Saunders®
the science inside

Saunders® EX Endurance Diaphragm Ideal for Extended High Temperatures

www.cranechempharma.com

Key features of the Saunders® EX Endurance Diaphragm include:

1. Outstanding high temperature performance and resistance to long term exposure at elevated temperatures
2. Ideal for steam distribution and supply, sterile barrier, and block-and-bleed applications
3. Improved seal-to-atmosphere performance and reduced requirements for re-torqueing of fasteners after thermo cycling

Saunders® EX Endurance Diaphragm features two-piece leaf-type construction. The diaphragm consists of a wetted modified PTFE face with a non-wetted fabric reinforced Silicone backing cushion.

The Silicone backing offers exceptional resistance to high temperatures compared to EPDM. EPDM rubbers suffer damage with prolonged exposure to temperature such as encountered during heat sterilization. This damage results in loss of resiliency and resistance to compression set and reduces the ability of the EPDM backing to properly energize the wetted PTFE diaphragm face.

The EX Silicone backing can handle these same elevated temperatures with no deterioration of physical properties.

The Saunders® Endurance Diaphragm is also ideal for applications that require service at unusually high temperatures. The EX Diaphragm has been tested on continuous steam at 175°C (347°F).

CRANE®

Saunders® EX Endurance Diaphragm

EX Design Features

Modified PTFE Wetted Face

- Optimum ratio of crystalline and amorphous micro-structure
- Reduced creep and flow at elevated temperatures means less deformation
- Ideal for high steam applications

Silicone Backing Cushion

- Dicumyl peroxide cured
- Outstanding thermal properties
- Best-in-class resistance to compression set
- Fabric reinforced to optimize flex performance

Size

DN8-100 (¼"- 4")

Applications

The ideal solution for applications that have extended exposure to high temperatures such as during steam sanitization. This includes:

- Steam block
- Sterile barrier
- Steam distribution and supply
- Process lines subjected to long duration steam cleaning

Temperature

Maximum constant 175°C (347°F)
Maximum intermittent 175°C (347°F)
Minimum temperature - 20°C (-4°F)

Marking and Identification

Marking system includes date of production, cure date, diaphragm grade, size, and Saunders® ID to provide full traceability.

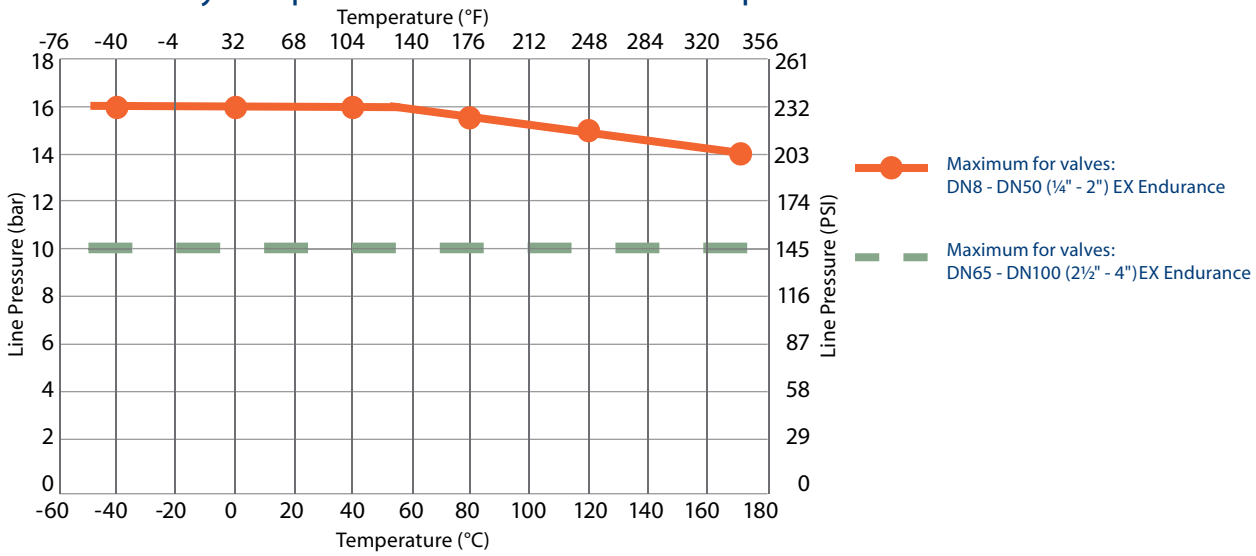
The EX Endurance Diaphragm features Saunders® bayonet type compressor attachment for optimum performance and ease of assembly DN15-100 (½"-4") and screw fix DN8 (¼").

Conformance

- FDA-compliant to 21CFR part 177
- USP Class VI <87>, <88> (third party tested)
- ASME BPE part SG
- Certified ADCF (Animal Derived Component Free)
- Fully lot traceable to EN 10204 3.1

Use only genuine Saunders® spare parts to ensure optimum performance, reliability, and regulatory conformance.

Valve Body Temperature/Pressure Relationships



Please visit our Web-Based Drawing Library at: www.saundersdrawings.com for current database of drawings in PDF, 2D DWG, and 3D STP formats.

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