





PRODUCT CATALOG
Pumps & Accessories



















NO MATTER THE APPLICATION, ALL-FLO PUMPS

# WORK HARDER.

#### ALL-FLO PUMPS DELIVER UNSURPASSED PERFORMANCE AND RELIABILITY

When you work hard to make a better pump, the result is pumps that work harder. At All-Flo, we make rugged, lube-free, non-stall/freeze air systems work as reliably as they do efficiently. Providing the versatility, durability and reliability that will meet virtually any application need. And we offer a wide range of materials and options that allow you to customize a model to meet your specific needs. So when your application calls for a pump that works harder, call on All-Flo.

#### **FEATURES**

- Patented lube-free, non-stall, non-freeze air systems
- All plastic air systems
- Air-efficient
- Modular design
- BSP threads option
- ATEX certified
- 100% testing prior to shipment
- · PTFE coated fasteners optional
- · Conductive plastic pumps available
- Made in America

#### **BENEFITS**

- Reliable, continuous performance
- · Handles both solids and liquids
- Corrosion-resistant
- Efficient performance
- · Can customize to specific applications
- · Reliable and easy to maintain
- Assured performance out-of-the-box
- · Materials suited to variety of conditions

#### VERSATILE ALL-FLO LUBE FREE, STALL FREE, AIR DIAPHRAGM PUMPS

Because no two applications or environments are the same, we've created a range of versatile pump solutions. Our modular components allow customers to select the ideal capacity, as well as housing and internal materials. Available in a range of sizes, styles and materials, we can customize a pump to meet any application. All to assure high-performance, durable and maintenance-free reliability you can count on. Visit www.all-flo.com to find a distributor near you.

#### THE ALL-PURPOSE PUMP FOR ANY APPLICATION

All-Flo offers an extensive line of sizes and material options to fit virtually any application requirement. Modular components allow for easy customization using off-the-shelf components.

#### **HEAVY DUTY METALLIC PUMP**

#### **FEATURES**

- Non-Metallic Air Section
- Bolted Chamber Design
- Unbalanced Air Spool
- Thermoplastic Diaphragms
- Stainless and Aluminum
- Sizes 1/2" to 3"

#### BENEFITS

- Lightweight and Corrosion Resistant
- Ease of Maintenance
- Stall Free Operation
- · Extended Operational Life
- · Maximum Chemical Compatibility
- Wide Application Range (17GPM to 255GPM)



#### **HEAVY DUTY NON-METALLIC PUMPS**

#### **FEATURES**

- . Multiple Porting Options
- · Bolted Chamber Design
- Unbalanced Air Spool
- Thermoplastic Diaphragms
- · Available in a Variety of Materials
- Sizes 1/2" to 3"

#### **BENEFITS**

- · Flexibility of Installation
- Ease of Maintenance
- Stall Free Operation
- · Extended Operational Life
- · Maximum Chemical Compatibility
- Wide Application Range (17GPM to 255GPM)



#### **ALL-PÜR FDA MATERIAL PUMPS**

#### **FEATURES**

- FDA Tri-Clamps
- Electropolished and Passivated Stainlesss Steel
- · Bolted Chamber Design
- Unbalanced Air Spool
- · Thermoplastic Diaphragms
- Sizes 1" to 2"

#### BENEFITS

- · Quick Disconnect and Cleaning
- · Allows for Sanitary Installation
- Ease of Maintenance
- Stall Free Operation
- Extended Operational Life
- Wide Application Range (17GPM to 255GPM)



#### MAX-PASS™ SOLIDS HANDLING PUMPS

#### **FEATURES**

- Max-Pass<sup>™</sup> Solids Handling Valve
- Non-Metallic Air Section
- Bolted Chamber Design
- · Unbalanced Air Spool
- Thermoplastic Diaphragms
- Available in Metallic and Non-Metallic Designs
- Sizes 1/2" and 1"

#### BENEFITS

- Increased Suction Lift
- · Lightweight and Corrosion Resistant
- · Ease of Maintenance
- Stall Free Operation
- Extended Operational Life
- · Maximum Chemical Compatibility
- Solids handling from 3/8" to 3/4"



#### INTERMITTENT DUTY NON-METALLIC PUMPS

#### **FEATURES**

- Mechanical Air Section
- Compact Design
- · Thermoplastic Diaphragms
- · Available in a Variety of Materials
- Sizes 1/4" and 3/8"
- Max-Pass<sup>™</sup> Available

#### BENEFITS

- Reliable Operation
- Allows for Small Footprint Installation
- Extended Diaphragm Life
- · Maximum Chemical Compatibility
- Flow Rated from 4GPM to 9 GPM
- Increased Suction Lift





All-Flo's Air Operated
Diaphragm Pumps are
designed to suit your fluid
transfer applications
regardless of your
application needs.

Our global network of distributors ensures local availability and service.

Contact an All-Flo distributor today, visit www.all-flo.com.

MINING

CONSTRUCTION

MUNICIPAL & COMMERCE

SHIPPING YARD

WIND ENERGY

WASTE PROCESSING

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OFFSHORE OIL & GAS

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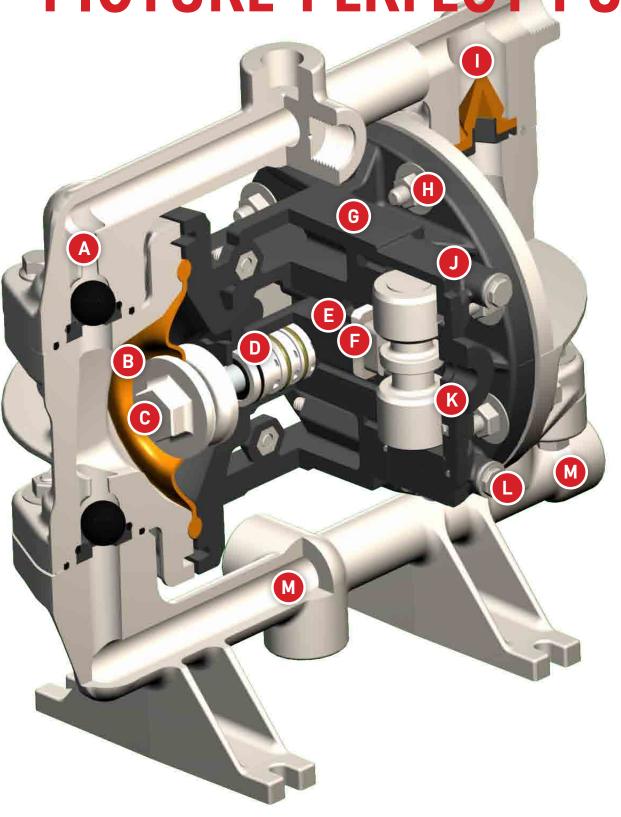
OIL & GAS

LIQUID REMOVAL & STORAGE





# PICTURE-PERFECT PUMP



# **FEATURES**

#### **ANATOMY OF THE PERFECT PUMP**

- A Traditional ball valves for reliable trouble free operation.
- B Thermoplastic diaphragms with 2-4 times the service life over thermoset rubber diaphragms.
- C Flat outer diaphragm plates minimize maintenance time.
- D Self cleaning u-cup design is more tolerant to dirty air than traditional designs.
- E Reuse of pilot air increases air efficiency.
- F Ceramic shuttle plate ensures long valve life.
- G Lightweight glass filled polypropylene intermediate resists environmental corrosion.
- H Bolted construction for reliable and simple servicing.
- I Optional Max-Pass™ valves for solids handling and higher suction lift.
- J Modular air valve can be serviced without disassembling the entire pump.
- K Stall free, lube free heavy duty non-metallic air valve.
- L Standard SS hardware with optional PTFE coated hardware available.
- M Multiple porting options ensure maximum plumbing connectivity.

# TABLE OF CONTENTS

1/4" INTERMITTENT DUTY	8-13
(Available in Polypropylene, PVDF, Nylon, & Conductive	Nylon)
Box Style Pump	10-11
Box Style Drum Pump	12-13
3/8" INTERMITTENT DUTY	14-21
(Available in Polypropylene, PVDF, & Conductive Nylon)	
Clamped Style Pump	
Clamped Style Solids Handling	18-19
Clamped Style Drum Pump	20-21
1/2" HEAVY DUTY	22-34
(Available in Aluminum, 316 SS, Polypropylene, PVDF,	
Nylon, & Conductive Nylon)	
Bolted Style	24-26
Bolted Style Solids Handling	27-29
Clamped Style	30-31
Bolted Style Drum Pump	32-34
1" HEAVY DUTY	35-45
(Available in Aluminum, 316 SS, FDA "All-Pür",	
Polypropylene, & PVDF)	
Bolted Style	36-38
Bolted Style Solids Handling	39-41
Clamped Style	42-43
Clamped Style Drum Pump	44-45
1 -1/2" HEAVY DUTY	46-50
(Available in Aluminum, 316 SS, FDA "All-Pűr",	
Polypropylene, & PVDF)	
Bolted Style	48-50
2" HEAVY DUTY	51-54
(Available in Aluminum, 316 SS, FDA "All-Pür",	
Polypropylene, & PVDF)	
Bolted Style	52-54
3" HEAVY DUTY	55-57
(Available in Aluminum)	
Bolted Style	56-57
ACCESSORIES	58-64
AVAILABLE OPTIONS	65-68
TECHNICAL RESOURCES	69-79







#### 1/4" INTERMITTENT DUTY BOX STYLE PUMP

Reliable polypropylene air section combined with a wide a wide array of casing materials and elastomers ensure maximum chemical compatibility. Ideal for low volume clean fluids transfer applications.

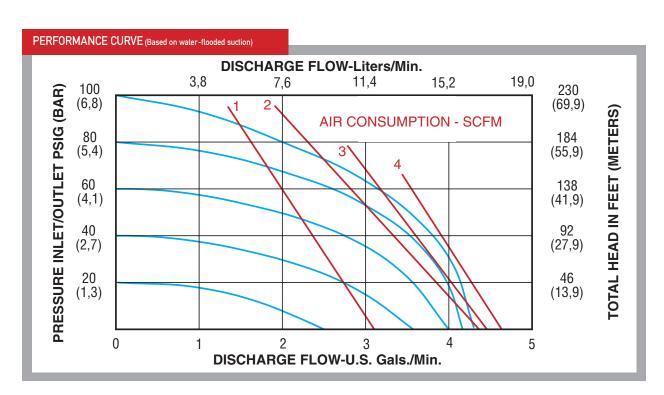
- Suitable for Clean Fluids Transfer
- Compact Box Style Design
- Intermittent Duty Non-Metallic Air Section
- Muffler Included

Dimension	
Physical Dimensions	See Drawing Page 73
Air Inlet	1/4"
Liquid Inlet	1/4"
Liquid Outlet	1/4"
Weight	See Product Tables
Performance	
Maximum Flow	4.3 gpm (16.3 lpm)
Maximum Air Pressure	100 psi (6.8 bar)
Maximum Solids	<sup>1</sup> / <sub>16</sub> " (1.6 mm)
Max Suction Lift Dry	17 ft (5.0 m)
Max Suction Lift Wet	26 ft (7.9 m)
Max Temperature	See Product Tables
Noise Level (with muffler	) 86 dBA









1/4" - POLYPROPYLENE - A non-metallic material, suitable for water, caustics, soap solutions, mild acids and general purpose applications. Please consult chemical compatibility tables or www.all-flo.com for your particular application.

PART Number	DIAPHRAGM Material	Valve/Ball Material	VALVE SEAT MATERIAL	0-RING Material	FASTENER MATERIAL	WEIGHT LBS (KG)	MAX TEMPERATURE °F (°C)	DIMENSIONAL DIAGRAM	CONNECT Type
NC-025	Geolast®	PTFE	Polypropylene	Nitrile	SS	5 (2.3)	150 (66)	Pg. 73	NPT (BSP)
BK-025	PTFE	PTFE	Polypropylene	PTFE	SS	5 (2.3)	150 (66)	Pg. 73	NPT (BSP)
NC-025E	Santoprene®	PTFE	Polypropylene	EPDM	SS	5 (2.3)	150 (66)	Pg. 73	NPT (BSP)

1/4" - PVDF - Polyvinylidene Fluoride suitable in applications requiring the highest purity, strength, and resistance to solvents, acids, and bases. Please consult chemical compatibility tables or www.all-flo.com for your particular application.

PART Number	DIAPHRAGM MATERIAL	VALVE/BALL Material	VALVE SEAT MATERIAL	O-RING Material	Fastener Material	WEIGHT LBS (KG)	MAX TEMPERATURE °F (°C)	DIMENSIONAL DIAGRAM	CONNECT TYPE
KN-025	PTFE	PTFE	PVDF	PTFE	SS	7 (3.2)	200 (93)	Pg. 73	NPT (BSP)
KN-025E	Santoprene®	PTFE	PVDF	EPDM	SS	7 (3.2)	200 (93)	Pg. 73	NPT (BSP)

1/4" - NYLON - A non-metallic material, suitable for most solvents and oils. Please consult chemical compatibility tables or www.all-flo.com for your particular application.

PART Number	DIAPHRAGM Material	VALVE/BALL Material	VALVE SEAT MATERIAL	0-RING Material	FASTENER MATERIAL	WEIGHT LBS (KG)	MAX TEMPERATURE °F (°C)	DIMENSIONAL DIAGRAM	CONNECT TYPE
RD-025B	Geolast®	PTFE	Nylon	Nitrile	SS	5 (2.3)	150 (66)	Pg. 73	NPT (BSP)
RD-025	PTFE	PTFE	Nylon	PTFE	SS	5 (2.3)	150 (66)	Pg. 73	NPT (BSP)

1/4" - CONDUCTIVE NYLON - Stainless steel filled nylon, suitable for most solvents and alcohols. Grounding lugs provided with pump. Please consult chemical compatibility tables or www.all-flo.com for your particular application.

PART Number	DIAPHRAGM MATERIAL	VALVE/BALL MATERIAL	VALVE SEAT MATERIAL	0-RING Material	FASTENER MATERIAL	WEIGHT LBS (KG)	MAX TEMPERATURE °F (°C)	DIMENSIONAL DIAGRAM	CONNECT TYPE
CN-025B	Geolast®	PTFE	Nylon	Geolast®	SS	7 (3.2)	150 (66)	Pg. 73	NPT (BSP)
CN-025	PTFE	PTFE	Nylon	PTFE	SS	7 (3.2)	150 (66)	Pg. 73	NPT (BSP)

**AVAILABLE OPTIONS** - Each pump can be configured to suit a particular application. Please see the options section for detailed product information on the following available options.

AIR VALVE OPTIONS	SEE PAGE
CYCLE COUNT VALVE	67
HARDWARE OPTIONS	
PTFE COATED HARDWARE	67
O-RINGS	
PTFE O-RINGS	67
NITRILE O-RINGS	67
EPDM O-RINGS	67
VITON® O-RINGS	67
PORTING OPTIONS	
DUAL SUCTION	68
DUAL DISCHARGE / DUAL SUCTION	68
DUAL DISCHARGE	68

AIR	SEE PAGE
FILTER / REGULATOR / GAUGE	60
SOLENOID VALVES	60
AIR FLOW CONTROL	60
NEEDLE VALVE	60
PUMP	
PREMIUM MUFFLER	63
GROUNDING LUG	64



#### 1/4" INTERMITTENT DUTY BOX STYLE **DRUM** PUMP

Reliable polypropylene air section combined with a wide a wide array of casing materials and elastomers ensure maximum chemical compatibility. Ideal for low volume clean fluids transfer applications.

- Suitable for Clean Fluids Transfer
- Includes 40" Suction Tube and Bung Adaptor
- Compact Box Style Design
- Muffler Included

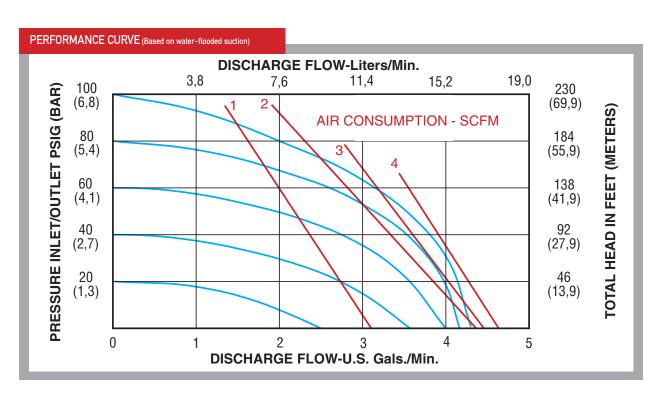
#### **SPECIFICATIONS** Dimension

See Drawing Page 73
1/4"
1/4"
1/4"
See Product Tables
4.3 gpm (16.3 lpm)
100 psi (6.8 bar)
<sup>1</sup> / <sub>16</sub> " (1.6 mm)
17 ft (5 m)
26 ft (7.9 m)
See Product Tables
See I Toddct Tables









1/4" - POLYPROPYLENE - A non-metallic material, suitable for water, caustics, soap solutions, mild acids and general purpose applications. Please consult chemical compatibility tables or www.all-flo.com for your particular application.

PART Number	DIAPHRAGM Material	VALVE/BALL MATERIAL	VALVE SEAT MATERIAL	0-RING Material	FASTENER MATERIAL	WEIGHT LBS (KG)	MAX TEMPERATURE °F (°C)	DIMENSIONAL DIAGRAM	CONNECT Type
NCD-025	Geolast®	PTFE	Polypropylene	Nitrile	SS	12 (5.4)	150 (66)	Pg. 73	NPT (BSP)
BKD-025	PTFE	PTFE	Polypropylene	PTFE	SS	12 (5.4)	150 (66)	Pg. 73	NPT (BSP)
NCD-025E	Santoprene®	PTFE	Polypropylene	EPDM	SS	12 (5.4)	150 (66)	Pg. 73	NPT (BSP)

1/4" - PVDF - Polyvinylidene Fluoride suitable in applications requiring the highest purity, strength, and resistance to solvents, acids, and bases. Please consult chemical compatibility tables or www.all-flo.com for your particular application.

PART Number	DIAPHRAGM MATERIAL	VALVE/BALL MATERIAL	VALVE SEAT MATERIAL	0-RING Material	Fastener Material	WEIGHT LBS (KG)	MAX TEMPERATURE °F (°C)	DIMENSIONAL DIAGRAM	CONNECT TYPE
KND-025	PTFE	PTFE	PVDF	PTFE	SS	14 (6.4)	200 (93)	Pg. 73	NPT (BSP)
KND-025E	Santoprene®	PTFE	PVDF	EPDM	SS	14 (6.4)	200 (93)	Pg. 73	NPT (BSP)

1/4" - NYLON - A non-metallic material, suitable for most solvents and oils. Please consult chemical compatibility tables or www.all-flo.com for your particular application.

PART Number	DIAPHRAGM MATERIAL	Valve/Ball Material	VALVE SEAT MATERIAL	0-RING Material	FASTENER MATERIAL	WEIGHT LBS (KG)	MAX TEMPERATURE °F (°C)	DIMENSIONAL DIAGRAM	CONNECT TYPE
RDD-025B	Geolast®	PTFE	Nylon	Nitrile	SS	12 (5.4)	150 (66)	Pg. 73	NPT (BSP)
RDD-025	PTFE	PTFE	Nylon	PTFE	SS	12 (5.4)	150 (66)	Pg. 73	NPT (BSP)

1/4" - CONDUCTIVE NYLON - Stainless steel filled nylon, suitable for most solvents and alcohols. Grounding lugs provided with pump. Please consult chemical compatibility tables or www.all-flo.com for your particular application.

PART Number	DIAPHRAGM MATERIAL	VALVE/BALL MATERIAL	VALVE SEAT MATERIAL	0-RING Material	FASTENER MATERIAL	WEIGHT LBS (KG)	MAX TEMPERATURE °F (°C)	DIMENSIONAL DIAGRAM	CONNECT TYPE
CND-025B	Geolast®	PTFE	Nylon	Geolast®	SS	14 (6.4)	150 (66)	Pg. 73	NPT (BSP)
CND-025	PTFE	PTFE	Nylon	PTFE	SS	14 (6.4)	150 (66)	Pg. 73	NPT (BSP)

**AVAILABLE OPTIONS** - Each pump can be configured to suit a particular application. Please see the options section for detailed product information on the following available options.

AIR VALVE OPTIONS	SEE PAGE
CYCLE COUNT VALVE	67
HARDWARE OPTIONS	
PTFE COATED HARDWARE	67
O-RINGS	
PTFE O-RINGS	67
NITRILE O-RINGS	67
EPDM O-RINGS	67
VITON® O-RINGS	67
PORTING OPTIONS	
DUAL SUCTION	68
DUAL DISCHARGE / DUAL SUCTION	68
DUAL DISCHARGE	68

AIR	SEE PAGE
FILTER / REGULATOR / GAUGE	60
SOLENOID VALVES	60
AIR FLOW CONTROL	60
NEEDLE VALVE	60
PUMP	
PREMIUM MUFFLER	63
GROUNDING LUG	64







#### 3/8" INTERMITTENT DUTY **CLAMP** STYLE PUMP

Reliable polypropylene air center section combined with non-metallic clamped casing and elastomer materials ensure maximum chemical compatibility. Our patented "Max-Pass™" valve system allows operation under a variety of conditions, ranging from clean fluids to slurries. Ideal for low volume clean fluids transfer applications.

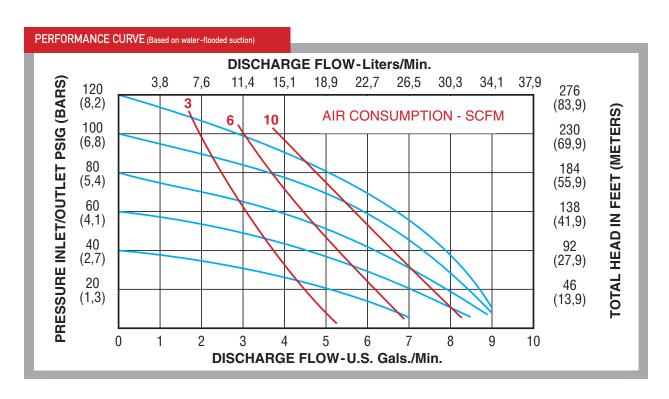
- Suitable for Clean Fluids, Slurries or up to 1/16" Solids
- High Suction Lift
- Muffler Included

Dimension	
Physical Dimensions	See Drawing Page 73
Air Inlet	1/4"
Liquid Inlet	3/8"
Liquid Outlet	3/8"
Weight	See Product Tables
Performance	
Maximum Flow	9 gpm (34.0 lpm)
Maximum Air Pressure	120 psi (8.2 bar)
Maximum Solids	<sup>1</sup> / <sub>16</sub> " (1.6 mm)
Max Suction Lift Dry	15 ft (4.5 m)
Max Suction Lift Wet	26 ft (7.9 m)
Max Suction Lift Dry with	PTFE 10 ft (3 m)
Max Temperature	See Product Tables
Noise Level (with muffler)	86 dBA









3/8" - POLYPROPYLENE - A non-metallic material, suitable for water, caustics, soap solutions, mild acids and general purpose applications. Please consult chemical compatibility tables or www.all-flo.com for your particular application.

PART Number	DIAPHRAGM MATERIAL	Valve/Ball Material	VALVE SEAT MATERIAL	0-ring Material	Fastener Material	WEIGHT LBS (KG)	MAX TEMPERATURE °F (°C)	DIMENSIONAL DIAGRAM	CONNECT TYPE
PT-038	PTFE	PTFE	Polypropylene	PTFE	SS	3.8 (1.7)	150 (66)	Pg. 73	NPT (BSP)
PB-038-B1	Geolast®	Geolast®	Polypropylene	Nitrile	SS	3.8 (1.7)	150 (66)	Pg. 73	NPT (BSP)
PV-038-B6	PTFE	Viton®	Polypropylene	Viton®	SS	3.8 (1.7)	150 (66)	Pg. 73	NPT (BSP)
PE-038-B3	Santoprene®	Santoprene®	Polypropylene	EPDM	SS	3.8 (1.7)	150 (66)	Pg. 73	NPT (BSP)

3/8" - PVDF - Polyvinylidene Fluoride suitable in applications requiring the highest purity, strength, and resistance to solvents, acids, and bases. Please consult chemical compatibility tables or www.all-flo.com for your particular application.

PART NUMBER	DIAPHRAGM MATERIAL	VALVE/BALL MATERIAL	VALVE SEAT MATERIAL	0-RING Material	FASTENER MATERIAL	WEIGHT LBS (KG)	MAX TEMPERATURE °F (°C)	DIMENSIONAL DIAGRAM	CONNECT TYPE
KT-038	PTFE	PTFE	PVDF	PTFE	SS	5 (2.3)	200 (93)	Pg. 73	NPT (BSP)
KV-038-B6	PTFE	Viton®	PVDF	Viton®	SS	5 (2.3)	200 (93)	Pg. 73	NPT (BSP)
KE-038-B3	Santoprene®	Santoprene®	PVDF	EPDM	SS	5 (2.3)	200 (93)	Pg. 73	NPT (BSP)

3/8" - CONDUCTIVE NYLON - Stainless steel filled nylon, suitable for most solvents and alcohols. Grounding lugs provided with pump. Please consult chemical compatibility tables or www.all-flo.com for your particular application.

PART Number	DIAPHRAGM MATERIAL	VALVE/BALL MATERIAL	VALVE SEAT MATERIAL	O-RING Material	FASTENER MATERIAL	WEIGHT LBS (KG)	MAX TEMPERATURE °F (°C)	DIMENSIONAL DIAGRAM	CONNECT TYPE
CT-038	PTFE	PTFE	SS	PTFE	SS	5 (2.3)	150 (66)	Pg. 73	NPT (BSP)
CB-038-B1	Geolast®	Geolast®	SS	Nitrile	SS	5 (2.3)	150 (66)	Pg. 73	NPT (BSP)
CV-038-B6	PTFE	Viton®	SS	Viton®	SS	5 (2.3)	150 (66)	Pg. 73	NPT (BSP)

**AVAILABLE OPTIONS** - Each pump can be configured to suit a particular application. Please see the options section for detailed product information on the following available options.

available options.	
AIR VALVE OPTIONS	SEE PAGE 67
CYCLE COUNT VALVE	SOLENOID ADAPTOR VALVE
BALL VALVE OPTIONS	SEE PAGE 67
GEOLAST®	PTFE
SANTOPRENE®	STAINLESS STEEL
HARDWARE OPTIONS	SEE PAGE 67
PTFE COATED HARDWAR	E
O-RINGS	SEE PAGE 67
PTFE O-RINGS	NITRILE O-RINGS
EPDM O-RINGS	VITON® O-RINGS
PORTING OPTIONS	SEE PAGE 68
PORTING OPTIONS  DUAL DISCHARGE / SUCTI	
DUAL DISCHARGE / SUCTI DISCHARGE AIR INLET / E	ON ALL PORTS OPEN
DUAL DISCHARGE / SUCTI DISCHARGE AIR INLET / E SUCTION / DOWN	ON ALL PORTS OPEN
DUAL DISCHARGE / SUCTI DISCHARGE AIR INLET / E SUCTION / DOWN SUCTION & DISCHARGE	ON ALL PORTS OPEN  XHAUST  LEFT
DUAL DISCHARGE / SUCTI DISCHARGE AIR INLET / E SUCTION / DOWN SUCTION & DISCHARGE I SUCTION RIGHT & DISCH	ON ALL PORTS OPEN EXHAUST  LEFT  JARGE LEFT
DUAL DISCHARGE / SUCTI DISCHARGE AIR INLET / E SUCTION / DOWN SUCTION & DISCHARGE I SUCTION RIGHT & DISCH SUCTION LEFT & DISCHARGE	ON ALL PORTS OPEN EXHAUST  LEFT  IARGE LEFT  IRGE RIGHT
DUAL DISCHARGE / SUCTI DISCHARGE AIR INLET / E SUCTION / DOWN SUCTION & DISCHARGE I SUCTION RIGHT & DISCHA SUCTION LEFT & DISCHA VALVE SEAT OPTIONS	ON ALL PORTS OPEN EXHAUST  LEFT IARGE LEFT IRGE RIGHT  SEE PAGE 68
DUAL DISCHARGE / SUCTI DISCHARGE AIR INLET / E SUCTION / DOWN SUCTION & DISCHARGE I SUCTION RIGHT & DISCHA SUCTION LEFT & DISCHA VALVE SEAT OPTIONS POLYPROPYLENE	ON ALL PORTS OPEN EXHAUST  LEFT  IARGE LEFT  IRGE RIGHT
DUAL DISCHARGE / SUCTI DISCHARGE AIR INLET / E SUCTION / DOWN SUCTION & DISCHARGE I SUCTION RIGHT & DISCHA SUCTION LEFT & DISCHA VALVE SEAT OPTIONS POLYPROPYLENE STAINLESS STEEL	ON ALL PORTS OPEN EXHAUST  LEFT LARGE LEFT LRGE RIGHT  SEE PAGE 68  PVDF
DUAL DISCHARGE / SUCTION SUCTION / DOWN SUCTION & DISCHARGE I SUCTION RIGHT & DISCHARGE I SUCTION LEFT & DISCHARGE I VALVE SEAT OPTIONS POLYPROPYLENE STAINLESS STEEL MAX PASS VALVE SOLIDS	ON ALL PORTS OPEN EXHAUST  LEFT IARGE LEFT IRGE RIGHT  SEE PAGE 68

AIR	SEE PAGE
FILTER / REGULATOR / GAUGE	60
SOLENOID VALVES	60
AIR FLOW CONTROL VALVES	60
NEEDLE VALVE	60
PUMP	
PREMIUM MUFFLER	63
GROUNDING LUG	64
METAL MUFFLER	63
DRUM PUMP / DISPENSING UNIT	64



#### 3/8" INTERMITTENT DUTY **CLAMP** STYLE PUMP

Reliable polypropylene air center section combined with non-metallic clamped casing and elastomer materials ensure maximum chemical compatibility. Our patented "Max-Pass™" valve system allows operation under a variety of conditions, ranging from clean fluids to slurries, to solids applications.

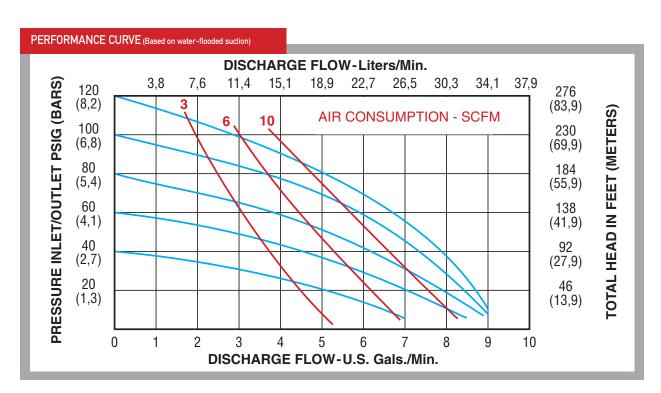
- Suitable for Clean Fluids, Slurries or up to 1/4" Solids
- Mount in any Position
- High Suction Lift
- Muffler Included

See Drawing Page 73
1/4"
3/8"
3/8"
See Product Tables
9 gpm (34.0 lpm)
120 psi (8.2 bar)
<sup>1</sup> / <sub>4</sub> " (6.4 mm)
17 ft (5.2 m)
26 ft (7.9 m)
See Product Tables
86 dBA









3/8" - POLYPROPYLENE - A non-metallic material, suitable for water, caustics, soap solutions, mild acids and general purpose applications. Please consult chemical compatibility tables or www.all-flo.com for your particular application.

PART NUMBER	DIAPHRAGM Material	VALVE/BALL MATERIAL	VALVE SEAT MATERIAL	O-RING Material	FASTENER MATERIAL	WEIGHT LBS (KG)	MAX TEMPERATURE °F (°C)	DIMENSIONAL DIAGRAM	CONNECT TYPE
PB-038	Geolast®	Nitrile Max-Pass™	N/A	Nitrile	SS	3.8 (1.7)	150 (66)	Pg. 73	NPT (BSP)
PV-038	PTFE	Viton® Max-Pass™	N/A	Viton®	SS	3.8 (1.7)	150 (66)	Pg. 73	NPT (BSP)
PE-038	Santoprene®	EPDM Max-Pass™	N/A	EPDM	SS	3.8 (1.7)	150 (66)	Pg. 73	NPT (BSP)

3/8" - PVDF - Polyvinylidene Fluoride suitable in applications requiring the highest purity, strength, and resistance to solvents, acids, and bases. Please consult chemical compatibility tables or www.all-flo.com for your particular application.

PART Number	DIAPHRAGM MATERIAL	Valve/Ball Material	VALVE SEAT MATERIAL	0-ring Material	Fastener Material	WEIGHT LBS (KG)	MAX TEMPERATURE °F (°C)	DIMENSIONAL DIAGRAM	CONNECT TYPE
KV-038	PTFE	Viton® Max-Pass™	N/A	Viton®	SS	5 (2.3)	200 (93)	Pg. 73	NPT (BSP)
KE-038	Santoprene®	EPDM Max-Pass™	N/A	EPDM	SS	5 (2.3)	200 (93)	Pg. 73	NPT (BSP)

3/8" - CONDUCTIVE NYLON - Stainless steel filled nylon, suitable for most solvents and alcohols. Grounding lugs provided with pump. Please consult chemical compatibility tables or www.all-flo.com for your particular application.

PART Number	DIAPHRAGM MATERIAL	Valve/Ball Material	VALVE SEAT MATERIAL	0-ring Material	Fastener Material	WEIGHT LBS (KG)	MAX TEMPERATURE °F (°C)	DIMENSIONAL DIAGRAM	CONNECT TYPE
CB-038	Geolast®	Nitrile Max-Pass™	N/A	Nitrile	SS	5 (2.3)	150 (66)	Pg. 73	NPT (BSP)
CV-038	PTFE	Viton® Max-Pass™	N/A	Viton®	SS	5 (2.3)	150 (66)	Pg. 73	NPT (BSP)

**AVAILABLE OPTIONS** - Each pump can be configured to suit a particular application. Please see the options section for detailed product information on the following available options.

available options.	
AIR VALVE OPTIONS	SEE PAGE 67
CYCLE COUNT VALVE	SOLENOID ADAPTOR VALVE
BALL VALVE OPTIONS	SEE PAGE 67
GEOLAST®	PTFE
SANTOPRENE®	STAINLESS STEEL
HARDWARE OPTIONS	SEE PAGE 67
PTFE COATED HARDWARE	
O-RINGS	SEE PAGE 67
PTFE O-RINGS	NITRILE O-RINGS
EPDM O-RINGS	VITON® O-RINGS
DODTING ODTIONS	SEE PAGE 68
PORTING OPTIONS	SEE FAGE 00
DUAL DISCHARGE / SUCTION	
DUAL DISCHARGE / SUCTION DISCHARGE AIR INLET / EXHAU	ALL PORTS OPEN
DUAL DISCHARGE / SUCTION DISCHARGE AIR INLET / EXHAU SUCTION / DOWN	ALL PORTS OPEN
DUAL DISCHARGE / SUCTION DISCHARGE AIR INLET / EXHAU SUCTION / DOWN SUCTION & DISCHARGE LEFT	ALL PORTS OPEN ST
DUAL DISCHARGE / SUCTION DISCHARGE AIR INLET / EXHAU SUCTION / DOWN SUCTION & DISCHARGE LEFT SUCTION RIGHT & DISCHARGE	ALL PORTS OPEN ST
DUAL DISCHARGE / SUCTION DISCHARGE AIR INLET / EXHAU SUCTION / DOWN SUCTION & DISCHARGE LEFT SUCTION RIGHT & DISCHARGE SUCTION LEFT & DISCHARGE	ALL PORTS OPEN ST : LEFT RIGHT
DUAL DISCHARGE / SUCTION DISCHARGE AIR INLET / EXHAU SUCTION / DOWN SUCTION & DISCHARGE LEFT SUCTION RIGHT & DISCHARGE SUCTION LEFT & DISCHARGE F MAX-PASS™ VALVE SOLIDS HAI	ALL PORTS OPEN ST  LEFT RIGHT NDLING OPTIONSSEE PAGE 68
DUAL DISCHARGE / SUCTION DISCHARGE AIR INLET / EXHAU SUCTION / DOWN SUCTION & DISCHARGE LEFT SUCTION RIGHT & DISCHARGE SUCTION LEFT & DISCHARGE	ALL PORTS OPEN ST : LEFT RIGHT

AIR	SEE PAGE
FILTER / REGULATOR / GAUGE	60
SOLENOID VALVES	60
AIR FLOW CONTROL VALVES	60
NEEDLE VALVE	60
PUMP	
PREMIUM MUFFLER	63
GROUNDING LUG	64
METAL MUFFLER	63
DRUM PUMP	64



#### 3/8" INTERMITTENT DUTY CLAMP STYLE **DRUM** PUMP

Reliable polypropylene air center section combined with non-metallic clamped casing materials ensure maximum chemical compatibility. Our patented "Max-Pass™" valve system allows operation under a variety of conditions, ranging from clean fluids to slurries, to solids applications. Ideal for low volume clean fluids transfer applications.

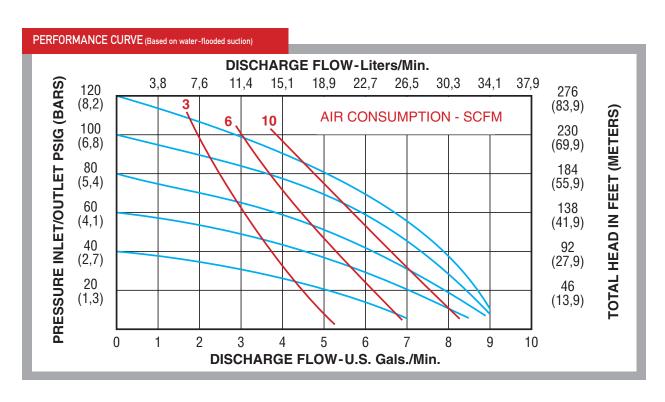
- Suitable for Clean Fluids, Slurries or up to 1/4" Solids (1/16" with PTFE)
- Includes 40" Suction Tube and Bung Adaptor
- Suitable for Clean Fluids, Slurries or Solids Applications
- Muffler Included

Dimension	
Physical Dimensions	See Drawing Page 73
Air Inlet	1/4"
Liquid Inlet	3/8"
Liquid Outlet	3/8"
Weight	See Product Tables
Performance	
Maximum Flow	9 gpm (34.0 lpm)
Maximum Air Pressure	120 psi (8.2 bar)
Maximum Solids	<sup>1</sup> / <sub>4</sub> " (6.4 mm)
Max Suction Lift Dry	17 ft (5.2 m)
Max Suction Lift Wet	26 ft (7.9 m)
Max Suction Lift Dry with I	PTFE 10 ft (3 m)
Max Temperature	See Product Tables
Noise Level (with muffler)	86 dBA









3/8" - POLYPROPYLENE - A non-metallic material, suitable for water, caustics, soap solutions, mild acids and general purpose applications. Please consult chemical compatibility tables or www.all-flo.com for your particular application.

PART NUMBER	DIAPHRAGM MATERIAL	VALVE/BALL MATERIAL	VALVE SEAT MATERIAL	0-ring Material	FASTENER MATERIAL	WEIGHT LBS (KG)	MAX TEMPERATURE °F (°C)	DIMENSIONAL DIAGRAM	CONNECT TYPE
PBD-038	Geolast®	Nitrile Max-Pass™	N/A	Nitrile	SS	11 (5.0)	150 (66)	Pg. 73	NPT (BST)
PED-038	PTFE	Viton® Max-Pass™	N/A	Viton®	SS	11 (5.0)	150 (66)	Pg. 73	NPT (BST)
PVD-038	Santoprene®	EPDM Max-Pass™	N/A	EPDM	SS	11 (5.0)	150 (66)	Pg. 73	NPT (BST)
PTD-038	PTFE	PTFE Ball	PVDF	PTFE	SS	11 (5.0)	150 (66)	Pg. 73	NPT (BST)

3/8" - PVDF - Polyvinylidene Fluoride suitable in applications requiring the highest purity, strength, and resistance to solvents, acids, and bases. Please consult chemical compatibility tables or www.all-flo.com for your particular application.

PART Number	DIAPHRAGM Material	VALVE/BALL Material	VALVE SEAT MATERIAL	O-RING Material	FASTENER MATERIAL	WEIGHT LBS (KG)	MAX TEMPERATURE °F (°C)	DIMENSIONAL DIAGRAM	CONNECT TYPE
KVD-038	PTFE	Viton® Max-Pass™	N/A	Viton®	SS	12 (5.4)	200 (93)	Pg. 73	NPT (BST)
KED-038	Santoprene®	EPDM Max-Pass™	N/A	EPDM	SS	12 (5.4)	200 (93)	Pg. 73	NPT (BST)
KTD-038	PTFE	PTFE Ball	PVDF	PTFE	SS	12 (5.4)	200 (93)	Pg. 73	NPT (BST)

3/8" - CONDUCTIVE NYLON - Stainless steel filled nylon, suitable for most solvents and alcohols. Grounding lugs provided with pump. Please consult chemical compatibility tables or www.all-flo.com for your particular application.

PART Number	DIAPHRAGM Material	Valve/Ball Material	VALVE SEAT MATERIAL	0-ring Material	FASTENER MATERIAL	WEIGHT LBS (KG)	MAX TEMPERATURE °F (°C)	DIMENSIONAL DIAGRAM	CONNECT TYPE
CBD-038	Geolast®	Nitrile Max-Pass™	N/A	Nitrile	SS	12 (5.4)	150 (66)	Pg. 73	NPT (BST)
CVD-038	PTFE	Viton® Max-Pass™	N/A	Viton®	SS	12 (5.4)	150 (66)	Pg. 73	NPT (BST)
CTD-038	PTFE	PTFE Ball	SS	PTFE	SS	12 (5.4)	150 (66)	Pg. 73	NPT (BST)

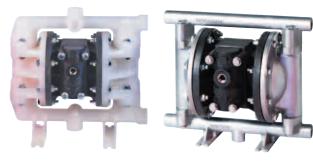
**AVAILABLE OPTIONS** - Each pump can be configured to suit a particular application. Please see the options section for detailed product information on the following available options.

available options.			
AIR VALVE OPTION	S		SEE PAGE 67
CYCLE COUNT VALV	/E	SOLENOID AD	APTOR VALVE
BALL VALVE OPTIC	NS		SEE PAGE 67
GEOLAST®		PTFE	
SANTOPRENE®		STAINLESS ST	TEEL
HARDWARE OPTIC	NS		SEE PAGE 67
PTFE COATED HAP	RDWARE		
O-RINGS			SEE PAGE 67
PTFE O-RINGS		NITRILE O-RIN	NGS
EPDM O-RINGS		VITON O-RING	GS
PORTING OPTIONS	3		SEE PAGE 68
PORTING OPTIONS DUAL DISCHARGE		ALL PORTS OF	
DUAL DISCHARGE / DISCHARGE AIR IN	SUCTION LET / EXHAUS	ST	
DUAL DISCHARGE / DISCHARGE AIR IN SUCTION / DOWN,	SUCTION LET / EXHAUS AIR INLET / EX	ST	
DUAL DISCHARGE / DISCHARGE AIR IN SUCTION / DOWN, SUCTION & DISCH	SUCTION LET / EXHAUS AIR INLET / EX ARGE LEFT	ST XHAUST	
DUAL DISCHARGE / DISCHARGE AIR IN SUCTION / DOWN, SUCTION & DISCH. SUCTION RIGHT &	SUCTION LET / EXHAUS AIR INLET / E ARGE LEFT DISCHARGE	ST XHAUST LEFT	
DUAL DISCHARGE / DISCHARGE AIR IN SUCTION / DOWN, SUCTION & DISCH SUCTION RIGHT & SUCTION LEFT & D	SUCTION LET / EXHAUS AIR INLET / E: ARGE LEFT DISCHARGE IISCHARGE R	ST XHAUST LEFT	PEN
DUAL DISCHARGE / DISCHARGE AIR IN SUCTION / DOWN, SUCTION & DISCH SUCTION RIGHT & SUCTION LEFT & D VALVE SEAT OPTICE	SUCTION LET / EXHAUS AIR INLET / E: ARGE LEFT DISCHARGE IISCHARGE R	ST XHAUST LEFT IGHT	
DUAL DISCHARGE / DISCHARGE AIR IN SUCTION / DOWN, SUCTION & DISCH. SUCTION RIGHT & SUCTION LEFT & D VALVE SEAT OPTIC POLYPROPYLENE	SUCTION LET / EXHAUS AIR INLET / E: ARGE LEFT DISCHARGE IISCHARGE R	ST XHAUST LEFT	PEN
DUAL DISCHARGE / DISCHARGE AIR IN SUCTION / DOWN, SUCTION & DISCH SUCTION RIGHT & SUCTION LEFT & D VALVE SEAT OPTICE	SUCTION LET / EXHAUS AIR INLET / EX ARGE LEFT DISCHARGE DISCHARGE R INS	ST XHAUST LEFT IGHT PVDF	PEN SEE PAGE 68
DUAL DISCHARGE / DISCHARGE AIR IN SUCTION / DOWN, SUCTION & DISCH. SUCTION RIGHT & SUCTION LEFT & D VALVE SEAT OPTIC POLYPROPYLENE STAINLESS STEEL	SUCTION LET / EXHAUS AIR INLET / EX ARGE LEFT DISCHARGE DISCHARGE R INS	ST XHAUST  LEFT IGHT  PVDF  DLING OPTIONS	PEN SEE PAGE 68

AIR	SEE PAGE
FILTER / REGULATOR / GAUGE	60
SOLENOID VALVES	60
AIR FLOW CONTROL VALVES	60
NEEDLE VALVE	60
PUMP	
PREMIUM MUFFLER	63
GROUNDING LUG	64
METAL MUFFLER	63
DRUM PUMP	64







#### 1/2" HEAVY DUTY **BOLTED** STYLE PUMP

Engineered for maximum fluid and chemical compatibility. Heavy duty, non-metallic air valve ensures stall free and freeze free operation. Bolted design provides ease of maintenance and leak free operation. Available in a variety of materials and options.

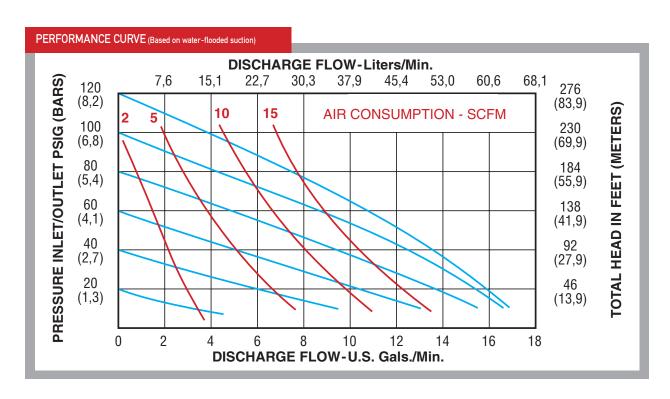
- Suitable for Clean Fluids, Slurries or up to 1/8" Solids
- Heavy Duty Air Valve
- Available in Metallic or Non-Metallic Wetted Components
- Muffler Included

Dimension	
Physical Dimensions	See Drawing Page 74
Air Inlet	1/4"
Liquid Inlet	1/2"
Liquid Outlet	1/2"
Weight	See Product Tables
Performance	
Maximum Flow	17 gpm (64.6 lpm)
Maximum Air Pressure	120 psi (8.2 bar)
Maximum Solids	<sup>1</sup> / <sub>8</sub> " (3.2 mm)
Max Suction Lift Dry	15 ft (4.5 m)
Max Suction Lift Wet	26 ft (7.9 m)
Max Suction Lift Dry with	PTFE 10 ft (3 m)
Max Temperature	See Product Tables
Noise Level (with muffler	83 dBA









1/2" - ALUMINUM - General Purpose pump, suitable for water, oils, most solvents, and most paints. Please consult chemical compatibility tables or www.all-flo.com for your particular application.

PART Number	DIAPHRAGM Material	VALVE/BALL MATERIAL	VALVE SEAT MATERIAL	O-RING Material	FASTENER MATERIAL	WEIGHT LBS (KG)	MAX TEMPERATURE °F (°C)	DIMENSIONAL DIAGRAM	CONNECT TYPE
AN-05	Geolast®	Nitrile	Polypropylene	Nitrile	SS	10 (4.5)	180 (100)	Pg. 74	NPT (BSP)
AB-05	Geolast®	Geolast®	Polypropylene	Nitrile	SS	10 (4.5)	180 (100)	Pg. 74	NPT (BSP)
AB-05-B2	Geolast®	PTFE	Polypropylene	Nitrile	SS	10 (4.5)	212 (100)	Pg. 74	NPT (BSP)
AT-05	PTFE	PTFE	Nylon	PTFE	SS	10 (4.5)	212 (100)	Pg. 74	NPT (BSP)
AE-05	Santoprene®	Santoprene®	Polypropylene	EPDM	SS	10 (4.5)	212 (100)	Pg. 74	NPT (BSP)
AV-05	Viton®	Viton®	Nylon	Viton®	SS	10 (4.5)	212 (100)	Pg. 74	NPT (BSP)

1/2" - 316 SS - Corrosion resistant steel, suitable for nitric acid, chlorinated solvents, caustics and marine applications. Please consult chemical compatibility tables or www.all-flo.com for your particular application.

PART NUMBER	DIAPHRAGM MATERIAL	Valve/Ball Material	VALVE SEAT MATERIAL	0-ring Material	Fastener Material	WEIGHT LBS (KG)	MAX TEMPERATURE °F (°C)	DIMENSIONAL DIAGRAM	CONNECT TYPE
SN-05	Geolast®	Nitrile	SS	Nitrile	SS	19 (8.6)	180 (100)	Pg. 74	NPT (BSP)
SB-05	Geolast®	Geolast®	SS	Nitrile	SS	19 (8.6)	180 (100)	Pg. 74	NPT (BSP)
SP-05	PTFE	PTFE	SS	PTFE	SS	19 (8.6)	212 (100)	Pg. 74	NPT (BSP)
SE-05	Santoprene®	Santoprene®	SS	EPDM	SS	19 (8.6)	212 (100)	Pg. 74	NPT (BSP)
SV-05	Viton®	Viton®	SS	Viton®	SS	19 (8.6)	212 (100)	Pg. 74	NPT (BSP)

1/2" - POLYPROPYLENE - A non-metallic material, suitable for water, caustics, soap solutions, mild acids and general purpose applications. Please consult chemical compatibility tables or www.all-flo.com for your particular application.

Part Number	DIAPHRAGM Material	Valve/Ball Material	VALVE SEAT MATERIAL	O-RING Material	FASTENER MATERIAL	WEIGHT LBS (KG)	MAX TEMPERATURE °F (°C)	DIMENSIONAL DIAGRAM	CONNECT Type
PN-05	Geolast®	Nitrile	Polypropylene	Nitrile	SS	9 (4.1)	150 (66)	Pg. 74	NPT (BSP)
PB-05	Geolast®	Geolast®	Polypropylene	Nitrile	SS	9 (4.1)	150 (66)	Pg. 74	NPT (BSP)
PT-05	PTFE	PTFE	Polypropylene	PTFE	SS	9 (4.1)	150 (66)	Pg. 74	NPT (BSP)
PE-05	Santoprene®	Santoprene®	Polypropylene	EPDM	SS	9 (4.1)	150 (66)	Pg. 74	NPT (BSP)
PV-05	Viton®	Viton®	Polypropylene	Viton®	SS	9 (4.1)	150 (66)	Pg. 74	NPT (BSP)

1/2" - PVDF - Polyvinylidene Fluoride suitable in applications requiring the highest purity, strength, and resistance to solvents, acids, and bases. Please consult chemical compatibility tables or www.all-flo.com for your particular application.

PART Number	DIAPHRAGM MATERIAL	Valve/Ball Material	VALVE SEAT MATERIAL	O-RING Material	Fastener Material	WEIGHT LBS (KG)	MAX TEMPERATURE °F (°C)	DIMENSIONAL DIAGRAM	CONNECT TYPE
KT-05	PTFE	PTFE	PVDF	PTFE	SS	12 (5.4)	200 (93)	Pg. 74	NPT (BSP)
KE-05	Santoprene®	Santoprene®	PVDF	EPDM	SS	12 (5.4)	200 (93)	Pg. 74	NPT (BSP)
KV-05	Viton®	Viton®	PVDF	Viton®	SS	12 (5.4)	200 (93)	Pg. 74	NPT (BSP)

1/2" - NYLON - A non-metallic material, suitable for most solvents and oils. Please consult chemical compatibility tables or www.all-flo.com for your particular application.

PART Number	DIAPHRAGM Material	VALVE/BALL MATERIAL	VALVE SEAT MATERIAL	O-RING Material	FASTENER MATERIAL	WEIGHT LBS (KG)	MAX TEMPERATURE °F (°C)	DIMENSIONAL DIAGRAM	CONNECT Type
NN-05	Geolast®	Nitrile	PVDF	Nitrile	SS	9 (4.1)	150 (66)	Pg. 74	NPT (BSP)
NB-05	Geolast®	Geolast®	PVDF	Nitrile	SS	9 (4.1)	150 (66)	Pg. 74	NPT (BSP)
NT-05	PTFE	PTFE	PVDF	PTFE	SS	9 (4.1)	150 (66)	Pg. 74	NPT (BSP)
NV-05	Viton®	Viton®	PVDF	Viton®	SS	9 (4.1)	150 (66)	Pg. 74	NPT (BSP)



1/2" - CONDUCTIVE NYLON - Stainless steel filled nylon, suitable for most solvents and alcohols. Grounding lugs provided with pump. Please consult chemical compatibility tables or www.all-flo.com for your particular application.

Part Number	DIAPHRAGM MATERIAL	VALVE/BALL MATERIAL	VALVE SEAT MATERIAL	O-RING Material	FASTENER MATERIAL	WEIGHT LBS (KG)	MAX TEMPERATURE °F (°C)	DIMENSIONAL DIAGRAM	CONNECT TYPE
CN-05	Geolast®	Nitrile	SS	Nitrile	SS	12 (5.4)	150 (66)	Pg. 74	NPT (BSP)
CB-05	Geolast®	Geolast®	SS	Nitrile	SS	12 (5.4)	150 (66)	Pg. 74	NPT (BSP)
CT-05	PTFE	PTFE	SS	PTFE	SS	12 (5.4)	150 (66)	Pg. 74	NPT (BSP)
CV-05	Viton®	Viton®	SS	Viton®	SS	12 (5.4)	150 (66)	Pg. 74	NPT (BSP)

**AVAILABLE OPTIONS** - Each pump can be configured to suit a particular application. Please see the options section for detailed product information on the following available options.

available options.	
AIR VALVE OPTIONS	SEE PAGE 67
CYCLE COUNT VALVE	SOLENOID ADAPTOR VALVE
BALL VALVE OPTIONS	SEE PAGE 67
GEOLAST®	PTFE
SANTOPRENE®	STAINLESS STEEL
BALL VALVE OPTIONS	SEE PAGE 67
HARD COAT ANODIZING	G
PASSIVATED & ELECTRO	OPOLISHED
HARDWARE OPTIONS	SEE PAGE 67
PTFE COATED HARDWA	ARE
O-RINGS	SEE PAGE 67
PTFE O-RINGS	NITRILE O-RINGS
EPDM O-RINGS	VITON O-RINGS
EPDM O-RINGS PORTING OPTIONS	VITON O-RINGS SEE PAGE 68
PORTING OPTIONS	
PORTING OPTIONS  DUAL DISCHARGE / SUC  DISCHARGE UP, AIR INL	SEE PAGE 68 CTION ALL PORTS OPEN LET / EXHAUST
PORTING OPTIONS  DUAL DISCHARGE / SUC  DISCHARGE UP, AIR INL  SUCTION / DOWN, AIR I	SEE PAGE 68 CTION ALL PORTS OPEN LET / EXHAUST
PORTING OPTIONS  DUAL DISCHARGE / SUC  DISCHARGE UP, AIR INL  SUCTION / DOWN, AIR I  SUCTION / DISCHARGE	SEE PAGE 68 CTION ALL PORTS OPEN LET / EXHAUST INLET/EXHAUST E LEFT
PORTING OPTIONS  DUAL DISCHARGE / SUC  DISCHARGE UP, AIR INL  SUCTION / DOWN, AIR I  SUCTION / DISCHARGE  SUCTION RIGHT & DISC	SEE PAGE 68 CTION ALL PORTS OPEN LET / EXHAUST NLET/EXHAUST E LEFT CHARGE LEFT
PORTING OPTIONS  DUAL DISCHARGE / SUC  DISCHARGE UP, AIR INL  SUCTION / DOWN, AIR I  SUCTION / DISCHARGE  SUCTION RIGHT & DISC  SUCTION LEFT & DISCHARGE	SEE PAGE 68 CTION ALL PORTS OPEN LET / EXHAUST INLET/EXHAUST E LEFT CHARGE LEFT HARGE RIGHT
PORTING OPTIONS  DUAL DISCHARGE / SUC  DISCHARGE UP, AIR INL  SUCTION / DOWN, AIR I  SUCTION / DISCHARGE  SUCTION RIGHT & DISCHARGE  SUCTION LEFT & DISCHARGE  VALVE SEAT OPTIONS	SEE PAGE 68  CTION ALL PORTS OPEN  LET / EXHAUST  INLET/EXHAUST  E LEFT  CHARGE LEFT  HARGE RIGHT  SEE PAGE 68
PORTING OPTIONS  DUAL DISCHARGE / SUC  DISCHARGE UP, AIR INL  SUCTION / DOWN, AIR I  SUCTION / DISCHARGE  SUCTION RIGHT & DISC  SUCTION LEFT & DISCHARGE	SEE PAGE 68 CTION ALL PORTS OPEN LET / EXHAUST INLET/EXHAUST E LEFT CHARGE LEFT HARGE RIGHT
PORTING OPTIONS  DUAL DISCHARGE / SUC  DISCHARGE UP, AIR INL  SUCTION / DOWN, AIR I  SUCTION / DISCHARGE  SUCTION RIGHT & DISCHARGE  SUCTION LEFT & DISCHARGE  VALVE SEAT OPTIONS  POLYPROPYLENE  STAINLESS STEEL	SEE PAGE 68  CTION ALL PORTS OPEN  LET / EXHAUST  INLET/EXHAUST  E LEFT  CHARGE LEFT  HARGE RIGHT  SEE PAGE 68
PORTING OPTIONS  DUAL DISCHARGE / SUC  DISCHARGE UP, AIR INL  SUCTION / DOWN, AIR I  SUCTION / DISCHARGE  SUCTION RIGHT & DISCHARGE  SUCTION LEFT & DISCHARGE  VALVE SEAT OPTIONS  POLYPROPYLENE  STAINLESS STEEL  MAX PASS VALVE SOLIE	SEE PAGE 68 CTION ALL PORTS OPEN LET / EXHAUST NLET/EXHAUST E LEFT CHARGE LEFT HARGE RIGHT SEE PAGE 68 PVDF

**AVAILABLE ACCESSORIES** - Please see the accessories section for detailed product information on the following available accessories.

AIR	SEE PAGE
FILTER / REGULATOR / GAUGE	60
SOLENOID VALVES	60
AIR FLOW CONTROL VALVES	60
NEEDLE VALVE	60
LIQUID	
SUCTION STRAINER	61
FILTER HOUSING	61
PUMP	
PREMIUM MUFFLER	63
GROUNDING LUG	64
METAL MUFFLER	63



#### METALLIC

All of our 1/2" metallic pumps have a non-metallic center section. This design concept ensures maximum chemical compatibility while protecting from environmental corrosion.



### CONDUCTIVE NYLON

Our conductive
nylon pumps achieve
desired chemical
compatibility while
providing grounding
capability for safe
operation.



#### **NON-METALLIC**

Our non-metallic pumps are available in a variety of materials and porting options, allowing for maximum application installation.







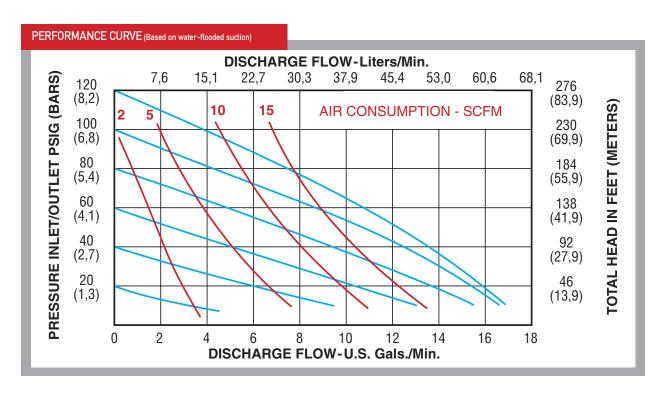
## 1/2" HEAVY DUTY **BOLTED** STYLE **SOLIDS HANDLING** PUMP

Engineered for maximum fluid and chemical compatibility. Heavy duty, stall free, non-metallic air section ensures stall free and freeze free operation. Our patented "Max-Pass™" valve system allows operation under a variety of conditions, ranging from clean fluids to slurries, to solids applications. Bolted design provides ease of maintenance and leak free operation. Available in a variety of materials and options.

- Suitable for Clean Fluids, Slurries or up to 3/8" Solids
- Heavy Duty Air Valve
- Available in Metallic or Non-Metallic Wetted Components
- Muffler Included

Dimension	
Physical Dimensions	See Drawing Page 74
Air Inlet	1/4"
Liquid Inlet	1/2"
Liquid Outlet	1/2"
Weight	See Product Tables
Performance	
Maximum Flow	17 gpm (64.6 lpm)
Maximum Flow  Maximum Air Pressure	17 gpm (64.6 lpm) 120 psi (8.2 bar)
Maximum Air Pressure	120 psi (8.2 bar)
Maximum Air Pressure  Maximum Solids	120 psi (8.2 bar)
Maximum Air Pressure  Maximum Solids  Max Suction Lift Dry	120 psi (8.2 bar) 3/8" (mm) 20 ft (6 m)





1/2" - ALUMINUM - General purpose pump, suitable for water, oils, most solvents, and most paints. Please consult chemical compatibility tables or www.all-flo.com for your particular application.

PART NUMBER	DIAPHRAGM Material	VALVE/BALL MATERIAL	VALVE SEAT MATERIAL	O-RING Material	FASTENER MATERIAL	WEIGHT LBS (KG)	MAX TEMPERATURE °F (°C)	DIMENSIONAL DIAGRAM	CONNECT TYPE
AB-05-M4	Geolast®	Nitrile Max-Pass™	N/A	Nitrile	SS	10 (4.5)	180 (82)	Pg. 74	NPT (BSP)
AE-05-M5	Santoprene®	EPDM Max-Pass™	N/A	EPDM	SS	10 (4.5)	212 (100)	Pg. 74	NPT (BSP)
AV-05-M6	Viton®	Viton® Max-Pass™	N/A	Viton®	SS	10 (4.5)	212 (100)	Pg. 74	NPT (BSP)

1/2" - 316 SS - Corrosion resistant steel, suitable for nitric acid, chlorinated solvents, caustics and marine applications. Please consult chemical compatibility tables or www.all-flo.com for your particular application.

PART Number	DIAPHRAGM MATERIAL	VALVE/BALL Material	VALVE SEAT MATERIAL	O-RING Material	FASTENER MATERIAL	WEIGHT LBS (KG)	MAX TEMPERATURE °F (°C)	DIMENSIONAL DIAGRAM	CONNECT TYPE
SB-05-M4	Geolast®	Nitrile Max-Pass™	N/A	Nitrile	SS	19 (8.6)	180 (82)	Pg. 74	NPT (BSP)
SE-05-M5	Santoprene®	EPDM Max-Pass™	N/A	EPDM	SS	19 (8.6)	212 (100)	Pg. 74	NPT (BSP)
SV-05-M6	Viton®	Viton® Max-Pass™	N/A	Viton®	SS	19 (8.6)	212 (100)	Pg. 74	NPT (BSP)

1/2" - POLYPROPYLENE - A non-metallic material, suitable for water, caustics, soap solutions, mild acids and general purpose applications. Please consult chemical compatibility tables or www.all-flo.com for your particular application.

Part Number	DIAPHRAGM MATERIAL	VALVE/BALL Material	VALVE SEAT MATERIAL	0-RING Material	FASTENER MATERIAL	WEIGHT LBS (KG)	MAX TEMPERATURE °F (°C)	DIMENSIONAL DIAGRAM	CONNECT TYPE
PB-05-M4	Geolast®	NITRILE Max-Pass™	N/A	Nitrile	SS	9 (4.1)	150 (66)	Pg. 74	NPT (BSP)
PE-05-M5	Santoprene®	EPDM Max-Pass™	N/A	EPDM	SS	9 (4.1)	150 (66)	Pg. 74	NPT (BSP)
PV-05-M40	Viton®	Viton® Max-Pass™	N/A	Viton®	SS	9 (4.1)	150 (66)	Pg. 74	NPT (BSP)

1/2" - PVDF - Polyvinylidene fluoride suitable in applications requiring the highest purity, strength, and resistance to solvents, acids, and bases. Please consult chemical compatibility tables or www.all-flo.com for your particular application.

Part Number	DIAPHRAGM MATERIAL	VALVE/BALL Material	VALVE SEAT MATERIAL	O-RING Material	FASTENER MATERIAL	WEIGHT LBS (KG)	MAX TEMPERATURE °F (°C)	DIMENSIONAL DIAGRAM	CONNECT Type
KE-05-M5	Santoprene®	EPDM Viton®	N/A	EPDM	SS	12 (5.4)	200 (93)	Pg. 74	NPT (BSP)
KV-05-M40	Viton®	Viton®	N/A	Viton®	SS	12 (5.4)	200 (93)	Pg. 74	NPT (BSP)

1/2" - NYLON - A non-metallic material, suitable for most solvents and oils. Please consult chemical compatibility tables or www.all-flo.com for your particular application.

PART Number	DIAPHRAGM Material	VALVE/BALL MATERIAL	VALVE SEAT MATERIAL	O-RING Material	Fastener Material	WEIGHT LBS (KG)	MAX TEMPERATURE °F (°C)	DIMENSIONAL DIAGRAM	CONNECT TYPE
NB-05-M4	Geolast®	NITRILE Max-Pass™	N/A	Nitrile	SS	9 (4.1)	150 (66)	Pg. 74	NPT (BSP)
NV-05-M40	Viton®	Viton® Max-Pass™	N/A	Viton®	SS	9 (4.1)	150 (66)	Pg. 74	NPT (BSP)

1/2" - CONDUCTIVE NYLON - Stainless steel filled nylon, suitable for most solvents and alcohols. Grounding lugs provided with pump. Please consult chemical compatibility tables or www.all-flo.com for your particular application.

PART Number	DIAPHRAGM MATERIAL	Valve/Ball Material	VALVE SEAT MATERIAL	0-RING Material	Fastener Material	WEIGHT LBS (KG)	MAX TEMPERATURE °F (°C)	DIMENSIONAL DIAGRAM	CONNECT TYPE (BSP)
CB-05-M4	Geolast®	Nitrile Max-Pass™	N/A	Nitrile	SS	10 (4.5)	150 (66)	Pg. 74	NPT (BSP)
CV-05-M40	Viton®	Viton® Max-Pass™	N/A	Viton®	SS	10 (4.5)	150 (66)	Pg. 74	NPT (BSP)



**AVAILABLE OPTIONS** - Each pump can be configured to suit a particular application. Please see the options section for detailed product information on the following available options.

available option	S.		
AIR VALVE OPTIC	NS		SEE PAGE 67
CYCLE COUNT VA	ALVE	SOLENOID AD	APTOR VALVE
BALL VALVE OPT	IONS		SEE PAGE 67
GEOLAST®		PTFE	
SANTOPRENE®		STAINLESS S	TEEL
WETTED CHAME	ER FINISH OPT	IONS	SEE PAGE 67
HARD COAT AND	DIZING		
PASSIVATED & EI	LECTROPOLISH	IED	
HARDWARE OPT	IONS		SEE PAGE 67
PTFE COATED HA	ARDWARE		
O-RINGS			SEE PAGE 67
PTFE O-RINGS		NITRILE O-RI	NGS
EPDM O-RINGS		VITON® O-RIN	IGS
PORTING OPTIO	NS		SEE PAGE 68
DUAL DISCHARG	E/SUCTION	ALL PORTS (	OPEN
SUCTION / DOWI	N		
VALVE SEAT OPT	IONS		SEE PAGE 68
POLYPROPYLEN	E	NYLON	
PVDF		STAINLESS S	TEEL
MAX PASS VALVE	SOLIDS HAND	LING OPTIONS	SEE PAGE 68
NITRILE	EPDM	FD	A VITON®
MISC. AND SPEC	CIAL OPTIONS		SEE PAGE 68
ATEX CATEGORY	2		

**AVAILABLE ACCESSORIES** - Please see the accessories section for detailed product information on the following available accessories.

3	
AIR	SEE PAGE
FILTER / REGULATOR / GAUGE	60
SOLENOID VALVES	60
AIR FLOW CONTROL VALVES	60
NEEDLE VALVE	60
LIQUID	
SUCTION STRAINER	61
FILTER HOUSING	61
PUMP	
PREMIUM MUFFLER	63
GROUNDING LUG	64
METAL MUFFLER	63

#### MAX-PASS SOLIDS HANDLING VALUE

- Increased suction lift
- Up to 3/8" solids
- Mounts in any position





#### **METALLIC**

All of our 1/2" metallic pumps have a non-metallic center section. This design concept ensures maximum chemical compatibility while protecting from environmental corrosion.



## CONDUCTIVE NYLON

Our conductive nylon pumps achieve desired chemical compatibility while providing grounding capability for safe operation.



#### **NON-METALLIC**

Our non-metallic pumps are available in a variety of materials and porting options, allowing for maximum application installation.



#### 1/2" HEAVY DUTY CLAMPED STYLE PUMP

Reliable polypropylene air center section combined with non-metallic clamped casing materials ensure maximum chemical compatibility. Available in a variety of materials and options.

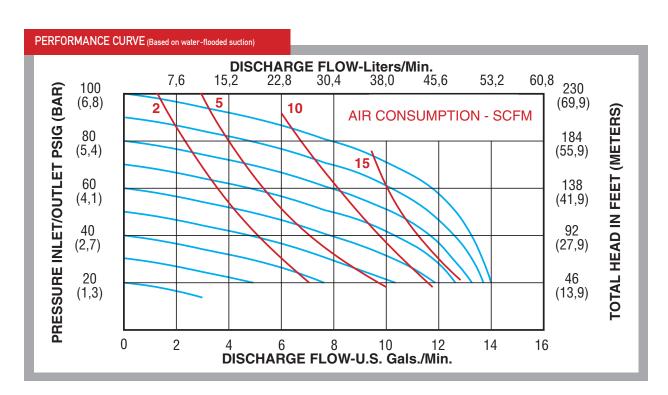
- Suitable for Clean Fluids, Slurries or up to 1/8" Solids
- Heavy Duty Air Valve
- Non-Metallic Wetted Components
- Muffler Included

Dimension	
Physical Dimensions	See Drawing Page 75
Air Inlet	1/4"
Liquid Inlet	1/2"
Liquid Outlet	1/2"
Weight	See Product Tables
Performance	
Maximum Flow	gpm (lpm)
Maximum Air Pressure	100 psi (6.8 bar)
Maximum Solids	<sup>1</sup> / <sub>8</sub> " ( 3.2 mm)
Max Suction Lift Dry	15 ft (4.5 m)
Max Suction Lift Wet	26 ft (7.9 m)
Max Suction Lift Dry with	PTFE 10 ft (3 m)
Max Temperature	See Product Tables
Noise Level (with muffler)	83 dBA









## 1/2" - POLYPROPYLENE - A non-metallic material, suitable for water, caustics, soap solutions, mild acids and general purpose applications. Please consult chemical compatibility tables or www.all-flo.com for your particular application.

PART Number	DIAPHRAGM Material	VALVE/BALL MATERIAL	VALVE SEAT MATERIAL	0-RING Material	FASTENER MATERIAL	WEIGHT LBS (KG)	MAX TEMPERATURE °F (°C)	DIMENSIONAL DIAGRAM	CONNECT TYPE
NC-5N	Geolast®	Nitrile	Polypropylene	Nitrile	SS & PS	8 (3.6)	150 (66)	Pg. 75	NPT (BSP)
NC-5	Geolast®	Geolast®	Polypropylene	Nitrile	SS & PS	8 (3.6)	150 (66)	Pg. 75	NPT (BSP)
BK-5	PTFE	PTFE	Polypropylene	PTFE	SS	8 (3.6)	150 (66)	Pg. 75	NPT (BSP)
BK-5E	Santroprene®	Santroprene®	Polypropylene	EPDM	SS	8 (3.6)	150 (66)	Pg. 75	NPT (BSP)
BK-5V	Viton®	Viton®	Polypropylene	Viton®	SS	8 (3.6)	150 (66)	Pg. 75	NPT (BSP)

1/2" - PVDF - Polyvinylidene fluoride suitable in applications requiring the highest purity, strength, and resistance to solvents, acids, and bases. Please consult chemical compatibility tables or www.all-flo.com for your particular application.

PART Number	DIAPHRAGM Material	VALVE/BALL MATERIAL	VALVE SEAT MATERIAL	O-RING Material	FASTENER MATERIAL	WEIGHT LBS (KG)	MAX TEMPERATURE °F (°C)	DIMENSIONAL DIAGRAM	CONNECT Type
KN-5	PVDF	PTFE	PTFE	PVDF	SS	11 (5.0)	200 (93)	Pg. 75	NPT (BSP)
KN-5E	Santroprene®	Santroprene®	PVDF	EPDM	SS	11 (5.0)	200 (93)	Pg. 75	NPT (BSP)
KN-5V	PVDF	Viton®	Viton®	PVDF	SS	11 (5.0)	200 (93)	Pg. 75	NPT (BSP)

**AVAILABLE OPTIONS** - Each pump can be configured to suit a particular application. Please see the options section for detailed product information on the following available options.

available options.		
AIR VALVE OPTIONS	SEE PAGE 6	7
CYCLE COUNT VALVE		
BALL VALVE OPTIONS	SEE PAGE 6	7
GEOLAST®	PTFE	
SANTOPRENE®	STAINLESS STEEL	
HARDWARE OPTIONS	SEE PAGE 6	7
PTFE COATED HARDWARE		
O-RINGS	SEE PAGE 6	7
PTFE O-RINGS	NITRILE O-RINGS	
EPDM O-RINGS	VITON® O-RINGS	
PORTING OPTIONS	SEE PAGE 6	8
DUAL DISCHARGE / SUCTION		
DISCHARGE UP, AIR INLET		
SUCTION / DOWN, AIR INLET		
SUCTION / DISCHARGE LEFT		
SUCTION RIGHT & DISCHARGE	LEFT	
SUCTION LEFT & DISCHARGE R	IGHT	
VALVE SEAT OPTIONS	SEE PAGE 6	8
POLYPROPYLENE	NYLON	
PVDF	STAINLESS STEEL	

AIR	SEE PAGE
FILTER / REGULATOR / GAUGE	60
SOLENOID VALVES	60
AIR FLOW CONTROL VALVES	60
NEEDLE VALVE	60
LIQUID	
SUCTION STRAINER	61
FILTER HOUSING	61
PUMP	
METAL MUFFLER	63
GROUNDING LUG	64





#### 1/2" HEAVY DUTY **BOLTED** STYLE **DRUM** PUMP

Engineered for maximum fluid and chemical compatibility. Heavy duty, non-metallic air section ensures stall free and freeze free operation. Rugged valve system allows operation under a variety of conditions, ranging from clean fluids to slurries, to small solids. Bolted design provides ease of maintenance and leak free operation. Available in a variety of materials and options.

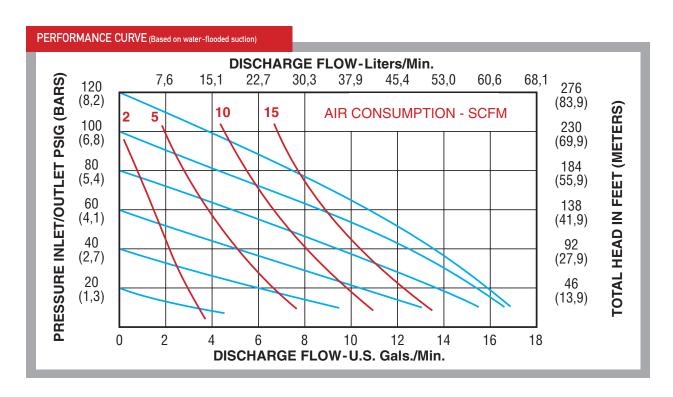
- Suitable for Clean Fluids, Slurries or up to 1/8" Solids
- Includes 40" Suction Tube and Bung Adaptor
- Solids Handling Options Available
- Heavy Duty Air Valve
- Muffler Included

Dimension	
Physical Dimensions	See Drawing Page 74
Air Inlet	1/4"
Liquid Inlet	1/2"
Liquid Outlet	1/2"
Weight	See Product Tables
Performance	
Maximum Flow	17 gpm (64.6 lpm)
Maximum Air Pressure	120 psi (8.2 bar)
Maximum Solids	<sup>1</sup> / <sub>8</sub> " (3.2 mm)
Max Suction Lift Dry	15 ft (4.5 m)
Max Suction Lift Wet	26 ft (7.9 m)
Max Suction Lift Dry with	PTFE 10 ft (3 m)
Max Temperature	See Product Tables
Noise Level (with muffler)	83 dBA









1/2" - ALUMINUM - General purpose pump, suitable for water, oils, most solvents, and most paints. Please consult chemical compatibility tables or www.all-flo.com for your particular application.

PART NUMBER	DIAPHRAGM MATERIAL	VALVE/BALL MATERIAL	VALVE SEAT MATERIAL	0-RING Material	FASTENER MATERIAL	WEIGHT LBS (KG)	MAX TEMPERATURE °F (°C)	DIMENSIONAL DIAGRAM	CONNECT TYPE
AND-05	Geolast®	Nitrile	Polypropylene	Nitrile	SS	17 (7.7)	180 (82)	Pg. 74	NPT (BSP)
ABD-05	Geolast®	Geolast®	Polypropylene	Nitrile	SS	17 (7.7)	180 (82)	Pg. 74	NPT (BSP)
ABD-05-B2	Geolast®	PTFE	Polypropylene	Nitrile	SS	17 (7.7)	180 (82)	Pg. 74	NPT (BSP)
ATD-05	PTFE	PTFE	Nylon	PTFE	SS	17 (7.7)	212 (100)	Pg. 74	NPT (BSP)
AED-05	Santoprene®	Santoprene®	Polypropylene	EPDM	SS	17 (7.7)	212 (100)	Pg. 74	NPT (BSP)
AVD-05	Viton®	Viton®	Nylon	Viton®	SS	17 (7.7)	212 (100)	Pg. 74	NPT (BSP)

1/2" - 316 SS - Corrosion resistant steel, suitable for nitric acid, chlorinated solvents, caustics and marine applications. Please consult chemical compatibility tables or www.all-flo.com for your particular application.

PART Number	DIAPHRAGM MATERIAL	Valve/Ball Material	VALVE SEAT MATERIAL	0-ring Material	Fastener Material	WEIGHT LBS (KG)	MAX TEMPERATURE °F (°C)	DIMENSIONAL DIAGRAM	CONNECT Type
SND-05	Geolast®	Nitrile	SS	Nitrile	SS	26 (11.8)	180 (82)	Pg. 74	NPT (BSP)
SBD-05	Geolast®	Geolast®	SS	Nitrile	SS	26 (11.8)	180 (82)	Pg. 74	NPT (BSP)
SPD-05	PTFE	PTFE	SS	PTFE	SS	26 (11.8)	212 (100)	Pg. 74	NPT (BSP)
SED-05	Santoprene®	Santoprene®	SS	EPDM	SS	26 (11.8)	212 (100)	Pg. 74	NPT (BSP)
SVD-05	Viton®	Viton®	SS	Viton®	SS	26 (11.8)	212 (100)	Pg. 74	NPT (BSP)

1/2" - POLYPROPYLENE - A non-metallic material, suitable for water, caustics, soap solutions, mild acids and general purpose applications. Please consult chemical compatibility tables or www.all-flo.com for your particular application.

PART NUMBER	DIAPHRAGM Material	VALVE/BALL MATERIAL	VALVE SEAT MATERIAL	0-ring Material	FASTENER MATERIAL	WEIGHT LBS (KG)	MAX TEMPERATURE °F (°C)	DIMENSIONAL DIAGRAM	CONNECT TYPE
PND-05	Geolast®	Nitrile	Polypropylene	Nitrile	SS	16 (7.3)	150 (66)	Pg. 74	NPT (BSP)
PBD-05	Geolast®	Geolast®	Polypropylene	Nitrile	SS	16 (7.3)	150 (66)	Pg. 74	NPT (BSP)
PTD-05	PTFE	PTFE	Polypropylene	PTFE	SS	16 (7.3)	150 (66)	Pg. 74	NPT (BSP)
PED-05	Santoprene®	Santoprene®	Polypropylene	EPDM	SS	16 (7.3)	150 (66)	Pg. 74	NPT (BSP)
PVD-05	Viton®	Viton®	Polypropylene	Viton®	SS	16 (7.3)	150 (66)	Pg. 74	NPT (BSP)

1/2" - PVDF - Polyvinylidene Fluoride suitable in applications requiring the highest purity, strength, and resistance to solvents, acids, and bases. Please consult chemical compatibility tables or www.all-flo.com for your particular application.

PART Number	DIAPHRAGM Material	VALVE/BALL MATERIAL	VALVE SEAT MATERIAL	0-ring Material	FASTENER MATERIAL	WEIGHT LBS (KG)	MAX TEMPERATURE °F (°C)	DIMENSIONAL DIAGRAM	CONNECT TYPE
KTD-05	PTFE	PTFE	PVDF	PTFE	SS	12 (5.4)	200 (93)	Pg. 74	NPT (BSP)
KED-05	Santoprene®	Santoprene®	PVDF	EPDM	SS	12 (5.4)	200 (93)	Pg. 74	NPT (BSP)
KVD-05	Viton®	Viton®	PVDF	Viton®	SS	12 (5.4)	200 (93)	Pg. 74	NPT (BSP)

1/2" - NYLON - A non-metallic material, suitable for most solvents and oils. Please consult chemical compatibility tables or www.all-flo.com for your particular application.

PART Number	DIAPHRAGM Material	VALVE/BALL MATERIAL	VALVE SEAT MATERIAL	O-RING Material	FASTENER MATERIAL	WEIGHT LBS (KG)	MAX TEMPERATURE °F (°C)	DIMENSIONAL DIAGRAM	CONNECT Type
NND-05	Geolast®	Nitrile	PVDF	Nitrile	SS	16 (7.3)	150 (66)	Pg. 74	NPT (BSP)
NBD-05	Geolast®	Geolast®	PVDF	Nitrile	SS	16 (7.3)	150 (66)	Pg. 74	NPT (BSP)
NTD-05	PTFE	PTFE	PVDF	PTFE	SS	16 (7.3)	150 (66)	Pg. 74	NPT (BSP)
NVD-05	Viton®	Viton®	PVDF	Viton®	SS	16 (7.3)	150 (66)	Pg. 74	NPT (BSP)

1/2" - CONDUCTIVE NYLON - Stainless steel filled nylon, suitable for most solvents and alcohols. Grounding lugs provided with pump. Please consult chemical compatibility tables or www.all-flo.com for your particular application.

PART Number	DIAPHRAGM Material	VALVE/BALL Material	VALVE SEAT MATERIAL	O-RING Material	FASTENER MATERIAL	WEIGHT LBS (KG)	MAX TEMPERATURE °F (°C)	DIMENSIONAL DIAGRAM	CONNECT TYPE
CND-05	Geolast®	Nitrile	SS	Nitrile	SS	19 (8.6)	150 (66)	Pg. 74	NPT (BSP)
CBD-05	Geolast®	Geolast®	SS	Nitrile	SS	19 (8.6)	150 (66)	Pg. 74	NPT (BSP)
CTD-05	PTFE	PTFE	SS	PTFE	SS	19 (8.6)	150 (66)	Pg. 74	NPT (BSP)
CVD-05	Viton®	Viton®	SS	Viton®	SS	19 (8.6)	150 (66)	Pg. 74	NPT (BSP)

**AVAILABLE OPTIONS** - Each pump can be configured to suit a particular application. Please see the options section for detailed product information on the following available options.

avaitable options.	
AIR VALVE OPTIONS	SEE PAGE 67
CYCLE COUNT VALVE	SOLENOID ADAPTOR VALVE
BALL VALVE OPTIONS	SEE PAGE 67
GEOLAST®	PTFE
SANTOPRENE®	STAINLESS STEEL
WETTED CHAMBER FINISH OPT	TIONS SEE PAGE 67
HARD COAT ANODIZING	
PASSIVATED & ELECTROPOLISH	HED
HARDWARE OPTIONS	SEE PAGE 67
PTFE COATED HARDWARE	
O-RINGS	SEE PAGE 67
PTFE O-RINGS	NITRILE O-RINGS
EPDM O-RINGS	VITON® O-RINGS
PORTING OPTIONS	SEE PAGE 68
DUAL DISCHARGE / SUCTION	ALL PORTS OPEN
SUCTION / DOWN	
VALVE SEAT OPTIONS	SEE PAGE 68
POLYPROPYLENE	NYLON
PVDF	STAINLESS STEEL
MAX PASS VALVE SOLIDS HAND	
NITRILE EPDM	FDA VITON®
MISC. AND SPECIAL OPTIONS	SEE PAGE 68
ATEX CATEGORY 2	

**AVAILABLE ACCESSORIES** - Please see the accessories section for detailed product information on the following available accessories.

AIR	SEE PAGE
FILTER / REGULATOR / GAUGE	60
SOLENOID VALVES	60
AIR FLOW CONTROL VALVES	60
NEEDLE VALVE	60
LIQUID	
SUCTION STRAINER	61
FILTER HOUSING	61
PUMP	
PREMIUM MUFFLER	63
METAL MUFFLER	63
GROUNDING LUG	64



#### **METALLIC**

All of our 1/2" metallic pumps have a non-metallic center section. This design concept ensures maximum chemical compatibility while protecting from environmental corrosion.



# CONDUCTIVE NYLON

Our conductive nylon pumps achieve desired chemical compatibility while providing grounding capability for safe operation.



#### **NON-METALLIC**

Our non-metallic pumps are available in a variety of materials and porting options, allowing for maximum application installation.





#### 1" (25mm) HEAVY DUTY BOLTED STYLE PUMP

Engineered for maximum fluid and chemical compatibility. Heavy duty, non-metallic air section ensures stall free and freeze free operation. Bolted design provides ease of maintenance and leak free operation. Available in a variety of materials and options.

- Suitable for Clean Fluids, Slurries or up to 1/4" Solids
- All-Pür FDA Elastomers and Electropassivated Stainless Available
- Heavy Duty Air Valve
- Available in Metallic or Non-Metallic Wetted Components
- Muffler Included

#### **SPECIFICATIONS**

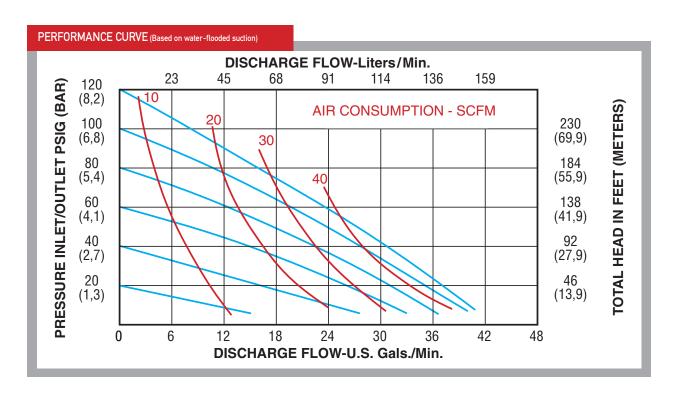
Dimension

Dimension	
Physical Dimensions Sec	e Drawing Page 75/76
Air Inlet	1/4"
Liquid Inlet	1" (25 mm)
Liquid Outlet	1" (25 mm)
Weight	See Product Tables
Performance	
Maximum Flow	41 gpm (155.8 lpm)
Maximum Air Pressure	120 psi (8.2 bar)
Maximum Solids	¼" (6.4 mm)
Max Suction Lift Dry	15 ft (4.5 m)
Max Suction Lift Wet	26 ft (7.9 m)
Max Suction Lift Dry with	PTFE 10 ft (3 m)
Max Temperature	See Product Tables
Noise Level (with muffler	) 80 dBA









1" (25mm) - ALUMINUM - General purpose pump, suitable for water, oils, most solvents, and most paints. Please consult chemical compatibility tables or www.all-flo.com for your particular application.

PART NUMBER	DIAPHRAGM Material	VALVE/BALL MATERIAL	VALVE SEAT MATERIAL	O-RING Material	FASTENER MATERIAL	WEIGHT LBS (KG)	MAX TEMPERATURE °F (°C)	DIMENSIONAL DIAGRAM	CONNECT Type
AN-10	Geolast®	Nitrile	Polypropylene	Nitrile	SS	28 (12.7)	180 (82)	Pg. 76	NPT
AB-10	Geolast®	Geolast®	Polypropylene	Nitrile	SS	28 (12.7)	180 (82)	Pg. 76	NPT
AB-10-B2	Geolast®	PTFE	Polypropylene	Nitrile	SS	28 (12.7)	180 (82)	Pg. 76	NPT
AT-10	PTFE	PTFE	Nylon	PTFE	SS	28 (12.7)	212 (100)	Pg. 76	NPT
AE-10	Santoprene®	Santoprene®	Polypropylene	EPDM	SS	28 (12.7)	212 (100)	Pg. 76	NPT
AV-10	Viton®	Viton®	Nylon	Viton®	SS	28 (12.7)	212 (100)	Pg. 76	NPT
AN-10-P15	Geolast®	Nitrile	Polypropylene	Nitrile	SS	28 (12.7)	180 (82)	Pg. 76	BSP
AB-10-P15	Geolast®	Geolast®	Polypropylene	Nitrile	SS	28 (12.7)	180 (82)	Pg. 76	BSP
AB-10-B2-P1	5 Geolast®	PTFE	Polypropylene	Nitrile	SS	28 (12.7)	180 (82)	Pg. 76	BSP
AT-10-P15	PTFE	PTFE	Nylon	PTFE	SS	28 (12.7)	212 (100)	Pg. 76	BSP
AE-10-P15	Santoprene®	Santoprene®	Polypropylene	EPDM	SS	28 (12.7)	212 (100)	Pg. 76	BSP
AV-10-P15	Viton®	Viton®	Nylon	Viton®	SS	28 (12.7)	212 (100)	Pg. 76	BSP

1" (25mm) - 316 SS - Corrosion resistant steel, suitable for nitric acid, chlorinated solvents, caustics and marine applications. Please consult chemical compatibility tables or www.all-flo.com for your particular application.

PART Number	DIAPHRAGM Material	Valve/Ball Material	VALVE SEAT MATERIAL	O-RING Material	FASTENER MATERIAL	WEIGHT LBS (KG)	MAX TEMPERATURE °F (°C)	DIMENSIONAL DIAGRAM	CONNECT Type
SN-10	Geolast®	Nitrile	SS	Nitrile	SS	56 (25.4)	180 (82)	Pg. 76	NPT
SB-10	Geolast®	Geolast®	SS	Nitrile	SS	56 (25.4)	180 (82)	Pg. 76	NPT
SP-10	PTFE	PTFE	SS	PTFE	SS	56 (25.4)	212 (100)	Pg. 76	NPT
SE-10	Santoprene®	Santoprene®	SS	EPDM	SS	56 (25.4)	212 (100)	Pg. 76	NPT
SV-10	Viton®	Viton®	SS	Viton®	SS	56 (25.4)	212 (100)	Pg. 76	NPT
SN-10-P15	Geolast®	Nitrile	SS	Nitrile	SS	56 (25.4)	180 (82)	Pg. 76	BSP
SB-10-P15	Geolast®	Geolast®	SS	Nitrile	SS	56 (25.4)	180 (82)	Pg. 76	BSP
SP-10-P15	PTFE	PTFE	SS	PTFE	SS	56 (25.4)	212 (100)	Pg. 76	BSP
SE-10-P15	Santoprene®	Santoprene®	SS	EPDM	SS	56 (25.4)	212 (100)	Pg. 76	BSP
SV-10-P15	Viton®	Viton®	SS	Viton®	SS	56 (25.4)	212 (100)	Pg. 76	BSP

ALL-PÜR 1"(25mm) - ELECTROPOLISHED & PASSIVATED 316 SS- FDA elastomers and corrosion resistant steel. Suitable for food and sanitary applications. Please consult chemical compatibility tables or www.all-flo.com for your particular application.

PART Number	DIAPHRAGM MATERIAL	VALVE/BALL Material	VALVE SEAT MATERIAL	O-RING MATERIAL	FASTENER MATERIAL	WEIGHT LBS (KG)	MAX TEMP °F (°C)	DIMENSIONAL DIAGRAM	CONNECT TYPE
SB-10-X44	FDA Hytrel®	FDA Nitirle®	SS	FDA Nitirle®	SS	56 (25.4)	180 (82)	Pg. 76	1 1/2" Tri-Clamp
SP-10-X44	FDA PTFE	FDA PTFE	SS	FDA PTFE	SS	56 (25.4)	212 (100)	Pg. 76	1 1/2" Tri-Clamp
SE-10-X44	Santoprene®	Santoprene®	SS	FDA EPDM	SS	56 (25.4)	212 (100)	Pg. 76	1 1/2" Tri-Clamp

1" (25mm) - POLYPROPYLENE - A non-metallic material, suitable for water, caustics, soap solutions, mild acids and general purpose applications. Please consult chemical compatibility tables or www.all-flo.com for your particular application.

PART Number	DIAPHRAGM MATERIAL	VALVE/BALL Material	VALVE SEAT MATERIAL	O-RING Material	FASTENER Material	WEIGHT LBS (KG)	MAX TEMP °F (°C)	DIMENSIONAL DIAGRAM	CONNECT Type
PN-10	Geolast®	Nitrile	Polypropylene	Nitrile	SS	26 (11.8)	150 (66)	Pg. 75	ANSI / DIN Flange
PB-10	Geolast®	Geolast®	Polypropylene	Nitrile	SS	26 (11.8)	150 (66)	Pg. 75	ANSI / DIN Flange
PT-10	PTFE	PTFE	Polypropylene	PTFE	SS	26 (11.8)	150 (66)	Pg. 75	ANSI / DIN Flange
PE-10	Santoprene®	Santoprene®	Polypropylene	EPDM	SS	26 (11.8)	150 (66)	Pg. 75	ANSI / DIN Flange
PV-10	Viton®	Viton®	Polypropylene	Viton®	SS	26 (11.8)	150 (66)	Pg. 75	ANSI / DIN Flange



1" (25mm) - PVDF - Polyvinylidene fluoride suitable in applications requiring the highest purity, strength, and resistance to solvents, acids, and bases. Please consult chemical compatibility tables or www.all-flo.com for your particular application.

PART Number	DIAPHRAGM MATERIAL	Valve/Ball Material	VALVE SEAT MATERIAL	0-ring Material	FASTENER MATERIAL	WEIGHT LBS (KG)	MAX TEMP °F (°C)	DIMENSIONAL DIAGRAM	CONNECT TYPE
KT-10	PTFE	PTFE	PVDF	PTFE	SS	36 (16.3)	200 (93)	Pg. 75	ANSI / DIN Flange
KE-10	Santoprene®	Santoprene®	PVDF	EPDM	SS	36 (16.3)	200 (93)	Pg. 75	ANSI / DIN Flange
KV-10	Viton®	Viton®	PVDF	Viton®	SS	36 (16.3)	200 (93)	Pg. 75	ANSI / DIN Flange

**AVAILABLE OPTIONS** - Each pump can be configured to suit a particular application. Please see the options section for detailed product information on the following available options.

araitable options.		
AIR VALVE OPTIONS	SEE PAGI	E 67
CYCLE COUNT VALVE	SOLENOID ADAPTOR VAL	VE
BALL VALVE OPTIONS	SEE PAGI	E 67
GEOLAST®	PTFE	
SANTOPRENE®	HEAVY NITRILE	
FDA NITRILE	STAINLESS STEEL	
HARDWARE OPTIONS	SEE PAGI	E 67
PTFE COATED HARDWARE		
O-RINGS	SEE PAGI	E 67
PTFE O-RINGS	NITRILE O-RINGS	
EPDM O-RINGS	VITON® O-RINGS	
PORTING OPTIONS	SEE PAGI	E 68
PORTING OPTIONS BSP THREADS	SEE PAGI	E 68
	ALL PORTS OPEN	E 68
BSP THREADS	ALL PORTS OPEN	E 68
BSP THREADS DISCHARGE AIR INLET / EXHAUS	ALL PORTS OPEN	E 68
BSP THREADS DISCHARGE AIR INLET / EXHAUS SUCTION / AIR INLET / EXHAUS	ALL PORTS OPEN	E 68
BSP THREADS DISCHARGE AIR INLET / EXHAUST SUCTION / AIR INLET / EXHAUST SUCTION / DISCHARGE LEFT	ALL PORTS OPEN ST	E 68
BSP THREADS DISCHARGE AIR INLET / EXHAUS SUCTION / AIR INLET / EXHAUS SUCTION / DISCHARGE LEFT SUCTION RIGHT & DISCHARGE	ALL PORTS OPEN ST	
BSP THREADS DISCHARGE AIR INLET / EXHAUS SUCTION / AIR INLET / EXHAUS SUCTION / DISCHARGE LEFT SUCTION RIGHT & DISCHARGE SUCTION LEFT & DISCHARGE	ALL PORTS OPEN ST LEFT	
BSP THREADS DISCHARGE AIR INLET / EXHAUS SUCTION / AIR INLET / EXHAUS SUCTION / DISCHARGE LEFT SUCTION RIGHT & DISCHARGE SUCTION LEFT & DISCHARGE F VALVE SEAT OPTIONS	ALL PORTS OPEN ST LEFT IGHT SEE PAGI	

**AVAILABLE ACCESSORIES** - Please see the accessories section for detailed product information on the following available accessories.

AIR	SEE PAGE
FILTER / REGULATOR / GAUGE	60
SOLENOID VALVES	60
AIR FLOW CONTROL VALVES	60
NEEDLE VALVE	60
LIQUID	
COMPANION FLANGE KIT	61
SUCTION STRAINER	61
PUMP	
GROUNDING LUG	64



#### METALLIC

Our 1" metallic pumps, available in both stainless steel and aluminum, can be fitted with a wide variety of elastomers to suit your application.



#### NON-METALLIC

Wetted chambers available in polypropylene or PVDF. Diaphragms available in PTFE, Santoprene® or Viton®. Multiple liquid porting options available.



#### ALL-PÜR FDA PUMPS

Electropolished and passivated 316 SS with FDA approved elastomers and tri-clamps for sanitary applications.





#### 1" (25MM) HEAVY DUTY BOLTED STYLE SOLIDS **HANDLING PUMP**

Engineered for maximum fluid and chemical compatibility. Heavy duty, non-metallic air section ensures stall free and freeze free operation. Our patented "Max-Pass™" valve system allows operation under a variety of conditions, ranging from clean fluids to slurries, to large solids. Bolted design provides ease of maintenance and leak free operation. Available in a variety of materials and options.

- Suitable for Clean Fluids, Slurries or up to 3/4" Solids
- All-Pür FDA Elastomers and Electropassivated Stainless Available
- Heavy Duty Air Valve
- Available in Metallic or Non-Metallic Wetted Components
- Muffler Included

#### **SPECIFICATIONS**

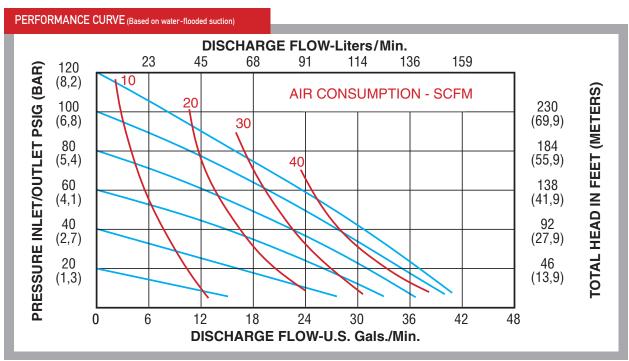
Dimension	
Physical Dimensions	See Drawing Page 75/76
Air Inlet	1/4"
Liquid Inlet	1" (25 mm)
Liquid Outlet	1" (25 mm)
Weight	See Product Tables
Performance	
Maximum Flow	41 gpm (155.8 lpm)
Maximum Air Pressur	e 120 psi (8.2 bar)
Maximum Solids	<sup>3</sup> / <sub>4</sub> " (19 mm)
For Metal Pumps Max	imum Solids ½"
Max Suction Lift Dry	18 ft (5.5 m)
Max Suction Lift Wet	26 ft (7.9 m)
Max Suction Lift Dry w	vith PTFE 15 ft (4.5 m)
Max Temperature	See Product Tables
Noise Level (with muf	fler) 80 dBA











1" (25mm) - ALUMINUM - General purpose pump, suitable for water, oils, most solvents, and most paints. Please consult chemical compatibility tables or www.all-flo.com for your particular application.

PART NUMBER	DIAPHRAGM Material	VALVE/BALL Material	VALVE SEAT MATERIAL	O-RING Material	FASTENER MATERIAL	WEIGHT LBS (KG)	MAX TEMPERATURE °F (°C)	DIMENSIONAL DIAGRAM	CONNECT Type
AB-10-M4	Geolast®	Nitrile Max-Pass <sup>™</sup>	N/A	Nitrile	SS	28 (12.7)	180 (100)	Pg. 76	NPT
AE-10-M5	Santoprene®	EPDM Max-Pass™	N/A	EPDM	SS	28 (12.7)	212 (100)	Pg. 76	NPT
AV-10-M40	Viton®	Viton® Max-Pass™	N/A	VITON®	SS	28 (12.7)	212 (100)	Pg. 76	NPT

1" (25mm) - 316 SS - Corrosion resistant steel, suitable for nitric acid, chlorinated solvents, caustics and marine applications. Please consult chemical compatibility tables or www.all-flo.com for your particular application.

PART Number	DIAPHRAGM Material	VALVE/BALL MATERIAL	VALVE SEAT MATERIAL	O-RING Material	FASTENER MATERIAL	WEIGHT LBS (KG)	MAX TEMPERATURE °F (°C)	DIMENSIONAL DIAGRAM	CONNECT TYPE
SB-10-M4	Geolast®	Nitrile Max-Pass™	N/A	Nitrile	SS	56 (25.4)	180 (100)	Pg. 76	NPT
SE-10-M5	Santoprene®	EPDM Max-Pass™	N/A	EPDM	SS	56 (25.4)	212 (100)	Pg. 76	NPT
SV-10-M40	Viton®	Viton® Max-Pass™	N/A	Viton®	SS	56 (25.4)	212 (100)	Pg. 76	NPT

ALL-PŨR 1" (25mm) - ELECTROPOLISHED & PASSIVATED 316 SS- FDA elastomers and corrosion resistant steel. Suitable for food and sanitary applications. Please consult chemical compatibility tables or www.all-flo.com for your particular application.

PART NUMBER	DIAPHRAGM MATERIAL	VALVE/BALL Material	VALVE SEAT MATERIAL	0-RING MATERIAL	FASTENER MATERIAL	WEIGHT LBS (KG)	MAX TEMP °F (°C)	DIMENSIONAL DIAGRAM	CONNECT TYPE
SB-10-M40-X44	FDA Hytrel®	FDA Viton® MAX-PASS™	N/A	FDA Nitirle	SS	56 (25.4)	180 (82)	Pg. 76	1 1/2" Tri-Clamp
SP-10-M40-X44	FDA PTFE	FDA Viton® MAX-PASS™	N/A	Viton®	SS	56 (25.4)	212 (100)	Pg. 76	1 1/2" Tri-Clamp
SE-10-M40-X44	FDA Santoprene®	FDA Viton® MAX-PASS™	N/A	FDA EPDM	SS	56 (25.4)	212 (100)	Pg. 76	1 1/2" Tri-Clamp

1" (25mm) - POLYPROPYLENE - A non-metallic material, suitable for water, caustics, soap solutions, mild acids and general purpose applications. Please consult chemical compatibility tables or www.all-flo.com for your particular application.

Part Number	DIAPHRAGM Material	VALVE/BALL Material	VALVE SEAT MATERIAL	0-ring Material	FASTENER MATERIAL	WEIGHT LBS (KG)	MAX TEMP °F (°C)	DIMENSIONAL DIAGRAM	CONNECT TYPE
PB-10-M4	Geolast®	Nitrile Max-Pass™	N/A	Nitrile	SS	26 (11.8)	150 (66)	Pg. 75	ANSI / DIN Flange
PE-10-M5	Santoprene®	EPDM Max-Pass™	N/A	EPDM	SS	26 (11.8)	150 (66)	Pg. 75	ANSI / DIN Flange
PV-10-M40	Viton®	Viton® Max-Pass™	N/A	Viton®	SS	26 (11.8)	150 (66)	Pg. 75	ANSI / DIN Flange

1" (25mm) - PVDF - Polyvinylidene fluoride suitable in applications requiring the highest purity, strength, and resistance to solvents, acids, and bases. Please consult chemical compatibility tables or www.all-flo.com for your particular application.

PART Number	DIAPHRAGM MATERIAL	Valve/Ball Material	VALVE SEAT MATERIAL	O-RING Material	FASTENER MATERIAL	WEIGHT LBS (KG)	MAX TEMP °F (°C)	DIMENSIONAL DIAGRAM	CONNECT TYPE
KE-10-M5	Santoprene®	EPDM Max-Pass™	N/A	EPDM	SS	36 (16.3)	200 (93)	Pg. 75	ANSI / DIN Flange
KV-10-M40	Viton®	Viton® Max-Pass™	N/A	Viton®	SS	36 (16.3)	200 (93)	Pg. 75	ANSI / DIN Flange

**AVAILABLE OPTIONS** - Each pump can be configured to suit a particular application. Please see the options section for detailed product information on the following available options.

avaitable options.						
AIR VALVE OPTIONS	SEE PAGE 67					
CYCLE COUNT VALVE	SOLENOID ADAPTOR VALVE					
BALL VALVE OPTIONS	SEE PAGE 67					
GEOLAST®	PTFE					
SANTOPRENE®	HEAVY NITRILE					
FDA NITRILE	STAINLESS STEEL					
HARDWARE OPTIONS	SEE PAGE 67					
PTFE COATED HARDWARE						
O-RINGS	SEE PAGE 67					
PTFE O-RINGS	NITRILE O-RINGS					
EPDM O-RINGS	VITON® O-RINGS					
PORTING OPTIONS	SEE PAGE 68					
BSP THREADS	ALL PORTS OPEN					
DISCHARGE AIR INLET / EXHAUS	ST					
SUCTION / AIR INLET / EXHAUST	-					
SUCTION / DISCHARGE LEFT						
SUCTION RIGHT & DISCHARGE LEFT						
SUCTION RIGHT & DISCHARGE	LEFT					
SUCTION RIGHT & DISCHARGE SUCTION LEFT & DISCHARGE R	<b></b> · •					

**AVAILABLE ACCESSORIES** - Please see the accessories section for detailed product information on the following available accessories.

AIR	SEE PAGE
FILTER / REGULATOR / GAUGE	60
SOLENOID VALVES	60
AIR FLOW CONTROL VALVES	60
NEEDLE VALVE	60
LIQUID	
COMPANION FLANGE KIT	61
SUCTION STRAINER	61
PUMP	
GROUNDING LUG	64

#### MAX-PASS SOLIDS HANDLING VALUE

- Increased suction lift
- Up to 3/4" solids
- Mounts in any position





#### METALLIC

Our 1" metallic pumps, available in both stainless steel and aluminum, can be fitted with a wide variety of elastomers to suit your application.



#### **NON-METALLIC**

Wetted chambers available in polypropylene or PVDF. Diaphragms available in PTFE, Santoprene® or Viton®. Multiple liquid porting options available.



#### ALL-PÜR FDA PUMPS

Electropolished and passivated 316 SS with FDA approved elastomers and tri-clamps for sanitary applications.



### 1" (25mm) HEAVY DUTY **CLAMPED** STYLE PUMP

Reliable polypropylene air center section combined with non-metallic clamped casing materials ensure maximum chemical compatibility. Available in a variety of materials and options.

- Suitable for Clean Fluids, Slurries or up to 1/4" Solids
- Heavy Duty Air Valve
- Non-Metallic Wetted Components
- Muffler Included

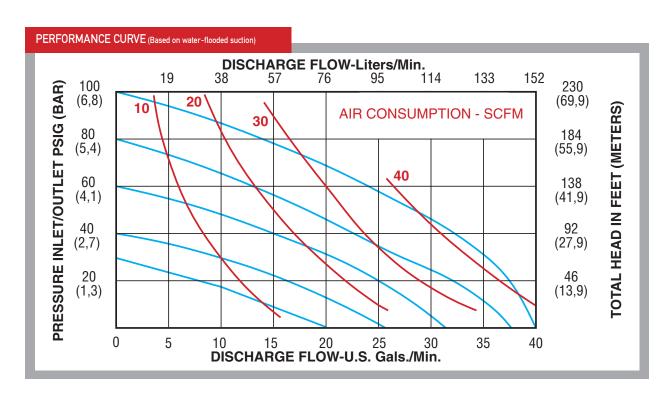
#### **SPECIFICATIONS**

Dimension	
Physical Dimensions	See Drawing Page 76
Air Inlet	1/4"
Liquid Inlet	1" (25 mm)
Liquid Outlet	1" (25 mm)
Weight	See Product Tables
Performance	
Maximum Flow	40 gpm (152 lpm)
Maximum Air Pressure	100 psi (6.8 bar)
Maximum Solids	¼" (6.4 mm)
Max Suction Lift Dry	15 ft (4.5 m)
Max Suction Lift Wet	26 ft (7.9 m)
Max Suction Lift Dry with	PTFE 10 ft (3 m)
Max Temperature	See Product Tables
Noise Level (with muffler	) 80 dBA











1" (25mm) - POLYPROPYLENE - A non-metallic material, suitable for water, caustics, soap solutions, mild acids and general purpose applications. Please consult chemical compatibility tables or www.all-flo.com for your particular application.

PART Number	DIAPHRAGM MATERIAL	Valve/Ball Material	VALVE SEAT MATERIAL	O-RING Material	FASTENER MATERIAL	WEIGHT LBS (KG)	MAX TEMPERATURE °F (°C)	DIMENSIONAL DIAGRAM	CONNECT Type
NN-10	Geolast®	Nitrile	Polypropylene	Nitrile	SS & PS	26 (11.8)	150 (66)	Pg. 76	NPT
NC-10	Geolast®	Geolast®	Polypropylene	Nitrile	SS & PS	26 (11.8)	150 (66)	Pg. 76	NPT
BK-10	PTFE	PTFE	Polypropylene	PTFE	SS	26 (11.8)	150 (66)	Pg. 76	NPT
BK-10E	Santoprene®	Santoprene®	Polypropylene	EPDM	SS	26 (11.8)	150 (66)	Pg. 76	NPT
BK-10V	VITON®	Viton®	Polypropylene	Viton®	SS	26 (11.8)	150 (66)	Pg. 76	NPT
NN-10-P15	Geolast®	Nitrile	Polypropylene	Nitrile	SS & PS	26 (11.8)	150 (66)	Pg. 76	BSP
NC-10-P15	Geolast®	Geolast®	Polypropylene	Nitrile	SS & PS	26 (11.8)	150 (66)	Pg. 76	BSP
BK-10-P15	PTFE	PTFE	Polypropylene	PTFE	SS	26 (11.8)	150 (66)	Pg. 76	BSP
BK-10E-P15	Santoprene®	Santoprene®	Polypropylene	EPDM	SS	26 (11.8)	150 (66)	Pg. 76	BSP
BK-10V-P15	VITON®	Viton®	Polypropylene	Viton®	SS	26 (11.8)	150 (66)	Pg. 76	BSP

1" (25mm) - PVDF - Polyvinylidene fluoride suitable in applications requiring the highest purity, strength, and resistance to solvents, acids, and bases. Please consult chemical compatibility tables or www.all-flo.com for your particular application.

PART NUMBER	DIAPHRAGM Material	Valve/Ball Material	VALVE SEAT MATERIAL	O-RING Material	FASTENER MATERIAL	WEIGHT LBS (KG)	MAX TEMPERATURE °F (°C)	DIMENSIONAL DIAGRAM	CONNECT TYPE
KN-10	PTFE	PTFE	PVDF	PTFE	SS	27 (12.2)	200 (93)	Pg. 75	NPT
KN-10E	Santoprene®	Santoprene®	PVDF	EPDM	SS	27 (12.2)	200 (93)	Pg. 75	NPT
KN-10V	Viton®	Viton®	PVDF	Viton®	SS	27 (12.2)	200 (93)	Pg. 75	NPT
KN-10-P15	PTFE	PTFE	PVDF	PTFE	SS	27 (12.2)	200 (93)	Pg. 75	BSP
KN-10E-P15	Santoprene®	Santoprene®	PVDF	EPDM	SS	27 (12.2)	200 (93)	Pg. 75	BSP
KN-10V-P15	Viton®	Viton®	PVDF	Viton®	SS	27 (12.2)	200 (93)	Pg. 75	BSP

**AVAILABLE OPTIONS** - Each pump can be configured to suit a particular application. Please see the options section for detailed product information on the following available options.

available options.	
AIR VALVE OPTIONS	SEE PAGE 67
CYCLE COUNT VALVE	
BALL VALVE OPTIONS	SEE PAGE 67
GEOLAST®	PTFE
SANTOPRENE®	HEAVY NITRILE
FDA NITRILE	STAINLESS STEEL
HARDWARE OPTIONS	SEE PAGE 67
PTFE COATED HARDWARE	
O-RINGS	SEE PAGE 67
PTFE O-RINGS	NITRILE O-RINGS
EPDM O-RINGS	VITON® O-RINGS
PORTING OPTIONS	SEE PAGE 68
DUAL SUCTION / DISCHARGE	BSP THREADS
DISCHARGE UP, AIR INLET	
SUCTION / DOWN, AIR INLET	
VALVE SEAT OPTIONS	SEE PAGE 68
POLYPROPYLENE	NYLON
PVDF	STAINLESS STEEL

**AVAILABLE ACCESSORIES** - Please see the accessories section for detailed product information on the following available accessories.

AIR	SEE PAGE
FILTER/REGULATOR/GAUGE	60
SOLENOID VALVES	60
AIR FLOW CONTROL VALVES	60
NEEDLE VALVE	60
LIQUID	
COMPANION FLANGE KIT	61
SUCTION STRAINER	61
PUMP	
GROUNDING LUG	64



#### 1" (25 mm) HEAVY DUTY CLAMPED STYLE **DRUM** PUMP

Engineered for maximum fluid and chemical compatibility. Heavy duty, non-metallic air section ensures stall free and freeze free operation. Rugged valve system allows operation under a variety of conditions, ranging from clean fluids to slurries, to solids applications. Bolted design provides ease of maintenance and leak free operation. Available in a variety of materials and options.

- Suitable for Clean Fluids, Slurries or up to 1/4" Solids
- Includes 40" Suction Tube and Bung Adaptor
- All-Pur FDA Elastomers and Electropassivated Stainless Available
- Heavy Duty Air Valve
- Non-Metallic Wetted Components
- Muffler Included

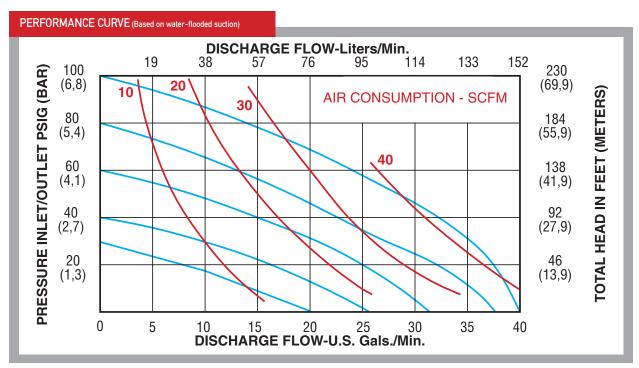
#### **SPECIFICATIONS**

Dimension	
Physical Dimensions S	See Drawing Page 76
Air Inlet	1/4"
Liquid Inlet	1" (25 mm)
Liquid Outlet	1" (25 mm)
Weight	See Product Tables
Performance	
Maximum Flow	40 gpm (152 lpm)
Maximum Air Pressure	100 psi (6.8 bar)
Maximum Solids	<sup>1</sup> / <sub>8</sub> " (3.2 mm)
Max Suction Lift Dry	15 ft (4.5 m)
Max Suction Lift Wet	26 ft (7.9 m)
Max Suction Lift Dry with F	PTFE 10 ft (3 m)
Max Temperature	See Product Tables
Noise Level (with muffler)	80 dBA









## 1" (25mm) - POLYPROPYLENE - A non-metallic material, suitable for water, caustics, soap solutions, mild acids and general purpose applications. Please consult chemical compatibility tables or www.all-flo.com for your particular application.

PART Number	DIAPHRAGM Material	Valve/Ball Material	VALVE SEAT MATERIAL	O-RING Material	FASTENER MATERIAL	WEIGHT LBS (KG)	MAX TEMPERATURE °F (°C)	DIMENSIONAL DIAGRAM	CONNECT Type
NND-10	Geolast®	Nitrile	Polypropylene	Nitrile	SS	26 (11.8)	150 (66)	Pg. 76	NPT
NCD-10	Geolast®	Geolast®	Polypropylene	Nitrile	SS	26 (11.8)	150 (66)	Pg. 76	NPT
BKD-10	PTFE	PTFE	Polypropylene	PTFE	SS	26 (11.8)	150 (66)	Pg. 76	NPT
BKD-10E	Santoprene®	Santoprene®	Polypropylene	EPDM	SS	26 (11.8)	150 (66)	Pg. 76	NPT
BKD-10V	Viton®	Viton®	Polypropylene	Viton®	SS	26 (11.8)	150 (66)	Pg. 76	NPT

1" (25mm) - PVDF - Polyvinylidene fluoride suitable in applications requiring the highest purity, strength, and resistance to solvents, acids, and bases. Please consult chemical compatibility tables or www.all-flo.com for your particular application.

PART NUMBER	DIAPHRAGM Material	VALVE/BALL MATERIAL	VALVE SEAT MATERIAL	O-RING Material	FASTENER MATERIAL	WEIGHT LBS (KG)	MAX TEMPERATURE °F (°C)	DIMENSIONAL DIAGRAM	CONNECT TYPE
KND-10	PTFE	PTFE	PVDF	PTFE	SS	29 (13.2)	200 (93)	Pg. 75	NPT
KND-10E	Santoprene®	Santoprene®	PVDF	EPDM	SS	29 (13.2)	200 (93)	Pg. 75	NPT
KND-10V	Viton®	Viton®	PVDF	Viton®	SS	29 (13.2)	200 (93)	Pa 75	NPT

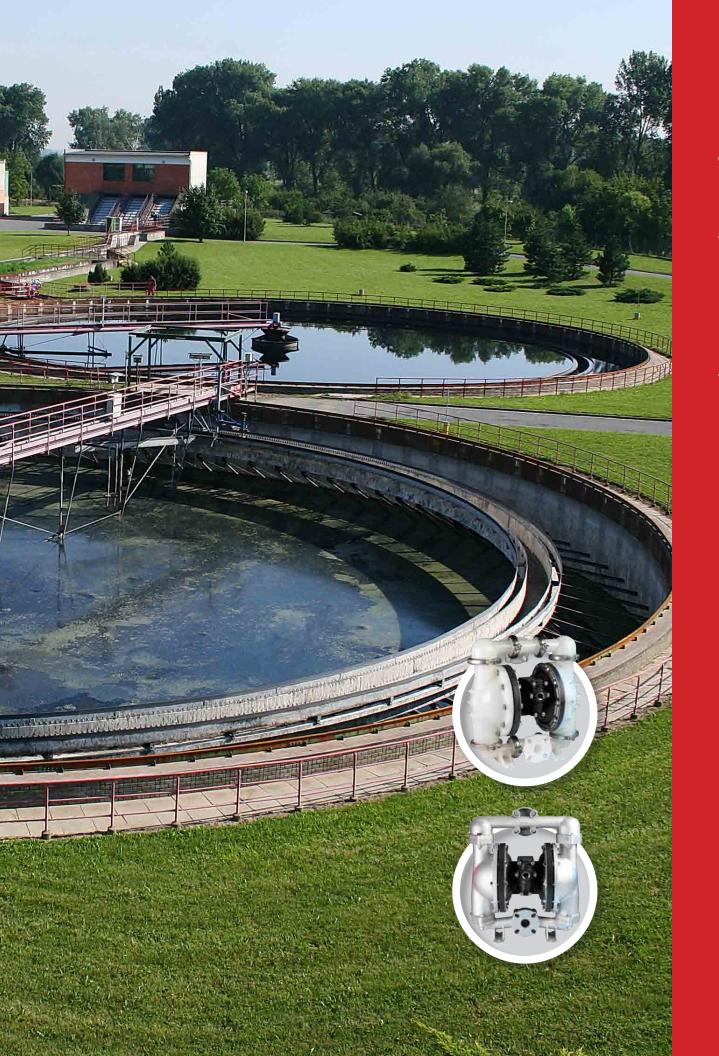
# **AVAILABLE OPTIONS** - Each pump can be configured to suit a particular application. Please see the options section for detailed product information on the following available options.

S	EE PAGE 67
SOLENOID ADAP	TOR VALVE
S	EE PAGE 67
PTFE	
HEAVY NITRILE	
STAINLESS STEE	L
S	EE PAGE 67
S	EE PAGE 67
NITRILE O-RING	S
VITON® O-RINGS	3
S	EE PAGE 68
ALL PORTS OPE	N
ST	
Г	
LEFT	
RIGHT	
S	EE PAGE 68
NYLON	EE PAGE 68
	SOLENOID ADAP  S PTFE HEAVY NITRILE STAINLESS STEE S NITRILE O-RINGS VITON® O-RINGS S ALL PORTS OPE ST LEFT

# **AVAILABLE ACCESSORIES** - Please see the accessories section for detailed product information on the following available accessories.

AIR	SEE PAGE
FILTER / REGULATOR / GAUGE	60
SOLENOID VALVES	60
AIR FLOW CONTROL VALVES	60
NEEDLE VALVE	60
LIQUID	
COMPANION FLANGE KIT	61
SUCTION STRAINER	61
PUMP	
GROUNDING LUG	64











#### 11/2" (38mm) HEAVY DUTY BOLTED STYLE PUMP

Engineered for maximum fluid and chemical compatibility. Heavy duty, non-metallic air section ensures stall free and freeze free operation. Rugged valve system allows operation under a variety of conditions, ranging from clean fluids to slurries, to solids applications. Bolted design provides ease of maintenance and leak free operation. Available in a variety of materials and options.

- Suitable for Clean Fluids, Slurries or up to 1/4" Solids
- All-Pür FDA Elastomers and Electropassivated Stainless Available
- Heavy Duty Air Valve
- Available in Metallic and Non-Metallic Wetted Components
- Muffler Included

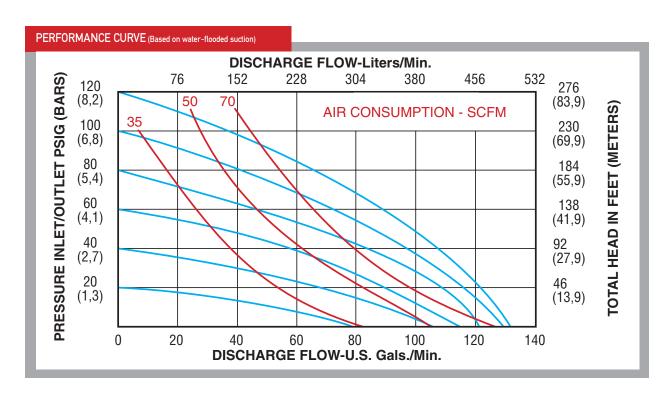
#### **SPECIFICATIONS**

Dimension	
Physical Dimensions	See Drawing Page 77
Air Inlet	3/4"
Liquid Inlet	1 ½" (38 mm)
Liquid Outlet	1 ½" (38 mm)
Weight	See Product Tables
Performance	
Maximum Flow	130 gpm (492 lpm)
Maximum Air Pressure	120 psi (8.2 bar)
Maximum Solids	1/4" (6.4 mm)
Max Suction Lift Dry	13 ft (3.9 m)
Max Suction Lift Wet	26 ft (7.9m)
Max Suction Lift Dry with	PTFE 10 ft (3 m)
Max Temperature	See Product Tables
Noise Level (with muffler	) 78 dBA









## 1-1/2" (38mm) - ALUMINUM - General purpose pump, suitable for water, oils, most solvents, and most paints. Please consult chemical compatibility tables or www.all-flo.com for your particular application.

PART Number	DIAPHRAGM Material	VALVE/BALL MATERIAL	VALVE SEAT MATERIAL	0-RING MATERIAL	FASTENER MATERIAL	WEIGHT LBS (KG)	MAX TEMP °F (°C)	DIMENSIONA DIAGRAM	AL CONNECT TYPE
AN-15	Geolast®	Nitrile	Polypropylene	Nitrile	SS	73 (33.1)	180 (82)	Pg. 77	ANSI / DIN Flange
AB-15	Geolast®	Geolast®	Polypropylene	Nitrile	SS	73 (33.1)	180 (82)	Pg. 77	ANSI / DIN Flange
AB-15-B2	Geolast®	PTFE	Polypropylene	Nitrile	SS	73 (33.1)	180 (82)	Pg. 77	ANSI / DIN Flange
AN-15-P28	Geolast®	Nitrile	Polypropylene	Nitrile	SS	73 (33.1)	180 (82)	Pg. 77	NPT & ANSI / DIN Flange
AB-15-P28	Geolast®	Geolast®	Polypropylene	Nitrile	SS	73 (33.1)	180 (82)	Pg. 77	NPT & ANSI / DIN Flange
AB-15-B2-P2	8 Geolast®	PTFE	Polypropylene	Nitrile	SS	73 (33.1)	180 (82)	Pg. 77	NPT & ANSI / DIN Flange
AT-15	PTFE	PTFE	Nylon	PTFE	SS	73 (33.1)	212 (100)	Pg. 77	ANSI / DIN Flange
AT-15-P28	PTFE	PTFE	Nylon	PTFE	SS	73 (33.1)	180 (82)	Pg. 77	NPT & ANSI / DIN Flange
AE-15	Santoprene®	Santoprene®	Polypropylene	EPDM	SS	73 (33.1)	212 (100)	Pg. 77	ANSI / DIN Flange
AE-15-P28	Santoprene®	Santoprene®	Polypropylene	EPDM	SS	73 (33.1)	180 (82)	Pg. 77	NPT & ANSI / DIN Flange
AV-15	Viton®	Viton®	Nylon	Viton®	SS	73 (33.1)	212 (100)	Pg. 77	ANSI / DIN Flange
AV-15-P28	Viton®	Viton®	Nylon	Viton®	SS	73 (33.1)	212 (100)	Pg. 77	NPT & ANSI / DIN Flange

## 1-1/2" (38mm) - 316 SS - Corrosion resistant steel, suitable for nitric acid, chlorinated solvents, caustics and marine applications. Please consult chemical compatibility tables or www.all-flo.com for your particular application.

PART Number	DIAPHRAGM MATERIAL	VALVE/BALL MATERIAL	VALVE SEAT MATERIAL	0-ring Material	FASTENER MATERIAL	WEIGHT LBS (KG)	MAX TEMP °F (°C)	DIMENSIONAL DIAGRAM	CONNECT Type
SN-15	Geolast®	Nitrile	SS	Nitrile	SS	146 (66.2)	180 (82)	Pg. 77	ANSI / DIN Flange
SB-15	Geolast®	Geolast®	SS	Nitrile	SS	146 (66.2)	180 (82)	Pg. 77	ANSI / DIN Flange
SP-15	PTFE	PTFE	SS	PTFE	SS	146 (66.2)	212 (100)	Pg. 77	ANSI / DIN Flange
SE-15	Santoprene®	Santoprene®	SS	EPDM	SS	146 (66.2)	212 (100)	Pg. 77	ANSI / DIN Flange
SV-15	Viton®	Viton®	SS	Viton®	SS	146 (66.2)	212 (100)	Pg. 77	ANSI / DIN Flange

# ALL-PŨR 1-1/2" (38mm) - ELECTROPOLISHED & PASSIVATED 316 SS- FDA elastomers and corrosion resistant Steel. Suitable for food and sanitary applications. Please consult chemical compatibility tables or www.all-flo.com for your particular application.

PART Number	DIAPHRAGM MATERIAL	Valve/Ball Material	VALVE SEAT MATERIAL	O-RING Material	FASTENER MATERIAL	WEIGHT LBS (KG)	MAX TEMP °F (°C)	DIMENSIONAL DIAGRAM	CONNECT TYPE
SB-15-X44	FDA Hytrel®	FDA Nitrile	SS	FDA Nitrile	SS	146 (66.2)	180 (82)	Pg. 77	2" Tri-Clamp
SP-15-X44	FDA PTFE	FDA PTFE	SS	FDA PTFE	SS	146 (66.2)	212 (100)	Pg. 77	2" Tri-Clamp
SE-15-X44	FDA Santoprene®	FDA Santoprene®	SS	FDA EPDM	SS	146 (66.2)	212 (100)	Pg. 77	2" Tri-Clamp

## 1-1/2" (38mm) - POLYPROPYLENE - A non-metallic material, suitable for water, caustics, soap solutions, mild acids and general purpose applications. Please consult chemical compatibility tables or www.all-flo.com for your particular application.

PART NUMBER	DIAPHRAGM MATERIAL	VALVE/BALL MATERIAL	VALVE SEAT MATERIAL	0-RING Material	FASTENER MATERIAL	WEIGHT LBS (KG)	MAX TEMP °F (°C)	DIMENSIONAL DIAGRAM	CONNECT TYPE
PN-15	Geolast®	Nitrile	Polypropylene	Nitrile	SS	59 (26.8)	150 (66)	Pg. 77	ANSI / DIN Flange
PB-15	Geolast®	Geolast®	Polypropylene	Nitrile	SS	59 (26.8)	150 (66)	Pg. 77	ANSI / DIN Flange
PT-15	PTFE	PTFE	Polypropylene	PTFE	SS	59 (26.8)	150 (66)	Pg. 77	ANSI / DIN Flange
PE-15	Santoprene®	Santoprene®	Polypropylene	EPDM	SS	59 (26.8)	150 (66)	Pg. 77	ANSI / DIN Flange
PV-15	Viton®	Viton®	Polypropylene	Viton®	SS	59 (26.8)	150 (66)	Pg. 77	ANSI / DIN Flange



1-1/2" (38mm) - PVDF - Polyvinylidene fluoride suitable in applications requiring the highest purity, strength, and resistance to solvents, acids, and bases. Please consult chemical compatibility tables or www.all-flo.com for your particular application.

PART Number	DIAPHRAGM MATERIAL	VALVE/BALL MATERIAL	VALVE SEAT MATERIAL	O-RING Material	FASTENER MATERIAL	WEIGHT LBS (KG)	MAX TEMP °F (°C)	DIMENSIONAL DIAGRAM	CONNECT TYPE
KT-15	PTFE	PTFE	PVDF	PTFE	SS	78 (35.4)	200 (93)	Pg. 77	ANSI / DIN Flange
KE-15	Santoprene®	Santoprene®	PVDF	EPDM	SS	59 (26.8)	200 (93)	Pg. 77	ANSI / DIN Flange
KV-15	Viton®	Viton®	PVDF	Viton®	SS	78 (35.4)	200 (93)	Pg. 77	ANSI / DIN Flange

**AVAILABLE OPTIONS** - Each pump can be configured to suit a particular application. Please see the Options section for detailed product information on the following available options.

avaitable options.	
AIR VALVE OPTIONS	SEE PAGE 67
CYCLE COUNT VALVE	
BALL VALVE OPTIONS	SEE PAGE 67
GEOLAST®	PTFE
SANTOPRENE®	HEAVY NITRILE
FDA NITRILE	STAINLESS STEEL
HARDWARE OPTIONS	SEE PAGE 67
PTFE COATED HARDWARE	HANDLES
O-RINGS	SEE PAGE 67
PTFE O-RINGS	NITRILE O-RINGS
EPDM O-RINGS	VITON® O-RINGS
PORTING OPTIONS	SEE PAGE 68
DISCHARGE / UP, AIR INLET	
SUCTION / AIR EXHAUST	
VALVE SEAT OPTIONS	SEE PAGE 68
POLYPROPYLENE	NYLON
PVDF	STAINLESS STEEL
MISC. AND SPECIAL OPTIONS	SEE PAGE 68
HIGH SUCTION LEFT	

**AVAILABLE ACCESSORIES** - Please see the accessories section for detailed product information on the following available accessories.

AIR	SEE PAGE
FILTER / REGULATOR / GAUGE	60
SOLENOID VALVES	60
AIR FLOW CONTROL VALVES	60
NEEDLE VALVE	60
LIQUID	
COMPANION FLANGE KIT	61
PUMP	
GROUNDING LUG	64
BASE	63



NON-METALLIC
Wetted chambers
available in
polypropylene or
PVDF. Diaphragms
available in PTFE
or Santoprene®.
Modular liquid
manifolds for
plumbing flexibility.



METALLIC
Our 1-1/2" metallic pumps, available in both stainless steel and aluminum, can be fitted with a wide variety of elastomers to suit your application. Combination flange/threaded connection provide for a variety of connections.



ALL-PÜR FDA
PUMPS
Electropolished and
passivated 316 SS
with FDA approved
elastomers and
tri-clamps for
sanitary applications.









#### 2" (51mm) HEAVY DUTY BOLTED STYLE PUMP

Engineered for maximum fluid and chemical compatibility. Heavy duty, non-metallic air section ensures stall free and freeze free operation. Rugged valve system allows operation under a variety of conditions, ranging from clean fluids to slurries, to solids applications. Bolted design provides ease of maintenance and leak free operation. Available in a variety of materials and options.

- Suitable for Clean Fluids, Slurries or up to 1/4" Solids
- All-Pür FDA Elastomers and Electropassivated Stainless Available
- Heavy Duty Air Valve
- Available in Metallic and non-Metallic Wetted Components
- Muffler Included

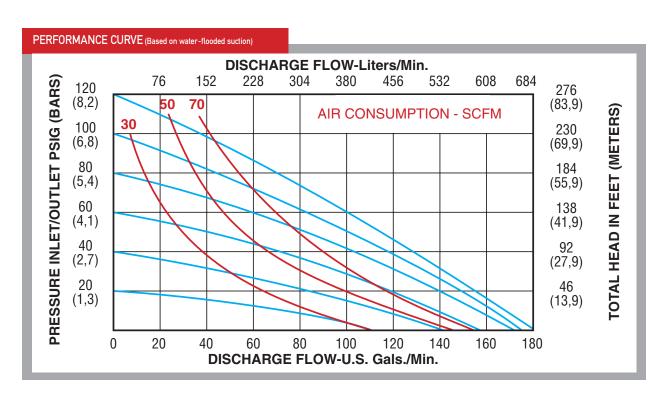
#### **SPECIFICATIONS**

Dimension	
Physical Dimensions	See Drawing Page 78
Air Inlet	3/4"
Liquid Inlet	2" (51 mm)
Liquid Outlet	2" (51 mm)
Weight	See Product Tables
Performance	
Maximum Flow	180 gpm (681 lpm)
Maximum Air Pressure	120 psi (8.2 bar)
Maximum Solids	¼" (6.4 mm)
Max Suction Lift Dry	13 ft (3.9 m)
Max Suction Lift Wet	26 ft (7.9 m)
Max Suction Lift Dry with	PTFE 10 ft (3 m)
Max Temperature	See Product Tables
Noise Level (with muffler	) 78 dBA









2" (51mm) - ALUMINUM - General purpose pump, suitable for water, oils, most solvents, and most paints. Please consult chemical compatibility tables or www.all-flo.com for your particular application.

PART Number	DIAPHRAGM MATERIAL	Valve/Ball Material	VALVE SEAT MATERIAL	0-ring Material	FASTENER MATERIAL	WEIGHT LBS (KG)	MAX TEMP °F (°C)	DIMENSIONAL DIAGRAM	CONNECTOR TYPE
AN-20	Geolast®	Nitrile	Polypropylene	Nitrile	SS	74 (33.7)	180 (82)	Pg. 78	NPT
AB-20	Geolast®	Geolast®	Polypropylene	Nitrile	SS	74 (33.7)	180 (82)	Pg. 78	NPT
AB-20-B2	Geolast®	PTFE	Polypropylene	Nitrile	SS	74 (33.7)	180 (82)	Pg. 78	NPT
AT-20	PTFE	PTFE	Nylon	PTFE	SS	74 (33.7)	212 (100)	Pg. 78	NPT
AE-20	Santoprene®	Santoprene®	Polypropylene	EPDM	SS	74 (33.7)	212 (100)	Pg. 78	NPT
AN-20-P30	Geolast®	Nitrile	Polypropylene	Nitrile	SS	74 (33.7)	180 (82)	Pg. 78	ANSI / DIN Flange
AB-20-P30	Geolast®	Geolast®	Polypropylene	Nitrile	SS	74 (33.7)	180 (82)	Pg. 78	ANSI / DIN Flange
AT-20-P30	PTFE	PTFE	Nylon	PTFE	SS	74 (33.7)	212 (100)	Pg. 78	ANSI / DIN Flange
AE-20-P30	Santoprene®	Santoprene®	Polypropylene	EPDM	SS	74 (33.7)	212 (100)	Pg. 78	ANSI / DIN Flange
AN-20-P15	Geolast®	Nitrile	Polypropylene	Nitrile	SS	74 (33.7)	180 (82)	Pg. 78	BSP
AB-20-P15	Geolast®	Geolast®	Polypropylene	Nitrile	SS	74 (33.7)	180 (82)	Pg. 78	BSP
AB-20-B2-P1	5 Geolast®	PTFE	Polypropylene	Nitrile	SS	74 (33.7)	180 (82)	Pg. 78	BSP
AT-20-P15	PTFE	PTFE	Nylon	PTFE	SS	74 (33.7)	212 (100)	Pg. 78	BSP
AE-20-P15	Santoprene®	Santoprene®	Polypropylene	EPDM	SS	74 (33.7)	212 (100)	Pg. 78	BSP
AV-20-P30	Viton®	Viton®	Nylon	Viton®	SS	74 (33.7)	212 (100)	Pg. 78	ANSI / DIN Flange
AV-20-P15	Viton®	Viton®	Nylon	Viton®	SS	74 (33.7)	212 (100)	Pg. 78	ANSI / DIN Flange
AV-20	Viton®	Viton®	Nylon	Viton®	SS	74 (33.7)	212 (100)	Pg. 78	NPT

## 2" (51mm) - 316 SS - Corrosion resistant steel, suitable for nitric acid, chlorinated solvents, caustics and marine applications. Please consult chemical compatibility tables or www.all-flo.com for your particular application.

PART Number	DIAPHRAGM MATERIAL	VALVE/BALL Material	VALVE SEAT MATERIAL	0-ring Material	FASTENER MATERIAL	WEIGHT LBS (KG)	MAX TEMP °F (°C)	DIMENSIONAL DIAGRAM	CONNECT TYPE
SN-20	Geolast®	Nitrile	SS	Nitrile	SS	146 (66.2)	180 (82)	Pg. 78	NPT
SB-20	Geolast®	Geolast®	SS	Nitrile	SS	146 (66.2)	180 (82)	Pg. 78	NPT
SP-20	PTFE	PTFE	SS	PTFE	SS	146 (66.2)	212 (100)	Pg. 78	NPT
SE-20	Santoprene®	Santoprene®	SS	EPDM	SS	146 (66.2)	212 (100)	Pg. 78	NPT
SN-20-P30	Geolast®	Nitrile	SS	Nitrile	SS	146 (66.2)	180 (82)	Pg. 78	ANSI / DIN Flange
SB-20-P30	Geolast®	Geolast®	SS	Nitrile	SS	146 (66.2)	180 (82)	Pg. 78	ANSI / DIN Flange
SP-20-P30	PTFE	PTFE	SS	PTFE	SS	146 (66.2)	212 (100)	Pg. 78	ANSI / DIN Flange
SE-20-P30	Santoprene®	Santoprene®	SS	EPDM	SS	146 (66.2)	212 (100)	Pg. 78	ANSI / DIN Flange
SN-20-P15	Geolast®	Nitrile	SS	Nitrile	SS	146 (66.2)	180 (82)	Pg. 78	BSP
SB-20-P15	Geolast®	Geolast®	SS	Nitrile	SS	146 (66.2)	180 (82)	Pg. 78	BSP
SP-20-P15	PTFE	PTFE	SS	PTFE	SS	146 (66.2)	212 (100)	Pg. 78	BSP
SE-20-P15	Santoprene®	Santoprene®	SS	EPDM	SS	146 (66.2)	212 (100)	Pg. 78	BSP
SV-20-P30	Viton®	Viton®	SS	Viton®	SS	146 (66.2)	212 (100)	Pg. 78	ANSI / DIN Flange
SV-20-P15	Viton®	Viton®	SS	Viton®	SS	146 (66.2)	212 (100)	Pg. 78	ANSI / DIN Flange
SV-20	Viton®	Viton®	SS	Viton®	SS	146 (66.2)	212 (100)	Pg. 78	NPT

## ALL-PŨR 2" (51mm) - ELECTROPOLISHED & PASSIVATED 316 SS- FDA elastomers and corrosion resistant steel. Suitable for food and sanitary applications. Please consult chemical compatibility tables or www.all-flo.com

for your particular application.

PART Number	DIAPHRAGM MATERIAL	Valve/Ball Material	VALVE SEAT MATERIAL	0-ring Material	FASTENER MATERIAL	WEIGHT LBS (KG)	MAX TEMP °F (°C)	DIMENSIONAL DIAGRAM	CONNECT TYPE
SB-20-X44	FDA Hytrel®	FDA Nitrile	SS	FDA Nitrile	SS	146 (66.2)	180 (82)	Pg. 78	2 1/2" Tri-Clamp
SP-20-X44	FDA PTFE	FDA PTFE	SS	FDA PTFE	SS	146 (66.2)	212 (100)	Pg. 78	2 1/2" Tri-Clamp
SE-20-X44	FDA Santoprene®	FDA Santoprene®	SS	FDA EPDM	SS	146 (66.2)	212 (100)	Pg. 78	2 1/2" Tri-Clamp

2" (51mm) - POLYPROPYLENE - A non-metallic material, suitable for water, caustics, soap solutions, mild acids and general purpose applications. Please consult chemical compatibility tables or www.all-flo.com for your particular application.

PART NUMBER	DIAPHRAGM MATERIAL	Valve/Ball Material	VALVE SEAT MATERIAL	0-ring Material	Fastener Material	WEIGHT LBS (KG)	MAX TEMP °F (°C)	DIMENSIONAL DIAGRAM	CONNECTOR TYPE
PB-20	Geolast®	Geolast®	Polypropylene	Nitrile	SS	61 (27.7)	150 (66)	Pg. 78	ANSI / DIN Flange
PT-20	PTFE	PTFE	Polypropylene	PTFE	SS	61 (27.7)	150 (66)	Pg. 78	ANSI / DIN Flange
PE-20	Santoprene®	Santoprene®	Polypropylene	EPDM	SS	61 (27.7)	150 (66)	Pg. 78	ANSI / DIN Flange
PV-20	Viton®	Viton®	Polypropylene	Viton®	SS	61 (27.7)	150 (66)	Pg. 78	ANSI / DIN Flange

2" (51mm) - PVDF - Polyvinylidene fluoride suitable in applications requiring the highest purity, strength, and resistance to solvents, acids, and bases. Please consult chemical compatibility tables or www.all-flo.com for your particular application.

PART Number	DIAPHRAGM MATERIAL	Valve/Ball Material	VALVE SEAT MATERIAL	0-ring Material	FASTENER MATERIAL	WEIGHT LBS (KG)	MAX TEMP °F (°C)	DIMENSIONAL DIAGRAM	CONNECTOR TYPE
KT-20	PTFE	PTFE	PVDF	PTFE	SS	82 (37.2)	200 (93)	Pg. 78	ANSI / DIN Flange
KE-20	Santoprene®	Santoprene®	PVDF	EPDM	SS	82 (37.2)	200 (93)	Pg. 78	ANSI / DIN Flange
KV-20	Viton®	Viton®	PVDF	Viton®	SS	82 (37.2)	200 (93)	Pg. 78	ANSI / DIN Flange

AVAILABLE OPTIONS - Each pump can be configured to suit a particular application. Please see the options section for detailed product information on the following available options.

available options.				
AIR VALVE OPTIONS		SEE PAGE 67		
CYCLE COUNT VALVE				
BALL VALVE OPTIONS		SEE PAGE 67		
GEOLAST®	PTFE			
SANTOPRENE®	HEAVY NITRIL	E		
FDA NITRILE	STAINLESS ST	ΓEEL		
WETTED CHAMBER FINISH OPT	IONS	SEE PAGE 67		
HARD COAT ANODIZING				
PASSIVATED & ELECTROPOLISHED				
HARDWARE OPTIONS		SEE PAGE 67		
PTFE COATED HARDWARE	HANDLES			
O-RINGS		SEE PAGE 67		
PTFE O-RINGS	NITRILE O-RIN	NGS		
EPDM O-RINGS	VITON® O-RIN	GS		
PORTING OPTIONS		SEE PAGE 68		
DISCHARGE / UP, AIR INLET				
SUCTION / AIR EXHAUST				
VALVE SEAT OPTIONS		SEE PAGE 68		
POLYPROPYLENE	NYLON			
PVDF	STAINLESS ST	ΓEEL		
MISC. AND SPECIAL OPTIONS		SEE PAGE 68		
TRI-CLAMP FITTING/PASSIVATED/ELECTROPOLISHED PLUS FDA ELASTOMERS				

AVAILABLE ACCESSORIES - Please see the accessories section for detailed product information on the following available accessories.

LIQUID	SEE PAGE
COMPANION FLANGE KIT	61
PUMP	
BASES	63
GROUNDING LUG	64



## METALLIC

HIGH SUCTION LEFT, POLYPROPYLENE ONLY

Our 2" metallic pumps, available in both stainless steel and aluminum, can be fitted with a wide variety of elastomers to suit your application.



**NON-METALLIC** 

Wetted chambers available in polypropylene or PVDF. Diaphragms available in PTFE or Santoprene®. Modular liquid manifolds for plumbing flexibility.



ALL-PÜR FDA **PUMPS** 

Electropolished and passivated 316 SS with FDA approved elastomers and tri-clamps for sanitary applications.









#### 3" (76mm) HEAVY DUTY BOLTED STYLE PUMP

Engineered for maximum fluid and chemical compatibility. Heavy duty, stall free, non-metallic air section ensures stall free and freeze free operation. Rugged valve system allows operation under a variety of conditions, ranging from clean fluids to slurries, to solids applications. Bolted design provides ease of maintenance and leak free operation.

- Suitable for Clean Fluids, Slurries or up to 7/16" Solids
- Heavy Duty Air Valve
- Aluminum Chamber
- Muffler Included

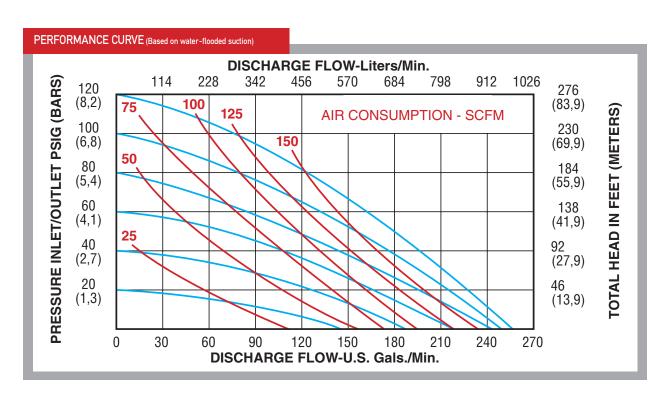
#### **SPECIFICATIONS**

Dimension	
Physical Dimensions	See Drawing Page 79
Air Inlet	3/4"
Liquid Inlet	3" (76 mm)
Liquid Outlet	3" (76 mm)
Weight	see product tables
Performance	
Maximum Flow	255 gpm (681 lpm)
Maximum Air Pressure	120 psi (8.2 bar)
Maximum Solids	<sup>7</sup> / <sub>16</sub> " (11.1 mm)
Max Suction Lift Dry	15 ft (4.5 m)
Max Suction Lift Wet	26 ft (7.9 m)
Max Suction Lift Dry with	PTFE 10 ft (3 m)
Max Temperature	See Product Tables
Noise Level (with muffler)	86 dBA









<sup>\*</sup>Carrying handles available (sold separately)

3" (76mm) - ALUMINUM - General purpose pump, suitable for water, oils, most solvents, and most paints. Please consult chemical compatibility tables or www.all-flo.com for your particular application.

PART Number	DIAPHRAGM MATERIAL	VALVE/BALL MATERIAL	VALVE SEAT MATERIAL	0-RING Material	FASTENER MATERIAL	WEIGHT LBS (KG)	MAX TEMPERATURE °F (°C)	DIMENSIONAL DIAGRAM	CONNECT TYPE
AL-30T	PTFE	PTFE	Nylon	PTFE	SS & PS	150 (68)	212 (100)	Pg. 79	NPT
AL-30E	Santoprene®	Santoprene®	EPDM	N/A	SS & PS	150 (68)	212 (100)	Pg. 79	NPT
AN-30	Nitrile	Nitrile	Nitrile	N/A	SS & PS	150 (68)	150 (66)	Pg. 79	NPT
AL-30	Urethane	Geolast®	Nitrile	N/A	SS & PS	150 (68)	150 (66)	Pg. 79	NPT
AL-30V	Viton®	Viton®	Viton®	N/A	SS & PS	150 (68)	212 (100)	Pg. 79	NPT
AL-30V-P15	Viton®	Viton®	Viton®	N/A	SS & PS	150 (68)	212 (100)	Pg. 79	BSP
AL-30T-P15	PTFE	PTFE	Nylon	PTFE	SS & PS	150 (68)	212 (100)	Pg. 79	BSP
AL-30E-P15	Santoprene®	Santoprene®	EPDM	N/A	SS & PS	150 (68)	212 (100)	Pg. 79	BSP
AN-30-P15	Nitrile	Nitrile	Nitrile	N/A	SS & PS	150 (68)	150 (66)	Pg. 79	BSP
AL-30-P15	Urethane	Geolast®	Nitrile	N/A	SS & PS	150 (68)	150 (66)	Pg. 79	BSP

**AVAILABLE OPTIONS** - Each pump can be configured to suit a particular application. Please see the options section for detailed product information on the following available options.

CYCLE COUNT VALVE         67           BALL VALVE OPTIONS         67           PTFE         67           GEOLAST®         67           SANTOPRENE®         67           NITRILE         67           EPDM         67	AIR VALVE OPTIONS	SEE PAGE
PTFE         67           GEOLAST®         67           SANTOPRENE®         67           NITRILE         67           EPDM         67	CYCLE COUNT VALVE	67
GEOLAST®         67           SANTOPRENE®         67           NITRILE         67           EPDM         67	BALL VALVE OPTIONS	
SANTOPRENE® 67 NITRILE 67 EPDM 67	PTFE	67
NITRILE 67 EPDM 67		67
EPDM 67	,	67
		0.
	HEAVY NITRILE	67
HEAVY SANTOPRENE® 67	HEAVY SANTOPRENE®	67
WETTED CHAMBER FINISH OPTIONS	WETTED CHAMBER FINISH OPTIONS	
HARD COAT ANODIZING 67	HARD COAT ANODIZING	67
HARDWARE OPTIONS	HARDWARE OPTIONS	
PTFE COATED HARDWARE 67	PTFE COATED HARDWARE	67
HANDLES 67	HANDLES	67
O-RINGS	O-RINGS	
PTFE O-RINGS 67	PTFE O-RINGS	67
NITRILE O-RINGS 67	NITRILE O-RINGS	67
EPDM O-RINGS 67	2. 2 6 1 6.6	67
VITON® O-RINGS 67	VITON® O-RINGS	67
PORTING OPTIONS	PORTING OPTIONS	
BSP THREADS 68	BSP THREADS	68
DISCHARGE / AIR EXHAUST 68	DISCHARGE / AIR EXHAUST	68
SUCTION / AIR EXHAUST 68	SUCTION / AIR EXHAUST	68

**AVAILABLE ACCESSORIES** - Please see the accessories section for detailed product information on the following available accessories.

AIR	SEE PAGE
FILTER/REGULATOR/GAUGE	60
SOLENOID VALVES	60
AIR FLOW CONTROL VALVES	60
NEEDLE VALVE	60
PUMP	
BASE	63
STRAINER BASE	63









## FILTER/REGULATOR WITH GAUGE

Adjust and set air pressure to a set value with a combination filter regulator and pressure gauge unit. Specifications and drawing details available at www.all-flo.com.

PUMP SIZE	PART	DESCRIPTION
1/4", 3/8", 1/2"	13810-00	1/4" NPT FIL/REG/GAUGE AUTOMATIC DRAIN
1/4", 3/8", 1/2"	13820-00	MOUNTING BRACKET FOR 13810-00
1/4", 3/8", 1/2"	13811-00	1/4" NPT FIL/REG/GAUGE MANUAL DRAIN
1/4", 3/8", 1/2"	13821-00	MOUNTING BRACKET FOR 13811-00
1", 1.5", 2"	13813-00	1/2" NPT FIL/REG/GAUGE AUTOMATIC DRAIN
1", 1.5", 2"	13812-00	1/2" NPT FIL/REG/GAUGE MANUAL DRAIN
1", 1.5", 2"	13822-00	MOUNTING BRACKET FOR 13812@13813
3"	13815-00	1/2" NPT FIL/REG/GAUGE AUTOMATIC DRAIN
3"	13814-00	1/2" NPT FIL/REG/GAUGE MANUAL DRAIN
3"	13823-00	MOUNTING BRACKET FOR 13814 OR 13815



#### **SOLENOID VALVES**

Remotely start and stop with an in-line solenoid valve for the pump's air line. Specifications and drawing details available at www.all-flo.com.

PUMP SIZE	PART	DESCRIPTION
1/4", 3/8", 1/2", 1"	13412-00-10	3/8" PORTED SOLENOID VALVE,110/50 OR 120/60
1/4", 3/8", 1/2", 1"	13412-00-12	3/8" PORTED SOLENOID VALVE, 12 VDC
1/4", 3/8", 1/2", 1"	13412-00-20	3/8" PORTED SOLENOID VALVE, 220/50 OR 240/60
1/4", 3/8", 1/2", 1"	13412-00-24	3/8" PORTED SOLENOID VALVE, 24 VDC
1.5", 2", 3"	13413-00-10	3/4" PORTED SOLENOID VALVE,110/50 OR 120/60
1.5", 2", 3"	13413-00-12	3/4" PORTED SOLENOID VALVE, 12 VDC
1.5", 2", 3"	13413-00-20	3/4" PORTED SOLENOID VALVE, 220/50 OR 240/60
1.5", 2", 3"	13413-00-24	3/4" PORTED SOLENOID VALVE, 24 VDC
ALL VALVES	13434-00	6' CORD WITH DIN PLUG



## AIR FLOW CONTROL VALVES

Adjust the speed and flow rate of the pump with an adjustable air pressure valve. Specifications and drawing details available at www.all-flo.com.

PUMP SIZE	PART	DESCRIPTION
1/4", 3/8", 1/2", 1"	13400-30	BRASS 1/4" AIR FLOW CONTROL VALVE
1.5", 2", 3"	13401-51	PVC 3/4" AIR FLOW CONTROL VALVE



#### **NEEDLE VALVES**

Achieve finer flow control with an adjustable needle valve. Specifications and drawing details available at www.all-flo.com.

PUMP SIZE	PART	DESCRIPTION
1/4", 3/8", 1/2"	13831-00	1/4" NEEDLE VALVE
1", 1.5", 2"	13832-00	1/2" NEEDLE VALVE





#### COMPANION FLANGE KIT P

Adapt a pump from flange type connection to BSP or NPT with these flange adaptor kits. Specifications and drawing details available at www.all-flo.com.

PUMP SIZE	PART	DESCRIPTION
1" POLY	59000-40	1" POLYPROPYLENE FLANGE KIT-FNPT
1" POLY	59200-40	1" POLYPROPYLENE FLANGE KIT-BSP
1" POLY	59100-40	1" POLYPROPYLENE FLANGE KIT-BLIND
1" PVDF	59000-56	1" PVDF FLANGE KIT-FNPT
1" PVDF	59200-56	1" PVDF FLANGE KIT-BSP
1" PVDF	59100-56	1" PVDF FLANGE KIT-BLIND
1.5" POLY	60000-40	1.5" POLYPROPYLENE FLANGE KIT-FNPT
1.5" POLY	60001-40	1.5" POLYPROPYLENE FLANGE KIT-BSP
1.5" PVDF	60000-56	1.5" PVDF FLANGE KIT-FNPT
1.5" PVDF	60001-56	1.5" PVDF FLANGE KIT-BSP
1.5" ALUMINUM	60000-20	1.5" ALUMINUM FLANGE KIT-FNPT
1.5" ALUMINUM	60001-20	1.5" ALUMINUM FLANGE KIT-BSP
1.5" 316SS	60000-26	1.5" 316SS FLANGE KIT-FNPT
1.5" 316SS	60001-26	1.5" 316SS FLANGE KIT-BSP
2" POLY	61000-40	2" POLYPROPYLENE FLANGE KIT-FNPT
2" POLY	61001-40	2" POLYPROPYLENE FLANGE KIT-BSP
2" PVDF	61000-56	2" PVDF FLANGE KIT-FNPT
2" PVDF	61001-56	2" PVDF FLANGE KIT-BSP
2" ALUMINUM	61000-20	2" ALUMINUM FLANGE KIT-FNPT
2" ALUMINUM	61001-20	2" ALUMINUM FLANGE KIT-BSP
2" 316 SS	61000-26	2" 316SS FLANGE KIT-FNPT
2" 316 SS	61001-26	2" 316SS FLANGE KIT-BSP



#### **SUCTION STRAINER**

Liquid strainers for the suction side of AOD pumps. Specifications and drawing details available at www.all-flo.com.

PUMP SIZE	PART	DESCRIPTION
1/2"	13503-00	1/2" MNPT NYLON/304SS SUCTION STRAINER,20 MESH
1"	13502-00	1" MNPT NYLON/304SS SUCTION STRAINER, 20 MESH
1"	13501-00	1" MNPT NYLON/304SS SUCTION STRAINER, 8 MESH
2"	13508-00	2" MNPT NYLON/304SS SUCTION STRAINER, 8 MESH



#### FILTER HOUSING

Eliminate solids and particulates with an in-line filter/housing unit. Specifications and drawing details available at www.all-flo.com.

PUMP SIZE	PART	DESCRIPTION
1/2"	13605-00	3/4" POLYPROPYLENE FILTER HOUSING
1/2"	13606-00	20 MESH FILTER FOR 13605-00



### **PULSATION DAMPER**

Stabilize discharge line pressure and ensure a steady flow with pulsation dampener units. Specifications and drawing details available at www.all-flo.com.

PUMP SIZE	PART	DESCRIPTION
NC-025	P1005B	3/8" FNPT, 10 CUBIC INCH ADJUSTABLE, POLY/BUNA
NC-025E	P1005W	3/8" FNPT, 10 CUBIC INCH ADJUSTABLE, POLY/SANT
BK-025	P1005T	3/8" FNPT, 10 CUBIC INCH ADJUSTABLE, POLY/PTFE
KN-025E	K1005W	3/8" FNPT, 10 CUBIC INCH ADJUSTABLE, PVDF/SANT
KN-025	K1005T	3/8" FNPT, 10 CUBIC INCH ADJUSTABLE, PVDF/PTFE
PB-038	P1005B	3/8" FNPT, 10 CUBIC INCH ADJUSTABLE, POLY/BUNA
PE-038	P1005W	3/8" FNPT, 10 CUBIC INCH ADJUSTABLE, POLY/SANT
PT-038	P1005T	3/8" FNPT, 10 CUBIC INCH ADJUSTABLE, POLY/PTFE
PV-038	P1005V	3/8" FNPT, 10 CUBIC INCH ADJUSTABLE, POLY/VITON
KE-038	K1005W	3/8" FNPT, 10 CUBIC INCH ADJUSTABLE, PVDF/SANT
KT-038	K1005T	3/8" FNPT, 10 CUBIC INCH ADJUSTABLE, PVDF/PTFE
KV-038	K1005V	$3/8"$ FNPT, 10 CUBIC INCH ADJUSTABLE, $\ensuremath{\text{PVDF/VITON}}^{\otimes}$
PB-05	1301BP-1	1" FNPT, 36 CUBIC INCH ADJUSTABLE, POLY/BUNA
PE-05	1301WP-1	1" FNPT, 36 CUBIC INCH ADJUSTABLE, POLY/SANT
PT-05	1301TP-1	1" FNPT, 36 CUBIC INCH ADJUSTABLE, POLY/PTFE
PV-05	1301VP-1	1" FNPT, 36 CUBIC INCH ADJUSTABLE, POLY/VITON®
KE-05	1401WP-1	1" FNPT, 36 CUBIC INCH ADJUSTABLE, PVDF/SANT
KT-05	1401TP-1	1" FNPT, 36 CUBIC INCH ADJUSTABLE, PVDF/PTFE
KV-05	1401VP-1	1" FNPT, 36 CUBIC INCH ADJUSTABLE, PVDF/VITON®
AB-05	3040B-1	1" FNPT, 36 CUBIC INCH ADJUSTABLE, CARBON STEEL/BUNA
AE-05	3140W-1	1" FNPT, 36 CUBIC INCH ADJUSTABLE, CARBON STEEL/SANT
AT-05	3140T-1	1" FNPT, 36 CUBIC INCH ADJUSTABLE, CARBON STEEL/PTFE

PUMP SIZE	PART	DESCRIPTION
AV-05	3140V-1	1" FNPT, 36 CUBIC INCH ADJUSTABLE, CARBON STEEL/VITON®
SB-05	3124B-1	1" FNPT, 36 CUBIC INCH ADJUSTABLE, 316SS/BUNA
SE-05	3124W-1	1" FNPT, 36 CUBIC INCH ADJUSTABLE, 316SS/SANT
SP-05	3124T-1	1" FNPT, 36 CUBIC INCH ADJUSTABLE, 316SS/PTFE
SV-05	3124V-1	1" FNPT, 36 CUBIC INCH ADJUSTABLE, 316SS/VITON®
NC-5	1301BP-1	1" FNPT, 36 CUBIC INCH ADJUSTABLE, POLY/BUNA
BK-5E	1301WP-1	1" FNPT, 36 CUBIC INCH ADJUSTABLE, POLY/SANT
BK-5	1301TP-1	1" FNPT, 36 CUBIC INCH ADJUSTABLE, POLY/PTFE
BK-5V	1301VP-1	1" FNPT, 36 CUBIC INCH ADJUSTABLE, POLY/VITON®
KN-5E	1401WP-1	1" FNPT, 36 CUBIC INCH ADJUSTABLE, PVDF/SANT
KN-5	1401TP-1	1" FNPT, 36 CUBIC INCH ADJUSTABLE, PVDF/PTFE
KN-5V	1401VP-1	1" FNPT, 36 CUBIC INCH ADJUSTABLE, PVDF/VITON®
PB-10	301BPF	1" FLANGED, 85 CUBIC INCH ADJUSTABLE, POLY/BUNA
PE-10	301WPF	1" FLANGED, 85 CUBIC INCH ADJUSTABLE, POLY/SANT
PT-10	301TPF	1" FLANGED, 85 CUBIC INCH ADJUSTABLE, POLY/PTFE
PV-10	301VPF	1" FLANGED, 85 CUBIC INCH ADJUSTABLE, POLY/VITON®
KE-10	401WPF	1" FLANGED, 85 CUBIC INCH ADJUSTABLE, PVDF/SANT
KT-10	401TPF	1" FLANGED, 85 CUBIC INCH ADJUSTABLE, PVDF/PTFE
KV-10	401VPF	1" FLANGED, 85 CUBIC INCH ADJUSTABLE, PVDF/VITON
AB-10	3040B-1	1" FNPT, 85 CUBIC INCH ADJUSTABLE, CARBON STEEL/BUNA
AE-10	3040W-1	1" FNPT, 85 CUBIC INCH ADJUSTABLE, CARBON STEEL/SANT
AT-10	3040T-1	1" FNPT, 85 CUBIC INCH ADJUSTABLE, CARBON STEEL/PTFE
AV-10	3040V-1	1" FNPT, 85 CUBIC INCH ADJUSTABLE, CARBON STEEL/VITON
SB-10	3024B-1	1" FNPT, 85 CUBIC INCH ADJUSTABLE, 316SS/BUNA
SE-10	3024W-1	1" FNPT, 85 CUBIC INCH ADJUSTABLE, 316SS/SANT
SP-10	3024T-1	1" FNPT, 85 CUBIC INCH ADJUSTABLE, 316SS/PTFE
SV-10	3024V-1	1" FNPT, 85 CUBIC INCH ADJUSTABLE, 316SS/VITON
NC-10	301BP-1	1" FNPT, 85 CUBIC INCH ADJUSTABLE, POLY/BUNA



### PULSATION DAMPER (CONTINUED)

PUMP SIZE	PART	DESCRIPTION
BK-10E	301WP-1	1" FNPT, 85 CUBIC INCH ADJUSTABLE, POLY/SANT
BK-10	301TP-1	1" FNPT, 85 CUBIC INCH ADJUSTABLE, POLY/PTFE
BK-10V	301VP-1	1" FNPT, 85 CUBIC INCH ADJUSTABLE, POLY/VITON
KN-10E	401WP-1	1" FNPT, 85 CUBIC INCH ADJUSTABLE, PVDF/SANT
KN-10	401TP-1	1" FNPT, 85 CUBIC INCH ADJUSTABLE, PVDF/PTFE
KN-10V	401VP-1	1" FNPT, 85 CUBIC INCH ADJUSTABLE, PVDF/VITON
PB-15	901BPF	2" FLANGED, 175 CUBIC INCH ADJUSTABLE, POLY/BUNA
PE-15	901WPF	2" FLANGED, 175 CUBIC INCH ADJUSTABLE, POLY/SANT
PT-15	901TPF	2" FLANGED, 175 CUBIC INCH ADJUSTABLE, POLY/PTFE
KE-15	1201WRF	2" FLANGED, 175 CUBIC INCH ADJUSTABLE, PVDF/SANT
KT-15	1201TRF	2" FLANGED, 175 CUBIC INCH ADJUSTABLE, PVDF/PTFE
AB-15	577B	2" FNPT, 2.5 GALLON ADJUSTABLE, ALUMINUM/BUNA
AE-15	577ND	2" FNPT, 2.5 GALLON ADJUSTABLE, ALUMINUM/SANT
AT-15	2720T	2" FNPT, 175 CUBIC INCH ADJUSTABLE, CARBON STEEL/PTFE
SB-15	2500BPF	2" FLANGED, 175 CUBIC INCH ADJUSTABLE, 316SS/BUNA
SE-15	2500WPF	2" FLANGED, 175 CUBIC INCH ADJUSTABLE, 316SS/SANT

### PULSATION DAMPER (CONTINUED)

PUMP SIZE	PART	DESCRIPTION
SP-15	2500TPF	2" FLANGED, 175 CUBIC INCH ADJUSTABLE, 316SS/PTFE
PB-20	101BPF	$2"\ \mbox{FLANGED}, 370\ \mbox{CUBIC}$ INCH ADJUSTABLE, POLY/BUNA
PE-20	101WPF	2" FLANGED, 370 CUBIC INCH ADJUSTABLE, POLY/SANT
PT-20	101TPF	2" FLANGED, 370 CUBIC INCH ADJUSTABLE, POLY/PTFE
KE-20	201WRF	2" FLANGED, 370 CUBIC INCH ADJUSTABLE, PVDF/SANT
KT-20	201TRF	$2"\ \mbox{FLANGED}, 370\ \mbox{CUBIC}$ INCH ADJUSTABLE, PVDF/PTFE
AB-20	577B	2" FNPT, 2.5 GALLON ADJUSTABLE, ALUMINUM/BUNA
AE-10	577ND	2" FNPT, 2.5 GALLON ADJUSTABLE, ALUMINUM/SANT
AT-20	2620T	2" FNPT, 370 CUBIC INCH ADJUSTABLE, CARBON STEEL/PTFE
SB-20	2400BP	2" FNPT, 370 CUBIC INCH ADJUSTABLE, 316SS/BUNA
SE-20	2400WP	2" FNPT, 370 CUBIC INCH ADJUSTABLE, 316SS/SANT
SP-20	2400TP	2" FNPT, 370 CUBIC INCH ADJUSTABLE, 316SS/PTFE
AL-30	4000E	3" FLANGED, 5 GALLON ADJUSTABLE, ALUMINUM/BUNA
AL-30E	4000ND	3" FLANGED, 5 GALLON ADJUSTABLE, ALUMINUM/EDPM
AL-30V	4000V	3" FLANGED, 5 GALLON ADJUSTABLE, ALUMINUM/VITON



#### **BASES**

Mounting bases for AOD pumps. Specifications and drawing details available at www.all-flo.com.

PUMP SIZE	PART	DESCRIPTION
1.5", 2"	13309-40-H25	14X21X0.5 POLYPROPYLENE BASE
3"	13333-40-H25	19.25X27.312X0.5 POLYPROPYLENE BASE
3"	53000-00	STRAINER BASE



#### MUFFLER

Reduce noise from pump operation with air discharge mufflers. Specifications and drawing details available at www.all-flo.com.

PUMP SIZE	PART	DESCRIPTION
1/4"	13004-00	PREMIUM MUFFLER
3/8", 1/2", 1"	13002-00	METAL MUFFLER
1.5", 2", 3"	13009-00	METAL MUFFLER



## GROUNDING ACCESSORIES

Bond and electrically ground an AOD pump with these grounding accessories. Specifications and drawing details available at www.all-flo.com.

PUMP SIZE	PART	DESCRIPTION
1/4", 3/8", 1/2", 1"	13402-25	GROUNDING LUG
1.5", 2"	13416-25	GROUNDING LUG



#### **VIBRATION ISOLATION**

Reduces physical vibration from AOD pump operation. Specifications and drawing details available at www.all-flo.com.

PUMP SIZE	PART	DESCRIPTION
1.5", 2"	16100-00	SET OF 4 VIBRATION DAMPENING LEVELING MOUNTS
1/4",1/2",1"	16110-00	SET OF 4 VIBRATION DAMPENING LEVELING MOUNTS
3/8"	16120-00	SET OF 4 VIBRATION DAMPENING LEVELING MOUNTS



## DISPENSING UNIT WITH FILTER

Dispense liquids with this combination drum pump, discharge hose and nozzle. Specifications and drawing details available at www.all-flo.com.

PUMP SIZE	PART	DESCRIPTION							
3/8"	DISPENSE-PE-038	PED-038 DRUM PUMP WITH LIQUID DISCHARGE FILTER, ALUMINUM NOZZLE AND 8' OF EPDM HOSE.							
3/8"	DISPENSE-CE-038	CED-038 DRUM PUMP WITH LIQUID DISCHARGE FILTER, ALUMINUM NOZZLE AND 8' OF EPDM HOSE							
3/8"	DISPENSE-CE-038UV	CED-038 DRUM PUMP WITH LIQUID DISCHARGE FILTER ALUMINUM NOZZLE							



#### **HANDLES**

Carrying handles for larger pumps www.all-flo.com.

PUMP SIZE	PART	DESCRIPTION
1 1/2" METAL, 2" METAL	52010-00	PUMP CARRYING HANDLES-PLASTIC (PACK OF 2)
1 1/2" METAL, 2" METAL	52020-00	PUMP CARRYING HANDLES-METAL (PACK OF 2)
3"	52000-00	3" PUMP CARRYING HANDLES-METAL (PACK OF 2)







#### **CONFIGURATION OPTIONS**

Most All-Flo AOD pumps can be configured to suit specific applications. Available options generally fall into the following categories:



Air Valve Options Solonoid operation, diaphram stroke counters



**Ball Valve Options** 

Material of construction of the ball valves



**Valve Seat Options** 

Material of construction of the valve seat



**O-Ring Options** Material of construction of

the O-Rings



**Finish Options** 

Finish of metal AOD pumps



**Hardware Options** 

Fastening hardware used in construction of the AOD pump



**Porting Options** 

Orientation of the suction and discharge port



**Solids Handling** Valves

Max-Pass solids handling valve



**Special Options** 

ATEX Cat 2, triclamp connections, and high suction lift

Pumps are configured by placing an options code after the base pump part number. Multiple options are possible on many pump models.

Please refer to the following table for options availability by model and configuration options pricing.

Example: Using the subsequent tables, a base model "PB-10" pump is configured with:

a solids handling Max-Pass™ Nitrile Valve

-M4

an PTFE O-Ring

a cycle counter -A42

Base Models

Configuration Option-1

Configuration Option-2

Configuration Option-3

Complete Part Numbers:

B-10-M4-02-A42

		PUMP STYLES												
	AIR VALVE OPTIONS unters for dispensing applications and remote enoids.	1/4" Box Pump Page 10-13	3/8" Clamped Pump Page 16-21	1/2" Bolted Pump Plastic Page 24-29, 32-34	1/2" Bolted Pump Metal Page 24-29, 32-34	1/2" Clamped Pump Plastic Page 30–31	1" Bolted Pump Plastic Page 36-41	1" Bolted Pump Metal Page 36-41	1" Clamped Pump Plastic Page 42-45	11/2" Bolted Pump Plastic Page 48-50	11/2" Bolted Pump Metal Page 48-50	2" Bolted Pump Plastic Page 52-54	2" Bolted Pump Metal Page 52–54	3" Bolted Pump Metal Page 56-57
A42	Cycle Counter Valve	✓	✓	✓	<b>✓</b>	✓	✓	✓	✓	✓	✓	✓	✓	✓
A43-10	Solenid Adaptor Valve 110/50 Volt AC, 120/60 Volt AC	×	✓	<b>✓</b>	<b>✓</b>	×	✓	✓	×	×	×	×	×	×
A43-10E	Solenid Adaptor Valve 110/50 Volt AC, 120/60 Volt AC, Explosion Proof	×	<b>✓</b>	<b>✓</b>	<b>✓</b>	×	<b>✓</b>	<b>√</b>	x	x	×	×	×	×
A43-12	Solenid Adaptor Valve 220/50 Volt AC, 240/60 Volt AC, 12 Volt DC	×	✓	✓	<b>✓</b>	×	✓	✓	×	×	×	×	×	×
A43-12E	Solenid Adaptor Valve 220/50 Volt AC, 240/60 Volt AC, 12 Volt DC, Explosion Proof	×	<b>√</b>	<b>✓</b>	<b>✓</b>	×	<b>✓</b>	<b>√</b>	×	x	x	x	x	×
A43-20	Solenid Adaptor Valve 220/50 Volt AC, 240/60 Volt AC, 125 Volt DC	×	<b>/</b>	1	/	×	<b>/</b>	<b>✓</b>	x	x	×	×	×	×
A43- 20E		×	<b>✓</b>	<b>✓</b>	<b>✓</b>	×	<b>✓</b>	✓	x	x	x	x	x	×
A43-24	Solenid Adaptor Valve 24 Volt DC	×	<b>✓</b>	<b>V</b>	<b>✓</b>	×	<b>✓</b>	<b>✓</b>	×	x	×	×	×	×
A43-24E	Solenid Adaptor Valve 24 Volt DC, Explosion Proof	x	<b>✓</b>	1	<b>V</b>	×	<b>✓</b>	✓	x	x	x	x	x	×
Ball valve various a	BALL VALVES OPTIONS es are available in a variety of materials to suit pplications.													
B1	Geolast®	×	<b>✓</b>	<b>✓</b>	<b>✓</b>	✓	<b>✓</b>	<b>✓</b>	<b>√</b>	<b>✓</b>	<b>√</b>	<b>√</b>	<b>√</b>	×
B2	PTFE	X	<b>✓</b>	<b>V</b>	<b>V</b>	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	<b>✓</b>	<b>√</b>	<b>√</b>	<b>√</b>	<b>✓</b>
B3	Santoprene®	×	<b>✓</b>	<b>V</b>	<b>V</b>	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	<b>V</b>	<b>V</b>	<b>√</b>	<b>√</b>
B4 B6	Nitrile (BUNA-N) EPDM	x	x	×	×	×	×	×	×	×	×	×	×	✓
B10	Heavy Nitrile	×	×	×	×	×	<b>√</b>	<b>~</b>	<b>^</b>	<b>~</b>	<b>~</b>	<b>~</b>	<b>~</b>	<b>✓</b>
B11	Stainless Steel	x	<b>✓</b>	<b>/</b>	<b>/</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>	✓	<b>✓</b>	✓	✓	×
B17	Heavy Santoprene®	×	×	×	×	x	×	×	×	×	×	×	×	<b>✓</b>
B37	FDA Nitrile	×	×	×	×	×	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>	×
Various f stainless	WETTED CHAMBER FINISH OPTIONS inishing options for both aluminum and steel wetted chambers.													
F16	Hard Coat Anodizing	x	x	x	1	x	x	1	×	x	1	x x	✓ ✓	×
	Passivated & Electropolished  HARDWARE OPTIONS	X	×	×	•	X	×	•	X	×	•	X	<b>V</b>	X
	options for fastening hardware and carrying options.													
H13 H35	PTFE Coated Hardware Handles	×	×	×	×	×	×	×	×	✓ ✓	✓ ✓	✓ ✓	✓ ✓	✓ ✓
0-Rings various a	O-RING OPTIONS  are available in a variety of materials to suit pplications.													
02	PTFE	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
04	Nitrile (BUNA-N)	<b>√</b>	<b>√</b>	<b>V</b>	<b>/</b>	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	<b>✓</b>	<b>1</b>	<b>√</b>	<b>√</b>	<b>√</b>
05	EPDM VITON®	✓ ✓	✓ ✓	<b>✓</b>	<b>✓</b>	<b>✓</b>	✓ ✓	<b>✓</b>	✓ ✓	✓ ✓	<b>√</b>	<b>✓</b>	✓ ✓	✓ ✓
06	VIIUIN-		<b>'</b>	<b>'</b>		<b>v</b>	<b>'</b>	<b>V</b>	· ·	·	<b>'</b>	· ·	V	<b>'</b>



	PUMP STYLES													
The liqu	PORTING OPTIONS  id suction and liquid discharge location can be ed to suit a a variety of plumbing requirements.	1/4" Box Pump Page 10-13	3/8" Clamped Pump Page 16-21	1/2" Bolted Pump Plastic Page 24-29, 32-34	1/2" Bolted Pump Metal Page 24-29, 32-34	1/2" Clamped Pump Plastic Page 30-31	1" Bolted Pump Plastic Page 36-41	1" Bolted Pump Metal Page 36-41	1" Clamped Pump Plastic Page 42-45	11/2" Bolted Pump Plastic Page 48-50	1 1/2" Bolted Pump Metal Page 48-50	2" Bolted Pump Plastic Page 52-54	2" Bolted Pump Metal Page 52-54	3" Bolted Pump Metal Page 56-57
P14	Dual Suction	✓	✓	✓	✓	✓	×	×	✓	×	×	×	×	×
P15	BSP Threads						✓	✓	<b>✓</b>	×	×	×	✓	✓
P19	Port Location - Discharge / Up	x	×	✓	×	✓	×	×	✓	✓	×	✓	×	×
P20	Port Location - Discharge / Air Inlet	×	✓	✓	×	✓	✓	✓	✓	✓	✓	✓	✓	×
P21	Port Location - Discharge / Air Exhaust	x	✓	✓	×	×	✓	×	×	×	×	×	×	✓
P22	Port Location - Suction / Down	×	✓	✓	✓	✓	×	×	<b>✓</b>	×	×	×	×	×
P23	Port Location - Suction / Air Inlet	x	×	✓	×	✓	✓	✓	✓	×	×	×	×	×
P24	Port Location - Suction / Air Exhaust	×	×	✓	×	×	✓	×	×	<b>✓</b>	✓	✓	✓	✓
P25	Dual Discharge / Dual Suction	✓	✓	✓	✓	<b>✓</b>	x	×	✓	×	×	×	×	×
P27	Dual Discharge	✓	✓	✓	✓	✓	×	×	✓	×	×	×	×	×
P30	Flanged ANSI & DIN Compatible	x	×	x	×	×	×	×	×	×	×	×	✓	×
P31	Drain Ports (Metal Pumps Only)	×	×	×	×	×	×	×	×	×	✓	×	✓	×
P32	Port Location - Suction & Discharge Left	×	<b>✓</b>	<b>✓</b>	×	×	<b>√</b>	×	X	×	×	×	×	×
P33	Port Location - Suction Right & Discharge Left	×	<b>✓</b>	<b>✓</b>	×	×	<b>√</b>	×	×	×	×	×	×	x
P34 P36	Port Location - Suction Left & Discharge Right  All Ports Open	x	✓ ✓	<b>✓</b>	×	x	<b>✓</b>	×	×	×	x x	x	×	×
	VALVE SEAT OPTIONS ats are available in a variety of materials.  Nitrile (BUNA-N)  EPDM	×	×	×	x x	x x	x x	x x	×	x	x x	x x	x	✓ ✓
S6	VITON®	×	x	x	×	×	×	×	x	×	x	×	×	✓
S7	Polypropylene	×	✓	✓	✓	✓	✓	✓	✓	<b>✓</b>	✓	✓	✓	×
S8	Nylon	×	×	×	✓	<b>✓</b>	×	✓	<b>✓</b>	<b>✓</b>	✓	✓	✓	✓
S9	PVDF (KyNAR)	×	<b>✓</b>	<b>✓</b>	<b>✓</b>	✓	✓	<b>✓</b>	<b>✓</b>	✓	✓	✓	<b>✓</b>	×
S11	Stainless Steel	×	<b>✓</b>	<b>✓</b>	✓	✓	✓	✓	✓	<b>✓</b>	✓	✓	✓	×
S12	Aluminum	×	×	×	×	×	x	×	×	×	×	×	×	✓
	MAX PASS VALVE SOLIDS HANDLING OPT ndling valves are available on 3/8" through 1" pumps.	ION												
M4	Nitrile (BUNA-N)	×	✓	✓	✓	×	<b>✓</b>	✓	×	×	×	×	×	×
M5	EPDM	×	✓	✓	✓	×	✓	✓	×	×	×	×	×	x
M6	VITON®	×	✓	×	✓	×	✓	✓	×	×	×	×	×	×
M40	FDA VITON®	×	×	✓	x	×	✓	✓	×	×	×	×	x	×
	MISC. AND SPECIAL OPTIONS fittings, high suction and ATEX approval.													
X44	Tri-Clamp Fitting/Passivated/Electropolished Plus FDA Elastomers	×	x	x	x	×	x	<b>✓</b>	×	x	✓	×	✓	x
X45	ATEX Category 2	×	×	×	<b>✓</b>	×	×	✓	×	×	✓	×	<b>✓</b>	×
X46	High Suction Lift, 16.5 Feet, Polypropylene Only	×	x	x	x	×	x	x	×	<b>✓</b>	x	✓	x	x





# READING THE PUMP CURVE

You must know the following data:

- 1. Required discharge pressure
- 2. Air pressure available at the air inlet of the pump
- 3. Required flow rate

## TO OBTAIN DISCHARGE PRESSURE:

Using the performance chart for a 1/2" pump shown, if 80 psi is available at the air inlet and the required capacity of the pump is 6 GPM, follow the blue concave

curve at 80 psi 1 as it slopes to the right and intersects with the 6 GPM vertical line 2. By tracking horizontally back to the left (Y) axis, the discharge pressure is ascertained—65 psi 3. (Right axis converts PSI to feet/meters).



Reverse the steps above:

Choose required discharge pressure (65 psi) 3 on left (Y) axis, go directly across the graph to the intersection of the correct flow rate (6 GPM) 2, then track up and back toward the left (Y) axis along the blue curve, and the correct required air pressure can be obtained (80 psi) 1.

Note: If greater outlet pressure vs. air inlet pressure is required—select a larger pump.

#### TO OBTAIN AIR CONSUMPTION:

The convex red lines represent the air consumption (standard cubic feet per minute), and the closest red line to where the blue line and the flow rate intersect 2 represents the air capacity required. On our example, the air consumption would be approximately 6 SCFM.

To convert SCFM to m<sup>3</sup>/h (N) multiply by 1.7.

#### **INSTALLATION**

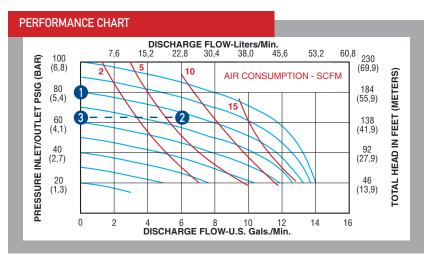
1 A lube-free, clean, dry compressed air source (or any nonflammable, compressed gas) is recommended. Use a filter that is capable of filtering out particles larger than 50 microns.

2 Pumps should be mounted in an upright position with the exception of the 1/4" models or any pump with Max-Pass™ valves. These pumps can be mounted in any position.

3 Install a particle fluid filter on the fluid suction line when particles in the fluid exceed the maximum particle size specification of the pump or when particles are sharp enough to cut the diaphragms.

4 Never restrict fluid suction lines by means of a reduced pipe size (smaller than pump inlet size) or control the pump with valves on the fluid inlet side of the pump.

5 Limit fluid inlet pressure to 10 PSIG or (.68 BAR).

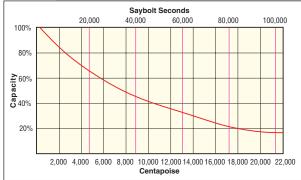


#### HIGH VISCOSITY APPLICATIONS

As you can see from the diagram above, as viscosities increase, the capacity of the pump decreases. Do not exceed 22,000 centapoise or 100,000 saybolt seconds on all 3/8" up to 3" pumps. Do not exceed 4,000 centapoise or 18,000 saybolt seconds on 1/4" models.

Some points to remember when pumping high viscosities:

- 1 Position the pump close to or below the level of the fluid source.
- 2 Suction lines should be increased in size—up to three times the size of the pump manifold inlet. Dual manifolds may be used when available.
- 3 Start the pump slowly using a control valve on the air line.
- 4 Maximum air pressure required is reached when increasing the air pressure does not increase the flow rate.
- 5 If greater capacity is required, select a larger pump.



#### WETTED PUMP MATERIALS

#### Polypropylene (Natural)

Polypropylene is a good, general purpose plastic material used in a wide variety of pumping applications. All-Flo does not use glass fillers in the polypropylene. (Hydrofluoric acid and similar chemicals will attack glass fillers.) Temperature range 32 to 150°F. Natural polypropylene needs to be protected from direct sunlight. Natural polypropylene will allow light to pass through to the pumped material. (Not suitable for UV sensitive paints or inks)

#### **PVDF**

Polyvinylidene fluoride or PVDF is a specialty plastic material in the fluoropolymer family and is used generally in applications requiring the highest purity, strength, resistance to solvents, acids, bases and low smoke generation during a fire event. Temperature range 10 to 200°F. PVDF is an FDA accepted material.

#### Nylon

Nylon is a material used when pumping solvents, oils, paints and inks. Temperature range 10°F to 150°F.

#### **Conductive Nylon**

Conductive nylon is nylon with stainless steel fillers to allow the pump to be groundable. Conductive nylon is used for pumping solvents that have the potential to cause an explosion from an electrical spark from static electricity. Temperature range from 0°F to 150°F.

#### **Aluminum**

Aluminum is a light weight metal used for many non-corrosive chemicals, oils and solvents. Do not use aluminum when pumping halogenated solvents. Temperature limit of 212°F.

#### 316 SS

316 stainless steel (ANSI CF-8M) is used on moderately corrosive liquids and halogenated solvents and has excellent abrasion resistance. Temperature limit of 212°F.

#### **Electropolished and Passivated 316SS**

Electropolishing or electrochemical polishing is a process that removes material from a metallic surface. Passivation is the formation of a hard non-reactive surface film that inhibits further corrosion by dipping the stainless steel in a nitric

acid solution. Electropolished and passivated 316 SS pumps are normally used on food applications where FDA approved materials are required. Temperature limit of 212°F.

#### WETTED ELASTOMERS

#### Nitrile

Nitrile is a general purpose elastomer used on water and most oils. Temperature range 10°F to 180°F.

#### **EPDM**

EPDM is a general purpose elastomer with good resistance to many acids and basis. Temperature range -40°F to 212°F.

#### Viton®

Viton® is an elastomer with good corrosion resistance to a wide variety of chemicals. Temperature range -20°F to 212°F.

 $\mbox{Viton}^{\circledcirc}$  is a registered trademark of DuPont Performance Elastomers L.L.C..

#### Geolast®

Geolast® is an injection molded thermoplastic material with characteristics similar to Nitrile. Has excellent abrasion resistance. Temperature range 10°F to 180°F.

Geolast® is a registered trademark of ExxonMobil Chemical Co..

#### Santoprene®

Santoprene® is an injection molded thermoplastic material with characteristics similar to EPDM. Has excellent abrasion resistance. Temperature range -40°F to 212°F.

Santoprene® a registered trademark of ExxonMobil Chemical Co..

#### **PTFE**

PTFE or polytetrafluoroethylene is a thermoplastic polymer that is inert to most chemicals. Temperature range 40°F to 212°F. PTFE is an FDA accepted material.

#### Urethane

Urethane is a general purpose elastomer that has excellent abrasion resistance. Temperature range 10°F to 150°F.

FDA Nitrile, FDA EPDM, FDA Viton®, FDA Santoprene® and FDA Hytrel® are FDA accepted materials.



#### FREQUENTLY ASKED QUESTIONS

#### 1 Can I pump inks with this type of pump? (Similar questions are asked concerning paints and adhesives and can be answered in a similar manner).

Yes, but prior to making a pump selection you need to know if the fluid is a solvent or water-based product. What is the viscosity and temperature of the product? Generally if the fluid is solvent based, a good choice is nylon or aluminum models with PTFE elastomers. When pumping chlorinated solvents, 316 SS models are the best choice.

## 2 If the fluid temperature exceeds 150°F what pump should be used?

Pumps that are rated up to 200°F are the PVDF models and all of the metal pumps. Check your chemical compatibility chart for compatibility.

## 3 When I cannot find a certain chemical on the resistance chart, what do I do?

A. Ask what materials are presently being used to transfer the fluid or if there is a manufacturer's recommendation that is on the fluid container, etc.

- B. If there is no other information on this chemical, you will have to check with the manufacturer of the fluid and find out what is recommended.
- C. Never guess fluid to material combinations that are not substantiated.

## 4 What if the chemical to material has a 'B' rating in the chemical resistance chart?

We do not recommend that anything other than 'A' rated combinations be used. If you select a chemical to material rating of 'B' the warranty is void.

#### 5 Can I use polypropylene with hydrofluoric acid?

Since all pumps use natural polypropylene you can pump hydrofluoric acid after consulting a chemical guide for concentration and temperature limits.

#### 6 What if the concentration of acid is given with a degree symbol, such as, 66°, does this mean that it is 66%?

The degree symbol means degrees baume. In this case the 66° is actually 98% in strength. You will find this symbol often used when describing sulfuric acid.

## 7 Is there a model recommended for use in food applications?

Our All-Pür model has electropolished and passivated 316SS and FDA approved elastomers for use in food and sanitary applications.

#### 8 Is there anything special that I should tell the customer when pumping hazardous fluids?

Yes. If a diaphragm should rupture, the exhaust should always be piped to a control area — a place for safe handling or back to the tank — since fluid will enter the air system if the diaphragm is breached. Also, never forget to wear protection for eyes, lungs and skin when near hazardous fluids.

## 9 Do I need an air line lubricator for these pumps?

No, never use air line lubrication.

## 10 I hear a lot about Geolast®. What type of resistance does Geolast® have?

It is similar to that of Buna-N (Nitrile).

## 11 My polypropylene pump is installed outside and has started cracking. What is the problem?

Polypropylene is not resistant to UV rays. Also, polypropylene is limited to use in temperatures over 32°F. For this type of application it is best to use a PVDF model, a metal model or shroud and insulate your polypropylene model.

#### 12 Can I operate the pumps at pressures higher than the maximum pressure ratings?

No, the pumps will start leaking, diaphragms may bulge and inner plates may bend.

## 13 How should I regulate the flow of a diaphragm pump?

You can regulate the flow of a diaphragm pump three ways. Reduce or increase the air pressure, making sure that you are within the operating limits of the pump. You can increase or decrease the amount of air volume going to the pump via a valve on the air line and finally, a valve on the fluid discharge may be opened or closed. NEVER restrict fluid suction lines!

#### 14 Can I submerge the pump?

Yes, if the fluid is compatible with the pump housing and fasteners and if you pipe the exhaust above the level of the fluid.

#### 15 Is there some way that I can extend the life of my diaphragms, balls and valve seats?

Remove sharp particles from the fluid. If the fluid is abrasive, slow the pumping speed or go to a larger pump. Do not over pressurize. In general, the slower the pump operates the longer life you will have with all moving components.

#### 16 The pump was working just fine, but it has slowed down and I'm not getting the needed capacity. What can I do?

Check fluid suction lines for obstructions and also check the valve seats for debris. Make sure that the fluid has not gotten more viscous with a decrease in the temperature.

#### 17 How do I pump high viscosity fluids?

If it pours, you can pump it.

- A. Use large suction lines, up to three times the size of the pump ports.
- B. Position the pump as close to (or below) the level of the fluid as possible.
- C. Start the fluid slowly using an air line valve. Set the air pressure and crack the valve open slowly.

## 18 Do all pumps have dual manifold capability?

All 1/4", 3/8" and 1/2" pumps can be configured at the factory for dual manifolds.

## 19 How does high specific gravity affect my pumping application?

If the pump is flooded, fluids with high specific gravity may exceed the pump suction limitations of 10psi. If the pump is above the level of the fluid, high specific gravity will limit suction lift.

## 20 Do I have to ground the pump when pumping flammable fluids?

Yes. This can be done with conductive plastic pumps via the grounding lugs. If you are not using a conductive plastic pump then ground the fluid through a metallic pipe nipple at both the suction and discharge ports. Metal pumps should also be grounded.

## 21 How often should I tighten fasteners on my plastic pumps?

That depends on the application. Pressure, average hours in service, and temperature all affect the flow of plastic. Pumps need tightening if leakage should occur. Tightening should be part of any preventive maintenance program and should be based on the service duty of the pump.

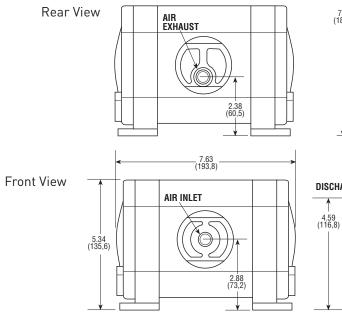
#### 22 What if I mix several chemicals together. Can I use the individual material to chemical ratings that are listed in the chemical resistance chart to transfer this fluid mixtures?

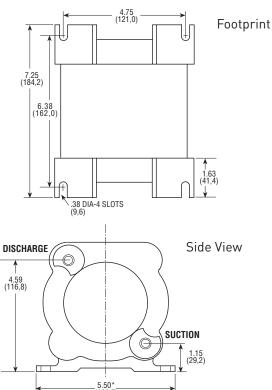
Proceed with caution. Individual ratings may or may not be appropriate for a chemical cocktail. Again, is the fluid currently being transferred successfully using a particular set of materials?

### 1/4" BOX STYLE INTERMITTENT DUTY PUMP

Dimensions in inches and (mm).

For detailed dimensional drawings, please visit www.all-flo.com

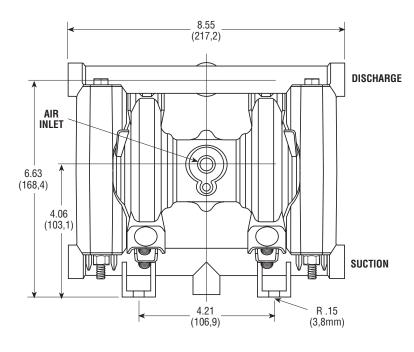


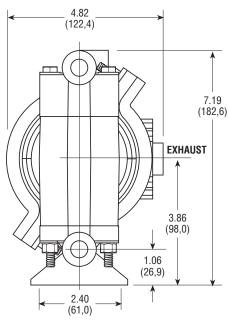


### 3/8" CLAMP STYLE INTERMITTENT DUTY PUMP

Dimensions in inches and (mm).

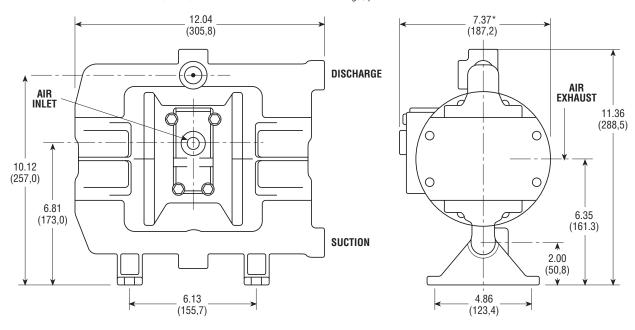
For detailed dimensional drawings, please visit www.all-flo.com



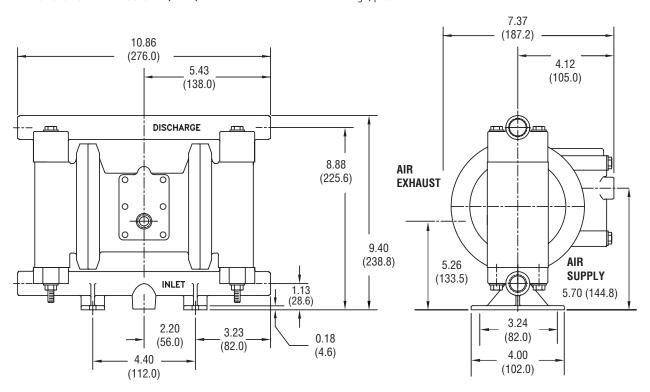


### 1/2" BOLTED STYLE HEAVY DUTY PUMP (PLASTIC)

Dimensions in inches and (mm). For detailed dimensional drawings, please visit www.all-flo.com

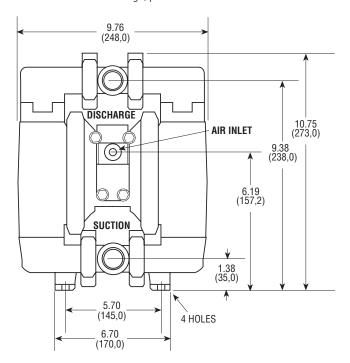


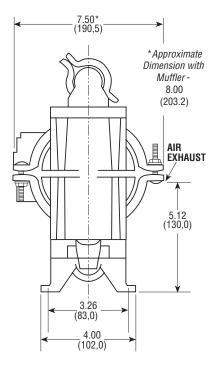
### 1/2" BOLTED STYLE HEAVY DUTY PUMP (METALLIC)



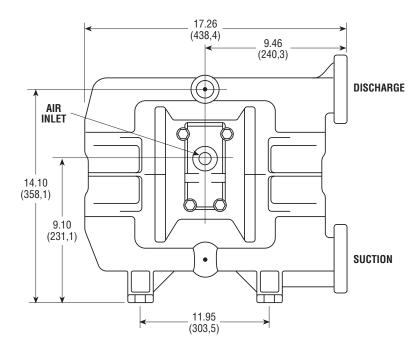
### 1/2" CLAMPED STYLE HEAVY DUTY PUMP (PLASTIC)

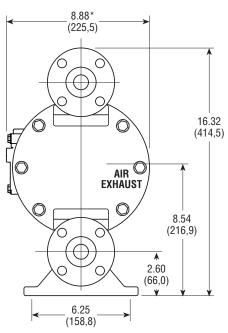
Dimensions in inches and (mm). Ports shown facing front for dimensional purposes. For detailed dimensional drawings, please visit www.all-flo.com





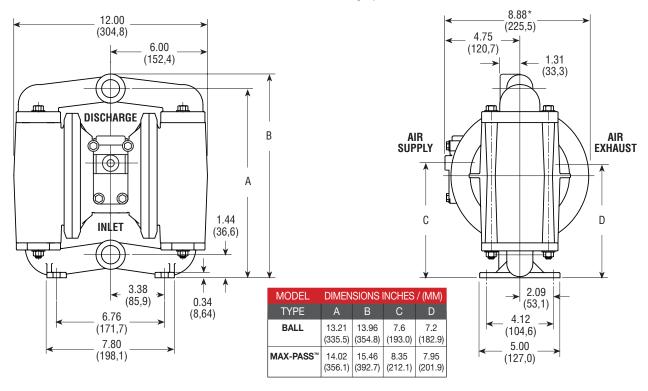
### 1" BOLTED STYLE HEAVY DUTY PUMP (PLASTIC)



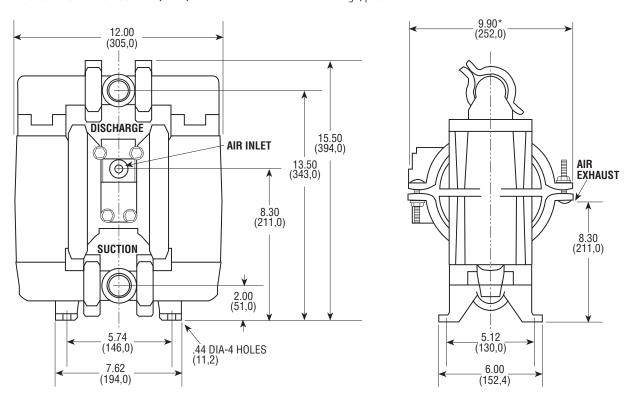


### 1" BOLTED STYLE HEAVY DUTY PUMP (METALLIC)

Dimensions in inches and (mm). For detailed dimensional drawings, please visit www.all-flo.com

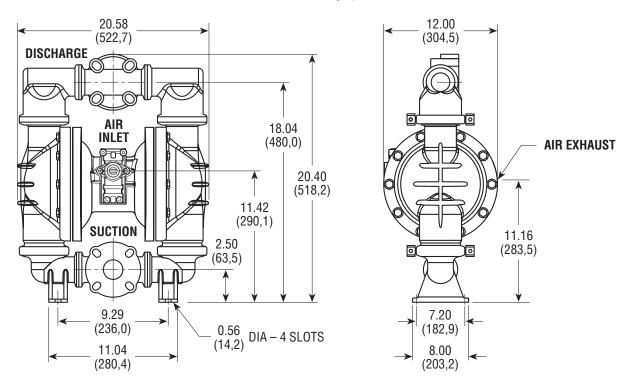


### 1" CLAMPED STYLE HEAVY DUTY PUMP (PLASTIC)

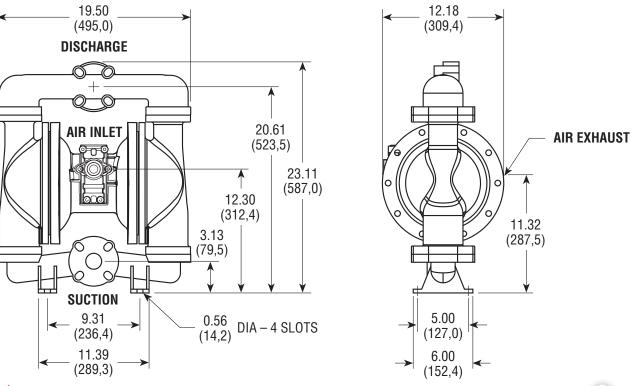


#### 11/2" BOLTED STYLE HEAVY DUTY PUMP (PLASTIC)

Dimensions in inches and (mm). For detailed dimensional drawings, please visit www.all-flo.com



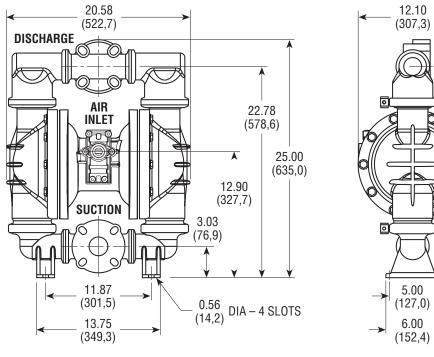
### 11/2" BOLTED STYLE HEAVY DUTY PUMP (METALLIC)



### 2" BOLTED STYLE HEAVY DUTY PUMP (PLASTIC)

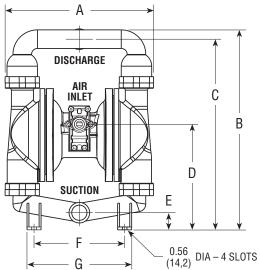
Dimensions in inches and (mm).

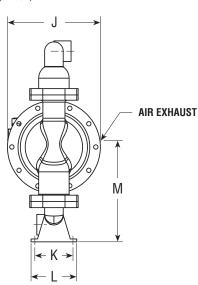
For detailed dimensional drawings, please visit www.all-flo.com



# 12.10 (307,3) AIR EXHAUST 13.15 (334,1) 5.00 (127,0) 6.00 (152,4)

#### 2" BOLTED STYLE HEAVY DUTY PUMP (METALLIC)



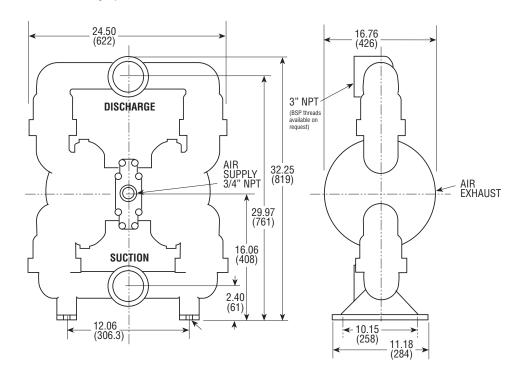


MODEL	DIMENSIONS INCHES / (MM)										
SIZE	А	В	С	D	Е	F	G	J	K	L	М
2" <b>ALUMINUM</b>	19.50	26.18	24.40	13.32	1.59	10.20	12.00	12.20	5.00	6.00	13.27
NPT & BSP	(495.0)	(665.0)	(619.8)	(338.3)	(40.4)	(259.1)	(304.8)	(309.9)	(127.0)	(152.4)	(337.1)
2" <b>STAINLESS STEEL</b>	19.50	24.46	23.10	14.95	3.50	12.00	13.85	12.20	5.00	6.00	14.10
NPT & BSP	(495)	(621.5)	(587.6)	(379.7)	(89.0)	(304.8)	(351.5)	(309.9)	(127.0)	(152.4)	(358.1)
METAL FLANGE OPTIONAL	19.50	24.62	21.62	13.25	3.50	12.00	13.85	11.88	5.00	6.00	12.75
2" Flange	(495.0)	(625.3)	(549.2)	(336.6)	(89.0)	(304.8)	(351.5)	(301.8)	(127.0)	(152.4)	(324.0)

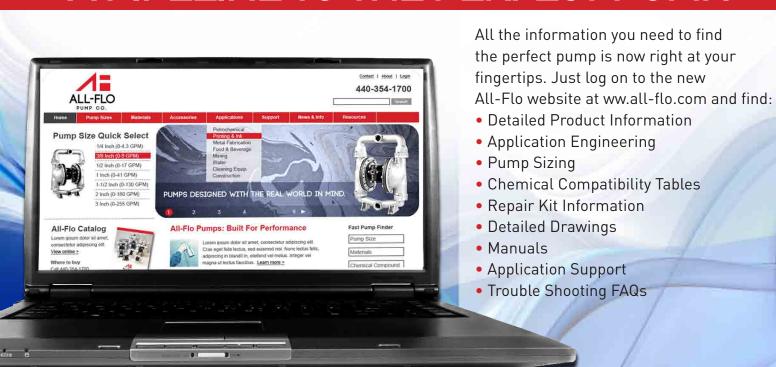


#### 3" BOLTED STYLE HEAVY DUTY PUMP

Dimensions in inches and (mm). Ports shown facing front for dimensional purposes. For detailed dimensional drawings, please visit www.all-flo.com



# A PIPELINE TO THE PERFECT PUMP.



#### WWW.ALL-FLO.COM



All-Flo Pump Company, LLC.
World Headquarters
7750 Tyler Blvd.
Mentor, Ohio 44060

Phone: 440.354.1700

Fax: 440.354.9466

ALL-FLO is committed to the pursuit of designing and manufacturing the highest quality product available to industry. Since the beginning in 1986, All-Flo engineers have used their extensive knowledge of today's engineered materials, advanced air system logic and manufacturing techniques to develop the superior group of lube-free, air-operated diaphragm pumps found in this catalog. Every pump is performance engineered and quality built to provide trouble-free service under the toughest conditions.



ALL-FLO, A PROUD MEMBER OF THE MUM INDUSTRIES GROUP



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