

WPT-300

Triple-sided drilling machine for use in process lines WPT-300

The WPT-300 drilling machine has been designed to work in automated machining lines, which is reflected by its design allowing the workpieces to pass through the machine as they are processed. It can also operate as a free-standing unit. The drilling machine is intended for making openings for pegs in wood, particle boards and wood-derived materials.

WPT-300 description

The drilling machine's frame comprises two gates joined together with two vertical beams. The bottom beam carries the vertical units installed on linear bearings and the right-hand horizontal unit. The top beam supports the clamping mechanisms.

The left-hand horizontal unit is permanently fixed to one of the gates. Each horizontal drilling unit comprises a body, a head, spindles installed using ball bearings, a flexible coupling and two motors.

The vertical drilling unit is equipped with two independent sliding motors with rotary heads. Drills are installed in spindle mounts. The spindles use rolling bearings and are powered with electric motors via flexible couplings. The feed of the units is controlled using pneumatic actuators.

The drilling units with heads are installed on two guides, which allows for positioning them at the desired distance from one another. The feeders and the workpiece clamping system are installed together with the side units. After processing, the workpieces are transported out of the machine using a belt conveyor.

Specifications

NUMBER OF VERTICAL DRILLING UNITS	4
NUMBER OF HORIZONTAL DRILLING UNITS	2
NUMBER OF SPINDLES IN THE HEAD OF A HORIZONTAL UNIT	23
NUMBER OF SPINDLES IN THE HEADS OF VERTICAL UNITS	2 X 11
SPINDLE SPACING PITCH	32 MM
DISTANCE BETWEEN SPINDLES OF A HORIZONTAL UNIT	704 MM
MINIMUM DISTANCE BETWEEN VERTICAL UNITS	160 MM
DISTANCE BETWEEN HORIZONTAL UNITS	250-2925 MM
WORKPIECE WIDTH	200-800 MM
MAXIMUM WORKPIECE THICKNESS	40 MM
MAXIMUM SPINDLE AXIS HEIGHT IN EACH UNIT	35 MM
FEED CYLINDER TRAVEL	70 MM
MAXIMUM DRILLING DIAMETER	12 MM
DRILLS INSTALLED IN QUICK-RELEASE MOUNTS	10 MM
SPINDLE ROTARY SPEED	2000 RPM
MOTOR (UNITS)	12 X 0.75 KW
MOTOR (FEEDER)	2 X 0.37 KW
WORKPIECE FEEDING RATE	40 M/MIN
ONE-STEP DRILLING CYCLE DURATION	3-6 S
TWO-STEP DRILLING CYCLE DURATION	4-8 S
REQUIRED AIR PRESSURE	0.4-0.6 MPA
COMPRESSED AIR DEMAND	76 M3/H
POWER SUPPLY VOLTAGE	400V, 50 HZ
DIMENSIONS WITHOUT FEEDERS (LENGTH X WIDTH X HEIGHT)	4800 X 2000 X 1850
WEIGHT	3500 KG