SHAND&JURS

An *L&J TECHNOLOGIES* Company

Tank Fittings, Flame Arresters, Valves, Gauges & Accessories

Breather Valve

S&J 94020
Breather Valve

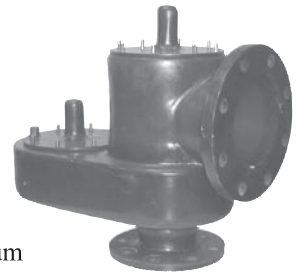
- Provides Pressure and Vacuum Relief
- Sizes: 2” to 12”
- Options: Closed Vent; Open Vent; Flame Snuffer; Cryogenic Hood; Steam Jacketed; Limit Switch

S&J 94040
Spring Loaded Breather Valve

- Provides Pressure and Vacuum Relief to Tanks Under High Pressure
- Ideal for Tanks Blanketed with Nitrogen or Other Inert Gases
- Settings: 1 PSI to 15 PSI
- Sizes: 2” to 12”
- Options: Closed Vent; Open Vent; Vacuum Only; Pressure/Vacuum; Steam Jacketed

S&J 94050
PVC Breather Valve

- Provides Pressure and Vacuum Relief to Tanks Containing Corrosive Products
- Sizes: 2” to 8”
- Options: Pressure Only, Vacuum Only, Pressure & Vacuum
- Styles: Open Vent, Pipe Away



S&J 94060
FRP Conservation Breather Valve

- Applicable for Chemical, Petrochemical, and Waste Treatment
- Four Configurations: Pressure/Vacuum (Open); Pressure/Vacuum (Closed); Vacuum Only; Pressure Only
- Sizes: 2” to 12”
- *Note:* S&J 94063 in 18”, 20”, 24” with Pressure Manway; S&J 94065 in 16”, 20”, 24” with Pressure/Vacuum Manway

Detonation & Flame Arresters

S&J 94306
Flame Arrester

- Serves as a Barrier between External Flame and Internal Vapors
- Provides Protection Against Flame Back
- Construction: Cast Aluminum; Cast Iron; Cast Steel; 316 SS
- Sizes: 2” through 12”
- Optional Steam Jacketing Available

S&J 94310
Detonation Flame Arrester

- Provides Protection Against Flame Propagation Through Piping Runs and Vapor Recovery Systems, While Allowing Maximum Flow Efficiencies
- Out Performs Other Flame Control Devices
- Virtually Indestructible Arrester Core Assembly
- Sizes: 2” through 24”
- Approved for Marine Applications
- NEC Group C & D Gases

S&J 94550
Flame Arrester/Free Vent

- Serves as a Barrier between External Flame and Internal Vapors
- Free Vent Weather Hood Vents to Atmosphere
- Sizes: 2” through 12”

S&J 94560
Combination Breather Valve Flame Arrester

- Provides Maximum Flow Capacity and Minimum Leakage
- Positive Flame Stop on Low Pressure Tanks
- Construction: Cast Aluminum; Cast Iron; Cast Steel; 316 SS
- Sizes: 2”; 3”; and 4”
- Optional Steam Jacketing Available

Tank Vents

S&J 94100
Vacuum Vent

- 125 psi Operating Pressure Rating
- Sizes: 6” or 10”

S&J 94110
Vacuum Vent

- Sizes: 2” through 12”
- Options: 2” and 3” Available with Screwed Connections
- Steam Jacketing Optional

S&J 94126
Pressure Vent

- Low Pressure Storage Tank Relief
- Ideally Suited as a Low Cost Rim Vent on Floating Roof Tanks
- Size: 6” with Screwed Connection

S&J 94130
Pressure Vent

- Relieves Excessive Pressure
- Provides High Flow Capacity at Low Overpressures and Low Leakage
- Sizes: 2” through 12”
- Options: Closed Vent; Open Vent; Steam Jacketed

S&J 94140
Spring Loaded
Pressure Relief Vent

- Reduces Excessive Venting in Storage Tank
- Open or Closed Vent Configurations
- Sizes: 2” through 12”
- Settings: 1 psi to 15 psi

S&J 94160
Pressure Relief Vent

- Maximizes Flow Capacity and Efficiency
- Reduced Number of Components Minimizes Maintenance and Replacement Costs
- Sizes: 2” through 24”

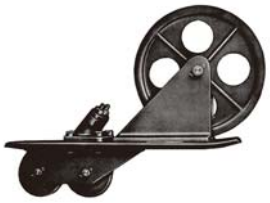
S&J 94240/94241
Free Vent

- For Non-Hazardous, Non-Volatile Liquid Storage Tanks
- Protects Contents from Foreign Objects
- Allows Vapors to Flow Freely In and Out
- Sizes 2” through 24”

S&J 94630
Pilot Operated Relief Valve

- Ideally Suited for Land and Marine Use
- Relief Range From 1.0 psi Through 15 psi
- Sizes: 2” Through 12”

Swing Line Equipment



S&J 95500
Cable Sheave

S&J 95506
Cable Sheave
Gas Tight Type

S&J 95600
Cable Winches

S&J 95661
Swing Joints

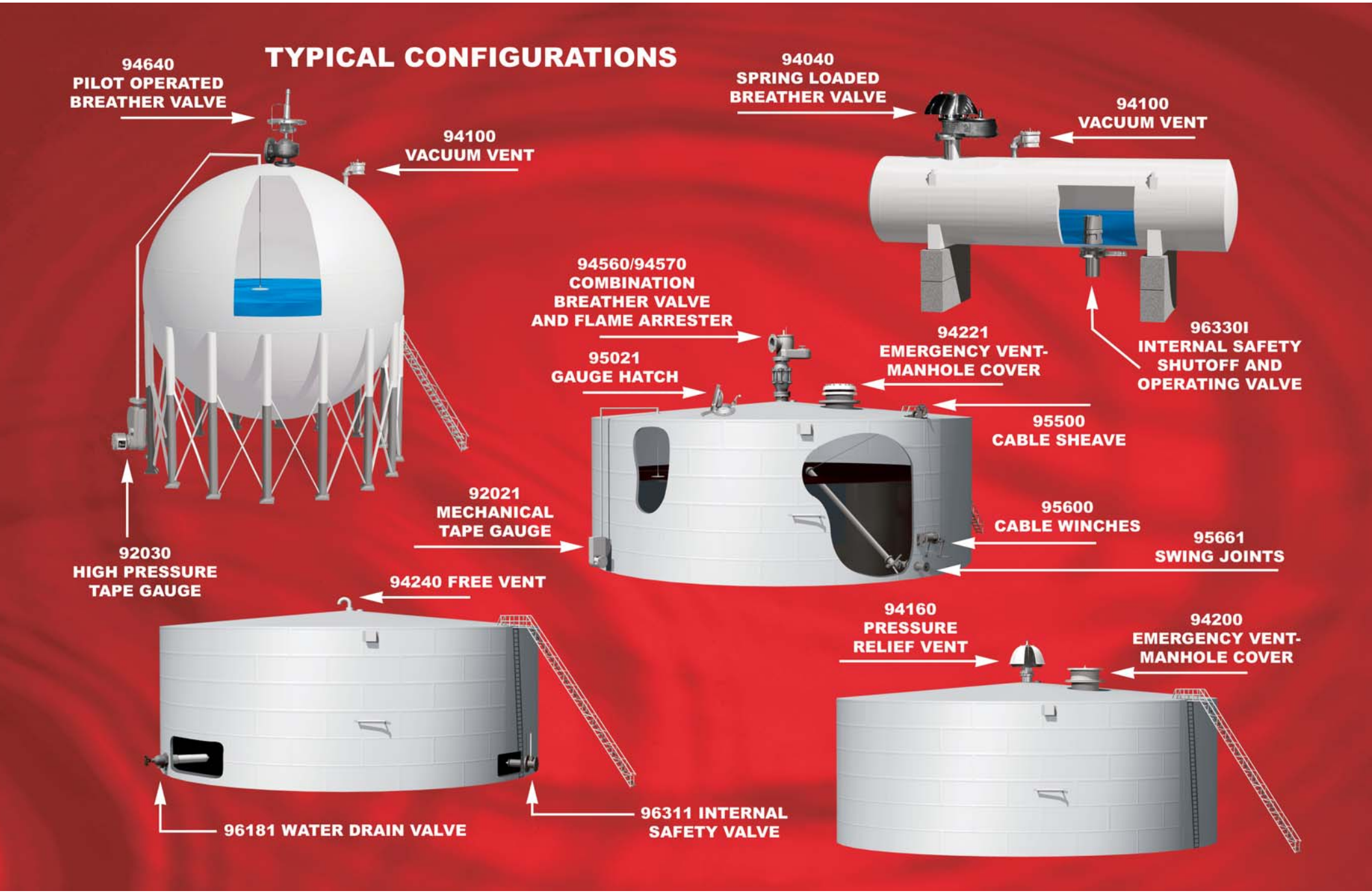
S & J swinglines provide great operating and maintenance convenience, by permitting servicing or replacement of valves, and changes in piping without having to empty the tank. Swinglines allow for withdrawal of product from any level in the tank - from top to bottom. They also offer an additional margin of tank safety. Placed in the up position, they can prevent loss of product due to faulty or accidentally opened valves, and also prevent uncontrolled release of product in the event of fire.

Flame/Detonation Arresters

Flame and Detonation Arresters

A flame arrester is designed to be used as a barrier between the tank and the vent to safeguard the tank contents from igniting if an outside ignition source is present. A detonation arrester is designed to withstand much higher pressures than a flame arrester, and quench detonations. The detonation arrester protects one tank or area of a pipeline from a detonation or explosion in another tank or area of the pipeline.

TYPICAL CONFIGURATIONS



Emergency Vent / Manhole Covers

S&J 94200/94201 Emergency Vent-Manhole Cover

- Relieves Excessive Tank Pressure
- Low Base for Overflow
- 16”, 20”, 24”, 30”, 36” Diameter Manholes for Tank Inspection

S&J 94210 Emergency Vent-Manhole Cover

- Relieves Excessive Internal Pressure
- Sizes: 10”, 16”, 20”, 24”, 30”, 36”
- Hinged Cover

S&J 94221 Emergency Vent-Manhole Cover

- Protects Tanks Against Excessive Pressure and Vacuum
- Innovative “Expanda-Seal”
- 20” and 24” Diameter Manhole for Tank Inspection
- Options: 20” with Oversized Flange Fits 24” API Manhole
- Low Base for Overflow

S&J 94510 Emergency “Magnavent”

- Relieves Excessive Tank Pressure
- Patented Alnico Magnetic Latch Opens Fully, Instantly at Pressure Release
- Innovative “Expanda-Seal” Provides Practically Zero Leakage
- Size: 4”, 6”, 8”, 10”, 12”
- Settings: 0.5 psi to 2.75 psi

S&J 94520 Emergency Pressure Vent and Manhole Cover

- Protects Tanks Against Excessive Pressure and Vacuum
- Innovative “Expanda-Seal”
- 20” Diameter Manhole for Tank Inspection
- Options: Oversized Flange Fits 24” API Manhole

S&J 94270 “Vapor-Guard” Tank Blanketing Valve

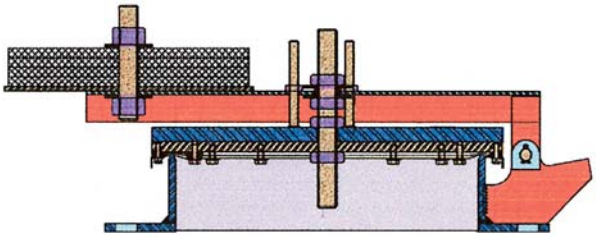
- 6 Flow Control Orifices
- Pressure Balanced Main Valve Design Ensuring Constant Settings
- Remote Sensing Permitting Choice of Pressure Sensing Location
- 1/2” and 1” sizes
- 304 or 316SS Bodies
- Buna, Teflon, Viton, EPDM and Kalrez Seals

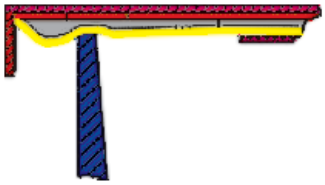
Steam Jacketed Valves

- Designed for Tanks Containing Liquids WhoseVapors May Crystallize at Ambient Temperatures
- Uniform Jacketing Prevents Clogging or Freezing of All Components
- Available in Sizes 2” through 12”
- Standard Materials of Construction: Steel or 316 Stainless Steel.
- Other Materials and Sizes Available As Special Order

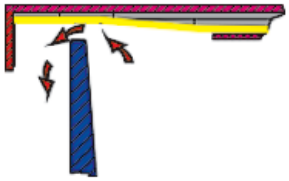
- Steam Jacketed Units are Available with Open or Closed Vent Configurations
- Flame Arresters have Steam Jacketed Tube Bank Shell with Steam Traced Housing for Extra Uniform Heating, and Efficient Protection of Flame Arrester Bank from Clogging
- All Steam Jacketed Valves and Flame Arresters can be Specified for Steam Pressure up to 100 psi

Expanda-Seal





APPROACHING SET POINT



SET POINT EXCEEDED

The S & J Expanda-Seal, as shown, offers an unique sealing advantage for dead weight loaded / spring loaded breather valves and emergency vents.

This unique design allows the tank pressure to build up on both sides of the seat ring, allowing our Teflon diaphragm to balloon around the seat ring.

The end result is a superior tight seal within 95% of setting.

S&J Emergency Vents

Models 94200 and 94201 provide economical emergency venting.

Model 94210 provides automatic reset of vent cover with hinge arm.

Model 94221 provides emergency pressure venting and vacuum venting all on one tank nozzle.

The Model 94510 Magna Vent provides snap action release at set point.

Air Dryer

S&J 94321 Air Dryer

- Absorbs Moisture from the Air that is Drawn into the Storage Tank During Unloading of Product or "Thermal Breathing"
- Active Dessicant can be Subjected to Thousands of Absorption/Reactivation Cycles without an Efficiency Loss

Tank Gauges

S&J 92021
Mechanical Tape Gauge

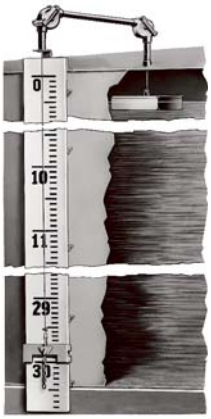
- Acutrak 90 Cartridge Kit
- Atmospheric or Pressure Tanks (1'-90')
- Digital Ground Reading Display
- Cast Aluminum Body and Parts
- Checker Knob
- Installation Kits for All Tank Types
- Accepts Any Transmitter

S&J 92030
High Pressure Tape Gauge

- For High Pressure Tanks
- Cast Steel Construction
- Digital Ground Level Readout
- Optional Roof-Mounted Version
- Checker Knob
- Accepts Any Transmitter
- Magnetic Coupling

S&J 92051
Marine Level Gauge

- Meets Specifications of Marine Regulatory Societies
- Simple Float Release Mechanism
- Highly Visible Local Digital Readout
- Oil Impregnated Bronze Bearings
- All Bronze Construction



S&J 92302
Liquid Level Indicator

- Inexpensive Float-Operated Gauge
- Aluminum, Redwood, or Stainless Steel Indicator Board
- Readings Accurate to 1"
- Calibration: Feet-Inches or Meters-Decimeters
- Options: Full, Half, One Third Travel

S&J 31440
Current Output Transmitter

- Couples to Any Mechanical Gauge
- Signal Output 4-20mA
- Two Wire Design
- Input Power: 24Vdc or 48Vdc
- Explosion-Proof Construction Class 1, Group D, Div. I

S&J 99050
Limit Switch Assembly

- Explosion-Proof Housing to Class I, Div. I Group D
- 2, 4 or 6 SPDT Switches
- Mounts on 92021 or 92030 Gauges
- Adaptor Available for Field Mounting

Gauge Hatches

S&J 95004/95021
Gauge Hatch

- Easy Access for Gauging Product Level or Temperature
- Spark-Proof Model Available
- 95021: 4", 6", 8", 10"
- 95004: 3", 4", 6", 10"
- Construction: Aluminum, Steel, 316SS
- Model 95004 also available in Bronze

S&J 95010
Gauge Hatch

- Easy Access for Gauging Product Level or Temperature
- Emergency Venting up to 1 oz./sq. in.
- Metal-to-Metal Seat, Foot Pedal for Easy Opening
- Cover is Adaptable for Self-Closing or Not
- Sizes: 6", 8"

Tank Valves

S&J 96181
Water Drain Valve

- Drains Water From Storage Tanks
- Double Valve Construction Prevents Freezing
- Nitronic 60 Stem
- Flushing Action Keeps Valve Seat Clean
- Serviceable Without Draining Tank
- Options: Threaded or Flange Mounted
- Sizes: 2”, 3”, 4”

S&J 96311
Internal Safety Valve

- Closes Automatically When Fusible Link Releases
- Sizes: Standard 2” to 12”; up to 30” Available
- Options: Special Mounting Configurations Available

S&J 96330I
Internal Safety Shutoff and Operating Valve with Integral Position Indicator

- Mounted in Tank or Pipeline
- Closes Automatically When Operating Pressure Removed
- Type of Service: LP-Gas, Most Liquid Hydrocarbons, or Ammonia
- Tight Shutoff... Less Than 1.0 SCFM Air Leakage at 100 psi Between Tank and Line
- Positive Position Indicator
- Sizes: 2” Through 10”
- 375 PSIG Service Pressure

Vapor Recovery Regulator

S&J 94261
Vapor Recovery Regulator

- Float-Operated, Accurate, Extremely Sensitive Regulator Maintains Close Venting Control of Low Pressure Tanks
- Self Operating, No Outside Power Required
- Operating Range: 0.1” w.c. to 2.0” w.c.
- Sizes: 2”, 3”, 4”, 6”, 8”

Water Drain Valves

The S & J water drain valves use a dual seat design which provides self draining to avoid freeze ups. Double valve poppets ensure leakproof seals. The outer valve assembly can be removed for maintenance with the tank in service.

Internal Safety Valves

The S & J internal safety valves provide positive shutoff in tank suction and discharge in the event of fire. In the event of fire, a temperature of 165 degrees F will release the fusible link causing the valve to automatically close. The operating arm may also be operated manually.

Hydraulic Safety Valves

The S & J hydraulically operated safety valves are designed for use in vessels and pipelines handling LPG or similar products. The valves are held securely closed by a spring and open only when hydraulic pressure is applied. When hydraulic pressure is removed manually, by a control circuit, or by release of a fusible link, the valve automatically closes. A balanced valve design is used to provide resistance to pressure from either direction.