

Saunders

425 Grade EPM diaphragm

Even Better Performance from Saunders 425 EPM Diaphragm

Delivers highest levels of performance and security for the most demanding biopharmaceutical applications -

Ethylene propylene based elastomer is the most commonly used rubber diaphragm material in the Pharmaceutical industry. The Saunders Biopharm Division of Crane Valve has developed a new grade of Saunders EPM diaphragm that offers enhanced performance for the demanding application criteria found in the Bio-pharmaceutical environment

- Manufactured from inherently stable EPM (Ethylene – Propylene Copolymer)
- Uses the latest vulcanization technology
- Reduction in active sites present in traditional EPDM compounds
- Improved steam life cycle and flex life*

- Longer lasting diaphragm provides better reliability with less disruption to your process
- Fully complies with all international standards for toxicity and purity as defined by regulatory bodies such as FDA, USP and ISO as confirmed by independent laboratory studies
- As the manufacturer, Saunders has complete control of the development and formulation
- Full traceability documentation available to confirm specific batch number and critical data. This aids validation, assists in troubleshooting, and is a guarantee of product quality

***In-house tests show:**

- **An improvement of 18% on steam life cycle testing over conventional formulations**
- **An improvement of 10% in the flex performance at ambient temperature**



CRANE

Saunders, Converting Vision into Reality



Typical Applications

Biopharmaceutical

- Intermittent steam
- Fermentation media (aqueous / water based)
- Dilute acids and alkalis
- Process water / pure water (cold)
- Cooling water
- Deionized water
- Air / Oxygen / Nitrogen
- Ozone

Special Applications

- Specifically gives an improved performance on continuous steam (steam barrier) at 265° F

Specification

An ethylene-propylene copolymer, carbon black reinforced and peroxide cured

Temperature range

- 40° F to 265° F for continuous use
- 40° F to 302° F for intermittent use

Diaphragm Materials

- 425
- 214S/425 (PTFEsteam/EPM)
- 214/425 (PTFE/EPM)
- E3 post oven cured (EPM elastomer)

Size Range

1/4" to 8"

Validation Support

- Formulated in accordance with FDA Code of Federal Regulations, Chapter 1, title 21, part 177, paragraph 2600 Rubber Articles for repeated use in Contact with food (revised April 2001)
- USP 25 Class VI
- Fully traceable to EN10204 3.1b

For Aqueous Extraction (FDA code of Federal Regulations)

As carried out by an independent laboratory
7-hour extraction: 0.1mg/in² (maximum permitted: 20)
2-hour extraction < 0.01mg/in² (maximum permitted: 1)

FDA Compliance Assured

- A unique reference is molded onto the diaphragm for full batch traceability
- Certificate of the physical properties of each batch is used to ensure consistency
- A profile of the complete physical data of each batch is available for troubleshooting
- Complete documentation validation package is available for all valve components in contact with process media

