CENTRAL SUCTION SYSTEMS

Dry / semi-wet suction
For 1 - 15 dental units
Underpressure of 180 mbar
METASYS suction systems
Efficient solutions for every dental office

The METASYS „EXCOM hybrid/VAC“ range has become synonymous with powerful vacuum technology in the dental field. A constantly high vacuum in the METASYS suction systems provides the best possible means for guaranteeing that the patient is treated safely. Without continuous vacuum, fluid collects in the patient’s mouth and this impairs treatment. Furthermore, rotating instruments can cause particulate material to accumulate as aerosols, which in turn brings a risk of infection.

Regardless of whether you require dry or semi-wet suction – EXCOM hybrid masters it all

EXCOM hybrid combines dry and semi-wet suction technology in a single device. Regardless of the conditions and regardless of whether it’s a semi-wet or dry suction system, the same device can be used for both systems. This provides the dentist and the office planner with a high degree of planning flexibility, as two different suction systems (dry/semi-wet) can be combined or they can be changed over time. This makes stock-keeping, servicing and above all technical service equipment easier for the dental dealers, as the same device can always be used.

EXCOM hybrid: Suction for up to 15 and more dental units

METASYS suction systems can be used to find the perfect solution according to the requirements of a dental office. Solutions for up to 15 dental units are possible without a loss of suction or restrictions to patient treatment; the potential savings are therefore huge. It is therefore important to calculate the suction requirements correctly in the planning phase.

Our calculation table makes it a breeze to calculate air quantities and suction values exactly based on the number of units, as well as the size, number and diameter of suction lines, and furthermore to make the right choice of suction system as a result. You can download the calculation table and additional tips for correct calculation from www.metasys.com/download.

EXCOM hybrid + ECO II: Semi-wet suction with amalgam separation on sedimentation base

A central, ISO-certified amalgam separation module can be added to each METASYS EXCOM hybrid suction system; it therefore meets the legal constraints for amalgam separation.

ECO II and ECO II Tandem amalgam separators are impressive due to functioning without maintenance, without any electrical switching and monitoring equipment, being quick and easy to install and their unbeatable price advantage.
Semi-wet suction

**WITHOUT AMALGAM SEPARATION**
- Spittoon bowl: WASTEWATER
- Suction tube holder: WASTEWATER + AIR
- Semi-wet suction system
- Drains: WATER, AIR

**WITH AMALGAM SEPARATION**
- Spittoon bowl + suction tube holder: WASTEWATER + AIR
- Semi-wet suction system
- Drains: WATER, AIR

Dry suction

**ONLY AIR/WATER SEPARATION**
- (for example, with METASYS MST 1 ECO Light)
- Spittoon bowl: WASTEWATER
- Suction tube holder: WASTEWATER + AIR
- Air/water separation
- Drains: WATER, AIR

**AIR/WATER SEPARATION & AMALGAM SEPARATION**
- (for example, with METASYS MST 1)
- Spittoon bowl: WASTEWATER
- Suction tube holder: WASTEWATER + AIR
- Amalgam separation
- Drains: WATER, AIR

(Examples with METASYS MST 1 ECO Light and METASYS ECO II)
**Single-unit suction systems**

*Highest quality in all details*

**Centrifugal separation rotor**

Separation module that guarantees constant, flawless separation through centrifugal force, even with higher foam loads. Long-term functionality of a suction pump over many years is only guaranteed with reliable separation.

**Frequency-controlled suction power regulation**

Suction power regulation is provided by a frequency controller, which ensures a constantly high vacuum of 180 mbar at the suction tubes, depending on the performance requirement. Furthermore, the frequency-controlled function provides a significant reduction in the energy consumption.

* only with EXCOM hybrid 5

**Aluminium turbine wheel**

A free-running aluminium turbine wheel guarantees long-term operational reliability. Plastic wheels are not used.

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### Single-unit suction systems specifications

<table>
<thead>
<tr>
<th></th>
<th>EXCOM hybrid 1s</th>
<th>EXCOM hybrid 1</th>
<th>EXCOM hybrid A1</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Order no.</strong></td>
<td>02010153*</td>
<td>02010311</td>
<td>02010251</td>
</tr>
<tr>
<td><strong>Power supply</strong></td>
<td>230 V AC</td>
<td>230 V AC</td>
<td>230 V AC</td>
</tr>
<tr>
<td><strong>Frequency</strong></td>
<td>50 / 60 Hz</td>
<td>50 / 60 Hz</td>
<td>50 / 60 Hz</td>
</tr>
<tr>
<td><strong>Max. current consumption</strong></td>
<td>3,5 / 4,5 A</td>
<td>6,7 A</td>
<td>6,7 A</td>
</tr>
<tr>
<td><strong>Max. electrical shaft power</strong></td>
<td>0,55 / 0,63 kW</td>
<td>0,94 / 1,1 kW</td>
<td>0,94 / 1,1 kW</td>
</tr>
<tr>
<td><strong>Max. ambient temperature</strong></td>
<td>40 °C</td>
<td>40 °C</td>
<td>40 °C</td>
</tr>
<tr>
<td><strong>Air flow rate</strong></td>
<td>1100 l/min</td>
<td>1100 / 1300 l/min</td>
<td>1100 / 1300 l/min</td>
</tr>
<tr>
<td><strong>Negative pressure regulated</strong></td>
<td>120 / 140 mbar</td>
<td>180 mbar</td>
<td>180 mbar</td>
</tr>
<tr>
<td><strong>Noise level</strong></td>
<td>83 dB(A)</td>
<td>57 / 62 dB(A)</td>
<td>57 / 62 dB(A)</td>
</tr>
<tr>
<td><strong>Noise level with cover</strong></td>
<td>54 dB(A)</td>
<td>45 / 49 dB(A)</td>
<td>45 / 49 dB(A)</td>
</tr>
<tr>
<td><strong>Dimensions (H x W x D) mm</strong></td>
<td>530 x 350 x 320</td>
<td>570 x 422 x 400</td>
<td>570 x 770 x 400</td>
</tr>
<tr>
<td><strong>Dimensions with cover (H x W x D) mm</strong></td>
<td>565 x 387 x 365</td>
<td>785 x 500 x 550</td>
<td>785 x 745 x 550</td>
</tr>
<tr>
<td><strong>Weight</strong></td>
<td>15 kg</td>
<td>22 kg</td>
<td>24,5 kg</td>
</tr>
<tr>
<td><strong>Weight with cover</strong></td>
<td>16,5 kg</td>
<td>59 kg</td>
<td>61,5 kg</td>
</tr>
<tr>
<td><strong>Operating time</strong></td>
<td>100 %</td>
<td>100 %</td>
<td>100 %</td>
</tr>
<tr>
<td><strong>Separator rate</strong></td>
<td>-</td>
<td>-</td>
<td>99,3 %</td>
</tr>
<tr>
<td><strong>Order no. cover</strong></td>
<td>40030007</td>
<td>40030004</td>
<td>40030004</td>
</tr>
</tbody>
</table>

*also available with control box
## Central Suction Systems

The highest level of technology

### High Wastewater Outlet

A wastewater outlet that is installed at this height enables convenient connection to the drain or amalgam separator. Further installation work due to a requirement for any elevation of the suction device is therefore not required.

### One Motor Shaft

One motor shaft moves both the vacuum generator and separation and ensures that they can both function at the same time. The danger of a possible fluid overflow due to non-functioning separation in a working suction pump is therefore avoided.

### Airflow-optimised Cooling Fins

The special design of the optimised air cooling fins results in improved cooling and greater protection against overheating. Efficient cooling airflows at these cooling fins enable faster heat reduction.

### Specifications

<table>
<thead>
<tr>
<th>EXCOM Hybrid 2</th>
<th>EXCOM Hybrid A2</th>
<th>EXCOM Hybrid 5</th>
<th>EXCOM Hybrid A5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Order no.</td>
<td>02010312</td>
<td>02010313</td>
<td>02010222</td>
</tr>
<tr>
<td>Power Supply</td>
<td>230 V AC</td>
<td>230 V AC</td>
<td>230 V AC</td>
</tr>
<tr>
<td>Frequency</td>
<td>50 / 60 Hz</td>
<td>50 / 60 Hz</td>
<td>50 / 60 Hz</td>
</tr>
<tr>
<td>Max. Current Consumption</td>
<td>6.7 A</td>
<td>1.1 / 1.3 kW</td>
<td>9.0 / 10.0 A</td>
</tr>
<tr>
<td>Max. Electrical Shaft Power</td>
<td>40 °C</td>
<td>1450 / 1750 l/min</td>
<td>2000 / 2400 l/min</td>
</tr>
<tr>
<td>Max. Ambient Temperature</td>
<td>40 °C</td>
<td>40 °C</td>
<td>40 °C</td>
</tr>
<tr>
<td>Airflow Rate</td>
<td>180 mbar</td>
<td>180 mbar</td>
<td>180 mbar</td>
</tr>
<tr>
<td>Negative Pressure Regulated</td>
<td>580 x 780 x 400</td>
<td>645 x 780 x 400</td>
<td>785 x 500 x 550</td>
</tr>
<tr>
<td>Noise Level</td>
<td>58 / 63 dB(A)</td>
<td>64 / 68 dB(A)</td>
<td>64 / 68 dB(A)</td>
</tr>
<tr>
<td>Noise Level with Cover</td>
<td>67 kg</td>
<td>100 %</td>
<td>100 %</td>
</tr>
<tr>
<td>Dimensions (H x W x D) mm</td>
<td>27 kg</td>
<td>29.5 kg</td>
<td>30 kg</td>
</tr>
<tr>
<td>Dimensions with Cover (H x W x D) mm</td>
<td>64 kg</td>
<td>66.5 kg</td>
<td>67 kg</td>
</tr>
<tr>
<td>Weight</td>
<td>100 %</td>
<td>100 %</td>
<td>100 %</td>
</tr>
<tr>
<td>Weight with Cover</td>
<td>99.3%</td>
<td>99.3%</td>
<td>99.3%</td>
</tr>
<tr>
<td>Operating Time</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Separation Rate</td>
<td>100 %</td>
<td>100 %</td>
<td>100 %</td>
</tr>
</tbody>
</table>

*Also available with control box*
**Cost-effective**
Great value for money

**Efficient**
Excellent suction power of up to 140 mbar (60 Hz)

**Quiet**
Quiet operation at only 53 dB(A)

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**Order no.**

<table>
<thead>
<tr>
<th>VAC 1s</th>
<th>04010013*</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Power supply</strong></td>
<td>230 V AC</td>
</tr>
<tr>
<td><strong>Frequency</strong></td>
<td>50 / 60 Hz</td>
</tr>
<tr>
<td><strong>Max. current consumption</strong></td>
<td>3.5 / 4.5 A</td>
</tr>
<tr>
<td><strong>Max. electrical shaft power</strong></td>
<td>0.55 / 0.63 kW</td>
</tr>
<tr>
<td><strong>Max. ambient temperature</strong></td>
<td>40 °C</td>
</tr>
<tr>
<td><strong>Air flow rate</strong></td>
<td>1000 l/min</td>
</tr>
<tr>
<td><strong>Negative pressure regulated</strong></td>
<td>120 / 140 mbar</td>
</tr>
<tr>
<td><strong>Noise level</strong></td>
<td>53 / 56 dB(A)</td>
</tr>
<tr>
<td><strong>Dimensions (H x W x D) mm</strong></td>
<td>280 x 244 x 245</td>
</tr>
<tr>
<td><strong>Weight</strong></td>
<td>11 kg</td>
</tr>
<tr>
<td><strong>Operating time</strong></td>
<td>100 %</td>
</tr>
<tr>
<td><strong>Separation rate</strong></td>
<td>-</td>
</tr>
</tbody>
</table>

*also available with control box

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**The perfect addition**
In combination with the METASYS MST 1 ECO Light, the VAC 1s is the perfect solution for dry suction with air/water separation.

**METASYS MST 1 ECO Light**
Order no. 01010033

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**The right care makes the difference!**
Cleaning and disinfecting the entire system properly is essential for both hygiene and functional reasons. The reduction in dirt and biofilm prevents performance reductions and increases the service life of the devices*.

**WITH GREEN&CLEAN M2**
Residues-free module 2 works flawlessly

**WITHOUT GREEN&CLEAN M2**
Deposits on module 2 in the MST 1
Biofilm on water deflector in the MST 1
Biofilm in the suction system’s hose

GREEN&CLEAN M2: Dual, active defoaming concentrate to disinfect and deodorise suction systems and amalgam separators.

*Please observe the usage instructions!
The complete solution
META Tower

All of the META Tower’s components are impressive:
Compressed air, suction power and amalgam separation combined completely in one device.

- Powerful thanks to first-class METASYS quality
- Space-saving for positioning in tiny spaces (0.36 m² space required)
- Quiet operation at only 54 dB(A)

Compressed air
META Air compressors with the latest membrane drying technology supply hygienic compressed air.

Suction
EXCOM hybrid central suction systems provide an underpressure of 180 mbar.

Amalgam separation
Central, maintenance-free amalgam separation technology based on sedimentation with complete recycling concept.

<table>
<thead>
<tr>
<th>Order no.</th>
<th>META Tower 2</th>
<th>META Tower 5</th>
<th>META Tower A2</th>
<th>META Tower A5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Units</td>
<td>up to 3 units</td>
<td>up to 5 units</td>
<td>up to 3 units with ECO II D</td>
<td>up to 5 units with ECO II Tandem D</td>
</tr>
<tr>
<td>Amalgam separator</td>
<td>without</td>
<td>without</td>
<td>with ECO II D</td>
<td>with ECO II Tandem D</td>
</tr>
</tbody>
</table>
Accessories – Covers – Valves

**Parallel connection for 2 or 3 EXCOM hybrid devices**
Order no. 40040012 (for 2), Order no. 40040013 (for 3)
Automatic controller for 2 or 3 EXCOM hybrid devices arranged in parallel for powerful suction for up to 15 dental units. Vacuum sensors are used to activate the individual devices as required. This guarantees cost-effective and continuously even operation.

**METASYS covers**
Different covers to minimise noise can be ordered for the relevant EXCOM hybrid versions.

**Place selection valve**
Order no. 40050048
The METASYS place selection valve is installed in the suction line to open the suction flow for a dental unit in central suction systems.

**Spittoon valve**
Order no. 40050002
The spittoon valve is used to connect the spittoon bowl with the suction line in semi-wet suction systems. It can be easily installed in the dental unit thanks to its small dimensions and flexible connections. Capacitive sensors are used to control the valve.

**META Connect fittings case**
Order no. 40400008
The META Connect fittings case is a complete installation set with more than 125 fittings and accessories. All connections can be re-ordered individually.

**Pipe silencer**
Order no. 40060007
We recommend installing a METASYS pipe silencer to reduce noise emissions in the exhaust.

METASYS - your strong partner

- Amalgam separation
- Hygienic compressed air
- Suction
- Water decontamination
- Infection control
- Recycling

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