

# VMC 4020



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**Fadal Machining Centers**

A Company of ThyssenKrupp MetalCutting



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**ThyssenKrupp**

# VMC 4020

## SPECIFICATIONS

### General

FLOOR TO TABLE SURFACE	32"
MACHINE WEIGHT	11,000 lbs.

### Table

TABLE SIZE	48" x 20"
T-SLOTS (NO. x WIDTH x SPAN)	5 x .709" x 3.75"
CUTTING FEED RATE (X/Y/Z)	600 ipm max
RAPID TRAVEL RATE (X/Y/Z)	900 ipm X/Y, 700 Z
MAX. WEIGHT ON TABLE	3,641 lbs. <sup>c</sup>
BALL SCREW SIZE	40 mm Dia. X/Y/Z
LONGITUDINAL (X AXIS)	40"
CROSS (Y AXIS)	20"
VERTICAL (Z AXIS)	20" (Optional 28")
SPINDLE NOSE TO TABLE	4"-24" (4"-32" with Z Option)
SPINDLE CENTER TO COLUMN WAYS	20"

### Accuracy

AXIS POSITIONING**	+/- .0002"
AXIS REPEATABILITY**	+/- .0001"

### Spindle

POWER TRANSFER	Automatic Mechanical 2 speed VECTOR Drive
SPINDLE SPEED	10-10,000 RPM
SPINDLE ORIENTATION	Electromechanical
SPINDLE TAPER	No. 40

### Tools

ATC, NUMBER OF TOOLS	21 (24/30 Tools Optional)
ATC, TOOL SELECTION	Random / Bi-directional
MAX. TOOL DIAMETER	3"
(WITHOUT ADJACENT TOOLS)	6" (4.5 w/30 Tools)
MAX. TOOL LENGTH	15"
MAX. TOOL WEIGHT	15 lbs.

### Motor

SPINDLE DRIVE MOTOR	AC, VECTOR Drive
HORSEPOWER*	15 HP / 22.5 HP <sup>A</sup> , 30 HP <sup>B</sup>
TORQUE*	160 ft.-lbs. / 220 ft.-lbs. <sup>A</sup> / 270 ft.-lbs. <sup>B</sup>
AXIS DRIVE MOTOR (X/Y/Z)	AC, 3,800 lbs.* thrust

### Miscellaneous

AIR PRESSURE REQUIREMENT	80-120 PSI, 15 SCFM (Momentary)
POWER REQUIREMENT (3-Phase)	40/45 A, 240 VAC
SINGLE PHASE (Optional)	60 A, 240 VAC
COOL POWER	Spindle, X,Y,Z Ballscrews

<sup>A</sup> High Torque Option  
<sup>B</sup> Very High Torque Option  
<sup>C</sup> Evenly Distributed Weight  
\* Peak

\*\* All accuracies are quoted at 68°F.

Fadal reserves the right to change standard and optional machine accessories.

Extended column add 8" to height

Continuous equivalent A-weighted sound pressure at workstation is 77 db(A) or less during normal cutting operations.

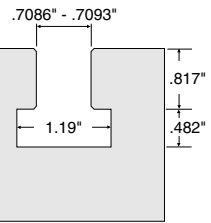
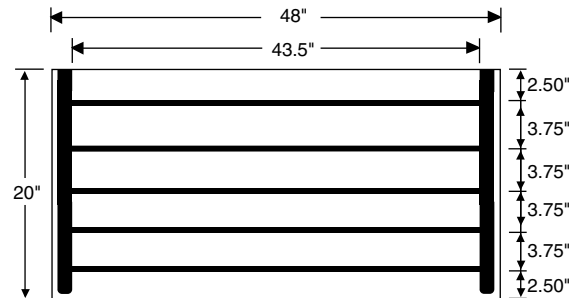
## STANDARD FEATURES

- CAST IRON CONSTRUCTION  
BOX WAY X,Y,Z
- CHAIN HOIST ACCESS
- COOL POWER THERMAL STABILITY
- REMOTE MANUAL PULSE GENERATOR
- RIGID TAPPING
- TOP SPLASH COVER
- CAMERA VIEW PORT
- FULL HEADSTOCK ENCLOSURE

## OPTIONAL FEATURES

- FADAL CNC CONTROL 104/D
- SIEMENS CNC CONTROL 840D
- FANUC CNC CONTROL 18i-MB5
- EXTENDED Z AXIS
- FADAL PALLET CHANGER FOR 4020
- CAT OR BT TOOL CHANGER  
- 21 POSITION HS SERVO  
- 30 POSITION  
- 30 POSITION HS SERVO  
- 24 POSITION DATC
- 10,000 RPM HIGH TORQUE SPINDLE
- 10,000 RPM VERY HIGH TORQUE (240V)
- 10,000 RPM AIR/OIL SPINDLE
- 15,000 RPM AIR/OIL SPINDLE
- COOLANT THRU SPINDLE  
- 10,000 RPM SPINDLE  
- 10,000 RPM AIR/OIL SPINDLE  
- 15,000 RPM AIR/OIL SPINDLE
- SINGLE PHASE TRANSFORMER
- 480 VOLT - 3 PHASE TRANSFORMER
- CHIP CONVEYOR SYSTEM
- CHIP CONVEYOR WITH WASH DOWN
- SHIP MACHINE UN-CAULKED
- ADDITIONAL WORK LIGHT
- SERVO COOLANT
- ROTARY PRODUCTS
- TOOL LOAD COMPENSATION

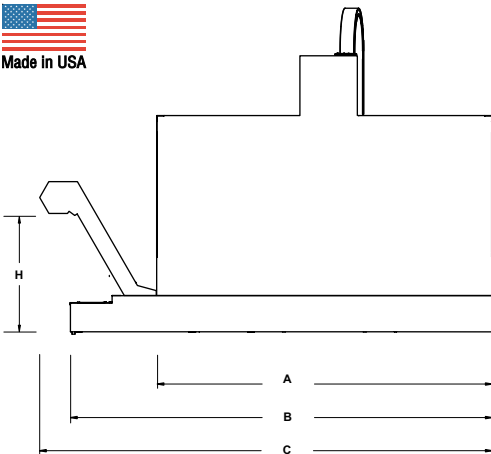
### VMC 4020 TABLE DIMENSIONS



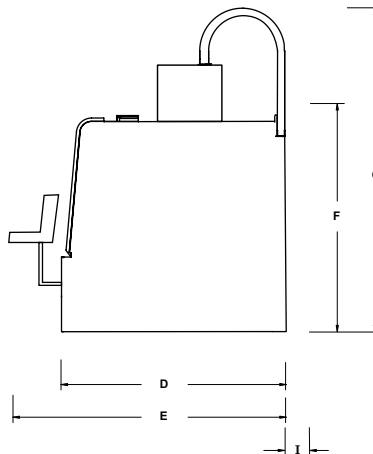
### T-SLOT

### VMC 4020 DIMENSIONS

A	117	F	92
B	146	G	119
C	157	H	41
D	79	I	18
E	103-124		



Front View



Side View