

# VERSAMATIC Specifications

## **VERSA-MATIC PUMP**

- ▶ **Plastic Pumps**
- ▶ **Metallic Pumps**
- ▶ **Specialty Pumps**
- ▶ **Accessories**
- ▶ **Diaphragms**

**Pump Curves,  
Dimensions  
and Specifications**

**Application  
and Installation Guides**

**Materials of  
Construction,  
Temperature Limits  
and Wetted Material  
Compatibility**

**Troubleshooting  
Guide**



**IDEX**  
IDEX CORPORATION

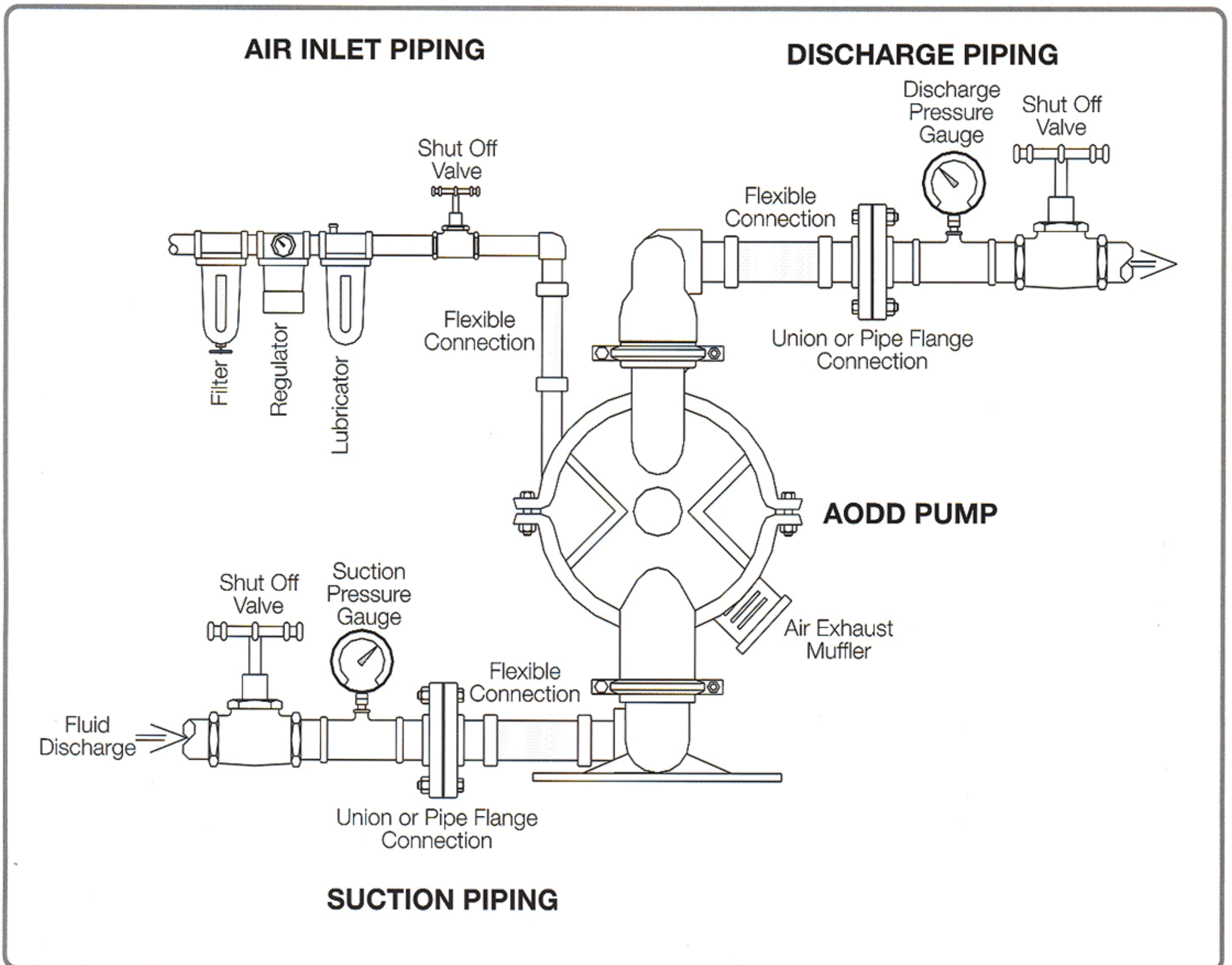
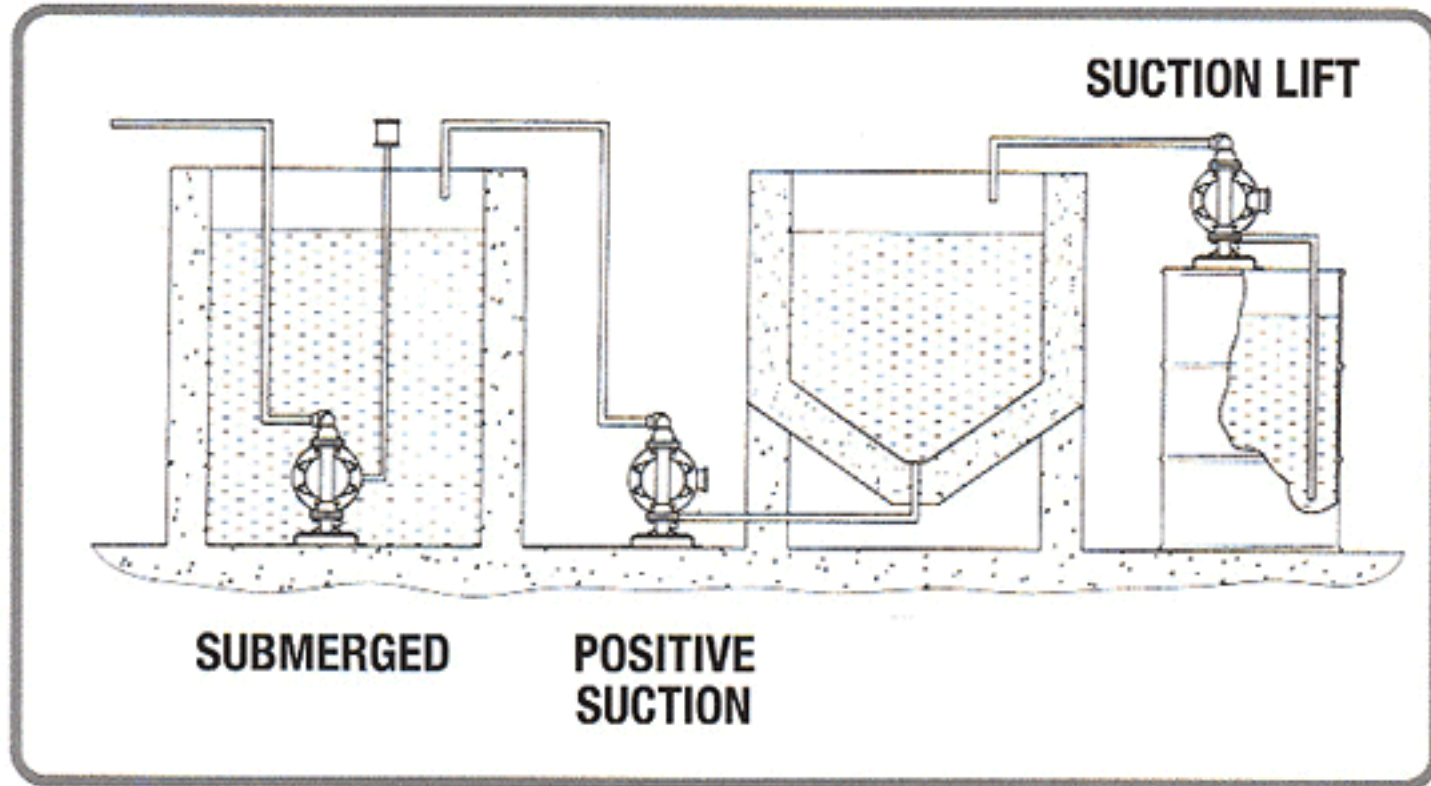


# Applications and Installations

**SUBMERGED:** Versa-Matic Pumps are totally submersible. It is important that the air exhaust be ported above the level of the fluid, and that the materials of construction also be compatible with the fluid that the pump is submerged in.

**POSITIVE SUCTION:** For emptying tanks it is important to limit the inlet fluid pressure to approximately 10 PSI (0.69 bar) for Teflon® diaphragms and 15 PSI (1.03 bar) for rubber and thermo-plastic diaphragms. Greater inlet pressure can cause erratic pump operation and premature diaphragm failure.

**SUCTION LIFT:** The suction capabilities of each pump may vary due to system design, product being pumped, and pump materials of construction. Please consult the factory with specific criteria.





# Elima-Matic® Pumps

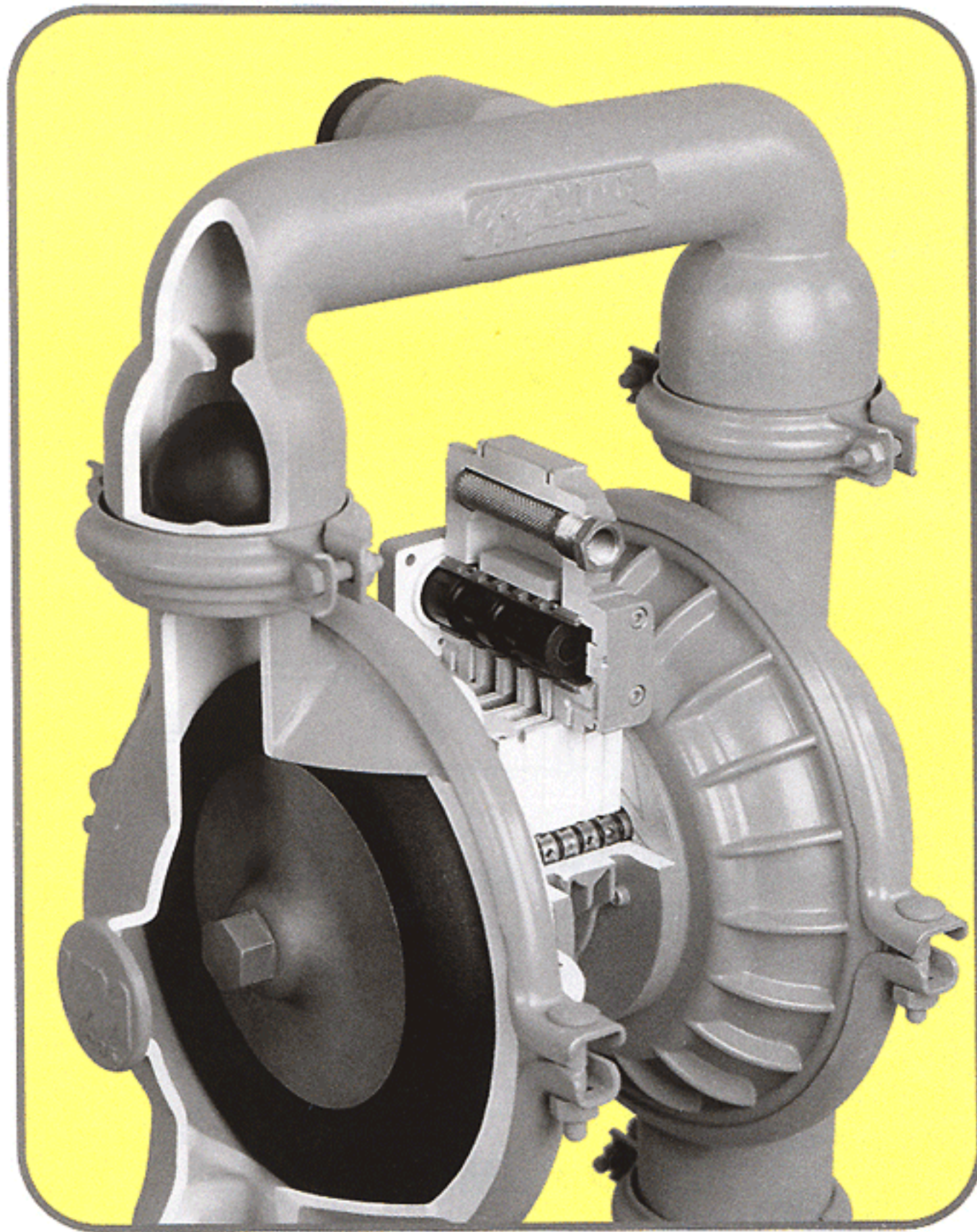
## With The Exclusive Elima-Matic® Air Valve System

### • ANTI-STALLING • NON-ICING • LUBRICATION-FREE

True to their name, ELIMA-MATIC® pumps virtually eliminate intermittent pump stalling caused by air valve system freeze-ups. By utilizing the patented ELIMA-MATIC® anti-stalling, non-icing, lubrication-free valve system, this common air diaphragm pump problem is a thing of the past.

#### Eliminating Downtime

ELIMA-MATIC® ensures continuous, reliable pump performance. Here's how it works:



The valve spool is positively shifted by the transfer of a pilot shaft. When the main shaft travels to full-stroke length, the inner piston on the opposite side depresses an internal pilot shaft which ports a burst of compressed air to the main spool valve. The main spool valve reciprocates in a positive reliable shift. As the pilot shaft moves back and forth, an air burst is ported to the main spool which causes it to shift every time, eliminating stalling.

*Available for 1-1/4", 2" and 3" pumps.  
Consult Versa-Matic or your local distributor for details.*

#### Losing Your Cool

By evacuating compressed air through air passages that are designed to allow a controlled expansion, a considerable reduction in the cooling effect occurs. In addition, the center block and air valve surface areas are ribbed and act as heat exchangers to dissipate the rapid cooling effect.

#### Ease of Maintenance

The ELIMA-MATIC® not only eliminates freezing and stalling, but maintenance headaches as well. The ELIMA-MATIC® has only two easily accessible center block o-rings — some competitors pumps have as many as seven. The pilot shaft o-rings come out as a complete assembly and are easily replaced without the use of an o-ring tool. And the air valve can be worked on without taking the pump's center section apart.

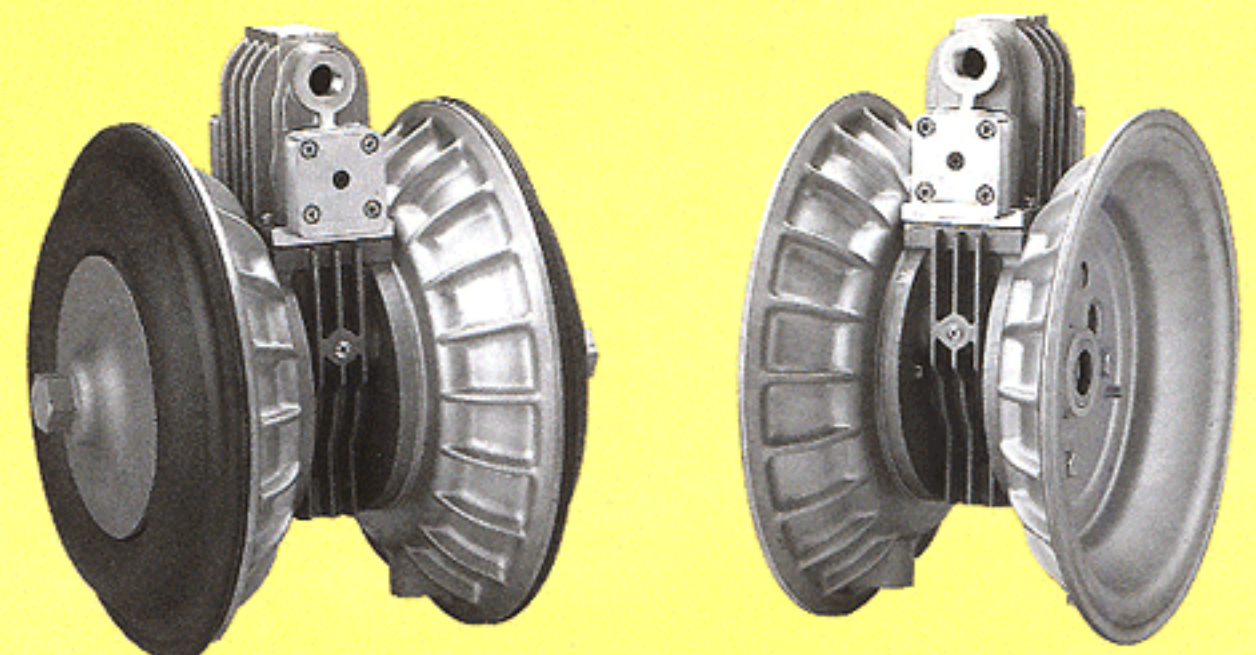
#### Maximizing Pumping Performance

Versa-Matic pumps can already handle anything from water to 90% solids easily and efficiently. Add the ELIMA-MATIC® air valve system and you've got a pump that offers powerhouse performance.

#### Air Valve Upgrades

Also available as a conversion kit for Versa-Matic V4, V2 and V3 pumps, as well as Wilden® 1 1/4", 2" and 3" metallic pumps, the ELIMA-MATIC® comes with either an aluminum, stainless steel, or Teflon-coated air section. (The air chambers, air valve and center block can be nickel-plated for diverse applications.)

#### ELIMA-MATIC® RETRO FIT CENTERS FOR V-SERIES AND WILDEN® PUMPS



Complete Kit

Center Section Only

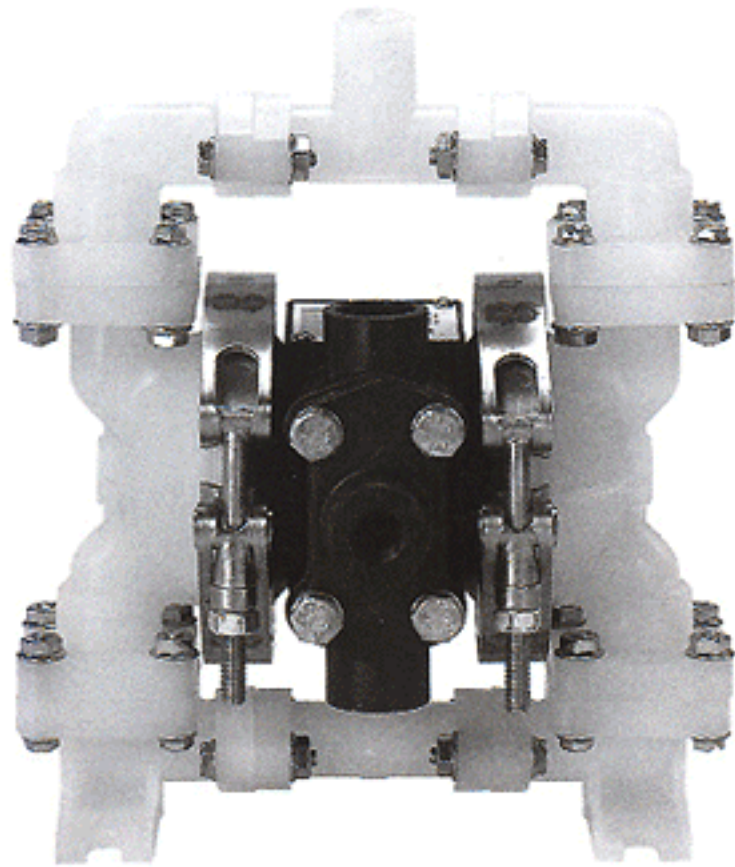


# E6 1/4" Plastic Bolted Pumps Specifications and Performance

## SPECIFICATIONS

E6

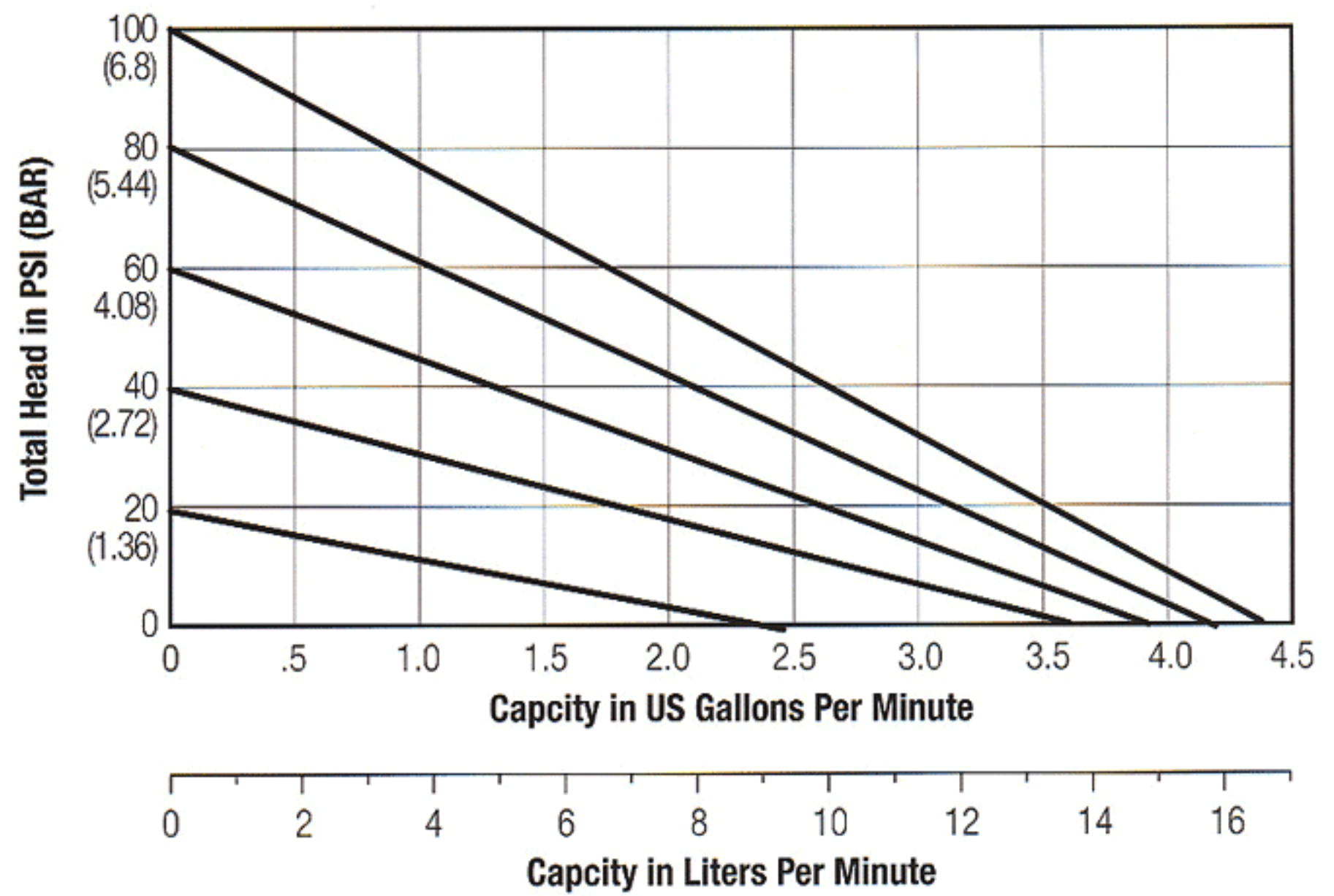
- FLOW RATE** adjustable to.....0-4 gpm (151 lpm)  
**PORT SIZE**  
 Inlet and Outlet.....0.25" NPTF I.D.  
 .....0.50" NPTM O.D.  
**AIR INLET** .....0.25" NPTF  
**AIR EXHAUST** .....0.75" NPTF  
**SUCTION LIFT** .....5.83' Dry/25.5' Wet  
 .....(1.78m/777m)  
**MAX. PARTICLE SIZE (Diameter)** ....0.3125" (1mm)  
**SHIPPING WEIGHTS**  
 Acetal.....5.00 lbs (2.27 kg)  
 Polypropylene .....3.38 lbs (1.53 kg)  
 PVDF.....4.13 lbs (1.87 kg)



## PERFORMANCE

Determined by actual flow meter tests.

E6

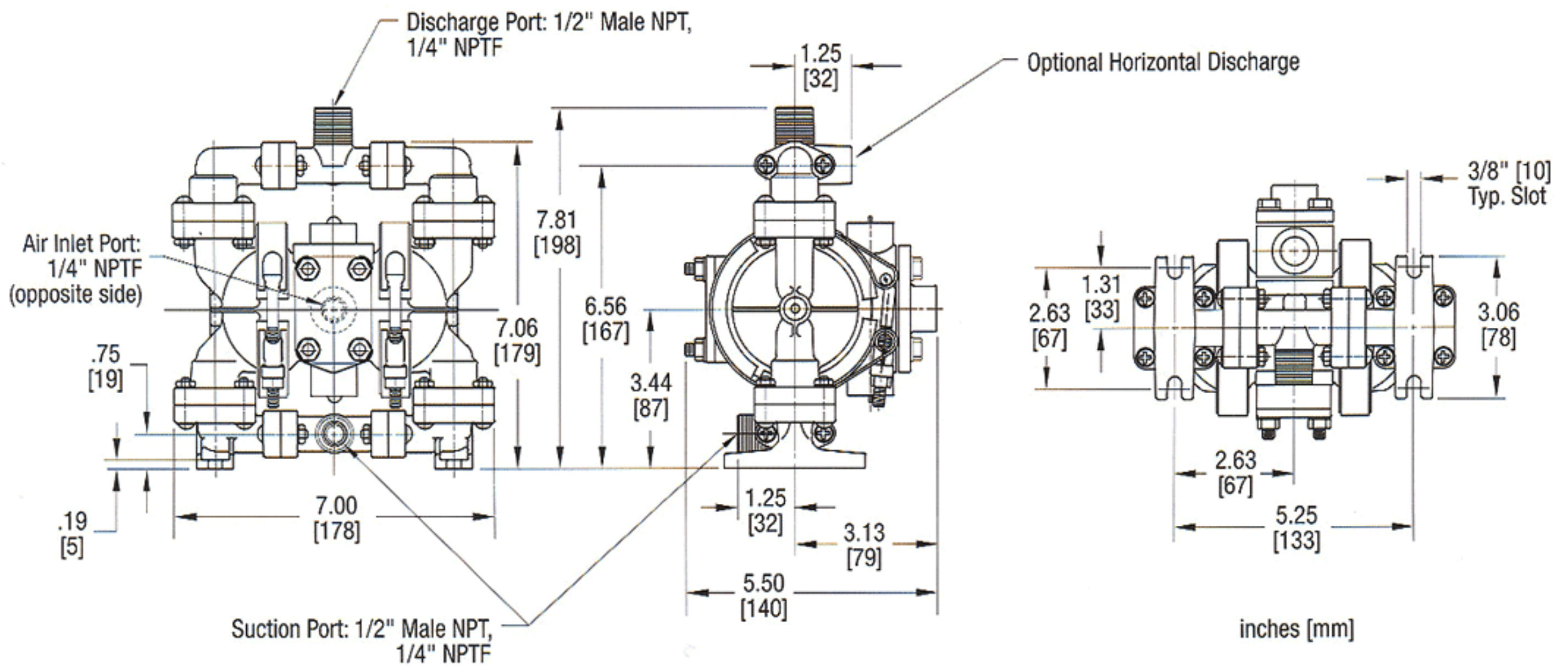


**CAUTION:** Do not exceed 125 psig (8.5 bars) air supply or liquid pressure.

5

## DIMENSIONS Consult factory for certified drawings.

E6





# E5 1/2" Bolted Metallic Pumps Specifications and Performance

## SPECIFICATIONS

E5

**FLOW RATE** adjustable to.....0-14 gpm (53 lpm)  
**PORT SIZE**

Inlet.....0.50" NPT

Discharge.....0.50" NPT

**AIR INLET**.....0.375" NPT

**AIR EXHAUST**.....0.375" NPT

**SUCTION LIFT**...15' Dry/25' Wet (6.096m/7.62m)

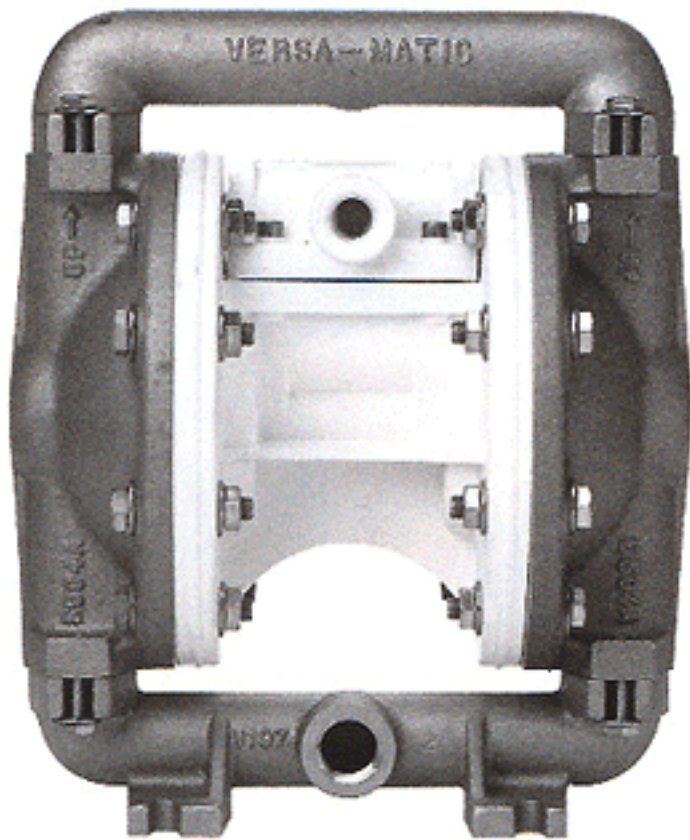
Teflon®.....5' Dry/10' Wet (1.52m/3.048m)

**MAX. PARTICLE SIZE (Dia.)**.....0.0625" (1.6mm)

### SHIPPING WEIGHTS

Stainless Steel, Hastelloy C .....18 lbs (8.17 kg)

Aluminum.....15 lbs (6.8 kg)

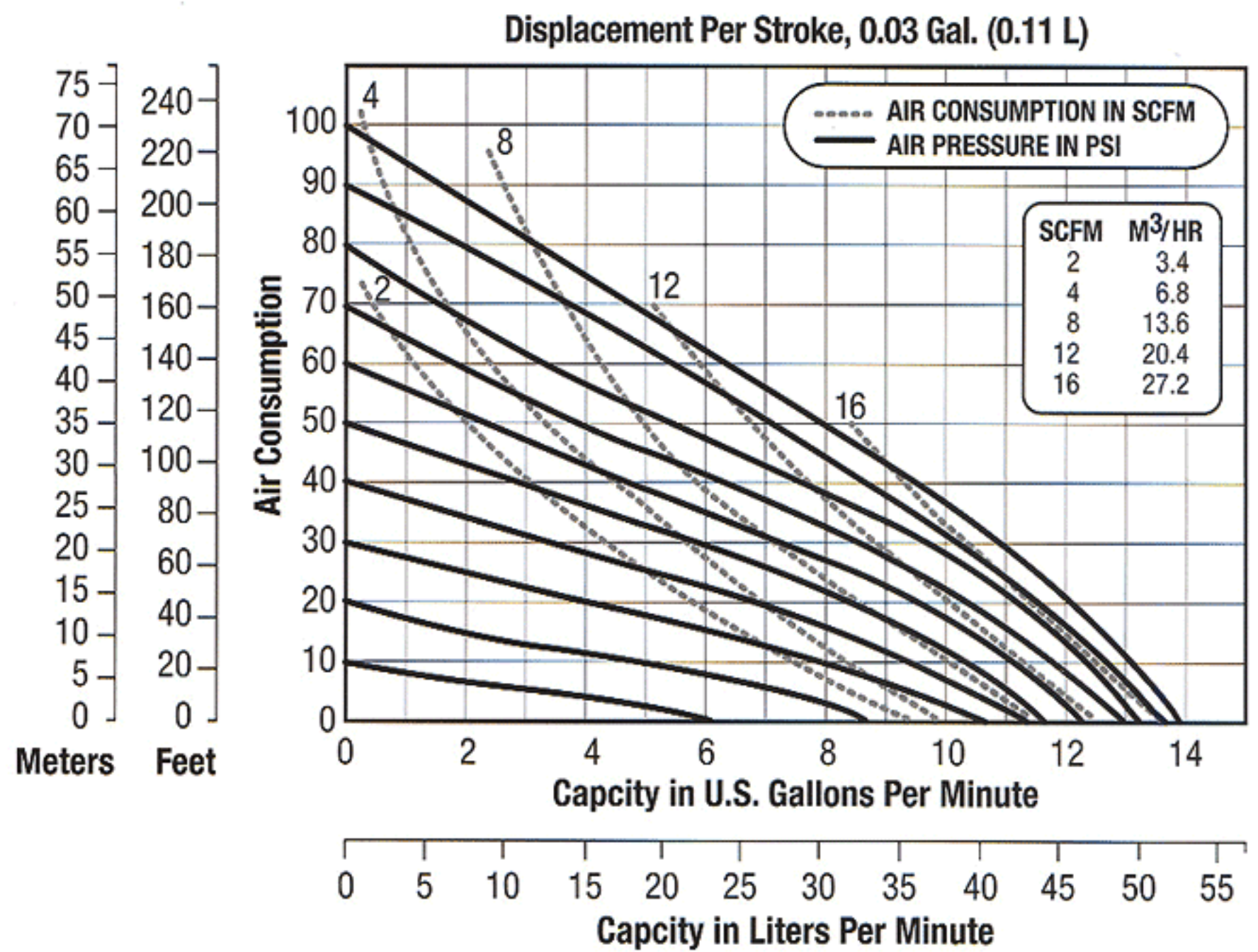


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## PERFORMANCE

Determined by actual flow meter tests.

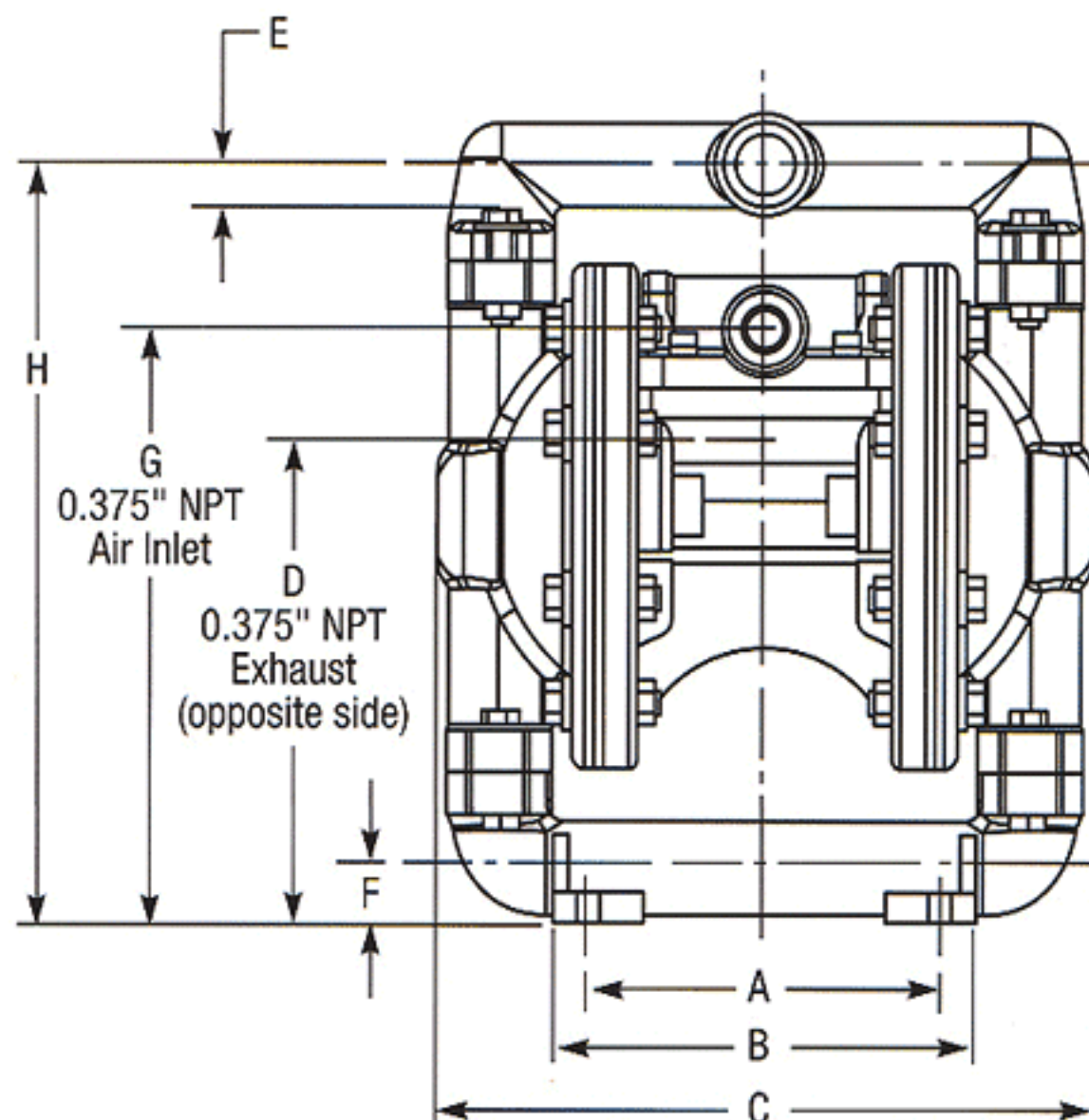
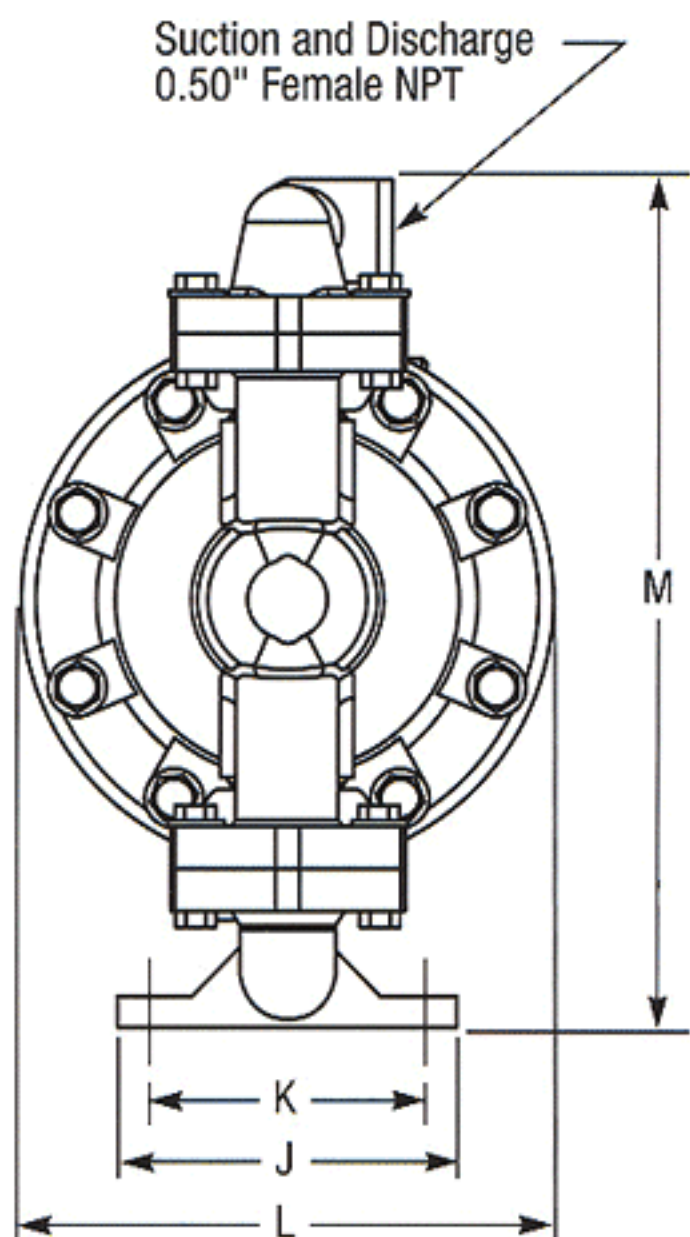
E5



**CAUTION:** Do not exceed 100 psig (6.9 bars) air supply or liquid pressure.

## DIMENSIONS Consult factory for certified drawings.

E5



DIMENSIONS MODELS E5 METALLIC BOLTED		
ITEM	INCHES	METRIC MM
A	4.37	111
B	5.25	133
C	8.00	203
D	6.75	171
E	0.50	13
F	1.00	25
G	8.00	203
H	10.18	259
J	4.00	102
K	3.25	83
L	6.25	159
M	10.25	260

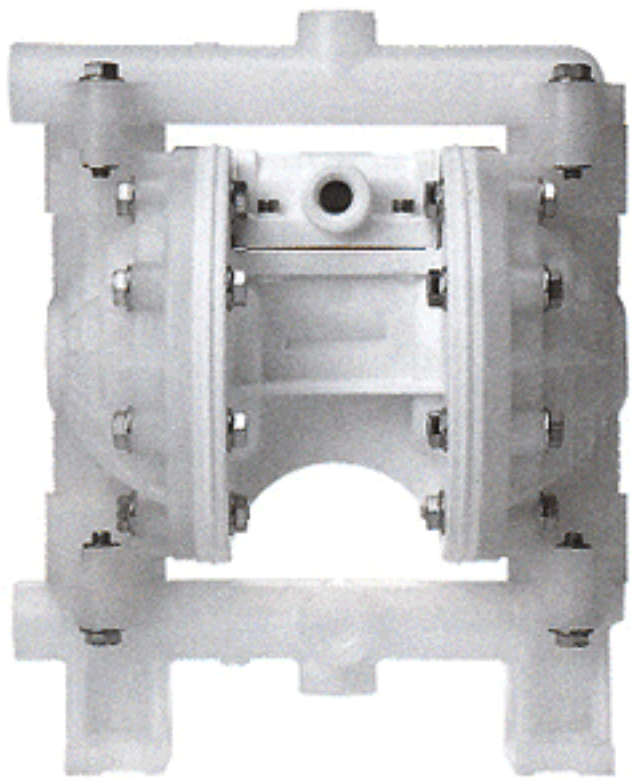


# E5 1/2" Plastic Bolted Pumps Specifications and Performance

## SPECIFICATIONS

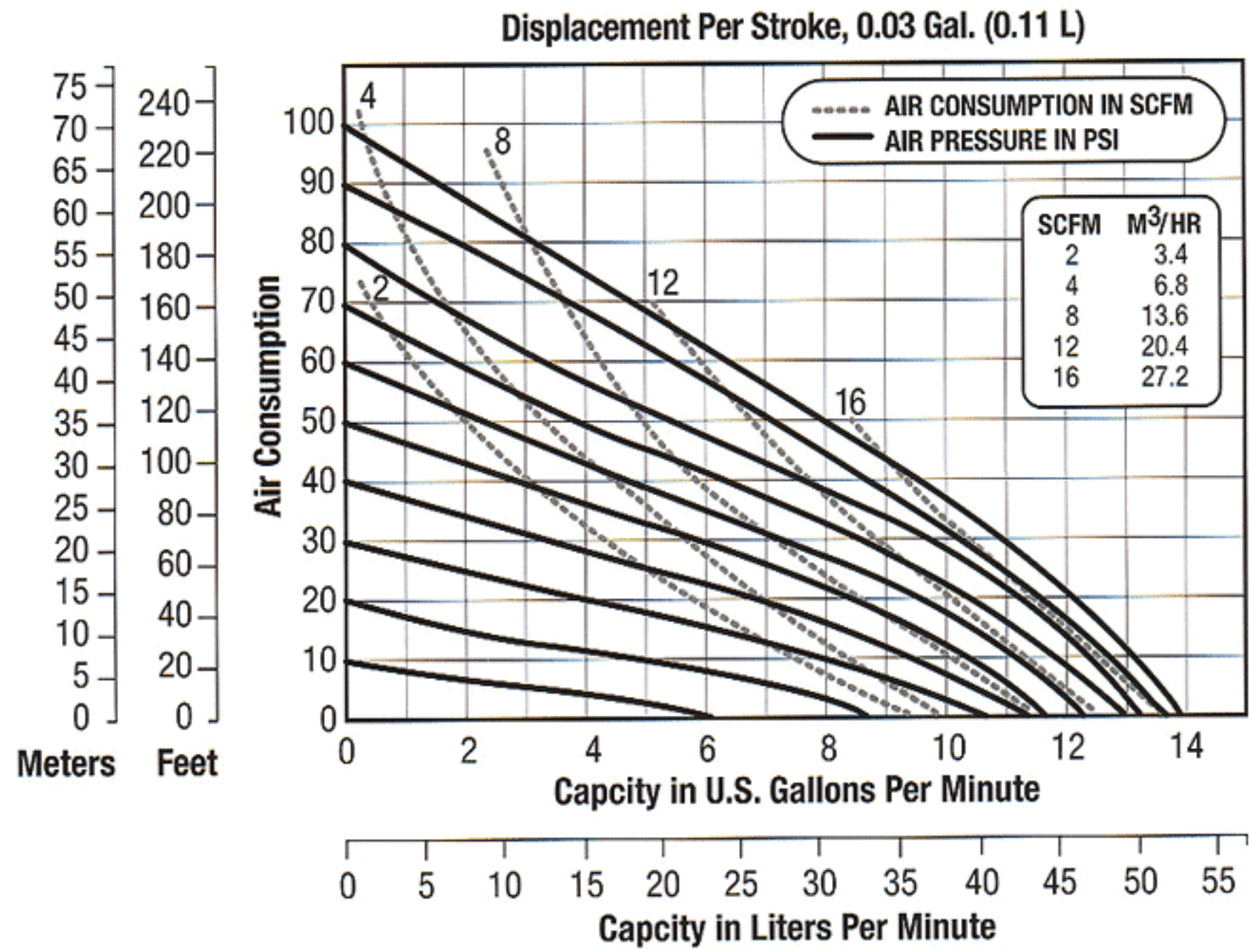
E5

**FLOW RATE** adjustable to.....0-14 gpm (53 lpm)  
**PORT SIZE** Inlet and Discharge  
 ID .....0.50" NPT  
 OD .....0.75" NPT  
**AIR INLET** .....0.375" NPT  
**AIR EXHAUST** .....0.375" NPT  
**SUCTION LIFT**...15' Dry/25' Wet (6.096m/7.62m)  
 Teflon®.....5' Dry/10' Wet (1.52m/3.048m)  
**MAX. PARTICLE SIZE** (Diameter) ..0.0625"(1.6mm)  
**SHIPPING WEIGHTS**  
 Polypropylene .....10 lbs (4.54 kg)  
 Kynar® .....10 lbs (4.54 kg)  
 Teflon® .....12 lbs (5.45 kg)



## PERFORMANCE Determined by actual flow meter tests.

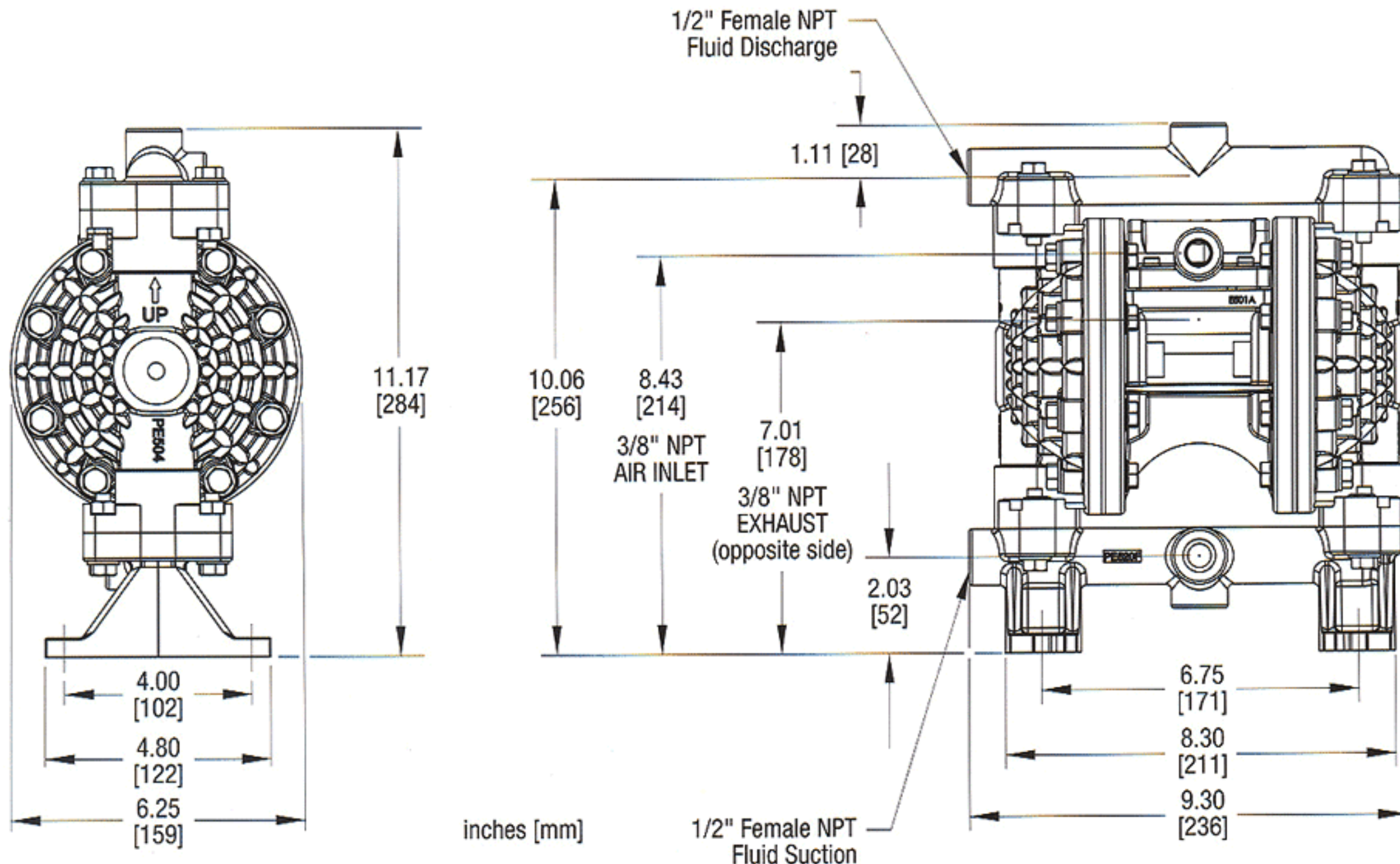
E5



**CAUTION:** Do not exceed 100 psig (6.9 bars) air supply or liquid pressure.

## DIMENSIONS Consult factory for certified drawings.

E5





# E1 1" Bolted Metallic Pumps Specifications and Performance

## SPECIFICATIONS

E1

**FLOW RATE** adjustable to.....0-35 gpm (132 lpm)

**PORT SIZE**

Inlet.....1.0" Female NPT (BSP)

Discharge.....1.0" Female NPT (BSP)

**AIR INLET**.....0.375" NPT

**AIR EXHAUST**.....0.50" NPT

**SUCTION LIFT**.....15' Dry/25' Wet (4.57m/7.62m)

Teflon®.....10' Dry/20' Wet (3.05m/6.10m)

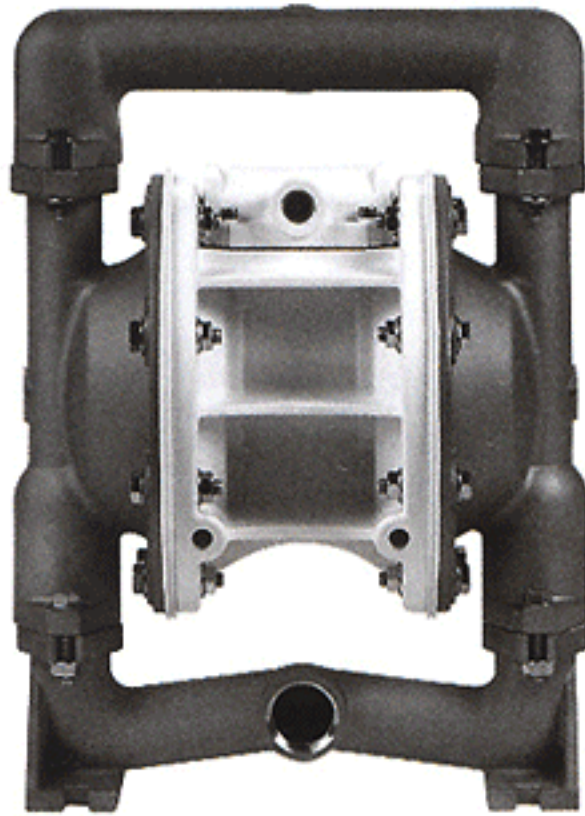
**MAX. PARTICLE SIZE** (Diameter) ..0.125"(3.17mm)

**SHIPPING WEIGHTS**

Aluminum.....31 lbs (14.07 kg)

Stainless.....42 lbs (19.05 kg)

Hastelloy C.....42 lbs (19.05 kg)

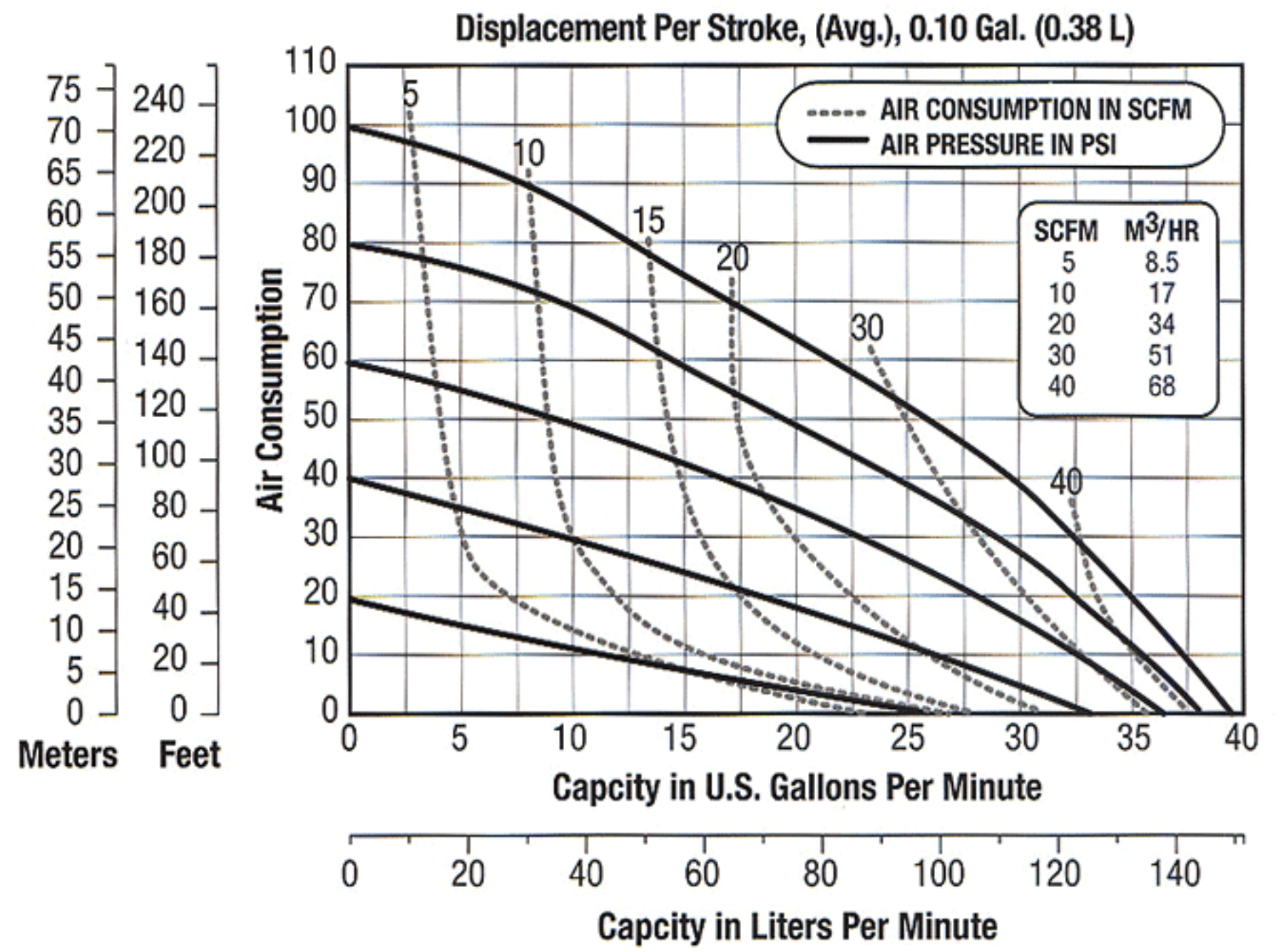


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## PERFORMANCE

Determined by actual flow meter tests.

E1



**NOTE:** For E1 pumps fitted with Teflon® diaphragms, reduce water discharge figures by 20%. Suction lift is reduced to 10' (3.05m) dry and 20' (6.10m) wet.

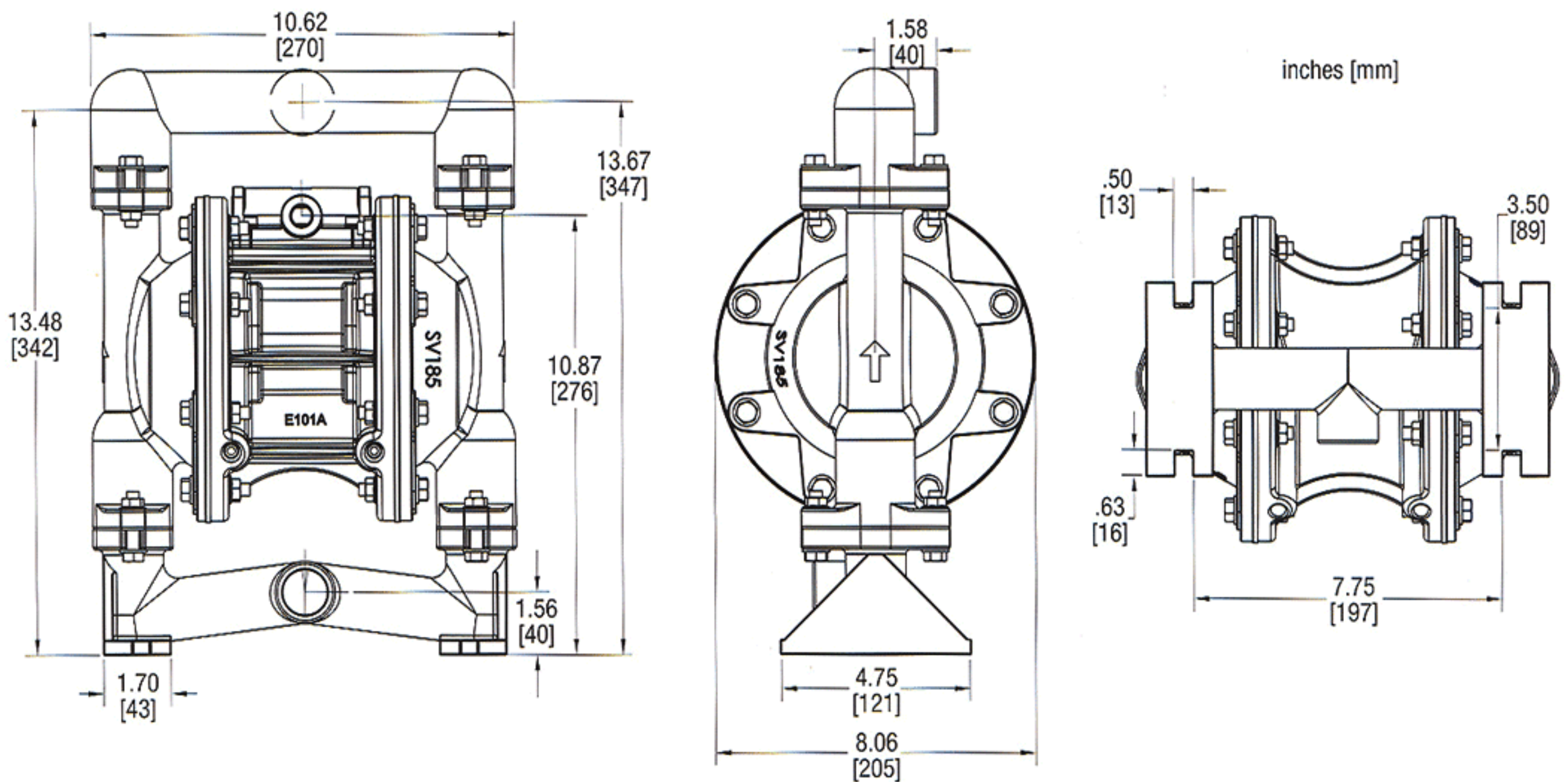
**CAUTION:** Do not exceed 125 psig (8.5 bars) air supply or liquid pressure.

**UL Listed Models Available.**

## DIMENSIONS

Consult factory for certified drawings.

E1





# E1 1" Plastic Bolted Pumps: Standard Porting Specifications and Performance

## SPECIFICATIONS

E1

**FLOW RATE** adjustable to.....0-35 gpm (132 lpm)

### PORT SIZE

Inlet.....1.0" ANSI/DIN Flanged

Discharge.....1.0" ANSI/DIN Flanged

**AIR INLET**.....0.375" NPT

**AIR EXHAUST**.....0.50" NPT

**SUCTION LIFT** ..15' Dry/25' Wet (4.57m/7.62m)

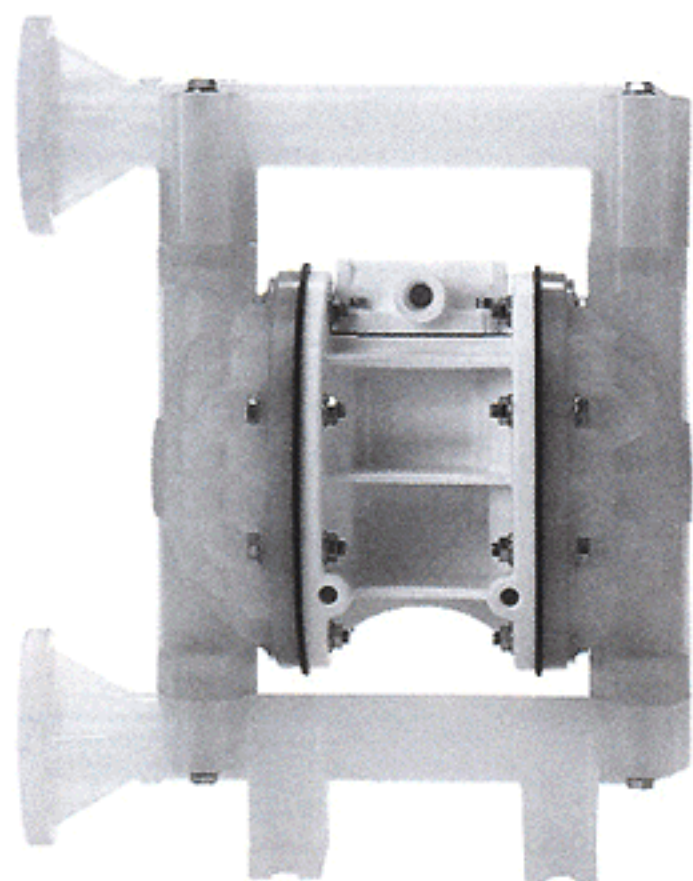
Teflon® .....10' Dry/20' Wet (3.05m/6.10m)

**MAX. PARTICLE SIZE** (Diameter) 0.125"(3.17mm)

### SHIPPING WEIGHTS

Polypropylene .....24 lbs (10.9 kg)

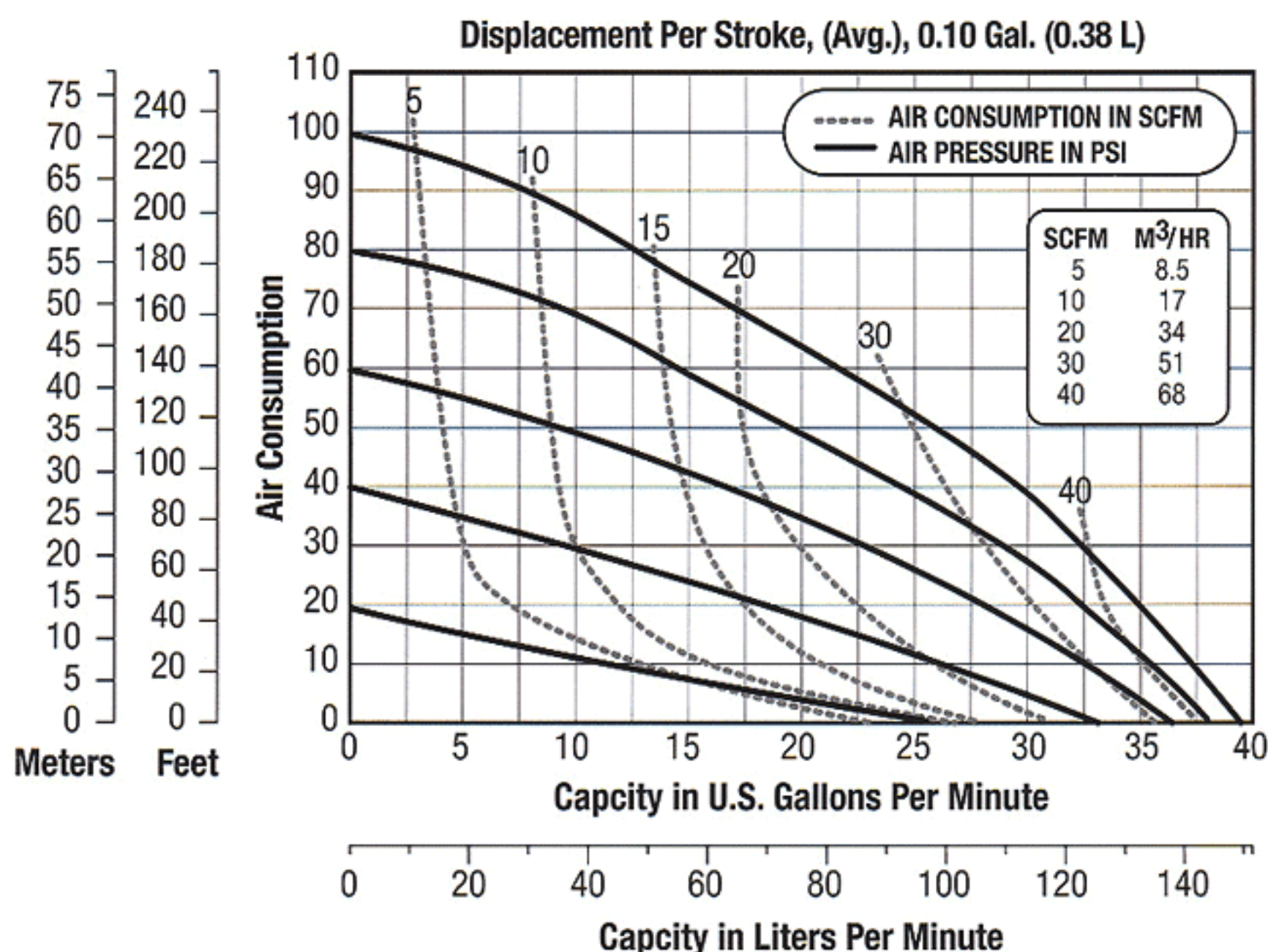
Kynar®.....24 lbs (10.9 kg)



## PERFORMANCE

Determined by actual flow meter tests.

E1



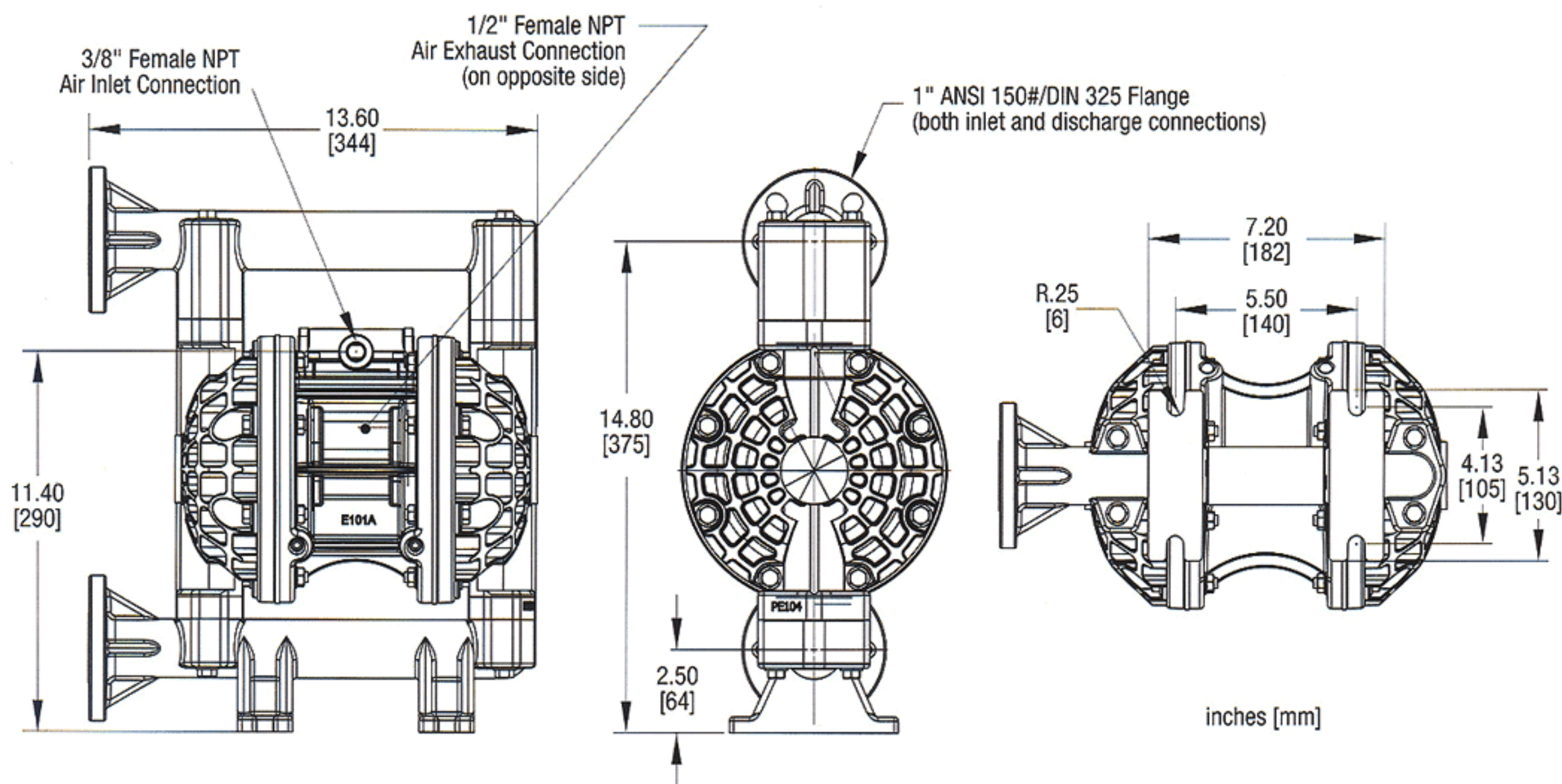
**NOTE:** For E1 pumps fitted with Teflon® diaphragms, reduce water discharge figures by 20%. Suction lift is reduced to 10' (3.05m) dry and 20' (6.10m) wet.

**CAUTION:** Do not exceed 100 psig (6.9 bars) air supply or liquid pressure.

**OPTIONS:** Center Port and Split Manifolds Available.

## DIMENSIONS Consult factory for certified drawings.

E1





# E1 1" Plastic Bolted Pumps: Optional Porting Specifications and Performance

## SPECIFICATIONS

E1

**FLOW RATE** adjustable to.....0-35 gpm (132 lpm)

**PORT SIZE**

Inlet.....1.0" ANSI/DIN Flanged

Discharge.....1.0" ANSI/DIN Flanged

**AIR INLET**.....0.375" NPT

**AIR EXHAUST**.....0.50" NPT

**SUCTION LIFT** ..15' Dry/25' Wet (4.57m/7.62m)

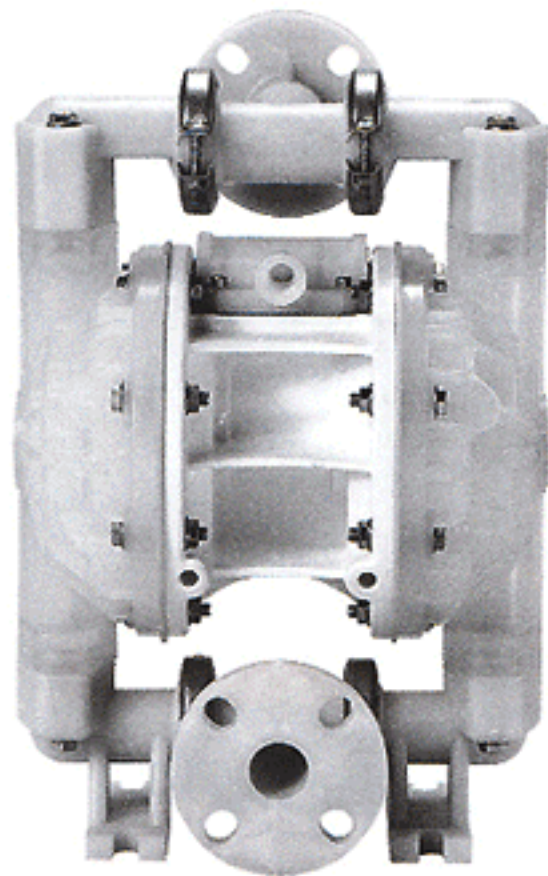
Teflon® .....10' Dry/20' Wet (3.05m/6.10m)

**MAX. PARTICLE SIZE** (Diameter) 0.125"(3.17mm)

**SHIPPING WEIGHTS**

Polypropylene .....24 lbs (10.9 kg)

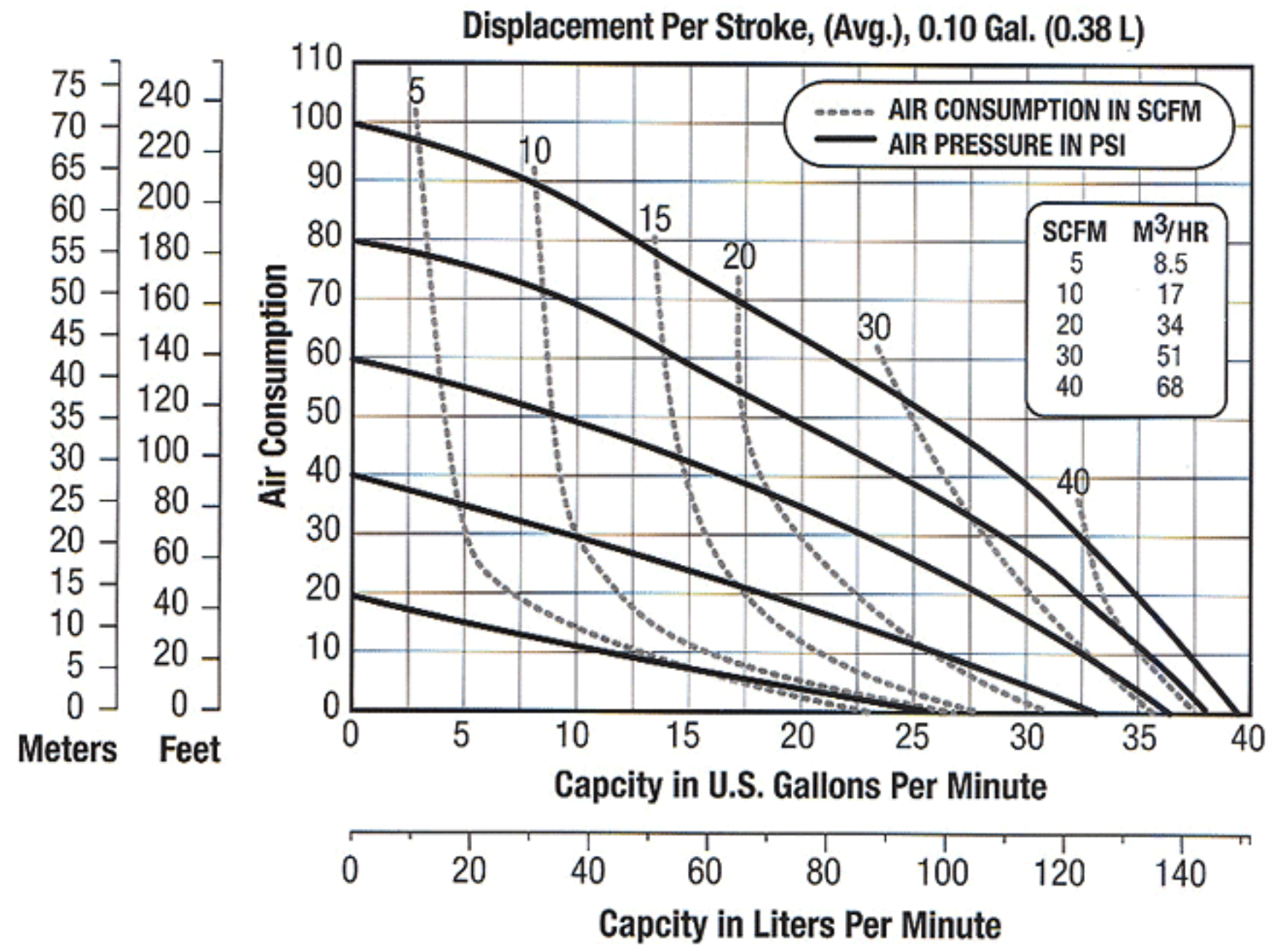
Kynar® .....24 lbs (10.9 kg)



## PERFORMANCE

Determined by actual flow meter tests.

E1



**NOTE:** For E1 pumps fitted with Teflon® diaphragms, reduce water discharge figures by 20%. Suction lift is reduced to 10' (3.05m) dry and 20' (6.10m) wet.

**CAUTION:** Do not exceed 100 psig (6.9 bars) air supply or liquid pressure.

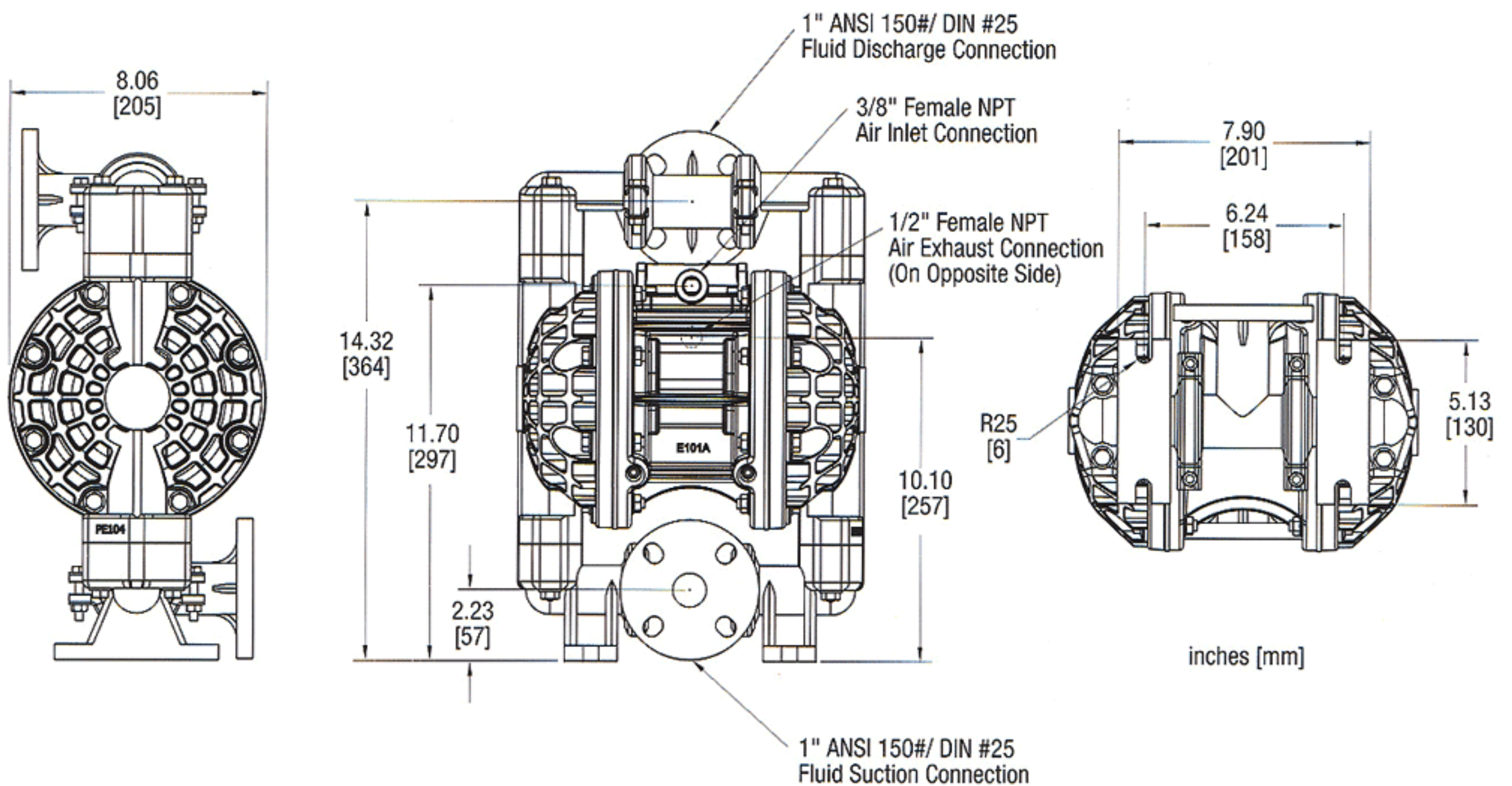
**OPTIONS:** Center Port and Split Manifolds Available.

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## DIMENSIONS

Consult factory for certified drawings.

E1





# E4 1-1/4" Clamped Metallic Pumps Specifications and Performance

## SPECIFICATIONS

E4

**FLOW RATE** adjustable to...0-70 gpm (0-265 lpm)

### PORT SIZE

Inlet.....1.50" NPT (BSP)

Discharge .....1.25" NPT (BSP)

**AIR INLET** .....0.50" NPT

**AIR EXHAUST** .....0.75" NPT

**SUCTION LIFT** .....15' Dry/25' Wet (4.57m/7.62m)

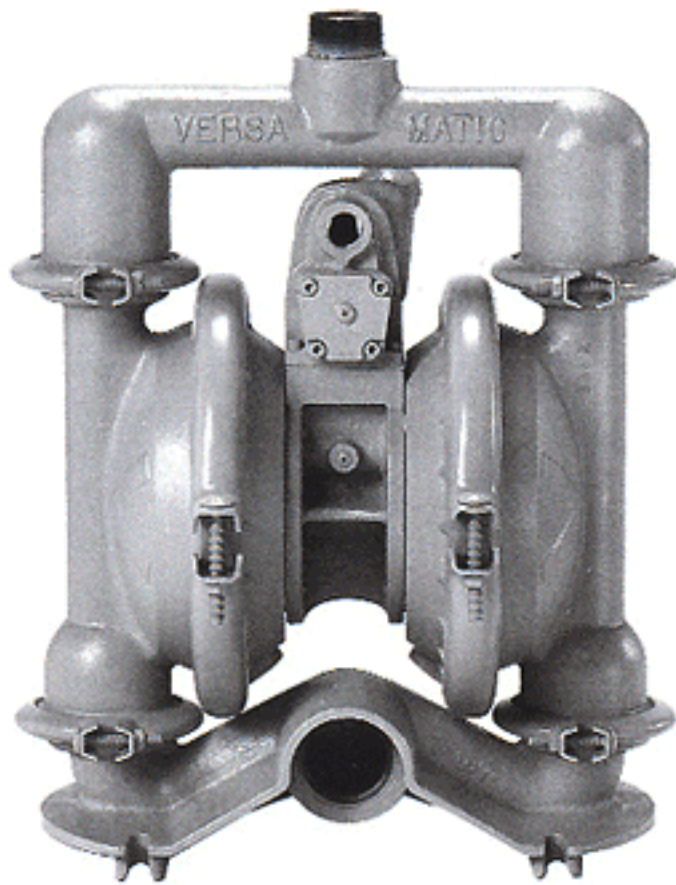
Teflon® .....10' Dry/20' Wet (3.05m/6.09m)

**MAX. PARTICLE SIZE** (Diameter) 0.1875" (4.76mm)

### SHIPPING WEIGHTS

Aluminum .....41 lbs (18.60 kg)

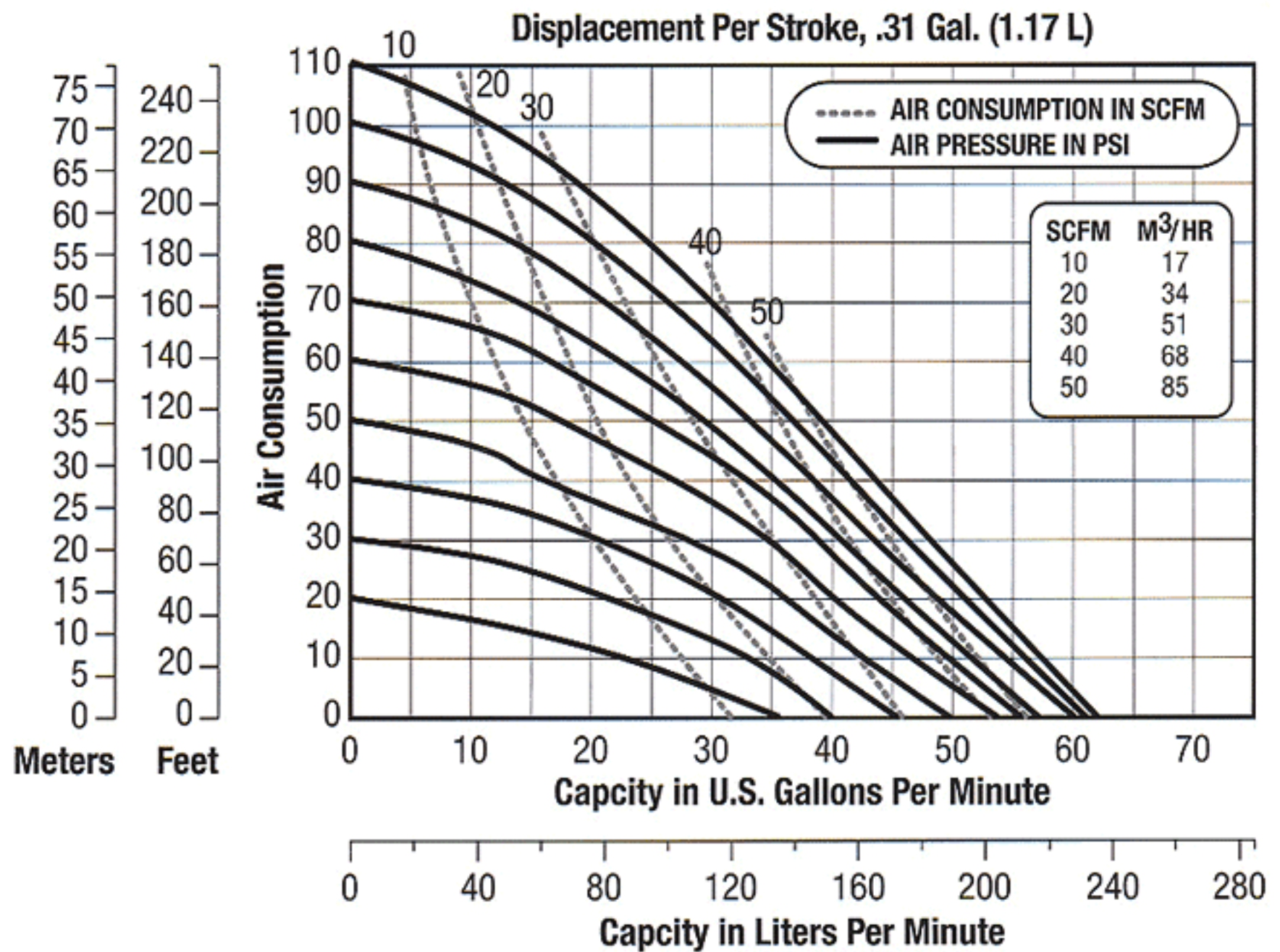
Cast Iron, Hastelloy C, Stainless ..57 lbs (25.85 kg)



## PERFORMANCE

Determined by actual flow meter tests.

E4



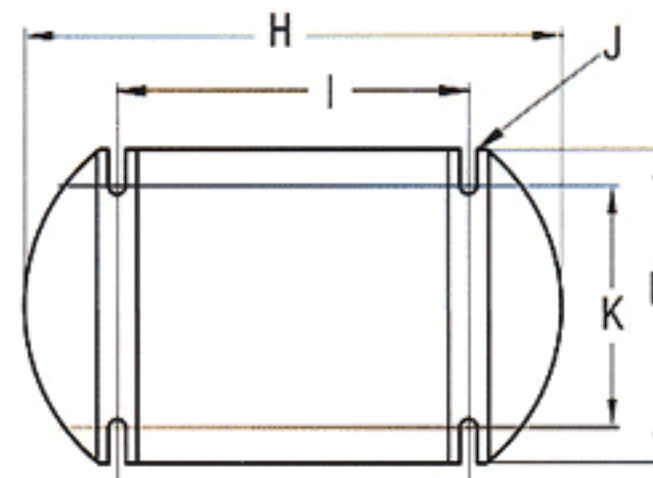
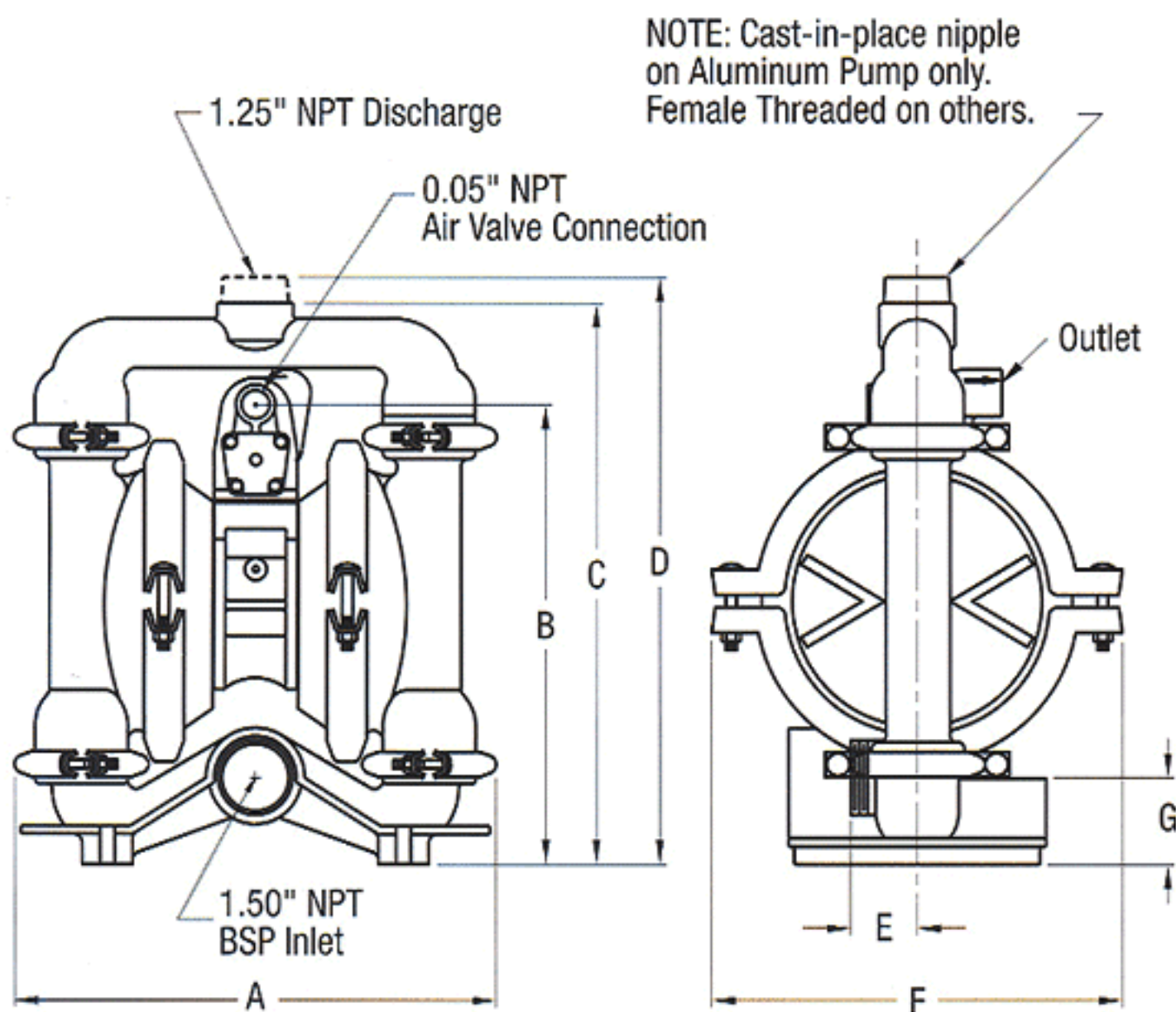
**NOTE:** For E4 pumps fitted with Teflon® diaphragms, reduce water discharge figures by 20%. Suction lift is reduced to 10' (3.05m) dry and 20' (6.10m) wet.

**CAUTION:** Do not exceed 125 psig (8.5 bars) air supply or liquid pressure.

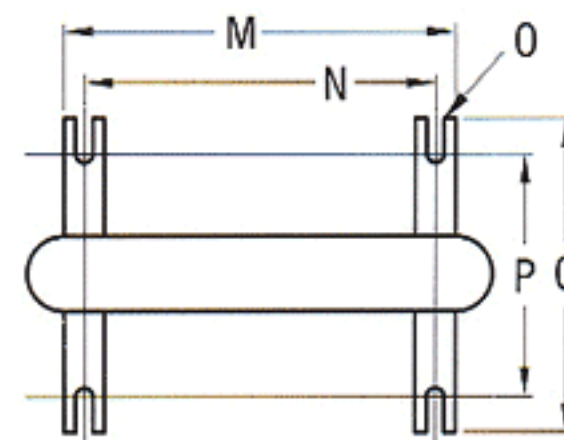
## DIMENSIONS

Consult factory for certified drawings.

E4



SCREEN BASE (ALUMINUM PUMPS ONLY)



FOOTED BASE

E4 DIMENSIONS		
ITEM	INCHES MM	METRIC
A	14.25	361
B	13.5	343
C	16.75*	425*
D	18**	457**
E	2.00	51
F	11.5	292
G	2.37	60
H	13.25	337
I	8.75	222
J	0.44 WIDE SLOT	11 WIDE SLOT
K	6.00	152
L	7.63	194
M	10.00	254
N	8.75	222
O	0.44 WIDE SLOT	11 WIDE SLOT
P	6.00	152
Q	7.00	178

\* Cast Iron, Hastelloy C and Stainless Steel Pumps  
\*\* Aluminum Pumps



# E4 1-1/2" Bolted Metallic Pumps Specifications and Performance

## SPECIFICATIONS

E4

**FLOW RATE** adjustable to.....0-72 gpm (0-275 lpm)

**PORT SIZE** Inlet and Outlet

Metallic .....1.50" ANSI/DIN

**AIR INLET** .....0.50" NPT

**AIR EXHAUST** .....0.75" NPT

**SUCTION LIFT**

Dry .....15' Dry (4.57m)

Wet .....25' Dry (7.62m)

TEFLON®

Dry .....10' Dry (3.05m)

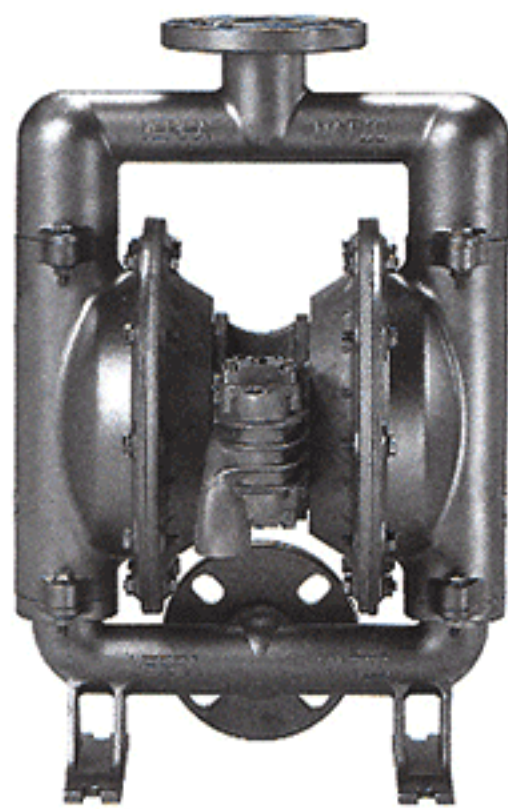
Wet .....20' Dry (6.09m)

**MAX. PARTICLE SIZE** (Diameter)....0.1875"(4.76mm)

**SHIPPING WEIGHTS**

Stainless Steel .....65 lbs (29.5 kg)

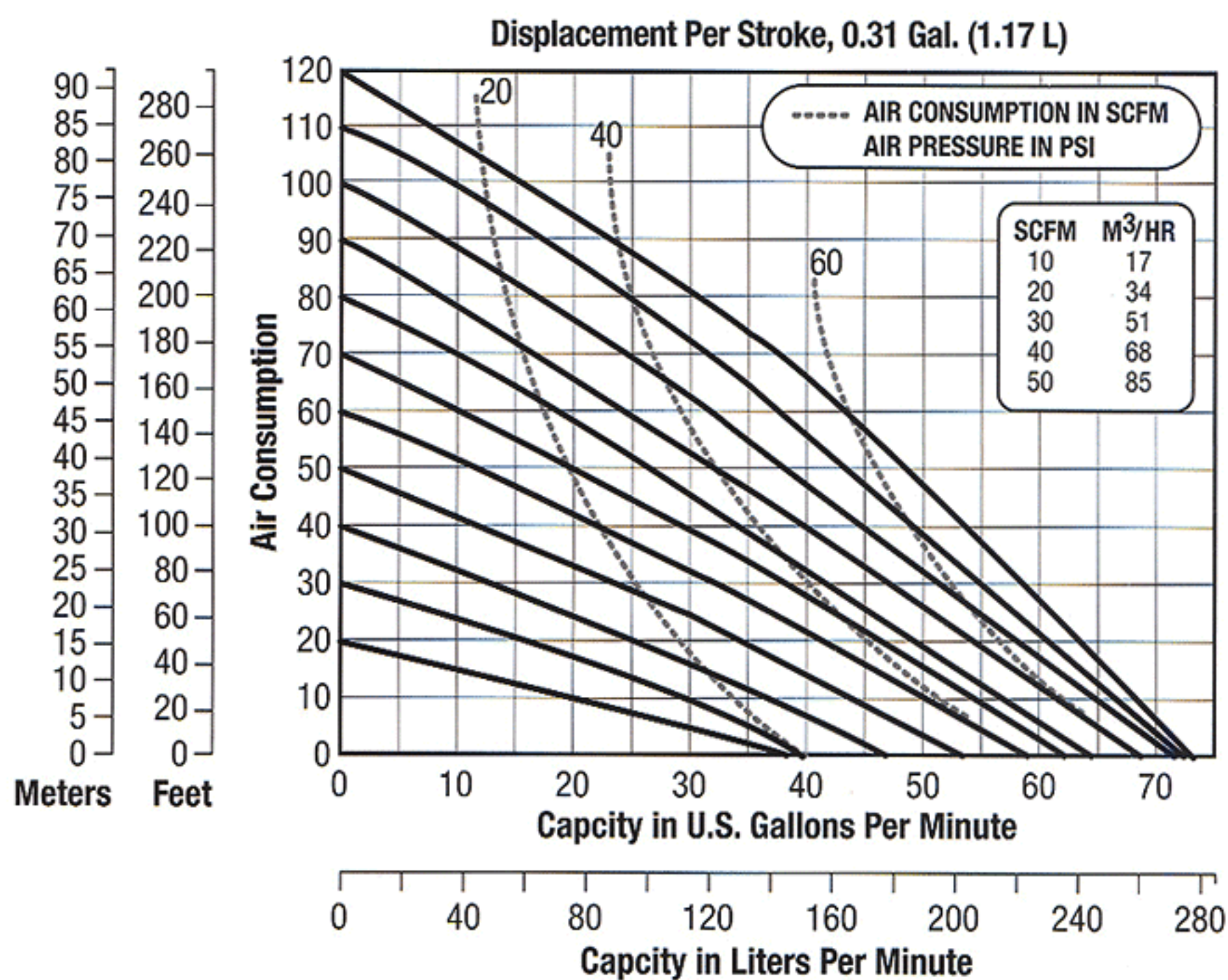
Hastelloy C.....68 lbs (30.8 kg)



## PERFORMANCE

Determined by actual flow meter tests.

E4

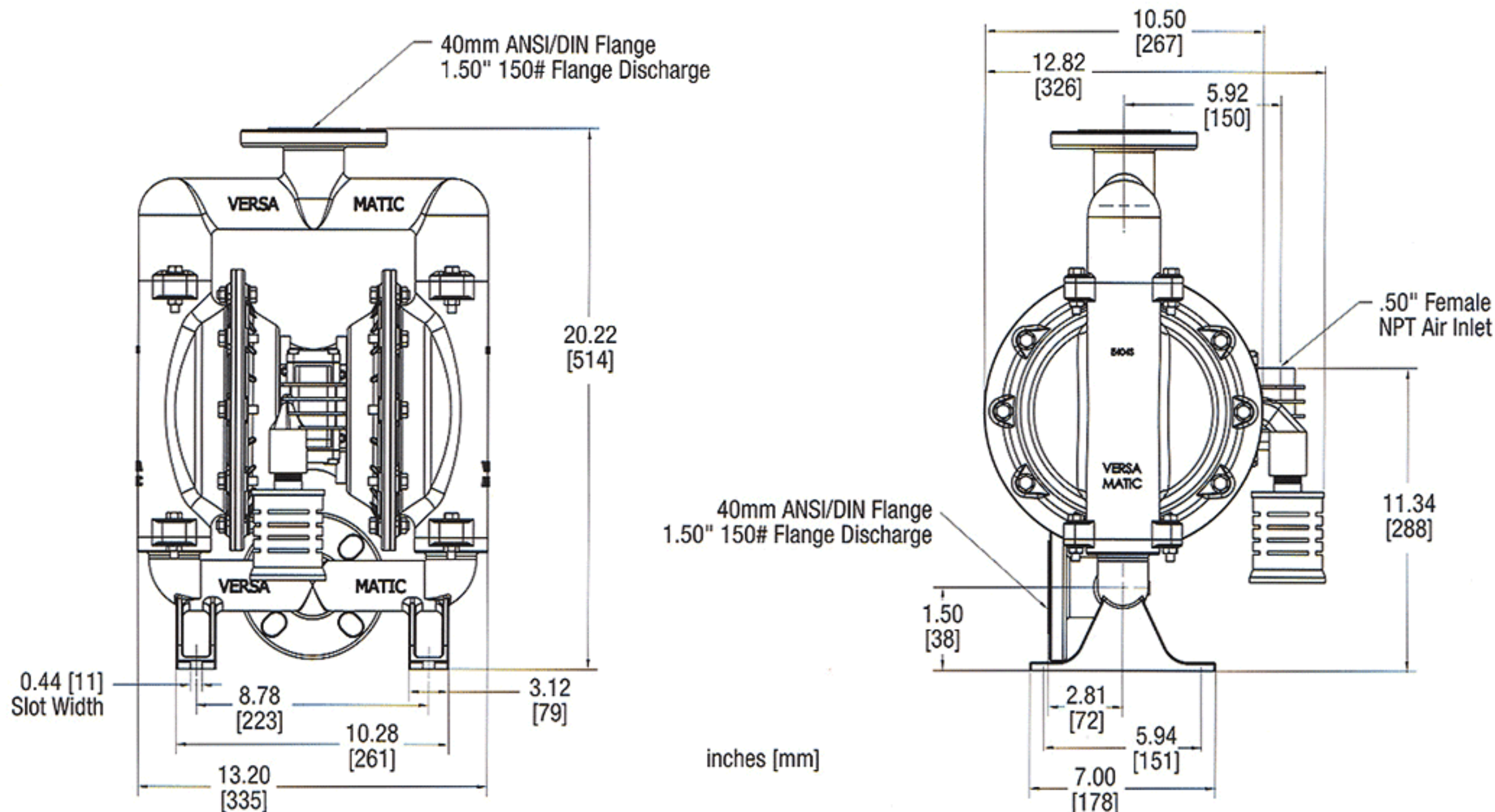


**NOTE:** For E4 pumps fitted with Teflon® diaphragms, reduce water discharge figures by 20%. Suction lift is reduced to 10' (3.05m) dry and 20' (6.10m) wet.

**CAUTION:** Do not exceed 125 psig (8.5 bars) air supply or liquid pressure. Horizontal Discharge Model Available.

## DIMENSIONS Consult factory for certified drawings.

E4





# E4 1-1/2" Plastic Bolted Pumps Specifications and Performance

## SPECIFICATIONS

E4

**FLOW RATE** adjustable to.....0-72 gpm (0-272 lpm)

### PORT SIZE

Inlet.....1.50" ANSI/DIN Flanged

Discharge.....1.50" ANSI/DIN Flanged

**AIR INLET**.....0.50" NPT

**AIR EXHAUST**.....0.75" NPT

**SUCTION LIFT**.....15' Dry/25' Wet (4.57m/7.62m)

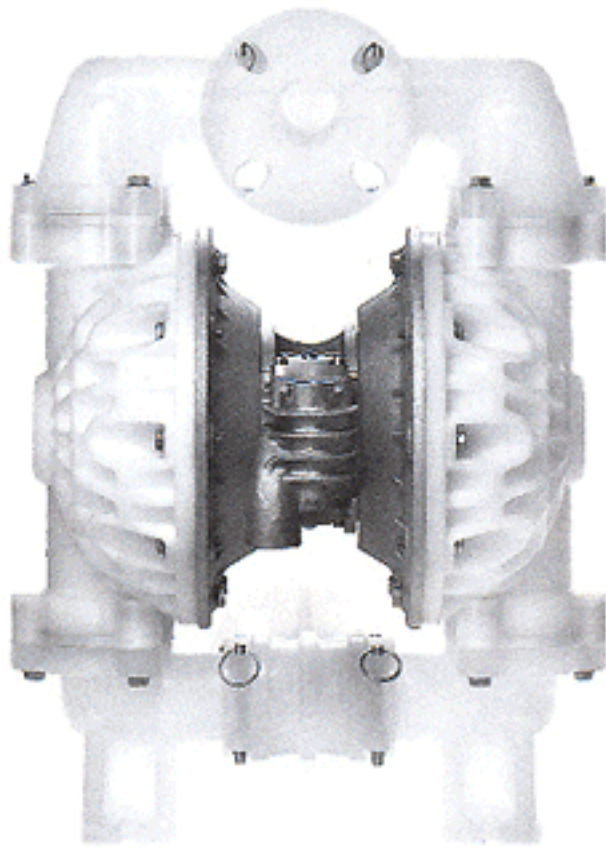
Teflon®.....10' Dry/20' Wet (3.05m/6.09m)

**MAX. PARTICLE SIZE** (Diameter) 0.1875"(4.76mm)

### SHIPPING WEIGHTS

Polypropylene.....32 lbs (14.5 kg)

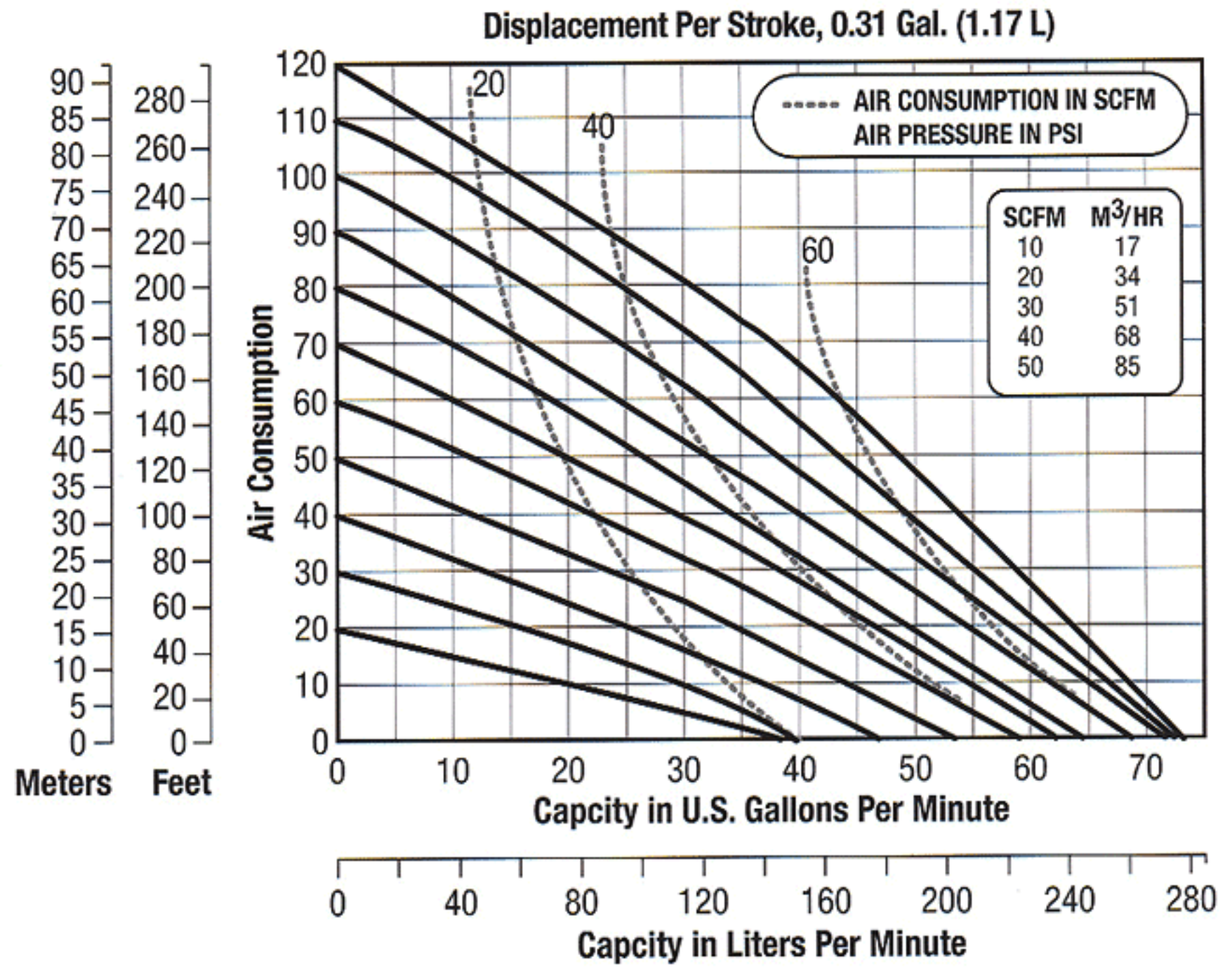
Kynar®.....45 lbs (20.4 kg)



## PERFORMANCE

Determined by actual flow meter tests.

E4



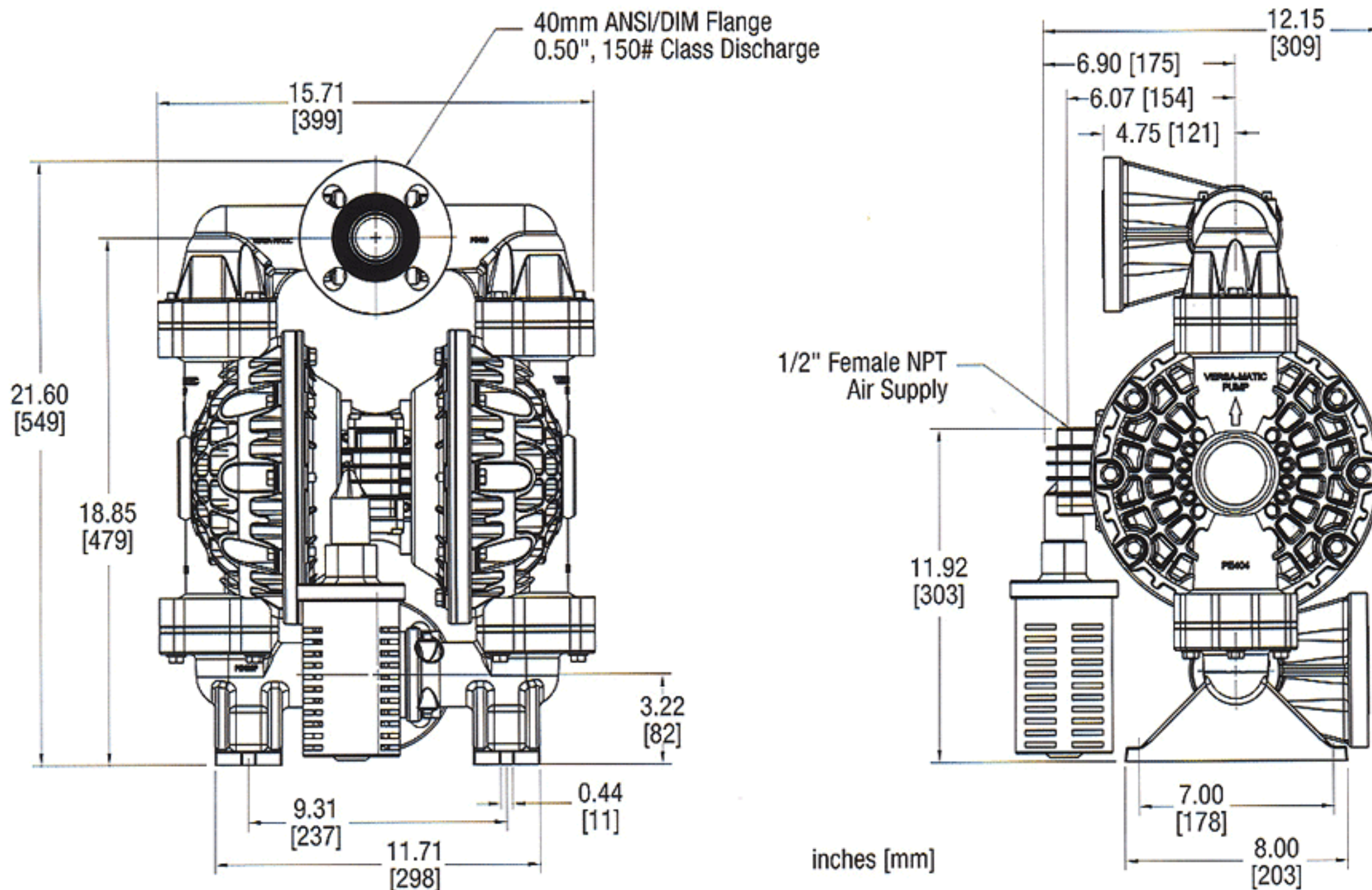
**NOTE:** For E4 pumps fitted with Teflon® diaphragms, reduce water discharge figures by 20%. Suction lift is reduced to 10' (3.05m) dry and 20' (6.10m) wet.

**CAUTION:** Do not exceed 125 psig (8.5 bars) air supply or liquid pressure. Swivel Inlet/Discharge.

## DIMENSIONS

Consult factory for certified drawings.

E4





# E2 2" Clamped Metallic Pumps Specifications and Performance

## SPECIFICATIONS

E2

**FLOW RATE** adjustable to.....0-155 gpm (586 lpm)

**PORT SIZE**

Inlet.....2.0" NPT (BSP)

Discharge.....2.0" NPT (BSP)

**AIR INLET**.....0.50" NPT

**AIR EXHAUST**.....0.75" NPT

**SUCTION LIFT**.....20' Dry/25' Wet (6.10m/7.62m)

Teflon®.....10' Dry/20' Wet (3.05m/6.10m)

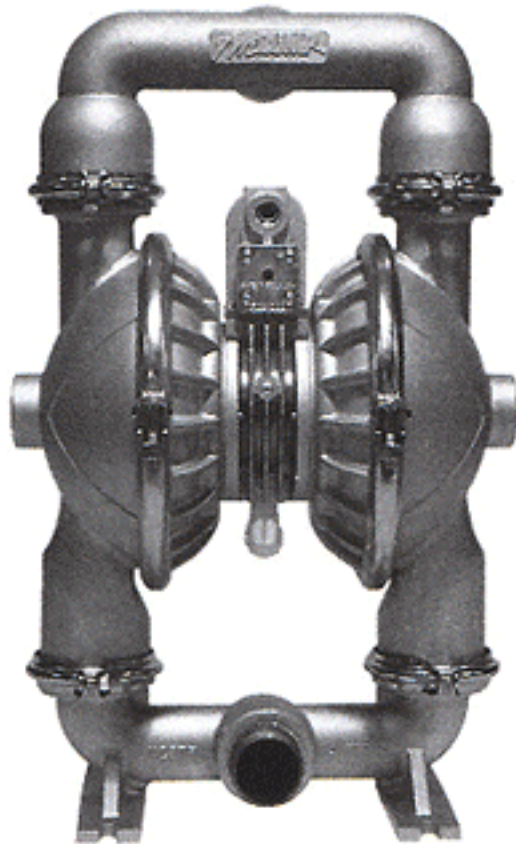
**MAX. PARTICLE SIZE** (Diameter) ....0.25" (6.35mm)

**SHIPPING WEIGHTS**

Aluminum.....70 lbs (31.75 kg)

Cast Iron, Stainless.....115 lbs (52.16 kg)

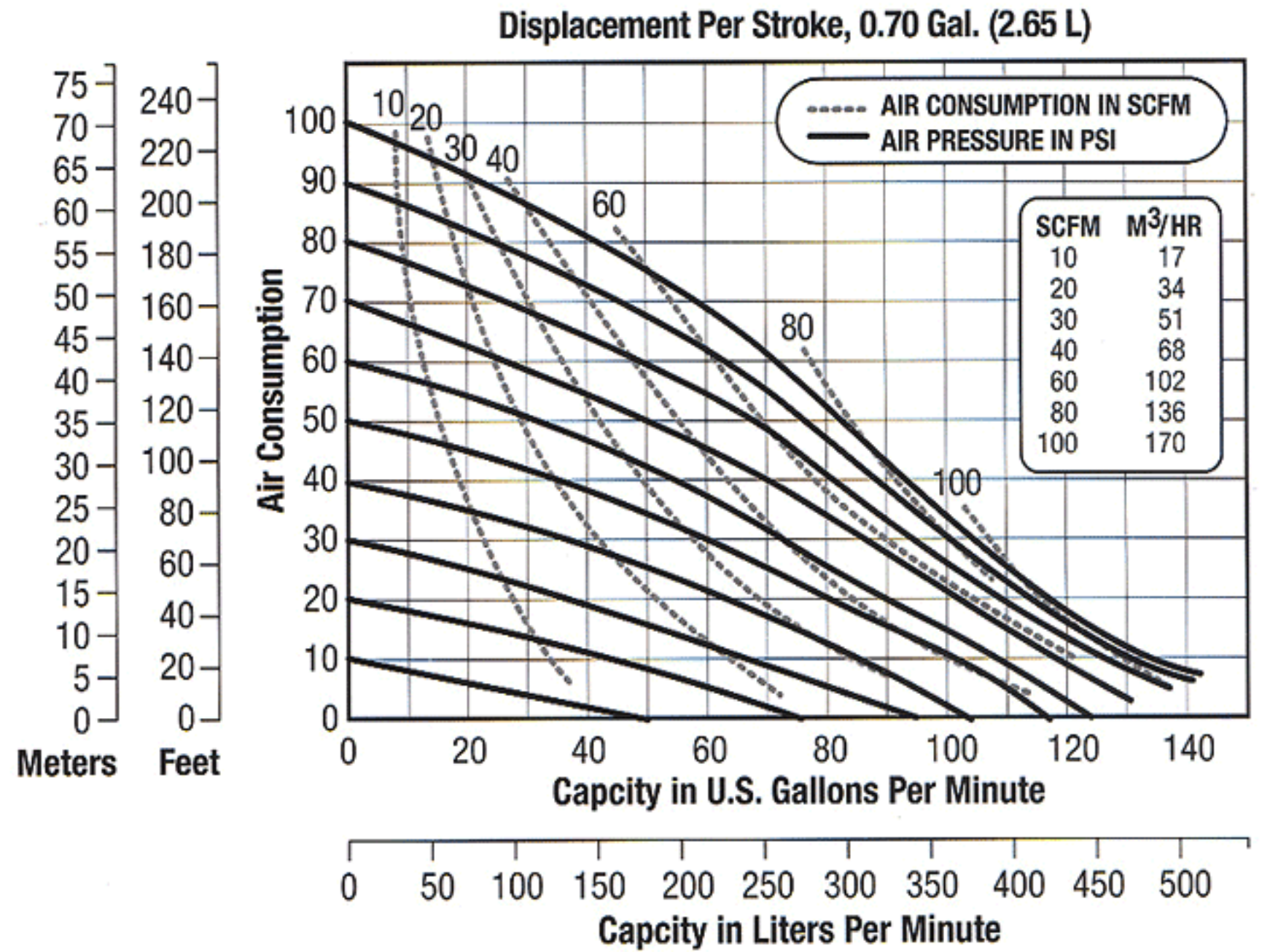
Hastelloy C.....125 lbs (56.70 kg)



## PERFORMANCE

Determined by actual flow meter tests.

E2



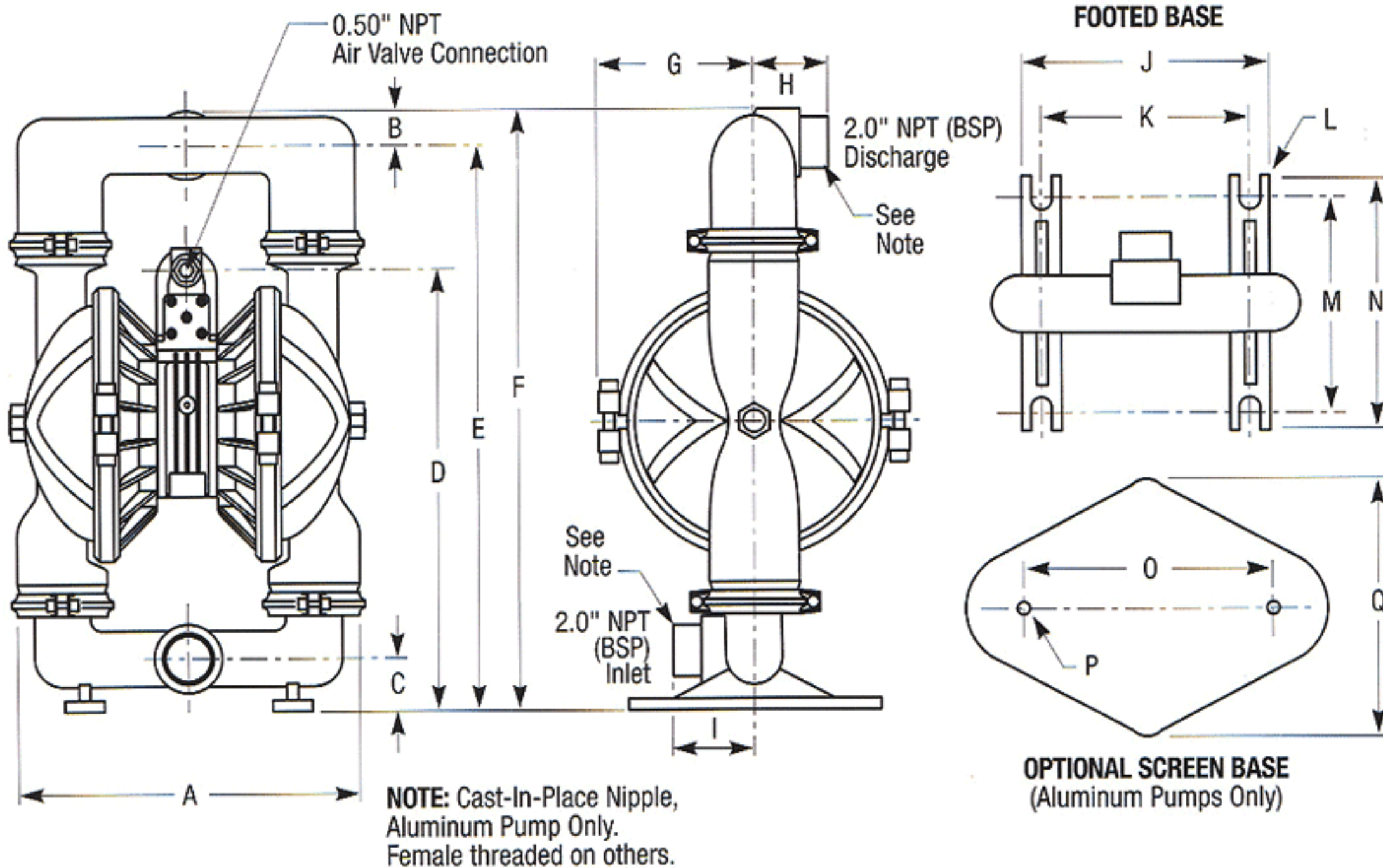
**NOTE:** For E2 pumps fitted with Teflon® diaphragms, reduce water discharge figures by 20%. Suction lift is reduced to 10' (3.05m) dry and 20' (6.10m) wet.

**CAUTION:** Do not exceed 125 psig (8.5 bars) air supply or liquid pressure.

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## DIMENSIONS Consult factory for certified drawings.

E2



DIMENSIONS MODEL E2		
ITEM	INCHES	METRIC MM
A	16.125	409.58
B	1.5	38.10
C	1.75	44.45
D	19.75	501.65
E	25	635
F	26.5	673.10
G	6.5	165.10
H	4.0	101.60
I	2.5*	63.50*
J	12	304.80
K	10	254
L	0.5	12.70
M	9	228.60
N	10.5	266.70
O	11	279.40
P	0.56	14.22
Q	11.25	285.75

\* Cast Iron, Hastelloy C and Stainless Steel Pumps



# E2 2" Bolted Metallic Pumps Specifications and Performance

## SPECIFICATIONS

E2

**FLOW RATE** adjustable to.....0-155 gpm (586 lpm)

**PORT SIZE**

Inlet and Outlet: 2.0" ANSI, 150 lb class ...(DIN 50)

**AIR INLET** .....0.50" NPT

**AIR EXHAUST** .....0.75" NPT

**SUCTION LIFT** .....20' Dry/25' Wet (6.09m/7.62m)

Teflon®.....10' Dry/20' Wet (3.04m/6.09m)

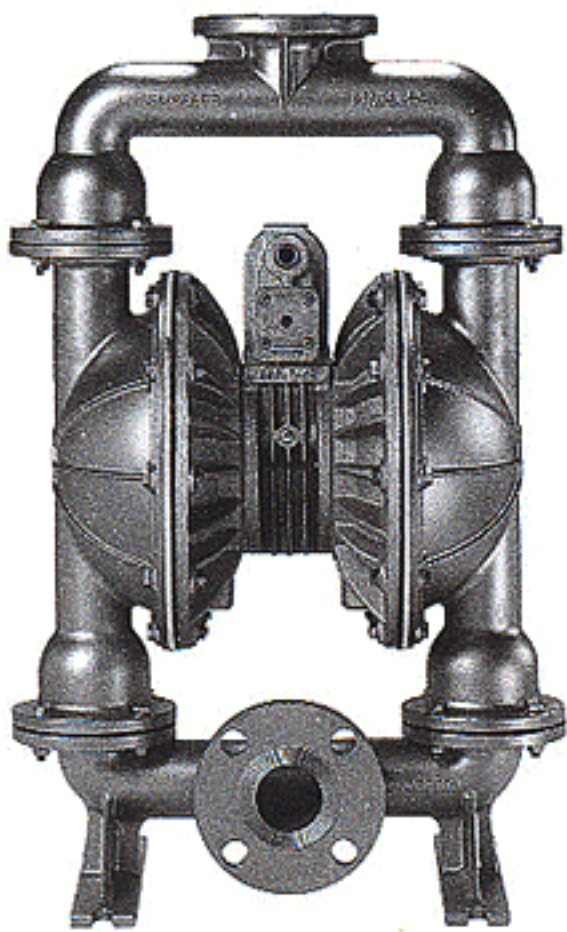
**MAX. PARTICLE SIZE** (Diameter) ....0.25"(6.35mm)

**SHIPPING WEIGHT**

Stainless Steel .....120 lbs (54 kg)

Hastelloy C.....120 lbs (54 kg)

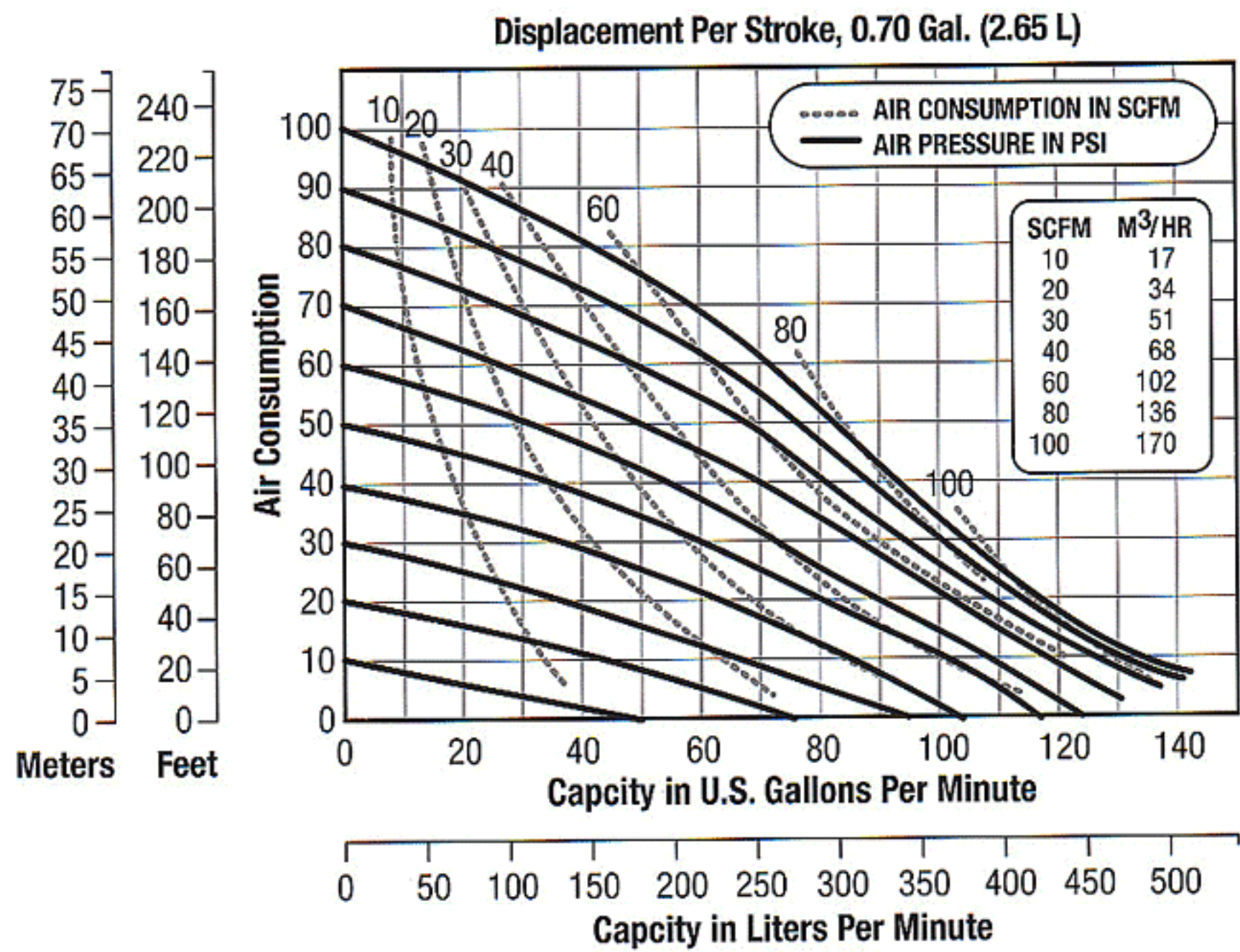
Cast Iron.....120 lbs (54 kg)



## PERFORMANCE

Determined by actual flow meter tests.

E2



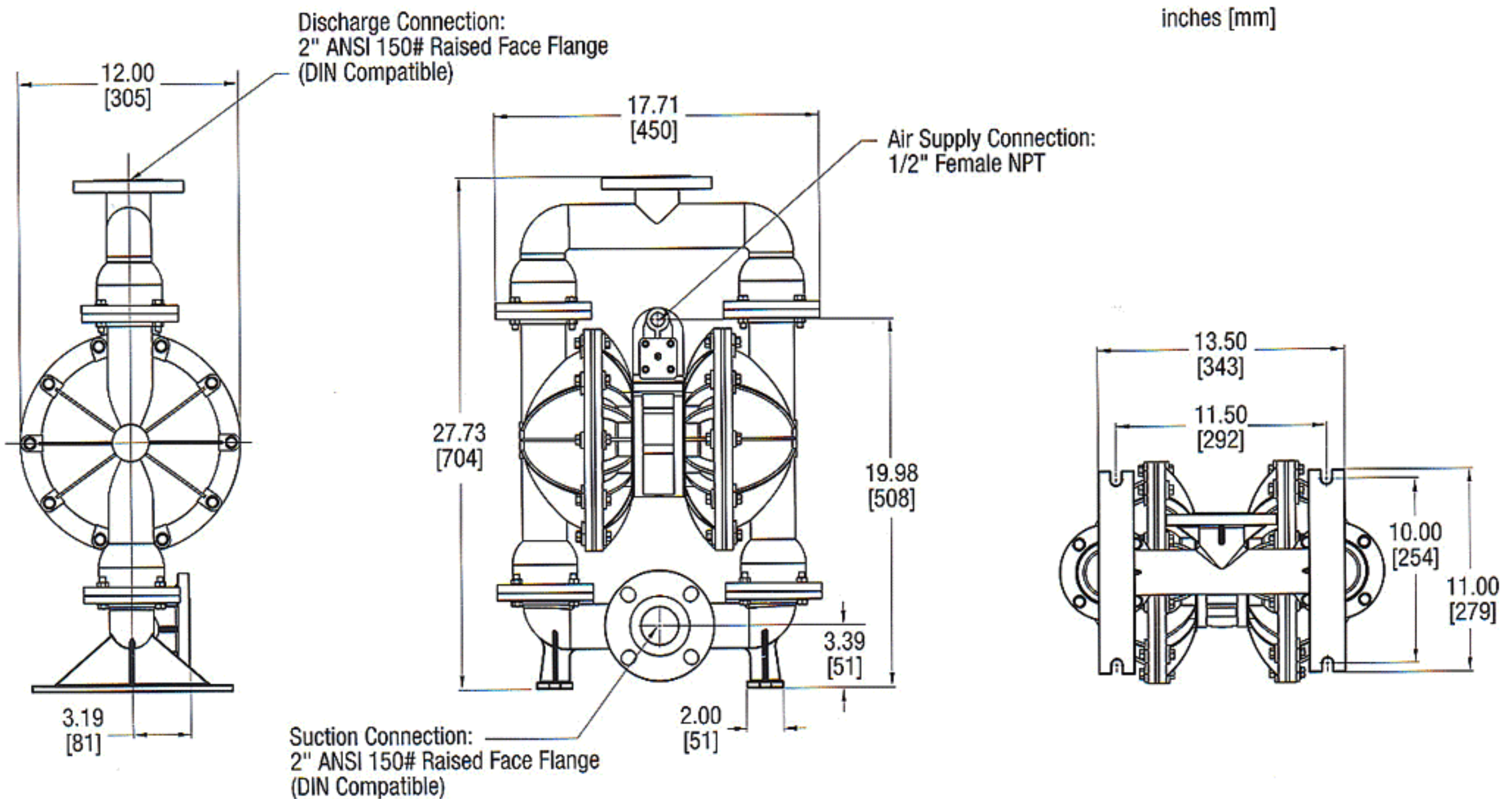
**NOTE:** For E2 pumps fitted with Teflon® diaphragms, reduce water discharge figures by 20%. Suction lift is reduced to 10' (3.05m) dry and 20' (6.10m) wet.

**CAUTION:** Do not exceed 125 psig (8.5 bars) air supply or liquid pressure.  
**Horizontal Discharge Model Available.**

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## DIMENSIONS Consult factory for certified drawings.

E2





# E2 2" Aluminum Bolted Pumps Specifications and Performance

## SPECIFICATIONS

E2

**FLOW RATE** adjustable to.....0-174 gpm (658 lpm)

**PORT SIZE**

Inlet.....2.0" NPT (BSP)

Discharge.....2.0" NPT (BSP)

**AIR INLET**.....0.50" NPT

**AIR EXHAUST**.....0.75" NPT

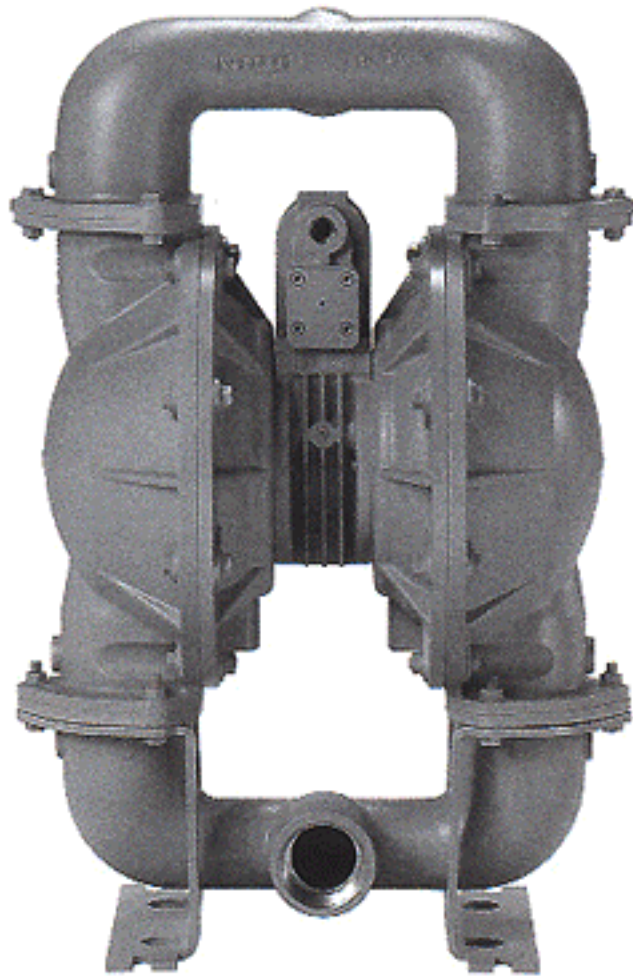
**SUCTION LIFT**.....20' Dry/25' Wet (6.09m/7.62m)

Teflon®.....10' Dry/20' Wet (3.04m/6.09m)

**MAX. PARTICLE SIZE** (Diameter).....0.43"(11mm)

**SHIPPING WEIGHT**

Aluminum.....73.5 lbs (33 kg)

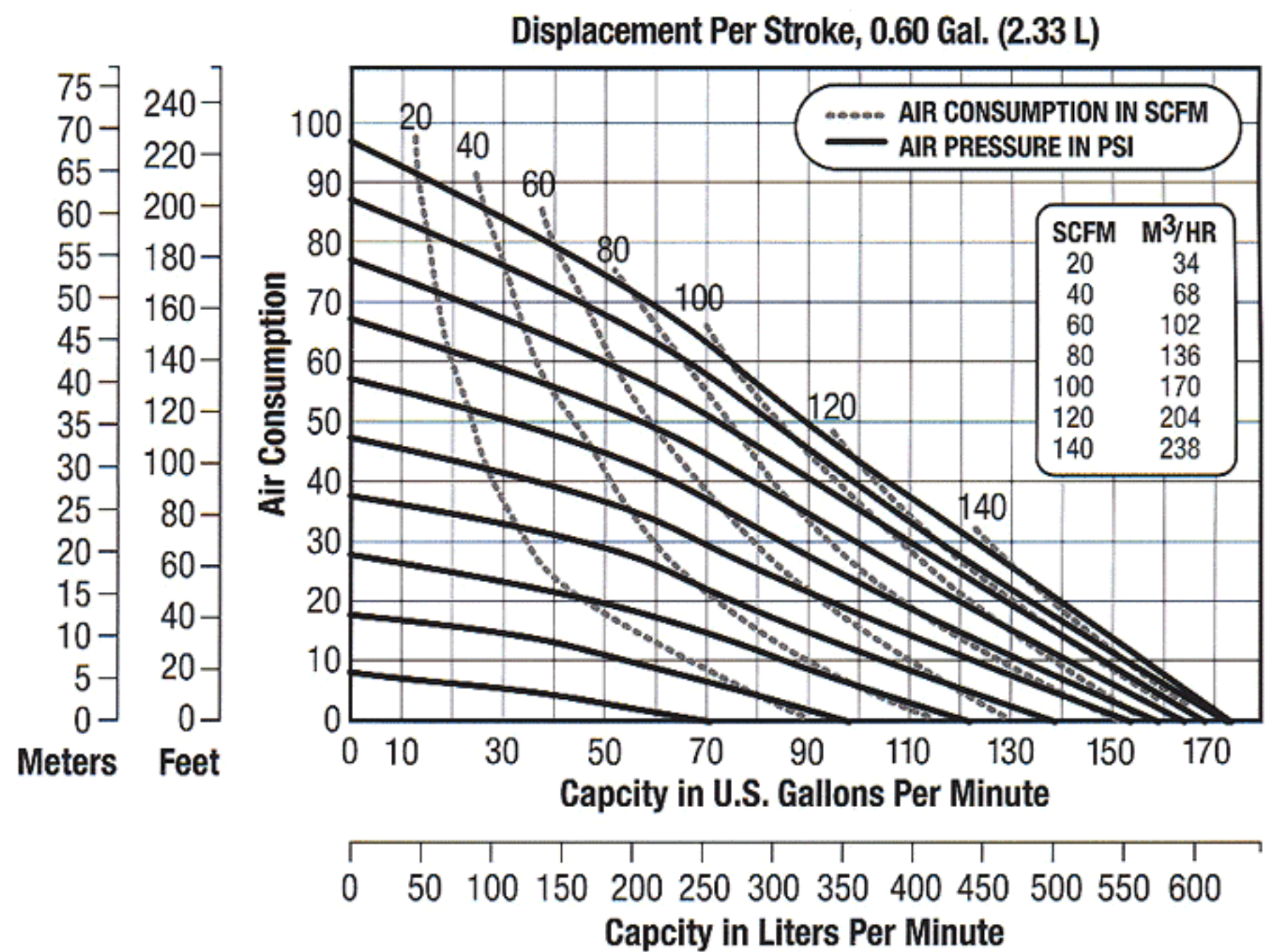


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## PERFORMANCE

Determined by actual flow meter tests.

E2



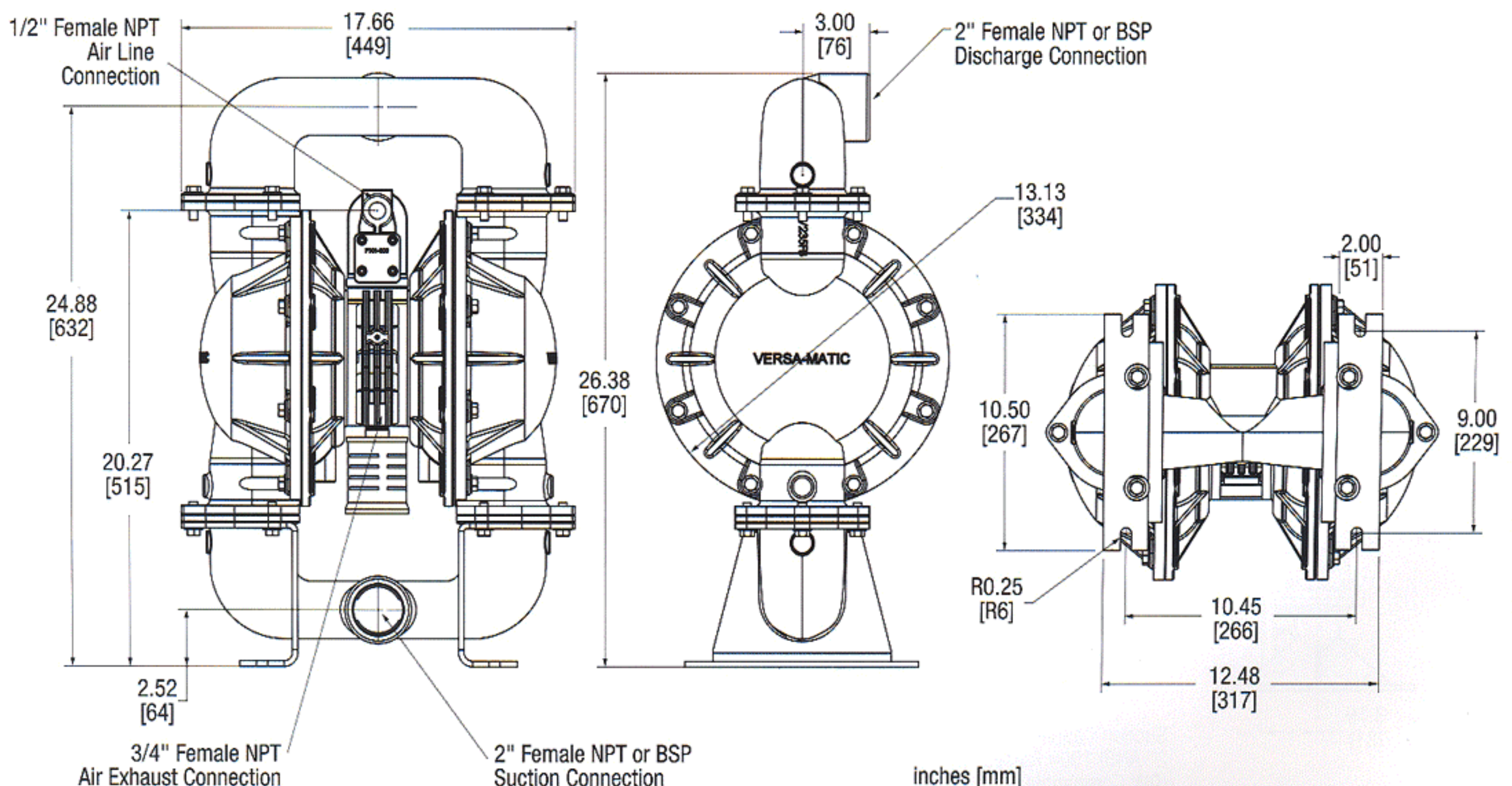
**NOTE:** For E2AL pumps fitted with Teflon® diaphragms, reduce water discharge figures by 20%. Suction lift is reduced to 10' (3.05m) dry and 20' (6.10m) wet.

**CAUTION:** Do not exceed 125 psig (8.5 bars) air supply or liquid pressure.

## DIMENSIONS

Consult factory for certified drawings.

E2





# E2HP 2" High Pressure Pumps Specifications and Performance

## SPECIFICATIONS

E2HP

**FLOW RATE** adjustable to.....0-69 gpm (261 lpm)  
**PORT SIZE**

Inlet and Outlet: 2.0" ANSI, 300 lb class ... (DIN 50)

**AIR INLET** .....0.50" NPT

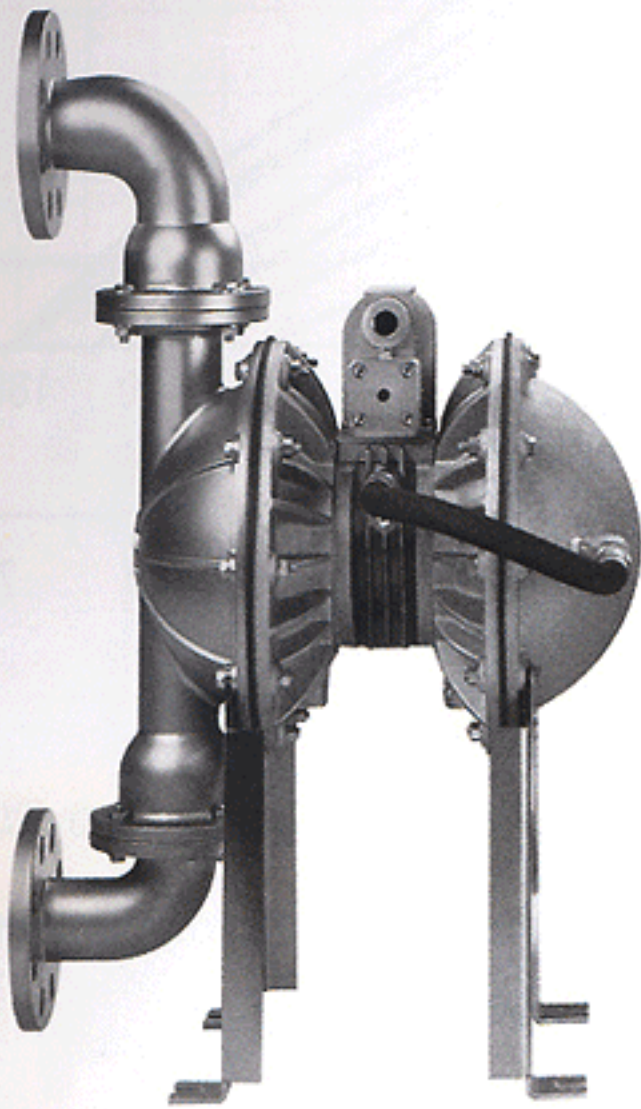
**AIR EXHAUST** .....1.0" NPT

**SUCTION LIFT** .....20' Dry/25' Wet (6.09m/7.62m)

**MAX. PARTICLE SIZE (Diameter)** .....0.25" (6.35mm)

**SHIPPING WEIGHT**

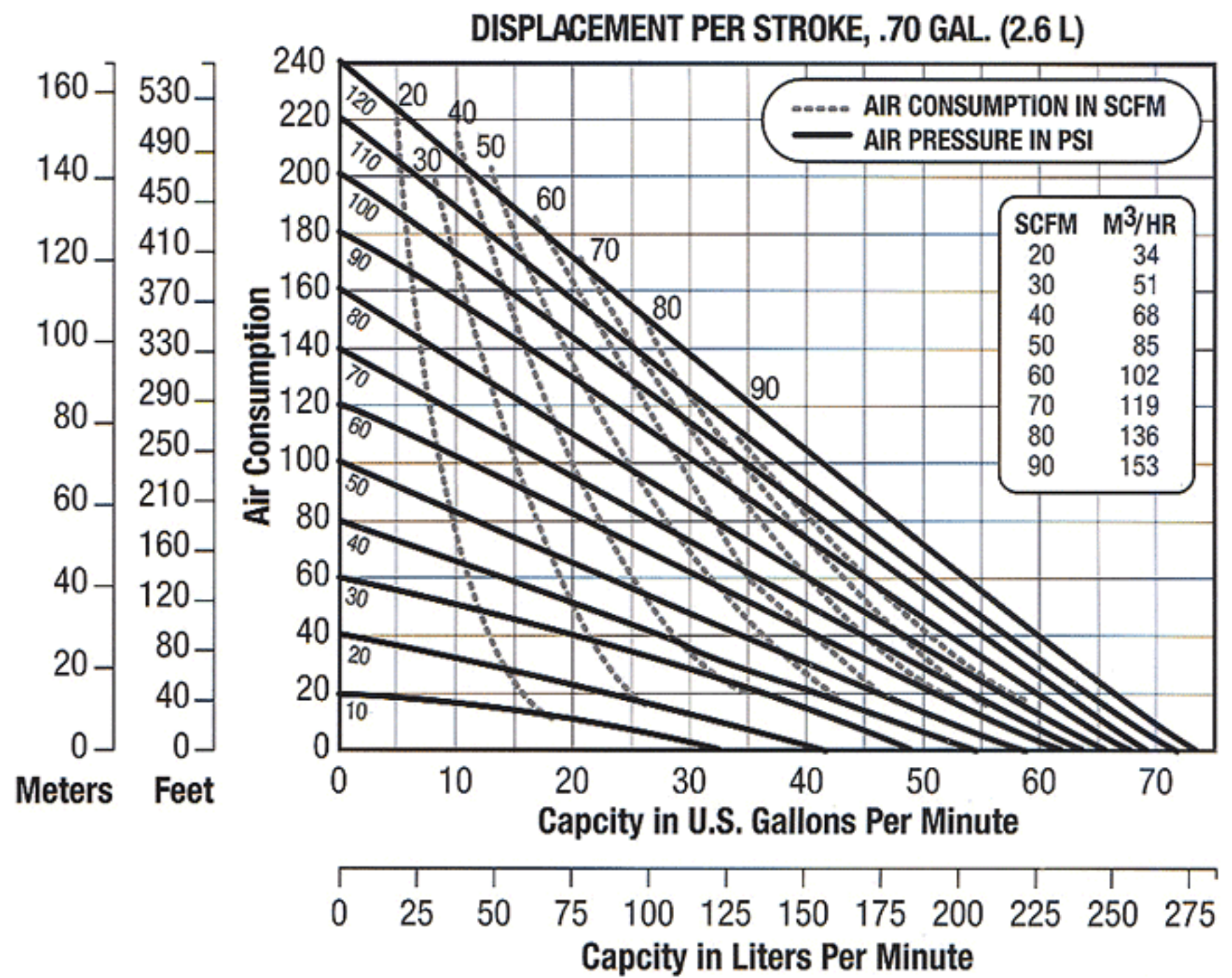
Stainless Steel .....91 lbs (41 kg)



## PERFORMANCE

Determined by actual flow meter tests.

E2HP



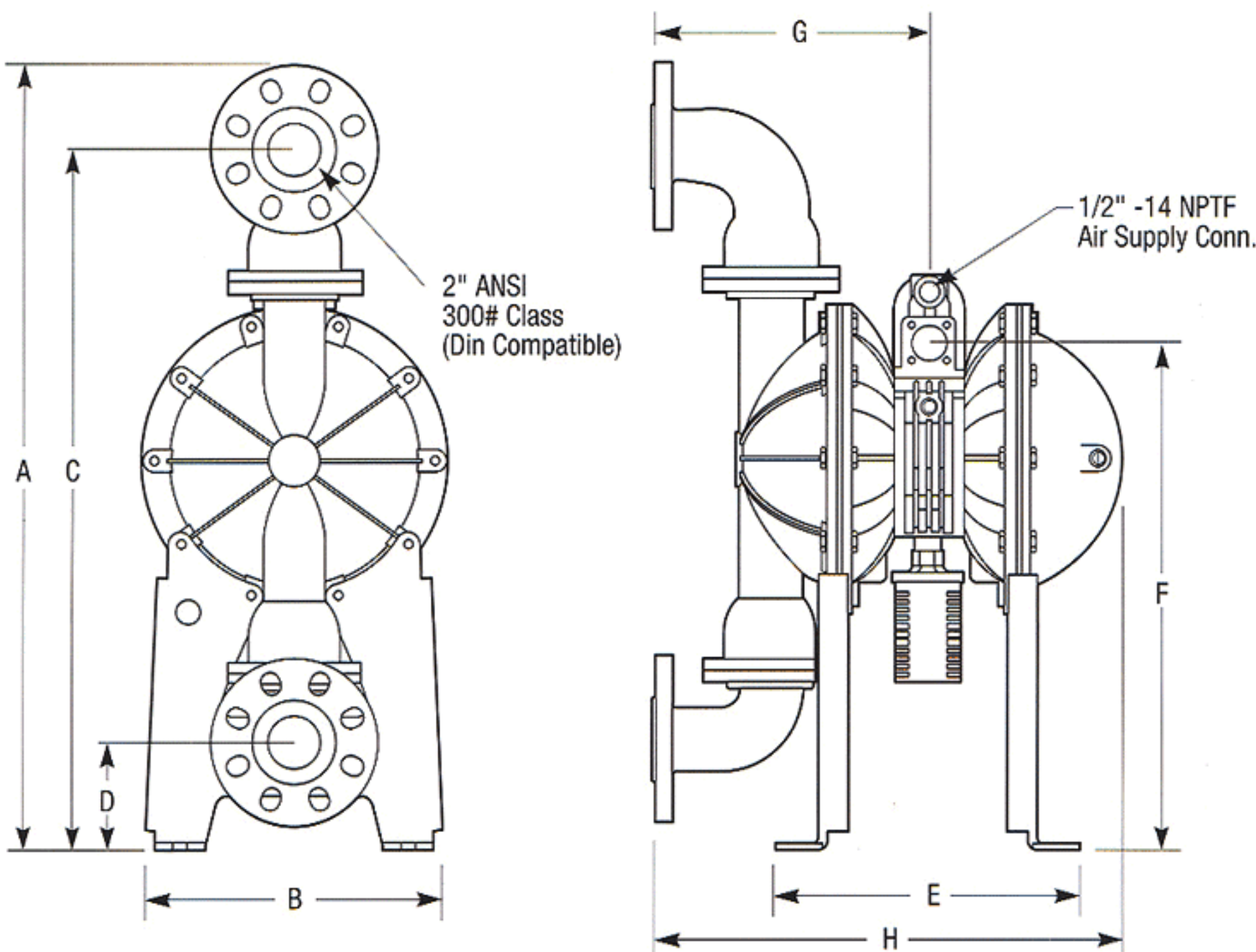
**CAUTION:** Do not exceed 100 psig (6.9 bars) air supply or liquid pressure.

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## DIMENSIONS

Consult factory for certified drawings.

E2HP



E2HP DIMENSIONS		
ITEM	INCHES	METRIC MM
A	30.6	778
B	11.7	297
C	23.1	587
D	4.3	109
E	11.8	299
F	19.7	501
G	10.7	272
H	18.2	463



# E2 2" Flap Valve Pumps

## Specifications and Performance

### SPECIFICATIONS

E2

**FLOW RATE** adjustable to.....0-180 gpm (681 lpm)

**PORT SIZE**

Inlet.....2.0" Male NPT (BSP)

Discharge.....2.0" Male NPT (BSP)

**AIR INLET**.....0.50" NPT

**AIR EXHAUST**.....0.75" NPT

**SUCTION LIFT**.10' Dry/10' Wet (3.048m/3.048m)

**MAX. PARTICLE SIZE** (Diameter) 1.125"(28.57mm)

**SHIPPING WEIGHT**

Aluminum.....88 lbs (39.92 kg)

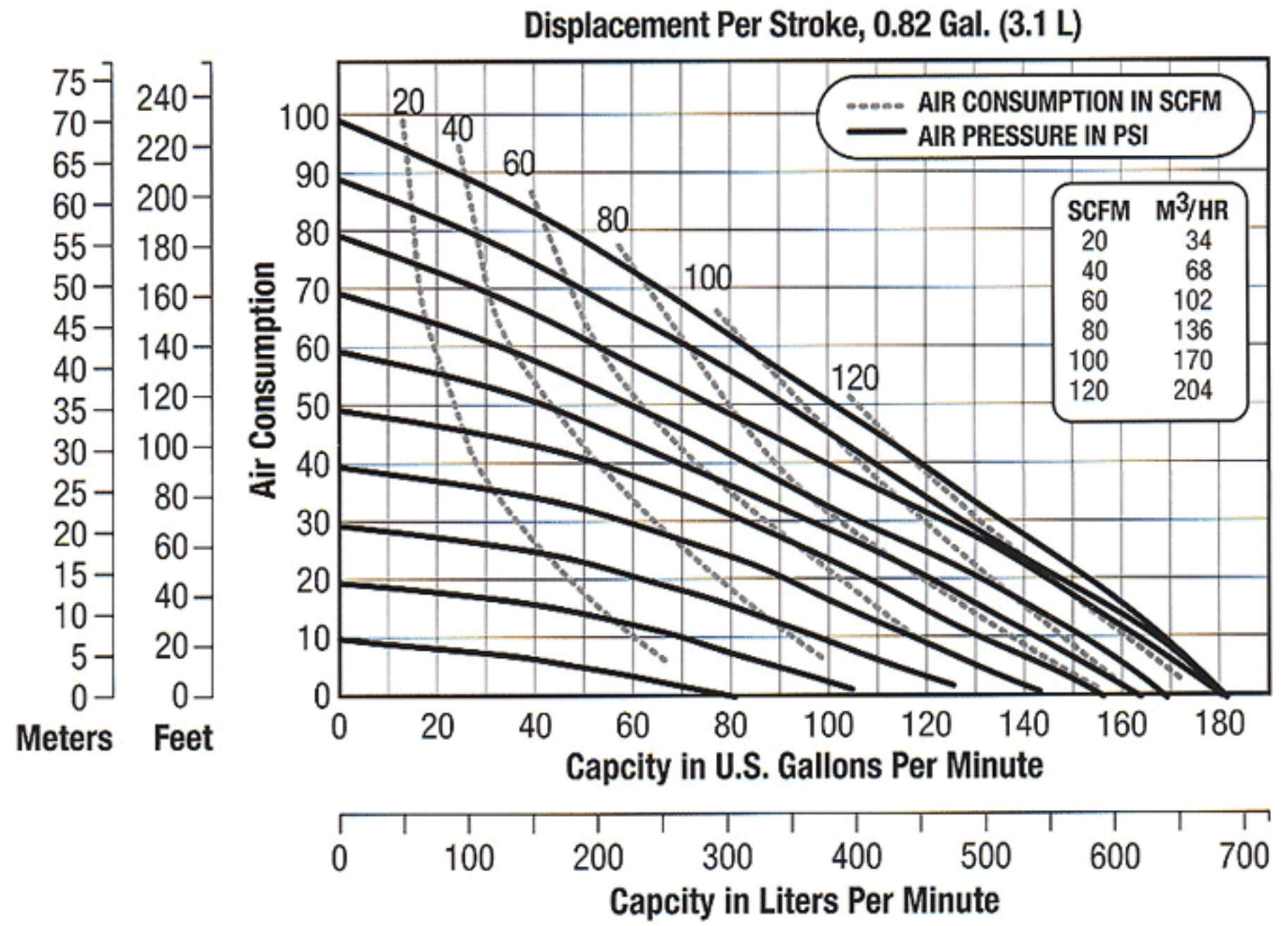


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### PERFORMANCE

Determined by actual flow meter tests.

E2



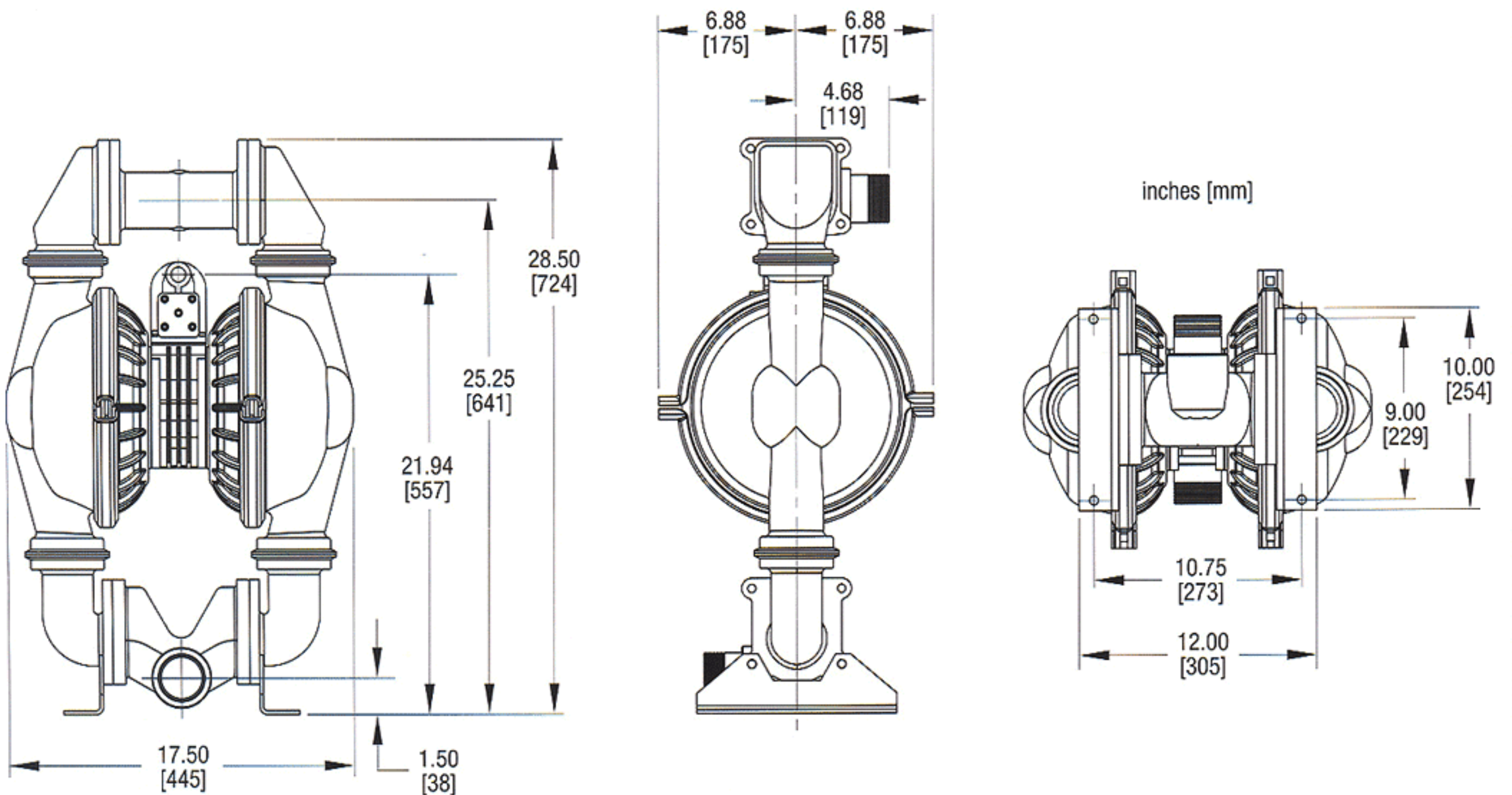
**NOTE:** For E2FV pumps fitted with Teflon® diaphragms, reduce water discharge figures by 20%. Suction lift is reduced to 10' (3.05m) dry and 20' (6.10m) wet.

**CAUTION:** Do not exceed 125 psig (8.5 bars) air supply or liquid pressure.

### DIMENSIONS

Consult factory for certified drawings.

E2





# E2 2" Plastic Bolted Pumps: Standard Porting Specifications and Performance

## SPECIFICATIONS

E2

FLOW RATE adjustable to.....0-155 gpm (586 lpm)

### PORT SIZE

Inlet.....2.0" ANSI, 150 Class (DIN 50)

Discharge.....2.0" ANSI, 150 Class (DIN 50)

AIR INLET.....0.50" NPT

AIR EXHAUST.....0.75" NPT

SUCTION LIFT.....20' Dry/25' Wet (6.10m/7.62m)

Teflon®.....10' Dry/20' Wet (3.05m/6.10m)

MAX. PARTICLE SIZE (Diameter) ....0.25"(6.35mm)

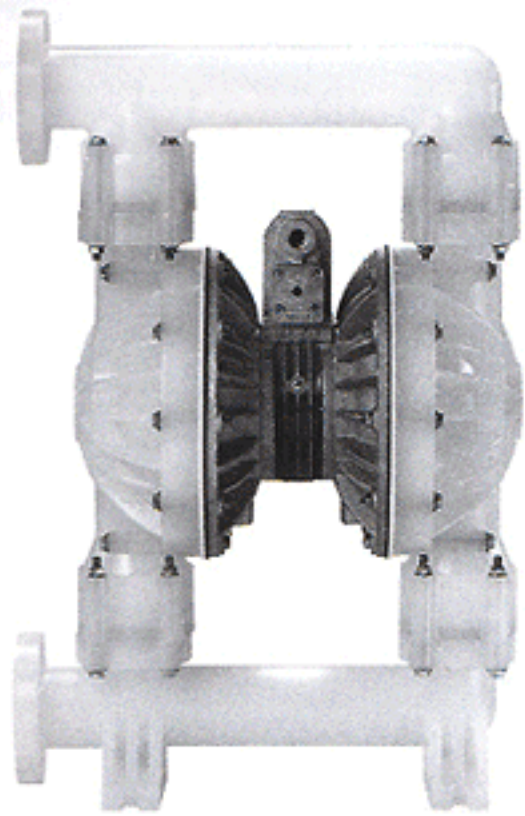
### SHIPPING WEIGHTS

E2PA.....72 lbs (32.68 kg)

E2PS.....106 lbs (48.12 kg)

E2KA.....98 lbs (44.49 kg)

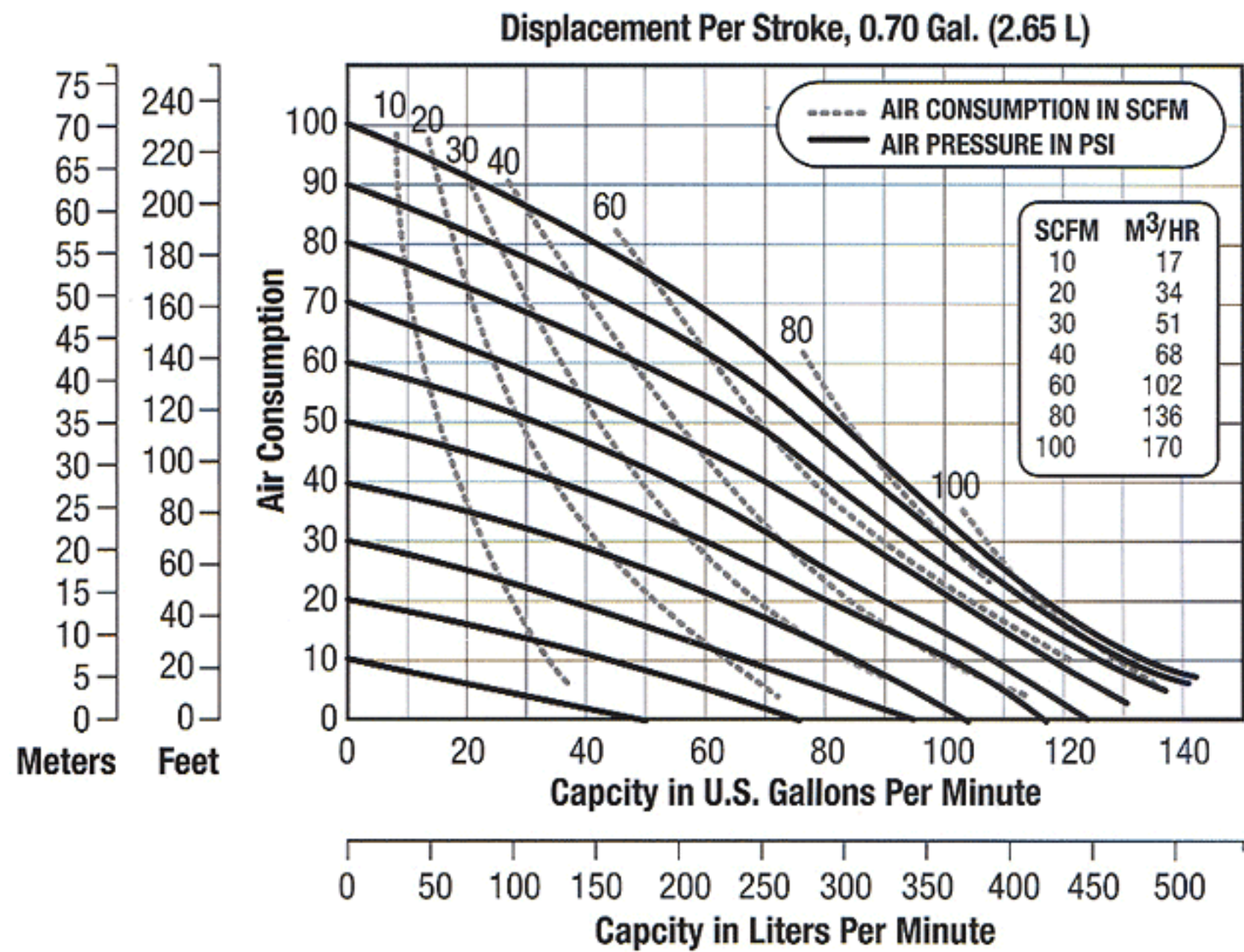
E2KS.....132 lbs (59.92 kg)



## PERFORMANCE

Determined by actual flow meter tests.

E2



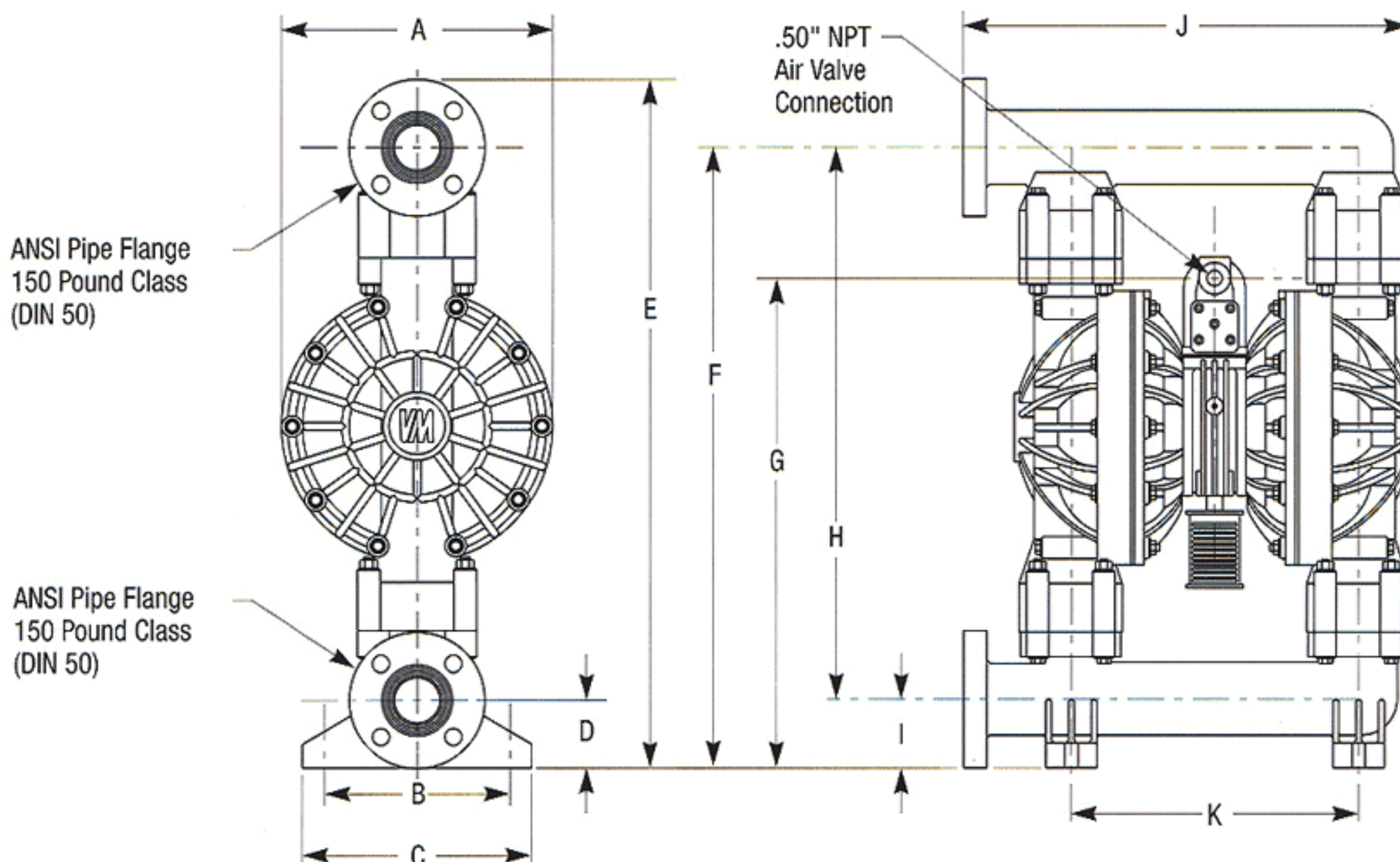
**NOTE:** For E2P pumps fitted with Teflon® diaphragms, reduce water discharge figures by 20%. Suction lift is reduced to 10' (3.05m) dry and 20' (6.10m) wet.

**CAUTION:** Do not exceed 100 psig (6.9 bars) air supply or liquid pressure.

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## DIMENSIONS Consult factory for certified drawings.

E2



DIMENSIONS MODEL E2P/E2K		
ITEM	INCHES	METRIC MM
A	12	304.81
B	9	228.61
C	10.12	257.06
D	3.06	77.72
E	30.31	769.87
F	27.31	693.67
G	21.56	547.65
H	24.25	615.48
I	3.06	77.72
J	19.81	503.19
K	12.75	323.86



# E2 2" Plastic Bolted Pumps: Optional Porting Specifications and Performance

## SPECIFICATIONS

E2

**FLOW RATE** adjustable to....0-155 gpm (586 lpm)

**PORT SIZE**

Inlet.....2.0" ANSI, 150 Class (DIN 50)

Discharge.....2.0" ANSI, 150 Class (DIN 50)

**AIR INLET**.....0.50" NPT

**AIR EXHAUST**.....0.75" NPT

**SUCTION LIFT**.....20' Dry/25' Wet (6.10m/7.62m)

Teflon®.....10' Dry/20' Wet (3.05m/6.10m)

**MAX. PARTICLE SIZE** (Diameter) ....0.25"(6.35mm)

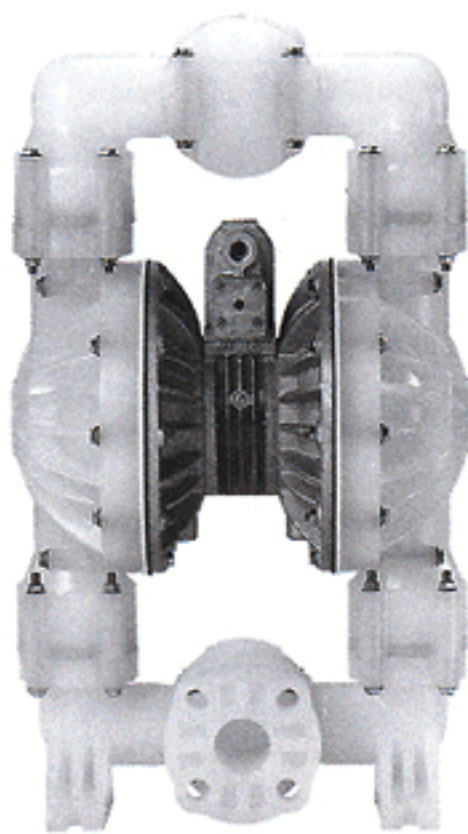
**SHIPPING WEIGHTS**

E2PA.....76.2 lbs (34.56 kg)

E2PS.....110.2 lbs (49.99 kg)

E2KA.....102.2 lbs (46.36 kg)

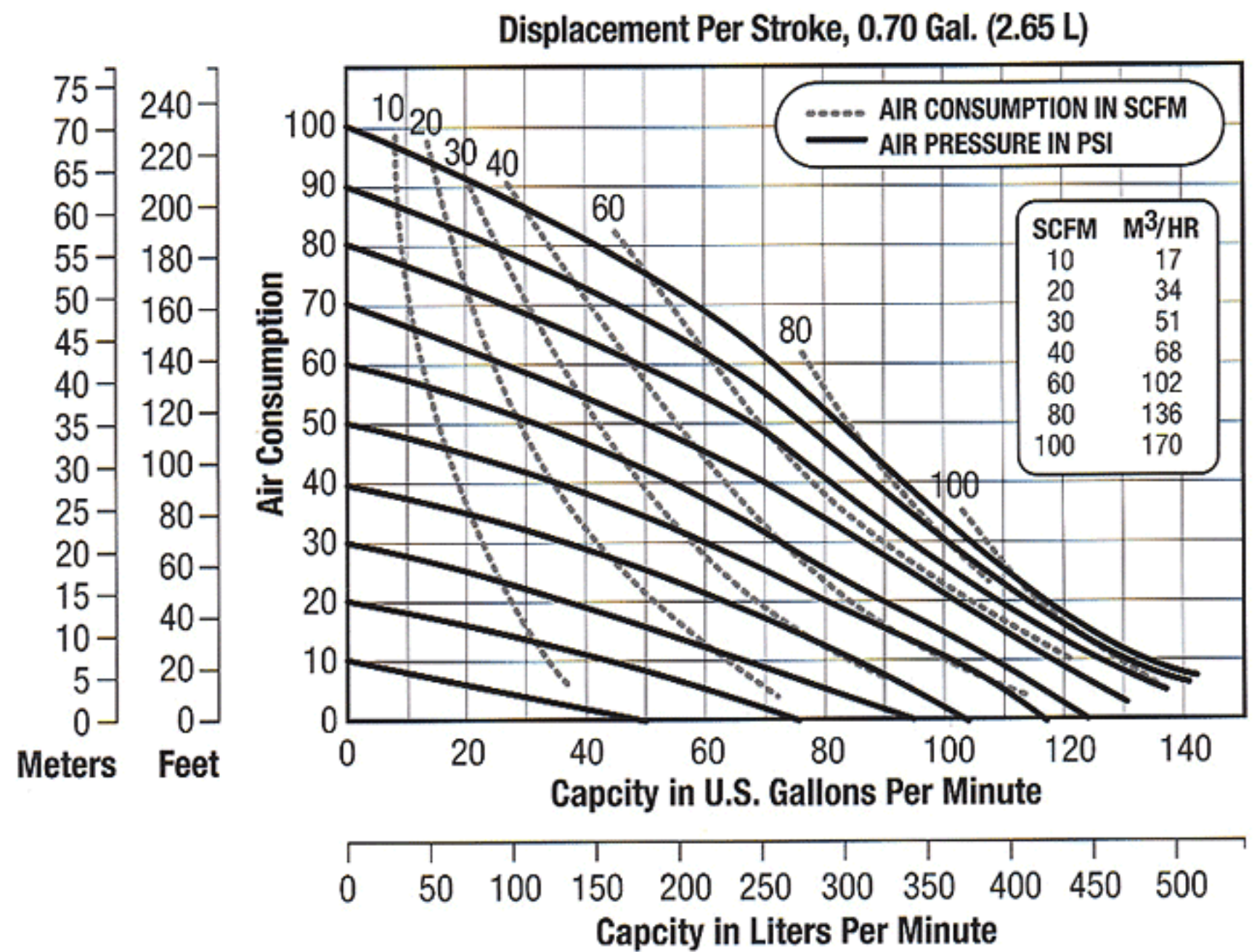
E2KS.....136.2 lbs (61.78 kg)



## PERFORMANCE

Determined by actual flow meter tests.

E2



**NOTE:** For E2P pumps fitted with Teflon® diaphragms, reduce water discharge figures by 20%. Suction lift is reduced to 10' (3.05m) dry and 20' (6.10m) wet.

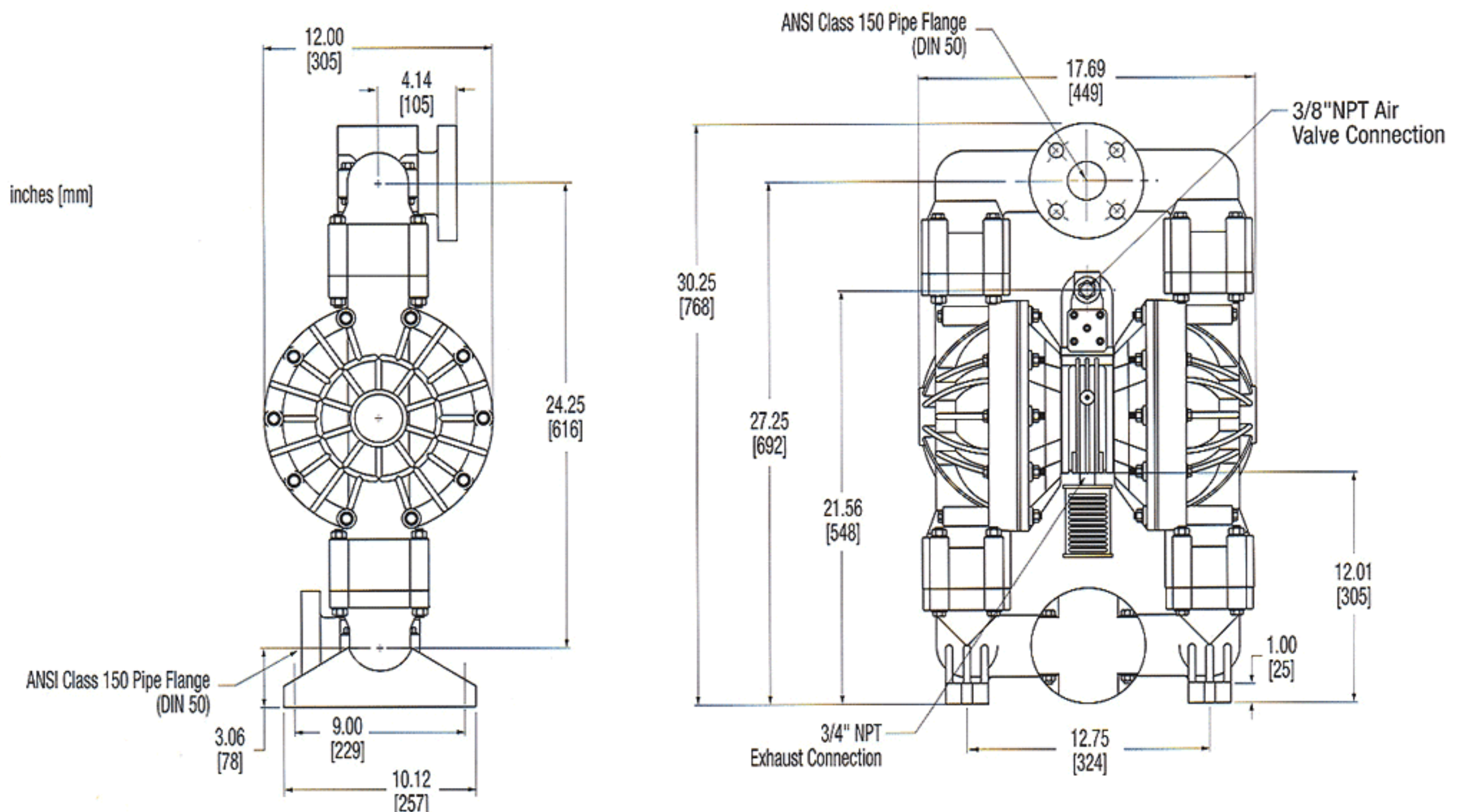
**CAUTION:** Do not exceed 100 psig (6.9 bars) air supply or liquid pressure.  
**Adjustable Inlet/Discharge.**

20

## DIMENSIONS

Consult factory for certified drawings.

E2





# E3 3" Clamped Metallic Pumps Specifications and Performance

## SPECIFICATIONS

E3

FLOW RATE adjustable to.....0-260 gpm (984 lpm)

### PORT SIZE

Inlet.....3.0" NPT (BSP)

Discharge.....3.0" NPT (BSP)

AIR INLET.....0.5" NPT

AIR EXHAUST.....1.0" NPT

SUCTION LIFT.....20' Dry/25' Wet (6.10m/7.62m)

Teflon®.....10' Dry/20' Wet (3.05m/6.10m)

MAX. PARTICLE SIZE (Diameter) ..0.375"(9.52mm)

### SHIPPING WEIGHTS

Aluminum.....115 lbs (52.16 kg)

Cast Iron, Stainless.....210 lbs (95.25 kg)

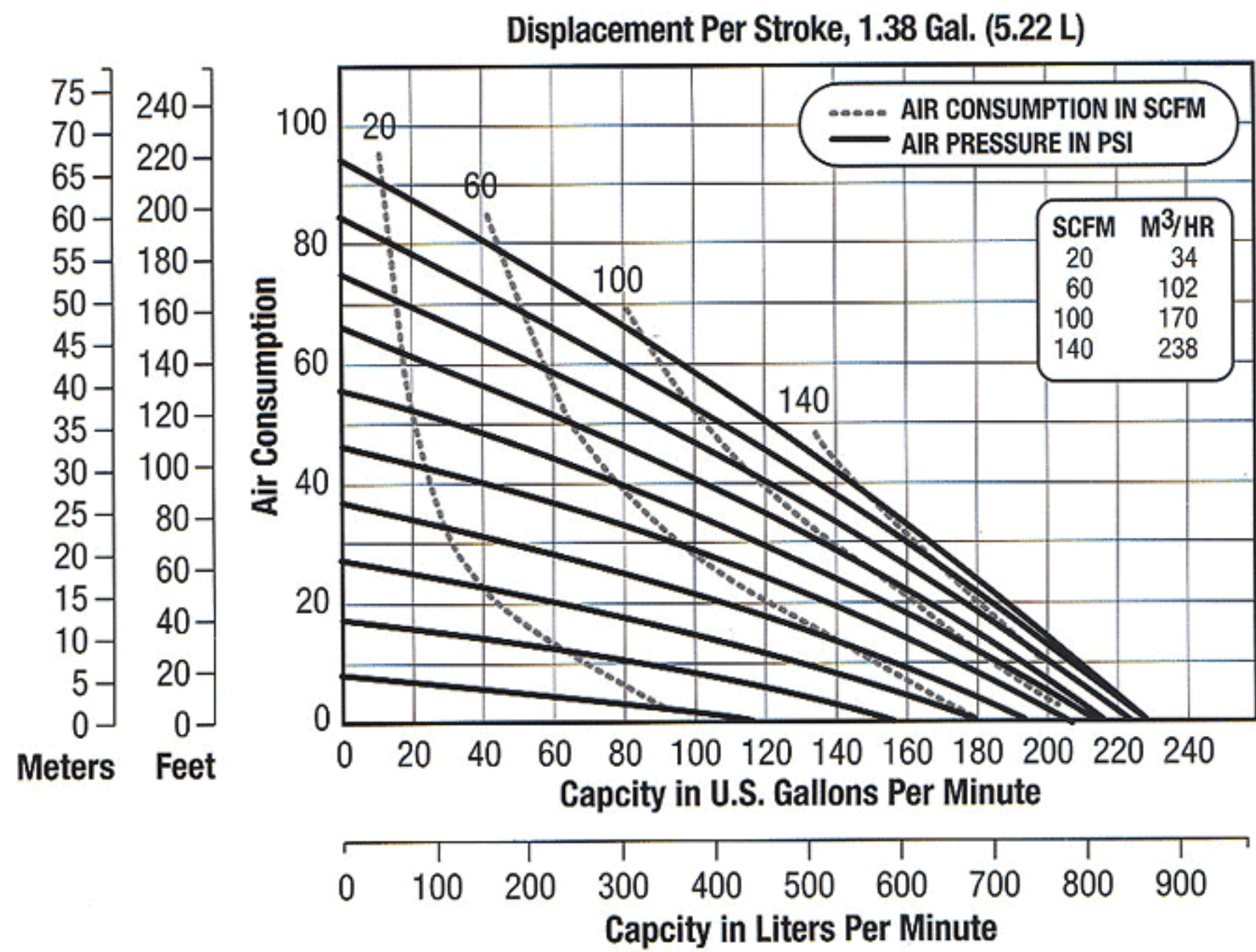
Hastelloy C.....220 lbs (99.79 kg)



## PERFORMANCE

Determined by actual flow meter tests.

E3



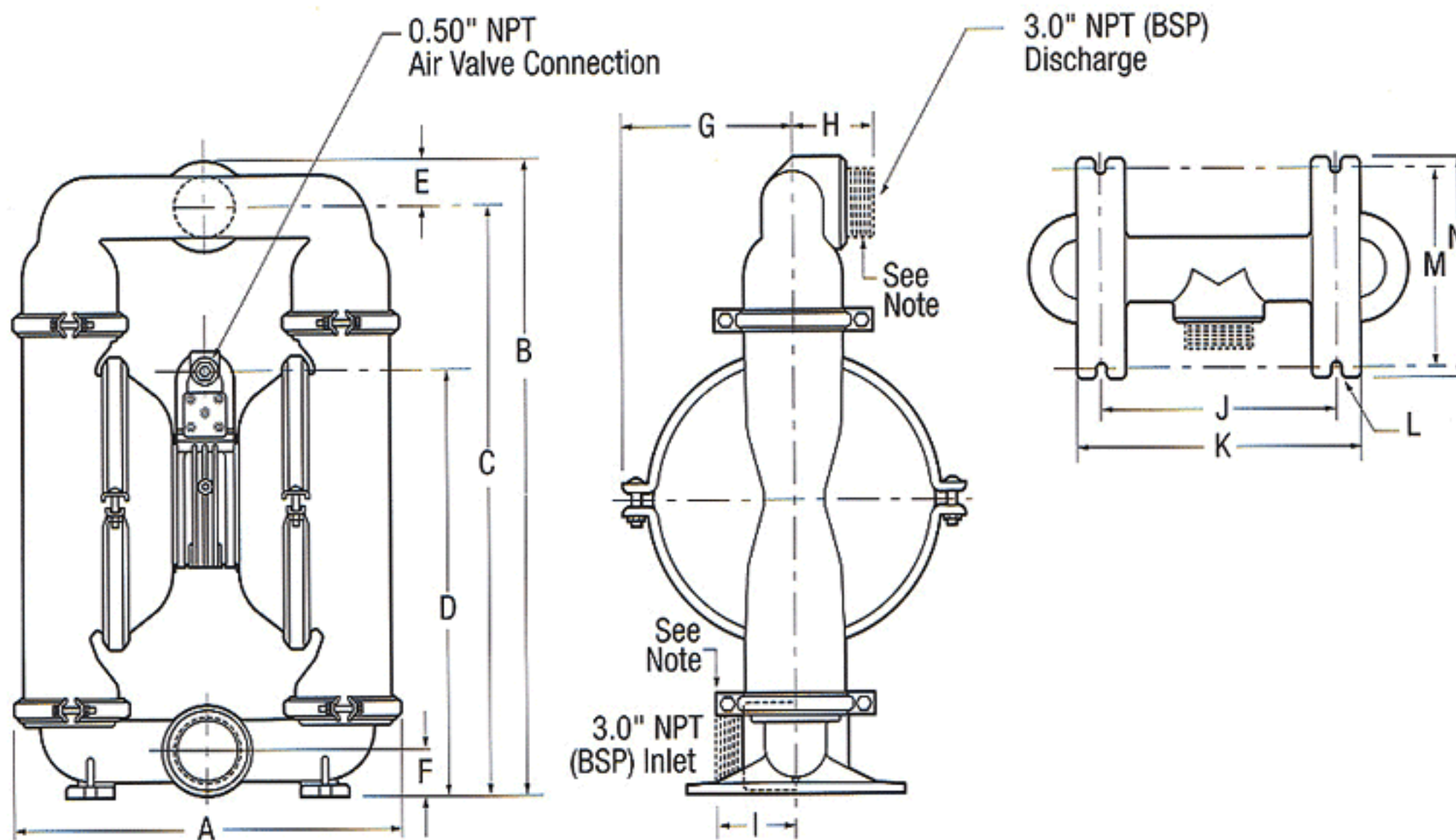
**NOTE:** For E3 pumps fitted with Teflon® diaphragms, reduce water discharge figures by 20%. Suction lift is reduced to 10' (3.05m) dry and 20' (6.10m) wet.

**CAUTION:** Do not exceed 125 psig (8.5 bars) air supply or liquid pressure. Screen Mount Available For Aluminum Model.

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## DIMENSIONS Consult factory for certified drawings.

E3



**NOTE:** Cast-in-Place Nipple, Aluminum Pump Only. Female threaded on others.

ITEM	INCHES	METRIC MM
A	20.00	508
B	32.00 32.75*	813 832*
C	29.62 30.50*	752 775*
D	21.50	546
E	2.30	58
F	2.30	58
G	9.00	229
H	4.00 2.75**	102 70**
I	4.00 2.75**	102 70**
J	14.25	362
K	12.00	305
L	.60 (slot width)	15 (slot width)
M	10.00	254
N	11.00	279

\*Cast Iron Pumps

\*\*Cast Iron, Hastelloy C and Stainless Steel Pumps



# E3 3" Bolted Metallic Pumps Specifications and Performance

## SPECIFICATIONS

E3

**FLOW RATE** adjustable to .....0-230 gpm (870 lpm)

**PORT SIZE**

Inlet and Outlet:

Stainless Steel .....3.0" ANSI, 150 lb class (DIN 80)

**AIR INLET** .....0.50" NPT

**AIR EXHAUST** .....1.0" NPT

**SUCTION LIFT** .....20' Dry/25' Wet (6.09m/7.62m)

Teflon® .....10' Dry/20' Wet (3.05m/6.09m)

**MAX. PARTICLE SIZE** (Diameter) .....0.75" (19.1mm)

**SHIPPING WEIGHTS**

Aluminum .....150 lbs (68 kg)

Stainless Steel .....250 lbs (113 kg)

Hastelloy C .....275 lbs (125 kg)

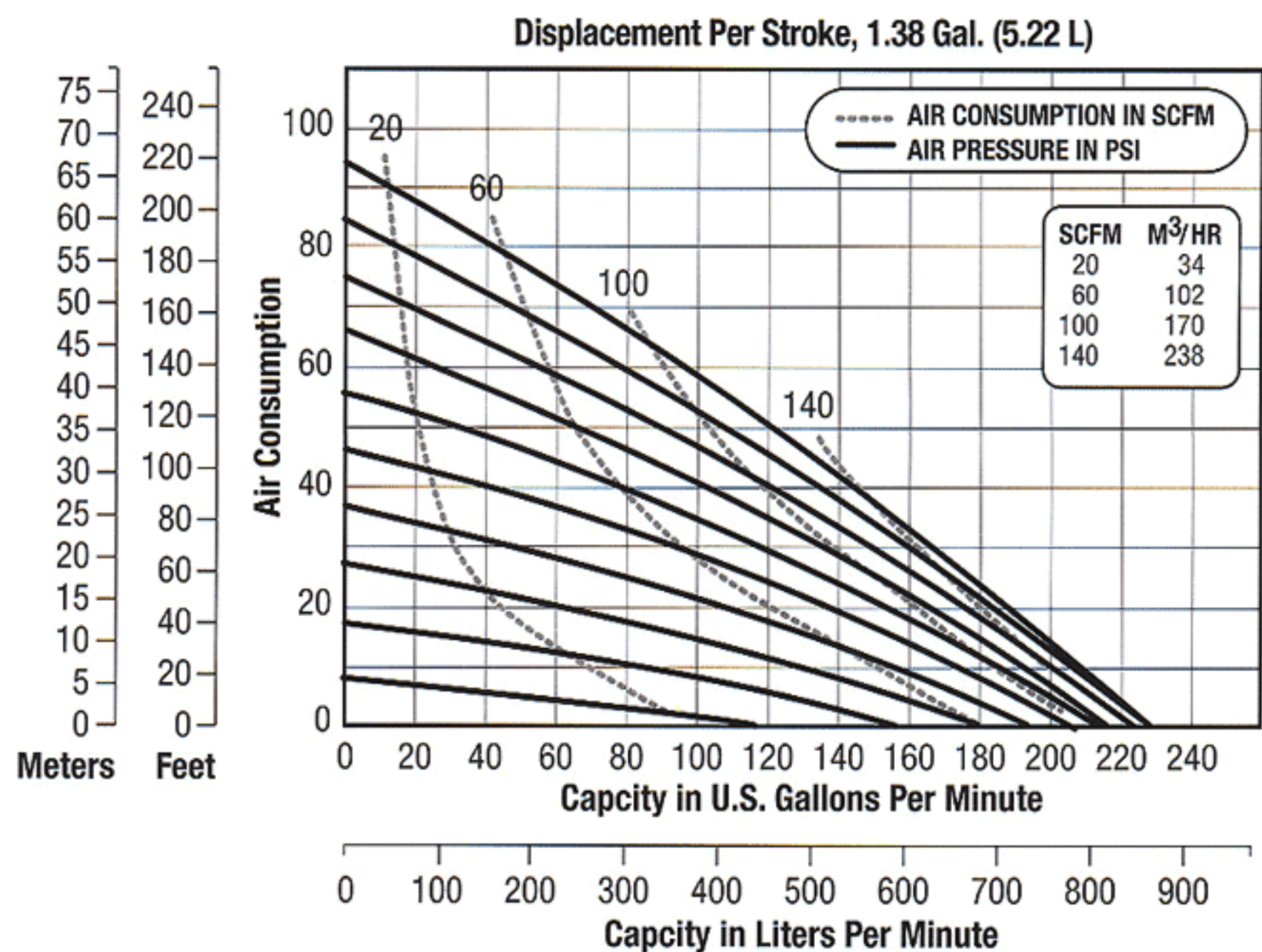


22

## PERFORMANCE

Determined by actual flow meter tests.

E3



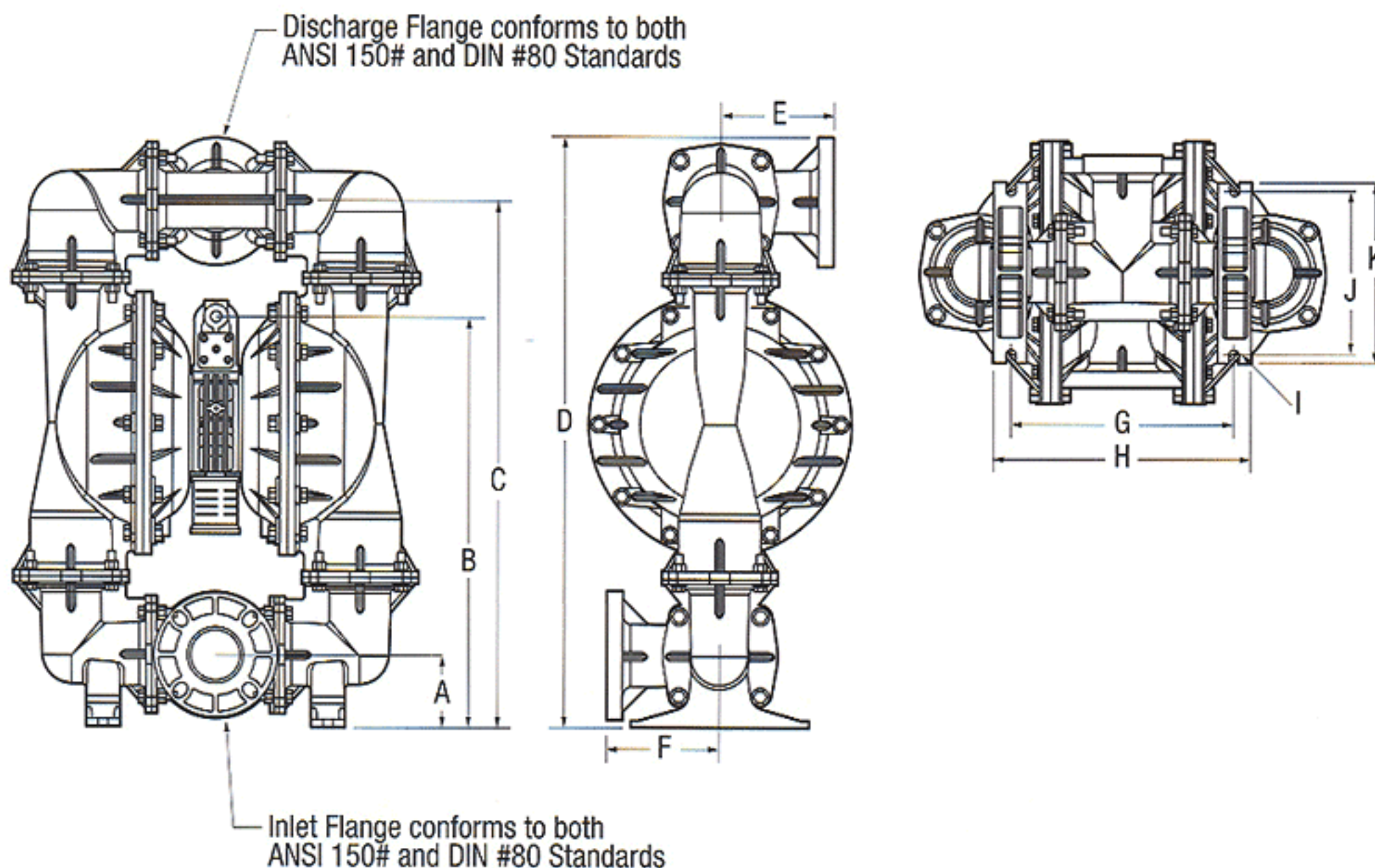
**NOTE:** For E3 pumps fitted with Teflon® diaphragms, reduce water discharge figures by 20%. Suction lift is reduced to 10' (3.05m) dry and 20' (6.10m) wet.

**CAUTION:** Do not exceed 125 psig (8.5 bars) air supply or liquid pressure.

## DIMENSIONS

Consult factory for certified drawings.

E3



ITEM	INCHES	METRIC MM
A	4.37	111
B	24.51 [25.22]	623 [641]
C	32.12 [32.38]	816 [823]
D	36.06 [36.31]	916 [922]
E	3.50 [6.94]	89 [176]
F	3.50 [6.94]	89 [176]
G	14.12 [14.00]	359 [356]
H	16.62 [16.00]	422 [406]
I	R .30	8
J	10.00	254
K	11.00	279

[Aluminum Pumps]



# E3 3" Plastic Bolted Pumps Specifications and Performance

## SPECIFICATIONS

E3

**FLOW RATE** adjustable to.....0-238 gpm (901 lpm)  
**PORT SIZE**

Inlet and Outlet.....3.0" ANSI or DIN 80 Flange

**AIR INLET** .....0.75" NPTF

**AIR EXHAUST** .....1.00" NPTF

**SUCTION LIFT**.....20' Dry/25' Wet (6.10m/7.62m)

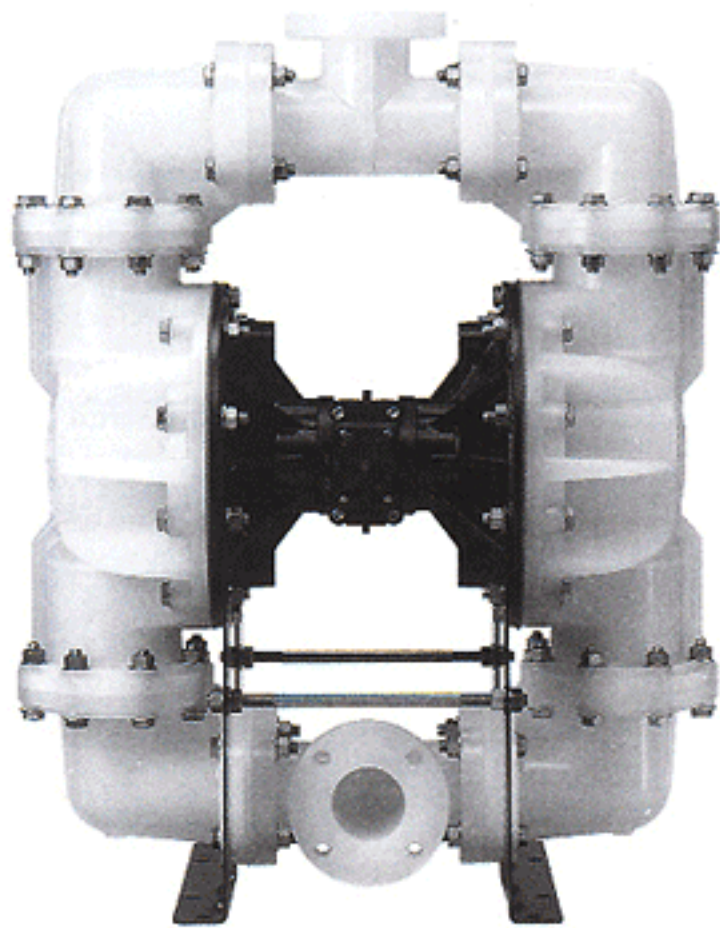
Teflon®.....10' Dry/20' Wet (3.05m/6.10m)

**MAX. PARTICLE SIZE** (Diameter) .....0.71" (18mm)

### SHIPPING WEIGHTS

Polypropylene .....231 lbs (105 kg)

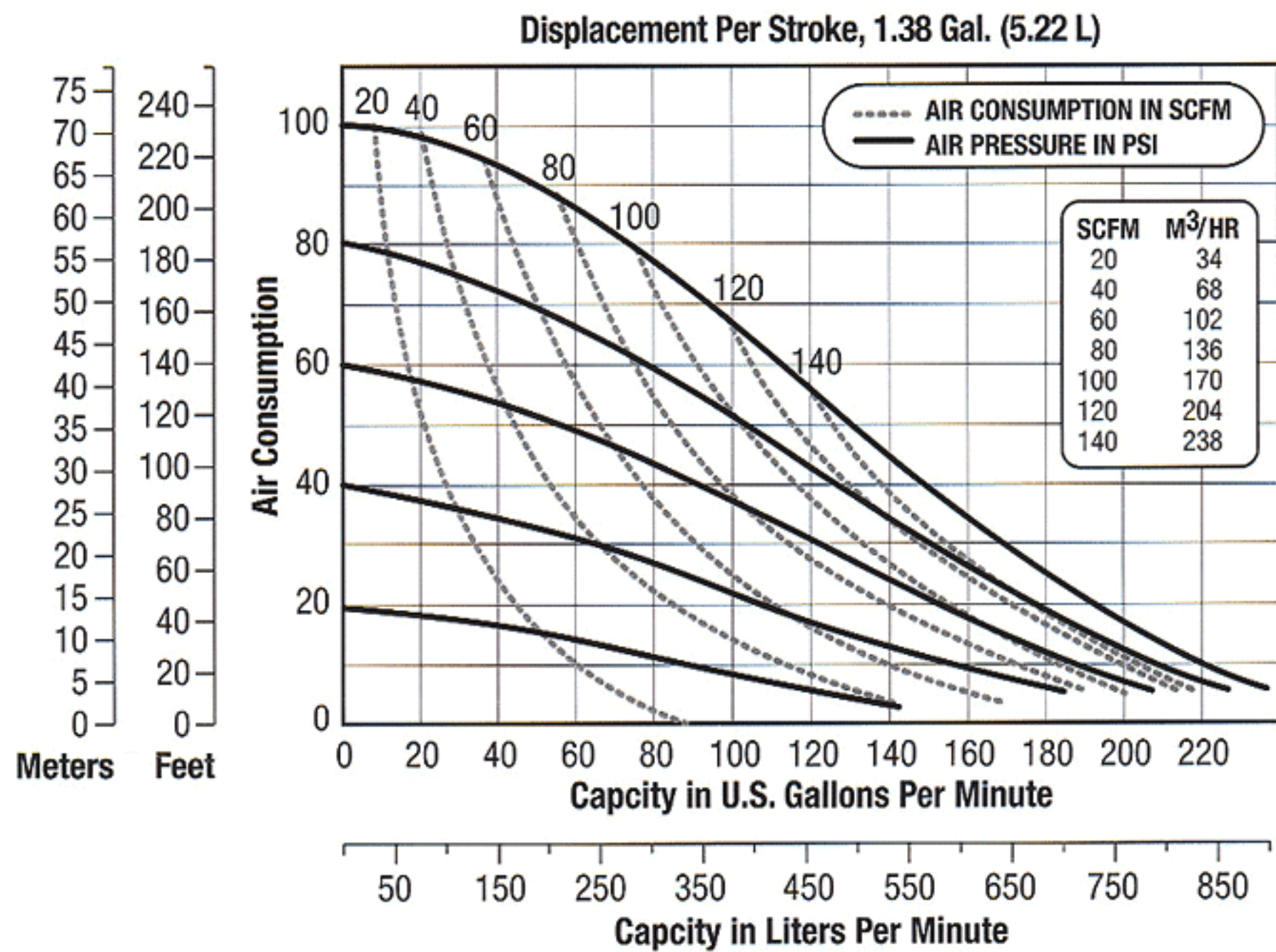
PVDF .....315 lbs (143 kg)



## PERFORMANCE

Determined by actual flow meter tests.

E3



**NOTE:** For E3P pumps fitted with Teflon® diaphragms, reduce water discharge figures by 20%. Suction lift is reduced to 10' (3.05m) dry and 20' (6.10m) wet.

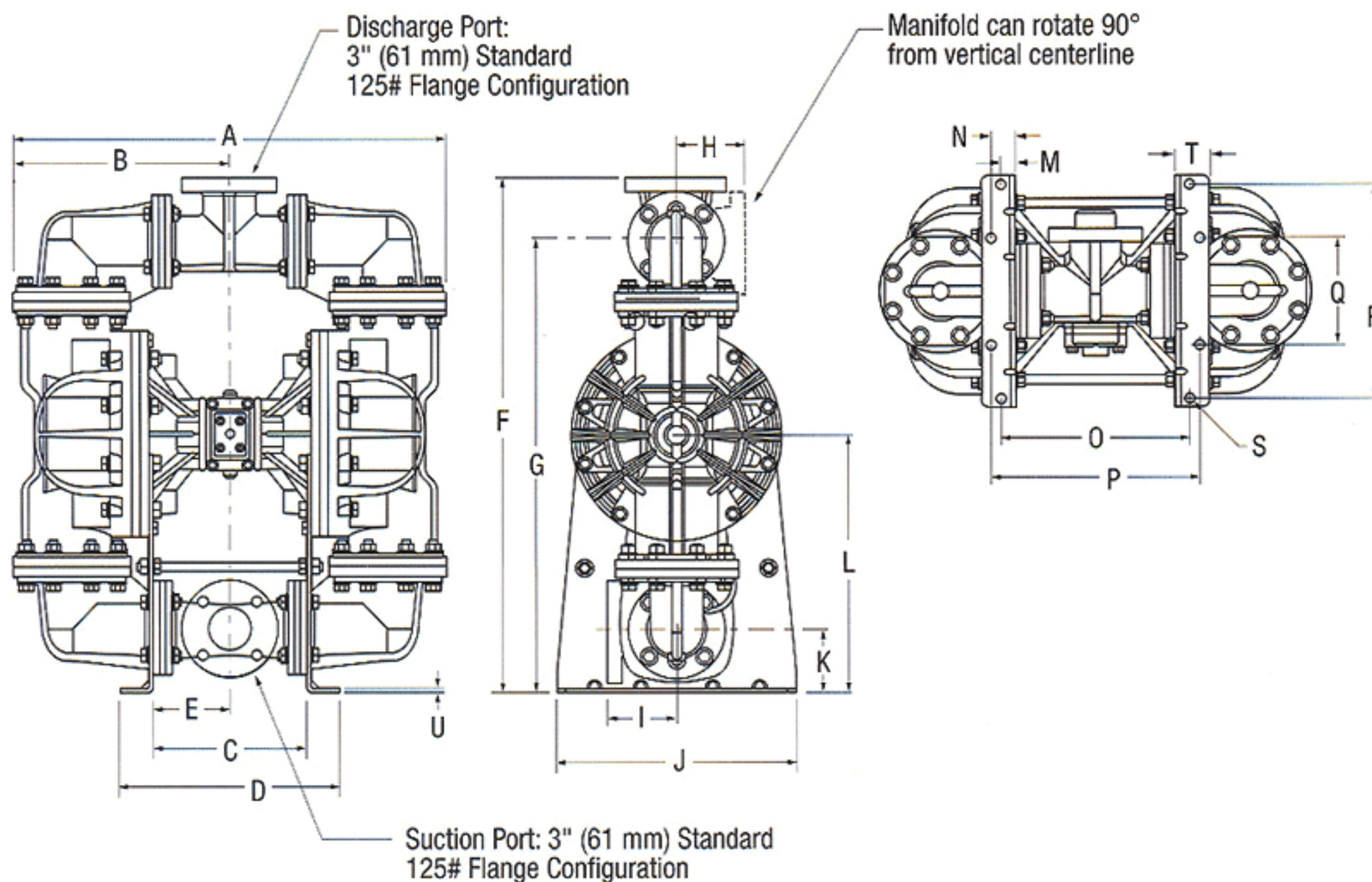
**CAUTION:** Do not exceed 125 psig (8.5 bars) air supply or liquid pressure.

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## DIMENSIONS

Consult factory for certified drawings.

E3



ITEM	INCHES	METRIC MM
A	33.38	848
B	16.69	423
C	12.31	313
D	17.31	440
E	6.16	156
F	40.63	1032
G	35.63	905
H	5.00	127
I	5.00	127
J	18.25	464
K	4.88	124
L	20.25	514
M	1.09	28
N	1.84	47
O	14.50	368
P	16.00	406
Q	8.44	214
R	16.88	429
S	.75 Dia	19 Dia
T	6.16	156
U	0.19	5

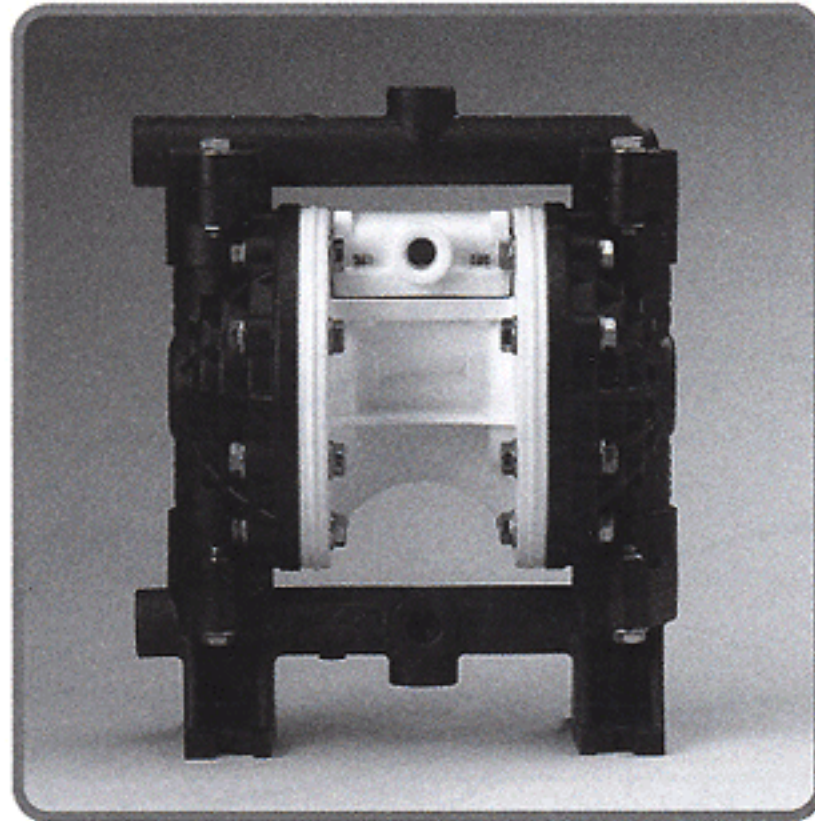


# Specialty Pumps

## With The Exclusive Elima-Matic® Air Valve System

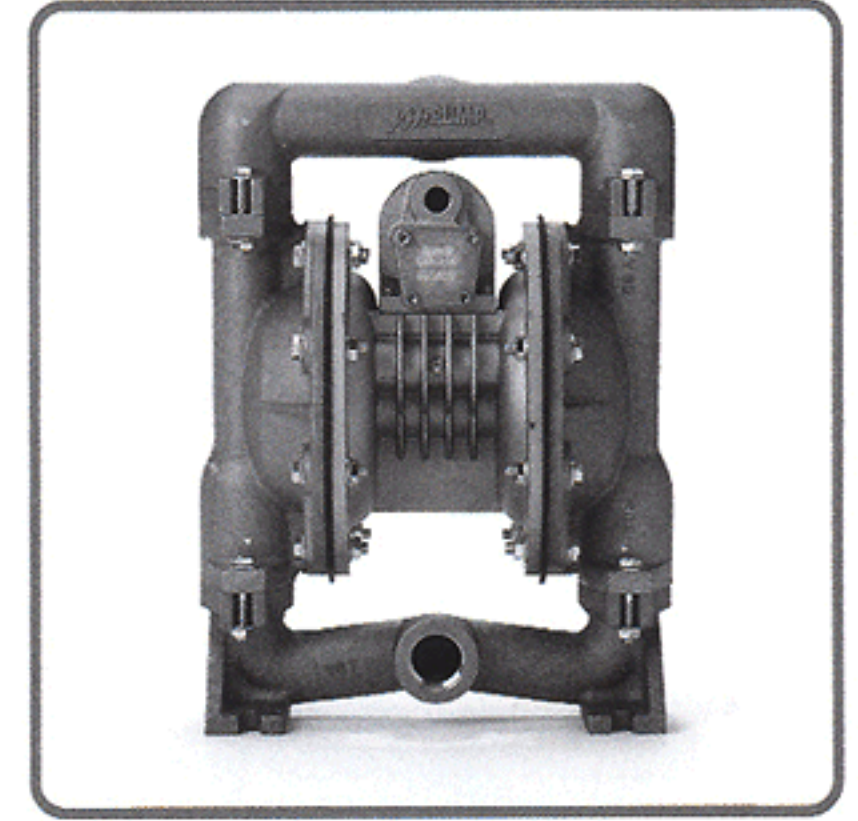
### GROUNDABLE ACETAL PUMPS

The Groundable Acetal pump is constructed to accommodate grounding of a non-metallic pump. This feature allows the pump to safely transfer solvent, and other volatile liquids without the danger of static electricity build-up. This pump has been tested by an independent laboratory to ensure quality and safety. The E5 Acetal pump passed both the VAN deGRAAF Generator Test and the Unrestricted Flow Test. For written test results and test criteria information please contact the Versa-Matic® Pump Company directly.



### UL LISTED PUMPS

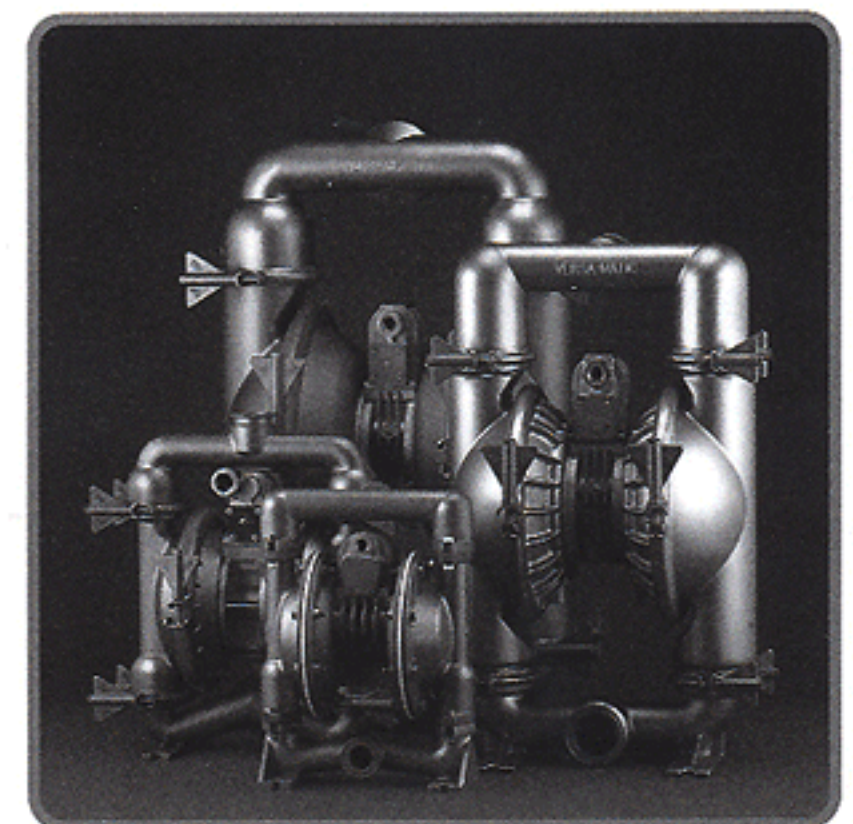
The UL Listed pumps have been tested and listed by Underwriters Laboratories for safe, spark-free flammable liquid transfer applications such as diesel fuel, kerosene, gasoline, aviation fuel, alcohol, and many others. They are available in a variety of different wet end materials of construction.



### FOOD PROCESSING PUMPS

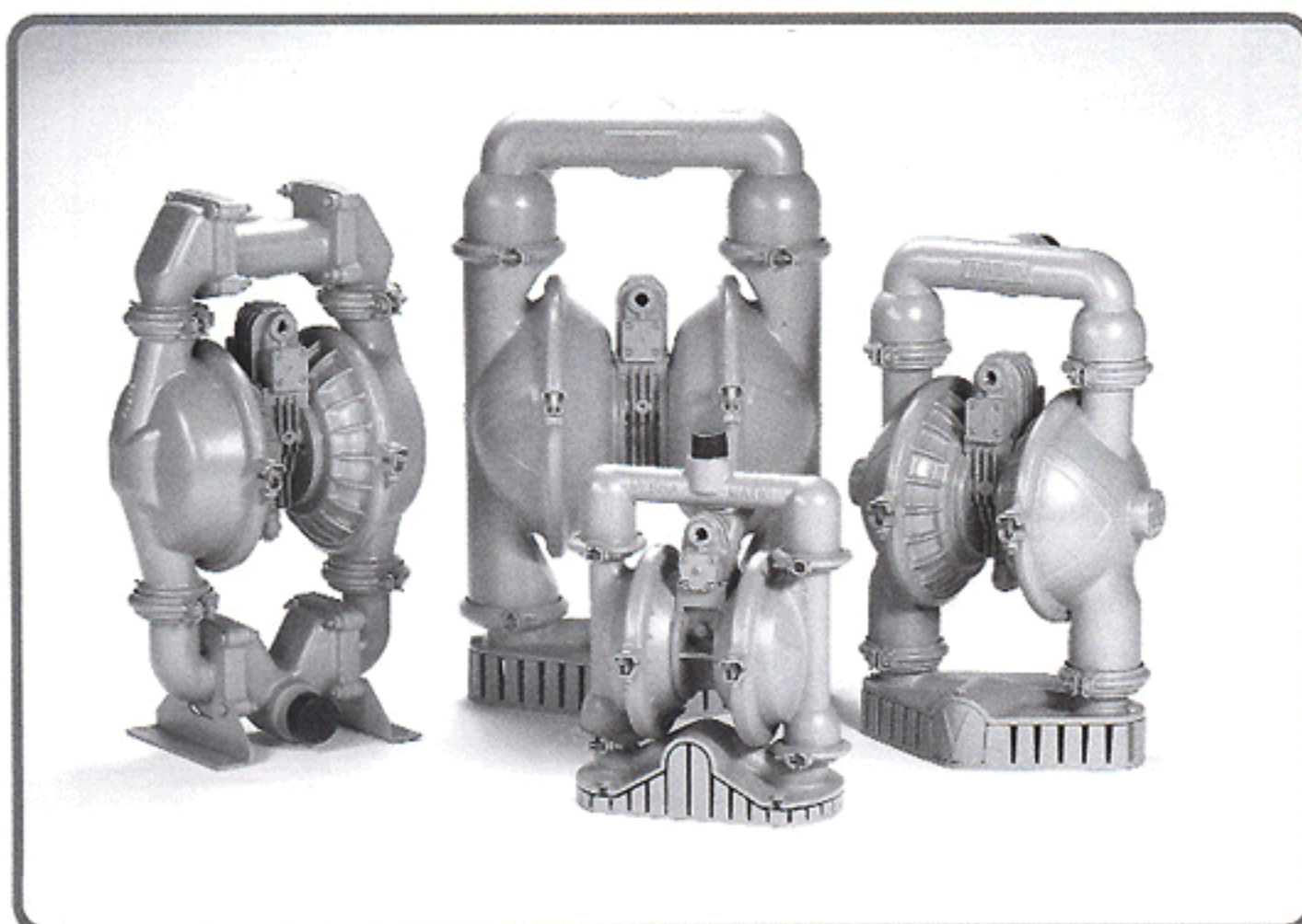
Elima-Matic® food-processing pumps are built with FDA-compliant materials so they can be specified in applications requiring FDA approval. The innovative Elima-Matic® air valve system virtually eliminates icing, stalling and the need for lubrication. Elima-Matic FDA pumps are available in 1/2", 1", 1-1/2", 2" and 3" sizes with optional Versa-Sense™ leak detection system.

- Bead-blasted, passivated 316 stainless steel wetted sections
- Hytre® and Teflon® food-grade elastomers
- Tri-clamp connections and wing-nut clamp bands for quick disassembly/assembly
- Nickel-plated aluminum center sections
- Flow range up to 260 gal/min
- Pre-cast bosses for use with optional leak detectors



### SOLIDS HANDLING PUMPS

Versa-Matic® screen mounted and flap valve pumps are designed to pump mediums which contain large solids. Used extensively in the construction and mining industries these pumps can handle semi-solids up to 1.125" (28.57mm) in diameter. The screen mounted bases screen the fluid to prevent larger solids from inhibiting the operation of the pump. They can be fully submerged for use in pits, sumps or other bodies of fluid (see instructions for submerged installation on page 3). These pumps can deliver flows up to 260 gpm (983 lpm) making quick work of many difficult applications.





# 1-1/2" and 2" Sanitary Pumps With The Exclusive Elima-Matic® Air Valve System

## SPECIFICATIONS E4 3A

**FLOW RATE** adjustable to.....0-60 gpm (227 lpm)

**PORT SIZE**

Inlet ..... 1.5" Tri-Clamp®

Outlet ..... 1.5" Tri-Clamp®

**AIR INLET** .....0.50" NPT

**AIR EXHAUST** .....0.75" NPT

**SUCTION LIFT — TEFLON®**

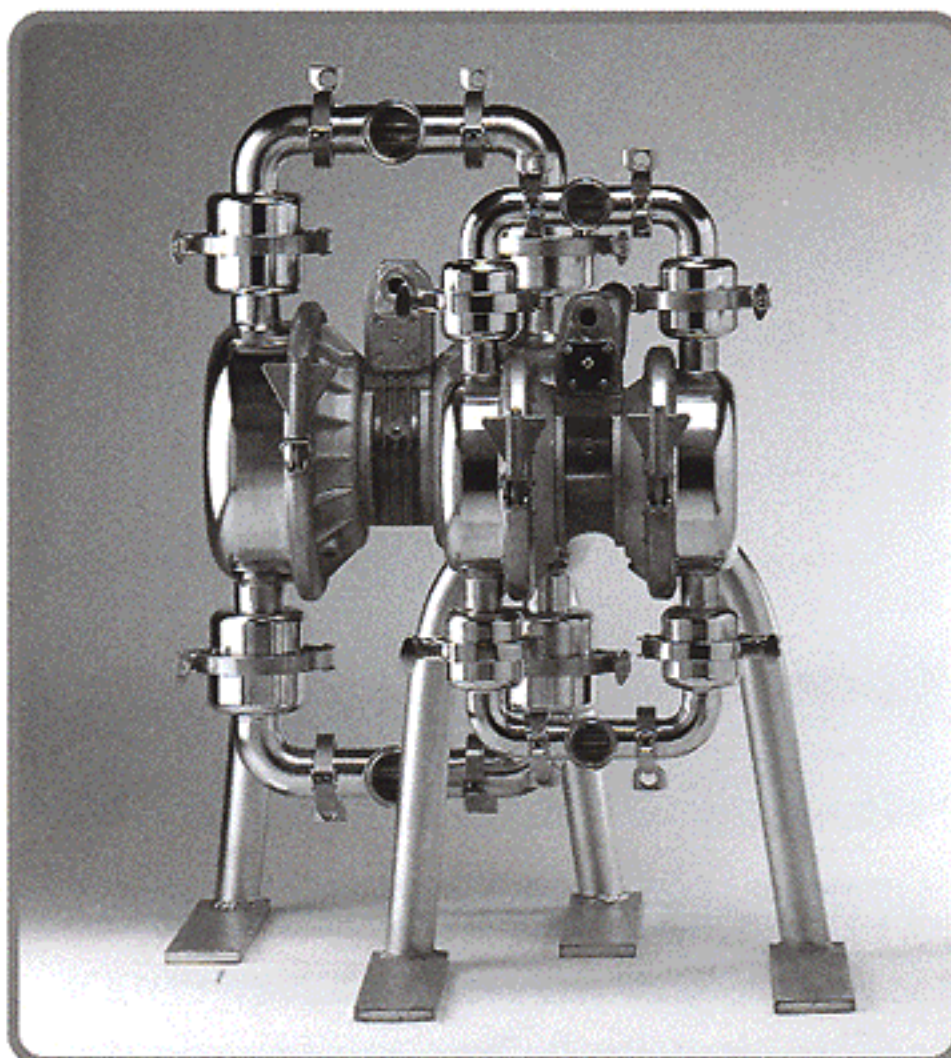
Dry ..... 10' (3.048m)

Wet ..... 20' (6.096m)

**MAX. PARTICLE SIZE (Dia.)** ..... 0.375" (9.53mm)

**SHIPPING WEIGHT** ..... 75 lbs (34.09kg)

**SURFACE FINISH** 32 micro-inch (0.8 micrometer)



## SPECIFICATIONS E2 3A

**FLOW RATE** adjustable to....0-180 gpm (680 lpm)

**PORT SIZE**

Inlet ..... 2.0" Tri-Clamp®

Outlet ..... 2.0" Tri-Clamp®

**AIR INLET** .....0.50" NPT

**AIR EXHAUST** .....0.75" NPT

**SUCTION LIFT — TEFLON®**

Dry ..... 10' (3.048m)

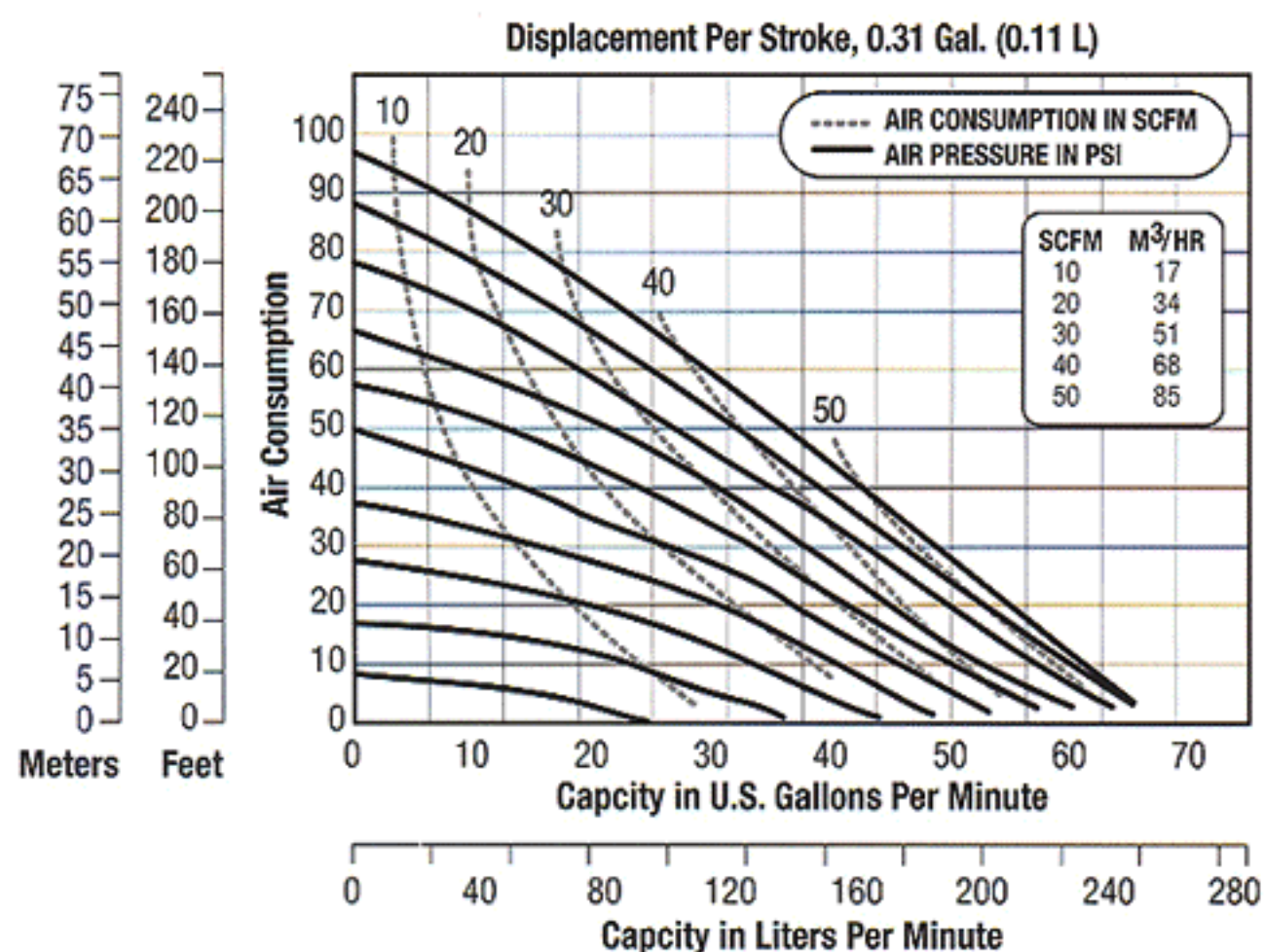
Wet ..... 20' (6.096m)

**MAX. PARTICLE SIZE (Dia.)** ..... 0.625" (15.88mm)

**SHIPPING WEIGHT** ..... 125 lbs (56.8kg)

**SURFACE FINISH** 32 micro-inch (0.8 micrometer)

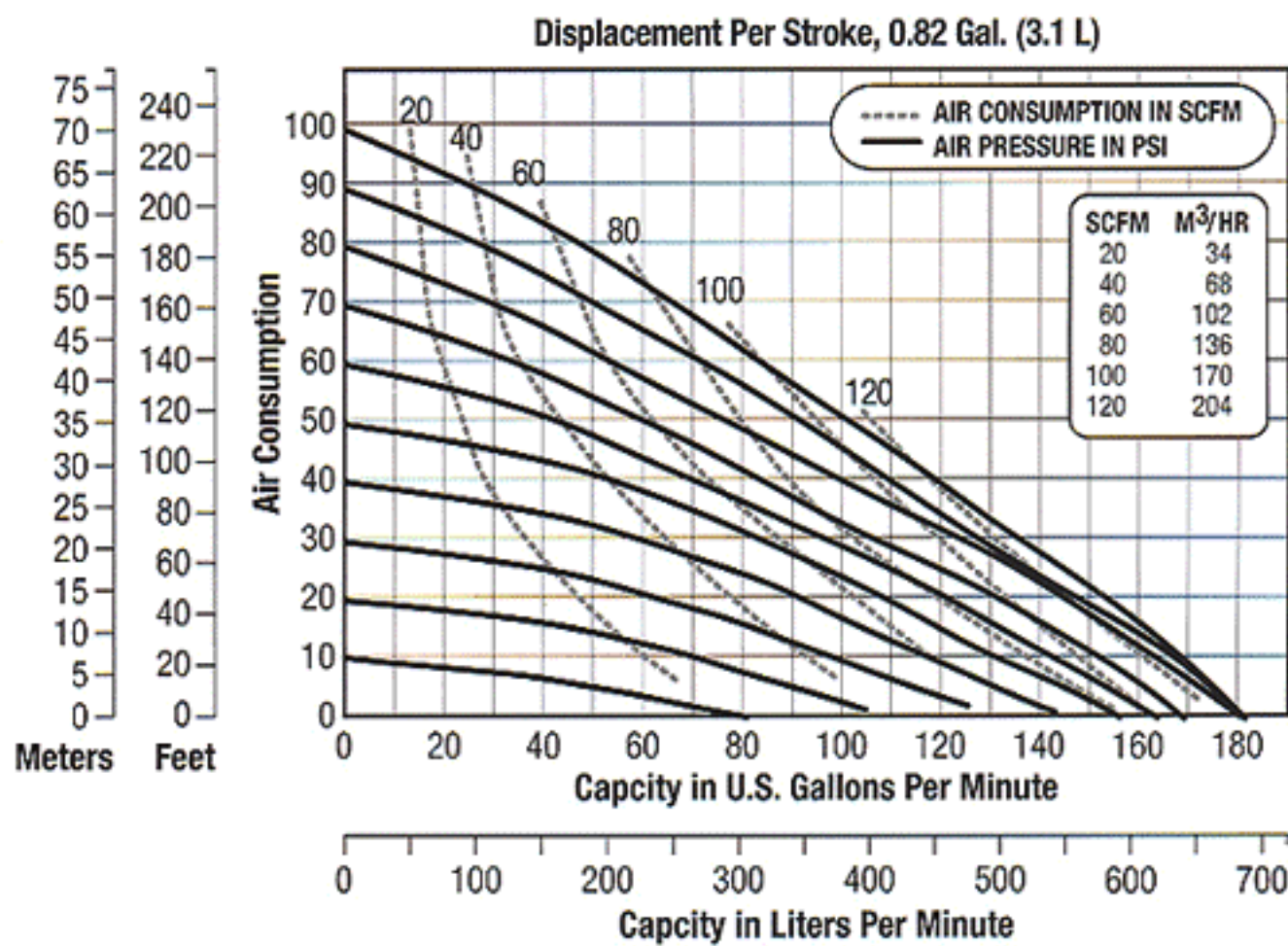
## PERFORMANCE E4 3A



Determined by actual flow meter tests.

**NOTE:** For E4 pumps fitted with Teflon® diaphragms, reduce water discharge figures by 20%. Suction lift is reduced to 10' (3.05m) dry and 20' (6.10m) wet.

## PERFORMANCE E2 3A



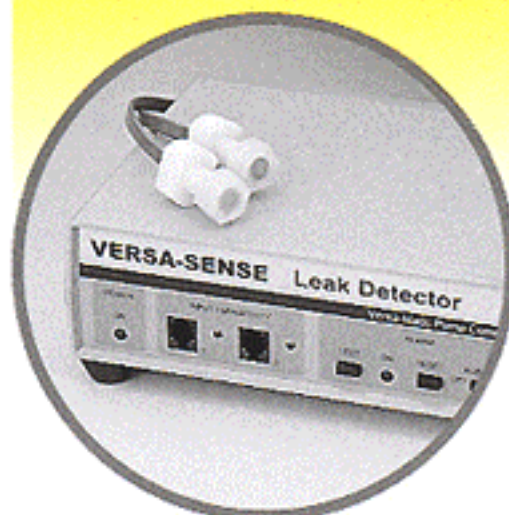
Determined by actual flow meter tests.

**NOTE:** For E2 pumps fitted with Teflon® diaphragms, reduce water discharge figures by 20%. Suction lift is reduced to 10' (3.05m) dry and 20' (6.10m) wet.

### Rotating Pump Stand



### Versa-Sense Leak Detection



## FEATURES



44-03  
11-20-2001

### Tri-Clamp® Connections

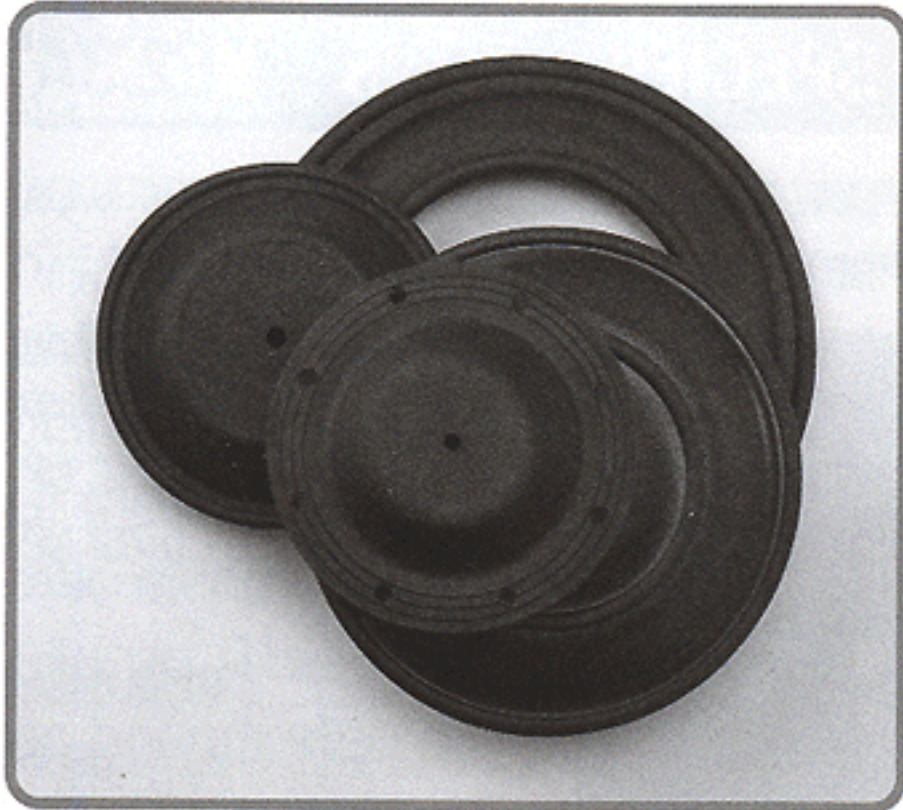


### Removable Ball Cage



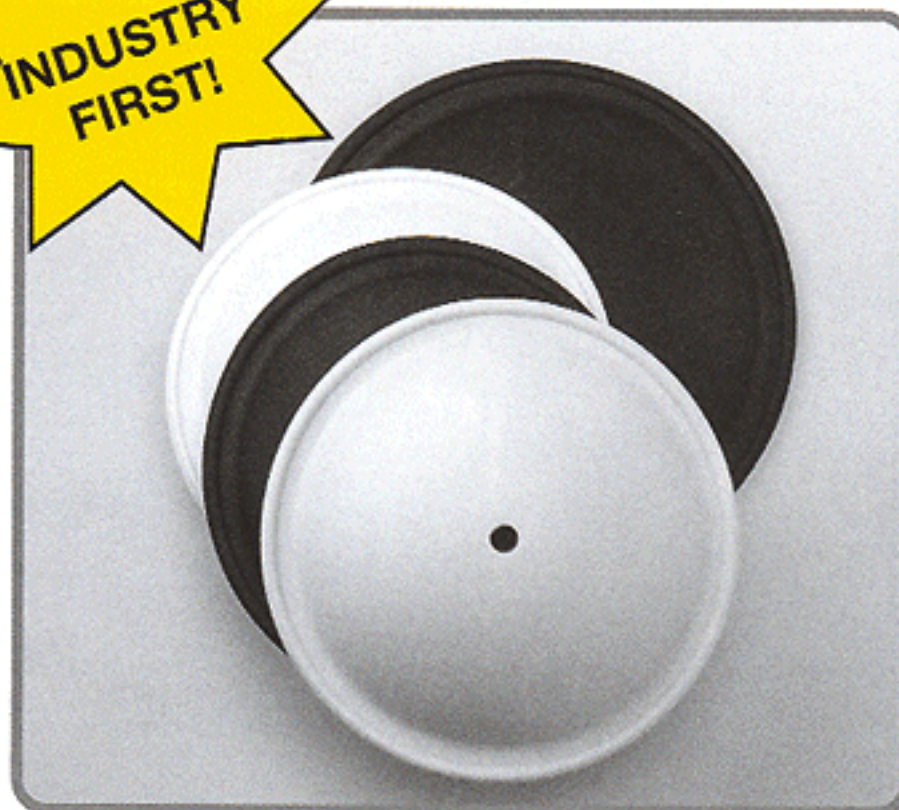


# Diaphragms



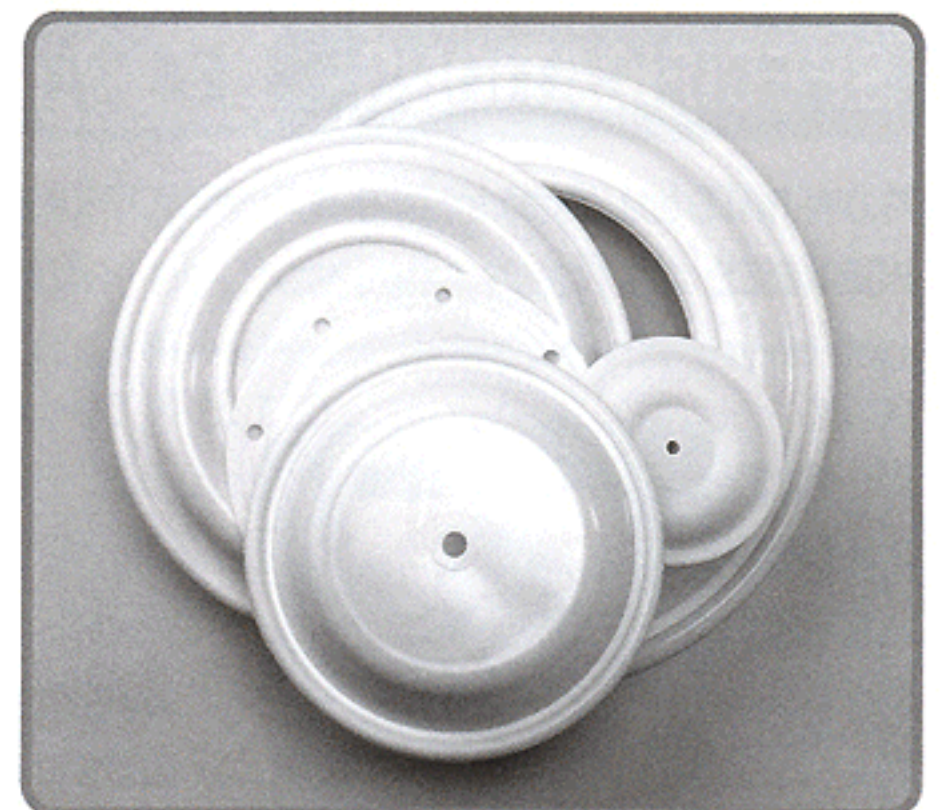
## VERSA-RUGGED VR™ SERIES DIAPHRAGMS

Versa-Matic's high quality fabric reinforced standard rubber diaphragms. They were designed to reduce maintenance and repair costs. Interchangeable with most Wilden® pump models.



## VERSA-DOME® DIAPHRAGMS

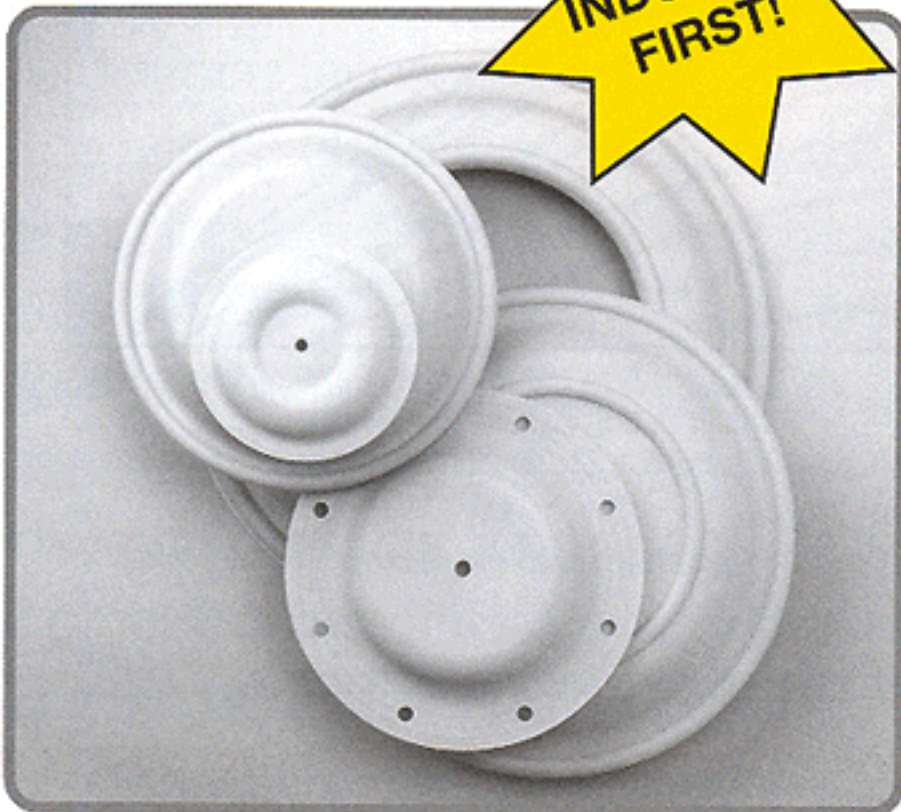
Their simple smooth dome shape eliminates complex angles, delivering the flex across the entire face of the diaphragm. The distribution of flex allows them to last up to 300 % longer than standard diaphragms. They are also interchangeable with Wilden® pumps.



## FDA HYTREL THERMOPLASTIC DIAPHRAGMS

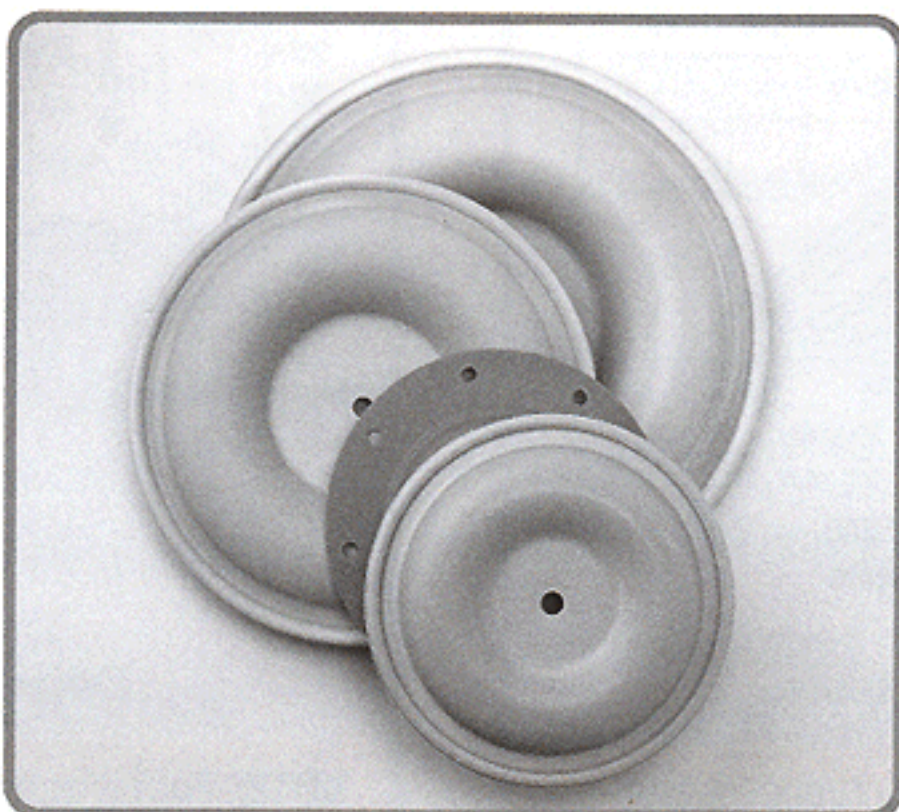
FDA Hytrel® food grade diaphragms are approved for use with food and dairy mediums. FDA Hytrel® diaphragms are also excellent in abrasive product transfer applications.

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## TPE-XL THERMOPLASTIC DIAPHRAGMS

Versa-Matic is the innovator of thermoplastic XL diaphragms. It has much of the chemical resistance of Teflon®, but costs significantly less. It is extremely abrasion resistant. XL is also interchangeable with Wilden® pumps.



## VERSA-TUFF TEFLON® DIAPHRAGMS

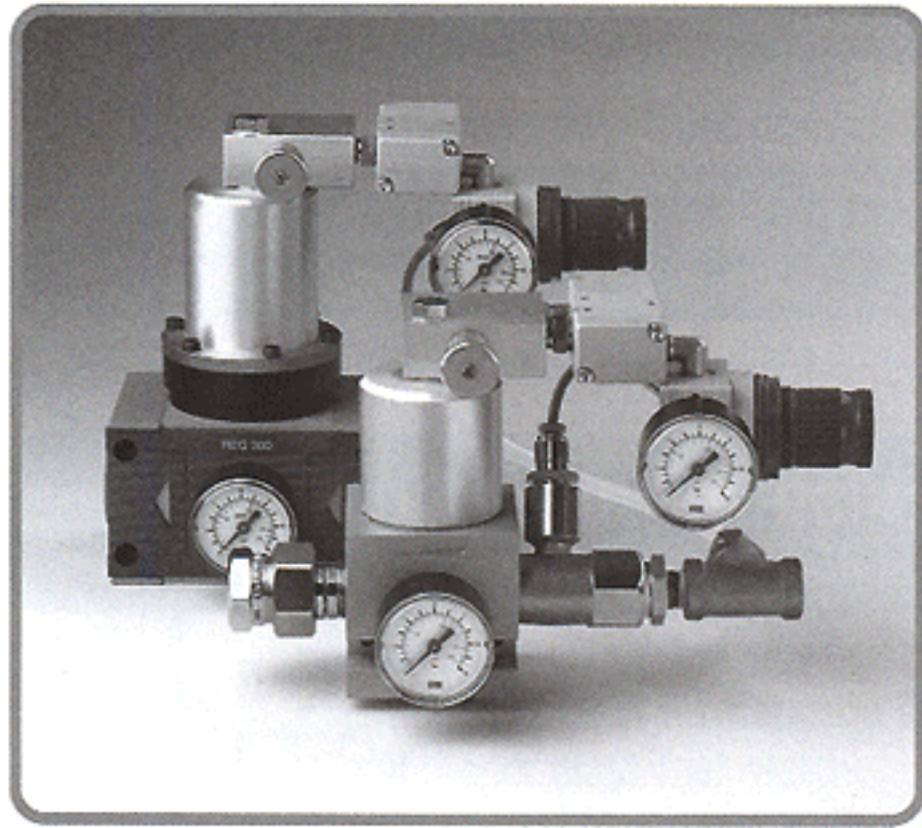
The Versa-Tuff Teflon® diaphragms are a single piece diaphragm combining the chemical resistance of Teflon® with the flex-life of rubber. They offer three times the burst strength of standard Teflon® overlays. They have been tested to over 23 million cycles without failure. Interchangeable with most Wilden® 1-1/4", 2" and 3" metallic pumps.

## TEMPERATURE LIMITS

NEOPRENE	0°F (-18°C) to +200°F (93°C)
BUNA-N	+10°F (-12°C) to +180°F (82°C)
NORDEL	-60°F (-51°C) to +280°F (138°C)
VITON	-40°F (-40°C) to +350°F (176°C)
TEFLON PTFE	+40°F (+4°C) to +220°F (105°C)
POLYURETHANE	+10°F (-12°C) to +170°F (77°C)
XL TPE	-20°F (-29°C) to +300°F (149°C)
TEFLON PFA	-20°F (-29°C) to +300°F (149°C)
FDA HYTREL	-20°F (-29°C) to +220°F (104°C)

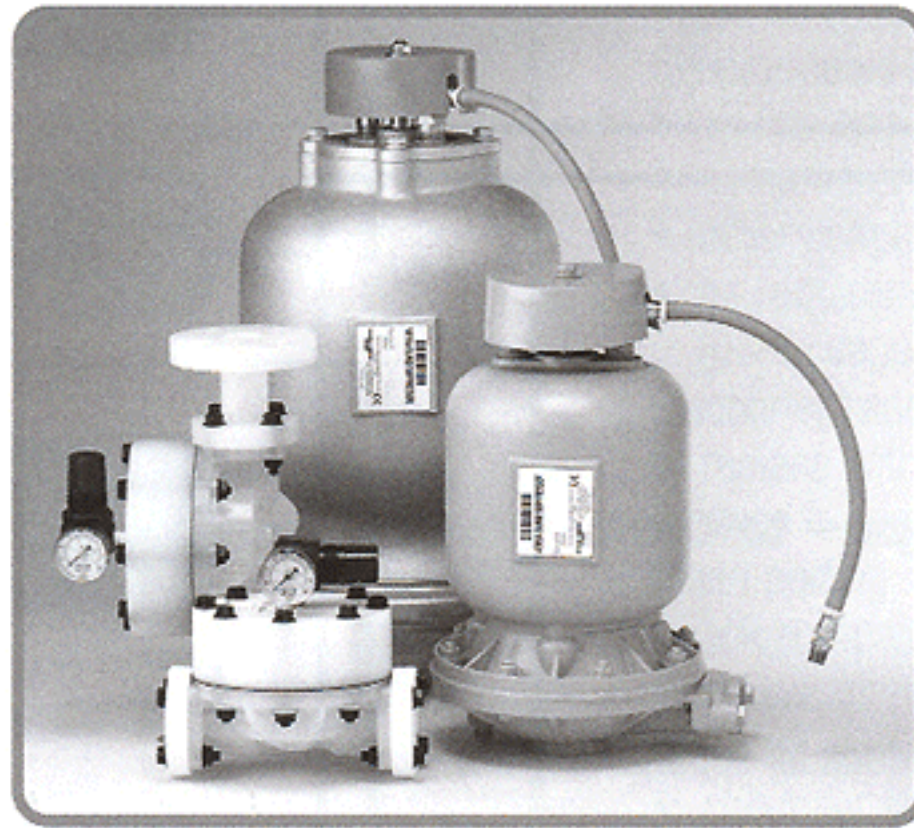


# Pump Accessories



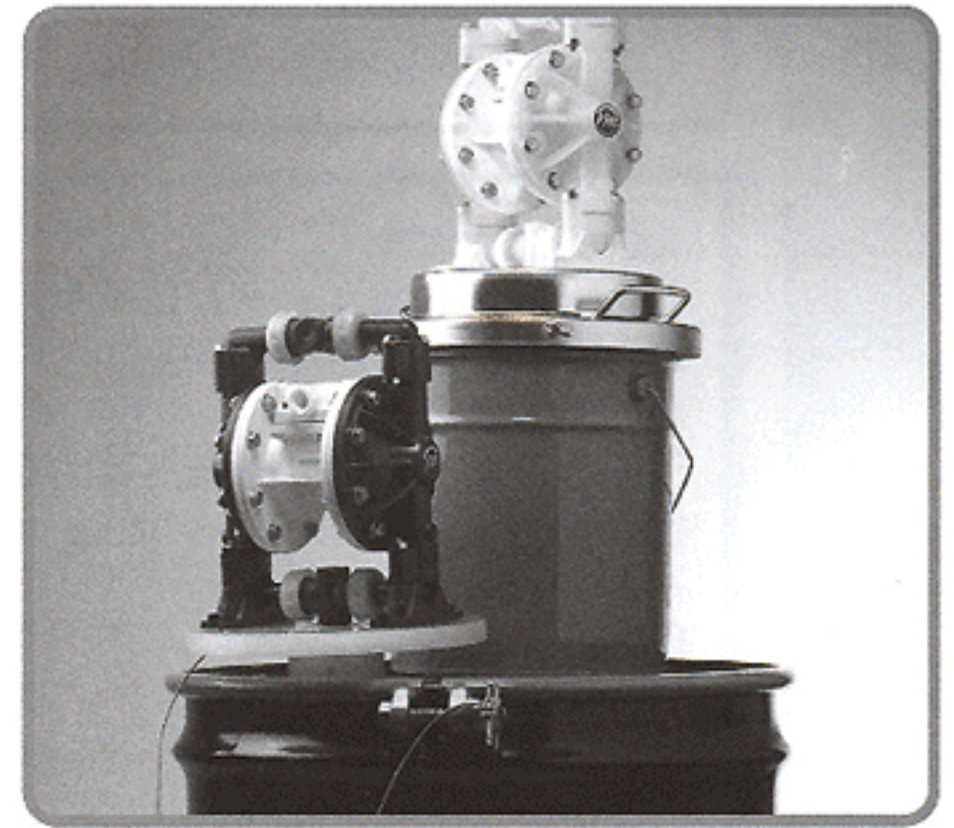
## ANTI-SHOCK VALVES

Protect your pumps, pipes and diaphragms from damage during start-ups. Our Smart Start Anti-shock valves enable compressed air to gradually increase to the desired pressure over a time period of up to 30 seconds.



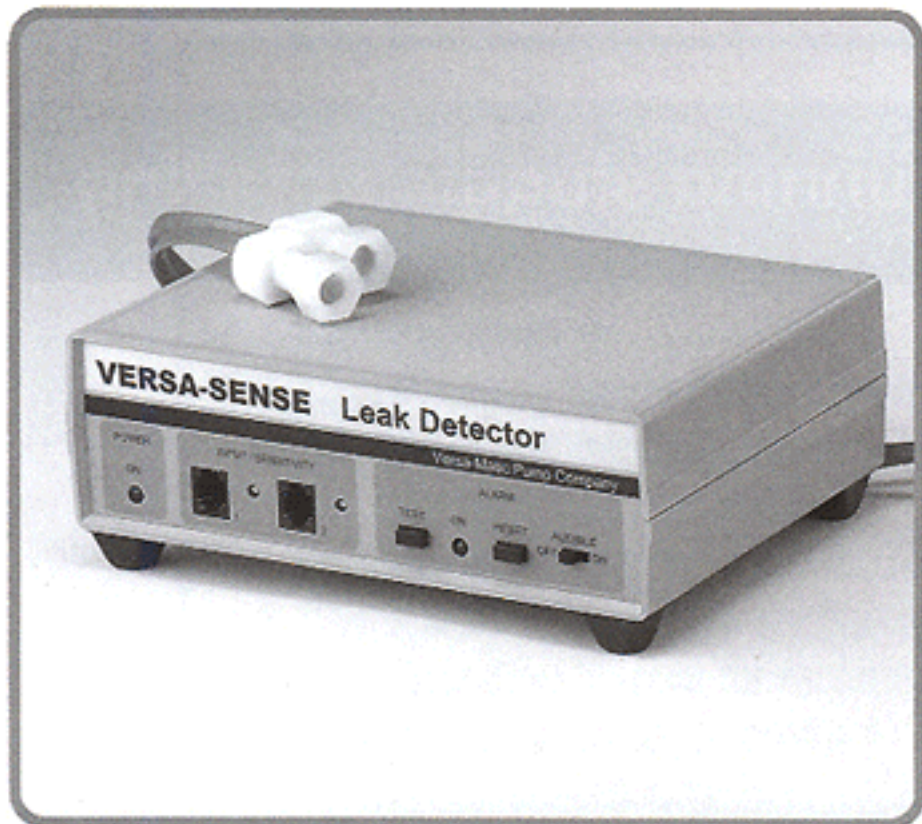
## SURGE SUPPRESSORS

Our surge suppressors provide virtually pulse-free discharge flow, for steadier pressure and less system vibration and noise. Self-charging and self-venting.



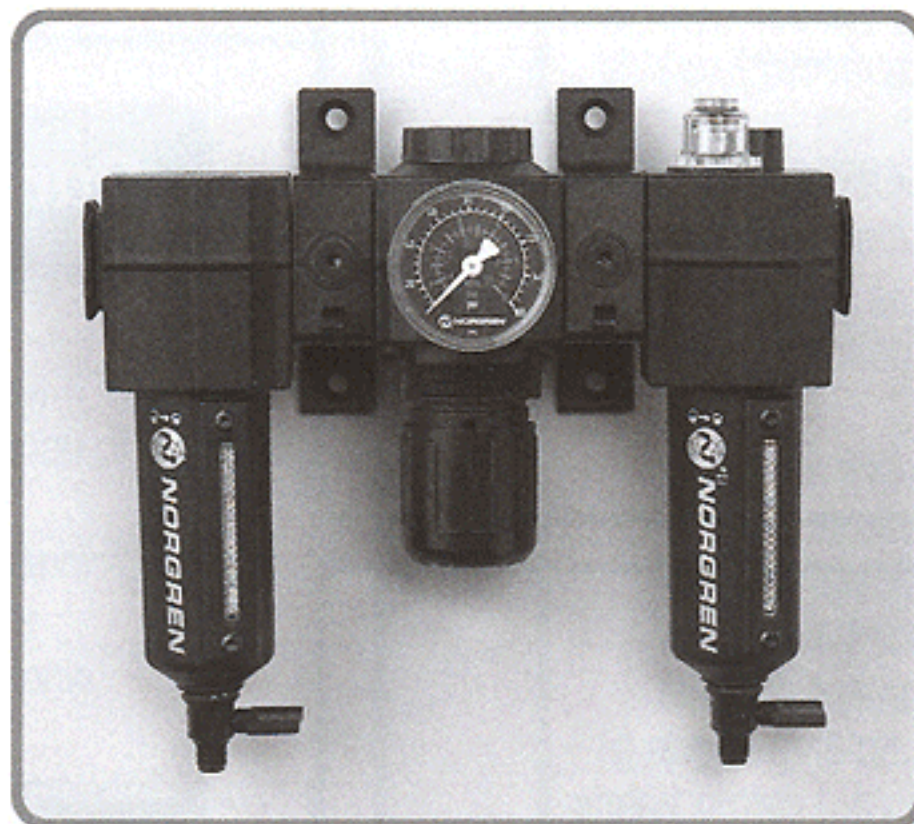
## PAIL AND DRUM TRANSFER KITS

These adapter kits easily connect 1/4" or 1/2" plastic pumps to a 5-gallon bucket, 120 lb. barrel or 55-gallon drum for a cleaner application.



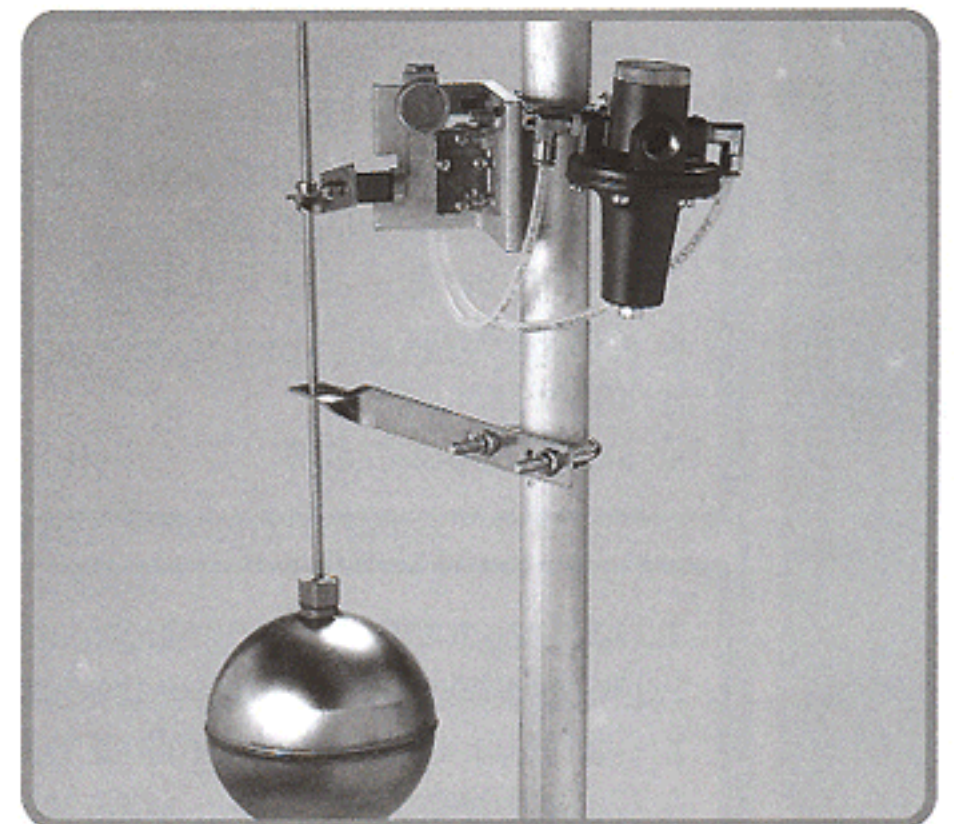
## VERSA-SENSE™ LEAK DETECTOR

Protects product from contamination in the event of a diaphragm failure. Compared to competitor models, Versa-Sense has a much broader sensing range and can be used with confidence on a wider variety of mediums.



## FILTER/REGULATOR/LUBRICATORS

FRLs improve pump performance and reduce maintenance costs. Used to filter particles and water out of the compressed air coming into the pump, as well as control the air pressure. Also controls lubrication amounts to optimize pump performance.



## LEVEL CONTROLLERS

These units, operated entirely by mechanical and pneumatic means, port air through a special regulator to start or stop AODD pumps. Manufactured with corrosion-resistant wetted components and featuring explosion-proof construction, they require no electrical connections and are adjustable from a few inches to approximately nine feet. Ideal for sump and fluid transfer applications.



- 1. Incorrect o-ring placement
  - 2. Inner diaphragm plate installed backwards
  - 3. Deadhead (system pressure meets or exceeds air supply pressure)
  - 4. Air valve or center block gaskets installed incorrectly
- 
- 1. Over lubrication
  - 2. Lack of air (line size, PSI, CFM)
  - 3. Centering of spool ("V" series)
  - 4. Worn o-rings
  - 5. Air porting in center block is plugged
  - 6. Wrong type of lubrication (attack on o-rings) — see Operating Manual
  - 7. Debris in air valve
  - 8. Clogged manifolds
  - 9. Incorrect o-ring placement
  - 10. Deadhead (system pressure meets or exceeds air supply pressure)
  - 11. Closed discharge valve
- 
- 1. Cavitation on suction side
  - 2. Valve ball(s) not seating properly or sticking
  - 3. Valve ball(s) missing (pushed into pump/thermal expansion or missing)
  - 4. Valve ball(s)/seat(s) damaged or attacked by product (swelling, shrinking, etc.)
  - 5. Vapor pressure
  - 6. Clogged suction line
- 
- 1. Over lubrication/under lubrication
  - 2. Wrong type of lubrication
  - 3. Icing
  - 4. Clogged manifolds
  - 5. Deadhead (system pressure meets or exceeds air supply pressure)
  - 6. Cavitation on suction side
  - 7. Lack of air (line size, PSI, CFM)
  - 8. Worn o-rings
  - 9. Vapor pressure
  - 10. Incorrect pump size
- 
- 1. Diaphragm failure — product leaking out exhaust
  - 2. Diaphragm plates loose — product leaking out exhaust
  - 3. Clamp bands loose — product leaking out clamp bands
  - 4. Clamp bands stretched — product leaking out clamp bands
  - 5. Teflon gasket tape ruined
  - 6. Excessive positive suction pressure — product leaking around many or all clamp bands
  - 7. Diaphragms stretched around center hole or bolt holes
  - 8. Clamp bands not seated properly
  - 9. Excessive air supply pressure
- 
- 1. Cavitation
  - 2. Excessive flooded suction pressure
  - 3. Misapplication (chemical/physical incompatibility)
  - 4. Wrong type of lubrication (attack on air side)
  - 5. Incorrect diaphragm plates
  - 6. Diaphragm plates on backwards
  - 7. Incorrect shaft with corresponding elastomer
  - 8. Start up at full air pressure
  - 9. Excessive dry running at high air pressure
- 
- 1. Build up of solids in water chamber
  - 2. Elima-Matic pump missing bumper washers (see Operating Manual)
  - 3. Loose diaphragm plates

**Pump cycles once and stops**

### SYMPTOMS

**Pump will not operate (stall or deadhead)**

**Pump cycles and will not prime or low flow**

**Pump running sluggish/stalling**

**Product leaking through exhaust or around clamp bands**

**Premature diaphragm failure**

**Breaking and bending shafts**



# BLESHOOTING GUIDE

## RECOMMENDATIONS

1. Reinstall o-rings in correct position (see Operating Manual for assistance)
2. Reinstall inner diaphragm plate correctly
3. Check system for pressure ratio to pump
4. Install gaskets with holes properly aligned with parts or valve and center block

1. Check suction condition (move pump closer to product)
2. Clean out around valve ball cage and valve seat area
  - replace valve ball and valve seat if worn or damaged
  - check **Chemical Resistance Chart** for compatibility and proper elastomer match
  - use heavier valve ball material
3. Worn valve ball or valve seat (replace)
  - thermal expansion in discharge pipe (add one way valve into piping)
  - worn fingers in valve ball cage (replace part)
4. Check **Chemical Resistance Chart** for compatibility and proper elastomer match
5. Consult factory for evaluation and recommendation.
6. Clean suction manifold or piping
  - install screen or bag filter

1. Replace diaphragms (and back up diaphragm when using Teflon)
- 1,2. Clean out entire center section of pump
2. Check diaphragms for damage and retighten diaphragm plates
3. Tighten clamp bands (check for stretching)
4. Replace clamp bands (apply grease to inside of clamp band to assist complete compression)
5. Replace Teflon gasket tape with Teflon diaphragms
6. Check excessive positive suction pressure (see Operating Manual for recommendations)
  - move pump closer to product
  - add accumulation tank or pulsation dampener as close to the pump as possible on suction side of pump
  - raise pump/place pump on top of tank to reduce inlet pressure
  - install flex hose on inlet and discharge as recommended installation
7. Check for excessive inlet pressure or air pressure
  - tighten bolts to recommended torque (see Operating Manual for recommendation)
8. Seat clamp bands with mallet
9. Check Operating Manual for recommendations

1. Flush pump
  - start pump slow
2. Add bumper washers
3. Double check tightness of diaphragm plates when installing replacement diaphragms

1. Set lubricator on lowest possible setting.
  - Elima-Matic is lube free for intermittent service
  - clean out center section
2. Check:
  - air line size and length
  - compressor capacity (HP vs. cfm required)
  - other usage of air in plant
  - air requirement by pump (pump capacity, product viscosity and specific gravity)
3. Disconnect and reconnect air
  - replace with Elima-Matic air valve
4. Replace o-rings
5. Clean porting in center block to allow proper air flow
6. Check compatibility of o-rings with lubrication (see Operating Manual)
7. Clean air valve/filter
  - check for scoring on spool and sleeve
8. Clean suction or discharge manifolds/piping
  - clean filter bags or screens
9. Reinstall o-rings in correct position (see Operating Manual for assistance)
10. Increase air supply pressure
11. Open discharge valve

1. Set lubricator on lowest possible setting.
  - Elima-Matic is lube free for intermittent service
- 1,2. Clean center section of pump
2. See Operating Manual for recommended lubrication
3. Replace standard "V" series with Elima-Matic
4. Clean manifolds to allow proper air flow
5. Check system to locate deadhead (equilibrium)
  - increase air supply pressure
6. Check suction condition (move pump closer to product)
7. Check:
  - air line size and length
  - compressor capacity (HP vs cfm required)
  - other usage of air in plant
  - air requirement by pump (pump capacity, product viscosity and specific gravity)
8. Replace o-rings
- 9,10. Consult factory for evaluation and recommendation

1. Enlarge pipe diameter on suction side of pump
- 1,2. Move pump closer to product
  - raise pump/place pump on top of tank to reduce inlet pressure
2. Add accumulation tank or pulsation dampener as close to the pump as possible
  - start pump slowly (add smart start)
- 3,4. Consult **Chemical Resistance Chart** for compatibility with products, cleaners, temperature limitations and lubrication
5. Check model number on pump in comparison to Operating Manual for correct part
6. Check Operating Manual for correct installation
7. Check model number on pump in comparison to Operating Manual for correct part (ie: Teflon shaft for Teflon diaphragm)
8. Start up pump slowly (manually or with Smart Start)
9. Install control or automatic shutoff



# Materials of Construction, Temperature Limits and Compatibility

## MATERIALS OF CONSTRUCTION — PUMPS

MODEL	Acetal®	Aluminum	Cast Iron	Hastelloy C	Polypropylene	PVDF Kynar®	Stainless Steel	Teflon®
E6	■				■	■		
E5	●	●		●	●▲	●▲	●	●
E1		●		●	●▲	●▲	●	
E4		■	■	●■	●	●	●■	
E2		●■	●■	●■	●	●	●■▲▼	
E2-FV		■						
E3		●■	■	●■	●	●	●■	

● Bolted Construction   ■ Clamped Construction   ▲ Split Manifold Model Available   ▼ High Pressure Model Available

## DIAPHRAGMS, VALVE BALLS, VALVE SEATS & VALVE SEAT O-RINGS

	Aluminum	Buna-N	Kynar® PVDF	Neoprene	Nordel® (EPDM)	Polypropylene	Polyurethane	316 Stainless Steel	TEFLON®		Teflon® Encapsulated Silicone	Thermoplastics		Viton®
									Tef-Matic™	Versa-Tuff™		TPE XL	FDA Hytrel®	
ELASTOMERS														
DIAPHRAGMS		●		●	●			●	●		●	●	●	
VALVE BALLS		●		●	●		●	●	●			●	●	●
VALVE SEATS	●	●	●	●	●	●	●	●	●			●	●	●
VALVE SEAT O-RINGS		●			●				●		●	●		●

● Available for plastic pump models only

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## TEMPERATURE LIMITS

<p><b>NEOPRENE</b> 0°F (-18°C) to +200°F (93°C)</p> <p><b>BUNA-N</b> +10°F (-12°C) to +180°F (82°C)</p> <p><b>NORDEL</b> -60°F (-51°C) to +280°F (138°C)</p> <p><b>VITON</b> -40°F (-40°C) to +350°F (176°C)</p> <p><b>TEFLON PTFE</b> +40°F (+4°C) to +220°F (105°C)</p> <p><b>POLYURETHANE</b> +10°F (-12°C) to +170°F (77°C)</p> <p><b>XL TPE</b> -20°F (-29°C) to +300°F (149°C)</p> <p><b>TEFLON PFA</b> -20°F (-29°C) to +300°F (149°C)</p> <p><b>FDA HYTREL</b> -20°F (-29°C) to +220°F (104°C)</p>	<p><b>METALLIC PUMPS</b> can operate past 212°F (100°C). However, if you are operating above these limits, consult the factory for assistance.</p> <p><b>PLASTIC PUMPS</b> can operate to the following temperature limits:</p> <ul style="list-style-type: none"> <li>• ACETAL 32°F (0°C) to 220°F (104°C)</li> <li>• POLYpropylene 32°F (0°C) to 175°F (79°C)</li> <li>• PVDF (Kynar) 10°F (-12°C) to 225°F (107°C)</li> </ul> <p><b>NOTE:</b> These are average temperatures. Chemicals and solvents can have an effect on temperature limits.</p>
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## WETTED MATERIAL COMPATIBILITY

Fluid Solutions	Numeric pH Level	Wetted Section Construction Metals
ALKALINE	14	STAINLESS STEEL
	13	
	12	
CAUSTIC	11	CAST IRON
	10	
BASIC	9	ALUMINUM
	8	
NEUTRAL	7	CAST IRON
	6	
ACID	5	STAINLESS STEEL
	4	
	3	
	2	
	1	
	0	



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