

94050

Pressure Conservation Vent (PVC)

The Shand & Jurs® Model 94050 PVC Conservation Vent provides pressure and vacuum relief for atmospheric storage tanks operating in highly corrosive chemical service where metallic vents are prone to pitting, coating failure, and premature replacement.

Available in pressure-only, vacuum-only, or combined pressure/vacuum configurations, the 94050 aligns with specific tank protection requirements in aggressive vapor environments, including acids, toxic liquids, and wastewater applications.

Constructed entirely of polyvinyl chloride (PVC), the vent opens and reseats during normal thermal breathing cycles to control emissions and protect tank integrity. Standard minimum settings begin at 0.5 oz./in², with pressure capability up to 8 oz./in² and vacuum capability up to 4 oz./in², depending on configuration. Cushion-seated FEP diaphragms and guided weight-loaded pallets support consistent sealing performance under cyclic operation.

Designed in accordance with API 2000 and supported by Shand & Jurs WinSize (EZ-Flow) software, the 94050 provides predictable atmospheric tank protection. Available in 2"–12" nominal sizes with ANSI 125/150 flat-face flanges, it integrates directly with standard tank nozzle connections.



Key Features

Fully Non-Metallic PVC Construction Eliminates structural corrosion and coating degradation in aggressive chemical environments.	Cushion-Seated FEP Diaphragm Enhances sealing reliability under repeated pressure and vacuum cycling.	Guided Weight-Loaded Pallets Provides stable opening and reseating during normal tank breathing cycles.
Pressure Capability to 8 oz./in² Supports elevated low-pressure tank protection when required by design.	Vacuum Capability to 4 oz./in² Maintains tank integrity during cooling or rapid product withdrawal.	ANSI 125/150 Flat-Face Flanges Enables direct installation on standard atmospheric tank nozzle connections.



Benefits



EXTENDED CORROSION SERVICE LIFE

PVC construction reduces the need for replacement in highly corrosive applications.



STABLE EMISSIONS CONTROL

Controlled pallet operation limits unnecessary vapor release.



REDUCED MAINTENANCE EXPOSURE

Eliminates corrosion-driven failures common in metallic vent bodies.



PREDICTABLE BREATHING PERFORMANCE

Guided pallet geometry supports consistent relief behavior.



FLEXIBLE CONFIGURATION OPTIONS

Pressure-only, vacuum-only, or combined P/V versions match system requirements.



SIMPLIFIED SPECIFICATION

Standard sizes and flange drilling streamline EPC documentation.

Available Options



Pressure-Only Configuration

Provides dedicated overpressure protection.



Vacuum-Only Configuration

Provides dedicated vacuum relief protection.



Combined Pressure/Vacuum Version

Delivers full conservation vent functionality.



Closed (Pipe-Away) Configuration

Routes vapors to recovery or treatment systems.



316 Stainless Steel Hardware

Improves durability in splash or external corrosive environments.



Custom Flange Drilling

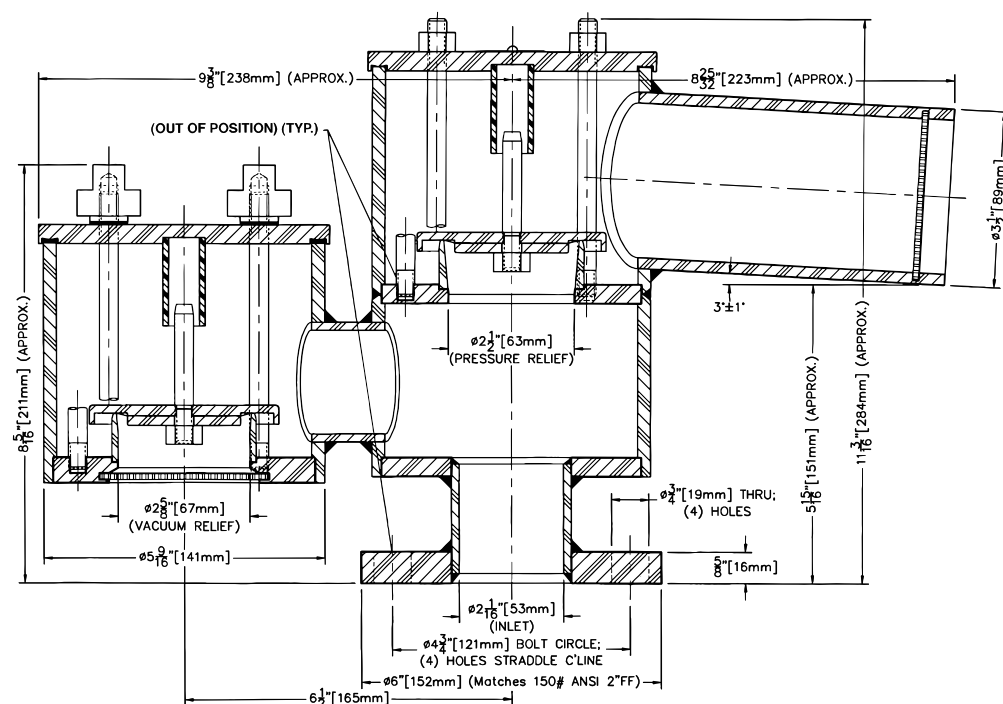
Supports project-specific nozzle configurations.



Key Performance Data

Parameter	Value
Standard Set Pressure	0.5 oz./in ² minimum
Maximum Pressure Setting	Up to 8 oz./in ²
Maximum Vacuum Setting	Up to 4 oz./in ²
Sealing Method	Cushion-seated diaphragm
Loading Method	Weight-loaded pallets
Nominal Sizes	2", 3", 4", 6", 8", 10", 12"
Flanged Connections	ANSI 125 / 150 Flat Face
Materials	• Body and Seat: PVC • Pallets: PVC • Diaphragm: FEP • Screen: Polyethylene • Weights: Rubber-coated lead or 316 Stainless Steel
Standards	API 2000 • ISO 9001
Temperature Range	-20°F to +140°F

Dimensions





Model Number Selection

The model number will consist of a base number 94050 followed by 6 digit numbers. These digits will represent 3 sets of option tables

94050 - AB - CD - EF

Ordering Information

Specify:

- 1. Model 94050 Polyvinyl Chloride Conversation Vent
- 2. Size
- 3. Pressure and Vacuum Setting

NOTE: For Standard Closed Vent Models, outlet size is one size larger than inlet size (2" X 3", etc.).
Same size inlet and outlet models available. Pressure flow capacity is less than standard closed vent mod

Table A - Size (Body & Flange)

Option A	Size
2	2"
3	3"
4	4"
6	6"
8	8"
0	10"
1	12"

Table B - Vent Type

Option B	Body Material/ Flange	Vent Type
A	PVC / ANSI-FF	Open, P&V
B	PVC / ANSI-FF	Closed, P&V, O>I
C	PVC / ANSI-FF	Closed, P&V, O=I
D	PVC / ANSI-FF	Vacuum
E	PVC / ANSI-FF	Open, Press. Only
F	PVC / ANSI-FF	Closed, Press. Only, O>I
G	PVC / ANSI-FF	Closed, Press. Only, O=I

Table C - Size of Vent

Option C	Size
2	2"
3	3"
4	4"
6	6"
8	8"
0	10"
1	12"

Table D - Setting & Weight Type

Option D	Vent Type
A	LOW / Lead (Dip Coated)
B	MED / Lead (Dip Coated)
C	HIGH / Lead (Dip Coated)
D	LOW / 316SS (Dip Coated)
E	MED / 316SS (Dip Coated)
F	HIGH / 316SS (Dip Coated)

Table E - Options

Option E	Vent Type
0	None

Low (Standard) = 0.5 oz.in2 to 3 oz/in2
Med (Pressure) = 3.01 oz/in2 to 6 oz/in2
High (Pressure) = 6.01 oz/in2 to 9 oz/in2 (2" to 6" Sizes Only)
Maximum Setting Vacuum = 4.0 oz/in2

Summary

The Shand & Jurs® 94050 PVC Conservation Vent delivers corrosion-resistant pressure and vacuum protection for atmospheric storage tanks in aggressive chemical environments. Fully non-metallic construction, guided weight-loaded pallets, and FEP diaphragm sealing provide dependable breathing performance while extending service life where metallic vents deteriorate. Configurable venting options and ANSI flange compatibility support straightforward specification and installation.

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This document is for information purposes only. All designs subject to change. Certified dimensions, specifications, and performance data available upon request