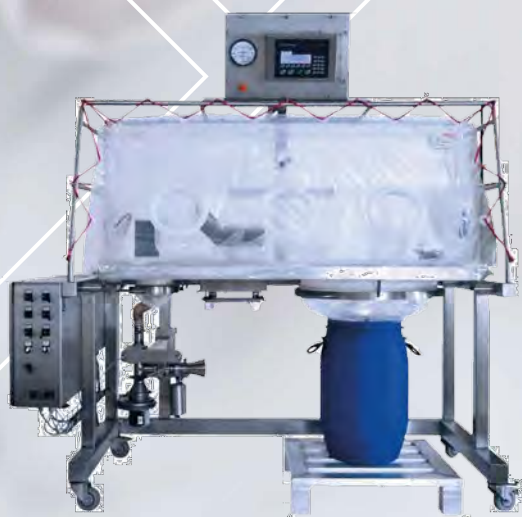


WE CARE.

HECHT
technologie

SINGLE USE TECHNOLOGY





GENERAL

HECHT Single Use Technologies offer operator- and product protection and help you effectively reduce your costs up to 40 percent compared with conventional solutions with fixed stationary isolators.

Single-use-isolators instead of stainless steel and product handling with foil (liner) bags contribute to a significant manufacturing cost- and cleaning cost reduction, product loss and cross-contamination can be avoided and a high product quality can be guaranteed.

Especially during a frequent product change or handling of highly active and hazardous substances like cytostatics, carcinogen or mutant toxics, antibiotics, etc. HECHT Single-Use Technologies are particularly suitable for these circumstances.

Simplify your handling with an easy and quick liner system exchange, no cleaning effort and a guarantee for a constant production process - test our single use technology.



SINGLE-USE ISOLATOR EWI



Safe and contamination-free dosing, sampling, (re-)filling and weighing of small quantities of highly active or hazardous substances is only a small choice of customer specific operations that can be performed with HECHT's Single-Use Isolator (EWI).

The EWI is a flexible, completely closed foil system operatable with gloves. It guarantees operator and product protection due to the use of a flexible foil and different customized connection adapters for various kinds of bins (drums, sacks, cartons, etc.)

SINGLE-USE ISOLATOR EPS



Whether for quality control for incoming or outgoing products, laboratory tests or further areas of quality control: HECHT's innovative Single-Use Sampling System (EPS) enables sampling of highly active or hazardous substances from small bins without extensive protection or cleaning measures.

By using a flexible protective foil in combination with a connection adapter, operator and product protection are guaranteed. The EPS combines Containment, flexibility and efficiency and is therefore an important element of quality management in most companies



Single Use Technology Single-Use Isolator (EWI)

INFO
SHEET

DESCRIPTION AND CONSTRUCTION

Safe and contamination-free dosing, sampling, (re-)filling and weighing of small quantities of highly active or hazardous substances is only a small choice of customer specific operations that can be performed with HECHT's **Single-Use Isolator (EWI)**.

The EWI is a flexible, completely closed foil system operatable with gloves.

It guarantees operator and product protection due to the use of a flexible foil and different customized connection adapters for various kinds of bins (drums, sacks, cartons, etc.)

There is no need for a time-consuming cleaning or cleaning validation. Depending on the use case, the number of ports for loading and unloading, the connection of the gloves for the operation of dryers, blenders, granulators etc. will be determined according to your customized needs.

One special option for the EWI is our patented weighing system. The active weighing technology is located outside of the isolator so there is no danger of contamination.



PROCEDURE

A pneumatic seal or a vacuum plate for stabilisation of the isolator are activated and the system is ready for operation.

The bins with the product are either connected to an inlet port or directly infiltrated into the isolator. With the pneumatic seal in the counter ring, the outer liner is fixed to the connecting port and the product handling can be started.

The operator opens the foil system with the integrated gloves and removes the product through the inner liner. Both the isolator as well as the connected bins stay completely closed and contained.

As soon as the process step is finished, the bin is removed with a double tie-off and cut-off of the foil,

whereby both the isolator and the bin stay completely closed. After deactivation of the pneumatic seal, the foil isolator can be removed and a new cycle can start without delay.

After the product handling is finished, the isolator can easily be disposed without any further action in terms of cleaning or decontamination.



ADVANTAGES

Safety

- ◆ Primary Containment due to protective liner
- ◆ Safe (re)filling and weighing in of small quantities
- ◆ Leakage test for every foil isolator
- ◆ High-Containment: OEL: up to $1\mu\text{g}/\text{m}^3$ (OEB 5) - within the laminar flow cabine: up to $200\text{ ng}/\text{m}^3$ (OEB 6)
- ◆ No cross-contamination

Cost-Efficiency

- ◆ Low investment and maintenance costs
- ◆ No costs for cleaning and validation
- ◆ Short changeover time

OPTIONS

Flexibility

- ◆ Adaptable to different kinds of bins and applications
- ◆ Process control can be adapted to OEL-requirements
- ◆ Inertisation (optional)
- ◆ Mobile and location-independent
- ◆ Quick product change due to single-use technology, short setup times
- ◆ Different bins with liners useable
- ◆ Various foil isolators within one frame individually designable



Single Use Technology Single-Use Isolator (EPS)

INFO
SHEET

DESCRIPTION AND CONSTRUCTION

Whether for quality control for incoming or outgoing products, laboratory tests or further areas of quality control:

HECHT's innovative Single-Use Sampling System (EPS) enables sampling of highly active or hazardous substances from small bins without extensive protection or cleaning measures.

By using a flexible protective foil in combination with a connection adapter, operator and product protection are guaranteed.

The EPS combines Containment, flexibility and efficiency and is therefore an important element of quality management in most companies.



PROCEDURE

The single-use foil is mounted into the fixed frame and all interfaces will be connected. A pneumatic seal or a vacuum plate for stabilisation of the isolator are activated and the system is ready for operation. Now the bin with the product to be sampled is placed under the EPS and the outer liner is attached to the connection port by means of a double O-Ring.

The operator opens the foil system with the integrated gloves through the inner liner, removes the sample with a sampling vessel that is placed in the sampling hose.

Afterwards the hose is separated with a double tie-off and cut-off of the foil, whereby both the isolator and the bin stay completely closed. As soon as the sampling process is finished, the inner liner is closed and pushed back into the bin, whereas the outer liner will be double tied off and cut in between.



After deactivation of the pneumatic seal, the foil isolator can be removed and a new cycle can be started without delay.

After the product handling is finished, the isolator can easily be disposed without any further action in terms of cleaning or decontamination.

The EPS is especially used for sampling of bulk solids from small bins or for processes that demand handling with 2 liners. Due to its small size the complete station can be transported with a hand pallet truck or with roller feet. Only electronic supply (230 V) and compressed air supply (1 bar) are necessary.

ADVANTAGES

Safety and quality

- ◆ Primary Containment due to protective foil
- ◆ Quick and easy sampling without special protective equipment
- ◆ Contamination-free sampling
- ◆ High-Containment: OEL: up to $1\mu\text{g}/\text{m}^3$ (OEB 5) -in laminar flow cabins: up to $200\text{ ng}/\text{m}^3$ (OEB 6)

Cost saving

- ◆ Low investment and maintenance costs
- ◆ Hardly any cleaning costs
- ◆ No effort for cleaning validation
- ◆ Short changeover times

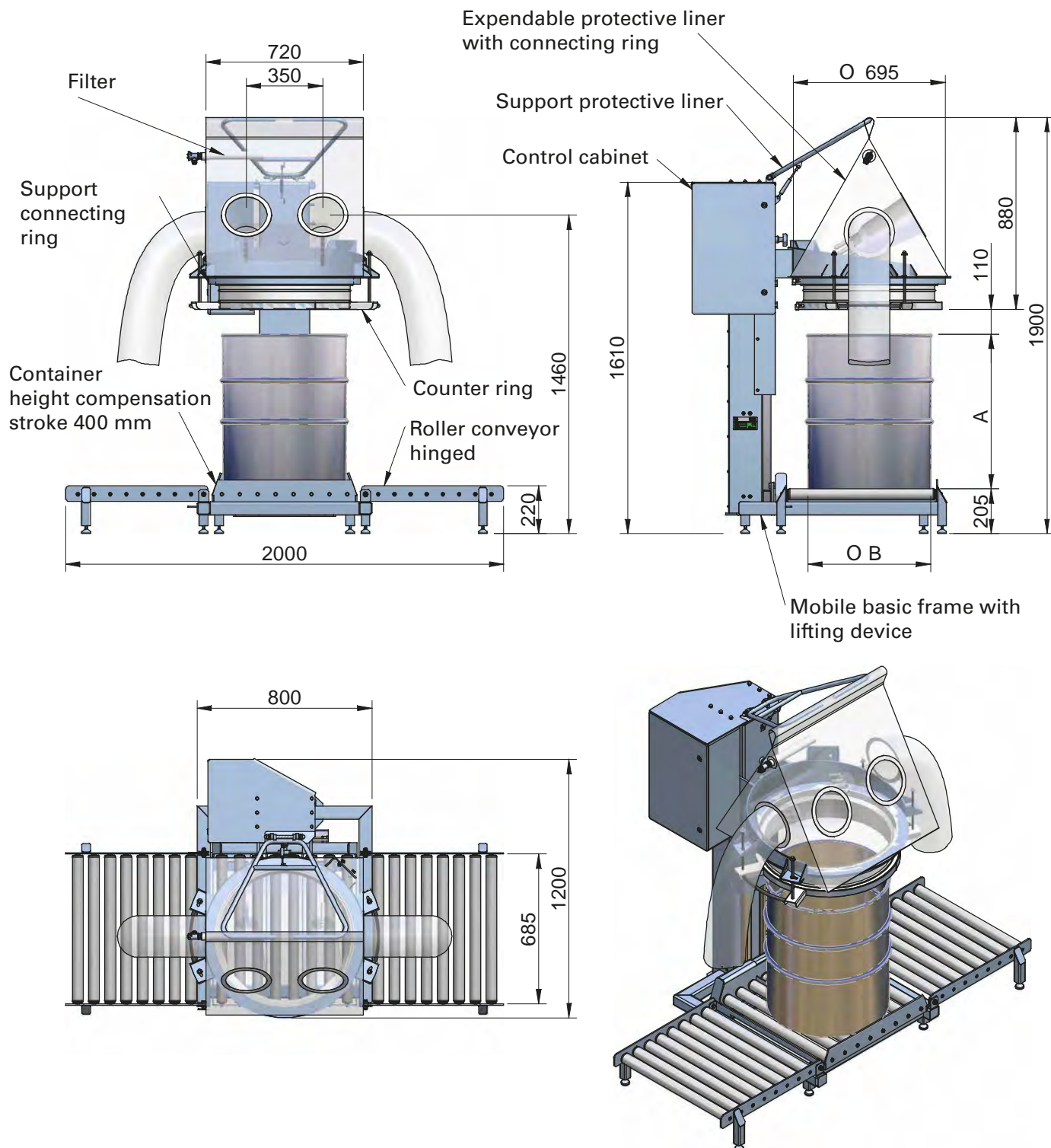
OPTIONS

Flexibility

- ◆ Adaptable to different kinds of bins and applications (customizable)
- ◆ Process control adaptable to OEL-requirements
- ◆ Inertisation
- ◆ Wall mounting, mobile version or permanent installation of the EPS possible.



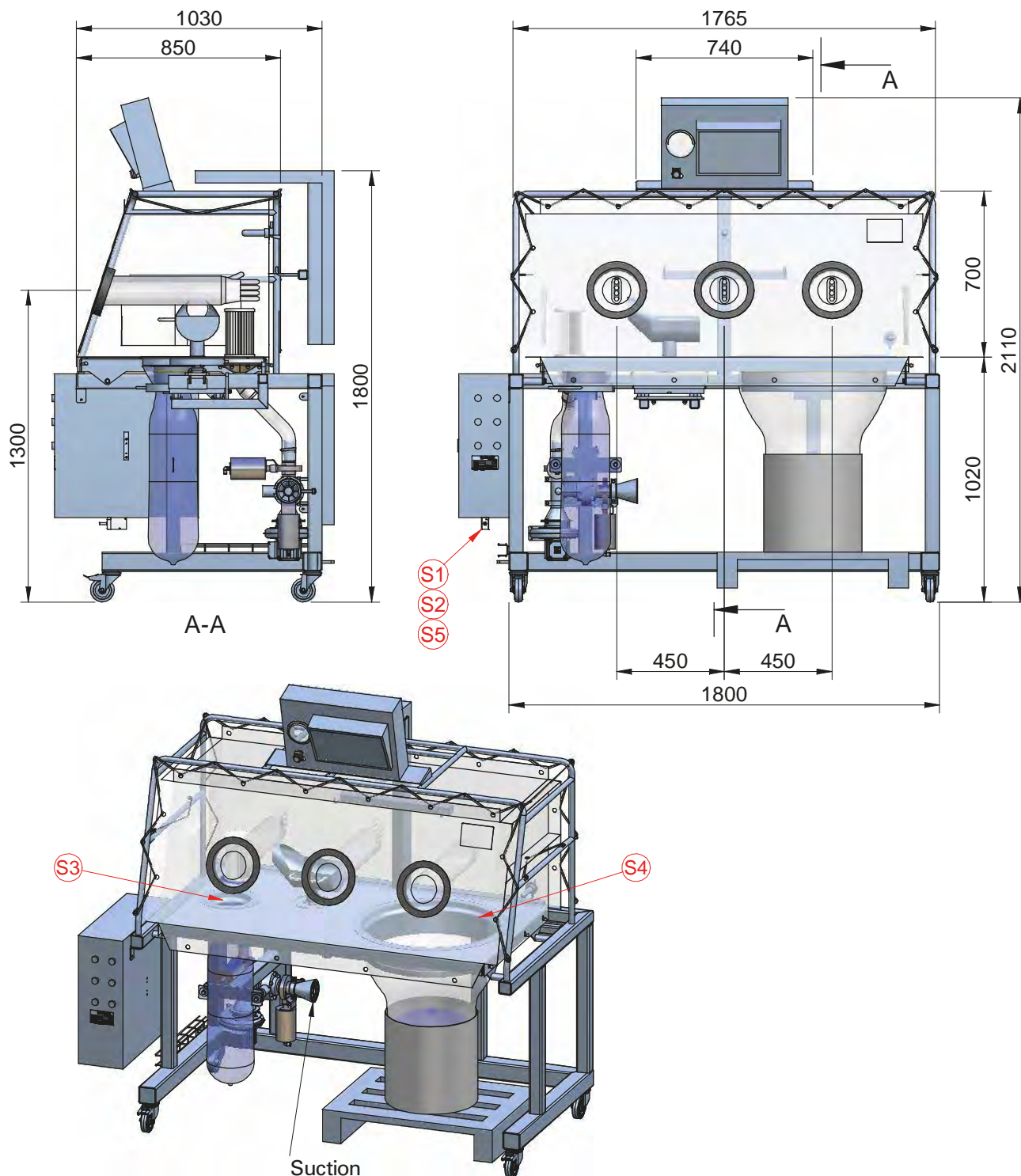
SINGLE-USE SAMPLING SYSTEM (EPS)



| | | | |
|--|---|--------------|-------|
| Container height | A | 300 - 700 mm | |
| Connecting dimension for secondary liner (outside liner) | B | Ø 400 | Ø 630 |
| Minimum tied length from outside liner | | 350 | 550 |



EXPANDABLE WEIGHING ISOLATOR



| S1 | S2 | S3 | S4 | S5 |
|----------------------|-----------------------------------|-------------------------------------|-------------------------------------|---------------------------------|
| Air supply G 1/2" | N ₂ - supply G 1/2" | Connecting ring Ø 165 min. Ø 185 | Connecting ring Ø 600 min. Ø 620 | Current supply 230 V / 50 Hz |