

DRILLING KITS FOR CONTAINERS

KIT-CFS-T-V, KIT-CFS-T-H,
KIT-CFS-PG-V, KIT-CFS-PG-H,
KIT-CFS-POUCH-V
& KIT-CFS-POUCH-H

NECESSARY TO INSERT THE SENSOR
OF THE CORE PROBE AT THE CORRECT
DEPTH OF THE REFERENCE SAMPLE

ACCESSORIES



Drilling kits for containers

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Drilling kits for containers

RECOMMENDATIONS AND WARNINGS

What is a drilling kit used for?

- A drilling kit is used to place the core probe at the correct depth within a reference sample. Our drilling kits are compatible with containers with metal lids, semi-rigid containers, pouches or bags. On the following pages you will find detailed information about each drilling kit we offer.

The importance of core probe placement

- An accurate placement of the core probe enables the capture of good temperature readings from the inside of the reference sample. The sensor of the core probe should always be placed at the coldest point of the reference sample. These temperature readings play a vital role in the correct processing of a load and for quantifying the achieved degree of sterility.
- In the case of products with solid consistency (pâtés, meats, mushrooms in oil), the core probe must be inserted right in the center of the product so that it is equidistant from the entire perimeter of the container. For liquid products (sauces, creams, juices, etc.) the core probe should also be inserted right in the center of the product, but about 1/3 of the way up from the bottom of the container. This difference is due to the fact that, in liquids, heat is transmitted by both conduction and convection.

Recommendations on the use of the core probe

- When loading or unloading baskets, extreme care must be taken to avoid hitting the core probe.
- Never thread the core probe to the reference sample, **whenever possible, the sample should be threaded to the core probe**. These probes are delicate and are susceptible to damage if they are hit or twisted excessively.
- Do not handle baskets with a reference sample threaded to the core probe
- Before starting a cycle, keep the core probe hanging out of the autoclave to avoid damaging it when inserting the baskets.
- Insert the core probe into the reference sample once the autoclave is fully loaded, not before.
- At the end of a cycle, remove the reference sample and unscrew the core probe from it. Next, proceed to remove the baskets, leaving the probe hanging out of the autoclave to avoid damaging it. Once the entire load has been removed, clean the core probe with a wet cloth and place it back inside the sterilization chamber, holding it with its corresponding clamp.

IMPORTANT RECOMMENDATIONS: The maintenance of the autoclave's core probe is essential for correct load processing. After each cycle, the core probe must be carefully cleaned from food particles and must be periodically calibrated by authorized personnel. If these probes are not calibrated periodically, it will negatively impact the quality of pasteurizations and sterilizations.

Drilling kit for metal lids

KIT-CFS-T-V & KIT-CFS-T-H

Included
as
standard



APPLICATION

+ IT IS USED TO PIERCE METAL LIDS AND PLACE THE FLEXIBLE CORE PROBE SENSOR AT THE DESIRED POSITION INSIDE THE CONTAINER USED AS A REFERENCE SAMPLE

Features

- Easy to use and ergonomic design.
- All TERRA Food-Tech® autoclaves include 1 set of this kit by default.
- Designed to be used on containers with metal lids such as glass jars or bottles.
- Includes spacers of different sizes to cover a wide variety of containers (2 units of each size).
- Specific kits for vertical autoclaves and benchtop autoclaves.
- In case of needing to replace any component included in this kit, it is possible to purchase it separately.

Compatible containers



Included components

General components:

- 1 drill bit Ø4,2 mm
- 5 electro-polished drill nuts
- 10 flat rubber gaskets Ø4 x Ø17,5 x 3 mm
- 5 OR-VITON O-rings Ø4 x 1,8 mm
- 5 OR-VITON O-rings Ø4 x 4 mm

Specific components in KIT-CFS-T-H:

Designed for benchtop autoclaves, this kit includes:

- 4 plastic threaded spacers, 2 units each, in the following lengths: 20 and 30 mm

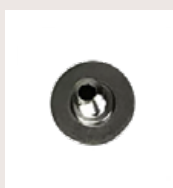
Specific components in KIT-CFS-T-V:

Designed for vertical models, this kit includes:

- 16 plastic threaded spacers, 2 units each, in the following lengths: 20, 30, 40, 50, 60, 70, 80 and 90 mm



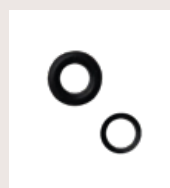
Drill bit



Drill nut



Flat rubber gasket



O-rings

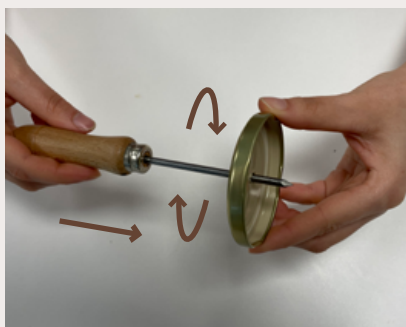


Plastic spacer

Drilling kit for metal lids

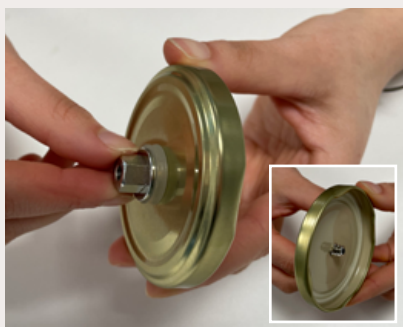
KIT-CFS-T-V & KIT-CFS-T-H

Drilling procedure

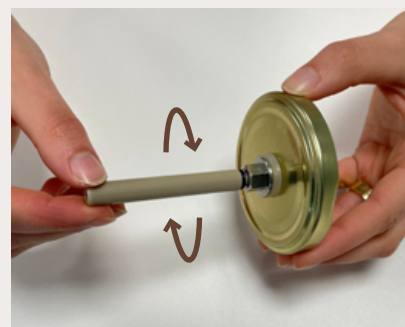


1. Use the drill bit to perforate the metal lid of the container.

WARNING: to avoid accidents, do not place your hand in front of the sharp metal tip of the drill bit.



2. Screw in a drill nut with a flat rubber gasket from the outside of the lid.



3. Place an O-ring between the plastic spacer and the drill nut, and then screw the plastic spacer onto the drill nut.

The kit includes spacers of different lengths, which allows adjusting the position of the probe in the center of the sample in a wide variety of containers.



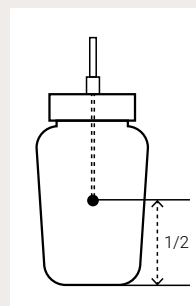
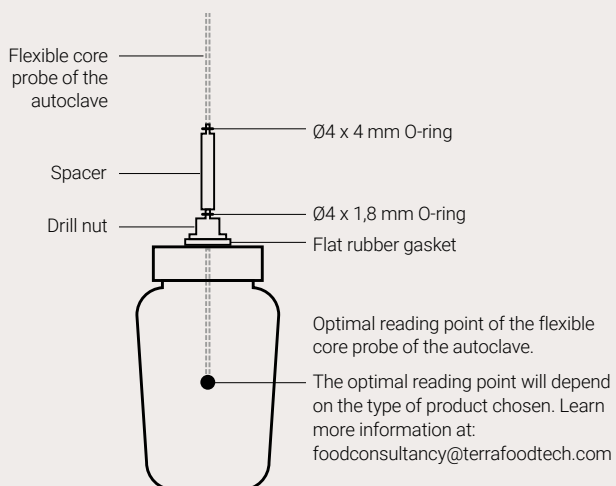
4. With the lid already drilled, close the sample container with the product inside it.



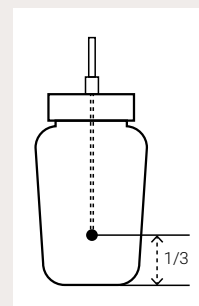
5. Place an O-ring after the plastic spacer, and finally **screw the sample container to the flexible core temperature probe*** of the autoclave.

***IMPORTANT:** To avoid twisting and breaking the flexible core probe of the autoclave, the sample container must always be screwed down.

Placement diagram on a container with metal lid



Correct position of the core probe in solid products



Correct position of the core probe in liquid products

Drilling kit for semi-rigid containers

KIT-CFS-PG-V & KIT-CFS-PG-H

Optional



APPLICATION

- + IT IS USED TO PERFORATE SEMI-RIGID PLASTIC CONTAINERS AND PLACE THE FLEXIBLE CORE PROBE SENSOR AT THE DESIRED POSITION INSIDE THE CONTAINER USED AS A REFERENCE SAMPLE

Features

- Easy to use and ergonomic design.
- Designed for use with semi-rigid containers such as plastic trays.
- Specific kits for vertical autoclaves and benchtop autoclaves.
- In case of needing to replace any component included of a drilling kit, it is possible to purchase it separately.

Compatible containers



Included components

General components:

- 1 drill bit Ø9 mm
- 4 stainless steel DIN934 M-8 nuts
- 4 beveled washers
- 8 OR-VITON O-rings Ø4 x 4 mm
- 8 OR-VITON O-rings Ø9 x 1,8 mm

Specific components in KIT-CFS-PG-H:

Designed for benchtop models with core probes 60 mm long, this kit includes:

- 2 electro-polished thermowells of 60 mm

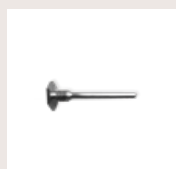
Specific components in KIT-CFS-PG-V:

Designed for vertical models with core probes 120 mm long, this kit includes:

- 2 spacers of 60 mm
- 4 electro-polished thermowells (2 of 60 mm and 2 of 120 mm)



120 mm thermowell



60 mm thermowell



Drill bit



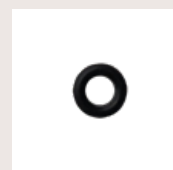
Beveled washer



DIN934 M-8 nut



Ø9 O-ring



Ø4 O-ring



Plastic spacer

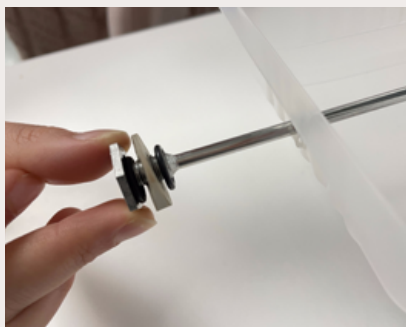
Drilling kit for semi-rigid containers

KIT-CFS-PG-V & KIT-CFS-PG-H

Drilling procedure



1. Use the drill bit to perforate the semi-rigid sample container.



2. Insert and screw the thermowell with a beveled washer and O-rings from the outside to the inside of the container.



3. Screw the nut on the thermowell inside the sample container.



4. Once the container has been drilled, seal the sample container with the product inside.

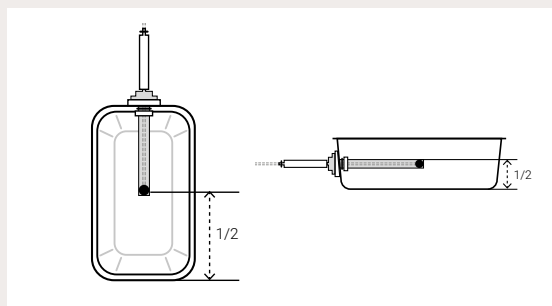
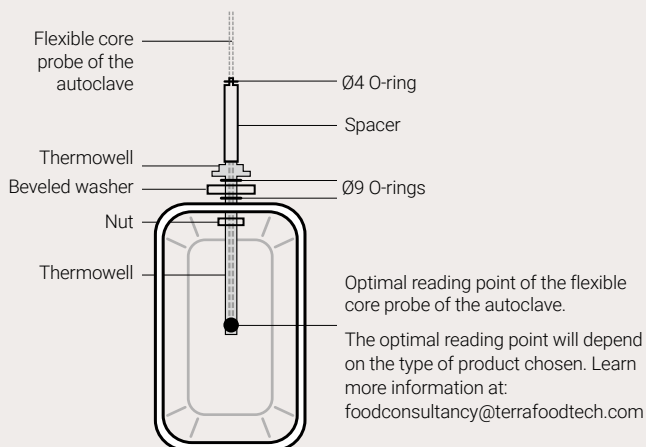


5. Finally, at the end of the thermowell* **screw the sample container to the flexible core probe**** of the autoclave.

*The plastic separator is only necessary when using the 60 mm thermowell.

****IMPORTANT:** To avoid twisting and breaking the flexible core probe of the autoclave, the sample container must always be screwed down.

Placement diagram on a semi-rigid container



Drilling kit for pouches

KIT-CFS-POUCH-V & KIT-CFS-POUCH-H

Optional



APPLICATION

+ IT IS USED TO PERFORATE FLEXIBLE CONTAINERS, SUCH AS POUCHES OR BAGS, AND PLACE THE FLEXIBLE CORE PROBE AT THE DESIRED POSITION INSIDE THE CONTAINER USED AS A REFERENCE SAMPLE

Features

- Easy to use and ergonomic design.
- Designed for use with flexible containers such as pouches or bags.
- Specific kits for vertical autoclaves and benchtop autoclaves.
- In case of needing to replace any component included of a drilling kit, it is possible to purchase it separately.

Compatible containers

The container should have a minimum width of 4-5 cm, and a minimum length and height of 15 cm.



Included components

General components:

- 1 plastic shovel
- 1 drill bit Ø5,5 mm
- 2 electro-polished thermowells of 30 mm
- 5 low nuts DIN439 M-8 A-2
- 5 OR-VITON O-rings Ø4 x 4 mm
- 5 OR-VITON O-rings Ø4 x 1,8 mm
- 5 OR-VITON O-rings Ø7 x 2 mm
- 10 silicone gaskets Ø6 x Ø19 x 1 mm

Specific components in KIT-CFS-POUCH-H:

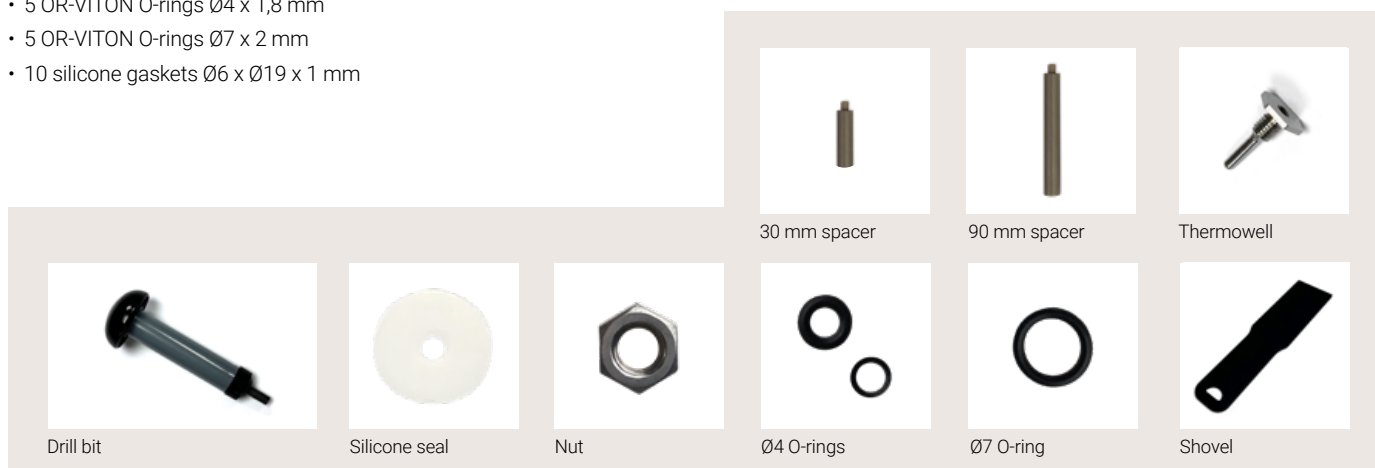
Designed for benchtop autoclaves, this kit includes:

- 2 spacers of 30 mm

Specific components in KIT-CFS-POUCH-V:

Designed for vertical models, this kit includes:

- 2 spacers of 90 mm



Drilling kit for pouches

KIT-CFS-POUCH-V & KIT-CFS-POUCH-H

Drilling procedure



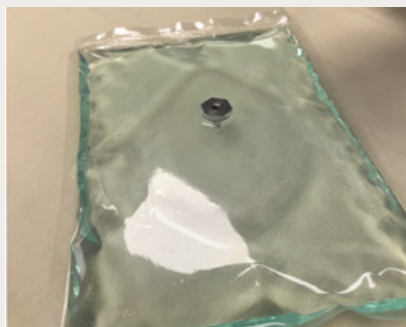
1. Insert the plastic shovel inside the bag to protect the other side of the container.



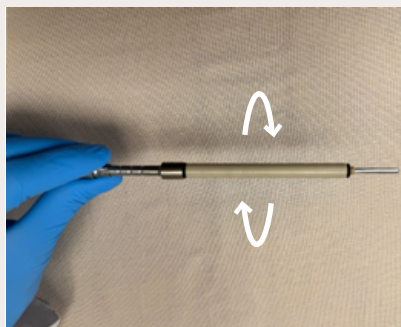
2. Apply pressure with the drill and turn it on the plastic shovel to perforate the bag on one side.



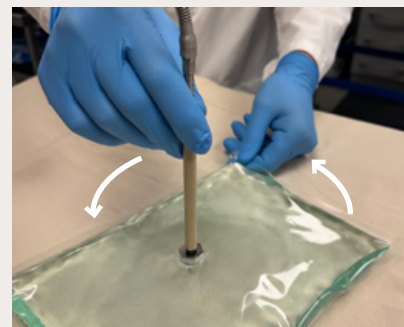
3. Insert the thermowell with the Ø7 mm O-ring into the hole, turning it to facilitate entry. Inside, place the silicone gasket and screw the nut.



4. Seal the sample bag with the product inside.

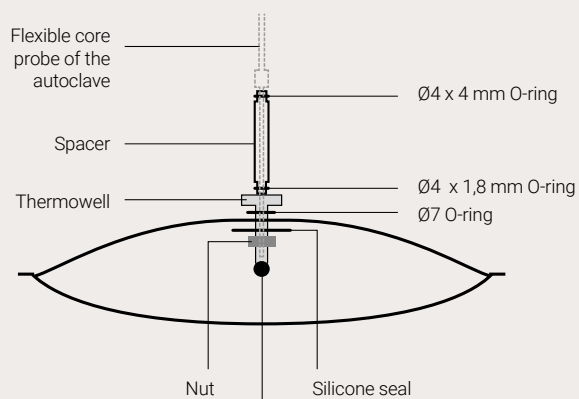


5. Prepare the probe: place the Ø4 x 4 mm O-ring, screw in the spacer and place another Ø4 x 1,8 mm O-ring.



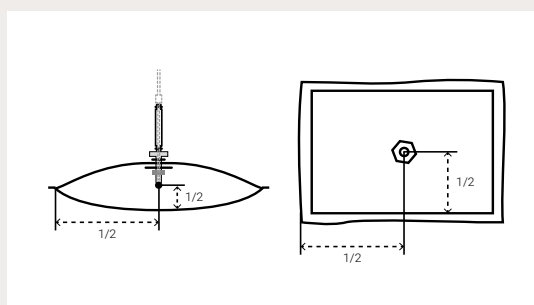
6. Screw the sample container to the thermowell. **IMPORTANT: Do not rotate the probe, rotate the bag.**

Placement diagram on a pouch



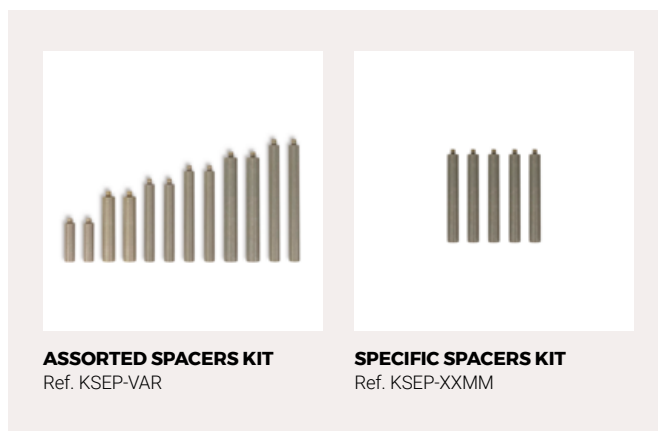
Optimal reading point of the flexible core probe of the autoclave.

The optimal reading point will depend on the type of product chosen. Learn more at: foodconsultancy@terrafoodtech.com






Consumable supplies

- **Assorted spacers kit.** It contains 16 plastic threaded spacers, 2 units of each of the following lengths: 20, 30, 40, 50, 60, 70, 80 and 90 mm. Reference: KSEP-VAR.
- **Specific spacers kit.** It contains 5 units of a single plastic threaded spacer length, from 20 to 90 mm. References: KSEP-20MM, KSEP-30MM, KSEP-40MM, KSEP-50MM, KSEP-60MM, KSEP-70MM, KSEP-80MM, KSEP-90MM.
- In case of needing to replace any component included of a drilling kit, it is possible to purchase it separately.



+ info



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Find out more information about our autoclaves on our Youtube Channel



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