



Vulcan Seals Type VT5

Technical Data Sheet



Product Description

The **Vulcan Seals Type VT5** is a square-braided gland packing manufactured from **ramie natural fibre**, impregnated with **PTFE lubricant**.

The ramie fibre construction provides **mechanical behaviour and conformability like traditional asbestos-based packings**, allowing the packing to bed-in effectively, maintain sealing integrity, and accommodate shaft or sleeve irregularities commonly found in legacy equipment. PTFE impregnation enhances lubrication, reducing friction, heat generation, and wear on shafts and sleeves.

The **Vulcan Seals Type VT5** is particularly well suited as a **modern, non-asbestos replacement** for legacy asbestos gland packings used in pumps and valves, offering a practical upgrade path during maintenance and refurbishment **without requiring design or hardware changes**.

Designed for **general-purpose pump and valve sealing**, the **Vulcan Seals Type VT5** performs reliably in water-based and mildly chemical services under moderate pressures and temperatures.

Suitable Industries

The Vulcan Seals Type VT5 is suitable for use in:

- ✓ General Industrial Utilities
- ✓ Water & Wastewater Services
- ✓ Power Utility Auxiliary Systems
- ✓ HVAC & Building Services
- ✓ Marine & Seawater Utility Systems
- ✓ Process Plant Utilities (non-abrasive duties)

The Vulcan Seals Type VT5 is not suitable for use in:

- ✗ Abrasive or fibre-laden media (e.g. pulp stock, slurries, sewage)
- ✗ High solids concentration services
- ✗ High-speed reciprocating applications
- ✗ Dry-running conditions
- ✗ Services outside the stated pH or temperature limits

Chemical Properties

- Base Fibre: Ramie (natural fibre)
- Impregnation: PTFE
- Maximum Working Temperature: ≤ 250 °C
- pH Operating Envelope: 4–12
- Friction Coefficient: < 0.3
- Ignition Loss (250 °C): ≤ 10%
- Abrasion Loss: < 0.15 g
- Density: ≥ 1.0 g/cm³

Why Choose the Vulcan Seals Type VT5?

- Ramie natural fibre construction provides good conformability and packing stability
- PTFE impregnation reduces friction and protects shafts and sleeves
- Effective bedding-in behaviour, particularly in older or worn equipment
- Suitable as a non-asbestos replacement for legacy gland packings
- Cost-effective solution for general industrial and utility applications



Valves - Operating Limits

| Max Operating Pressure | Linear Speed | Min Operating Temperature | Max Operating Temperature | pH Range |
|------------------------|--------------|---------------------------|---------------------------|----------|
| 100 bar | Static Only | 10°C / 50°F | 250°C / 482°F | 4 - 12 |



Centrifugal Pumps - Operating Limits

| Max Operating Pressure | Linear Speed | Min Operating Temperature | Max Operating Temperature | pH Range |
|------------------------|--------------|---------------------------|---------------------------|----------|
| 50 bar | 12 m/s | 10°C / 50°F | 250°C / 482°F | 4 - 12 |



Reciprocating Pumps - Operating Limits

| Max Operating Pressure | Linear Speed | Min Operating Temperature | Max Operating Temperature | pH Range |
|------------------------|--------------|---------------------------|---------------------------|----------|
| 80 bar | ≤1 m/s | 10°C / 50°F | 250°C / 482°F | 4 - 12 |

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**All information supplied within, has been given in good faith and in Vulcan Seals' best judgement. It is meant for guidance purposes only. Vulcan Seals reserves the right to amend all statements, dimensions and technical data without prior notice.



Dimensional Data

| Cross Section. Sq (inch) | Packaged Weight (kg) | Packaged Weight (lb) | Packaged Weight (lb) US ONLY | Length of Coil (m) | Product Code | US Product Code |
|--------------------------|----------------------|----------------------|------------------------------|--------------------|--------------|-----------------|
| 1/8" | 0.10 | 0.221 | 1 | 8 | VT5.1/8 | VT5.1/8.1LB |
| 3/16" | 0.28 | 0.617 | 1 | 8 | VT5.3/16 | VT5.3/16.1LB |
| 1/4" | 0.39 | 0.860 | 2 | 8 | VT5.1/4 | VT5.1/4.2LB |
| 5/16" | 0.70 | 1.544 | 2 | 8 | VT5.5/16 | VT5.5/16.2LB |
| 3/8" | 1.07 | 2.359 | 2 | 8 | VT5.3/8 | VT5.3/8.2LB |
| 7/16" | 1.30 | 2.867 | 5 | 8 | VT5.7/16 | VT5.7/16.5LB |
| 1/2" | 1.54 | 3.396 | 5 | 8 | VT5.1/2 | VT5.1/2.5LB |
| 9/16" | 2.05 | 4.520 | 5 | 8 | VT5.9/16 | VT5.9/16.5LB |
| 5/8" | 2.68 | 5.909 | 10 | 8 | VT5.5/8 | VT5.5/8.5LB |
| 3/4" | 3.70 | 8.159 | 10 | 8 | VT5.3/4 | VT5.3/4.10LB |
| 7/8" | 4.84 | 10.672 | 10 | 8 | VT5.7/8 | VT5.7/8.10LB |
| 1" | 6.25 | 13.781 | 10 | 8 | VT5.1/0 | VT5.1/0.10LB |

Please note that the lengths and weights provided are for informational purposes only and are not contractual.

Gland Packing Replacement Range

The Vulcan Seals Type VT5 is a dimensional replacement for the following gland packing ranges:

- Apollo® | 220 F
- James Walker® | 198
- Merkel® | Ramilon
- Robco® | Nestor PT
- Teadit® | 2422
- Teadit® | 2422
- Burgmann® | 5846
- James Walker® | Ramiex
- Merkel® | 4586
- Texpack® | 4129
- Teadit® | 34
- Burgmann® | Buraflon
- Latty® | 1779
- Pillar® | 426
- Texpack® | 4158
- Teadit® | 209

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