Hisen Machinery

CNC 6 SIDES DRILLING MACHINE

SHZ612BT

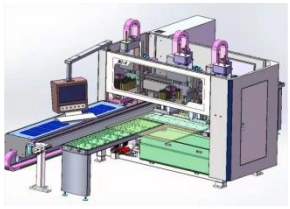
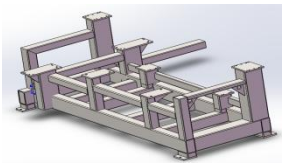
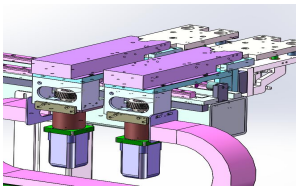
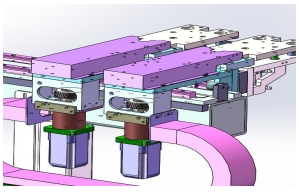
1. Processing Techniques and Capacity

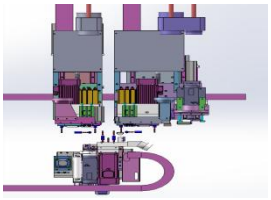
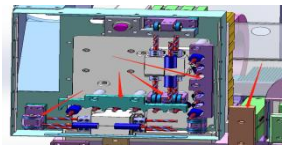
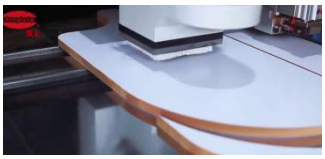
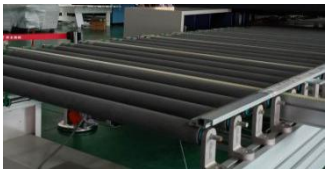
Capable of processing:

- Handle grooves
- Through holes
- Layered holes
- Through grooves
- Blind grooves
- Hinge holes
- Guide holes
- Three-in-one connectors
- Two-in-one connectors
- Handle-less furniture components




2. Main Functions and Diagram

No	Unit	Function	Pic
1	Main Structure	High-quality steel with high-density welding technology and annealing treatment ensures stability and durability of the main structure.	
2	Long Machine Hand Guide Rail:	Extra-long X-axis track (5 meters) reduces the number of gripper switches during processing of long workpieces, improving efficiency.	
3	Electrical Control System:	Adopts internationally advanced bus control and digital modules with large storage capacity, high-speed processing capability, and reliable stability.	
4	Operating Interface	Simple and intuitive panel display, safe and reliable control methods. Includes guided operations and fault alarm troubleshooting. Allows editing of cutting plans and simulates cutting. Compatible with various optimization, barcode management, and automation software.	
5	Servo System	Equipped with high-performance absolute servo motors for precise and fast execution of control commands, ensuring efficient cutting.	
6	Double Gripper Floating Structure	Reduces gripper switching frequency and cumulative errors during long workpiece processing. Paired with an extended X-axis rail, this greatly enhances accuracy and efficiency. The floating gripper prevents scratching, further improving precision.	

7	Double Drill Pack	Equipped with 18 vertical and 8 horizontal drilling spindles and 2 high-speed main spindles. Completes six-sided drilling, grooving, and profiling in one cycle with high efficiency and stability.	
8	Auxiliary Pressing Device	Ensures stable positioning of panels and higher drilling accuracy.	
9	Main Spindle Auxiliary Pressing Plate Device	Specially designed contact surface avoids scratching the workpiece during X/Y-axis machining.	
10	Precision Linear Guide Rail	Square linear guide rail with low-noise design, high precision, smooth operation, durability, and a long service life.	
11	Discharge Platform	Optional discharge platform ensures stable auxiliary drilling operations, with quick lifting and smooth sliding. Offers multiple discharge options, including side, rear, or front. Supports seamless integration with automated systems for enhanced convenience.	

3.Basic Operations of the Six-Sided CNC Drilling Machine

1. Turn on the machine and start the industrial control computer.
2. Place the workpiece on the pneumatic floating ball platform.
3. Use a barcode scanner to read the label on the workpiece to activate the machine's standby mode.
4. Position the workpiece as guided by the computer and press the automatic processing button.
5. The X-axis and U-axis grippers automatically move the workpiece to the set position.

6. The Y-axis and V-axis mechanisms move the Z-axis and V-axis drill boxes to the designated positions. The Z-axis and V-axis drill boxes, equipped with various drills (vertical, horizontal, and milling), perform drilling operations according to the program, including top, bottom, left, right, front, and rear drilling.

4. Machine Bed Structure

The machine bed consists of a lower guide rail base, an upper guide rail base, rear and front columns, and a bed door panel. The rear column supports the upper and lower guide rail bases at the rear, while the front column does the same at the front. Both the upper and lower guide rail bases feature servo-driven lead screws, aligned vertically.

5. Key Features

1. One-time data **input** allows barcode scanning for processing without flipping or secondary operations. Automatic discharge and manual sorting improve efficiency.
2. Side drill pressure wheels, vertical pressure plates, and bottom supports ensure stable panel positioning and precise drilling.
3. Supports multiple data formats such as BAN, DXF, XML, MPR, and BD, compatible with mainstream software.
4. Upper and lower spindles can process symmetrical grooves simultaneously.
5. The six-sided CNC drilling machine adopts automatic clamping to hold and move panels, eliminating the need for suction-based fixation and ensuring greater stability.

6.SPECIFICATION

No	Item	
1	Model	SKZ612BT
2	Equipment Size	5500*2750*2300mm
3	Total Power	22kw
4	Machine Weight	4000kg
5	Processing Workpiece Length	80-3050mm
6	Processing Workpiece Width	30-1200mm
7	Processing Board Thickness	10-60mm
8	Maximum X-Axis Speed	150m/min

9	Maximum Y-Axis Speed	100m/min
10	Maximum Z-Axis Speed	45m/min
11	Vertical Drills (Upper Group)	9 支*2
12	Horizontal Drills (Upper Group)	8 支*2
13	Vertical Drills (Lower Group)	9 支
14	Drill Pack Power	2.2kw*3
15	Milling Spindle Type	Er3
16	Milling Spindle Speed	18000r/min
17	Milling Spindle Power	上铣刀 6KW,下铣刀 3.5KW
18	Worktable Height	900mm
19	Dust Collection Port Diameter	200mm、100mm
20	Operating Voltage	380V 50Hz
21	Operating Air Pressure	0.6-0.8MPa

7. Software Description

The software not only allows manual input of drilling data but also features intelligent data import and remote network transmission capabilities. It includes practical functions such as order design, order splitting optimization, layout optimization, and barcode printing.

The software is compatible with various platforms, including 3vjia, Huaguan, Kujiale, 1010, Welon, Haixun, Yunxi, Shangchuan, and other design software. Workers can operate the equipment by simply scanning the barcode and positioning the workpiece, enabling one-click operation. Typically, only two hours of training are required to get started.