

Introduction

Enardo™ 850 pressure vacuum relief valves are designed with features to exceed the performance of standard valves on the market. Standard features include:

- The only dual guided (top and bottom) pallet for smoother valve stroke, less flutter and valve wear.
- Polyphenylene Sulfide (PPS), advanced composite thermoplastic material for seat and pallet providing superior resistance to corrosion, chemical attack, liquid and vapor adhesion, temperature extremes (-50 to 500° F) and sticking due to valve seat freeze.
- Fully field replaceable pallet and seat assemblies without need for special tools or complex procedures which eliminates the need to send out for rebuilding or total valve replacement. (Can be maintained by in house maintenance personnel).
- Optional Remote Monitoring provides open/closed position information that can be viewed from a control room, to facilitate troubleshooting and immediate problem identification.

The Enardo 850 pipe-away design maintains a tight seal until system pressure or vacuum exceed the set pressure of the valve. When overpressure occurs the weighted pallet lifts, breaking the seal between the seat and pallet, allowing vapors to pass through the valve orifice and relieving the pressure or vacuum buildup. The valve reseals upon relief and remains sealed.

Available Vent Sizes

2 to 12 in. / 50 to 300 mm

Valve Setting Range

Pressure

0.5 to 32.0 oz./sq. in.
(0.5 oz./sq. in. increments)
1.0 to 55.0 in. w.c.
(0.5 in. w.c. increments)
2.2 to 138.0 mbar
(2.2 mbar increments)
25 to 1406 mm w.c.
(13 mm w.c. increments)

Vacuum

0.5 to 32.0 oz./sq. in.
(0.5 oz./sq. in. increments)
1.0 to 55.0 in. w.c.
(0.5 in. w.c. increments)
2.2 to 138.0 mbar
(2.2 mbar increments)
25 to 1406 mm w.c.
(13 mm w.c. increments)

Construction Materials

Housing

Aluminum
Ductile Iron
Stainless Steel
Carbon Steel

Seat/Pallet

Polyphenylene Sulfide (PPS)
316 Stainless steel

Pallet Seal

FEP
Nitrile (NBR)
Fluorocarbon (FKM)

Hardware

Zinc-plated carbon steel
Stainless steel

Weight

Zinc-plated carbon steel
Stainless Steel
Lead

Body Gasketing

Nitrile (NBR)
FEP
Fluorocarbon (FKM)

Additional Technical Data

For more technical information, contact your local Sales Office or log on to:

www.enardo.com

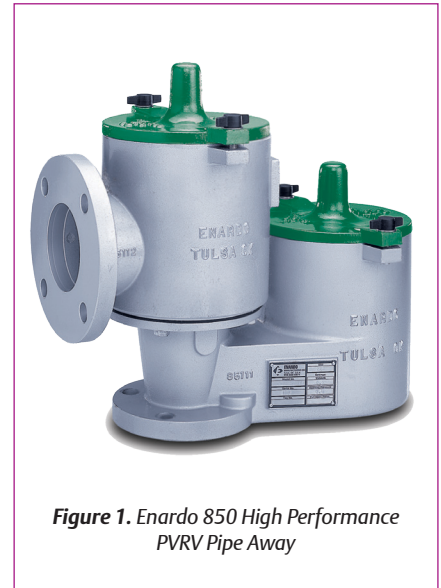


Figure 1. Enardo 850 High Performance PVRV Pipe Away

Features

- **Advanced composite thermoplastic Polyphenylene Sulfide (PPS) materials for seat and pallet provide superior resistance to corrosion, chemical attack, liquid and vapor adhesion, temperature extremes (-50 to 500° F) and sticking due to valve seat freeze**
- **Enardo Saber® Guide valve system provides for smooth valve stroke during operation and reduces valve wear**
- **Exceeds the most stringent standards for allowable leakage (1 SCFH @ 90% setpoint per valve) and provides excellent setpoint accuracy (+/-3%)**
- **Fully field replaceable pallet and seat assemblies**
- **Available in ANSI, DIN and JIS flanges**
- **EN 13463-1 and EN 13463-5 Certified**
- **Optional Remote Monitoring**

Enardo 850

High Performance PVRV Pipe Away

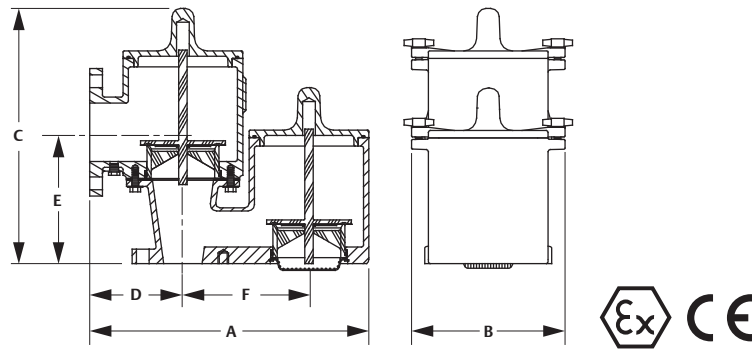


Figure 2. Enardo™ 850 Dimensions

Table 2. Enardo 850 Dimensions and Weights

| INLET CONNECTION | | OUTLET CONNECTION | | A (OVERALL LENGTH) | | B (OVERALL WIDTH) | | C (OVERALL HEIGHT) | | D (CL INLET) | | E (CL I/O) | | F (CL I/V) | | WEIGHT (ALUMINUM) ⁽¹⁾ | | WEIGHT (DUCTILE IRON) ⁽¹⁾ | | WEIGHT (STAINLESS STEEL) ⁽¹⁾ | |
|------------------|-----|-------------------|-----|--------------------|------|-------------------|-----|--------------------|------|--------------|-----|------------|-----|------------|-----|----------------------------------|----|--------------------------------------|-----|---|-----|
| In. | mm | In. | mm | In. | mm | In. | mm | In. | mm | In. | mm | In. | mm | In. | mm | Lb | kg | Lb | kg | Lb | kg |
| 2 | 50 | 3 | 80 | 16-1/2 | 419 | 9-1/8 | 232 | 15 | 381 | 5-1/2 | 140 | 7-1/2 | 191 | 7-7/16 | 189 | 29 | 13 | 74 | 34 | 80 | 36 |
| 3 | 80 | 3 | 80 | 16-1/2 | 419 | 9-1/8 | 232 | 15-1/2 | 394 | 5-1/2 | 140 | 8 | 203 | 7-7/16 | 189 | 31 | 14 | 79 | 36 | 85 | 39 |
| 3 | 80 | 4 | 100 | 16-1/2 | 419 | 9-1/8 | 232 | 15-1/2 | 394 | 5-11/16 | 144 | 8 | 203 | 7-7/16 | 189 | 33 | 15 | 83 | 38 | 90 | 41 |
| 4 | 100 | 6 | 150 | 22-1/8 | 562 | 11 | 279 | 19-1/2 | 495 | 6-21/32 | 169 | 9-1/2 | 241 | 9-13/16 | 249 | 57 | 26 | 133 | 60 | 144 | 65 |
| 6 | 150 | 6 | 150 | 22-3/8 | 568 | 11 | 279 | 21-3/4 | 552 | 6-1/4 | 159 | 11-7/8 | 302 | 10 | 254 | 62 | 28 | 144 | 65 | 155 | 70 |
| 6 | 150 | 8 | 200 | 24-3/8 | 619 | 13-3/4 | 349 | 21-3/4 | 552 | 8-5/8 | 219 | 13 | 330 | 10 | 254 | 70 | 32 | 165 | 75 | 178 | 81 |
| 8 | 200 | 10 | 250 | 35-3/4 | 908 | 16-1/8 | 410 | 27-3/4 | 705 | 10-1/2 | 267 | 13-1/2 | 343 | 17-1/8 | 435 | 161 | 73 | 446 | 202 | 485 | 220 |
| 10 | 250 | 10 | 250 | 35-3/4 | 908 | 16-1/8 | 410 | 29-1/4 | 743 | 10-1/2 | 267 | 15-1/4 | 387 | 17-1/8 | 435 | 166 | 75 | 466 | 211 | 503 | 228 |
| 10 | 250 | 12 | 300 | 37-1/4 | 946 | 16-1/8 | 410 | 29-1/4 | 743 | 12 | 305 | 15-1/4 | 387 | 17-1/8 | 435 | 172 | 78 | 486 | 220 | 525 | 238 |
| 12 | 300 | 12 | 300 | 38-13/16 | 986 | 20-3/4 | 527 | 37-7/16 | 951 | 12 | 305 | 23-11/16 | 602 | 19-1/16 | 484 | 175 | 79 | 495 | 225 | 532 | 241 |
| 12 | 300 | 14 | 350 | 45-7/16 | 1154 | 24 | 610 | 39-5/8 | 1006 | 16 | 406 | 27-5/16 | 694 | 19-1/16 | 484 | 208 | 94 | 579 | 263 | 622 | 282 |

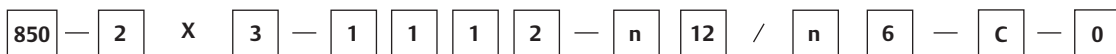
1. Unit weights indicate Net Weight of valve in pounds at standard set pressure (0.5 oz./sq. in. pressure - 0.5 oz./sq. in. vacuum), does not include shipping crate or box. Add 20% for gross shipping weight (Domestic Only).

Key to Enardo 850 Model Number

| Model | Inlet Size | Outlet Size | Housing Material | Pallet and Seat Material | Pallet Seal Material | Body/Seat/Lid Seal Material |
|-------|-------------|-------------|--|---|--|---|
| 850 | 2 to 12 in. | 3 to 14 in. | 1 = Aluminum 2 = Ductile Iron 4 = 316SST 5 = Carbon Steel | 1 = PPS Polyphenylene Sulfide 2 = 316SST | 1 = FEP 2 = Nitrile (NBR) 3 = Fluorocarbon (FKM) | 1 = PTFE Body and FEP Seat/Lid 2 = Nitrile (NBR) 3 = Fluorocarbon (FKM) |

| Pressure Units | Pressure Setting | Vacuum Units | Vacuum Setting | Weight Material | Options |
|---|--|---|--|----------------------------------|--|
| z = oz./sq.in. n = in. w.c. mm = mm w.c. mb = mbar | 0.5 to 32.0 oz./sq.in. 0.86 to 55.0 in. w.c. 22 to 1406 mm w.c. 2.2 to 138 mbar | z = oz./sq.in. n = in. w.c. mm = mm w.c. mb = mbar | 0.5 to 32.0 oz./sq.in. 0.86 to 55.0 in. w.c. 22 to 1406 mm w.c. 2.2 to 138 mbar | C = CS ZP S = SST L = Lead | 0 = No Options F = Flat Face Flange (standard for Aluminum) R = Raised Face Flange (standard for CS, DI, SS) X = Epoxy Coating W1 = Wireless Pressure and Vacuum Monitoring W2 = Wireless Pressure Monitoring Only W3 = Wireless Vacuum Monitoring Only W4 = Wired Pressure and Vacuum Monitoring W5 = Wired Pressure Monitoring Only W6 = Wired Vacuum Monitoring Only |

Example:



Indicates a Pipe-Away pressure vacuum relief valve with 2 in. inlet by 3 in. outlet, ANSI 150 lb. raised face flange pattern connections, Aluminum housing, PPS Polyphenylene Sulfide pallet, FEP pallet seal and Nitrile (NBR) lid seal. Pressure setting is 12 in. w.c. and vacuum setting is 6 in. w.c. Carbon steel weight material and no additional option.