

Tender specification texts

Installation systems for the safe storage and disposal of solvents in the lab, consisting of:

1. Collection system for an underbench cabinet for disposal according to DIN EN 14470-1 with level indicator inside the canister

Key product: BOHLENDER / b.safe SYSTEM

Funnel on canister with level indicator consisting of:

- 1 piece of b.safe Funnel with funnel-Ø 130 mm, hinged lid, sieve and grounding cable. Material: conductive PE-EX, black.
- 2 pieces of canisters 10 l with level control (mechanical, floater with sight glass) Material: conductive PE-EX, black.
L x W x H: 295 x 200 x 255 mm. 1 canister for direct filling, 1 canister as reserve.

It must be ensured that all components are suitable for equipotential bonding according to TRGS727 and are grounded. All components made of conductive plastic PE-EX must have a leakage resistance to ground < 109 Ω according to DIN EN 61340-5-1 and be suitable for zones 0, 1 and 2 according to the Ordinance on Hazardous Substances (GefStoffV), EN 1127-1, DIN EN 60079-10-1 and DIN EN 60079-10-2



Canister empty



Canister full

2. Collection system for an underbench cabinet for disposal according to DIN EN 14470-1 with level indicator inside the funnel

Key product: BOHLENDER / b.safe SYSTEM

Funnel with level control on canister consisting of:

- 1 piece of b.safe Funnel with funnel-Ø 130 mm with level control (mechanical, floater with sight glass), hinged lid, sieve and grounding cable. Material: conductive PE-EX, black.
PE-EX, schwarz.
- 2 St. Kanister 10 l. Material: ableitfähiges PE-EX, schwarz.
L x B x H: 295 x 200 x 255 mm. 1 Kanister zur Direktbefüllung, 1 Kanister als Reserve.

It must be ensured that all components are suitable for equipotential bonding according to TRGS727 and are grounded. All components made of conductive plastic PE-EX must have a leakage resistance to ground < 109 Ω according to



Canister empty



Canister full

DIN EN 61340-5-1 and be suitable for zones 0, 1 and 2 according to the Ordinance on Hazardous Substances (GefStoffV), EN 1127-1, DIN EN 60079-10-1 and DIN EN 60079-10-2.

3. Sink in work top

Key product: BOHLENDER / b.safe SYSTEM

Consisting of:

Sink for integration in fume hoods or work tops for the disposal of liquid solvent waste. Made of conductive PE-EX, with removable sieve.

Sink S for integration in fume hoods or work tops

- 1 piece of b.safe Sink S, with lid, removable sieve in bottom drain and grounding cable (L 1500 mm). Volume 10 l, Inner dimensions: L 333 x W 213 x H 160 mm, mounting dimensions: L 342 x W 225 x H 193 mm. Bottom drain with thread for connection to tube system. Material: conductive PE-EX black



Sink XL for integration in fume hoods or work tops

- 1 piece of b.safe Sink XL, with lid, removable sieve in bottom drain and grounding cable (L 1500 mm). Volume 38 l, Inner dimensions: L 400 x W 400 x H 250 mm, mounting dimensions: L 412 x W 412 x H 250 mm. Bottom drain with thread for connection to tube system. Material: conductive PE-EX black



Tube system to collection canister

1 piece of b.safe Corrugated Tubing, spiral-shaped or smooth inside, with connectors GL25.

- Bending radius of the corrugated tubing: spiral-shaped inside: ≥ 20 mm, smooth inside: ≥ 25 mm. conductive PTFE-EX black

**Tube system to collection canister**

- 1 piece of b.safe tube system including connectors, tube O.D. \varnothing 32 mm, tube I.D. 26 mm. Material: conductive PE-EX black

The work tables should be placed next to or against each other so that a fixed tube system can be mounted. Tubes should be routed to the collection canister with a slope of 2%.

It must be ensured that all components are suitable for equipotential bonding according to TRGS727 and are grounded. All components made of conductive plastic PE-EX must have a leakage resistance to ground $< 109 \Omega$ according to DIN EN 61340-5-1 and be suitable for zones 0, 1 and 2 according to the Ordinance on Hazardous Substances (GefStoffV), EN 1127-1, DIN EN 60079-10-1 and DIN EN 60079-10-2.



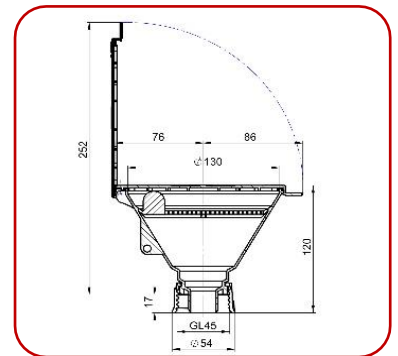
4. Funnel for installation into work top/fume hood for direct disposal for liquid waste

Key product: BOHLENDER / b.safe SYSTEM

Consisting of:

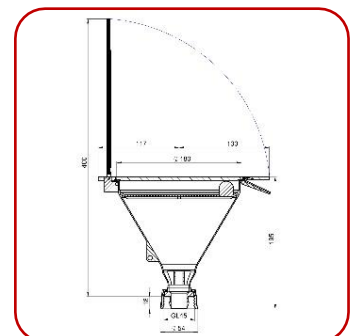
Funnel Ø 130 mm with hinged lid

- 1 piece of b.safe Funnel with funnel-Ø 130 mm, hinged lid, sieve and grounding cable. Material: conductive PE-EX
- 1 piece of b.safe Desktop Mount for funnels, installation into work top, top side: connecting thread GL 45, bottom side: connecting thread GL 25. Material: conductive PE-EX black



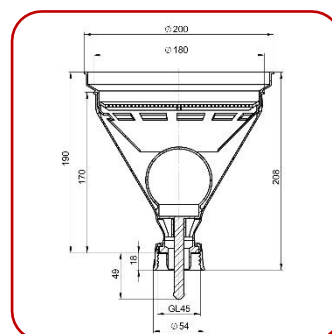
Funnel Ø 180 mm with hinged lid

- 1 piece of b.safe Funnel with funnel-Ø 180 mm, hinged lid, sieve and grounding cable. Material: conductive PE-EX
- 1 piece of b.safe Desktop Mount for funnels, installation into work top, top side: connecting thread GL 45, bottom side: connecting thread GL 25. Material: conductive PE-EX black



Funnel Ø 180 mm with ball valve

- 1 piece of b.safe Funnel with funnel-Ø 180 mm, splash guard, sieve, ball valve and grounding cable.
Material: conductive PE-EX
- 1 piece of b.safe Desktop Mount for funnels, installation into work top, top side: connecting thread GL 45, bottom side: connecting thread GL 25. Material: conductive PE-EX black



Tube system to collection canister

- Flexible b.safe Corrugated Tubing, spiral-shaped or smooth inside, with connectors GL25.
- Bending radius of the corrugated tubing: spiral-shaped inside: ≥ 20 mm, smooth inside: ≥ 25 mm. conductive PTFE-EX black



Tube system to collection canister

- 1 piece of b.safe tube system including connectors, tube O.D. Ø 32 mm, tube I.D. 26 mm. Material: conductive PE-EX black
- The work tables should be placed next to or against each other so that a fixed tube system can be mounted. Tubes should be routed to the collection canister with a slope of 2%.

It must be ensured that all components are suitable for equipotential bonding according to TRGS727 and are grounded. All components made of conductive plastic PE-EX must have a leakage resistance to ground < 109 Ω according to DIN EN 61340-5-1 and be suitable for zones 0, 1 and 2 according to the Ordinance on Hazardous Substances (GefStoffV), EN 1127-1, DIN EN 60079-10-1 and DIN EN 60079-10-2.



5. Funnel for wall mount/fume hood for direct disposal of liquid waste Keyproduct: BOHLENDER / b.safe SYSTEM
Consisting of:

Funnel Ø 130 mm with hinged lid

- 1 piece of b.safe Funnel with funnel-Ø 130 mm, hinged lid, sieve and grounding cable. Material: conductive PE-EX
- 1 piece of b.safe Wall Mount for funnels, installation in side wall, top side: connecting thread GL 45, bottom side: connecting thread GL 25. Material: conductive PE-EX black



Funnel Ø 180 mm with hinged lid

- 1 piece of b.safe Funnel with funnel-Ø 180 mm, hinged lid, sieve and grounding cable. Material: conductive PE-EX
- 1 piece of b.safe Wall Mount for funnels, installation in side wall, top side: connecting thread GL 45, bottom side: connecting thread GL 25. Material: conductive PE-EX black

**Funnel Ø 180 mm with ball valve**

- 1 piece of b.safe Funnel with funnel-Ø 180 mm, splash guard, sieve, ball valve and grounding cable. Material: conductive PE-EX
- 1 piece of b.safe Wall Mount for funnels, installation in side wall, top side: connecting thread GL 45, bottom side: connecting thread GL 25. Material: conductive PE-EX black

**Tube system to collection canister**

- Flexible b.safe Corrugated Tubing, spiral-shaped or smooth inside, with connectors GL25. Bending radius of the corrugated tubing: spiral-shaped inside: ≥ 20 mm, smooth inside: ≥ 25 mm. conductive PTFE-EX black



Tube system to collection canister

- 1 piece of b.safe tube system including connectors made of conductive PE-EX, black, tube O.D. Ø 32 mm, tube I.D. 26 mm. Material: conductive PE- EX black. The work tables should be placed next to or against each other so that a fixed tube system can be mounted. Tubes should be routed to the collection canister with a slope of 2%.

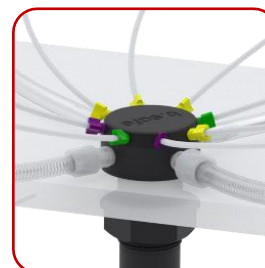
It must be ensured that all components are suitable for equipotential bonding according to TRGS727 and are grounded. All components made of conductive plastic PE-EX must have a leakage resistance to ground < 109 Ω according to DIN EN 61340-5-1 and be suitable for zones 0, 1 and 2 according to the Ordinance on Hazardous Substances (GefStoffV), EN 1127-1, DIN EN 60079-10-1 and DIN EN 60079-10-2.

**6. Desktop mount for capillaries and tubes for direct disposal of solvent waste from HPLC systems.**

Key product: BOHLENDER / b.safe SYSTEM

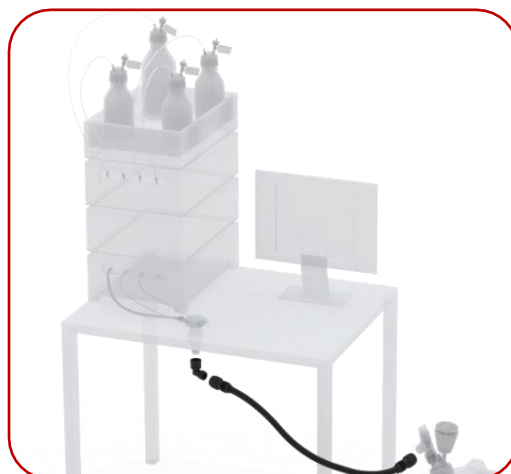
Consisting of:**Desktop mount for capillaries and tubes**

- 1 piece of b.safe Desktop Mount Multiport, flat design, with connections at the sides for direct installation at the desktop with 6 or 12 connections for capillaries and tubes of HPLC systems. Bottom side: male thread GL 25. Material: conductive PE- EX black



Tube system to collection canister

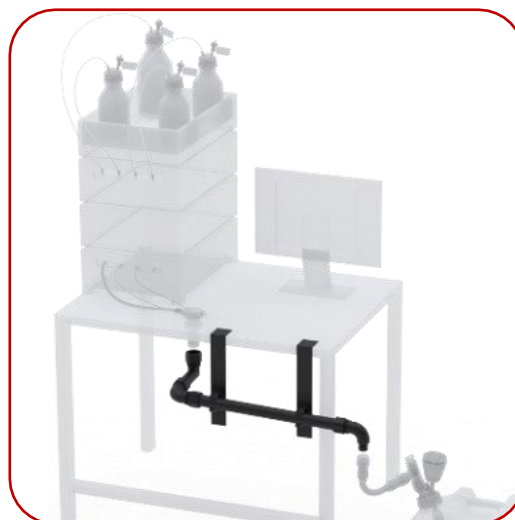
- Flexible b.safe Corrugated Tubing, spiral-shaped or smooth inside, with connectors GL25.
Bending radius of the corrugated tubing: spiral-shaped inside: ≥ 20 mm, smooth inside: ≥ 25 mm. conductive PTFE-EX black

**Tube system to collection canister**

- 1 piece of b.safe tube system including connectors made of conductive PE-EX, black, tube O.D. $\varnothing 32$ mm, tube I.D. 26 mm. Material: conductive PE- EX black

The work tables should be placed next to or against each other so that a fixed tube system can be mounted. Tubes should be routed to the collection canister with a slope of 2%.

It must be ensured that all components are suitable for equipotential bonding according to TRGS727 and are grounded. All components made of conductive plastic PE-EX must have a leakage resistance to ground $< 109 \Omega$ according to DIN EN 61340-5-1 and be suitable for zones 0, 1 and 2 according to the Ordinance on Hazardous Substances (GefStoffV), EN 1127-1, DIN EN 60079-10-1 and DIN EN 60079-10-2.



7. Disposal system for safety cabinets according to DIN EN 14470-1 with fill-level control

Key product: BOHLENDER / b.safe SYSTEM

System for active storage of liquid flammable waste with integrated level monitoring, version for EX-proof area, consisting of:

- 1 piece of b.safe System Waste Cap (screw cap for canister) with fixed sensor for level monitoring, sensor either capacitive or electronic with float, including connection for venting (exhaust filter or tube), insert turnable. Material: conductive PE-EX
- 1 piece of b.safe Elbow Stopcock for interrupting the flow when changing canisters. Material: conductive PE-EX
- 2 pieces of canisters 10 l or 20 l, with UN approval. 1 canister for direct filling, 1 canister as reserve. Material: conductive PE-EX

It must be ensured that all components are suitable for equipotential bonding according to TRGS727 and are grounded. All components made of conductive plastic PE-EX must have a leakage resistance to ground $< 109 \Omega$ according to DIN EN 61340-5-1 and be suitable for zones 0, 1 and 2 according to the Ordinance on Hazardous Substances (GefStoffV), EN 1127-1, DIN EN 60079-10-1 and DIN EN 60079-10-2.

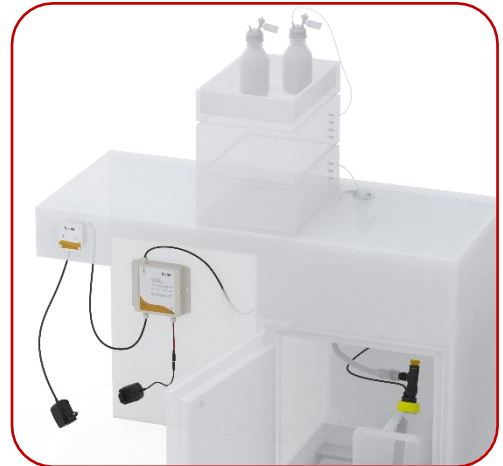


8. Electronic level monitoring with alarm box in EX-proof version for waste containers in safety cabinets

Key product: BOHLENDER / b.safe SYSTEM

Electronic level monitoring with alarm box in EX-proof version for waste containers in safety cabinets, consisting of:

- 1 piece of b.safe Mini-Display Wall for 1 canister for wall mount/installation in front plates of lab furniture/hoods. Certificates: EU conformity, CE according to 2014/30/EU, EMV, 2011/65/EU RoHS). Halogen-free housing. Optical and acoustic alarm when fill level is reached, pausing of acoustic alarm for several minutes, including plugs for worldwide use.
- 1 piece of b.safe System Waste Cap (screw cap for canister) with permanently fixed sensor for level control, version with sensor either capacitive or electronic with float (Ex II 2 G Ex ia IIB T6 Gb) bzw. (Ex II 1 G Ex ia IIC T1-6 Ga).
- 1 piece of b.safe Isolated Amplifier for safe signal exchange between explosion-hazardous and explosion-proof areas, according to EN 60947-5-6 (DMT 09 ATEX E 087X / Ex II(1) G [Ex ia] IIIC). Including plugs and cables for worldwide use.
- 1 piece of rear panel feed-through to the safety cabinet.
- 1 piece of b.safe Elbow Stopcock for interrupting the flow when changing canisters. Material: conductive PE-EX



9. **Splitter- Electronic level control with automatic switching from full to empty collection canister. With alarm box in ex-proof version for two collection canisters in the safety cabinet.**

Key product: BOHLENDER / b.safe SYSTEM

Consisting of:

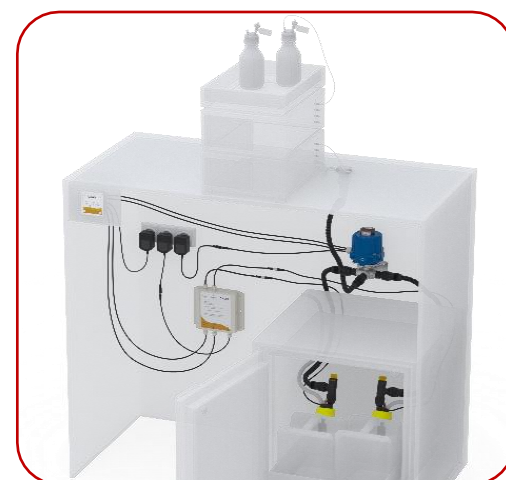
- 1 piece of b.safe Splitter: 3-Way Stopcock with L-bore, stainless steel casing, 3 connectors GL 25 male and integrated control module, 2 mounted signal cables (L = 2 m), wall mounting bracket made of aluminium and power supply (Input: 100-240V/1,2 A, Output: 24V/max. 1,75 A), with plugs for EU, Australia, USA, Japan and UK. Dimensions: L 145 x W 142 x H 189 mm. Connection thread GL25 to install b.safe Waste Tubes.

- 1 piece of Mini Display Wall SPLITTER for wall mount / installation in front plates of lab furniture or hoods. Programmed only to control the b.safe Splitter for monitoring 2 collection containers and an automatic switching from full to empty container.

- Optical alarm when reaching the nominal capacity of container 1, optical and acoustic alarm when nominal capacity of both containers is reached. The optical alarm

remains activated until an empty container is confirmed, the acoustic alarm can be paused for 5 minutes. Including power supply (Input: AC 100-240 V/50-60 Hz, 0,5 A, Output: 24 V DC, 0,5 A) with plugs for EU, Australia, USA, Japan and UK.

- 2 pieces of Signal Cable
- 1 piece of b.safe Isolated Amplifier for safe signal exchange between explosion-hazardous and explosion-proof areas, according to EN 60947-5-6 (DMT 09 ATEX E 087X / Ex II(1) G [Ex ia] IIC). Including plugs and cables for worldwide use.
- 3 pieces of Flexible b.safe Corrugated Tubing, spiral-shaped or smooth inside, with connectors GL25. Bending radius of the corrugated tubing: spiral-shaped inside: ≥ 20 mm, smooth inside: ≥ 25 mm. conductive PTFE-EX black
- 2 pieces of rear panel feed-through to the safety cabinet.
- 2 pieces of b.safe Elbow Stopcock for interrupting the flow when changing canisters. Material: conductive PE-EX



- 2 pieces of b.safe System Waste Cap (screw cap for canister) with fixed sensor for level monitoring, sensor either capacitive or electronic with float, including connection for venting (exhaust filter or tube), insert turnable. Material: conductive PE-EX

It must be ensured that all components are suitable for equipotential bonding according to TRGS727 and are grounded. All components made of conductive plastic PE-EX must have a leakage resistance to ground $< 109 \Omega$ according to DIN EN 61340-5-1 and be suitable for zones 0, 1 and 2 according to the Ordinance on Hazardous Substances (GefStoffV), EN 1127-1, DIN EN 60079-10-1 and DIN EN 60079-10-2.