

**DC1**<sup>TM</sup>





## *Technological lead in the modern compact class!*

Dental Concept Systems has completed its range with the DC1™ and offers a basic device in the compact class of modern milling systems.

The DC1™ allows dental laboratories of all sizes to be extremely competitive and offers dental technicians a smooth entry into CAD/CAM technology.

The DC conceptCONTROL control software and modular construction supports the complete line of DC milling systems and offers a wide range of options for dental productions.



**5 - AXIS  
SIMULTANEOUS MACHINING**



**MODULAR CONSTRUCTION  
FOR INDIVIDUAL USE**



**COOLANT PORT  
FOR MILLING AND GRINDING**



**18-TOOL MAGAZINE  
WITH AUTOMATIC CARROUSEL**



**AUTOMATIC  
MACHINE MEASURING SYSTEM**



**SECURE ABUTMENT  
MANUFACTURING**



**PRECISE GRINDING  
OF CERAMIC MATERIALS**



**SYNERGY IN MANUFACTURING  
THROUGH DC CONCEPT CONTROL**

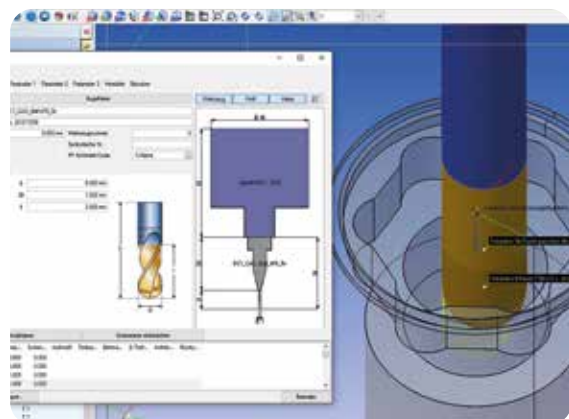




### Permanent CoCr Processing

The DC1<sup>™</sup> milling system was developed by the engineers at Dental Concept Systems for the purpose of introducing a milling machine to the compact class that was versatile yet fully capable of milling CoCr with the same precision as the larger units in the DCS family.

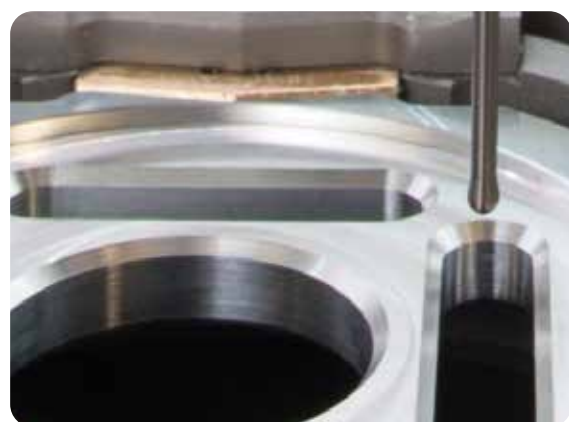
Equipped with a large spindle & motor, the DC1<sup>™</sup> allows the efficient milling of metals with smooth finishes, of the type normally reserved for larger machines.



### Allrounder optimal for Implant-Technology

Customers refer to the DC1<sup>™</sup> as an „Allrounder“. Due to the intelligent design, characterizing its quietness.

Anyone observing the DC1<sup>™</sup> in action, quickly realizes how stable and smooth this desktop unit is working. An important prerequisite for the production of abutments and implant superstructures. The DC1<sup>™</sup> can safely drill and finish high quality geometries for abutments. A compact device that provides dental laboratories a high competitiveness in the market.



### Constant accuracy through calibration

The DC1<sup>™</sup> System has an automatic machine calibration feature. By using a measuring Disc and probe, the system automatically detects and checks the necessary precision with Control management. Consistent results, which are necessary for precision restorations can be guaranteed. Therefore the user always has a safe overview of the accuracy of their DC1<sup>™</sup> and can even replace the milling spindle their self if necessary. A remarkable advantage!



### Perfect individual Abutment manufacturing

The production of abutments can also be done by editing the Premill process in the DC1<sup>™</sup>. In the calibration process the holders are checked for accurate positioning and a targeted processing of the Abutment bodies is ensured.

A clear advantage for safe production and unvarying production quality, which is important especially in the field of implantology. In the DC1<sup>™</sup> Abutments can be manufactured in all approved materials, wet or dry!





### Intelligent workspace

The DC1™ milling system has a special structure which allows machining with short process paths. The 18-tool magazine with automatic carousel opens directly under the spindle and positions to the desired milling tool and measuring sensor.

Advantages are short set-up times and thus a more effective processing time. The spindle moves over the object to be milled, only during processing.



### The DC conceptCONTROL control software

Dental Concept Systems has a control concept, which was developed in-house and is therefore always adapted to modern requirements. The device also contains a modular split CNC industrial hardware control.

The DC1™ is delivered with a computer and monitor for the Control Panel. The control software is closely related to the CAM software and enables full functionality, even for large-scale applications.



### Secure zirconium processing

By special guidance a targeted guided airflow is generated, which whirls around the area to be machined.

When processing zirconium oxide the airflow also serves to prevent heat build up during the milling process to avoid undesirable property changes prior to sintering.

The suction technology keeps the workspace clean and prevents damage to the milling objects by clearing material residue.



### Grinding of ceramic materials

The DC1™ milling system not only mills, drills and cuts but also grinds. The fine tuning of the control software allows full functionality of even more complex CAM software.

The correct use of CAM software is crucial for precision production, especially when grinding ceramic materials.

For this purpose, the system offers wet grinding operability for most available ceramics materials.





### **System diversity!**

The milling systems of Dental Concept Systems provide dental laboratories all over the world a wide variety of options through intelligent composition. Devices can be controlled and organized together utilizing the control software. Used successfully by many, observant dental technologists all over the world have benefited from the use of these systems in their modern laboratories.



### Dry and wet milling

Efficient and easy to work with, the DC1™ does not require intensive, time consuming cleaning to change from wet to dry. In just a few minutes, the DC1™ can be converted from wet to dry machining.

The closed clear form of the workspace and the fluid drawer are easy to clean and protect the system from permanent soiling.

All components for wet processing are integrated and can be controlled automatically. Course residue collects in a filter in the Fluid drawer.

A special fine filter cartridge additionally separates all other possible fine dust particles.



### Sealed workspace

The fully enclosed workspace and the effective suction system helps maintain clean air quality and prevents hazardous dust particles from being released into the surrounding environment.

The suction flow under the milling object helps seal the enclosure door and its gaskets. The combined suction and cooling airflow directly at the object provides a clean and reliable processing environment for restorations.

The CAD/CAM suction was specifically developed for this purpose, and is directly controlled by the DC1™ when needed. Thereby the actual required suction flow is always ensured.



### Efficient cooling system

The DC1™ features an integrated filter & pump system for materials requiring reliable wet processing. The pump and fine filter system prevent dust and contaminants in the fluid system, while increasing tool life and keeping ceramics restorations free of metallic impurities.

The special DCS cooling and lubricating fluids can be easily refilled with distilled water as evaporated.

The DC1™ Machine Table is designed specifically to work with the machine and facilitate connectivity to external devices, while maintaining a compact and easy to clear workspace.





### DC1™ machine table

The DC1™ machine table has several features that enable the dental technician a comfortable and convenient use of the milling machine. Through the simple use of an attachable lever arm the table can be lifted from its steady legs onto a roller system. When servicing or cleaning the unit, the DC1™ can be moved easily on the table into a suitable position without much effort.

The design of the DC1™ machine table accommodates the needed external device connections for the DC1™ and allows the easy maintenance and storage. Storage below the DC1™ Milling machine is designed to house the extraction system and computer, while the ports to these storage areas accommodate their respective connections to the DC1™ milling unit. Lastly, the DC1™ Machine table was designed specifically for milling, minimizing movement extension from momentum during the milling process, further maintaining accuracy in the milling process.



### Integrated components

The DC1™ machine table efficiently accommodates all the important components of the milling system. Besides the suction system, suction device, computer and filter system, other components can be integrated upon request.

For example a monitor arm or connections for a central suction system can be installed optionally. The DC1™ and the machine table can be connected to a standard 230 volt outlet and require a separate protection through a circuit breaker. For more information regarding specific electrical requirements and options for the DC1™ machine table and DC1™ Milling system, please consult your dealer.



### Special suction system

The table houses a refined suction system and a suction tube with return mechanism. By opening the compartment for the suction tube the suction system is turned on automatically and switches off after use, making it easy to keep the interior and the surroundings of the DC1™ clean.

When milling extensive restorations or splints even larger quantities of cutting debris can be easily removed. Due to the different suction applications users can avoid unnecessary damages caused by contamination to the working area and electronic devices.



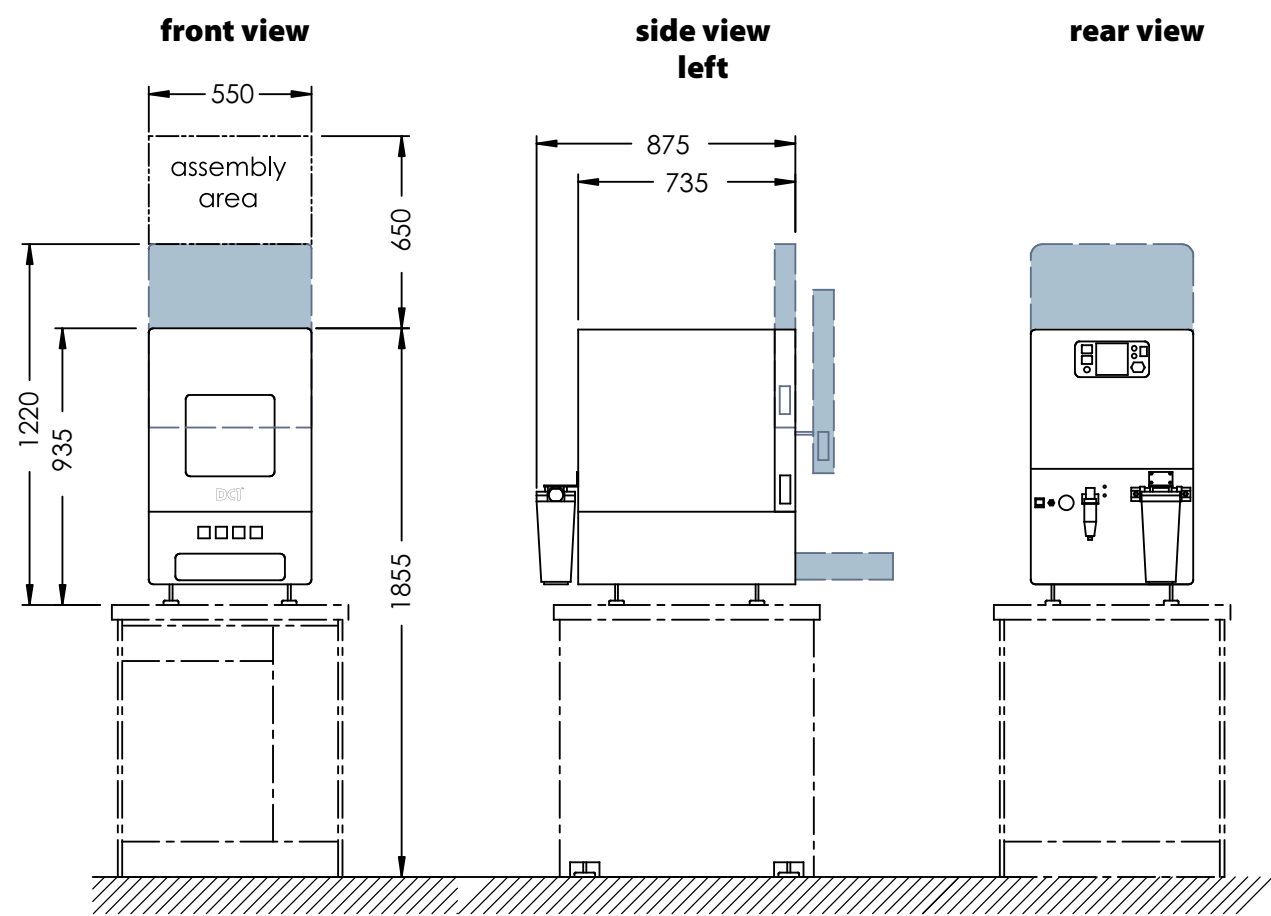
### German engineering quality

DCS systems are manufactured according to the rules of German engineering quality in a solid construction. Durability is a prime importance. Therefore, we permanently support our customers in maintaining the value of their systems by periodical offering components to update the systems. Only this explains the long-standing stable value of our systems.

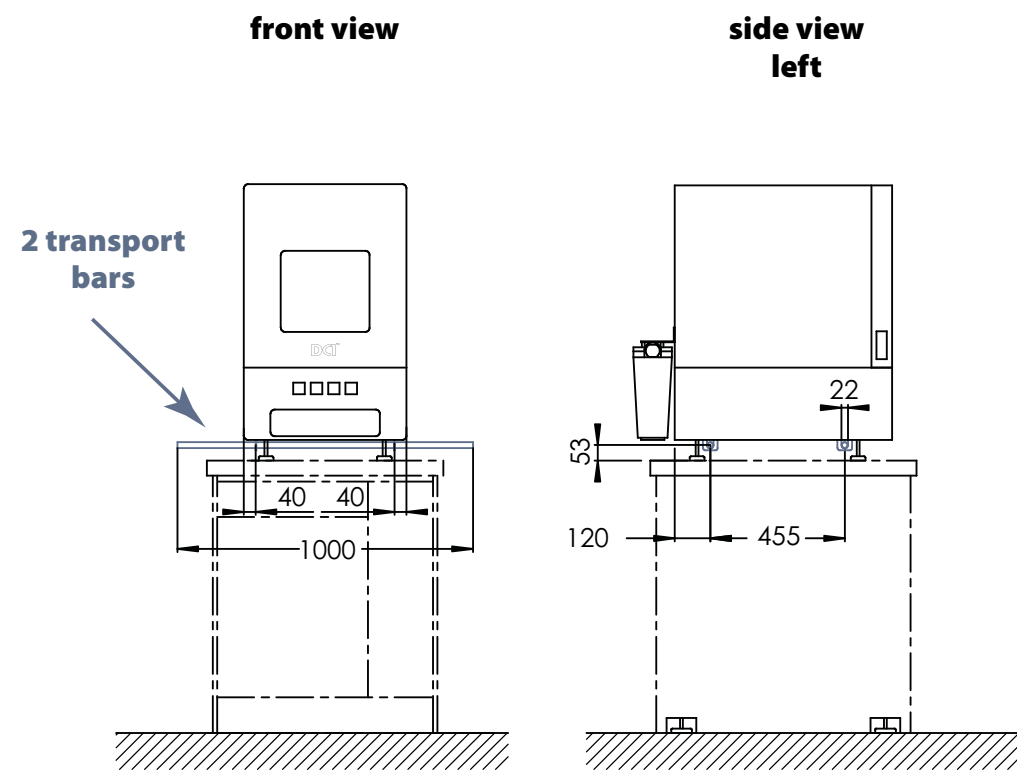
### In-house production

The Dental Concept Systems develops and manufactures only in-house. Therefore, we always have a clear overview of all the technical aspects of our products. Service operations are carried out exclusively by employees who have full knowledge of our own production. We are manufacturers and know our items inside out.

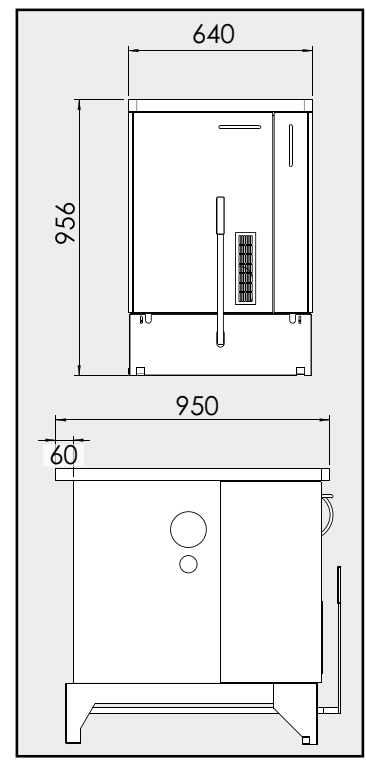
Installation plan DC1™



Transport plan DC1™



Machine Table \* DC1™



Technical data for the DC1™

|                                         |                                                                                  |
|-----------------------------------------|----------------------------------------------------------------------------------|
| Measurements in cm (W x H x D)          | 55 x 93.5 x 87.5                                                                 |
| Packing dimensions in cm (W x H x D)    | 120 x 155 x 80                                                                   |
| Weight in kg                            | 170 (without extraction system)                                                  |
| Motor spindle                           | High-frequency spindle with hybrid ball bearing<br>Max. rotary speed: 60.000 rpm |
| Tool holder                             | Pneumatic chuck<br>for drills with 6 mm shaft                                    |
| Angle of inclination in the rotary axes | ± 360° (B-axis)<br>and ± 30° (A-axis)                                            |
| Compressed air connection               | min. 7 bar                                                                       |
| Voltage/frequency                       | 230 V / 50 Hz                                                                    |
| Transport system                        | Transport bars                                                                   |
| Machine table                           | optional                                                                         |

Machine comparison



|                                                                           |   |   |   |   |
|---------------------------------------------------------------------------|---|---|---|---|
| Milling system for all materials for milling, grinding, drilling, cutting | ✓ | ✓ | ✓ | ✓ |
| 5-axis milling system, simultaneous                                       | ✓ | ✓ | ✓ | ✓ |
| Individual Abutment manufacturing                                         | ✓ | ✓ | ✓ | ✓ |
| Precise grinding of ceramic materials                                     | ✓ | ✓ | ✓ | ✓ |
| Automatic machine calibration system                                      | ✓ | ✓ | ✓ | ✓ |
| Milling System as a desktop device                                        | ✓ | ○ | ○ | ○ |
| Milling System as a floor-standing device                                 | ○ | ✓ | ✓ | ✓ |
| 1 coolant port for milling and grinding                                   | ✓ | ✓ | ○ | ○ |
| 2 coolant ports for milling and grinding                                  | ○ | ○ | ✓ | ✓ |
| Integrated, fully automatic extraction system                             | ○ | ✓ | ✓ | ✓ |
| Integrated computer and touch screen                                      | ○ | ○ | ✓ | ✓ |
| Exchangeable 11-tool magazine                                             | ○ | ○ | ✓ | ○ |
| Exchangeable 20-tool magazine                                             | ○ | ✓ | ○ | ✓ |
| 18-tool magazine with automatic carousel                                  | ✓ | ○ | ○ | ○ |
| Spindle with high clamping force                                          | ✓ | ✓ | ✓ | ○ |
| Heavy duty industrial spindle with high clamping force                    | ○ | ○ | ○ | ✓ |
| Solid machine frame for low-resonance continuous production               | ○ | ○ | ○ | ✓ |
| Manual blanc-measuring system in the 4-fold changer                       | ○ | ✓ | ○ | ○ |
| Automatic blanc-measuring system in the 7-fold changer                    | ○ | ○ | ○ | ✓ |
| Spindle shape enables large setting angle                                 | ○ | ✓ | ○ | ✓ |
| Extension by additional hardware modules possible                         | ○ | ✓ | ○ | ○ |

Scale: 1:25  
Data in mm

\*Optionally available.



**SKY**  
IMPLANT SYSTEM

bredent<sup>group</sup>

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