Pinnacle Criteria

Among so many machine tool manufacturers in Taiwan, how can you tell the differences between one and the other? What are the criteria of “high quality”, “high performance”, those words, always found in every big and small company’s catalog?

At Pinnacle, our criteria are not just numbers defined in ISO, VDI or JIS. Our ultimate standard cannot be valued by numbers, it is our ATTITUDE:

The attitude of endlessly pursuing perfection, first-class before / after sales services, and the most appealing price-performance ratio machines.

Our devotion to technical research is the solid foundation allowing each Pinnacle machine to carry iron clad quality assurance. The proven quality of Pinnacle machines is made to meet your advanced technology needs, especially for your customers in high tech industries.

Our biggest reward is your satisfaction with Pinnacle machines, eventually bringing you remarkable profit and reputation.

General Manager
Allen Hsieh

Taking the LEAD on Technology & Ecology

As a member of the global village, Pinnacle continues to further their technical innovations, the factors of environmental protection are also take into account in our design department.

Pinnacle Criteria
“exceeds your expectation”
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 incoming 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.
5 Axis Machining Center

AX series
- 5-axis machining on small medium sized work pieces.
- GH 4 spindle.
- Integrated 4-axis tilting C Axis uneasy rotate.
- 4-axis tilting (C: -130° to +20°)
- 240° 6-axis tooling
- Table size: (4110 x 2080 x 670 mm)
- Spindle max 4000 rpm direct drive spindle.
- Optional 4-axis 24000 rpm in spindle (Opt.)
- High speed roller linear guideways.

BX series
- 5-axis machining on large or heavy work pieces.
- GH 4 spindle.
- Integrated direct drive axis with rectangular table (GH 4000 GH 6000 GH 8000)
- 8 axis swing: (130° to 120°)
- X axis: 3800 mm
- Standard built-in spindle: 3000 rpm.
- 8 high-speed roller linear guideways.
- 8 axis 3000 rpm Direct Drive spindle.
- GH 3000 GH 4000 GH 5000 GH 6000 GH 8000.
- GH with twin turbine Twin Vertical Turning Center.

DV series
- Immense Strength with One Piece Guide Way.
- GH 4 spindle.
- Machine columns and cross beam are made from one piece Meehanite cast iron.
- Linear guideways deployment on Y axis beam.
- Spindles are all gear head driven.
- Spindle speed range: 8000 rpm.
- X-axis range is 1700~4200 mm.
- Y-axis range is 1400~2100 mm.
- Optional angle head, extension head, boring / milling heads are available.
- Automatic head changer (Opt.)
- Available with Gang type turret or 8-position turret (PK-L105A, Opt.)
- Available with 10-position turret or VDI live tooling turret (PK-L210 Series)
- Y axis (PK-L210CMY) allows versatile milling application.
- 45° slant bed design features optimum force flow performance (PK-L210 Series)
- 0.001° C axis index (PK-L210 Series)
- ISO40 spindle.
- Integrated A-axis tilting and C-axis rotary table.
- A axis tilting: 150° (-120° to +30°)
- C axis rotary: 360°.
- Table size: Ø170 / Ø320 / Ø450 / Ø500.
- 10000 or 12000 / 15000 rpm direct drive spindle (Opt.)
- 20000 rpm or 24000 rpm Built-in spindle (Opt.)
- High speed roller linear guideways.

QV series
- Heavy Duty with Versatility
- GH 4 spindle.
- 4-highways on the machine base for heavy-duty application.
- Material columns and cross beam are made from one piece Meehanite cast iron.
- Linear guideways deployment on Y axis beam.
- Spindles are all gear head driven.
- Spindle speed range: 8000 rpm (ISO40), 6000 rpm (ISO50).
- X/Y range from 1100 x 750 to 2000 x 1600 mm.
- Different spindle configurations for wide selection
  (8th direct drive, 9th direct drive, and geared).
- (X/9th is available with axis 8th Change, Opt.)

SV series
- Classic Vertical Machining Centers
- Available with GH 4 spindle.
- Hardened box guideways.
- Spindle speed range: 4000 rpm (ISO40), 6000 rpm (ISO50).
- X/Y range from 1100 x 750 to 1200 x 1600 mm.
- Different spindle configurations for wide selection.
  (9th direct drive, and geared).
- (X/9th is available with axis 8th Change, Opt.)

DV series
- Immense Strength with One Piece Guide Way.
- GH 4 spindle.
- Machine columns and cross beam are made from one piece Meehanite cast iron.
- Linear guideways deployment on Y axis beam.
- Spindles are all gear head driven.
- Spindle speed range: 8000 -12000 rpm (ISO40),
  6000-8000 rpm (ISO50).
- X / Y ranged from 850 x 560 to 1300 x 610 mm.
- Different spindle configuration for wide selection
  (belt, direct drive, and gearbox).
- (X/9th is available with axis 8th Change, Opt.)

QV series
- Heavy Duty with Versatility
- GH 4 spindle.
- 4-highways on the machine base for heavy-duty application.
- Material columns and cross beam are made from one piece Meehanite cast iron.
- Linear guideways deployment on Y axis beam.
- Spindles are all gear head driven.
- Spindle speed range: 8000 rpm.
- X-axis range is 1700~4200 mm.
- Y-axis range is 1400~2100 mm.
- Optional angle head, extension head, boring / milling heads are available.
- Automatic head changer (Opt.)
- Available with Gang type turret or 8-position turret (PK-L105A, Opt.)
- Available with 10-position turret or VDI live tooling turret (PK-L210 Series)
- Y axis (PK-L210CMY) allows versatile milling application.
- 45° slant bed design features optimum force flow performance (PK-L210 Series)
- 0.001° C axis index (PK-L210 Series)
- ISO40 spindle.
- Integrated A-axis tilting and C-axis rotary table.
- A axis tilting: 150° (-120° to +30°)
- C axis rotary: 360°.
- Table size: Ø170 / Ø320 / Ø450 / Ø500.
- 10000 or 12000 / 15000 rpm direct drive spindle (Opt.)
- 20000 rpm or 24000 rpm Built-in spindle (Opt.)
- High speed roller linear guideways.

PK series
- Easy and Convenient Manual Miller
- Available with R8, NT30 or NT40 spindle.
- Dove tail slideways with hand-scraped Turcite B.
- Slideways are hardened and fine ground.
- Turret type machine head is driven by inverter motor, variable speed changer, or step speed changer.
- Turret type machine head can be swiveled ±45°.
- 45° tilting miller machine (PK-L210 Series) is suitable for heavy load work pieces.
5-AXIS MACHINING CENTER

The main components are made from high quality Meehanite cast iron, which are annealed and stress-relieved before machining. The spindle with entire headstock assembly is counter-balanced by pneumatic system to minimize the column and headstock vibration during acceleration / deceleration.

The 5-axis synchronized machining allows complicated work pieces to be finished in just one setup, and it increases machining efficiency and accuracy, also reduces machining idle time.

Pinnacle AX 320 / AX 450 are your best choices for producing aerospace components, medical equipment and any parts with multiple curved faces.

### SPECIFICATIONS:

<table>
<thead>
<tr>
<th>MODEL</th>
<th>UNIT</th>
<th>AX170</th>
<th>AX320</th>
<th>AX450</th>
<th>AX500</th>
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<td>320</td>
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<tr>
<td>Rotary Table Dia (mm)</td>
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<td>320</td>
<td>320</td>
<td>320</td>
<td>320</td>
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<td>Tilt +A-Axis Range (Degree)</td>
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<td>240°</td>
<td>240°</td>
<td>240°</td>
<td>240°</td>
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<tr>
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<td>240°</td>
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<td>ISO40</td>
<td>ISO40</td>
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<td>20</td>
<td>20</td>
<td>20</td>
<td>20</td>
<td>20</td>
</tr>
</tbody>
</table>

AX series

Flexible application on robust structure simple and compact design to solve your most complicated machining jobs.
Pinnacle BX is the best cost-effective manufacturing investment of 5-axis simultaneously controlled machining centers. It brings positive and instant results by improving machining accuracy and reducing cutting time.

BX500 / BX700 / BX900 is high speed, high accuracy with HEIDENHAIN TNC640 5-axis simultaneously controlled machining centers. Equips 15000rpm built-in spindle, B-axis swivel head ±120°, and C-axis Ø500 / Ø630 / Ø800mm rotary table (Built-in DD C-axis) to optimize machining space and allows complex workpieces to be finished in just one setup and reduces cycle time.

<table>
<thead>
<tr>
<th>SPECIFICATIONS: MODEL</th>
<th>BX300A</th>
<th>BX500A</th>
<th>BX700A</th>
<th>BX900A</th>
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<tbody>
<tr>
<td>X/Y/Z Travel</td>
<td>1140/610/810</td>
<td>1300/610/810</td>
<td>1400/710/810</td>
<td>1500/900/1150</td>
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<td>Rotary Table Dia.</td>
<td>320</td>
<td>500</td>
<td>630</td>
<td>630</td>
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<td>Swiveling B Axis Range</td>
<td>30 (40, 60)</td>
<td>30 (40, 60)</td>
<td>40 (60)</td>
<td>40 (60)</td>
</tr>
<tr>
<td>Rotary C Axis Range</td>
<td>240° (+120°/-120°)</td>
<td>360°</td>
<td>240° (+120°/-120°)</td>
<td>360°</td>
</tr>
<tr>
<td>Spindle Taper</td>
<td>ISO40</td>
<td>ISO40</td>
<td>ISO40</td>
<td>ISO40</td>
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<td>Spindle Speed</td>
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<td>15000</td>
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<td>20 (16, 40), 20 (16, 40), 40 (40), 40 (60), 40 (60), 40 (60)</td>
<td>20 (16, 40), 20 (16, 40), 40 (40), 40 (60), 40 (60), 40 (60)</td>
<td></td>
</tr>
</tbody>
</table>

Built-in C-axis (BX500 / BX700 / BX900): 1. Rotary table surface and standard T-slot table are on the same plane, it accommodates larger and heavier work pieces.
2. Direct drive C-axis (Built-in C-axis).
3. 0.001° minimum position accuracy supported by high rigidity bearing and hydraulic braking system.
4. Permanent magnetic motor provides high torque output and high power to meet different cutting application demands.
5. Turning function as option (BX700T / BX900T)

Utilizing C Axis rotary table can be separated from the machine (BX300A / BX500A / BX700A / BX900A / BX500 / BX700 / BX900): 1. Rotary table surface and standard T-slot table are on the same plane, it accommodates larger and heavier work pieces.
2. Direct drive C-axis (Built-in C-axis).
3. 0.001° minimum position accuracy supported by high rigidity bearing and hydraulic braking system.
4. Permanent magnetic motor provides high torque output and high power to meet different cutting application demands.
5. Turning function as option (BX700T / BX900T)
**DV series**

**Robust structure**

- All major structural parts are manufactured from high quality cast iron with tempering to release stress, ensuring maximum material stability without deformation.
- Box type structural parts are rib reinforced to increase structural strength and rigidity.
- Extra heavy base completely supports the table and resists heavy loads without deformation.

**FEATURES:**

A. Available with Automatic Head Changer and head storage cabinet. The machine is capable of working with 90° head, universal head or extension head (Opt.)

B. The cutting tool change can be automatically changed in vertical or horizontal direction.

C. Applicable with Fork Type (B, C axis) head for 5 face machining.

D. The milling head can be change manually as well.

**DOUBLE COLUMN MACHINING CENTER**

- All major structural parts are manufactured from high quality cast iron with tempering to release stress, ensuring maximum material stability without deformation.
- Box type structural parts are rib reinforced to increase structural strength and rigidity.
- Extra heavy base completely supports the table and resists heavy loads without deformation.

**90° degree head ATC unit**

Two linear guideways on the cross beam are arranged in a perpendicular direction, balancing the optimum rigidity for sustaining cutting forces from Z and X directions. The structure also allows the motion control on Y axis to the best condition.

**DV-14**

The columns and cross beam are made from one piece Meehanite cast iron, offering outstanding support to handle heavy duty cutting.

**Extra large contact surface between column and machine base.**

**SPECIFICATIONS:**

<table>
<thead>
<tr>
<th>MODEL</th>
<th>UNIT</th>
<th>DV-14</th>
<th>DV-17</th>
<th>DV-19</th>
<th>DV-21</th>
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<tr>
<td>X Travel</td>
<td>mm</td>
<td>1700 / 2200 / 3200 / 4200</td>
<td>1700</td>
<td>1900</td>
<td>2100</td>
</tr>
<tr>
<td>Y Travel</td>
<td>mm</td>
<td>1400</td>
<td>1900</td>
<td>2100</td>
<td>2300</td>
</tr>
<tr>
<td>Z Travel</td>
<td>mm</td>
<td>900 / 1500 / 2500</td>
<td>1100</td>
<td>1300</td>
<td>1500</td>
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<tr>
<td>Spindle Taper</td>
<td></td>
<td>ISO40</td>
<td>ISO50</td>
<td>ISO50</td>
<td>ISO50</td>
</tr>
<tr>
<td>Spindle Speed</td>
<td>rpm</td>
<td>10000 (12000)</td>
<td>8000</td>
<td>8000</td>
<td>8000</td>
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<tr>
<td>Auto Tool Changer (Opt.)</td>
<td>piece</td>
<td>40 (24 / 60)</td>
<td>50 (24 / 60)</td>
<td>50 (24 / 60)</td>
<td>50 (24 / 60)</td>
</tr>
</tbody>
</table>

Full Splash Guard (Opt.)
QV series

ALL SPECIFICATIONS AND DESIGNS ARE SUBJECT TO CHANGE WITHOUT NOTICE.

SPECIFICATIONS:

<table>
<thead>
<tr>
<th>MODEL</th>
<th>X/Y/Z Travel</th>
<th>Spindle Taper</th>
<th>Spindle Speed / Belt drive</th>
<th>Spindle Speed / Direct drive</th>
<th>Spindle Speed / Gear drive</th>
<th>Auto Tool Changer (Opt.)</th>
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</thead>
<tbody>
<tr>
<td>QV117</td>
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<td>8000</td>
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<tr>
<td>QV137</td>
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<td>8000 (opt. 10000)</td>
<td>12000</td>
<td>8000</td>
<td>24 (32)</td>
</tr>
<tr>
<td>QV147</td>
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<td>8000</td>
<td>24</td>
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<tr>
<td>QV159</td>
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<tr>
<td>QV179</td>
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<td>6000</td>
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<td>QV209</td>
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<td>6000 (opt. 8000)</td>
<td>6000</td>
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</tbody>
</table>

Box way series

- Box slideways are hardened by high frequency induction with depth of minimum 2 mm. The hardness is over HRC 55.
- The contact sliding surfaces are coated and finely scraped.

Box-driven ISO40 spindle.

Compact design with minimum footprint size accommodates large and heavy work pieces.

- The major structural parts are manufactured from high quality Meehanite cast iron (FC-30), which is stress relieved and aged.
- All axes are equipped with C3 class pre-tensioned ball screws.
- The counter-balance block moves on a guiding shaft for added stability and better cutting finishes.

Four Slideways on Y Axis fully support the x axis from overhanging problem.

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Four Slideways on Y Axis fully support the x axis from overhanging problem.
SV series

SV is designed for extra value and built for optimum performance

The ergonomical structural design

Pinnacle machines are all ergonomically designed to increase the comfort level of the operator, and to reduce the operator’s physical fatigue during long time operation. The distance between table and operator is reduced to the minimum, featuring easy loading and unloading of work pieces.

The hardened box guideways are heat treated with high frequency induction, the hardened depth is more than 2 mm, the surface hardness is higher than HRC 55.

The sliding contact surfaces, flanges of motor seats or ball screw seats are fine scrapped by hand, the standard is at least 12-scrapes per square inch.

Heavy duty

Now you can get the right VMC with the right features for extra heavy-duty machining, superior stability and excellent rigidity. Pinnacle’s box way SV series are quality constructed throughout for maximum performance dependability - year after year. If you expect a VMC that will provide higher machining efficiency to reduce production costs, then consider placing a dependable, heavy-duty Pinnacle SV series in your production line.

SV116 and SV-126 are available with ISO50 spindle (Opt.).

<table>
<thead>
<tr>
<th>SERIES</th>
<th>MODEL</th>
<th>X/Y/Z Travel</th>
<th>Spindle Taper</th>
<th>Spindle Speed / Belt drive</th>
<th>Spindle Speed / Direct drive</th>
<th>AUTO TOOL CHANGER (OPT.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>SV116</td>
<td>SV116</td>
<td>1300 / 610 / 610</td>
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<td>8000 (10000)</td>
<td>12000</td>
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<tr>
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<td>ISO50</td>
<td>6000 / 8000</td>
<td>N/A</td>
<td>24</td>
</tr>
</tbody>
</table>

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<table>
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<tr>
<th>SERIES</th>
<th>MODEL</th>
<th>X/Y/Z Travel</th>
<th>Spindle Taper</th>
<th>Spindle Speed / Belt drive</th>
<th>Spindle Speed / Direct drive</th>
<th>AUTO TOOL CHANGER (OPT.)</th>
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<tr>
<td>SV116</td>
<td>SV116</td>
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<td>ISO50</td>
<td>6000 / 8000</td>
<td>N/A</td>
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<tr>
<th>SERIES</th>
<th>MODEL</th>
<th>X/Y/Z Travel</th>
<th>Spindle Taper</th>
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<th>Spindle Speed / Direct drive</th>
<th>AUTO TOOL CHANGER (OPT.)</th>
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<td>SV126</td>
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<td>ISO50</td>
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</table>

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SV116 and SV-126 are available with ISO50 spindle (Opt.).

<table>
<thead>
<tr>
<th>SERIES</th>
<th>MODEL</th>
<th>X/Y/Z Travel</th>
<th>Spindle Taper</th>
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<tr>
<td>SV116</td>
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<td>ISO50</td>
<td>6000 / 8000</td>
<td>N/A</td>
<td>24</td>
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</tbody>
</table>
**LV series**

Less Friction, More Speed, More Efficiency!

Roller Linear Guideways provide higher cutting efficiency as well as accuracy.

When jobs call for highly efficient machining and when outstanding accuracy is critical, a Pinnacle linear guideway machine is the perfect solution. The three axes move on roller linear guideways that minimize friction, while providing high accuracy of positioning and repeatability.

The LV series has wide range application fields for mass production. It is ideal for small job shops as well. From aluminium, copper or all kinds of alloy, LV is the best choice.

### Specifications:

<table>
<thead>
<tr>
<th>MODEL</th>
<th>LV85</th>
<th>LV105</th>
<th>LV116</th>
<th>LV117</th>
<th>LV126</th>
<th>LV137</th>
<th>LV147</th>
<th>LV159</th>
<th>LV170</th>
<th>LV209</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spindle Speed / Belt drive (rpm)</td>
<td>8000 (10000)</td>
<td>1020 / 560 / 560</td>
<td>1140 / 610 / 610</td>
<td>1140 / 610 / 610</td>
<td>1300 / 710 / 610</td>
<td>1400 / 710 / 610</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Spindle Speed / Direct drive (rpm)</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Spindle Speed / Gear drive (rpm)</td>
<td>8000</td>
<td>8000</td>
<td>8000</td>
<td>8000</td>
<td>8000</td>
<td>8000</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Auto Tool Changer (Opt.)</td>
<td>20 (24)</td>
<td>16 (24)</td>
<td>14 (24)</td>
<td>14 (24)</td>
<td>14 (24)</td>
<td>14 (24)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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

Roller Linear Guideways provide higher cutting efficiency as well as accuracy.
The oil through ball screw function minimizes thermo deformation, increases accuracy and stability.

Table size: 850 x 500
1000 x 500

## LV series
Mold making expert

**LV500**
- High speed cutting on hard material, requires ultra high and stable spindle performance.
- The Pinnacle LV series machine offers either a built-in or direct drive spindle to meet your demands.

### SPECIFICATIONS:

<table>
<thead>
<tr>
<th>MODEL</th>
<th>UNIT</th>
<th>LV500B</th>
<th>LV500D</th>
<th>LV500</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spindle Taper</td>
<td></td>
<td>ISO30</td>
<td>ISO30</td>
<td>ISO30</td>
</tr>
<tr>
<td>Spindle Speed / Belt drive</td>
<td>rpm</td>
<td>8000 / 12000</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Spindle Speed / Direct drive</td>
<td>rpm</td>
<td>N/A</td>
<td>10000 / 15000</td>
<td>10000 / 15000</td>
</tr>
<tr>
<td>Auto Tool Changer (Start</td>
<td>Piece</td>
<td>20</td>
<td>20</td>
<td>20</td>
</tr>
</tbody>
</table>

## LV-APC series
Rapid and reliable

The machine’s compact design features the maximum working space but only requires small footprint size.

Table: 850 x 500
1000 x 500

### SPECIFICATIONS:

<table>
<thead>
<tr>
<th>MODEL</th>
<th>UNIT</th>
<th>LV850APC</th>
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<td>Spindle Taper</td>
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<td>rpm</td>
<td>8000 / 12000</td>
<td>12000 / 15000</td>
</tr>
<tr>
<td>Spindle Speed / Direct drive</td>
<td>rpm</td>
<td>8000 / 12000</td>
<td>12000 / 15000</td>
</tr>
<tr>
<td>Auto Tool Changer</td>
<td>Piece</td>
<td>24</td>
<td>24</td>
</tr>
</tbody>
</table>

### Rotary Type Auto Pallet Changer

- Offers non-stop production efficiency.
- The hydraulic driven mechanism takes only 9 seconds to complete a pallet changing cycle.

### Mold Making Expert

- Rapid and reliable series

## LV500

- Built-in or direct drive spindle
- High speed cutting on hard material, requires ultra high and stable spindle performance.
- The Pinnacle LV series machine offers either a built-in or direct drive spindle to meet your demands.

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<th>UNIT</th>
<th>LV500B</th>
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</tr>
<tr>
<td>Spindle Speed / Belt drive</td>
<td>rpm</td>
<td>8000 / 12000</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Spindle Speed / Direct drive</td>
<td>rpm</td>
<td>N/A</td>
<td>10000 / 15000</td>
<td>10000 / 15000</td>
</tr>
<tr>
<td>Auto Tool Changer (Start</td>
<td>Piece</td>
<td>20</td>
<td>20</td>
<td>20</td>
</tr>
</tbody>
</table>

## LV500D

- Built-in or direct drive spindle
- High speed cutting on hard material, requires ultra high and stable spindle performance.
- The Pinnacle LV series machine offers either a built-in or direct drive spindle to meet your demands.

### SPECIFICATIONS:

<table>
<thead>
<tr>
<th>MODEL</th>
<th>UNIT</th>
<th>LV500D</th>
<th>LV500D</th>
<th>LV500D</th>
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<tbody>
<tr>
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<td>ISO30</td>
<td>ISO30</td>
<td>ISO30</td>
</tr>
<tr>
<td>Spindle Speed / Belt drive</td>
<td>rpm</td>
<td>8000 / 12000</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Spindle Speed / Direct drive</td>
<td>rpm</td>
<td>N/A</td>
<td>10000 / 15000</td>
<td>10000 / 15000</td>
</tr>
<tr>
<td>Auto Tool Changer (Start</td>
<td>Piece</td>
<td>20</td>
<td>20</td>
<td>20</td>
</tr>
</tbody>
</table>
A dependable source for outstanding machinery to compliment your workforce

HORIZONTAL MACHINING CENTER

OPTIMAL STRUCTURE DESIGN

- Fixed Column structure.
- 40-tool Chain type ATC is standard.
- The most compact sized horizontal machining center compared to same models of other manufacturers.

The Automatic Tool Changer unit is seated on column base, the unique design prevents the mass of ATC from bending the machine column.

### SPECIFICATIONS

<table>
<thead>
<tr>
<th>MODEL</th>
<th>LH500A</th>
<th>LH500B</th>
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<tbody>
<tr>
<td>X/Y/Z Travel</td>
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<td>650/560/560</td>
</tr>
<tr>
<td>Spindle Taper</td>
<td>ISO40</td>
<td>ISO40</td>
</tr>
<tr>
<td>Pallet Size</td>
<td>500 x 500 x 1 piece</td>
<td>500 x 500 x 2 pieces</td>
</tr>
<tr>
<td>Spindle Speed</td>
<td>8000 rpm</td>
<td>8000 rpm</td>
</tr>
<tr>
<td>Spindle Speed / Belt drive</td>
<td>8000 / 10000 rpm</td>
<td>8000 / 10000 rpm</td>
</tr>
<tr>
<td>Auto Tool Changer</td>
<td>40</td>
<td>40</td>
</tr>
</tbody>
</table>

All specifications and designs are subject to change without notice.

APC Time: 8 Seconds
HEAVY DUTY RIGID DESIGN AND CONSTRUCTION

Rigid Meehanite cast iron construction provides consistent, deformation-free precision machining.

EXCELLENT FEATURES:

- Outstanding reliability for precision parts machining.
- Extra-wide and solid slideways assure maximum rigidity.
- Flexible combinations are ideal for production suitable for a wide variety of applications, such as: 3C parts, medical equipment components, automotive parts and optical materials.
- Powerful spindle motor and a capacity of 65/77 mm for bars that greatly increases machining options.
- Extra efficient chip collection and water drainage is achieved with the 45º slant design.

RIGID SPINDLE

- Supported by superior precision high speed angular ball bearings to provide extra wide range machining capacity and increase rigidity, as well as extend spindle bearing life.

10-POSITION SERVO TURRET

- The rigid turret features outstanding stability while turning.
- The turret can be mounted with 25 x 25 mm. O.D. tools and 40 mm. boring tools.

HYDRAULIC CHUCK

- The hydraulic chuck is controlled by a foot switch for efficient and convenient operations.

An Uncompromising Approach to more productive parts turning

CNC Turning Center

The Pinnacle Flat Bed CNC Turning Center is designed and built with one thought in mind that customers have come to expect. It delivers high productivity, accuracy and exceptional surface finish. The CNC turning center features up to 6,000 rpm variable spindle speed and a high stock removal rate. A combination of turret and gang type tool slide provides the most versatile turning applications. It is a perfect tool that assures greater productivity, lower parts cost and really cuts machining downtime for more profitable production.

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PK-B3K
- BT40 spindle
- Maximum 8000 rpm
- 5.5 kW spindle motor
- Cusal type ATC with 16 tools capacity
- Bed type structure
- Optional full guarding

PK-FV3
- The spindle is driven by high power 5HP inverter motor
- Large table NT#40 spindle surface
- X and Y axes are driven by inverter motors
- Oversized box guideways on machine column ensures rigid and stable Z-axis movement

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:

<table>
<thead>
<tr>
<th>MODEL</th>
<th>X/Y/Z Travel (mm)</th>
<th>Table Size (mm)</th>
<th>Spindle Taper</th>
<th>Spindle Motor</th>
<th>Spindle Speed (rpm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>PK-B3K</td>
<td>1020 / 510 / 510</td>
<td>1524 x 305</td>
<td>NT#40</td>
<td>5 / Induction</td>
<td>Inverter Variable 4200</td>
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<tr>
<td>PK-FV3</td>
<td>800 / 400 / 380</td>
<td>1524 x 305</td>
<td>NT#40</td>
<td>5 / Inverter</td>
<td>4200</td>
</tr>
<tr>
<td>PK-GRSM-V</td>
<td>900 / 380 / 380</td>
<td>1372 x 254</td>
<td>NT#40</td>
<td>5 / Inverter</td>
<td>4200</td>
</tr>
</tbody>
</table>

PK series

PK-B3K CNC
- 3 axes are driven by inverter motors
- High rigidity NT#40 spindle
- 5 HP high power spindle motor
- Fine-ground T-slots
- Bed type structure suitable for heavy work pieces
- Sideways are hardened

PK-FV3
- 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

PK-GRSM-V2
- 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:

<table>
<thead>
<tr>
<th>MODEL</th>
<th>X/Y/Z Travel (mm)</th>
<th>Table Size (mm)</th>
<th>Spindle Taper</th>
<th>Spindle Motor</th>
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</thead>
<tbody>
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<td>PK-B3K</td>
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<td>NT#40</td>
<td>5 / Induction</td>
<td>Inverter Variable 4200</td>
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<tr>
<td>PK-FV3</td>
<td>900 / 380 / 380</td>
<td>1372 x 254</td>
<td>NT#40</td>
<td>5 / Inverter</td>
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<tr>
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PK-B3K CNC
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- 5 HP high power spindle motor
- Fine-ground T-slots
- Bed type structure suitable for heavy work pieces
- Sideways are hardened

PK-FV3
- The spindle is driven by high power 5HP inverter motor
- Large table NT#40 spindle surface
- X and Y axes are driven by inverter motors
- Oversized box guideways on machine column ensures rigid and stable Z-axis movement

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

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<tr>
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