

DCQ™

CAD/CAM MILLING SYSTEM

COMPACT INTO THE FUTURE





**NEW DCS
GENERATION**

COMPACT INTO THE FUTURE

off to a new digital class!

With the DCQ™, Dental Concept Systems offers a modern milling system in the compact class, which opens up new possibilities for the user in terms of aesthetics and precision.

With an 8-fold change system for blanks, automated tool management and even a tactile measuring system, the DCQ™ enables particular convenience in wet and dry machining.

In addition to the efficient entry into the dental CAD/CAM world, the compact system also offers features, which previously could only be implemented with industrial-level devices and is therefore also welcome in extensive dental production.

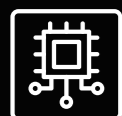
A user-friendly process guide guides the operator through all work steps and ensures results of high quality and aesthetics. As with all DCS systems, a wide range of DCQ™ materials and systems ensures the user a clear competitive advantage.



**TRUE NATURE
AESTHETICS**



**SAFE PICK-UP
STATIONS**



**INTELLIGENT
CONTROL**



**TACTILE
MEASUREMENT**



WET AND DRY



C-CLAMP



**AUTOMATION FOR
BLANKS AND TOOLS**



**COMPONENTS
SCAN**



**SUCTION AND COOLING
MILLING POINT**



**DCS MATERIAL AND
SYSTEM DIVERSITY**

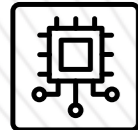




TRUE NATURE AESTHETICS

The DCQ™ supports the monolithic realization in zirconium oxide and enables unusually aesthetic results with a noticeable closeness to the natural model.

The user-friendly interaction of CAD, CAM and control software and the high degree of freedom in the C-Clamp holder ensures reliable productivity in multishade nesting in the DCS system world and impresses with its amazingly natural restorations.



INTELLIGENT CONTROL

The modern "Intelligent Control" control software brings the compact DCQ™ system into the league of the proven DCS device family with industrial standards. Autocalibration, tactile measurement, efficient suction and cooling control, clear process control and automated tool and material management make the DCQ™ a reliable employee in dental technology production.



WET AND DRY

Processing with a fluid cooling system was previously only possible to a limited extent in the compact device class. The DCQ™ system offers new functionality with its intelligent Wet & Dry system, both in premill titanium production, when grinding ceramic blocks, as well as in denture prosthesis production.

The quick-cleaning boxing enables a quick pit stop of 60 seconds and guarantees continued driving at high speed, even in wet conditions.





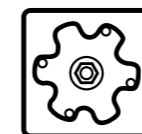
DCCQ™

**GET THE BEST
OF YOUR BLANK**



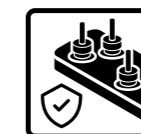
AUTOMATION FOR BLANKS AND TOOLS

With the 8-fold blank changer and its special blue stations for denture and hybrid processing, as well as the 19-fold tool automation, the DCQ™ takes the lead in its class. Sufficient tool and material spaces are provided for the possible variety of materials. Different holders for the various premill systems, RevoCone® and high-performance ceramics round off the system diversity.



SUCTION AND COOLING MILLING POINT

The star-shaped multifunctional module enables direct extraction at the milling point. The milling tool is centrally surrounded by a suction cyclone and two nozzles for pulsating air and fluid cooling. Thanks to the special design, both the milling arm and the equipped tool module can be cleaned automatically and guarantees an uninterrupted production process.



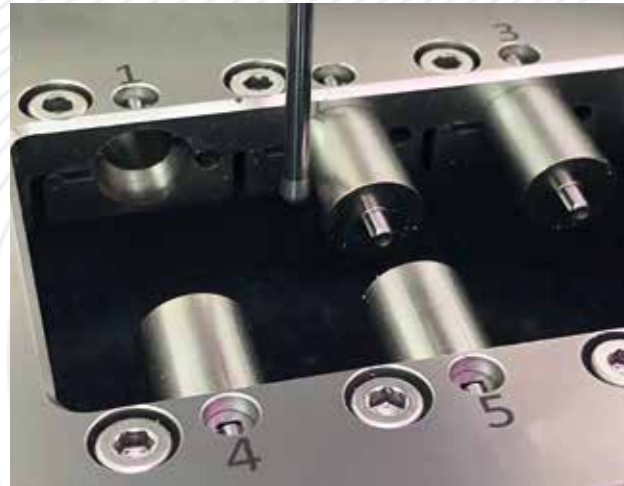
SAFE PICK-UP STATIONS

A modern tool holder system was developed for the DCQ™. The DCQ™ pick-up stations define the correct final tool position and automatically align the milling tools centrally. The special shape of the stop rings allows the tools to lock into the ball-bearing pick-up stations in a defined manner. The motor spindle and collet chucks can therefore always hold the tools centrally and gently.



DCQ™





TACTILE MEASUREMENT

The production of abutments can be carried out precisely using wet premill processing and with automatic calibration.

The system determines the exact position tactilely and reports the correct position to the intelligent control system, regardless of the possible tolerance in the holder. Through its tactile measurement, the DCQ™ opens up a new, powerful generation in the compact class.



C-CLAMP

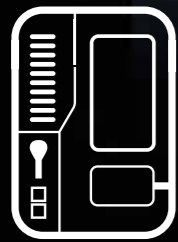
The open blank holder allows a maximum degree of freedom with full flexibility of all DCS holder systems. Rails and drilling templates can be planned and processed at previously unattainable angles. For True Nature anterior tooth aesthetics, including extensive restorations, precise machining of the interdental spaces and brilliant surface structures can be milled in the open holders in a true-to-life way.



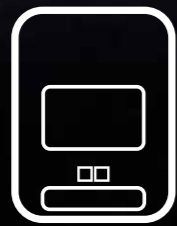
COMPONENTS SCAN

In the DCQ™ system, tools, blanks and various holder systems can be read in using a hand scanner and the data can be automatically transferred to the intelligent Control interface. Freedom from materials and tools is also maintained when supporting the automation. A clear advantage for system customers offering a high level of convenience in the process and strong protection against mix-ups and operator errors.





DCQ™



DCX™



DCI™
—PRO—



DCB™
—PRO—



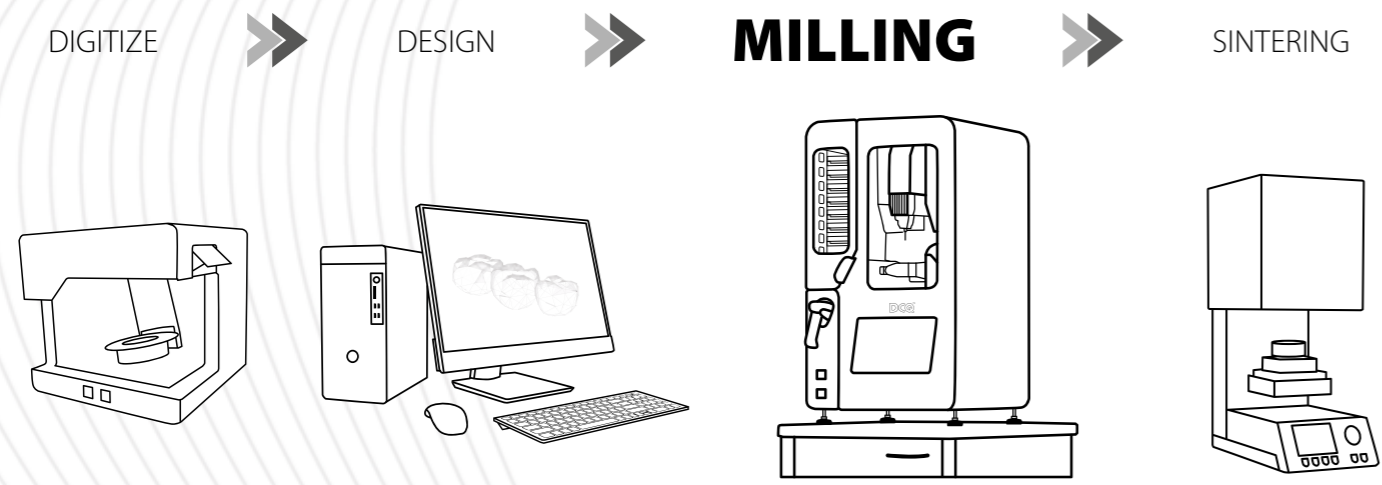
DC7™
—PRO—

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. Systems in the device family can be jointly controlled and organized using the control software. These are benefits that many users have recognised and successfully put to good use in modern dental laboratories.

MATERIAL AND SYSTEM VARIETY

ensures a clear competitive advantage



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

To ensure that DCQ™ 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 DCQ™ 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	HIGH PERFORMANCE CERAMICS	PREFAB TITAN	HYBRID INTERFACE	C-CLAMP HOLDER



BENEFIT FROM 360° DENTAL EXPERTISE

with coordinated workflows and products!



50 years of bredent

DCS = BREDED GROUP INCLUSIVE

- Matching process components
- Over 50 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.



DCQ™ & LUXOR Z

- a symbiosis of **modern technology**
and **true natural aesthetics!**

Luxor Z™ is a modern generation of zirconium oxide with gradient technology for all indications with a variety of color gradients and impressive flexural strength in the cervical and incisal areas with natural light transmission.

Luxor Z™ Blanks do not consist of individual differently colored layers, but rather have a homogeneous gradient of translucency and color.

DCS users can quickly achieve their goal digitally, without complex ceramic layering.

The monolithic realization in zirconium oxide produces unusually aesthetic results with a noticeable closeness to the natural model. Due to the high degree of freedom in the C-clamp holder, the DCQ™ system offers special surfaces for anterior tooth restorations with detailed interdental spaces.

The user-friendly interaction of CAD, CAM and control software in the DCS system world enables secure productivity in nesting for convincingly natural progressions with **Luxor Z™** zirconium oxides.



INDICATIONS

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	X
Use of prefabricated implant interfaces	✓
Prefabs in Ti, BioHPP, Acetal	✓
Prefabs in CoCr	X
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

DCQ™ MILLING TOOLS

TURQUOISE LINE Titanium prefab

Processing of prefab geometries in titanium

The production of titanium abutments using the prefab process requires particular precision in the system. The DCQ™ system has a prefab calibration which tactilely scans and the exact position of the objects is stored in the control.

ORANGE LINE bre.CAM cutter

Processing of thermoplastic materials

Thanks to the innovative cutting geometry of the **ORANGE LINE** bre.CAM cutter, the machining of PMMA, PEEK and other thermoplastic materials in DCS milling machines is possible in dry processing.

RED LINE

Processing of zirconium oxides

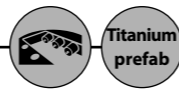
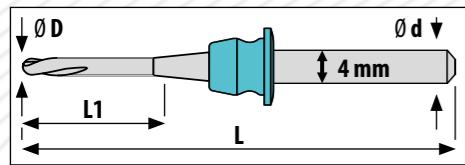
The **RED LINE** coating was developed specifically for translucent and sensitive zirconium oxides. Thanks to a particularly smooth nanocrystalline structure of the highly abrasion-resistant diamond coating enormous service life advantages are achieved, especially with highly abrasive materials.

GREEN LINE

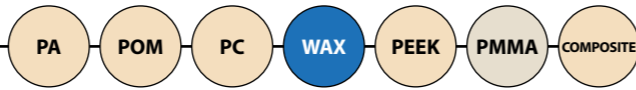
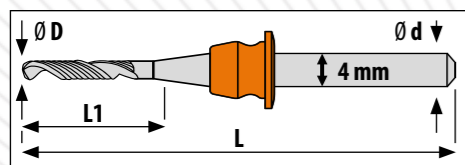
Grinding of ceramic materials

The **GREEN LINE** thick-film diamond grinding points enable safe processing from all commercially available glass ceramics on the dental market and are also suitable for grinding innovative composite and hybrid ceramics.

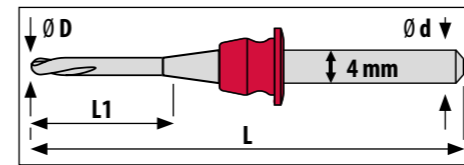




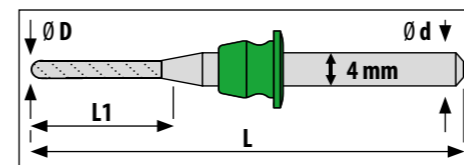
TURQUOISE LINE Titanium prefab		Type of tool	Milling materials	Ø Shank d	Cutting edge D	Length L	Clearance L1	Cutting edges z
	24-141006	Ball-end milling tool	Titanium prefab	4 mm	1.0 mm	56 mm	6 mm	2
	24-161006	Quattro Cut Ball-end milling tool	Titanium prefab	4 mm	1.0 mm	56 mm	6 mm	4
	24-141506	Ball-end milling tool	Titanium prefab	4 mm	1.5 mm	56 mm	6 mm	2
	24-161506	Ball-end milling tool	Titanium prefab	4 mm	1.5 mm	56 mm	6 mm	4
	24-142012	Ball-end milling tool	Titanium prefab	4 mm	2.0 mm	56 mm	12 mm	2
	24-143010	Ball-end milling tool	Titanium prefab	4 mm	3.0 mm	56 mm	10 mm	2



ORANGE LINE bre.CAM cutter		Type of tool	Milling materials	Ø Shank d	Cutting edge D	Length L	Clearance L1	Cutting edges z
	24-250602	bre.CAM cutter	PA, POM, PC, Wax, Peek, PMMA, Composite	4 mm	0.6 mm	56 mm	2 mm	1
	24-250612	bre.CAM cutter	PA, POM, PC, Wax, Peek, PMMA, Composite	4 mm	0.6 mm	56 mm	12 mm	1
	24-251016	bre.CAM cutter	PA, POM, PC, Wax, Peek, PMMA, Composite	4 mm	1.0 mm	56 mm	16 mm	1
	24-251020	bre.CAM cutter	PA, POM, PC, Wax, Peek, PMMA, Composite	4 mm	1.0 mm	56 mm	20 mm	1
	24-252020	bre.CAM cutter	PA, POM, PC, Wax, Peek, PMMA, Composite	4 mm	2.0 mm	56 mm	20 mm	1
	24-253025	bre.CAM cutter	PA, POM, PC, Wax, Peek, PMMA, Composite	4 mm	3.0 mm	56 mm	25 mm	1



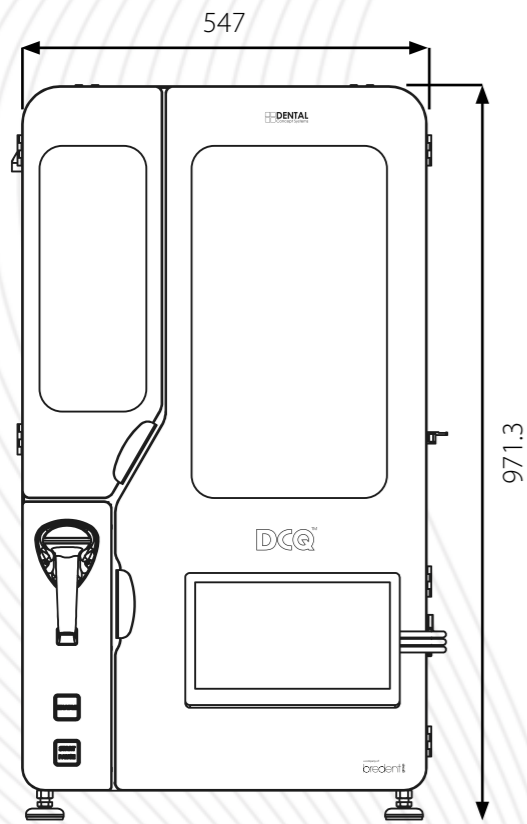
RED LINE		Type of tool	Milling materials	Ø Shank d	Cutting edge D	Length L	Clearance L1	Cutting edges z
	24-070302	Ball-end milling tool	Zirconia	4 mm	0.3 mm	56 mm	2 mm	2
	24-070606	Ball-end milling tool	Zirconia	4 mm	0.6 mm	56 mm	6 mm	2
	24-071016	Ball-end milling tool	Zirconia	4 mm	1.0 mm	56 mm	16 mm	2
	24-071020	Ball-end milling tool	Zirconia	4 mm	1.0 mm	56 mm	20 mm	2
	24-072020	Ball-end milling tool	Zirconia	4 mm	2.0 mm	56 mm	20 mm	2
	24-072025	Ball-end milling tool	Zirconia	4 mm	2.0 mm	56 mm	25 mm	2
	24-071516	Bull-nose milling tool	Zirconia	4 mm	1.5 mm (r 0.2)	56 mm	16 mm	3



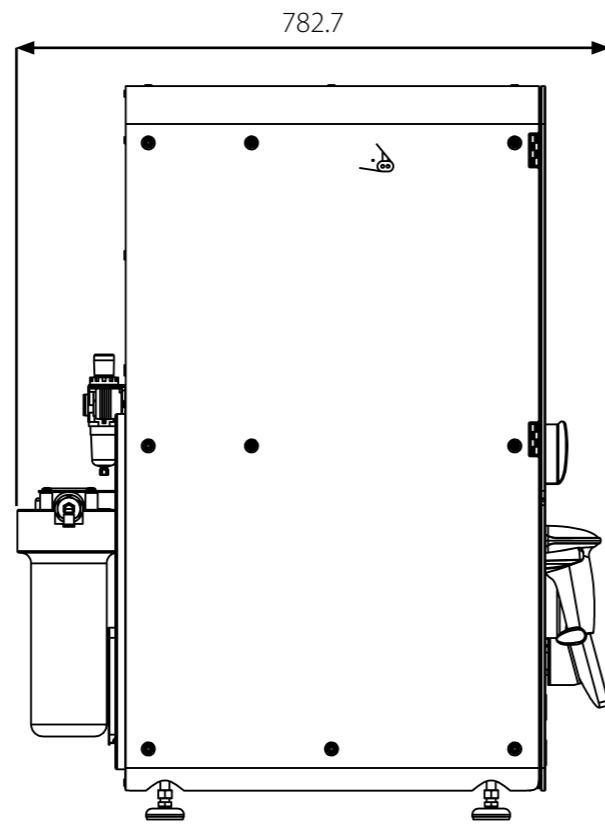
GREEN LINE		Type of tool	Milling materials	Ø Shank d	Cutting edge D	Length L	Clearance L1	Binding Grain
	24-220611	Conical grinder	Blue Blanks, Composite	4 mm	0.6 mm	56 mm	11 mm	Fine grain electroplating on carbide
	24-231011	Grinding pin	Blue Blanks, Composite	4 mm	1.0 mm	56 mm	11 mm	Fine grain electroplating on carbide
	24-232518	Grinding pin	Blue Blanks, Composite	4 mm	2.5 mm	56 mm	18 mm	Fine grain electroplating on carbide

INSTALLATION PLAN

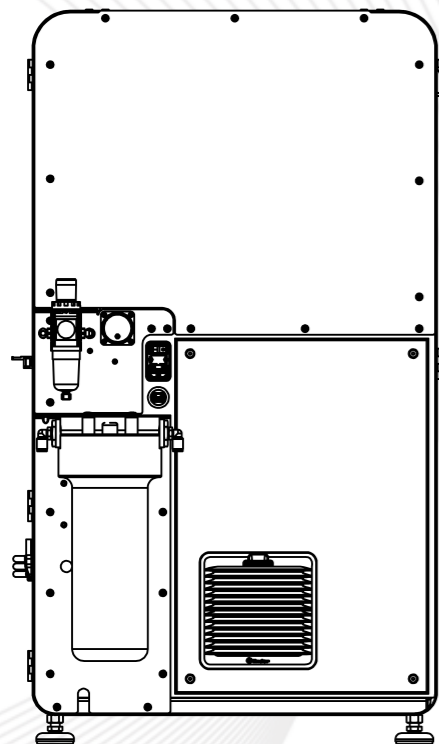
FRONT VIEW



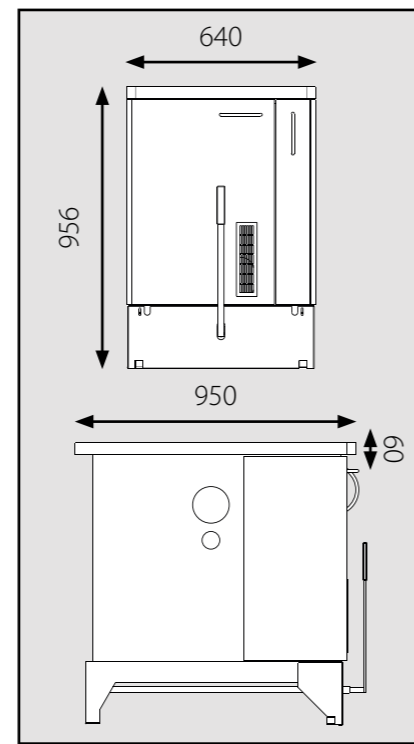
SIDE VIEW



BACK VIEW



MACHINE TABLE*



TECHNICAL DATA

Dimensions in cm (W x H x D)	54.7 x 97.1 x 78.3
Packaging dimensions in cm (W x H x D)	120 x 80 x 155
Weight in kg	112 (without suction system)
Motor spindle	High-frequency spindle with 2x hybrid ball bearings, lubricated for life
Motor spindle speed range	6.000 – 100.000 min ⁻¹
Toolholder	Electrical collet chuck for milling bits with 4 mm shaft
Angle of inclination in the rotary axes	± 360° (B-axis) and ± 30° (A-axis)
Compressed air connection	min. 2.0 bar, 20 l/min
Voltage/frequency	230 V / 50 Hz
Transport system	Carrying plate
Machine table	Available as an option



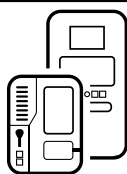
MACHINE CHARACTERISTICS

Axes	5-axis simultaneous
Spindle power	860 W
Toolholder	4 mm
rpm	6.000 – 100.000 min ⁻¹
Compressed air	2.0 bar, 20 l/min
Machine format	Desktop
Machine control computer	Tablet with touch function
Coolant circuits	Suction & cooling automation
Tool exchange system	19-fold
Blank positions in automation	8
Axis position to Z axis	32°
Measuring the axes	automatically
Tactile measurement in premill processing	integrated
Maximum workpiece positions in prefab processing	6
Automatic calibration	integrated
C-Clamp holder	integrated
Quick Cleaning-Boxing	integrated
Integrated multi-ionization	optional

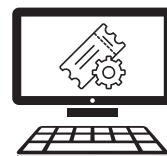
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