- 0.005 (+/- 0.0002")		
Dimensions (L/W)	mm	4730x3525 (186x139")	5450x3540 (215x140")	6400x3950 (252x156")
Weight	kg	12465 (27,480 lbs)	13815 (30,460 lbs)	18500 (40,780 lbs)
Item No.		6530020	6530021	6530022

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KAAST

V-Mill

1300 | 1350

Vertical Machining Center 51x21x22'' to 53x25x26''

STANDARD CONFIGURATION

- FANUC 10.4" Color LCD Display
- Spindle Oil Chilling
- Spindle Taper Air Blow
- Chip Conveyor
- Rigid Tapping
- Electrical Handwheel (MPG)
- Electrical Cabinet Heat Exchange
- Auto Power Off
- Automatic Lubrication

OPTIONAL CONFIGURATION

- CNC Controller Options
- Glass Linear Scales
- Electrical Cabinet Air Conditioner
- Renishaw Probes
- 4/5th-Axis Tilting Rotary Table
- 36/60 (1350 Only) Tool Magazine
- Oil Mist Collector
- Through-Spindle Coolant

The V-Mill series features an exceptionally **rigid and stable base frame**, ensuring minimal vibration for superior part quality. Precise **3-Axis movement** enables intricate machining and tight tolerances. Equipped with **powerful spindles** offering industry-standard taper options, these machines excel in both aggressive cutting and delicate finishing.

V-Mill		1300	1350
		51" x 21" x 22"	53" x 25" x 26"
Controller		FANUC 0i-MF	
Travels - X/Y/Z-Axis	mm	1300/540/560 (51/21/22")	1350/640/660 (53/25/26")
Spindle-Table Distance	mm	75-595 (3–23.5")	100-760 (4-30")
Spindle-Column Distance	mm	550 (21.7")	640 (25")
Table Dimensions (W/L)	mm	1450x480 (57x19")	1500x600 (59x23.6")
T-Slots Size/Qty/Dist	mm	18x5pc.x80 (0.7x5x3.15")	18x5pc.x100 (0.7x5x3.9")
Max. Table Load	kg	1300 (2,870 lbs)	1800 (3,970 lbs)
Speeds	rpm	12,000	
Spindle Taper		BT40 / CAT40	
Rapid Feed Rate X/Y/Z	m/min	40/40/25 (1570/1570/980"/min)	33/33/25 (1300/1300/980"/min)
Cutting Feed Rate X/Y/Z	m/min	12/12/10 (470/470/395"/min)	12/12/12 (470/470/470"/min)
Number of Tools	#	28 [Opt. 36]	28 [Opt. 36, 60]
Main Spindle Motor	kW	26 (35 Hp)	
Positioning	mm	+/- 0.01 (+/- 0.0004")	
Repeatability	mm	+/- 0.001 (+/- 0.00004")	
Dimensions (L/W)	mm	3870x2240 (153x88")	3870x2500 (153x98")
Weight	kg	7050 (15,560 lbs)	8440 (18,600 lbs)
Item No.		6530023	6530024

SPINDLE

Features excellent low inertia and balanced construction, ensuring efficient acceleration. A direct drive spindle is also available as an option. It delivers ultra high-horsepower, providing precise power transmission.

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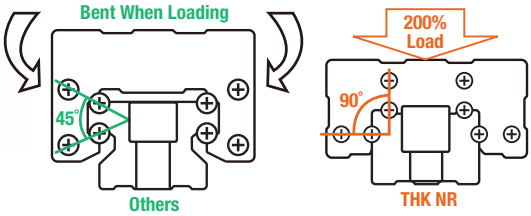
KAAST

V-Mill

810 | 1050

Vertical Machining Center 32x21x22'' to 102x40x32''

The V-Mill VMC features **ultra-high motion rigidity**, thanks to its **NR-type linear guides** equipped with thicker flat-carrier blocks and a low center of gravity. The **90° contact ball guides** support up to **200% more cutting load** compared to conventional systems. With a **51% curvature** design, the ball rotary rigidity is enhanced, significantly reducing vibration during high-speed feed operations. The minimized **ball diameter** and increased **ball count** further raise effective contact rigidity by 30%, delivering superior stability and precision.



V-Mill		810	1050
		32” x 21” x 22”	41” x 20” x 22”
Controller		FANUC 0i-MF	
Travels - X/Y/Z-Axis	mm	815/540/560 (32x21x22”)	1050/540/560 (41/20/22”)
Spindle-Table Distance	mm	75-635 (3-25”)	
Spindle-Column Distance	mm	550 (21.7”)	
Table Dimensions (W/L)	mm	950x480 (37.4x19”)	1200x480 (47.2x19”)
T-Slots Size/Qty/Dist	mm	18x5x80 (0.7x5x3.15”)	
Max. Table Load	kg	1080 (2,380 lbs)	1176 (2,590 lbs)
Speeds	rpm	12,000	
Spindle Taper		BT40 / CAT40	
Rapid Feed Rate X/Y/Z	m/min	44/44/25 (1730/1730/980”/min)	
Cutting Feed Rate X/Y/Z	m/min	12/12/10 (470/470/395”/min)	
Number of Tools	#	28 [Opt. 36]	
Max. Tool Diameter (Full)	mm	65 (2.6”)	
Max. Tool Diameter (Next Empty)	mm	130 (5.1”)	
Max. Tool Length	mm	250 (9.8”)	
Max. Tool Weight	kg	7 (15 lbs)	
Main Spindle Motor	kW	26 (35 Hp)	
Positioning	mm	+/- 0.01 (+/- 0.0004”)	
Repeatability	mm	+/- 0.003 (+/- 0.00012”)	
Dimensions (L/W)	mm	2900x2240 (114x88”)	3370x2240 (133x88”)
Weight	kg	5900 (13,000 lbs)	13815 (30,460 lbs)
Item No.		6530025	6530026

STANDARD CONFIGURATION

- FANUC 10.4” Color LCD Display
- Spindle Oil Chilling
- Spindle Taper Air Blow
- Chip Conveyor
- Electrical Cabinet Heat Exchange
- Rigid Tapping
- Electrical Handwheel (MPG)
- Auto Power Off
- Automatic Lubrication

OPTIONAL CONFIGURATION

- CNC Controller Options
- Glass Linear Scales
- Through-Spindle Coolant
- Electrical Cabinet Air Conditioner
- Renishaw Probes
- 4/5th-Axis Tilting Rotary Table
- 36 Tool Magazine
- Oil Mist Collector

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KAAST

V-Mill

550 | 760

Vertical Machining Center 21x17x20" to 30x17x20"

STANDARD CONFIGURATION

- FANUC 10.4" Color LCD Display
- Spindle Oil Chilling
- Spindle Taper Air Blow
- Chip Conveyor
- Rigid Tapping
- Electrical Handwheel (MPG)
- Electrical Cabinet Heat Exchange
- Auto Power Off
- Automatic Lubrication

OPTIONAL CONFIGURATION

- CNC Controller Options
- Glass Linear Scales
- Electrical Cabinet Air Conditioner
- Renishaw Probes
- 4/5th-Axis Tilting Rotary Table
- Oil Mist Collector
- Through-Spindle Coolant

V-Mill		550	760
		21" x 17" x 20"	30" x 17" x 20"
Controller		FANUC 0i-MF	
Travels - X/Y/Z-Axis	mm	550/445/520 (21x17x20")	760/445/520 (30/17/20")
Spindle-Table Distance	mm	75-595 (3-23.5")	
Spindle-Column Distance	mm	460 (18")	
Table Dimensions (W/L)	mm	700x400 (27.6x15.8")	910x400 (35.8x15.8")
T-Slots Size/Qty/Dist	mm	18x4x80 (0.7x4x3.15")	
Max. Table Load	kg	720 (1,590 lbs)	960 (2,120 lbs)
Speeds	rpm	12,000	
Spindle Taper		BT40 / CAT40	
Rapid Feed Rate X/Y/Z	m/min	44/44/36 (1730/1730/1410"/min)	
Cutting Feed Rate X/Y/Z	m/min	24/24/24 (945/945/945"/min)	
Number of Tools	#	28	
Max. Tool Diameter (Full)	mm	65 (2.6")	
Max. Tool Diameter (Next Empty)	mm	130 (5.1")	
Max. Tool Length	mm	250 (9.8")	
Max. Tool Weight	kg	7 (15 lbs)	
Main Spindle Motor	kW	16.4 (22 Hp)	
Positioning	mm	+/- 0.01 (+/- 0.0004")	
Repeatability	mm	+/- 0.003 (+/- 0.00012")	
Dimensions (L/W)	mm	2400x2200 (95x87")	2700x2200 (106x87")
Weight	kg	3975 (8,760 lbs)	4173 (9,200 lbs)
Item No.		6530027	6530028

The V-Mill features an **enforced double-nutted**, **double-anchored ballscrew** with an **extra-wide bearing nut**, providing superior rigidity and accuracy during high-speed cutting and rapid feeds. Precision is ensured through **100% laser tracking** and **ball bar testing**. The **super-grade ballscrew** offers quiet, tubeless operation, high **transmission rigidity**, a **Dm-N value up to 200,000**, and excellent **thermal control**—supporting high acceleration and deceleration rates for optimal performance.

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