

# Pure-Fuse Diaphragms



Where Innovation Flows

## WILDEN®

### KEEP IT CLEAN AND ENHANCE YOUR PERFORMANCE WITH PURE-FUSE DIAPHRAGMS

Wilden® Pure-Fuse Diaphragms provide superior cleanability and higher performance when compared to other integral piston diaphragm options.

This patented diaphragm technology offers a one-piece design that eliminates trap areas between the outer piston and the diaphragm where bacteria can grow. This design eliminates the normal abrasive wear caused by the outer

piston in a conventional configuration, resulting in a longer lasting diaphragm. Pure-Fuse also offers superior flow and suction lift over competitor IPDs.

Keep it clean today by contacting your authorized Wilden distributor and asking for the Wilden Pure-Fuse for high purity and high performance.



\* Only applicable for Saniflex

## FEATURES AND BENEFITS

- Up to 100% increased flow and suction lift compared to PTFE laminate diaphragms
- Up to 50% price reduction compared to PTFE laminate diaphragms
- No adhesive used in the diaphragm construction unlike competitive one-piece diaphragms
- Size availability: 25 mm (1"), 38 mm (1-1/2"), 51 mm (2"), 76 mm (3")
- Temperature range: - Wil-Flex™: -40°C to 107°C (-40°F to 225°F) - Saniflex™: -29°C to 104°C (-20°F to 220°F)
- Sanitary Wil-Flex material meets FDA CFR 21.177 and 3A requirements



## WILDEN® PURE-FUSE DIAPHRAGMS FOR HIGH PURITY AND HIGH PERFORMANCE APPLICATIONS

Achieve superior flow rates and increase production output by improving product displacement per stroke and suction lift when compared to competitive diaphragms. The Wilden Pure-Fuse diaphragm is constructed from food-grade Wil-Flex or Saniflex and engineered for extreme durability, ease of maintenance and maximized Mean Time Between Repair (MTBR).

### CONVENTIONAL DIAPHRAGMS

- Trap area where bacteria can grow
- Outer piston that causes diaphragm abrasions – a major cause of diaphragm failure

### SHORT-STROKE INTEGRAL PISTON DIAPHRAGMS (IPD)

- Relies on non-compliant adhesives for bonding of components
- Only available with short shaft – meaning reduced performance

### PURE-FUSE DIAPHRAGMS

- Smooth surface for fast, easy cleaning
- One-piece design with no outer piston to cause abrasions

## Compare the Performance

PX8 Hygienic™ Series 51 mm (2") at 100 psig air inlet and 40 psig discharge pressure

Diaphragm	Displacement per Stroke <sup>1</sup>	Max Dry Suction Lift <sup>2</sup>	Flow Rate <sup>3</sup>
Conventional Diaphragm	1.1 l (.28 gal)	5.3 m (17.3')	329.7 lpm (87.1 gpm)
Short-Stroke Integral Piston Diaphragm	0.4 l (0.11 gal)	2.3 m (7.4')	182.1 lpm (48.1 gpm)
Pure-Fuse Diaphragm	1.1 l (.28 gal)	4.7 m (15.3')	378.9 lpm (100.1 gpm)

<sup>1</sup> Displacement per stroke was calculated at 4.8 bar (70 psig) air inlet pressure against 2.1 bar (30 psig) head pressure with PX8 HS pump

<sup>2</sup> Max suction lift in feet of water

<sup>3</sup> Flow Rates in GPM at 100 psig Inlet and 40 psig Discharge Air Pressure with PX8 HS Pump



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