

# Dürr Dental separation systems and amalgam separators

Top quality systems for dental suction units



COMPRESSED AIR  
SUCTION  
IMAGING  
DENTAL CARE  
HYGIENE

# Dürr Dental – spirit of innovation with attention to detail

For 70 years the name Dürr Dental has stood for progressive and pioneering solutions in dentistry. Numerous standards can be traced back to Dürr Dental developments, and they continue to set standards even today.

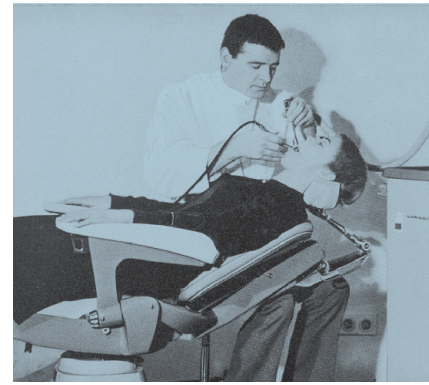
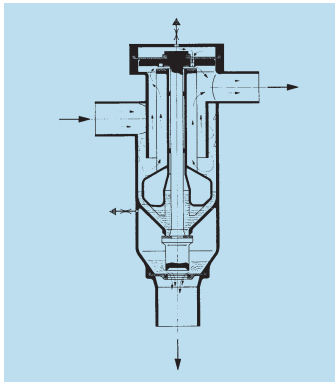
Dürr Dental offers top quality products and excellent service for every requirement, with logically coordinated system solutions in the fields of compressed air, suction, imaging, dental care and hygiene. In Europe in 1964, Dürr Dental enabled the treatment of reclining patients with their suction system. One year later, the company introduced the first oil-free compressor for dentistry onto the market. Compressed air systems from Dürr Dental are the market leader due to their high degree of performance and air quality. Dentists place their trust in the engineering ingenuity and premium quality of the leading innovator. Products from Dürr Dental have featured prominently in surgeries and clinics around the world, and this has been the case for decades.



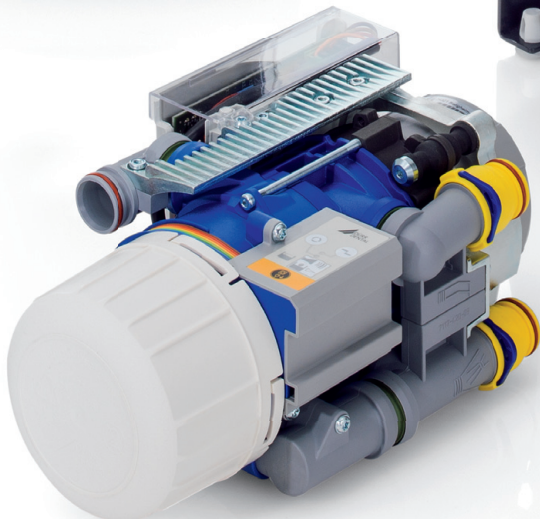
PROGRESS STARTS  
WITH IDEAS



For the image clip



FOR MORE THAN 70 YEARS:  
FULLY  
COMMITTED



OUR INNOVATIONS ARISE  
BECAUSE WE THINK  
ABOUT TOMORROW  
TODAY

# Reliable separation and amalgam separator systems guarantee the highest performance



## Powerful and reliable separation

The separation systems from Dürr Dental set standards. They do not only reliably separate secretions and solid materials, but thankfully are also quiet in operation. It is no surprise that they are integrated in the treatment units of leading manufacturers ex works. But even refitting presents no problem and is worthwhile.

## No amalgam into the waste water

What starts with the separation unit ends with the amalgam separator. According to the law, amalgam must be separated and collected from the waste water of the treatment unit. As a pioneer of dental suction systems, Dürr Dental has been working on the development of powerful amalgam separators since the early 80s. Of course, all our systems bear the 'Made in Germany' quality guarantee. They also fulfil the requirements defined by the Europe-wide standard ISO 11143:2008.

NOT ONLY DO WE DEVELOP  
ADVANCED SYSTEM SOLUTIONS,  
WE ALSO THINK ABOUT  
THE ENVIRONMENT.



## Disposal made easy

Just as naturally, we offer you a practical disposal concept for this. After separation, the amalgam is automatically fed into a collecting container. The container only needs to be replaced when the maximum filling amount has been reached. Disposal is subject to legal provisions and is carried out by authorised companies.

# A surgery in tune with the times

Modern dentistry is accustomed to working with digital systems. The periphery always under control, from the diagnostic imaging to the hygiene documentation and invoicing, the networked software solutions always keep the surgery team up to date.

But what about the status of the amalgam separator? The guarantee of problem-free operation is vital for operation in the practice. That is why Dürr Dental has developed the Tyscor Pulse software.

Tyscor Pulse integrates the supply technology in the network of the surgery. Thus, the current status of the monitored systems are always in view. The software automatically informs about pending maintenance tasks, such as the replacement of the amalgam collecting vessel. In the event of a fault, Tyscor Pulse displays if the fault can be rectified by yourself, or offers the possibility to directly inform the service technician via mail. He can quickly start looking for a solution via a remote maintenance function.



## Tyscor Pulse – controlling your equipment from your fingertips

- Functional status of all connected units as an overview in the task bar of the PC
- Display of the operating conditions of the various units provides safety
- Error protocols can be sent by e-mail
- Reminder of pending replacement of the amalgam collecting container
- Maintenance and cleaning plans can be stored



# Reliable separation for dry suction systems

## CS 1 and CAS 1: the integrated solution

The CS 1 Combi-Sepamatic and the CAS 1 Combi-Separator from Dürr Dental are a valuable supplement to every treatment unit. The units are appealing due to their quiet, but powerful drive, and easily cope with hour-long treatments with large amounts of fluid. Two-stage separation effectively prevents blood foam from being carried along during aspiration, thus protecting the dry suction unit connected at the back. The CS 1 Combi-Sepamatic is a purely automatic separator. The CAS 1 Combi-Separator integrates air/water separation and amalgam separation. Both units can be integrated in the treatment unit as well as externally.

The two-phase system with cyclone separator and dynamic separation turbine attains a much higher separation performance than traditional methods and can hardly be heard during operation. This allows you to concentrate on your patient's treatment.

The amalgam centrifuge of the CAS 1 is self-cleaning and achieves a tested separation rate of roughly 98%.

Optionally, additional rinsing can be connected for both units. This makes the complete suction system even more hygienic, as deposits of particles and coagulation of blood are prevented by the constant film of water. The CS 1 Combi-Sepamatic and the CAS 1 Combi-Separator fit in many treatment units and are already installed by leading manufacturers ex works.

WE ALWAYS STRIVE TO PROVIDE.  
THE BEST RESULTS  
FOR OUR CUSTOMERS



CS 1 Combi-Sepamatic



CAS 1 Combi-Separator

# Perfect combination: Suction and separation

## VSA 300 S: The 3-in-1 combination suction unit

The VSA technology developed by Dürr Dental combines the complex system of suction unit, separation and amalgam separation in a single unit and on one drive shaft, the VSA 300 S, especially suitable for one-room surgeries.

With this combined suction unit, more than 97% of the amalgam ends up in the automatically monitored collector vessel. At a filling level of 95%, the VSA 300 S indicates that the container must be replaced by a visual and audible signal. Dürr Dental suction systems create the required vacuum, which is necessary for problem-free and hygienic treatment. The continuous suction power of approx. 300 litres volume flow per minute at the large cannula makes for perfect visibility in the preparation area and prevents a contaminated aerosol cloud. Before the separated used water is drained off by the waste water pump, it is led into the centrifuge, where the existing amalgam particles are separated.

### This is the key:

- Integrated suction and air/water separation system with amalgam separation for a treatment unit
- Suction power of 300 l/min
- Separation rate of 97.5%
- High efficiency and operational safety
- High degree of foam compatibility due to two-step separation
- Flexible installation options



VSA 300 S – the first suction unit which separates and eliminates amalgam

# Amalgam separation for wet and dry suction systems

## CA 1: The external solution

For equipping an individual treatment space with an amalgam separator, the CA 1 amalgam separator with self-cleaning centrifuge in the practical housing is the ideal solution. The unit is also suitable for the refitting of a single-station suction unit with integrated separation, such as the Dürr Dental VS 300 S.

With a tested separation rate of approx. 98% and its sturdy construction, it almost corresponds with the set-up of the CAS 1 Combi-Separator. The integrated floater reliably recognises the water level and controls the CA 1 according to the requirements.



### This is the key:

- Can be integrated in the treatment unit (CS 1/CAS 1)
- Can be used externally in housings suitable for surgeries
- Two-stage separation
- Low-noise, vibration-free operation due to uncoupled connections
- Hydrodynamic self-cleaning function for the amalgam centrifuge
- Simple and flexible installation
- Tested amalgam separation rate of roughly 98%
- Refittable rinsing unit for hygienically safe operation



## CA 2: The solution for 2 operators

The CA 2 amalgam separator has the pressure compensation vessel already installed ex works. This reduces the installation expenditure to a minimum. Together with the VS 600 suction unit or the new Tyscor VS 2, it is the optimal solution for two operators.



### This is the key:

- Centrifugal separator with hydrodynamic self-cleaning function
- Separation rate of > 95 %
- Electronic monitoring of the filling level
- 20 years of experience in the development of amalgam separators

### This is the key:

- All necessary components integrated
- Electronic monitoring of the filling level
- Large collector container for a long operating life
- Compact and light
- Powder-coated console

Visual and audible signals indicate an imminent replacement of the collector container. This means replacement is only required when it is actually full. Installation on the floor or alternatively it can simply be fixed to the wall using the slots.

OUR PROMISE:  
GUARANTEED TOP PERFORMANCE  
WITH ABSOLUTE RELIABILITY.

# Convenient for multiple room practices – central amalgam separation

## The CA 4: The universal solution

Attractive design, excellent performance and a convenient disposal concept make the CA 4 amalgam separator from Dürr Dental a system unit which is convincing in every detail. Perfectly equipped for the connection of several treatment units, the unit offers superior state-of-the-art technology. The CA 4 works according to the centrifugal principle with hydrodynamic self-cleaning. As soon as waste water is available from the treatment unit, the system automatically switches on. A visual display provides information on the current operating condition at all times.



The simple and space-saving solution for supplementing the combination suction units (e.g. VS 600, VS 900 S, VS 1200 S) with an amalgam separator



### This is the key:

- Centrifugal separator with hydrodynamic self-cleaning function
- Reliable, automatic filling level check
- Connection of several treatment units
- High flow rate of up to 16 l/min
- Separation rate of 98.9%
- Sensors control the CA 4 on demand

### Everything under control at all times

Unlike conventional sedimentation separators, the CA 4 works with an individual filling level check. The container filling level is regularly monitored prior to starting work and during the treatment. As soon as the maximum filling level is reached, an audible signal sounds. Only then must the container be replaced.

This procedure prevents unnecessary additional expense, thus saving costs. The convenient lever mechanism also makes removal of the container easier. With a separation rate of 98.9% and a flow rate of up to 16 litres per minute, the CA 4 impresses with excellent performance values.

# Keep your suction unit fit!



Approximately half of all suction units are limited in their performance due to deposits and blockages. The reason is that most of them have been disinfected, but have not undergone any additional cleaning. Consequently, substances (e.g. blood, secretions, dental material, filling material or prophylaxis powder) form a tenacious silt. This leads to blockages which can result in a drop in performance and a complete shut-down of the surgery in the worst case scenario.

## The solution from Dürr Dental: Orotol® plus and MD 555 cleaner

Working together, Orotol® plus and MD 555 cleaner protect all suction unit components (including lines) against deposits, contamination and encrustation. With regular application, loss of performance can be prevented and the service life of your suction unit prolonged.



## Orotol® plus suction unit disinfection

Foam-free concentrate for the disinfection, deodorisation, cleaning and care of all suction units and amalgam separators.

- Bactericide incl. Tb, fungicide, partially virucidal, (HBV, HCV, HIV) & non-enveloped viruses (adeno, noro)
- Dissolves, disinfects biofilm and prevents accumulation of silt from blood and proteins
- Long-term effect – no formation of resistance against germs
- Tested material compatibility – recommended by leading unit manufacturers



## MD 555 cleaner, the special cleaner for suction units

Foam-free concentrate for all suction units and amalgam separators.

- Dissolves encrustations of lime scale, prophylaxis powder or pearl prophylaxis products
- The most intensive cleaning effect against deposits and accumulations of silt
- Tested material compatibility recommended by leading unit manufacturers
- Ideal in combination with Orotol® plus



Stay on the safe side: Disinfection and cleaning with and without Orotol® plus and MD 555 cleaner

# The technology at a glance

C separation systems	CS 1	CAS 1	CA 1	VSA 300 S suction unit
Voltage (V)	24	24	24	230 (1~)
Frequency (Hz)	50 - 60	50 - 60	50 - 60	50
Electrical power (W)	70	100	60	580
Current consumption (A)	2.7	4.0	2.5	2.9
Max. fluid flow rate (l/min)	2	4	4	5
Dimensions (H x W x D cm) without housing	12.5 x 15 x 12	25.5 x 15.1 x 11	25.5 x 15.1 x 11	48 x 31 x 31
with housing	43.5 x 25.5 x 16	43.5 x 25.5 x 16	43.5 x 25.5 x 16	51 x 36 x 36
Weight (kg) without housing	1.4	2.7	2.7	14
with housing	7.4	8.7	8.7	21.5
Separation rate (%) <sup>1</sup>	-	97.9	97.9	97.5
Certification mark (DIBT*)	-	Z64.1-20	Z64.1-20	Z64.1-15

<sup>1</sup> Separation rates measured by the TÜV [technical monitoring authority] Essen in accordance with the German standard test for the maximum rate of fluid flow.

Amalgam separator	CA 4
Voltage (V)	230 (1~)
Frequency (Hz)	60
Electrical power (W)	210
Electrical power during the stand-by (W)	7
Dimensions (H x W x D cm) without housing	41 x 25 x 28
with housing	50 x 36 x 36
Weight (kg)	10
Noise level [dB(A)] without housing	55
with housing	46
Separation rate (%)	98.9
Volume of the collector vessel (cm <sup>3</sup> )	600
Certification mark (DIBT*)	Z-64.1-22

Amalgam separator	CA 2
Voltage (V)	230 V (1~)
Frequency (Hz)	50 - 60
Electrical power (W)	100
Electrical power during stand-by (W)	4
Dimensions (H x W x D cm)	34.5 x 30 x 31
Weight (kg)	8
Noise level [dB(A)]	56
Separation rate (%)	97.9
Volume of the collector vessel (cm <sup>3</sup> )	Approx. 90
Certification mark (DIBT*)	Z-64.1-20

\* DIBT (Deutsches Institut für Bautechnik)