

**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.

## 



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.



### WARNING

for extended periods of time.

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

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



### WARNING

The use of non-OEM replacement parts will void (or negate) agency certifications, including CE, ATEX, CSA, 3A and EC1935 compliance (Food Contact Materials). Warren Rupp, Inc. cannot ensure nor warrant non-OEM parts to meet the stringent requirements of the certifying agencies.

### 



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.

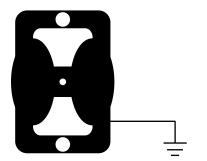


This pump is pressurized internally with air pressure during operation. Make certain that all fasteners are in good condition and are reinstalled properly during reassembly.



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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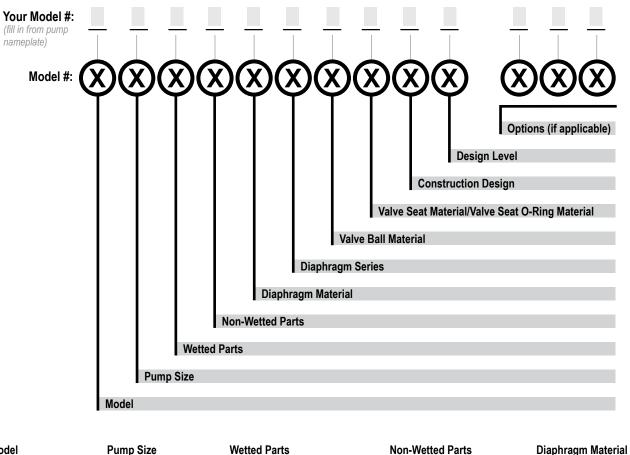
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- ATEX Declaration of Conformity



## **Explanation of Pump Nomenclature**

Your Serial #: (fill in from pump nameplate)



Model	Pump Size	Wetted Parts	Non-Wetted Parts	Diaphragm Material
E Elima-Matic	<b>6</b> 1/4"	A Aluminum	A Aluminum	1 Neoprene
U Ultra-Matic	<b>8</b> 3/8"	C Cast Iron	S Stainless Steel	2 Nitrile (Nitrile)
V V-Series	<b>5</b> 1/2"	S Stainless Steel	P Polypropylene	3 FKM (Fluorocarbon)
	7 3/4"	H Alloy C	G Groundable Acetal	4 EPDM
	<b>1</b> 1"	P Polypropylene	Z PTFE-coated Aluminum	5 PTFE
	<b>4</b> 1-1/4" or 1-1/2"	K Kynar	J Nickel-plated Aluminum	6 Santoprene XL
	<b>2</b> 2"	G Groundable Acetal	C Cast Iron	7 Hytrel
	<b>3</b> 3"	B Aluminum (screen mount)	<b>Q</b> 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>B</b> BSP Tapered Thread
<b>D</b> 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 ÈPDM	4 ÈPDŃ	Design Level	FP Food Processing
B Versa-Tuff (1-piece)	5 PTFE	5 PTFE	A	SP Sanitary Pump

6 Santoprene XL

8 Polyurethane

Y FDA Santoprene

A Aluminum w/ PTFE O-Rings

S Stainless Steel w/ PTFE O-Rings

T PTFE Encapsulated Silicone O-Rings

C Carbon Steel w/ PTFE O-Rings H Alloy C w/ PTFE O-Rings

7 Hytrel

С

BSP Tapered Thread
CP Center Port
ATEX ATEX Compliant
FP Food Processing
SP Sanitary Pump
HP High Pressure
<b>DE</b> Original Elima-Matic
F Flap Valve
HD Horizontal Discharge
3A 3-A Certified
JL UL Listed





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

F FUSION (one-piece

integrated plate)

6 Santoprene XL

8 Polyurethane

S Stainless Steel

Y FDA Santoprene

7 Hytrel

A Acetal

# **Materials**

Material Profile:	Operating Temperatures:	
<b>CAUTION!</b> Operating temperature limitations are as follows:	Max.	Min.
<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 sovents; 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
Hytrel®: 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 stong 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		
Santoprene®: 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		
Urethane: Shows good resistance to abrasives. Has poor resistance to most solvents and oils.	150°F 66°C	32°F 0°C		
Virgin PTFE: (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		
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.				
Metals:				
Alloy C: Equal to ASTM494 CW-12M-1 specification for nickel and nickel alloy.				
Stainless Steel: 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.





## Performance

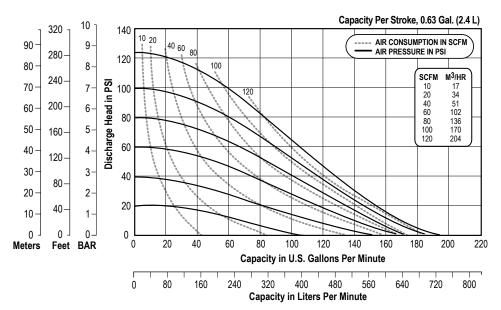
#### E2 - 2" Flap Valve Clamped Pump – Metallic Center ELASTOMERIC AND TPE FITTED - RUGGED

Flow Rate	200	10 1 440	Displacement Per Stroke, 0.63 Gal. (2.4 L)
Adjustable to 0-219 gpm (829 lpm)	320	140	
Port Size	90 - 280 -	3	
Suction	80 -	8- 120	
Discharge 2" NPT	70 - 240 -	7- 2 100	120 SCFM M <sup>3</sup> /HR 10 17
Air Inlet		<b>_</b>	
Air Exhaust 1" NPT	60 - 200 -	08 <b>Head</b> - 0	
Suction Lift	50 - 160 -		
Dry		arg	
Wet	40 - 120 -	4 – <b>÷</b> 500	
Max Solid Size (Diameter)	30 -	3- <b>5</b> 40	
	20 - 80 -	2-	
Max Noise Level 95 dB(A)		2 20	
Shipping Weights	10 - 40 -	1- 20	
Aluminum		00	
	Meters Feet	BÅR	0 20 40 60 80 100 120 140 160 180 200 220 240
			Capacity in U.S. Gallons Per Minute
			0 80 160 240 320 400 480 560 640 720 800 880
			Capacity in Liters Per Minute

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%.

### E2 - 2" Bolted Aluminum Pump – Metallic Center ELASTOMERIC AND TPE FITTED - DOMED

Flow Rate
Adjustable to 0-194 gpm (734 lpm)
Port Size
Suction
Discharge 2" NPT
Air Inlet
Air Exhaust 1" NPT
Suction Lift
Dry
Wet
Max Solid Size (Diameter)
Max Noise Level
Shipping Weights
Aluminum



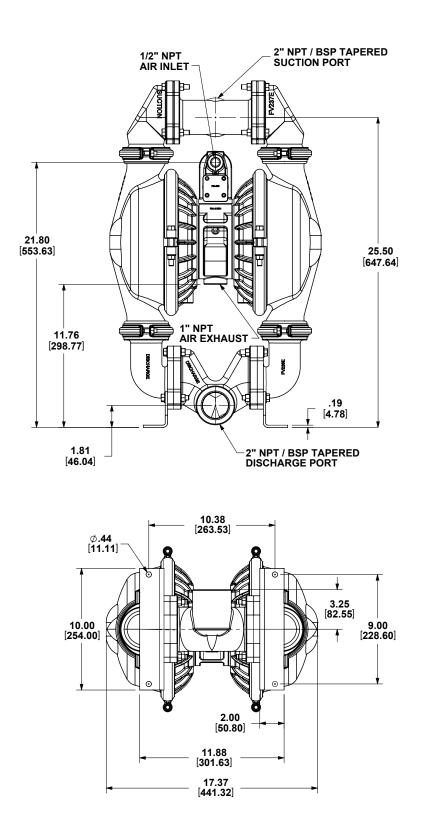
NOTE: Performance based on the following: PTFE fitted pump, flooded suction, water at ambient conditions. The use of other materials and varying hydraulic conditions may result in deviations in excess of 5%.

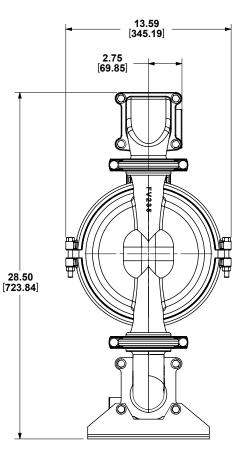


# **Dimensional Drawings**

# **E2 Non-Metallic Flap Valve** Dimensions in inches (mm dimensions in brackets)

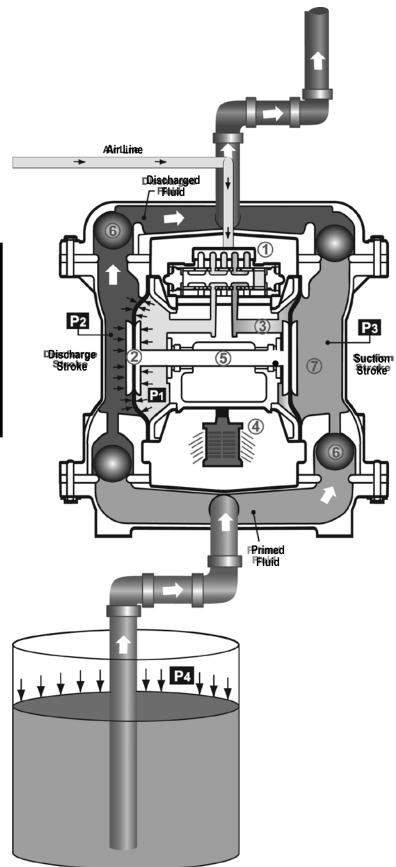
The dimensions on this drawing are for reference only. A certified drawing can be requested if physical dimensions are needed.







## **Principle of Pump Operation**



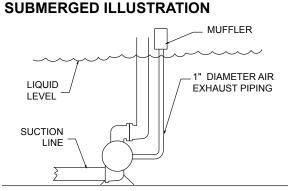
Air-Operated Double Diaphragm (AODD) pumps are powered by compressed air or nitrogen.

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  $\mathcal{T}$ .

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.



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.

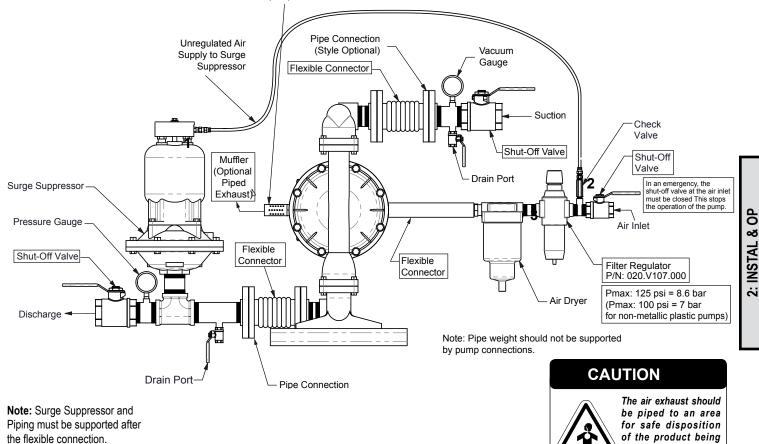


## **Recommended Installation Guide**

### Available Accessories:

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

In the event of a diaphragm rupture, pumped fluid can enter the air center section of the pump and exit through the air exhaust port. When pumping hazardous fluids, it is recommended to pump the exhaust air to a safe location.



### 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.



pumped, in the event of a diaphragm failure.

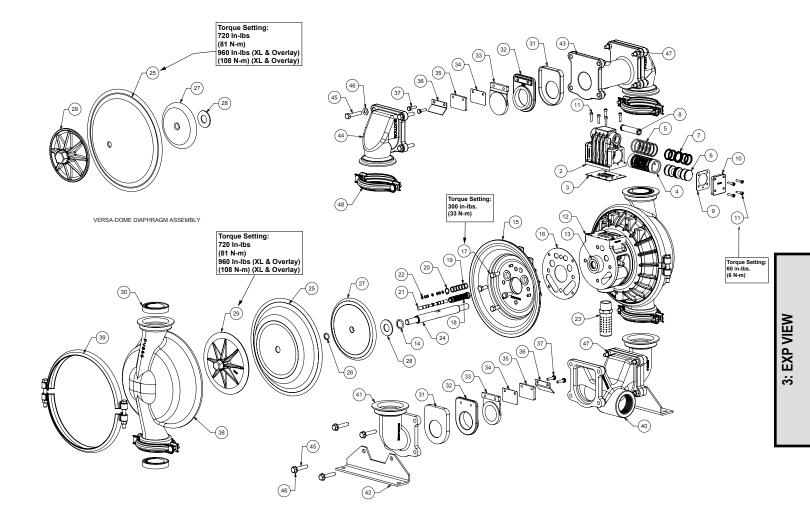
# **Troubleshooting Guide**

Symptom:	Potential Cause(s):	Recommendation(s):
Pump Cycles Once	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.
Dump Will Not Operate	Pump is over lubricated.	Set lubricator on lowest possible setting or remove. Units are designed for lube free operation.
Pump Will Not Operate	Lack of air (line size, PSI, CFM).	Check the air line size and length, compressor capacity (HP vs. cfm required).
/ Cycle		Disassemble and inspect main air distribution valve, pilot valve and pilot valve actuators.
	Check air distribution system.	
	Discharge line is blocked or clogged manifolds. Deadhead (system pressure meets or exceeds air	Check for inadvertently closed discharge line valves. Clean discharge manifolds/piping. Increase the inlet air pressure to the pump. Pump is designed for 1:1 pressure ratio at zero flow.
	supply pressure).	(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.
Pump Cycles and Will	Cavitation on suction side.	Check suction condition (move pump closer to product).
Not Prime or No Flow	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.
Pump Cycles Running	Over lubrication.	Set lubricator on lowest possible setting or remove. Units are designed for lube free operation.
Sluggish/Stalling,	lcing.	Remove muffler screen, de-ice, and re-install. Install a point of use air drier.
	Clogged manifolds.	Clean manifolds to allow proper air flow
Flow Unsatisfactory	Deadhead (system pressure meets or exceeds air	Increase the inlet air pressure to the pump. Pump is designed for 1:1 pressure ratio at zero flow.
	supply pressure).	(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.
Product Looking	Diaphragm failure, or diaphragm plates loose.	Replace diaphragms, check for damage and ensure diaphragm plates are tight.
Product Leaking Through Exhaust	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.
Dromoturo Dionhrogen	Cavitation.	Enlarge pipe diameter on suction side of pump.
Premature Diaphragm Failure	Excessive flooded suction pressure.	Move pump closer to product. Raise pump/place pump on top of tank to reduce inlet pressure.
	Missentiation (shomias/shysical incompatibility)	Install Back pressure device (Tech bulletin 41r). Add accumulation tank or pulsation dampener. Consult Chemical Resistance Chart for compatibility with products, cleaners, temperature limitations
	Misapplication (chemical/physical incompatibility).	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.
Unbalanced Cycling	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.
	Charles where and/an anat is super an anada adjusting	Inspect sheek values and sects for warrand proper acting. Deplets if personant
	Check valve and/or seat is worn or needs adjusting.	Inspect check valves and seats for wear and proper setting. Replace if necessary.

For additional troubleshooting tips contact After Sales Support at service.warrenrupp@idexcorp.com or 419-524-8388



# **Composite Repair Parts Drawing**





WWW.VERSAMATIC.COM

# **Composite Repair Parts List**

				Vir Valvo Accombly			
Item #	Qty.	Descr		Air Valve Assembly Part Number			
	Gety.	Air Side Repair K	it (Includes Items				
		3,5,7,9,14,16,18-22)			476.V01	9.000	
1	1	Valve Body (inclu	udes items 2-11)		031.V00	2.156	
2	1	Valve			095.V00	1.156	
3	1	Valve Body Gasket			P24-202		
4	1	Valve Sleeve			755.V006.148		
5	6	<u> </u>			560.200	5.360	
6	1	Valve Spool Assemb			775.V00		
8	6	Glyde Ring Air Valve			P34-204F		
9	2	End Cap			P24-210 P24-205		
10	2	End					
10	13	Mounting Screws (8	included on item 1)		<u>P34-300</u> S1001		
			Cen	ter Section Assembly			
Item #	Qty.	Descr			Part Nu		
12		Center Block Assembly			P24-400E		
13	2	Bearing			P31-4		
14 15	2	Main Sha Air Ch			<u>P24-</u> 196.V00		
15	2	Air Chamb					
10	8						
		Pilot Repair Kit (Inc			476.V01	8.000	
18	1	Pilot Sleeve Assemb			755.V00	2.000	
19	6	0-r	ing		560.10 <sup>-</sup>	1.358	
20	1	Retainir			675.037		
21		Pilot Spool Assembl			775.V00		
<u>22</u> 23	8	<u> </u>			560.023	3.358	
23		Muf	lier Diaphra	gm Assembly / Elastor	530.033	5.000	
		_			Part Nu	mber	
Item #	Qty.	Descr	iption	Versa-F	Rugged		a-Dome
24	1	Main	Shaft		P24-1	103	
25	2	Diaphragm (See Be		V22			25xx
26	2	O-ring		V22	21D		N/A
		Inner Diaphragm Plate					
27	2			V22	21B		226B
28	2	Bumper	Washer	V22	21B P24-5	501	
28 29	2	Bumper Outer Diaph	Washer Iragm Plate		21B P24-5 221	501 VE	226B 3226
28 29 30	2 2 4	Bumper Outer Diaph Valve Seat (See Be	Washer Iragm Plate Iow Material Chart)	V22	21B P24-5 221 V240	501 VE VX	
28 29 30 31	2	Bumper Outer Diaph Valve Seat (See Be Flapper Seat Seal (See	Washer Iragm Plate Iow Material Chart) Below Material Chart)	V22	21B P24-5 221 V24C FV26	501 VE XX XX	
28 29 30 31 32 33	2 2 4 4	Bumper Outer Diaph Valve Seat (See Be Flapper Seat Seal (See Flapper Flapper (See Belo	Washer aragm Plate low Material Chart) e Below Material Chart) or Seat w Material Chart)	V22	21B P24-5 221 V24C FV26 FV26 FV2 FV24	01 VI XX XX 8 XX	
28 29 30 31 32 33 34	2 2 4 4 4 4 4 4	Bumper Outer Diaph Valve Seat (See Be Flapper Seat Seal (See Flapper Flapper (See Belo PTFE	Washer aragm Plate low Material Chart) e Below Material Chart) ar Seat w Material Chart) E Pad	V22	21B P24-5 221 V24C FV26 FV26 FV24 FV24 FV25	01 VI XX XX 8 XX TF	
28 29 30 31 32 33 34 35	2 2 4 4 4 4 4 4 4	Bumper Outer Diaph Valve Seat (See Be Flapper Seat Seal (See Flapper (See Belo Flapper Valve Pad (See	Washer aragm Plate low Material Chart) a Below Material Chart) or Seat w Material Chart) E Pad a Below Material Chart)	V22	21B P24-5 221 V240 FV26 FV26 FV24 FV25 FV25 FV25	01 VX XX 8 XX XX TF XX	
28 29 30 31 32 33 34 35 36	2 2 4 4 4 4 4 4 4 4	Bumper Outer Diaph Valve Seat (See Be Flapper Seat Seal (See Flapper (See Belo PTFE Flapper Valve Pad (See Flap Re	Washer aragm Plate low Material Chart) e Below Material Chart) or Seat w Material Chart) E Pad e Below Material Chart) etainer	V22	21B P24-5 221 V240 FV26 FV26 FV24 FV26 FV22 FV22 FV25 FV25 FV25 FV25 FV25 FV25 FV25 FV26	01 VI XX XX 8 XX TF XX 7	
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28 29 30 31 32 33 34 35 36 37 <b>Item #</b> 38 39 40 41 41 42 43 40 41 42 43 40 41 42 43 40 41 42 43 40 41 42 43 40 41 45 46 47 48 <b>Material</b> Neoprene Nitrile FKM EPDM	2 2 4 4 4 4 4 4 8 <b>Qty.</b> 2 2 2 2 1 1 2 1 1 2 1 1 6 16 16 4	Bumper Outer Diaph Valve Seat (See Be Flapper Seat Seal (See Flapper Seat Seal (See Flapper (See Belo PTFE Flapper Valve Pad (See Flapper Valve Pad (See Bo Discharge Manifold Discharge Manifold Discharge Manifold Discharge Manifold Discharge Manifold Suction Mar Suction Mar Suction Mar Suction Mar Suction Mar Bo Suction Mar Small Clam V224N V224N V224N V224N V224N	Washer irragm Plate low Material Chart) e Below Material Chart) r Seat w Material Chart) F Pad Below Material Chart) e Below Material Chart) e Below Material Chart) e Below Material Chart) fiption hamber p Assembly fanifold Tee fee (BSP Option) anifold Elbow Bracket anifold Tee Fee (BSP Option) anifold Elbow Bracket anifold Tee Fee (BSP Option) Chart Bracket Bracket Chart Bracket Chart Bracket Bracket Chart Bracket Chart Bracket Chart Bracket Chart Bracket B	V22 VB: Net End Assembly er Material Specificati Seat P/N V240N V240N V240N V240N V240N	21B P24-5 221 V240 FV26 FV26 FV27 FV27 P27 Part Nu FV27 Part Nu FV27 FV23 FV23 FV23 FV23 FV237 FV25N FV25N FV25ND	01 VI VI VI VX VX 8 8 VX TF VX AS mber 35 0 36 BSP 6E VMB 37 BSP 7E 0C GA 4C 9 VI FV24N FV24N FV24N FV24N FV24N FV24N	3226 Flapper Seat Seal P/N FV26N FV26N FV26N FV26N FV26ND
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# **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.

The use of non-OEM replacement parts will void (or negate) agency certifications, including CE, ATEX, CSA, 3A and EC1935 compliance (Food Contact Materials). Warren Rupp, Inc. cannot ensure nor warrant non-OEM parts to meet the stringent requirements of the certifying agencies.

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

## **DECLARATION OF CONFORMIT**

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 Direkktive:

Tämä tuote täyttää seuraavien EC Direktiivien vaatimukstet:

Dette produkt oppfyller kravene til følgende EC Direktiver:

Este produto está de acordo com as seguintes Directivas comunitárias:

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

Ce materiel est fabriqué selon les normes harmonisées suivantes, afin d'en garantir la conformité:

Este producto cumple con las siguientes directrices de la comunidad europa: Dieses produkt ist nach folgenden harmonisierten standards gefertigtworden, die übereinstimmung wird bestätigt:

Questo prodotto ha utilizzato i seguenti standards per verificare la conformita':

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 overenstemmelse med fløgende harmoniserte standarder: Este produto utilizou os seguintes padrões harmonizados para varificar conformidade:

### AUTHORIZED/APPROVED BY:

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

06/14/2017 REV 08



Dave Roseberry Director of Engineering

Authorized Representative: **IDEX Pump Technologies** R79 Shannon Industrial Estate, Shannon, Co. Clare Ireland Attn: Barry McMahon

osebe

**DATE: February 27, 2017** FECHA: DATUM: DATA: DATO: PÄIVÄYS:



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Model E2 Metallic Flap Valve • 10

2006/42/EC

on Machinery, according to Annex VIII

> EN809:1998+ A1:2009

## **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:	Elima-Matic metallic pumps
	1. I M2 c
	2. II 2G c T5
	3. II 2D c T100°C
	Elima-Matic non-metallic pumps
	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

DATE/OF REVISION/TITLE: 07 April 2016



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Dave Roseberry Director of Engineering

