

D104114X016

### 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)  
2.0 to 138.0 mbar  
(2.2 mbar increments)  
5.0 to 1375 mm w.c.  
(1.0 mm w.c. increment)

#### 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)  
2.0 to 138.0 mbar  
(2.2 mbar increments)  
5.0 to 1375 mm w.c.  
(1.0 mm w.c. increment)

### Construction Materials

#### Housing

Aluminum  
Ductile Iron  
Stainless Steel  
Carbon Steel

#### Seat/Pallet

Polyphenylene Sulfide (PPS)  
316 Stainless steel

#### Pallet Seal

FEP Teflon®  
Buna-N  
Viton®

#### Hardware

Zinc-plated carbon steel  
Stainless steel

#### Weight

Zinc-plated carbon steel  
Stainless Steel  
Lead

#### Gasket

Buna-N  
Teflon®  
Viton®

### Additional Technical Data

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

[www.enardo.com](http://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**

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# Enardo 850

High Performance PVRV Pipe Away

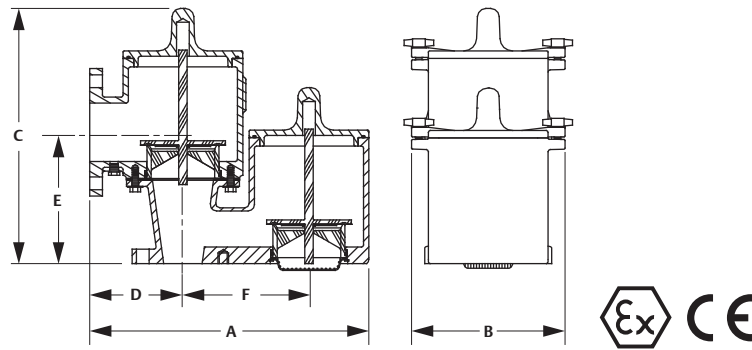


Figure 2. Enardo™ 850 Dimensions

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) <sup>(1)</sup>		WEIGHT (DUCTILE IRON) <sup>(1)</sup>		WEIGHT (STAINLESS STEEL) <sup>(1)</sup>	
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

ENARDO 850 —    X    —             /    —         

<p><b>Inlet Connection Size</b> 2 to 12 in.</p>	<p><b>Outlet Connection Size</b> 3 to 14 in.</p>	<p><b>Housing Material</b> 1 = Aluminum 2 = Ductile Iron (up to 10 x 12 in.) 4 = Stainless steel 5 = Carbon steel</p>	<p><b>Pallet and Seat Ring Material</b> 1 = Advanced Composite Polyphenylene Sulfide (PPS) 2 = 316 Stainless steel 3 = Other</p>	<p><b>Pallet Seal Material</b> 1 = FEP Teflon® 2 = Buna-N 3 = Viton® 4 = Other</p>	<p><b>Pressure Settings</b> 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) 2.0 to 138.0 mbar (2.2 mbar increments) 5.0 to 1375 mm w.c. (1.0 mm w.c. increment)</p>	<p><b>Vacuum Settings</b></p>	<p><b>Options</b> O = No Options A = Special Coating B = Stainless steel Weights C = Optional Weight Material D = Optional Hardware E = Optional Gasket Material G = Steam Jacket or Trace J = Other WP = Smart Wireless Pressure Monitoring WV = Smart Wireless Vacuum Monitoring WPV = Smart Wireless Pressure and Vacuum Monitoring</p>
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### Example:

ENARDO 850 — 2 X 3 — 5 2 1 n 12 / 6 — A B   

Indicates a Pipe-Away pressure vacuum relief valve with 2 in. inlet by 3 in. outlet, ANSI 150 lb. raised face flange pattern connections, carbon steel housing, stainless steel pallet and seat ring and FEP Teflon® pallet seal. Pressure setting is 12 in. w.c. and vacuum setting is 6 in. w.c. Options include special external epoxy coating of valve and stainless steel weights for relief settings.

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