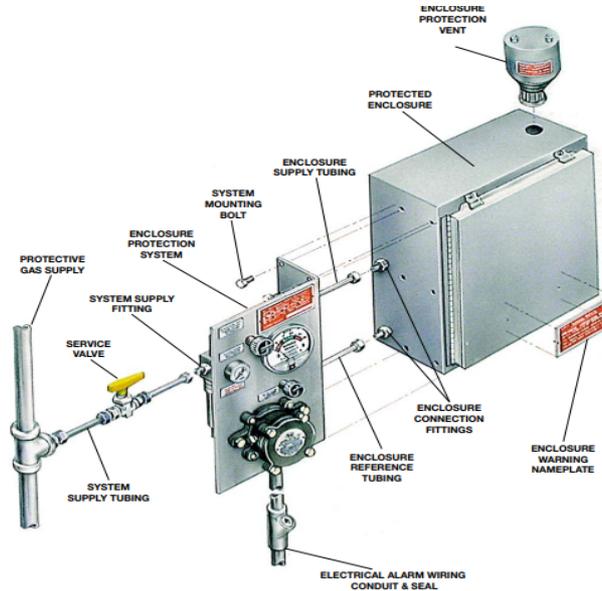




Vishwakarma Enterprises

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Purging and Pressurizing the Enclosure



Agency (NEC, CEC, ATEX or IECEx) approved components that offer these protection can be quite costly due to production techniques, required testing and certification procedures.

The alternative to using agency (NEC, CEC, ATEX or IECEx) certified components is to create a safe atmosphere for the operation of standard duty components within the hazardous material laden environment. This can be done by using an enclosure to house the non-hazardous rated components, and to protect that enclosure's internal space from the ignitable materials. This can be done with methods referred to as purging and pressurization.

Purge and pressurization systems provide protection for standard ordinary location electrical equipment within a standard enclosure designed to operate in a hazardous area. Compared to explosionproof or flameproof protection methods, **this protection concept is more cost-effective and prevents an explosion.**

Purge and Pressurization is a protection method used with Type 12, 4 and 4X enclosures. The enclosure is initially purged to remove any internal explosive gases or dust. Once this is accomplished, the enclosure is pressurized with a protective air or inert gas supply. This provides a positive internal enclosure pressure which keeps any external explosive gases or dust from entering the enclosure. The two methods of purge and pressurization offered are **Leak Compensation and Continuous Flow.**

Leak Compensation - maintains positive pressure by compensating for losses.

Continuous Flow - provides positive pressure via continuous protective air flow through the enclosure.

To put it in simple words, purge panels are a simple yet effective solution to use electrical and electronic devices in hazardous areas by maintaining a positive pressure inside the enclosure. This eliminates the presence of external gases in the enclosure and hence completely preventing sparks and explosion.

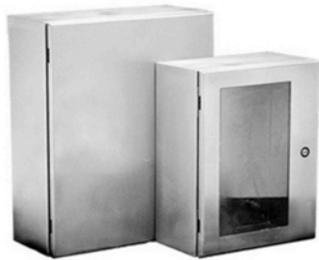
A purge and pressurization system supplies one or more enclosures with instrument quality air or inert gas to keep hazardous gasses out of the enclosure so installed equipment can be safely used.

Enclosure Features :-

- Available in SS304 & SS316L materials.
- Unibody construction of the enclosures.
- Low leakage enclosures, specifically designed for purge & pressurization.
- Superior performance under pressure, low running costs, and enhanced safety.
- Standard & Customised Enclosures engineered to order.
- Robust stainless steel construction: 2-3mm thickness, depending on dimensions / sizes of the enclosures.
- Minimum IP66 or Type 4X ingress protection.
- Customised enclosure project service for more challenging applications.
- Solutions for low T5/T6 and high T3/T4 temperature duty, internal source of release, high thermal loads.
- Full flexibility in enclosure configuration and dimensions to suit exact project requirements.
- Cooling products – Vortex Coolers & Panel Air-conditioners are also available in our product range for hazardous areas.



Purge Enclosures are designed for Protecting Electrical and Electronic Equipment in hazardous areas for various industrial applications.



TYPE 4X STAINLESS STEEL FREE-STAND ENCLOSURE



This HOFFMAN branded enclosure from nVent has been specially designed for housing systems with large components or complex mounting configurations – in harsh environments. Three-point latching and sealing provide industry-leading protection from dust, dirt, oil and water.

The enclosure is for housing motor starters, drives, contractors and PLCs, as well as a wide variety of other electrical and electronic equipment. It is used extensively in oil and gas, pulp and paper, chemical, food and beverage, pharmaceutical, textile and similar industries. The new design with double access is ideally suited for the mounting of physically large, heavy duty devices where tight sealing (IP rate) is important.

INDUSTRY STANDARDS

UL 508A Listed; Type 4, 4X, 12; File No. E61997

cUL Listed per CSA C22.2 No. 94; Type 4, 4X, 12; File No. E61997

IEC EN 60529, IP66;

IEC EN 62208;

NEMA Type 4, 4X, 12

STANDARD PRODUCT, SINGLE DOOR

Catalogue No.	Description	Material	A [mm]	B [mm]	C [mm]	"Body Thickness [mm]"	"Door Thickness [mm]"	No. of Mounting Plate(s) Included	Mounting Plate Thickness [mm]	No. of Gland Plate(s) Included	Gland Plate Size (mm)
FS150544SSK1	Single Access,304 Std Duty	SS 304	1500	500	400	2	2	1	2	1	226x146
FS180634SSK1	Single Access,304 Std Duty	SS 304	1800	600	300	2	2	1	2	1	226x146
FS180644SSK1	Single Access,304 Std Duty	SS 304	1800	600	400	2	2	1	2	1	226x146
FS180654SSK1	Single Access,304 Std Duty	SS 304	1800	600	500	2	2	1	2	1	226x146
FS180834SSK1	Single Access,304 Std Duty	SS 304	1800	800	300	2	2	1	2	1	526x146
FS180844SSK1	Single Access,304 Std Duty	SS 304	1800	800	400	2	2	1	2	1	526x146
FS180864SSK1	Single Access,304 Std Duty	SS 304	1800	800	600	2	2	1	2	1	526x196
FS200634SSK1	Single Access,304 Std Duty	SS 304	2000	600	300	2	2	1	3	1	326x146
FS200644SSK1	Single Access,304 Std Duty	SS 304	2000	600	400	2	2	1	3	1	326x146
FS200664SSK1	Single Access,304 Std Duty	SS 304	2000	600	600	2	2	1	3	1	326x196
FS200834SSK1	Single Access,304 Std Duty	SS 304	2000	800	300	2	2	1	3	1	526x146
FS200844SSK1	Single Access,304 Std Duty	SS 304	2000	800	400	2	2	1	3	1	526x146
FS200864SSK1	Single Access,304 Std Duty	SS 304	2000	800	600	2	2	1	3	1	526x196
FS200884SSK1	Single Access,304 Std Duty	SS 304	2000	800	800	2	2	1	3	1	526x196
FS150546SSK1	Single Access,316 Std Duty	SS 316	1500	500	400	2	2	1	2	1	226x146
FS180656SSK1	Single Access,316 Std Duty	SS 316	1800	600	500	2	2	1	2	1	326x146
FS180866SSK1	Single Access,316 Std Duty	SS 316	1800	800	600	2	2	1	2	1	526x196
FS200666DHHK2	Dual Access,316 Heavy Duty	SS 316	2000	600	600	2.5	2.5	2	3	2	326x196
FS200666SSK1	Single Access,316 Std Duty	SS 316	2000	600	600	2	2	1	3	1	326x196
FS200866DHHK2	Dual Access,316 Heavy Duty	SS 316	2000	800	600	2.5	2.5	2	3	2	526x196
FS200866SSK1	Single Access,316 Std Duty	SS 316	2000	800	600	2	2	1	3	1	526x196
FS200886DHHK2	Dual Access,316 Heavy Duty	SS 316	2000	800	800	2.5	2.5	2	3	2	526x196
FS200886SSK1	Single Access,316 Std Duty	SS 316	2000	800	800	2	2	1	3	1	526x196

STANDARD PRODUCT, TWO DOORS

Catalogue No.	Description	Material	A [mm]	B [mm]	C [mm]	"Body Thickness [mm]"	"Door Thickness [mm]"	No. of Mounting Plate(s) Included	Mounting Plate Thickness [mm]	No. of Gland Plate(s) Included	Gland Plate Size (mm)
FS201244SHK1	Single Access,304 Heavy Duty	SS 304	2000	1200	400	2.5	2.5	1	3	2	326x146
FS201264SHK1	Single Access,304 Heavy Duty	SS 304	2000	1200	600	2.5	2.5	1	3	2	326x196
FS201284SHK1	Single Access,304 Heavy Duty	SS 304	2000	1200	800	2.5	2.5	1	3	2	326x196
FS201246SHK1	Single Access,316 Heavy Duty	SS 316	2000	1200	400	2.5	2.5	1	3	2	326x146
FS201266SHK1	Single Access,316 Heavy Duty	SS 316	2000	1200	600	2.5	2.5	1	3	2	326x196
FS201286DHHK2	Dual Access,316 Heavy Duty	SS 316	2000	1200	800	2.5	2.5	2	3	4	326x196
FS201286SSK1	Single Access,316 Std Duty	SS 316	2000	1200	800	2	2	1	3	2	326x196