



SECTION B-B

$P = (1 - C)P$

$P_m = P - (1 - C)P$

$F = F + CP$

$N_f = \frac{Se(S_{ut} - \sigma)}{S}$

$F_0 = \frac{F}{(1 - C)}$

ADVANCED

S E R I E S



The result of advanced thought.

airpumping.co.uk

est. 1979

Unit 16, Upminster Trading Park, Warley St, Upminster, Essex, RM14 3PL, ENGLAND

WILDEN®

A DOVER COMPANY

P100 Advanced™ Plastic Pump



Specifications:

Height	279 mm (10.98")
Width	234 mm (9.20")
Depth	200 mm (7.87")
Air Inlet	6.35 mm (1/4")
Liquid Inlet	12.7 mm (1/2")
Liquid Discharge	12.7 mm (1/2")

Wetted Material:

Polypropylene
PVDF

Elastomers:

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

Performance:

Max. Flow: Rubber/TPE- 59 lpm (15.5 gpm)
Teflon®-57 lpm (15.0 gpm)

Max. Pressure: 8.6 Bar (125 psig)

Max. Solids Passage: 1.59 mm (1/16")

Max. Suction Lift (wet): Rubber/TPE - 8.7m (28.4' H₂O)
Teflon® - 9.3m (30.6' H₂O)

(dry): Rubber/TPE - 5.2m (17' H₂O)
Teflon® - 4.5m (14.7' H₂O)

P200 Advanced™ Plastic Pump



Specifications:

Height	433.8 mm (17.04")
Width	456 mm (17.9")
Depth	230 mm (9")
Air Inlet	6.35 mm (1/4")
Liquid Inlet	25.4 mm (1")
Liquid Discharge	25.4 mm (1")

Wetted Material:

Polypropylene
PVDF

Elastomers:

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

Performance:

Max. Flow: Rubber/TPE- 221 lpm (58 gpm)
Teflon®-172 lpm (46 gpm)

Max. Pressure: 8.6 Bar (125 psig)

Max. Solids Passage: 4.76 mm (3/16")

Max. Suction Lift (wet): Rubber/TPE - 9.7m (32' H₂O)
Teflon® - 9.6m (31.6' H₂O)

(dry): Rubber/TPE - 3.5m (11.4' H₂O)
Teflon® - 2.4m (7.9' H₂O)

P800 Advanced™ Plastic Pump



Specifications:

Height	804 mm (31.66")
Width	604 mm (23.77")
Depth	353 mm (13.90")
Air Inlet	12.7 mm (1/2")
Liquid Inlet	50.8 mm (2")
Liquid Discharge	50.8 mm (2")

Wetted Material:

Polypropylene
PVDF

Elastomers:

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

Performance:

Max. Flow: Rubber/TPE- 624 lpm (164.9 gpm)
Teflon®-504 lpm (133.2 gpm)

Max. Pressure: 8.6 Bar (125 psig)

Max. Solids Passage: 6.35 mm (1/4")

Max. Suction Lift (wet): Rubber/TPE - 8.7m (28.4' H₂O)
Teflon® - 8.7m (28.4' H₂O)

(dry): Rubber/TPE - 6.7m (20.4' H₂O)
Teflon® - 4.2m (13.6' H₂O)

W800 Advanced™ Plastic Pump



Specifications:

Height	804 mm (31.66")
Width	604 mm (23.77")
Depth	353 mm (13.90")
Air Inlet	19.1 mm (3/4")
Liquid Inlet	50.8 mm (2")
Liquid Discharge	50.8 mm (2")

Wetted Material:

Polypropylene
PVDF

Elastomers:

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

Performance:

Max. Flow: Rubber/TPE- 759 lpm (200.6 gpm)
Teflon®-655 lpm (173.1 gpm)

Max. Pressure: 8.6 Bar (125 psig)

Max. Solids Passage: 6.35 mm (1/4")

Max. Suction Lift (wet): Rubber/TPE - 8.7m (28.4' H₂O)
Teflon® - 9.0m (29.5' H₂O)

(dry): Rubber/TPE - 6.6m (21.6' H₂O)
Teflon® - 3.6m (11.9' H₂O)

P400 Advanced™ Plastic Pump



Specifications:

Height	667 mm (26.25")
Width	478 mm (18.8")
Depth	299 mm (11.7")
Air Inlet	12.7 mm (1/2")
Liquid Inlet	38.1 mm (1 1/2")
Liquid Discharge	38.1 mm (1 1/2")

Wetted Material:

Polypropylene
PVDF

Elastomers:

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

Performance:

Max. Flow: Rubber/TPE- 455 lpm (120.1 gpm)
Teflon®-320 lpm (84.4 gpm)

Max. Pressure: 8.6 Bar (125 psig)

Max. Solids Passage: 6.35 mm (1/4")

Max. Suction Lift (wet): Rubber/TPE - 9.3m (30.6' H₂O)
Teflon® - 9.7m (31.8' H₂O)

(dry): Rubber/TPE - 5.5m (18.2' H₂O)
Teflon® - 3.3m (10.8' H₂O)

W400 Advanced™ Plastic Pump



Specifications:

Height	667 mm (26.25")
Width	478 mm (18.8")
Depth	299 mm (11.7")
Air Inlet	12.7 mm (1/2")
Liquid Inlet	38.1 mm (1 1/2")
Liquid Discharge	38.4 mm (1 1/2")

Wetted Material:

Polypropylene
PVDF

Elastomers:

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

Performance:

Max. Flow: Rubber/TPE- 492 lpm (130.1 gpm)
Teflon®-357 lpm (94.2 gpm)

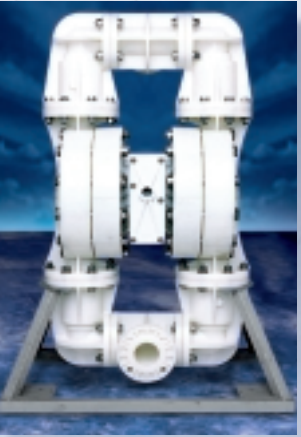
Max. Pressure: 8.6 Bar (125 psig)

Max. Solids Passage: 6.35 mm (1/4")

Max. Suction Lift (wet): Rubber/TPE - 9.4m (31' H₂O)
Teflon® - 9.0m (29' H₂O)

(dry): Rubber/TPE - 4.8m (15.9' H₂O)
Teflon® - 3.5m (11.4' H₂O)

P1500 Advanced™ Plastic Pump



Specifications:

Height	1277 mm (50.27")
Width	914 mm (36")
Depth	584 mm (22.9")
Air Inlet	19.1 mm (3/4")
Liquid Inlet	76.2 mm (3")
Liquid Discharge	76.2 mm (3")

Wetted Material:

Polypropylene
PVDF

Elastomers:

Teflon®

Performance:

Max. Flow: Teflon®- 806 lpm (213 gpm)

Max. Pressure: 8.6 Bar (125 psig)

Max. Solids Passage: 12.7 mm (1/2")

Max. Suction Lift (wet): Teflon® - 8.7m (28.4' H₂O)
(dry): Teflon® - 3.6m (12.0' H₂O)

ADVANCED THINKING

As your application requirements and expectations evolve, so must our solutions. We listen to the valued comments of engineers, maintenance personnel, and operators. They provide us with a clear direction for producing quality products engineered to meet your application needs. Wilden has invested many years in the development of the Advanced™ pump series. These pumps outperform all other air-operated pumps on the market while remaining cost-competitive. The Advanced™ pump series adds value to you and your company in the following areas:



Flow Rate: The flow rate has been maximized by complementing our efficient air distribution systems with an innovative liquid path design. The key to maximizing flow rate is to minimize internal friction within the pump. This task was accomplished with computerized modeling, proven theories, and innovative concepts. We take pride in the fact that the Advanced™ pump series has the highest flow rates in the industry.

Efficiency: The Advanced™ liquid path design complements our air distribution system technology resulting in the most efficient pump in the industry. The bottom line is that the Advanced™ pump series reduces your operating cost by utilizing less air per LPM or GPM. Take a look at the performance curves and see for yourself how much money we can save you.

Leak Free: The Advanced™ series pumps are assembled using a “floating fastener” and or “fixed fastener” design. These designs exhibit superior torque retention to ensure long leak-free operation. Our unique valve seat design and mating tolerances have been proven in low viscosity pumping applications. Put us to the test.

Suction Lift: Valve ball movement, the stroke length of the diaphragm shaft, and many other factors influence suction lift capabilities. The Advanced™ pump series was designed to maximize suction lift without sacrificing other performance characteristics. Additionally, the Advanced™ pump series allows for larger solids handling capacity to minimize unexpected downtime.

Pump Size	Max Flow	Max Suction Lift	70/30 Ratio ¹	Max Size Solids
12.7 mm (1/2") Plastic	59 lpm (15.5 gpm)	Dry 5.53 m (18.1') Wet 9.33 m (30.6')	Rubber/TPE 0.62 Teflon 0.58	1.59 mm (1/16")
25.4 mm (1") Plastic	221 lpm (58 gpm)	Dry 3.6 m (11.9') Wet 8.99 m (30')	Rubber/TPE 0.94 Teflon 0.73	4.76 mm (3/16")
38.1 mm (1 1/2") Plastic	455 lpm (120 gpm)	Dry 4.8 m (15.9') Wet 8.99 m (30')	Rubber/TPE 0.37 Teflon 0.60	6.35 mm (1/4")
38.1 mm (1 1/2") Aluminum	409 lpm (108 gpm)	Dry 4.2 m (13.6') Wet 8.99 m (30')	Rubber/TPE 1.52 Teflon 0.83	8 mm (5/16")
38.1 mm (1 1/2") SS / Hastelloy	303 lpm (80 gpm)	Dry 5.2 m (17') Wet 8.8 m (29')	Rubber/TPE 1.20 Teflon 0.60	4.8 mm (3/16")
50.8 mm (2") Plastic	624 lpm (165 gpm)	Dry 6.2 m (20.4') Wet 8.7 m (28.4')	Rubber/TPE 0.39 Teflon 0.24	6.4 mm (1/4")
50.8 mm (2") Metal	591 lpm (156 gpm)	Dry 2.7 m (9') Wet 9.45 m (31')	Rubber/TPE 1.36 Teflon 1.00	6.4 mm (1/4")
75.6 mm (3") Plastic	897 lpm (237 gpm)	Dry 3.1 m (10') Wet 8.99 m (30')	Teflon 1.26	12.7 mm (1/2")
75.6 mm (3") Metal	972 lpm (257 gpm)	Dry 6.6 m (22') Wet 8.99 m (30')	Rubber/TPE 1.49 Teflon 1.77	12.7 mm (1/2")

¹Performance Ratio is a direct indication of efficiency. It is calculated by dividing the flow rate by the air volume at the given point (70 psig air inlet against 30 psig discharge head). Performance Ratio was calculated with pumps using Wilden's Pro-Flo™ Air System. Exception: the 3" Plastic pump utilizes a Wil-Flo™ Air System.

Pump Size	Pro-Flo™	Wil-Flo™
	Materials of Wetted Construction	
12.7 mm (1/2")	Polypropylene PVDF	N/A
25.4 mm 1"	Polypropylene PVDF	N/A
38.1 mm 1 1/2"	Aluminum Stainless Steel Hastelloy Polypropylene PVDF	Aluminum Stainless Steel Hastelloy Polypropylene PVDF
50.8 mm 2"	Aluminum Stainless Steel Hastelloy Polypropylene PVDF	Aluminum Stainless Steel Hastelloy Polypropylene PVDF
75.6 mm 3"	Aluminum Stainless Steel Hastelloy Polypropylene PVDF	Aluminum Stainless Steel Hastelloy Polypropylene PVDF

Your Local Authorized Distributor:

airpumping.co.uk

est. 1979

Unit 16, Upminster Trading Park, Warley St, Upminster, Essex, RM14 3PJ, ENGLAND

WILDEN®

A DOVER COMPANY

22069 VAN BUREN STREET • GRAND TERRACE, CA 92313-5607
(909) 422-1730 • FAX (909) 783-3440
www.wildenpump.com

Printed in the U.S.A. Copyright 2001, Wilden Pump & Engineering Co.

S-53 7/2002
Replaces S-53 4/2002