

94050



Shand & Jurs Co.

A COGNESSENSE BRAND

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.



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 AB - Size & Material

Option AB	Size	Body Material
02	2"	PVC
03	3"	PVC
04	4"	PVC
06	6"	PVC
08	8"	PVC
10	10"	PVC
12	12"	PVC

Table CD - Vent Type

Option CD	Vent Type
01	Open, Pressure & Vacuum
02	Closed, Pressure & Vacuum, Outlet > Inlet
03	Open, Vacuum Only
04	Open, Pressure Only
05	Closed, Pressure & Vacuum, Outlet = Inlet
06	Closed, Pressure Only, Outlet = Inlet
07	Closed, Pressure Only, Outlet = Inlet

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

Table EF - Pressure Range & Weight

Option EF	Description	Material
01	Standard Setting	Lead
02	3 Over 2.9 oz./in. ²	Lead
03	Standard to 2.9 oz./in. ²	Lead
04	Standard Setting	316 Stainless Steel
05	Over 2.9 oz./in. ²	316 Stainless Steel
06	Standard to 2.9 oz./in. ²	316 Stainless Steel

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.

Info@cognesense.com
 tel: (708) 236-6000 5911
 Butterfield Road Hillside, Illinois 60162 USA

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