

Model 3100

Pressure / Vacuum Vent – End-of-Line

OBJECTIVE

The Model 3100 end-of-line conservation breather vent is designed for use on atmospheric and low-pressure storage tanks where pressure and vacuum relief is required.

TECHNIQUE

Weight loaded pallets in the vent housing allow the intake of air and the escape of vapors as the tank breathes due to thermal changes and product movement in and out of the tank. The pallets open and close to permit in breathing and out breathing necessary to maintain the tank pressure within permissible limits to avoid damage to the tank.

CONSTRUCTION

Housing Material: Available in Aluminum, Carbon Steel, 316 Stainless Steel or Corrosion Resistance Fiberglass.

Trim Material: 316 SST - Standard on all metal vents.
Fiberglass - Standard on all FRP vents.

Pallet Diaphragm Material: FEP Teflon - Standard. Other materials available on request.

SPECIAL FEATURES

Modular: The Model 3100 end-of-line conservation breather vent is part of the Valve Concepts, Inc. modular vent product line. The Model 3100 can easily be field converted to a vacuum only vent, a pressure/vacuum vent with pipe away and can either be direct acting or pilot operated. Only Valve Concepts offer complete modularity throughout its complete vent product line.

Easy Maintenance. The Model 3100 vent is a rugged design and made to last.

Maintains Accurate Settings. The minimum setting available is ½ oz/in² for both pressure and vacuum. For all sizes the maximum pressure setting is 3 psig and 1 psig vacuum setting. If higher settings are required see Valve Concepts Series 4000 Spring Loaded Vents or Valve Concepts Series 5000 Pilot Operated Vents. All vents are tested to Valve Concepts, Inc. high standards for both leakage and set point prior to shipment. A certified test certificate is included with each vent verifying the accuracy of both the pressure and vacuum setting and leakage. A leakage rate of less than 1 SCFH at 90% of set point is verified for both pressure and vacuum.

Condensate Drainage. Self-draining housing body and drip rings keep condensate away from seating surfaces, preventing freezing, binding and clogging.

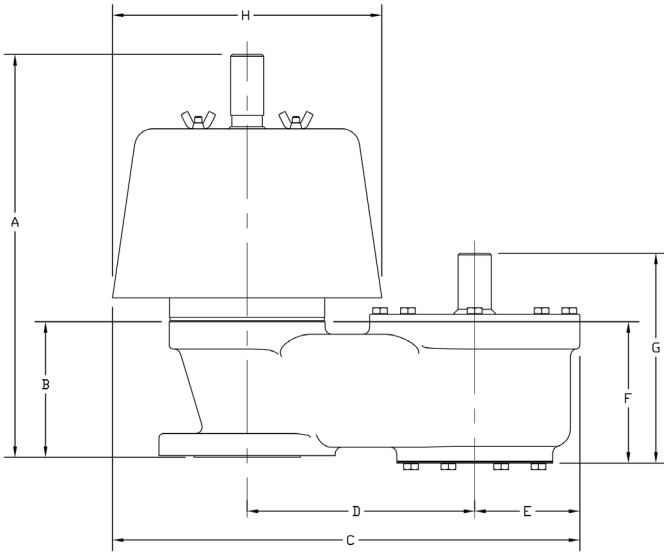
Air-Cushioned Seating. Air-cushion seating provides tight sealing to reduce evaporation losses and the release of toxic vapors. The pallets have outer guiding and center stabilizing stem to provide self alignment and tight seating.

Numerous Sizes Available. All CS and SST vents sizes 2-inch thru 12-inch mate with standard ANSI flange connections. All Aluminum and FRP vents mate with 125# flat face flange.

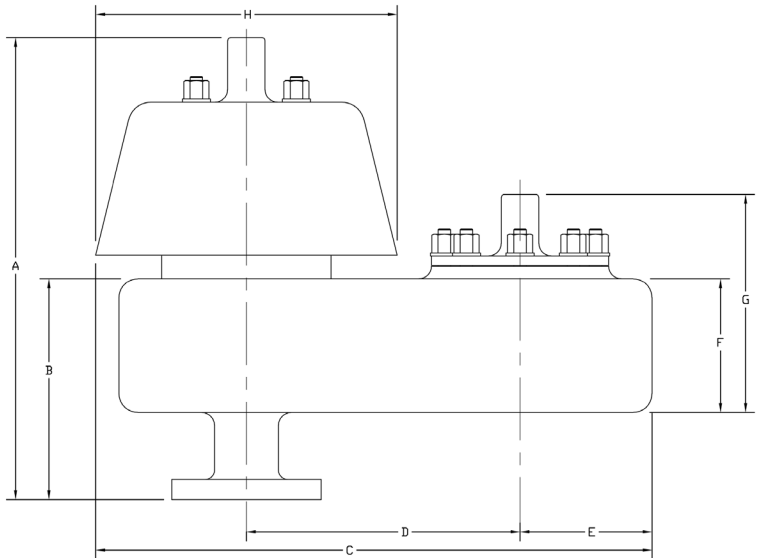
TABLE 1

MATERIALS OF CONSTRUCTION			
Series	Housing	Pallets *	Seats
3100CS	CS	316 SST	Teflon®
3100SST	316 SST	316 SST	Teflon®
3100D	Derakane® 470	Derakane® 470	Teflon®
3100E	Derakane® 411	Derakane® 411	Teflon®
3100F	Furan	Furan	Teflon®
3100ALUM	Aluminum	316 SST	Teflon®

SPECIFICATIONS



Standard Construction for Carbon Steel & Stainless Steel Housing & Pallets



Standard Construction for Corrosion Resistant Fiberglass Housing & Pallets

DIMENSIONS – Standard Construction for Carbon Steel & Stainless Steel Housing & Pallets								
SIZE	A	B	C	D	E	F	G	H
2"	13.72"	4.62"	15.92"	7.75"	3.58"	4.82"	7.15"	9.17"
3"	16.68"	5.72"	17.12"	8.31"	4.00"	5.76"	8.39"	9.62"
4"	19.48"	6.65"	22.88"	11.00"	5.38"	6.65"	10.05"	13.00"
6"	21.21"	7.23"	28.00"	12.81"	7.19"	7.10"	11.42"	16.00"
8"	21.67"	8.45"	32.25"	15.25"	7.50"	8.20"	13.22"	19.00"
10"	26.94"	9.40"	39.25"	18.25"	9.00"	8.84"	14.60"	24.00"
12"	28.27"	9.84"	41.56"	19.50"	9.31"	9.28"	15.50"	25.50"
DIMENSIONS – Standard Construction for Corrosion Resistant Fiberglass Housing & Pallets								
SIZE	A	B	C	D	E	F	G	H
2"	18.56"	8.87"	22.37"	11.00"	5.31"	5.37"	8.76"	12.12"
3"	18.56"	8.87"	22.37"	11.00"	5.31"	5.37"	8.76"	12.12"
4"	22.52"	10.25"	30.37"	15.03"	7.12"	6.75"	10.90"	16.43"
6"	24.51"	10.25"	30.65"	15.03"	7.12"	6.75"	11.56"	17.00"
8"	29.76"	12.72"	41.91"	20.75"	9.50"	8.22"	13.88"	23.32"
10"	30.50"	12.72"	42.13"	20.75"	9.50"	8.22"	14.56"	23.75"
12"	31.47"	13.41"	46.44"	23.00"	10.00"	8.64"	15.45"	26.88"

3100 Series PRODUCT CODE

04/24/06

310

0

Table 1

Table 2

A

TABLE 1 SIZE	
Size	CODE
2"	2
3"	3
4"	4
6"	6
8"	8
10"	A
12"	B

TABLE 2 - BODY/STUDS & NUTS MATERIALS		
Material	W/O Flamescreen	W/ Flamescreen
	CODE	CODE
CS/SST	C	D
SST/SST	S	T
Derakane 470/SST	F	
Derakane 470/Hastelloy	H	
Derakane 411/SST	K	
Derakane 411/Hastelloy	L	
Furan/SST	G	
Furan/Hastelloy	J	
ALUM./SST	A	B

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