

# Enardo 851

## High Performance Top Mount Pressure or Side Mount Vacuum Relief Valve

### Introduction

Enardo™ 851 top mount pressure relief valves or side mount vacuum relief valves are advanced design for pipe-away applications. Utilizing the latest technologies, this relief valve provides protection against positive overpressure, prevents air intake, evaporative loss of product and helps contain odorous and potentially hazardous vapors.

Part of high performance line of pressure vacuum relief valves, the Enardo 851 was designed with features to exceed the performance of standard valves on the market. Unmatched features include Enardo Saber® Guide valve system and advanced composite Polyphenylene Sulfide (PPS) seat and trim for superior performance. 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).
- Also available in spring-loaded design (Enardo 861).

### 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](http://www.enardo.com)



Figure 1. Enardo 851 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.**

# Enardo 851

## High Performance Top Mount Pressure or Side Mount Vacuum Relief Valve

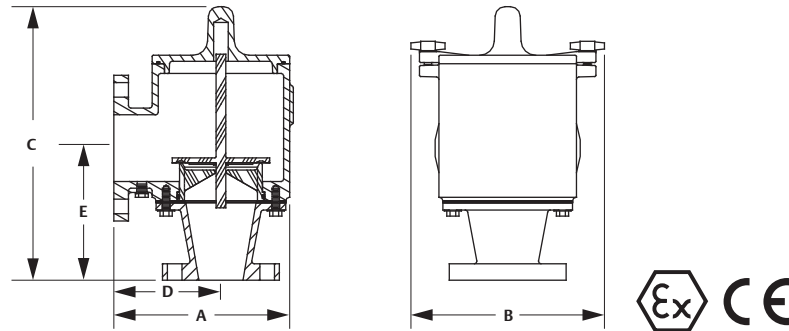


Figure 2. Enardo™ 851 Dimensions

Table 2. Enardo 851 Dimensions and Weights

INLET CONNECTION		OUTLET CONNECTION		A (OVERALL LENGTH)		B (OVERALL WIDTH)		C (OVERALL HEIGHT)		D (CL INLET)		E (CL I/O)		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	Lbs	kg	Lbs	kg	Lbs	kg
2	50	3	80	9	229	9-1/8	232	15-3/8	391	5-1/2	140	7-7/8	200	17	8	52	24	55	25
3	80	3	80	9	229	9-1/8	232	15-3/8	391	5-1/2	140	8-1/16	205	19	9	57	26	60	27
3	80	4	100	9-1/4	235	9-1/8	232	15-3/8	391	5-11/16	144	8-1/16	205	20	9	64	29	67	30
4	100	6	150	11-3/8	289	11	279	20-1/4	514	6-11/16	170	10-7/16	265	32	15	96	44	100	45
6	150	6	150	11-3/8	289	11	279	20-1/4	514	6-11/16	170	10-7/16	265	37	17	107	49	111	50
6	150	8	200	13-1/4	337	13-3/4	349	20-1/4	514	8-5/8	219	11-5/8	295	44	20	116	53	124	56
8	200	10	250	18-5/8	473	16-1/8	410	29-5/8	752	10-1/2	267	15-5/8	397	101	46	262	119	279	127
10	250	10	250	18-5/8	473	16-1/8	410	29-5/8	752	10-1/2	267	15-11/16	398	104	47	271	123	289	131
10	250	12	300	20-18	511	19	483	29-5/8	752	12	305	15-11/16	398	116	53	308	140	322	146
12	300	12	300	20-1/8	511	20-3/4	527	30-3/16	767	12-1/16	306	16-7/16	418	125	57	323	147	345	156
12	300	14	360	26	660	24	610	32-7/16	824	16	406	20-3/16	513	133	60	347	157	369	167

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

### Key to Enardo 851 Model Number

<b>Model</b> 851	-	<b>Inlet Size</b> 2 to 12 in.	x	<b>Outlet Size</b> 3 to 14 in.	-	<b>Housing Material</b> 1 = Aluminum 2 = Ductile Iron 4 = 316SST 5 = Carbon Steel	-	<b>Pallet and Seat Material</b> 1 = PPS Polyphenylene Sulfide 2 = 316SST	-	<b>Pallet Seal Material</b> 1 = FEP 2 = Nitrile (NBR) 3 = Fluorocarbon (FKM)
<b>Body/Seat/Lid Seal Material</b> 1 = FEP 2 = Nitrile (NBR) 3 = Fluorocarbon (FKM)	-	<b>Pressure Units</b> z = oz./sq.in. n = in. w.c. mm = mm w.c. mb = mbar	-	<b>Pressure Setting</b> 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	-	<b>Weight Material</b> C = CS ZP S = SST L = Lead	-	<b>Options</b> 0 = No Options F = Flat Face Flange (standard for Aluminum) R = Raised Face Flange (standard for CS, DI, SS) X = Epoxy Coating		

### Example:

851 — 2 X 3 — 1 1 1 2 — n 12 — C — 0

Indicates a Pipe-Away pressure vacuum relief valve with 2 in. inlet by 3 in. outlet, ANSI 150 lb. flat 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. Carbon steel weight material and no additional option.