HEAVY-DUTY LINEAR ROLLER GUIDEWAYS

PMC BRIDGE MILL

PRECISION MACHINING CENTER

VIPER

MIGHTY VIPER MACHINE TOOLS

- **Precision** - Accuracy
  positioning ±0.0004″
  repeatability ±0.0001″
- **Speed** - XYZ rapid feedrates
  up to 945 / 945 / 591 ipm
- **Capacity** - XY travels
  up to 398″ × 157″

*Enhance **productivity** with different spindle heads*

Precision Heavy-Duty Roller Guideways

PMC Se

2012

3122

4127

5135

6140

www.mightyviper.com

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Excellent Structural Design

HIGH MACHINE PERFORMANCE AND SOLID CONSTRUCTION

- Superior machine performance
- Built with state-of-the-art manufacturing process
- ISO quality standards compliant
- Heavy-duty machining with a compact design

PMC-2616

Shown with full guarding

Extremely Rigid Structure

OUTSTANDING PERFORMANCE AND SOLID CONSTRUCTION

- Innovative machine design
- Optimal cost-efficient investment
- Long 122″ bed length
- Wide 87″ Y-axis

PMC-3122

Shown with control box seated on swivel arm and with full splash guard.

Superior Power for Heavy-Duty Machining

HIGH SPEED — PRECISION CUTTING

- Designed with advanced technology
- Built using modern manufacturing techniques
- High quality solid construction
- Rigid structure design

PMC-6131

Shown with control box on extending arm pendant, full splash guard, and head change unit. Optional 90 or 120 tool magazine.

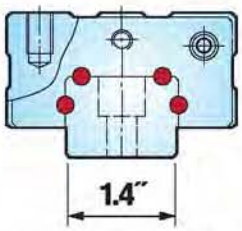
OUTSTANDING RIGIDITY

GET THE MOST RIGID STRUCTURE WITH NEXT-LEVEL DESIGN

The Mighty Viper **PMC bridge mill** has a solid construction — wide columns, thick table, heavy-duty casting on a compact footprint. The **PMC** is built with a rigid bed-column construction utilizing an extended rib structure, wider column and larger column support. The result is maximized stability and minimized damping effect. Premium linear roller guideways on X and Y axes provide fast feedrates, and exceptional position accuracy. Z-axis uses box ways to ensure cutting rigidity.

Get superior power for heavy-duty production with the 50-taper **8,000 rpm** gear spindle that comes as standard equipment.

Competitor Bridge Mill

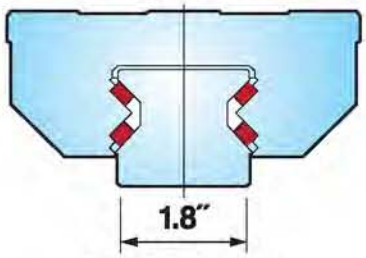


Rigidity 67.2 kN

+71%

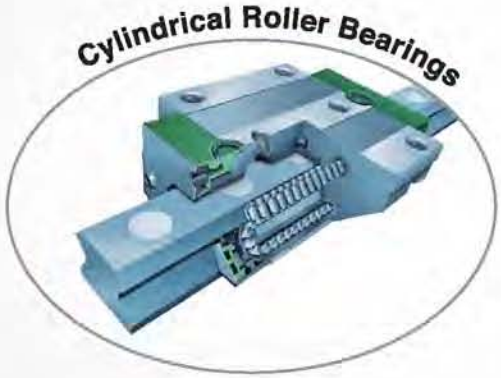
Greater RIGIDITY

PMC Series



Rigidity 115 kN

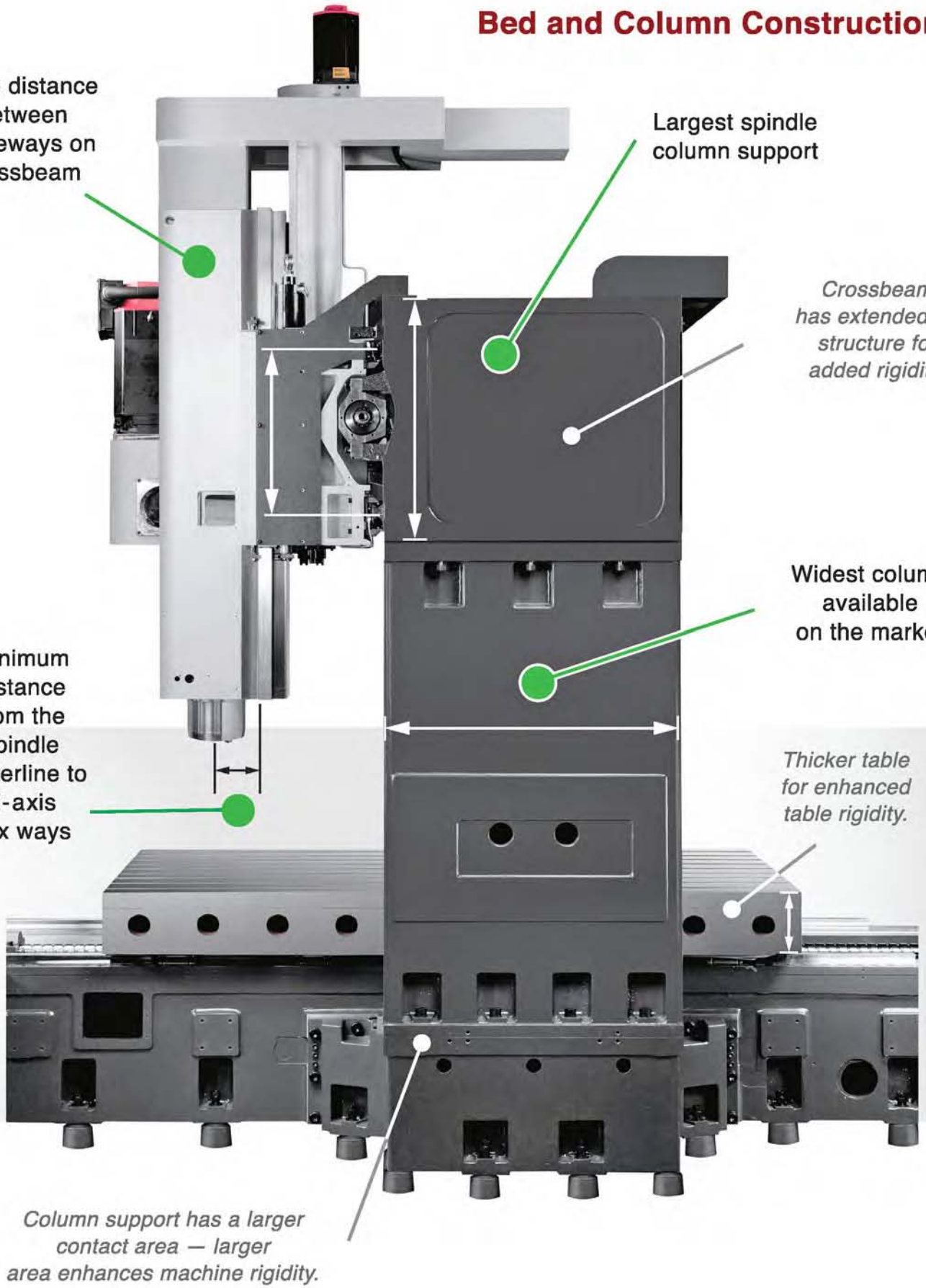
- **INA** (German) cylindrical roller guideways
- Enclosed roller bearings
- Wide guideways – 1.8″ in width, enhance machining rigidity.
- Low friction and high positioning accuracy.



Application Industries

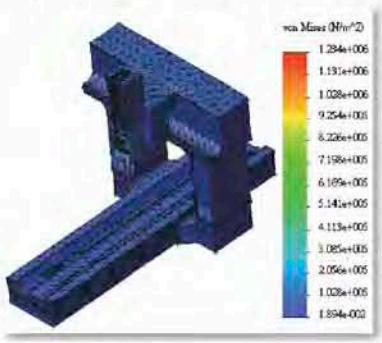
Automotive - Aerospace - Defense - Electronics
Energy - Home appliance - Plastic injection mold

Bed and Column Construction



Rigid Structure HIGH POSITION ACCURACY

Superior Machine Structure



FEM tests are used to analyze and optimize: machine bed, support columns, crossbeam, spindle column, and work table. This process assures high stability and rigidity for all machine components, thus making the machine suitable for heavy-duty machining on a variety of materials.

Gear Boxes on All 3 Axes

The feed mechanisms on all of the three axes employ gear transmissions and precise ballscrews with precision class P4 angular contact ball bearings. Ground in accordance with DIN level 5, gears yield high transmission efficiency and provide higher torque at lower speeds and excellent dynamic response at higher speeds.

Minimum Spindle-to-Slideway Distance

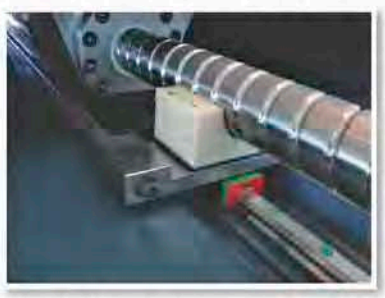
The distance between the spindle centerline to Z-axis slideway surface is 6″. The spindle centerline is located at the center of the headstock which minimizes the thermal expansion caused by the temperature increase in the spindle; therefore, improving machining accuracy and stability.

High Precision Linear Guideways

High precision linear roller guideways improve machining quality.

The feed systems for X and Y axes utilize roller type linear guideways which feature heavy load resistance, rapid dynamic response and low friction coefficient. The linear guideways, driving mechanisms and measuring systems are all protected against chips and dirt by telescopic covers.

Ballscrew Cooling System



Models with X-axis travels over 118″ are equipped with a cooling system through their X-axis ballscrews to alleviate thermal expansion and to yield higher positioning accuracy. Models with X-axis travels over 157″ in length are equipped with a guideway for ballscrew support. This additional linear guideway is under the ballscrew and provides X-axis support that eliminates overhanging and vibration issues.

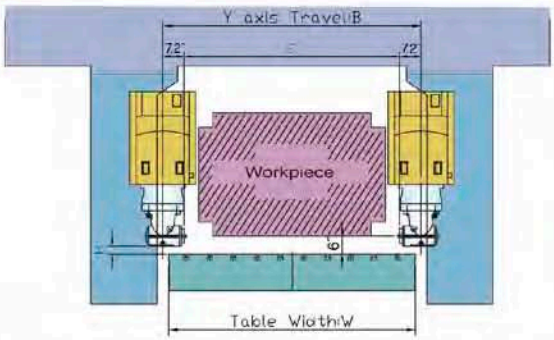
Reliable Tool Magazine

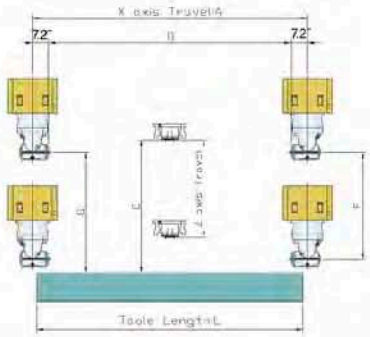
Modular tool magazine offers convenience without compromising safety. Magazine guarding has perforated steel panels that protect operator and shield magazine components. See-through panels allow for visual inspection of magazine parts. Tool magazine holds 40 tools (standard). Also available: 60, 90, and 120 tool magazines (option).

Manual 90° Angle Head - Machining Range

Unit = inch

Z-Axis Travel	Column Height	A	B	C	D	E	F	G	H
35	67	X-Axis Travel	Y-Axis Travel	43	X-Axis Travel - 14.4	Y-Axis Travel - 14.4	28	33	2
43	75	X-Axis Travel	Y-Axis Travel	51	X-Axis Travel - 14.4	Y-Axis Travel - 14.4	35	41	2
43	83	X-Axis Travel	Y-Axis Travel	59	X-Axis Travel - 14.4	Y-Axis Travel - 14.4	43	49	2

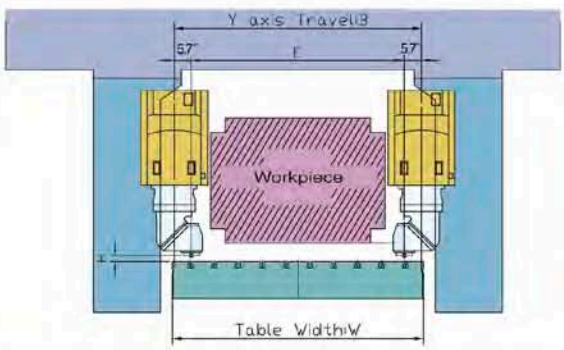


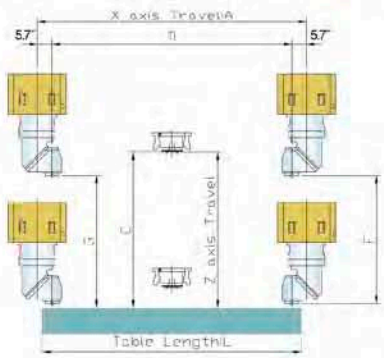


Universal Head 0° - Machining Range

Unit = inch

Z-Axis Travel	Column Height	A	B	C	D	E	F	G	H
35	67	X-Axis Travel	Y-Axis Travel	43	X-Axis Travel - 11.4	Y-Axis Travel - 11.4	26	27	1.7
43	75	X-Axis Travel	Y-Axis Travel	51	X-Axis Travel - 11.4	Y-Axis Travel - 11.4	34	35	1.7
43	83	X-Axis Travel	Y-Axis Travel	59	X-Axis Travel - 11.4	Y-Axis Travel - 11.4	41	43	1.7

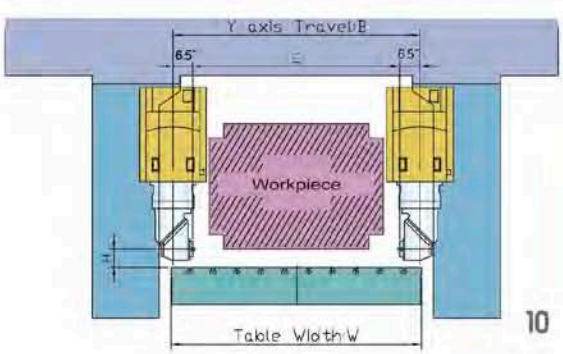


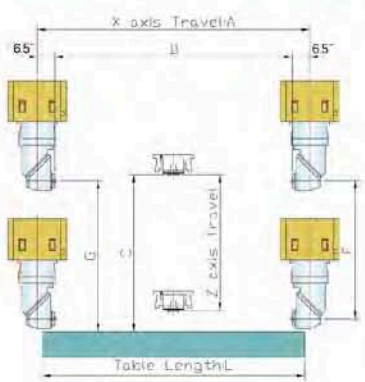


Universal Head 90° - Machining Range

Unit = inch

Z-Axis Travel	Column Height	A	B	C	D	E	F	G	H
35	67	X-Axis Travel	Y-Axis Travel	43	X-Axis Travel - 13.1	Y-Axis Travel - 13.1	24	29	5
43	75	X-Axis Travel	Y-Axis Travel	51	X-Axis Travel - 13.1	Y-Axis Travel - 13.1	32	36	5
43	83	X-Axis Travel	Y-Axis Travel	59	X-Axis Travel - 13.1	Y-Axis Travel - 13.1	39	44	5





High Torque / Low Noise Gear Box Design

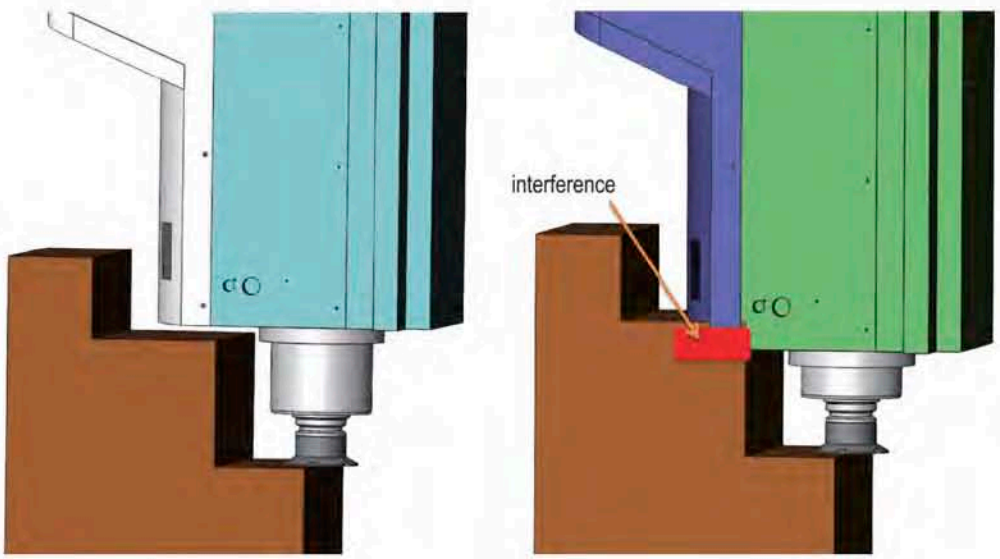
- Gear spindle with 6000 rpm provides **superior power** along with high speed and accurate positioning. Ball bearings of ID Ø4″ allow high torque of 537 lbf-ft at 341 rpm for superior heavy duty cutting.

- Two-speed gear box consists of **DIN level 5 gears**, high quality bearings and oil cooling systems for minimal thermal expansion. Every set of gear box is inspected by the vibration and run-in tests to ensure smooth and stable gear shifting, meanwhile achieving G1 level of vibration testing.

Higher efficiency through DIN level 5 precision gears.

Spindle
INTERFERENCE

Long nose spindle allows **avoiding interference** while machining inside the cavities of odd shaped work pieces.



Superior Spindle Design

- Features the **new generation** 8000 rpm direct drive spindle with high speed • high precision • high performance spindle motor, available with high-quality rigid tapping.

Eliminates noise, backlash and vibration issues. Comes standard with a spindle oil coolant system to control thermal displacement for high accuracy machining.

- The Ø4″ **ceramic bearings** installed in the spindle help control the vibration and thermal displacement even after long machining periods and provide small tolerances and high accuracy.

Milling Head
ATTACHMENT

Head Change	Manual
Milling Head Index	Manual
Clamping	Manual / Bolt
Angle	1°

90° Angle Milling Head

Extension head

30° Angle Milling Head

90° Angle Milling Head

Universal Head

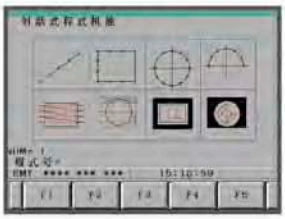
Optional Custom Calculator Feature

FAST WORKPIECE COORDINATE CORRECTIONS AND SETTING

Multi-Function Display

- Coordinate page
- Workpiece counter
- Date / time display
- Machining time
- Soft-key functions
- Spindle and axis loads
- Tool table display
- Timers
- Feedrates
- Spindle speeds

G-Menu Programming Assistant

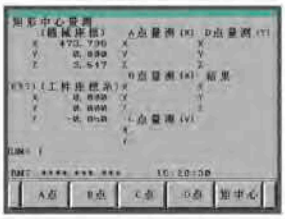


G-Menu provides simple programming functions to help operator accomplish simple machining tasks quickly and easily.

Calculator Function

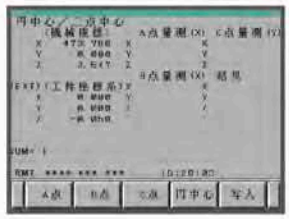
Calculator function provides fast calculation and entry of the workpiece coordinate setting and corrections.

Center of Rectangle Function



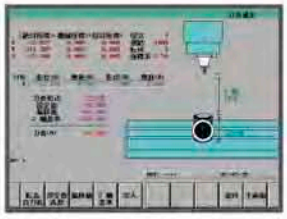
By measuring four points of a rectangular workpiece, it calculates the center of the workpiece and the tilt angle.

Center of Circle Function



Provides the coordinates for the center of a circle, using three points on the workpiece.

Tool Length Measurement and Setting



Manual setting of compensation and tool length values.

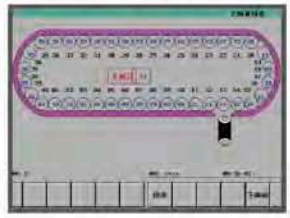
Tool Length Corrections

Easy and fast entryof wear values on length and diameter.

Intelligent ATC System Management

User-friendly tool storage check-and-set, and display of program number, spindle speed and feedrates. Allows the operator to view cutting conditions.

Intelligent ATC System Management

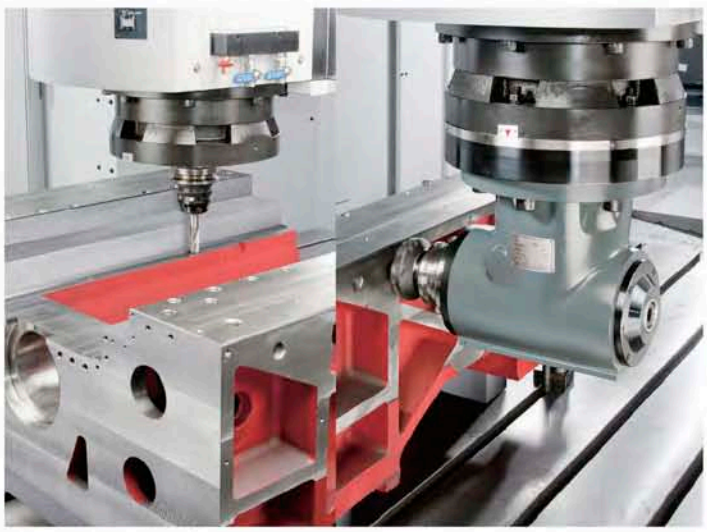


It displays the pot numbers and the corresponding tool numbers. Also displays and modifies the standby tool number.

Superior Power for Heavy-Duty Production

HEAVY CUTTING WITH 50-TAPER GEAR SPINDLE

Increase Productivity WITH VERSATILE ACCESSORIES

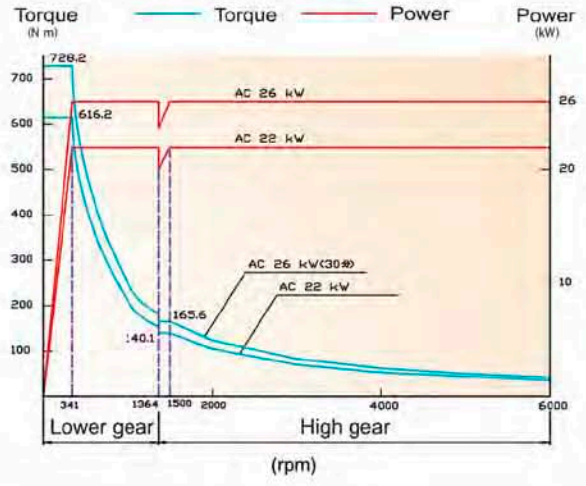


New Generation Spindle Design

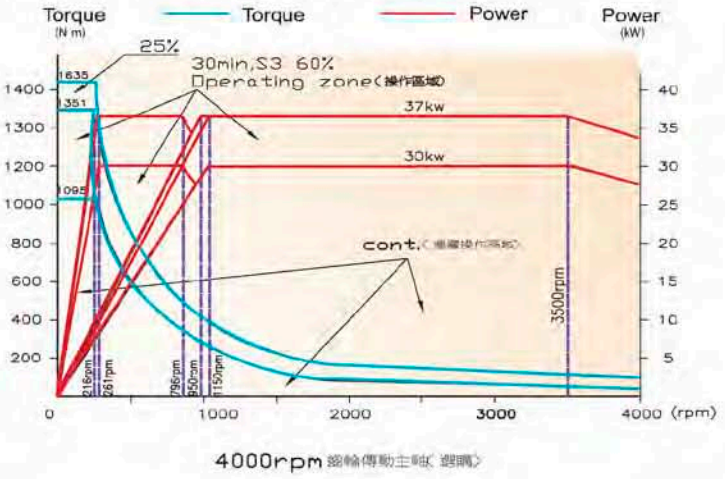
ENHANCES HIGH SPEED CUTTING EFFICIENCY

New design yields greater machining ability: High Rigidity – High Torque – High Speed. Low Vibration – Low Noise – Low Thermal Displacement.

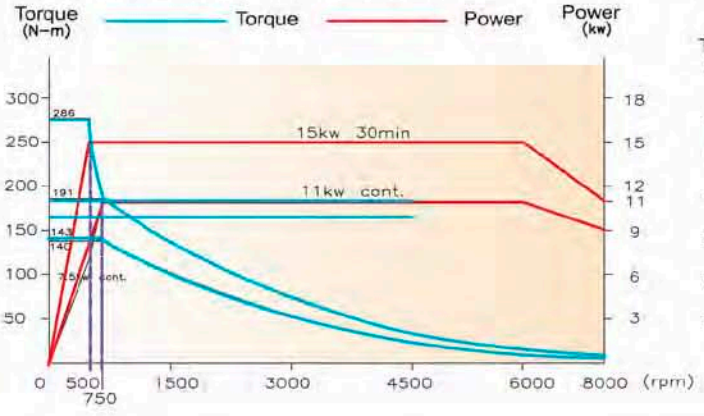
CAT-50 Gear Head 6000 rpm (Fanuc)



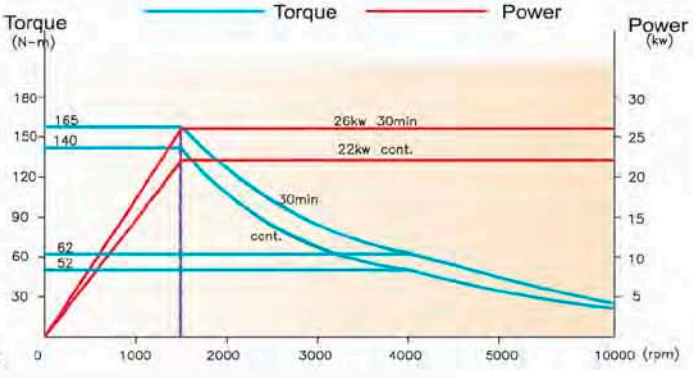
CAT-50 Gear Head 4000 rpm (Fanuc)



CAT-50 Direct Drive 8000 rpm (Fanuc)

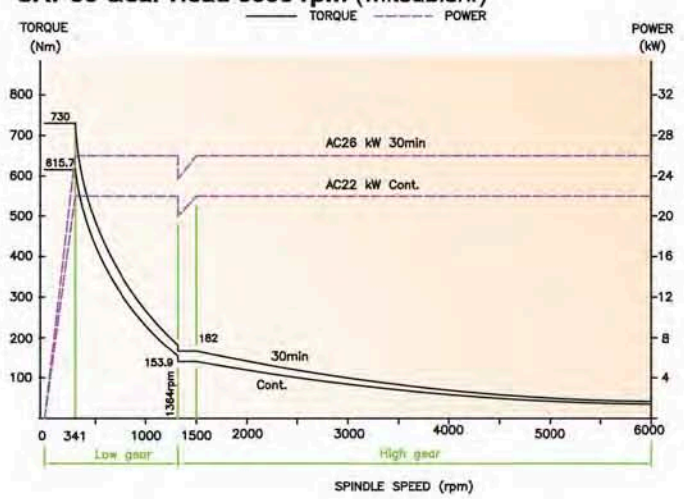


CAT-50 Direct Drive 10,000 rpm (Fanuc)

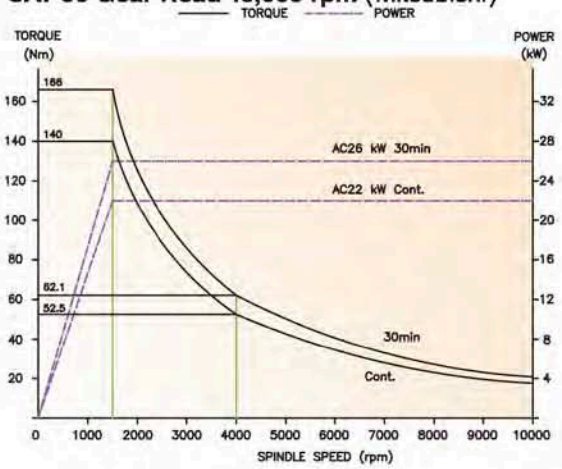


High speed, high precision, high torque through direct transmission and driven by Fanuc spindle motor. Ceramic ball bearings of Ø4˝ are able to provide a torque of **211 lbf-ft** for 8,000 rpm and **122 lbf-ft** for 10,000 rpm. Ceramic bearings also prevent vibration and thermal expansion for prolonged cutting times, and maintains well accuracy and surface quality.

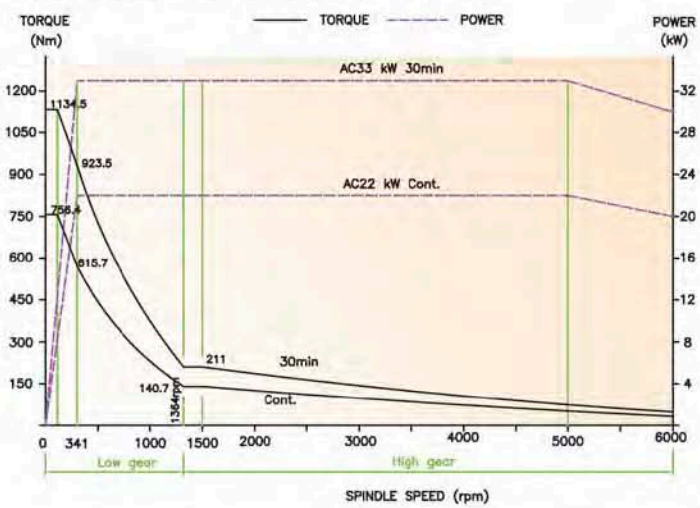
CAT-50 Gear Head 6000 rpm (Mitsubishi)



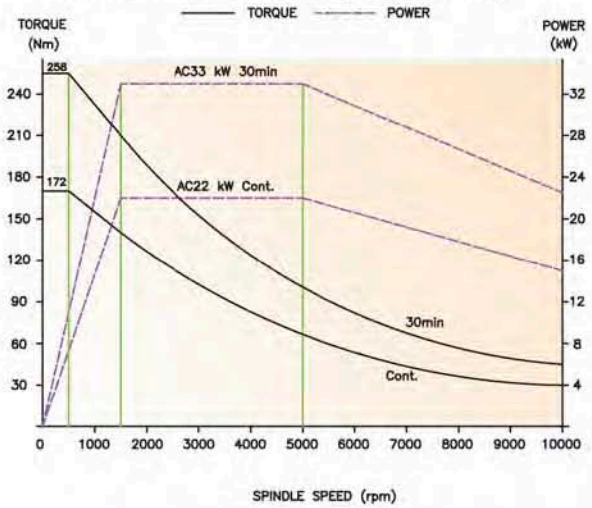
CAT-50 Gear Head 10,000 rpm (Mitsubishi)



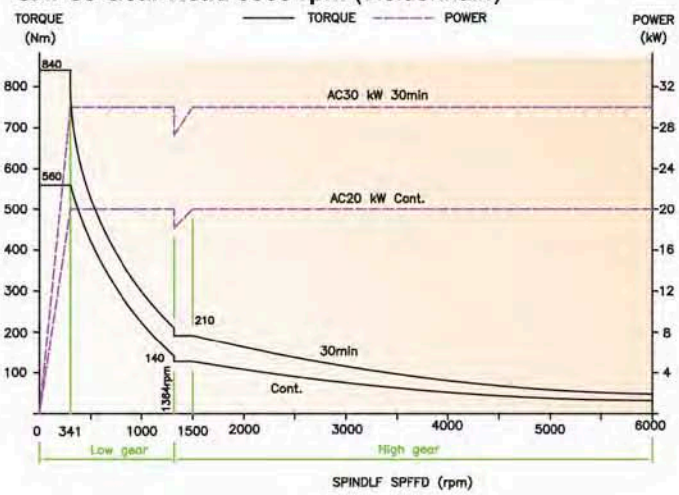
CAT-50 Gear Head 6000 rpm (Siemens)



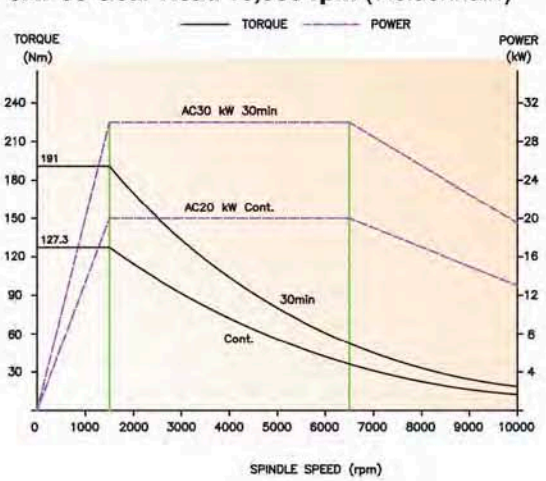
CAT-50 Gear Head 10,000 rpm (Siemens)



CAT-50 Gear Head 6000 rpm (Heidenhain)



CAT-50 Gear Head 10,000 rpm (Heidenhain)

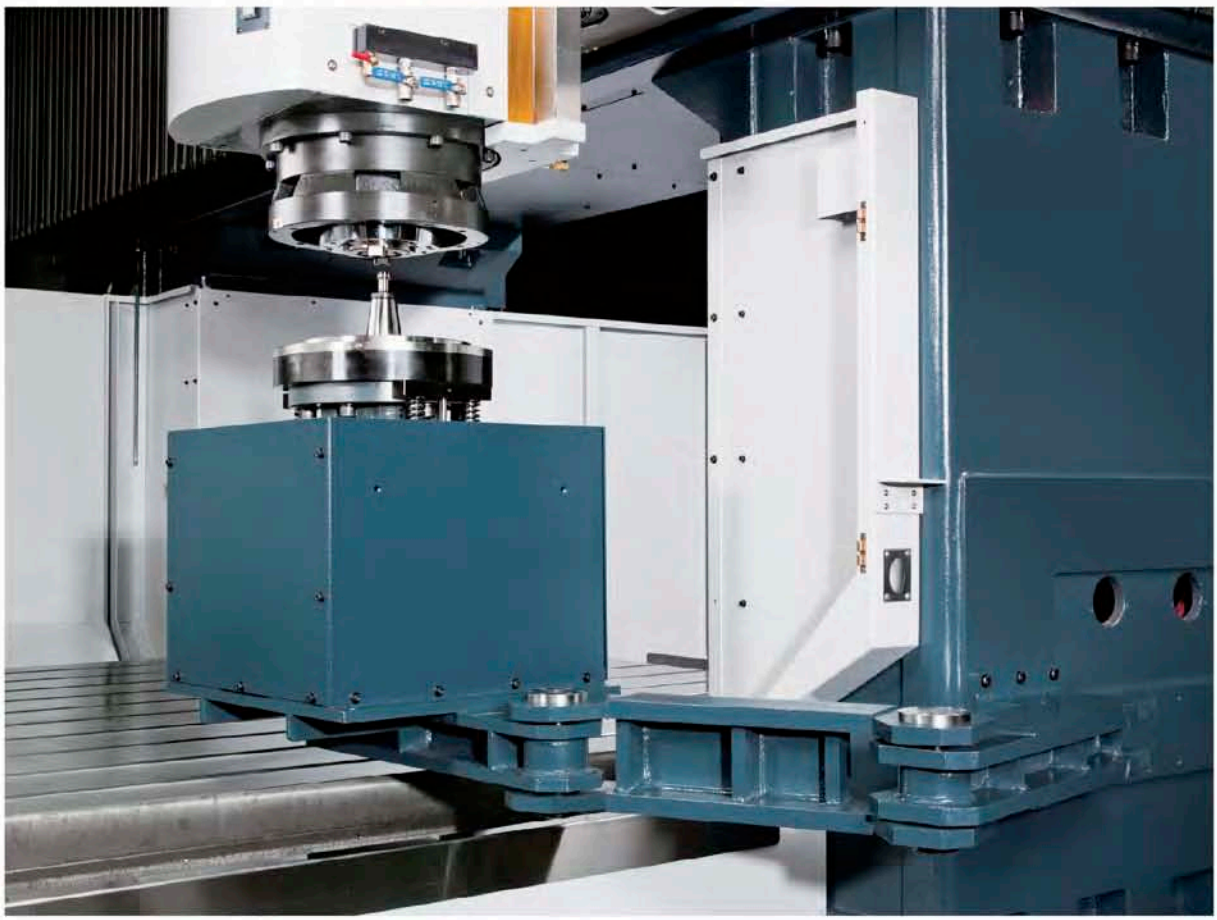


Increased Productivity

WITH VERSATILE MILLING ACCESSORIES

Manual Angle Milling Head Changing Unit (option)

1. Manual head change
2. Manual angle milling head can release tools by foot pedal.
3. Unique and simple head changing unit doesn't occupy work space.
4. Head changing unit comes with a full enclosure protecting it against dirt and chips.



Quality Assurance Rigorous tests and inspection

Extra level of quality control performed on key components.

Machine Specifications

Specifications subject to change without prior notice.

MODEL	Unit	PMC-2012	PMC-3012	PMC-2618	PMC-3118	PMC-4118	PMC-5118	PMC-6118
Travels								
X-axis	inch	82.7	122	102	122	161	201	240
Y-axis	inch	47.2		63.0				
Z-axis	inch	31.5 (40.2*)		35.4 (43.3*)				
Distance from Spindle Nose to Table Surface	inch	#40: 5.9 ~ 37.4 (5.9 ~ 46.1*) #50: 7.9 ~ 39.4 (7.9 ~ 48.0*)		7.9 ~ 43.3 (7.9 ~ 51.2*)				
Distance between Columns	inch	53		67				
Table								
Table Length (X)	inch	78.7	118	98.4	118	157	197	236
Table Width (Y)	inch	43.3		59.1				
T-Slots (size x number x pitch)	inch	0.8 x 7 x 6.3		0.8 x 9 x 6.3				
Max. Table Load	lbs	8,800	11,000	20,000	24,200	31,000	37,500	44,000
Spindle								
Spindle Motor (30 min)	hp	25		35 (50*)				
Spindle Speed (Gear)	rpm	#50: 6000 (4000*)		6000 (4000*)				
Spindle Speed (Direct Drive)	rpm	10,000 (#40: 12,000*)		10,000 (8000*)				
Spindle Taper		CAT-40 / CAT-50		CAT-50				
Feedrates								
Rapid Feedrate (X/Y/Z)	ipm	787/ 787/ 591	787/ 787/ 591	945/ 945/ 591	945/ 945/ 591	787/ 945/ 591	591/ 787/ 591	394/ 787/ 591
Cutting Feedrate	ipm	394		394				
Servomotors	hp	5.4 / 5.4 / 5.4		5.4 / 5.4 / 5.4	5.4 / 5.4 / 5.4	9.4 / 5.4 / 5.4	8.0 / 5.4 / 5.4	8.0 / 5.4 / 5.4
ATC System								
Tool Magazine Capacity		40 (#50: 60/90/120*)		40 (60/90/120*)				
Max. Tool Diameter	inch	#40: Ø2.9 / #50: Ø4.9		Ø4.9				
Max. Tool Diameter (without adjacent tools)	inch	#40: Ø5.0 / #50: Ø8.4		Ø8.4				
Max. Tool Length	inch	#40: Ø11.8 / #50: 15.7		15.7				
Max. Tool Weight	lb	#40: 15 / #50: 44		44				
Tool Shank	—	CAT-40 / CAT-50		CAT-50				
Pull Stud	—	P40T-1 / P50T-1		P50T-1				
Accuracy								
Positioning - Full Travel (JIS 6338)	inch	± 0.0004		± 0.0004				
Positioning (VDI 3441)	inch	P 0.0008	P 0.0010	P 0.0008	P 0.0010	P 0.0012	P 0.0012	P 0.0012
Repeatability (JIS 6338)	inch	± 0.00012		± 0.00012 / 12				
Repeatability (VDI 3441)	inch	Ps 0.0006	Ps 0.0008	Ps 0.0006	Ps 0.0008	Ps 0.0010	Ps 0.0010	Ps 0.0010
Miscellaneous								
Guideway type (X/Y/Z)		#40: All Roller		Roller Linear Way / Roller Linear Way / Box Way				
Power Supply	kVA	50						
Air Pressure	psi	90						
Net Weight	lb	45,000	55,000	65,000	70,500	81,500	90,500	99,000
Length	ft-in	19′ 10″	26′ 5″	27′ 7″	31′ 0″	37′ 6″	44′ 0″	51′ 0″
Width	ft-in	13′ 11″	13′ 11″	16′ 9″	16′ 9″	16′ 9″	16′ 9″	16′ 9″
Height	ft-in	14′ 3″	14′ 3″	15′ 0″	15′ 0″	15′ 0″	15′ 0″	15′ 0″

** Optional accessory.*

Machine Specifications

Specifications subject to change without prior notice.

PMC-2622	PMC-3122	PMC-4122	PMC-5122	PMC-6122	PMC-8122	PMC-10122
102	122	161	201	240	319	398
86.6						
35.4 (43.3*)						
7.9 ~ 43.3 (7.9 ~ 51.2*)						
91						
98.4	118	157	197	236	315	394
82.7						
1.1 x 10 x 7.9						
30,000	35,000	45,000	50,000	55,000	60,000	75,000
35 (50*)						
6000 (4000*)						
10000 (8000*)						
CAT-50						
787 / 787 / 591	787 / 787 / 591	591 / 787 / 591	591 / 787 / 591	394 / 787 / 591	394 / 591 / 591	315 / 591 / 591
394						
9.4 / 5.4 / 5.4	9.4 / 5.4 / 5.4	8.0 / 5.4 / 5.4	8.0 / 5.4 / 5.4	8.0 / 5.4 / 5.4	8.0 / 5.4 / 5.4	8.0 / 5.4 / 5.4
40 (60 / 90 / 120*)						
Ø4.9						
Ø8.4						
15.7						
44						
CAT-50						
P50T-1						
± 0.0004			± 0.0006			
P 0.0010	P 0.0010	P 0.0012	P 0.0016	P 0.0020	P 0.0020	P 0.0020
± 0.00012 / 12						
Ps 0.0006	Ps 0.0008	Ps 0.0010	Ps 0.0012	Ps 0.0014	Ps 0.0014	Ps 0.0014
Roller Linear Way / Roller Linear Way / Box Way						
50						
90						
68,500	74,000	84,000	95,000	106,000	128,000	150,000
31′ 0″	35′ 0″	43′ 0″	49′ 6″	56′ 0″	62′ 6″	69′ 0″
18′ 0″	18′ 0″	18′ 0″	18′ 0″	18′ 0″	18′ 0″	18′ 0″
15′ 0″	15′ 0″	15′ 0″	15′ 0″	15′ 0″	15′ 0″	15′ 0″

** Optional accessory.*

Machine Specifications

Specifications subject to change without prior notice.

MODEL	Unit	PMC-3127	PMC-4127	PMC-5127	PMC-6127	PMC-8127	PMC-10127
Travels							
X-axis	inch	122	161	201	240	319	398
Y-axis	inch	106					
Z-axis	inch	35.4 (43.3*)					
Distance from Spindle Nose to Table Surface	inch	7.9 ~ 43.3 (7.9 ~ 51.2*)					
Distance between Columns	inch	111					
Table							
Table Length (X)	inch	118	157	197	236	315	394
Table Width (Y)	inch	102					
T-Slots (size x number x pitch)	inch	1.1 x 13 x 7.9					
Max. Table Load	lbs	33,000	39,500	44,000	50,500	57,200	64,000
Spindle							
Spindle Motor (30 min)	hp	35 (50*)					
Spindle Speed (Gear)	rpm	6000 (4000*)					
Spindle Speed (Direct Drive)	rpm	10000 (8000*)					
Spindle Taper		CAT-50					
Feedrates							
Rapid Feedrate (X/Y/Z)	ipm	787 / 787 / 591	591 / 787 / 591	472 / 787 / 591	394 / 787 / 591	394 / 591 / 591	315 / 591 / 591
Cutting Feedrate	ipm	394					
Servomotors	hp	9.4 / 5.4 / 5.4	8.0 / 5.4 / 5.4	8.0 / 5.4 / 5.4	8.0 / 5.4 / 5.4	8.0 / 5.4 / 5.4	8.0 / 5.4 / 5.4
ATC System							
Tool Magazine Capacity		40 (60/90/120*)					
Max. Tool Diameter	inch	Ø4.9					
Max. Tool Diameter (without adjacent tools)	inch	Ø8.4					
Max. Tool Length	inch	15.7					
Max. Tool Weight	lbs	44					
Tool Shank		CAT-50					
Pull Stud		P50T-1					
Accuracy							
Positioning - Full Travel (JIS 6338)	inch	± 0.0006					
Positioning (VDI 3441)	inch	P 0.0010	P 0.0012	P 0.0016	P 0.0016	P 0.0016	P 0.0016
Repeatability (JIS 6338)	inch	± 0.00012 / 12					
Repeatability (VDI 3441)	inch	Ps 0.0008	Ps 0.0010	Ps 0.0012	Ps 0.0012	Ps 0.0012	Ps 0.0012
Miscellaneous							
Guideway type (X/Y/Z)		Roller Linear Way / Roller Linear Way / Box Way					
Power Supply	kVA	50					
Air Pressure	psi	90					
Net Weight	lbs	88,000	101,000	115,000	128,000	154,000	181,000
Length	ft-in	35´ 0˝	43´ 0˝	49´ 6˝	56´ 0˝	69´ 0˝	82´ 6˝
Width	ft-in	20´ 0˝	20´ 0˝	20´ 0˝	20´ 0˝	20´ 0˝	20´ 0˝
Height	ft-in	15´ 0˝	15´ 0˝	15´ 0˝	15´ 0˝	15´ 0˝	15´ 0˝

** Optional accessory.*

Machine Specifications

Specifications subject to change without prior notice.

PMC-4131	PMC-5131	PMC-6131	PMC-8131	PMC-10131
161	201	240	319	398
122				
43.3				
7.9 ~ 51.2				
126				
157	197	236	315	394
114				
1.1 x 13 x 7.9				
39,500	44,000	50,500	57,200	64,000
35 (50*)				
6000 (4000*)				
10000 (8000*)				
CAT-50				
591 / 787 / 591	472 / 787 / 591	394 / 787 / 591	394 / 591 / 591	315 / 591 / 591
394				
8.0 / 5.4 / 5.4	8.0 / 5.4 / 5.4	8.0 / 5.4 / 5.4	8.0 / 5.4 / 5.4	8.0 / 5.4 / 5.4
40 (60/90/120*)				
Ø4.9				
Ø8.4				
15.7				
44				
CAT-50				
P50T-1				
± 0.0006				
P 0.0012	P 0.0016	P 0.0020	P 0.0020	P 0.0020
± 0.00012 / 12				
Ps 0.0010	Ps 0.0012	Ps 0.0014	Ps 0.0014	Ps 0.0014
Roller Linear Way / Roller Linear Way / Box Way				
50		60		
90				
118,000	131,000	144,000	171,000	197,000
44′ 0″	51′ 0″	57′ 6″	70′ 6″	83′ 6″
22′ 0″	22′ 0″	22′ 0″	22′ 0″	22′ 0″
15′ 0″	15′ 0″	15′ 0″	15′ 0″	15′ 0″

** Optional accessory.*

Machine Specifications

Specifications subject to change without prior notice.

MODEL	Unit	PMC-6140	PMC-8140	PMC-10140
Travels				
X-axis	inch	240	319	398
Y-axis	inch	157		
Z-axis	inch	43.3		
Distance from Spindle Nose to Table Surface	inch	7.9 ~ 51.2		
Distance between Columns	inch	148		
Table				
Table Length (X)	inch	236	315	394
Table Width (Y)	inch	126		
T-Slots (size x number x pitch)	inch	1.1 x 16 x 7.9		
Max. Table Load	lbs	55,000	61,500	66,000
Spindle				
Spindle Motor (30min)	hp	35 (50*)		
Spindle Speed (Gear)	rpm	6000 (4000*)		
Spindle Speed (Direct Drive)	rpm	10,000 (8000*)		
Spindle Taper		CAT-50		
Feedrates				
Rapid Feedrate (X/Y/Z)	ipm	472 / 591 / 591	394 / 591 / 591	315 / 591 / 591
Cutting Feedrate	ipm	394		
Servomotors	hp	8.0 / 9.4 / 5.4	8.0 / 9.4 / 5.4	8.0 / 9.4 / 5.4
ATC System				
Tool Magazine Capacity		40 (60 / 90 / 120*)		
Max. Tool Diameter	inch	Ø4.9		
Max. Tool Diameter (without adjacent tools)	inch	Ø8.4		
Max. Tool Length	inch	15.7		
Max. Tool Weight	lbs	44		
Tool Shank		CAT-50		
Pull Stud		P50T-1		
Accuracy				
Positioning - Full Travel (JIS 6338)	inch	± 0.0014		
Positioning (VDI 3441)	inch	P 0.0020	P 0.0020	P 0.0020
Repeatability (JIS 6338)	inch	± 0.00012 / 12		
Repeatability (VDI 3441)	inch	Ps 0.0014	Ps 0.0014	Ps 0.0014
Miscellaneous				
Guideway type (X/Y/Z)		Roller Linear Way / Roller Linear Way / Box Way		
Power Supply	kVA	60		
Air Pressure	psi	90		
Net Weight	lbs	172,000	194,000	216,000
Length	ft-in	57′ 6″	70′ 6″	83′ 6″
Width	ft-in	25′ 0″	25′ 0″	25′ 0″
Height	ft-in	15′ 0″	15′ 0″	15′ 0″

** Optional accessory.*

Optional Accessories

Specifications subject to change without prior notice.

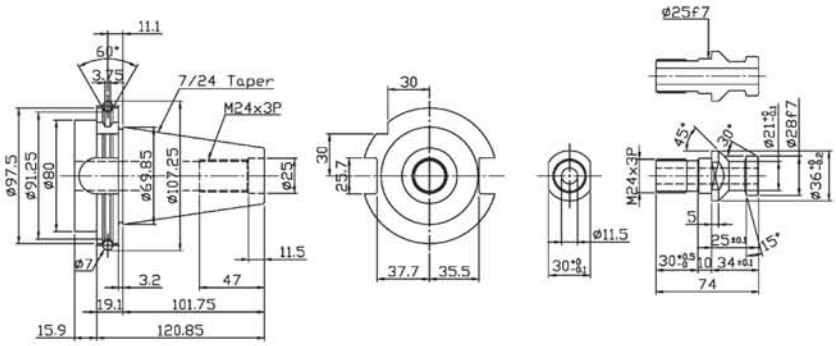
ITEM	PMC 2012 ~ 3012	PMC 2616 ~ 6116	PMC 2622 ~ 10122	PMC 3127 ~ 10127	PMC 4131 ~ 10131	PMC 6140 ~ 10140
CAT-50 Spindle Taper	●	●	●	●	●	●
BT-50 Spindle Taper	○	○	○	○	○	○
DIN-50 Spindle Taper	○	○	○	○	○	○
Gear Head 6000 rpm (35 hp)	●	●	●	●	●	●
Gear Head 4000 rpm (50 hp)	X	○	○	○	○	○
Direct-Drive 8000 rpm/ 10,000 rpm (35 hp)	○	○	○	○	○	○
Z-Axis Raiser 200mm / 400mm	○ / X	○	○	○	○	○
Automatic Lubrication System	●	●	●	●	●	●
Semi Enclosure	○	○	○	○	○	●
Full Enclosure (without top cover)	●	●	●	●	●	○
Roof Enclosure (with top cover)	○	○	○	○	○	○
Multi-Piece Sliding Doors	●	●	●	●	●	○
Coolant System (with pump and tank)	●	●	●	●	●	●
Chip Augers (2) and Chip Conveyor	●	●	●	●	●	●
ATC 40-Tool Magazine	●	●	●	●	●	●
ATC 60-Tool Magazine	○	○	○	○	○	○
ATC 90-Tool Magazine	○	○	○	○	○	○
ATC 120-Tool Magazine	○	○	○	○	○	○
Rigid Tapping	●	●	●	●	●	●
Foot Pedal for Manual Tool Release	●	●	●	●	●	●
Remote Handwheel (MPG)	●	●	●	●	●	●
Work Light	●	●	●	●	●	●
Tri-Color Status Light	●	●	●	●	●	●
RS-232 Interface	●	●	●	●	●	●
Air Gun	●	●	●	●	●	●
Coolant Gun	●	●	●	●	●	●
Leveling Bolts and Pads	●	●	●	●	●	●
Maintenance and Operation Manuals	●	●	●	●	●	●
Linear Scales	○	○	○	○	○	○
Coolant through Tool	○	○	○	○	○	○
Coolant through Spindle	○	○	○	○	○	○
30° Manual Head	○	○	○	○	○	○
90° Manual Head	○	○	○	○	○	○
Universal Manual Head	○	○	○	○	○	○
Extension Manual Head	○	○	○	○	○	○
Single Head Storage (with Swivel Shelf)	○	○	○	○	○	○
Arm-type Operator Control Box	○	○	○	○	○	○
Operator Steps	○	○	○	○	○	○
Automatic Tool Length Measurement	○	○	○	○	○	○
Automatic Workpiece Measurement	○	○	○	○	○	○
Fanuc Control	●	●	●	●	●	●
Mitsubishi Control	○	○	○	○	○	○
Siemens Control	○	○	○	○	○	○
Heidenhain Control	○	○	○	○	○	○
Rotary Table	○	○	○	○	○	○

● = Standard ○ = Option X = Not Available

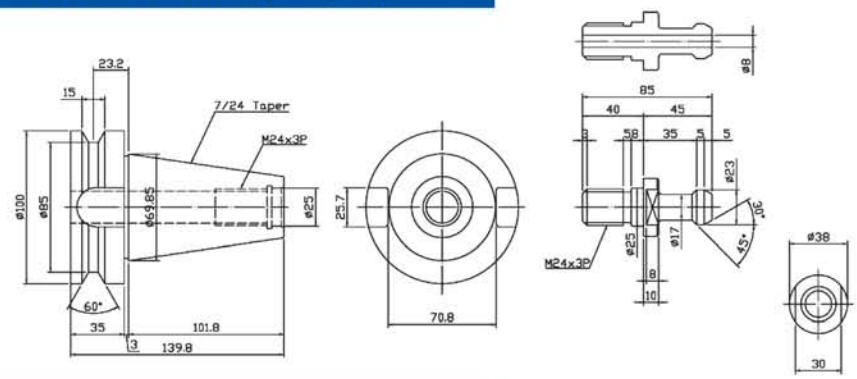
Tool Holder and Pull Stud

Unit = inch

V-Flange CAT-50+V-Flange CAT-50 Tooling Dim.(CTS)



MAS BT-50+MAS P50T Tooling Dim.(CTS)



DIN69871A(#50)+DIN69872-A(#50) Tooling Dim.(CTS)

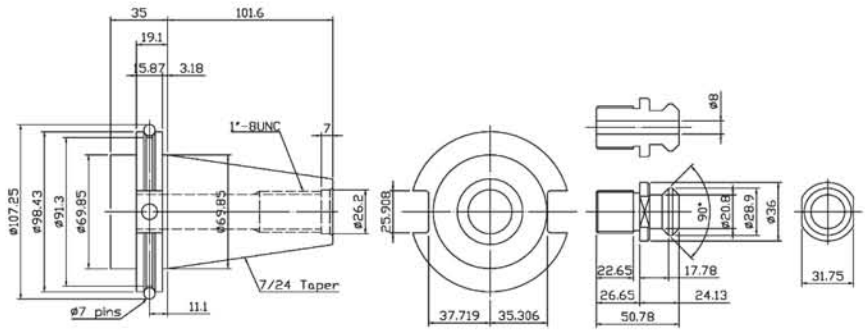
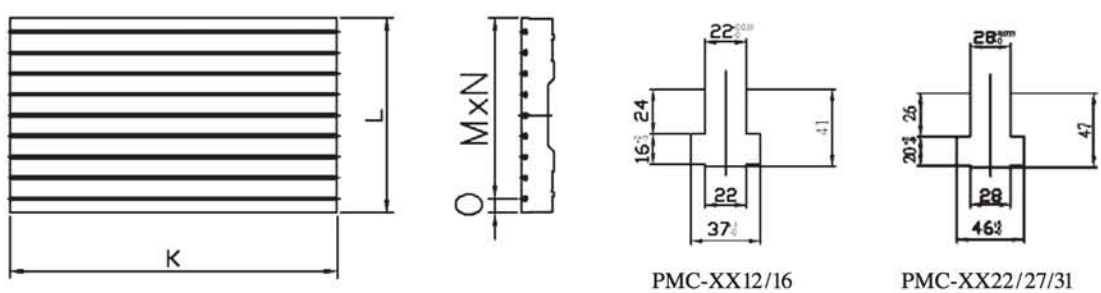


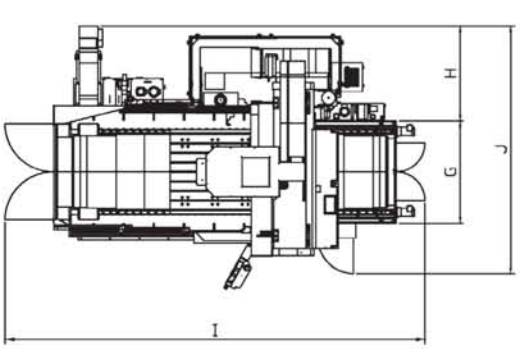
TABLE DRAWING

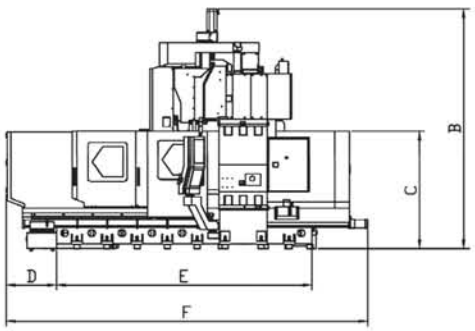


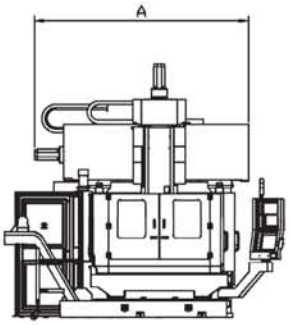
PMC-XX12/16

PMC-XX22/27/31

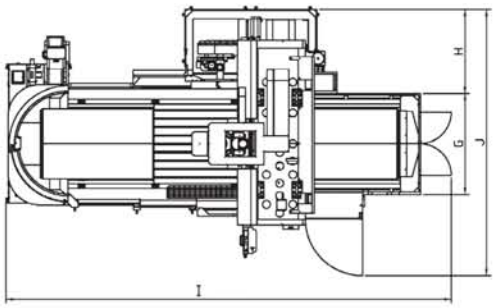
Machine Layout

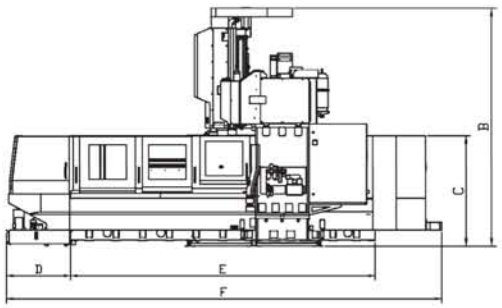


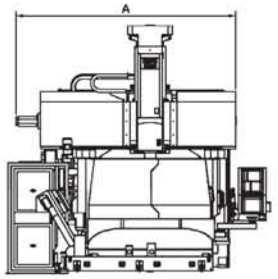




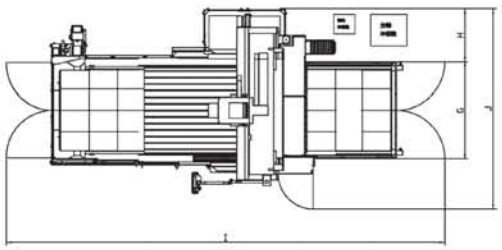
PMC-XX12

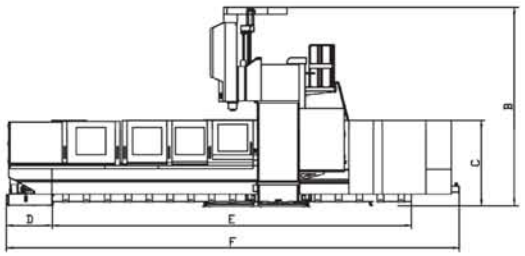


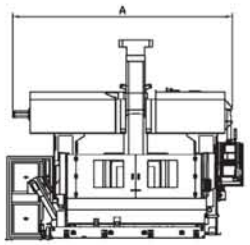




PMC-XX16







PMC-XX22/27/31

Design and specifications subject to change without notice. • Unit = mm

MODEL \ ITEM	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
PMC-2012	3290	4340	1973	490	4245	6040	1410	1560	6925	4125	2000	1100	160	6	70
PMC-3012	3290	4340	1973	490	6245	8040	1410	1560	8925	4125	3000	1100	160	6	70
PMC-2616	3960	4570	2070	1200	5700	8150	1915	1600	8400	5100	2500	1500	160	8	110
PMC-3116	3960	4570	2070	1200	6700	9150	1915	1600	9400	5100	3000	1500	160	8	110
PMC-4116	3960	4570	2070	1200	8700	11150	1915	1600	11400	5100	4000	1500	160	8	110
PMC-5116	3960	4570	2070	1200	10700	13150	1915	1600	13400	5100	5000	1500	160	8	110
PMC-6116	3960	4570	2070	1200	12700	15150	1915	1600	15400	5100	6000	1500	160	8	110
PMC-2622	3950	4570	2070	1200	5620	7600	2470	1600	9650	5500	2500	2100	200	9	150
PMC-3122	3950	4570	2070	1200	6620	8600	2470	1600	10650	5500	3000	2100	200	9	150
PMC-4122	3950	4570	2070	1200	8620	10600	2470	1600	13050	5500	4000	2100	200	9	150
PMC-5122	3950	4570	2070	1200	10620	12600	2470	1600	15050	5500	5000	2100	200	9	150
PMC-6122	3950	4570	2070	1200	12620	14600	2470	1600	17050	5500	6000	2100	200	9	150
PMC-8122	3950	4570	2070	1200	16620	18600	2470	1600	21050	5500	8000	2100	200	9	150
PMC-10122	3950	4570	2070	1200	20620	22600	2470	1600	25050	5500	10000	2100	200	9	150
PMC-3127	4340	4570	2070	1200	6620	8600	2970	1600	10650	6110	3000	2600	200	12	100
PMC-4127	4340	4570	2070	1200	8620	10600	2970	1600	13050	6110	4000	2600	200	12	100
PMC-5127	4340	4570	2070	1200	10620	12600	2970	1600	15050	6110	5000	2600	200	12	100
PMC-6127	4340	4570	2070	1200	12620	14600	2970	1600	17050	6110	6000	2600	200	12	100
PMC-8127	4340	4570	2070	1200	16620	18600	2970	1600	21050	6110	8000	2600	200	12	100
PMC-10127	4340	4570	2070	1200	20620	22600	2970	1600	25050	6110	10000	2600	200	12	100
PMC-4131	5000	4570	2070	1200	8620	10600	3250	1840	13425	6685	4000	2900	200	13	150
PMC-5131	5000	4570	2070	1200	10620	12600	3250	1840	15425	6685	5000	2900	200	13	150
PMC-6131	5000	4570	2070	1350	12620	14600	3250	1840	17425	6685	6000	2900	200	13	150
PMC-8131	5000	4570	2070	1350	16620	18600	3250	1840	21425	6685	8000	2900	200	13	150
PMC-10131	5000	4570	2070	1350	20620	22600	3250	1840	25425	6685	10000	2900	200	13	150
PMC-6140~10140	UPON REQUEST														mm

MIGHTY VIPER

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