

# **Diaphragm Pumps**





Since 1918, Alemite has been a leading supplier of high-quality lubrication products to meet the needs of numerous industries. The introduction of our new diaphragm pumps is further evidence of our commitment to provide our customers with the best lubrication and fluid handling products.

# Diaphragm Pumps

#### **Reliable Performance**

Alemite's diaphragm pumps are designed to reduce downtime by ensuring continuous, reliable pump performance. These self-priming pumps can handle infinitely variable flows up to 90% solids and are capable of operating as low as one stroke per minute.

#### Ease of Maintenance

Alemite's pumps will simplify your maintenance tasks with only two easily accessible center block O-rings. The pilot shaft O-rings are removable as a complete assembly and are easily replaced without the use of an O-ring tool. And the air valve can be serviced without taking apart the pump's center section. Alemite's diaphragm pumps virtually eliminate pumping problems to keep your operation running smoothly. And since they're built in the United States, you can be assured you'll receive reliable products with quick, consistent delivery.









## 3/8" Polypropylene Pump



Part No.	Construction
8201	Polypropylene wetted and air section, XL®TPE diaphragms and checks
8208	Polypropylene wetted and air section, Geolast diaphragms & checks

#### Features and Benefits

- **Compact and Portable:** This pump is small enough to fit in the palm of your hand, making it easy to install and relocate.
- **Versatile:** 360° inlet and outlet swivel allows for mounting in any position upright, sideways, or inverted.
- **Efficient:** Pumps up to 8.2 gallons per minute, more than many larger models.
- **Cost-effective:** Offers big performance at an affordable price.
- **Corrosion-resistant:** The pump is safe to use with washer fluid, antifreeze, and many common chemicals.
- **Trouble-free Performance:** Pump delivers non-icing, lubefree operation with no leakage, even when pump is stalled. Patented air valve will not "hang" or stick in the center, ensuring continuous operation.
- **Easy Maintenance:** Easy servicing means minimal labor and downtime.



#### Fluids

Windshield Washer Fluid, Antifreeze, Chemicals

#### Markets / Applications

Quick Lubes, Auto Dealerships, Fleet Maintenance, Municipal Garages

#### Specifications

	English Units	Metric Units
Flow Rate Adjustable	0-8.2 gpm	0-31 lpm
<b>Port Size</b> Inlet/Discharge	3/8" N	JPT(F)
Air Inlet	1/4" NPT(F)	
Air Exhaust	I/4'' NPTF	
Suction Lift Dry Wet	5.83 ft    ft	l.78 m 3.4 m
Max. Particle Size Diameter	0.10''	2.5 mm
Shipping Weight	3 lbs	I.4 kg



# 1/2" Polypropylene Pump





Fluids Windshield Washer Fluid, Antifreeze, Most Water-Based Chemicals Markets / Applications

> Quick Lubes, Auto Dealerships, Fleet Maintenance, Municipal Garages



**CAUTION:** Do not exceed 100 psig (6.9 bar) air supply.

#### Features and Benefits

- **Versatile:** Multiple porting options (top, side, and end) for inlet and discharge and adaptable footprint allow for easy mounting with existing systems.
- Efficient: Adjustable flow rate allows pumping of up to 14 gallons per minute.
- **Cost-effective:** Offers big performance at an affordable price.
- **Corrosion-resistant:** Leak-free polypropylene construction means the pump is safe to use with washer fluid, antifreeze, and many common, high-corrosive chemicals.
- **Trouble-free Performance:** Pump delivers non-stalling, non-icing, lube-free operation with no leakage, even when pump is stalled. Patented air valve will not "hang" or stick in the center, ensuring continuous operation.
- Simple to maintain: Easy servicing means minimal labor and downtime.

### **Specifications**

	English Units	Metric Units
Flow Rate Adjustable	0-14 gpm	0-53 lpm
Port Size Inlet/Discharge	1/2"	NPT
Air Inlet	3/8''	NPT
Air Exhaust	3/8''	NPT
Suction Lift Dry Wet	20 ft 25 ft	6.1 m 7.6 m
Max. Particle Size Diameter	1/16"	I.6 mm
Shipping Weight	10 lbs	4.5 kg

## 1/2" Aluminum Pump



 
 Part No.
 Construction

 8202-A
 Aluminum wetted, polypropylene air section, Buna diaphragms, Acetal balls



#### Features and Benefits

- **Abrasion-resistant:** Handles up to 90% solids without excessive wear. Ideally suited to pump used oil containing particulates.
- Efficient: Adjustable flow rate allows pumping of up to 14 gallons per minute.
- **Trouble-free Performance:** Pump delivers non-stalling, non-icing, lube-free operation with no leakage, even when pump is stalled. Patented air valve will not "hang" or stick in the center, ensuring continuous operation.
- **Durable:** Leak-free bolted aluminum construction with few moving parts for maximum service life.
- Simple to maintain: Easy servicing means minimal labor and downtime.

### **Specifications**

	English Units	Metric Units
Flow Rate Adjustable	0-14 gpm	0-53 lpm
Port Size Inlet/Discharge	1/2"	NPT
Air Inlet	3/8''	NPT
Air Exhaust	3/8'' NPT	
Suction Lift Dry Wet	20 ft 25 ft	6.1 m 7.6 m
Max. Particle Size Diameter	1/16"	I.6 mm
Shipping Weight	l 5 lbs	6.8 kg

# 1" Aluminum Pump





Part No.	Construction
8203	Aluminum wetted, polypropylene air section, Buna diaphragms, Acetal balls
8211	Aluminum wetted and air section, Buna diaphragms, Acetal balls

#### **Features and Benefits**

- **Versatile:** Pump features side discharge for easy, convenient installation.
- **Efficient:** Adjustable flow rate allows pumping of up to 35 gallons per minute.
- **Abrasion-resistant:** Handles up to 90% solids without excessive wear. Ideally suited to pump used oil containing particulates.
- **Trouble-free Performance:** Pump delivers non-stalling, nonicing, lube-free operation with no leakage, even when pump is stalled. Patented air valve will not "hang" or stick in the center, ensuring continuous operation.
- **Durable:** Leak-free bolted aluminum construction with few moving parts for maximum service life.
- **Simple to Maintain:** Easy servicing means minimal labor and downtime.

	Flu
シ	Ne
	Oil
	М

#### Fluids

New Oil, Used Oil, Oil-Based Fluids

#### Markets / Applications

Quick Lubes, Auto Dealerships, Fleet Maintenance, Municipal Garages, Industrial Fluid Transfer

#### **Specifications**

	English Units	Metric Units
Flow Rate Adjustable	0-35 gpm	0-132 lpm
Port Size Inlet/Discharge	1" N	PT(f)
Air Inlet	3/8"	NPT
Air Exhaust	1/2'' NPT	
Suction Lift Dry Wet	15 ft 25 ft	4.6 m 7.6 m
Max. Particle Size Diameter	1/8"	3.2 mm
Shipping Weight	31 lbs	14 kg



CAUTION:

Do not exceed 125 psig (8.5 bar) air supply.



### **1" UL Listed Aluminum Pump**



#### Features and Benefits

- Efficient: Adjustable flow rate allows pumping of up to 35 gallons per minute.
- Trouble-free Performance: Pump delivers non-stalling, nonicing, lube-free operation with no leakage, even when pump is stalled. Patented air valve will not "hang" or stick in the center, ensuring continuous operation.
- UL Listed: Approved for diesel transfer. Aluminum pump includes stainless steel hardware and grounding strap for safe grounding and operation.
- Simple to Maintain: Easy servicing means minimal labor and downtime.

Part No.	Construction
8205	Aluminum wetted and air section, Buna diaphragms, Teflon® balls



**Diesel Fuel** 

#### Markets / Applications

Quick Lubes, Auto **Dealerships**, Fleet Maintenance, Municipal Garages

#### **Specifications**

	English Units	Metric Units
Flow Rate Adjustable	0-35 gpm	0-132 lpm
Port Size Inlet/Discharge	I" NPT(	F) (BSP)
Air Inlet	3/8'' NPT(F)	
Air Exhaust	1/2'' NPT(F)	
Suction Lift Dry Wet	15 ft 25 ft	4.6 m 7.6 m
Max. Particle Size Diameter	1/8"	3.2 mm
Shipping Weight	31 lbs	14 kg



Do not exceed 125 psig (8.5 bar) air supply. UL requirements limit output pressure to 50 psi.



### 1" Aluminum UL Listed Methanol Transfer Pump



#### **Features and Benefits**

- **Efficient:** Adjustable flow rate allows pumping of up to 35 gallons per minute.
- **Trouble-free Performance:** Pump delivers non-stalling, nonicing, lube-free operation with no leakage, even when pump is stalled. Patented air valve will not "hang" or stick in the center, ensuring continuous operation.
- **UL Listed:** Approved for transfer of diesel fuel and methanol, including washer fluid. Pump includes stainless steel hardware and grounding strap for safe grounding and operation.
- **Simple to Maintain:** Easy servicing means minimal labor and downtime.

Part No.	Construction
8207	Aluminum wetted and air section,Teflon® diaphragms, Teflon® balls

Diesel Fuel, Methanol, Washer Fluid Containing Methanol, Waste Oil Containing Washer Fluid

Markets / Applications

Quick Lubes, Auto Dealerships, Fleet Maintenance, Municipal Garages, Chemical Transfer

Fluids

#### **Specifications**

	English Units	Metric Units
Flow Rate Adjustable	0-35 gpm	0-132 lpm
<b>Port Size</b> Inlet/Discharge	I" NPT(	F) (BSP)
Air Inlet	3/8" N	IPT(F)
Air Exhaust	1/2'' NPT(F)	
Suction Lift Teflon® Dry Wet	15 ft 25 ft	4.6 m 7.6 m
<b>Max. Particle Size</b> Diameter	1/8"	3.2 mm
Shipping Weight	31 lbs	l 4 kg



CAUTION: Do not exceed 125 psig (8.5 bar) air supply. UL requirements limit output pressure to 50 psi.

UL requirements state that pumps used to transfer methanol must be UL-approved specifically for methanol. Pumps listed only for diesel, gasoline, or other flammable liquids will not meet UL requirements for methanol.

### 1" Stainless Steel Pump



Part No.	Construction
8206	316 stainless steel wetted, polypropylene air section, Hytrel®/Teflon® diaphragm, Teflon® balls

Edible Oils, Fruit Puree,

Markets / Applications

Fluids

Soups, Salsas

Food Processing

#### **Features and Benefits**

- **Efficient:** Adjustable flow rate allows pumping of up to 35 gallons (132 liters) per minute.
- **Corrosion-resistant:** 316 stainless steel wetted and air section with polypropylene center section.
- **Trouble-free Performance:** Pump delivers non-stalling, nonicing, lube-free operation with no leakage, even when pump is stalled. Patented air valve will not "hang" or stick in the center, ensuring continuous operation.
- **FDA Compliant:** Approved for use in food processing applications.
- **Superior Material Handling Capability:** Handles solids up to 1/8" (3.2 mm).

#### **Specifications**

	English Units	Metric Units				
Flow Rate Adjustable	0-35 gpm	0-132 lpm				
Port Size Inlet/Discharge	- /2'' Tr	ri-Clamp				
Air Inlet	3/8'' NPT(F)					
Air Exhaust	1/2" N	IPT(F)				
Suction Lift Teflon® Dry Wet	15 ft 25 ft	4.6 m 7.6 m				
Max. Particle Size Diameter	1/8'' 3.2 mm					
Shipping Weight	38.5 lbs	17.5 kg				



CAUTION: Do not exceed 125 psig (8.5 bar) air supply.

# 1/2" Aluminum Pump



Part No.	Construction
8204	Aluminum wetted and air section, Buna diaphragms, Acetal balls

#### **Features and Benefits**

- Versatile: Can handle infinitely variable flows up to 90% solids.
- Abrasion-resistant: Handles up to 90% solids without excessive wear. Ideally suited to pump used oil containing particulates.
- Efficient: Adjustable flow rate allows pumping of up to 70 gallons per minute.
- Trouble-free Performance: Pump delivers non-stalling, nonicing, lube-free operation with no leakage, even when pump is stalled. Patented air valve will not "hang" or stick in the center, ensuring continuous operation.
- **Durable:** Leak-free bonded aluminum construction with few moving parts for maximum service life.
- Simple to Maintain: Easy servicing means minimal labor and downtime.

**Metric Units** 

0-265 lpm

4.6 m 7.6 m

4.8 mm

18.6 kg

Outlet

Fluids		English Units	Met	
New Oil, Waste Oil, Oil-Based Fluids, Mining Slurries Markets / Applications Quick Lubes, Auto Dealerships, Fleet	Flow Rate Adjustable	0-70 gpm	0-2	
	<b>Port Size</b> Inlet/Discharge	I-1/4'' NPT(F) Out I-1/2'' NPT(F) Inle		
	Air Inlet	1/2'' NPT(F)		
Maintenance, Municipal Garages, Industrial Fluid	Air Exhaust	3/4" NPT(F)		
Transfer, Mining	Suction Lift Dry Wet	15 ft 25 ft	-	
	Max. Particle Size Diameter	3/16''	4.	

**Specifications** 



Shipping Weight

#### CAUTION:

Do not exceed 125 psig (8.5 bar) air supply.

41 lbs



# 2" Aluminum Pump



Part No.	Construction
8209	Aluminum wettedand air section, Buna-N diaphragms, Teflon® balls





**CAUTION:** Do not exceed 125 psig (8.5 bar) air supply.

### Features and Benefits

- Versatile: Handles up to 90% solids and particles up to 1/4" in size.
- Efficient: Pumps up to 174 gallons per minute.
- **Trouble-free Performance:** Pump delivers non-stalling, non-icing, lube-free operation with no leakage, even when pump is stalled. Patented air valve will not "hang" or stick in the center, ensuring continuous operation.
- **Durable:** Leak-free bolted aluminum construction with few moving parts for maximum service life.
- Simple to maintain: Easy servicing means minimal labor and downtime.

### **Specifications**

	English Units	Metric Units			
Flow Rate Adjustable	0-174 gpm	0-658 lpm			
Port Size Inlet/Discharge	2" NPTF				
Air Inlet	I/2" NPTF				
Air Exhaust	3/4" NPTF				
Suction Lift Dry Wet	20 ft 25 ft	6.1 m 7.6 m			
Max. Particle Size Diameter	3/8'' I 0 mm				
Shipping Weight	73.5 lbs 33 kg				

# **3"** Aluminum Pump



Part No.	Construction
8210	Aluminum wettedand air section, Buna-N diaphragms, Teflon® balls



CAUTION: Do not exceed 125 psig (8.5 bar) air supply.

#### **Features and Benefits**

- Versatile: Handles up to 90% solids and particles up to 1/2" in size
- Efficient: Pumps up to 230 gallons per minute
- **Trouble-free Performance:** Pump delivers non-stalling, non-icing, lube-free operation with no leakage, even when pump is stalled. Patented air valve will not "hang" or stick in the center, ensuring continuous operation.
- **Durable:** Leak-free bolted aluminum construction with few moving parts for maximum service life.
- Simple to maintain: Easy servicing means minimal labor and downtime.

#### **Specifications**

	English Units	Metric Units			
Flow Rate Adjustable	0-230 gpm	0-871 lpm			
Port Size Inlet/Discharge	3'' A	NSI			
Air Inlet	I/2'' NPTF				
Air Exhaust	I'' NPTF				
Suction Lift Dry Wet	20 ft 25 ft	6.1 m 7.6 m			
Max. Particle Size Diameter	3/4"	19 mm			
Shipping Weight	150 lbs	68 kg			

# Chemical Compatiblity

<b>RATING KEY:</b>		El	astom	ers	Metals		Plastics	
A = Excellent								
B = Good		Buna N	XL® TPE	Teflon®	Aluminum	Stainless	Acetal	Polypropylene
C = Fair		8202,	8201	8205, 8206	8202-A,	Steel 8206	8202, 8202-A	8201, 8202
D = Not Pecom	mended	8202-A, 8203,		8200, 8207	8203, 8204,	8200	8202-A, 8203,	0202
		8204,			8207		8204	
		8205						
Acetaldehyde	CH <sub>3</sub> CHO	D	А	А	В	А	А	С
Acetic Acid	CH <sub>3</sub> COOH		A	A	В	A	D	B/70
Acetylene	HC=CH	A	A	A	A	A	A	D
Alcohols:								_
Ethyl	CH <sub>3</sub> CH <sub>2</sub> OH	А	В	А	В	А	А	А
Isopropyl	H <sub>3</sub> CCH(OH)CH <sub>3</sub>	C	B	A	B	A	A	A
Aluminum Chloride 20%	A1Cl	A	A	A	B	A C	A B	A/120 A
Aluminum Hydroxide	A1(OH),	A	A	A	A	A	A	A
Ammonia Anhydrous	NH <sub>3</sub>	В	А	А	В	А	D	A/70
Ammonium Chloride	NH <sub>4</sub> C1	A	A	А	C	С	A	A
Ammonium Nitrate	$NH_4NO_3$	A	A	A	B	A	B	A
Aniline Dyes	$(NII_4)_2 SO_4$	C A	A	A	B	B	D	-
Animal Fats		A	C	A	Ā	Ā	Ā	-
Anti-Freeze		А	А	А	А	А	В	А
Aromatic Hydrocarbons	$C_6H_5R$	D	D	A	A	A	A	D
Aspnait Barium Chloride	BaC1	A	A	A		A C	A B	A
Barium Hydroxide	Ba(OH)	A	A	A	D	A	D	A
Barium Sulfate	BaSO <sub>4</sub>	А	А	А	D	А	В	А
Beer		A	A	А	A	А	A	A
Beet Sugar Liquids		A	A	A	A	A	A	А
Benzaldehvde	С Н СНО	D	A	A	B	A	A	- D
Benzene	C <sub>6</sub> H <sub>6</sub>	D	-	A	В	A	-	D
Benzoic Acid	C <sub>6</sub> H <sub>5</sub> COOH	D	В	А	В	А	В	В
Bleach Solutions	D No O	D	A	A	D	-	D	B
Borax (Sodium Borate) Boric Acid	$B_4 Na_2 O_7$ H BO	A	A	A	B	A	A C	A
Brine	NaCl	A	A	A	-	-	A	A
Butane (LPG)	$C_4 H_{10}$	А	D	А	А	А	А	С
Butter		A	В	A	A	A	A	-
Buttermilk Butyl Acetate	СН СО (СН.) СН	A D	A A	A A	A	A C	A B	- D
Butyl Cellosolve	HOCH <sub>2</sub> CH <sub>2</sub> OC <sub>2</sub> H <sub>2</sub>	B	A	A	-	-	A	-
Calcium Carbonate (chalk)	CaCO <sub>3</sub> <sup>2</sup> <sup>2</sup> <sup>4</sup> <sup>4</sup> <sup>9</sup>	А	А	А	С	А	А	А
Calcium Chloride (brine)	CaCl <sub>2</sub> °6H <sub>2</sub> 0	A	A	А	С	С	D	A
Calcium Sulfate (gypsum)	CaSO <sub>4</sub>	A	A	A	B	A		A
Cane Sugar Liquors		A	A	A	A	A	-	A
Carbolic Acid (see phenol)	C <sub>6</sub> H <sub>5</sub> OH	D	В	А	А	В	D	С
Carbon Dioxide	CO <sub>2</sub>	A	A	А	A	А	A	А
Carbon Tetrachloride	CCI			A	D	A	A	D A
Catsup		A	C A	A	D	A	B	A
Cellosolve	HOCH,CH,OR	C	B	A	B	В	A	A
Cellosolve Acetate		С	А	А	-	-	А	-
Chlorine (Dry)	Cl <sub>2</sub>	C	D	A	D	-	D	D
Chlorine (wet) Chlorine Anhydrous Liquid	$C_{1_2}/H_2O$	ם		A A	ע ת	ע ח	ם	ע ח
Chocolate Syrup		A	B	A	A	A	-	A
Chromic Acid 5%	H <sub>2</sub> CrO <sub>4</sub>	D	В	А	C	А	D	A/70
Chromic Acid 50%		D	В	A	C	В	D	A/70
Citric Acid	$C_{6}H_{8}O_{7}^{\circ}H_{2}0$		A A	A A		A ^	C R	A A
Coffee		A	B	A	A	A	A	A

RATING KEY:		E	Elastomers		Metals		Plastics	
A = Excellent								
B = Good		Buna N	XL <sup>®</sup> TPE	Teflon®	Aluminum	Stainless	Acetal	Polypropylene
C = Fair		8202, 8202-A	8201	8205, 8206	8202-A, 8203	Steel 8206	8202, 8202-A	8201, 8202
D = Not Recom	mended	8203,		8207	8204,	0200	8203,	0_0_
- = Not Availab	le	8204,			8207		8204	
		8203	•		D	A	•	
Copper Sulfate	$Cu(NO_3)_2$ CuSo <sub>4</sub> °5H <sub>2</sub> O	A A	A A	A A	D D	A A	A	A
(5% Solution)	4 2							
Cream Depatured Alcohol		A A	A A	A A	A A	A A	-	A A
Detergents		A	A	A	A	A	A	A
Diesel Fuel		А	D	А	А	А	А	B/70
Dowtherm Oil	$(C_6H_5)_2$ and $(C_6H_5)_2O$	-	D	A	C A	A	-	-
Dig Cleaning Fluids Dyes		-	C D	A	B	A	-	-
Epichlorohydrine	C <sub>3</sub> H <sub>5</sub> C10	D	В	А	D	А	А	B/70
Epsom Salts	MgSO <sub>4</sub> °7H <sub>2</sub> O	A	A	A	A	A	В	A
Ethylene Glycol	$(CH_2OH)_2$	A	A	A	А	А	В	A/120
Formaldehyde	НСНО	C	A	A	A	Ā	A	A
Formic Acid	НСООН	D	А	А	D	А	D	А
Freon 11	CCl <sub>3</sub> F	C	C	A	D	A	A	D
Freon 12 (Wet)	CICF <sub>2</sub>	A	B	A	ע ח	A	A	D
Freon 21	FCHCl	D	D	A	D	-	A	D
Freon 22	HCCIF <sup>2</sup>	D	А	А	D	А	А	D
Freon 31		D	A	A	D	-	A	-
Freon 32 Freon 112		A B	A D	A	D D	-	A	-
Freon 113	Cl <sub>3</sub> CCF <sub>3</sub>	A	D	A	D	А	A	-
Freon 114	$C_2Cl_2F_4$	А	А	А	D	-	А	-
Freen 115	$C_2 CCIF_5$	A	A	A	D	-	-	-
Freon 152a		A	A	A	D	-	A	-
Freon 218		А	А	А	D	-	А	-
Freon C316		A	A	A	D	-	A	-
Freon C318 Freon 13B1	B CE	A	A	A	D	-	A	-
Freon 114B2	D <sub>r</sub> Cl <sub>3</sub>	B	D	A	D	-	-	-
Freon 502		В	А	А	D	-	А	-
Freen TF		A	D	A	D	А	А	-
Freon TMC		B	B	A	D D	-	-	-
Freon T-P35		A	A	A	D	А	-	-
Freon TA		A	В	A	D	А	-	-
Freen TC Freen ME		A	B	A	D	-	-	-
Freon BF		B	D	A	D	Ā	-	-
Fruit Juice		А	В	А	В	А	-	А
Fuel Oil		A	C	A	A	В	В	С
Gasoline Leaded		B A	A	A	A A	- A	A B	D
Glucose	C <sub>6</sub> H <sub>12</sub> O <sub>6</sub>	A	A	A	A	A	A	A
Glue PVA	V 12 V	А	В	А	В	А	В	В
Glycerine	C <sub>3</sub> H <sub>8</sub> O <sub>3</sub>	A	A	A	А	А	A	A
Glycolic Acia Glycols	RUCH2CUUH	A	A	A A	- B	- B	A _	A//0 A
Gold Monocyanide	AuCN	A	-	A	-	A	-	-
Grape Juice		А	C	А	В	А	В	А
Grease	СН	A A	A R	A A	A A	A A	A A	- C/170
Honey	$\sim_{6}^{11}_{14}$	A	A	A	A	A	-	A
Hydraulic Oils (Petroleum)	)	A	В	A	A	A	В	D
Hydraulic Oils (Synthetic)		C	C	А	А	А	В	D

<b>RATING KEY:</b>	RATING KEY: Elastom		astom	ers	s Metals		Plastics	
A = Excellent								
B = Good C = Fair D = Not Recom	mended	<b>Buna N</b> 8202, 8202-A, 8203,	<b>XL® TPE</b> 8201	<b>Teflon</b> <sup>®</sup> 8205, 8206, 8207	Aluminum 8202-A, 8203, 8204, 9207	Stainless Steel 8206	Acetal 8202, 8202-A, 8203,	Polypropylene 8201, 8202
- = Not Availab	le	8204, 8205			8207		8204	
Hydrazine	H,NNH,	В	A	А	-	А	В	A/70
Hydrochloride Acid (20%) Hydrochloride Acid (37%) (Hot)	HCl HCl	C D	A B	A A	D D	D D	D D	A _
Hydrochloride Acid (37%) (Cold)	HCl	C C	A A	A A	D D	D D	D D	A A
Hydrofluoric Acid (20%) Hydrofluoric Acid (50%) Hydrofluoric Acid (75%) Hydrofluoric Acid	HF HF HF	D D D D	B C D	A A A	D D D D	D D D D	D D D D	A B B D
(Conc.) (Hot) Hydrofluoric Acid (Conc.) (Cold)	HF	D	С	А	D	D	D	D
Hydrogen Gas Hydrogen Peroxide Hydrogen Sulfide	H <sub>2</sub> H <sub>2</sub> O <sub>2</sub> H S	A B C	A B A	A A A	A A D	A A A	- D C	A A/70 A
(Wet) (Cold) Hydrogen Sulfide	H <sub>2</sub> S	D	A	A	D	A	C	A
Hydrogen Sulfide Aqueous Ink	Solution	C A	A C	A A	D C	A A	C A	A -
Jet Fuel (JP3, JP4, JP5) Kerosene Lacquers		A A D	D D B	A A A	A A A	A A A	A A A	D D C
Lacquer Solvents Lard Latex		D A A	С В -	A A A	A A A	A A A	A A A	C A
Lavender Oil Lead Acetate Lubricants	Pb(CH <sub>3</sub> CO <sub>2</sub> ) <sub>2</sub>	B B B	C A B	A A A	- D A	- B A	Ā	- A B
Lubricating Oils (Petroleun Magnesium Sulfate Mayonnaise	n) MgSO <sub>4</sub> °7H <sub>2</sub> O	B A A	C A B	A A A	A D D	A A A	A A A	B B
Melamine Mercuric Cyanide	Hg(CN) <sub>2</sub>	C A	- A	A A	- D	D A	A -	- A
Methane Methanol (See Alcohol Met Methyl Ethyl Ketone	CH <sub>4</sub> thyl) CH <sub>3</sub> CO°CH <sub>2</sub> ChH <sub>3</sub>	A A D	D A D	A A A	A B A	A A A	A A B	В А/120 С
Methylene Chloride Milk Molasses Mutterd	CH <sub>2</sub> CI <sub>2</sub>	D A A P	C B A P	A A A	D A A B	A A A	A A B	D A A
Naptha Napthalene	C <sub>10</sub> H <sub>8</sub>	B D	C C C	A A A	A B	A B	A A A	А С А/70
Nickel Acetate Nickel Chloride Nickel Sulfate	Ni(CH <sub>3</sub> CO <sub>2</sub> ) <sub>2</sub> NiCl <sub>2</sub> NiSO,	B A A	A A A	A A A	D D D	- A A	- B A	- A A
Nitric Acid (5-10% Sol.) Nitric Acid (20% Sol.) Nitric Acid (50% Sol.)	HNO <sub>3</sub> HNO <sub>3</sub> HNO <sub>3</sub>	D D D	A A D	A A A	D D D	A A A	C C C	A/120 B/70 B/70
Nitric Acid (Conc.) Nitrobenzene Nitrogen (Gas) N-Octane	HNO3 $C_6H_5NO_2$ $N_2$ $C_8H_{10}$	D D A A	D C A B	A A A A	D C A	B B A	C B A	D A A D
Oils Aniline Anise	o 10	D -	B D	A A	C -	A A	-	A -

RATING KEY:	Elastomers		Metals		Plastics		
A = Excellent							
B = Good	Buna N	XL® TPE	Teflon®	Aluminum	Stainless	Acetal	Polypropylene
$\Gamma = Fair$	8202,	8201	8205, 8206	8202-A, 8203	Steel 8206	8202, 8202-A	8201,
	8202-A, 8203.		8200, 8207	8203, 8204.	8200	8202-A, 8203,	8202
D = Not Recommended	8204,			8207		8204	
- = Not Available	8205						
Bay	-	-	А	-	А	-	-
Bone	A	C C	A	-	A	-	-
Cinnamon	- A	c	A	-	A	-	-
Citric	A	C	А	-	А	В	А
Clove	A	C	A	-	A	-	В
Corn	A A	A A	A A	B	A A	- -	A A
Cotton Seed	A	A	A	B	A	A	A
Creosote	A	D	А	А	А	-	D
Diesel Fuel	A	B	A	A	A	A	B/70
Fuel	A	D	A	А	A	В	B/70
Hydraulic	A	-	- -	-	A	B	-
Lemon	A	D	А	-	A	-	D
Linseed	A	А	А	А	А	А	А
Mineral	A	C	A	A	A	A	B
Orange	A	A C	A	- A	A	- A	A
Palm	A	C	A	А	A	А	-
Peanut	A	C	А	А	А	-	D
Peppermint	A	D	A	-	A	-	D
Pine Rape Seed	A A	C B	A A	A	A A	-	-
Rosin	A	A	A	A	A	В	A
Sesame Seed	A	-	А	А	А	-	-
Silicone	A	A	А	-	A	A	A
Soybean	A	В	A	А	A	В	A
Tanning	A	-	A	-	A	D	-
Turbine	A	С	А	А	А	-	B/70
Paint Thinner-Duco	A	D	A	A	A	A	D
Paraffin Perchloric Acid HC10	A	B	A A	A D	A	A C	A A
Perchloroethylene $C_2Cl_4$	C	C	A	D	A	A	D
Petrolatum	A	D	А	В	А	А	А
Petroleum-Below 250	A	C	А	A	A	-	A/70
Petroleum-Above 250 Phenol (Carbolic Acid) C H OH			A	A	A	-	-
Phosphoric Acid-20% $H_2PO_4$	C	A	A	D	B	D	A/120
Phosphoric Acid (To 40% Solution)	D	А	А	D	А	D	A/120
Phosphoric Acid (40-100% Solution)	D	A	А	D	В	D	A/120
Phosphoric Acid Crude $H_3PO_4$ Photographic Developer		B	A A		C 4	- -	A/120
Pickling Solution	-	B	A	-	-	D	-
Plating Solutions							
Antimony	A	A	А	D	A	A	A
Arsenic	A	A	A	C C	A	A	A
Bronze	A	A	A	C	A	B	A
Cadium	A	A	A	C	-	C	A
Chrome	D	A	Α	C	А	D	A
Copper	A	A	A	C C	-	-	A
Indium	A A	A	A A		A A	-	A
Iron	A	A	A	č	A	-	A
Lead	A	А	А	С	-	A	B/70
Nickel	A	A	A	C C	-	-	A
Sliver	A	A	А	C	А	-	A

<b>RATING KEY</b> :	ATING KEY: Elastomers		ers	Me	etals	Plastics		
A = Excellent								
B = Good C = Fair		<b>Buna N</b> 8202, 8202-A, 8203,	<b>XL® TPE</b> 8201	<b>Teflon</b> <sup>®</sup> 8205, 8206, 8207	Aluminum 8202-A, 8203, 8204,	<b>Stainless</b> <b>Steel</b> 8206	Acetal 8202, 8202-A, 8203,	Polypropylene 8201, 8202
D = Not Recomi	nended	8204,			8207		8204	
- = Not Availabl	e	8205						
- <b>= Not Availab</b> Tin Zinc Potash Potassium Chloride Propane (Liquified) (LPG) Propylene Glycol Rum Rust Inhibitors Salad Dressings Salt Water Sea Water Sea Water Sewage Shellac (Bleached) Shellac (Orange) Silicone Silicone Greases Silver Bromide Silver Nitrate Soap Solutions Sodium Bisulfate Sodium Chloride (Salt) Sodium Hydroxide (20%) Sodium Hydroxide (20%) Sodium Hydroxide (30% Sol.) Sodium Hydroxide (30% Sol.) Sodiu	E         K <sub>2</sub> CO <sub>3</sub> KCI         C <sub>3</sub> H <sub>8</sub> C <sub>3</sub> H <sub>6</sub> (OH) <sub>2</sub> NaCl/H <sub>2</sub> 0         [(CH <sub>3</sub> ) <sub>2</sub> SiO <sub>2</sub> )]         AgNO <sub>3</sub> g Soda)         NaHSO <sub>3</sub> NaCl         NaOH         NaOH         NaOH         NaCl0	8205 A A A A A A A A A A A A A A A A A A A	A A A D A B B B B B A B B B A A A A A A	A A A A A A A A A A A A A A A A A A A	C C C B A A A B B A A B B D D C A D D D D D D D D D D D D D D D D	A A A C A A A A A A A A A A A A A A A A	A A A A D A A A A A A A A A A A A A A A	A A A A B A A A A A A A A A A A A A A A
Sulfur Dioxide Sulfuric Acid (Dilute) Sulfuric Acid (To 10%) Sulfuric Acid (To 10%) Sulfuric Acid (10-75%) Sulfuric Acid (20% Oleum) Syrup Toluene Tomato Juice Transformer Oil Transmission Fluid Type A Trichloroacetic Acid Trinitroltoluene (TNT) Turpentine Unleaded Gasoline Vegetable Oils Versilube F44 & F50 Vinegar Water Salt White Pine Oil White Water (Paper Mill) Wood Oil Xylene Zeolites Zinc Acetate Zinc Chloride	$SO_{2} H_{2}SO_{4} H_{2}SO_{4} H_{2}SO_{4} H_{2}SO_{4} H_{2}SO_{4} H_{2}SO_{4} H_{2}SO_{4} H_{2}SO_{4} C_{7}H_{8}$ $CCl_{3}COOH CH_{3}C_{6}H_{2}(NO_{2})_{3} C_{10}H_{16} H_{2}O/CaCl_{2}$ $H_{2}O/CaCl_{2} C_{6}H_{4}(CH_{3})_{2} Zn(C_{2}H_{3}O_{2})_{2} ZnCl_{2}$	D D C D D A C A B A C D A C D A C A B - A D C C A	C A A B C C C C C C C B B C C C C C C C	A B C D A A A A A A A A A A A A A A A A A A	D D D D A A A A A D - A A A B - - A A A - D B - - A A A - D D D D D D D D D D D D D D	A B B A A A A A A D - A A A A A A A A A A A A	D D D D D A A A A A D - - A A A - B A A A - - A A - - A A - - - A A A - - - - A A A A - - - - - - - - - - - - - - - - - - - -	A/70 A A A B/70 D A D A B/70 - B/70 - B/70 - D D A/120 - A A - A A - A A

# **Diaphragm Pump Accessories**

Product Number	ltem	Description
317803-3	Air Hose	3' hose with 3/8'' ID. 200 psi working pressure, 800 psi burst pres- sure. Coupling spec: 1/4'' NPTF(m) × 1/4'' NPTF(m)
338777	Suction Hose (338776) with Strainer (338685)	6' Hose with 1/2'' ID Coupling spec. 3/4'' NPT(m) x 1/2'' NPT(m)
338685	Oil Strainer	3/4"
340195	Wall Bracket	For 1'' pumps 8203, 8205, 8206 and 8207
340196	Wall Bracket	For 1/2'' pump 8202
340197	Mixing Manifold	For 1/2'' pump 8202
340198	Mixing Manifold	For I'' pump 8203
317849-6	Suction Hose	3/4'' ID Hose 3/4'' NPTF(m) x 3/4'' NPTF(m) Couplings
317849-15	Suction Hose	3/4'' ID Hose 3/4'' NPTF(m) × 3/4'' NPTF(m) Couplings
339683	Strainer	I'' NPT(F)

This guide is intended as a general guide for pump material selection. This listing includes the most common liquids used in industrial and processing applications. The guide data has been compiled from many sources believed to be reliable. No guarantee is implied or expressly stated herein. Because of the extensive scope of this field, the tabulation is not complete nor conclusive. Corrosion rates may vary widely with concentration, temperature, and the presence of abrasives. Impurities or other trace elements common in industrial liquids may inhibit or accelerate the reaction of the material being pumped and the effect on pump materials. Whereas chemicals or liquids may independently be compatibile with a type of pump construction, the combination of several liquids may change the chemical compatibility with a given metal, plastic and elastomer. It is important that this is remembered when selecting acceptable materials of construction for a pump. It must be emphasized that none of these recommendations constitute warranty of product performance and are only general guidelines of expected material performance.

WARNING: See caution below regarding metal selection and/or solvent pumping.

**RATING KEY:** We do not recommend the use of any material of construction with a rating of "C", "D", or "-"; we only recommend a material of construction with a rating of "A" or "B".

#### HALOGENATED SOLVENTS WARNING

The corrosive action of halogenated solvents which come in contact with aluminum or galvanized wetted parts can, in certain situations, cause an explosion. Solvent manufacturers typically add inhibitors to prevent this corrosive action, but there is no guarantee that the inhibitors will work in all circumstances. This is especially true of reclaimed or used solvents in which the inhibitors are degraded. Alemite advises that stainless steel or PVDF pumps be used to pump halogenated solvents. Consult your material supplier for compatibility with aluminum. Typical examples of halogenated hydrocarbon solvents (H.H.C) include, but are not limited to, the following:

Carbon Tetrachloride Chloroform Dichlorethylene Methyl Chloride Methylene Chloride Trichloroethane Tricholoroethylene





167 Roweland Drive Johnson City, TN 37601 Toll Free U.S.: 866-4-Alemite Toll Free Canada: 800-267-8022 International: 803-802-0001 Fax U.S.: 800-648-3917 Fax Canada: 800-267-2880 Fax International: 803-802-0192 www.alemite.com