

## Accessories for working tents and glove boxes

The working tents, dismantling glove boxes, glove boxes and shower and changing cabins can be equipped with different accessories and thus optimized.

Some parts are incorporated into the enclosure and must already be known when ordering, others complement the shielding system.

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### 1. Equipment and accessories for the enclosure

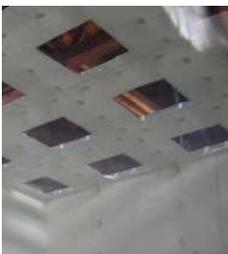


Zippered door, operable from both sides, covered on the inside with Velcro fastener

Solid hinged door with sturdy steel frame, easy to decontaminate due to the smooth surface, circumferential seal with planetary seal, thus no threshold and obstacle-free travel, window and door closer



suitable for frequent passage through the lock



Viewing windows in doors, side walls and roof (material: transparent PVC, thickness 0.75 mm)

Zippered roof opening in various geometries, for inserting larger components or for passing through load cables of a crane

Div. foil nozzles for the passage of cables, hoses, suction lines, etc.  
 The feedthroughs are only opened when required





Automatic vacuum flap (weight-actuated), for maintaining a stable vacuum (item number 110785)

Foil collar with zipper for connection with other enclosures, airlocks or smooth walls



The shield can be equipped with wheels if you want it to become mobile



Lining of the interior with heat protection blankets (flying sparks)

Fastening lead mats to the scaffold  
For further information see product info: 06101  
(Search term on website)



With the discharge bend with 45° or 90° angle, the material to be disposed of can be disposed of, for example, into a drum.

Item no	Description
113799	Discharge bow 90°
115382	Discharge bow 90° Union nut
115387	Discharge bow 90° Centering
115386	Discharge bow 45° Union nut
115389	Discharge bow 45° Centering

Glove sleeves welded to the tent wall allow contamination-free access from the outside to the part placed inside.



The discharge bag is typically made of soft PVC with a thickness of 0.4 mm. It is translucent and has a built-in O-ring for attachment to a glove port. The design allows contamination-free bag change.  
The sluice bag is made to fit the selected nozzle. The length of the bags is selectable.

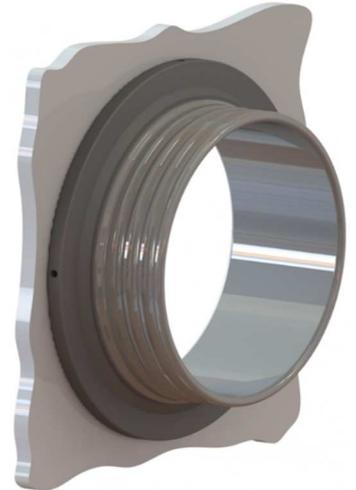
For welding off the bags we recommend the mobile impulse welding device (see accessories on the following pages).

## 2. Nozzles for gloves and sluice bags

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Glove ports are used for tight fastening of glove box gloves or sluice bags. The external groove system allows easy and contamination-free glove or bag change.

- consisting of nozzle part and counter ring
  - proven 3-groove system, external, incl. three rubber rings
  - contamination-free glove or bag change possible
  - Construction with low installation depth
  - Size suitable for the usual gloves and for bags up to 500 mm diameter
  - available in PVC, PMMA (transparent) and steel (stainless) materials
  - Available in gluing, screwing or welding versions
  - Screw variant with two additional sealing rings in the flanges
  - Available for any wall thickness (in steps of 10 mm)
  - The spigots for glove boxes are typically glued and have an inner diameter of 180 mm.
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- For further information see product info: 06301 (search term on website).



## 3. Gloves

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A wide range of glove box gloves is available. These are mounted by means of a glove socket. This allows contamination-free glove changes or the attachment of discharge bags instead of gloves. The gloves/spigots typically have an inner diameter of 180 mm.

Available glove materials:

- Styrene butadiene rubber (SBR)
  - Chloroprene rubber (CR, „Neoprene“)
  - Ethylene propylene diene rubber (EPDM)
  - Bromobutyl rubber (BIIR)
  - Chlorosulfonated polyethylene (CSM)
  - Fluorocarbon rubber (FPM)
  - Bromobutyl rubber (BIIR) with CSM cover (chlorosulfonated polyethylene)
  - Bromobutyl rubber (BIIR) with FPM cover (Fluorocarbon rubber)
  - Bromobutyl rubber (BIIR) with CSM and FPM cover
  - Polyurethan
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- For further information see product info: 06302 (search term on website).

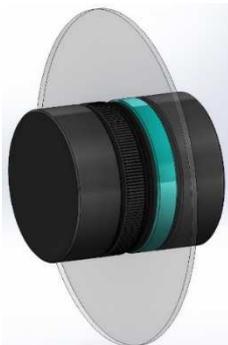
Where there are no special requirements, gloves made of PVC can be welded on directly.



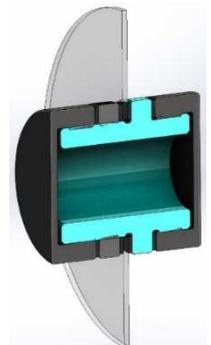
#### 4. Feed-throughs

The following feed-throughs are available:

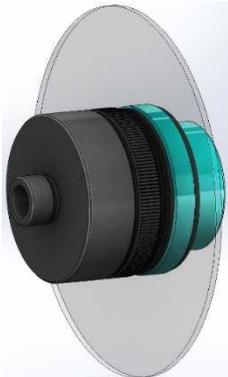
Item no	Description
115178	Feed-through for general purposes inkl. 2 Verschlussdeckel
115179	Feed-through for HEPA 14 filter ( 5 m <sup>3</sup> /h) passende Filter: 115190
115181	Feed-through for HEPA 14 filter (50 m <sup>3</sup> /h) passende Filter: 115187, 115188, 115189
115180	Feed-through for taking an air sample from the working tent or glove box or for measuring / monitoring the internal pressure of the enclosure
115182	Feed-through for el. current, 5 pole



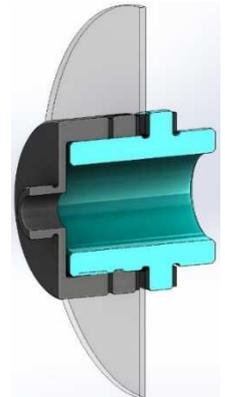
115178 Feed-through  
with 2 pcs closure covers



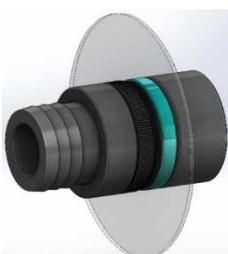
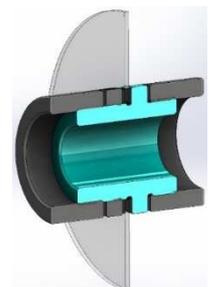
We produce special connection adapters according to customer requirements.



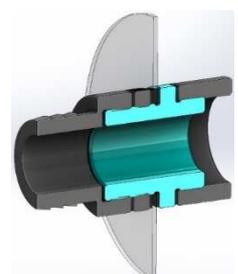
115179 Feed-through  
inside with connection flange AG M62  
outside with connection flange AG 3/4"  
(e.g. for HEPA 14 filter, 5 m<sup>3</sup>/h)

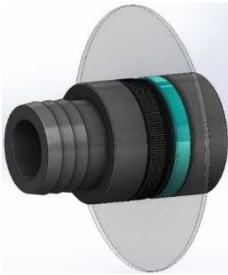


115181 Feed-through  
with 2 pcs connection flange IG M62  
(e.g. for HEPA 14 filter, 50 m<sup>3</sup>/h)

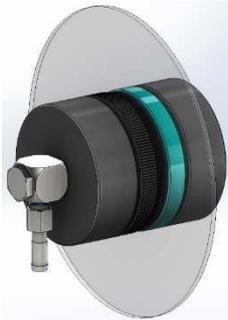
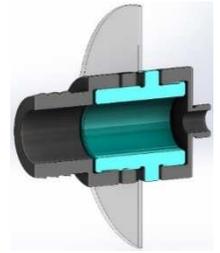


115181 Feed-through  
inside with connection flange IG M62  
(e.g. for HEPA 14 filter, 50 m<sup>3</sup>/h)  
outside with hose connection  
for hose ID = 60 mm

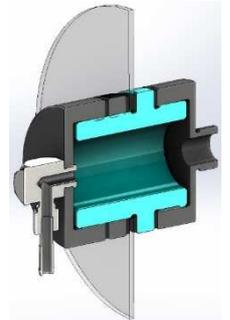




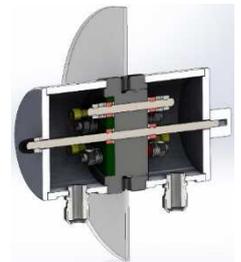
115179 Feed-through  
inside with connection flange AG 3/4"  
(e.g. for HEPA 14 filter, 5 m³/h)  
outside with hose connection  
for hose ID = 60 mm



115180 Feed-through  
inside with connection flange AG 3/4"  
(e.g. for HEPA 14 filter, 5 m³/h)  
outside with hose connection  
for hose ID = 8 mm  
for pressure measurement or air sampling



115182 Feed-through  
for electrical current, 5 pole,  
for cable od = 8..10 mm



## 5. Filter for supply and exhaust air

Due to the hermetically sealed design, the ventilation of the shielding systems is completely controlled. Depending on the requirements, the following options are available:

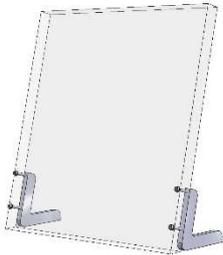
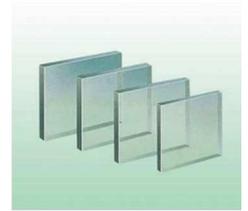
- simple foil socket, diameter 60 mm, for attaching a ventilation hose
- Fitting (bushing) to accommodate the following HEPA-14 filters:

Item no	Description	Connection
115190	HEPA-14 filter ( 5 m³/h)	Thread 3/4" / open
115187	HEPA-14 filter ( 50 m³/h)	both sides M62 thread
115188	HEPA-14 filter ( 50 m³/h)	M62 thread / hose connection 60
115189	HEPA-14 filter ( 50 m³/h)	M62 thread / open

The filters can be installed both on the inside and on the outside of the tent wall, both on the fresh air side and on the extraction side.

## 6. Radiation protection glass

The glove box can be partially or completely equipped with radiation protection glass. The acrylic (PMMA) radiation shielding glasses are attached to the framework outside the enclosure and have the necessary recesses (e.g. for glove ports, etc.).



Another option is the lead glass stand, which can be placed inside the glove box in front of a radiation source to keep exposure low.

For more information, see Product Info 06102 (search term on website).

## 7. Inclined tube manometer

Inclined tube operating pressure gauge (high quality version) for industry and laboratory.

This is used to check the negative pressure in the enclosure. When commissioning the enclosure, the pressure can be displayed to ensure that the enclosure has been correctly mounted and sealed.

Measuring tube, acrylic glass and liquid vessel are drilled into a 30 mm thick, white-backed acrylic glass block.



Wetted components:	Acrylic glass, Polytrol
Measuring liquid:	Ethanediol "Glycol"
Nominal size:	400 x 120 x 30 mm
Scale length (0...500 Pa):	280 mm
Display range:	0...500 Pa
Display accuracy:	+/- 1%
Maximum static pressure:	1 bar
Overload capacity:	Scale end value
Connection:	2x hose nozzles for hose with ID = 8 mm

With 50 ml measuring liquid 88 red (density 0.88 kg/dm<sup>3</sup>) incl. adapter for mounting on a glove nozzle 180 mm incl. ball valve.

Item no	Description	Connection
114902	Inclined tube manometer	2x hose nozzles for hose with ID = 8 mm

## 8. Impulse welding device

The hand-held film sealer is used for welding plastic films and sluice bags (waste bag). It allows easy ejection of items from a contaminated zone and safe transport of components between zones or directly into a drum. Other applications include alpha-sealed welding of zipper openings or welding of replacement gloves and waste bags to glove boxes, etc.

The impulse welding device consists of:

- Impulse generator

Connection: 230VAC, 50 Hz, 1-phase  
Protection class: IP 20  
Fuse: 16A  
Pulse time: infinitely variable



- T Shape hand welding pliers

Weld seam length: 220 mm  
Weld seam width: 4 mm  
Rail opening: 20 mm  
Welding power: 2 x 0.4mm PE foil  
Manual operation via hand lever



- Hand welding pliers beak shape

Weld seam length: 220 mm  
Weld seam width: 4 mm  
Rail opening: 20 mm  
Welding power: 2 x 0.4mm PE foil  
Manual operation via hand lever



- Mobile floor stand for storing the tongs and pulse generator.  
Dimensions: L x B x H = 52 x 30 x 90 cm



Item no	Description
115287	Pulse welding device complete

## 9. Venting and filtering equipment

The negative pressure holding devices are used to filter contaminated room air and to hold contaminated rooms under negative pressure. Due to the negative pressure, no contaminated air can escape from the black area. All the air passes through the unit where it is filtered several times. In addition to pre- and intermediate filters, a choice can be made between Hepa filters of class H13 and H14. The negative pressure units can be attached to airlocks or shielding systems.



The filtered air capacity covers the range from 1'000 m<sup>3</sup>/h to 70'000 m<sup>3</sup>/h.

For further information see product info: 06501 (search term on website)

## 10. Personal lock

The airlocks are used to separate the black and white areas. They can be attached to existing doors or used together with work tents.

The airlocks can bring people into contaminated zones and let them out again under controlled conditions. They can be used purely as passage rooms, as checkrooms or as water showers.



The airlocks can be optionally equipped with a positive locking system, lighting, wardrobe elements or water or air shower option with waste water or air filter system.

The cabins are modularly constructed from wall, door and corner elements and can be connected quickly and without tools. The sturdy walls are made of recycled material.

For further information see product info: 06405 (search term on website)

## 11. Adhesive mat

The adhesive mat serves as a fine dust trap for clean rooms, zone crossings, etc. Each mat consists of 40 thin PE layers.

The self-adhesive surface reliably retains the finest particles. Dimension: 600x1150 mm



Item no	Description
115402	Adhesive mat