



Typical Purge Flow rate at 60 PSI Supply

Standard Systems	CF System** Continuous Flow	LC System Leakage Compensation	Purge time Typical Max Purge Times for XYZ Purge Systems	Relief Valve Pressure Relief / Purge Outlet Valve
Sub MiniPurge System	0.4 – 8.0 SCFM Continuous Flow Rate	8 SCFM High Purge Rate	30 minutes for 4 volume changes at 60 Cubic Feet	RLV25*
MiniPurge System	8.8 – 16.0 SCFM Continuous Flow Rate	16 SCFM High Purge Rate	30 minutes for 4 volume changes at 120 Cubic Feet	RLV36*
Super-MiniPurge System	17.7 – 32.0 SCFM Continuous Flow Rate	32 SCFM High Purge Rate	30 minutes for 4 volume changes at 240 Cubic Feet	RLV52*
Super-MiniPurge System 1800	For enclosures or rooms needing a high continuous flow, we recommend the use of an Expo Fan Purge System (Ask our Sales Office)	42 SCFM High Purge Rate	30 minutes for 4 volume changes at 320 Cubic Feet	RLV52*
Super-MiniPurge System 3500		88 SCFM High Purge Rate	30 minutes for 4 volume changes at 660 Cubic Feet	RLV75*
Super-MiniPurge System 7000		194 SCFM High Purge Rate	30 minutes for 4 volume changes at 1425 Cubic Feet	RLV104*
Continuous Flow Outlet Orifice & Spark Arrestor	Yes, choose the flow rate required.	Nor Required	Please consult factory office for higher purge rate	and times

* the RLV number is measured in mm so RLV25 is 25mm diameter hole.

Purge time is equal to the volume times 4 divided by the Purge Flow Rate
Example: a 4 cubic foot enclosure using a sub MiniPurge @ 8 SCFM;

$$\frac{\text{Volume} \times 4}{\text{Purge Flow Rate}} = \text{purge time}$$

$$\frac{4 \text{ Cubic Feet} \times 4 \text{ volume changes (NFPA 496)}}{8 \text{ SCFM Purge Flow Rate}} = \frac{4 \times 4}{8} = 2 \text{ minutes of purge time}$$

Example: a 60 cubic foot volume enclosure using a Sub MiniPurge @ 8 SCFM

$$\frac{60 \text{ Cubic Feet} \times 4 \text{ volume changes (NFPA 496)}}{8 \text{ SCFM Purge Flow Rate}} = \frac{60 \times 4}{8} = 30 \text{ minutes}$$

Example: a 60 cubic foot enclosure will purge using a MiniPurge System in 15 minutes. The difference is the cost of the system used.

** Continuous Flow systems can be a strain on an air supply or compressor, therefore Expo suggests the usage of CF systems to enclosure of 12 cubic feet or less, unless the air supply is not going to be compromised or strained.

Since a CF (Continuous Flow) system can use different orifice plates, the purge time is related to the flow rate of the Orifice plate picked.

Example: a 4 cubic foot enclosure using a Sub MiniPurge CF system with a 0.4 SCFM Orifice plate

$$\frac{3 \text{ Cubic Feet} \times 4 \text{ volume changes (NFPA 496)}}{0.4 \text{ SCFM Purge Flow Rate}} = \frac{3 \times 4}{0.4} = 30 \text{ minutes purge time}$$

$$\frac{3 \text{ Cubic Feet} \times 4 \text{ volume changes (NFPA 496)}}{2.3 \text{ SCFM purge Flow Rate}} = \frac{3 \times 4}{2.3} = 5 \text{ minutes purge time}$$