### V and VS suction systems for your practice. Tried and tested systems - redefined





# V/VS suction systems – delivering optimum performance for your daily work

Today, the name DÜRR DENTAL stands for progress and innovation in dentistry – as it always has done for decades. As an innovation leader, the company sets standards with its developments and has the right product for every requirement.

In 1964, DÜRR DENTAL developed a suction system that for the first time allowed patients to be treated lying down. Back then this was a sensational development, even though we take it for granted now. But it's far from the end of our quest to continue to be the best in class, or rather to be the best in class time and time again. We are committed to improving the things that are already good or embarking on new paths when the time is right so that our clients can pursue new avenues. This philosophy has driven us to develop the tried-and-tested V and VS suction systems as the perfect suction solutions for a wide range of practice sizes.

### A good dentist thinks of everything - including safety

Safety is paramount: With certification in accordance with ISO 10637, the V/VS 600, 900 S and 1200 S satisfy international safety standards that are essential for the operation of a modern dental practice. This standard ensures that the devices used meet the highest requirements and offer reliable protection. In addition, our products are certified as Class IIa medical devices in accordance with the MDR (EU 2017/745). They therefore meet all regulatory requirements and offer safety and dependability.





# To ensure that you stay safe and healthy, a minimum suction volume of 300 l/min is essential.

Without this kind of suction system, the cooling spray from fast-running and ultrasonic instruments can cause an aerosol cloud to spread throughout the entire treatment room. DÜRR DENTAL V/VS suction systems deliver enough power to enable a suction capacity of 300 l/min at the cannula and thus efficiently reduce the risk of infection. It is really important that the spray mist is already extracted in the mouth of the patient so that no aerosol can form in the first place. After all, if it doesn't leave the mouth of the patient then there is no need to eliminate it afterwards. The right intraoral suction unit with a spray mist cannula therefore makes an important contribution to infection protection for the dentist, the practice team and the patient. An investment in a DÜRR DENTAL suction system not only pays off in the day-to-day treatment of patients, but also in lower operating and maintenance costs.



#### Exhaust air virus-bacteria filter

Outlet air from the suction unit is potentially microbially contaminated. We therefore recommend that it should pass through a virus/bacteria filter before it makes its way outside the building. Doing this protects others by keeping the surrounding air clean.

# Suction systems from DÜRR DENTAL there's much more to them

Whether in terms of work processes or available space - every dental surgery is unique.

DÜRR DENTAL always takes these individual characteristics into account when developing its suction systems. Over a period of many years, this has yielded system solutions that leave

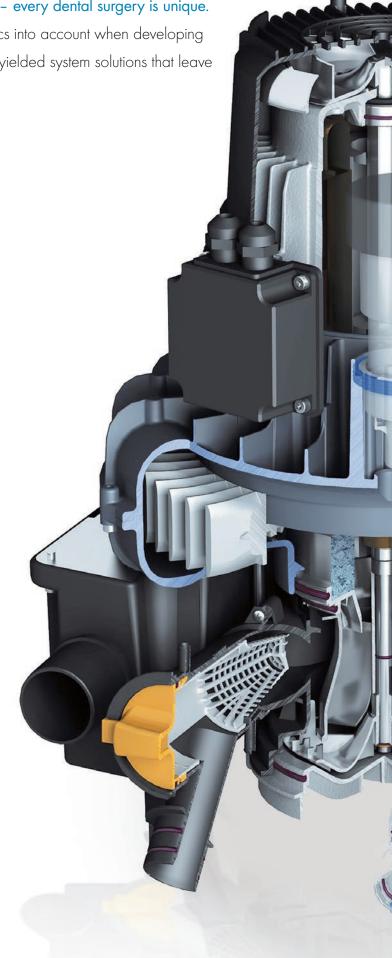
nothing to be desired.

#### Discover the difference

The range of suction systems meets the needs of small to large dental practices. Depending on the model variant, it is possible to work in several treatment rooms at the same time. However, planning practice depends not only on performance demands but also on the architectural conditions, construction details and the technical equipment. Suction systems from DÜRR DENTAL can be installed flexibly and easily - in the basement or in an adjoining room, or the V/VS 300 S can also be installed in the treatment room itself.

#### Perfect cleaning and hygiene for the pipe system

A central installation in a multi-room dental practice places high demands on the cleaning and hygiene of the pipe network. With this in mind, DÜRR DENTAL has developed the "tidal wave". Behind this expression is a flow accelerator that collects the waste water from the spittoon so that it can then be aspirated in waves by the central suction unit. In this way, the suction system automatically eliminates the risk of deposits, odours and hygiene problems.



#### Cost-effective and compact

In VS suction units, suction and separation are combined centrally on one drive shaft. This is costeffective and saves space.

### Electroplated for corrosion protection

The housing components and high-precision impellers are made from coated aluminium or extremely corrosion-resistant plastic.

#### Smooth and quiet operation

The drive runs smoothly without vibrations and is highly reliable. The aerodynamic turbine wheels and the integrated noise reducer ensure quiet operation.

#### Regulating and cooling

The integrated auxiliary air valve regulates the suction power and ensures that sufficient internal cooling is provided.

#### Integrated humidity protection

All dry V suction units are fitted with a condensation separator to protect against condensed water.

# Impressive performance - wet and dry

#### DÜRR DENTAL has the right suction solution for every practice.

When it comes to remodelling or modernizing a dental practice, the V and VS suction systems can be used even in difficult installation conditions.

### Wet VS suction systems. Powerful and cost-effective.

VS represents a combination of vacuum generation and separation. All of the suction and separation tasks in the practice are centrally combined in a VS suction unit on a single drive shaft. As a result, there is no need for additional automatic separation systems on the various treatment units and the operating costs are lower than with traditional systems such as water ring pumps. DÜRR DENTAL VS suction systems can provide uninterrupted extraction of large amounts of liquids for up to four therapists at the same time. Thanks to the integrated two-stage separation system, the risk of secretions and blood foam being sucked into the turbine space is reliably prevented.



#### This is what counts:

- Corrosion protection for housing parts and impellers
- High-quality, robust drive motors
- Reliable function in continuous operation
- High efficiency with minimal space requirements
- High suction power within seconds
- Automatic removal of deposits









### The dry V suction systems. Amazing power in a matter of seconds.

The dry suction systems from DÜRR DENTAL combine extremely powerful performance with exceptionally quiet operation. They transport the waste substances over a short distance to a separation system or amalgam separator. These components are integrated in the treatment unit. Only dry air reaches the suction unit.

Seven to eight hours of continuous operation are a common occurrence. DÜRR DENTAL V suction units meet these requirements effortlessly. The contactless rotating turbine wheels generate the required vacuum and flow rate (suction power). A reliable electric motor enables non-stop operation. All models are equipped with a condensation separator as standard for reliable protection against condensation.

#### This is what counts:

- High-quality, robust drive motors
- Reliable function in continuous operation
- High-quality condensation separator protects the unit against the risk of condensation being sucked into the unit
- Corrosion-resistant impellers
- High suction power within seconds





An extensive range of accessories is available for every V suction unit. All models feature a condensation separator as standard.

## Special and mobile solutions

#### VSA 300 S and Variosuc

### VSA 300 S - three components combined in a single unit

Looking at all the requirements placed on the suction system, a suction unit not only needs to separate the mixture of air/secretion/solids, but it must also separate out amalgam particles and collect them in a collecting container – in a manner that is most cost effective and best for the environment. This sounds like a big system, and one with a corresponding price tag. With its VSA technology, DÜRR DENTAL combines the suction unit, separation and amalgam separation components in a single assembly on one drive shaft and in the smallest possible space – in the VSA 300 S.

#### This is what counts:

- 3-in-1 technology everything on a single drive shaft
- Cost-effective and environmentally friendly system
- Automatic fill level control
- Flexible installation options





#### Variosuc - the mobile suction unit

The Variosuc VS and VSA variants impress users with their compact design, ease of use and flexibility. Even under exceptional conditions, you can still trust in the high standards of a DÜRR DENTAL suction system. Once it has been plugged into the mains power outlet, the mobile device is immediately ready for use and can be deployed flexibly in your dental surgery.

#### This is what counts:

- Easy operation with maximum flexibility
- Simply connect it to the mains power outlet and the unit is ready for use straight away
- Impressive performance both in the VS and VSA variants





# Keep your suction system in good shape!

Around half of all suction units suffer from restricted performance due to deposits and blockages. This is because even though most units are disinfected, they are not also cleaned. This results in substances such as blood, secretions, tooth material, filling materials and prophylaxis powder forming a dense sludge, which in turn leads to blockages (suction system failure) that can cause a drop in performance and – in the worst case – bring the practice to a complete standstill.





#### The solution from DÜRR DENTAL: Orotol plus and MD 555 cleaner

In combination, Orotol plus and MD 555 cleaner protect all components of a suction unit (including the lines) against deposits, contamination and encrustation. If used regularly, they can prevent a reduction in performance and extend the life of your suction unit.

For more information please visit: duerrdental.com/orotol

#### DÜRR DENTAL recommends:

- For disinfection and cleaning:
   Orotol Plus and Orotol ultra
- For cleaning: MD 555 cleaner
- Only these products have been tested by DÜRR DENTAL.
   When using prophy powders, DÜRR DENTAL recommends the water-soluble Lunos Prophy Powders in order to protect the DÜRR DENTAL suction systems.



# Technical data at a glance

VS suction systems	VS 300 S	VSA 300 S	VS 600	VS 600	VS 900 S	VS 900 S	VS 1200 S
Voltage (V)	230 (1~)	230 (1~)	230 (1~)	400 (3~)	230 (1~)	400 (3~)	400 (3~)
Frequency (Hz)	50-60	50	50	50-60	50	50	50
Electric power (kW)	0.58-0.81	0.58	1	1-1.41	1.6	1.7	1.8
Current draw (A)	2.9-3.71	2.9	5.0	2.2-2.31	7.4	3.6	3.6
Max. vacuum mbar (hPa)	200³	200³	175	185/225	180	195	205/210
Number of operators	1	1	2	2	3	3	4
Max. fluid flow rate (I/min)	4	5	10	10	16	16	24
With housing (H x W x D cm)	51 x 36 x 36	51 x 36 x 36	55 x 49 x 53	55 x 49 x 53	55 x 49 x 53	55 x 49 x 53	55 x 49 x 53
Weight without housing (kg)	13	15.5	22	22	29	27.5	27.5
Noise level <sup>2</sup> without housing [dB(A)]	Approx. 60-62 <sup>1</sup>	Approx. 61	Approx. 65	Approx. 65-68 <sup>1</sup>	Approx. 65	Approx. 65	Approx. 65
with housing <sup>2</sup> [dB(A)]	Approx. 50-53 <sup>1</sup>	Approx. 50	Approx. 57	Approx. 57-60 <sup>1</sup>	Approx. 61	Approx. 61	Approx. 61

 $<sup>^{1}</sup>$ The range of values results from the mains frequency range of 50-60 Hz.  $^{2}$ Noise levels in accordance with ISO 3746  $^{3}$ Up to 200 mbar, depending on the model

Variosuc	VS 300 S	VSA 300 S
Voltage (V)	230 (1~)	230 (1~)
Frequency (Hz)	50	50
Current draw (A)	2.9	2.9
Max. vacuum (mbar) at sea level	200 <sup>2</sup>	200 <sup>2</sup>
Number of operators	1	1
Dimensions (H x W x D cm)	90 x 37 x 64	90 x 37 x 64
Weight (kg)	34	34
Noise level <sup>1</sup> [dB(A)]	Approx. 51	Approx. 53

 $<sup>^{\</sup>rm 1}\,\text{Noise}$  levels in accordance with ISO 3746  $^{\rm 2}\,\text{Up}$  to 200 mbar, depending on the model

V suction systems	V 300 S	V 600	V 600	V 900 S	V 900 S	V 1200 S	V 2400
Voltage (V)	230 (1~)	230 (1~)	400 (3~)	230 (1~)	400 (3~)	400 (3~)	400 (3~)
Frequency (Hz)	50-60	50	50-60	50	50	50	50
Electric power (kW)	0.58-0.81	1	1.00-1.41	1.6	1.7	1.8	3.3
Current draw (A)	2.9-3.71	5.0	2.2-2.31	7.4	3.6	3.6	5.6
Max. vacuum mbar (hPa)	200³	180	185/205	190	195	200	200
Number of operators	1	2	2	3	3	4	8
Dimensions (H x W x D cm) without condensation separator	38 x 31 x 32	48 x 41 x 39	48 x 41 x 39	52 x 41 x 43	52 x 41 x 43	52 x 41 x 43	-
With condensation separator	43 x 38 x 43	57 x 62 x 41	57 x 62 x 41	57 x 62 x 42	57 x 62 x 42	57 x 62 x 42	115 x 90 x 48
with housing	51 x 36 x 36	50 x 49 x 53	50 x 49 x 53	55 x 49 x 53	55 x 49 x 53	55 x 49 x 53	-
Weight without housing (kg)	12.5	21	21	28	26.5	26.5	65
Noise levels <sup>2</sup> without housing [dB(A)]	Approx. 60-62 <sup>1</sup>	Approx. 65	Approx. 65-68 <sup>1</sup>	Approx. 65	Approx. 65	Approx. 65	Approx. 70
with housing <sup>2</sup> [dB(A)]	Approx. 50-53 <sup>1</sup>	Approx. 57	Approx. 57-60 <sup>1</sup>	Approx. 61	Approx. 61	Approx. 61	_

<sup>&</sup>lt;sup>1</sup>The range of values results from the mains frequency range of 50-60 Hz. <sup>2</sup>Noise levels in accordance with ISO 3746 <sup>3</sup>Up to 200 mbar, depending on the model





#### Accessories



Soundproofing for V/VS/VSA 300 S



Soundproofing for V/VS 600-1200 S



Outlet air virus/bacteria filter

