

High Performance Top Mount Pressure or Side Mount Vacuum Relief Valve, Model 851

The Model 851 Top Mount Pressure Relief Valve or Side Mount Vacuum Relief Valve is an advanced design for pipe away applications. Utilizing the latest technologies, this relief valve provides protection against positive over pressure, prevents air intake, evaporative loss of product and helps contain odorous and potentially hazardous vapors.

Part of Enardo's high performance line of pressure vacuum relief valves, the model 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 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° F to 500° F) and sticking due to valve seat freeze.

Features and Benefits

- Advanced composite thermoplastic (PPS) materials for seat and trim provide superior resistance to corrosion, chemical attack, liquid and vapor adhesion, temperature extremes (-50° F to 500° F) and sticking due to valve seat freeze.
- Patented Saber Guide (U.S. Patent No. 591330) valve system provides for smooth valve stroke during operation and reduces valve wear.



- 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 (Model 861).

- Exceeds the most stringent standards for allowable leakage (1 scfh @ 90% set point per valve) and provides excellent set point accuracy (+/-3%).
- Fully field replaceable pallet and seat assemblies.
- Available in ANSI, DIN and JIS flanges.
- EN 13463-1: 2001, EN 13463-5: 2003 Certified.

Valve Setting Range

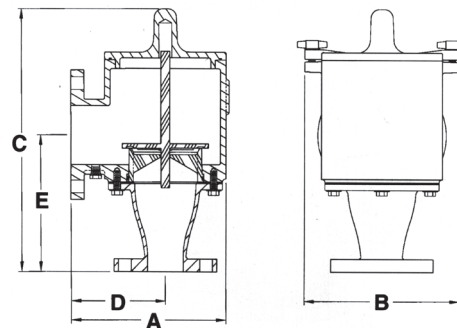
Model Numbers	Sizes Available	Pressure or Vacuum
Model 851	2" (50 mm) through 12" (300 mm)	0.5 to 32.0 oz/sq. in. (0.5 oz Increments) 1.0 to 55.0 inH ₂ O (0.5 in. Increments) 2.0 to 138.0 mbar (2.2 mbar Increments)

Materials of Construction

Housing	Seat / Pallet	Pallet Seal	Hardware	Weights	Gaskets
Aluminum Ductile Iron Stainless Steel Carbon Steel	PPS 316 Stainless Steel	FEP Teflon Buna-N Viton	Zinc Plated C.S. Stainless Steel	Zinc Plated C.S. Stainless Steel Lead Resin Coated S.S.	Buna-N Teflon Viton



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Model 851 Dimensions and Weights

Model	Inlet Conn. In. (mm)	Outlet Conn. In. (mm)	A Overall Length In. (mm)	B Overall Width In. (mm)	C Overall Height In. (mm)	D CL Inlet In. (mm)	E CL I/O In. (mm)	Aluminum Unit Lb. (kg)	Ductile Iron Unit Lb. (kg)	Stainless Steel Unit Lb. (kg)
851	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)
851	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)
851	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)
851	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)
851	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)
851	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)
851	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)
851	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)
851	10 (250)	12 (300)	20-1/8 (511)	19 (483)	29-5/8 (752)	12 (305)	15-11/16 (398)	116 (53)	308 (140)	322 (146)
851	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)
851	12 (300)	14 (360)	26 (660)	24 (610)	32-7/16 (824)	16 (406)	20-3/16 (513)	133 (60)	347 (157)	369 (167)

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 Pressure/Vacuum Relief Valve Model Number

851 — X — — —

Inlet Connection Size (2" thru 12")	Outlet Connection Size (3" thru 14")	Housing Material 1. Aluminum 2. Ductile Iron (up to 12" x 12") 4. Stainless Steel 5. Carbon Steel	Pallet & Seat Ring Material 1. Advanced Composite (PPS) 2. 316 Stainless Steel 3. Other	Pallet Seal Material 1. FEP Teflon 2. Buna-N 3. Viton 4. Other	Pressure or Vacuum Settings z - oz/sq.in. n - inH ₂ O 0.5 oz/sq.in. to 32.0 oz/sq.in. (0.5 oz/sq.in. increments) 1.0 inH ₂ O to 55.0 inH ₂ O (0.5 inH ₂ O increments)	Options O. No Options A. Special Coating B. S.S. Weights C. Optional Weight Material D. Optional Hardware E. Optional Gasket Material F. Opt. FRP Resins G. Steam Jacket or Trace H. Other
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Example:

851 — X — — —

Indicates a Pipe-Away pressure vacuum relief valve with 2" inlet by 3" 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 10 inH₂O. Options include special external epoxy coating of valve and stainless steel weights for relief settings.

