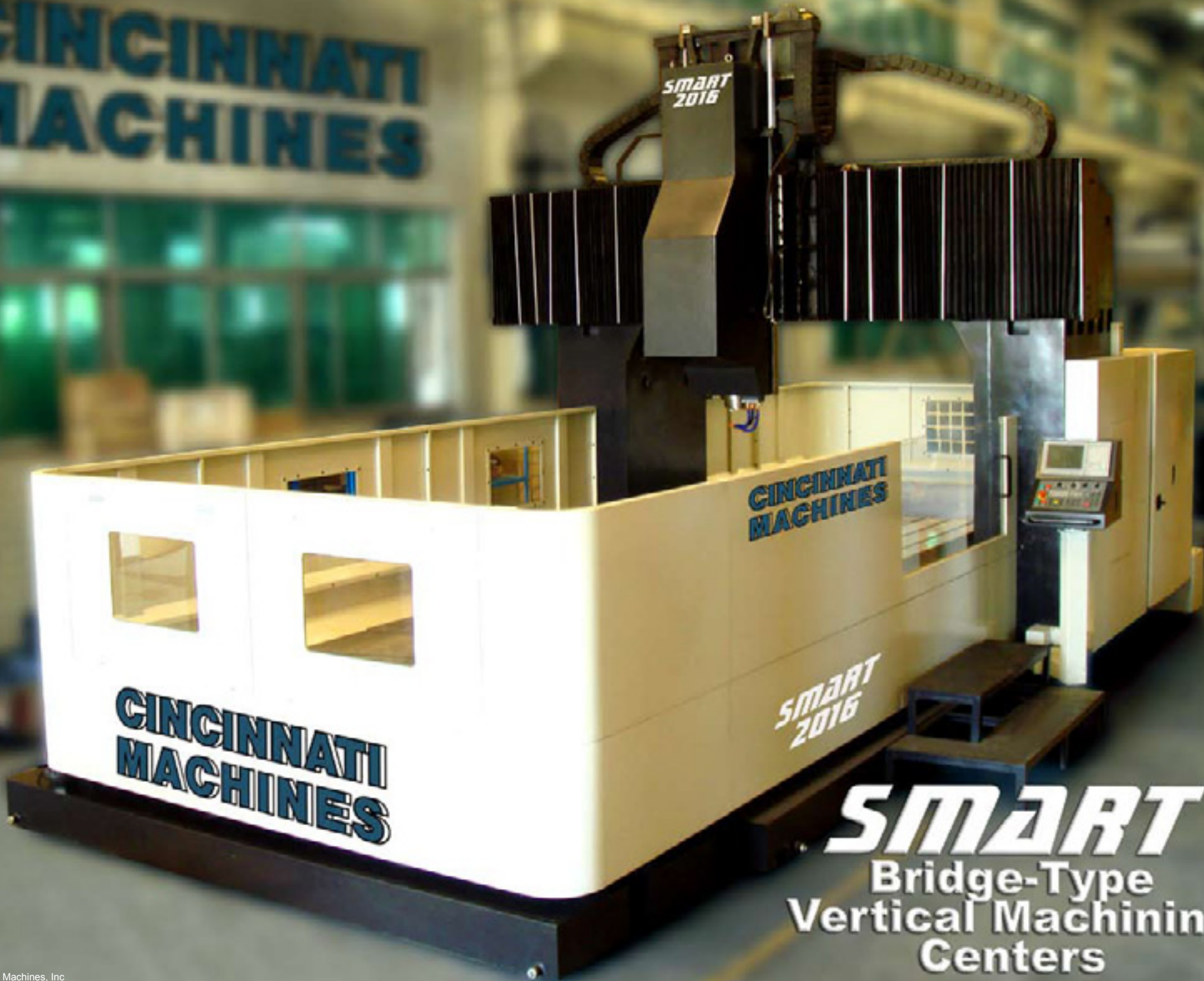


**CINCINNATI  
MACHINES**



**SMART**  
Bridge-Type  
Vertical Machining  
Centers

# **SMART** Bridge-Type Vertical Machining Center Features



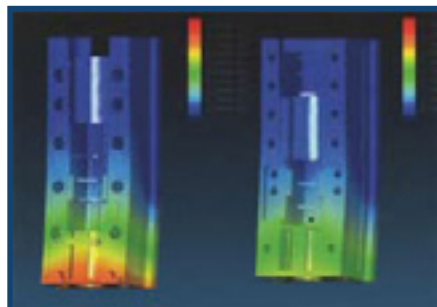
**NSK  
Spindle  
Bearings**

All Cincinnati Machines SMART Bridge-Type Vertical Machining Centers feature Technology, Innovation, Simplicity, Rigidity, Economy, and Quality as the leading characteristics of the design and manufacture process. We choose FANUC CNC as the standard CNC Control system for all SMART Machines. In addition, all critical parts, such as bearings, ballscrews, spindles, and linear guide ways are made either in Taiwan or Japan.

The entire manufacturing process is carried out in accordance with ISO Quality Standards. Then each machine is subjected to a grueling and very thorough set of halfway and final tests. Final machine runoff includes Renishaw Ball Bar and laser positioning tests, along with other checks to assure that each machine is ready and has earned the right to be Cincinnati Machines SMART Machine. Cincinnati Machines then stands behind each and every SMART machine.



**THK Linear  
Guide-Ways**



**Computer Aided Design (CAD)**



**Standard FANUC CNC**



# **SMART** Bridge-Type Vertical Machining Center Features

The SMART Bridge-Type Vertical Machining Centers offer a wide variety of optional equipment and accessories, including various angular milling heads, spindle speeds, horsepower, and more.



B & C axis  
5 degrees manual  
adjustment  
(3500 Rpm)



C axis  
Automatic  
5 degrees  
adjustment



Manual Universal  
Head



45 degree  
Universal Head



90 degree  
Manual  
adjustment  
head



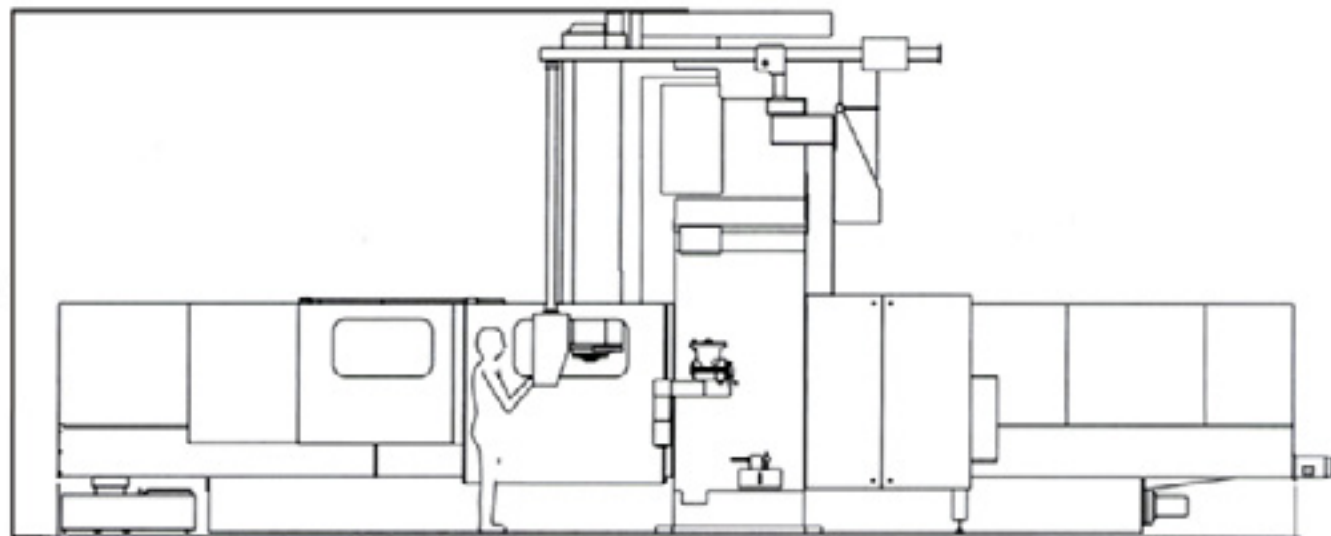
Extended Head  
(300 mm / 500 mm)



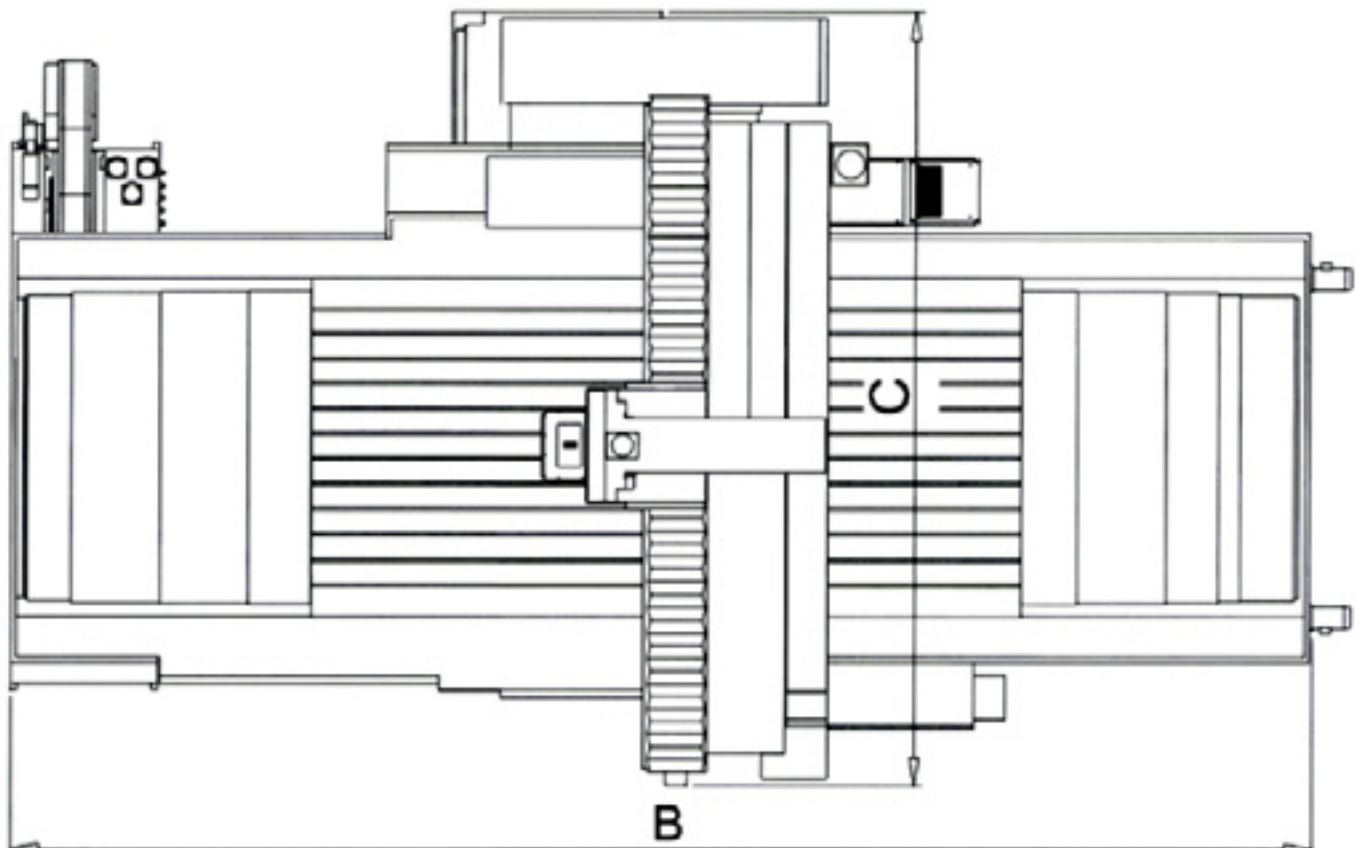
**Z-Axis way system features a combination of  
Linear Guide-Ways and a Hard Box-Way  
for maximum rigidity**



A



<b>SMART</b>	2016	3025	4025	5025	6530	8530	10530
H (A)	2600 mm	5000 mm	5000 mm	5000 mm	5500 mm	5500 mm	5500 mm
L (B)	5400mm	11500 mm	12000 mm	14000 mm	17000 mm	21000 mm	25000 mm
W (C)	4500 mm	4880 mm	4880 mm	4880 mm	4880 mm	4880 mm	4880 mm



# SMART Series

## Specifications

	2016	3025	4025	5025	6530	8530	10530
X-Axis Travel	78.7"	118"	169"	197"	256"	334"	423"
Y-Axis Travel	59"	98.4"	118"	98.4"	130"	130"	130"
Z-Axis Travel	31.4"	39.3"	39.3"	39.3"	39.3"	39.3"	39.3"
Table Size	47.2 x 82.6"	90.5 x 118"	90.5 x 165"	90.5 x 197"	102 x 236"	102 x 315"	102 x 393.7"
Dist. Between Columns	61"	106"	106"	106"	118"	118"	118"
Spindle to Work Table Dist. (max to min)	120-870 mm	260-1260 mm	260-1260 mm	260-1260 mm	530-1530 mm	530-1530 mm	530-1530 mm
Feedrates (mm/min)	4.7 x 34.2"	10.2 x 49.6"	10.2 x 49.6"	10.2 x 49.6"	20.8 x 60"	20.8 x 60"	20.8 x 60"
Rapid Travel	600 ipm	600 ipm	600 ipm	600 ipm	400 ipm	400 ipm	400 ipm
Positioning ( $\pm$ )				0.00019"			
Repeatability ( $\pm$ )				0.00011"			
T-Slot	7-22 X 150	11-28 X 220	9-28 X 220	11-28 X 220	23-28 X 250	31-28 X 250	29-28 X 250
Spindle Taper				CAT 50			
Spindle Speed	6000 rpm						
ZF Gear Box	6000 rpm,Ratio 1:1, 4:1						
ZF Gear Box	6000 rpm,Ratio 1.5:1						
ZF Gear Box	6000 rpm,Ratio 1:1, 4:1						
X,Y,Z Ballscrew Size	X:6310 Y:5010 Z:6310	X:8016 Y:6312 Z:5010	X:8020 Y:6312 Z:5010	X:8016 Y:6312 Z:5010	X:8020 Y:6312 Z:6312	X:8020 Y:6312 Z:6312	X:8020 Y:6312 Z:6312
X,Y Linear Guide Way	Roller Type	Roller Type	Roller Type	Roller Type	Roller Type	Roller Type	Roller Type
Z Guide Way	Solid Guide Way						
X/Y/Z-Axis Ratio Spec.	Ratio: X-Axis 2.5:1; Y-Axis 2:1; Z-Axis 2:1						
Spindle Motor	22 kw 30 HP	22 kw 30 HP	22 kw 30 HP	30 kw 40 HP	30 kw 40 HP	30 kw 40HP	30 kw 40 HP
X/Y/Z Axis Motor	40/30/30 n. m.	40/30/30 n. m.	40/30/30 n. m.	60/40/40 n. m.	60/40/40 n. m.	60/40/40 n. m.	60/40/40 n. m.
Max. Weight on Table (Tons)	5	8	14	15	26	30	36
Machine Weight (Tons)	24	45	42.3	58	62	70	82

