



The Widest
Selection
for Every
Application

WILDEN®
Diaphragms



Where Innovation Flows

www.wildenpump.com

DIAPHRAGM TECHNOLOGIES:
Integral Piston Diaphragms (IPD)
EZ-Install
Ultra-Flex™

DIAPHRAGM MATERIALS:
PTFE
Thermoplastic (TPE)
Rubber

Genuine **WILDEN**
Accept Nothing Less

Choose the quality standard the industry knows and trusts.

You own the premier AODD pump...
Keep it operating at peak performance with only genuine Wilden diaphragms.

Genuine Wilden Diaphragms

Largest Selection of AODD Pump Diaphragms in the World – 300% More than Competitors

- Largest breadth of diaphragm shapes, sizes and material offerings in the industry
- Widest range of applications; Aggressive fluids, petroleum/oil-based fluids, hygienic applications (food, pharmaceutical and personal care materials) and water/waste water

Product Development, Testing and Manufacturing Drives Innovation and Continuous Improvement

- Diaphragm technologies engineered for long flex life, superior durability and peak performance
- Longest MTBR (Mean Time Between Repair) in the industry
- Superior quality materials used in diaphragm design and construction
- Innovative high-performance diaphragm technologies with Wilden's EZ-Install and Full-Stoke PTFE diaphragm technologies

Wilden: Quality Since 1955

- Wilden invented the AODD pump and PTFE diaphragm technology
- World Class manufacturing, engineering and quality control capabilities
- Best-in-Class global distribution network

Overall Peace of Mind – Trust in Wilden

- Replacement with genuine Wilden diaphragms guarantees 100% warranty compliance and protection of your original Wilden AODD pump purchase
- Replacement with other brands/cheaper diaphragms will void the warranty!

For more information on Wilden's innovative diaphragm technology, visit: WildenDiaphragms.com

Only genuine Wilden diaphragms
are marked WILDEN.

Always insist on the best!



Wilden Global Distributor Network

- Provides highly qualified, quick access to parts inventory, troubleshooting and field support
- Nearly 200 locations worldwide
- Find an authorized Wilden distributor at:
Wildendistributor.com

Diaphragms for Every Industry and Application



WATER/ WASTEWATER:

- Metering / Dosing
- Treatment
- Post Treatment Disposal / Recycling
- Collection / Transmission



CHEMICAL/ PROCESS:

- Chemical
- Plastics
- Petrochemical
- Bulk Transfer
- Metering
- Injection



HYGIENIC & SANITARY:

- Food & Beverage
- Pharmaceutical / Biopharma
- Metering
- Filling / Batching
- Bulk Transfer



ENERGY:

- Exploration
- Production
- Transport
- Storage
- Fuels & Gases



TRANSPORT:

- Bulk Transfer
- Loading / Unloading
- Transfer / Storage
- Rail Tank Cars
- Cleaning / Sanitation



MILITARY & MARINE:

- Ground / Sea / Air
- Bulk Transfer
- Loading
- Unloading
- Transfer / Storage



Thermoplastic Elastomers (TPE)

- General purpose diaphragm
- Operate over wide temperature range -40°C/-40°F to 107°C/225°F
- Superior abrasion resistance
- Exceptional durability and flex life
- Well suited for ketones and aldehydes, acetates, hydrocarbons and water/wastewater applications
- Manufactured by Wilden

Polyurethane

- General purpose diaphragm
- Economically priced
- Excellent flex life and moderate abrasion resistance
- Perfect for non-aggressive applications such as water/wastewater

Wil-Flex™

- General purpose diaphragm
- Blend of Polyurethane and EPDM
- Economically priced
- Excellent flex life, abrasion resistance and durability
- Well suited for acidic and caustic applications
- For food, beverage and pharmaceutical applications, versions available that comply with FDA 21 CFR 177 and USP Class VI standards.

Saniflex™

- Made of Hytrel® - excellent abrasion resistance and good flex life
- For food and beverage applications, versions available that comply with FDA 21 CFR 177 standards.
- Outstanding sealing of low specific gravity and highly lubricious materials
- Also available as part of EZ-Install diaphragm line

Geolast®

- Good abrasion resistance and moderate flex life
- Blend of polyurethane and Buna-N
- Best suited for petroleum/oil-based fluids and applications, including gasoline, fuel oils and motor oils

Geolast® is a registered trademark of ExxonMobil.
Hytrel® is a registered trademark of DuPont Dow Elastomers.

Two-Piece Teflon® Elastomers (PTFE)

- Our best seller
- Preferred choice for highly aggressive fluids such as hydrocarbons, acids, caustics, ketones and acetates
- Operate over moderate temperature range 4°C/40°F to 104°C/220°F
- Superior flex life and moderate durability
- Available in Reduced-Stroke Teflon® and Full-Stroke Teflon®
- Offered with several back-up diaphragm materials including Neoprene, Buna-N, EPDM, Saniflex™ and Wil-Flex™
- For food, beverage and pharmaceutical applications, versions available that comply with FDA 21 CFR 177 and USP Class VI standards.
- Higher Priced
- Manufactured by Wilden

Rubber Elastomers

- General purpose diaphragm
- Provides the greatest temperature spans -51°C/-60°F to 177°C/350°F
- Specifically engineered to significantly increase chemical resistance
- Exceptional durability derived from integral nylon fabric mesh
- Well suited for a wide range of applications

Neoprene

- General purpose diaphragm
- Economically priced
- Good flex life and moderate abrasion resistance
- Perfect for non-aggressive applications such as water/wastewater

Buna-N

- A popular choice, featuring moderate flex life and abrasion resistance
- Excellent for applications involving petroleum/oil-based fluids including leaded gasoline, fuel oils, kerosene, turpentine and motor oils
- For food and beverage applications, versions available that comply with FDA 21 CFR 177 standards.

EPDM

- Economically-priced alternative for dilute acids such as ketones, aldehydes and acetates
- Good flex life and moderate abrasion resistance
- For food and beverage applications, versions available that comply with FDA 21 CFR 177 standards.
- Perfect for extremely cold temperatures (down to -51°C/-60°F)

Viton®

- Premium priced
- Moderate flex life and abrasion resistance
- Excellent for aggressive fluids such as aromatic or chlorinated hydrocarbons, acids and caustics
- Well suited for extremely hot temperatures (up to 177°C/350°F)

Teflon® and Viton® are registered trademarks of DuPont.





Wilden Design
U.S. Patent –
Wil-Flex™ Full-Stroke
Integral Piston Diaphragm
(No. 8,496,451)

Wilden Integral Piston Diaphragms (IPDs)

Increase Efficiency and Save Labor Costs

Greater Flow Rates, Faster Installation and Easier Cleaning

- Refers to a type of diaphragm construction and the location of the piston driving the in and out motion of the diaphragm. Regular diaphragms and IPDs can be made from the same elastomer materials
- Safe, clean, reliable product transfer with no product entrapment areas to minimize product contamination
- Reduces labor with its “Clean-In-Place” (CIP) capabilities provided by its smooth, contoured shape and no outer metal plate
- Cost-effective, fast installation – No inverting of the diaphragm required
- Compatible with existing shafts and supporting hardware
- Improved product containment by eliminating the leak point between the outer piston and diaphragm
- Manufactured by Wilden

PTFE IPD

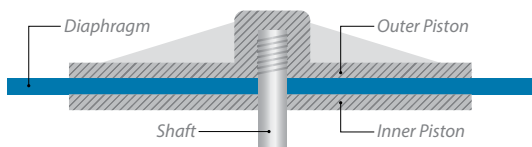
- Superior product containment and chemical resistance
- Fewer parts to greatly minimize contamination points
- Well suited for sanitary and ultra-pure applications

Wil-Flex™ Full-Stroke Integral Piston Diaphragm (FSIPD)

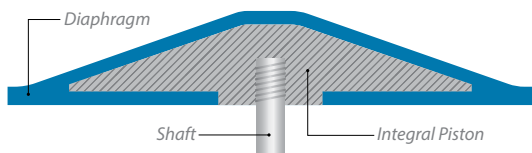
- Patented design provides higher productivity with increased displacement per stroke for enhanced flow rates and operating efficiencies and 115% greater suction lift
- Lower cost than PTFE IPDs
- Contains no adhesives that could be exposed to pumping media
- Wide temperature limits and high abrasion resistance
- Well suited for acids, caustics and other aggressive fluids

Wilden IPDs are available for use in 25 mm (1"), 38 mm (1-1/2"), 51 mm (2") and 76 mm (3") Hygienic™ Series metal or plastic AODD pumps and in standard Wilden 25 mm (1"), 38 mm (1-1/2") and 51 mm (2") pumps, including the FDA-compliant Saniflo™ Series.

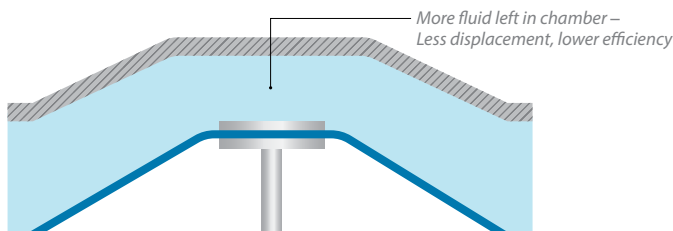
Conventional Diaphragm



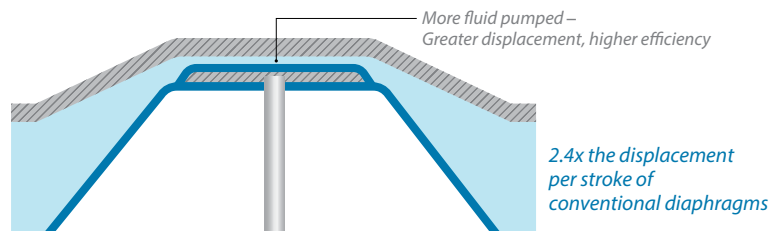
PTFE IPD



Conventional Diaphragm During Discharge Stroke



Full-Stroke Diaphragm During Discharge Stroke



Wilden EZ-Install Diaphragms

Cut Labor and Downtime

- Decrease downtime and cut the costs of diaphragm replacement
- Reduce installation labor time and costs — No inverting of the diaphragm required for faster installation with fewer people
- Get the pump up and running in half the time (less than 20 minutes)
- Convolute shape allows quick, easy installation and minimizes risk of injury
- Same performance and durability as traditional diaphragms
- 100% compatible with existing hardware
- Same price as traditional-shaped diaphragms

Available in Wil-Flex™, Saniflex™, Polyurethane and Geolast®

Available for Wilden's 38 mm (1-1/2"), 51 mm (2") and 76 mm (3") Original™ and Advanced™ Series AODD pumps



Traditional shape
requires inverting
during installation

Wilden EZ-Install
requires no inverting

Wilden Ultra-Flex™ Diaphragms

Innovative Engineering Stretches Diaphragm Life

- Utilizes longest-lasting rubber-compound diaphragm in the industry
- Patented design reduces internal stress for extremely long diaphragm life
- "Operational" convolute shape minimizes stress concentration throughout entire stroke
- Maximization of diaphragm material movement while decreasing diaphragm loading and stress concentration
- Controlled fabric placement decreases tensile loading to further reduce stress
- Increased abrasion resistance with corrosive materials

Available in Buna-N, EPDM, Neoprene, Viton®



Wilden Design
U.S. Patent—
Ultra-Flex™
(No. 5,743,170)

| Compound | | Flex Life | Abrasion Resistance | Chemical Resistance/Applications | | | | | | Operating Temperature Limits | Cost |
|---------------------|--------------|-----------|---------------------|----------------------------------|----------|-----------------------|--------------------------|-----------|------------------|----------------------------------|----------|
| | | | | Ketones & Aldehydes | Acetates | Aromatic Hydrocarbons | Chlorinated Hydrocarbons | Oil & Gas | Water/Wastewater | (Min/Max) | (\$) |
| Thermoplastic (TPE) | Polyurethane | A | A | | | | | | ✓ | -12° to 66°C [10° to 150°F] | \$ |
| | Wil-Flex™ | A | A | ✓ | ✓ | | | | ✓ | -40° to 107°C [-40° to 225°F] | \$ |
| | Saniflex™ | B | A | | | ✓ | | | | -29° to 104°C [-20° to 220°F] | \$\$ |
| | Geolast® | C | B | | | | | ✓ | | -40° to 82°C [-40° to 180°F] | \$\$ |
| PTFE | PTFE | A | B | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | 4° to 104°C [40° to 220°F] | \$\$\$ |
| Rubber | Neoprene | B | C | | | | | | ✓ | -18° to 93°C [0° to 200°F] | \$ |
| | Buna-N | C | C | | | | | ✓ | | -12° to 82°C [10° to 180°F] | \$\$ |
| | EPDM | B | C | ✓ | ✓ | | | | | -51° to 138°C [-60° to 280°F] | \$\$ |
| | Viton® | C | C | | | ✓ | ✓ | | | -40° to 177°C [-40° to 350°F] | \$\$\$\$ |

Contact a Wilden distributor for expert guidance on diaphragm selection. Every Wilden distributor has extensive training in diaphragm technology and applications.

Contact Your Authorized Wilden Distributor Today
WildenDistributor.com

For more information on Wilden's innovative
diaphragm technology, visit:
WildenDiaphragms.com

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