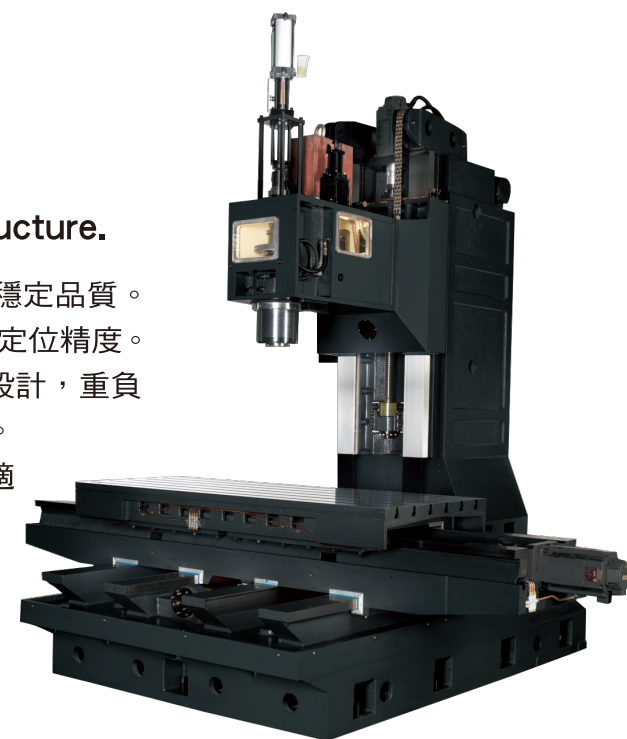


## VB-158/178/208系列

### 高剛性、高精度的結構設計

High rigid and High precision machine structure.

- 高強度機身設計，採用高品質鑄鐵組織穩定，確保穩定品質。
- 三軸採硬軌設計，可支撐重負荷，移動過程中，確保定位精度。
- 寬厚的底座設計，立柱採箱體設計，鞍座加寬加長設計，重負荷全支撐，結構堅實，可確保加工時之重負荷能力。
- 主軸頭強化肋結構設計，頭部與立柱支撐細長比例適當，提供主軸穩固的支撐。



VB-158/178/208 鑄件 ▲  
VB-158/178/208 cast iron

## VB-158/178/208 Series

- High-strength body design with high-quality cast iron construction to ensure the stable quality.
- 3 axial adopted box-type design to support heavy loads and ensure positioning accuracy during moving.
- Wide and solid based, column adopted box-type design, Saddle lengthened and widened, heavy-duty full support, solid structure to ensure heavy load capacity during processing.
- The spindle head is with rib reinforcement structure design, Spindle head and Column with perfect proportion to provide a stable support of the spindle.



▲ VB-208 (圖示排屑機為選項)  
VB-208 ( The chain type chip conveyor is an option.)

| 標準配備         | STANDARD ACCESSORIES                      | 選購配備                 | OPTIONAL ACCESSORIES                            |
|--------------|---|----------------------|---|
| ● 剛性攻牙       | ● Rigid tapping                           | ● 12,000rpm皮帶式/直結式主軸 | ● 12000 rpm belt type/direct-drive type spindle |
| ● 主軸吹氣裝置     | ● Spindle air blast device                | ● 齒輪式主軸頭 (BT-50)     | ● Gear type spindle head(BT-50)                 |
| ● 電氣箱熱交換器    | ● Heat exchanger                          | ● 鍊板式排屑機+鐵屑車         | ● Chain type chip conveyor with chip cart       |
| ● 自動潤滑系統     | ● Automatic lubrication unit              | ● 5bar 後沖高壓幫浦        | ● 5 bar high pressure pump                      |
| ● 主軸油冷機      | ● Spindle oil cooler                      | ● 第四軸旋轉工作台           | ● 4th axis rotary table                         |
| ● 冷卻系統與水箱    | ● Cooling system and coolant tank         | ● 電氣箱冷氣機             | ● Air condition for electrical cabinet          |
| ● 工作燈        | ● Work lamp                               | ● 主軸中心出水             | ● Coolant through spindle(CTS)                  |
| ● 地基螺栓與墊塊    | ● Foundation bolts and blocks             | ● 刀長量測               | ● Tool length measurement                       |
| ● 工具箱與工具     | ● Tool box with tools                     | ● 變壓器                | ● Transformer                                   |
| ● 操作與維護保養手冊  | ● Operation and maintenance manual        |                      |   |
| ● 側邊沖屑       | ● Coolant flush device                    |                      |   |
| ● 水槍         | ● Water gun                               |                      |   |
| ● 螺旋式排屑機+鐵屑車 | ● Screw type chip conveyor with chip cart |                      |   |

## VB-158/178/208 系列規格表 Specification

| 機型Model  | Unit   | VB-158    | VB-178     | VB-208       |       |       |       |
|--|--------|-----------|------------|--------------|-------|-------|-------|
| 行程 Travel  |        |           |            |              |       |       |       |
| X軸行程 X axis travel   | mm     | 1500      | 1700       | 2000         |       |       |       |
| Y軸行程 Y axis travel   | mm     |           | 850        |              |       |       |       |
| Z軸行程 Z axis travel   | mm     |           | 750        |              |       |       |       |
| 主軸鼻端至工作台面距離<br>Distance between spindle nose to table face | mm     |           | 150-900    |              |       |       |       |
| 工作 台 Work Table  |        |           |            |              |       |       |       |
| 工作台尺寸 Table size   | mm     | 1700x700  | 1900x800   | 2100x800     |       |       |       |
| T 型槽 T-Slot  | mm     |           | 22*6*125mm |              |       |       |       |
| 最大載重<br>Max. loading capacity                              | kgs    | 1800      | 2200       | 2400         |       |       |       |
| 主 軸 Spindle  |        |           |            |              |       |       |       |
| 主軸錐度 Spindle taper   |        | BT-40     | BT-50      | BT-40        | BT-50 | BT-40 | BT-50 |
| 主軸轉速 Spindle speed   | rpm    | 10000     | 6000       | 10000        | 6000  | 10000 | 6000  |
| 主軸馬達 Spindle motor   | kW     |           |            | 15/18.5      |       |       |       |
| 主軸驅動方式 Spindle driven type                                 |        |           |            | 皮帶式Belt type |       |       |       |
| 進 給 速 度 Feed Rate  |        |           |            |              |       |       |       |
| 三軸快速位移<br>Rapid Traverse Speed of X/Y/Z axis               | m/min. |           |            | 15/15/12     |       |       |       |
| 最大切削進給<br>Max.cutting feed rate of X/Y/Z axis              | m/min. |           |            | 10           |       |       |       |
| 三軸馬達 Servo motor of X/Y/Z axis                             | kW     |           |            | 4.5/4.5/4.5  |       |       |       |
| 自 動 換 刀 Automatic Tool Changer                             |        |           |            |              |       |       |       |
| 換刀方式 ATC type  |        |           |            | 刀臂式 Arm Type |       |       |       |
| 刀庫容量 Tool capacity   | pcs    |           |            | 24T          |       |       |       |
| 刀具最大直徑 Max. tool diameter                                  | mm     | 80        | 127        | 80           | 127   | 80    | 127   |
| 刀具最大長度 Max. tool length                                    | mm     | 350       | 400        | 350          | 400   | 350   | 400   |
| 刀具最大重量 Max. Tool weight                                    | kg     | 7         | 15         | 7            | 15    | 7     | 15    |
| 換刀時間(刀對刀)<br>Tool change time (T to T)                     | sec    | 1.8       | 3.2        | 1.8          | 3.2   | 1.8   | 3.2   |
| 其 它 Other  |        |           |            |              |       |       |       |
| 佔地面積(長x寬)<br>Machine dimension (LxW)                       | mm     | 4250x3030 | 4450x3030  | 4800x3030    |       |       |       |
| 機台高度 Machine height  | mm     |           | 3200       |              |       |       |       |
| 機台淨重 Machine net weight                                    | kg     | 12800     | 13000      | 13800        | 14000 | 14800 | 15000 |
| 所需電源容量 Total required power                                | kVA    | 35        | 40         | 35           | 40    | 35    | 40    |

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\*We reserve the right to modify the design and specifications without notice in advance.

## SHINZAWA

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# SHINZAWA

## 震澤精機



## VB series

Vertical Machining Center  
立式綜合加工機

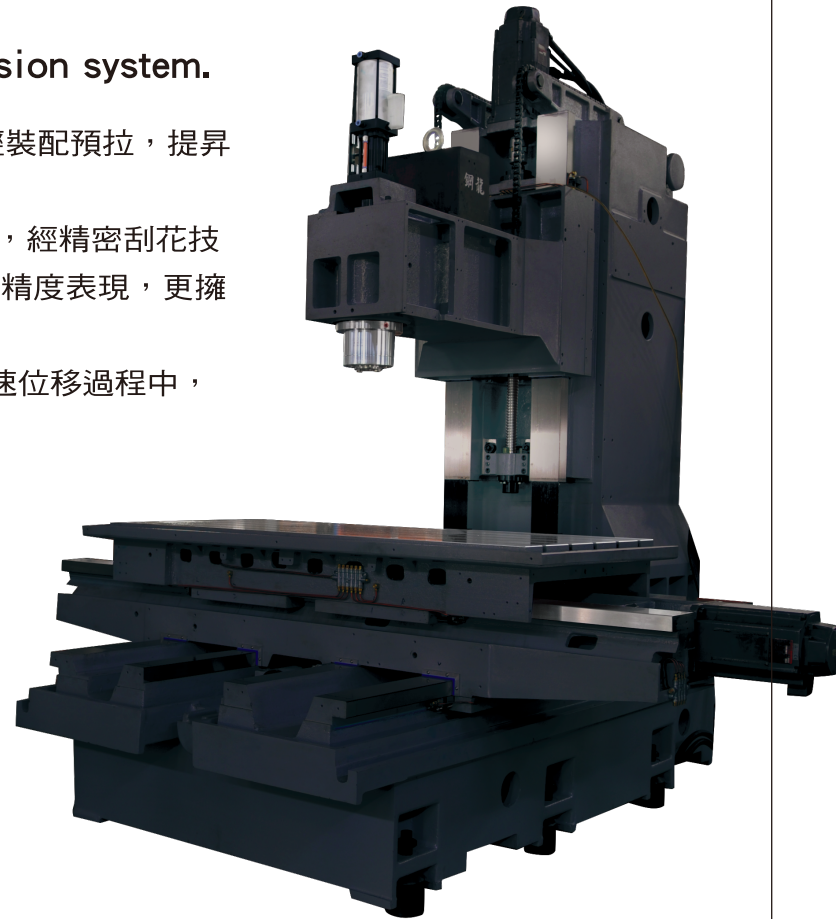


## VB-127/147/157系列

### 高速、高精度的傳動系統

#### High speed, High precision transmission system.

- 三軸馬達與C3級精密螺桿採直接傳動，並經裝配預拉，提昇整體剛性與精度。
- 三軸硬軌結合面配合低摩擦係數的Turcite-B，經精密刮花技術、滑道接觸面點均勻分佈獲得優越持久的精度表現，更擁有良好切削吸振能力。
- Z軸上下搭配中央配重導引設計，主軸在快速位移過程中，讓配重不致產生鐘擺撞擊現象，保持加工過程精度的穩定性。



▲ VB-127/147/157 鑄件-皮帶頭  
VB-127/147/157 cast iron – belt type spindle head



▲ 高強度齒輪頭部(選配)  
High rigidity gear type spindle head (optional)

## VB-127/147/157 Series

- 3 axial motor and C3 grade precision ball screw adopted directly driven, assembled by pre-tensioning to improve overall rigidity and accuracy.
- The 3 axial box-type binding face is matched with the Turcite-B with low friction coefficient. Through the precision scraping technology, the contact points of the slide are evenly distributed. Superior and long-lasting precision performance with better cutting vibration absorption capacity
- The Z-axis up/down equipped with the central counter weight design, so when the spindle is in the process of rapid displacement, the counterweight does not cause the pendulum impact phenomenon, and to keep the stability of the machining process.

| 標準配備         | STANDARD ACCESSORIES                      | 選購配備                            | OPTIONAL ACCESSORIES                            |
|--------------|---|---------------------------------|---|
| ● 剛性攻牙       | ● Rigid tapping                           | ● 12,000rpm皮帶式/直結式主軸            | ● 12000 rpm belt type/direct-drive type spindle |
| ● 主軸吹氣裝置     | ● Spindle air blast device                | ● 齒輪式主軸頭 (BT-50, 6000rpm, 15kW) | ● Gear type spindle head (BT-50,6000rpm,15kW)   |
| ● 全密閉式護罩     | ● Fully enclosed splash guard             | ● 5bar後沖高壓幫浦                    | ● 5 bar high pressure pump                      |
| ● 電氣箱熱交換器    | ● Heat exchanger                          | ● 第四軸旋轉工作台                      | ● 4th axis rotary table                         |
| ● 自動潤滑系統     | ● Automatic lubrication unit              | ● 電氣箱冷氣機                        | ● Air condition for electrical cabinet          |
| ● 主軸油冷機      | ● Spindle oil cooler                      | ● 主軸中心出水                        | ● Coolant through spindle(CTS)                  |
| ● 冷卻系統與水箱    | ● Cooling system and coolant tank         | ● 刀長量測                          | ● Tool length measurement                       |
| ● 工作燈        | ● Work lamp                               | ● 變壓器                           | ● Transformer                                   |
| ● 地基螺栓與墊塊    | ● Foundation bolts and blocks             |                                 |   |
| ● 工具箱與工具     | ● Tool box with tools                     |                                 |   |
| ● 操作與維護保養手冊  | ● Operation and maintenance manual        |                                 |   |
|              | ● Coolant flush device                    |                                 |   |
| ● 側邊沖屑       | ● Water gun                               |                                 |   |
| ● 水槍         | ● Screw type chip conveyor with chip cart |                                 |   |
| ● 螺旋式排屑機+鐵屑車 |   |                                 |   |

## VB-127/147/157 系列規格表 Specification

| 機型Model  | Unit   | VB-127       | VB-147  | VB-157    |         |           |         |
|--|--------|--------------|---------|-----------|---------|-----------|---------|
| 行程 Travel  |        |              |         |           |         |           |         |
| X軸行程 X axis travel   | mm     | 1200         | 1400    | 1500      |         |           |         |
| Y軸行程 Y axis travel   | mm     | 720          |         |           |         |           |         |
| Z軸行程 Z axis travel   | mm     | 610          | 680     | 610       | 680     | 610       | 680     |
| 主軸鼻端至工作台面距離<br>Distance between spindle nose to table face | mm     | 150~760      | 150~830 | 150~760   | 150~830 | 150~760   | 150~830 |
| 工作台 Work Table   |        |              |         |           |         |           |         |
| 工作台尺寸 Table size   | mm     | 1350x700     |         | 1550x700  |         |           |         |
| T型槽 T-Slot   | mm     | 18*5*130mm   |         |           |         |           |         |
| 最大載重<br>Max. loading capacity                              | kgs    | 1400         | 1500    | 1500      |         |           |         |
| 主軸 Spindle   |        |              |         |           |         |           |         |
| 主軸錐度 Spindle taper   |        | BT-40        | BT-50   | BT-40     | BT-50   | BT-40     | BT-50   |
| 主軸轉速 Spindle speed   | rpm    | 10000        | 6000    | 10000     | 6000    | 10000     | 6000    |
| 主軸馬達 Spindle motor   | kW     | 15/18.5      |         |           |         |           |         |
| 主軸驅動方式 Spindle driven type                                 |        | 皮帶式Belt type |         |           |         |           |         |
| 進給速度 Feed Rate   |        |              |         |           |         |           |         |
| 三軸快速位移<br>Rapid Traverse Speed of X/Y/Z axis               | m/min. | 15/15/12     |         |           |         |           |         |
| 最大切削進給<br>Max. cutting feed rate of X/Y/Z axis             | m/min. | 10           |         |           |         |           |         |
| 三軸馬達 Servo motor of X/Y/Z axis                             | kW     | 4.0/4.0/4.0  |         |           |         |           |         |
| 自動換刀 Automatic Tool Changer                                |        |              |         |           |         |           |         |
| 換刀方式 ATC type  |        | 刀臂式 Arm Type |         |           |         |           |         |
| 刀庫容量 Tool capacity   | pcs    | 24T          |         |           |         |           |         |
| 刀具最大直徑 Max. tool diameter                                  | mm     | 80           | 127     | 80        | 127     | 80        | 127     |
| 刀具最大長度 Max. tool length                                    | mm     | 350          | 400     | 350       | 400     | 350       | 400     |
| 刀具最大重量 Max. Tool weight                                    | kg     | 7            | 15      | 7         | 15      | 7         | 15      |
| 換刀時間(刀對刀)<br>Tool change time (T to T)                     | sec    | 1.8          | 3.2     | 1.8       | 3.2     | 1.8       | 3.2     |
| 其它 Other   |        |              |         |           |         |           |         |
| 佔地面積(長x寬)<br>Machine dimension (LxW)                       | mm     | 3490*3030    |         | 3690*3030 |         | 3800*3030 |         |
| 機台高度 Machine height  | mm     | 2685         |         |           |         |           |         |
| 機台淨重 Machine net weight                                    | kg     | 9700         | 10200   | 10000     | 10500   | 11000     | 12000   |
| 所需電源容量 Total required power                                | kVA    | 30           |         |           |         |           |         |

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