

Product Description

Model YZ103 is a Type Y or Z pressurization unit designed to protect electrical equipment in Class I Hazardous Areas. When connected to a supply of protective gas and utilized in conjunction with a Model PV-3 Spark Arresting Purge Vent, the Model YZ103 will supply, regulate and monitor the protective gas supply to a protected electrical enclosure and accomplish purging of the protected enclosure in an expedited manner. Type Z applications reduce the hazardous area rating inside the enclosure from Division 2 / Zone 2 to Unclassified. This allows general purpose equipment to operate in Division 2 / Zone 2 areas. Type Y applications reduce the hazardous area rating inside the enclosure from Division 1 / Zone 1 to Division 2 / Zone 2. This allows Division 2 / Zone 2 equipment to operate in Division 1 / Zone 1 Hazardous Areas.

Unit Operation

Prior to Start-Up: Ensure Protected Enclosure Power is OFF, Protective Gas Supply is ON, Filter Regulator is set to 60 PSI, and alarm system is activated (if utilized). Test Purge Vent for proper operation. **Start-Up:** Close and seal Protected Enclosure. Open Enclosure Pressure Control Valve until a "Safe" reading is shown on the Enclosure Pressure Gauge. Open Purge Control Valve and allow unit to purge protected enclosure for the required time marked on Unit Start Up Instructions or for 5 minutes, minimum and then close Purge Control Valve. Confirm protected enclosure "Safe" pressure is stable. Energize protected enclosure equipment. Loss of "Safe" pressure requires immediate attention. De-energized power if "Safe" pressure cannot be restored within a reasonable amount of time.

Product Specifications

| | |
|-------------------------------------|----------------------------------|
| Maximum Enclosure Volume: | 75 cubic feet |
| Universal Unit Weight: | 9.5 lbs. |
| Vertical & Horizontal Unit Weights: | 14.0 & 14.0 lbs. |
| Operating Temp. Range: | -20° F - 120° F |
| Protective Gas Supply: | * Air or Inert Gas |
| Unit Supply Pressure: | 80 - 125 psi maximum |
| Unit Supply Connection: | 3/8" tube fitting |
| Enclosure Supply: | 3/8" tube fitting |
| Enclosure Reference: | 1/4" tube fitting |
| Safe Enclosure Pressure: | 0.25" w.c. |
| Safe Pressure Flow Rate: | ** 0.1 - 3.5 SCFH per cubic foot |
| Purging Enclosure Pressure: | ** 5" - 8" w.c. |
| Purging Flow Rate: | 10 SCFM / 600 SCFH @ 60 psi |
| 4 Volume Purge Time: | 1 minute per 2.5 cubic foot |
| 5 Volume Purge Time: | 1 minute per 2.0 cubic foot |
| Switch Set Point on Decrease: | 0.15" w.c. ± 0.02" |
| Pressure Switch Conduit Port: | 1/2" FPT |
| Pressure Switch Contact Ratings: | See EPSK Bulletin |

- * Air must contain no more than trace amounts of flammable vapors.
- ** Enclosure integrity determines safe pressure flow rate and purging enclosure pressure.

Required Accessory

A Model PV-3 Spark Arresting Vent is required for proper operation of the purging cycle and to protect the enclosure from excessive pressure of the protective gas supply in accordance with the requirements of NFPA 496, EN 50016 and IEC 60079-02.

Best Purging Systems Corporation therefore requires the purchase of a Model PV-3 Spark Arresting Purge Vent with this unit for installation on the protected enclosure or the last enclosure of an enclosure array.



Model YZ103 Type Y & Z Purging & Pressurization Unit

Class I Applications
Up To 75 Cubic Feet

Technical Bulletin YZ103 TB-R0

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Universal Mount Unit
less Pressure Switch for
any side or panel mounting



Vertical Mount Unit
with Pressure Switch for
left or right side mounting



Horizontal Mount Unit
with Pressure Switch for
top or bottom side mounting

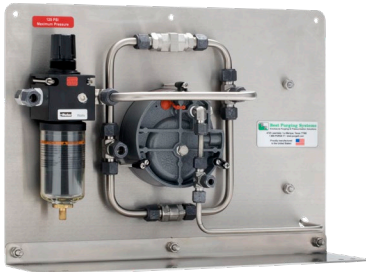


Best Purging Systems
Enclosure Purging & Pressurization Solutions

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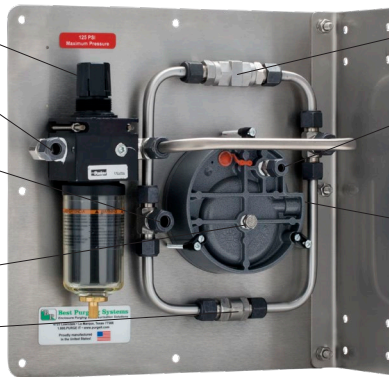
Phone: 1.844.PURGE IT • 1.844.787.4348
www.purgeit.com • sales@purgeit.com

Rear Views



Horizontal Mount Unit with Pressure Switch

Filter Regulator
Unit Supply Connection
Enclosure Supply Connection
Atmospheric Reference
Enclosure Pressure Control Valve



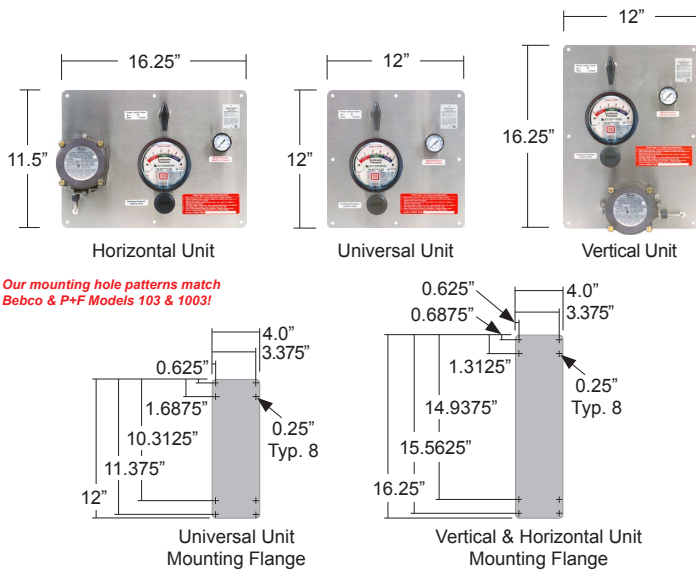
Universal Mount Unit less Pressure Switch

Purge Control Valve
Enclosure Pressure Reference Connection
Enclosure Pressure Gauge



Vertical Mount Unit with Pressure Switch

Unit & Mounting Flange Dimensions



Model Number Matrix

Typical Model Number:

YZ 103-CI-L-U-*

| | | |
|--|--|--|
| Unit Type | Y - Division 1 / Zone 1 to Division 2 / Zone 2 | Z - Division 2 / Zone 2 to Unclassified |
| Unit Series | 103 - Purging & Pressurization Unit | |
| Area Classification | CI - Class I | |
| Pressure Switch Option | L - Less Switch | W - Class I, Group C & D Switch B - Class I, Group A, B, C & D Switch |
| Mounting Configuration | U - Universal | V - Vertical H - Horizontal |
| Group B Switch Voltage (omit if not applicable) | 24 - 24 VDC | 120 - 120 VAC 240 - 240 VAC |

Please contact a Sales Associate for specifications and factory integration of Model PMGK Panel Mount Gasket Kits for Universal Mounting Configurations

Material Specifications

Mounting Plate, Flange & Atmospheric Reference: 304 Stainless Steel
Valve & Fitting Bodies, Ferrules & Unit Fasteners: 316 Stainless Steel
Tube Fitting Compression Nut Coating: Molybdenum Disulfide
Enclosure Pressure Gauge Lens: Acrylic w/ Neoprene O-Ring
Enclosure Pressure Gauge Body: Cast Aluminum w/ Epoxy Finish
Fastener Kit Sealing Screws: 316 Stainless Steel w/ Neoprene O-Ring
Fastener Kit Sealing Washers: 18-8 Stainless Steel w/ Neoprene Washer
Fastener Kit Locking Nuts: 316 Stainless Steel w/ Nylon Insert

Atmospheric Reference: 316 Stainless Steel Body & 304 SS Element
Indelible Unit Nameplates: 3M Lexan™ w/ 3M VSB™ Adhesive
Supply Regulator Head & Bowl: Acetal Polymer Plastic
Supply Regulator Body: Zinc w BUNA N Elastomers
Supply Pressure Gauge: Painted Steel Case, Plastic Lens, Brass Body
Pressure Switch Body: Cast Aluminum w/ Epoxy Finish
Pressure Switch Bolts & Contacts: Zinc Plated Steel & Mica Silver
Enclosure Pressure Gauge & Switch Diaphragms: Fluorosilicone

Unit & Protected Enclosure Accessory Hyperlinks



Model PV Spark Arresting Pressure Vents

Prevents excessive enclosure pressure upon unit regulator failure



Model BCK Unit & Bulkhead Connection Kits

Connects the unit and multiple protected enclosures of an array



Model RAB & RAH Remote Alarm Beacons & Horns

Signals loss of protected enclosure safe pressure



Model EPSK Enclosure Pressure Switch Kits

Complements universal mount units to activate audible or visual alarms



Model EPWN & ETWN Pressure & Temperature Warning Nameplates

Provides NFPA required markings for protected enclosure doors and covers



Model PMGK Panel Mount Gasket Kits

Converts universal mount units for panel mounting in protected enclosures

One (1) Model EPWN Enclosure Warning Nameplate and One (1) Unit Flange or Panel Mount Fastener Kit furnished with all Units. All specifications subject to change without notice. Warranty & Liability policies available upon request.