

DCX™

Industrial thinking
encompasses generations

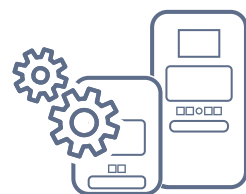


DCX™

Focused on aesthetics,
constant in quality,
stable in value!



DCS SYSTEMS



Reliable process

Consistent precision in all production steps!
The entire DCS machine concept ensures consistently reliable high-quality milling results.



Independent

The modular design provides ease of use in maintenance and servicing and sets a new standard. Modules can be replaced on-site if required, meaning that processing can be continued as quickly as possible. Stay in full control!



Stable value

Unlike other systems in its class, the DCX™ is not designed to last merely for a warranty period or until investment is recouped. It is also designed to be sustainable. All standard components will still be available in 25 years. The machine's high-quality materials and structure are designed to last. Many customers invest in the current DCS machine as a high-quality down payment on the purchase of a larger DCS solution.



DCX™

DC1™

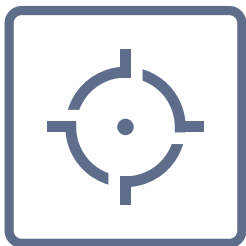
DC3™

DC7™

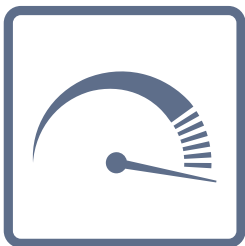
DCX™

#1 A TRUE DCS machine 100% industrial thinking!

In the DCS milling machine family, the DCX™ is the “sassy one” because, despite its compact dimensions and its amazingly affordable purchase price, it brings 100% industrial thinking to your laboratory. The DCX™ is focussed on the precise, fast and reliable production of aesthetic pieces and corresponding interfaces from primarily softer materials.



Precision



Speed

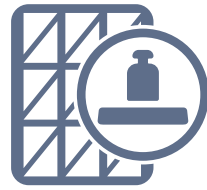


Cleanliness

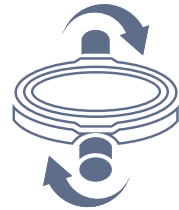


Industry standards for ALL!

**Durable,
low-resonance frame
structure**



**Double-sided
axle mount**



**High-precision
measurement
of axis**



**Tactile calibration
of prefab positions**



**Tool changed
in just 5 sec.
with retracting fin**

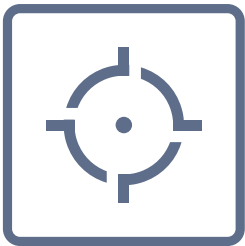


**Active cleaning
of the bur tip**

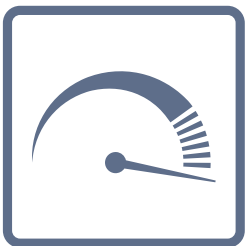


#2 The DCX - a new technological advance in its class!

The smart DCS system is still a fully paid-up member of the DCS system family.
In all aspects, it meets the typical DCS requirements for industrial thinking!
Thanks to the DCX, industry standards can now be achieved in all laboratories.



Precision

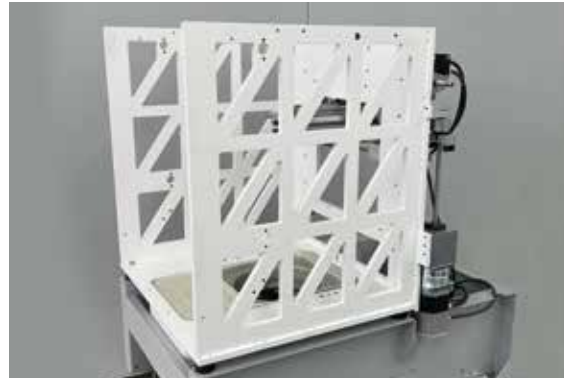


Speed



Cleanliness

Precision – Speed – Cleanliness



Low-resonance and -vibration machine frame

Thanks to its low resonance, the special frame design significantly increases precision and ensures special dynamics in the milling process. Brilliant restoration surface structures meet the highest aesthetic demands.



Double-sided axle mount

Bearing-guided axles on both sides provide high-precision milling in all blank regions. Holes through the blank are precisely milled and not misaligned on one side due to the pressure of the spindle. Double support also means a reduction of resonances when processing all materials, giving higher precision, delicate results and a more natural look.



Automatic calibration

Using a measurement blank and a tactile probe, the system automatically collects the required data and checks in the machine control system that the **axes** are sufficiently precise. The user has a constant overview and can even change the milling spindle manually if necessary.





Advanced calibration of preface positions

Thanks to automatic calibration, titanium abutments can be produced in a highly targeted manner by editing the pre-milling processes.

The system determines the exact position tactilely and guarantees safe and precise production of prefaces regardless of the possible tolerance deviations in the holder.



Tool change like in Formula 1

The tool moves the spindle, not the other way round. This has the following advantages for you:

- Very quick changeover time of 5 sec.
- The spindle maintains its position and precision
- The tool is protected against dirt



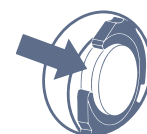
Active cleaning

A sophisticated impulse jet system removes dust and chips from the object so that both precision on the object and cleanliness throughout the cutting chamber are increased.



Component scan

In the DCX™ system, tools, blanks and holders can be read by mobile handheld scanner and the data automatically transferred to the control interface. Of course, material freedom is maintained for manual use. Clear advantages for system customers are the optimum convenience and effective protection against application errors.



c-Clamp holder

The open blank holder provides maximum freedom in the area accessible to the milling machine, with full flexibility of all DCS holder systems for prefabs and measuring blanks. Splints and drilling templates can be processed at previously unreachable angles and the front tooth aesthetics of even large restorations suddenly shine with very natural surfaces.



DCS module concept

The DCX also benefits from the special module concept. As a result, service operations at home and abroad can be hand-led unusually quickly and in a resource-efficient manner. DCS service teams can operate effectively and with high precision worldwide. Of course, the cheeky DCX system also impresses with its low-maintenance continuous operation.





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.

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.





#4 DCX and Luxor Z – a symbiosis between modern technology and true natural aesthetics!

LUXOR Z True Nature

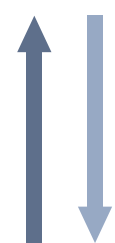
Luxor Z True Nature is a zirconium multilayer for all indications with 6 colour gradations and a flexural strength of 1100 MPa in the cervical section and up to 750 MPa in the incisal section with natural translucency. Luxor Z True Nature is not made up of individual layers dyed differently, but instead has a homogeneous translucency and colour gradient. DCS users achieve their goal digitally and quickly, without time-consuming ceramic layering. Monolithic implementation in zirconium oxide

allows exceptionally aesthetic results that are noticeably close to the natural original model. In the DCX system, due to the high degree of freedom in the C-clamp holder, special surfaces for anterior tooth restorations can stand out thanks to their detailed interdental spaces. The user-friendly interaction between CAD, CAM and control software in the DCS system world ensures reliable productivity in multi-layer nesting for convincingly natural restorations with Luxor Z True Nature.

	Gradation	Strength
1st gradient	20 %	≥ 750 Mpa
2nd gradient	10 %	≥ 820 Mpa
3rd gradient	15 %	≥ 890 Mpa
4th gradient	15 %	≥ 960 Mpa
5th gradient	20 %	≥ 1030 Mpa
6th gradient	20 %	≥ 1100 Mpa

Translucency

50 - 55 %

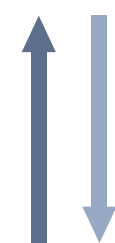


40 - 45 %



Strength

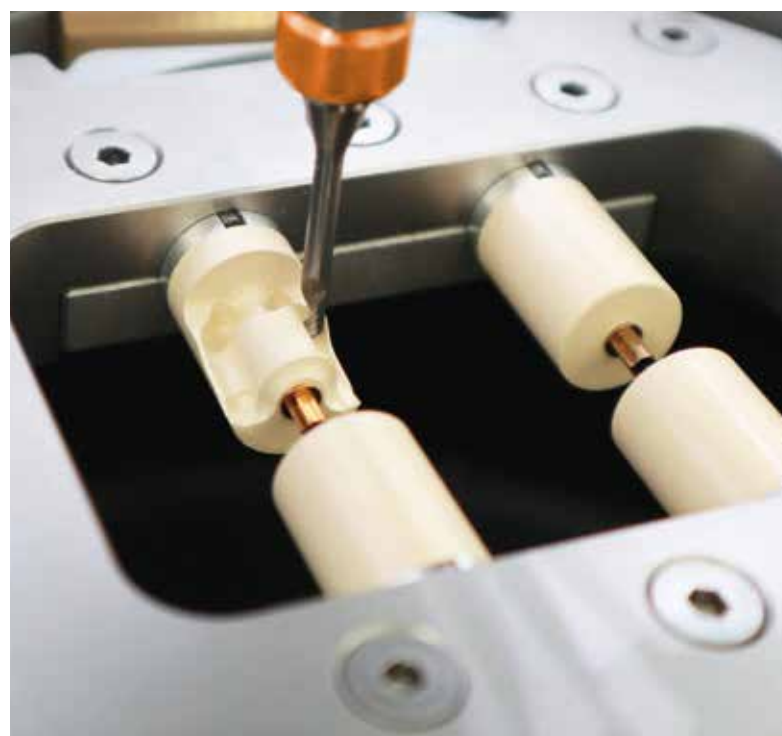
≥ 750 Mpa



≥ 1100 Mpa



Cases by: © ZTM Eugen Ens, Day clinic, Konstanz - Germany



digitize



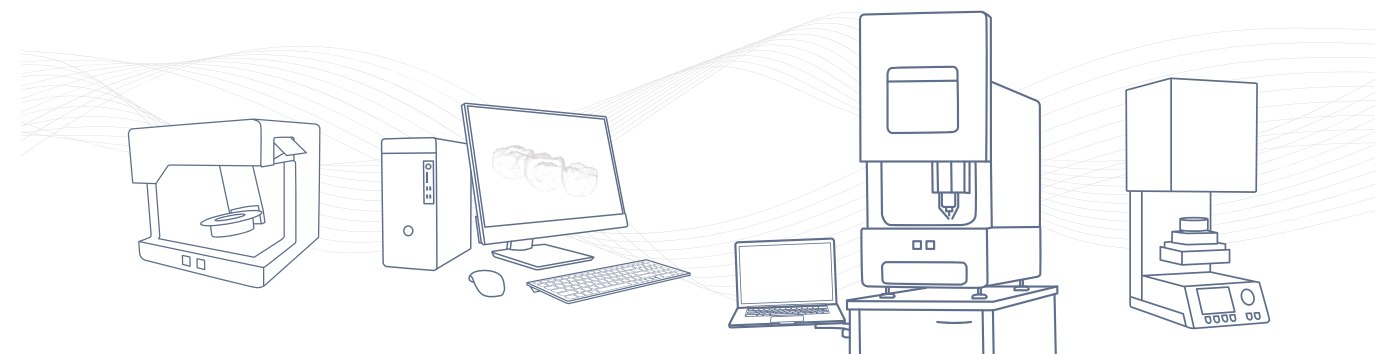
design



milling



sintering



#5 DCX material and system variety ensures a clear competitive advantage.

Efficiency and complexity are the secrets of a successful production chain. To ensure that DCX 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 DCX users the necessary process reliability for all system components. The goal is always uninterrupted production processes in the dental laboratory.

ZIRCONIA

COMPOSITE

PMMA

PA

PC

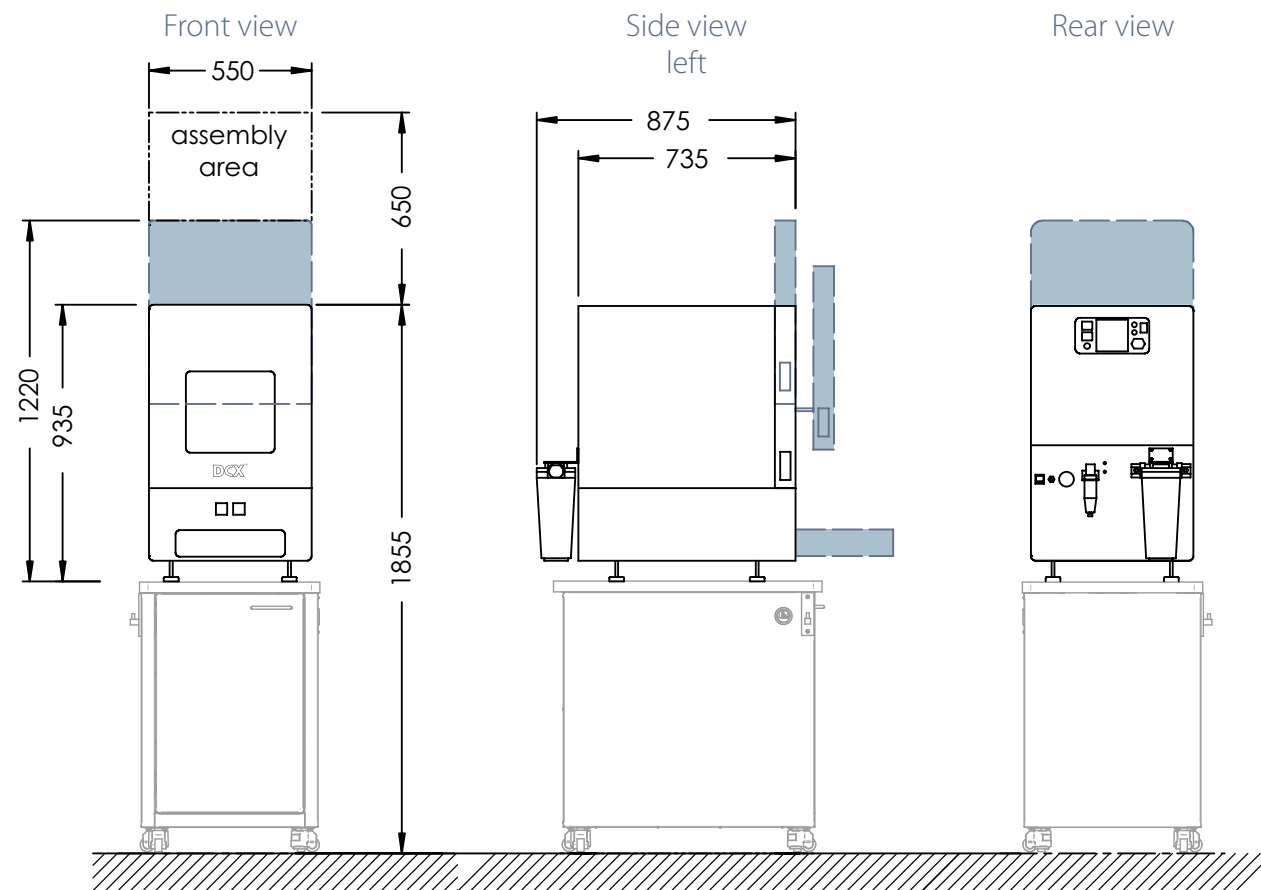
POM

PEEK

WAX

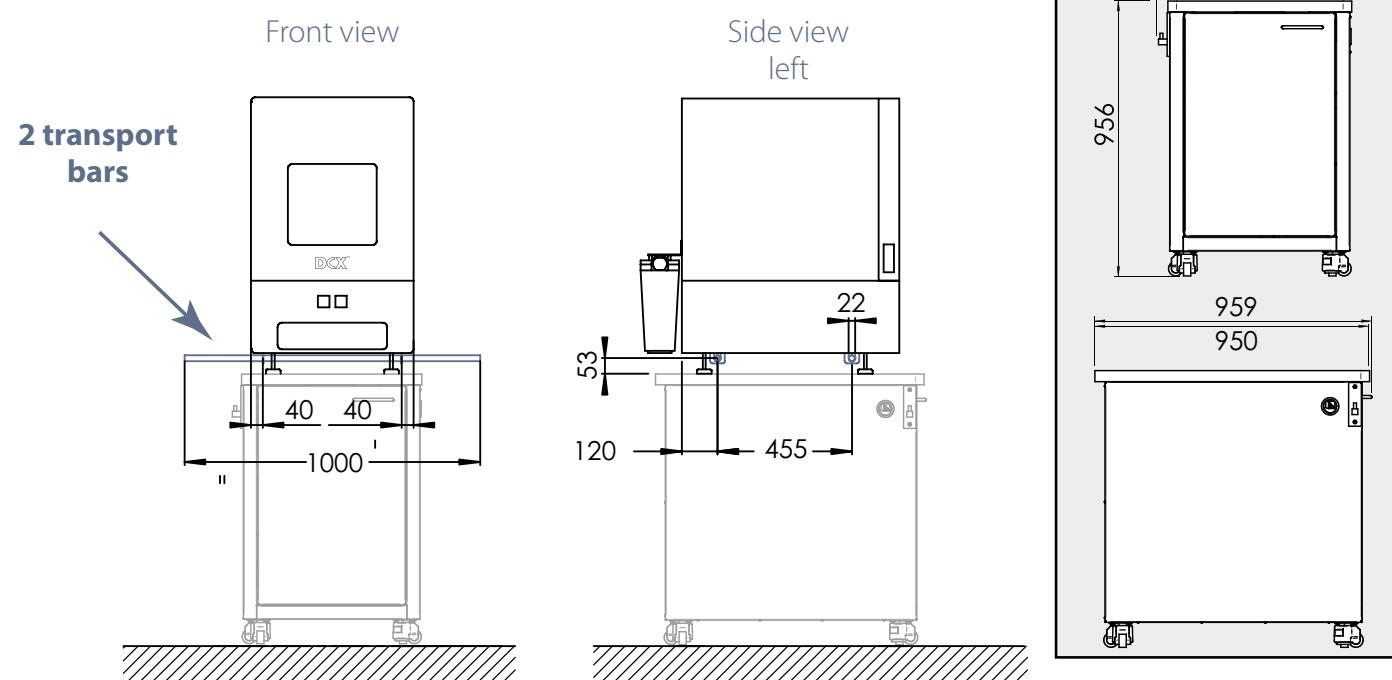


DCX™ installation plan



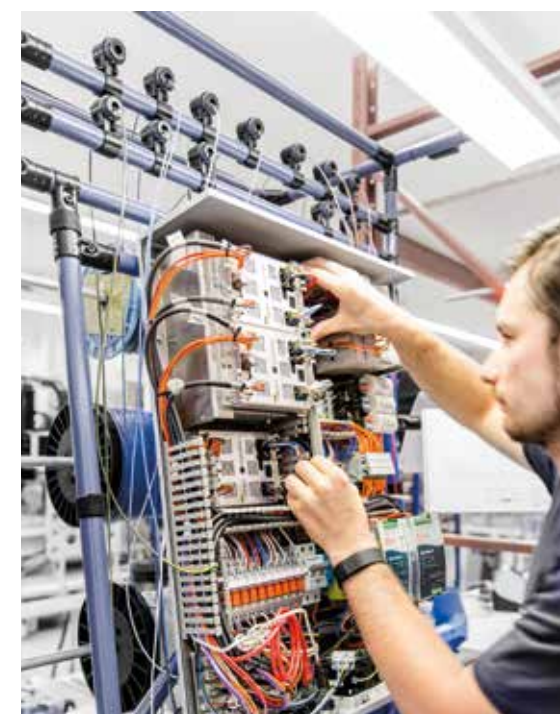
DCX™ machine table*

DCX™ transport plan



Scale: 1:25 - dimensions in mm.

*Available as an option.



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!



DCX™ technical data

Dimensions in cm (W)	55 x 93.5 x 87.5
Packaging dimensions in cm (W x H x D)	120 x 80 x 155
Weight in kg	138 (without suction system)
Motor spindle	High frequency spindle with hybrid ball bearing – max. speed: 100,000 rpm
Toolholder	Pneumatic collet chuck for milling bits with 3 mm shaft
Angle of inclination in the rotary axes	± 360° (B-axis) and ± 30° (A-axis)
Compressed air connection	Min. 5.5 bar, 50 l/min.
Voltage/frequency	230 V / 50 Hz
Transport system	Transport bars
Machine table	Available as an option

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	---	---



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