

# So that you remain healthy – 300l/min suction volume is a must!

V/VS suction systems – best performance for your daily work



COMPRESSED AIR  
SUCTION  
IMAGING  
DENTAL CARE  
HYGIENE

# The hidden danger: spray mist

Certain activities, such as preparing teeth, removing fillings, crowns and bridges, or removing plaque, require the use of high-speed instruments. However, these instruments not only make work easier, but also entail risks: effective cooling with water is necessary to prevent damage to the pulp-dentine area. In the process, **aerosols (spray mists)** are formed. The aerosol emerging from the mouth of the patient is not homogeneous, but also consists of splashes of the spray mist rebound and droplets containing cooling water, saliva, blood and microorganisms. This mixture presents a **high risk of infection**.

## Dangers from the spray mist:

- Desposition of contaminated spray mist cloud over a radius of several meters (Source: Drisko et al., 2000, Bennet et al., 2000)
- Door handles, armrests, lights and other surfaces are contaminated (Source: Graetz et al., 2014)
- High risk of infection for patients due to cross contaminations
- Over 600 different types of bacteria can be detected in the human oral cavity (Source: Genome Research (2009), DOI: 10.1101/gr.084616.108)
- 1 ml saliva contains about 10 million bacteria (Source: Genome Research (2009), DOI: 10.1101/gr.084616.108)
- During a 15-minute treatment without protective measures, approx. 0.014–0.12 µl of saliva is inhaled via the aerosol (Source: Bennet et al. British Dental Journal, Vol. 189 No. 12 (2000))



Due to the spread of the spray mist in a radius of several meters, there is a high risk of infection for the surgery team. The contaminated spray mist can be detected in ambient air for up to 30 minutes (Source: Drisko et al., 2000, Bennet et al., 2000)



Variosuc: Mobile system for 1 operator



VS 300 S for 1 operator



VS 600 for 2 operators

# The safe solution: spray mist suction

Without spray mist suction, cooling spray from fast-running and ultrasonic instruments can cause an aerosol cloud to spread throughout the entire treatment room. Thanks to intraoral suction systems with a **suction performance** of around **300 l/min**, the resulting risk of infection is efficiently reduced. It is important that the spray mist becomes aspirated within the patient's mouth, so that no aerosol can be emitted in the first place. Because what does not leave the mouth does not have to be eliminated afterwards. Thus, using the correct intraoral suction with spray mist cannula, makes an **important contribution to infection protection** for the dentist, the surgery team and the patient.



Suction with a powerful spray mist suction system is the only effective way to reduce aerosols (Source: Tillner, 2016). In addition, always work with a large suction cannula.

## This is what counts:

- High suction volume of around 300 l/min per therapist (Source: Barnes, J. B., Harrel, S. K., Rivera-Hidalgo, F. (1998))
- Working with a large suction cannula with secondary air inlets
- Robust suction units for reliable, continuous operation
- Venturi systems or working only with a saliva ejector is not sufficient to reduce aerosols
- Proper and regular cleaning and disinfection of the suction system with Orotol® plus and MD 555 cleaner
- Regular inspection of the suction volume by a service technician



VS 900 S for 3 operators  
VS 1200 S for 4 operators



Tyscor VS 1 for 1 operator  
Tyscor VS 2 for 2 operators



Tyscor VS 4 for 4 operators

# Exhaust air bacteria filter

It is possible that the exhaust air from a suction unit may be microbially contaminated. It is therefore recommended to guide the drain of the suction unit to the outside via a bacteria filter. Thus you protect others by keeping the ambient air clean.

The Università di Camerino has tested the available filters with the test virus PhiX174 and confirmed a retention of greater than 99.99 %. The test virus PhiX174 has a size of 25-30 nm. Filter quality HEPA-H13 according EN 1822-1:2009.



Exhaust air bacteria filter for VS 250 S,  
V/VS/VSA 300 S, Variosuc and PTS 120

**Order no. 7120-143-00**



Exhaust air bacteria filter for V/VS 600 - V/VS 1200 S,  
V 2400, Tyscor V/VS, PTS 200 and clinic systems V 6000,  
V 9000, V 12000, V 15000 and V 18000

**Order no. 0705-991-50**

