

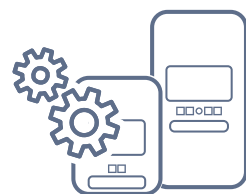
# DC3™

A targeted investment  
in the future!



DC3™

Tailor-made  
for full automation!



Reliable process

Consistent precision in all production steps!  
The entire DCS machine concept ensures consistent reliability up to the final milling result.



Independent

The modular design ensures high user-friendliness with regard to maintenance and service and sets a new level.  
Modules can be replaced on-site if required, meaning that processing can be continued as quickly as possible. Stay in full control!



Stable value

The DC3™ – unlike other systems in its class – is not designed to work just for a warranty period or until it is paid off. It is designed to last.  
All standard components will still be available in 25 years. The high-quality materials and the build of the machine are designed for durability. A lot of customers use the current DCS machine as a high-quality down payment on the purchase of a larger DCS solution.



DCX™

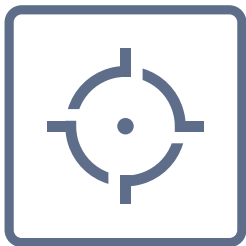
DC1™

DC3™

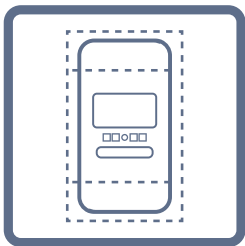
DC7™

#1 The DC3™  
- For a targeted investment

Like all systems in the DCS family, the DC3™ is not just an comprehensive system for consistent and safe production, it is also very convenient for users in terms of user-friendliness and flexibility. Despite its immediate entry into the top class, the system can adapt to the latest requirements and allows for the purchase of a larger floor-standing device without limiting future possibilities with a manageable investment. Modern applications for hybrid and prosthetic technology are already included.



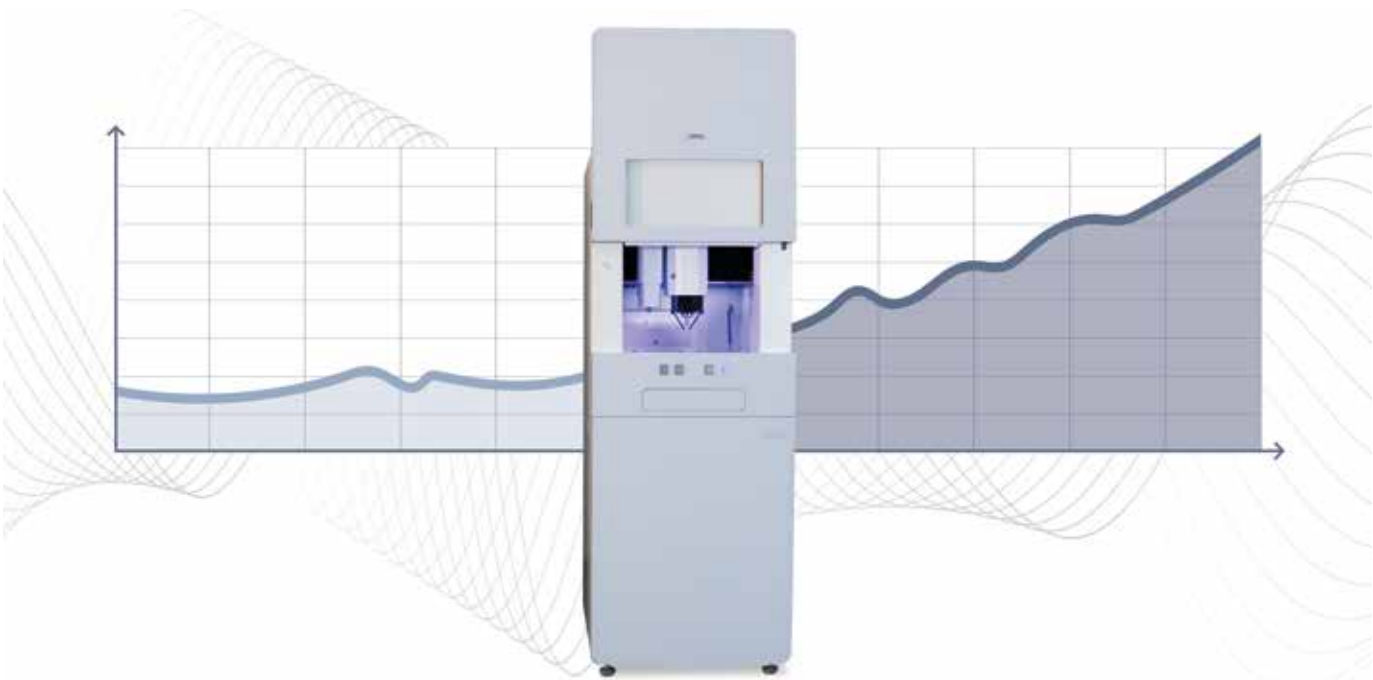
Precision


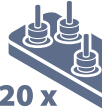












Modularity



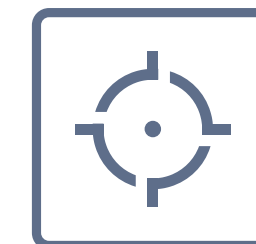
Productivity



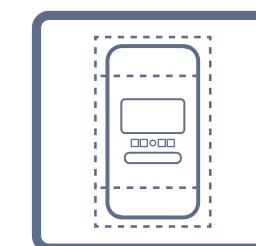
- 5-axis simultaneous machining 
- 20-position tool changer with magazine system 
- Spindle with high clamping force 
- Precise grinding of ceramic tools 
- Multi-blank changer with automation 
- Coolant port for wet processing 
- Spindle shape enables large angle of attack 
- Secure abutment manufacturing in the blank changer 
- Industrial-grade CAM software 
- Clear operability thanks to DC CONTROL 
- Tactile machine calibration 
- Low resonance machine frame 

## #2 The DC3™ – Tailored to YOUR Needs!

The DC3™ machine concept offers clear advantages for the modern user. You can choose the basic version that exactly meets your current requirements with the option of upgrading it, even several years later, for new fields of use or for increased production capacities with additional modules.



**Precision**



**Modularity**



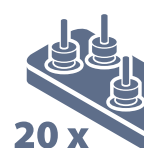
**Productivity**

## Precision – Modularity – Productivity



### 5-axis simultaneous machining

The DC3™ system features state-of-the-art control, which enables constant 5-axis simultaneous machining. With 5-axis simultaneous milling, the performance spectrum is defined by five axes that can be moved simultaneously. With high dynamics, the system impresses with its smooth operation and the resulting surface quality with exact repeatability.



### 20-position tool changer with magazine system

Ever more milling tools are required due to the complex requirements of abutment and implant-supported superstructure production. The DC3™ milling system has an intelligent tool changing system. The interchangeable tool magazines can each hold 20 tools and are automatically recognised by the system.



### Spindle with high clamping force

A motor spindle must not be too small or too large for a system! Anyone who wants to mill and even drill precisely and with low resonance and high dynamics needs a well-designed system. A motor spindle with increased clamping force for all tools and an upstream collet for large angles of attack have been developed for the DC3™ system.







### Precise grinding of ceramic materials

In addition to milling, drilling and cutting, the DC3™ milling system is also capable of grinding. The fine tuning of the control software enables full functionality with even the most complex CAM software. The correct use of CAM software and milling tools is crucial for a consistently precise fit, especially when grinding ceramic materials.



### Multi-blank changer with automation

The DC3™ workspace contains all the relevant components: Machining table with blank holder, spindle and tool magazine as well as multi-blank changer and automatic arm. The blank magazine moves into the rear wall of the machine during processing and protects finished restorations and blanks from unnecessary contamination. The blank changer comes with 4 or optionally 7 blank holders.



### Coolant port for wet processing

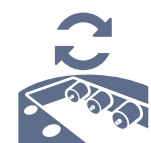
All the components expected from a modern processing centre are integrated into the DC3™. These components include an extensive fluid system for wet processing, which allows for the grinding of ceramic materials and the processing of titanium. The DC3 system can also be optionally fitted with 2 separate systems for coolants and lubricants.





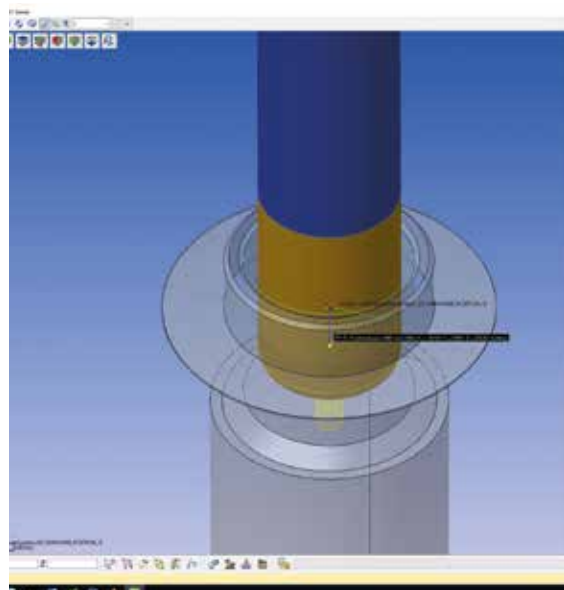
### Spindle shape enables large angle of attack

Due to the large angle of the Z-axis, the DC3™ milling system can produce particularly good occlusal splints, prostheses and model casts. Deep cavities and undercut areas can be reliably milled. The workpiece changer enables continuous use. Thanks to the special design of the chip tray, large quantities of residual material can be collected and easily disposed of even during wet processing.



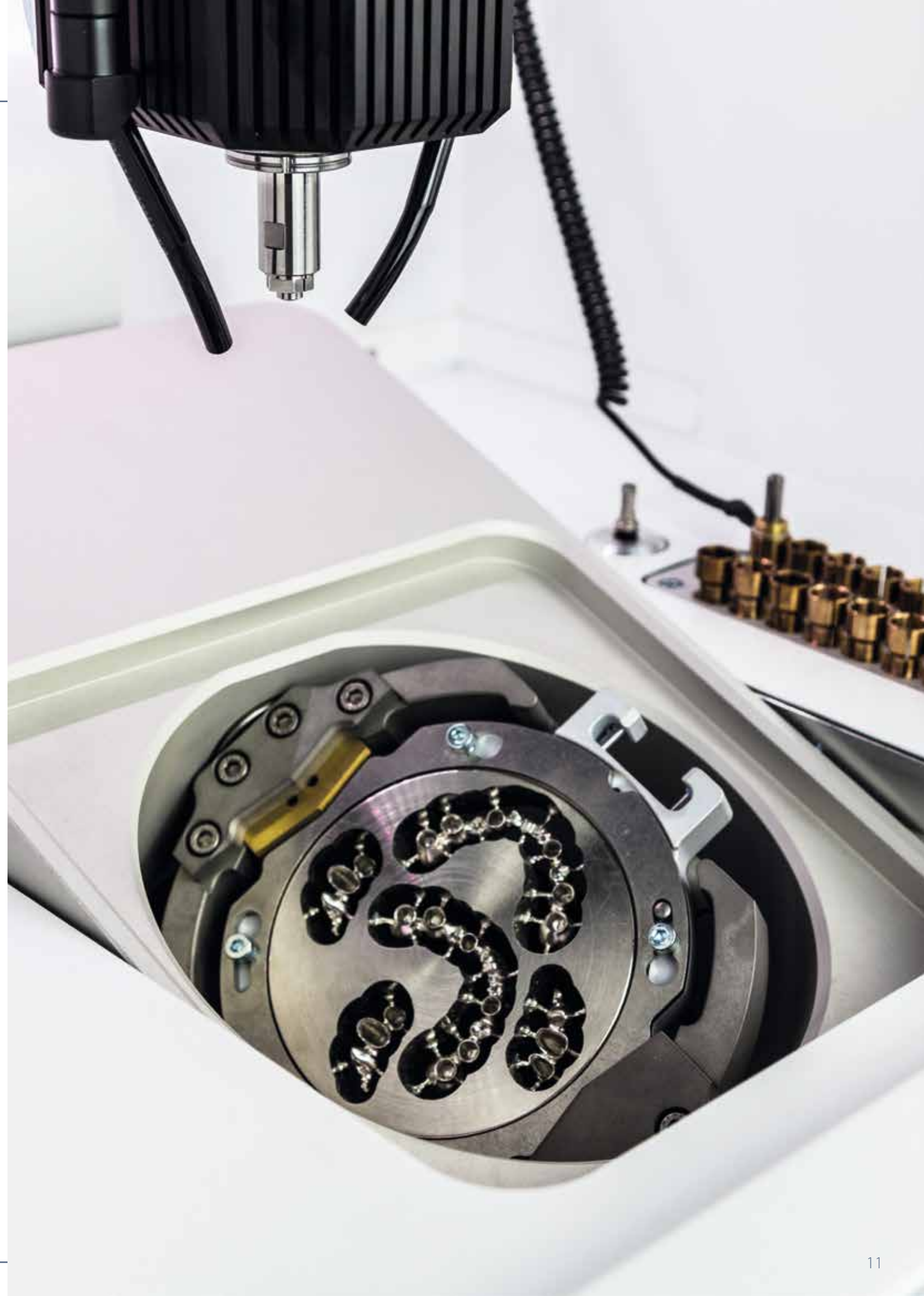
### Secure abutment manufacturing in the blank changer

Abutments can be produced by pre-milling. Different holder systems are available for the processing. In addition to metal blanks, the system is also able to process Bio HPP prefabs. In addition, all other commercially available materials can also be processed in the DC3™, wet or dry.



### Industrial-grade CAM software

Dental Concept Systems milling systems are equipped as standard with CAM software that meets industrial requirements and makes them easy to use for dental technicians. Automatic residual material detection and reliable collision checking enable fast milling times and longer tool life. Users can be qualified for increasingly high-performance applications through accompanying CAM training programs, enabling them to take advantage of the wide range of options offered by the systems.



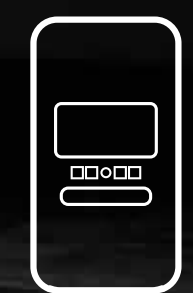




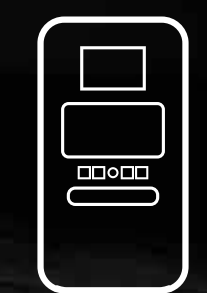
**DCX™**  
smart



**DC1™**  
compact



**DC3™**  
individual



**DC7™**  
maximum

## Start a family business!

Systems from Dental Concept Systems enable dental laboratories all over the world to offer a wide range of options through intelligent combination. Device family systems can be controlled and

control software. These are benefits that many users have recognised and successfully put to good use in modern dental laboratories.





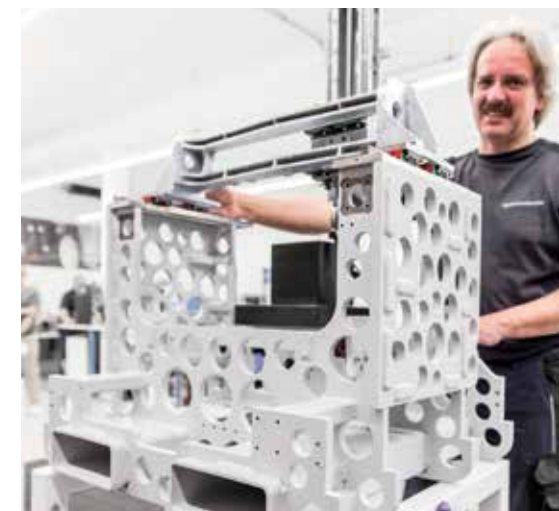
### Clear operability thanks to DC CONTROL

The DC CONCEPTcontrol software is adapted directly to the CAM software and is easy to use. Dental Concept Systems has a control concept developed by in-house developers, which means it is always adapted to modern requirements. The device contains a modular CNC industrial hardware control.



### Tactile machine calibration

The DC3™ system has several options for automatic machine calibration. Using measurement blanks and a probe, the system automatically collects the required data and checks in DC CONCEPTcontrol that it is sufficiently precise. The consistent results required for major restorations, telescopes or bars are ensured at all times.



### Low resonance machine frame

The DC3™ milling system has a low resonance machine frame that is unique thanks to its special shape. The frame's coral structure absorbs vibrations and allows for a machine design that, despite its low total weight, is as precise as industrial machines. Special alloys and modern surveying technology complete the design, which has been successful for many years, and enable the machine to run particularly smoothly.



## Benefit from 360° dental expertise with coordinated workflows and products!



## #3 DCS = bredent group inclusive!

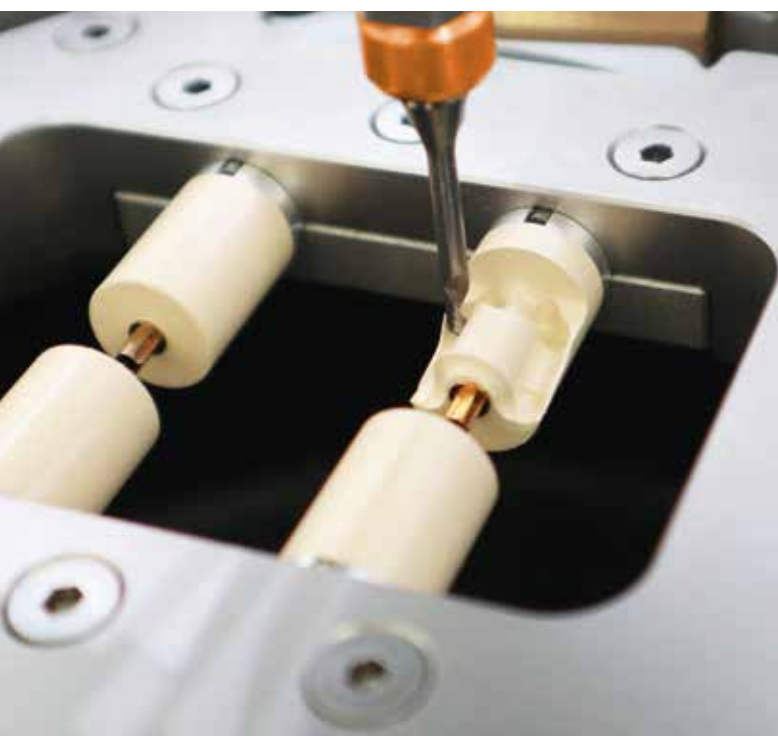
- Matching process components
- Over 45 years of dental know-how
- Provider of solutions for the entire workflow

We see ourselves as your partner with a common concern: the health of our patients. Experience this philosophy being put into practice in all details of the coordinated system in any DCS milling machine. You get much more than just a precision device: Tools and materials achieve precision, durability and optimum performance together.

Offer your customer exceptional, intelligent products, including support for immediate restoration and physiological and biocompatible prosthetics, intelligent interfaces and much more, and offer your patients optimum quality health and beauty.





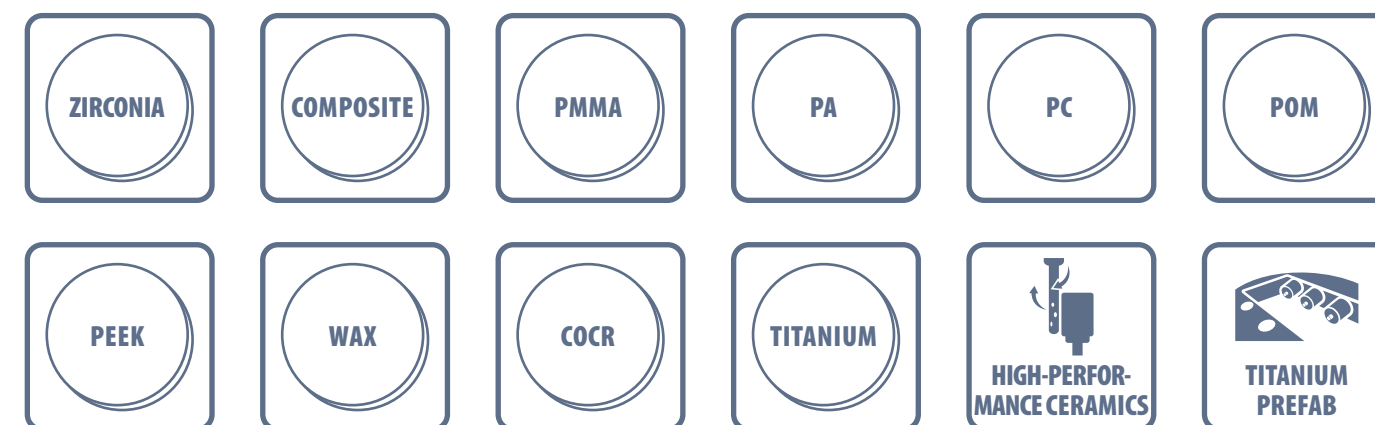


## #5 The DC3™ range of materials and systems provides a clear competitive advantage!

Efficiency and complexity are the secrets of a successful production chain.

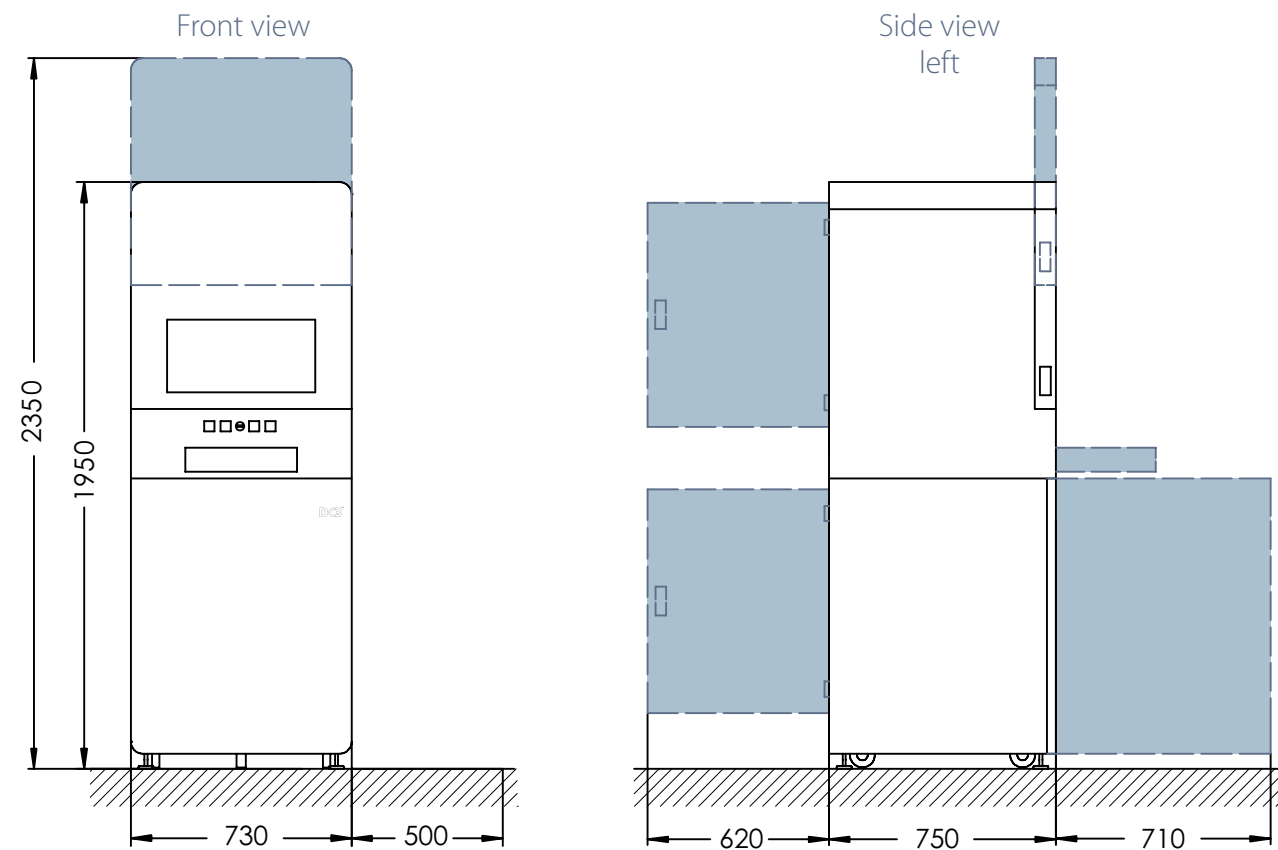
To ensure that DC3™ system users can enjoy this promising symbiosis, a team of programmers, engineers, machinists and dental technicians is constantly working around the clock on new ideas and methods for the entire range of materials used by Dental Concept Systems. All materials are specially adapted to the system components concerned

and manufactured to specialists' specifications. Even during the development and programming of new options in the control CAD and CAM software, the matching tools and materials are being developed and manufactured at the same time. Dental Concept Systems always gives DC3™ users the required process reliability for all system components. The goal is always uninterrupted production processes in the dental laboratory.

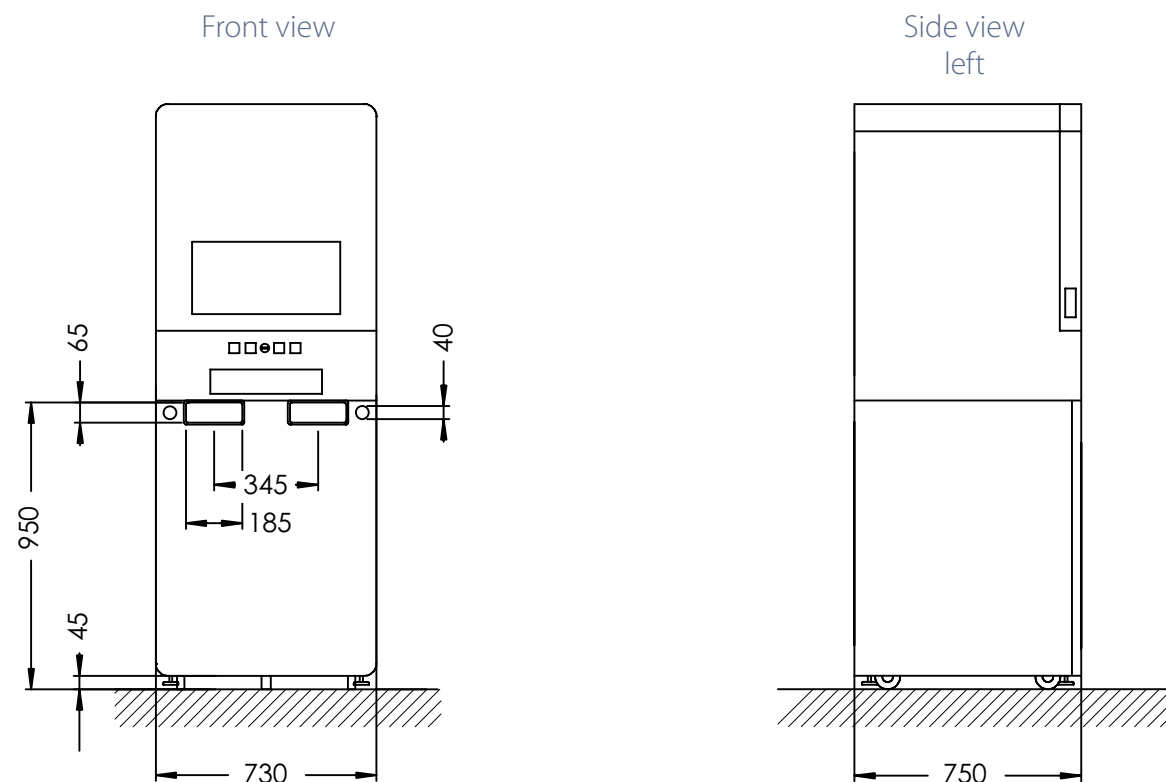




## DC3™ installation plan



## DC3™ transport plan



Scale: 1:25 - dimensions in mm.



### German mechanical engineering quality

DCS systems are manufactured in a robust design based on the rules of German quality mechanical engineering. Longevity is paramount. That is why we continue to help customers maintain the value of their systems and regularly offer components for system updates. This is the only way to explain why the value of our systems remains stable over many years.

### In-house production

Dental Concept Systems develops and manufactures in-house only. This means we always have a clear understanding of all the technical features of our products. Service visits are only made by employees who have full knowledge of our production process. We are manufacturers and know our stuff!



DC3™ technical data

Dimensions in cm (W x H x D)	73 x 195 x 75
Packaging dimensions in cm (W x H x D)	120 x 100 x 219
Weight in kg	630 (with suction system)
Motor spindle	High frequency spindle with high clamping force and power/torque tuning for continuous loads. Max. speed 60,000 rpm
Toolholder	Pneumatic collet chuck for milling bits with 6 mm shaft
Angle of inclination in the rotary axes	360° tilt angle (B-axis) ± 30° milling angle (A and B-axis)
Repeatability	± 0.01 mm
Blank changer	4-fold
Compressed air connection	Min. 7.8 bar, 100 l/min.
Voltage/frequency	230 V / 50 Hz
Transport system	Support rails, forklift, pallet truck, crane

Comparison of the DCS family

Indications

	DCX™	DC1™	DC3™	DC7™
Zirconia	✓	✓	✓	✓
Grinding of high-performance ceramics	✓	✓	✓	✓
Composite	✓	✓	✓	✓
Bionic frameworks in BioHPP	✓	✓	✓	✓
PMMA, PA, PC, POM	✓	✓	✓	✓
PEEK/BioHPP	✓	✓	✓	✓
Acetal	✓	✓	✓	✓
Aluminium for models, stumps and measuring bodies	✓	✓	✓	✓
Use of prefabricated implant interfaces	✓	✓	✓	✓
Prefabs in Ti, BioHPP, acetal	✓	✓	✓	✓
Telescopes, primarily zirconia and secondarily in BioHPP	✓	✓	✓	✓
Telescopes, primarily and secondarily BioHPP	✓	✓	✓	✓
Frameworks in CoCr or titanium	X	✓	✓	✓
Telescopes, primarily and secondarily in CoCr	X	✓	✓	✓
Superstructures – screwed directly into metal	X	✓	✓	✓
2-in-1: Framework and veneering in one continuous workflow	X	✓ (manual)	✓ (automatic)	✓ (automatic)
Two separate cooling circuits for ceramic and titanium	X	X	X (optional)	✓

Machine characteristics

	DCX™	DC1™	DC3™	DC7™
Axes	5-axis simultaneous	5-axis simultaneous	5-axis simultaneous	5-axis simultaneous
Spindle power	500 - 560 W	980 W	1.260 W	1.480 - 3.600 W
Toolholder	3 mm	6 mm	6 mm	6 mm
rpm	100.000	60.000	60.000	60.000
Compressed air	5,5 bar, 50 l/min	7,8 bar, 50 l/min	7,8 bar, 80 l/min	7,8 bar, 80 l/min
Machine format	Desktop	Desktop	Free standing	Free standing
Machine control computer	Laptop	Desktop	Desktop (optionally integrated)	integrated
Coolant circuits	1	1	1 (2 optional)	2
Tool exchange system	18-fach	18-fach	20-tool (per tool magazine)	20-tool (per tool magazine)
Blank positions in automation	1	1	4 (optional 7)	7
Axis position to Z axis	32 °	32 °	32 °	32 °
Axis measurement	automatic	automatic	automatic	automatic
3D calibration for implant geometries	---	optional	optional	optional
Maximum workpiece positions in prefab processing	6	6	24/42	42
Continuous B-axis with blank support on both sides	integrated	integrated	integrated	integrated
C-clamp holder	integrated	optional	---	---

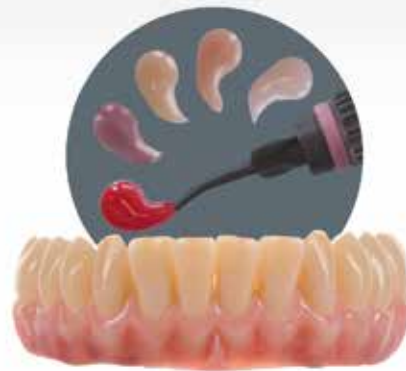




breCAM.HIPC



breCAM.BioHPP



crea.lign



**2 in 1**  
Adding value  
to your lab

bredent  
group



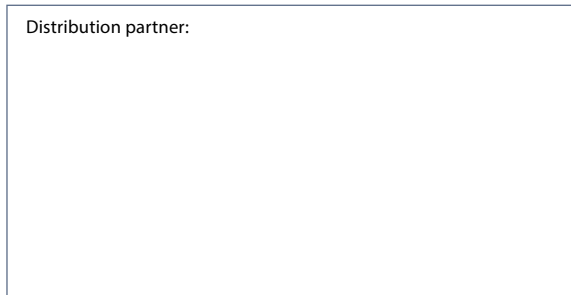
Order conveniently online or by phone:  
**customerservice.DCS@bredent.com**  
**+49 (0) 73 09 / 8 72-441**



**CAD/CAM Support Online-Ticket:**  
**dental-concept-systems.com/support**



Distribution partner:



**DENTAL**  
Concept Systems

Dental Concept Systems GmbH  
Gieselwerder Str. 2  
D - 34399 Wesertal

Phone Office: + 49 (0) 5572 – 3021010  
Fax: + 49 (0) 5572 – 3021099  
www.dental-concept-systems.com

a company of  
**bredent**  
group