

## PressurEx enclosures

Simple Ex p solutions, certified & ready to go



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Meeting hazardous area requirements is difficult enough, so delivering a fully certified purged & pressurized enclosure shouldn't be complex, time-consuming, or involve unnecessary expense. A mix-and-match approach of buying the enclosure from one supplier, the purge system from another, and then using an external inspector to certify is about as complicated as it can get. That's why Expo Technologies has introduced PressurEx—a range of standard enclosures that simplify the whole process and make the path to certification as smooth and trouble-free as possible. For a fixed price, and in only 4 steps.

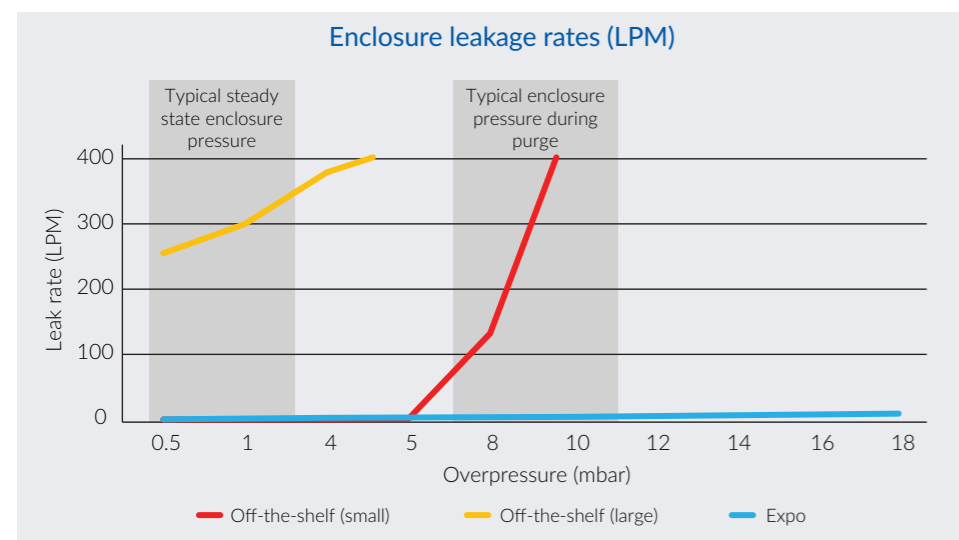
## The simplest process

- 1** Configure your enclosure. Tell us about your application. We've identified the most popular sizes of enclosures, matched them with the right purge system, and added a range of essential accessories. Use our online configurator or simply share your specifications with us and we will send you a quotation for the complete package, including certification.
- 2** We build and deliver the enclosure. Our purged enclosures are built to exacting standards, leak tested to 1.5x the maximum enclosure pressure, and undergo a 20-point inspection before despatch. They are component-certified, and ready for fit-out.
- 3** You fit out the enclosure & send us the final details. You will already have discussed the application with our Project Team and shared details of the equipment to be installed. Once the fit-out is complete, send us the final bill of materials, drawings, and photographs.
- 4** We review, inspect, and certify. Our Certification Team will carry out a final documentation review and inspect the enclosure (generally remotely). If all is in order, then Expo will issue the final certificate and labels.

## The highest performance enclosures

Most hazardous area enclosures are designed to keep the potentially explosive atmosphere outside from getting in, not to hold pressure, so they are likely to leak if used for purge and pressurization. This leakage will certainly waste compressed air over the life of the system and, if it's large enough, may prevent the purge process from happening altogether without costly and time-consuming modifications.

PressurEx enclosures are specifically designed for purge & pressurization and, combined with a right-sized purge & pressurization system, deliver superior performance under pressure, low running costs, and enhanced safety.



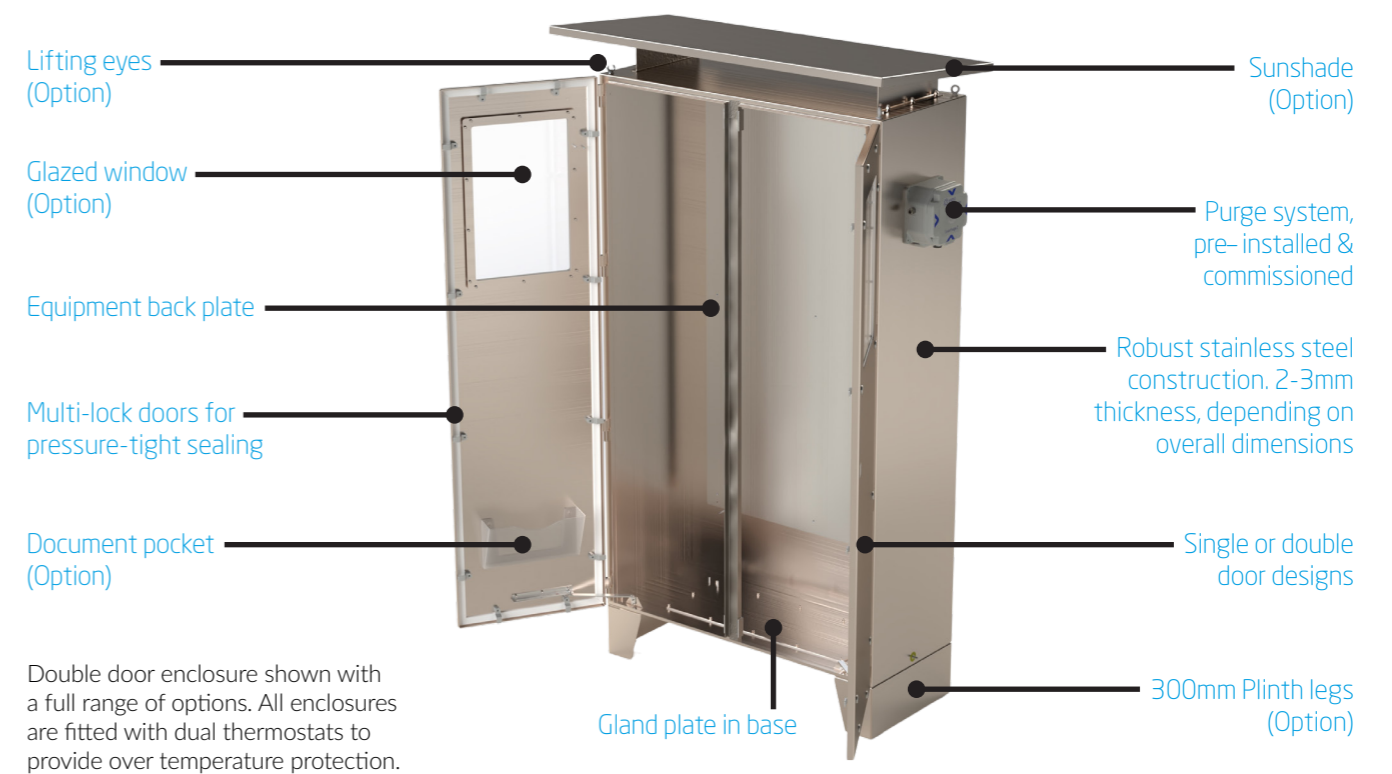
\* Average leak rates from the factory test records of 33 recent Expo enclosure projects

Expo measured the leakage rate of a range of off-the-shelf enclosures and compared them to the typical performance of our enclosures\*.

Smaller off-the-shelf enclosures displayed a lower leakage rate at lower pressures, but may give problems during a typical purge sequence at 8-10 mbar.

Larger off-the-shelf enclosures displayed high leakage rates even at lower pressures, indicating that they were not suitable for the application at all.

## The features and options you need



## Specifications

|                                  |   |
|----------------------------------|---|
| <b>Compliance</b>                | ATEX / IECEx certified; NFPA496 compliant   |
| <b>Material of construction</b>  | 316L stainless steel. Double grained finish. Thickness 2 -3 mm, depending on enclosure dimensions.            |
| <b>Ingress protection</b>        | Options: IP66 or UL50E 4X   |
| <b>Ambient temperature range</b> | -20°C to +55°C (-4°F to +131°F)   |
| <b>Door fasteners</b>            | Tool operated 1/2 turn stainless steel compression latches. Full perimeter coverage to ensure leak-tightness. |
| <b>Leak rate</b>                 | Factory acceptance criteria <2 l/min @ 0.5 mbar overpressure; <20 l/min @ 18 mbar overpressure.               |
| <b>Hinges</b>                    | 316L stainless steel, floating type to ensure full perimeter sealing.   |
| <b>Seals</b>                     | Door, window & gland plate seals: Silicone.   |
| <b>Equipment backplate</b>       | Corrosion resistant zinc coated steel.  |
| <b>Gland plate</b>               | Base mounted. Fully gasketed.   |
| <b>Enclosure mounting</b>        | Small enclosures: Wall-mount lugs; Larger enclosures: 300mm plinth legs. (Optional)                           |
| <b>Temperature sensors</b>       | 2 thermostats for over temperature alarm and/or to initiate power isolation.                                  |
| <b>Installed purge system</b>    | MiniPurge or SmartPurge, dependent on hazardous area requirements.  |
| <b>Options</b>                   | Sunshade; Glazed windows; Lifting eyes; Plinth legs; Document pocket.   |

# Expo have simplified hazardous area compliance with PressurEx enclosures



Low leakage enclosures to maximise safety & performance



Purge & pressurization systems installed & commissioned



Fast & cost-effective certification

## PressurEx standard enclosure dimensions & configurations

| Enclosure size | Height mm/in. | Width mm/in. | Depth mm/in. | Material thickness mm | Door Configuration      | Mounting          |
|----------------|---------------|--------------|--------------|-----------------------|-------------------------|-------------------|
| 1              | 600/23.5      | 600/23.5     | 400/15.75    | 2                     | Single door LH/RH hinge | Wall mount        |
| 2              | 800/31.5      | 600/23.5     | 400/15.75    | 2                     | Single door LH/RH hinge | Wall mount        |
| 3              | 800/31.5      | 800/31.5     | 400/15.75    | 2                     | Single door LH/RH hinge | Wall mount        |
| 4              | 1000/39.5     | 600/23.5     | 400/15.75    | 2.5                   | Single door LH/RH hinge | Wall mount        |
| 5              | 1000/39.5     | 600/23.5     | 500/19.75    | 2.5                   | Single door LH/RH hinge | Wall mount        |
| 6              | 1000/39.5     | 800/31.5     | 400/15.75    | 2.5                   | Single door LH/RH hinge | Wall mount        |
| 7              | 1000/39.5     | 800/31.5     | 500/19.75    | 2.5                   | Single door LH/RH hinge | Wall mount        |
| 8              | 1000/39.5     | 900/35.5     | 500/19.75    | 2.5                   | Single door LH/RH hinge | Wall mount        |
| 9              | 1300/51       | 600/23.5     | 500/19.75    | 2.5                   | Single door LH/RH hinge | Wall mount        |
| 10             | 1300/51       | 800/31.5     | 400/15.75    | 2.5                   | Single door LH/RH hinge | Wall mount        |
| 11             | 1300/51       | 800/31.5     | 500/19.75    | 2.5                   | Single door LH/RH hinge | Wall mount        |
| 12             | 1500/59       | 800/31.5     | 400/15.75    | 2.5                   | Single door LH/RH hinge | Wall mount        |
| 13             | 1500/59       | 800/31.5     | 500/19.75    | 2.5                   | Single door LH/RH hinge | Wall mount        |
| 14             | 1500/59       | 1000/39.5    | 400/15.75    | 2.5                   | Double door             | Plinth legs (opt) |
| 15             | 1800/71       | 1200/47      | 500/19.75    | 2.5                   | Double door             | Plinth legs (opt) |
| 16             | 2000/78.75    | 800/31.5     | 500/19.75    | 3                     | Single door LH/RH hinge | Plinth legs (opt) |
| 17             | 2000/78.75    | 800/31.5     | 800/31.5     | 3                     | Single door LH/RH hinge | Plinth legs (opt) |
| 18             | 2000/78.75    | 1000/39.5    | 400/15.75    | 3                     | Double door             | Plinth legs (opt) |
| 19             | 2000/78.75    | 1000/39.5    | 600/23.5     | 3                     | Double door             | Plinth legs (opt) |
| 20             | 2000/78.75    | 1200/47      | 500/19.75    | 3                     | Double door             | Plinth legs (opt) |

Expo operates in more than 50 countries worldwide. To find out more about how Expo can help you solve your hazardous area problems, get in touch via our website [www.expoworldwide.com](http://www.expoworldwide.com) or through your local channel partner.

You can speak to an applications engineer at one of our regional offices.

Expo Technologies UK  
Unit 2, The Summit, Hanworth Road,  
Sunbury on Thames, UK TW16 5DB  
T: +44 (0) 20 8398 8011  
E: [sales@expoworldwide.com](mailto:sales@expoworldwide.com)

Expo Technologies China  
617 Shilin Er Lu, Jimo District, Qingdao,  
Shandong Province, 266200 China  
T: +86 532 8906 9858  
E: [qingdao@expoworldwide.com](mailto:qingdao@expoworldwide.com)

Expo Technologies USA  
9140 Ravenna Road, Unit #3,  
Twinsburg, OH 44087, USA  
T: +1 (440) 247-5314  
E: [sales.na@expoworldwide.com](mailto:sales.na@expoworldwide.com)

Expo Technologies Germany  
Johannstraße 37, 3rd Floor  
40476 Düsseldorf  
T: +49 (0) 211 54085105  
E: [sales@expoworldwide.com](mailto:sales@expoworldwide.com)