



DATRON
Dental CAD/CAM



DATRON D5

NEW
Edition 2015

Linear Scales - Metal -
Universal - Entry



reddot design award
winner 2010



Designpreis
Deutschland
2011

NOMINEE

Made in Germany



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We Understand Dental

Because of Our Dental Technical Know-How

Besides being experts in machine construction, we are also experts in the dental field: An in-house team of dental technicians and dental engineers exclusively cares for the needs of our customers in the dental technology sector.

With many years of CAD/CAM expertise and dental technical know-how, we have designed our DATRON D5 to cater to the particular needs of dental laboratories and dental production centres.

With the technically enhanced D5 Edition 2015 series and its specialized models Entry, Metal, Universal and Linear Scales (LS) particularly tailored to individual dental indications, we are continuing the success story of this leading dental milling system. In addition to the light color accents the D5 Edition 2015 product family excels at numerous technical features:

- More performance through improved processing speed and enhanced traction control
- More flexibility and time savings in the process due to 15-station tool changer (D5 Edition 2015 models Metal, Universal and Linear Scales)
- Remote View via suitable tablet (min. 1024 x 768 px resolution)
- Remote operation through access from every tablet / PC (optional)

- Optimized menu screen with ultra bright luminance
- Always clear view of machine interior with new door and screen concept (easy to clean)
- Powerful control computer
- New fire extinguishing system (in preparation)

In combination with the validated DATRON CAD / CAM workflow, we gladly support our customers regarding the system operation and the implementation of new dental applications with our renowned expertise.



Decades of Expertise in Building Milling Machines

Since the company was founded in 1969, we have been a leading innovator among SMEs and for over 25 years we have also been the leading technology experts for high-speed milling machines. All products are manufactured exclusively in Germany and represent highest quality “Made in Germany”.

In order to continuously develop and enhance our machines and to provide customers with the latest machining technology, 25% of our staff work in R&D. DATRON is committed to numerous research projects concerning efficiency improvements and production technologies of the future, working in close cooperation with universities and selected technology partners.

More than 3,000 DATRON machine systems are in operation worldwide, and our customers in the dental field benefit from this extensive and long-standing expertise. The D5 reflects this encompassing know-how, being a mature and proven system that can also fulfill future technical requirements.



Models



Directly Screwed-Retained Indications



Individual Abutments



Telescopic and Conical Crowns and Attachments



Crowns and Bridges



Inlays, Onlays, Veneers and Partial Crowns



Temporary Dentures



Occlusal Splints

Fully in the hand of experts – The Validated DATRON Workflow

In cooperation with technology partners leading in the industry, DATRON offers the entire CAD/CAM process from a single source. A full range of scanners, CAD and CAM software solutions meeting individual

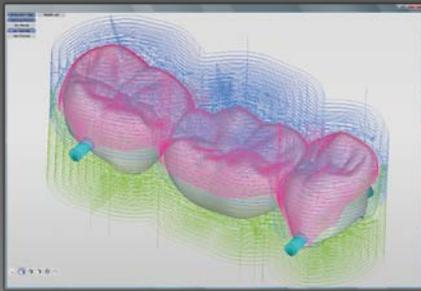
customer requirements are available and allow us to offer high flexibility and utmost process reliability at the same time! With the components, configurations and templates released by us you get higher safety in your lab because



Matched DATRON process

everything is optimally matched. We are your central point of contact if you need further help along the way.

CAM



DATRON DentalCAM

DentMILL
Dental CAD/CAM Suite

hyperDENT

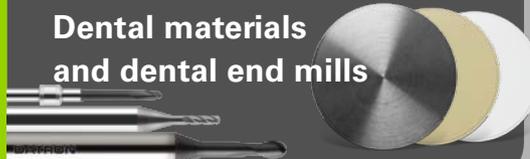


worknc
Dental

5-axis simultaneous machining



Dental materials
and dental end mills



Postprocessing

Perfectly Coordinated and Open to Innovations!

Scanner

3shape

dental wings

+ **Imetric**
Swiss 3D Scanning Systems

sirona.
The Dental Company

Whether intra- or extra- oral scanners, with light strip technology or laser-cutting techniques: Determining the best scanner for you depends on your individual requirements. This is why we collaborate with renowned scanner manufacturers to always offer our customers the best solutions to their needs.



CAD

3shape

dental wings

exocad

sirona.
The Dental Company

Whatever you require to mill: First, it needs to be designed in 3D with a CAD software. Depending on the scanner in use and the customer's requirements, we provide a perfect solution for every need. On request, our experts train you, both in individual courses or in workshops and seminars, giving you a significant head-start in this respect.



CAM software is used to calculate the milling paths for the DATRON D5, to determine the milling tools needed and to nest the restorations within the virtual blank. This information is then passed on to the machine, resulting in high-precision machining. We offer an extensive assortment of software tools from renowned manufacturers, from the most cost-effective variant to the high-end software solution in the field of implant-supported indications.

CAM

DentMILL
Dental CAD/CAM Suite

hyperDENT

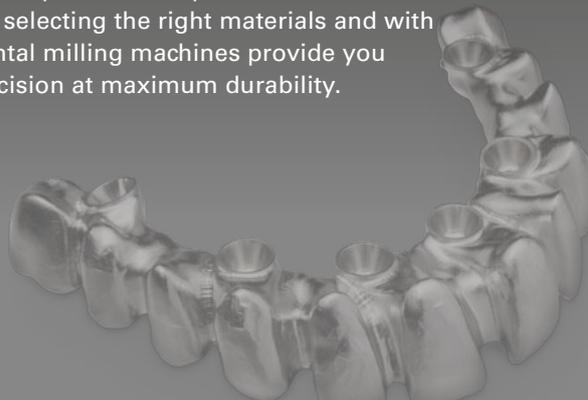


worknc
Dental



DATRON **DentalCAM**

The DATRON D5 is always the best choice for milling all common restorations made of most denture materials! The milling tools and materials also have a major impact on the quality of the final products. We assist you in selecting the right materials and with our DATRON dental milling machines provide you with highest precision at maximum durability.



5-axis simultaneous machining



DATRON D5 – The Right Choice for Everybody

DATRON D5 Entry

To machine soft materials, such as zirconium, composite, PMMA, polyurethane and wax.



D5 Metal

To machine NPM
...and soft materials.



D5 Universal

To grind glass ceramics
...and mill NPM and
soft materials.



With linear Scales

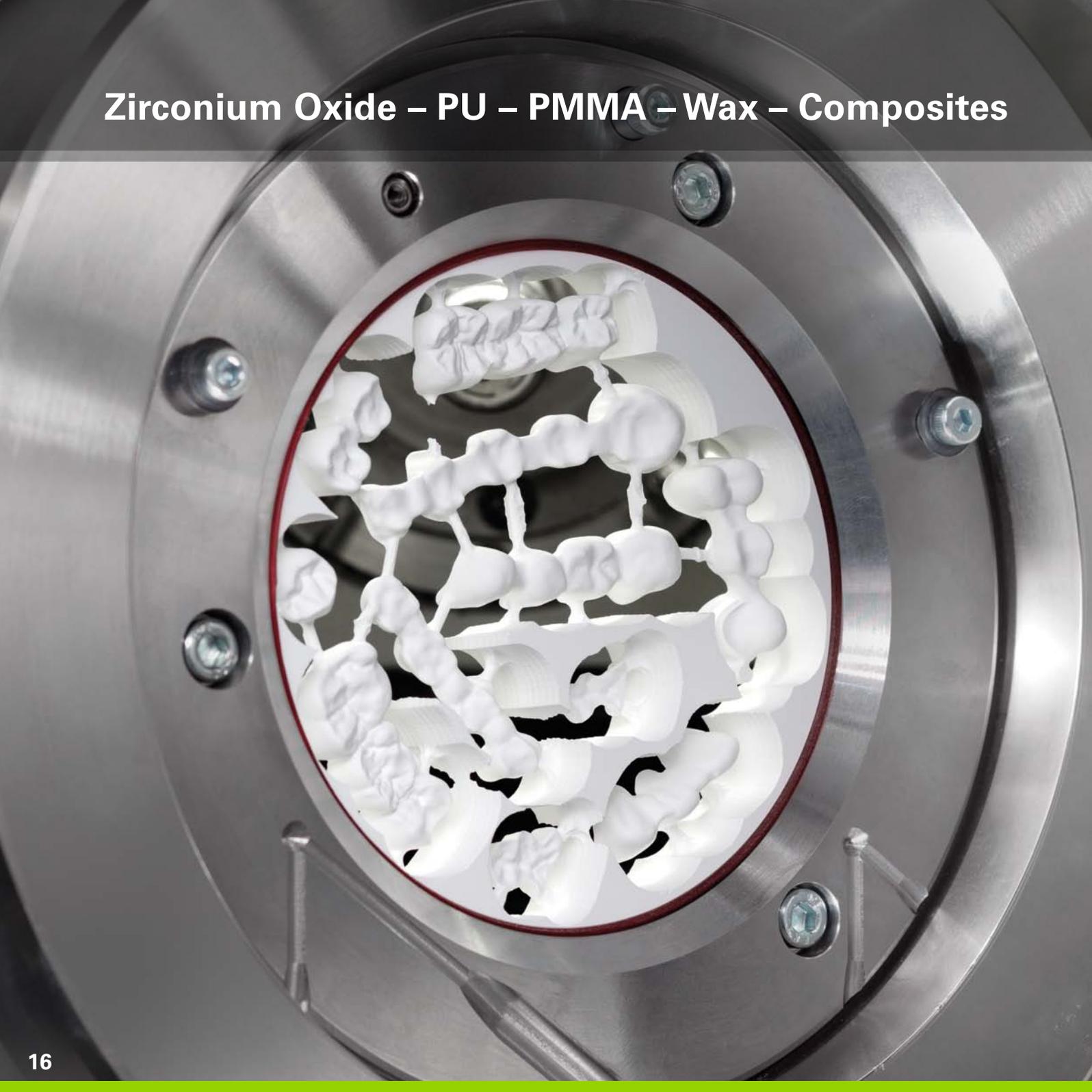
DATRON D5 Linear Scales

To machine implant-supported work
in grade 5 titanium



Equipped with linear scales, the D5 Linear Scales offers maximum process reliability and meets the highest demands concerning precision, e.g. for large-span work.

Zirconium Oxide – PU – PMMA – Wax – Composites



DATRON D5 Entry – For Soft Materials



Soft materials such as zirconium oxide, PMMA or PU can be machined with most dental milling machines.

If you also want to manufacture complex geometries accurately, the DATRON D5 is the one and only solution! Undercuts and complex shapes, such as a full jaw model, require 5-axis simultaneous milling combined with high degrees of freedom in the 4th and 5th axis.

The D5 Entry is an affordable solution for those who specifically machine soft materials without the need for further capabilities. You pay only for the machine you need. Do you also intend to machine metals in the future?

No problem! The D5 Entry can be easily expanded and evolves with your needs and your success. This way, you have a future-proof system right from the start.

Cobalt-Chrome – Titanium



DATRON D5 Metal – For Hard Metals

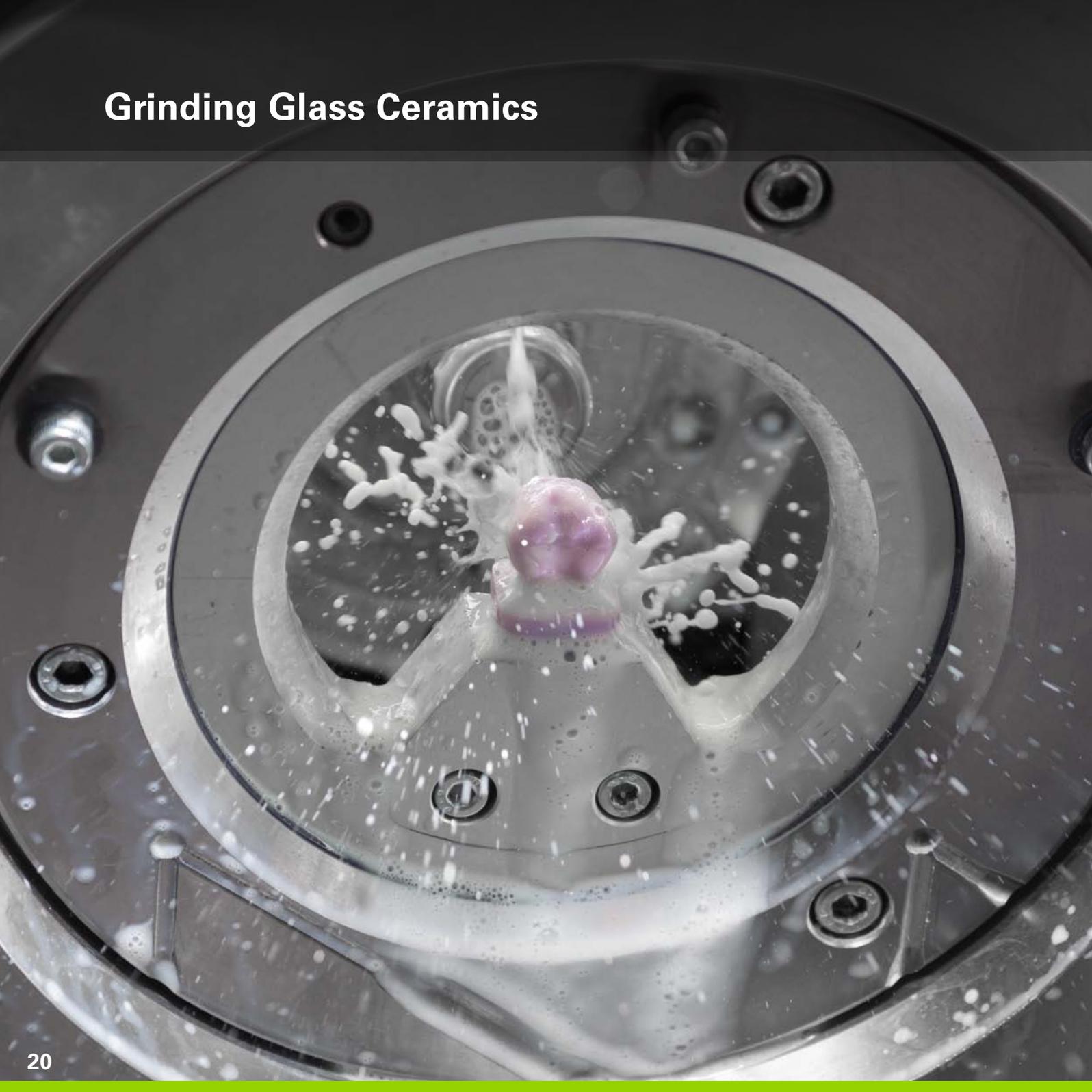


To machine metals cost-effectively and accurately, a rigid, low-vibration machine design is essential, as well as a high-precision tool holder, as the HSK clamping system used by DATRON.

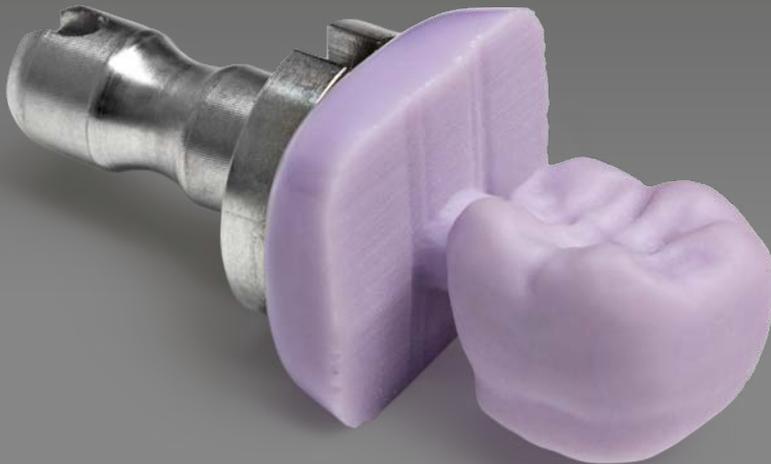
Equipped with a minimum quantity cooling lubrication system and a 15-station tool changer, your D5 Metal Edition 2015 will enable you to machine the largest possible range of indications made of cobalt-chrome and titanium.

Integrated automation (up to 8x) enables unmanned overnight or weekend operation², providing you and your customers with a significant cost advantage.

Grinding Glass Ceramics



DATRON D5 Universal – The All-Rounder With the Perfect Finish



The D5 Universal offers best quality machining of all current materials due to its comprehensive range of functionalities.

Equipped with a wet-cutting option, the D5 Universal can also machine glass ceramics, to many the material of the future.

The D5 Universal is the only machine capable of handling the widest possible range of materials and indications.

High Accuracy Guaranteed



DATRON D5 Linear Scales – More than Accurate

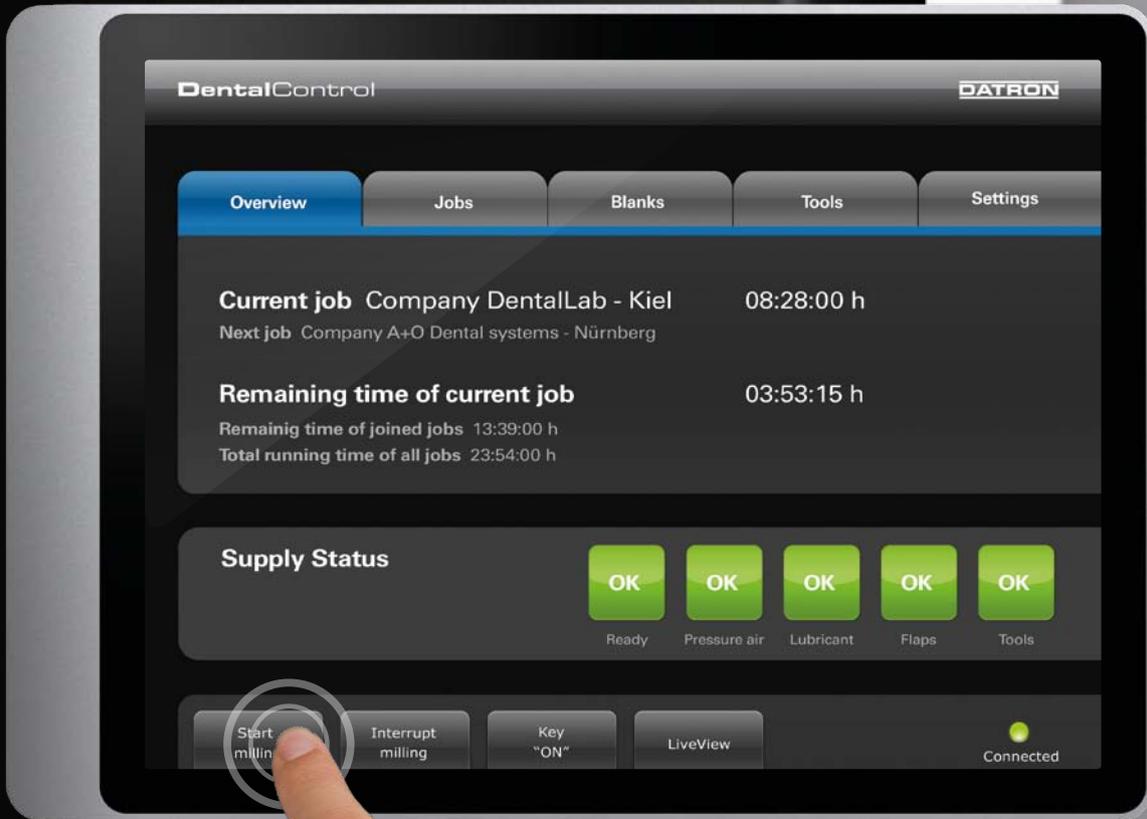


The D5 Linear Scales is equipped with high-precision linear scales and was especially designed for applications with highest demands on accuracy.

Due to its increased thermal stability it provides consistent and highest quality machining, even in case of temperature fluctuations.

For this reason, this machine system is perfect for all directly screwed-retained indications such as bars, individual abutments or Toronto bridges.

Full Control with Just One "Touch"

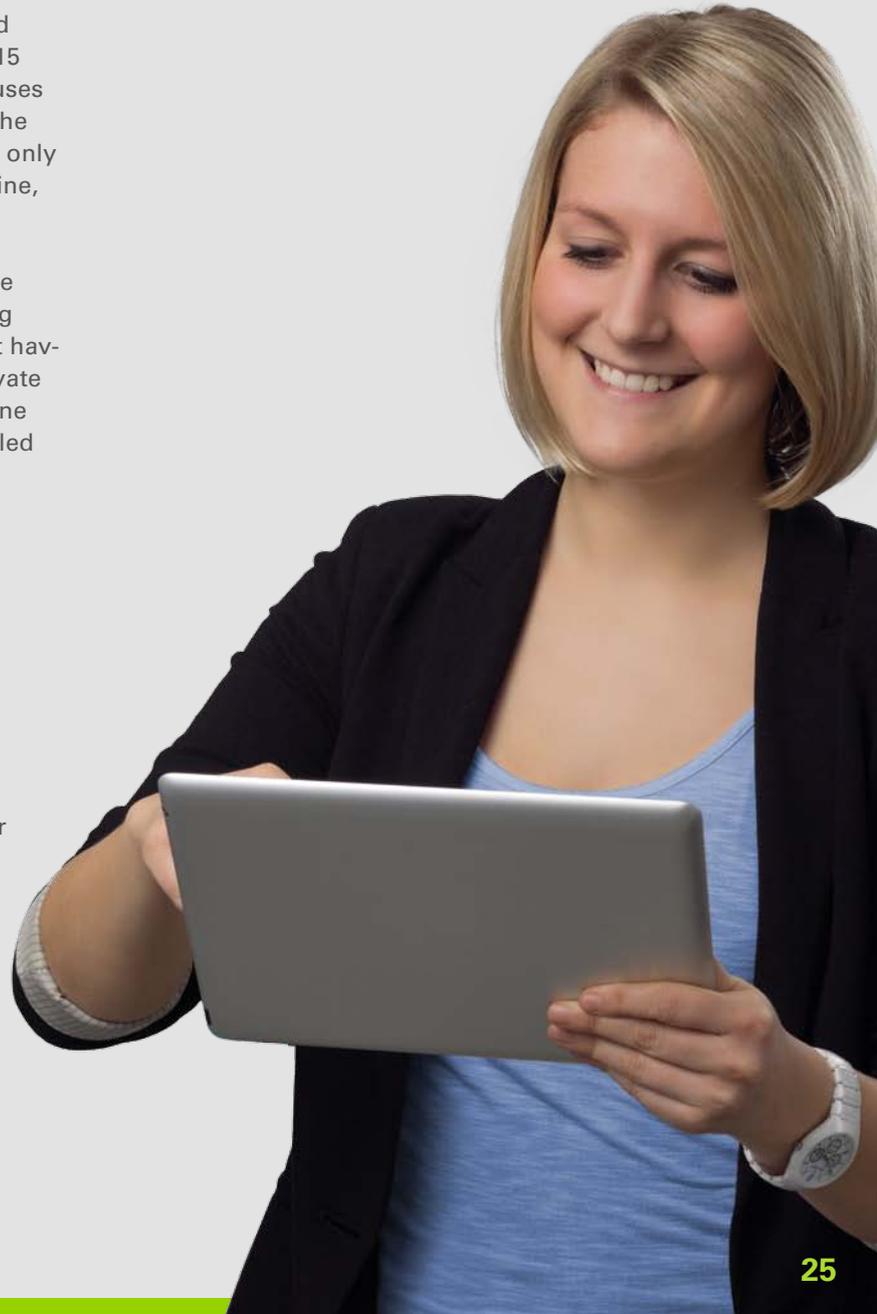


The Remote View function allows you to view and control the status of your DATRON D5 Edition 2015 using your own tablet. The "Live View" function uses a camera to transmit the picture of the inside of the machine to your mobile device. Thus you can not only see what is being milled directly inside the machine, but also from your office.

Working remotely (optional feature) allows simple and intuitive operation of the machine, something that can be learned in just two days even without having any prior experience. Whether to load or activate new milling jobs, manage material blanks or define different types of tools, all operations are controlled by simple touch functions.

The D5 control software includes, among other features, the following functionalities:

- Sister tool management
- End mill, blank and job management
- Machining path supervision
- Machine status display
- SMS status notification (optional)
- Remote operation using a tablet/pc over your own network (optional)



A close-up photograph of a large, industrial-grade metal component, likely a rotary swivel axis, mounted on a machine. The component is circular with a central opening and is surrounded by various mechanical parts, including yellow plastic clips and metal brackets. The lighting is dramatic, highlighting the metallic textures and the precision engineering of the part.

Technology – Aesthetics Meets Power!

Massive Double-Side Mounted Rotary Swivel Axis

In order to be able to machine complex shapes accurately in dental technology, 5-axis simultaneous machining capabilities are a prerequisite. The DATRON D5 provides extremely high rigidity and consequently very high precision, achieved by the rotation centre point of the axis situated at the centre of the material blank.

The DATRON D5 was developed specifically for the field of dental technology. The entire machine geometry, its rigidity, and all traverse paths are designed precisely to machine dental material blanks. When machining, the blank is at the centre of the machine, ensuring an optimal power flow. Powerful servo motors and torque motors ensure high machining dynamics and speed. The linear scales of the D5 Linear Scales provide maximum process reliability and precision.

High-Precision Machining Spindle

With speeds up to 50,000 rpm and a concentricity better than 2 µm, the machining process results in a very high-quality surface finish. Due to the high cutting speed, only low cutting forces are required, allowing accurate machining of very thin-walled indications and thin, delicate crown edges

Precision Ball Screws and Guides

Highest quality components from renowned manufacturers offer high accuracy and are the prerequisite for high machine availability and low maintenance costs.

Rigid and Low-Vibration Construction

A cast steel machine bed, cast aluminium structural parts, brushless servo and torque motors, optimised leverage ratios and traverse paths provide a rigid, vibration-free construction and high dynamics. This allows for high machining forces and accelerations necessary for the cost-effective machining of metals.



Productive Right From the Start – Using Intelligent Accessories



1 Integrated Tool Changer

The integrated automatic tool changer (7 and 15 stations depending on the configuration) with tool length measurement, tool breakage monitoring and sister tool management ensures high process reliability.

2 Automation

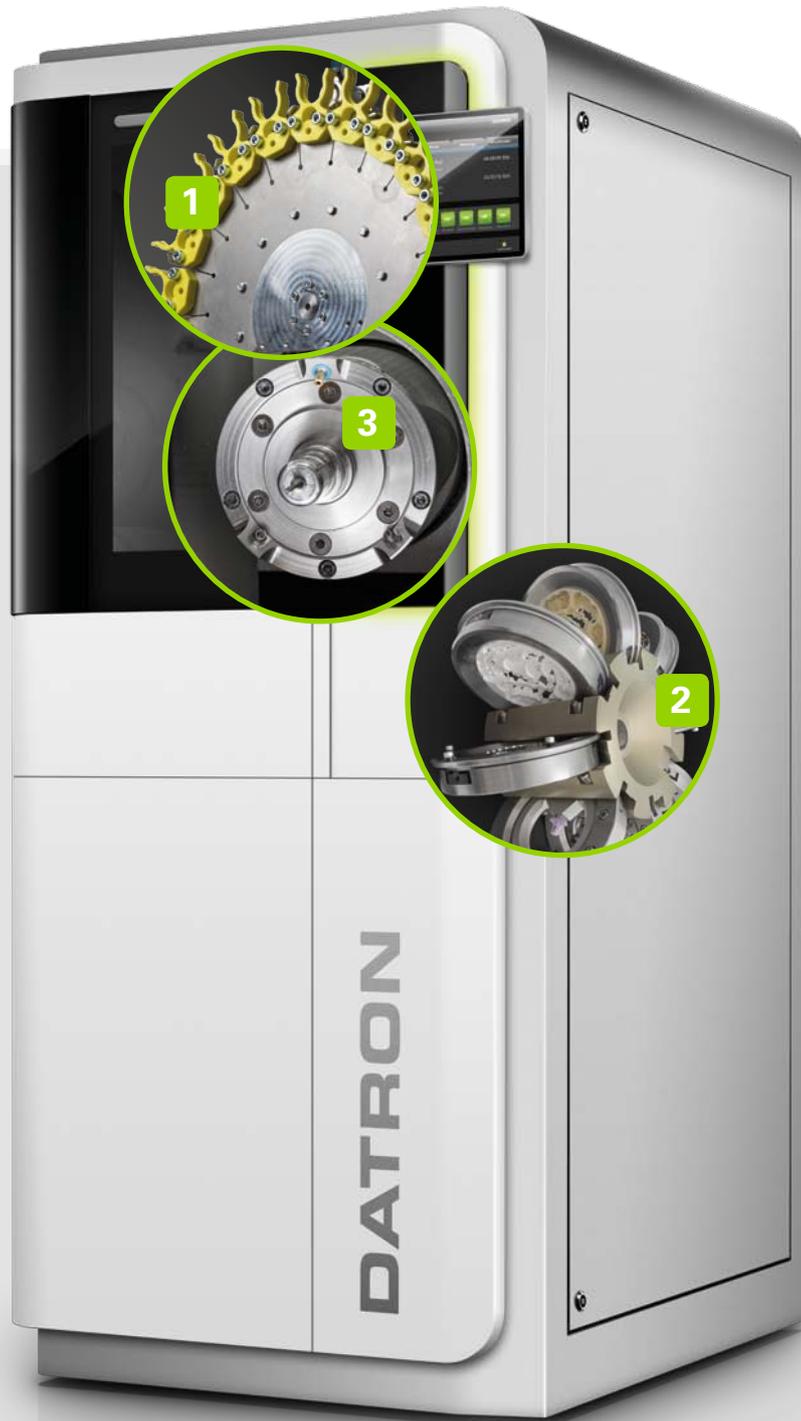
Integrated automation (optional) ensures high production capacity and enables unmanned overnight and weekend operation². You can start with the 2-fold version and expand it at any time to an 8-fold automation.

3 Minimum Quantity Cooling Lubrication System (MMKS)

The MMKS system used for titanium machining ensures optimum milling result, long tool durability and minimum consumption of only 10 ml/hour approximately. The filling capacity is monitored on the Touch Screen, refilling is quick and easy. In contrast to flood cooling, neither a water circuit nor special filters are necessary; the cooling lubricant is removed by the chips, and collected in a chip drawer.

HSK Tool Clamping System

The HSK clamping system offers highest concentricity of the end mill tip and maintains full clamping force even at high speeds. This leads to high accuracy and high durability. By means of the HSK clamping system, 6mm-shank tools can also be used, resulting in much higher durability with better milling results at the same time.



Worldwide references – The World Mills with DATRON

Dental laboratories and milling centres in more than 20 countries rely to date on the high quality and precision of DATRON's dental CAD/CAM systems:

North America

| | |
|--|---|
|  <p>White Cap Institute Center For Dental Implant Training</p> |  |
| www.whitecapinstitute.com | www.imilling.com |

Europe

Germany

| | | |
|---|--|--|
|  <p>SCHOLLMIEIER DENTAL</p> |  |  |
| www.dentallabor-schollmeier.de | www.dt-cadcam.com | www.glidewell dental.com |
|  |  | |
| www.kock.net | www.zahnwerk.eu | |

France



ARTDENTECK
IMPLANT
KROCKEYAN

www.prothesiste-artdenteck.com

The Netherlands



blijdent

www.blijdent.nl

Austria



SPEYLMILLING
TECHNOLOGIES

www.s-m-t.at

Poland



DentalTechnics
Laboratorium

www.dentaltechnics.pl

Sweden



EXPONENT

www.expodent.se

Switzerland



Seiler-Scheidegger
DENTAL TEAM

www.seiler-scheidegger.ch

Czech Republic



microdent

www.microdent.cz





Asia

China


 WWW.SHADIE.CN
www.shadie.cn

 **Esijing** 龙根 MasterDental 牙科
www.masterdental-bj.com


 TRUESHINELAB
www.trueshinelab.com

Korea

 (주)한진덴탈
www.hanjindental.com
hanjin-dental.com

 WE DENTAL
www.wedental.com

 (주)프리덴 Free Dental
dental-agencies.datron.com

Saudi Arabia

 Smile Design Dental
 Dental Pro-lab
 المعمل الجزائري
dental-agencies.datron.com

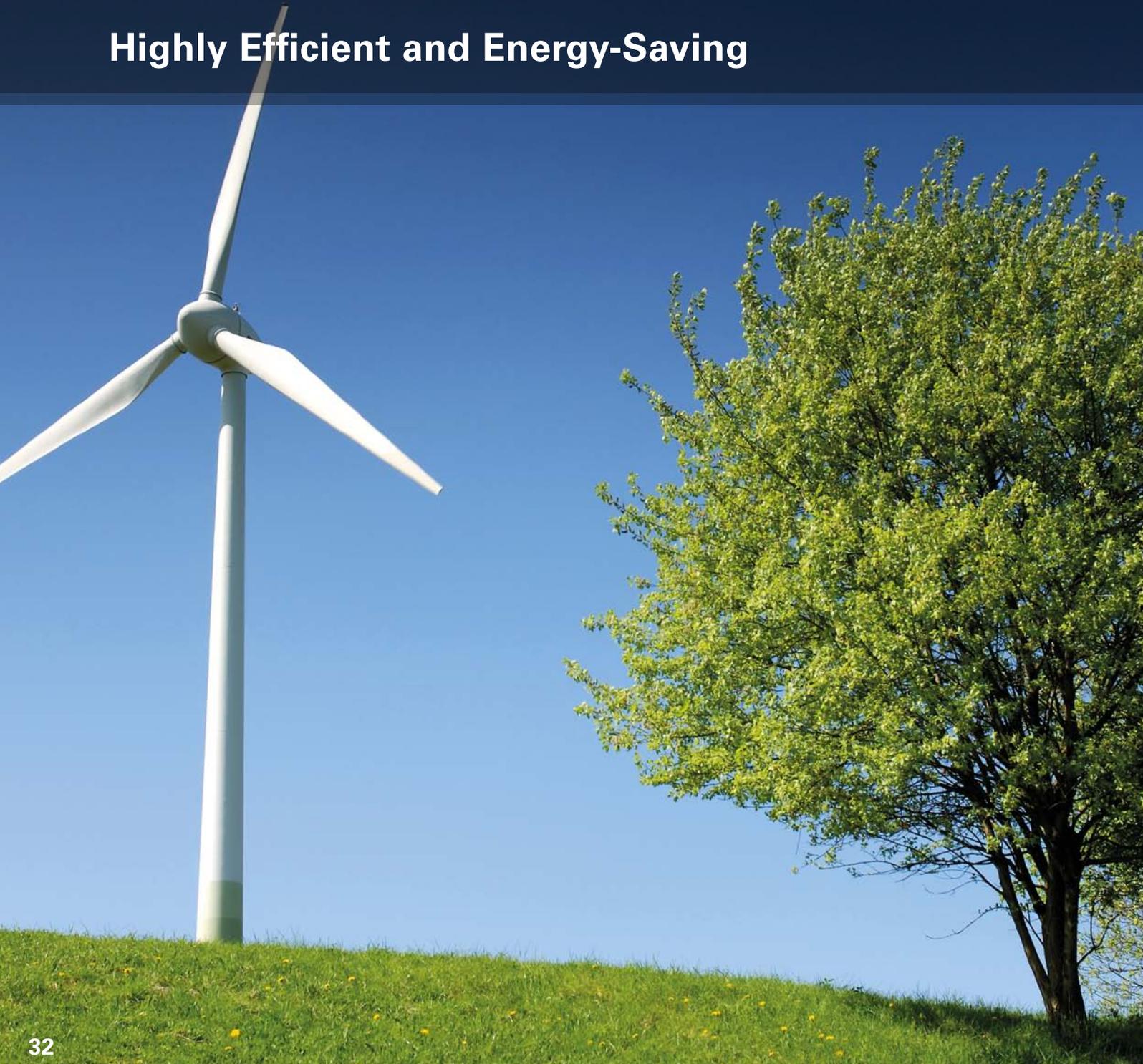
Russia

 OPTOC
www.ortos.biz

UAE

 DR. MUNIR SILWADI DENTAL CENTER
dental-agencies.datron.com

Highly Efficient and Energy-Saving



Low energy consumption and a careful use of resources are taking an increasingly important role, also in view of rising energy prices.

Through their innovative design and their very economical drive technology, DATRON's milling machines use significantly less energy than comparable products.

If DATRON machines are not used over a certain period of time, they automatically switch off their power, thus reducing their already low power consumption still further.

The minimum quantity cooling lubrication technology used in metal machining is an extremely reliable and cost-effective solution. Without any hazardous waste, it is also extremely environmentally friendly compared to flood cooling.

The electricity consumption of our machines is on average less than 550 watts.



DATRON Dental End Mills – Meeting the Highest Demands



Improve Quality and Reduce Costs – DATRON Tool Technology

DATRON has been developing milling tools of the highest quality “Made in Germany” for over 20 years. Because high-quality products can only be manufactured with high-quality tools.

Through the use of premium carbides in ultra-fine grain quality and state-of-the-art coatings, our customers can be sure of getting extraordinary high durability. And this while keeping a very good price-performance ratio. For this reason, more than 10,000 tool customers worldwide rely on DATRON quality!

Even if you do not yet own a DATRON milling machine, you can still benefit from our tool technology. We also offer milling tools for all major CAD/CAM systems such as 3M Espe, DMG, imes-icore, Roland, Rödgers, Wissner, Wieland and many more.

Or do you need a special tool?
We custom-make special and individual tools starting from batch size 10 in a very short time.

Made in Germany 



Compatible with all open CAD/CAM systems



DATRON DentDiscs –

Variety of types in top quality for your success in the lab

The extensive range of DATRON DentDiscs offers high quality milling blanks in the standard 98.5 mm size for all indications. DATRON DentDiscs achieve perfect results in combination with DATRON Dental milling machines and DATRON Dental milling tools. The same as DATRON milling tools, DATRON DentDiscs can also be used with machines built by other suppliers, because DATRON DentDiscs are not locked by either RFID codes, chips or other security policies. They can be machined directly in all open CAD/CAM systems.



DATRON Service – The Team for Your Success



Just In Case Something Does Not Work According to Plan: Fast Help From DATRON Service

The most advanced diagnostic tools, a competent and experienced staff, fast response times worldwide and a comprehensive spare parts inventory guarantee the fastest possible troubleshooting in the event of a failure.

Individually tailored maintenance contracts significantly minimise downtimes and guarantee high machine availability. This way, you can achieve your production targets timely and reliably!

With the purchase of a DATRON D5 you purchase more than just a machine: you get a team of experts to support you comprehensively!



Our Service Hotline:
+49 (0)6151-1419-153

Custom Application Advice



Just for you: Our Dental Experts and Our Know-How

In close cooperation with universities and technology partners in the field of dental manufacturing technology, our team of dental technicians, software, machine and application experts continually enhances the digital process chain. We invest in this know-how so as to make our customers even more successful.

Are you already an expert in dealing with the CAD/CAM process of the D5, and do you wish to optimise your entire current manufacturing process? Or do you intend to integrate new techniques in order to be already today fit for the future?

Our dental experts will be happy to visit you and advise you on how to optimise your individual processes or how to expand your product portfolio.

We share our knowledge required to use our dental systems efficiently and economically. Additionally, we also offer product training for scanners, CAD and CAM software.



DATRON D5 – Facts and Figures

The D5 was developed specifically for the needs of dental laboratories. As small as possible - as heavy as necessary: With a width of only 79 cm, the D5 fits through any standard doorway. Its weight of only 880 kg usually requires no building alterations concerning the floor load capacity. For this reason, the D5 can be installed in virtually every dental laboratory*.

Technical Specifications

The machine includes, among other features:

- Integrated touch panel
- Rotary swivel axis for 5-axis simultaneous machining
- Cooling device for spindle and drive
- 7 or 15 station tool changer with tool length sensor and tool breakage detection
- Chip container and connection nozzle for suction
- Integrated automation with 8x blank changer (optional)
- Minimum Quantity Cooling Lubrication System for metal machining (optional)
- Flood cooling for glass ceramics grinding (optional)

| | |
|---------------------------------|--|
| Dimensions (W x H x D) | 79 cm x 191 cm x 119 cm |
| Weight | Approx. 900 kg |
| Precision spindle | 1.8 kW, 50,000 rpm, HSK-E 25 tool insert |
| Tool changer | Up to 15 tools with tool length sensor and tool breakage recognition |
| Automation | Up to 8 blanks |
| Angle ranges Rotary swivel axis | A: up to $\pm 25^\circ$; B: up to $\pm 45^\circ$ (both sides) |
| Workpieces | Standard dental blanks with shoulder; $\varnothing 98,5$ mm |
| Pneumatic connection | 7 bar |
| Supply voltage | 3 x 400 VAC/16 A |
| Power rating | 4,000 VA (max. fuses 3 x 16A) |
| Air consumption | 200 l, dry |

*Please refer to the instructions in the Installation Guide

www.dental.datron.com

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¹with "wet processing" option

²Concerning this topic, please take into account our "Safety requirements when operating the machine". They can be requested from DATRON or viewed online at www.safety.datron.de.

The information in this brochure includes current descriptions and/or performance features that may change due to the ongoing development of our products. Descriptions and performance features are only binding if expressly agreed on in writing upon conclusion of the contract.

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