

HSM 180 CNC

HIGH SPEED MILLING MACHINES

BASIC TECHNICAL SPECIFICATIONS

| | |
|----------------------|----------------|
| Power of main drive: | 70 kW |
| CNC axes: | Up to five (5) |

PURPOSE

The HSM 180 CNC High-Speed Milling Machine is the CNC Planer Mill designed for dynamic machining of the complex workpieces, particularly those made of aluminium alloys.

The HSM 180 CNC Milling Machines are capable of the following:-

- 3D milling.
- Drilling.
- Reaming.
- Boring.
- Threading, envelope threading (helical motion) in all machining planes, i.e. XY, YZ, XZ

The application of the CNC system provides automatic and productive machining controlled by technological program. The ram spindle and tool head are provided with ISO-50 taper which enables automatic tool clamping and releasing, as well as cooperating with tool magazine (optional).

MAIN FEATURES

- High-speed performance.
- Fixed frame of machine tool with movable or fixed cross-rail.
- Movable table.
- Vertical milling head consisting of cast iron body and forged steel ram.


TECHNICAL SPECIFICATIONS

| MODEL | HSM 180 CNC | |
|--|------------------|-----------------|
| Table | | |
| Surface of table for workpiece clamping (width × length) ⁽¹⁾ | mm | 1,800 × 4,500 |
| Table travel ⁽¹⁾ | mm | 4,000 |
| Maximum weight of workpiece | × 10 kN | 12 |
| Frame | | |
| Clearance between columns (Y axis) | mm | 2,200 |
| Maximum distance between spindle face and table (Z axis) ⁽¹⁾ | mm | 2,260 |
| Milling railhead | | |
| Ram stroke ⁽¹⁾ | mm | 1,200 |
| Octagonal ram cross-section | mm | 650 |
| Feed and travel rates | | |
| Range of continuously variable feed rates of table (X axis) | mm/min | 0.2 to 5,000 |
| Maximum rate of table rapid travel | mm/min | 25,000 / 40,000 |
| Range of continuously variable feed rates of railhead (Y axis) and ram (Z axis) | mm/min | 0.1 to 15,000 |
| Maximum rate of railhead and ram rapid travels | mm/min | 40,000 |
| Maximum acceleration of CNC axes | m/s ² | 5 |
| Machine tool overall dimensions and weight⁽¹⁾ | | |
| Length | mm | 14,000 |
| Width | mm | 7,700 |
| Height | mm | 6,750 |
| Weight | × 10 kN | 60 |
| Machine tool accuracies | | |
| X-, Y- and Z-axes positioning accuracy Mar (L = 1,000 mm) | mm | 0.016 |
| X-, Y- and Z-axes positioning repeatability RPmax. (L = 1,000 mm) | mm | 0.012 |
| <small>(1) For standard execution of machine tool. Other parameters to be agreed upon.</small> | | |

Some of the above data can be altered to meet the customer requirements.
Above data is subject to changes due to product development, without prior notice.