NOMAD™

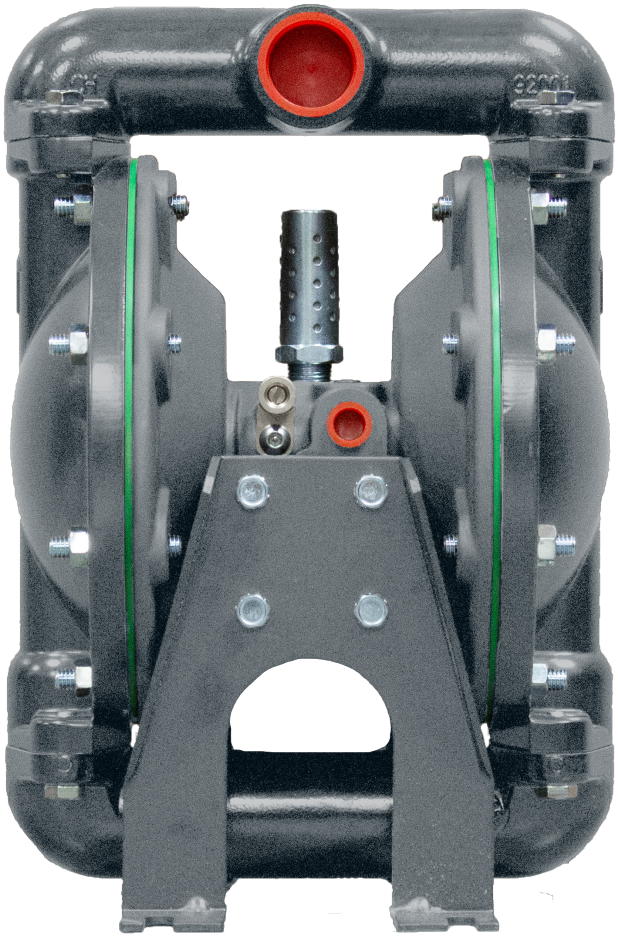
PUMPS • PARTS • PASSION

MODEL: N66610X-XXX-C Metallic

Assembly, Installation and Operation Manual

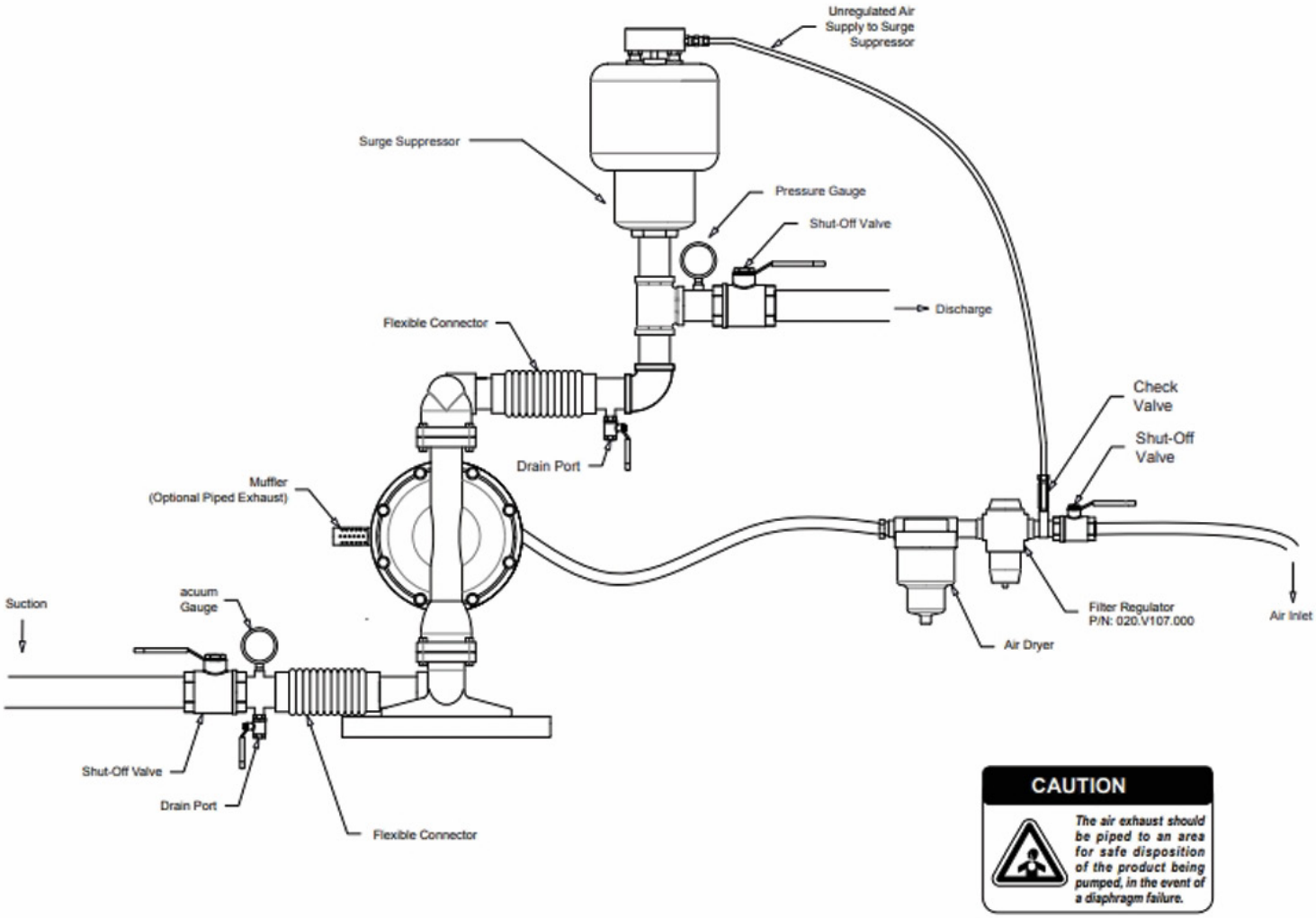
ALUMINUM AND STAINLESS STEEL

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Recommended Installation Guide



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.

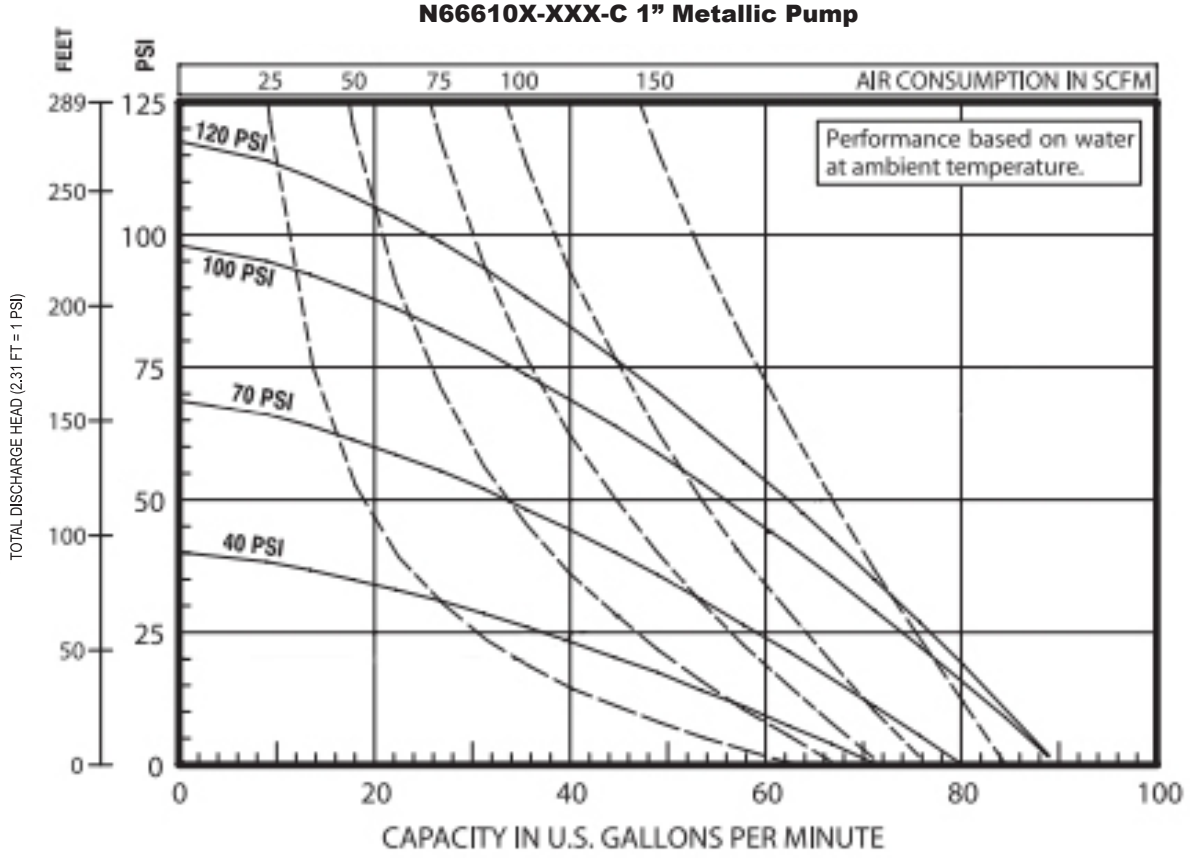
Air Line Moisture
Water in the compressed air supply may cause icing or freezing of the exhaust air, causing the pump to cycle erratically or stop operating. Water in the air supply can be reduced by using a point-of-use air dryer.

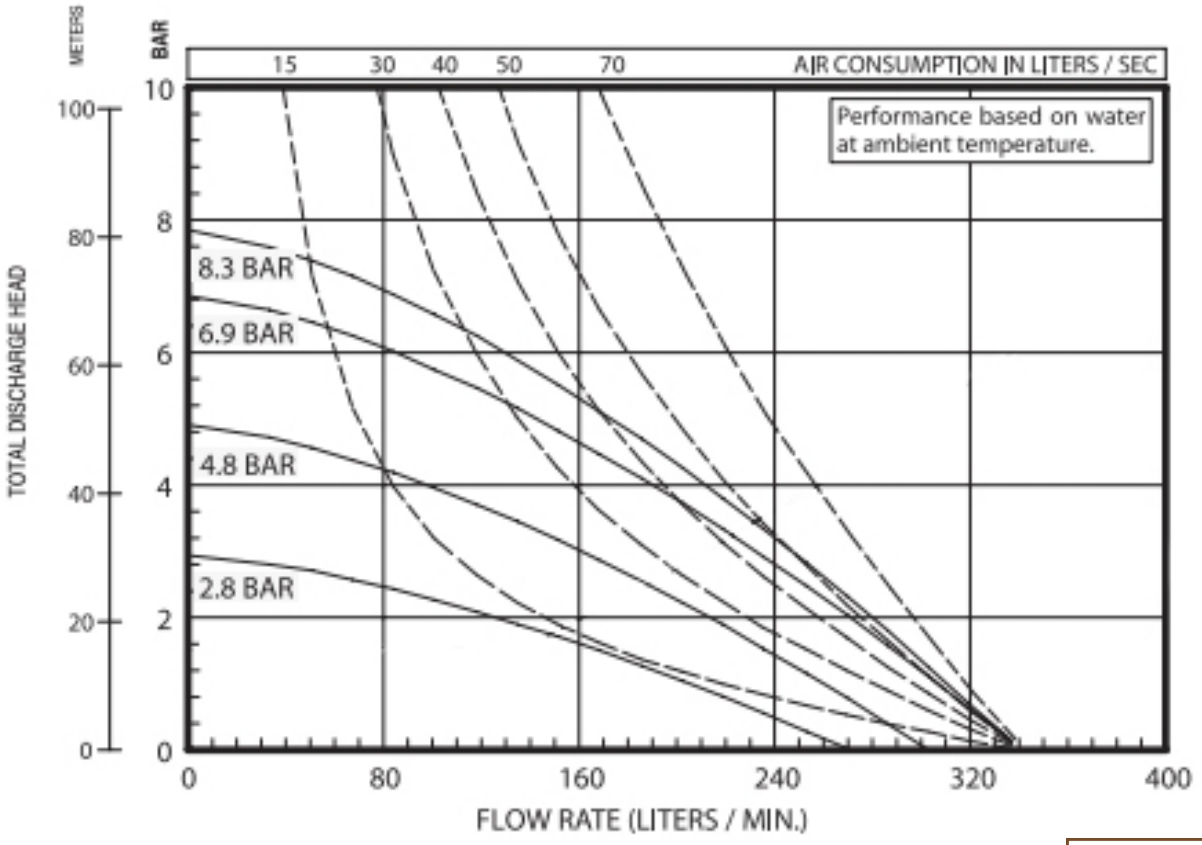
Air Inlet And Priming
To start the pump, slightly open the air shut-off valve. After the pump primes, the air valve can be opened to increase air flow as desired. If opening the valve increases cycling rate, but does not increase the rate of flow, cavitation has occurred. The valve should be closed slightly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

Preformance Curves

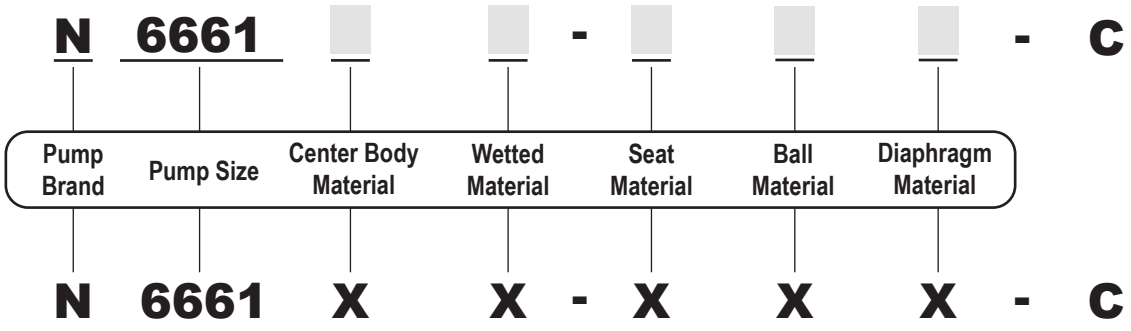
PERFORMANCE CURVES

N66610X-XXX-C 1” Metallic Pump





Explanation of Pump Nomenclature



Pump Brand:

NOMAD

Pump Size:

1”

Pump Center Body Material:

0 - Aluminum

Wetted Material:

A - Aluminum

B - Stainless Steel

Seat Material:

1 - Aluminum

2 - Stainless Steel (316)

3 - Polypropylene

4 - PVDF

Ball Material:

1 - Neoprene

2 - Buna

3- Viton

4 - PTFE

A - Stainless Steel (316)

C - Hytrel

E - Santoprene

Diaphragm Material:

1 - Neoprene-

2 - Buna

3 - Viton

4 - PTFE / Santoprene

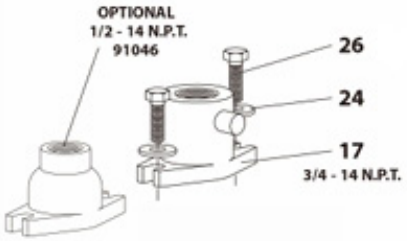
9 - Hytrel

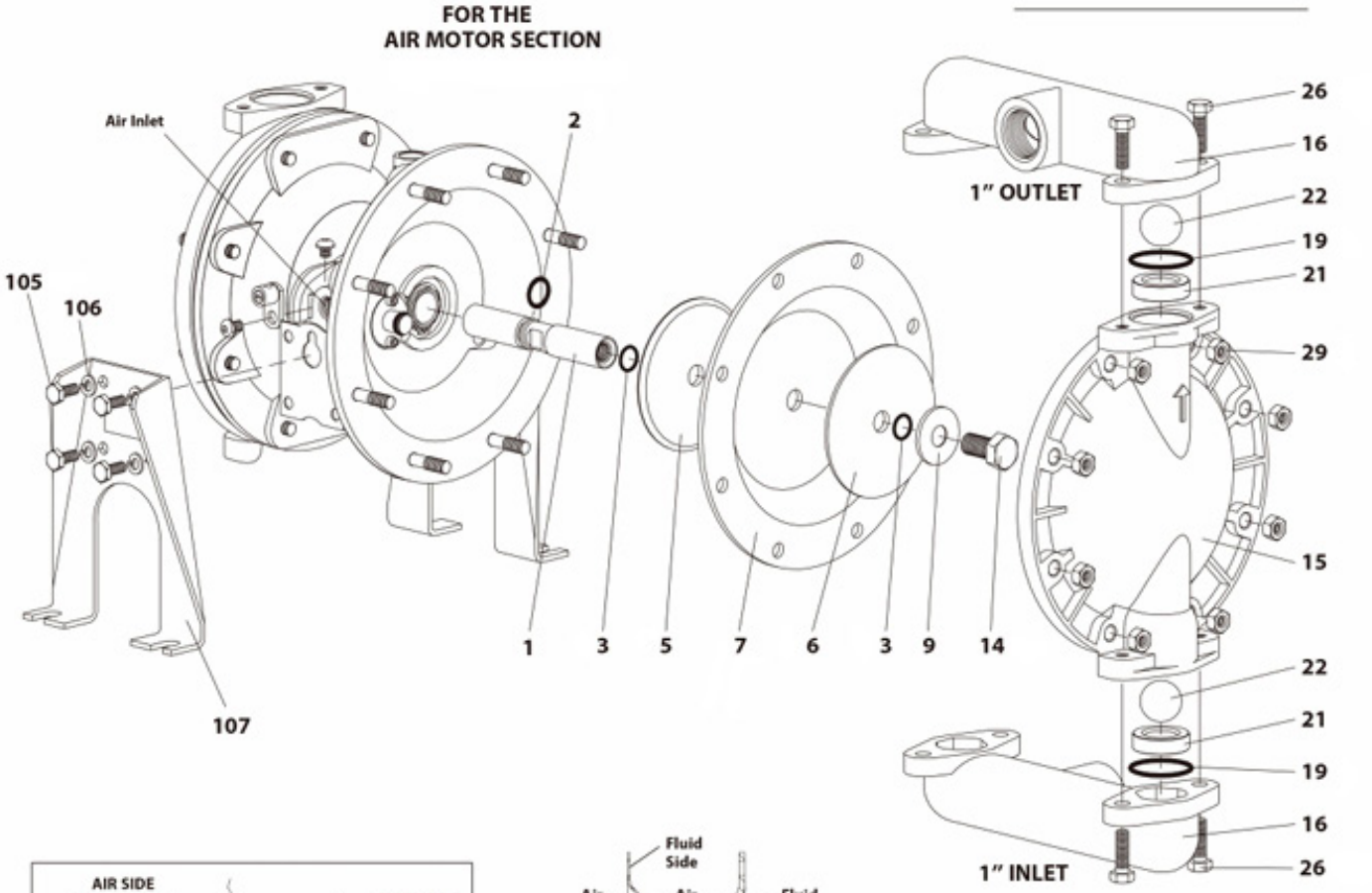
B - Santoprene

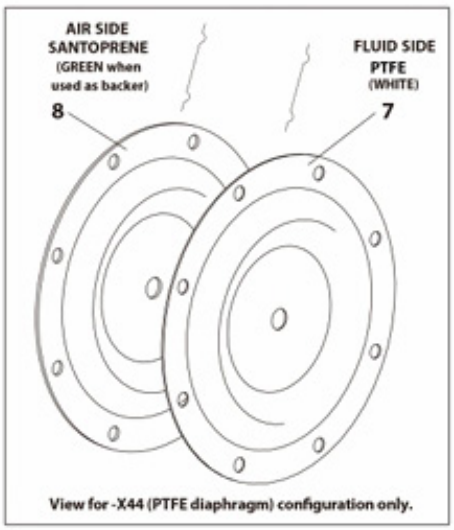
Parts List N66610X-XXX-C Fluid Section

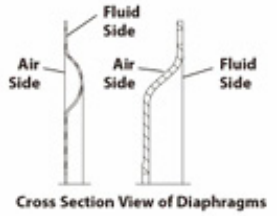
COLOR CODE		
MATERIAL	DIAPHRAGM COLOR	BALL COLOR
Acetal	N/A	Orange
Nitrile	Red (-)	Red (+)
Hytrel	Cream	Cream
Neoprene	Green (-)	Green (+)
Santoprene	Cream *	Cream
PTFE	White	White
Urethane	N/A	Red
Viton	Yellow (-)	Yellow (+)
	(-) Stripe	(+) Dot

* See item 8 in inset below.

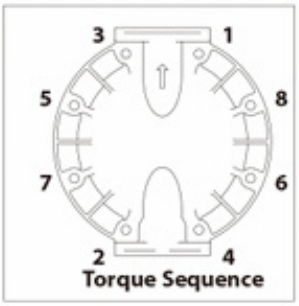








Cross Section View of Diaphragms



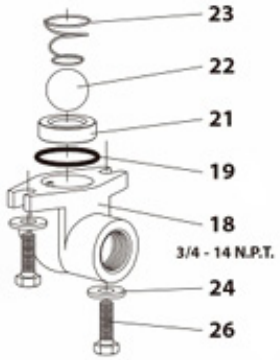


Figure 2

Parts List N66610X-XXX-C Fluid Section

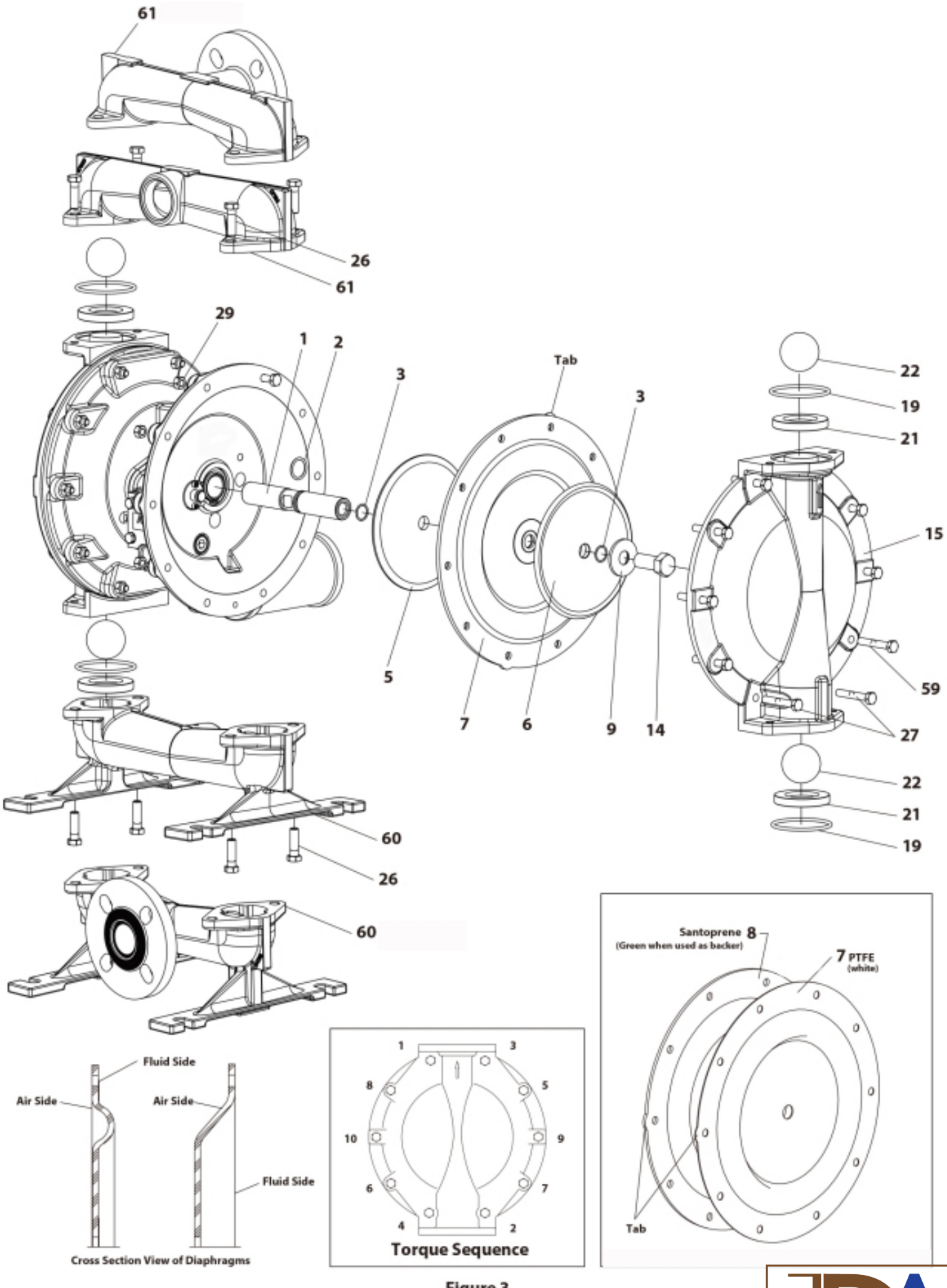


Figure 3

Parts List N66610X-XXX-C Fluid Section

Item	Part Number	Description	Qty	Mtl
N66610A-XXX-C Pump Parts List Aluminum				
1	N98724-1	Rod	1	[C]
1	N48489660	Rod	1	[C]
2	NY330-113	O-Ring	1	[B]
3	NY325-14	O-Ring (1/16" x 3/4" OD)	4	[B]
3	NY328-14	O-Ring (1/16" x 3/4" OD)	4	[T]
5	N93441-2	Inner Piston	2	[C]
6	N93441-1	Outer Piston	2	[SS]
6	N93441-2	Inner Piston	2	[C]
7	N90533-1	Diaphragm	2	[N]
7	N90533-2	Diaphragm	2	[B]
7	N90533-3	Diaphragm	2	[V]
7	N93459-4	Diaphragm	2	[T]
7	N90533-9	Diaphragm	2	[H]
7	N90533-B	Diaphragm	2	[Sp]
8	N92973-B	Backup Diaphragm	2	[Sp]
9	N93189-1	Washer (0.505" ID)	2	[SS]
14	NY5-85-T	Screw (1/2" -20 x 1")	2	[SS]
15	N94945	Liquid Chamber	2	[A]
16	N92001	Manifold	2	[A]
19	NY325-126	O-Ring	4	[B]
19	NY328-126	O-Ring	4	[T]
19	NY327-126	O-Ring	4	[V]
Seat OptionsN66610A-XXX-C				
21				
1XX	N92008-1	Valve Seat	4	[A]
2XX	N90428-1	Valve Seat	4	[SS]
3XX	N92926	Valve Seat	4	[P]
8XX	N93367-1	Valve Seat	4	[SH]
Ball Options N66610A-XXX-C				
22				
X1X	N90532-1	Valve Ball	4	[N]
X2X	N90532-2	Valve Ball	4	[B]
X3X	N90532-3	Valve Ball	4	[V]
X4X	N90532-4	Valve Ball	4	[T]
XCX	N90532-C	Valve Ball	4	[H]
XEX	N90532-A	Valve Ball	4	[SP]
24	NT13-5-T	Washerq	8	[SS]
26	NY6-66-T	Bolt (3/8"-16 x 1-1/4")	8	[SS]

Item	Part Number	Description	Qty	Mtl
N66610B-XXX-C Pump Parts List Aluminum				
1	N98724-1	Rod	1	[C]
1	N48489660	Rod	1	[C]
2	NY330-113	O-Ring	1	[B]
3	NY325-14	O-Ring (1/16" x 3/4" OD)	4	[B]
3	NY328-14	O-Ring (1/16" x 3/4" OD)	4	[T]
5	N93441-2	Inner Piston	2	[C]
6	N93441-1	Outer Piston	2	[SS]
6	N93441-2	Inner Piston	2	[C]
7	N90533-1	Diaphragm	2	[N]
7	N90533-2	Diaphragm	2	[B]
7	N90533-3	Diaphragm	2	[V]
7	N93459-4	Diaphragm	2	[T]
7	N90533-9	Diaphragm	2	[H]
7	N90533-B	Diaphragm	2	[Sp]
8	N92973-B	Backup Diaphragm	2	[Sp]
9	N93189-1	Washer (0.505" ID)	2	[SS]
14	NY5-85-T	Screw (1/2" -20 x 1")	2	[SS]
15	N97615	Liquid Chamber	2	[SS]
17	N92846	Outlet Manifold	2	[SS]
18	N92847	Inlet Manifold	2	[SS]
19	NY325-126	O-Ring	4	[B]
19	NY328-126	O-Ring	4	[T]
19	NY327-126	O-Ring	4	[V]
Seat OptionsN66610A-XXX-C				
21				
1XX	N92008-1	Valve Seat	4	[A]
2XX	N90428-1	Valve Seat	4	[SS]
3XX	N92926	Valve Seat	4	[P]
8XX	N93367-1	Valve Seat	4	[SH]
Ball Options N66610A-XXX-C				
22				
X1X	N90532-1	Valve Ball	4	[N]
X2X	N90532-2	Valve Ball	4	[B]
X3X	N90532-3	Valve Ball	4	[V]
X4X	N90532-4	Valve Ball	4	[T]
XCX	N90532-C	Valve Ball	4	[H]
XEX	N90532-A	Valve Ball	4	[SP]
23	N22155	Spring	2	[SS]

Material Code

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

Parts List N66610X-XXX-C Air Motor Section

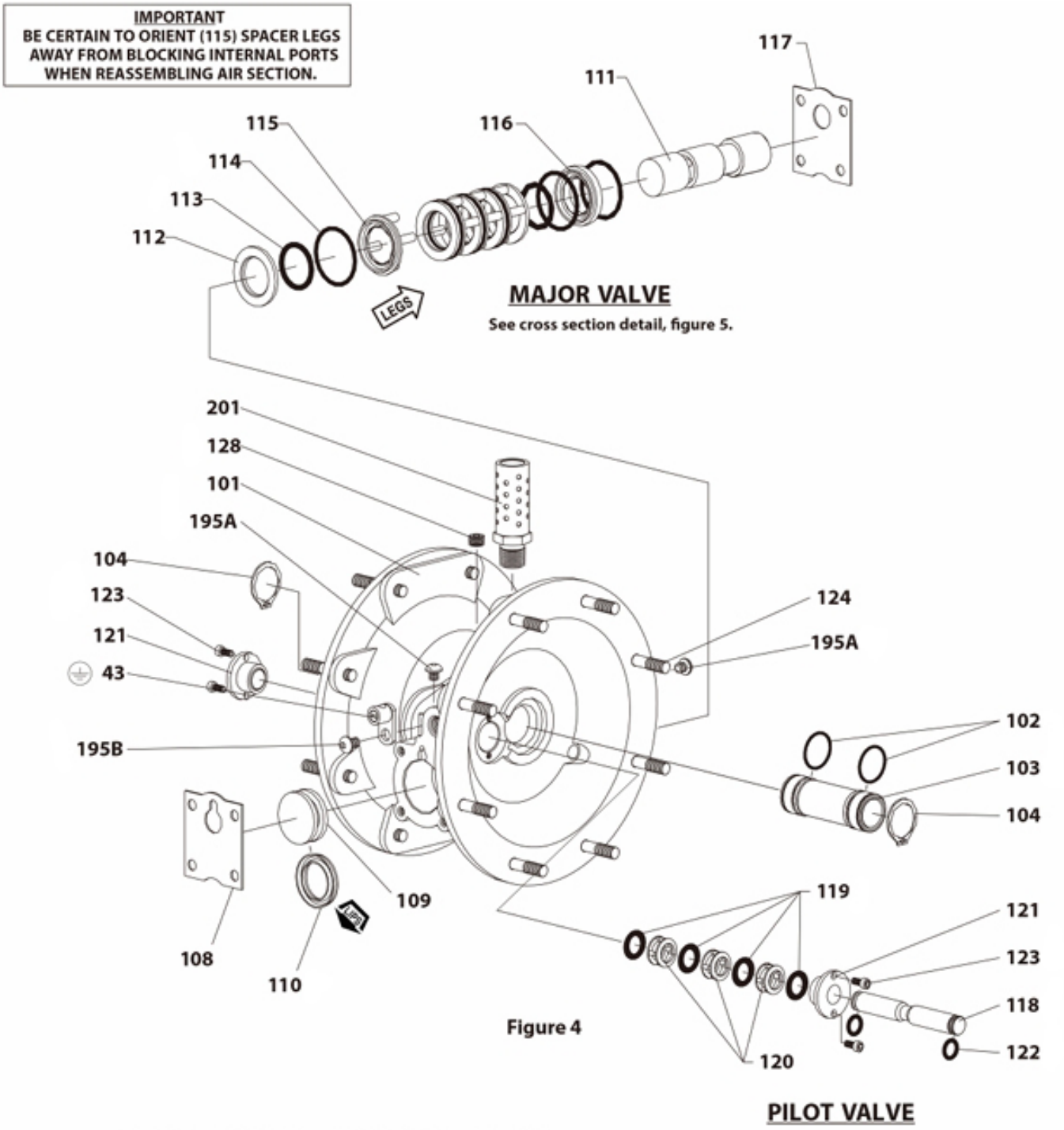


Figure 4

MAJOR VALVE CROSS SECTION DETAIL

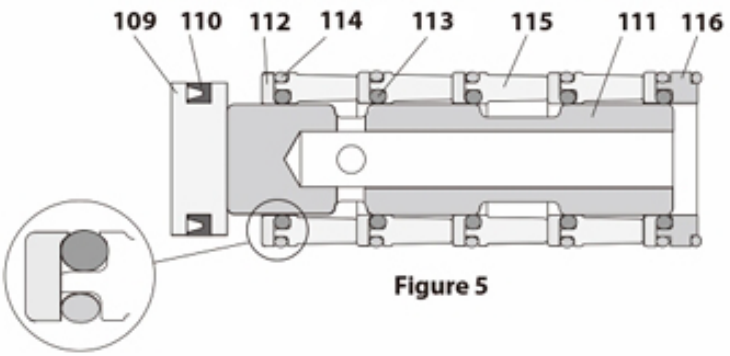


Figure 5

Parts List N66610X-XXX-C Air Motor Section

Item	Part Number	Description	Qty	Mtl
N66610X-XXX-C Air Motor Parts List				
101	N94743	Center Section	1	[A]
102	NY325-20	O-Ring	2	[B]
103	N94527	Pilot Sleeve	1	[D]
104	NY145-25	Retaining Ring	2	[C]
105	N93860	Screw/Washer (1/4" -20 x 5/8")	8	[C]
105	NY6-42-T	Cap Screw (1/4" - 20 x 5/8")	8	[SS]
106	NY14-416-T	Lockwasher (1/4")	8	[SS]
107	N92003	Leg	2	[C]
107	N92003-1	Leg	2	[SS]
108	N92878	Gasket (with notch)	1	[B/NY]
109	N92011	Piston	1	[D]
110	NY186-51	U-Cup	1	[B]
111	N92005	Spool	1	[A]
112	N92877	Washer	5	[Z]
113	NY325-214	O-Ring	5	[B]
114	NY325-126	O-Ring	6	[B]
115	N92876	Spacer	4	[Z]
116	N92006	Spacer	1	[Z]
117	N92004	Gasket	1	[B/NY]
118	N93309-1	Pilot Rod	1	[C]
119	N93075	O-Ring	2	[U]
120	N115959	Spacer	3	[Z]
121	N98723-1	Sleeve Brushing	2	[Bz]
122	N94820	O-Ring	2	[U]
123	NY154-41	Screw (#8 - 32 x 3/8")	4	[C]
124	N93277	Screw (5/16" - 18 x 2 3/8")	12	[SS]
128	NY227-2-L	Pipe Plug (1/8-27 N.P.T. x 1/4")	1	[C]
195	N94987	Button Head Screw (1/4" -20 x 1/4")	3	[SS]
201	N93110	Muffler	1	[C]
		Grease Packet		

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 displayed in inches and millimeters (mm).

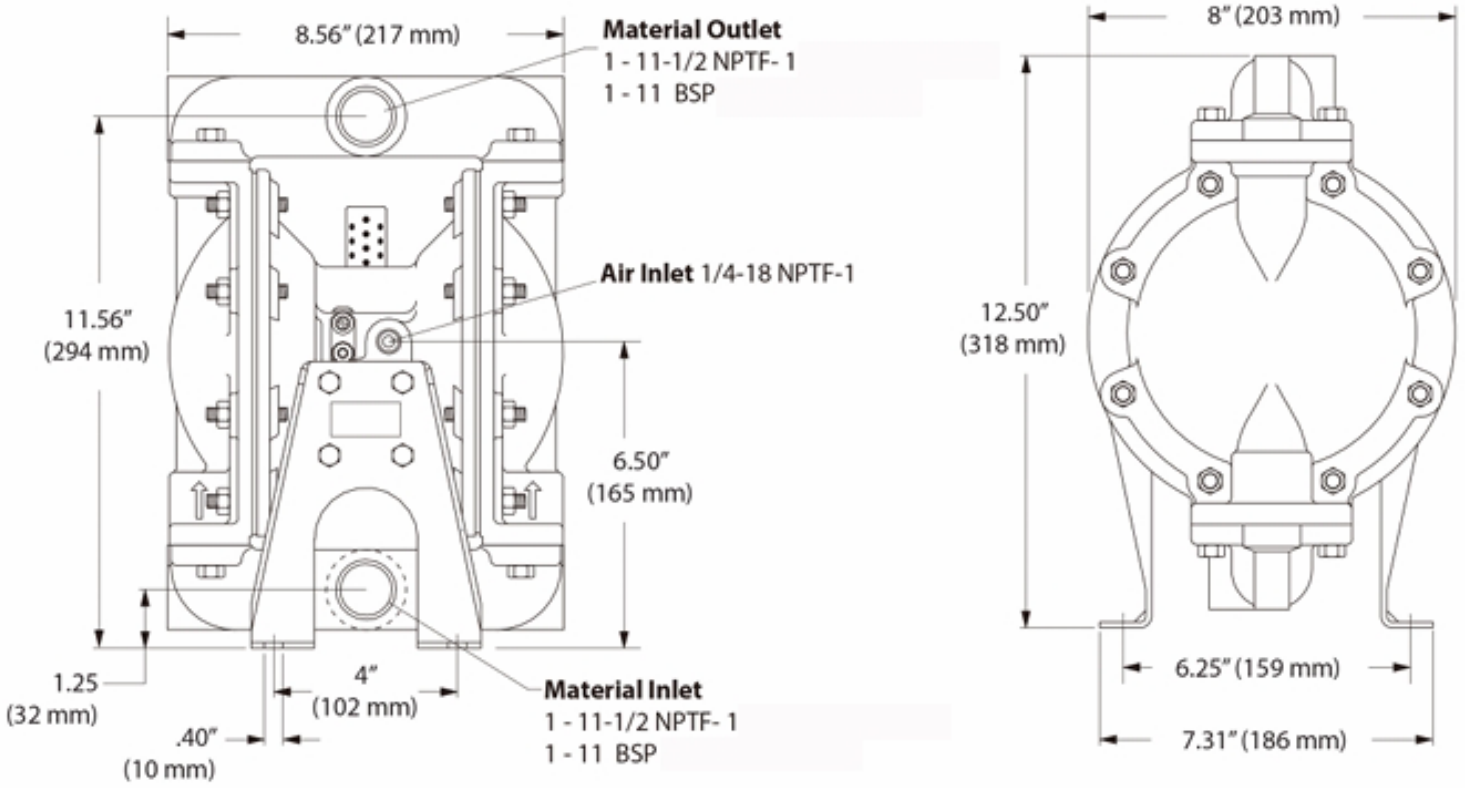


Figure 6

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

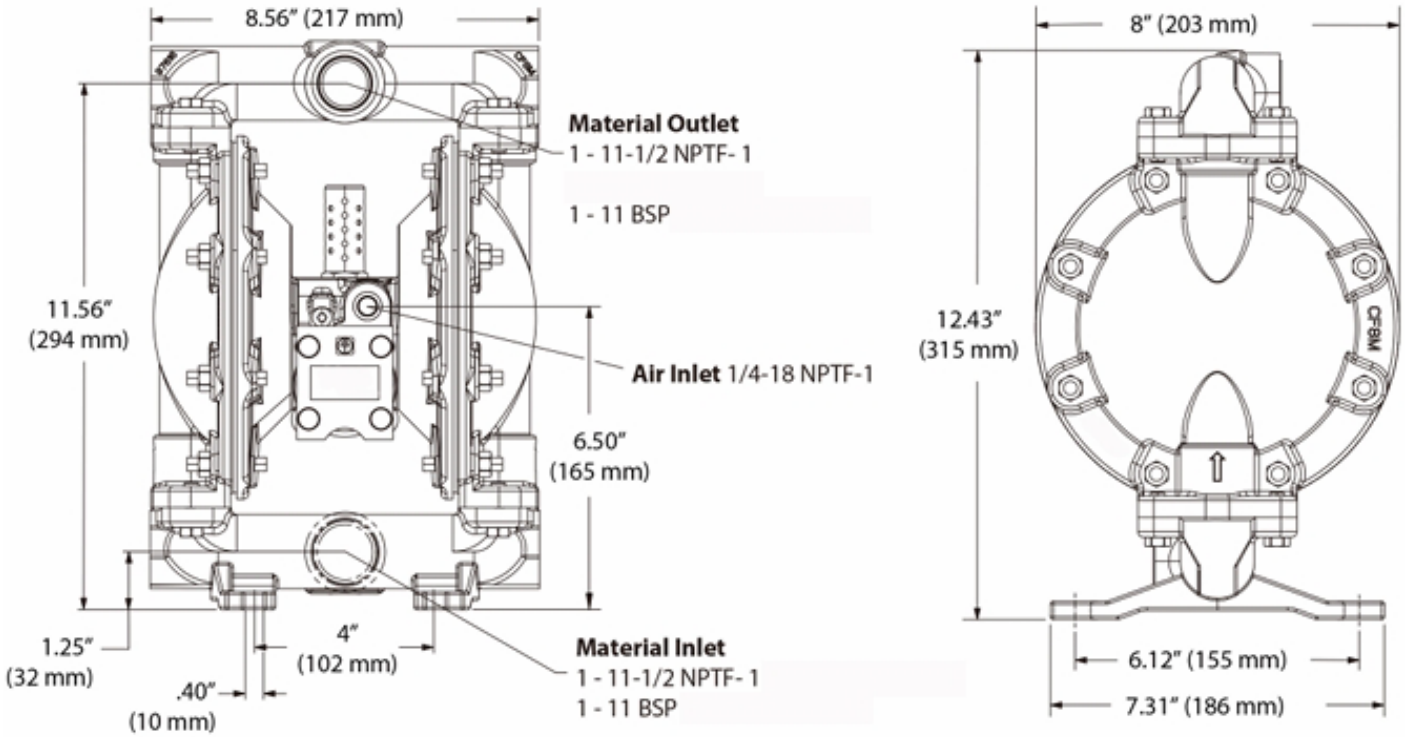


Figure 7

Dimensional Data

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

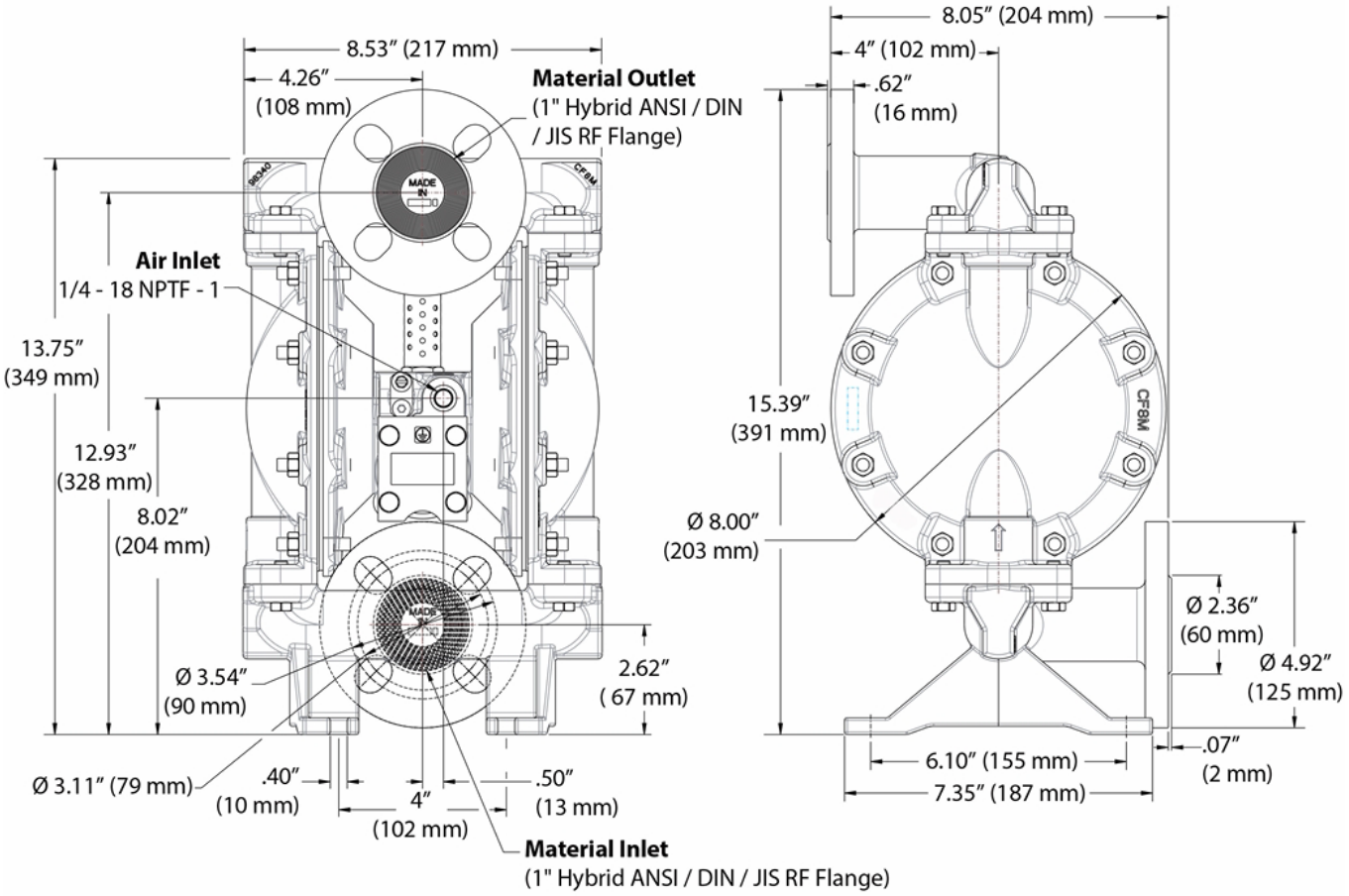


Figure 9

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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