NOMAD™

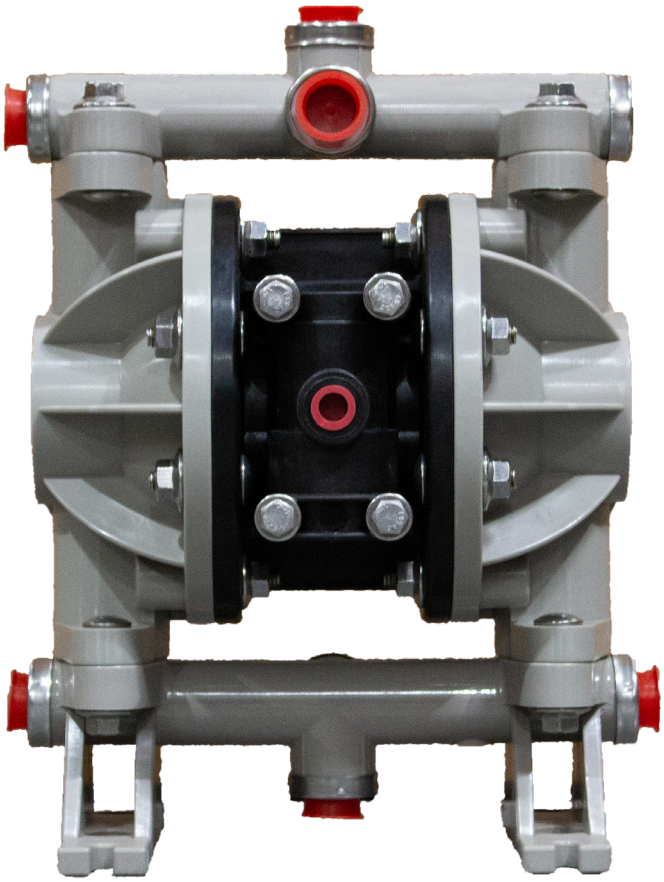
PUMPS • PARTS • PASSION

MODEL: N666053-XXX-C Metallic

Assembly, Installation and Operation Manual

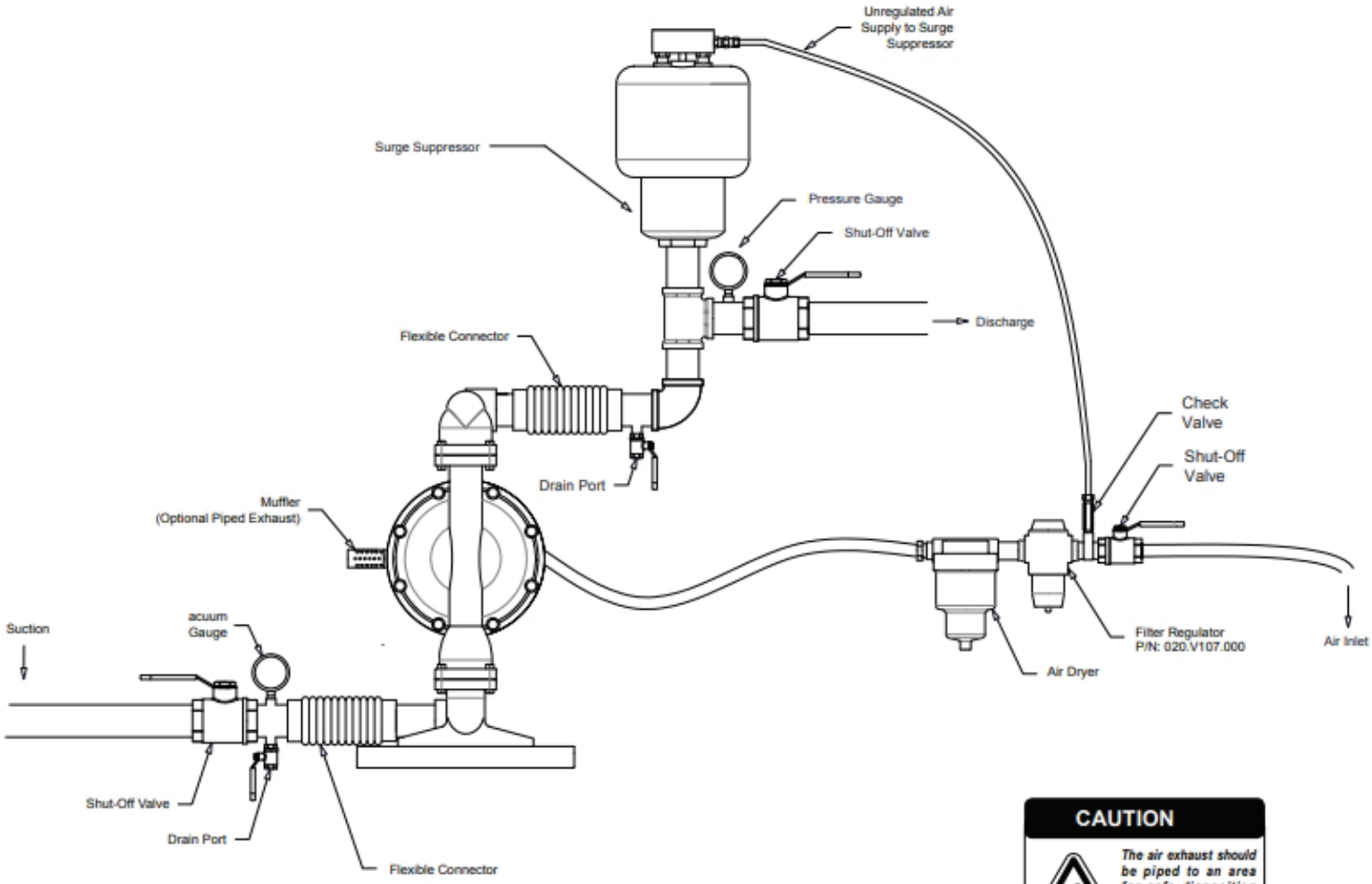
NON-METALLIC

OPTA FLO™



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Recommended Installation Guide



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

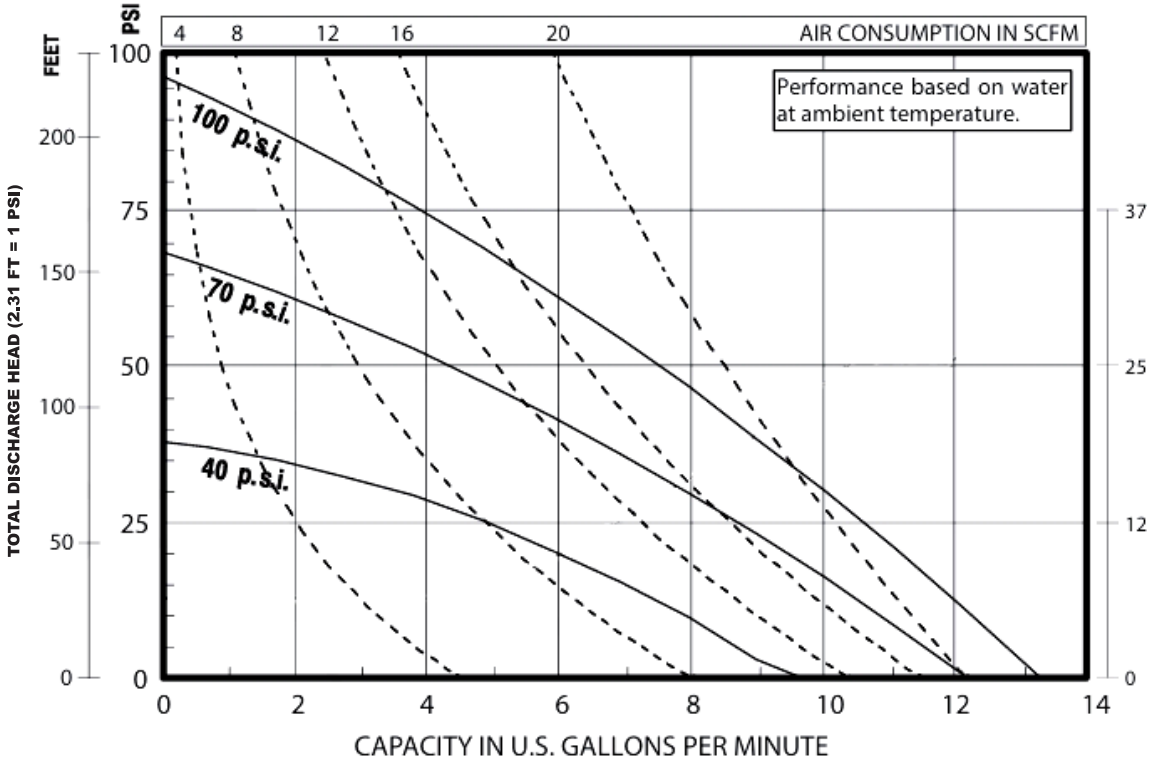
Water in the compressed air supply may cause icing or freezing of the exhaust air, causing the pump to cycle erratically or stop operating. Water in the air supply can be reduced by using a point-of-use air dryer.

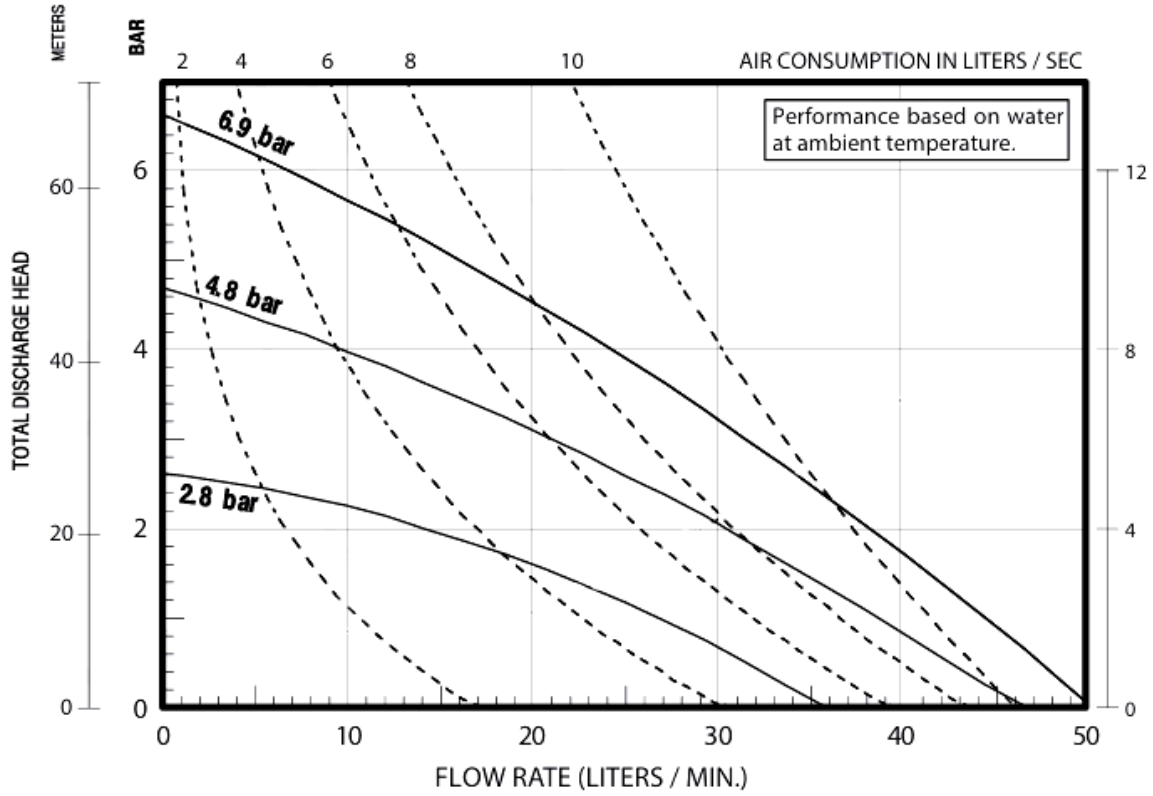
Air Inlet And Priming

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.

Preformance Curves

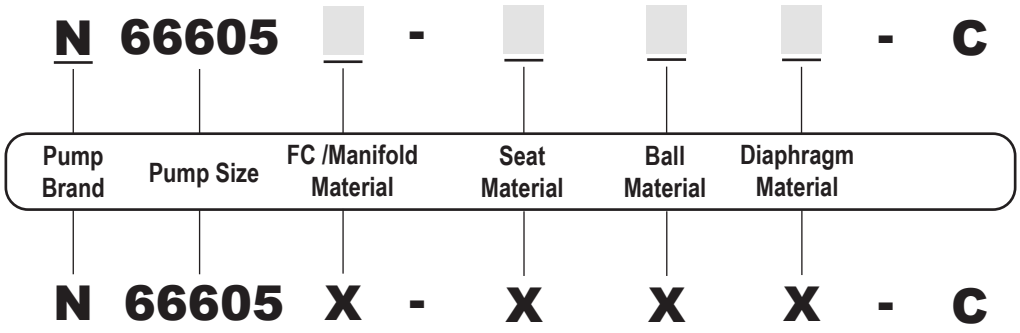
N666053-XXX-C 0.5” NON-METALLIC DIAPHRAGM PUMP





Performance based on an elastomeric fitted pump, flooded suction with water at ambient conditions. Due to varying materials of construction, assembly configurations and operating contitions, published data is for reference only...

Explanation of Pump Nomenclature



Pump Brand:

NOMAD

Pump Size:

0.5”

Fluidcap / Manifold Material:

3 - Polypropylene (3 pc)

Seat Material:

2 - Stainless Steel (316)

3 - Polypropylene

Ball Material:

1 - Neoprene

2 - Buna

3 - Viton ®

4 - PTFE

C - Hytrel ®

E - Santoprene ®

Diaphragm Material:

1 - Neoprene

2 - Buna

3 - Viton ®

4 - PTFE / Santoprene

9 - Hytrel ®

B - Santoprene ®

Parts List N666053-XXX-C Fluid Section

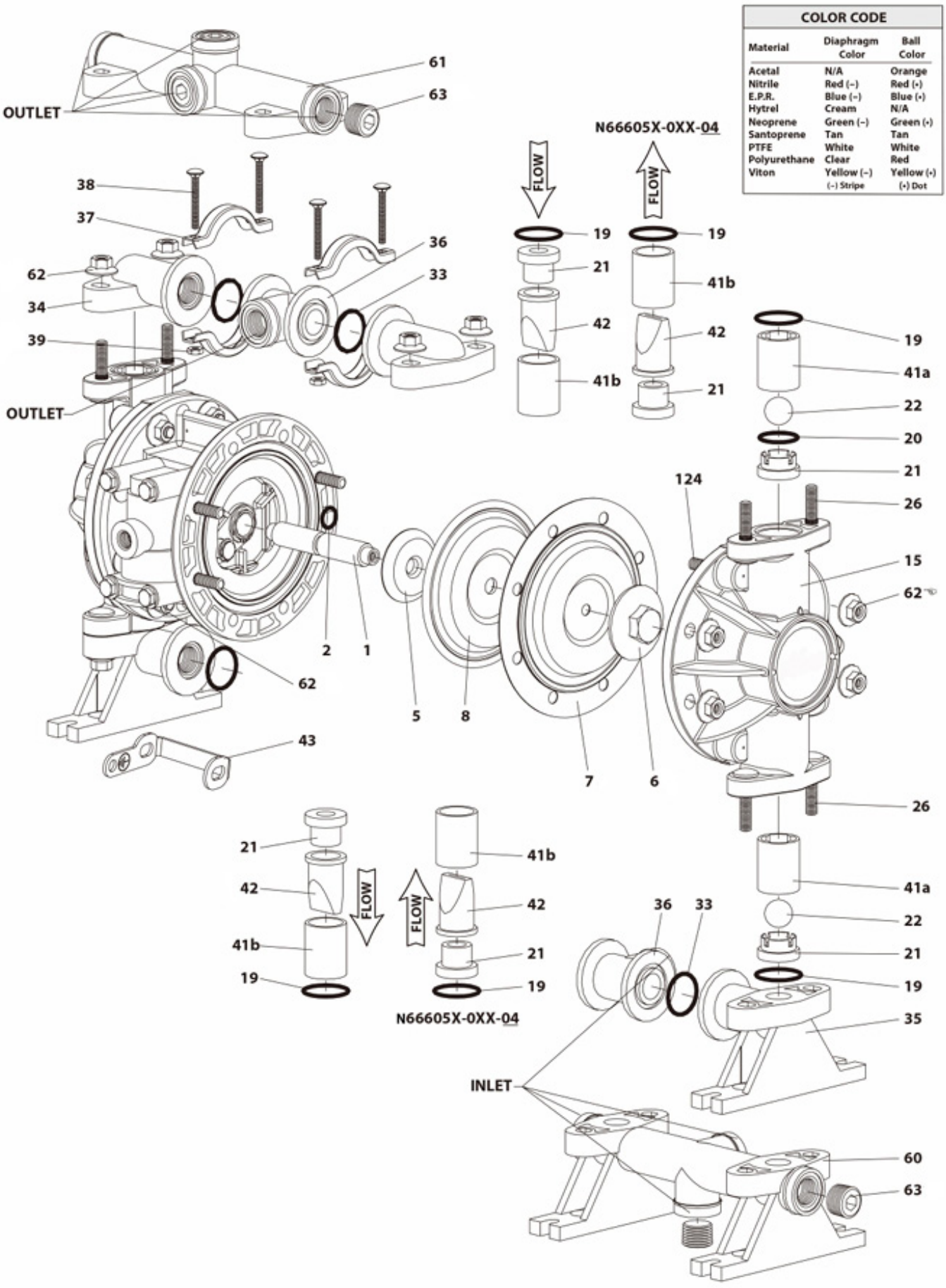


Figure 2

Parts List N666053-XXX-C Fluid Section

Item	Part Number	Description	Qty	Mtl
N666053-XXX-C Pump Parts List Aluminum				
1	N93084	Rod	1	[SS]
2	NY325-111	O-Ring	1	[B]
5	N94645	Washer	2	[GFN]
6	N93105-1	Outer Piston	2	[P]
7	N93113	Diaphragm	2	[N]
7	N93582-2	Diaphragm	2	[B]
7	N93581-3	Diaphragm	2	[V]
7	N93111	Diaphragm	2	[T]
7	N93465-9	Diaphragm	2	[H]
7	N93465	Diaphragm	2	[Sp]
8	N93465	Backup Diaphragm	2	[Sp]
15	N93103-1	Fluid Caps	2	[P]
19	NY325-122	O-Ring	4	[B]
19	NY327-122	O-Ring	4	[V]
20	NY325-119	O-Ring	2	[B]
20	NY327-119	O-Ring	2	[V]
20	NY328-119	O-Ring	2	[T]
Seat OptionsN666053-XXX-C				
21				
2XX	N93409-1	Valve Seat	4	[SS]
3XX	N93098	Valve Seat	4	[P]
0XX	N93115-1	Valve Seat	4	[P]
Ball Options N666053-XXX-C				
22				
X1X	N93100-1	Valve Ball	4	[N]
X2X	N93100-2	Valve Ball	4	[B]
X3X	N93100-3	Valve Ball	4	[V]
X4X	N93100-4	Valve Ball	4	[T]
XEX	N93100-E	Valve Ball	4	[SP]
26	N93109	Bolt (5/16" - 18 x 1-1/2")	8	[SS]
33	NY325-120	O-Ring	4	[B]
33	NY327-120	O-Ring	4	[V]
33	N94749	O-Ring	4	[T]
41a	N93097-1	Ball Cage	4	[P]
41b	N93120-1	Sleeve	4	[P]
60	N93802-1	Inlet Manifold	1	[P]
61	N93801-1	Discharge Manifold	1	[P]
62	N93886	Flange Nut (5/16" -18)	24	[SS]

Material Code

[A] = Aluminum
[B] = Buna
[C] = Carbon Steel
[Co] = Copper
[CP] = Composite PTFE
[H] = Hytrel
[K] = Kynar
[SP] = Santoprene
[SS] = Stainless Steel
[T] = PTFE
[V] = Viton
{U} = Polyurthane

Parts List N666053-XXX-C Air Motor Section

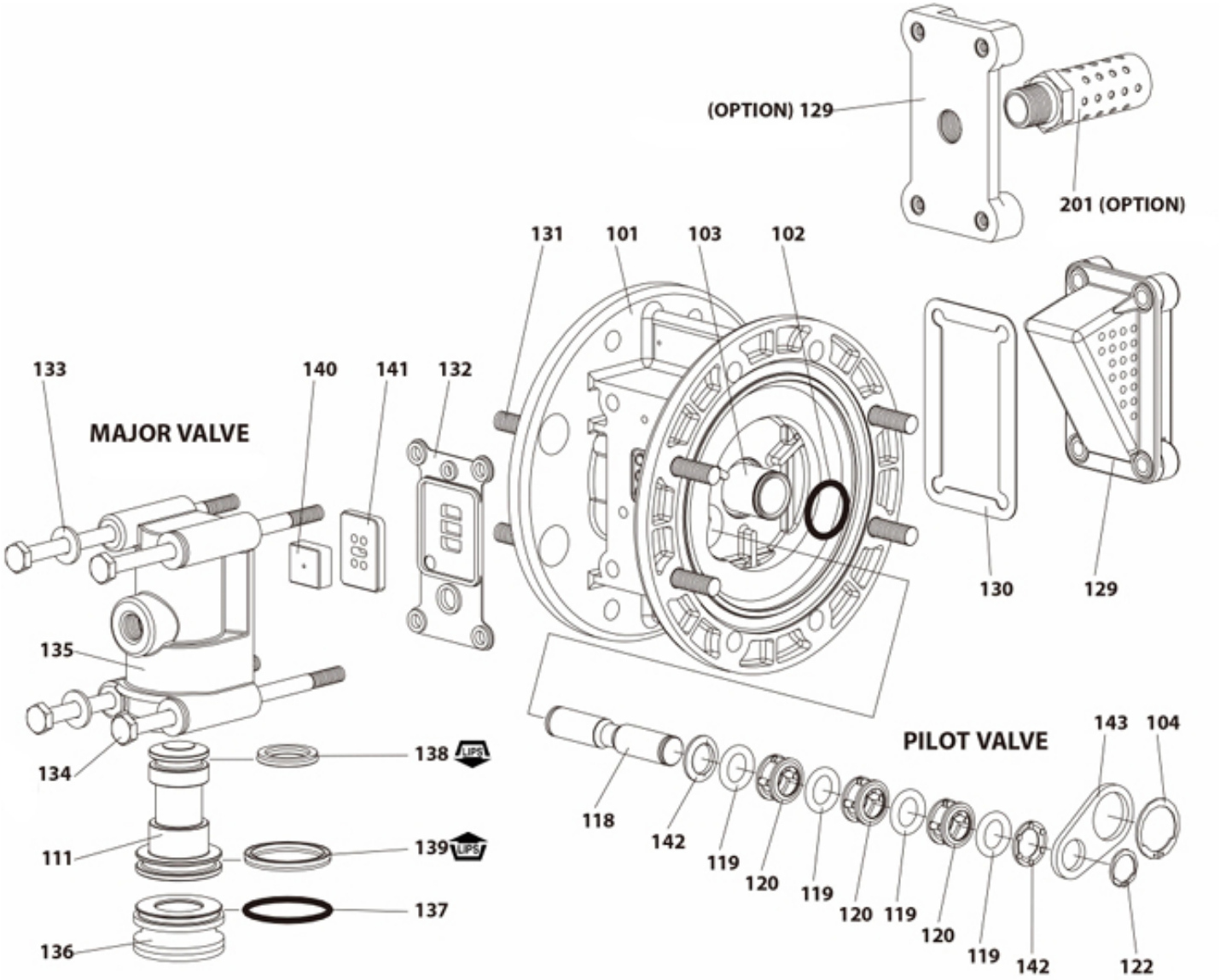


Figure 3

Parts List N666053-XXX-C Air Motor Section

Item	Part Number	Description	Qty	Mtl
N666053-XXX-C Air Motor Parts List				
101	N93091	Center Section	1	[P]
102	NY325-117	O-Ring	2	[B]
103	N93087	Pilot Sleeve	1	[D]
104	N37285	Retaining Ring	2	[C]
107	N93707-1	Plate	2	[SS]
111	N93085	Spool	1	[D]
118	N93088	Pilot Rod	1	[C]
119	N93075	O-Ring	2	[U]
120	N115959	Spacer	3	[Z]
122	N77802	O-Ring	2	[C]
124	N93249	Screw (5/16" - 18 x 1-17/32")	8	[SS]
129	N66972	Muffler Assembly	1	[P]
130	N93107	Gasket	1	[SY]
131	N93095	Bolt (5/16" - 18 x 1-1/4")	1	[SS]
132	N93339-1	Gasket	1	[B]
133	N93096	Washer (9/32")	4	[SS]
134	NY325-117	Bolt (1/4" - 20 x 5")	4	[SS]
135	N93090	Valve Block	1	[P]
136	N93086	Plug	1	[D]
137	NY325-125	O-Ring (3/32" x 1 1/2")	1	[B]
138	N94395	Packing "U" Cup (1/8" x 1")	1	[U]
139	N96383	Packing "U" Cup (1/8" x 1.472")	1	[U]
140	N93276	Valve Insert	1	[CK]
141	N93275	Valve Plate	1	[CK]
142	N116038	Washer	2	[Z]
143	N93089	Plate	2	[SS]
201	N93110	Muffler		[C]

Material Code

[A] = Aluminum
[B] = Buna
[Bz] = Bronze
[C] = Carbon Steel
[D] = Acetal
[Ny] = Nylon
[SS] = Stainless Steel
[U] = Polyurethane
[Z] = Zinc

Dimensional Data

Dimensions shown are for reference only, they are shown in inches and millimeters (mm).

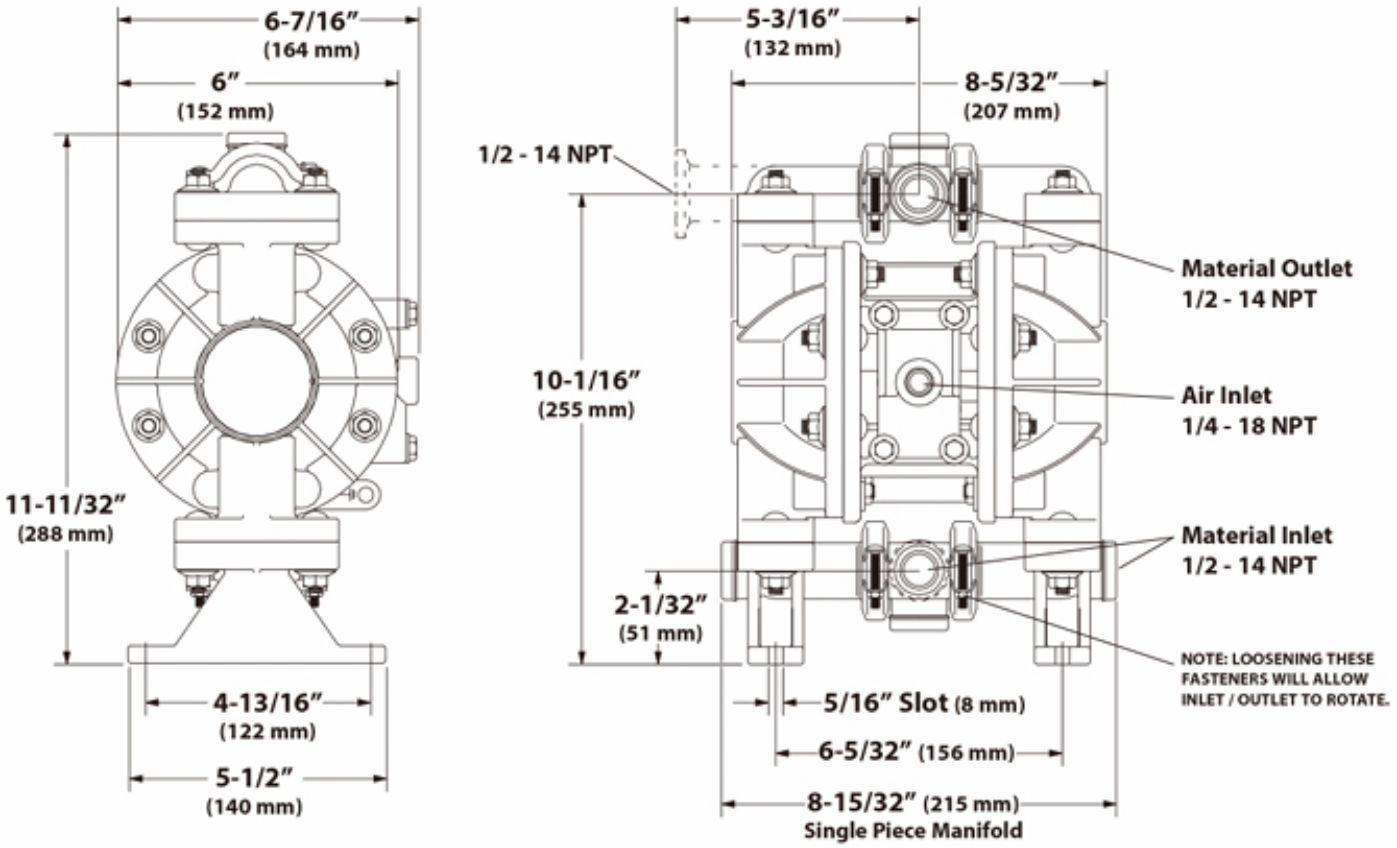


Figure 4

Troubleshooting

Low output volume, erratic flow or no flow.

- Check air supply.
- Check for plugged outlet hose.
- Check for kinked (restrictive) outlet material hose.
- Check for kinked (restrictive) or collapsed inlet material hose.
- Check for pump cavitation – suction pipe should be sized at least as large as the inlet thread diameter of the pump for proper flow if high viscosity fluids are being pumped. Suction hose must be a non-collapsing type, capable of pulling a high volume.
- Check all joints on the inlet manifolds and suction connections. These must be air tight.
- Inspect the pump for solid objects lodged in the diaphragm chamber or the seat area.

Product discharged from exhaust outlet.

- Check for diaphragm rupture.
- Check tightness of (14) diaphragm screw.

Air bubbles in product discharge.

- Check connections of suction plumbing.
- Check "O" rings between intake manifold and fluid caps.
- Check tightness of (14) diaphragm screw.

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