

2022

Teadit[®] Style 2848

Low Torque, Traceable, Fugitive Emissions Spool Packing



Sealing for a Safer and Greener Tomorrow







BACKGROUND

Fugitive emissions from valves are one of the industry's biggest environmental challenges.





Packing must be warrantied/ guaranteed by the manufacturer not to leak for 5 years.

or

Packing must be tested to generally accepted good engineering practices.





INDUSTRY'S RESPONSE



CLLT/LOW-E PACKING TECHNOLOGY!

The traditional Certified Low Leak Technology Packing products usually have, to some degree, a metal reinforcement



✓ Easily meet LE Requirements: API 622, API 624 ✓ Long Service Life ✓ No Need for Live Loading

But, when it comes to dynamic applications...

End-users fear it may score and damage the stem







TEADIT'S RESPONSE



While Teadit[®] Style 2236 became a preferred Low-**Emission Valve Packing** for many customers in Block Valve Applications, coming up with a solution for Control Valve Applications required innovation.







TEADIT'S INNOVATION

- Oxidation inhibited flexible graphite base yarn
- Each strand is reinforced with a high-strength, expanded PTFE knitted thread structure
- Engineered to provide
 >2x higher breaking load than Inconel wire







TEADIT'S INNOVATION



- The combination of graphite and ePTFE allows this novel compression packing construction to have lower friction than current Certified Low-E designs
- But does it work?





ISO 15848-1 TEST

- Control Valve Test
- 100,000 Mechanical Cycles
- 4 Thermal Cycles
- Up to 260°C/500°F
- 500 psi / 40 bar of Methane

ISO 15848-1 TEST

TEADIT[®] STYLE 2848

- Based on the amazing performance of the ISO 15848 test we knew that we had achieved our goal
- TEADIT[®] Style 2848
- A Low-Torque Fugitive Emissions Spool Packing
- How does it do in block valves?

API 622 TEST - BLOCK VALVES

- API 622 Test
- 1510 Mechanical Cycles
- 5 Thermal Cycles
- Up to 260°C
- 40 bar of Methane

API 622 TEST - BLOCK VALVES

TEADIT TAGS THE FUTURE OF PACKING TRACEABILITY

The innovative expanded PTFE thread structure is embedded with Teadit[®] TAGS[™] creating a uniquely identifiable "fingerprint".

TRACEABLE IN ANY SITUATION

Inseparable from the packing, Teadit[®] TAGS[™] offer a permanent and much more reliable identification method that cannot be misplaced, switched off, or removed.

TRACEABLE IN ANY SITUATION

Teadit[®] TAGS[™] are resistant to severe application conditions with chemically aggressive fluids, abrasion, high pressures, time, and even elevated temperatures.

Still identifiable after a fire test!

INNOVATIVE

2022

US Patent No. 10,989,304 B1 published on April 27, 2021.

AWARD WINNING

SUSTAINABILITY, ENVIRONMENTAL ACHIEVEMENT AND LEADERSHIP

AWARD WINNING

Chemical Processing Announces Vaaler Award Winners

By Chemical Processing Staff Sep 28, 2021

Chemical Processing's biennial Vaaler Awards recognize products that promise to significantly improve the operations and economics of plants. The impartial panel of judges now has evaluated all entries and chosen four winners:

• Centurion level transmitter from Hawk Measurement, *Medina, Ohio*; the device is the first guided-waveradar level transmitter with power-over-Ethernet communications for safe and reliable in-plant and off-site monitoring.

• Fluid Genius digital platform from Eastman, *Kingsport, Tenn*; it provides a data-driven analytical approach with artificial intelligence for monitoring virtually any organic heat transfer fluid and forecasting predictive maintenance.

• Interceptor-QV passive isolation device from CV Technology, *Jupiter, Fla.*; the unit affords an automatic, maintenance-free way to prevent the propagation of dust explosions through clean-air return lines.

• **Style 2848 compression packing from Teadit,** *Pasadena, Texas***; the metal-free product meets the moststringent fugitive emissions standards and contains embedded permanent tags that enable easy identification.**

AWARD WINNING

TEADIT® STYLE 2848

Ideal for any application that requires a low-friction and low-emission solution. It has the added benefit of providing traceability.

Process Temperature	Minimum	-240° C
	Maximum	455° C
Pressure		255 bar
рН		0-14

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