

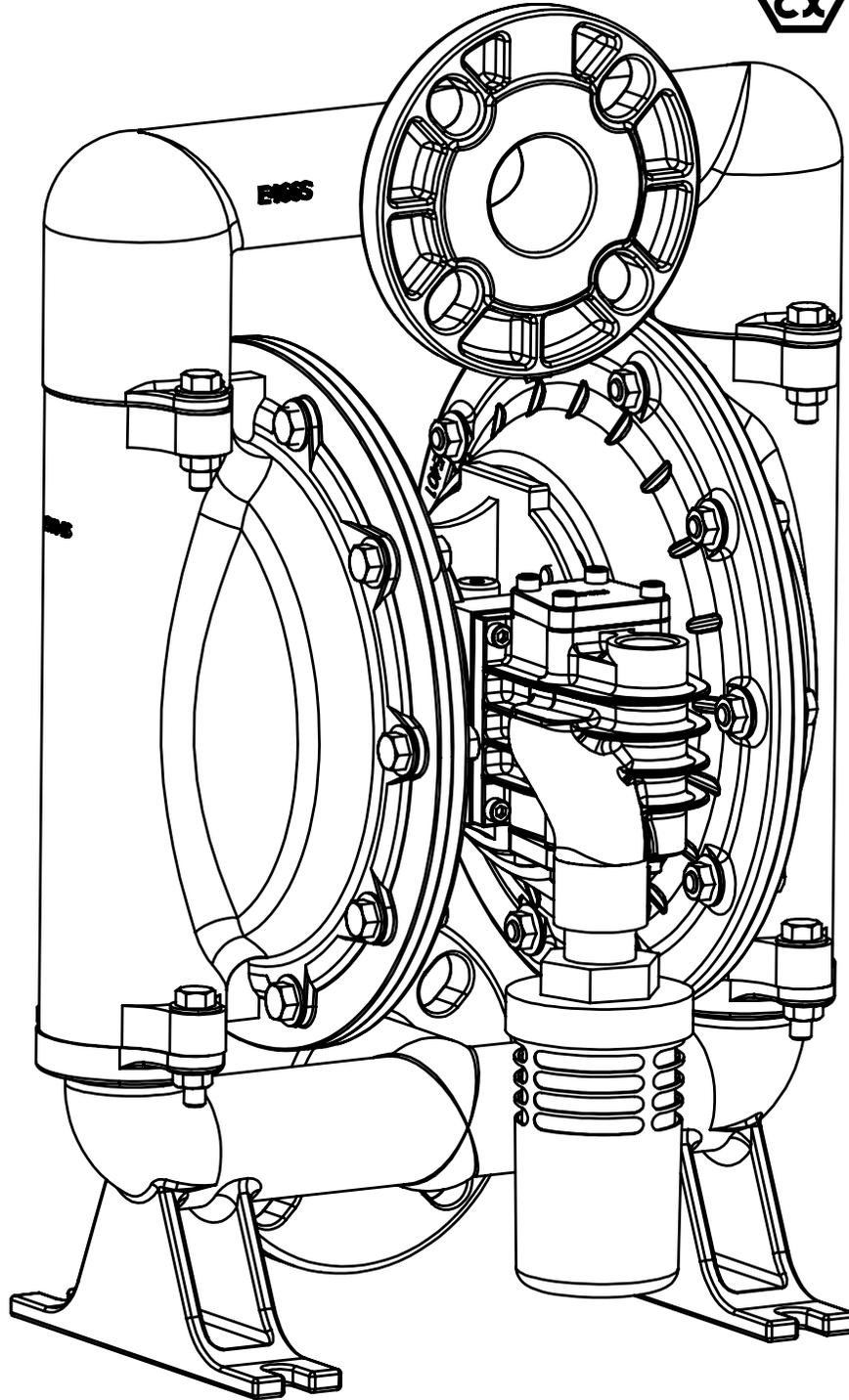
### 1 1/2" Elima-Matic Bolted

with Metallic Center Section

# E4

#### E4 Metallic Pumps

- Stainless Steel
- Hastalloy



The logo for Versa-Matic, featuring a stylized 'VM' monogram above the brand name 'VERSA-MATIC' with a registered trademark symbol.

1: PUMP SPECS

2: INSTAL & OP

3: EXP VIEW

4: WARRANTY

# Safety Information

## ! IMPORTANT



Read the safety warnings and instructions in this manual before pump installation and start-up. Failure to comply with the recommendations stated in this manual could damage the pump and void factory warranty.



When the pump is used for materials that tend to settle out or solidify, the pump should be flushed after each use to prevent damage. In freezing temperatures the pump should be completely drained between uses.

## ! CAUTION



Before pump operation, inspect all fasteners for loosening caused by gasket creep. Retighten loose fasteners to prevent leakage. Follow recommended torques stated in this manual.



Nonmetallic pumps and plastic components are not UV stabilized. Ultraviolet radiation can damage these parts and negatively affect material properties. Do not expose to UV light for extended periods of time.



**WARNING**  
Pump not designed, tested or certified to be powered by compressed natural gas. Powering the pump with natural gas will void the warranty.

## ! WARNING



When used for toxic or aggressive fluids, the pump should always be flushed clean prior to disassembly.



Before maintenance or repair, shut off the compressed air line, bleed the pressure, and disconnect the air line from the pump. Be certain that approved eye protection and protective clothing are worn at all times. Failure to follow these recommendations may result in serious injury or death.



Airborne particles and loud noise hazards. Wear eye and ear protection.



In the event of diaphragm rupture, pumped material may enter the air end of the pump, and be discharged into the atmosphere. If pumping a product that is hazardous or toxic, the air exhaust must be piped to an appropriate area for safe containment.



Take action to prevent static sparking. Fire or explosion can result, especially when handling flammable liquids. The pump, piping, valves, containers and other miscellaneous equipment must be properly grounded.

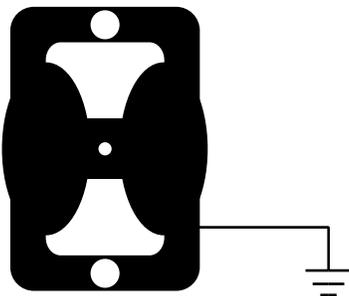


This pump is pressurized internally with air pressure during operation. Make certain that all fasteners are in good condition and are reinstalled properly during reassembly.



Use safe practices when lifting

## Grounding ATEX Pumps



ATEX compliant pumps are suitable for use in explosive atmospheres when the equipment is properly grounded in accordance with local electrical codes. Pumps equipped with electrically conductive diaphragms are suitable for the transfer of conductive or non-conductive fluids of any explosion group. When operating pumps equipped with non-conductive diaphragms that exceed the maximum permissible projected area, as defined in EN 13463-1: 2009 section 6.7.5 table 9, the following protection methods must be applied:

- Equipment is always used to transfer electrically conductive fluids or
- Explosive environment is prevented from entering the internal portions of the pump, i.e. dry running

For further guidance on ATEX applications, please consult the factory.

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1: PUMP SPECS

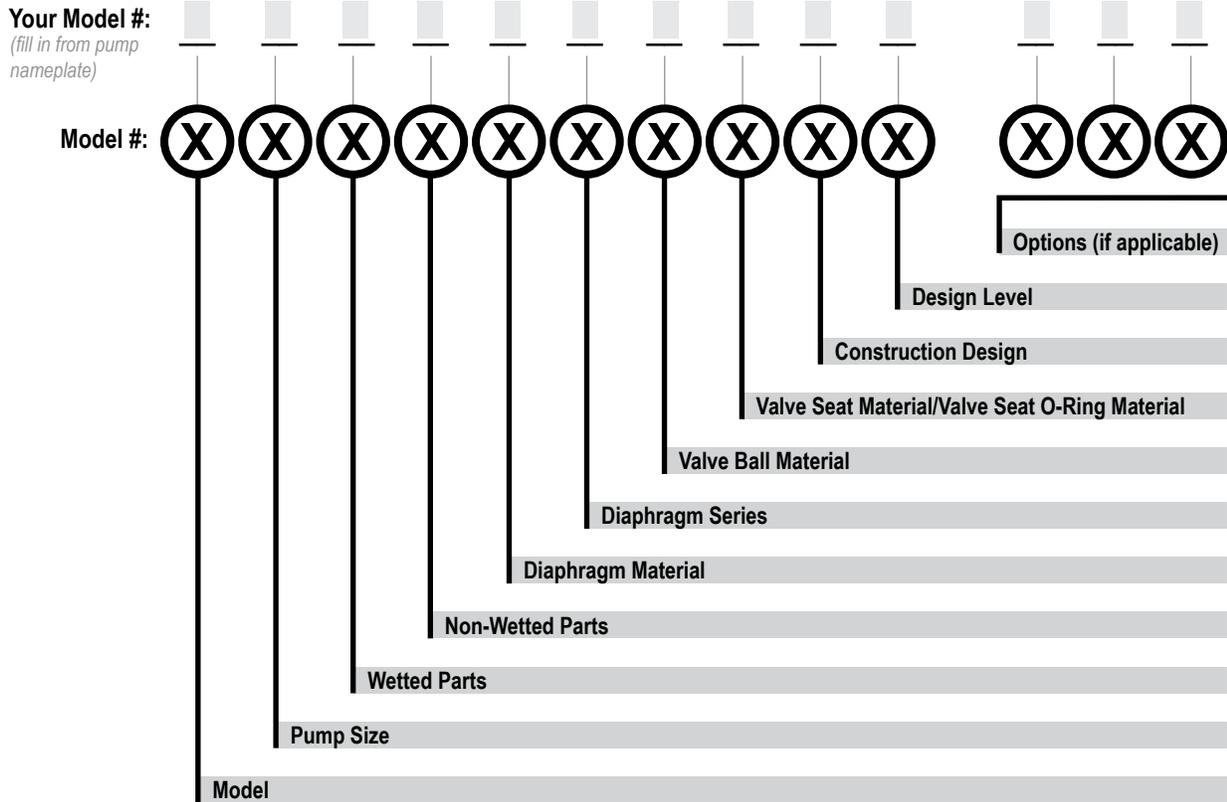
2: INSTAL & OP

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4: WARRANTY

# Explanation of Pump Nomenclature

Your Serial #: (fill in from pump nameplate) \_\_\_\_\_



Model	Pump Size	Wetted Parts	Non-Wetted Parts	Diaphragm Material
E Elima-Matic	6 1/4"	A Aluminum	A Aluminum	1 Neoprene
U Ultra-Matic	8 3/8"	C Cast Iron	S Stainless Steel	2 Nitrile (Nitrile)
V V-Series	5 1/2"	S Stainless Steel	P Polypropylene	3 FKM (Fluorocarbon)
	7 3/4"	H Alloy C	G Groundable Acetal	4 EPDM
	1 1"	P Polypropylene	Z PTFE-coated Aluminum	5 PTFE
	4 1-1/4" or 1-1/2"	K Kynar	J Nickel-plated Aluminum	6 Santoprene XL
	2 2"	G Groundable Acetal	C Cast Iron	7 Hytrel
	3 3"	B Aluminum (screen mount)	Q Epoxy-Coated Aluminum	Y FDA Santoprene

Diaphragm Series	Valve Ball Material Valve	Seat/Valve Seat O-Ring Material	Construction Design	Miscellaneous Options
R Rugged	1 Neoprene	1 Neoprene	9 Bolted	B BSP Tapered Thread
D Dome	2 Nitrile	2 Nitrile	0 Clamped	CP Center Port
X Thermo-Matic	3 (FKM) Fluorocarbon	3 (FKM) Fluorocarbon		ATEX ATEX Compliant
T Tef-Matic (2-piece)	4 EPDM	4 EPDM		FP Food Processing
B Versa-Tuff (1-piece)	5 PTFE	5 PTFE		SP Sanitary Pump
F FUSION (one-piece integrated plate)	6 Santoprene XL	6 Santoprene XL		HP High Pressure
	7 Hytrel	7 Hytrel		OE Original Elima-Matic
	8 Polyurethane	8 Polyurethane		F Flap Valve
	A Acetal	A Aluminum w/ PTFE O-Rings		HD Horizontal Discharge
	S Stainless Steel	S Stainless Steel w/ PTFE O-Rings		3A 3-A Certified
	Y FDA Santoprene	C Carbon Steel w/ PTFE O-Rings		UL UL Listed
		H Alloy C w/ PTFE O-Rings		OB Oil Bottle
		T PTFE Encapsulated Silicone O-Rings		
		Y FDA Santoprene		

\*More than one option may be specified for a particular pump model.

# Materials

Material Profile:	Operating Temperatures:	
	Max.	Min.
<b>CAUTION!</b> Operating temperature limitations are as follows:		
<b>Conductive Acetal:</b> Tough, impact resistant, ductile. Good abrasion resistance and low friction surface. Generally inert, with good chemical resistance except for strong acids and oxidizing agents.	190°F 88°C	-20°F -29°C
<b>EPDM:</b> Shows very good water and chemical resistance. Has poor resistance to oils and solvents, but is fair in ketones and alcohols.	280°F 138°C	-40°F -40°C
<b>FKM:</b> (Fluorocarbon) Shows good resistance to a wide range of oils and solvents; especially all aliphatic, aromatic and halogenated hydrocarbons, acids, animal and vegetable oils. Hot water or hot aqueous solutions (over 70°F) will attack FKM.	350°F 177°C	-40°F -40°C
<b>Hytrel®:</b> Good on acids, bases, amines and glycols at room temperatures only.	220°F 104°C	-20°F -29°C
<b>Neoprene:</b> All purpose. Resistance to vegetable oils. Generally not affected by moderate chemicals, fats, greases and many oils and solvents. Generally attacked by strong oxidizing acids, ketones, esters and nitro hydrocarbons and chlorinated aromatic hydrocarbons.	200°F 93°C	-10°F -23°C
<b>Nitrile:</b> General purpose, oil-resistant. Shows good solvent, oil, water and hydraulic fluid resistance. Should not be used with highly polar solvents like acetone and MEK, ozone, chlorinated hydrocarbons and nitro hydrocarbons.	190°F 88°C	-10°F -23°C
<b>Nylon:</b> 6/6 High strength and toughness over a wide temperature range. Moderate to good resistance to fuels, oils and chemicals.	180°F 82°C	32°F 0°C

<b>Polypropylene:</b> A thermoplastic polymer. Moderate tensile and flex strength. Resists strong acids and alkali. Attacked by chlorine, fuming nitric acid and other strong oxidizing agents.	180°F 82°C	32°F 0°C
<b>PVDF:</b> (Polyvinylidene Fluoride) A durable fluoroplastic with excellent chemical resistance. Excellent for UV applications. High tensile strength and impact resistance.	250°F 121°C	0°F -18°C
<b>Santoprene®:</b> Injection molded thermoplastic elastomer with no fabric layer. Long mechanical flex life. Excellent abrasion resistance.	275°F 135°C	-40°F -40°C
<b>UHMW PE:</b> A thermoplastic that is highly resistant to a broad range of chemicals. Exhibits outstanding abrasion and impact resistance, along with environmental stress-cracking resistance.	180°F 82°C	-35°F -37°C
<b>Urethane:</b> Shows good resistance to abrasives. Has poor resistance to most solvents and oils.	150°F 66°C	32°F 0°C
<b>Virgin PTFE:</b> (PFA/TFE) Chemically inert, virtually impervious. Very few chemicals are known to chemically react with PTFE; molten alkali metals, turbulent liquid or gaseous fluorine and a few fluoro-chemicals such as chlorine trifluoride or oxygen difluoride which readily liberate free fluorine at elevated temperatures.	220°F 104°C	-35°F -37°C
<i>Maximum and Minimum Temperatures are the limits for which these materials can be operated. Temperatures coupled with pressure affect the longevity of diaphragm pump components. Maximum life should not be expected at the extreme limits of the temperature ranges.</i>		
<b>Metals:</b>		
<b>Alloy C:</b> Equal to ASTM494 CW-12M-1 specification for nickel and nickel alloy.		
<b>Stainless Steel:</b> Equal to or exceeding ASTM specification A743 CF-8M for corrosion resistant iron chromium, iron chromium nickel and nickel based alloy castings for general applications. Commonly referred to as 316 Stainless Steel in the pump industry.		

For specific applications, always consult the Chemical Resistance Chart.

1: PUMP SPECS

# Performance

## E4 1 1/2" Bolted Metallic Pump ELASTOMERIC AND TPE FITTED

### Flow Rate

Adjustable to . . . . . 0-73 gpm (276 lpm)

### Port Size

Suction . . . . . 1 1/2" Flange

Discharge . . . . . 1 1/2" Flange

**Air Inlet** . . . . . 1/2" NPT

**Air Exhaust** . . . . . 3/4" NPT

### Suction Lift

Dry . . . . . 15' (4.6 m)

Wet . . . . . 25' (7.6 m)

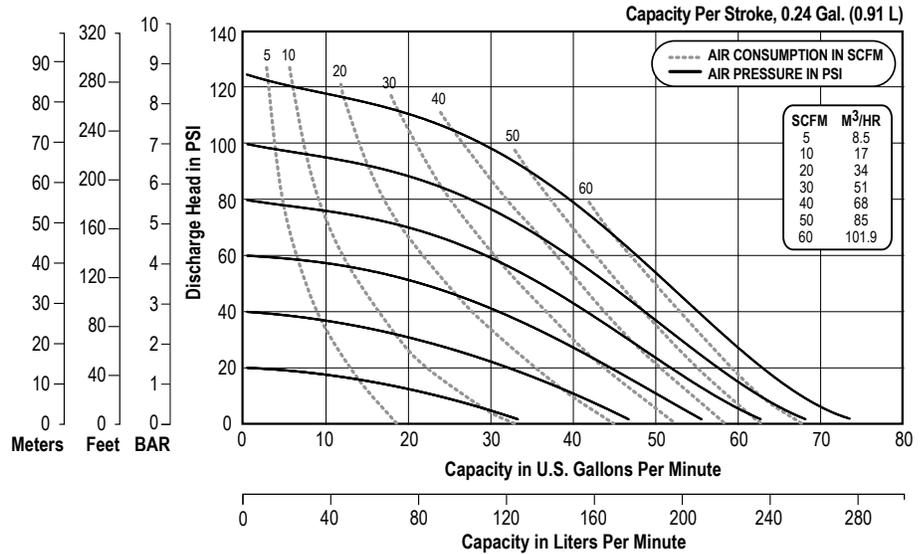
### Max Solid Size (Diameter)

. . . . . 3/16" (4.76 mm)

### Shipping Weights

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

1: PUMP SPECS



NOTE: Performance based on the following: elastomeric fitted pump, flooded suction, water at ambient conditions. The use of other materials and varying hydraulic conditions may result in deviations in excess of 5%.

## E4 1 1/2" Bolted Metallic Pump PTFE Fitted

### Flow Rate

Adjustable to . . . . . 0-66 gpm (249 lpm)

### Port Size

Suction . . . . . 1 1/2" Flange

Discharge . . . . . 1 1/2" Flange

**Air Inlet** . . . . . 1/2" NPT

**Air Exhaust** . . . . . 3/4" NPT

### Suction Lift

Dry . . . . . 10' (3.1 m)

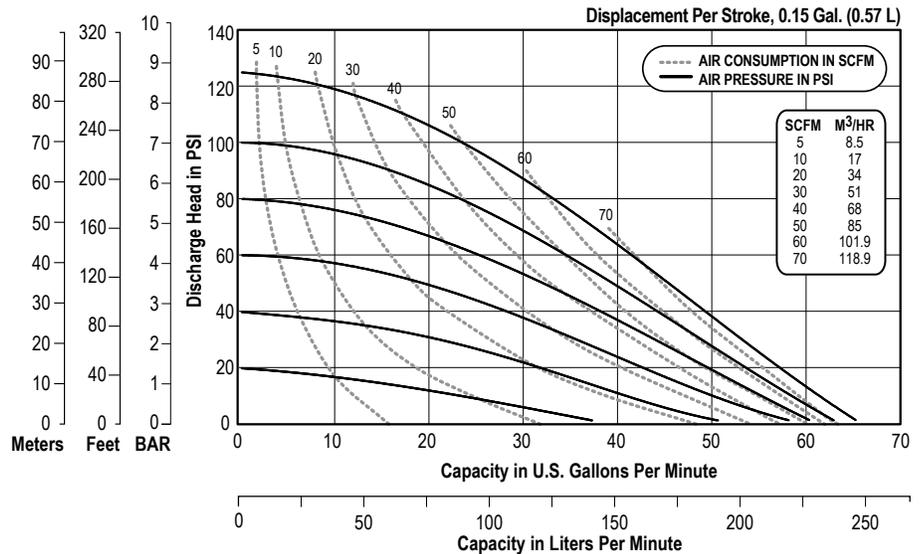
Wet . . . . . 20' (6.1 m)

### Max Solid Size (Diameter)

. . . . . 3/16" (4.76 mm)

### Shipping Weights

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



NOTE: Performance based on the following: PTFE fitted pump, flooded suction, water at ambient conditions. The use of other materials and varying hydraulic conditions may result in deviations in excess of 5%.

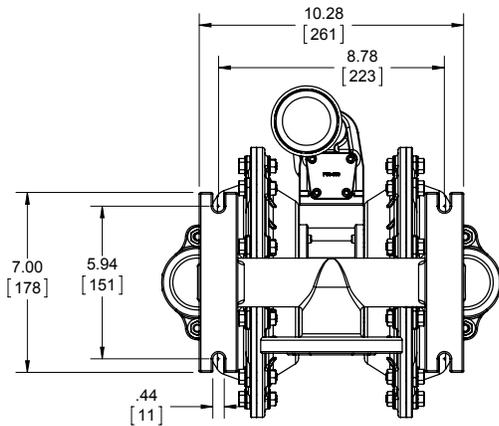
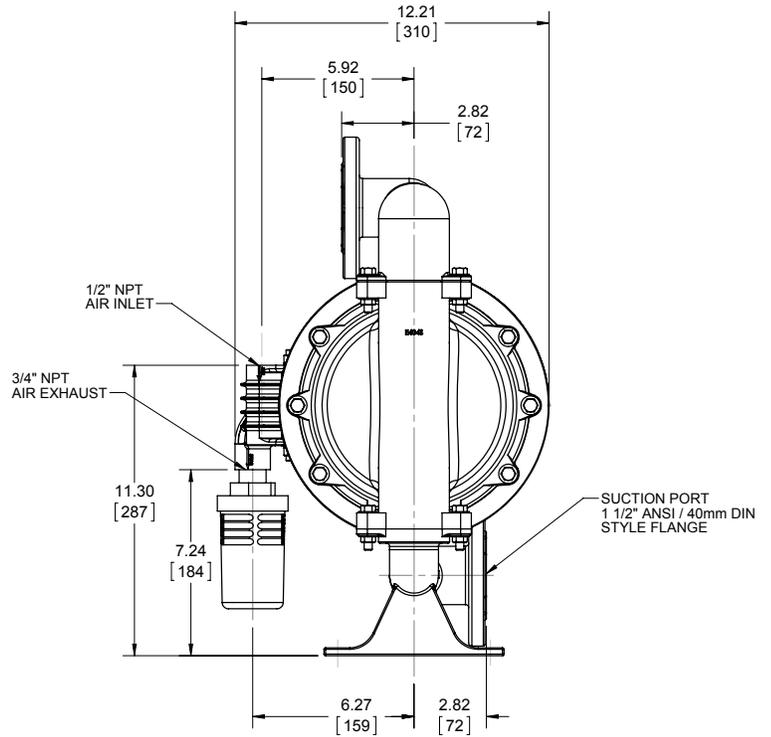
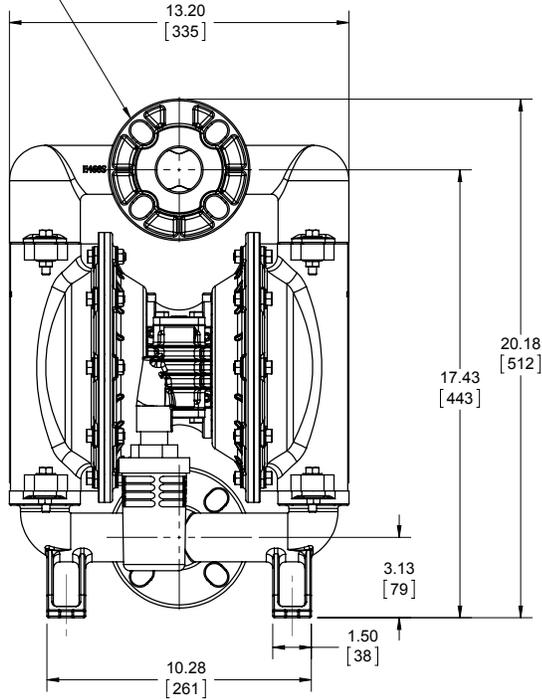
# Dimensional Drawings

## E4 Metallic-Bolted (Horizontal Discharge)

Dimensions in inches (metric dimensions in brackets)

The dimensions on this drawing are for reference only. A certified drawing can be requested if physical dimensions are needed.

DISCHARGE PORT  
1 1/2" ANSI / 40mm DIN  
STYLE FLANGE



1: PUMP SPECS

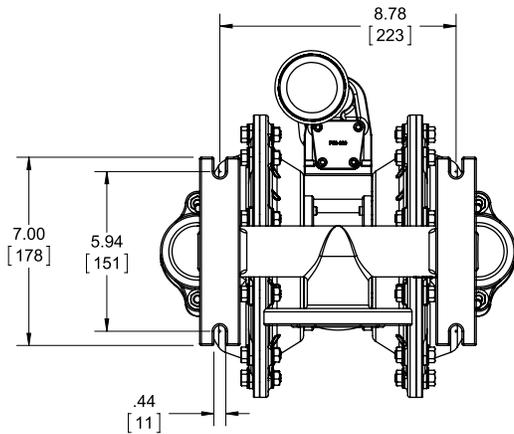
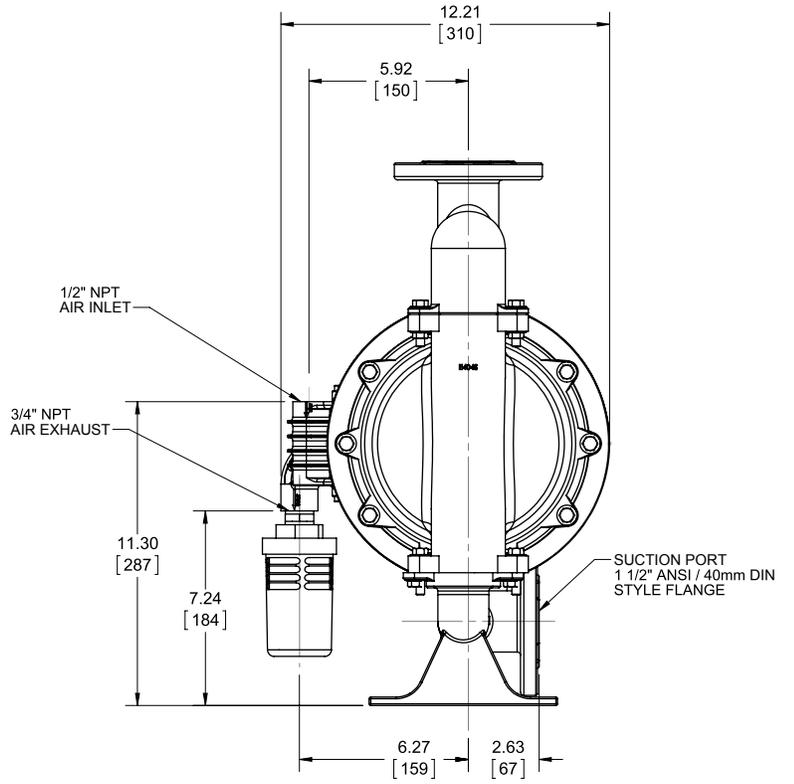
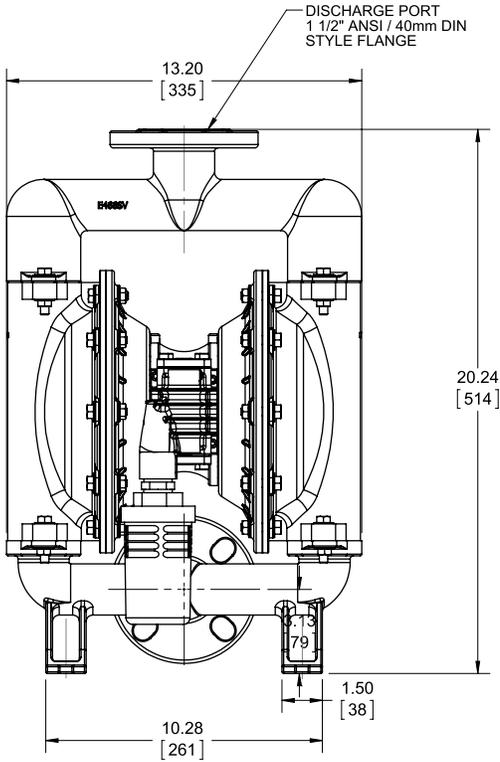
# Dimensional Drawings

## E4 Metallic-Bolted (Vertical Discharge)

Dimensions in inches (metric dimensions in brackets)

The dimensions on this drawing are for reference only. A certified drawing can be requested if physical dimensions are needed.

1: PUMP SPECS



# Principle of Pump Operation

Air-Operated Double Diaphragm (AODD) pumps are powered by compressed air or nitrogen.

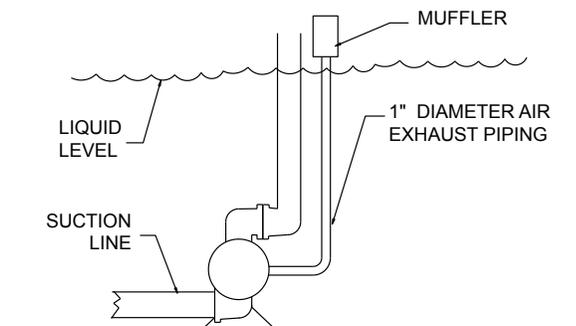
The main directional (air) control valve ① distributes compressed air to an air chamber, exerting uniform pressure over the inner surface of the diaphragm ②. At the same time, the exhausting air ③ from behind the opposite diaphragm is directed through the air valve assembly(s) to an exhaust port ④.

As inner chamber pressure (P1) exceeds liquid chamber pressure (P2), the rod ⑤ connected diaphragms shift together creating discharge on one side and suction on the opposite side. The discharged and primed liquid's directions are controlled by the check valves (ball or flap)⑥ orientation.

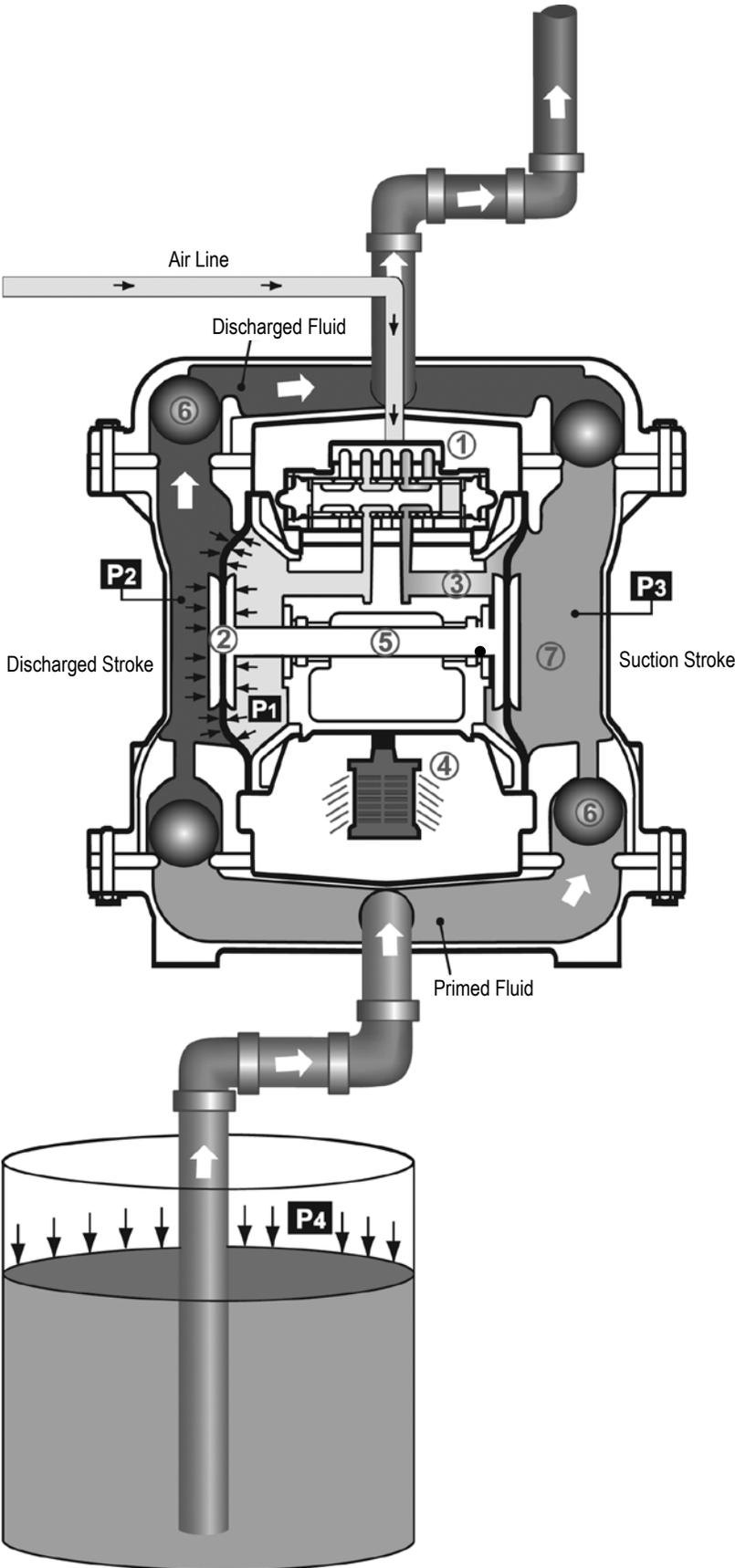
The pump primes as a result of the suction stroke. The suction stroke lowers the chamber pressure (P3) increasing the chamber volume. This results in a pressure differential necessary for atmospheric pressure (P4) to push the fluid through the suction piping and across the suction side check valve and into the outer fluid chamber ⑦.

Suction (side) stroking also initiates the reciprocating (shifting, stroking or cycling) action of the pump. The suction diaphragm's movement is mechanically pulled through its stroke. The diaphragm's inner plate makes contact with an actuator plunger aligned to shift the pilot signaling valve. Once actuated, the pilot valve sends a pressure signal to the opposite end of the main directional air valve, redirecting the compressed air to the opposite inner chamber.

## SUBMERGED ILLUSTRATION



Pump can be submerged if the pump materials of construction are compatible with the liquid being pumped. The air exhaust must be piped above the liquid level. When the pumped product source is at a higher level than the pump (flooded suction condition), pipe the exhaust higher than the product source to prevent siphoning spills.



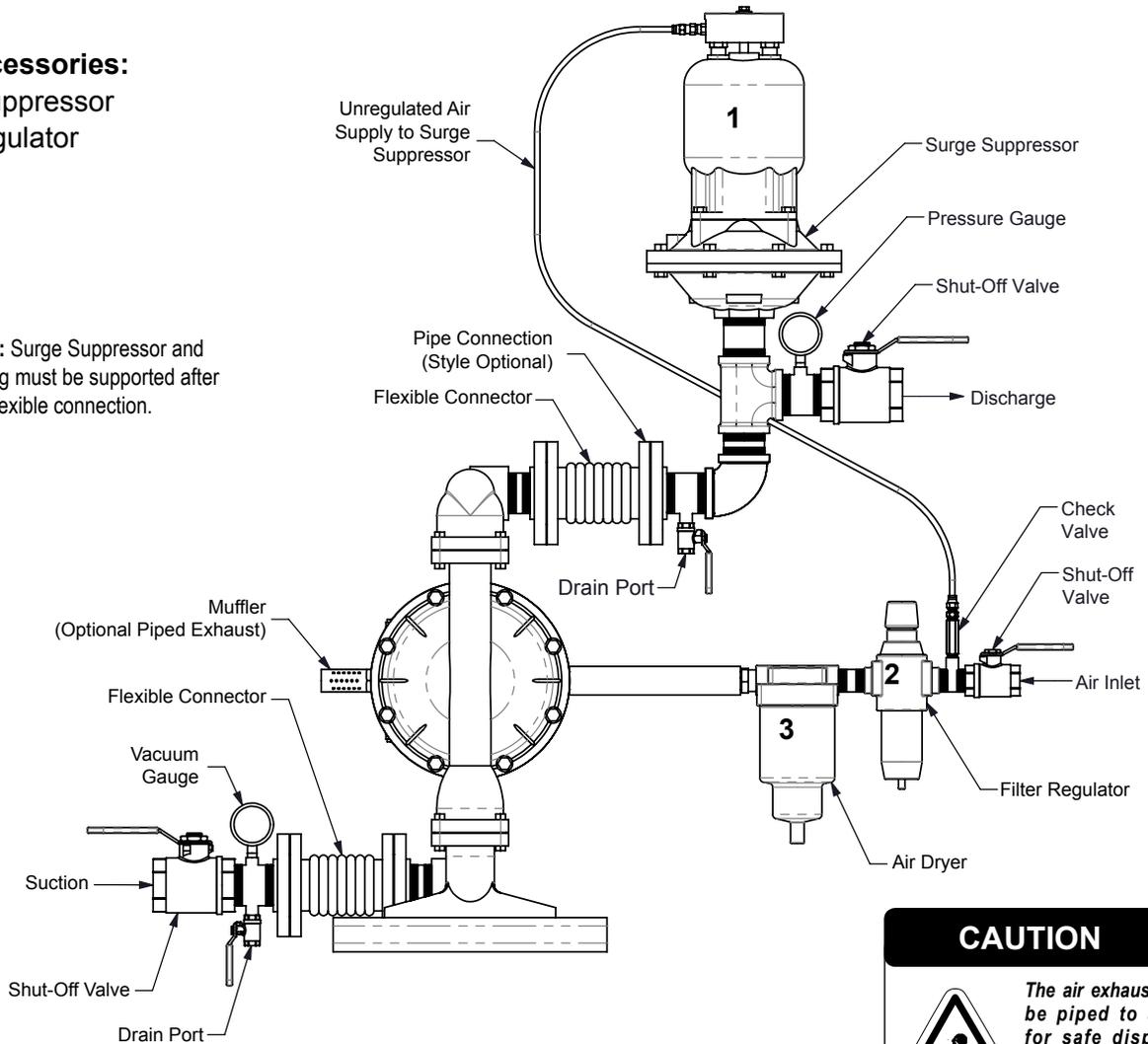
2: INSTAL & OP

# Recommended Installation Guide

## Available Accessories:

1. Surge Suppressor
2. Filter/Regulator
3. Air Dryer

**Note:** Surge Suppressor and Piping must be supported after the flexible connection.



## CAUTION



*The air exhaust should be piped to an area for safe disposition of the product being pumped, in the event of a diaphragm failure.*

### Installation And Start-Up

Locate the pump as close to the product being pumped as possible. Keep the suction line length and number of fittings to a minimum. Do not reduce the suction line diameter.

### Air Supply

Connect the pump air inlet to an air supply with sufficient capacity and pressure to achieve desired performance. A pressure regulating valve should be installed to insure air supply pressure does not exceed recommended limits.

### Air Valve Lubrication

The air distribution system is designed to operate **WITHOUT** lubrication. This is the standard mode of operation. If lubrication is desired, install an air line lubricator set to deliver one drop of SAE 10 non-detergent oil for every 20 SCFM (9.4 liters/sec.) of air the pump consumes. Consult the Performance Curve to determine air consumption.

### Air Line Moisture

Water in the compressed air supply may cause icing or freezing of the exhaust air, causing the pump to cycle erratically or stop operating. Water in the air supply can be reduced by using a point-of-use air dryer.

### Air Inlet And Priming

To start the pump, slightly open the air shut-off valve. After the pump primes, the air valve can be opened to increase air flow as desired. If opening the valve increases cycling rate, but does not increase the rate of flow, cavitation has occurred. The valve should be closed slightly to obtain the most efficient air flow to pump flow ratio.

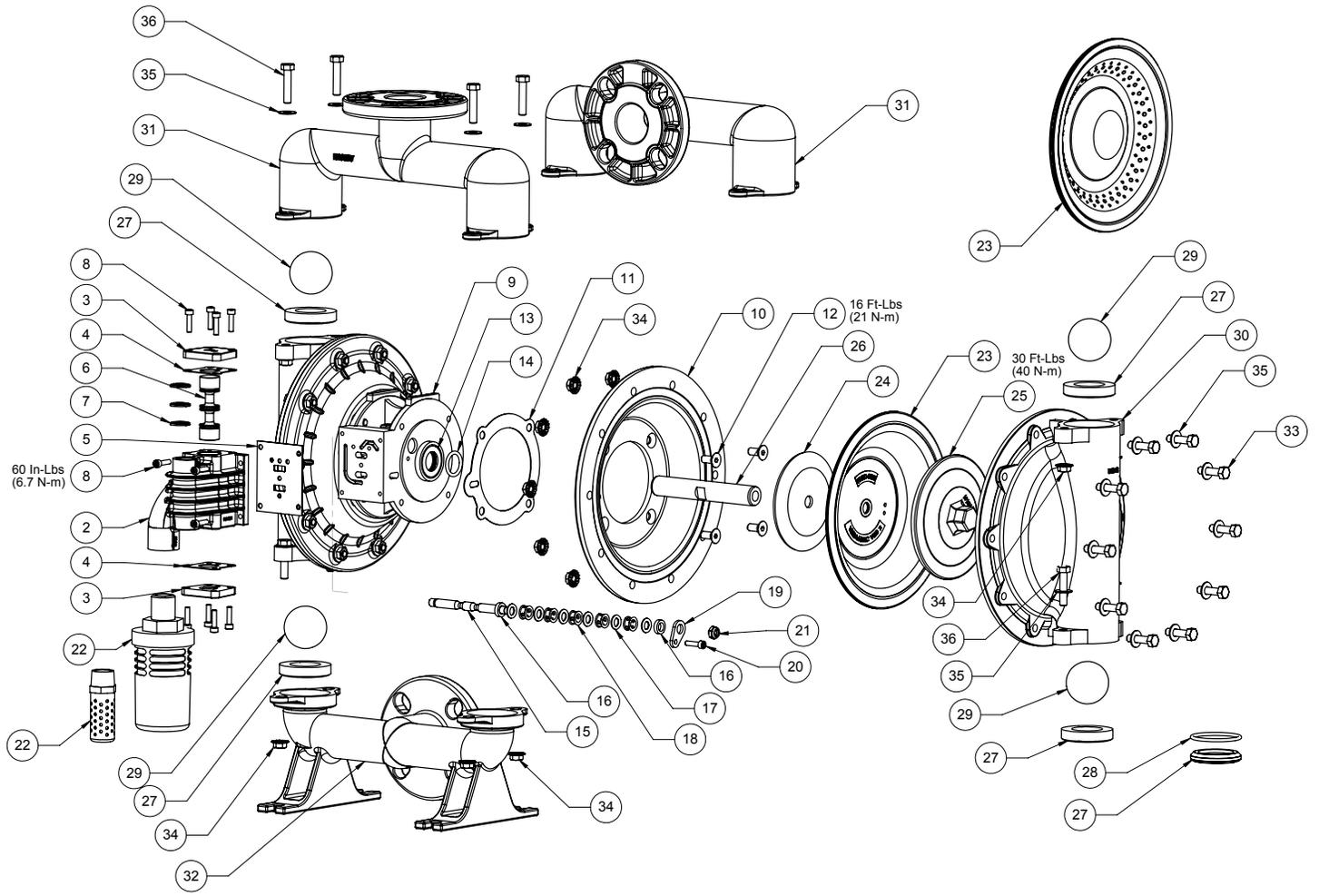
# Troubleshooting Guide

Symptom:	Potential Cause(s):	Recommendation(s):
<b>Pump Cycles Once</b>	Deadhead (system pressure meets or exceeds air supply pressure).	Increase the inlet air pressure to the pump. Pump is designed for 1:1 pressure ratio at zero flow. (Does not apply to high pressure 2:1 units).
	Air valve or intermediate gaskets installed incorrectly.	Install gaskets with holes properly aligned.
	Bent or missing actuator plunger.	Remove pilot valve and inspect actuator plungers.
<b>Pump Will Not Operate / Cycle</b>	Pump is over lubricated.	Set lubricator on lowest possible setting or remove. Units are designed for lube free operation.
	Lack of air (line size, PSI, CFM).	Check the air line size and length, compressor capacity (HP vs. cfm required).
	Check air distribution system.	Disassemble and inspect main air distribution valve, pilot valve and pilot valve actuators.
	Discharge line is blocked or clogged manifolds.	Check for inadvertently closed discharge line valves. Clean discharge manifolds/piping.
	Deadhead (system pressure meets or exceeds air supply pressure).	Increase the inlet air pressure to the pump. Pump is designed for 1:1 pressure ratio at zero flow. (Does not apply to high pressure 2:1 units).
	Blocked air exhaust muffler.	Remove muffler screen, clean or de-ice, and re-install.
	Pumped fluid in air exhaust muffler.	Disassemble pump chambers. Inspect for diaphragm rupture or loose diaphragm plate assembly.
	Pump chamber is blocked.	Disassemble and inspect wetted chambers. Remove or flush any obstructions.
<b>Pump Cycles and Will Not Prime or No Flow</b>	Cavitation on suction side.	Check suction condition (move pump closer to product).
	Check valve obstructed. Valve ball(s) not seating properly or sticking.	Disassemble the wet end of the pump and manually dislodge obstruction in the check valve pocket. Clean out around valve ball cage and valve seat area. Replace valve ball or valve seat if damaged. Use heavier valve ball material.
	Valve ball(s) missing (pushed into chamber or manifold).	Worn valve ball or valve seat. Worn fingers in valve ball cage (replace part). Check Chemical Resistance Guide for compatibility.
	Valve ball(s)/seat(s) damaged or attacked by product.	Check Chemical Resistance Guide for compatibility.
	Check valve and/or seat is worn or needs adjusting.	Inspect check valves and seats for wear and proper setting. Replace if necessary.
	Suction line is blocked.	Remove or flush obstruction. Check and clear all suction screens or strainers.
	Excessive suction lift.	For lifts exceeding 20' of liquid, filling the chambers with liquid will prime the pump in most cases.
	Suction side air leakage or air in product.	Visually inspect all suction-side gaskets and pipe connections.
	Pumped fluid in air exhaust muffler.	Disassemble pump chambers. Inspect for diaphragm rupture or loose diaphragm plate assembly.
<b>Pump Cycles Running Sluggish/Stalling, Flow Unsatisfactory</b>	Over lubrication.	Set lubricator on lowest possible setting or remove. Units are designed for lube free operation.
	Icing.	Remove muffler screen, de-ice, and re-install. Install a point of use air drier.
	Clogged manifolds.	Clean manifolds to allow proper air flow
	Deadhead (system pressure meets or exceeds air supply pressure).	Increase the inlet air pressure to the pump. Pump is designed for 1:1 pressure ratio at zero flow. (Does not apply to high pressure 2:1 units).
	Cavitation on suction side.	Check suction (move pump closer to product).
	Lack of air (line size, PSI, CFM).	Check the air line size, length, compressor capacity.
	Excessive suction lift.	For lifts exceeding 20' of liquid, filling the chambers with liquid will prime the pump in most cases.
	Air supply pressure or volume exceeds system hd.	Decrease inlet air (press. and vol.) to the pump. Pump is cavitating the fluid by fast cycling.
	Undersized suction line.	Meet or exceed pump connections.
	Restrictive or undersized air line.	Install a larger air line and connection.
	Suction side air leakage or air in product.	Visually inspect all suction-side gaskets and pipe connections.
	Suction line is blocked.	Remove or flush obstruction. Check and clear all suction screens or strainers.
	Pumped fluid in air exhaust muffler.	Disassemble pump chambers. Inspect for diaphragm rupture or loose diaphragm plate assembly.
	Check valve obstructed.	Disassemble the wet end of the pump and manually dislodge obstruction in the check valve pocket.
	Check valve and/or seat is worn or needs adjusting.	Inspect check valves and seats for wear and proper setting. Replace if necessary.
Entrained air or vapor lock in chamber(s).	Purge chambers through tapped chamber vent plugs. Purging the chambers of air can be dangerous.	
<b>Product Leaking Through Exhaust</b>	Diaphragm failure, or diaphragm plates loose.	Replace diaphragms, check for damage and ensure diaphragm plates are tight.
	Diaphragm stretched around center hole or bolt holes.	Check for excessive inlet pressure or air pressure. Consult Chemical Resistance Chart for compatibility with products, cleaners, temperature limitations and lubrication.
<b>Premature Diaphragm Failure</b>	Cavitation.	Enlarge pipe diameter on suction side of pump.
	Excessive flooded suction pressure.	Move pump closer to product. Raise pump/place pump on top of tank to reduce inlet pressure. Install Back pressure device (Tech bulletin 41r). Add accumulation tank or pulsation dampener.
	Misapplication (chemical/physical incompatibility).	Consult Chemical Resistance Chart for compatibility with products, cleaners, temperature limitations and lubrication.
	Incorrect diaphragm plates or plates on backwards, installed incorrectly or worn.	Check Operating Manual to check for correct part and installation. Ensure outer plates have not been worn to a sharp edge.
<b>Unbalanced Cycling</b>	Excessive suction lift.	For lifts exceeding 20' of liquid, filling the chambers with liquid will prime the pump in most cases.
	Undersized suction line.	Meet or exceed pump connections.
	Pumped fluid in air exhaust muffler.	Disassemble pump chambers. Inspect for diaphragm rupture or loose diaphragm plate assembly.
	Suction side air leakage or air in product.	Visually inspect all suction-side gaskets and pipe connections.
	Check valve obstructed.	Disassemble the wet end of the pump and manually dislodge obstruction in the check valve pocket.
	Check valve and/or seat is worn or needs adjusting.	Inspect check valves and seats for wear and proper setting. Replace if necessary.
Entrained air or vapor lock in chamber(s).	Purge chambers through tapped chamber vent plugs.	

2: INSTAL & OP

For additional troubleshooting tips contact After Sales Support at [service.warrenrupp@idexcorp.com](mailto:service.warrenrupp@idexcorp.com) or 419-524-8388

# Composite Repair Parts Drawing



# Composite Repair Parts List

Air Valve Assembly						
Item #	Qty.	Description	Part Number			
			Aluminum	Nickel Plated	PTFE Coated	
1	1	Valve Body Assembly (includes items 2-7)	P31-200	P31-200-NP	P31-200TC	
2	1	Valve Body w- sleeve	P31-200 ASY	P31-201NP	P31-201TC	
3	2	End Cap	P50-300	P50-110		
4	2	End Cap Gasket	P50-110			
5	1	Valve Body Gasket	P31-202			
6	1	Valve Spool	P50-104 (includes item #7)			
7	3	Glyde Ring Assembly	P50-104C			
8	12	Mounting Screws	S1001			
Center Section Assembly						
Item #	Qty.	Description	Part Number			
			Aluminum	Nickel Plated	PTFE Coated	
9	1	Center Block Assembly (Includes item 13 & 14)	P31-400DC ASY	P31-401NP	P31-401TC	
10	2	Air Chamber	E401	E401NP	E401TC	
11	2	Air Chamber Gasket	P31-109			
12	8	Bolt	P31-404			
13	2	Bearing, Sleeve	P31-403			
14	2	Main Shaft O-Ring	P24-403			
15	1	Pilot Shaft	P50-112			
16	5	Pilot Spacer	P24-106P			
17	6	Pilot O-Ring	P24-107			
18	2	Pilot Ring	P50-119			
19	2	Pilot Retainer	P50-109			
20	2	Screw	S1001			
21	2	Stop Nut	P24-108			
22	1	Muffler	VTM-6 (530.036.000 for ATEX Pump)			
Diaphragm Assembly / Elastomers						
Item #	Qty.	Description	Part Number			
			Stainless Steel		Hastalloy	
			Versa-Rugged	Fusion	Versa-Rugged	Fusion
23	2	Diaphragm	V163XX (see table)	V163F	V163XX (see table)	V163F
24	2	Inner Diaphragm Plate (See note 2 below)	V161C	None	V161C	None
25	2	Outer Diaphragm Plate (See note 1 below)	SVB161	None	HVB161	None
26	1	Main Shaft	P31-103			
27	4	Valve Seat (See below material chart)	V170X (metal seats require item #28)			
28	4	Seat O-ring (only required with metal seats)	V170T			
29	4	Valve Ball (See below material chart)	V171X			
Wet End Assembly						
Item #	Qty.	Description	Part Number			
			Stainless Steel		Hastalloy	
			Vert Discharge	Horiz Discharge	Vert Discharge	Horiz Discharge
30	2	Water Chamber	E404S		E404H	
31	1	Manifold, Discharge	E466S-V	E466S	E466H-V	E466H
32	1	Manifold, Suction	E467S		E467H	
33	20	Bolt, Water Chamber	SV185A			
34	28	Nut, Flanged	SV185B			
35	28	Washer, Flat	SV189C			
36	8	Bolt, Manifold	SV189D			
Elastomer Material Specifications						
Material	Versa-Rugged Diaphragm P/N	"Ball P/N"	Seat P/N	"Seat O-Ring P/N"		
Neoprene	V163N	V171N	V170N			
Nitrile	V163BN	V171BN	V170BN			
FKM (Viton)	V163VT	V171VT	V170VT			
EPDM (Nordel)	V163ND	V171ND	V170ND			
PTFE	N/A	V171TF	N/A	V170T		
Santoprene	V163TPEXL	V171TPEXL	V170TPEXL			
Hytrel	V163TPEFG	V171TPEFG	V170TPEFG			
Stainless	N/A	V171SS	SV170 (See note #3)			
Hastalloy	N/A	N/A	HV170 (See note #3)			

## Notes:

- 1.) The outer diaphragm plate material is to match the material of the water chamber. (When built using V163F no outer plate is required)
- 2.) When built using V163F no inner diaphragm plate is required
- 3.) Requires (4) qty seat o-rings.
- 4.) TC=PTFE Coated components, NP=Nickel Plated Components

# 5 - YEAR Limited Product Warranty

Quality System ISO9001 Certified • Environmental Management Systems ISO14001 Certified

Versa-Matic warrants to the original end-use purchaser that no product sold by Versa-Matic that bears a Versa-Matic brand shall fail under normal use and service due to a defect in material or workmanship within five years from the date of shipment from Versa-Matic's factory.

~ See complete warranty at <http://www.versamatic.com/pdfs/VM%20Product%20Warranty.pdf> ~

## DECLARATION OF CONFORMITY

DECLARATION DE CONFORMITE • DECLARACION DE CONFORMIDAD • ERKLÄRUNG BEZÜGLICH EINHALTUNG DER VORSCHRIFTEN  
DICHIARAZIONE DI CONFORMITÀ • CONFORMITEITSVERKLARING • DEKLARATION OM ÖVERENSSTÄMMELSE  
EF-OVERENSSTEMMELSESERKLÆRING • VAATIMUSTENMUKAISUUSVAKUUTUS • SAMSVARSERKLÄRING  
DECLARAÇÃO DE CONFORMIDADE

### MANUFACTURED BY:

FABRIQUE PAR:  
FABRICADA POR:  
HERGESTELLT VON:  
FABBRICATO DA:  
VERVAARDIGD DOOR:  
TILLVERKAD AV:  
FABRIKANT:  
VALMISTAJA:  
PRODUSENT:  
FABRICANTE:

**VERSA-MATIC®**  
Warren Rupp, Inc.  
A Unit of IDEX Corporation  
800 North Main Street  
P.O. Box 1568  
Mansfield, OH 44901-1568 USA  
  
Tel: 419-526-7296  
Fax: 419-526-7289



### PUMP MODEL SERIES: E SERIES, V SERIES, VT SERIES, VSMA3, SPA15, RE SERIES AND U2 SERIES

#### This product complies with the following European Community Directives:

Ce produit est conforme aux directives de la Communauté européenne suivantes:  
Este producto cumple con las siguientes Directrices de la Comunidad Europea:  
Dieses produkt erfüllt die folgenden Vorschriften der Europäischen Gemeinschaft:  
Questo prodotto è conforme alle seguenti direttive CEE:  
Dir produkt voldoet aan de volgende EG-richtlijnen:  
Denna produkt överensstämmer med följande EU direktiv:  
Versa-Matic, Inc., erklærer herved som fabrikant, at ovennævnte produkt er i overensstemmelse med bestemmelserne i Direktive:  
Tämä tuote täyttää seuraavien EC Direktiivien vaatimukset:  
Dette produkt oppfyller kravene til følgende EC Direktiver:  
Este produto está de acordo com as seguintes Directivas comunitárias:

**2006/42/EC**  
on Machinery, according  
to Annex VIII

#### This product has used the following harmonized standards to verify conformance:

Ce matériel est fabriqué selon les normes harmonisées suivantes, afin d' en garantir la conformité:  
Este producto cumple con las siguientes directrices de la comunidad europea:  
Dieses produkt ist nach folgenden harmonisierten standards gefertigt worden, die übereinstimmung wird bestätigt:  
Questo prodotto ha utilizzato i seguenti standards per verificare la conformità:  
De volgende geharmoniseerde normen werden gehanteerd om de conformiteit van dit produkt te garanderen:  
För denna produkt har följande harmoniserande standarder använts för att bekräfta överensstämmelse:  
Harmoniserede standarder, der er benyttet:  
Tässä tuotteessa on sovellettu seuraavia yhdenmukaistettuja standardeja:  
Dette produkt er produsert i overensstemmelse med følgende harmoniserte standarder:  
Este produto utilizou os seguintes padrões harmonizados para varificar conformidade:

**EN809:1998+**  
**A1:2009**

#### AUTHORIZED/APPROVED BY:

Approuve par:  
Aprobado por:  
Genehmigt von:  
approvato da:  
Goedgekeurd door:  
Underskrift:  
Valtuutettuna:  
Bemyndiget av:  
Autorizado Por:

*David Roseberry*  
Dave Roseberry  
Director of Engineering  
  
Authorized Representative:  
IDEX Pump Technologies  
R79 Shannon Industrial Estate,  
Shannon, Co. Clare Ireland  
Attn: Barry McMahon

**DATE: February 27, 2017**

FECHA:  
DATUM:  
DATA:  
DATO:  
PÄIVÄYS:



VMQR 044FM

06/14/2017 REV 08

7: WARRANTY

# EC / EU DECLARATION OF CONFORMITY

The objective of the declaration described is in conformity with the relevant Union harmonisation legislation:  
Directive 94/9/EC (until April 19, 2016) and Directive 2014/34/EU (from April 20, 2016).



Date of Issue:	10 May 2014
Technical File No.:	203104000-1410/MER
Quality System Registration No:	ISO 9001-2000
Conforming Apparatus:	Air-Operated Metal Double Diaphragm Pumps for Use In Potentially Explosive Atmospheres
Hazardous Location Applied:	<b>Elima-Matic metallic pumps</b> 1. I M2 c 2. II 2G c T5 3. II 2D c T100°C <b>Elima-Matic non-metallic pumps</b> 4. II 2G c T6 5. II 2D c T85°C
Manufacturer:	Warren Rupp, Inc., A Unit of IDEX Corporation 800 North Main Street, P.O. Box 1568 Mansfield, OH 44901-1568 USA.
On File With:	DEKRA Certification B.V. (0344) Meander 1051 6825 MJ Arnhem The Netherlands
Harmonized Standards Applied:	EN 13463-1:2009 Non-Electrical Equipment Potentially Explosive Atmospheres-Part 1 Basic Methods and Requirements EN 13463-5:2011 Non-Electrical Equipment for Potentially Explosive Atmospheres-Part 5 Protection by Constructional Safety
Equipment:	1. Elima-Matic Series metal pumps 2. Elima-Matic Series non-metallic pumps

We hereby certify that the equipment described above conforms with the protection requirements of Council Directive 94/9/EC of 23 March 1994 Annex VIII on the approximation of the laws of the Member States Concerning Equipment and Protective Systems Intended for use in Potentially Explosive Atmospheres

  
Dave Roseberry  
Director of Engineering

DATE/OF REVISION/TITLE:  
07 April 2016

  
**VERSA-MATIC®**

**IDEX**