



Progressive Diaphragm Technology

Thermoplastic Elastomer (TPE)

- **Polyurethane:** An excellent general purpose diaphragm for use in non-aggressive applications. This material exhibits exceptional flex life and durability. Wilden's most economical diaphragm. Also available as part of Wilden's EZ-Install flex-profile diaphragm line.
- **Wil-Flex™:** Made of Santoprene™, this diaphragm is an excellent choice as a low cost alternative to PTFE in many acidic and caustic applications such as sodium hydroxide, sulfuric or hydrochloric acids. Wil-flex™ offers excellent abrasion resistance and durability, at a cost comparable to neoprene. Sanitary options include: full-stroke length Integral Piston Diaphragms (IPD) and a sanitary Wil-Flex™ material with a special flex profile allowing for an "easy install."
- **Saniflex™:** Made of Hytrel®, this diaphragm exhibits excellent abrasion resistance, flex life and durability. This material is FDA approved for food processing applications. This outstanding general purpose diaphragm is also available as part of the Wilden's EZ-Install flex-profile diaphragm line.
- **Geolast®:** Equivalent to nitrile (Buna-N), this diaphragm is an injection-molded material that is an excellent choice for applications requiring enhanced oil resistance. This material exhibits exceptional performance for a variety of fluids.

PTFE Elastomers

- **PTFE:** Excellent choice when pumping highly aggressive fluids such as aromatic or chlorinated hydrocarbons, acids, caustics, ketones and acetates. Wilden's legacy PTFE diaphragms exhibit good flex life; and now Wilden has coupled its knowledge of PTFE with over 55 years of diaphragm testing to bring a "full-stroke" length option for maximum yield and high suction lift, for the world's toughest applications.
- Wilden also offers PTFE integral piston diaphragms that offer superior product containment. The smooth contoured shape makes this diaphragm excellent choice for sanitary or ultra-pure applications.

Ultra-Flex™ Diaphragm Technology

- **Guaranteed longer life** – If longer life is not experienced, Wilden will send you a new set of Ultra-Flex™ diaphragms free of charge.
- **Convolute shape, altered fabric placement and unique hardware work together to decrease the unit loading on the diaphragm and distribute stress.**
- **MATERIAL OPTIONS:** Neoprene, Buna-N, EPDM, Viton®





Rubber Elastomers

- Neoprene: An excellent general purpose diaphragm for use in non-aggressive applications such as water-based slurries, well water or sea water. Exhibits excellent flex life and low cost.
- Buna-N: Excellent for applications involving petroleum/oil-based fluids such as leaded gasolines, fuel oils, hydraulic oils, kerosene, turpentines and motor oils.
- EPDM: Excellent for use in applications requiring extremely cold temperatures. It may also be used as a low cost alternative for pumping dilute acids or caustics.
- Viton®: Excellent for use in applications requiring extremely hot temperatures. Viton® may also be used in aggressive fluids such as aromatic or chlorinated hydrocarbons and highly aggressive acids. PTFE would normally be used with these aggressive fluids as its flex life is better than Viton®; however, in applications involving suction lift outside the range of PTFE, Viton® will be the preferred choice for highly aggressive fluids.



Elastomer Temperature Limits:

POLYPROPYLENE:	0°C to 79°C (32°F to 175°F)
PVDF:	-12°C to 107°C (10°F to 225°F)
PFA:	7°C to 107°C (20°F to 225°F)
NEOPRENE:	-18°C to 93°C (0°F to 200°F)
BUNA-N:	-12°C to 82°C (10°F to 180°F)
EPDM:	-51°C to 138°C (-60°F to 280°F)
VITON® FKM:	-40°C to 177°C (-40°F to 350°F)
WIL-FLEX™:	-40°C to 107°C (-40°F to 225°F)
SANIFLEX™:	-29°C to 104°C (-20°F to 220°F)
POLYURETHANE:	-12°C to 66°C (10°F to 150°F)
POLYTETRAFLUOROETHYLENE (PTFE)¹:	4°C to 104°C (40°F to 220°F)
NYLON:	-18°C to 93°C (0°F to 200°F)
ACETAL:	-29°C to 82°C (-20°F to 180°F)
SIPD PTFE W/NEOPRENE-BACKED:	4°C to 104°C (40°F to 220°F)
SIPD PTFE W/EPDM-BACKED:	-10°C to 137°C (14°F to 280°F)
POLYETHYLENE:	0°C to 70°C (32°F to 158°F)
GEOLAST®:	-40°C to 82°C (-40°F to 180°F)

¹4°C to 149°C (40°F to 300°F) - 13 mm (1/2") and 25 mm (1") models only.

Please verify the chemical resistance capabilities and temperature limitations of elastomers and all other pump components prior to pump installation. Wilden's online Chemical guide should be consulted for specifics.

Go to www.wildenchemicalguide.com for your Wilden Chemical Compatibility Chart.