

# BIOGAS SHAND & JUR'S



Reduce Your Tank  
Emissions Today with

## Expanda-Seal™

### Shand & Jurs Biogas Expanda-Seal™

Now more than ever state, local, and federal agencies are requiring all industries to control the amount of volatile organic chemicals (VOCs) and hazardous chemicals released into the environment from their operation. **L&J Technologies offers a uniquely designed, high-performance solution from Shand & Jurs called Expanda-Seal™ which helps reduce vapor emissions, evaporation loss and odors** in many process environments.

The Expanda-Seal™ technology uses the internal digester or vessel pressure to inflate a diaphragm on the relief device creating a tighter seal the closer the pressure gets to the set point. **While industry standards for pressure relieving vents can only maintain 1 SCFH at 90% of set point, Shand & Jurs' patented Expanda-Seal™ technology flows are limited to a nearly "bubble tight" 0.5 SCFH at 95% of the set point, equating to 50% less vapor release.** Available in a full range of sizes and soft goods, this unique inflating diaphragm design also helps prevent leaks caused by worn seating surfaces requiring less maintenance —*saving time and money.*



an **L&J TECHNOLOGIES** company

5911 Butterfield Road | Hillside, IL 60162 | 708.236.6000 | [www.ljtechnologies.com](http://www.ljtechnologies.com)





Shand & Jurs 94020 Conservation Vent (Pressure/Vacuum) with Expanda-Seal™ Pallet.

## Benefits

### Significantly Reduces Emissions and Odors

Expanda-Seal™ helps meet or exceed federal requirements for control of the amount of volatile organic chemicals (VOCs) and hazardous chemicals released into the environment.

### Retains Valuable Product

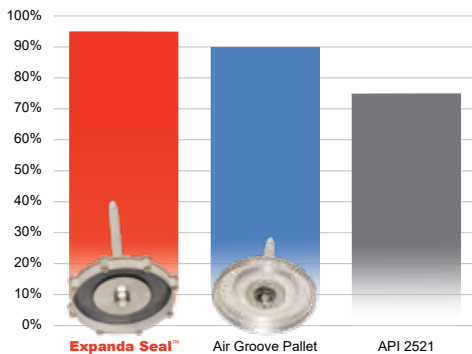
The Expanda-Seal™ high-performance sealing technology can be utilized on you relief devices and emergency vents to reduce fugitive emissions and evaporation.

### Technology for Low Pressure

Expanda-Seal™ is designed to create a nearly "bubble tight" seal for low-pressure relief devices as well as emergency venting devices.

### Industry Best Allowable Flow Rate

While industry standards for pressure and vacuum vents can only maintain 1SCFH at 90%, the Expanda-Seal™ technology flows have been tested at 0.5 SCFH @ 95% of set point equating to 50% less vapor release which far exceeds the API 2521 published guidelines for leakage of weight loaded venting devices.



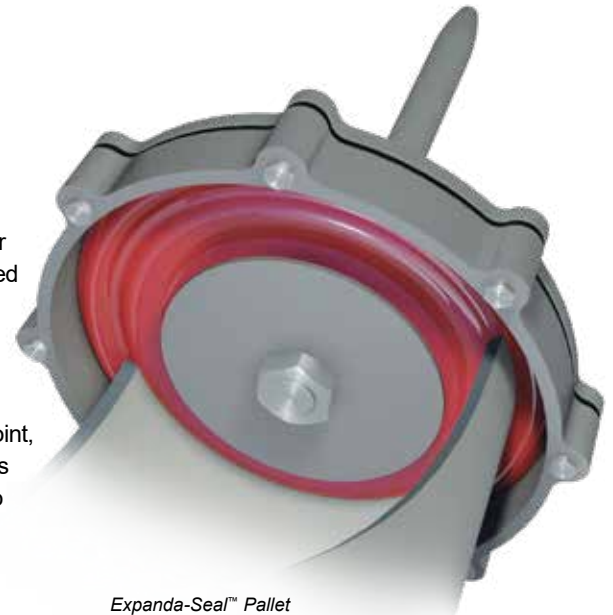
- Expanda-Seal™: 0.5 SCFH @ 95% Set Point for all sizes
- Air Groove Pallet: 1 SCFH @ 90% Set Point for all sizes
- API 2521: 5 SCFH @ 75% Set Point for 8" size or larger  
0.5 SCFH @ 75% Set Point for 6" size or smaller

## How Expanda-Seal™ Works

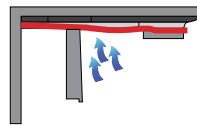
When pressure inside the digester or vessel is below the set point, the deflated diaphragm rests on the seat ring in a typical manner, as with any normal valve, retaining internal pressure.

As the pressure approaches the set point, the Expanda-Seal™, diaphragm inflates and wraps around the mating seat to achieve this unique sealing effect.

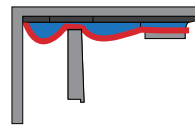
When the pressure in the digester or vessel is at or above the set point, the pallet lifts to relieve the overpressure.



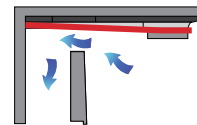
Expanda-Seal™ Pallet diaphragm shown in red.



Pressure is below the set point.



Pressure approaching the set point.



Pressure is above the set point.

## Available for all Shand & Jurs Biogas Relief Devices & Emergency Vents

Whatever your industry, sewage treatment plants, landfills, agricultural, or even the food and beverage industry, the Expanda-Seal™ high-performance sealing technology can be utilized on your pressure and vacuum conservation vents and emergency vents to reduce emissions and inert gas cost.



Shand & Jurs 94510 Emergency Vent with Expanda-Seal™.

Shand & Jurs 94210 Emergency Vent & Manhole Cover with Expanda-Seal™.

## Upgrade Your Varec® 2010 & 2020 Pressure & Vacuum Conservation Vents

Shand & Jurs offers a simple solution to replace the standard pressure pallets in your aging Varec® pressure and vacuum conservation vents to help reduce your vapor emissions, evaporation loss and odors. No need to remove the existing Varec® valve from the digester or vessel. The retrofit can be accomplished in minutes. Simply lift and remove the existing Varec® Pallet and replace it with the Expanda-Seal™ Retrofit Pallet Assembly. Available in a full range of sizes and soft goods.



Contact us, **708-236-6000** we can help.  
[sales@ljtechnologies.com](mailto:sales@ljtechnologies.com)

L&J Technologies or any of its subsidiaries assume no responsibility and shall not be liable for any damage, injury or death caused by the mis-application or improper installation of the products that it provides. Installation shall be per manufacturer's instructions in accordance to any applicable local, state or federal regulations. It is the responsibility of the purchaser to ensure these guidelines are followed and that the products are applied properly.

an **L&J TECHNOLOGIES** company

5911 Butterfield Road | Hillside, IL 60162 | 708.236.6000 | [www.ljtechnologies.com](http://www.ljtechnologies.com)

MADE IN THE  
**USA**  
WW-B-EXPNDL-19B