SUCTION SYSTEMS

Single station suction systems

zubler group

zubler® dental & technik

Z1 Series

Single station suction systems

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- **Z1 ECO with filter bag for work stations and dust-generating devices**
- **Z1 ECO PRO with permanent filter system for work stations and dust-generating devices**
- **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** suction systems includes a diffusor 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** 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.

MADE IN GERMANY

Motor technology

The new Smart Drive control for carbon brush motors is installed in the suction systems Z1 ECO and Z1 CAM. 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.

Zubler Extraction Technology APP

A Bluetooth connection with Zubler Extraction Technology APP gives you the possibility to obtain rapidly a high number of information about the condition of the suction system. You can easily make individual settings on the device from your smartphone or tablet and contact us via remote maintenance in case of service.

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.

THE DEVICE WITH FILTER BAG

Z1 ECO / Z1 CAM

For normal to high dust levels and small milling machines

The types **Z1 ECO** and **Z1 CAM** 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 ECO or the Z1 CAM are convincing alternatives to systems with dischargeable dust containers.

THE SYSTEM WITH PERMANENT FILTER

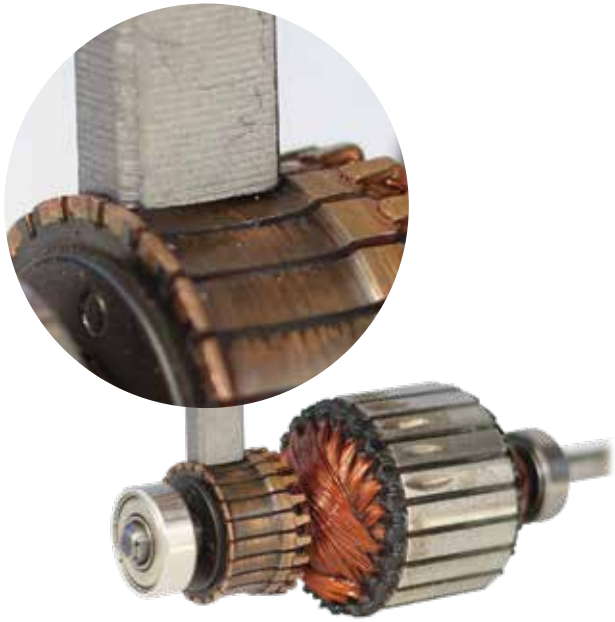
Z1 ECO PRO / Z1 CAM PRO

for long working intervals with high dust generation

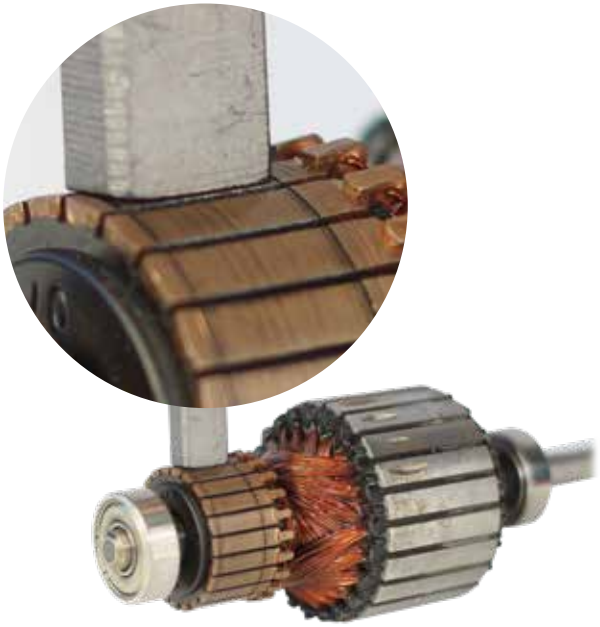
The professional versions **Z1 ECO PRO** and **Z1 CAM PRO** have a permanent filter system with 2 ultra-fine filter cartridges instead of a filter bag. These are, independently from each other, cleaned at regular intervals; the dust falls downward and is collected in a container. The low-dust disposal 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 PRO series have been developed for long working intervals with high dust generation.

SMART-DRIVE CONTROL SYSTEM FOR CARBON BRUSH MOTORS



Motor after 1000 hours of runtime
and **conventional** control



Motor after 1000 hours of runtime
and **Smart-Drive** control

The future-orientated control system for carbon brush motors

A fundamentally new electronic system for controlling the motor has been developed for all **Z1** series suction units. It is operated as a pure DC motor and achieves a guaranteed running time of 1500 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** suction systems was previously only known from brushless and therefore more expensive motors.

The important information regarding the condition of all suction motors used in the laboratory, such as effective running time, performance and history of operation can be read out and documented easily with a Bluetooth connection and the Zubler Extraction Technology-APP.

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.

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** 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.

TOOL-FREE CHANGE OF FILTER AND MOTOR

To keep the service of your suction unit **Z1** 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.

ZUBLER EXTRACTION TECHNOLOGY APP

To control the perfect function of your suction system, information about the condition of single elements is very important.
Using the **Zubler Extraction Technology App** and a Bluetooth connection to the machine, you can check important information such as the effective motor running time, the filter status or the current air volume of the **Z1** system and adjust it if necessary. Of course you have the possibility to edit the parameters directly on the unit without the Zubler App.

MULTIFUNCTIONAL EXHAUST AIR CONNECTION

Where to put the exhaust air?

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. Observing the values listed above, you can choose from four variants of exhaust air conduction, which are described below:

Diffusor

The diffusor is delivered as standard. Its function is to slow down the already completely filtered air before it is emitted from the unit and to diffuse it uniformly over its entire surface. Another positive collateral effect is that it retains the smallest particles which are caused by motor wearing.

Active carbon filter

By installing an active carbon filter in place of the diffusor, toxic monomer vapours, caused for example when working with resin, are absorbed. If the system is operated with an active carbon filter, the **Z1** still fulfills the requirements of a suction system of filter class M.

Filter cartridge H14

Filter class H14 describes the highest category of filtration (99.995 %). The efficiency of separation in this class corresponds to about 20 times the value of filter class M. The H14 filter cartridge can be installed in place of the diffusor. In this way, the **Z1** suction devices comply with the requirements of equipment of filter class H.

Exhaust air to the outside

The hermetic construction of the **Z1** ensures perfect exhaust air flow to the outside. By installing an adapter and a hose (inner diameter 75mm) or a heat resistant tube (HTDN 75) you can lead the air of the unit to the outside and provide an excellent room climate in the laboratory.

PRODUCT COMPARISON




	Z1 ECO	Z1 ECO PRO	Z1 CAM	Z1 CAM PRO
Suction capacity in litres/second	**15 - 50**	**15 - 50**	**15 - 50**	**15 - 50**
Sound level in db(A)	**42 - 58**	**45 - 60**	**42 - 58**	**45 - 60**
Dust tested by IFA	**yes**	**yes**	**yes**	**yes**
Filter system (dust separation)	**filter bag**	**permanent filter**	**filter bag**	**permanent filter**
Motor power consumption	**700 W**	**700 W**	**700 W**	**700 W**
230V / 110V automatic socket for devices up to 1200W / 600W	**yes**	**yes**	**no**	**no**
Interface for milling machines and devices with 24V output /SPS	**no**	**no**	**yes**	**yes**
Guaranteed minimum motor running time without changing the carbon brushes	**1500 h**	**1500 h**	**1500 h**	**1500 h**
Carbon brushes can be exchanged	**yes**	**yes**	**yes**	**yes**
Interface for external control unit or for switch	**yes**	**yes**	**yes**	**yes**
Bluetooth interface for individual settings via Android- APP	**yes**	**yes**	**yes**	**yes**
Adapter for exhaust air to the outside (optional)	**yes**	**yes**	**yes**	**yes**
Exhaust air filter of filter class H14 for unit dust class H (optional)	**yes**	**yes**	**yes**	**yes**
Active carbon filter for exhaust air (optional)	**yes**	**yes**	**yes**	**yes**
Tool-free rapid motor change	**yes**	**yes**	**yes**	**yes**
Front colour/material can be selected (optional)	**yes**	**yes**	**yes**	**yes**

VERSIONS & ACCESSORIES

Z1 ECO / Z1 ECO PRO

Z1 ECO
Suction unit

Item No.: 821/041

Z1 ECO PRO
Suction unit

Item No.: 821/042

Control unit for
Z1 ECO / ECO PRO
Suction unit

Item No.: 823/020

SL-K data cable
for connection of
KaVo K-Control grinding systems
Item No.: 825/256L

SL-Qube data cable
for connection of
Schick Qube grinding systems
Item No.: 825/25648

Z1 CAM / Z1 CAM PRO

Z1 CAM
Suction unit

Item No.: 821/043

Z1 CAM PRO
Suction unit

Item No.: 821/044

Control unit for
Z1 CAM / CAM PRO
Suction unit

Item No.: 823/020

24 Volt interface cable
Round plug 4-pole for VHF
Item No.: 825/25610

24 Volt interface cable
Round plug 6-pole for VHF
Item No.: 825/25611

24 Volt interface cable
D-SUB 9-pole for Amann-Girrbach
Item No.: 825/25612

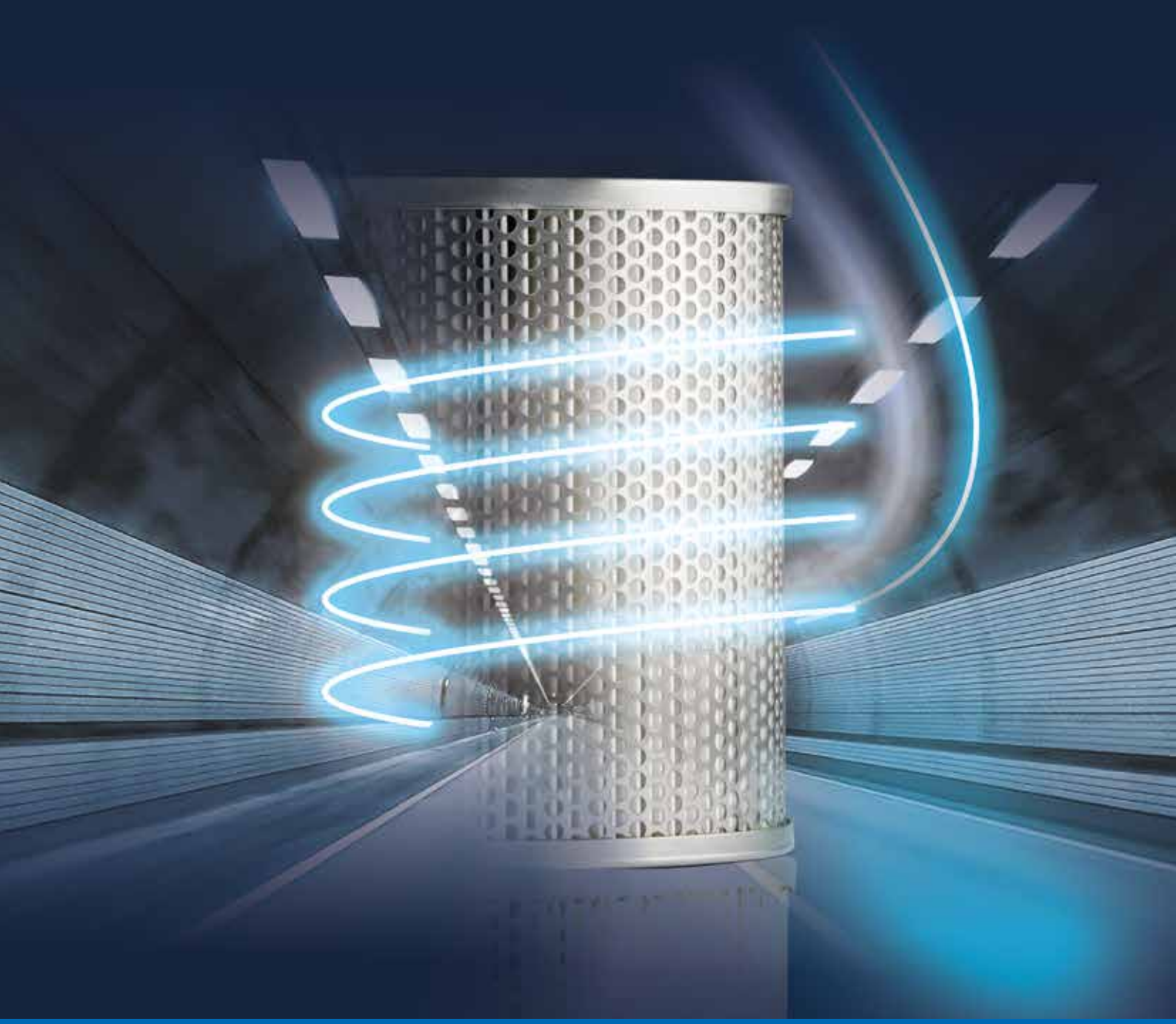
24 Volt interface cable
Jack plug for Roland DG
Item No.: 825/25613

24 Volt interface cable
open end
Item No.: 825/25614

24 Volt interface cable
D-SUB 15-pole for Sirona milling machines
Item No.: 825/25615

24 Volt interface cable
D-SUB 9-pole for imes-icore
Item No.: 825/25616

230 Volt interface
C14 for Zirkonzahn
Item No.: 825/256SL



Technical specification:

Dimensions (w x h x d):	200 mm x 675 mm x 590 mm
Weight:	28 kg/33kg
Voltage:	230 V ~ 50/60 Hz
Nominal power **ECO/CAM** :	700 W
Suction capability **ECO/CAM**:	15 - 50 l/s
Sound level **ECO/CAM; PRO** series:	42 - 58 dB(A); 45 - 60 dB(A)

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Subject to technical modifications.

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