EXTRACTION- AND FILTRATION SYSTEMS FOR THE FIELDS OF MEDICINE AND AESTHETIC



### EXTRACTION / FILTER / POLLUTION CONTROL // TECHNOLOGY





**PEOPLE / ENVIRONMENT / MACHINERY // TRIPLE PROTECTION** 



### EXTRACTION- AND FILTRATION TECHNOLOGY FOR MEDICAL-AND AESTHETIC APPLICATIONS

Protect yourself, your staff, and your patients with TBH Extraction- and Filtration Systems. In the laser surgery aerosols will be generated with a particle size of  $0,1\mu - 2\mu m$ . Those laser aerosols (LGAC = Laser Generated Air- boune Contaminants) consist of serveral parts of human fabric. This one being removed from the fabric explosively as a steam or gas mixture. Dangers start out from microorganisms like bacteria, viruses and fungi. These have a particle size of smaller than  $2\mu$  and can be completely breathing in and therefore are deposited in the lungs. There is an acute infection risk with that for the operating staff and patient.

Please keep in mind, that the surgery facemask doesn't offer protection in front of air-supported particles. Up to 25% of the respiratory is passing the facemask! It was developed around the patient to protect him from an airborne infection by the operation staff.

### **AREAS OF APPLICATION**

- Cosmetic surgery (Skin removal, Hair removal, Alteration of epidermis)
- HF surgery
- Dental medicine
- Endoscopy

#### THE SYSTEMS INCLUDES NUMEROUS FEATURES:

- Easy and clean filter change from the top
- Extraction arm with four optional air intakes
- Optimize convenience by using the optional foot switch
- Electronic features and display functions
- Differential pressure indicator for monitoring the saturation filters

Many devices in today's market do not offer professional solutions and protection. Professional Solutions for Professionals by TBH with

- High vacuum extraction keeps a clear view of the work field
- Integrated HEPA Filter with 99,95% efficiency at 0.1µ particle size and 7 liters of activated carbon – protect yourself, your staff and your patient
- Easy to control through start/stop via optional foot switch or interface
- Three optional extractors enables different processes and applications



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### **PRODUCT FEATURES MEDICINE AND AESTHETIC EQUIPMENT**

### EASY AND CLEAN FILTER CHANGE FROM THE TOP

The TBH design concept enables easy access from the top to the different filter stages. This makes filter changing simple and clean.

### **EXTRACTION ARM WITH FOUR OPTIONAL AIR INTAKES**

#### Extraction Tube (included in our standard model)

The extraction tube is generally used for smoke and debris where there is no grid cover required.

## 1. Extraction Tube with integrated protection grid to avoid extraction of foreign objects.

The grid is a convex design to reduce the risk of material being sucked onto the grid surface during a procedure, blocking air flow. In addition, the protective grid prevents the extraction of foreign objects - non-intentionally or intentionally - that might block the extraction arm (optional).

# 2. A reducer fitting that allows for the attachment of smaller diameter hoses (10,5 - 22 mm).

The shown reducer can be attached at the end of the extraction arm. This enables the connection of electrosurgical pencils and there smoke evacuation hand piece. That gives you the opportunity to use one extraction system for all your procedures and applications. These smaller hoses are often used to keep accessibility and visibility at a maximum (optional).

### 3. Transparent extraction hood enables a wider coverage of pollution

The extraction hood - diameter 385 mm - enables a wider coverage of pollution. The transparent design – polycarbonate - allows a free view for the surgeon to the working surface (optional).



Extraction tube











### 4. Transparent extraction hood enables a wider coverage of pollution

The extraction hood - dimension of 245 x 220 mm - enables a wider coverage of pollution. The transparent design - polycarbonate - allows a free view for the surgeon to the working surface (optional).

### **OPTIMIZE CONVENIENCE BY USING THE OPTIONAL FOOT SWITCH**

The optional foot switch provides a hands free Standby / Run operation. The foot switch is easily connected at the interface.

### **ELECTRONIC FEATURES AND DISPLAY FUNCTIONS:**

- 1) Power switch
- 2) Operating hour meter
- 3) Filter saturation indicator
- 4) Manual speed control

### **ADSORPTION OF GASEOUS SUBSTANCES**

Activated carbon is used for the adsorption of gaseous substances. The activated carbon facilitates a physical adsorption process so a wide range of gases and odours can be collected.











### **TECHNICAL DATA MEDICINE AND AESTHETIC EQUIPMENT**



### **EXTRACTION- AND FILTRATION TECHNOLOGY** FOR THE FIELDS OF MEDICINE AND AESTHETIC

### **AREAS OF APPLICATION:**

- Cosmetic surgery (Skin renewal, Hair removal, Alteration of epidermis)
- HF surgery
- Dental medicine
- Endoscopy



#### **INCLUDES:**

- Complete unit with the interior filter accessories н. (incl. Exhaust arm)
- additional pre-filter mat set (3 pcs) н.
- 4 wheels for mobile use н.
- Power cable ÷.

| TECHNICAL SPECIFICATIONS                      | UNIT   | BF9 SET-D   | BF10 SET-D      |
|---|--------|-------------|-----------------|
| Unimpeded air flow rate                       | m³/h   | max. 220    | max. 250        |
| Effective air flow rate                       | m³/h   | 20-200      | 20-200          |
| Max. static pressure                          | Pa     | 14000       | 6000            |
| Voltage                                       | V      | 230/120     | 100-240         |
| Frequency                                     | Hz     | 50/60       | 50/60           |
| Power input                                   | kW     | 0.7         | 0.6             |
| Protection class                              | -      | 1           | 1               |
| Motor and drive system                        | -      | brush motor | brushless motor |
| Noise level                                   | db(A)  | approx. 64  | approx. 62      |
| Serial interface                              | D-sub  | 25-pin      | 25-pin          |
| Weight  | kg     | ~ 24        | ~ 26            |
| Dimensions (HxWxD)                            | mm     | 510x300x300 | 510x300x300     |
| DN 50 intake socket                           | number | 2           | 2               |
| Intake socket N/D 50                          | count  | 2           | 2               |
| Extraction Arm System 50 with extraction tube | mm     | 850         | 850             |
| Colour (cabinet)                              | RAL    | 7035        | 7035            |
| Colour (top cover)                            | RAL    | 7037        | 7037            |

| FILTER CONFIGURATION    |         |         |
|-------------------------|---------|---------|
| Pre-filter mat (F5)     | ✓       | ✓       |
| Particlefilter (H13)    | ✓       | ✓       |
| Activated carbon filter | 7 liter | 7 liter |

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### ORDER DATA MEDICINE AND AESTHETIC EQUIPMENT



| DESCRIPTION     | ARTNO. |
|-----------------|--------|
| BF9 SET-D 230 V | 90389  |
| BF9 SET-D 120 V | 90390  |

| T         | I<br>BF10 SET-D |
|-----------|-----------------|
| SCRIPTION | ARTNO.          |

| DESCRIPTION          | ARTNO. |
|----------------------|--------|
| BF10 Set-D 100-240 V | 90374  |
|                      |        |

| REPLACEMENT FILTERS                         |       |   |
|---|-------|---|
| Pre-filter mat set (20 pcs)                 | 11141 | 1 |
| 2-Step-filter*                              | 11140 | 2 |
| *Particlefilter and Activated carbon filter |       |   |

 $\mathbf{D}^{*}$ **B**\*  $\mathbf{C}^*$ A'

\* A, B, C, D - optional

### ACCESSORIES





| DESCRIPTION | USE                     | ARTNO. |
|-------------|-------------------------|--------|
| foot-switch | BF9 Set-D<br>BF10 Set-D | 15627  |

| DESCRIPTION               | USE                     | ARTNO. |
|---------------------------|-------------------------|--------|
| extraction tube with grid | BF9 Set-D<br>BF10 Set-D | 12777  |





| DESCRIPTION                       | USE       | ARTNO. |
|-----------------------------------|-----------|--------|
| hose connecting laboratory tubing | BF9 Set-D | 15232  |

| DESCRIPTION                                  | USE                     | ARTNO. |
|--|-------------------------|--------|
| extraction hood round 385 mm (polycarbonate) | BF9 Set-D<br>BF10 Set-D | 10359  |

| $\square$ |  |
|-----------|--|
|           |  |
| Ľ         |  |

| DESCRIPTION                           | USE                     | ARTNO. |
|---------------------------------------|-------------------------|--------|
| extraction hood PETG 245x220 mm white | BF9 Set-D<br>BF10 Set-D | 10308  |



### **TECHNICAL DRAWINGS**







BF9 / BF10 Set-D

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## TBH GmbH

EXHAUST- AND FILTRATION TECHNOLOGY

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