

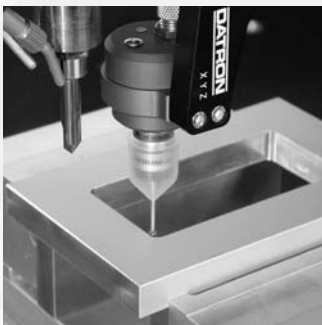
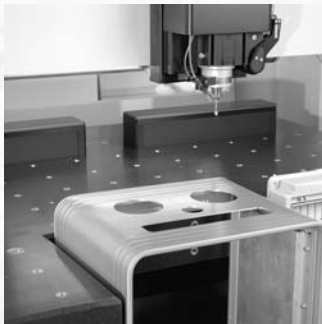
CNC Machining Systems

Mini Tools

Dispensing Systems

Positioning Drive Units

Consultation and Training



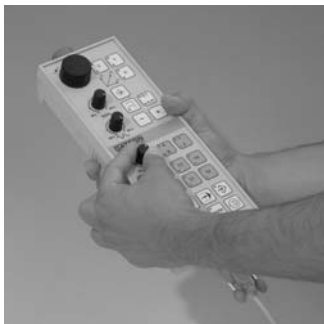
DATRON M8

High-Performance Chip Removal with up to 60,000 rpm

- Large Machining Area, Small Floor Space
- Specially designed for the Efficient and Precise Machining of Aluminium and Plastics
- Innovative Machine Construction with Polymer Concrete Table
- Highest Efficiency thanks to Innovative Accessories

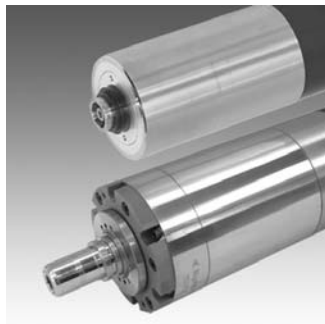
Profitable Production Using the Correct Accessories

An optimally configured system is the key to a successful application solution. DATRON offer technically-mature accessories. The result are significantly lower secondary processing times, higher machining precision, and thus maximum efficiency.



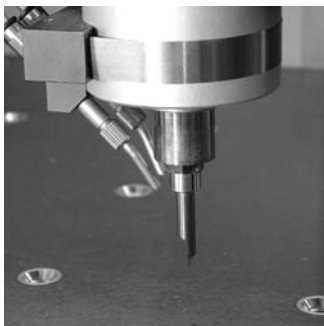
left: Hand-held Control Unit

For a better control and an especially easy operation of the machine. Configured with an electronic hand wheel, fast feed and positioning feed control, coolant control and dispensing; function keys.



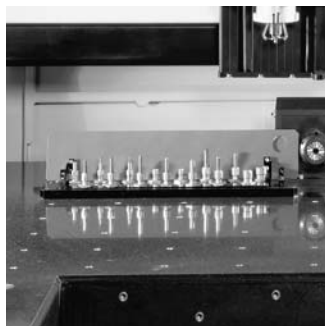
right: High-Frequency Spindles

The precision of the spindle greatly determines the cutting quality. DATRON offer high-frequency spindles up to 60,000 rpm. With a careful selection of the suitable power and rotation parameters we will optimise the machining system for your application. You may choose between various manufactures and types.



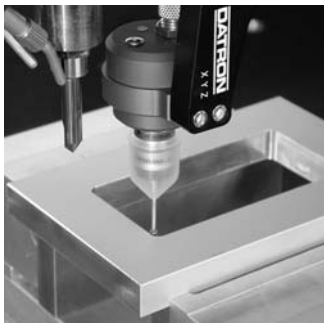
left: Minimal Quantity Cooling

The basis for burr-free machining and long tool life is a good cooling and lubrication unit. DATRON offer proven and tested minimum quantity cooling systems. They are fully software-controlled and the tank can be easily accessed.



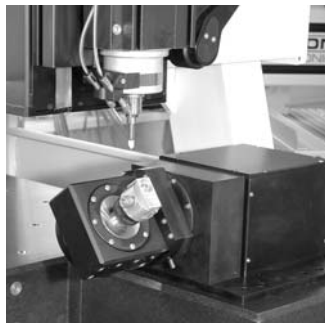
right: Automatic Tool Changer

Up to 30 tools can be used during the machining process. The integrated tool length sensor guarantees reliable referencing.



left: XYZ Sensor

Precise measurement of complex 3D workpieces and automatic Z height compensation: With the DATRON XYZ sensor you will save time and money and produce safe quality. All edges and area measurements are comfortably integrated into the control system.



right: Rotary Axis

Precision axis for multi-side machining of fine mechanical parts. The combination of rotation and swivel axis offers a specially compact set-up whilst being highly precise at the same time.



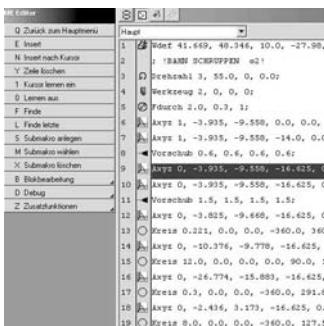
left: Pneumatic Short-Stroke Clamping with Tee-nut Module Plate

DATRON have developed these new types of clamping elements for extremely quick and comfortable clamping of parts with a small format. The individual clamping elements can be positioned freely within the Tee-nuts. Clamping and shifting are controlled with an integrated switch. The Tee-nut plate is 250 mm wide and 460 mm long.



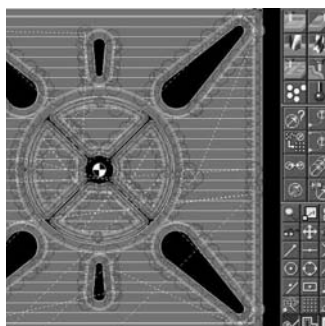
right: Modular Clamping Elements

All clamping modules, such as the short-stroke clamping units or vacuum plates are fitted into special fixtures in the machining table. They are quickly and precisely adjusted and fastened with a vacuum suction. The clamping modules can therefore be exchanged very quickly.



left: CNC Macro Programming

The integrated control software ensures a fast machine set-up and CNC programming. The Windows-based PC program offers clear and user-friendly menu-based programming. A graphical simulation for control purposes is integrated.



right: CAD/CAM Interfaces

The CAD/CAM programming can optionally be carried out directly on the machine. Also external CAM data can be imported without problems via interfaces.

Versatility and Quality

The machining system M8 was specially designed for CNC milling, drilling, and engraving applications of Aluminium and Plastics. With a precision high-frequency spindle with up to 60,000 rpm and small tools very short cycle times are achieved.



left: Chip Collector Wagon

The compact protective cover reduces the necessary floor space to a minimum. The doors open wide and thus enable an easy access of the machining area. The produced chips can be easily removed from the coasting chip collector wagon.

right: Machining Table

The concrete polymer machining table guarantees an exceptionally high vibration damping and therefore high cutting quality. A special advantage is the additional vertical clamping area. Parts up to 900 mm high can be clamped and machined frontally.

Applications Machining System M8

Milling, Drilling, and Engraving of:

- Aluminium Extrusions
- Aluminium and Plastic Panels
- Front Panels and Housings
- Forms, Prototypes

Characteristics Machining System M8

- Large Machining Area
1020 mm x 700 mm x 240 mm
1020 mm x 1520 mm x 240 mm (M8XL)
- Solid Concrete Polymer Table
- Smart Chip Removal thanks to large Chip Collector Wagon
- Compact Protective Cover with large Door
- Vertical Clamping Area for Specially High Parts (Option)
- Feed Rate in Material up to 20 m/min
- Minimum Quantity Cooling System
- Automatic Tool Changer for up to 30 Tools
- PC Control System with CAD/CAM Interfaces
- High Machine Availability thanks to Proven and Tested Quality and Fast Customer Support



Forte of the Machining System M8

- High-Speed Machining of Aluminium and Plastics
- Complex 3D Milling with Small Tools
- Precises Engraving on every surface; Nesting of Small Parts

CNC Machining System M8

Benefit with DATRON's CNC machining system M8 from our many years of experience in the specially economic and top-quality machining of Aluminium and Plastics!

A large machining area and high precision - the M8 system completes the range of machining systems offered by DATRON when higher requirements in milling efficiency and precision are on the agenda. With the know-how of more than 1000 installations world-wide, DATRON will offer you the security and quality of technically-mature production solutions for your machining tasks.



Technical Data	DATRON M8	DATRON M8 XL-1500
Coordinate Table	Solid concrete polymer on a steel base, portal set-up with double-sided Y-drive, precision guides	
Machining Area (X x Y x Z)	1020 mm x 700 mm x 240 mm	1020 mm x 1520 mm x 240 mm
Portal Height	200 mm	200 mm
Clamping Area (X,Y)	1170 mm x 780 mm	1170 x 1700 mm
Vertical Clamping Area	Range: 250 mm x 600 mm; up to 900 mm high	
Machine Dimensions (B x T x H)	1700 mm x 1450 mm x 1950 mm incl. Monitor: 2300 mm (Width)	1700 mm x 2300 mm x 2000 mm incl. Monitor: 2300 (Width)
Driving System	Digital servo drives; precision ball screws for each axis	
Machining Spindle (Option)	E.g. 2 kW high-frequency spindle, 7,000 - 60,000 U/min, Power Range from 0.6 kW - 4.5 kW available	
Lubrication and Cooling System	Minimal quantity lubrication, electronically adjustable dispensing	
Control System	Decentral, digital high-speed servo control with PC user interface	
Feed Rate and Positioning Feed	X: 20 m/min Y: 20 m/min Z: 8 m/min	X: 20 m/min Y: 16 m/min Z: 8 m/min
CAD Interfaces	For all standard CAD/CAM systems: DIN 66025 (G-Code), HPGL, Excellon, CL-Print (each optional)	
Protective Cover	with front swing door	alternatively with side door or front swing door
Weight	approx. 0.8 t	approx. 1.6 t

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