

*Pinnacle*  
Since 1976



***Pinnacle Machine Tool Co., Ltd.***

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**Milling Machines**  
Excellence in Quality  
It's Our Ideal and Standard

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### HIGH QUALITY PERFORMANCE:

- Constructed from high quality casting iron.
- Two adjustable feed nuts for controlling the table and backlash, and keeping the feed screw and nut in contact.
- Two gib adjustment screws provide finer gib adjustment and a more positive gib seat.
- The bottom of the saddle is handscraped for better oil retention than handscraping on the top of the knee, thus preventing damage from chips and dirt.
- Dual clamps with 12 adjustment positions to stop skewing.
- Dished-in bases make cleaning the machine easier.
- Hardened and ground guides provide longer wear resistance. The raised cross feed bearing bracket stops the sliding chip guard from coming out.
- The lube system provides excellent lubrication and oil supply to clean the machine.
- APEC-7 angular bearings ensure that the spindle runout is less than 0.0002" T.I.R.
- The spindle return clock spring is held on the Quill Spring Housing with a tab that inserts into a slot the full length of the spring. This greatly reduces failure.
- The built-in oil groove on the bevel gears provides uniform lubrication.
- The aluminum alloy brake ensures consistent and dependable braking.
- The one piece back gear housing with the bearing is finish bored into the housing after installation, providing the the best alignment for quieter and more efficient operation.
- The motor shaft on the vari-speed head is chrome plated to provide a smooth corrosion proof slide area for the pulleys.
- The spindle pulley hub is designed with flanges to retain the timing belt on the pulley hub, to improve belt life and reduce noise.
- The step-speed milling head is transmitted by B-type belt and wide-chute wheel which feature powerful torque output, low-noise running and great durability.

PINNACLE milling machine heads include high precision bearings and manual quick change tools, providing you with reliable, quality machining and easy maintenance.



The bevel gear functions with the table and saddle axial movement to provide the highest efficiency for the transmission and for fitting gear teeth.(option)



PINNACLE milling machines have a sound, robust machine body with rectangular or dovetail guide ways that are hardened and ground for maximum durability and precision. Highly durable polytetrafluoroethylene coating (optional) on the guideways, and the automatic lubrication system (optional) ensure smooth transverse movement and minimal wear.



The basic design of the PINNACLE milling machine includes advanced facilities and Computer Aided Design 3D tools to provide the best possible machining solutions for you. With many years of experience in designing and manufacturing the best machines, PINNACLE also has quality manufacturing procedures and a management systems that ensures consistently high quality.

# Pinnacle Milling Machines

Each Pinnacle Machine is Made from our Heart.

### WIDE PRODUCT RANGE

Pinnacle Machine Tool Co., Ltd. was founded in 1976. With excellent experience in **Technology, Quality & Service**; we are specialized in manufacturing all kinds of machining centers such as 5-axis, double column, vertical, and horizontal. Furthermore, we have a wide range of CNC lathes as well. The complete product lines with outstanding quality satisfy the needs of our valuable customers worldwide.

### STRONG TECHNICAL SUPPORT & AFTER SERVICE

R&D is teamed up with experienced engineers with decades of expertise in the machine tool industry. By means of applying up-to-date technologies such as CAD/CAM/CAE software and Finite Element Analysis, our machines are robustly constructed, assuring optimum rigidity and stability. Our reliable partnerships with dealers keep us connected closely with the latest technologies and market trends, hence ensuring Pinnacle product developments are upgraded constantly.

Well-trained service engineers are familiar with each step of assembly to ensure our quality service works and keep all machines running in the best status. Training courses to service engineers are held periodically to keep the team refreshed with the latest technology and skills.

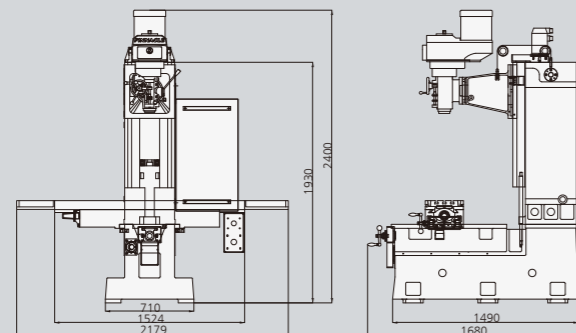
Pinnacle's reputation is built on quality; it relies on an excellent quality control system and systematic management. The in-coming parts are inspected under highest standard by using precision equipment during production, assembly and final test run processes.

The sales and service departments provide customers pre-sale and after-sale services. Prompt reaction is our attitude to all customers, accurate and effective technical solutions are provided within the shortest time.



# PK-B3K

## Machine Overall Dimensions



- X, Y, Z axes driven by inverter motor
- NT#40 Spindle taper
- 90° swivel angle for head
- High rigid precision spindle driven by 5 HP powerful motor
- 60" x 12" Working table with ground T-slots
- Excellent for heavy workpieces
- Hardened and ground square slide ways and mating surfaces are coated with polytetrafluoroethylene

## Specifications:

MODEL	PK-B3K
Table	1524 x 305 mm
TRAVEL	
Longitudinal	1020 mm
Cross	510 mm
Vertical	510 mm
Spindle Travel	127 mm
SPINDLE	
Taper	NT40#
Variable Speed	75~4200 RPM
Spindle Nose to Table Surface	160~630 mm
16-speed-range transmission (optional)	Low Range - Low: 60, 95, 150, 225 High: 535, 825, 1320, 1930
High Range - Low: 120, 195, 305, 450 High: 1055, 1640, 2620, 3820	
Infinitely variable speed transmission (optional)	75~3800 RPM
Quill Feeds Per. Rev. of Spindle	0.045, 0.086, 0.142 mm
Main Motor for Inverting	3.7 KW, 3PH
Swivel Angle to Right & Left	90°
Approximate Net Weight	2350 kgs
Floor Space (L x D x H)	2400 x 1680 x 215 mm

• All specifications and designs are subject to change without notice.

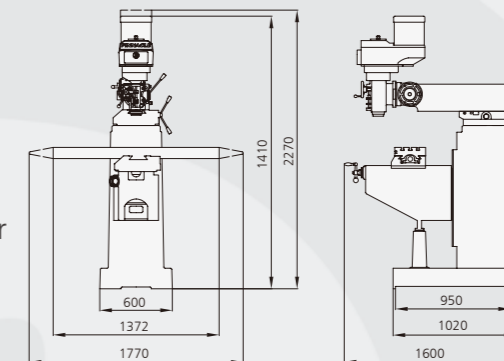


## STANDARD:

- Cooling Pump System
- Air Power Drawbar
- Halogen Worklight
- Auto Lubrication System
- Chip Tray
- Electric Control Cabinet with Operation Panel
- Way Chip Protectors
- Tool Box with Tools

# PK-FV3

## Machine Overall Dimensions

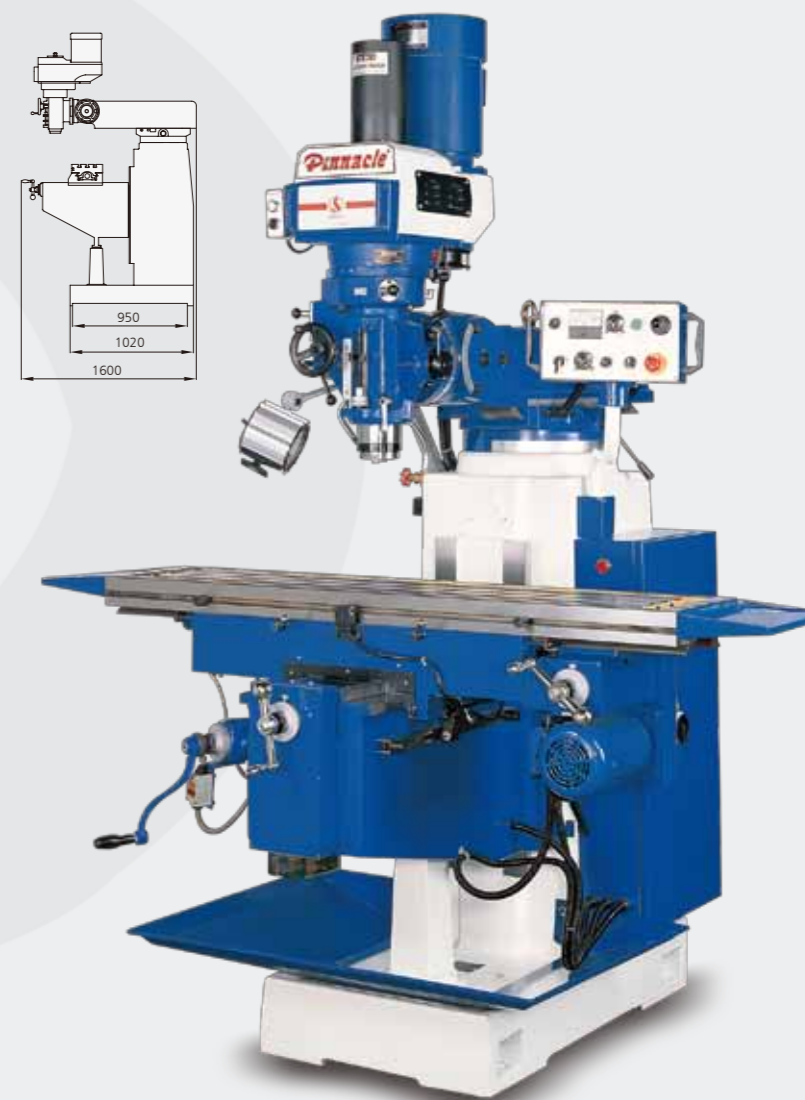


- The rigid and precision spindle is driven by a powerful inverter motor
- 60" x 12" working table with ground T-slots
- High rigid precision spindle driven by 5 HP powerful motor
- X,Y axes are driven by inverter motors
- NT40# spindle taper
- The X and Y axes slideways are coated with polytetrafluoroethylene
- The X, Y and Z axes slideways and top of working surface are hardened and ground
- Square slideways on column and knee

## Specifications:

MODEL	PK-FV3
Table	1524 x 305 mm
TRAVEL	
Longitudinal	800 mm
Cross	400 mm
Vertical	380 mm
SPINDLE	
Taper	NT40#
Dia. of Quill	Ø100 mm
Spindle Travel	127 mm
Spindle Nose to Table Surface	80~483 mm
Spindle Center to Column	180~770 mm
Main Motor for Inverting	3.75 KW
Inverter	3.75 KW
Variable Speed	70~4200 RPM
Quill Feeds Per. Rev. of Spindle	0.004 - 0.008 - 0.15 mm
Feed Motor (X, Y, Z-Axis)	0.375 KW / 0.375 KW / 0.2 KW
Feed Rate (X, Y-Axis)	Min : 20 mm/min Max : 2200 mm/min
Swivel Angle to Right & Left	90°
Swivel Angle to Front & Back	45°
Approximate Net Weight	1550 kgs

• All specifications and designs are subject to change without notice.



## STANDARD:

- Cooling Pump System
- Air Power Drawbar
- Inverting motors for X,Y
- Rapid Motor for Knee Elevation
- Chip Tray
- Tool Box with Tools
- Halogen Worklight
- Electric Control Cabinet with Operation Panel

# PK-FV2

- The rigid and precision spindle is driven by a powerful inverter motor
- High rigid precision spindle driven by 5 HP powerful motor
- NT40# spindle taper
- The X and Y axes slideways are coated with polytetrafluoroethylene
- The X, Y and Z axes slideways and top of working surface are hardened and ground
- Square slideways on column and knee

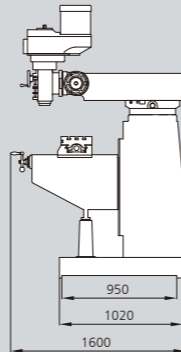
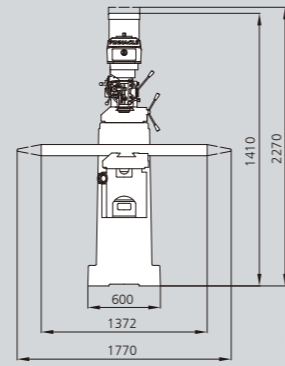
## ■ Specifications:

MODEL	PK-FV2
Table	1372 x 254 mm
T-Slot (width x number x distance)	16 x 3 x 63.5
Rapid Feed Rate	890 mm/min
<b>TRAVEL</b>	
Longitudinal	900 mm
Cross	380 mm
Vertical	380 mm
Spindle Travel	127 mm
Arm Travel	520 mm
<b>SPINDLE</b>	
Taper	NT 40#
Spindle Nose to Table Surface	80~483 mm
Spindle Center to Column	180~515 mm
Spindle Speed	70~4200 RPM
Quill Feeds Per Rev. of Spindle	0.04 - 0.08 - 0.15 mm
Dia. of Quill	Ø100
Main Motor for Inverting	3.7KW 3PH
Inverter	3.7KW 3PH
Swivel Angle to Right & Left	90°
Swivel Angle to Front & Back	45°
Approximate Net Weight	1450 kgs

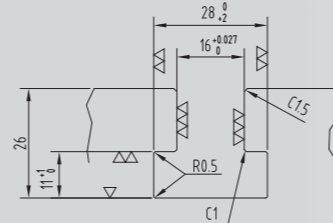
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## ■ Machine Overall Dimensions PK-FV2, PK-GRSM-V2, PK-GRSM-B2



## ■ T-Slots



## ■ STANDARD:

- Cooling Pump System
- Drawbar
- Way Chip Protectors
- Chip Tray
- Tool Box with Tools
- Halogen Worklight
- Power Feed for X Axis
- Power Feed for Y Axis
- Rapid Motor for Knee Elevation
- Electric control box with operation panel

# PK-GRSM-V2

- Variable speed head
- NT40# spindle taper.
- Extra wide table working area 54" x 10"
- 5HP powerful motor
- Hardened and ground X,Y, Z axes slideways and table surface

# PK-GRSM-B2

- 16-speed-range milling head
- NT40# spindle taper
- Extra wide table working area 54" x 10"
- 5HP powerful motor
- Hardened and ground X,Y axes and table surface

## ■ Specifications:

MODEL	PK-GRSM-V2	PK-GRSM-B2
Table	1372 x 254 mm	
T-Slot (width x number x distance)	16 x 3 x 63.5	
Rapid Feed Rate	890 mm/min	
<b>TRAVEL</b>		
Longitudinal	900 mm	
Cross	380 mm	
Vertical	380 mm	
Spindle Travel	127 mm	
Arm Travel	520 mm	
<b>SPINDLE</b>		
Taper	NT 40#	
Spindle Nose to Table Surface	80~483 mm	
Spindle Center to Column	180~515 mm	
Spindle Speed	Low Range -	High: 60, 95, 150, 225 High: 535, 825, 1320, 1930
Speed	High Range -	Low: 120, 195, 305, 450 High: 1055, 1640, 2620, 3820
Spindle Speed	75~3800 RPM	
Quill Feeds Per Rev. of Spindle	0.04 - 0.08 - 0.15 mm	
Dia. of Quill	Ø100	
Spindle Motor	3.7 KW 3PH	
Swivel Angle to Right & Left	90°	
Swivel Angle to Front & Back	45°	
Approximate Net Weight	1450 kgs	

● All specifications and designs are subject to change without notice.



PK-GRSM-V2

PK-GRSM-B2

## ■ STANDARD:

- Drawbar
- Way Chip Protectors
- Tool Box with Tools

## ■ OPTIONS:

- Power Feed for X Axis
- Power Feed for Y Axis
- Rapid Motor for Knee Elevation
- Halogen Worklight
- Cooling Pump System
- Chip Tray
- Halogen Worklight
- Electric control box with operation panel

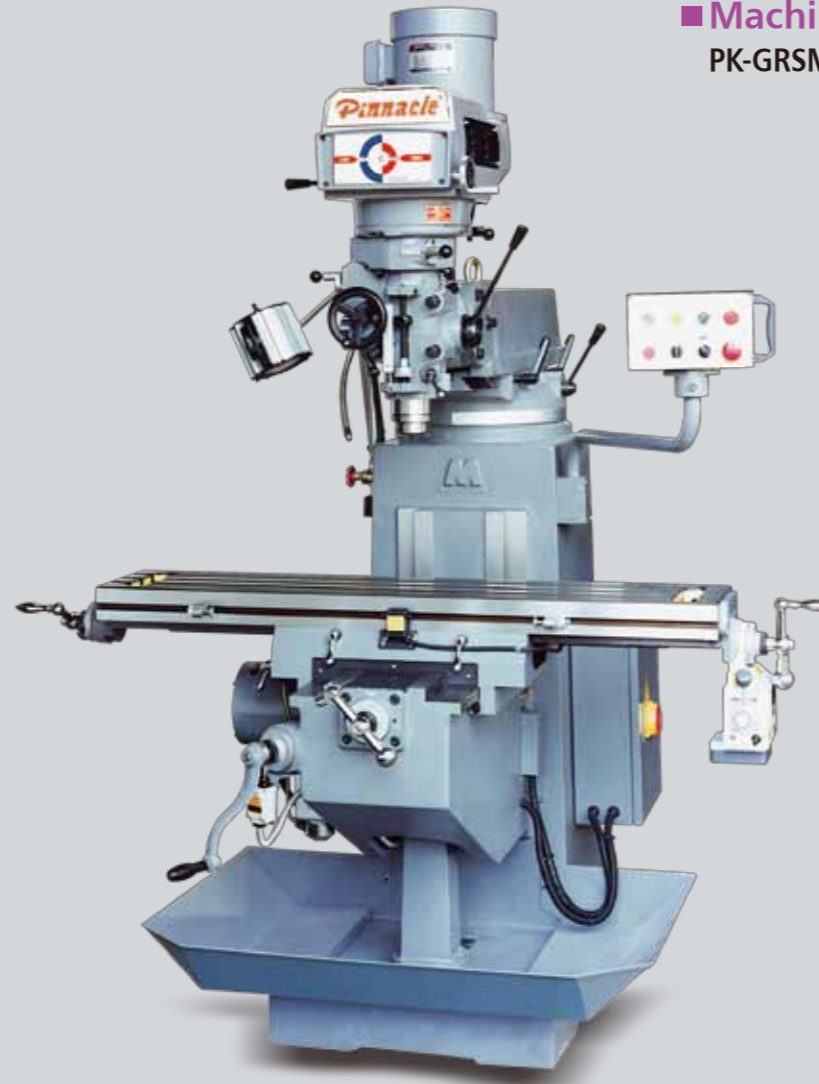
# PK-GRSM-V

- 3HP variable speed head
- NT30# / R8 spindle taper
- 3HP powerful motor
- Square slideways on knee.
- Extra wide table working area 50" x 10"
- Hardened and ground X,Y axes and table surface

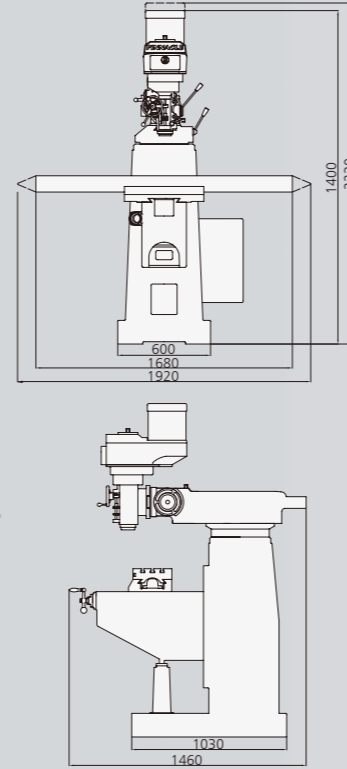
## Specifications:

MODEL	PK-GRSM-V
Table	1270 x 254 mm
T-slot (width x number x distance)	16 x 3 x 63.5
Rapid Feed Rate	890 mm/min
<b>TRAVEL</b>	
Longitudinal	800 mm
Cross	380 mm
Vertical	380 mm
Spindle Travel	127 mm
Arm Travel	520 mm
<b>SPINDLE</b>	
Taper	R8 or NT 30#
Spindle Nose to Table Surface	80~490 mm
Spindle Center to column	140~500 mm
Variable Speed	75~3800 RPM
Quill Feeds Per. Rev. of Spindle	0.04 - 0.08 - 0.15 mm
Dia. of Quill	Ø86
Main Motor	2.2KW 3PH or 3.7KW 3PH
Swivel Angle to Right & Left	90°
Swivel Angle to Front & Back	45°
Approximate Net Weight	1350 kgs

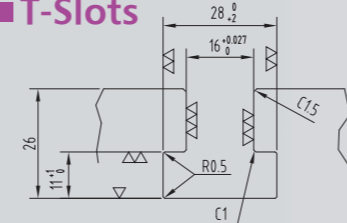
• All specifications and designs are subject to change without notice.



## Machine Overall Dimensions PK-GRSM-V, PK-GRSM-B



## T-Slots



## STANDARD:

- Drawbar
- Way Chip Protectors
- Tool Box with Tools

## OPTIONS:

- Power Feed for X Axis
- Power Feed for Y Axis
- Rapid Motor for Knee Elevation
- Halogen Worklight

- Cooling Pump System
- Chip Tray
- Halogen Worklight
- Electric control box with operation panel

# PK-GRSM-B

- 16-speed-range milling head
- NT30# / R8 spindle taper
- 3HP powerful motor
- Square slideways on knee
- Extra wide table working area 50" x 10"
- Hardened and ground X,Y axes and table surface

## Specifications:

MODEL	PK-GRSM-B
Table	1270 x 254 mm
T-slot (width x number x distance)	16 x 3 x 63.5
Rapid Feed Rate	890 mm/min
<b>TRAVEL</b>	
Longitudinal	800 mm
Cross	380 mm
Vertical	380 mm
Spindle Travel	127 mm
Arm Travel	520 mm
<b>SPINDLE</b>	
Taper	R8 or NT 30#
Spindle Nose to Table Surface	80~490 mm
Spindle Center to Column	140~500 mm
Spindle Speed	Low Range -Low: 60, 95, 150, 225 High: 535, 825, 1320, 1930 High Range -Low: 120, 195, 305, 450 High: 1055, 1640, 2620, 3820
Quill Feeds Per. Rev. of Spindle	0.04 - 0.08 - 0.15 mm
Dia. of Quill	Ø100
Main Motor	2.2KW 3PH or 3.7KW 3PH
Swivel Angle to Right & Left	90°
Swivel Angle to Front & Back	45°
Approximate Net Weight	1350 kgs

• All specifications and designs are subject to change without notice.



## STANDARD:

- Drawbar
- Way Chip Protectors
- Tool Box with Tools

## OPTIONS:

- Power Feed for X Axis
- Power Feed for Y Axis
- Rapid Motor for Knee Elevation
- Halogen Worklight

- Cooling Pump System
- Chip Tray
- Halogen Worklight
- Electric control box with operation panel

# PK-1 1/2 GRM-KV

- Variable speed head
- NT30# / R8 spindle taper
- 3HP powerful motor
- Dovetail slideways
- Hardened and ground X,Y axes and table surface

## ■ Specifications:

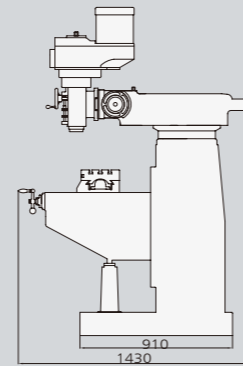
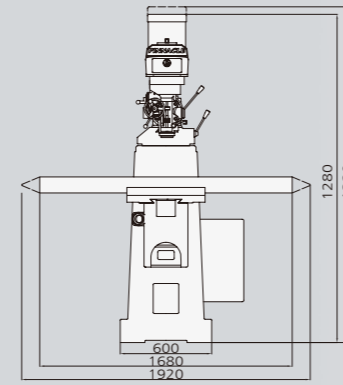
MODEL	PK-1 1/2 GRM-KV
Table	1067 x 230 or 1245 x 230 mm
T-slot (width x number x distance)	16 x 3 x 63.5
Rapid Feed Rate	890 mm/min
<b>TRAVEL</b>	
Longitudinal	680 mm
Cross	355 mm
Vertical	406 mm
Spindle Travel	127 mm
Arm Travel	460 mm
<b>SPINDLE</b>	
Taper	R8 or NT 30#
Spindle Nose to Table Surface	80~466 mm
Spindle Center to column	140~450 mm
Variable Speed	70~3800 RPM
Quill Feeds Per. Rev. of Spindle	0.04 - 0.08 - 0.15 mm
Dia. of Quill	Ø86
Main Motor	1.5KW 3PH or 2.2KW 3PH
Swivel Angle to Right & Left	90°
Swivel Angle to Front & Back	45°
Approximate Net Weight	950 kgs

● All specifications and designs are subject to change without notice.

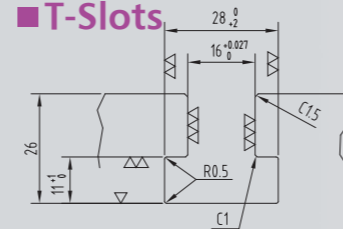


## ■ Machine Overall Dimensions

PK-1 1/2 GRM-KV, PK-1 1/2 GRM-KB



## ■ T-Slots



## ■ STANDARD:

- Drawbar
- Way Chip Protectors
- Tool Box with Tools

## ■ OPTIONS:

- Power Feed for X Axis
- Power Feed for Y Axis
- Rapid Motor for Knee Elevation
- Halogen Worklight

- Cooling Pump System
- Chip Tray
- Halogen Worklight
- Electric control box with operation panel

# PK-1 1/2 GRM-KB

- 16-speed-range milling head
- NT30# / R8 spindle taper
- Step pulley head with 2HP motor
- Dovetail slideways
- Hardened and ground X,Y axes and table surface

## ■ Specifications:

MODEL	PK-1 1/2 GRM-KB
Table	1067 x 230 or 1245 x 230 mm
T-slot (width x number x distance)	16 x 3 x 63.5
Rapid Feed Rate	890 mm/min
<b>TRAVEL</b>	
Longitudinal	680 mm
Cross	355 mm
Vertical	406 mm
Spindle Travel	127 mm
Arm Travel	460 mm
<b>SPINDLE</b>	
Taper	R8 or NT 30#
Spindle Nose to Table Surface	80~466 mm
Spindle Center to Column	140~450 mm
Spindle Speed	Low Range - Low: 60, 95, 150, 225 High: 535, 825, 1320, 1930 High Range - Low: 120, 195, 305, 450 High: 1055, 1640, 2620, 3820
Quill Feeds Per. Rev. of Spindle	0.04 - 0.08 - 0.15 mm
Dia. of Quill	Ø86
Main Motor	1.5KW 3PH or 2.2KW 3PH
Swivel Angle to Right & Left	90°
Swivel Angle to Front & Back	45°
Approximate Net Weight	950 kgs

● All specifications and designs are subject to change without notice.



## ■ STANDARD:

- Drawbar
- Way Chip Protectors
- Tool Box with Tools

## ■ OPTIONS:

- Power Feed for X Axis
- Power Feed for Y Axis
- Rapid Motor for Knee Elevation
- Halogen Worklight

- Cooling Pump System
- Chip Tray
- Halogen Worklight
- Electric control box with operation panel