

94580



Shand & Jurs Co.

A COGNESENSE BRAND

Combination Magnavent & Flame Arrester

The Shand & Jurs® Model 94580 integrates emergency pressure relief and standard flame arrester into a single outlet-mounted device for low-pressure tanks storing flammable liquids and solvents. The unit is installed at the vent termination where ignition risk exists, while maintaining atmospheric tank breathing protection.

A magnetically latched emergency pallet remains sealed during normal operation and lifts only during abnormal overpressure, providing high-capacity venting without continuous emissions. The integrated tube-bank flame arrester quenches external flame fronts by absorbing heat energy before combustion can propagate into the vapor space.

Combining both functions eliminates stacked devices, reducing outlet loading and simplifying vent layout. The horizontal flow path supports drainage and prevents condensate accumulation that could obstruct flame paths. Pressure settings from 0.5–2.75 psig and multiple diaphragm materials allow matching to solvent service conditions.

This device establishes the protective boundary between the atmosphere and the tank vapor space where ignition exposure exists, but continuous relief is not required.



Key Features

Magnetically latched emergency pallet.

Remains sealed during normal breathing and lifts only during abnormal pressure events

Integrated tube-bank flame arrester

Absorbs flame front heat and stops flashback into vapor space

Single assembly configuration

Combines emergency vent and arrester in one outlet-mounted device

Horizontal flow orientation

Prevents condensate accumulation within flame element

Unitized removable tube bank

Allows complete element removal for inspection and replacement without body removal.

Multiple material constructions

Matches solvent compatibility and corrosion requirements

Benefits



COMBINED SAFETY DEVICE

Reduces piping height, structural supports, and installation labor



EMERGENCY VENTING ONLY WHEN REQUIRED

Prevents unnecessary vapor loss and emissions exposure



FLAME STOPPED AT THE OUTLET BOUNDARY.

Reduces explosion risk and facility liability exposure



SELF-DRAINING ORIENTATION

Avoids maintenance interventions caused by condensate blockage



LOW LEAKAGE SEALING

Translates into thousands of dollars in annual product retention per tank, depending on volatility and operating conditions.



MATERIAL COMPATIBILITY SELECTION

Extends service life and reduces replacement frequency

Available Options



Aluminum / Cast Steel / 316SS body

Matches corrosion and weight requirements



FKM / FEP / NBR / PFA diaphragm

Temperature and solvent resistance selection



0.5–2.75 psig pressure settings

Matches tank design pressure



RF / FF / NPT connections

Supports piping interface requirements



316 SS or 304 SS tube bank

Chemical compatibility selection for the vapor stream



Expanda-Seal sealing upgrade

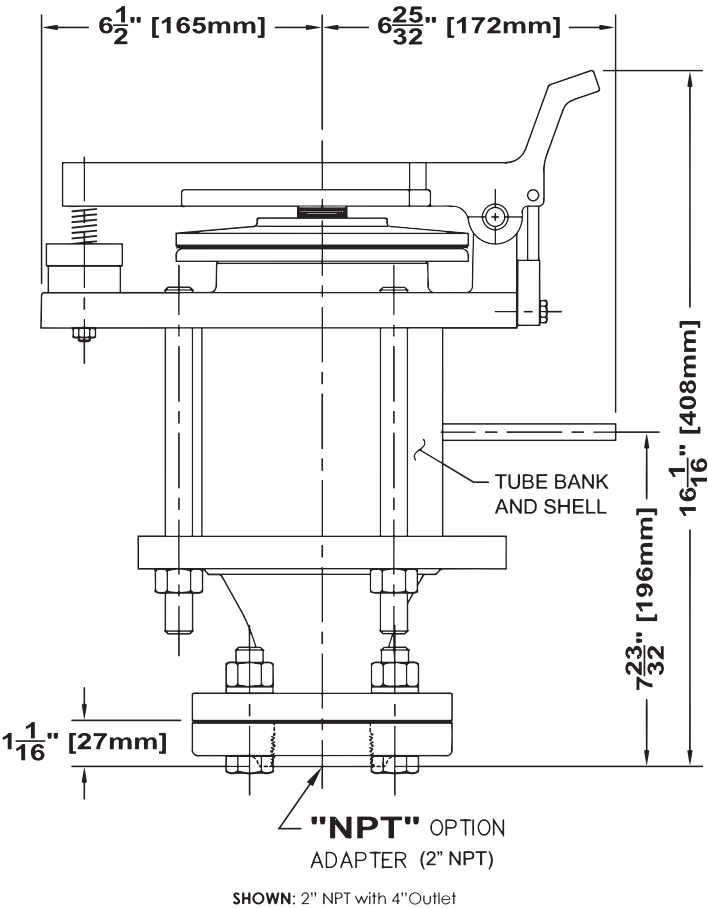
Achieves <0.5 SCFH leakage at 95% of setpoint for tighter pre-lift containment.



Key Performance Data

Parameter	Value
Sizes	2", 3", 4", 6"
Pressure settings	0.5–2.75 PSIG
Temperature Range	(–40°C) to +250°F (121°C) (NBR). –15°F (–26°C) to +400°F (204°C) (FKM). Material dependent — specify at order.
Leakage	<0.5 SCFH @ 95% setpoint with ExpandaSeal option.
Connections	ANSI RF/FF or NPT. Raised face not available with aluminum body.
Service	NEC Group D vapors
Materials	• Body: Aluminum / Cast Steel / 316SS • Pallets: Magnetic latch assembly • Diaphragm: FKM / FEP / NBR / PFA • Screen: Tube bank element • Hardware: Stainless steel

Dimensions



Model Number Selection

The model number will consist of a base number 94580 followed by 8 digit numbers. These digits will represent 5 option tables.

94580 - AB - CD - EF - GH

Ordering Information

Specify:

- 1. Model 94580 Magnavent & Flame Arrester
- 2. Size
- 3. Material
- 4. Flange Type
- 5. Pressure Rang

Table AB - Size & Body

Option AB	Size	Material
12	2"	Aluminum
14	3"	Aluminum
15	4"	Aluminum
16	6"	Aluminum
52	2"	Cast Steel
42	2"	316 Stainless Steel
54	3"	Cast Steel
44	3"	316 Stainless Steel
55	4"	Cast Steel
45	4"	316 Stainless Steel
56	6"	Cast Steel
46	6"	316 Stainless Steel

Table CD - Tube Bank and Shell

Option CD	Size	Construction Material
11	Aluminum	Aluminum
22	316 Stainless Steel	316 Stainless Steel

Table E - Diaphragm Type

Option E	DIAPHRAGM
1	FKM
2	FEP
3	NBR
4	PFA

FKM = Fluoroelastomer
FEP = Fluorinated Ethylene Propylene
NBR = Nitrile-Butadiene
PFA = Fluoroplastic Film

Temperature Limits

Diaphragm Material	Temperature Range
FEP	-65OF to 400OF
FKM	-15OF to 400OF
NBR	-40OF to 250OF
PFA	-65OF to 500OF

Table GH - Flange Type

Option GH	
01	RF (ANSI)*
02	FF (ANSI)
03	NPT

*Raised Face Flanges not available with Aluminum bodies

Note: Raised faced flanges with smooth finish are standard.
For optional serrated raised faced flanges, consult factory

Table F - Pressure Range

Option F	Settings (PSIG)
1	0.5
2	1
3	1.5
4	2
5	2.5
6	2.75

Summary

The Model 94580 protects low-pressure tanks exposed to ignition sources by combining emergency venting and flame arresting at the outlet boundary. The magnetic pallet prevents continuous emissions while still providing high-capacity overpressure relief, and the integrated arrester stops flashback into the vapor space. By replacing stacked safety devices with a single assembly, the unit reduces installation complexity while maintaining required tank protection.

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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