

V Series

V Series vertical machining centers are heavy-duty, box-way machines built for tough applications such as roughing cast iron. These 3-axis machines feature belt or gear-driven spindles to provide maximum torque.

SERIES OVERVIEW

- Perfect combination of heavy cutting and high stability.
- Designed and built for heavy material removal parts, production, and mold and die industries.
- Large box ways for rigid and heavy cutting.
- Pre-tensioned ballscrews minimize thermal growth and improve accuracy.
- Direct-coupled motors increase accuracy.
- Swiveling control panel optimizes floor space utilization.
- Spindle chiller maximizes heat dissipation.
- Extra wide door openings facilitate easy loading and unloading.
- Hand-scraped contact areas.
- Robust, precision-machined castings.
- Box-shape bed made of one piece casting.
- Integrated washdown and chip management system.
- Absolute encoders ensure fast startup.
- Fanuc® Oi Plus Control.



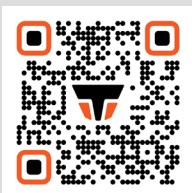
High-Rigidity Frame Structure

The V Series achieves high-rigidity and optimal machine structure by using FEM analysis throughout the entire design process.



High-Rigidity, Box-Way Structure

The V Series machines are equipped with box-type guideways, which provide more durability, rigidity, and stability.



SCAN HERE
to learn more about
V Series Machines
or visit TakumiUSA.com.

Machine Specifications

Control

V10
V11
V15
V18
V22

Control Type	Fanuc® Oi Plus	Fanuc® Oi Plus	Fanuc® Oi Plus	Fanuc® Oi Plus	Fanuc® Oi Plus
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Travel

X, Y, Z Axis	39.5 x 26 x 24 in (1,000 x 660 x 610 mm)	43.3 x 26 x 24 in (1,100 x 660 x 610 mm)	60 x 30 x 28.3 in (1,524 x 762 x 720 mm)	70.8 x 33.4 x 29.5 in (1,800 x 850 x 750 mm)	86.6 x 41.96 x 29.52 in (2,200 x 1,066 x 750 mm)
Distance from Spindle Nose to Table	5.91 ~ 29.92 in (150 ~ 760 mm)	5.91 ~ 29.92 in (150 ~ 760 mm)	5.91 ~ 34.3 in (150 ~ 870 mm)	7.87 ~ 37.40 in (200 ~ 950 mm)	7.87 ~ 37.40 in (200 ~ 950 mm)

Table

Table Size	41.73 x 25.59 in (1,060 x 650 mm)	45.2 x 25.6 in (1,150 x 650 mm)	63 x 30 in (1,600 x 760 mm)	74.8 x 33.4 in (1,900 x 850 mm)	86.6 x 40.35 in (2,200 x 1,025 mm)
Maximum Load	2,204.62 lbs (1,000 kg)	2,425.01 lbs (1,100 kg)	3,300 lbs (1,500 kg)	4,400 lbs (2,000 kg)	6,614 lbs (3,000 kg)
T-Slot	5 x .71 on 3.94 in Centers (5 x 18 mm on 100 mm Centers)	5 x .71 on 3.94 in Centers (5 x 18 mm on 100 mm Centers)	5 x .87 on 5.91 in Centers (5 x 22 mm on 150 mm Centers)	5 x .87 on 5.91 in Centers (5 x 22 mm on 150 mm Centers)	7 x .87 in on 5.91 in Centers (5 x 22 mm on 150 mm Centers)

Spindle

Spindle Speed	12,000 rpm	8,000 rpm	6,000 rpm	8,000 rpm	6,000 rpm
Motor Power	20 HP (15 KW)	20 HP (15 KW)	25 HP (18.5 KW)	25 HP (18.5 KW)	25 HP (18.5 KW)
Spindle Taper	CAT 40	CAT 50	CAT 50	CAT 50	CAT 50
Peak Spindle Torque	70.8 ft. lb (96.01 Nm)	397 ft. lb (539 Nm)	437.2. ft lb (592.76 Nm)	349 ft lb (473.18 Nm)	488.6 ft lb (662.4 Nm)
Coolant Through Spindle	30 bar (435 psi)	30 bar (435 psi)	30 bar (435 psi)	30 bar (435 psi)	30 bar (435 psi)

Feed

Rapid Feed (X, Y, Z)	945 x 945 x 787 ipm (24 x 24 x 20 m/min)	945 x 945 x 787 ipm (24 x 24 x 20 m/min)	708 x 708 x 630 ipm (18 x 18 x 16 m/min)	630 x 630 x 551 ipm (16 x 16 x 14 m/min)	551 x 551 x 472 ipm (14 x 14 x 12 m/min)
Cutting Feed	315 ipm (8 m/min)	315 ipm (8 m/min)	0.04 ~ 196.85 ipm (1 ~ 5,000 mm/min)	0.04 ~ 196.85 ipm (1 ~ 5,000 mm/min)	0.04 ~ 196.85 ipm (1 ~ 5,000 mm/min)

ATC and Magazine

ATC Type	Swing Arm	Swing Arm	Swing Arm	Swing Arm	Swing Arm
Number of Tools	24	24	24	24	24
Maximum Tool Diameter	3.15 / 5.91 in (80 / 150 mm)	4.1 / 7.9 in (105 / 200 mm)	4.331 / 8.66 in (110 / 220 mm)	4.1 / 7.9 in (105 / 200 mm)	4.33 / 8.66 in (110 / 220 mm)
Maximum Tool Length	11.81 in (300 mm)	9.8 in (250 mm)	11.81 in (300 mm)	11.81 in (300 mm)	11.81 in (300 mm)
Maximum Tool Weight	15.4 lbs (7 kg)	33 lbs (15 kg)	33 lbs (15 kg)	33 lbs (15 kg)	33 lbs (15 kg)
Tool Shank	CAT 40	CAT 50	CAT 50	CAT 50	CAT 50

Space and System Requirements

Machine Net Weight	14,770 lbs (6,700 kg)	14,960 lbs (6,800 kg)	30,865 lbs (14,000 kg)	35,274 lbs (16,000 kg)	54,013 lbs (24,500 kg)
Electric Power Supply	35 KVA	35 KVA	35 KVA	45 KVA	50 KVA
Pneumatic Pressure	5 CFM @ 85-115 psi (0.14m ³ /min @ 6-8 bar)	5 CFM @ 85-115 psi (0.14m ³ /min @ 6-8 bar)	5 CFM @ 85-115 psi (0.14m ³ /min @ 6-8 bar)	5 CFM @ 85-115 psi (0.14m ³ /min @ 6-8 bar)	5 CFM @ 85-115 psi (0.14m ³ /min @ 6-8 bar)
Operating Dimensions	248.03 x 165.35 x 124.02 in (6,300 x 4,200 x 3,150 mm)	248.03 x 165.35 x 124.02 in (6,300 x 4,200 x 3,150 mm)	275.59 x 220.47 x 128.19 in (7,000 x 5,600 x 3,256 mm)	-	280.70 x 224.40 x 138.19 in (7,130 x 5,700 x 3,510 mm)

Information may change without notice. Optimum machine performance is reliant upon installation conditions at the facility, such as power supply, air supply, and ambient air conditions.