



E MXY series - technical information

Machine concept, drive technology and axes speed	
Machine basis	Natural granite base with low coefficient of thermal expansion for high accuracy and less vibrations.
Machine concept	Three axes machine with individual Z-axes drive per station, 6 stations (option 5)
X-axis motor	High-dynamic linear motor (wear- and maintenance-free). Individual linear motor for each station.
Y-axis motor	High-dynamic linear motor (wear- and maintenance-free). Individual linear motor for each table
Z-axis motor	High-dynamic linear motor (wear- and maintenance-free)
X-axis speed	90 m/min (3,543 ipm)
Y-axis speed	90 m/min (3,543 ipm)
Z-axis speed	25 m/min infeed and retraction (984 ipm infeed and retraction)
Tooling system	Prism slot + 1 contact mushroom (mushroom required for CBD)

Spindles	Asynchronous motor	Synchronous motor
Drilling spindles	D1686-10 / D1686-180 (160 / 180 k), PS 300 (300 k)	SM 170S (170 k), SM 220S (200 k)
Routing spindles	D1331-26 (125 k)	SM 60S (60 k)

Automatic tool change systems	
Euro tool cassette	1 x 110 tools or 2 x 110 tools
Euro tool chain	Tool chain with 6,200 tools (Loading and unloading during production possible)
Japanese tool cassette	not available

Features / options	
Process stability and process control	Contact Bid Detection, Real-time Broken Bit Detection, Quick Drill Function, Online Accuracy Check, PFIS, S50 Software in English, Chinese, Korean, Japanese (graphical user interface), Laser station, Insert Wearout Control
Applications	Depth drilling/routing by CBD, 2nd measurement system for depth drilling/routing, Substrate Package, Smooth Drilling, CCD
Specials	Tooling system with 6 mushroom clamps, pneumatic cover

Format sizes	5 Stations	6 Stations	7 Stations
Max formats (XY) w/o loader (one contact mushroom)	654 x 714 mm 25.7 x 28.1 inch	542 x 714 mm 21.3 x 28.1 inch	not available
Min / max formats (XY) w/o loader with 6 strd. mushrooms	308 x 714 / 603 x 714 mm 12.1 x 28.1 / 23.7 x 28.1 inch	266 x 714 / 491 x 714 mm 10.5 x 28.1 / 19.3 x 28.1 inch	not available

Machine accuracy	
Positioning accuracy	Cpk value must be > 1.67; Cpk tolerance $\pm 18 \mu\text{m}$ (Schmolz method of measuring machine accuracy)
Depth drilling accuracy	With CBD: $\pm 12 \mu\text{m}$ / With 2nd measurement system: $\pm 20 \mu\text{m}$

Installation data	
Machine weight (net / gross)	12,250 kg (27,007 lb) / 13,550 kg (29,873 lb)
Floor loading	2,000 kg/sqm. No special floor foundation is required! Machine is put on 6 machine feet.
Machine dimensions w/o loader L x W x H	4,050 x 1,920 x 1,670 mm (height incl. signal light 2,070 mm) 159.4 x 75.6 x 65.7 inch (height incl. signal light 81.5 inch)
Footprint w/o loader + periphery L x W	6,050 x 3,920 mm 238.2 x 154.3 inch