



Vulcan Seals Type VM1

Technical Data Sheet



Product Description

The **Vulcan Seals Type VM1** is a braided gland packing manufactured from **high-strength aramid (Nomex®) fibre**, uniformly impregnated with **PTFE lubricant**.

The aramid fibre construction provides excellent mechanical strength and resistance to wear, while offering a **more conformable and adaptable structure** compared to more rigid aramid packings.

While closely related to other aramid/PTFE packings within the Vulcan Seals range, The Vulcan Seals Type VM1 is optimised to provide **improved tolerance to fibre-laden and mildly abrasive media**, making it suitable for applications where operating conditions may be less consistent.

PTFE impregnation reduces friction and heat generation at the shaft or sleeve, helping to minimise wear while maintaining reliable sealing performance under pressure. The Vulcan Seals Type VM1 is designed for use in **pumps, valves, and reciprocating equipment** across industrial process and utility applications.

Suitable Industries

The Vulcan Seals Type VM1 is suitable for use in:

- ✓ Paper and pulp processing, including stock handling and fibre-laden media
- ✓ Sugar processing, including beet handling and fibrous process streams
- ✓ Utilities and industrial water services
- ✓ Chemical processing involving fibre-laden or mildly abrasive media
- ✓ General industrial pump and valve applications where enhanced abrasion resistance is required

The Vulcan Seals Type VM1 is not suitable for use in:

- ✗ Hard mineral slurries (sand, ash, lime)
- ✗ Highly abrasive or angular particulate media
- ✗ Applications involving severe solids loading
- ✗ Duties exceeding stated pressure, speed, or temperature limits

Chemical Properties

- Base fibre: Aramid (Nomex®) fibre
- Impregnation: PTFE lubricant
- Enhanced mechanical strength and resistance to wear from fibre-laden and mildly abrasive media
- Reduced friction, heat generation, and shaft wear due to PTFE impregnation
- Maintains structural integrity under pressure and consolidation
- Stable chemical resistance across a wide pH range (1–13)
- Suitable for continuous service in demanding industrial environments

Why Choose the Vulcan Seals Type VM1?

- Designed for **fibre-laden and mildly abrasive media**, where PTFE or cotton packings may suffer premature wear
- Aramid (Nomex®) fibre construction provides **high mechanical strength and abrasion resistance**
- More conformable structure offers improved adaptability compared to more rigid aramid packings
- PTFE impregnation reduces friction, heat generation, and shaft or sleeve wear
- Maintains sealing integrity under pressure and consolidation
- Suitable for pulp stock, sugar beet, and fibrous process streams
- Stable performance across a wide pH range (1–13)
- Versatile packing for pumps, valves, and reciprocating equipment in industrial and utility service



Valves - Operating Limits

Max Operating Pressure	Linear Speed	Min Operating Temperature	pH Range
250 bar	Static Only	10°C / 50°F	1-13



Centrifugal Pumps - Operating Limits

Max Operating Pressure	Linear Speed	pH Range
80 bar	20 m/s	1-13



Reciprocating Pumps - Operating Limits

Max Operating Pressure	Linear Speed	Min Operating Temperature	pH Range
200 bar	≤1 m/s	10°C / 50°F	1-13

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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	VM1.1/8	VM1.1/8.1LB
3/16"	0.28	0.617	1	8	VM1.3/16	VM1.3/16.1LB
1/4"	0.40	0.882	2	8	VM1.1/4	VM1.1/4.2LB
5/16"	0.71	1.566	2	8	VM1.5/16	VM1.5/16.2LB
3/8"	1.10	2.426	2	8	VM1.3/8	VM1.3/8.2LB
7/16"	1.34	2.955	5	8	VM1.7/16	VM1.7/16.5LB
1/2"	1.59	3.506	5	8	VM1.1/2	VM1.1/2.5LB
9/16"	2.15	4.741	5	8	VM1.9/16	VM1.9/16.5LB
5/8"	2.81	6.196	5	8	VM1.5/8	VM1.5/8.5LB
3/4"	3.93	8.666	10	8	VM1.3/4	VM1.3/4.10LB
7/8"	5.23	11.532	10	8	VM1.7/8	VM1.7/8.10LB
1"	6.75	14.884	10	8	VM1.1/0	VM1.1/0.10LB

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 VM1 is a dimensional replacement for the following gland packing ranges:

- Chesterton® | 1730
- Crane® | K1760
- Crane® | K1761
- Garlock® | 1812
- Palmetto® | 1367C
- Palmetto® | 1371
- Palmetto® | 1392
- Sepco® | ML 2240
- Sepco® | ML 4700
- Sepco® | ML 6225
- Teabit® | 2030
- Universal® | 7538
- Utex® | 234
- Utex® | 235

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