

# CAD/CAM TECHNOLOGY

DCS suction systems

breident group

 **DENTAL**  
Concept Systems

Suction technology  
ideal for DCS milling systems  
**Z1 CAM / Z1 CAM PRO**



Tested & Approved for  
**LUXOR Z**

EDITION  **DENTAL**  
Concept Systems

## Suction technology ideal for DCS milling systems

- **Z1 CAM**  
with filter bag  
for milling machines in dental production
- **Z1 CAM PRO**  
with permanent filter system  
for milling machines in dental production

### Options for the exhaust air connection

The standard equipment of the **Z1 CAM/Z1 CAM PRO** suction systems includes a diffuser at the output of the system, which guarantees the legally prescribed exhaust air flow of a maximum of one meter per second. Alternatively, an H14 filter or an activated carbon filter can be installed there in compliance with the prescribed guide value. As a further alternative, an adapter for the exhaust air connection to the outside is optionally available.

### Regulated step switch

The **Z1 CAM/Z1 CAM PRO** has 5 suction levels, the performance of which the user can freely set and store in the first four levels. The unit has also an intelligent control of the suction power, which adjusts itself to the programmed setting depending on the filling level of the filter. This ensures a constant performance independent of the filling level of the filter bag. The fifth suction level serves as a boost for short-term maximum suction power. All suction levels are automatically controlled by the DCS systems depending on the milling strategy.



### Smart Drive control - new motor technology

The new **Smart Drive** control for carbon brush motors is installed in the suction systems **Z1 CAM/Z1 CAM PRO**. This technology ensures a guaranteed motor operating time of 1500 hours without changing the carbon brushes. In addition, the long running time can be increased considerably by the possibility of changing the carbon brushes.

### IFA certificate for dust-related testing by the DGUV

The suffix refers to suction systems in dental laboratories. It confirms that the dust extractor meets the requirements of the test specification DIN EN 60335-2-69, Appendix AA (degree of dust separation, filter change, dust extraction from the unit etc.) or that the dental suction system complies with the requirements described in the test specification GS-IFA-M020.

### External control panel

For a higher comfort in handling the device we have developed an external control module, which you can additionally install at a freely selectable position of your work station. Always at your eye level, you control and operate the unit and obtain directly important information about the suction system.



## Z1 CAM - with filter bag

For normal to high dust levels and small milling machines

The **Z1 CAM** suction units are suitable for a wide range of applications due to their large filter bags. Their volume of 11 litres is unique in the dental field for single station units. In addition, the dust container in these systems is enclosed and stabilized in a basket, which optimizes the filling efficiency and increases the suction power at the work station or at the machine.

The filter bags, when removed, can be hermetically sealed by a special label, thus ensuring a dust free and easy disposal.

The **Z1 CAM** suction units are convincing alternatives to systems with dischargeable dust containers.



## Z1 CAM PRO - with permanent filter

for long working intervals with high dust generation

The professional versions **Z1 CAM PRO** have a permanent filter system with 2 ultra-fine filter cartridges instead of a filter bag. These are, independently from each other, cleaned at regular intervals; the dust falls downward and is collected in a container. The low-dust disposal is ensured by removing the dust with a bin liner provided with a drawstring for sealing. The periodic cleaning of the two **Z1** filter cartridges is effected automatically by the intelligent control of the system. It has been shown that a high cleaning efficiency can only be achieved by using two filters, as there is no need to wait for the moment of a tool change or to reduce the suction power for this work step.

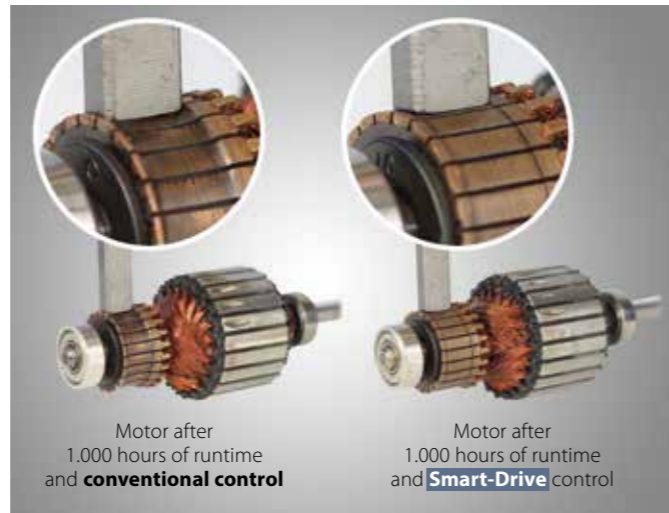
The suction units of the **Z1 CAM PRO** series have been developed for long working intervals with high dust generation..



## 1500 h Smart Drive - The future-orientated control system for carbon brush motors

A fundamentally new electronic system for controlling the motor has been developed for all **Z1 CAM/Z1 CAM PRO** suction units. It is operated as a pure DC motor and achieves a guaranteed running time of 1.500 hours without changing the carbon brushes.

This high running time can be increased considerably by the possibility of changing the carbon brushes. The impressive lifetime of the carbon brush motor installed in the **Z1 CAM/Z1 CAM PRO** suction systems was previously only known from brushless and therefore more expensive motors.



## High energy efficiency

The energy efficiency of a suction system is defined by a high extraction performance with low electricity consumption.

All units of the **Z1 CAM/Z1 CAM PRO** series are characterized by very short air paths with minimized vortex generation. The smart drive control of the motors with significantly reduced energy consumption ensures the user a suction system with high performance at a minimum of operating costs.



## IFA certificate for dust-related testing

Suction systems with test certificate GS-IFA-M20 are systems with clean air recirculation into the working room listed by the German Employers' Liability Insurance Association.

They can be used for all types of dust generated in the dental laboratory; this also includes cobalt-containing dental alloys in the usual processing techniques and quantities used in the sector. According to TRGS 561

(10/2017), due to their „state of the art“ and their supervised good filter and suction performance, their use is allowed in the laboratory without the need to prove the residual dust concentration by complicated measurements. According to GS-IFA-M20 a prerequisite is the use of collection elements and suction systems tested and adjusted to each other.

## Tool-free change of filter and motor

To keep the service of your suction unit **Z1 CAM/Z1 CAM PRO** simple and cost-effective, we made sure during the development of the device that no tools are required to change filter, motor or carbon brushes. With a few simple moves and in a very short time you can change these components at the workplace by yourself.



## Multifunctional exhaust air connection

The GS-IFA M20 regulation regarding dental equipment for clean air recirculation describes very accurately that the outgoing air from a suction system at a height of 50mm and a radius of 1m must not exceed a speed of 1m/sec. All Z1 suction units have been designed with reference to these regulations and have been tested conclusively. The four variants of diffuser, active carbon filter, filter cartridge H14 or the exhaust air to the outside are available if the values listed above are adhered to.



### Technical data **Z1 CAM/Z1 CAM PRO**

Dimensions ( W x H x D):	200 mm x 675 mm x 590 mm
Weight in kg	28 kg ( <b>Z1 CAM</b> ) - 33 kg ( <b>Z1 CAM PRO</b> )
Voltage	230 V ~ 50/60 Hz
Nominal power	700 W
Suction capability	15 - 50 l/s
Sound level	42 - 58 dB(A) ( <b>Z1 CAM</b> ) - 45 - 60 dB(A) ( <b>Z1CAM PRO</b> )





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

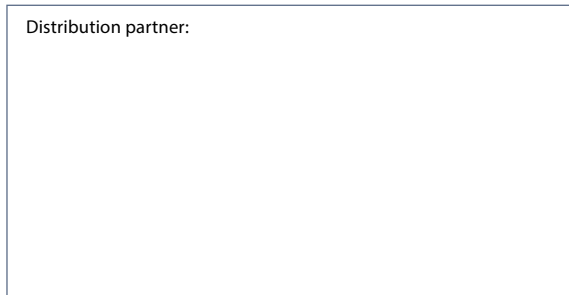


**CAD/CAM Support Online-Ticket:**  
**dental-concept-systems.com/support**

Suction-Systems  
 manufactured by



Distribution partner:



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