

Advanced™ SERIES

A d v a n c e y o u r p r o c e s s

WILDEN®
A DOVER COMPANY

1955
50TH
ANNIVERSARY
2005

Knowledge



- We understand your needs and challenges
- We must save you time and money
- We value proven techniques as well as creative ideas
- We combine technical wisdom with common sense
- We take pride in our work

Product



- Designed to maximize your yield
- Engineered for general and specialized applications
- Excels in difficult applications where other pumps fail
- Easy to specify, operate, and maintain
- Put our products to the test

Quality



- ISO 9001 Registration since 1994
- Equipment, procedures, and pride ensure product conformity
- Every pump is performance tested
- Quality is not a program; it is our culture

Distribution



- Local service - Worldwide
- Full-stocking, full-service distributors
- Formally educated in specifying and maintaining your system
- Product is available immediately
- Local training of your staff

Response



- Committed to servicing you with our entire staff
- Service is 24 hours a day / 7 days a week
- Minimize your downtime while increasing your yield
- Spare parts when you need them
- From face time to e-commerce

Results



- Wilden tradition of service, quality, and integrity
- We do more than sell products; we solve problems
- We attack the root cause of the problem, not the symptom
- Challenge Us



Advanced™

S E R I E S

Your Needs

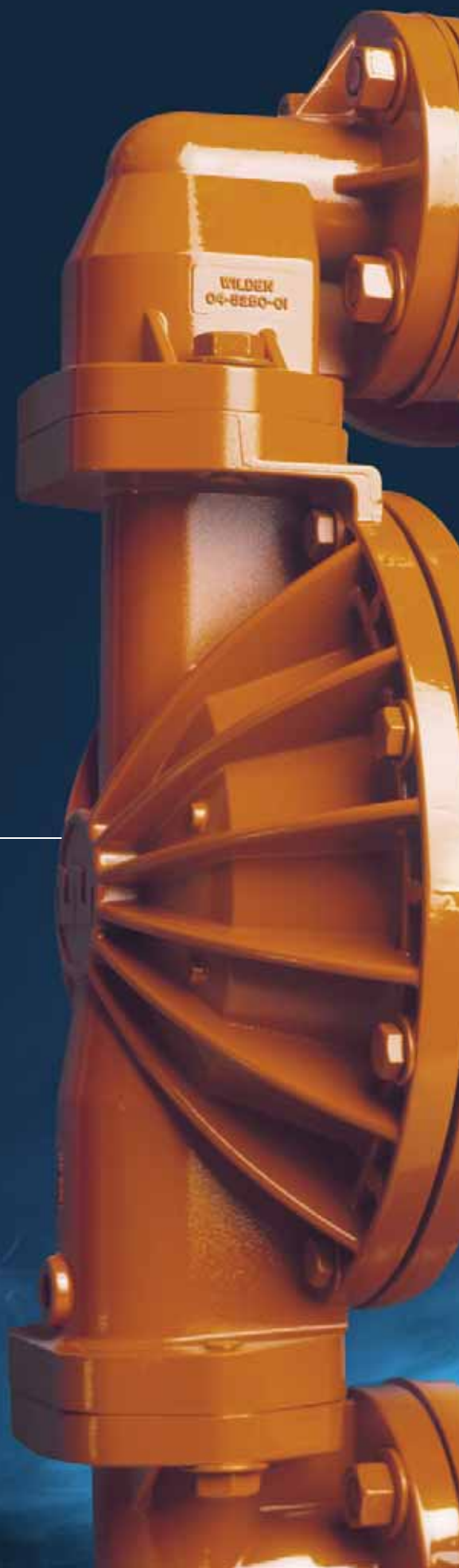
- Maximize containment
- Increase On/Off reliability
- Lower the cost of operation
 - Increase flow rates
 - Keep it cost effective

Our Solution

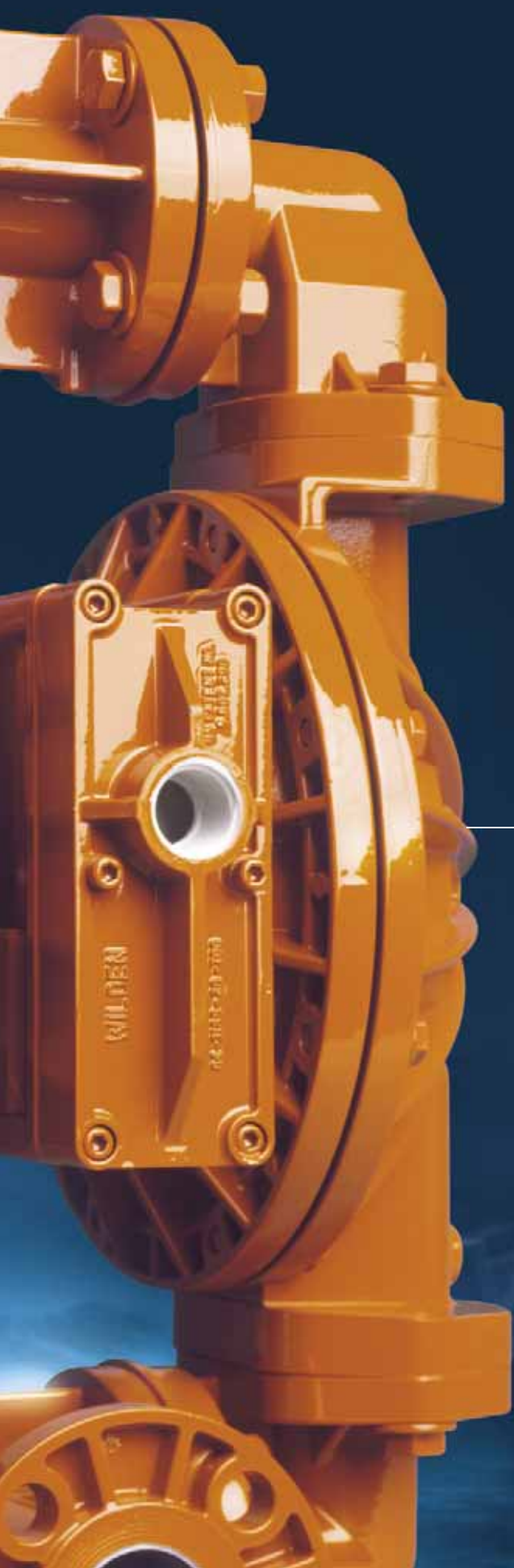
- Advanced wetted path designs
- Proven air distribution systems
- Progressive diaphragm technology
- The result of advanced thought

The Result

- Achieve higher yields
- Increase pump performance
- Lower operational costs & downtime
- Longer MTBF (Mean Time Between Failures)
 - Your success



The result of advanced thought.



Containment

- Leak-free operation throughout the pump's life
- Superior torque retention
- Unique valve seat design
- Close tolerances on all sealing surfaces

Flow Rates

- Highest flow rates in the industry
- Reduced internal friction
- Reduced turbulence
- Possibility of using a smaller pump for your application

Efficiency

- Liquid path & air systems complement each other
- Greater flow per SCFM input (GPM/SCFM)
- Reduced air usage equates to reduced kilowatts
- We will save you money

Installation Flexibility

- NPT or BSP threads available
- ANSI or DIN flanges available
- Split manifold configurations

Solids Passage

- Enhanced internal clearance
- Larger solids passage
- Strong suction lift capability
- Viscous product transfer



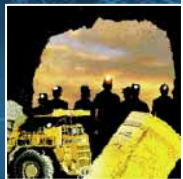
Ceramics



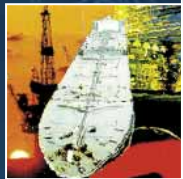
Chemical



Dry Powder



Mining



Oil & Gas



Paint & Inks



Plating & Finishing

Advanced™

SOLUTIONS

Unique Characteristics

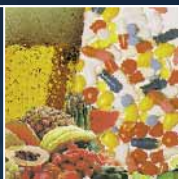
- Variable Flow and Pressure
- Intrinsically Safe by Design
- Shear Sensitive
- Large Solids Passage
- Self-priming
- Dry Running Without Damage
- Deadhead Capable
- Portable & Submersible
- UL, CE Mark, FDA, USDA, 3A
- Ease of Operation and Maintenance

Difficult Applications

- Solvents
- Acids
- Caustics
- High Viscosity
- Low Viscosity
- Large Solids & Abrasive Media
- Hazardous Liquids
- Cleanroom Fluids
- Pressures to 17.2 bar (250 psig)



Pulp & Paper



Sanitary



Semiconductor



Waste Treatment

Installation

V E R S A T I L I T Y

Self-Priming

- Capable of pulling high vacuum
- Pump can run dry
- No heat generation
- Capability dependent upon pump size, fluid characteristics, air supply, etc.

Positive Suction Head

- Pump can draw from the bottom of vessel
- Inlet pressure should be limited to 0.7 bar (10 psig) to maximize parts life
- Preferred installation for viscous fluids

Submerged

- Many pumps can be completely submerged
- Verify that all materials of construction are compatible with fluid
- Air exhaust must be plumbed to atmosphere
- Some pumps have screened liquid inlet connections

The Wilden

MOTION

Type:

- Positive Displacement, Reciprocatingw Air-Operated, Double-Diaphragm Pump

Major Components:

- Wetted Components – Parts that come into contact with liquid
- Air Distribution System – Air chambers, center block & air valve
- Elastomers – Diaphragms, check valves, valve seats & o-rings

Dynamic Components:

- Two diaphragms are connected to a common shaft and act as a separation membrane between the compressed air and the liquid
- Two inlet and two discharge check valves open and then close to direct liquid flow
- The Air Distribution System alternately supplies air to the right and then the left side of the pump



Figure 1.



Figure 2.



Figure 3.

Figure 1.

1. Air supply is directed to the left air chamber behind diaphragm A
2. Diaphragm A is driven by compressed air away from the center section and toward the liquid chamber
3. The opposite diaphragm (diaphragm B) is pulled in by the common shaft
4. Diaphragm B is now on its suction stroke while diaphragm A is on its discharge stroke
5. The movement of diaphragm B toward the center block opens the bottom right check valve and closes the upper right check valve

6. This movement creates a vacuum within liquid chamber B
7. Atmospheric pressure forces fluid into the inlet manifold, past the lower right inlet check valve and into liquid chamber B
8. When the pressurized diaphragm A reaches its full stroke, the air distribution system redirects the air supply to the back side of diaphragm B

Figure 2.

1. The pressurized air forces diaphragm B away from the center block and the common shaft pulls diaphragm A toward the center section
2. The air chamber on side A exhausts its air to atmosphere
3. Diaphragm B is now beginning its discharge stroke while diaphragm A is beginning its suction stroke

4. Diaphragm B creates hydraulic force that begins to close the lower right check valve and opens the upper right check valve
5. Diaphragm A creates a vacuum that begins to open the inlet check valve (lower left) and closes the discharge check valve (upper left)

Figure 3.

1. As the pump continues to stroke toward the right (toward diaphragm B), side A fills with fluid as side B discharges fluid

2. When side B reaches its complete stroke, the air distribution system redirects the air supply back to side A
3. When the pump completes two strokes (one on each side) a complete pumping cycle is achieved

Air Distribution SYSTEMS

P r o - F l o ®

Market Position

- ON/OFF reliability
- Longest-lasting wear parts
- Lube-free operation
- Anti-freezing

Application Traits

- Maximum reliability
- Process applications
- Max. mean time between failures
- Plastic air system required

Features

- Plastic air chambers
- Plastic C-block and A.V.
- Non-stalling unbalanced spool
- Few replaceable parts

Availability

6 mm, 13 mm, 25 mm, 38 mm,
51 mm, & 76 mm pumps
(1/4", 1/2", 1", 1-1/2", 2", & 3" pumps)

PRO-FLO
PROGRESSIVE PUMP TECHNOLOGY



P r o - F l o V™

Market Position

- ON/OFF reliability
- Longest-lasting wear parts
- Lube-free operation
- Superior anti-freezing
- Submersible

Application Traits

- Maximum reliability
- Process applications
- Transfer applications
- All-metal air system required

Features

- All metal air system
- Non-stalling unbalanced spool
- Few replaceable parts
- Fully recaptured pilot spool vent option

Availability

• 38 mm, 51 mm & 76 mm pumps
(1-1/2", 2", & 3" pumps)

PRO-FLO V™
PROGRESSIVE PUMP TECHNOLOGY



A c c u - F l o™

Market Position

- Direct electrical interface
- Superior ON/OFF reliability
- Reduced system costs
- Lube-free operation

Application Traits

- System automation
- 4-20 mA (pH adjusting)
- Batching applications
- OEM accounts

Features

- Externally controlled
- Various voltage and currents
- Nema 4, Nema 7, or Cenelec
- Simple installation
- Wilden accessory interface

Availability

6 mm, 13 mm, 25 mm, 38 mm,
51 mm & 76 mm pumps
(1/4", 1/2", 1", 1-1/2", 2", & 3" pumps)

ACCU-FLO™
SOLENOID PUMP TECHNOLOGY



Diaphragm Considerations

- Flex Life
- Chemical Resistance
- Temperature Limitations
- Abrasion Resistance
- Initial Cost

Traditional Rubber Diaphragms

- Rubber diaphragms are designed to maximize life, abrasion resistance and chemical compatibility
- A nylon fabric mesh is positioned within rubber diaphragms during the molding process to strengthen the diaphragm while distributing stress

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. See product flyer for details
- Convolute shape, altered fabric placement, and unique hardware work together to decrease the unit loading on the diaphragm and distribute stress

ULTRAFLEX™

Thermoplastic Elastomer (TPE)

- Thermoplastic diaphragms are manufactured by molding proprietary compounds into finished parts
- Thermoplastic diaphragms are molded without fabric reinforcement due to their inherent tensile strength
- Thermoplastic diaphragms exhibit excellent abrasion resistance

Teflon® (PTFE)

- Teflon® is the most chemically inert compound
- Wilden patented our Teflon® diaphragms with concentric ribs to control the flex pattern of the diaphragm to maximize life
- A back-up diaphragm is used to provide support and lengthen the Teflon® diaphragm life

Tetra-Flex™ Technology

- Gylon® PTFE Laminate (one-piece diaphragm)
- Guaranteed longest-lasting PTFE laminate diaphragm on the market (see product flyer for details)
- Improves the sealing characteristics of the pump
- Handles high fluid inlet pressure applications

TETRA-FLEX™
PROGRESSIVE DIAPHRAGM TECHNOLOGY

Please verify the chemical resistance capabilities and temperature limitations of elastomers and all other pump components prior to pump installation. Wilden publication E-4 should be consulted for specifics.

Maximum Flow Rate

- Determined by pumping water into tanks
- The flow rate was calculated based on time and weight of water pumped
- Viscosity and specific gravity of process fluid will affect flow rates

Maximum Diameter Solids

- Maximum solids diameter figure was determined by pumping solids through pump
- The solids were non-compressible and round in size
- Geometry of solids and compressibility will affect passage

Suction Lift Capability

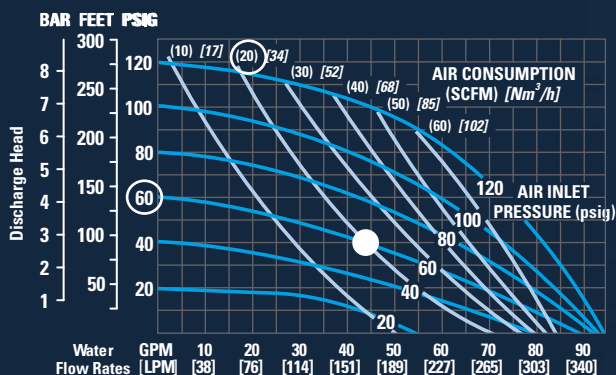
- Calibrated for pumps operating at 305 m (1000 ft) above sea level
- The figures listed in this brochure are the maximum lift capable for each specific pump
- Suction lift capability is affected by many variables including viscosity & specific gravity
- Consult the Engineering, Operation & Maintenance Manual for complete data

Performance Curves

- Pumps should be specified so that daily operation parameters will fall in the middle of the curve
- Many curves exist for each pump depending upon elastomeric configuration
- Consult the Engineering, Operation & Maintenance Manuals for complete data

How to Read Performance Curves

- Determine the flow rate you require and determine your discharge head
- Plot the intersection of the discharge head on the vertical axis to the flow rate on the horizontal axis (see dot)
- Locate the blue curve closest to this intersection and follow it to the vertical axis to the left
- This is the air supply pressure needed to provide the flow rate at the given head
- Locate the gray curve closest to the intersection and follow it up to where the numbers are provided
- This number is the air supply volume needed to provide the flow rate you require at the given head



Example: To pump 163 lpm (45 gpm) against a discharge pressure head of 2.8 bar (40 psig) requires 4.1 bar (60 psig) and 34 Nm³/h (20 scfm) air consumption (see dot on chart).

Temperature Range

- Temperature limitations are based upon mechanical stress only
- Specific chemicals will significantly reduce the maximum safe operating temperature
- Consult the Wilden Chemical Guide (E4) for information on specific fluids



Advanced™

P L A S T I C



W I L D E N

PROFLO®
 PROGRESSIVE PUMP TECHNOLOGY

P100 ADVANCED™ PLASTIC PUMP

Specifications:

Height: 277 mm (10.9")
 Width: 234 mm (9.2")
 Depth: 201 mm (7.9")
 Air Inlet: 6 mm (1/4") FNPT
 Liquid Inlet: 13 mm (1/2")
 Liquid Outlet: 13 mm (1/2")

Wetted Material: Est. Ship Weight

Polypropylene: 4 kg (8 lbs)
 PVDF: 5 kg (10 lbs)

Elastomers:

Polyurethane Saniflex™
 Buna-N Teflon®
 Viton® Wil-Flex™

Performance:

Max. Flow: Rubber/TPE 58.7 lpm (15.5 gpm)
 Teflon® 56.7 lpm (15.0 gpm)
 Max. Pressure: 8.6 bar (125 psig)
 Max. Solids Passage: 1.6 mm (1/16")
 Max. Suction Lift (wet): Rubber/TPE 8.7 m (28.4')
 Teflon® 9.3 m (30.6')
 (dry): Rubber/TPE 5.2 m (17.0')
 Teflon® 4.5 m (14.7')



W I L D E N

PROFLO®
 PROGRESSIVE PUMP TECHNOLOGY

P200 ADVANCED™ PLASTIC PUMP

Specifications:

Height: 434 mm (17.1")
 Width: 455 mm (17.9")
 Depth: 229 mm (9.0")
 Air Inlet: 6 mm (1/4") FNPT
 Liquid Inlet: 25 mm (1")
 Liquid Outlet: 25 mm (1")

Wetted Material: Est. Ship Weight

Polypropylene: 10 kg (22 lbs)
 PVDF: 15 kg (32 lbs)
 Teflon® PFA: 18 kg (40 lbs)

Elastomers:

Polyurethane Neoprene
 Buna-N Teflon®
 Viton® Wil-Flex™
 Saniflex™ Nordel®

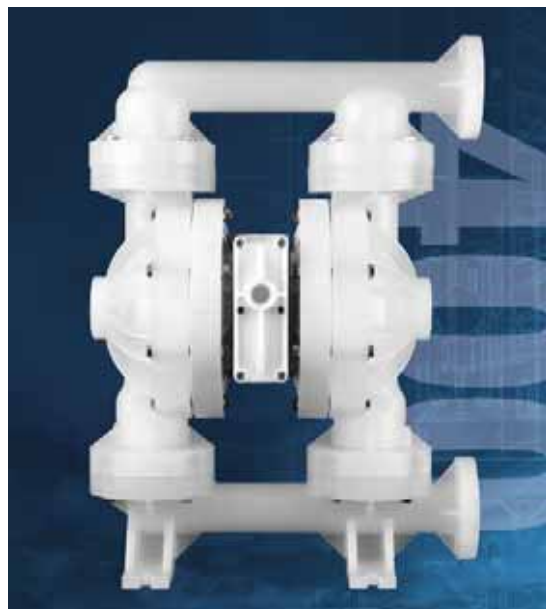
Performance:

Max. Flow: Rubber/TPE 220 lpm (58 gpm)
 Teflon® 174 lpm (46 gpm)
 Max. Pressure: 8.6 bar (125 psig)
 Max. Solids Passage: 4.8 mm (3/16")
 Max. Suction Lift (wet): Rubber/TPE 9.8 m (32.0')
 Teflon® 9.5 m (31.0')
 (dry): Rubber/TPE 3.6 m (11.9')
 Teflon® 2.4 m (7.9')



Advanced™

P L A S T I C



W I L D E N

PROFLO
PROGRESSIVE PUMP TECHNOLOGY

P400 ADVANCED™ PLASTIC PUMP

Specifications:

Height: 668 mm (26.3")
Width: 478 mm (18.8")
Depth: 300 mm (11.8")
Air Inlet: 13 mm (1/2") FNPT
Liquid Inlet: 38 mm (1-1/2")
Liquid Outlet: 38 mm (1-1/2")

Wetted Material: Est. Ship Weight

Polypropylene: 19 kg (41 lbs)
PVDF: 27 kg (59 lbs)

Elastomers:

Polyurethane	Neoprene
Buna-N	Teflon®
Viton®	Wil-Flex™
Saniflex™	Nordel®

Performance:

Max. Flow: Rubber/TPE 454 lpm (120 gpm)
Teflon® 318 lpm (84 gpm)
Max. Pressure: 8.6 bar (125 psig)
Max. Solids Passage: 6.4 mm (1/4")
Max. Suction Lift (wet): Rubber/TPE 9.3 m (30.6')
Teflon® 9.7 m (31.8')
(dry): Rubber/TPE 5.5 m (18.2')
Teflon® 3.3 m (10.8')



W I L D E N

PROFLO
PROGRESSIVE PUMP TECHNOLOGY

P800 ADVANCED™ PLASTIC PUMP

Specifications:

Height: 805 mm (31.7")
Width: 604 mm (23.8")
Depth: 353 mm (13.9")
Air Inlet: 13 mm (1/2") FNPT
Liquid Inlet: 51 mm (2")
Liquid Outlet: 51 mm (2")

Wetted Material: Est. Ship Weight

Polypropylene: 32 kg (70 lbs)
PVDF: 45 kg (99 lbs)

Elastomers:

Polyurethane	Neoprene
Buna-N	Teflon®
Viton®	Wil-Flex™
Saniflex™	Nordel®

Performance:

Max. Flow: Rubber/TPE 625 lpm (165 gpm)
Teflon® 503 lpm (133 gpm)
Max. Pressure: 8.6 bar (125 psig)
Max. Solids Passage: 6.4 mm (1/4")
Max. Suction Lift (wet): Rubber/TPE 8.7 m (28.4')
Teflon® 8.7 m (28.4')
(dry): Rubber/TPE 6.2 m (20.4')
Teflon® 4.2 m (13.6')



W I L D E N

PROFLO®
 PROGRESSIVE PUMP TECHNOLOGY

P1500 ADVANCED™ PLASTIC PUMP
Specifications:

Height: 1280 mm (50.4")
 Width: 914 mm (36.0")
 Depth: 584 mm (23.0")
 Air Inlet: 19 mm (3/4") FNPT
 Liquid Inlet: 76 mm (3")
 Liquid Outlet: 76 mm (3")

Wetted Material: Est. Ship Weight

Polypropylene: 138 kg (305 lbs)
 PVDF: 161 kg (356 lbs)

Elastomers:

Teflon®

Performance:

Max. Flow: Teflon® 784 lpm (207 gpm)
 Max. Pressure: 8.6 bar (125 psig)
 Max. Solids Passage: 12.7 mm (1/2")
 Max. Suction Lift (wet): Teflon® 8.6 m (28.0')
 (dry): Teflon® 3.6 m (12.0')


Temperature
R a n g e

- Temperature Limitations are based upon mechanical stress only
- Specific chemicals will significantly reduce the maximum safe operating temperature
- Consult Wilden's Chemical Guide (E4) for information on specific fluids

Temperature Limits
Wetted Components:

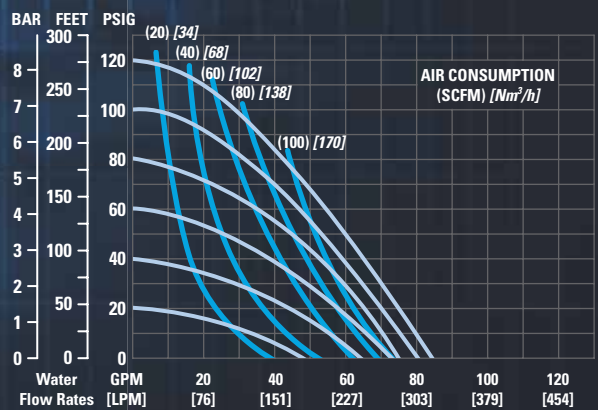
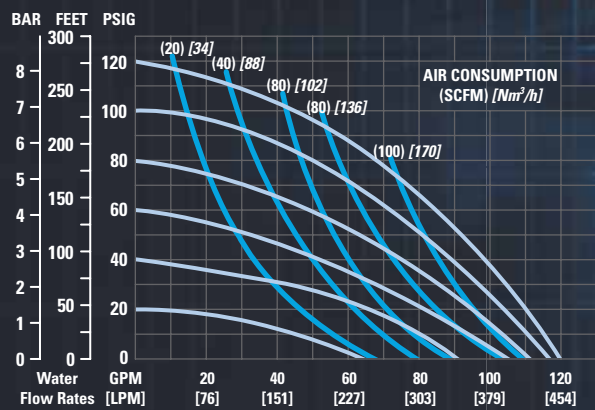
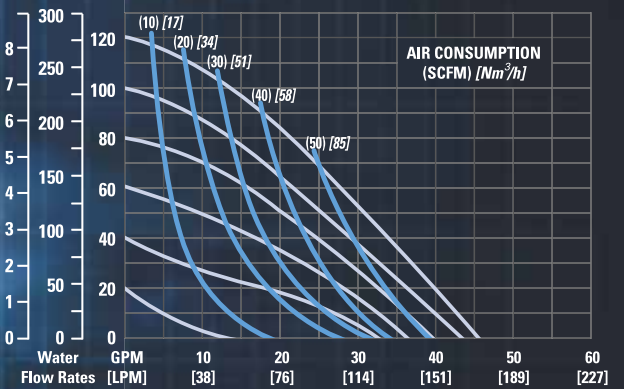
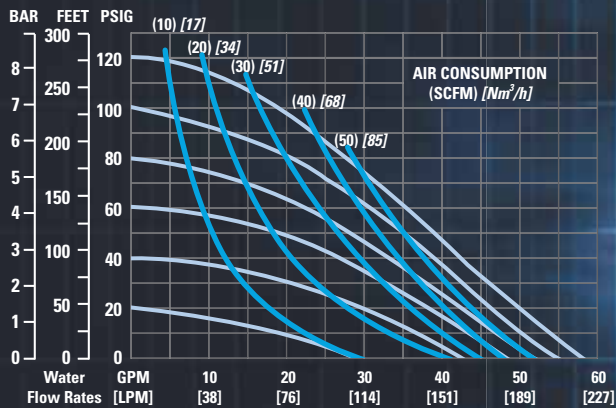
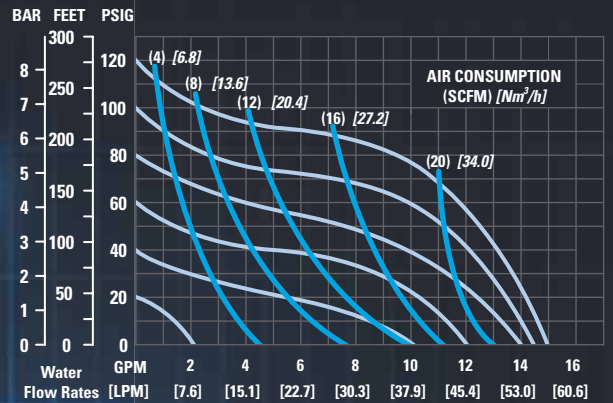
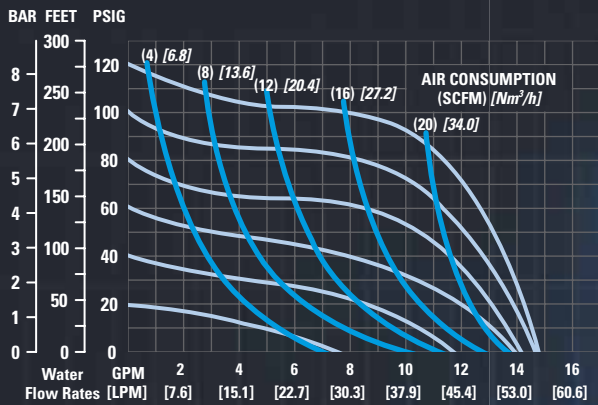
Polypropylene:	0°C to 79°C	32°F to 175°F
PVDF:	-12°C to 107°C	10°F to 225°F
Teflon® PFA:	-29°C to 87.7°C	-20° F to 190°F

Elastomer Components:

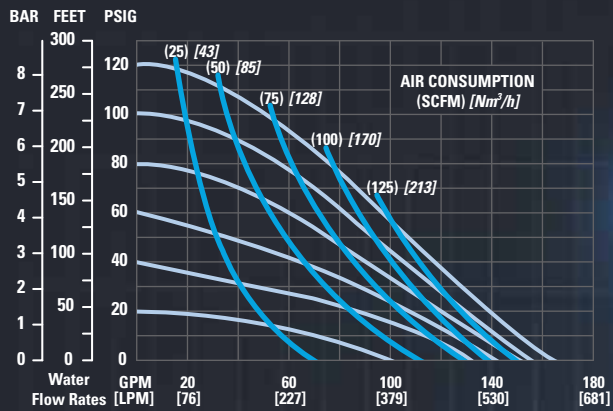
Neoprene:	-17.7°C to 93.3°C	0°F to 200°F
Buna-N:	-12.2°C to 82.2°C	10°F to 180°F
Nordel®:	-51.1°C to 137.8°C	-60°F to 280°F
Viton®:	-40°C to 176.7°C	-40°F to 350°F
Wil-Flex™:	-40°C to 107.2°C	-40°F to 225°F
Saniflex™:	-28.9°C to 104.4°C	-20°F to 220°F
Polyurethane:	-12.2°C to 65.6°C	10°F to 150°F
Teflon® PTFE:	4.4°C to 104.4°C	40°F to 220°F

Rubber-Fitted

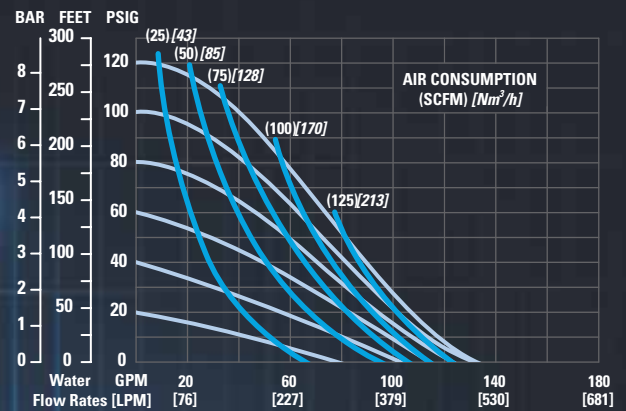
Teflon®-Fitted



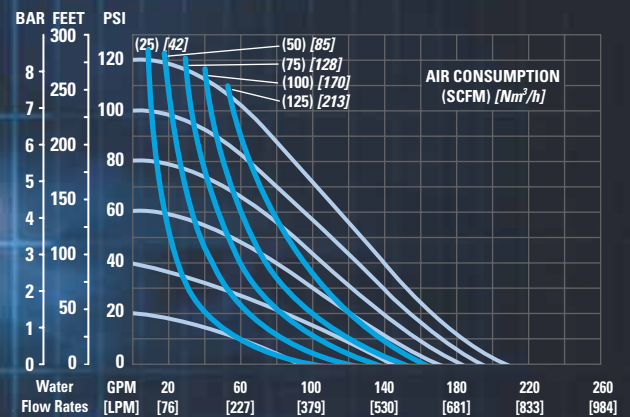
Rubber-Fitted



Teflon®-Fitted



P1500





Advanced™

M E T A L



W I L D E N

PRO-FLO®
 PROGRESSIVE DIAPHRAGM TECHNOLOGY

P400 ADVANCED™ ALUMINUM PUMP
Specifications:

Height: 594 mm (23.4")
 Width: 343 mm (13.5")
 Depth: 340 mm (13.4")
 Air Inlet: 13 mm (1/2") FNPT
 Liquid Inlet: 38 mm (1-1/2")
 Liquid Outlet: 38 mm (1-1/2")

Wetted Material: Est. Ship Weight

Aluminum: 26 kg (57 lbs)

Elastomers:

Polyurethane	Saniflex™
Buna-N	Teflon®
Viton®	Wil-Flex™
Neoprene	Nordel®

Performance:

Max. Flow: Rubber/TPE 408 lpm (108 gpm)
 Teflon® 321 lpm (85 gpm)
 Max. Pressure: 8.6 bar (125 psig)
 Max. Solids Passage: 8.0 mm (5/16")
 Max. Suction Lift (wet): Rubber/TPE 9.0 m (29.5')
 Teflon® 9.0 m (29.5')
 (dry): Rubber/TPE 4.2 m (13.6')
 Teflon® 3.4 m (11.3')



W I L D E N

PRO-FLO®
 PROGRESSIVE DIAPHRAGM TECHNOLOGY

P400 ADVANCED™ SS/ALLOY C PUMP
Specifications:

Height: 528 mm (20.8")
 Width: 383 mm (15.1")
 Depth: 294 mm (11.6")
 Air Inlet: 13 mm (1/2") FNPT
 Liquid Inlet: 38 mm (1-1/2")
 Liquid Outlet: 38 mm (1-1/2")

Wetted Material: Est. Ship Weight

Stainless Steel: 35 kg (77 lbs)
 Alloy C: 38 kg (83 lbs)

Elastomers:

Polyurethane	Neoprene
Buna-N	Teflon®
Viton®	Wil-Flex™
Saniflex™	Nordel®

Performance:

Max. Flow: Rubber/TPE 303 lpm (80 gpm)
 Teflon® 295 lpm (78 gpm)
 Max. Pressure: 8.6 bar (125 psig)
 Max. Solids Passage: 4.8 mm (3/16")
 Max. Suction Lift (wet): Rubber/TPE 8.8 m (29.0')
 Teflon® 8.5 m (28.0')
 (dry): Rubber/TPE 5.2 m (17.0')
 Teflon® 3.7 m (12.0')



Advanced™

M E T A L



W I L D E N

PROFLO V™
PROGRESSIVE PUMP TECHNOLOGY

PV400 ADVANCED™ ALUMINUM PUMP

Specifications:

Height 594 mm (23.4")
Width 343 mm (13.5")
Depth 310 mm (12.2")
Air Inlet 19 mm (3/4") FNPT
Liquid Inlet 38 mm (1-1/2")
Liquid Dis. 38 mm (1-1/2")

Wetted Material: Est. Ship Weight:

Aluminum 33 kg (72 lbs)

Elastomers:

Polyurethane Saniflex™
Buna-N Teflon®
Viton® Wil-Flex™
Neoprene Nordel®

Performance:

Max. Flow: Rubber/TPE 443 lpm (117 gpm)
Teflon® 307 lpm (81 gpm)
Max. Pressure: 8.6 bar (125 psig)
Max. Solids Passage: 7.9 mm (5/16")
Max. Suction Lift (wet): Rubber/TPE 9.5 m (31.2')
Teflon® 9.5 m (31.2')
(dry): Rubber/TPE 7.3 m (23.8')
Teflon® 4.7 m (15.3')



W I L D E N

PROFLO V™
PROGRESSIVE PUMP TECHNOLOGY

PV400 ADVANCED™ SS/ALLOY C PUMP

Specifications:

Height 528 mm (20.8")
Width 384 mm (15.1")
Depth 310 mm (12.2")
Air Inlet 19 mm (3/4") FNPT
Liquid Inlet 38 mm (1-1/2")
Liquid Outlet 38 mm (1-1/2")

Wetted Material: Est. Ship Weight:

Stainless Steel 43 kg (94 lbs)
Alloy C 45 kg (100 lbs)

Elastomers:

Polyurethane Saniflex™
Buna-N Teflon®
Viton® Wil-Flex™
Neoprene Nordel®

Performance:

Max. Flow: Rubber/TPE 337 lpm (89 gpm)
Teflon® 299 lpm (79 gpm)
Max. Pressure: 8.6 bar (125 psig)
Max. Solids Passage: 4.8 mm (3/16")
Max. Suction Lift (wet): Rubber/TPE 9.5 m (31.2')
Teflon® 9.5 m (31.2')
(dry): Rubber/TPE 7.3 m (23.8')
Teflon® 4.7 m (15.3')



W I L D E N

PRO-FLO
 PROGRESSIVE PUMP TECHNOLOGY

P800 ADVANCED™ ALUMINUM PUMP
Specifications:

Height: 759 mm (29.9")
 Width: 439 mm (17.3")
 Depth: 323 mm (12.7")
 Air Inlet: 13 mm (1/2") FNPT
 Liquid Inlet: 51 mm (2")
 Liquid Outlet: 51 mm (2")

Wetted Material: Est. Ship Weight

Aluminum: 41 kg (90 lbs)

Elastomers:

Polyurethane	Saniflex™
Buna-N	Teflon®
Viton®	Wil-Flex™
Neoprene	Nordel®

Performance:

Max. Flow: Rubber/TPE 591 lpm (156 gpm)
 Teflon® 496 lpm (131 gpm)
 Max. Pressure: 8.6 bar (125 psig)
 Max. Solids Passage: 6.4 mm (1/4")
 Max. Suction Lift (wet): Rubber/TPE 9.5 m (31.0')
 Teflon® 9.5 m (31.0')
 (dry): Rubber/TPE 7.0 m (23.0')
 Teflon® 4.6 m (15.0')



W I L D E N

PRO-FLO
 PROGRESSIVE PUMP TECHNOLOGY

P800 ADVANCED™ SS/ALLOY C PUMP
Specifications:

Height: 760 mm (29.9")
 Width: 434 mm (17.1")
 Depth: 323 mm (12.7")
 Air Inlet: 13 mm (1/2") FNPT
 Liquid Inlet: 51 mm (2")
 Liquid Outlet: 51 mm (2")

Wetted Material: Est. Ship Weight

Stainless Steel: 100 kg (220 lbs)
 Alloy C: 103 kg (228 lbs)

Elastomers:

Polyurethane	Neoprene
Buna-N	Teflon®
Viton®	Wil-Flex™
Saniflex™	Nordel®

Performance:

Max. Flow: Rubber/TPE 591 lpm (156 gpm)
 Teflon® 496 lpm (131 gpm)
 Max. Pressure: 8.6 bar (125 psig)
 Max. Solids Passage: 6.4 mm (1/4")
 Max. Suction Lift (wet): Rubber/TPE 9.5 m (31.0')
 Teflon® 9.5 m (31.0')
 (dry): Rubber/TPE 7.0 m (23.0')
 Teflon® 4.6 m (15.0')



Advanced™

M E T A L



PV800 ADVANCED™ ALUMINUM PUMP

Specifications:

Height 760 mm (29.9")
Width 439 mm (17.3")
Depth 340 mm (13.4")
Air Inlet 19 mm (3/4") FNPT
Liquid Inlet 51 mm (2")
Liquid Outlet 51 mm (2")

Wetted Material: Est. Ship Weight

Aluminum 38 kg (83 lbs)

Elastomers:

Polyurethane Saniflex™
Buna-N Teflon®
Viton® Wil-Flex™
Neoprene Nordel®

Performance:

Max. Flow: Rubber/TPE 674 lpm (178 gpm)
Teflon® 575 lpm (152 gpm)
Max. Pressure: 8.6 bar (125 psig)
Max. Solids Passage: 6.4 mm (1/4")
Max. Suction Lift (wet): Rubber/TPE 9.5 m (31.2')
Teflon® 9.5 m (31.2')
(dry): Rubber/TPE 7.3 m (23.8')
Teflon® 5.4 m (17.6')



PV800 ADVANCED™ SS/ALLOY C PUMP

Specifications:

Height 760 mm (29.9")
Width 434 mm (17.1")
Depth 340 mm (13.4")
Air Inlet 19 mm (3/4") FNPT
Liquid Inlet 51 mm (2")
Liquid Outlet 51 mm (2")

Wetted Material: Est. Ship Weight

Stainless Steel 103 kg (228 lbs)
Alloy C 107 kg (236 lbs)

Elastomers:

Polyurethane Saniflex™
Buna-N Teflon®
Viton® Wil-Flex™
Neoprene Nordel®

Performance:

Max. Flow: Rubber/TPE 674 lpm (178 gpm)
Teflon® 575 lpm (152 gpm)
Max. Pressure: 8.6 bar (125 psig)
Max. Solids Passage: 6.4 mm (1/4")
Max. Suction Lift (wet): Rubber/TPE 9.5 m (31.2')
Teflon® 9.5 m (31.2')
(dry): Rubber/TPE 7.3 m (23.8')
Teflon® 5.4 m (17.6')



W I L D E N

PRO-FLO
 PROGRESSIVE PUMP TECHNOLOGY

P1500 ADVANCED™ ALUMINUM PUMP
Specifications:

Height: 1031 mm (40.6")
 Width: 615 mm (24.2")
 Depth: 538 mm (21.2")
 Air Inlet: 19 mm (3/4") FNPT
 Liquid Inlet: 76 mm (3")
 Liquid Outlet: 76 mm (3")

Wetted Material: Est. Ship Weight

Aluminum: 98 kg (215 lbs)

Elastomers:

Polyurethane	Saniflex™
Buna-N	Teflon®
Viton®	Wil-Flex™
Neoprene	Nordel®

Performance:

Max. Flow: Rubber/TPE 972 lpm (257 gpm)
 Teflon® 750 lpm (198 gpm)
 Max. Pressure: 8.6 bar (125 psig)
 Max. Solids Passage: 12.7 mm (1/2")
 Max. Suction Lift (wet): Rubber/TPE 9.1 m (30.0')
 Teflon® 8.5 m (28.0')
 (dry): Rubber/TPE 6.7 m (22.0')
 Teflon® 5.2 m (17.0')



W I L D E N

PRO-FLO
 PROGRESSIVE PUMP TECHNOLOGY

P1500 ADVANCED™ SS/ALLOY C PUMP
Specifications:

Height: 894 mm (35.2")
 Width: 541 mm (21.3")
 Depth: 536 mm (21.1")
 Air Inlet: 19 mm (3/4") FNPT
 Liquid Inlet: 76 mm (3")
 Liquid Outlet: 76 mm (3")

Wetted Material:

Stainless Steel: 125 kg (275 lbs)
 Alloy C: 130 kg (287 lbs)

Elastomers:

Polyurethane	Saniflex™
Buna-N	Teflon®
Viton®	Wil-Flex™
Neoprene	Nordel®

Performance:

Max. Flow: Rubber/TPE 920 lpm (243 gpm)
 Teflon® 708 lpm (187 gpm)
 Max. Pressure: 8.6 bar (125 psig)
 Max. Solids Passage: 9.5 mm (3/8")
 Max. Suction Lift (wet): Rubber/TPE 9.5 m (31.0')
 Teflon® 9.1 m (30.0')
 (dry): Rubber/TPE 7.0 m (23.0')
 Teflon® 4.9 m (16.0')



Advanced™

M E T A L



W I L D E N

PROFLO V™
PROGRESSIVE PUMP TECHNOLOGY

PV1500 ADVANCED™ ALUMINUM PUMP

Specifications:

Height 1031 mm (40.6")
Width 615 mm (24.2")
Depth 422 mm (16.6")
Air Inlet 19 mm (3/4") FNPT
Liquid Inlet 76 mm (3")
Liquid Outlet 76 mm (3")

Wetted Material: Est. Ship Weight

Aluminum 78 kg (171 lbs)

Elastomers:

Polyurethane Saniflex™
Buna-N Teflon®
Viton® Wil-Flex™
Neoprene Nordel®

Performance:

Max. Flow: Rubber/TPE 999 lpm (264 gpm)
Teflon® 772 lpm (204 gpm)
Max. Pressure: 8.6 bar (125 psig)
Max. Solids Passage: 12.7 mm (1/2")
Max. Suction Lift (wet): Rubber/TPE 9.5 m (31.2')
Teflon® 9.5 m (31.2')
(dry): Rubber/TPE 7.6 m (25.0')
Teflon® 5.0 m (16.5')



W I L D E N

PROFLO V™
PROGRESSIVE PUMP TECHNOLOGY

PV1500 ADVANCED™ SS/ALLOY C PUMP

Specifications:

Height 894 mm (35.2")
Width 541 mm (21.3")
Depth 422 mm (16.6")
Air Inlet 19 mm (3/4") FNPT
Liquid Inlet 76 mm (3")
Liquid Outlet 76 mm (3")

Wetted Material: Est. Ship Weight

Stainless Steel 120 kg (264 lbs)
Alloy C 125 kg (276 lbs)

Elastomers:

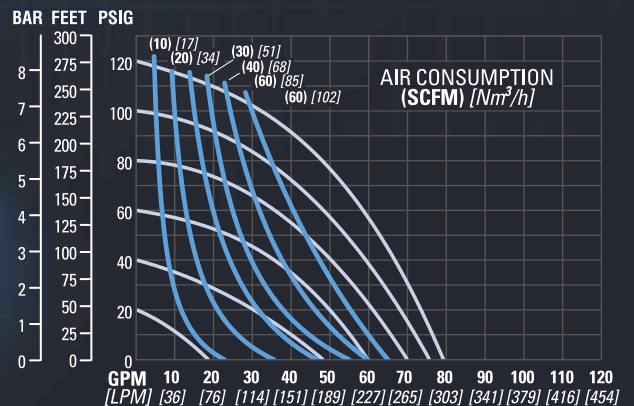
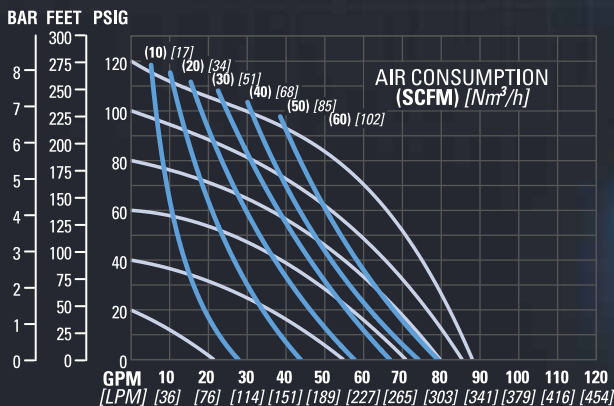
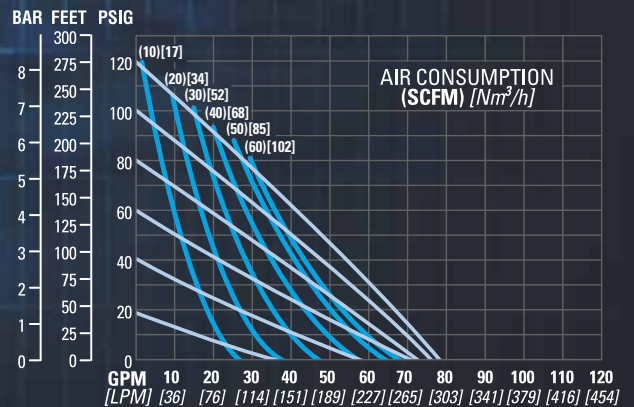
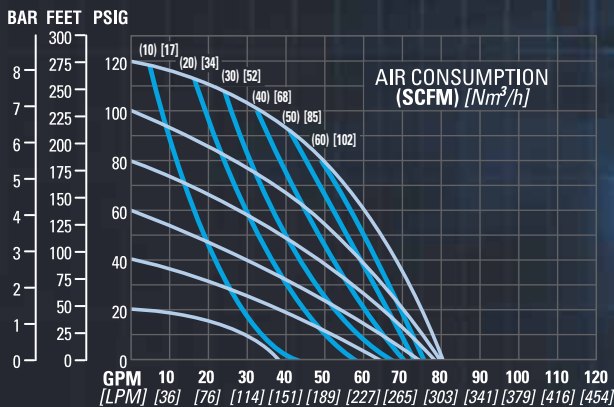
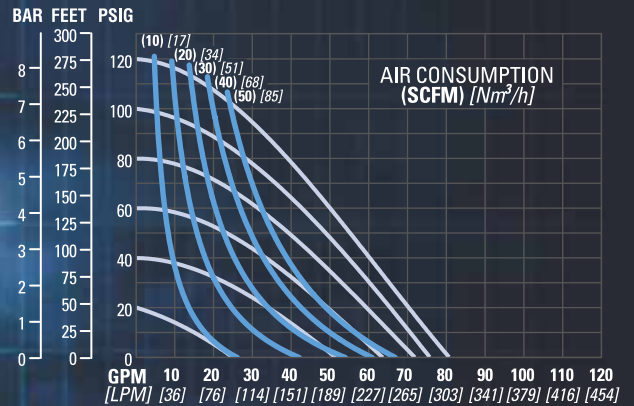
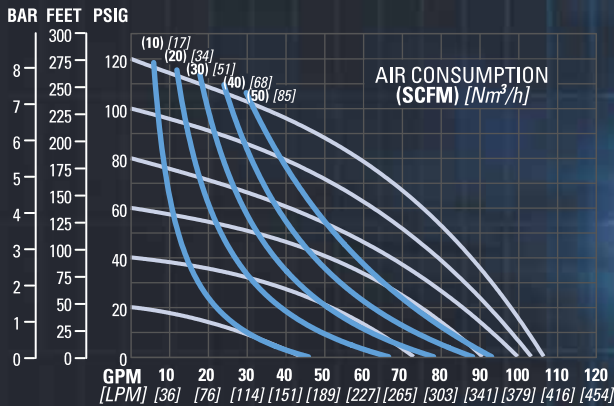
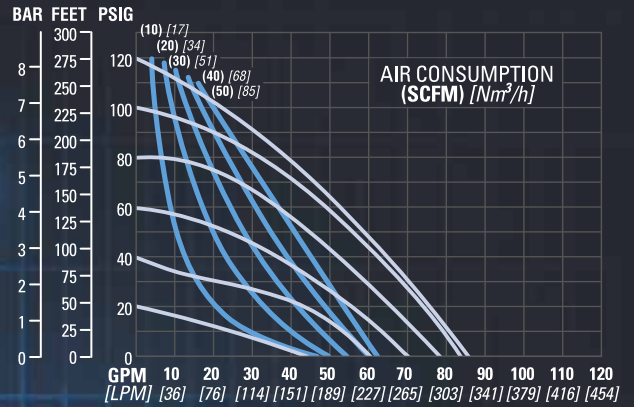
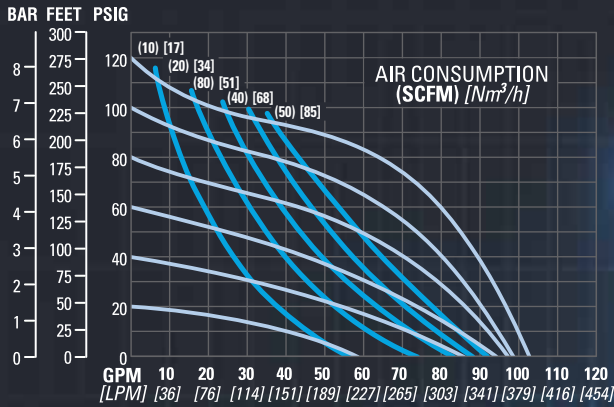
Polyurethane Saniflex™
Buna-N Teflon®
Viton® Wil-Flex™
Neoprene Nordel®

Performance:

Max. Flow: Rubber/TPE 908 lpm (240 gpm)
Teflon® 704 lpm (186 gpm)
Max. Pressure: 8.6 bar (125 psig)
Max. Solids Passage: 9.5 mm (3/8")
Max. Suction Lift (wet): Rubber/TPE 9.5 m (31.2')
Teflon® 9.5 m (31.2')
(dry): Rubber/TPE 7.6 m (25.0')
Teflon® 5.0 m (16.5')

Rubber-Fitted

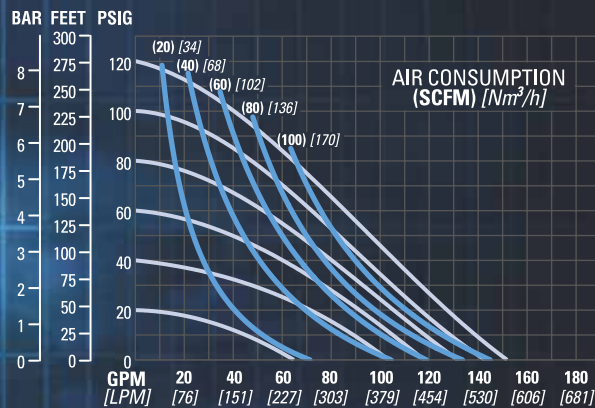
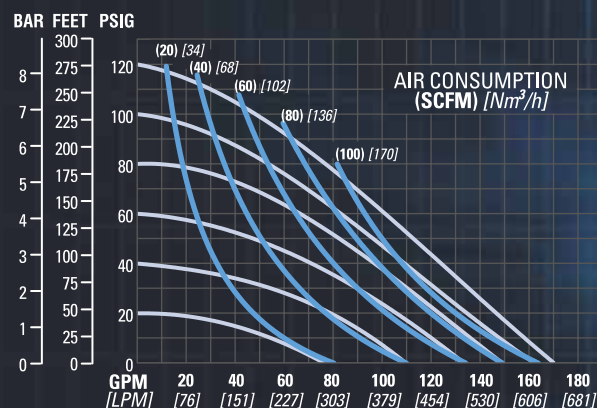
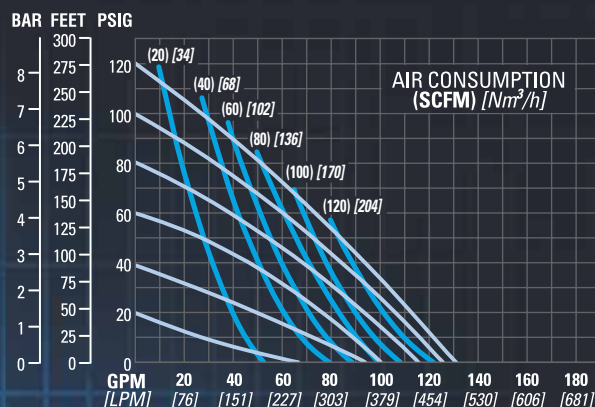
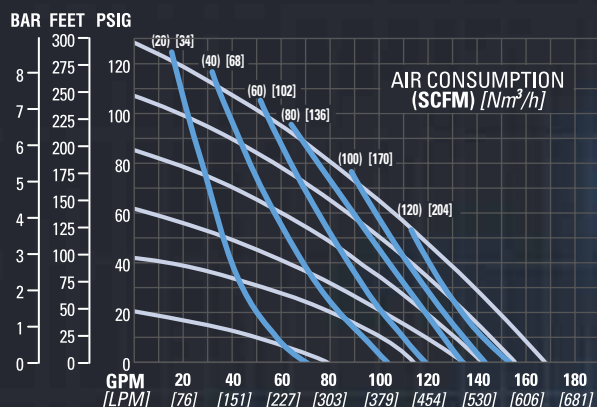
Teflon®-Fitted



Advanced™ Metal CURVES

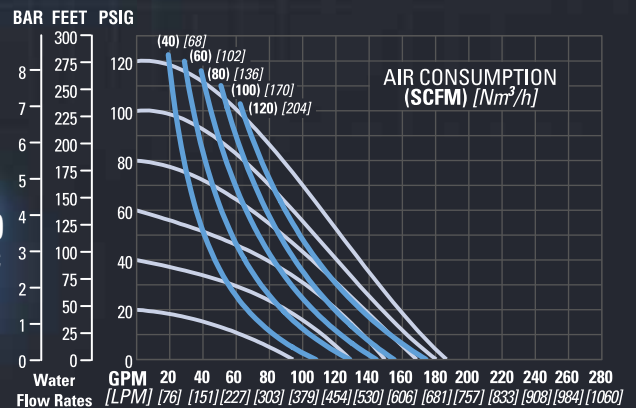
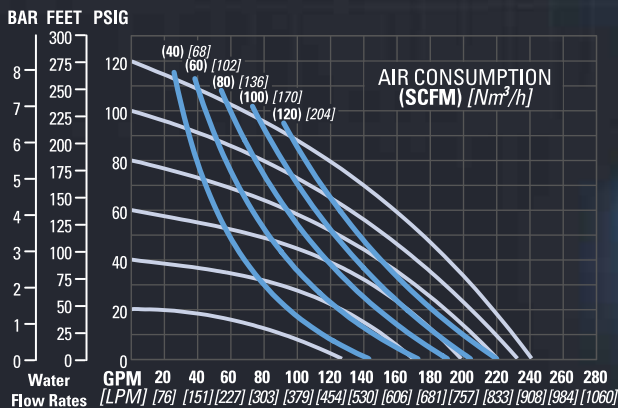
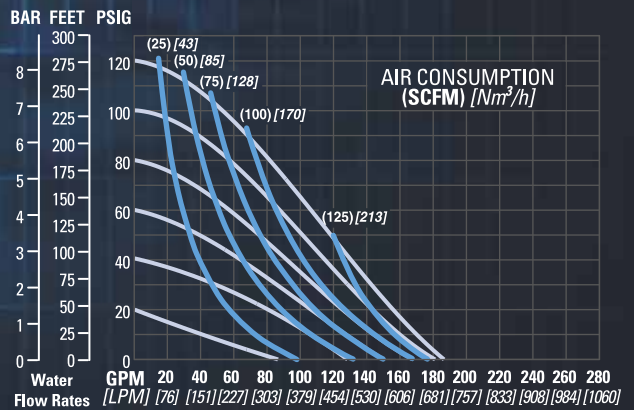
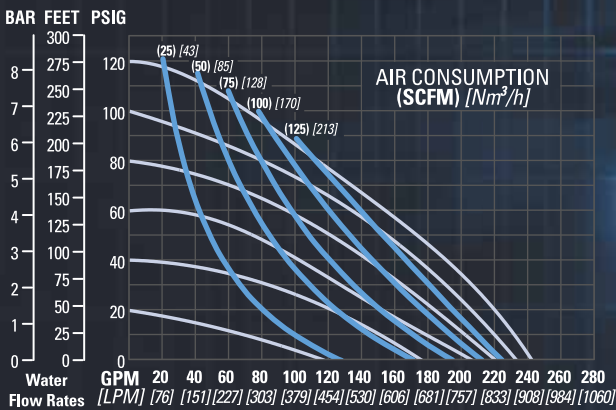
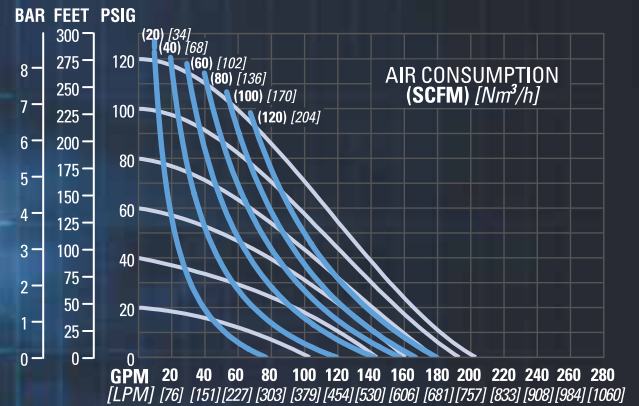
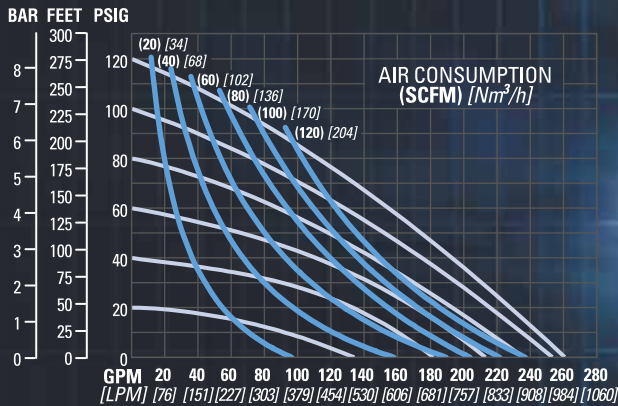
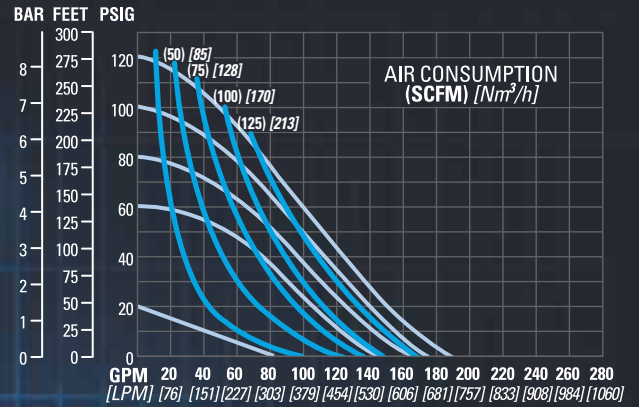
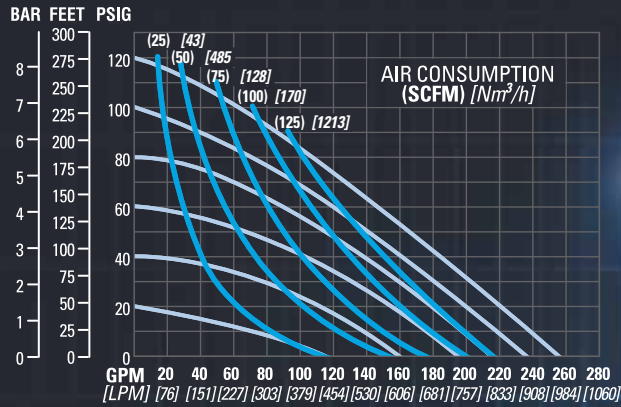
Rubber-Fitted

Teflon®-Fitted



Rubber-Fitted

Teflon®-Fitted





A C C E S S O R I E S &

Advanced™ S P E C I A L T Y



Automate Your Process

- Batching, metering, and dispensing applications
- Pump interfaces directly with electronic devices
- Electronically control pump speed and operation

The Technology

- Compressed air is the driving force to displace diaphragms and fluid
- Electrical signals dictate pump speed
- When the solenoid is unpowered, one air chamber is pressurized with compressed air, while the opposite air chamber is exhausted
- When the solenoid is powered, the pressurized air chamber is exhausted while the opposite chamber is pressurized
- By alternately applying and removing power to the solenoid, the pump operates similar to an air-operated Wilden pump
- There are no changes to the wetted path or the hydraulic principals

Benefits

- Various AC or DC voltages
- On/Off reliable
- Displacement repeatability
- No lubrication needed

Configuration Options

- T-Series: An aluminum solenoid valve is attached directly to a Turbo-Flo™ center section
- P-Series: The Pro-Flo® air system is augmented to include an electronic interface spacer
- Block-Series: An Adapter Block is used in place of an air valve. A user supplied, 4-way pneumatic valve must be used in conjunction with this configuration

T-Series Valve



P-Series Valve



Block Valve



Solenoid Coil Options

Models Available:	NEMA 4 UL CSA Approved								
A.025 (1/4")	Part Number	Voltage ±10%		Power(W) ±10%	Current (A)			Resistivity (Ω)	
		DC	AC		DC	AC			
			60 Hz			50 Hz	Inrush		Holding
	00-2110-99-150	24	48	44	4.8	.20	.20	.20	121
A100 (1/2")	00-2110-99-151	12	24	22	4.8	.40	.40	.40	32
	00-2110-99-155	60	120	110	4.8	.08	.08	.06	840
A200 (1")	NEMA 7 UL CSA Approved								
A400 (1-1/2")	00-2110-99-153	12	24	22	7	.60	.55	.32	19
	00-2110-99-154	24	48	44	7	.30	.30	.18	75
	00-2110-99-156		120	110	7	.12	.13	.06	475
A800 (2")	International Explosion Proof / Cenelec / PTB file# EX-91.C.2027								
A1500 (3")	00-2110-99-157	24 VDC		3.3	.135	.135		177	

High Pressure

PUMPING

H 4 0 0 S

- 38 mm (1-1/2") flanged porting (300 lb. ANSI & DIN)
- Aluminum Construction with Wil-Flex™ diaphragms
- Modified Pro-Flo V™ air distribution system

The Technology

- Positive displacement, double-acting, Simplex type
- 2:1 liquid discharge pressure to air inlet pressure ratio
- Only one liquid chamber is used to pump fluid, the other is used as a pressure amplification chamber

Performance

- Flow rate = 242 lpm (64 gpm)
- Max. liquid discharge pressure = 17.2 bar (250 psig)
- Max. air inlet pressure = 8.6 bar (125 psig)
- Max. size solids = 8.0 mm (5/16")
- Max. suction lift = 3.1 m (10.1')

Specifications

- Height 605 mm (23.8")
- Width 345 mm (13.6")
- Depth 310 mm (12.1")



H 8 0 0

- 51 mm (2") flanged porting (300 lb. ANSI & DIN)
- 316 Stainless Steel with Wil-Flex™ diaphragms
- HP250 air distribution system

The Technology

- Positive displacement, double-acting, Duplex type
- 3:1 liquid discharge pressure to air inlet pressure ratio
- Both liquid chambers pump fluid
- Air is alternately routed behind each diaphragm and each side of the amplifier piston to create a 3:1 pressure ratio

Performance

- Flow rate = 360 lpm (95 gpm)
- Max. liquid discharge pressure = 17.2 bar (250 psig)
- Max. air inlet pressure = 5.9 bar (85 psig)
- Max. Size Solids = 12.7 mm (1/2")
- Max. Suction Lift = 3.7 m (12')

Specifications

- Height 760 mm (29.9")
- Width 493 mm (19.4")
- Depth 541 mm (21.3")





ACCU-PULSE™
PERISTALTIC DOSING PUMP

- Peristaltic dosing pump
- Precise dosing and metering
- Chemical injection
- Ability to pump two chemicals with one pump

The Technology

- Peristalsis occurs when the rotation of the rollers around the inside diameter of the tube housing compresses and dilates that pumping tube.
- Its motor turns its shaft at a constant RPM (26 or 44).
- The feed rate controller establishes the rotation of the pump roller assembly
- The feed rate is set manually via the dial ring.
- The motor rotates the pump roller assembly, which compresses the tube to the pump housing.
- Fluid is captured in the tube between rollers and is displaced as the rollers rotate.

Benefits

- Accurate within 2% of listed outputs
- Pressure to 6.9 bar (100 psig)
- Variable flow to 643 lpd (170 gpd)
- Self-priming, can run dry
- No lubrication required
- Ease of maintenance

Applications

- pH adjusting
- Paint & Ink colorant
- Boiler treatment
- Cooling tower treatment
- Dosing pesticides and fertilizer
- Solvent cutting

Specifications

- UL 96FO, CSA NRTL /C, CE, ETL listed
- 110V, 220V, 230V, or 250V AC motors
- Polycarbonate construction with Wil-Flex™ tubing
- Various pump configurations available
- 4-20 mA interface available



THE EQUALIZER
WILDEN AUTOMATIC SURGE DAMPENER

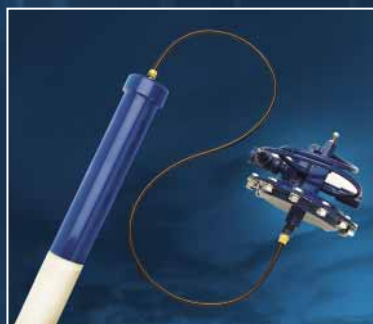
BF Equalizers reduce pressure fluctuation inherent in positive displacement pumps

- Produce a smooth and even flow
- Reduce pipe vibration and shaking
- Prevent leaking at pipe fittings and joints
- Extend and improve pump performance
- Protect in-line equipment
- Avoid damaging pressure surges

Air control options:

- Automatic
- Adjustable
- Suction Stabilizer
- Pre-charged

AIR-TECH™
AIR CONTROLLED PUMP SYSTEMS



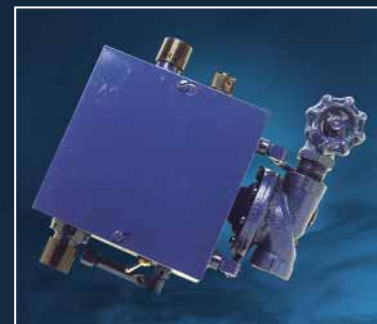
LC Series
(Level Controllers)

- Designed for unsupervised ON/OFF operation of Wilden pumps
- It simply turns the pump ON and OFF when the fluid level reaches preset points
- Pneumatic and float-less design enables the LC series to operate effectively in applications where turbulence, foaming, sludge, or solids are present
- Inherently explosion resistant due to pneumatic operation



TGS Series
(Tank Controllers)

- High level shut-off for waste oil tanks employing a Wilden pump as the feed pump
- Mounted to the 51 mm (2") NPT bung of a waste oil tank
- When the oil in the tank reaches a set level, a red pre-warning indicator becomes visible
- At the "filled level," the air supply to the pump is shut off and the air whistle alarm sounds
- The unit resets itself automatically when oil level drops



OSC Series
(Overspeed Controllers)

- The OSC is designed to prevent Wilden pumps from running dry
- Save compressed air when pump is not actually pumping fluid
- Increase parts life
- Prevent air from being pumped into your process
- The OSC controller shuts off the air supply to the pump when the pump breaks suction
- Optional air whistle serves as an alarm to alert operator



SPCI

SOLENOID PUMP CONTROLLER

- Designed to complement and expand the application range for Accu-Flo™ pumps
- Automate your process
- Control flow rate remotely
- Interface with external inputs
- Preventative maintenance indicator

Power Requirement:

110-120V AC @ 50/60 Hz., 220-240V AC @ 50 Hz.

Pump Output Voltage & Amps:

12V DC at no greater than 0.4 amps.

External Input Activation:

Dry contact less than 1 mA



FCSII

FLOW CONTROL SYSTEM II

- Microprocessor controlled batching computer designed to control the operation of Accu-Flo™ pumps
- Automate your batching process
- Set up your application parameters via manual entry screens where text and numbers are displayed
- 4-20 mA signals can be used to control the pump speed
- Preventative maintenance indicator

Power Requirement:

110-120V AC @ 50/60 Hz., 220-230V AC @ 50/60Hz

Pump Output Voltage & Amps:

12V DC at no greater than 0.4 amps.

External Input Activation:

Dry contact less than 1 mA



WIL-GARD II

DIAPHRAGM MONITORING SYSTEM

- Detects diaphragm failure at the source: The Teflon® primary diaphragm
- Sensors are located between the primary and back-up (containment) diaphragms
- When the sensors detect a conductive liquid, an audible alarm, LED, and an internal latching relay are activated
- Increase containment, reduce fugitive emissions, and reduce down time with 24-hour pump surveillance

Power Requirement:

110V AC, 220V AC, or 9V DC battery operation

Internal Latching Relay:

Max. 2 Amps @ 250 V

Conductivity Sensitivity:

4.54 Micro-Siemens

DRUM PUMP KIT



- Universal kit for both 6 mm (1/4") and 13mm (1/2") pumps
- Fits 51 mm (2") NPT bungholes
- Tube length can be cut to length
- Variety of materials are available
 - Preventive maintenance indicator
 - Power cell with 7 year life expectancy
 - Interface with PLC or other equipment
 - NEMA 4X enclosure



PCMI

PUMP CYCLE MONITOR

www.wildenpump.com

Multi-Lingual Access

Downloadable Pump Manuals & Cad Drawings

Chemical Guide

Online Tech Support

Unit Converter

WILDEN
A DOVER COMPANY

22069 Van Buren Street, Grand Terrace, CA 92313-5607
Telephone 909-422-1730 • Fax 909-783-3440
wilden@wildenpump.com



Your Authorized Distributor:

Copyright 2004 Wilden Pump & Engineering, LLC

TT3078 S-01 ADV 12/04
Replaces S-01 ADV 03/04

Wil-Flex™, Saniflex™, FCSI™, Wil-Gard™, Saniflo™, Turbo-Flo™, Ultra-Flex™, Ultra-Pure™, Accu-Flo™, Accu-Pulse™, and Air-Tech™ are trademarks of Wilden Pump and Engineering, LLC. Wilden®, Pro-Flo®, Stallion®, Equalizer® and Hytec® are registered trademarks of Wilden Pump and Engineering, LLC. • Nordel®, Viton®, Hytrel® and Teflon® are registered trademarks of DuPont Dow Elastomers. Hostaflo® is a registered trademark of Hoechst. • Santoprene® is a registered trademark of Monsanto Company, licensed to Advanced Elastomer Systems, L.P. Chemraz® is a registered trademark of Green, Tweed & Co. • Tri-Clover® is a registered trademark of Tri-Clover, Inc.