



Drum Sampling Enclosure FAQs

High performance features:

- ▶ Clear film allows use of existing light from the process area
- ▶ Static dissipative film
- ▶ Reusable for repeated sampling
- ▶ Portable
- ▶ Small footprint utilizes small amount of floor space
- ▶ Enclosure is attached to drum wall allowing lid to be contained
- ▶ Stretch on enclosure interfaces with common size drums but can also be customized
- ▶ One person operation
- ▶ Crimp separation for containment and sample security

Benefits:

- ▶ Drum lid can be opened after drum is contained
- ▶ Can be used in any part of the facility
- ▶ No cross contamination transfer to other parts of the plant
- ▶ Ergonomics are maximized with flexible materials
- ▶ Low capital, depreciation and operating costs offers best cost of ownership
- ▶ Speed of implementation. It supports Production and Lab processes in any part of the plant
- ▶ Reduced cleaning and cleaning validation
- ▶ Drums can be moved freely without breaking containment
- ▶ Crimping with DoverPac® system confirmed as the best possible containment
- ▶ Tamper proof sampling achieved



At ILC Dover we are always “creating what’s next” by listening carefully to our customers. In some cases, we are continually improving our offerings using this same voice of the customer commitment.

The Drum Sampling Enclosure (DSE) is just such an example. ILC first starting supplying drum sampling enclosures internationally in 2002. Based on our patented flexible containment transfer technology, we have evolved those original designs to the DSE system that we offer today.



ILC DOVER
creating what's next»

Q:

A:

How is the flexible liner removed from the drum after use? Seems like containment would be lost once the tape is removed.

The containment level stated was for operation and leaving the enclosure on (original customer's operation). To remove the enclosure, the Twist/Tie/Tape/Cut (TTTC) method would need to be employed due to the film used for the body of the enclosure and the material thickness. While the TTTC method can be slightly variable in how tight the bundle is, the amount of powder that becomes airborne inside the enclosure will be very minimal. If the sampling is done with care, the enclosure and the TTTC area should have very little powder and so the containment level should still be excellent with expectations in the nanogram range.

Have you thought about a DoverLoc type of clamp to give you a positive seal without taping?

We looked at a flexible strap originally but were concerned that the enclosure might slip out from that type of attachment.

Does it work equally well with plastic and steel drums (you show a fiberpacks in the brochure).

This works as well with plastic or SS drums.

Specifically, what level of containment are you reaching (there is mention to nanogram ranges; what are they, <50 ng/m³, better, worse?). Do you have test data that would be available for review?

We have not tested this specific design in ILC's SMEPAC test facility. Our intent is qualification by similarity to other enclosures that we have tested (like the Drum Transfer Station) where our results ranged from non detects to under 500 nanograms. We do perform an inflation dwell test on this design as we do with all of our high containment systems.

Does the size of the drum matter (i.e. 30 gallon, 50 gallon, etc.)?

We currently have three standard sizes that cover a range of drums (15" to 17.5" (381mm – 445mm) diameter – Model FE8615S; 17" to 19.5" (432mm – 495mm) diameter – Model FE8615M; 19" to 21.5" (483mm – 546mm) diameter – Model FE8615L). Custom sizes can also be accommodated.

How is the drum lid supported inside of the liner? Seems like it would get in the way.

The lid is set up vertically on the side. Since this is not a long term application, we felt the trade off of leaving it set inside was more cost effective than supporting it with a stand. The good news is that you can remove the lid inside the enclosure rather than risking a potential exposure by removing the lid first.

Is the stand support adjustable regarding height?

The stand is three lengths of square SS stock that are connected by push pins. Sections can be removed for gross height adjustment.

Which film are you using for this system?

The body is AF113, a clear PE film that has been formulated to meet FDA and the new EU regulations but not tested to date. The sleeves are AF110.

For removal and disposal, I assume the HEPA filter allows the liner to collapse; where is the filter, how is it mounted to the liner, what size, etc.?

The HEPA filter is attached via a screw attachment to a fitting that is welded to the enclosure on the top panel. This is one of our standard 85L/m (3 cfm) HEPA filters.

What size crimps does the sampling sleeve use (red, yellow or blue)?

Yellow

