SINGLE USE SUPPORT.

PIONEERING BIOPHARMA

RoSS® Shell Accessories

Complementary tools
for easy handling.

RoSS® Accessories

RoSS HANDLE TOOLS
CLOSING RoSS WITH EASE.

Easy and quick closing and opening of the RoSS® shell with RoSS Handle Tools.

1

The stainless steel tool RoSS Handle facilitates opening and closure of the flaps. It is characterized by ergonomic handling, high work safety, universal usability. Speed up handling of the RoSS® shell, avoiding pinching of gloves and protecting the hand from over work.

See the instruction for use in our video on YouTube

2

The stainless steel tool RoSS Handle facilitates closure of the top lid. It helps you to push down the foam while closing the stainless steel lid on top of the RoSS® shell. Ensure easily to keep tubings and foam in place, avoiding pinching or damaging of these parts.

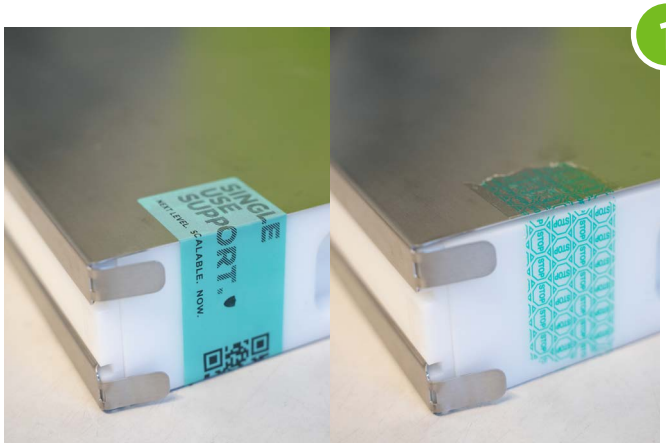
See the instruction for use in our video on YouTube

RoSS® Accessories

TAMPER-EVIDENT SEALS.

Tamper-evident seals are a tool to deter and detect unauthorized opening. They are intended to be used only once, and then destroyed. These seals are showing tampering or violating immediately, allowing the user to begin investigating any issues instantly.

There are several options to seal secure your product, selecting the right seal is depending on the device, operability, conditions, degree of information.



1

Tamper-evident seal: One adhesive sticker is used to seal the stainless-steel lids on top and bottom. Once the tamper-evident seal is removed „stop“ marks remain on the RoSS® shell.

2

Tied through lid: Either cable ties or galvanized steel wires are used to secure both lids with front panel.

3

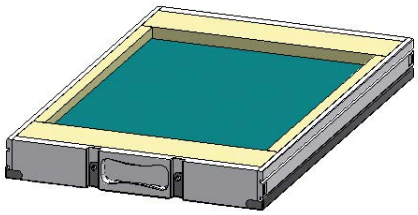
Tied through front panel eyelet: Lid flaps are secured using a cable tie or steel wire through the front panel.

RoSS® Accessories

PARTIAL FILL FOAM.

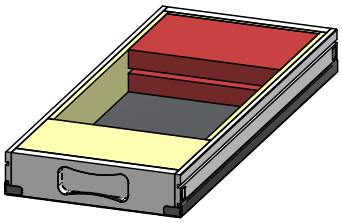
It‘s possible to freeze and store partially filled bags in RoSS® shells. The remaining volume is replaced by additional inlays. Depending on the volume and type of bag there are two different options available to compensate unused space in the shell for partially filled bags.

Partial Fill Foam - Single Layer is a single-component arrangement. The foam is positioned atop the partially filled bag, offering operators effortless manipulation and consistent freezing performance.



Instruction for use
on Youtube: Single-Layer

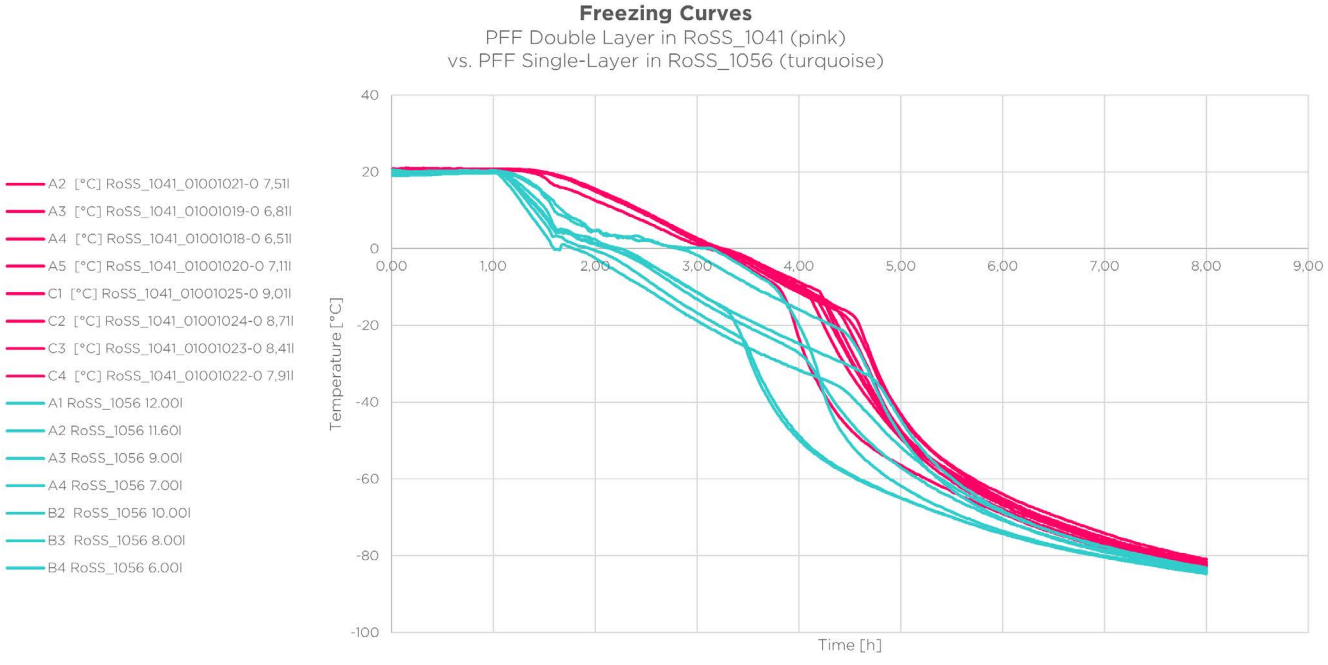
Partial Fill Foam - Double Layer consists of two components. One foam is placed below the partially filled bag while the other is placed above. These two foams work together to propel the liquid forward and upward. This creates contact with the stainless steel lid, ensuring optimum freezing performance.



Instruction for use
on Youtube: Double-Layer

Note: *The positioning of the foam must be precise to ensure contact of the bag to the top cover of the shell for optimal freeze performance.*

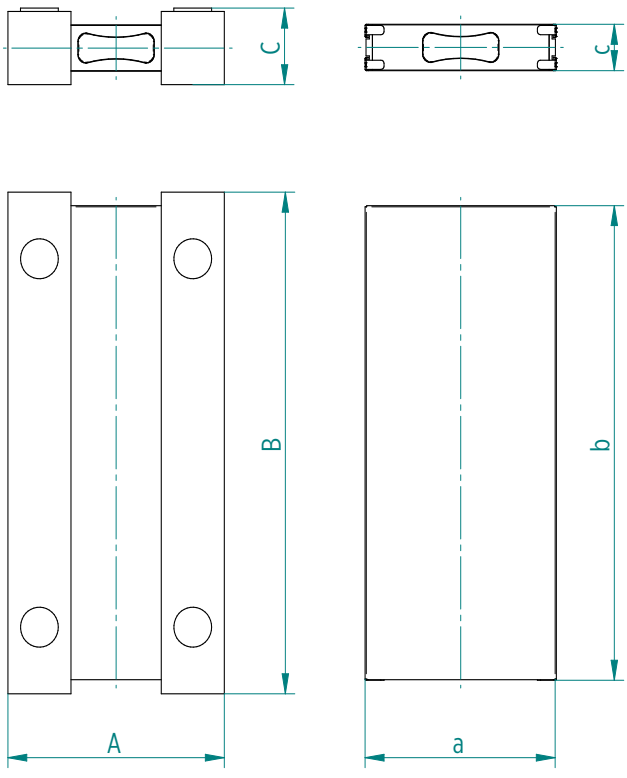
The following graph shows that both foams achieve similar freezing results when used correctly.

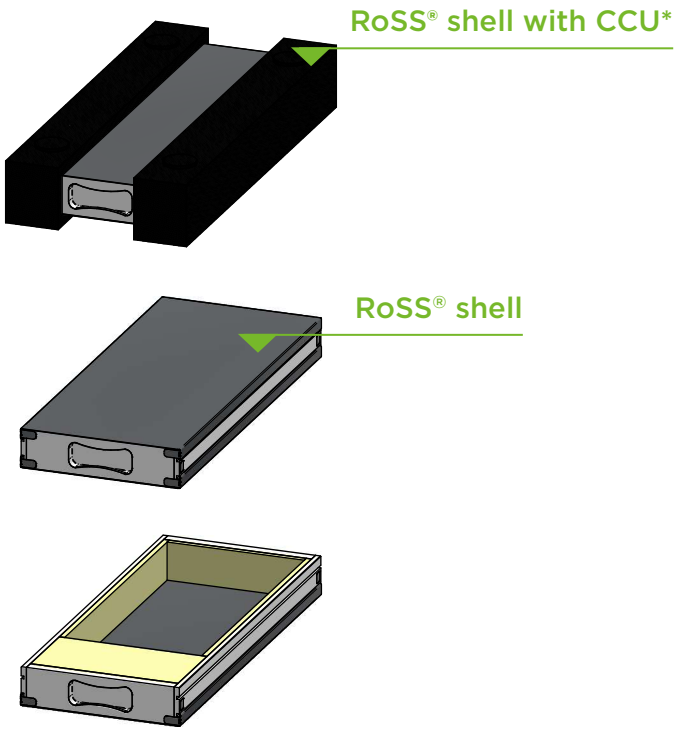


RoSS® Accessories

CRYO CONTROL UNITS (CCUs)

The RoSS® shells can be used in all kind of freezers. If used in blast- or static freezers can cause bulging or warping effects as the liquid in the bag expands during the freezing process. This effect can be significant when shells are placed vertically. This effect does not influence the product quality, yet stability of the shell might decrease. Hence the use of Cryo Control Units is advised to avoid this effect. They can simple put on the shell before freezing. So warping effects are minimized while ensuring homogenous freezing of your product in the bag protected by the RoSS® shell.

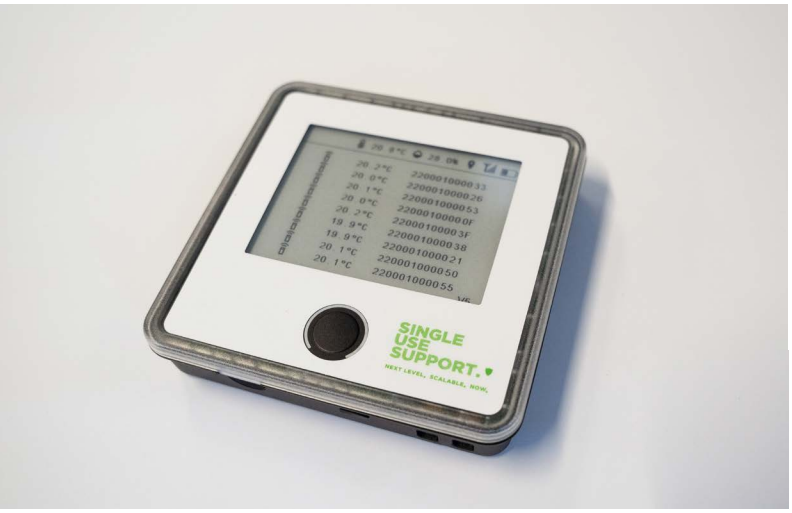




RoSS® Accessories

SINGLE USE SUPPORT DATALOGGER

- Smart Hub and Smart Gadget allow 24/7/365 real-time surveillance of your product.
- Measuring temperature, geo-position, g-force, air pressure, humidity
- Single- and multi-use data logger to feed in cloud-based storage of tracked data
- Certified with 21 CFR Part 11 tracking and calibrated to GDP guidelines



DATALOGGER WITH OR WITHOUT PROBE

Highly accurate (30.7°C) temperature logger (single-use oder multi-use) for frozen/dry ice transport measurement duration 168 days at intervals of 10 minutes. Measuring range from -95 to +50°C.

RoSS® Accessories

LABELS

We are offering all kinds of labels to tag your primary, secondary and tertiary packagings:

- E.g. cryogenic labels especially made for metal and plastic surfaces withstanding long-term storage in temperatures of -196 °C
- Laser or thermal-transer printable
- RFID labels and respective readers available

Ask us for more information: sales@susupport.com

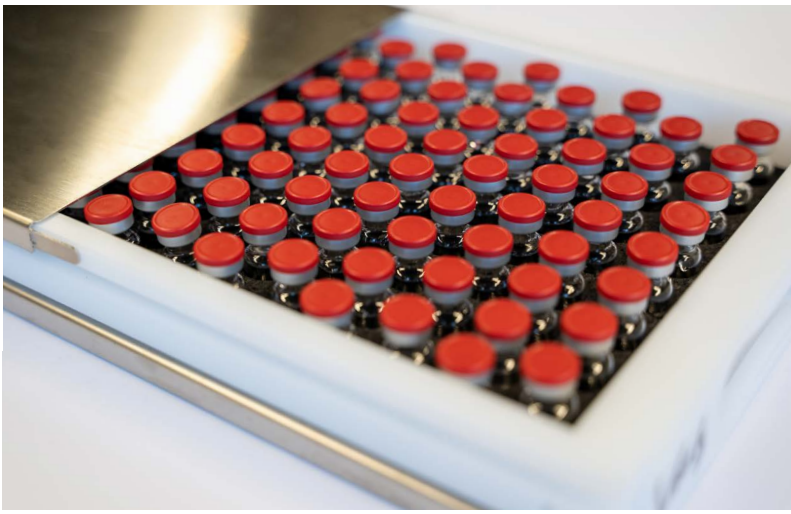
RoSS® Accessories

INLAY FOR VIALS.

Small, capped vials or tubes designed for storing liquid samples at ultra-low temperatures need special protection. Not only during freezing, but also for safe handling, storage and transportation. Protect and organize your important and valuable liquids for all kind of process steps (fill & finish, visual inspection, QC, transportation, freeze, thaw).

This box is designed to offer maximum robustness with a foam frame, covered by a stainless steel top and bottom lid for easy and repeated open and closure without stability loss or material fatigue. It can withstand temperatures of -196 °C to +50.

The size of the shell and number of wells suitable for vials used in your facility fully customizable!



RoSS® Accessories

TREATMENT OPTIONS FOR SAMPLE BAGS & VIALS.

Sample bags with volumes from 10mL to max. 200mL bags can be placed in RoSS® shells with either of the following options:

Connected sample bag: If the sample bag is connected to the single-use bag, it can be positioned on the foam tube within RoSS® shell satellite as illustrated below. The sample bag can be accessed either by sliding back the lid or via an additional access point located at the front of the shell.

Sample bag in RoSS.KSET: If there is one deconnected sample bag, it can be placed into RoSS.KSET.

Multiple sample bags in RoSS® shell: Deconnected sample bags can be placed as shown. Embedded in foams from both sides, multiple sample bags can be placed inside one RoSS® shell satellite.

Handling vials in the front panel:

RoSS® Accessories

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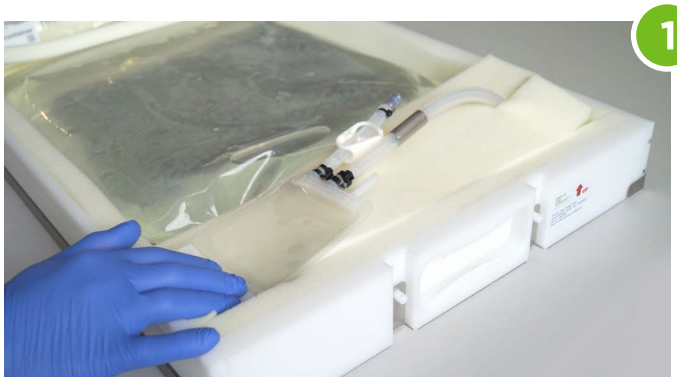


1

Connected sample bag: If the sample bag is connected to the single-use bag, the sample bag can be placed onto the tubing foam as shown in the picture. Both bags will be in one RoSS® shell satellite.

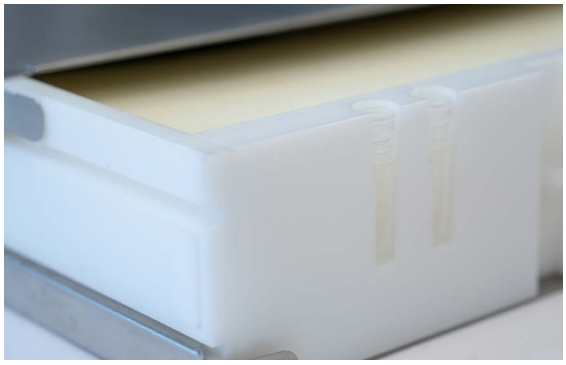
2

Sample bag in RoSS.KSET: If thereis one deconnected sample bag, it can be placed into RoSS.KSET.

3

Multiple sample bags in RoSS® shell: Deconnected sample bags can be placed as shown. Embedded in foams from both sides, multiple sample bags can be placed inside one RoSS® shell satellite.

Handling vials in the front panel:



RoSS® Accessories

TUBING GUIDE.

Single Use Support‘s Tubing Guide offers the ideal support when dealing with single-use manifold & tubing assemblies and ensures that they remain in a certain position.

Due to the variaty of tubing setups the allowed space inside RoSS® shells needs to be used more efficiently. The Tubing Guide offers the opportunity to bend tubings in small radius kink free.

- For any single-use bag and shell combination
- Available for different angels, diameters and lengths
- Made out of polyethylen
- Resistiant against H2O2 & Isopropanol

Single Use Support assists you from beginning to end, offering highly qualified support all along the way. Contact us for further details!