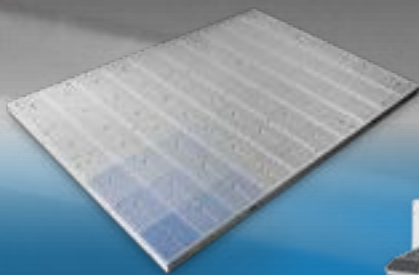


**DATRON**



# ACCESSORIES

for DATRON CNC Milling Machines

DATRON

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# DATRON MACHINE OVERVIEW

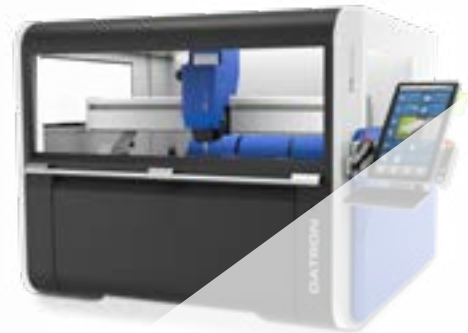
DATRON  
**neo**



DATRON  
**M8Cube**



DATRON  
**MLCube**



**& ERGONOMIC  
& DYNAMIC**

**& PRODUCTIVE  
& VERSATILE**

**& LARGE-FORMAT  
& EFFICIENT**

<b>Axis</b>	3+1	3+2	3+1
<b>Traverse path (XxY)</b>	500 mm x 400 mm	1,000 mm x 700 mm	1,500 mm x 1,000 mm
<b>Portal passage (Z)</b>	175 mm	200 mm	200 mm
<b>Spindles</b>	1.0–2.0 kW HF spindle up to 40,000 rpm Direct shank	1.8 kW–4.0 kW HF spindle up to 60,000 rpm Direct shank or HSK-E 25	1.8 kW–4.0 kW HF spindle up to 60,000 rpm Direct shank or HSK-E 25
<b>Feed/ Positioning feed</b>	Up to 28 m/min	Up to 22 m/min	Up to 22 m/min

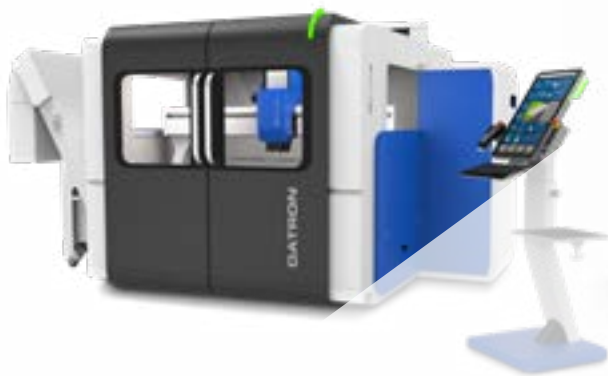
■ Batch size   
 ■ Machining size   
 ■ Chip volume per time unit

**Properties/  
characteristics**

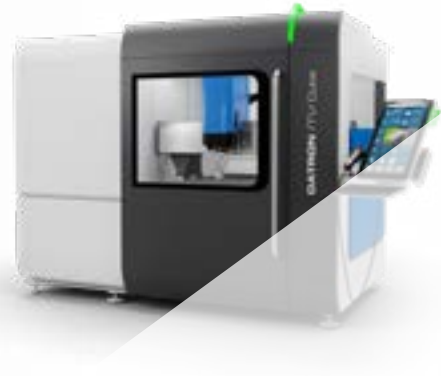


Each application is different, and we offer the perfect solution for your particular requirements: whether you need 3, 3+2 or 5 axes simultaneously, a high level of precision or outstanding economy. Our experts will be happy to advise you and help you find the best, most efficient solution for your application.

DATRON  
**MLCube Pro**



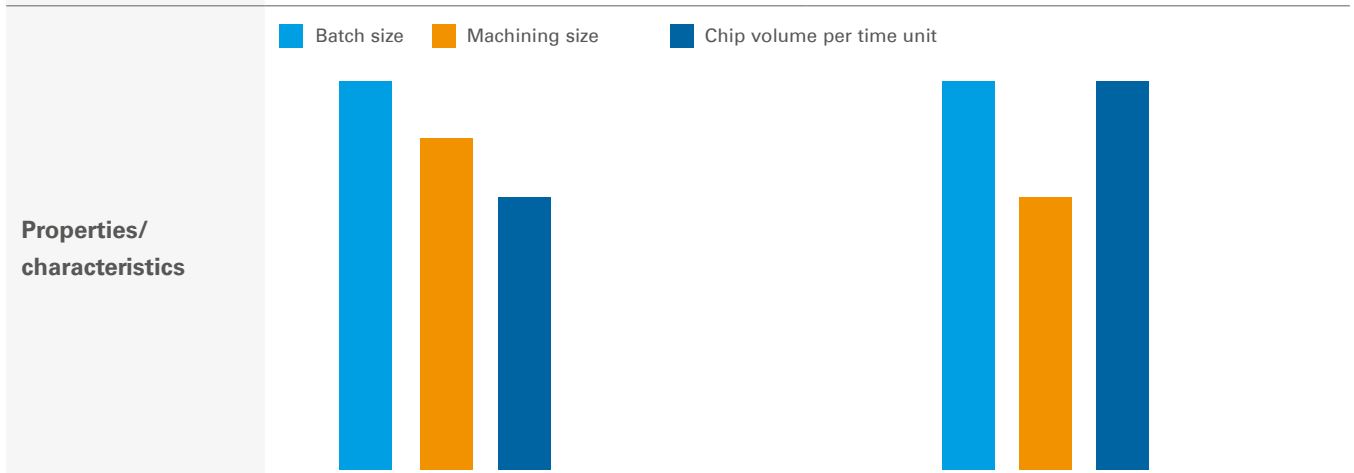
DATRON  
**MXCube**



**& LARGE-FORMAT  
PRODUCTIVE**

**& PROCESS RELIABILITY  
POWERFUL**

<b>Axis</b>	3+1	3+2
<b>Traverse path (XxY)</b>	1,500 mm x 1,000 mm	1,000 mm x 700 mm
<b>Portal passage (Z)</b>	200 mm	205 mm
<b>Spindles</b>	3.0 kW–4.0 kW HF spindle up to 40,000 rpm HSK-E 25	4.0 kW–8.0 kW HF spindle up to 40,000 rpm HSK-E-25 or HSK-E-32
<b>Feed/ Positioning feed</b>	Up to 22 m/min	Up to 40 m/min



DATRON

# SOFTWARE & CONTROL SYSTEM

With the DATRON control and software solutions, you will be able to revolutionize the operation and monitoring of your milling machines. By combining state of the art technology with an intuitive user interface, our systems allow you to easily operate the machine while improving precision. DATRON offers custom-tailored software solutions that will increase your efficiency and help you implement even the most demanding projects safely and productively including real-time monitoring of the machine status. Discover the countless possibilities on how your milling machine will be more efficient and user-friendly.

» **DATRON next**  
page 9-17

» **DATRON Live**  
page 18-20

» **Options & Accessories**  
page 21-23



reddot award 2016  
winner interface design

# DATRON NEXT

DATRON next sets a new bar for CNC control systems and makes complex milling processes easier than ever. The intuitive user interface, similar to a smartphone, provides fast and safe operation for beginners and professionals alike. Thanks to the integrated camera and swipe gestures, you can easily set up your work pieces. The 3D simulation offers visual validation, minimizes errors, and improves your accuracy. DATRON next - milling was never easier!



DATRON

# NEXT SOFTWARE OPTIONS

Use the innovative software options of DATRON next to optimize your machining process and increase the efficiency of your production. Whether you need protected areas, user management, or automatic surface compensation – adapt your machine precisely to your requirements.

## Surface Profile

The DATRON next surface profile function facilitate precise measurements and automatic compensation of any irregularity of the work piece surface. With this option, height deviations can be compensated quickly and easily, resulting in improved part quality. The intuitive interface and seamless integration with the camera make the set-up and function very user-friendly.



### Surface Profile

Item no.	0A01385A
Software requirement	DATRON next from release 3.0
Required order information	Machine number, email address
Scope of delivery	Online license

## Protected Areas

With the Protected Areas option, you can define specific zones in the working area of the machine that cannot be entered into with the cutting tool. This offers additional safety and prevents damage to machine components. The function is easy to set-up, supported with 3D visualization, ensuring safe and efficient machining.

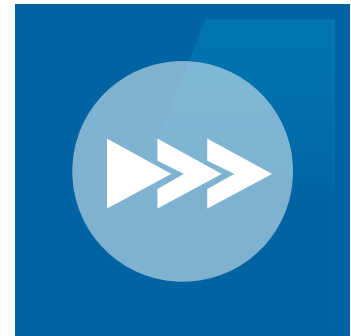


### Protected Areas

Item no.	0A01385B
Software requirement	DATRON next from release 3.0
Required order information	Machine number, email address
Scope of delivery	Online license

## Multiple Version

The multiple version of DATRON next allows the quick and efficient manufacturing of multiple identical work pieces from a single blank. In a matter of seconds, you can create a matrix of parts, in different locations, without changing the original milling program. This function is ideal for nesting production and optimizes productivity.



### Multiple Version

Item no.	0A01385C
Software requirement	DATRON next from release 3.0
Required order information	Machine number, email address
Scope of delivery	Online license

VIDEO ONLINE!



## Spare Tool Management

The DATRON next spare tool management monitors tool wear and automatically replaces worn tools without interrupting the milling program. This functionality ensures continuous machining and part quality. The comprehensive options allow customization of your production requirements, increasing the efficiency of the machining process.



### Spare Tool Management

Item no.	0A01385D
Software requirement	DATRON next from release 3.0
Required order information	Machine number, email address
Scope of delivery	Online license

## User Management

The DATRON next user management allows you to create multiple users, with different rights, on the machine. This function offers protection from unintended changes and allows a safe and controlled operation. Users can conveniently log in using the USB key or password and the settings can be easily transferred to other machines.



### User Management

Item no.	0A01385I
Software requirement	DATRON next from release 3.0
Required order information	Machine number, email address
Scope of delivery	Online license

## Recticle Hair Cross Measurement

With the DATRON next reticle hair cross measurement, you can align components visually in the live image of the camera. Similar to augmented reality, a reticle hair cross is displayed to simplify the positioning of the work piece and allow for a precise zero point setting. This function ensures an alignment of the component without tactile probing and speeds up your set-up process.



### Recticle Hair Cross Measurement

Item no.	0A01385F
Software requirement	DATRON next from release 3.0
Required order information	Machine number, email address
Scope of delivery	Online license

## SimPL-PLC

DATRON next SimPL-PLC allows for the automatic execution of outside programs based on the machine status. This function is very helpful for automation integration and supports an efficient and seamless production.



### SimPL-PLC

Item no.	0A01385E
Software requirement	DATRON next from release 3.0
Required order information	Machine number, email address
Scope of delivery	Online license

## Universal

The DATRON next “Universal” combination package bundles three popular and coordinated software options that significantly increase the efficiency and safety of your milling machine. This package offers cost-efficient solutions and optimizes processes by including, precise surface measurements, protected working areas, spare tool management and quick multiple execution of work pieces. This is ideal for users who want to utilize their machine in a versatile and highly efficient way.

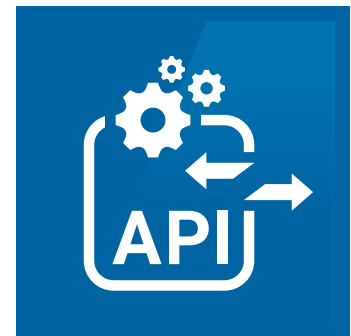


### Universal Bundle

Item no.	0A01386A
Software requirement	DATRON next from release 3.0
Required order information	Machine number, email address
Scope of delivery	Online license <b>0A01385A</b> - DATRON next surface measurements <b>0A01385B</b> - DATRON next protected working areas <b>0A01385D</b> - DATRON next spare tool management <b>0A01385C</b> - DATRON next multiple execution

## REST API Basic

DATRON next REST API Basic offers a powerful programming interface that allows you to access internal operating parameters of your machine. Ideal for integration of third-party systems, such as MES, ERP or IoT platforms, allowing you to monitor and analyze machine data via separate dashboards or analytical tools. This interface opens a broad range of options for the optimization of your production process.

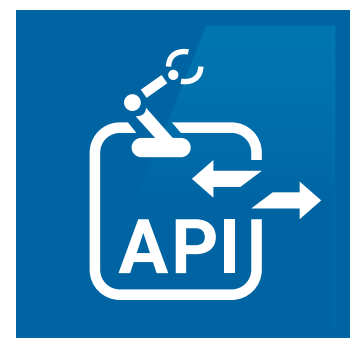


### REST API Basic

Item no.	0A01388A
Software requirement	DATRON next from release 3.0
Required order information	Machine number, email address
Scope of delivery	Online license

## REST API Automation

With REST API Automation, DATRON next expands the functionalities of the Basic version with automated control options. In addition to the access of the operating data, programs can be executed, paused or canceled, and user-defined variables can be read and written. This API offers greater flexibility to adapt and control your machines using third-party software and supports a seamless integration in complex manufacturing environments.



### REST API Automation

Item no.	0A01388B
Software requirement	DATRON next from release 3.0
Required order information	Machine number, email address
Scope of delivery	Online license

## Visual Set-Up

The visual origin set-up in DATRON next enables a quick, simple and safe set-up of your work pieces. The camera image and intuitive swipe gestures allow you to directly define the origin in the video image and rotate the work piece – similar to the operation of a smartphone. In combination with the integrated tool check, you can minimize the collision risk of the DATRON 3D Probe, save set-up time and reduce the training efforts to a minimum. Optimize your set-up processes long-term.



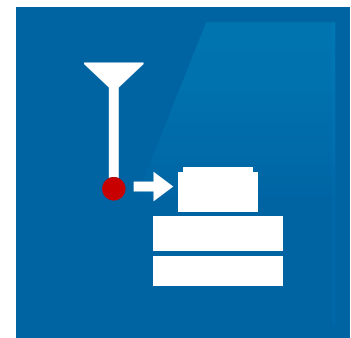
### Visuelle Einrichtung\*

<b>Item no.</b>	<b>0A01383F</b>	<b>0A01383K</b>	<b>im Maschinensystem integriert</b>
Compatibility	DATRON M8Cube, MLCube	DATRON MXCube	DATRON neo (Pro)
Required order information	Machine number, email address		
Scope of delivery	Online license	-	

\*nur mit dem Kauf einer Neumaschine erwerbbar

## 3D Probe Calibration

The DATRON next 3D Probe Calibration offers a powerful function for the precise calibration of the DATRON next 3D Probe with one click. Ideal for use in high-volume production, it allows for automated calibration of the 3D Probe with minimal effort and a high level of reliability. This function significantly contributes to increased efficiency and reliability and opens a broad range of options for the optimization of your production processes.



### 3D Probe Calibration

<b>Item no.</b>	<b>0A01391</b>	<b>0A01391A</b>
Compatibility	DATRON M8Cube, MLCube, MXCube	DATRON neo (Pro)
Software requirement	DATRON next from release 3.7	
Required order information	Machine number, email address	
Scope of delivery	Online license	online license Clamp incl. screws 2 blanks (Al)

» 3D Probe Calibration (p. 44)

## MailAlert

The DATRON MailAlert email notification function notifies you automatically and site-independently of important machine events, the completion of a program and the interruption of the milling process. MailAlert thereby allows for site-independent monitoring of the machine and the milling process, which in turn allows for targeted and quick intervention and optimization of the production process.



### MailAlert

Item no.	0A01387A
Software requirement	DATRON next from release 3.7
Required order information	Machine number, email address
Scope of delivery	Online license

## Fitting Assistant

The DATRON next fitting assistant offers a powerful function to directly establish precise fits using a convenient input mask in the control system. The bore hole has the desired dimension, is measured automatically and milled further, if necessary. This function supports efficient and process-sure manufacturing and opens up a broad range of options for the optimization of your production processes.



### Fitting Assistant

Item no.	0A01385G
Software requirement	DATRON next from release 3.0
Required order information	Machine number, email address
Scope of delivery	Online license

## OPC-UA

The DATRON next control system uses a standardized OPC-UA interface to enable the inter-operable exchange of machine data in accordance with umati schemes. You thereby establish the basis for status monitoring, production data collection and the connection to IIoT platforms. The consequent implementation in accordance with the umati standard simplifies the integration in modern production environment and supports your digitalization long-term.



### OPC-UA

Item no.	0A01388E
Software requirement	DATRON next from release 3.7
Required order information	Machine number, email address
Scope of delivery	Online license



# DATRON LIVE

For real-time monitoring and controlling of DATRON milling machines, DATRON Live is the perfect software solution. You can access the machine status, program progress, and camera images of the machining process, from any networked device, allowing comprehensive control. Additionally, the software provides insights to the tool status and supports simple remote-control functions. DATRON Live is perfect for production managers, CAM programmers, and maintenance personnel, who are responsible for an efficient and trouble-free operation.



# DATRON LIVE SOFTWARE OPTIONS

The DATRON Live Apps allow seamless monitoring and control using a smartphone or PC. The Cockpit and Camera Apps offer greater control and efficiency in your manufacturing process. Make your production fit for the digital future!

## Cockpit App

The Cockpit App provides access to critically important operating data and the status of your DATRON next machine in real time. Ideal for machine operators, maintenance personnel, and production managers, who need accurate information on job progress, tool status and machine operation. The app graphically displays the machining progress and monitors vacuum and compressed air status.



### Cockpit App

Item no.	0A01389A
Software requirement	DATRON next from Release 3.0
Required order information	Machine number, email address
Scope of delivery	Online license to activate the app

## Camera App

You can use the Camera App to monitor the machining area of your DATRON next machine live. Access the camera stream remotely to observe the work progress of your work piece without having to be on site. A perfect addition to the Cockpit App that provides a simple solution for visually checking items such as chip accumulations and work piece in integrity.



### Camera App

Item no.	0A01389B
Software requirement	DATRON next from Release 3.0
Required order information	Machine number, email address
Scope of delivery	Online license to activate the app

## Remote Link App

The Remote Link App allows you to carry out Simpl programs, such as switching off the vacuum or shutting down the machine via DATRON Live. This app provides a simple option to remotely control basic functions of your machine ensuring efficient operation.



### Remote Link App

Item no.	0A01389D
Software requirement	DATRON next from Release 3.0
Required order information	Machine number, email address
Scope of delivery	Online license to activate the app

## App Bundle Basic

The DATRON Live “App Bundle Basic” combines two well-coordinated apps that significantly improve your machine monitoring capabilities. With the combination DATRON Live Cockpit App and the DATRON Live Camera App, you have a comprehensive overview of the operating status and the machining process of your DATRON next software and machine at all times. This cost-efficient package provides real-time monitoring and remote control capabilities. It is ideal for users who want to maximize the efficiency and control of their manufacturing process.



### App Bundle Basic

Item no.	0A01390A
Software requirement	DATRON next from Release 3.0
Required order information	Machine number, email address
Scope of delivery	Online license to activate the app: <b>0A01389A</b> - DATRON Live Cockpit App <b>0A01389B</b> - DATRON Live Camera App

DATRON

# OPTIONS & ACCESSORIES

Expand your DATRON CNC milling machine with perfectly coordinated options and accessories for more flexibility, efficiency and ease of use. From ergonomic operating units and innovative control system solutions to functional expansions. Each module is perfectly optimized for our machine systems. This enables you to design your manufacturing processes to be even more productive and align your machine precisely to meet your demands.



DATRON

# CNC HAND-HELD CONTROL UNIT

The DATRON hand-held control unit offers highly ergonomic and safe precise machine control. Important commands can be accessed using a dust-protected keyboard with symbol keys and six function keys that can be freely assigned. The electronic hand wheel with adjustable step size allows for exact positioning, feed and positioning feed can be controlled separately. Integrated LEDs, emergency and acknowledgment keys as well as a practical magnet holder round up the equipment – ideal for the optimization of your production processes.



## CNC Hand-Held Control Unit B10-2

Item no.	0A01003R
Compatibility control system	DATRON
Adjustable step size	0.1 / 0.01 / 0.001 mm
Compatibility	DATRON neo (Pro), neo Entry, M8Cube, MLCube, MLCube Pro, MXCube
Scope of delivery	Hand-held control unit Variable seat with magnet holder

## Optional Accessories

### Supply Cable in Industrial Design, 3 m Length

Item no.	0075086E
----------	----------

DATRON

# STANDALONE TERMINAL

The standalone terminal with DATRON next+ uses a corrugated tube for the flexible connection to the machine and can be positioned anywhere in the work area. The adjustable tilt allows for the ergonomic alignment to the user – ideal for comfortable and efficient machine operation.



## Standalone Terminal

Item no.	0A01003R
Dimensions (WxDxH)	800 mm x 710 mm x 1,500-1,700 mm; Installation location flexible
Compatibility	DATRON MLCube Pro
Weight	70 kg
Scope of delivery	Standalone terminal with table element Control system DATRON next+ Terminal with additional panel PC Keyboard

\*Installationservice notwendig

## Optional Accessories

### Supply Cable in Industrial Design, 3 m Length

Item no.	0075086E
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DATRON

# HIGH-FREQUENCY SPINDLES

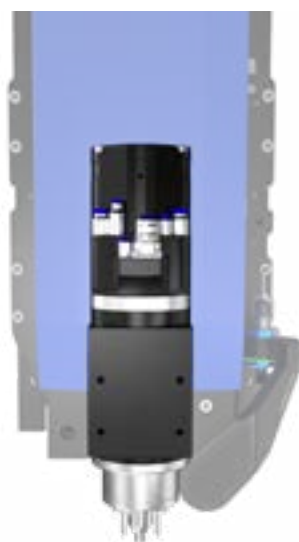
DATRON offers a comprehensive product range of high-frequency spindles and suitable accessories for a large variety of applications – from delicate machining to powerful chipping. In addition to precise direct shank spindles, the range also includes powerful HSK-E25 and HSK-E32 spindles that allow for maximum speeds and optimal stability.

» Spindles

page 25

# DATRON SPINDLES

DATRON has the right spindle for every machining application: from extremely high-performance, high-precision, high-speed spindles to robust and cost-effective “workhorses”. All DATRON high-frequency spindles are notable for their quality, precision and durability.



	DATRON neo		HighS H2.0	HighS H1.8	PowerS Synchro 3.0	PowerS Synchro 4.0	PowerS Synchro 8.0
Spindle power	1.0 kW	2.0 kW	2.0 kW	1.8 kW	3.0 kW	4.0 kW	8.0 kW
Speed range (rpm)	4,000 - 27,000	4,000 - 40,000	6,000 - 60,000	5,000 - 48,000	1,000 - 40,000		100 - 34,000
Tool clamping method	Direct-shank		Direct-shank	HSK-E 25		HSK-E 32	
Max. shank diameter/ max. tool diameter for the automatic tool changer (mm)	6/6	8/14		10/20		12/24	
Internal cooling	✓						
Compatibility	DATRON neo Entry	DATRON neo (Pro)	DATRON M8Cube, MLCube			DATRON MLCube, MXCube	DATRON MXCube

## Optional Accessories

	Air Dryer Unit	Spindle Coolant Antifrogen N
Item no.	0A01183A	0069266X

» Spindle Coolants (p. 102)

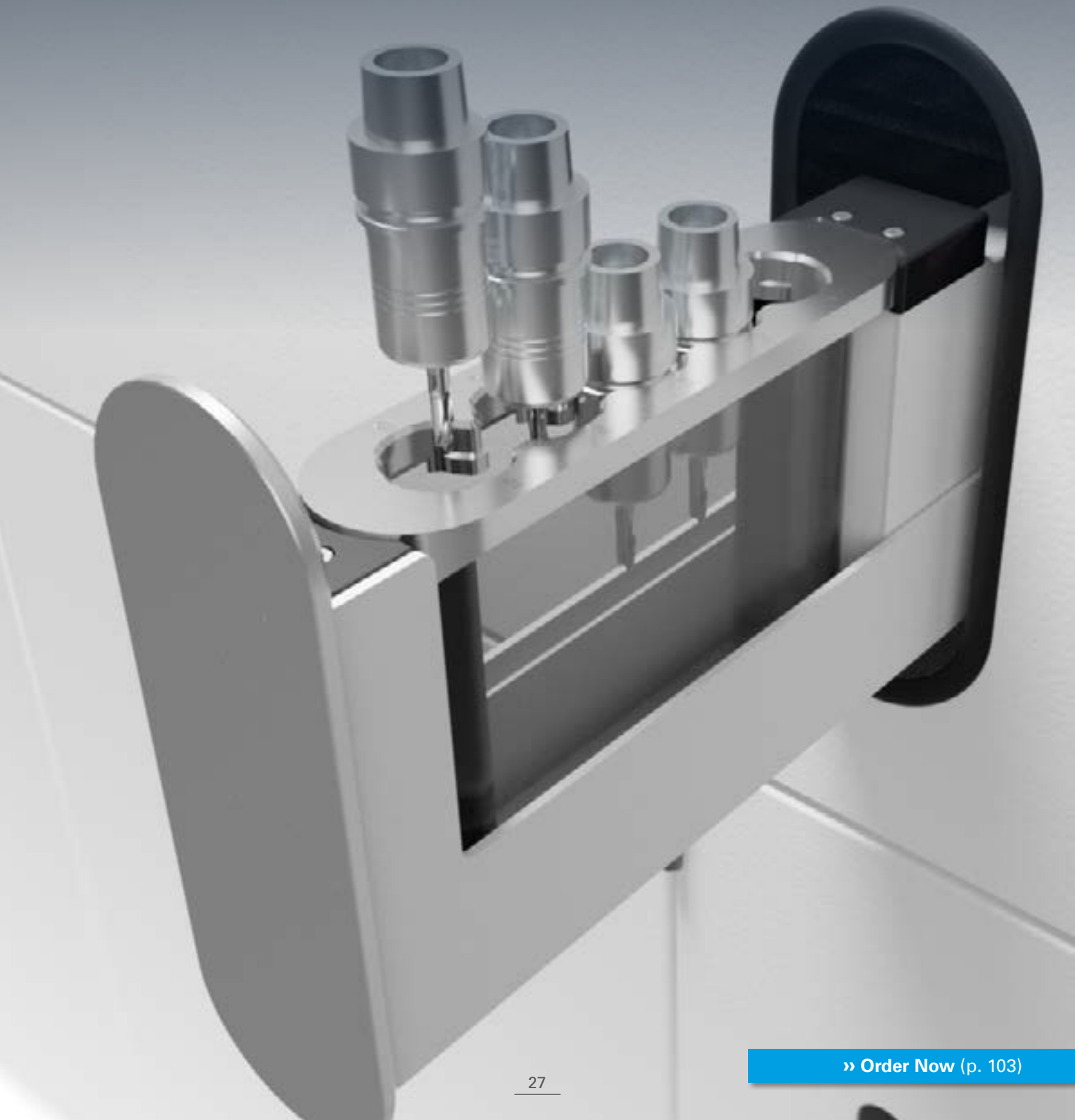
# DATRON TOOL MANAGEMENT

An efficient tool management is critical for smooth and precise manufacturing. The DATRON tool management systems allow you to stay on top of things at all times, increase the productivity and extend the life of your tools – regardless of whether direct shank or HSK interfaces.

» Tool Changer  
page 27-31

# DATRON TOOL CHANGER

DATRON offers customized tool changer systems for the relevant machine systems. Depending on the spindle type that is used, the tool changers are available in a version for direct shank clamping or for HSK clamping cones. The DATRON tool length sensor can be used to compensate the tool length automatically.



# DATRON TOOL ASSIST

The DATRON ToolAssist sets the new bar in terms of user friendliness and efficiency. With up to 143 tool locations, the system provides the optimal prerequisites for a greater variety of tools and the use of replacement tools in series production. As the first DATRON tool changer outside of the machining area, it is automatically protected from chips and allows ergonomic and main-time parallel loading and unloading while the machines are in operation.



VIDEO ONLINE!

## DATRON Tool Assist

Item no.	0A01118C	0A01118B	0A01118E	0A01118D	0A01118G	0A01118F	0A01118A	0A01118
Capacity	60	143	60	143	60	143	60	110
Clamping point	HSK 25						HSK 32	
Tool diameter (cutting edge)	with HSK-E 25 20 mm max.						with HSK-E 32 24 mm max.	
Dimensions incl. machine (WxHxD)	2,336x 1,950x 1,740 mm		3,016x 1,950x 2,280 mm		2,700x 2,481x 1,770 mm			
Weight incl. machine system	approx 1,500 kg		approx 2,700 kg		approx 3,800 kg			
Compatibility	DATRON M8Cube		DATRON MLCube		DATRON MXCube			

# DATRON TOOL MAGAZINE

The 12x tool magazine allows for an automatic pickup tool change and hold for up to 12 CNC tools. The special seats on the tool carrier make it possible to place and/or receive tools through the spindle. Depending on the machine type, two or three tool magazines can be combined to increase the capacity to up to 36 tools. The system thereby allows for a large bandwidth of applications without having to load the magazine again.



### Tool Magazine

Item no.	0A01117G	0A01117H	0A01117I	0A01117J
Capacity	12 Tool stations			
Compartment	1-12	13-24	13-24	25-36
Tool length	70 mm (max.)			
Tool diameter	20 mm (max.)			
Software requirement	DATRON next			
Compatibility	DATRON M8Cube, MLCube	DATRON M8Cube	DATRON MLCube	DATRON MLCube
Scope of delivery	Tool magazine with 12 tool changer stations Software for tool management			

## Optional Accessories

	Changing Station for HSK-E 25	Changing Station for HSK-E 32
Item no.	07014100	07014101

DATRON

# CLAMPING FIXTURE FOR HSK-E SYSTEMS

The hydraulic clamping fixture for DATRON polygonal tool holders allows for quick and flexible clamping without an external energy source. Equipped with a hand pump and pressure gauge, the clamping process occurs wear-free in only 20 seconds – without heating or cooling required with shrink-fit technology. Adapter inserts allow the use of various polygonal tool holders – ideal for efficient tool clamping.



Item no.	Clamping Fixture for Polygonal Tool Holders	Adapter Insert		
		0068341S	0068341D	0068341E
Diameter	-	14 mm	20 mm	25 mm
Clamping point	HSK system	HSK-E 25		HSK-E 32
Compatibility	DATRON M8Cube, MLCube, MXCube	DATRON M8Cube, MLCube, MXCube		DATRON MXCube

DATRON

# TOOL CHANGER ACCESSORIES DIRECT SHANK

DATRON limit stop rings secure tools for direct shank clamping in the tool changing station. The proper inserting tool is recommended for press-fitting with 6 mm and 8 mm shanks. The DATRON adapter collets also allow for the use of various tool shanks in one spindle collet. They are reusable and can be opened easily with the adapter inserting tool for 6 mm and 8 mm adapters – for flexible and efficient tool handling.



**Tool Stations for the Direct Shank System**

Item no.	0697071B	0697071C	0697071D	0697071E	0697071F
Compatibility shank tool	3 mm	6 mm	8 mm	12 mm	14 mm
Compatibility	DATRON Direct shank systems				

**Inserting Tool for Limit Stop Ring**

**Adapter Individual Tool**

Item no.	0068180	0068180 A	0068337D
Compatibility shank tool	6 mm	8 mm	-
Compatibility collet chucks	-		6 mm and 8 mm
Compatibility	DATRON Direct shank systems		

DATRON

# HIGH-SPEED TOOLS

Since 1990, DATRON has been developing and delivering carbide tools of the highest quality. As a manufacturer of high-quality high-speed milling, drilling and engraving machines, our focus has always been on machining technology. The technological design and quality of the high-speed tools are a major determining factor for the economy and quality of CNC machining. Our catalog provides you with an overview of the current product range. As a result of our own development and testing, as well as our customers' experiences, we can offer tools that are particularly optimized for high-speed machining.

» Tool Packages

page 33-34



# DATRON TOOL PACKAGES

DATRON offers specially designed tool packages for different materials – perfect for precise and efficient milling. You thereby benefit from a long service life, excellent surface finishes and maximum reliability – ideal for the broad range of requirements in CNC machining.

## Tool Package Aluminum

High cutting performance, quiet operation and smooth surface finishes: Milling tools, such as the DATRON 4-in-1 single flute end mill, the DATRON milling countersink for manufacturing bore holes and countersinks in one work step, or our threading tools support you with profitable chipping of light metals.



### Tool Package Aluminum

Item no.	0A03701B
Scope of delivery	<p><b>00680030E</b> - Thread Milling Cutter, 2.1/6.0/50.0/0.3 mm  <b>00680060E</b> - Thread Milling Cutter, 4.2/6.0/50.0/0.4 mm  <b>068020E</b> - Single Flute End Mill, 2/3/40/8 mm  <b>0068430E</b> - Single Flute End Mill, 3/6/50/8 mm  <b>0068479</b> - Chamfer Mill, 6/6/50/3 mm  <b>0068806K</b> - Single Flute End Mill, balanced, 6/6/50/13 mm  <b>0068808K</b> - Single Flute End Mill, balanced, 8/8/55/17 mm</p>

## Tool Package Acrylic

The DATRON tool packages for plastics are designed for the highest possible surface quality. Polished single flute end mills ensure clean cut edges without burr formation, while the optimal chip removal allows for quick feeds without fusing – for precise and efficient milling results.



### Tool Package Acrylic

Item no.	0A03701C
Scope of delivery	<p><b>0078310E</b> - Single Flute End Mill, polished cutting edge, 1/6/50/4 mm  <b>0078320E</b> - Single Flute End Mill, polished cutting edge, 2/6/50/7 mm  <b>0078330E</b> - Single Flute End Mill, polished cutting edge, 3/6/50/8 mm  <b>0078360E</b> - Single Flute End Mill, polished cutting edge, 6/6/50/14 mm  <b>0078338E</b> - Single Flute End Mill, polished cutting edge, 8/8/60/22 mm  <b>0078444</b> - Double Single Flute End Mill, polished flute, 14/8/50/6/1 mm  <b>00685806</b> - Chamfer Mill for Acrylic, 0,1/6/50/3 mm</p>

## Tool Package Nonferrous Metals

Optimized roughing teeth deliver maximum chipping power for efficient machining of copper and brass. Delicate, precisely designed cutting edge geometries refine surface finishes and increase dimensional accuracy and quality. In nonferrous metal machining, this combination ensures the best possible surface finishes, minimal post-processing and economical processes – even with complex geometries and demanding contours.



### Tool Package Nonferrous Metals

Item no.	0A03701D
Scope of delivery	<p><b>00685903</b> - Triple Flute End Mill, Copper Rough Mill, 3/6/50/6 mm  <b>00685906</b> - Triple Flute End Mill, copper rough mill, 6/6/50/12 mm  <b>00685908</b> - Triple Flute End Mill, copper rough mill, 8/8/50/16 mm  <b>00685630</b> - Triple Flute End Mill, copper rough mill, 3/6/50/6 mm  <b>00685660</b> - Triple Flute End Mill, copper rough mill, 6/6/50/11 mm  <b>00685680</b> - Triple Flute End Mill, copper rough mill, 8/8/50/16 mm  <b>00781043</b> - Double Flute End Mill, edge radius, 3/3/50/4/0,3 mm  <b>00781046</b> - Double Flute End Mill, edge radius, 6/6/58/7/0,5 mm  <b>00781068</b> - Double Flute End Mill, edge radius, 8/8/63/9/1 mm  <b>0068479</b> - Chamfer Mill, 6/6/50/3 mm</p>

## Tool Package Foam

The DATRON tool set Foam offers an efficient alternative to wire, water jet and laser cutting. The specially developed milling tools allow for precise, time-saving and post-processing free machining of PU foams.



### Tool Package Foam

Item no.	0A03701E
Scope of delivery	<p><b>00680530</b> - Triple Flute End Mill, toric cut, foam, 3/6/75/12 mm  <b>00680560</b> - Triple Flute End Mill, toric cut, foam, 6/6/75/27 mm  <b>00680580</b> - Triple Flute End Mill, toric cut, foam, 8/8/75/28 mm  <b>0068485N</b> - Chamfer Mill, foam, 4/8/50/5 mm</p>

DATRON

# COOLING LUBRICATION SYSTEM

Because of many years of application experience, DATRON is able to offer optimal cooling systems & materials for milling, drilling or engraving uses. Depending on the medium to be cooled, there is no, or only minimal, residue, which makes cleaning or degreasing unnecessary. The DATRON minimal amount cooling/lubrication systems can be used with different coolants/lubricants, such as ethanol, fatty alcohol or oil and are designed for reproducible results with milling and engraving processes that use small quantities of liquids. Thanks to its well-founded knowledge, DATRON not only offers high-quality coolants but also comprehensive support and consultation to its customers.

» MMKS Cooling System

page 36-39

DATRON

# MMKS COOLING/ LUBRICATING SYSTEMS

DATRON milling machines are designed for the efficient use of minimum-quantity cooling lubrication materials. The precise dispensing provides optimal cooling and lubrication, extends the tool service life and ensures high machining quality. Thanks to the complete evaporation, such as with ethanol, there are no residues and cleaning. Higher cutting speeds and flexible material machining lead to shorter cycle times and high productivity.



DATRON

# COOLING LUBRICATION SYSTEM EK-D

DATRON cooling/lubricating system EK-D – Efficient ethanol cooling for precise milling processes. The EK-D uses a two-nozzle system to allow targeted lubrication and effective heat dissipation directly at the tool. The evaporation effect of the ethanol coolant draws heat from the machining zone without leaving residues – no need for cleaning. Ideal for components that are directly processed further. Suitable for spindles with 0.6 kW, 1.2 kW and 2.0 kW as well as part of the DATRON minimum-quantity lubrication for efficient use of coolants.



	DATRON Spray Cooling System EK-D	Container Cooling System with Sensor (for Standard DATRON Cooling system EK-D)
Item no.	0A01005B	0A01005F
Capacity	5 L	5 L
Fill level control	Physically not present	Visual, with integrated warning
Compatibility	DATRON M8Cube, MLCube mit Direct shank system	
Scope of delivery	2 Venturi micro spray nozzles Spindle fastening 5l storage tank Software expansion for automatic operation	Container with sensor funnel tube

# DATRON

## SPRAY RINGS

The DATRON spray system uses four individually adjustable nozzles to provide an even and precise distribution of the cooling lubricant directly at the tool blade – regardless of the milling direction. The targeted moistening improves the heat dissipation, increases the machining quality and extends the service life of the tool.



### Spraying Unit

Item no.	0A01107D	0A01107E	0A01107U	0A01107V
Compatible with CleanCut	-	✓	-	-
Adjustability	adjustable			fixed
Compatibility	DATRON M8Cube, MLCube		DATRON MXCube	
Scope of delivery	Spraying unit with four adjustable nozzle blow-out unit			Spraying unit with four fixed nozzle blow-out unit

## Optional Accessories

### Blow-Out Unit

Item no.	0A01107Z
Scope of delivery	Blow-out unit for automatic removal of chip accumulations within the spray ring

DATRON

# CONTROLLABLE COOLING SYSTEM

Up to 30% less coolant consumption – flexible, precise and automated adjustability for maximum efficiency and reliability. The controllable DATRON cooling system regulates cooling and lubrication media directly during the milling process – manually or via the CAM program. Flow rate and pressure can be adjusted precisely to the material, machining step and process situation. Result: reduced consumption, lower costs and consistent high quality. Particularly in series production, and with changing materials, programmable settings ensure reliability and optimal prerequisites for automated processes.



**Controllable Cooling System**

Item no.	0A01105B	0A01105C
Adjustability	adjustable	
Compatibility	DATRON M8Cube, MLCube, MXCube	
Scope of delivery	2x Proportional valve IO-Link	

## Application Examples\*

Scenario	Cost/Year	 <b>Cost benefit</b>
Without controllable cooling system	€ 17,428.32	
With controllable cooling system	€ 11,618.88	
<b>Savings</b>	<b>€ 5,809.44 (≈ 33 %)</b>	

\*3-Shift operation, 7 days/week, per machine

# DATRON COOLANT TANKS

The DATRON spray system uses four individually adjustable nozzles to provide an even and precise distribution of the cooling lubricant directly at the tool blade – regardless of the milling direction. The targeted moistening improves the heat dissipation, increases the machining quality and extends the service life of the tool.



**Coolant Tank**

Item no.	0A03713	0A03713A	0A01106F	0A01107R	0A01107T	0A01107W	0A01107X
Capacity	5L	10L	10L	10L	2x 10L	10L	2x 10L
Lubrication	-	-	-	Inside & outside lubrication	Inside & outside lubrication	Outside lubrication	Outside lubrication
Level switch	✓						
Compatibility	DATRON neo (Pro)		DATRON M8Cube, MLCube	DATRON MXCube (8 kW)		DATRON MXCube (4 kW)	
Coolant	compatible with all DATRON approved coolants						
Scope of delivery	5L Tank	10L Tank	10L Tank	10L Tank	2x 10L Tank	10L Tank	2x 10L Tank

# DATRON SENSORS

The sensor solutions by DATRON increase precision, reliability and efficiency in your CNC manufacturing. From the highly precise component measurement and reliable tool measurement to the intelligent expansions – every system is optimally designed for our machines. Work piece positions, origins and quality parameters can be determined quickly and precisely, set-up times can be shortened, and machining processes can be optimized long-term.

## » Component Measurement

page 42-44

## » Tool Measurement

page 45-46

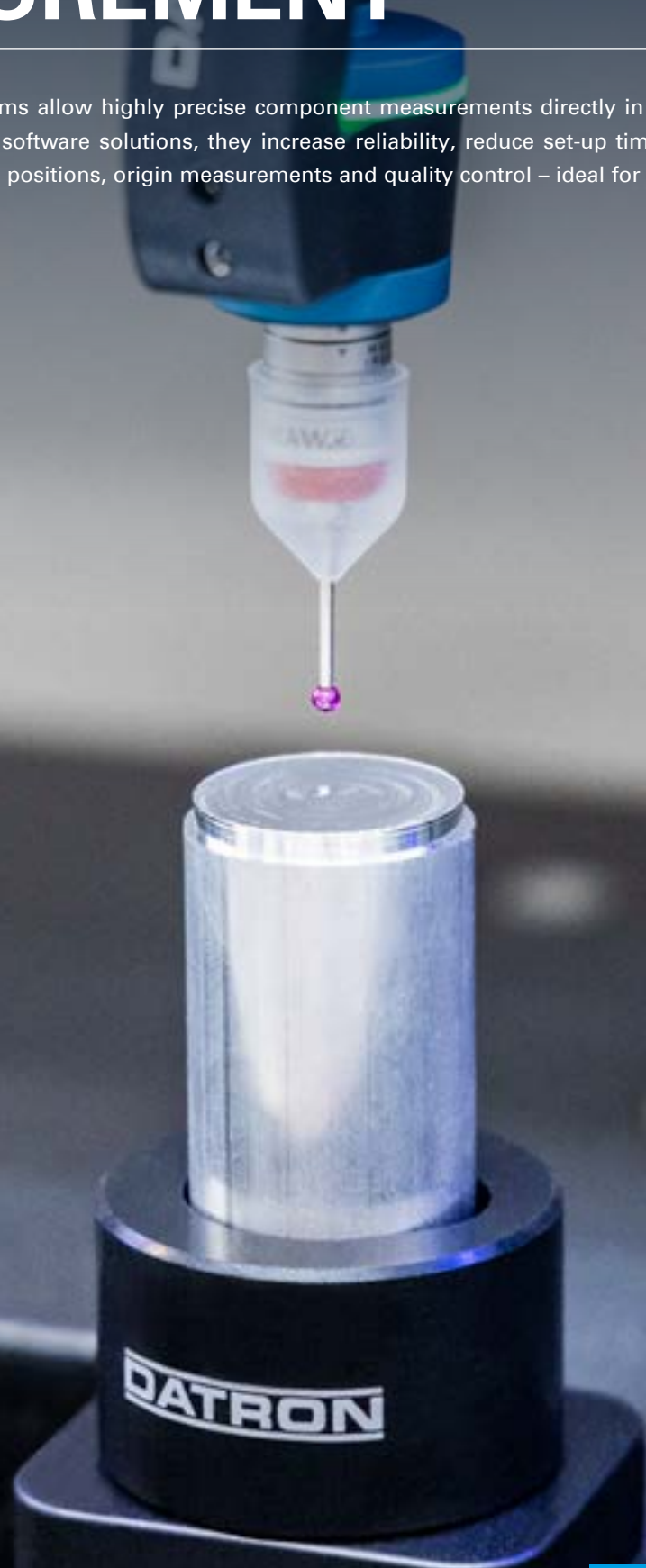
## » Sensor Extensions

page 47-48

DATRON

# COMPONENT MEASUREMENT

The DATRON sensor systems allow highly precise component measurements directly in the machine. In combination with the intelligent software solutions, they increase reliability, reduce set-up times and provide support for determining work piece positions, origin measurements and quality control – ideal for the optimization of your production processes.



# DATRON

## 3D PROBE

The DATRON 3D Probe allows the precise calibration and measurement of components. It is automatically folded out during the measuring cycle on the Z-axis and then folded back in. A magnetic coupling protects the probing head from damage caused by excessive forces in X- and Y-direction. The accessories include two probe tips: short for maximum accuracy, long for difficult to access geometries – ideal for the optimization of your measuring processes.



### DATRON 3D Probe

Item no.	0A01121V	0A01121U	0A01121I
Renishaw switching point repeat accuracy	±1.3 μm 2σ		
Probing repeat accuracy (incl. Renishaw switching point repeat accuracy)	30 μm 2σ	8 μm 2σ	
Software requirement	DATRON next		
Compatibility	DATRON neo Entry	DATRON M8Cube, MLCube	DATRON MXCube
Scope of delivery	Probing head complete with swivel arm Probe tip (length 13.5 mm, diameter 3 mm) User software 1x additional probe tip (length 20 mm, diameter 1 mm) for more delicate parts, <b>Item no. 0049005F</b>		

DATRON

# next 3D PROBE CALIBRATION

The DATRON 3D Probe Calibration allows a fully automated alignment of the sensor in only one minute – without manual intervention. It significantly reduces set-up times, increases reliability and ensures reproducible measuring results. Thermally optimized processes take the spindle expansion into account and ensure consistently high measuring precision – ideal for series production and automated processes.



## DATRON 3D Probe Calibration

Item no.	0A01391	0A01391A
Compatibility	DATRON M8Cube, MLCube, MLCube Pro	DATRON neo (Pro), M8Cube, MLCube, MLCube Pro, MXCube
Scope of delivery	Software	Software and Hardware

DATRON

# TOOL MEASUREMENT

The DATRON tool measurement systems allow the precise calibration and monitoring of tools directly in the machine. Whether for the determination of the exact tool length, breakage control or for automated tool changing – the integrated solutions ensure high reliability, reduced set-up times and consistently reliable machining results.



DATRON

# TOOL LENGTH MEASURING SENSOR

The DATRON tool length measuring sensor allows the tactile calibration of standing tools directly in the machine. It reliably determines the exact tool length and carries out a breakage check. An integrated blow-off unit keeps the measuring surface free from chips – ideal for precise and reliable tool measuring.



**DATRON Tool Length Measuring Sensor**

Item no.	0A01115Q	0A01115T	0A01115V	0A01115Y
Switching point repeat accuracy	5 $\mu\text{m}$ 2 $\sigma$			0.5 $\mu\text{m}$ 2 $\sigma$
Tool diameter	0.1 mm to 24 mm			
Triggering force	2.2 N			1.4 N
Maximum stroke	7 mm			
Measuring surface	Carbide (flat surfaces < 5 $\mu\text{m}$ )			Lapped carbide (flat surfaces < 3 $\mu\text{m}$ )
Software requirement	DATRON next			
Compatibility	DATRON M8Cube*, MLCube	DATRON M8Cube (with 12x tool changer)	DATRON M8Cube, MLCube with Tool Assist	DATRON MXCube

\*Except DATRON M8Cube with 12x tool changer

DATRON

# SENSOR EXTENSIONS

DATRON sensor extensions offer additional functions for even more precision and efficiency in CNC machining. They enhance the standard measuring systems with innovative technologies, such as camera based origin determination or automated testing processes. This allows for a further reduction of set-up times, simplification of measuring processes, and the targeted improvement of quality assurance in manufacturing.

# DATRON VISION SYSTEM

The DATRON next Vision System allows the visual determination of the origin using the smart camera with image recognition. Marks are detected automatically and measuring cycles determine distances to the target position. The origin, rotation and scaling of the coordinate system can thereby be adjusted precisely – for exact machining in position and angle.



## DATRON Vision System

Item no.	0A01065U	0A01065V
Resolution	1280 x 1024 pixels	
Focal length	50 mm (standard)	
Picture detail	approx. 12 mm x 9 mm (at 100 mm distance)	
Distance to the work piece surface	approx. 100 mm	
Measuring precision	< 0.01 mm	
Protection class	IP67	
Hardware requirement	DATRON next+	
Compatibility	DATRON M8Cube, MLCube	DATRON MXCube
Scope of delivery	Smart camera with integrated image processing Lens 50 mm LED lighting white for vision sensor Calibration pattern Supply and connection lines Lens barrel to set up the working distance Step-up adapter to fasten the ring light Mounting material, mechanical Connecting material, electrical DATRON.WebView Plugin Installer	

DATRON

# CHIP MANAGEMENT

Proper chip management is critical for smooth and productive manufacturing. It prevents chips from interfering with the work process or impairing the quality of the work pieces. With effective chip management, you not only increase the efficiency and precision of the production, but also extend the service life of the tools. Additionally, you are helping support the environment and the safety of your operators by disposing the cutting debris safely and responsibly.

## » Chip Evacuation Systems

page 50-54

## » Chip Control Systems

page 55-57

## » Ionization Systems

page 58-61

DATRON

# CHIP EVACUATION SYSTEMS

Evacuation of chips and dust by vacuum achieves a clean and safe work environment while improving the production and quality of your work pieces. DATRON offers a range of extraction solutions specifically developed for various application requirements. These systems optimize your machining efficiency and helps protect the users by creating a cleaner and safer work environment.

CleanCut



# DATRON CLEANCUT

The DATRON CleanCut system was specifically designed for removal or extraction of small chips and particles on flat sheet material. This innovative technology significantly reduces cleaning of the machine and enables nearly chip-free working. Due to the contact-free suction head, the system is also suitable for machining sensitive surface finishes without scratching. The suction head automatically deploys and extracts, which offers additional time savings. The cutting tool is effectively cooled with the optional four-nozzle spray misting head during the vacuum process and achieves nearly residue-free machining.



### DATRON CleanCut

Item no.	0A01177U	0A01177V	0A01177W
Compatibility	DATRON M8Cube	DATRON MLCube	DATRON MXCube
Portal passage	160 mm		
Hose connection	50 mm		
Scope of delivery	CleanCut base module; suction funnel		

\*Installation service necessary

## Optional Accessories

### Industrial Vacuum Cleaner

» Industrial Vacuum Cleaners (p. 52)

Item no.	0A01177	0A01177E

DATRON

# INDUSTRIAL VACUUM CLEANER

High-performance DATRON industrial vacuum cleaners are essential for a clean and safe work environment when machining. They efficiently remove chips and dust, optimize the machine performance, and protect the health of the users. DATRON offers a wide range of industrial vacuum cleaners designed to meet customer-specific application needs. There are special devices available for extracting the fine dust associated with graphite machining. Wet and dry vacuum cleaners are available to suction off explosive dust scenarios. When an efficient and safe work environment is critical, there are specific extraction solutions available for the DATRON CleanCut system.



Fig. similar

	Industrial Vacuum Cleaner		Safety Vacuum Cleaner Type 22
Item no.	0A01177	0A01177E	0A01180A
Pre-separator	✓	-	-
Dimensions (LxWxH)	850 x 760 x 1,700 mm		605 x 580 x 970 mm
Air quantity	320 m³/h		200 m³/h
Output	3,000 W		1,500 W
Operating voltage	3x400V (16A)		230V
Sound pressure level	60 dB(A)		57 dB(A)
Weight	230 kg	145 kg	26 kg
Compatibility	DATRON M8Cube, MLCube, MLCube Pro, MXCube		
Scope of delivery	Industrial vacuum cleaner Tube duct All connections Tubing approx. 3m 160 l pre-separator Vacuum cleaner control system	Industrial vacuum cleaner Tube duct All connections Tubing approx. 3m Vacuum cleaner control system	Disposal bag with closing lid 2x suction hose (1x diameter 50 mm, L: 4 m 1x diameter 27 mm, L: 3.5 m) Sleeve

## Optional Accessories

	Pre-Separator
Item no.	0069653C
Basic body dimensions (LxWxH)	720 x 820 x 1,360 mm

DATRON

# NEO DUST EXTRACTION SYSTEM

The DATRON neo dust extraction system set minimizes dust and debris from entering the air ensuring a clean working environment for flat sheet material. Compressed air pneumatically raises and lowers the brush head from a stored position to resting directly on the work piece when suctioning. The extracted dust is removed from the machining area through a flexible hose. The industrial vacuum cleaner is included in the set and can conveniently be switched on and off automatically by the machine control system.



**DATRON neo (Pro) Dust Extraction System**

Item no.	0A03705C	0A03705D
Industrial vacuum cleaner	✓	-
Dimensions (LxWxH)	395x440x653 mm	
Design	with 18l filter bag	
Air quantity	285 m <sup>3</sup> /h	
Output	1,100 W	
Operating voltage	230 V	
Sound pressure level	66 dB(A)	
Filter class	H14	
Weight	approx. 34 kg incl. industrial vacuum cleaner	
Scope of delivery	Suction brush with drive and suction head Suction hose with adapter for suction Pneumatic hose Industrial vacuum cleaner incl. control cable and suction connection Hepa filter H14 Filter bag 18 l	Suction brush with drive and suction head Suction hose with adapter for suction Pneumatic hose

## Optional Accessories

	<b>Hepa Filter H14</b>	<b>Filter Bag 18 l</b>
Item no.	0069666B	0069666A

DATRON

# OIL MIST EXTRACTION

The oil mist extraction system removes vapors that develop during machining with oily cooling lubrication media from the interior of the machine. Note: Emerging oil is returned to a provided drip pan on the inside of the machine. Not applicable when using ethanol or other highly flammable media.



## DATRON Oil Mist Extraction

Item no.	0A01108	0A01108B
Compatibility	DATRON M8Cube	DATRON MXCube
Dimensions (HxWx D)	395x440x653mm	
Control system	standard, LED control lamps for operation and interference	
Air inlet	bottom	
Air outlet	top	
Air flow rate (max.)	100m <sup>3</sup> /h (EC ventilator, speed / rpm adjustable)	
Active filter surface	8.8 m <sup>2</sup>	
Connection	200-240 V / 50-60 Hz	
Output	170 W	
Current consumption	1.25-1.5 A	
Operating temperature (max.)	45°C	
Noise level	70 dB (A)	
Weight	ca. 37 kg	
Scope of delivery	Electrostatic oil and emulsion mist separator Mounting set Oil drip pan	

DATRON

# CHIP CONTROL SYSTEMS

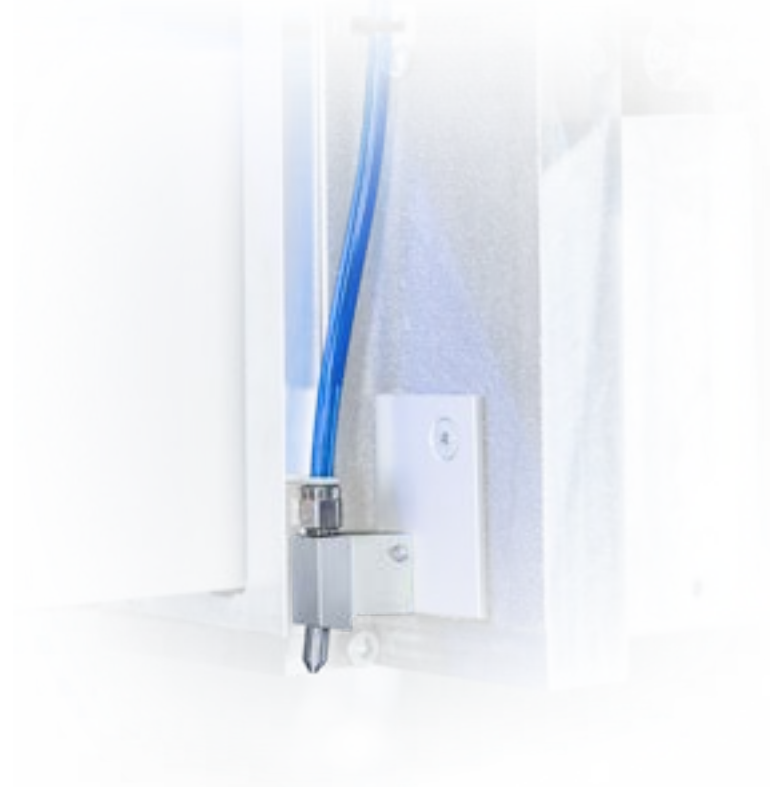
Chip management systems provide for a clean, uninterrupted machining process by efficiently removing chips from the work piece surface and the machining area. This keeps the working area of your milling machines clean at all times, which increases the machine performance and shortens production times. Perfect for automated manufacturing environments, these systems maximize the efficiency of your production.



DATRON

# BLOW-OFF NOZZLES

The DATRON blow-off nozzles use compressed air to remove chips from the work piece surface and the machining area during the milling process. Mounted on the Z-axis, it keeps the work area, accessories and work holding free from chips. This accessory is ideal for applications when you need to prevent chips from accumulating on the work piece and keeping the surface finish clean. For improved work piece quality and uninterrupted machining, these blow-off nozzles can be beneficial in saving you time and money.



## Double Blow-Off Nozzle

Item no.	0A01132
Quantity	2 blow-off nozzles on the left and right side of the Z-axis
Operating pressure	6 bar
Software requirement	DATRON next from Version 3.0.42
Compatibility	DATRON M8Cube, MLCube, MLCube Pro
Scope of delivery	2x blow-off nozzles Control unit Pneumatic hose Side cover Z-axis

\*Installation service necessary

DATRON

# CHIP CONVEYOR & -CART

The DATRON chip conveyor is designed to reliably remove chips from the work area and specifically designed to meet the requirements of HSC machining of aluminum. It effortlessly processes short and long chips, keeps the working area clean and thereby supports optimal machine performance at reduced production times – ideal for applications in automated series production.

As a flexible alternative, the chip carriage set offers an efficient disposal solution without a fixed conveyor mechanism. Two robust carriages with smooth running rollers can be pulled out at the sides and emptied easily. Perfect for applications without fixed installed conveyors or when mobile chip disposal is needed.



	Chip Conveyor*	Chip carriage
Item no.	0A01170A	0A01171
Dimensions (LxWxH)	1.985 x 3.574 x 800 mm	265 x 1.929 x 581 mm
Rising angle	0°, 30°, 45°, 60°, 75°	-
Operating voltage	3x400V (16A)	-
Chain pitch	40 mm	-
Design	Endless chip conveyor	-
Weight	420 kg (without packaging)	35 kg
Compatibility	DATRON MXCube, MLCube Pro	
Scope of delivery	Chip conveyor Mounting material Control cable Mains supply line	Set chip carriage cover contact sheet

\*Installation service necessary

DATRON

# IONIZATION SYSTEMS

Neutralize statically charged plastic chips and eliminate them from clinging to your machine and work piece with the ionization system. Benefits include more accurate and faster part turn over, clean work pieces, faster cleanups, extended tool life and reduced machine maintenance. Additionally, you are improving the safety of your production. For maximum precision, efficiency, and outstanding results every time, the ionization system is the solution.



DATRON

# NEO IONIZATION BAR

The DATRON ionization bar neutralizes electrostatically charged chips by releasing ionized compressed air. These chips are directly transported into the chip box, which significantly reduces the required cleaning in the machine interior. This is conveniently activated with the DATRON next control system and supports a clean and efficient production.



## DATRON neo Ionization Bar

Item no.	0A03712
Dimensions (LxWxH)	552x23.8x28.4 mm
Output voltage	max. 8 kV
Operating voltage	21-27V DC
Compatibility	DATRON neo
Scope of delivery	DATRON neo ionization bar Compressed air supply

\*Installation service necessary

DATRON

# IONIZATION NOZZLES

The ion spray nozzles are mounted directly to the Z-axis, discharging chips and causing them to fall to the machining table making it easier to clean the machine. These nozzles are controlled automatically; however, they cannot be mounted when the DATRON CleanCut system, the brush head or the DATRON next camera are installed.



## Ionization Nozzles

Item no.	0A01182T	0A01182J	0A01182R	0A01182L
Power unit dimensions (LxWxH)	240 x 125 x 95 mm			
Output voltage	6.4 kV			
Operating voltage	100-240 V AC			
Compatible with CleanCut	-	✓	-	✓
Including ion spray gun	-	-	✓	✓
Compatibility	DATRON M8Cube, MLCube, MLCube Pro	DATRON M8Cube, MLCube, MLCube Pro	DATRON M8Cube, MLCube, MLCube Pro	DATRON M8Cube, MLCube, MLCube Pro
Scope of delivery	2x ion spray nozzles with supply cable Power unit 230 V / 50 Hz / 7 kV Filter pressure regulator Connection accessories		2x ion spray nozzles with supply cable Ion spray gun with 3 m cable (hand-held gun) Power unit 230 V / 50 Hz / 7 kV Filter pressure regulator Connection accessories	

\*Installation service necessary

# DATRON ION SPRAY GUN

The ion spray gun offers a hand held solution for the removal of electrostatically charged chips. Quickly spray the ionized compressed air over the machine enclosure and remove the sticking statically charged chips. The gun can be installed in the field by simply plugging it into the machine 230 volt receptacle and is manually operated with no connection to the machine control.



## Ion Spray Gun

Item no.	0A01182
Dimensions (LxWxH)	195 x 120 x 33 mm
Range	300 mm
Filter pressure regulator	✓
Operating voltage	24 V DC
Operating pressure	1-7 bar
Compatibility	DATRON neo, M8Cube, MLCube, MLCube Pro, MXCube
Scope of delivery	Ion spray gun with 5 m cable Power unit 230 V / 24 V Filter pressure regulator 6 m pneumatic hose with couplings



DATRON

# CLAMPING TECHNIQUE

DATRON clamping techniques stand for precision and efficiency when it comes to securing work pieces. Our innovative clamping systems are designed for specific applications and for DATRON milling machines, allowing for fast securing of parts in a broad range of materials. The modular design clamping solutions are highly flexible to help you optimize production processes and minimize set-up times. You will be confident that the quality and reliability of the DATRON clamping systems will secure your parts with precision and will increase production.

## » Clamping Devices, Mechanical

page 63-68

## » Clamping Devices, Pneumatic

page 69-70

## » Vertical Clamping Systems

page 71-73

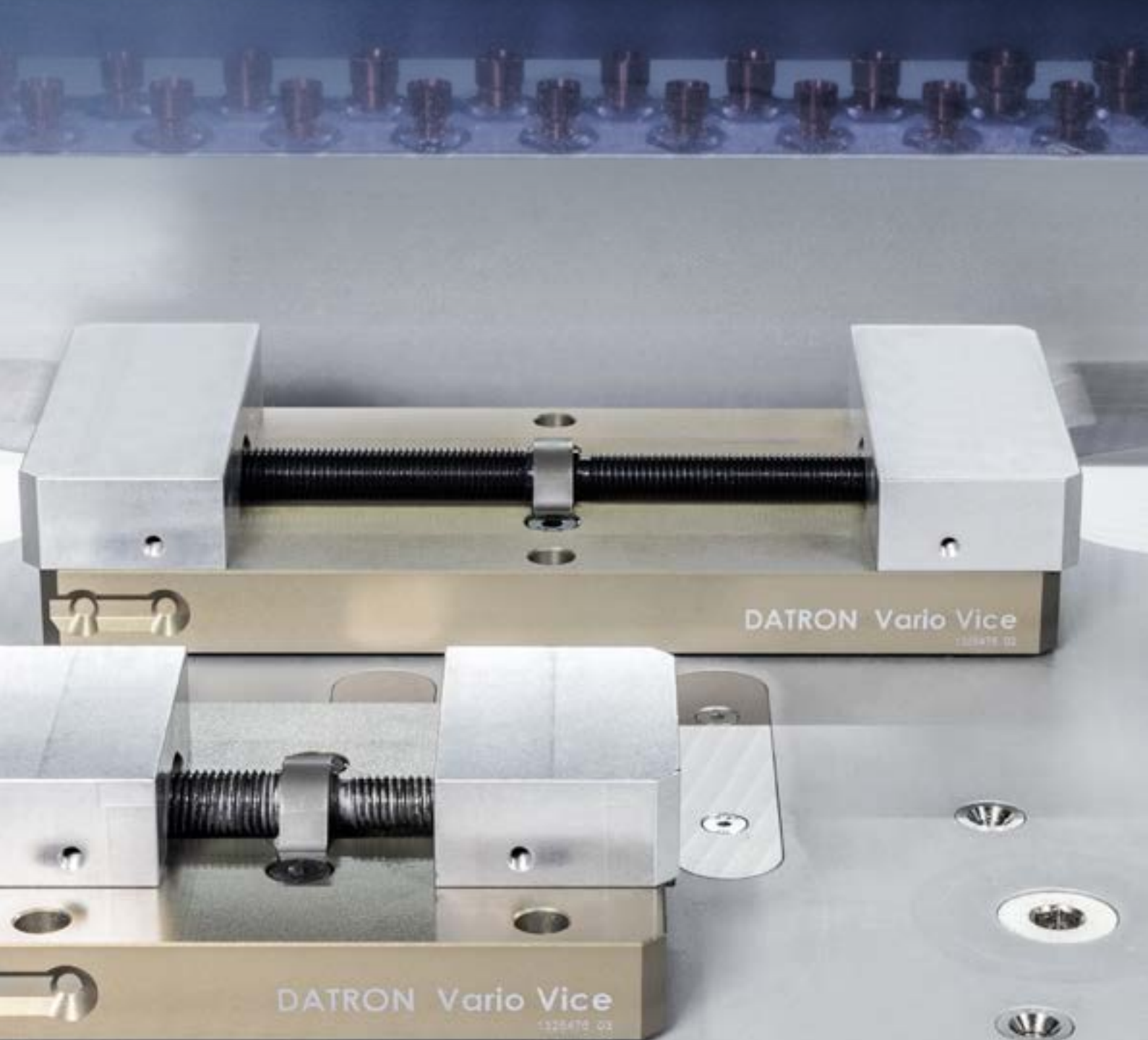
## » Clamping Device, Vacuum Technique

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DATRON

# CLAMPING DEVICES, MECHANICAL

DATRON mechanical clamping devices offer precision and flexibility for a broad range of applications in CNC machining. Positively secure your work piece, with easy part loading and unloading, with reliable repeatability and accuracy. The innovative technology and robust design, contribute to efficient and cost-saving manufacturing.



DATRON

# COMPACT BENCH VICE

The DATRON compact bench vice is ideal for applications requiring a high clamping force. With a maximum clamping force of 35 kN, it holds components securely in position. The double encapsulated spindle protects from chips and ensures reliable operation. Aluminum clamping jaws in two widths can be adjusted individually to various work piece geometries. The bench vice is available in guide lengths of 160 mm or 300 mm, with optional machinable aluminum clamping jaws for milling specific part geometries.



### DATRON Compact Bench Vice

Item no.	0A01088J	0A01088H
Basic body dimensions (LxWxH)	160x125x50 mm	300x125x50 mm
Clamping range (aluminum jaws)	0-58 mm	0-198 mm
Jaw width	125 mm; 225 mm (optional)	
Clamping force (max.)	35 kN	
Interface	DATRON cone grid	
Compatibility	DATRON neo, M8Cube, MLCube, MLCube Pro, MXCube	
Scope of delivery	DATRON compact bench vice 160 or 300 2x Aluminum clamping jaw 125 mm Ratchet incl. adapter Mounting screws	

## Optional Accessories

### Aluminum Clamping Jaws

Item no.	0078936L	0078936K
Basic body dimensions (L)	125 mm	225 mm

DATRON

# VARIO VICE 150/250

The DATRON Vario Vice is a very flexible bench vice that was specifically designed for DATRON milling machines. Solve a broad range of application requirements by using the quick change system for jaws, the quick change pallet mounting system, and or the robot gripper device. The compact design offers numerous options due to the design of a fixed center jaw. For example, it can also be used as a dual clamp – perfect for multiple part clamping.



	DATRON Vario Vice 150			DATRON Vario Vice 250		
Item no.	0A01088L	0A01088M	A01088N	0A01088P	0A01088Q	0A01088R
Jaw width	70 mm	120 mm	200 mm	70 mm	120 mm	200 mm
Dimensions incl. jaws (LxWxH)	150x120.4x46 mm			250x120.4x46 mm		
Clamping range	0-50 mm (+ milled recess in jaw)			0-150 mm (+ milled recess in jaw)		
Clamping force (max.)	5 kN					
Interface	DATRON cone grid; quick change pallet system					
Compatibility	DATRON neo, M8Cube, MLCube, MLCube Pro, MXCube					
Scope of delivery	DATRON Vario Vice 150 or 250 2x clamping jaw 70 mm, 120 mm or 200 mm					

## Optional Accessories

	DATRON Vario Vice Clamping Jaw			DATRON Vario Vice Center Jaw		
Item no.	0078936Q	0078936P	0078936T	0078936S	0078936R	0078936U
Basic body dimensions (L)	70 mm	120 mm	200 mm	70 mm	120 mm	200 mm

DATRON

# FOUR-JAW CHUCK 125

The precision DATRON four-jaw chuck is designed for clamping round and square work pieces. Make quick jaw adjustments easily using a ratchet. The chuck has minimal interference in your working area due to its compact dimensions. Achieve precision setups with the clamping jaws pre-aligned with the machine. It is compatible with all DATRON CNC milling machines.



### Four-Jaw Chuck 125 mm

Item no.	0A01088G
Dimensions incl. inner and outer jaws (LxWxH)	180 x 180 x 98.2 mm
Clamping range	0-125 mm
Clamping force (max.)	31 kN
Interface	DATRON cone grid
Compatibility	DATRON neo, M8Cube, MLCube, MLCube Pro, MXCube
Scope of delivery	Four-jaw chuck 125 mm made of special casting 2x inward graded jaws made of hardened steel 2x outward graded jaws made of hardened steel Aluminum base plate Ratchet incl. adapter Basic jaw set to connect attachment jaws (4-piece) Aluminum attachment jaw set (4-piece)

## Optional Accessories

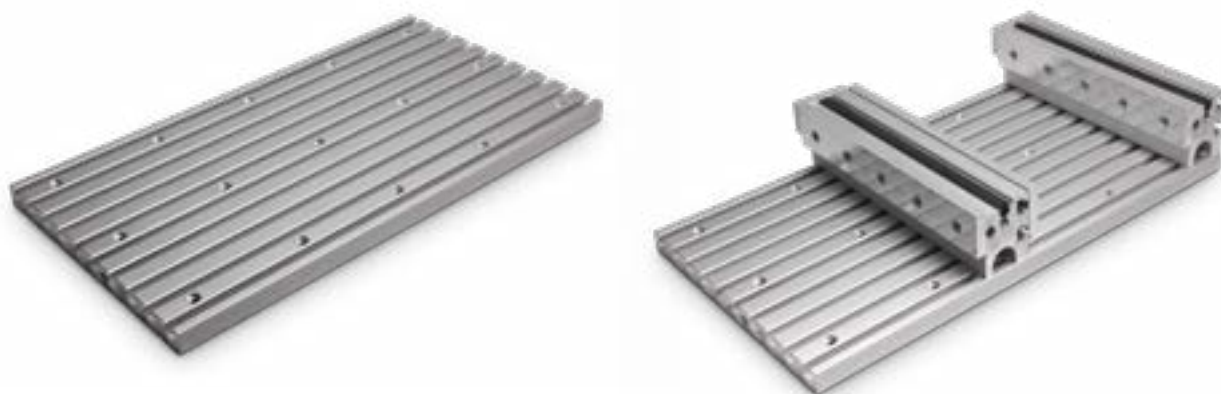
### Aluminum Attachment Jaw Set (4-piece)

Item no.	0A01088I
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DATRON

# T-SLOTS MODULE CLAMPING TECHNIQUE

The DATRON T-slot module clamping plate offers flexible mounting options by combining short-stroke clamping units and the fixed clamping jaws. The modules are quickly secured on the machining table using a vacuum suction system. Add versatility to your ML, M7, MV, M8Cube or M10 milling machines, with this module clamping system.



**T-Slot Module Plate**

Item no.	0A01622Q incl. fixed jaw: 0A01623Q	0A01622R incl. fixed jaw: 0A01623R	0A01622S incl. fixed jaw: 0A01623S	0A01624H incl. fixed jaw: 0A01624G
Dimensions without fixed. jaw (LxBxH)	500x250x20 mm	700x250x20 mm	1,000x250x20 mm	700x1,000x20 mm
Interface	DATRON cone grid			
Compatibility	DATRON neo, M8Cube, MLCube, MLCube Pro, MXCube			
Scope of delivery	T-slot module clamping plate (with or without fixed jaw) Conical centering bushes Gasket			

## Optional Accessories

	Fixed Jaw		Fixed Jaw with Backrest	
Item no.	0A01625	0A01625A	0A01625E	0A01625F
Basic body dimensions (L)	250 mm	1.000 mm	250 mm	1.000 mm

DATRON

# MODULE CLAMPING PLATES

The DATRON module clamping MS-P pallet plates are made from surface-milled aluminum with conic centering inserts in a 100 mm grid pattern allowing for mounting of optional clamping devices on the top surface. They can be secured by using fastening screws or mount in seconds using the vacuum suction system for cost-saving production. Set up your job efficiently using the quick-locating conical insert system with precise repeatability.



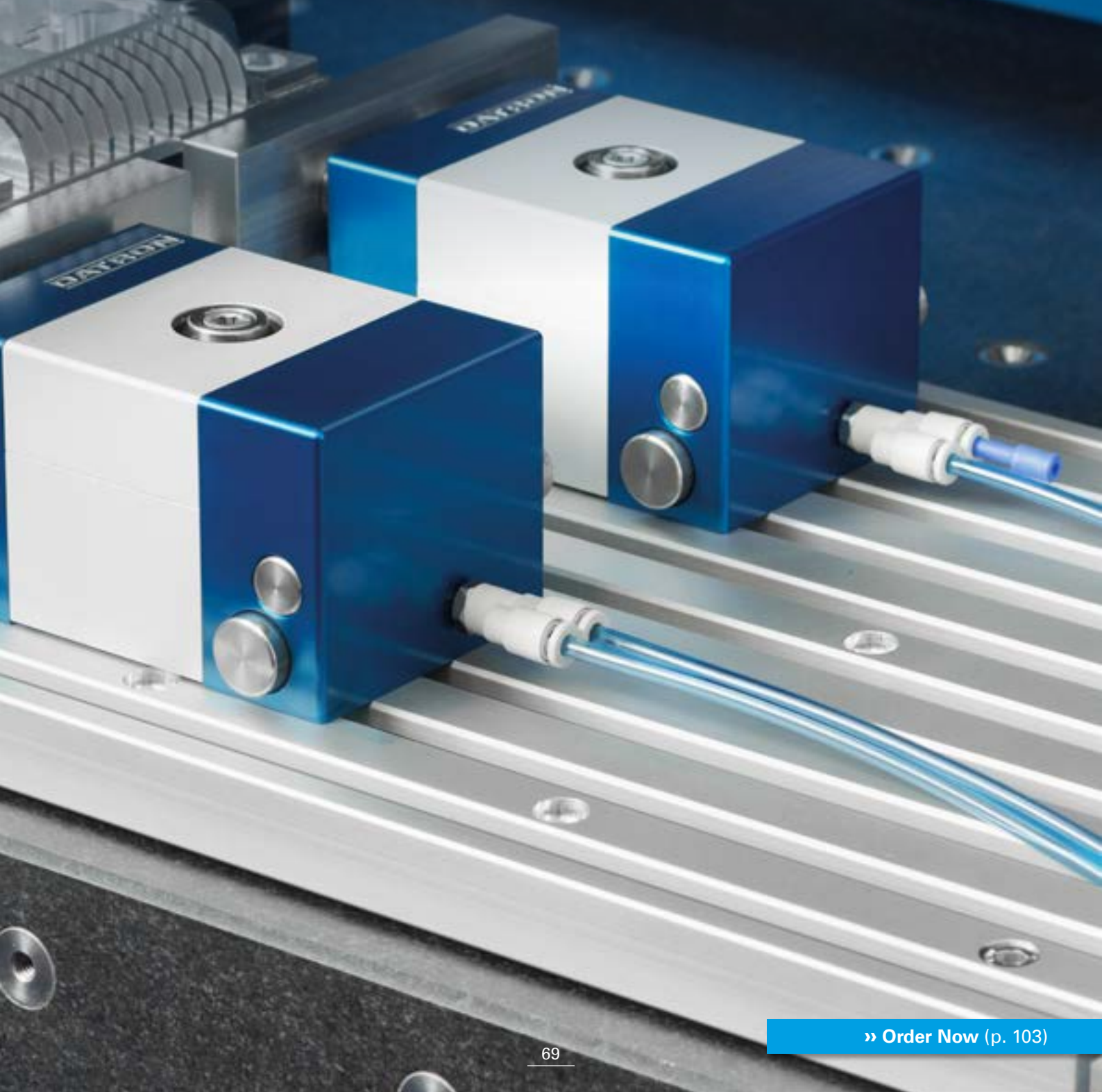
### Module Clamping Plate

Item no.	0A01620A	0A01620B
Dimensions (LxWxH)	180x280x15 mm	280x380x15 mm
Interface	DATRON cone grid	
Compatibility	DATRON neo, M8Cube, MLCube, MLCube Pro, MXCube	
Scope of delivery	Module clamping plate Conical centering bushes Gasket	

DATRON

# CLAMPING DEVICES PNEUMATIC

DATRON pneumatic clamping devices use compressed air for a precise and efficient holding of work pieces. They are characterized by easy handling and high repeat accuracy, allowing for quick and precise adjustments. These clamping devices increase the productivity and flexibility of manufacturing processes and are ideally suited for applications with short run times and quick part turn-over is of utmost importance.



DATRON

# SHORT-STROKE CLAMPING UNIT

DATRON short-stroke clamping units offer maximum flexibility and are extremely easy-to-use for CNC machining. They can be set up quickly with one hand and at the push of a button, an impressive clamping force of up to 750 N will secure your work piece. These units are ideally suited for applications that require short change-over times and high precision. Designed for the use on T-slot plates, they can also be used for stationary use – perfect for demanding manufacturing challenges where speed and reliability are the priority.



	Short-Stroke Clamping Unit Standard	Short-Stroke Clamping Unit Automated	Short-Stroke Clamping Unit DATRON neo
Item no.	0A01084A	0A01084B	0A01084C
Dimensions (LxWxH)	130 x 110 x 65 mm		
Clamping force (max.)	100-600 N		
Clamping range	T-slot technology allows for continuous adjustments		
Operating pressure	1-6 bar		
Interface	T-slot module clamping technique		
Compatibility	DATRON M8Cube, MLCube, MLCube Pro, MXCube		DATRON neo
Scope of delivery	Short-stroke clamping unit Compressed air hose		

## Optional Accessories

**Pneumatic Control Unit 8-fold  
incl. dig. I/O Module 8 in / 8 out**

Item no.	0A01604Q
Basic body dimensions (LxWxH)	170 x 80 x 60 mm

» Pneu. Control Unit (p. 73)

DATRON

# VERTICAL CLAMPING SYSTEMS

DATRON vertical clamping systems offer precise solutions for vertical clamping of work pieces in CNC machining. These systems allow for a reliable mounting of housings and other vertical parts with precision and a consistent repeatability. Pneumatic short-stroke cylinders and grid rods are used to achieve fast and precise clamping and positioning. The robust and innovative construction will save you set up time and manufacturing costs.



DATRON

# VERTICAL CLAMPING SYSTEM

The DATRON pneumatic vertical clamping system was designed for the quick and easy clamping of housings. Developed for machines with a cut-out table, the clamping plate, equipped with T-slots, is secured vertically to the machining table. Several pneumatic short-stroke cylinders lock the vertical clamping beam with grid rods. The continuous air pressure on the cylinders is controlled individually by pneumatic valves, which makes precise clamping possible with this flexible system. This was designed for applications requiring speed and reliability.



	<b>Pneumatic Vertical Clamping System</b>	<b>Pneumatic Vertical Clamping System with Height Stop</b>	
Item no.	0A01087B	0A01087H	0A01087K
Dimensions (LxWxH)	130 mm x 110 mm x 65 mm		
Clamping range (max.)	575 mm		
Clamping force per cylinder (max.)	750N		
Operating pressure	1-6 Bar		
Interface	DATRON cone grid; quick change pallet system		
Compatibility	DATRON M8Cube		DATRON MLCube
Scope of delivery	Clamping system 3x short-stroke cylinders Compressed air hose Pneumatic valve		

## Optional Accessories

### Short-Stroke Cylinders

Item no.	0690211D
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DATRON

# PNEUMATIC CONTROL UNIT

For automated clamping, the pneumatic control unit by DATRON provides easy automation of the short-stroke clamping units. Up to eight clamping units can be actuated individually from a program, or manually via the manual control panel and/or the keyboard. This unit offers great flexibility and efficiency and allows for quick and precise adjustments during set up. Ideal for the most demanding manufacturing challenges, it automates production and improves the reliability of your work. Designed for DATRON machines, it optimizes results for every production run.



**Pneumatic Actuation Unit 8-fold  
I/O Module 8 in/8 out**

Item no.	0A01604Q
Dimensions (LxWxH)	170 x 80 x 60 mm
Weight	1 Kg
Compatibility	DATRON M8Cube, MLCube, MLCube Pro, MXCube
Scope of delivery	Pneumatic control unit 8-fold Digital in-/output module



DATRON

# CLAMPING DEVICE VACUUM TECHNIQUE

DATRON vacuum table technology is ideal for clamping flat work pieces and thin sheet materials. Secured by vacuum, you can hold multiple work pieces at one time offering additional flexibility. The micro-perforated sacrificial card stock, DATRON VacuCard, simplifies mounting of your material and protects the vacuum chuck. This work holding is ideal for various machining processes for precise and efficient CNC machining.



# DATRON VACUCARDS

Maximize the efficiency of your vacuum clamping technique with the DATRON VacuCard. This micro-perforated special card stock ensures an even distribution of the vacuum across the entire clamping area without having to cover unused areas. At the same time, the VacuCard protects your vacuum clamping chuck from damage by acting as a sacrificial layer. Benefit from optimized handling and accelerated work processes.

The DATRON VacuCard++, which has a grid of sealing adhesive squares is designed for clamping smaller and delicate work pieces. It maximizes the holding forces and minimizes vacuum losses, even with thin or structured sheet material. With the VacuCard++, be assured that your work pieces will be reliably secured, even at high milling forces, with consistent and precise results.



Fig. similar

### VacuCard

Item no.	0A01617A	0A01617X	0A01617	0A01617L	0A01616	0A01616L	0A01617K	0A01617I
Dimensions (LxWxH)	1,000x700x0.7 mm		1,000x500x0.7 mm		650x450x0.7 mm		500x400x0.7 mm	500x200x0.7 mm
Material strength	500g/qm							
Compatibility	DATRON neo, M8Cube, MLCube, MLCube Pro, MXCube							
Scope of delivery	50x VacuCard	500x VacuCard	50x VacuCard	500x VacuCard	50x VacuCard	500x VacuCard	50x VacuCard	50x VacuCard

### VacuCard++

Item no.	0A01618I	0A01618F	0A01618H	0A01618E	0A01618G	0A01618D
Dimensions (LxWxH)	1,000x700x0.7 mm		1,000x500x0.7 mm		650x450x0.7 mm	
Material strength	500g/qm					
Compatibility	DATRON neo, M8Cube, MLCube, MLCube Pro, MXCube					
Scope of delivery	10x VacuCard ++	50x VacuCard ++	10x VacuCard ++	50x VacuCard ++	10x VacuCard ++	50x VacuCard ++

### VacuCard+++

Item no.	0A01618N	0A01618M	0A01618K	0A01618W
Dimensions (LxWxH)	1,000x700x0.7 mm	1,000x500x0.7 mm		500x400x0.7 mm
Material strength	500g/qm			
Compatibility	DATRON neo, M8Cube, MLCube, MLCube Pro, MXCube			
Scope of delivery	10x VacuCard +++	10x VacuCard +++	50x VacuCard +++	20x VacuCard +++

DATRON

# VACUUM PLATES WITH MEANDER SLOTS

The DATRON vacuum plates with meander slots were designed for vacuum clamping of sheet materials. Meandering slots in a grid of 100 x 100 mm regions provide an efficient distribution of the vacuum, that are individually adjustable allowing you to align the clamping area to your work piece. The micro-perforated DATRON VacuCard also acts as sacrificial layer offering a flexible area for your flat panel piece or pieces without cutting into the table.



## Vacuum Plate 30

Item no.	0A03672E	0A03672F	0A03672G	0A03672H
Dimensions (LxWxH)	500x500x30 mm	700x500x30 mm	1,000x500x30 mm	1,000x700x30 mm
Weight	approx. 30 Kg	approx. 43Kg	approx. 40 Kg	approx. 55 Kg
Interface	DATRON cone grid			
Compatibility	DATRON M8Cube, MLCube, MLCube Pro, MXCube			
Scope of delivery	Vacuum hoses; ground cables			

## Vacuum Plate 70

## Vacuum Plate DATRON neo

Item no.	0A03671E	0A03671F	0A03671G	0A03671H	0A03702A
Dimensions (LxWxH)	500x500x30 mm	700x500x30 mm	1.000x500x30 mm	1.000x700x30 mm	500x200x35 mm
Weight	approx. 30 Kg	approx. 40 Kg	approx. 50 Kg	approx. 70 Kg	approx. 12 Kg
Interface	DATRON cone grid				
Compatibility	DATRON M8Cube, MLCube, MLCube Pro, MXCube				DATRON neo
Scope of delivery	Vacuum hoses; ground cables				

## Optional Accessories

» VacuCards (p. 75)

» Vacuum Distributor (p. 77)

» Vacuum Pumps (p. 78)

DATRON

# VACUUM DISTRIBUTOR

The DATRON vacuum distributors, complete with shut-off valves, allow you to turn on and off the vacuum suction to each modular vacuum table. Each valve has venting for easy part removal for each table. The venting immediately exhausts the suction pressure, allowing for fast and safe work piece handling. The vacuum distributor is mounted under the machining table, saving space and is available in a range of sizes or zones, upon request.



Fig. similar

	<b>Vacuum Distributor 2-Fold</b>	<b>Vacuum Distributor 2-Fold Pro</b>	<b>Vacuum Distributor 3-Fold Pro</b>	<b>Vacuum Distributor 6-Fold Pro</b>
Item no.	0A03673E	0A03673A	0A03673B	0A03673C
Compatibility	DATRON MXCube	DATRON M8Cube	DATRON MLCube with cut-out table	DATRON MLCube without cut-out table
Scope of delivery	Shut-off valves Additional shut-off valve with venting Hose lines Mounting material			

# DATRON VACUUM PUMPS

DATRON offers a range of vacuum pumps to meet your application needs. The size of pump required depends on the size and quantity of vacuum chucks used. These pumps are specified for the efficient and reliable vacuum pressure needed for the machining of your work pieces within your applications.



Fig. similar

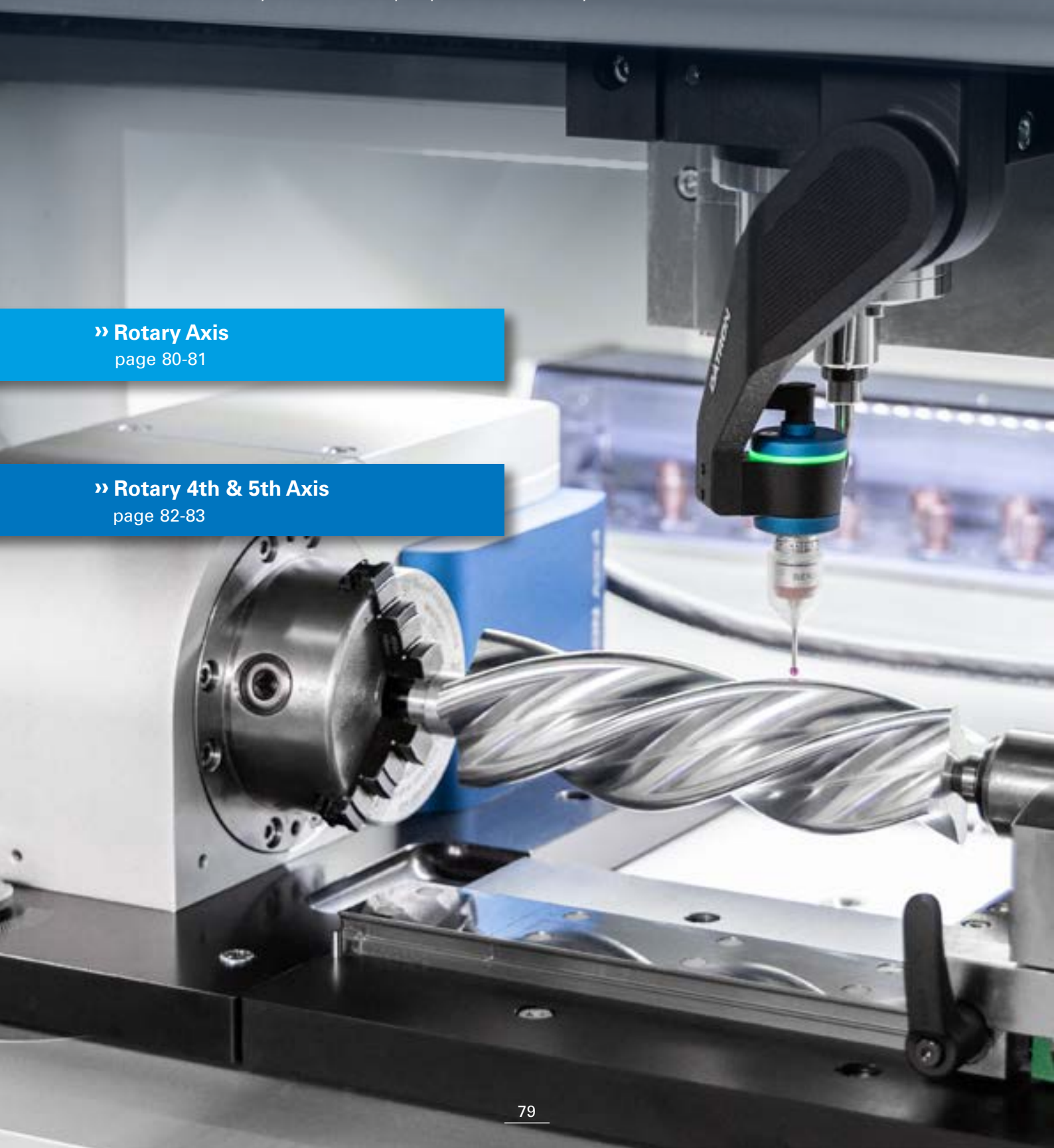
	Vacuum Pump				Vacuum Pump DATRON neo
Item no.	0A03633A	0A03633B	0A03633C	0A03633D	0A03702B
Dimensions (LxWxH)	748x433x310 mm	776x582x420 mm	630x360x630 mm	776x582x420 mm	630x360x630 mm
Design	Rotary vane				
Lubrication	Oil sump				
Suction power	100 m <sup>3</sup> /h	200 m <sup>3</sup> /h	250 m <sup>3</sup> /h	200 m <sup>3</sup> /h	25 m <sup>3</sup> /h
Motor rated power	3.0 kW	5.5 kW	7.5 Kw	5.5 kW	740W
Operating voltage	3x 400V 16A 50Hz				
Sound pressure level	67 db(A)	72 db(A)			62/64 db(A)
Suction connection	1 1/4"	2"		1 1/4"	1/2"
Weight	approx. 70 kg	approx. 150 kg	approx. 200 Kg	approx. 150 kg	approx. 60 Kg
Compatibility	DATRON M8Cube, MXCube	DATRON MLCube, MLCube Pro		DATRON M8Cube, MXCube	DATRON neo
Scope of delivery	Rotary vane vacuum pump Motor protection switch Suction filter Three-phase contactor Vacuum hose 5 m				

# DATRON AXIS OPTIONS

Expand your machine's capabilities with an optional rotary axis creating a more flexible and high-performance 4- or 5-axis system. This allows you to improve the precision of multi-sided parts while reducing cycle times. This valuable investment will allow you machine complex parts more efficiently.

» Rotary Axis  
page 80-81

» Rotary 4th & 5th Axis  
page 82-83





# DATRON ROTARY AXIS

The integration of a rotary axis expands your DATRON 3-axis milling machine to easily machine multi-sided or cylindrical parts. With an additional rotating axis, you can machine your work pieces at a variety of angles and levels, which makes complex geometries easier to machine. The advantage: Efficiently work without repeated re-clamping – everything is in one setup. This is how you can increase your productivity and expand your manufacturing options. This rotary axis will transform your 3-axis milling machine into a more flexible and more precise tool and take your capabilities to a new level.



# DATRON AXIS4

Expand the machining capabilities of your DATRON milling machine with the DATRON Axis4 rotary axis. This innovative option allows you to machine on multiple sides or cylindrical parts in a single clamping operation. Increase the flexibility and efficiency of your machining process by adding a fourth axis allowing you to reduce set-up times and achieve precise results that would be difficult to obtain with a conventional 3-axis machine. Achieve short production times while maintaining accuracy and quality from the high dynamics rotary axis.



### DATRON Axis4

Item no.	0A03704I
Basic body dimensions (LxWxH)	109x244x145 mm
Peak height	max. 55 mm (deviating when using the optional accessories)
Peak width	max. 210 mm/1,210 mm (depending on DATRON machine type and accessories)
Drive	200 W AC-SERVO with toothed belt, multi-turn absolute value encoder
Speed / rpm	max. 60 rpm
Resolution	< 0.0001°
Compatibility	DATRON neo, M8Cube, MLCube, MLCube Pro, MXCube
Scope of delivery	DATRON Axis4 rotary axis on module clamping plate

\*Installation service necessary

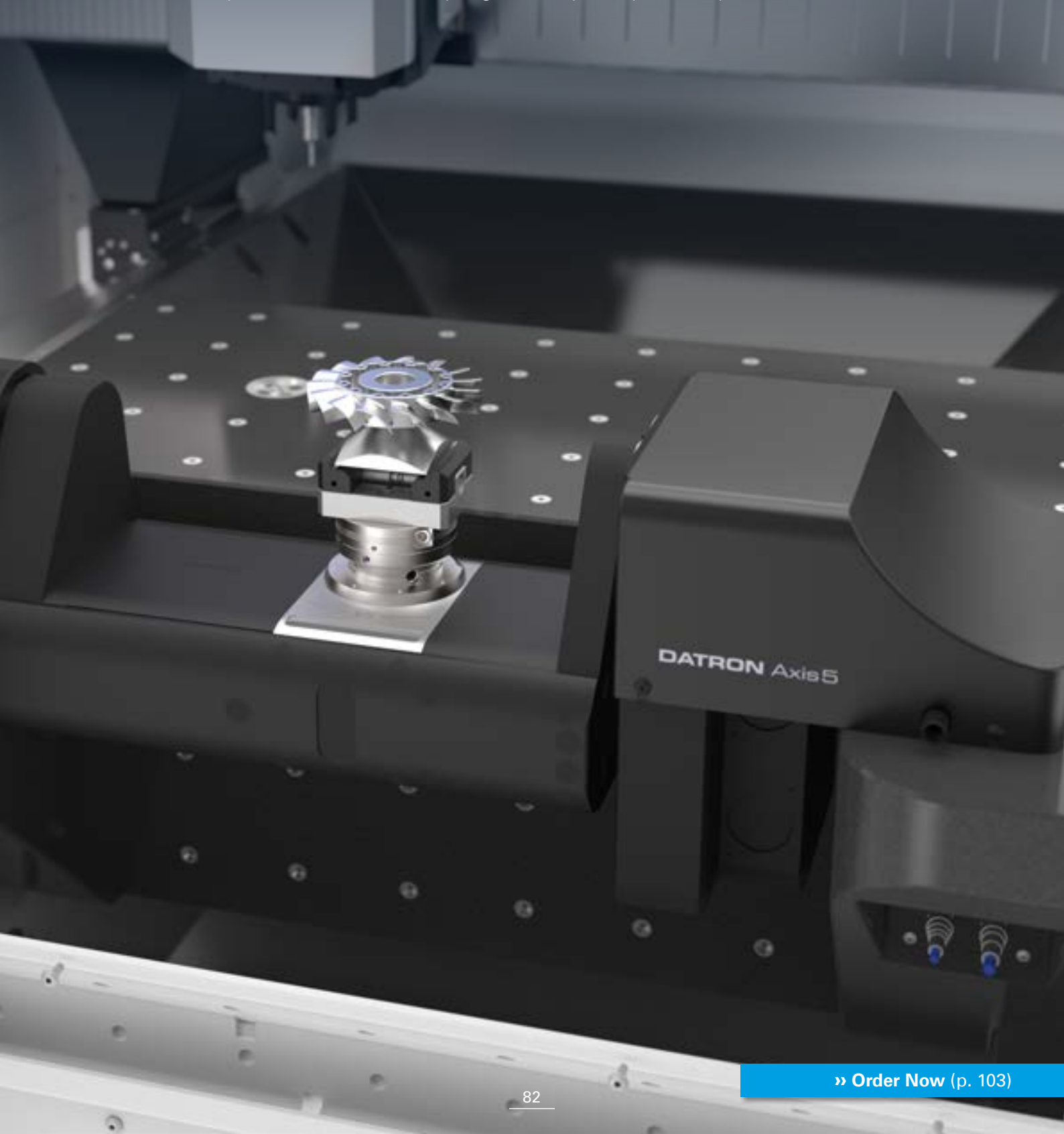
## Optional Accessories

	Tailstock	Three-Jaw Chuck	Centric Clamping Vice Jaw Width 46 mm
Item no.	0A03704B	0A03704C	0A03704D
Dimensions (LxWxH)	330 x 160 x 114.5 mm	106 x 106 x 63.5 mm	
Seat	MK2	-	-
Clamping range	-	2-80 mm	0-65 mm
Clamping force	-	13 kN	6 kN
Scope of delivery	Tailstock incl. Module clamping plate 1x revolving lathe center	Three-jaw chuck incl. mounting flange 1x set inward graded jaws 1x set outward graded jaws	Centric clamping vice incl. mounting flange

DATRON

# ROTARY SWIVEL AXIS

Adding a 4th and 5th axis are powerful additions for a 3-axis milling machine, enabling you to machine more complex and multi-sided parts. Machine work pieces at multiple angles without re-clamping your part, reducing your production times and lowering the chance for errors. The 4th and 5th axis will elevate your machine capabilities into a flexible 5-axis system that can machine complex geometries precisely in one step.



DATRON Axis 5

# DATRON AXIS5



The DATRON Axis5 allows precisely placed and simultaneous 5-axis machining in a single setting. The compact rotating swivel unit is mounted using conical centering bushes in the M8Cube or MXCube. Optional integrated rotary feedthroughs allow the use in automated manufacturing environments.

	DATRON Axis5 Basic	DATRON Axis5 Automation	DATRON Axis5 Basic	DATRON Axis5 Automation
Item no.	0A01131J	0A01131K	0A01131J	0A01131K
Item no. preparation*	0A01130J		0A01130K	
Interface	SCHUNK NSE-M mini 90-V1	SCHUNK NSE mini 90-V1	SCHUNK NSE-M mini 90-V1	SCHUNK NSE mini 90-V1
Drive	AC-Servomotor - Mavilor BLS 072 EQN 1125, free from backlash/pre-clamped worm gear			
Bearing tilting moment	1200 Nm			
Bearing axial load	6 kN			
Drive feed moment	70 Nm			
Dimensions (X x Y x Z)	955 mm x 274 mm x 356 mm			
Weight	approx. 104 kg			
System requirement	DATRON next Software release 3.6 or later			
Compatibility	DATRON M8Cube		DATRON MXCube	
Scope of delivery	Plug & Produce-compatible 4th and 5th Axis with manual or pneumatic quick change pallet system, calibration ball to determine zero point *machine preparation must be purchased separately			

## Optional Accessories

	DATRON Micro Vice	DATRON Vario Vice 150		
Item no.	0A01088S	0A01088L	0A01088M	0A01088N
Jaw width	70 mm	70 mm	120 mm	200 mm
Dimensions incl. jaws (LxWxH)	100 x 70 x 44-64 mm (depending on clamping jaw)	150 x 120,4 x 46 mm		
Clamping range	7-77 mm (depending on clamping jaw)	0-50 mm (+ milled recess in jaw max. 120 mm)		
Clamping force (max.)	16 kN	5 kN		
Max. torque	50 Nm	15 Nm		
Scope of delivery	DATRON Micro Vice Clamping Jaw Set Spacer plate with Clamping Pins (0A01088T)	DATRON Vario Vice 150 2x clamping jaw 70 mm, 120 mm or 200 mm		

» DATRON Vario Vice (S. 65)

### Quick Change Clamping Devices\*

Item no.	0A01088T
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\*Mandatory for clamping of all DATRON Vario Vice 150 and customer-specific clamping devices for DATRON Axis5 quick change pallet system.



# DATRON AUTOMATION

The DATRON Automation options offers custom-tailored solutions for volume-oriented production. From automated hardware components to extensive software interfaces – DATRON enhances your machining systems with state-of-the-art technology achieving efficient and flexible manufacturing solutions. These automation solutions optimize your production and can give you a significant competitive edge.

## » Automation Hardware

page 85-88

## » Complete Solutions

page 89-91

DATRON

# AUTOMATION HARDWARE

DATRON offers a comprehensive selection of automation solutions to expand your milling machine capabilities. This includes automated doors for faster loading and unloading, digital input/output interfaces, and versatile automation modules that connect to the machine safety systems for robotics – these components increase the efficiency, safety and flexibility of your production process.



DATRON

# AUTOMATIC DOORS

The DATRON automatic doors automate loading and unloading of your milling machine. The motorized front and side doors are designed for the connection to external automation systems which will significantly accelerate your production process.



Fig. similar

### DATRON Machine Systems with Automatic Front Door\*

	DATRON Machine Systems with Automatic Front Door*						Automatic Drive
Item no.	0A03210F	0A03210G	0A03300F	0A03300G	0A03301F	0A03301G	0A01706D
Opening width	720 mm		1,020 mm				724 mm
Opening height	738 mm		738 mm				768 mm
Opening time	Approx. 1.5 s		Approx. 1.5 s				Approx. 2.5 s
Compatibility	DATRON M8Cube	DATRON M8Cube full table	DATRON MLCube	DATRON MLCube full table	DATRON MLCube LS	DATRON MLCube LS full table	DATRON MXCube

\*Can also be retrofitted in existing machines. Our Customer Care will be happy to consult you.

### Automatic Side Door

Item no.	0A01706A	0A01706B	0A01706C
Opening width	1,185 mm	1,865 mm	1,126 mm
Opening height	967 mm	967 mm	-
Opening time	Approx. 3 s	Approx. 3 s	Approx. 7 s
Compatibility	DATRON M8Cube	DATRON MLCube	DATRON MXCube

\*Installation service necessary

DATRON

# AUTOMATION MODULE & DIGITAL I/O MODULE

The DATRON Automation modules offer comprehensive options for the integration of external hardware, such as robots, in the machine work cell. Digital inputs and outputs along with an expanded programming functions in DATRON next can be used to seamlessly integrate automation systems into the safety circuit of the CNS machining system, ensuring safe and efficient production.

The DATRON digital I/O module expands the control functions of your milling machine. It offers additional interfaces for external hardware, such as automatic clamping devices, and allows for extensive programming in next software to control the devices – ideal for customized automation solutions.



## DATRON Automation Module

Item no.	0A01705F	0A01705B	0A01705C	0A01705D
Software requirement	DATRON next+			
Compatibility	DATRON neo	DATRON M8Cube	DATRON MLCube, MLCube Pro	DATRON MXCube
Scope of delivery	Bus terminals for the machine control cabinet incl. safety DATRON harting connector, standard design (2x12-pin, 2x25-pin) 23 digital inputs and outputs that can be freely programmed in SIMPL by the end user Integration in DATRON safety technology Optional actuation of external automation			

\*Installation service necessary

## Digital I/O-Modul

Item no.	0A01076H	0A01076F
Voltage inputs and outputs	24V DC	24V DC
Number of inputs and outputs	8 in/8 out	32 in/32 out
Compatibility	DATRON neo	DATRON M8Cube, MLCube, MLCube Pro, MXCube

\*Installation service necessary

DATRON

# MACHINE RGB SIGNAL LAMP

The LED Multicolor Pro machine RGB signal lamp offers a high-performance 360° status signal for maximum transparency in the production process. With its robust construction, 24 V operating voltage and flexible magnet foot, it is ideal for industrial applications and mobile use. Clear color signals such as green for active machining or red for errors provide quick status detection – reliably and intuitively.



## RGB Signal Lamp

Item no.	0A01575E
Compatibility	DATRON neo (Pro), M8Cube, MLCub, MLCube Pro, MxCube

\*Installation service necessary

# DATRON COMPLETE SOLUTIONS

Increase your productivity and efficiency with innovative DATRON automation solutions. Our complete systems – consisting of DATRON ShuttleLoad and DATRON CoboLoad – allow for the optimal utilization of machine operation cycles and reduce manual interventions to a minimum.



# DATRON SHUTTLELOAD

Maximum efficiency and cost-effectiveness in production with simultaneous loading: make the best of your spindle run time by adding the optional DATRON ShuttleLoad to your DATRON MXCube. With the optional DATRON ShuttleLoad extension, the two independently controlled quick change tables move into and out of the workspace, enabling simultaneous loading of the machine. Ideal for small to medium-sized workpieces with reduced chip volume.



**DATRON ShuttleLoad**

Dimensions (WxDxH)	1,310x1,220x2.200 mm
Single table size (XxY)	499x699 mm
Table height	1.04 mm
Width of the working area	1.06 mm
Proximity to part	0.11 mm
Usable height	120 mm (optionally additional 60 mm portal heightening)
Table speed	40 m/min
Clamping pressure	0-6 bar
Table changing time	6 s
Aluminium changing table	Integrated conical thread (4 x 7 per table integrated vacuum and compressed air supply)
Maximum table load	70 kg
Weight	900 kg

# DATRON COBOLOAD

Expand your production capacity without additional labor costs. While the DATRON CoboLoad takes care of the loading and unloading of the machine, you'll have the capacity for more demanding tasks. The quick docking systems enables an easy switch between manual prototype manufacturing and automated serial production. Simple plug and play and intuitive operation guarantee an effortless entry into automation.



## DATRON CoboLoad

Dimensions (WxL)	770x1,100 mm
Connected load	220V, 16A
Lifting load, including gripper	5 kg
Range	900 mm
Storage area for workpiece	600x400 mm
I/O interface	8 standard digital I/Os, optionally expandable
Interfaces	Quick docking system - mechanical, pneumatic, electric
Customized components	Gripper, workpiece tray, clamping points
Workspace safety	Safety zones via laser scanner

# DATRON SERVICES

Our claim: Your success through customized services. Whether installation, training, production guidance or regular maintenance: with our services, we are ensuring that you can use your DATRON systems efficiently and reliably at any time. Our experienced team accompanies you from the very first steps to long-term care throughout ongoing operations. Profit from practical trainings, individual support in production and comprehensive maintenance and service offers. In this way, you not only ensure the availability of your machines, but also sustained success of your manufacturing.

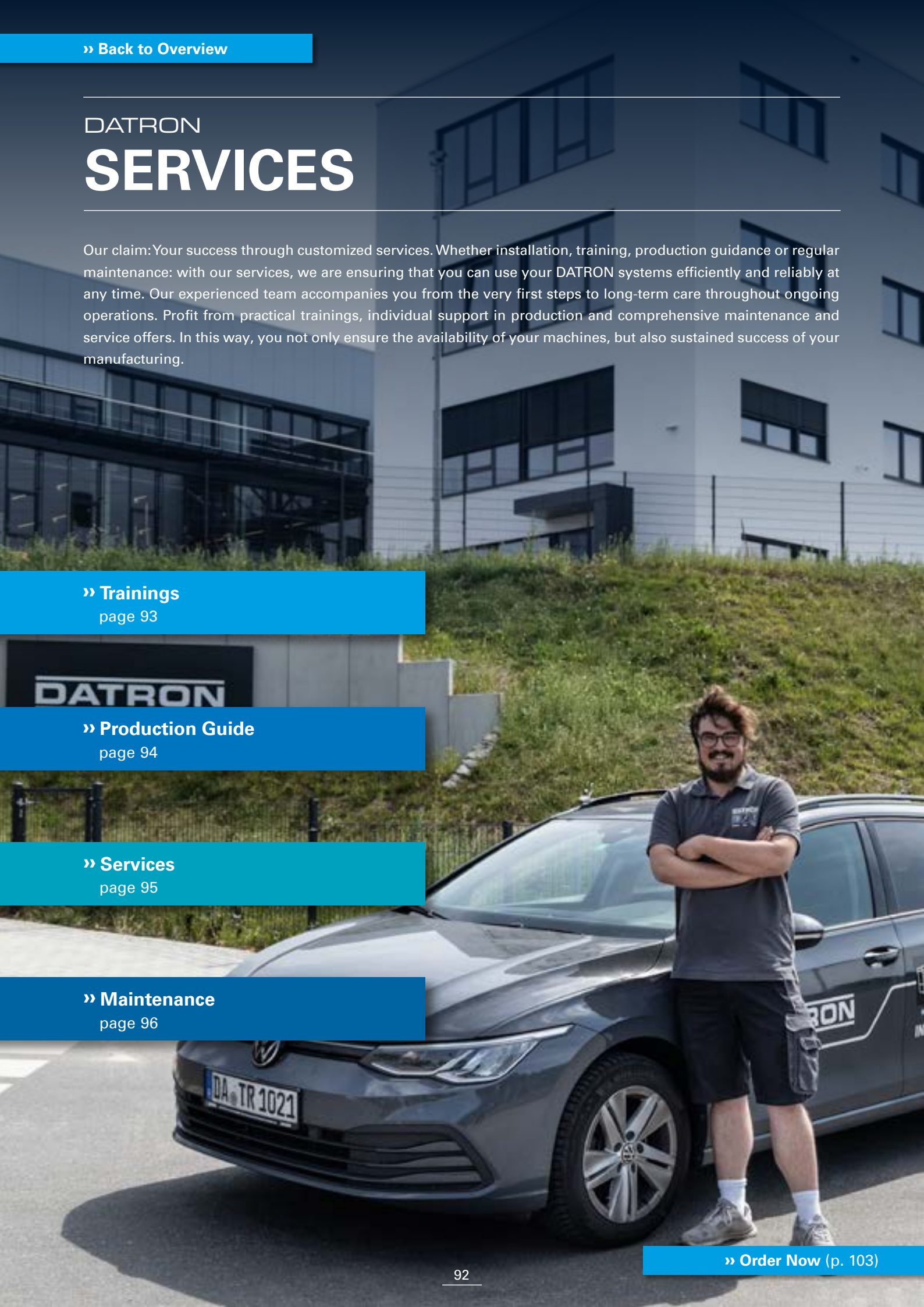
[» Trainings](#)  
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# DATRON

# TRAININGS

Utilize the full potential of your machine with the competence and knowledge of your employees. We will train your employees individually and use practical examples to address their needs directly. Thanks to the clear program interface, we can quickly create the initial applications together.

## In-House DATRON next Trainings

	Quick Start	Standard	Standard	Individual	SimPL
Item no.	0A01925	0A01925A	0A01925F	0A01925B	0A01925E
Duration	1 day	2 days	2 days	1 day	1 day
Contents	Basic principles for the operation and handling of DATRON CNC systems	Well-founded DATRON machine operation with extended focus on practice and details	Practical and systematic learning for the operation and programming of the MXCube	Application-specific training for program and process optimization	Flexible creation and targeted adjustment of SimPL programs
Number of persons	1 person				
Hardware/Software	DATRON next	DATRON next	DATRON MXCube	DATRON next	SimPL

## Off-Site DATRON next Trainings

	Standard DATRON next	Standard
Item no.	0A01925C	0A01925G
Duration	min. 2 days (max. 3 days)	max. 3 days
Contents	Well-founded DATRON machine operation with extended focus on practice and details	Practical and systematic learning for the operation and programming of the MXCube
Number of persons	1 person	
Hardware/Software	DATRON next	DATRON MXCube

## Digital DATRON next Trainings

	Quick Start Video Training			
Item no.	0A01925H	0A01925I	0A01925J	0A01925K
Duration	1-2 days	1-2 days	-	4 hrs.
Contents	Self-training with videos, documents, exercise package and 4 hr. support	Video training package, tutorials and documents for DATRON next Operation	Material package for exercises in DATRON next+ Video Training*	Support service application technology
Hardware/Software	DATRON next			

\*erforderlich für Praxisteil

DATRON

# PRODUCTION SUPPORT

DATRON offers well-founded consultation for all product areas to solve your manufacturing or automation tasks. Our consultation is hereby based on the exact analysis of your manufacturing task. DATRON supports you with the optimization of the entire manufacturing process.

## In-House Production Guide DATRON next

	<b>Production Support</b>	<b>Post Processor Development Support</b>
Item no.	0A01902R	0A01902Q
Duration	Individual	
Contents	Customer-specific training including analysis and optimization of your processes	Consultation, adaptation and testing by DATRON experts
Hardware/Software	DATRON next	DATRON next

## Off-Site Production Support DATRON next

	<b>Production Support DATRON next</b>
Item no.	0A01925D
Duration	Individual
Contents	Customer-specific training including analysis and optimization of your processes
Hardware/Software	DATRON next

# DATRON SERVICES

Ensure long-term precision and efficiency of your DATRON milling machine – with regular maintenance performed by our technicians. This keeps your manufacturing reliably at peak level. An individually coordinated maintenance contract ensures maximum machine availability and supports you in reliably achieving your production goals – including expanded service and extended hotline support.

## Machine Overhauls

### Machine Overhauls

Item no.	0A019030
Duration	Individual
Scope	Specific overhaul of your DATRON machine system
Compatibility	DATRON machine systems

## Warranty Extension

### Warranty Extension

Item no.	0A01919K	0A01919A	0A01919B	0A01919C
Extension	12-Month warranty extension			
Shift operation	-	1 shift	2 shift	3 shift
Compatibility	DATRON neo (Pro), neo Entry	DATRON M8Cube, MLCube, MXCube		

\*Applies to machine components. Exception: Wear parts and spindle. Extension possible only with annual maintenance or active maintenance agreement (due: 13th month after commissioning).

# DATRON

# MAINTENANCE

Regular maintenance ensures the functionality and precision of your DATRON machine and prevents unplanned failures. This is performed exclusively with tested measuring tools and by qualified DATRON specialist personnel. Regular scheduled maintenance intervals increase the availability of your DATRON machine system and support long-term value retention.

## Maintenance

### Maintenance

Item no.	0A01914H	0A01914E	0A01914F	0A01914G
Scope	Cleaning, lubrication, adjustment, safety and geometry check			
Duration	approx. 1 work day			
Compatibility*	DATRON neo (Pro), neo Entry	DATRON M8Cube	DATRON MLCube	DATRON MXCube

\*Maintenance for older DATRON machine systems available upon request.

## Maintenance Agreements

### Maintenance Agreements

Item no.	0A01904J	0A01904M	0A01904O	0A01904X
Maintenance duration	approx. 1 work day			
Compatibility*	DATRON neo (Pro), neo Entry	DATRON M8Cube	DATRON MLCube	DATRON MXCube

\*Maintenance for older DATRON machine systems available upon request.

## Maintenance Sets

### Maintenance Sets

Item no.	0A01923H	0A01923C	0A01923P
Compatibility	DATRON neo (Pro), neo Entry	DATRON M8Cube, MLCube	DATRON MXCube

### Maintenance Sets

Item no.	0A01923A	0A01923I	0A01923N	0A01923B	0A01923J	0A01923D	0A01923M	0A01923K
Compatibility	DATRON M3, M5	DATRON M7-M75	DATRON M8 M8XL-M85 to 06-2005	DATRON M8 M8XL-M85 as of 06-2005	DATRON ML/MV	DATRON M10 Pro	DATRON M10 Pro with 8 kW spindle	DATRON M10 Power

## Vacuum Pump Maintenance Sets

### Vacuum Pump Maintenance Sets

Item no.	0A01923R	0A01923S	0A01923T	0A01923U	0A01923X	0A01923Y
Compatibility Vakuumpumpe	25m <sup>3</sup> /h, Busch	100m <sup>3</sup> /h, Busch	200m <sup>3</sup> /h, Busch	250m <sup>3</sup> /h, Busch	200m <sup>3</sup> /h, Gardener Denver	200m <sup>3</sup> /h, ZM Vacuum

# DATRON CONSUMABLES

For trouble-free operation of your milling machine, you need essential consumables, such as coolant, cooling lubricants and DATRON VacuCards. Not only do these components impact machining quality, they also improve machine longevity. Ensuring you have sufficient quantities of materials available at all times prevents interruptions in your production process.

## » Cooling Lubricants

page 98-100

## » Operating Materials

page 101-102

# DATRON COOLING LUBRICANTS

From many years of experience, DATRON have identified highly effective cooling lubricants for milling, drilling and engraving applications. The special cooling liquid does not leave any, or minimal residue, making extensive cleaning and degreasing obsolete, saving you time and money.



DATRON

# GRACONOL PLUS

DATRON Graconol Plus offers an innovative solution for machining aluminum, plastics and nonferrous metals. With up to 70% renewable raw materials, the Resonate Technology Graconol plus is an ideal alternative to ethanol. For improved machine performance, it provides highly precise, thermally stable and residue-free machining results – without strong odors. Perfect for efficient and safe work production.



### Graconol Plus

Item no.	0A01006D	0A01006E	0A01006F	0A01006G
Contents	5 l	20 l	100 l	200 l
Cooling capacity	Good			
Lubricating effect	Good			
Can be suctioned off	✓			
Compatibility	DATRON neo, M8Cube, MLCube, MLCube Pro, MXCube			

\*please observe that the evaporation time is higher compared to ethanol.

DATRON

# PROCUT 200

DATRON ProCut 200 was specifically designed for machining steel and significantly extends the tool life when machining hard materials. Thanks to its high yield, this MM lubricant reduces wear and in most cases, cleaning the machined parts is not necessary.

**ProCut 200**

Item no.	0069266D	0069266B	0069266G
Contents	5 l	10 l	200 l
Cooling capacity	Low		
Lubricating effect	Very good		
Can be suctioned off	-		
Compatibility	DATRON neo, M8Cube, MLCube, MLCube Pro, MXCube		

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DATRON

# OPERATING MATERIALS

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DATRON offers optimally matched operating materials for reliable lubrication, cooling and care of your machine. The specially developed products do not leave any, or only minimal, residues behind, reduce the need for cleaning and provide maximum efficiency and reliability in daily use.



DATRON

# OPERATING MATERIALS

DATRON offers a comprehensive range of lubricants and accessories for the professional maintenance and care of spindles and clamping systems. The high-quality lubrication products and suitable application aids ensure reliable lubrication, reduce wear and significantly contribute to the longevity and performance of your machine.

## Pliers Grease

### Pliers Grease

Item no.	0A01925
Fill volume	8 ml tube
Compatibility	HF spindle

## Mounting Grease

### Mounting Grease

Item no.	0A01925
Fill volume	1,000 ml

## Grease Syringe / Grease Press / Grease Cartridge

	Grease Syringe				One-Hand Grease Press		Grease Cartridge
Item no.	0074921	0074921 A	0074921D	0074921F	0074921G	0074921H	0077107Z
Fill volume	10 ml	150 ml			500 ml		510 ml
Grease type	Teflon grease	Teflon grease Rev. 1 hr.	Dynalub 510 Rexr. Rev.2	Dynalub 510 Rexr.	Dynalub 510	Teflon grease	Dynalub 510 / 400g, R3416 037 00

## Spindle Coolant

### Spindle Coolant Antifrogen N

Item no.	0069266X
Fill volume	10 l

# DATRON CUSTOMER CARE

WE WOULD BE GLAD TO PROVIDE YOU WITH DETAILED INFORMATION:



» via the **DATRON Service Helpdesk**  
[www.datron.de/helpdesk](http://www.datron.de/helpdesk)



» by **EMail**  
[service@datron.de](mailto:service@datron.de)



» by **Telephone**  
+ 49 6154 63766 - 0



» or at the **Online Shop**  
[www.webshop.datron.de](http://www.webshop.datron.de)



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