HELEX

PRECISION BY DESIGN

CNC DRILLING SERIES

Six-Sided CNC Drilling and Grooving Machine

Drilling of panel components on both faces and all four edges, with grooving and routing by the upper routing spindle, barcode identification and automatic positioning.

MODEL HE 1200 D6

6 sides	**5000** mm	**130** m/min	**29**
IN ONE CYCLE	X-AXIS TRAVEL	X-AXIS TRAVEL SPEED	DRILLING SPINDLES



/ Application & Use

The HELEX HE 1200 D6 is designed to drill panel-based furniture components on both main faces and all four edges. It drills the holes for furniture assembly fittings; grooving and routing are carried out by the upper routing spindle. Panels are identified by a wireless barcode scanner and positioned automatically by the clamping and feed system. Available operations and machining limits are defined for the configuration offered.

The machine is intended for the production of panel furniture; file compatibility and any production-line integration are checked for the required application.

Key Features

- Heavy-duty gantry construction
- Wireless barcode identification of the panels
- Panel clamps with automatic positioning and feed
- Integrated CAM software; DXF, MPR and XML import via supported interfaces
- Upper routing spindle for grooving and routing
- Dust extraction hoods with brush skirts at both drilling units
- Steel worktable
- Automatic centralised lubrication

Panel Materials

- Melamine faced chipboard and raw chipboard
- MDF and HDF, lacquered and foiled panels
- Plywood and blockboard
- Standard and shaped panels

Working Range

- Panel width up to 1220 mm; maximum length confirmed before quotation
- Minimum panel size 40 x 180 mm
- X-axis travel 5000 mm, Y-axis 1500 mm, Z-axis 200 mm
- Drilling on both faces and all four edges
- Thickness range confirmed before quotation



Front view: control panel, infeed table and enclosed machining area

/ Structure and Configuration

The machine is built from six functional groups. The axes are servo driven, with planetary gearboxes, ground helical racks and hardened linear guides.

1. **Machine bed and gantry**
   Heavy-duty frame and gantry carrying the upper drilling and routing unit over the working length.

2. **Upper drilling unit**
   Twelve vertical and eight horizontal drilling spindles alongside a 6 kW air-cooled routing spindle, which carries out grooving and routing.

3. **Lower drilling unit**
   Nine vertical drilling spindles and a 3.5 kW air-cooled electrospindle for the underside of the panel; the function and working range of the lower electrospindle are confirmed during configuration.

4. **Panel clamps**
   Clamps hold the panel and, together with the feed system, position it automatically for machining.

5. **Steel worktable**
   Worktable on which the panel is positioned and fed after barcode identification.

6. **Drive and control cabinet**
   Servo drives, industrial electrical components and automatic centralised lubrication. The dust extraction equipment is specified in the quotation.



Upper drilling unit with vertical and horizontal spindles and milling spindle



Panel clamps on the worktable

/ Working Sequence

1. Barcode identification

The panel label is read with the wireless scanner and the corresponding program is called.

2. Loading and positioning

The panel is positioned automatically by the clamping and feed system.

3. Clamping

The panel clamps hold the panel during machining.

4. Drilling

The upper and lower units drill both main faces and the four edges.

5. Grooving and routing

The upper routing spindle grooves and routes the panel.

6. Discharge

The finished panel leaves the machine on the outfeed roller table.

/ Control and Software

The machine is operated from an industrial CNC control system with integrated CAM software and DXF, MPR and XML import via supported interfaces. File compatibility and any production-line integration are checked for the required application.



Drilling unit with brush-skirted dust extraction hood above the panel



Dust extraction hoods and clamping system



Rear view with roller table and panel

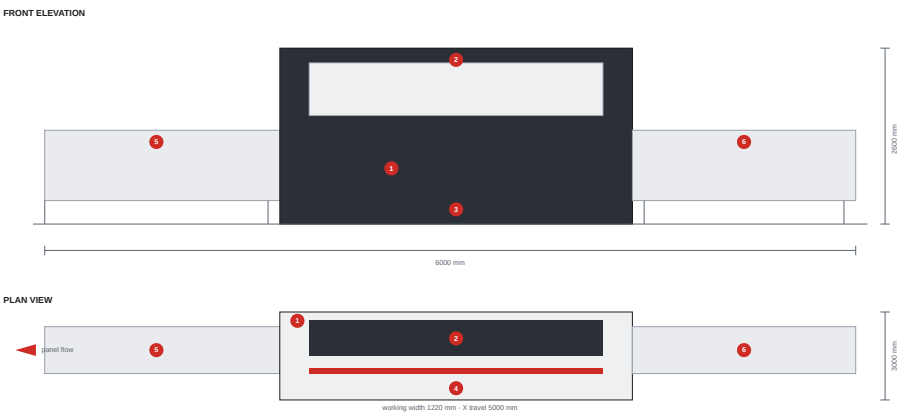
/ Technical Data

Model	HE 1200 D6
Type	**Six-sided CNC drilling machine, through-feed**
X-axis travel	**5000 mm**
Y-axis travel	**1500 mm**
Z-axis travel	**200 mm**
Travel speed, X axis	**130 m/min**
Travel speed, Y axis	**80 m/min**
Travel speed, Z axis	**15 m/min**
Maximum panel width	**1220 mm**
Minimum panel size	**40 x 180 mm**
Worktable	**Steel**
Overall dimensions	**6000 x 3000 x 2600 mm**
Net weight	**4200 kg**

Working units	Configuration
Upper drilling unit	**12 vertical + 8 horizontal spindles**
Lower drilling unit	**9 vertical spindles**
Upper routing spindle	**6 kW, air cooled**
Lower electrospindle	**3.5 kW, air cooled**
Drive system	**Servo-driven axes; planetary gearboxes**
Racks and guides	**Ground helical racks, hardened linear guides**
Panel identification	**Wireless barcode scanner**
Data formats	**DXF, MPR, XML via supported interfaces**
Dust extraction	**Hoods with brush skirts at both drilling units**
Lubrication	**Automatic, centralised**
Electrical supply / compressed air	**380 V / 50 Hz; min. pressure 0.65 MPa (6.5 bar)**

Data as stated in the technical documentation of the machine. The supplied configuration, dust extraction equipment and installation requirements are specified in the quotation. The diagram is indicative, from the overall dimensions only; it is not an installation plan. Technical changes reserved.

/ Indicative Overall Dimensions Diagram



1 Machine bed and gantry
2 Upper drilling unit
3 Lower drilling unit
4 Panel clamps
5 Infeed table
6 Outfeed roller table / cabinet

SUPPLIER

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