

DATRON is a leader in the development of high-speed CNC technology that provides manufacturing efficiency and automation. This innovation is German-engineered with the highest quality and custom-configured for each customer's unique application. As a result, DATRON products are true "problem solvers" that radically improve production processes and the customer's bottom line.

These products are offered with a high degree of application engineering at the front end and industry leading customer support for the lifetime of the equipment — which has earned us thousands of customers worldwide.



DATRON milling & dispensing systems for the solar industry

Complete, turn-key CNC solutions designed for automated and reliable series production of solar modules

Today's solar industry increasing requires a combination of quality and cost containment that can only be achieved through the use of intelligent manufacturing technology. DATRON machining centers are ideally suited to solar milling operations while our dispensing systems were specially developed for industrial adhesive or sealing applications. These have earned customer confidence for high performance and volume consistency.



We would be happy to provide detailed information at:
888.262.2833



Or by E-mail:
info@datron.com

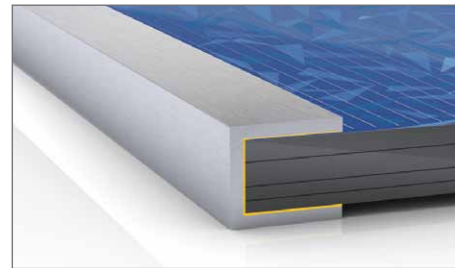


Visit us online at:
www.datron.com

Reliable dispensing – bonding and sealing in the production of photovoltaics

By using intelligent DATRON dispensing systems, you can open up new possibilities in the development and manufacture of PV cells or complete modules. Automated manufacturing processes for small or large series provide efficiency, savings and the competitive edge.

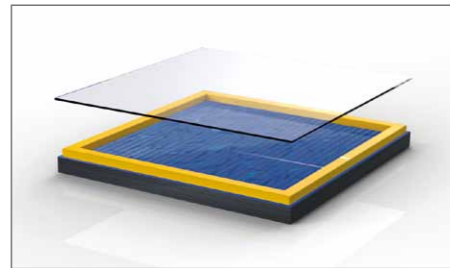
Frame gluing



Dispensing of liquid adhesives or sealants on frame profiles or modules

- Replacement/prevention of double-sided adhesive tape
- Automatable
- Optimization of already existing assembly lines

Edge sealing



Dispensing of, for example, butyl hotmelts on thin-film modules

- Replacement/prevention of self-adhesive butyl bands
- Sharp-edged, rectangular sealing shapes (e.g., 2 x 10 mm)
- Material amounts can be freely programmed

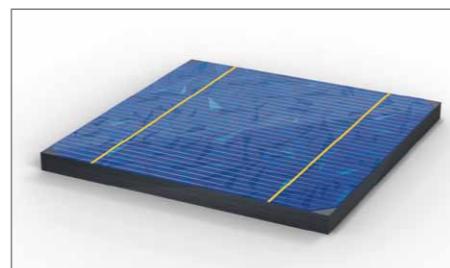
Backrail/connection box bonding



Dispensing of 1K or 2K adhesives

- Dispensing on the provided position of the solar module
- Dispensing on the assembly profile or the connection box
- Short cycle times for continual production flow

Bonding/stringing busbars



Dispensing of electrically conductive adhesive on PV cells

- No damage of wafers by soldering
- Contact-free process
- Busbars are glued on

DATRON dispensing systems for the solar industry

To quickly and reliably apply bondings or seals requires systems that, based on your specifications, can be integrated into your manufacturing with simplicity and flexibility. Through the combination of our electronic dispensing head and the patented control engineering, a high degree of process reliability and flexibility is attained. The use of special software technologies makes speed-independent dispensing possible, thereby ensuring high dispensing speeds with short cycle times regardless of the material being used. These systems work independently of pressure and viscosity, so that process parameters do not need to be adjusted due to altered manufacturing conditions. In connection with the accessories developed for dispensing tasks, DATRON offers system solutions from one source to guarantee optimum quality for your manufacturing.



Materials

We cooperate with all the major material manufacturers in the solar industry.

- All current hotmelts, also reactive up to 210°C
- Butyl up to 210°C
- Silicone 1K and 2K
- Electrically conductive adhesives
- More available upon request


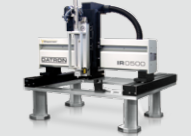

Vessel

(heated and non-heated):

- Cartridges
- Pressure tanks
- Hobbocks, 20 l
- Barrels

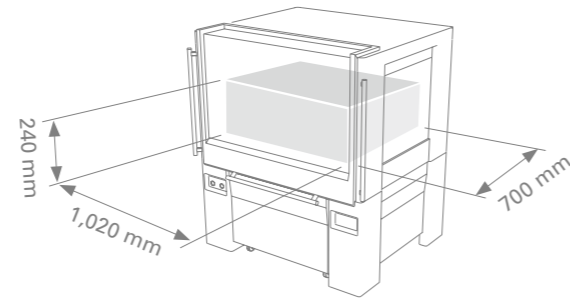
Bead shapes:

- Shaped beads
- Round
- Rectangular
- Combination of different materials

Technical data	DATRON Inline	DATRON Inline Portal	DATRON Stand Alone
			
Machine structure	-	Portal structure with double-sided Y drive	Portal structure with double-sided Y drive
Traverse path (X x Y); Z stroke = 240 mm Portal passage 200 mm	from 300 x 240 mm to 2,500 x 240 mm	from 520 x 650 mm to 1,620 x 2,650 mm	from 520 x 650 mm to 1,620 x 2,650 mm
Protective cover	-	-	✓
Quick digital servo control system with Microsoft® Windows® controller	✓	✓	✓
Convenient hand-held control unit	✓	✓	✓
Drive system: Digital servo drives; ball screw spindle for every axis	✓	✓	✓
Positioning feed	X/Y = 16 m/min; Z = 8 m/min	X/Y = 16 m/min; Z = 8 m/min	X/Y = 16 m/min; Z = 8 m/min

Precision!

The low cutting forces of high-speed machining make new machine concepts possible. DATRON CNC machines combine solid and durable mechanical engineering with excellent dynamic properties. Modular system solutions lead to perfect custom-made machines — adaptable to a wide variety of machining applications.



The basic models of the M8 and M7 CNC machining systems include the following features:

- Solid coordinate table with a steel protective cover (enclosure)
- 3D CNC control system for three to six axes
- 17" LCD monitor with Windows PC
- Network and USB 2.0 interface for exchange of data
- Menu-guided CNC programming software winCNC

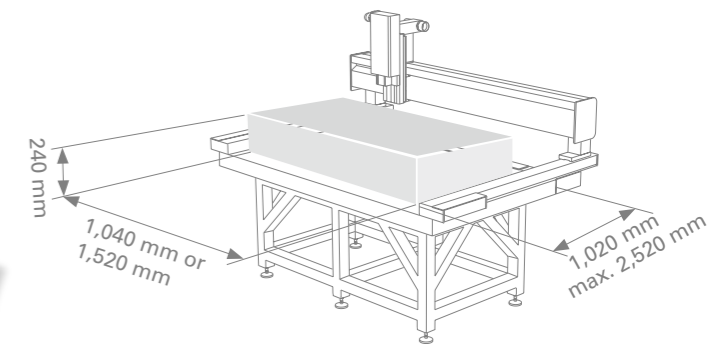
DATRON offers a wide range of accessories.

Detailed information can be found in our accessories catalog:

- Clamping systems: manual, pneumatic, vacuum
- Electronic Z correction with XY probing
- High-speed tools
- CAD/CAM and 3D engraving software

DATRON milling systems for the solar industry

For the milling of solar parts like frames, backrails and carrier rails, DATRON is the clear choice. That's because these are often made of aluminum extrusions or profiles and our high-speed machining technology is ideal for milling, drilling and even engraving of this material. Our large-format machines, in particular accommodate long extrusions and profiles. All of our models can be equipped with pneumatic clamping systems for holding extrusions or vacuum workholding for sheet material. Rotary axes are available for multi-sided machining of profiles, frames and other solar parts. Each DATRON machining center is custom-built based on the customer's unique application — resulting in turn-key solutions to your production requirements.



Technical Data	M8	M8 "power pack"	M7	M7HP
Coordinate table	Solid concrete-polymer table with a steel frame, portal design with double-sided Y drive		Solid granite table with a steel frame, portal design with double-sided Y drive	
Traverse path (X x Y); Z stroke = 240 mm Portal passage 200 mm	1,020 mm x 800 mm; with tool change in Y 520 mm		520 mm x 650 mm; with tool change in Y 520 mm	
Clamping surface	1,160 mm x 780 mm		600 mm x 600 mm	
Installation dimensions without control unit (W x D x H)	1,700 mm x 1,450 mm x 1,950 mm		1,300 mm x 1,300 mm x 2,050 mm	
Protective cover	✓	✓	✓	✓
Quick digital servo control system with Microsoft® Windows® PC	✓	✓	✓	✓
Easy-to-use hand-held control unit	✓	✓	✓	✓
Drive system: Digital servo drives; Ball screw for every axis	✓	✓	✓	Precision ball screw
Minimum quantity lubrication	✓	✓	✓	✓
Machining spindle: HF precision spindles with power ranging from 0.6 kW to 3 kW are available	e.g. 2 kW HF spindle, up to 60,000 rpm	3 kW HF spindle, 1,000 - 40,000 rpm, HSK-E 25	e.g. 2 kW HF spindle, up to 60,000 rpm	e.g. 1.8 kW HF spindle, up to 50,000 rpm, HSK-E 25
Tool change (optional)	max. 30-fold direct shank clamping	max. 10-fold HSK-E 25	max. 15-fold with direct shank clamping	max. 11-fold HSK-E 25
Positioning feed	up to 20 m/min	up to 20 m/min	up to 16 m/min	up to 10 m/min
Weight	approx. 800 kg	approx. 800 kg	approx. 720 kg	approx. 720 kg
Article number	0A01082A/B	0A01082P	0A01191A	0A01191X

Available large-format machine sizes:

Technical Data	DATRON M8XL	DATRON ML
Working area (X x Y); Z stroke = 240 mm, portal passage 200 mm	M8XL-1600: 1,020 mm x 1,520 mm M8XL-2500: 1,020 mm x 2,500 mm	ML 1000-2: 1,040 mm x 1,020 mm ML 1500-2: 1,520 mm x 1,020 mm ML 1500-3: 1,520 mm x 1,520 mm ML 1500-4: 1,520 mm x 2,020 mm ML 1600-5: 1,620 mm x 2,520 mm ML 1000-2C: 1,040 mm x 1,020 mm ML 1500-2C: 1,520 mm x 1,020 mm MV 1000-1C: 1,040 mm x 800 mm
Installation dimensions without control unit (W x D x H)	M8XL-1600: 1,700 mm x 2,400 mm x 1,950 mm M8XL-2500: 1,450 mm x 3,400 mm x 1,800 mm	ML 1000-2: 1,700 mm x 1,600 mm x 1,640 mm ML 1500-2: 2,160 mm x 1,600 mm x 1,640 mm ML 1500-3: 2,160 mm x 2,060 mm x 1,640 mm ML 1500-4: 2,200 mm x 2,700 mm x 1,640 mm ML 1600-5: 2,200 mm x 3,100 mm x 1,640 mm ML 1000-2C: 2,400 mm x 2,250 mm x 1,950 mm ML 1500-2C: 3,000 mm x 2,250 mm x 1,950 mm MV 1000-1C: 2,400 mm x 2,250 mm x 1,950 mm
Weight	M8XL-1600: 1,600 kg M8XL-2500: 2,000 kg	ML 1000-2: 950 kg ML 1500-2: 1,300 kg ML 1500-3: 1,800 kg ML 1500-4: 2,200 kg

Large Format

DATRON CNC machines combine solid and durable mechanical engineering with excellent dynamic properties. Modular system

ML large-format machining systems include the following features:

- Solid coordinate table with a steel protective cover
- 3D CNC control system for three to six axes
- 17" LCD monitor with Windows PC
- Network and USB 2.0 interface for

Thanks to our large range of accessories, our machining systems can be perfectly adapted to the machining tasks of our customers. Our accessories catalog is available on request.