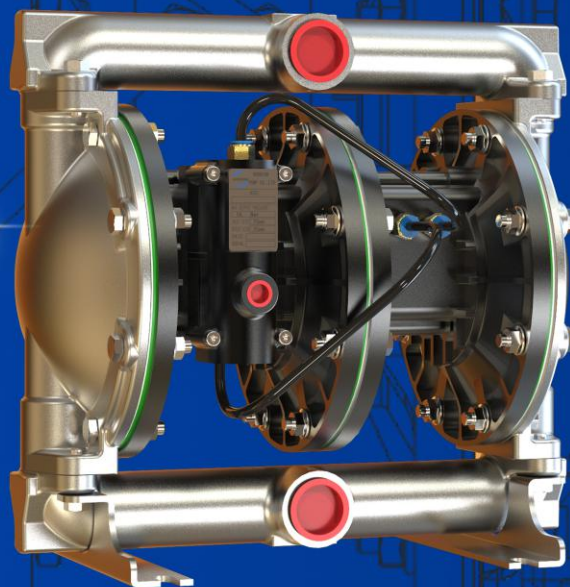
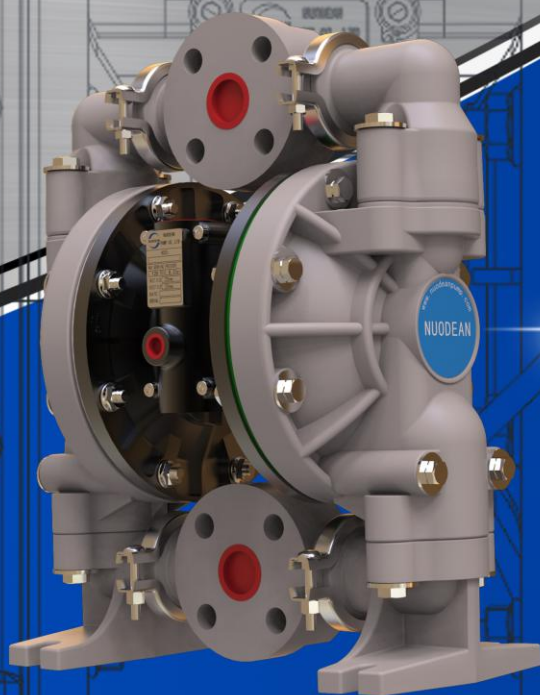




**NUODEAN QINGDAO NUODEAN PUMP CO., LTD**



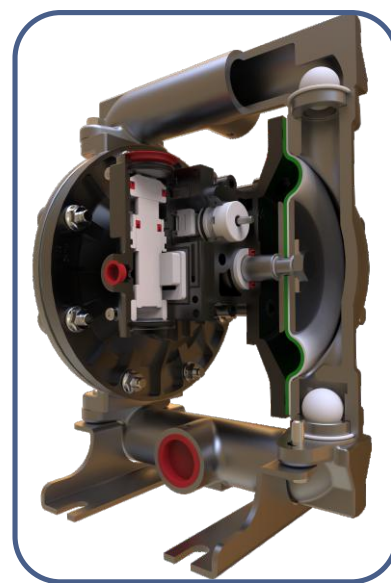
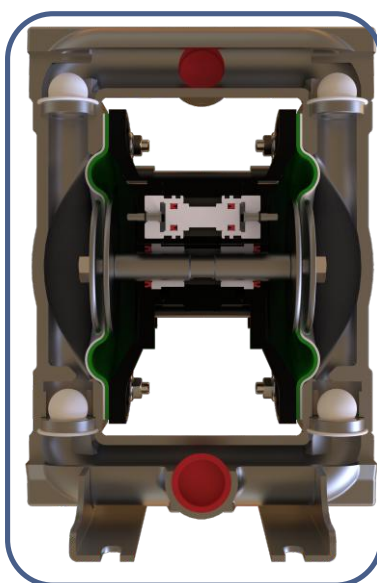
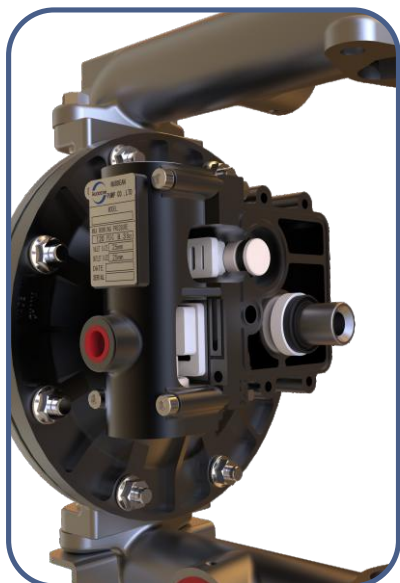
**DP3X Series**

# **AIR OPERATED DIAPHRAGM PUMPS**

**FOR GENERAL INDUSTRIAL AND OEM INSTALLATION APPLICATIONS**

## Contents

|                                         |       |
|-----------------------------------------|-------|
| Advantages And Features Of Our Products | 02-05 |
| Working Principle                       | 05    |
| Company Profile                         | 06-07 |
| Product Range                           | 08    |
| Application                             | 09    |
| 1/2" Plastic AODD Pump                  | 11-12 |
| 1" Plastic AODD Pump                    | 13-14 |
| 1-1/2" Plastic AODD Pump                | 15-16 |
| 2" Plastic AODD Pump                    | 17-18 |
| 1/2" Metallic AODD Pump                 | 21-22 |
| 1" Metallic AODD Pump                   | 23-24 |
| 1-1/2" Metallic AODD Pump               | 25-26 |
| 2" Metallic AODD Pump                   | 27-28 |
| 3" Metallic AODD Pump                   | 29-30 |
| Dry Powder Diaphragm Pump               | 31-32 |
| 1" Triple Diaphragm Pump                | 33-34 |
| 1-1/2" Triple Diaphragm Pump            | 35-36 |
| 2" Triple Diaphragm Pump                | 37-38 |
| Heavy Duty Flap-valve Pump              | 39-41 |

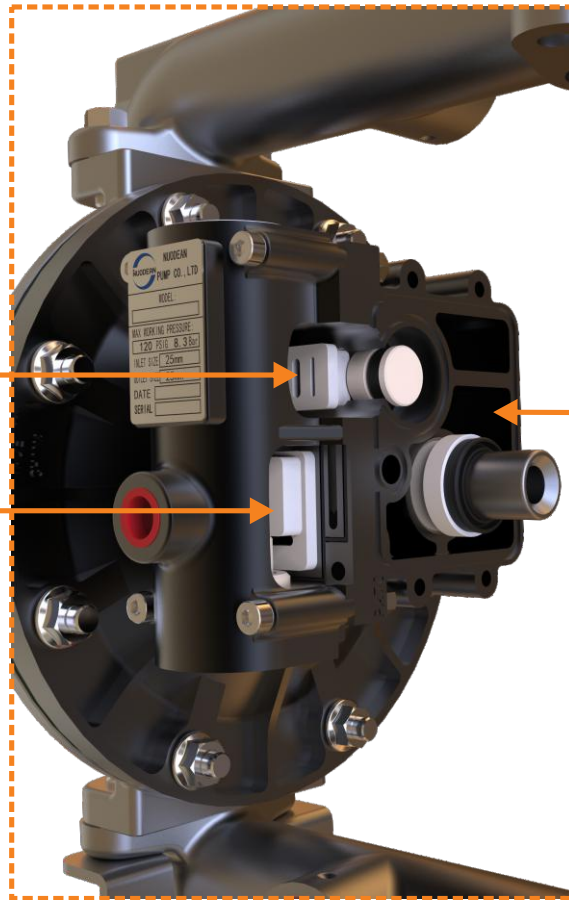


**We Have Our Own Patent Knowledge And Technique, We Are Professional In Pneumatic Diaphragm Pump Area.**

## Illustrations

### The Use Of Ceramic Dynamic Seals For Both Of Major Air Valve & Pilot Air Valve

- More wear-resisting and self-lubricating.
- Better ability to work under polluted and/or dirty air.
- Applicable to the harsh environment of air source.
- Efficient.
- Longer lifetime

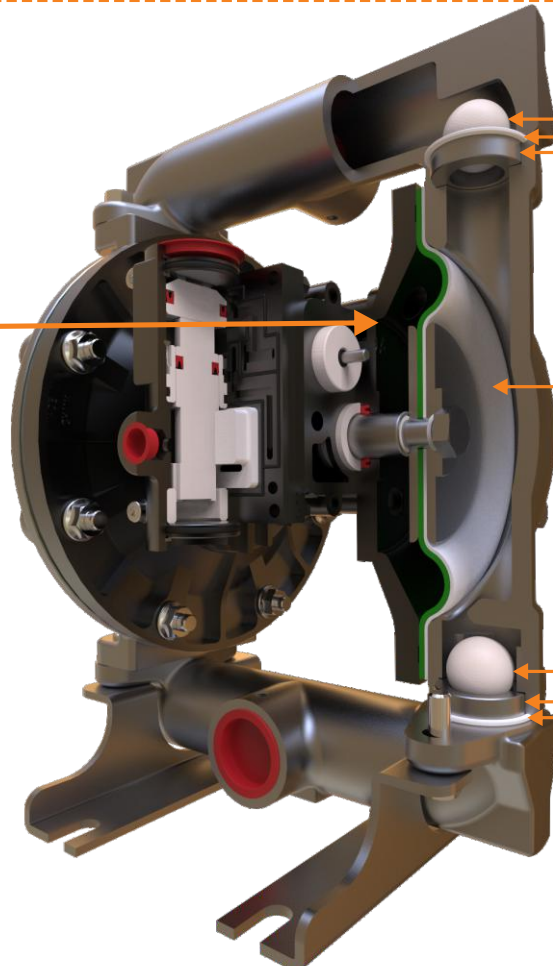


### Built-in Energy Dissipation Chamber

- It effectively reduces the discharge pressure and noise from work.
- It is anti-icing.

### Less Air Consumption

- The internal shape of the air chamber are optimized to save compressed air.



### Balls, O-rings, Seats

- Compatible and interchangeable with other brands.
- Easy to buy in the market.

### Diaphragms

- Compatible and interchangeable with other brands.
- Easy to buy in the market.

### Balls, Seats, O-rings

- Compatible and interchangeable with other brands.
- Easy to buy in the market.



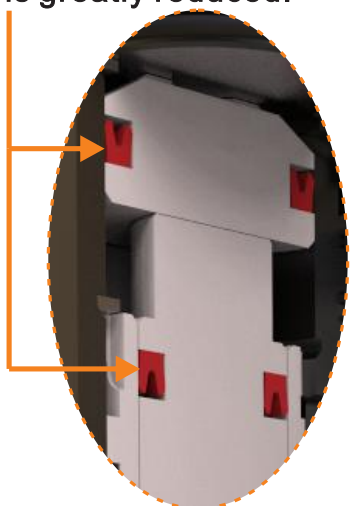
**NUODEAN'S DP3X Series of Air Operated Diaphragm Pumps adopts an improved & enhanced air distribution system, that is mainly composed of Major Air Valve & Pilot Air Valve.**

### Major Air Valve (Patent Pending)

- "stall-free" design.
- The structure is simple; More easier to repair and maintain.
- All the dynamic seal rings are just only two Y-Type rings, so the probability of failure due to wear is greatly reduced.
- Maintenance-free and self-lubricating.
- The use of ceramic dynamic seals (long lifetime), so the probability of failure due to wear is greatly reduced.
- The use of Y-type Seals(long lifetime).

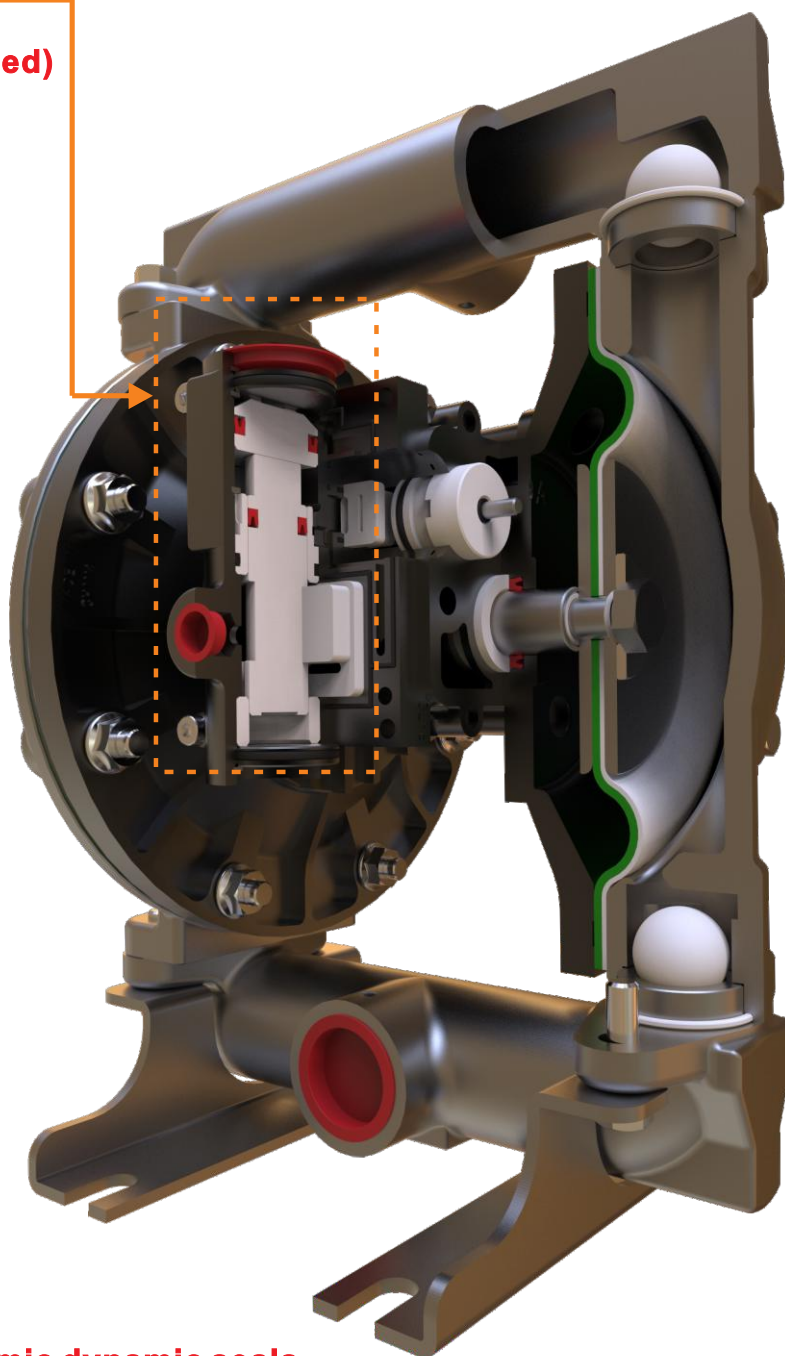
### Y-type Seals(Just Two pcs applied)

- Self-sealing, better seal effect.
- Automatic compensation for wear.
- Longer lifetime.
- the probability of failure due to wear is greatly reduced.



### Ceramic dynamic seals

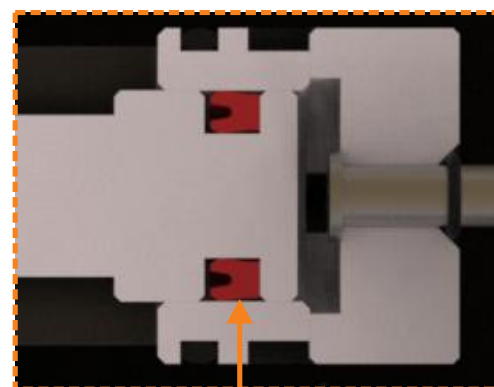
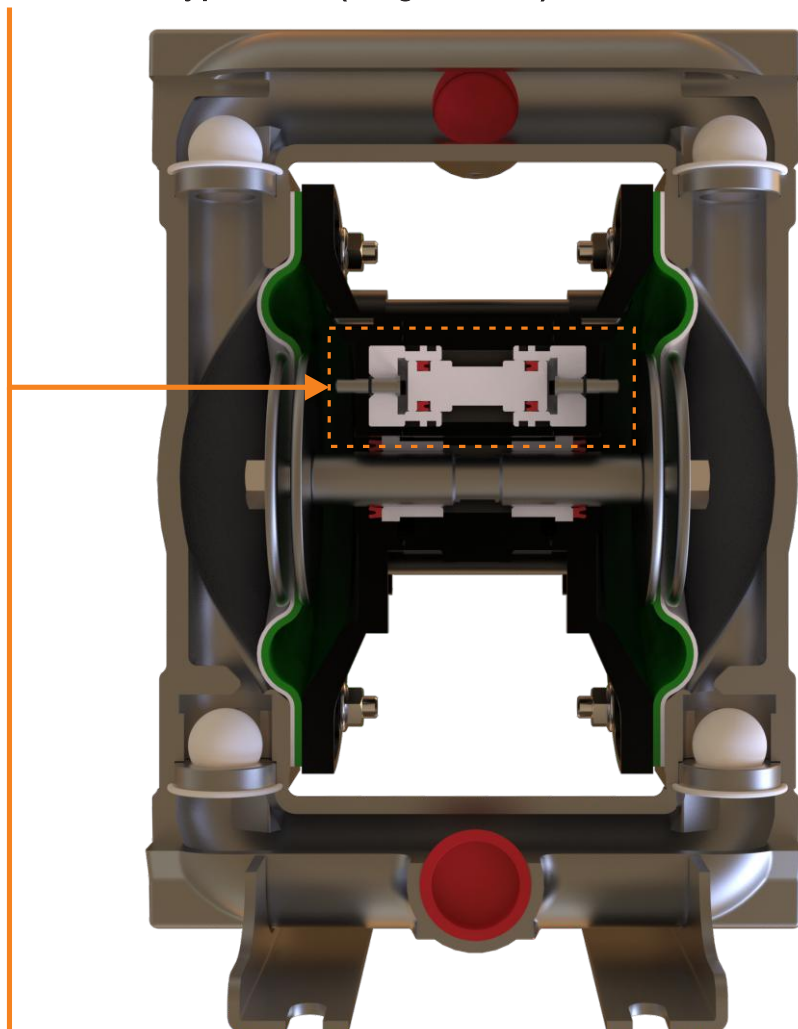
- More wear-resisting and self-lubricating.
- Better ability to work under polluted and/or dirty air.
- Applicable to the harsh environment of air source.
- Longer lifetime.





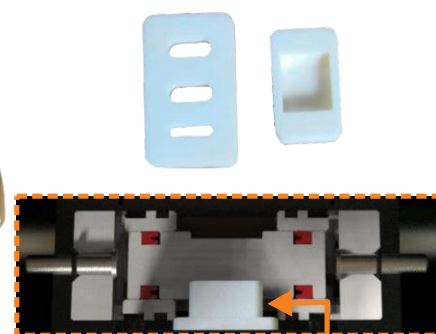
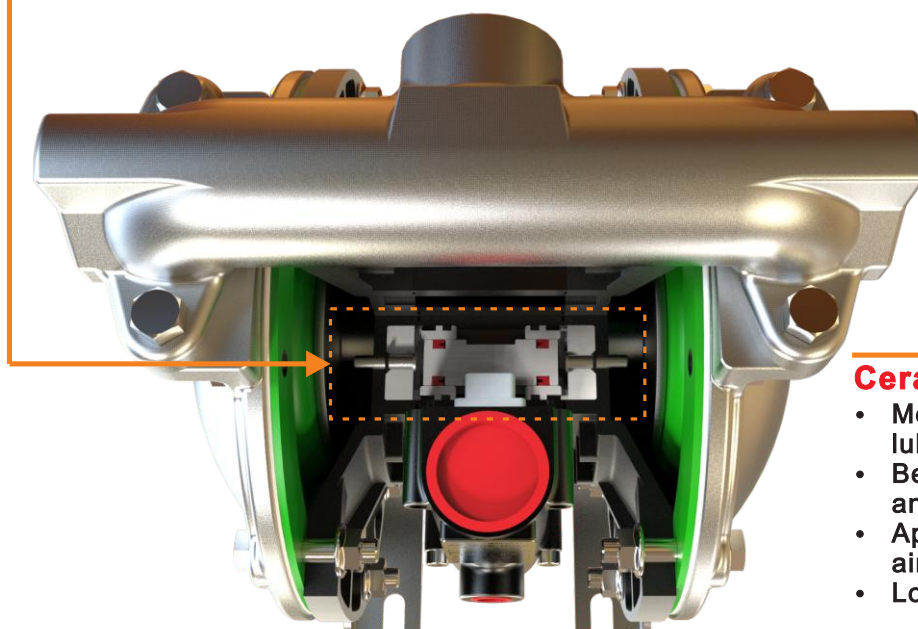
## Pilot Air Valve

- Patented design.
- The structure is simple; Easy to repair and maintain.
- Provides an positive, reliable shift signal; provides faster pump trip-over.
- Maintenance-free and self-lubricating.
- The use of ceramic dynamic seals (long lifetime), so the probability of failure due to wear is greatly reduced.
- The use of Y-type Seals(long lifetime).



### Y-type Seals

- Self-sealing, better seal effect.
- Automatic compensation for wear.
- Longer lifetime.

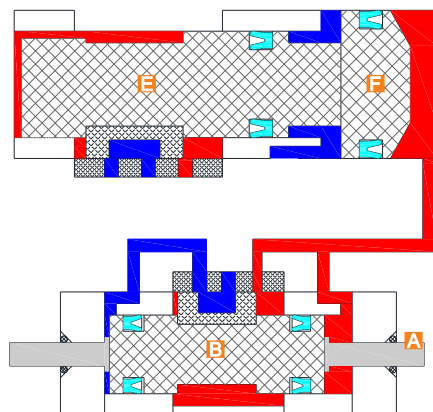


### Ceramic dynamic seals

- More wear-resisting and self-lubricating.
- Better ability to work under polluted and/or dirty air.
- Applicable to the harsh environment of air source.
- Longer lifetime.

## WORKING PRINCIPLE OF AIR DISTRIBUTION SYSTEM

■ Compressed Air 
 ■ Atmospheric Pressure



Diaphragm Moving From Right to Left

- ① The diaphragm pushes the right Actuator Pin (A) mechanically moving the spool (B) to the left.
- ② Compressed air flows to the right end of pilot air valve, pneumatically moving the spool (B) to the position shown.
- ③ Compressed air also flows to the large end (right end) of the Major Air Valve, acting on the right side of piston (F), then pneumatically shifts the piston (F) & spool (E) to the left and holds them in position because the area of the right side of piston (F) is bigger than the left side of spool (E).

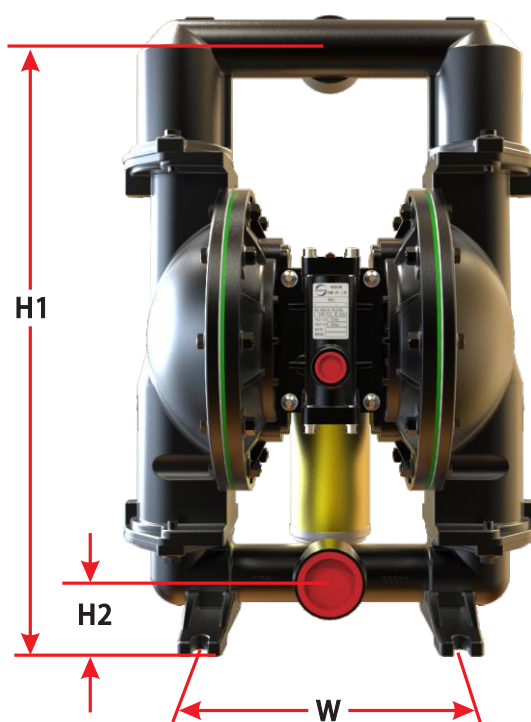


Diaphragm Moving From Left to Right

- ① The diaphragm pushes the left Actuator Pin (D) mechanically moving the spool (B) to the right.
- ② Compressed air flows to the left end of pilot air valve, pneumatically moving the spool (B) to the position shown.
- ③ Constant compressed air supply acting on the the left side of the spool (E), shifts the piston (F) & spool (E) to the right and holds them in position because the compressed air in the right end of the Major Air Valve is exhausted.

## INSTALLATION DIMENSIONS AND FOOTPRINT

- Installation dimensions and footprint are perfectly compatible with other brands;
- You can drop-in our pumps to replace the old pumps from the pipe-line system;



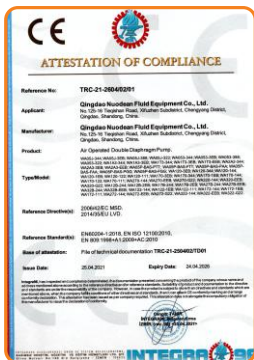
## COMPANY INTRODUCTION

Qingdao Nuodean Pump Co., Ltd, located in Qingdao, Shandong, China, is a company specializing in the research and development, production, sales and service of diaphragm pumps. Our company has been established for many years and has rich professional knowledge and relevant experience. Since the establishment of the company, the products have been sold to many countries around the world. The product quality and performance have been verified by on-site use for many years, and have been recognized and praised by customers. We have our own professional technology and have obtained a number of patents, we are professional in the field of pneumatic diaphragm pumps.

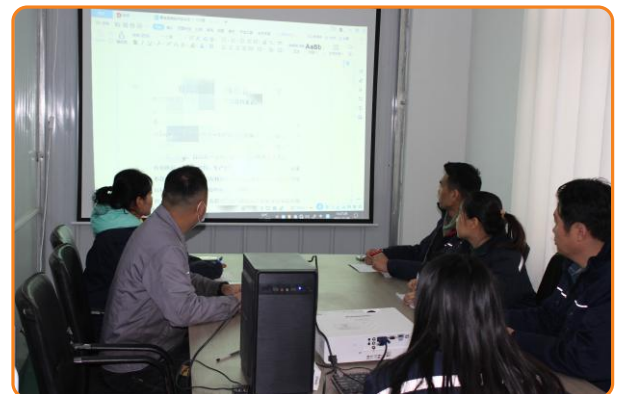
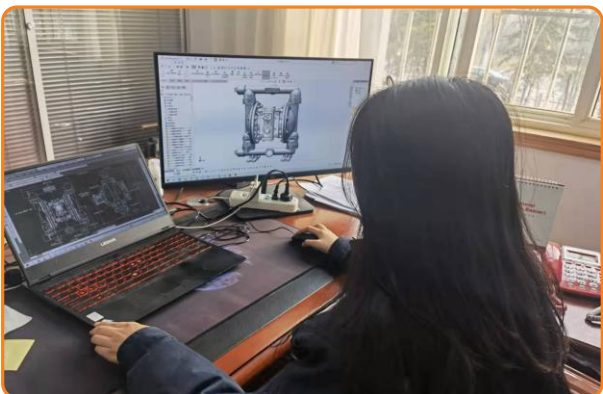
Our company has always pursued "excellence and continuous innovation" to make products more perfect. Our company has developed multiple generations of products. **DP3X** series products are the new generation of products of our company. In addition to inheriting the advantages of previous products, this generation of products has been further improved and has more advantages.

In addition to the DP series products independently developed by our company, there are other series of products, such as WA series, ZG series, etc., to meet the needs of different user groups.

Thank you for reading the introduction about our company. Our company believes that we can cooperate very quickly, and our company believes that our cooperation will be very exciting and brilliant. We will benefit from each other, make progress together, and move towards tomorrow's brilliance and success.







## Product Range:

### Non-Metallic Air Operated Double Diaphragm Pump

- DP31-15XXXXXXX
- DP31-25XXXXXXX
- DP31-40XXXXXXX
- DP31-50XXXXXXX



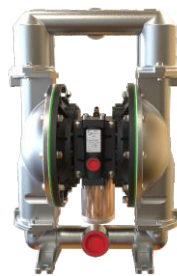
### Aluminum Air Operated Double Diaphragm Pump

- DP31-15AXXXXXX
- DP31-25AXXXXXX
- DP31-40AXXXXXX
- DP31-50AXXXXXX
- DP31-80AXXXXXX



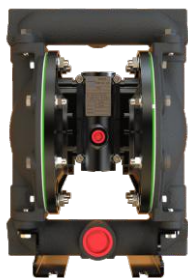
### Stainless Steel Air Operated Double Diaphragm

- DP31-15SXXXXXX
- DP31-25SXXXXXX
- DP31-40SXXXXXX
- DP31-50SXXXXXX
- DP31-80SXXXXXX



### Cast Iron Air Operated Double Diaphragm

- DP31-25XCXXXXX
- DP31-40XCXXXXX
- DP31-50XCXXXXX
- DP31-80XCXXXXX



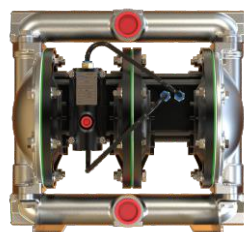
### Powder Diaphragm Pump

- DP36-XX-XXXXXX



### Triple Diaphragm Pump

- DP32-XXXXXXXXXX



### Heavy Duty Flap-Valve Pump

- DP37-XXXXXXX





## Application:

### Machinery

Oil  
Cutting fluid  
Quenching Oil  
Electroplate liquid  
Liquid waste

### Electron

Acid  
Alkali  
Waste water

### Coal Mine

Waste water  
Water seepage  
Slush

### Food & medicine

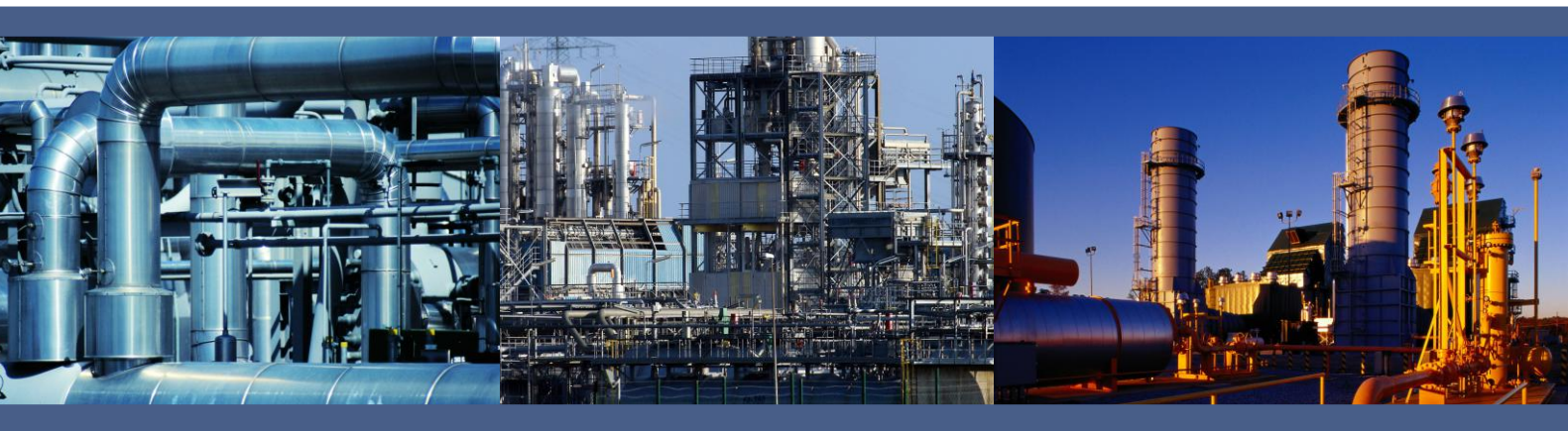
Liquid material  
Additive  
Condiment

### Chemical

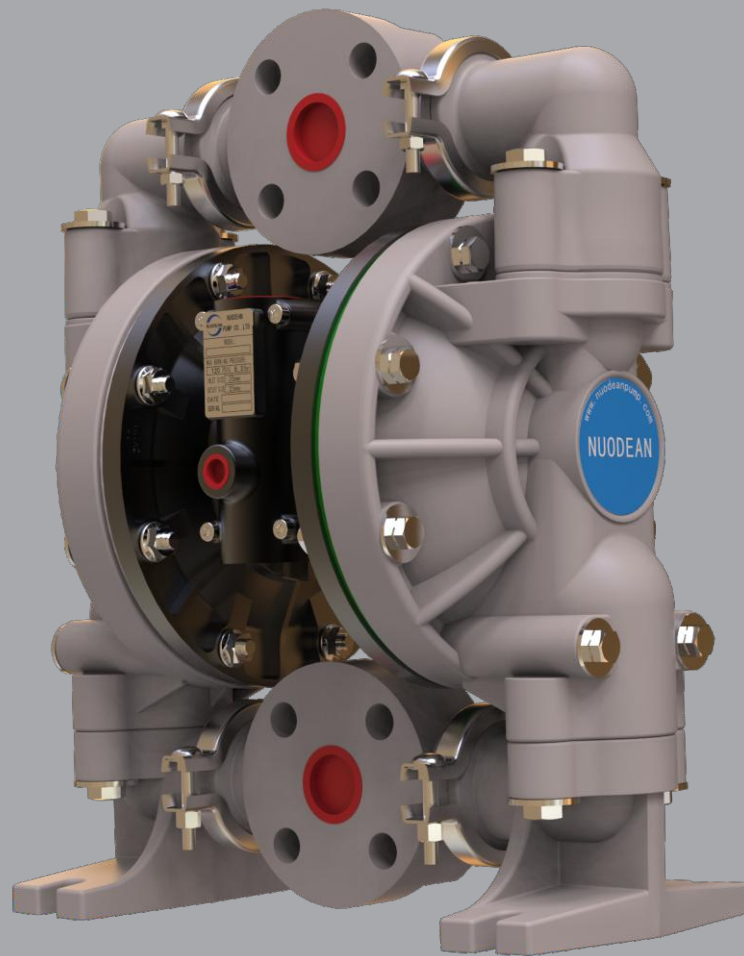
Acid  
Caustic  
Solvent  
Paint  
Shear sensitive material

### Automobile

Oil  
Solvent  
Paint  
Aquaseal  
Waste water







## Non-Metallic Models

The NUODEAN non-metallic offering consists of Polypropylene, acetal and PDVF.

## 1/2" NON-METALLIC Models

### SPECIFICATIONS:

**Air Inlet(female):** 1/4"BSPT(1/4"NPT Available On Request)

**Fluid Outlet(female):** 1/2-14 NPT

**Fluid Inlet(female):** 1/2-14 NPT

**Maximum Flow Rate:** 13GPM(49.2LPM)

**Max. Operating Pressure:** 100psi(6.9bar)

**Suspended Solids Max. Dia.:** 3/32"(2.4mm)

**Sound Level:**70psi 60 cycles/min. 71.1db(A)



### MODEL DESCRIPTION & ORDERING:

| DP31 | - | 15        | X                | X                        | X             | X                   | X                  | X                 | X        |
|------|---|-----------|------------------|--------------------------|---------------|---------------------|--------------------|-------------------|----------|
|      |   | Pump Size | Center Body Mat. | Fluid Caps Manifold Mat. | Seat Material | Ball Check Material | Diaphragm Material | Fluid Connections | Hardware |

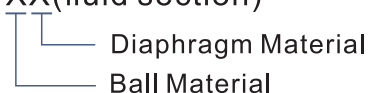
|                             |                                                           |                                                                  |                                                                   |                                                   |
|-----------------------------|-----------------------------------------------------------|------------------------------------------------------------------|-------------------------------------------------------------------|---------------------------------------------------|
| Pump Size                   | 15-1/2”                                                   |                                                                  |                                                                   |                                                   |
| Center Body Mat.            | A-Aluminum                                                |                                                                  | R-Polypropylene                                                   |                                                   |
| Fluid Caps<br>Manifold Mat. | 3 - Polypropylene<br>Flange (3-piece<br>manifold)         | 4 - PVDC (Kynar)<br>Flange (3-piece<br>manifold)                 | F - Colorless<br>polypropylene<br>Flange(one - piece<br>manifold) | G - PVDF (Kynar) Flange<br>(one - piece manifold) |
|                             | P - Grey<br>Polypropylene<br>Flange (3-piece<br>manifold) | J - Colorless<br>Polypropylene, N.P.T.<br>(one - piece manifold) | L- Colorless<br>Polypropylene, B.S.P.<br>(one - piece manifold)   |                                                   |
| Seat<br>Material            | 2 - 316 Stainless<br>Steel                                | 3 - Polypropylene                                                | 4 - PVDF (Kynar                                                   | 8 - Hard 440 Stainless<br>Steel                   |
| Ball Check<br>Material      | 1 - Neoprane                                              | 2 - Nitrile                                                      | 3 - Viton                                                         | 4 - PTFE                                          |
|                             | 5 - E.P.R.                                                | 8 - Polyurethane                                                 | C - Hytrel                                                        | E - Santoprene                                    |
| Diaphragm<br>Material       | 1- Neoprene                                               | 2- Nitrile                                                       | 3 - Viton                                                         | 4 - PTFE / Santoprene                             |
|                             | 5 - E.P.R.                                                | 6 - Composite PTFE                                               | 9 - Hytrel                                                        | B - Santoprene                                    |
| Fluid Connections           | F-ANSI 150 Flange                                         | N-NPT Threads                                                    | B-BSP Threads                                                     |                                                   |
| Hardware                    | S-Stainless Steel                                         |                                                                  |                                                                   |                                                   |

### ACCESSORIES:

#### Service Repair Kits:

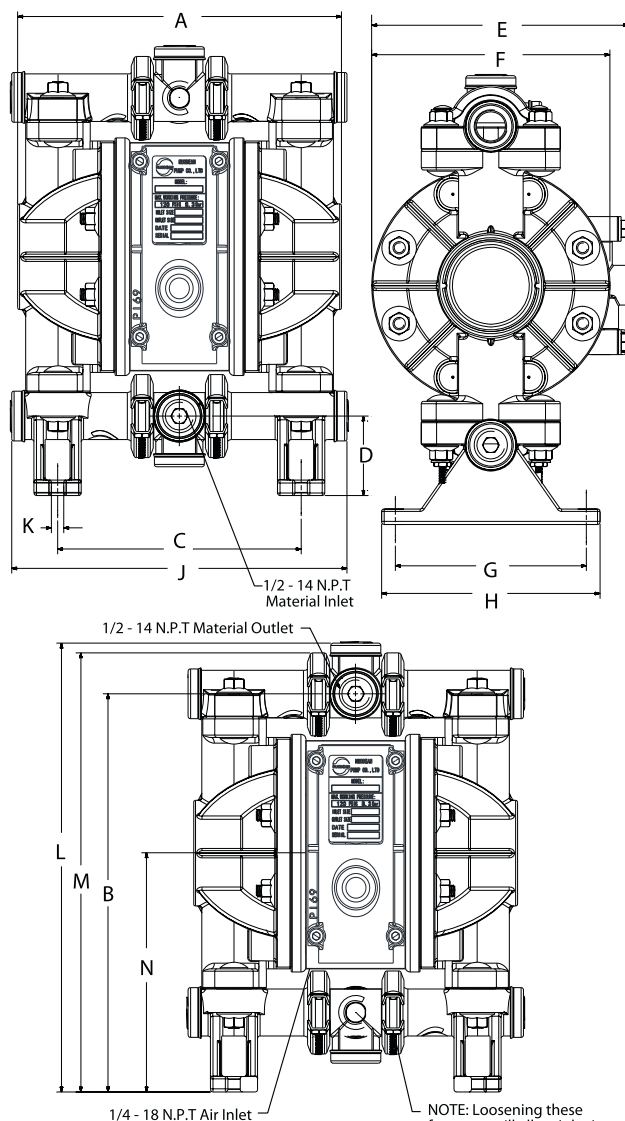
DP31-Air15(air section)

DP31-Flu15P-XX(fluid section)



# 1/2" NON-METALLIC Models

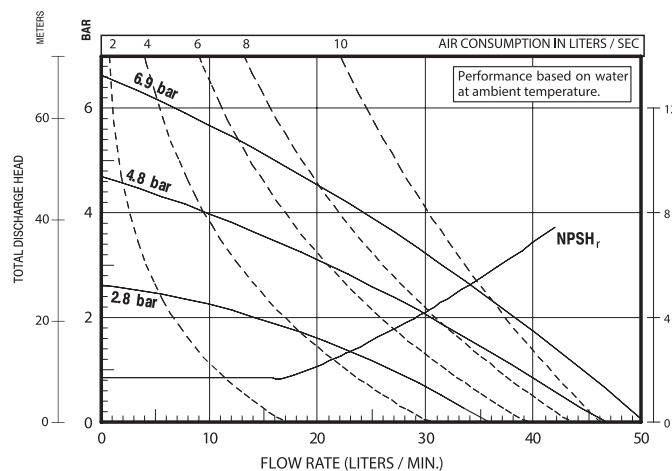
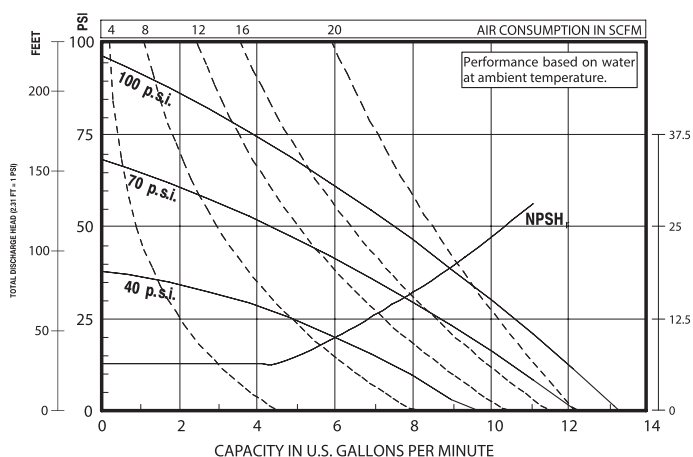
## DIMENSIONS:



|                      |                      |
|----------------------|----------------------|
| A - 8.155 (207.1 mm) | E - 6.467 (164 mm)   |
| B - 10.051 (255 mm)  | F - 6.000 (152 mm)   |
| C - 6.135 (155.8 mm) | G - 4.812 (122.2 mm) |
| D - 2.005 (51 mm)    | H - 5.500 (140 mm)   |
| J - 8.445 (215 mm)   |                      |
| K - 0.312 (8 mm)     |                      |
| L - 11.331 (288 mm)  |                      |
| M - 11.084 (282 mm)  |                      |
| N - 6.040 (153 mm)   |                      |

NOTE: Dimensions are shown in inches and (mm) and are supplied for reference only.

## PERFORMANCE CURVE:





# 1" NON-METALLIC Models

## SPECIFICATIONS:

**Air Inlet(female):** 1/4"BSPT(1/4"NPT Available On Request)

**Fluid Outlet(female):** BSP1", 1"NPT , Or 1" ANSI/DIN Flange

**Fluid Inlet(female):** BSP 1", 1"NPT , Or 1" ANSI/DIN Flange

**Maximum Flow Rate:** 47GPM(177.9LPM)

**Max. Operating Pressure:** 120psi(8.3bar)

**Suspended Solids Max. Dia.:** 1/8"(3.2mm)

**Maximum Dry Suction Lift:** 15feet(4.6m)

**Weight:** 20.3 lbs(9.2kg)

**Sound Level:**70psi 60 cycles/min. 64.5db(A)



## MODEL DESCRIPTION & ORDERING:

| DP31 | - | 25        | X                | X                        | X             | X                   | X                  | X                 | X        |
|------|---|-----------|------------------|--------------------------|---------------|---------------------|--------------------|-------------------|----------|
|      |   | Pump Size | Center Body Mat. | Fluid Caps Manifold Mat. | Seat Material | Ball Check Material | Diaphragm Material | Fluid Connections | Hardware |

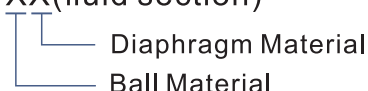
|                             |                                                           |                                                                  |                                                                   |                                                   |
|-----------------------------|-----------------------------------------------------------|------------------------------------------------------------------|-------------------------------------------------------------------|---------------------------------------------------|
| Pump Size                   | 25-1"                                                     |                                                                  |                                                                   |                                                   |
| Center Body Mat.            | A-Aluminum                                                |                                                                  | B-Cast Iron                                                       |                                                   |
| Fluid Caps<br>Manifold Mat. | 3 - Polypropylene<br>Flange (3-piece<br>manifold)         | 4 - PVDC (Kynar)<br>Flange (3-piece<br>manifold)                 | F - Colorless<br>polypropylene<br>Flange(one - piece<br>manifold) | G - PVDF (Kynar) Flange<br>(one - piece manifold) |
|                             | P - Grey<br>Polypropylene<br>Flange (3-piece<br>manifold) | J - Colorless<br>Polypropylene, N.P.T.<br>(one - piece manifold) | L- Colorless<br>Polypropylene, B.S.P.<br>(one - piece manifold)   |                                                   |
| Seat<br>Material            | 2 - 316 Stainless<br>Steel                                | 3 - Polypropylene                                                | 4 - PVDF (Kynar                                                   | 8 - Hard 440 Stainless<br>Steel                   |
| Ball Check<br>Material      | 1 - Neoprane                                              | 2 - Nitrile                                                      | 3 - Viton                                                         | 4 - PTFE                                          |
|                             | 5 - E.P.R.                                                | 8 - Polyurethane                                                 | C - Hytrel                                                        | E - Santoprene                                    |
| Diaphragm<br>Material       | 1- Neoprene                                               | 2- Nitrile                                                       | 3 - Viton                                                         | 4 - PTFE / Santoprene                             |
|                             | 5 - E.P.R.                                                | 6 - Composite PTFE                                               | 9 - Hytrel                                                        | B - Santoprene                                    |
| Fluid Connections           | F-ANSI 150 Flange                                         | N-NPT Threads                                                    | B-BSP Threads                                                     |                                                   |
| Hardware                    | S-Stainless Steel                                         |                                                                  |                                                                   |                                                   |

## ACCESSORIES:

### Service Repair Kits:

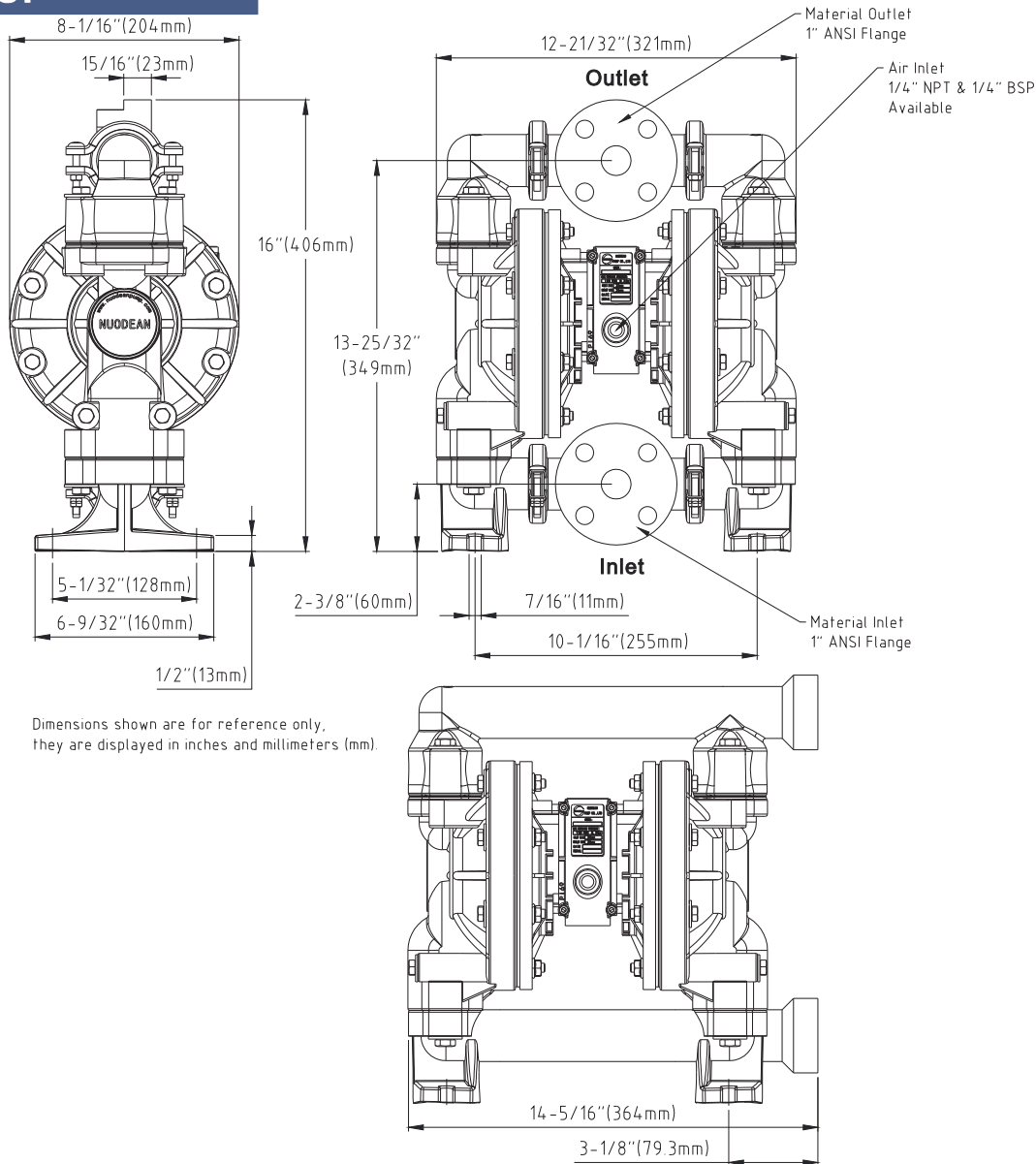
DP31-Air25(air section)

DP31-Flu25P-XX(fluid section)

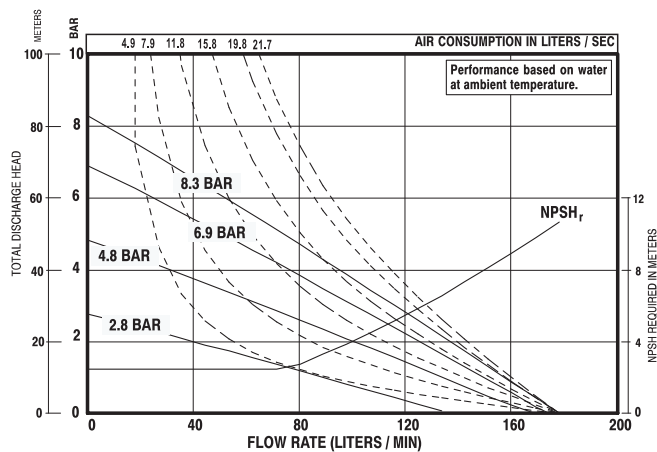
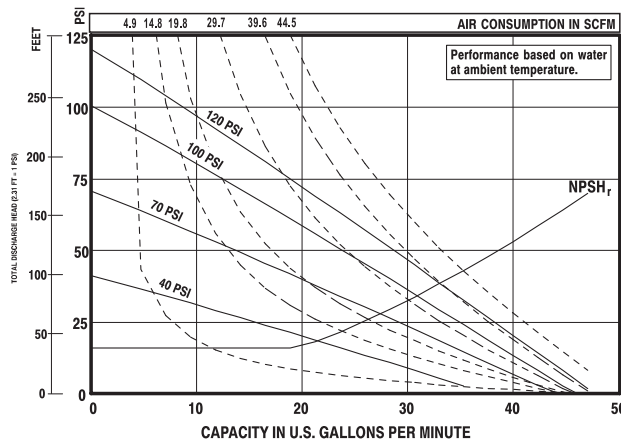


# 1" NON-METALLIC Models

## DIMENSIONS:



## PERFORMANCE CURVE:



## 1-1/2" NON-METALLIC Models

### SPECIFICATIONS:

**Air Inlet(female):** 3/8"BSPT(3/8"NPT Available On Request)

**Fluid Outlet:** 1-1/2" ANSI/DIN Flange

**Fluid Inlet:** 1-1/2" ANSI/DIN Flange

**Maximum Flow Rate:** 100GPM(378.5LPM)

**Max. Operating Pressure:** 120psi(8.3bar)

**Suspended Solids Max. Dia.:** 1/4"(6.4mm)

**Maximum Dry Suction Lift:** 14feet(4.27m)

**Weight:** 62 lbs(28.1kg)

**Sound Level:**70psi 60 cycles/min. 77.7db(A)



### MODEL DESCRIPTION & ORDERING:

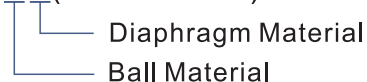
| DP31                        | - | 40       | X                                                | X                         | X                  | X                                                     | X                     | X                                          | X                            |
|-----------------------------|---|----------|--------------------------------------------------|---------------------------|--------------------|-------------------------------------------------------|-----------------------|--------------------------------------------|------------------------------|
|                             |   | PumpSize | CenterBody<br>Mat.                               | FluidCaps<br>ManifoldMat. | Seat<br>Material   | BallCheck<br>Material                                 | Diaphragm<br>Material | Fluid<br>Connections                       | Hardware                     |
| Pump Size                   |   |          | 40-1 1/2"                                        |                           |                    |                                                       |                       |                                            |                              |
| Center Body Mat.            |   |          | A-Aluminum                                       |                           |                    | B-Cast Iron                                           |                       |                                            |                              |
| Fluid Caps<br>Manifold Mat. |   |          | 3 - Grey Polypropylene Flange (3-piece manifold) |                           |                    | P - Colorless Polypropylene Flange (3-piece manifold) |                       | 4 - PVDC (Kynar) Flange (3-piece manifold) |                              |
| Seat Material               |   |          | 2 - 316 Stainless Steel                          |                           | 3 - Polypropylene  |                                                       | 4 - PVDF (Kynar       |                                            | 8 - Hard 440 Stainless Steel |
| Ball Check Material         |   |          | 1 - Neoprane                                     |                           | 2 - Nitrile        |                                                       | 3 - Viton             |                                            | 4 - PTFE                     |
|                             |   |          | 5 - E.P.R.                                       |                           | 8 - Polyurethane   |                                                       | C - Hytrel            |                                            | E - Santoprene               |
| Diaphragm Material          |   |          | 1- Neoprene                                      |                           | 2- Nitrile         |                                                       | 3 - Viton             |                                            | 4 - PTFE / Santoprene        |
|                             |   |          | 5 - E.P.R.                                       |                           | 6 - Composite PTFE |                                                       | 9 - Hytrel            |                                            | B - Santoprene               |
| Fluid Connections           |   |          | F-ANSI 150 Flange                                |                           |                    |                                                       |                       |                                            |                              |
| Hardware                    |   |          | S-Stainless Steel                                |                           |                    |                                                       |                       |                                            |                              |

### ACCESSORIES:

#### Service Repair Kits:

DP31-Air40(air section)

DP31-Flu40P-XX(fluid section)

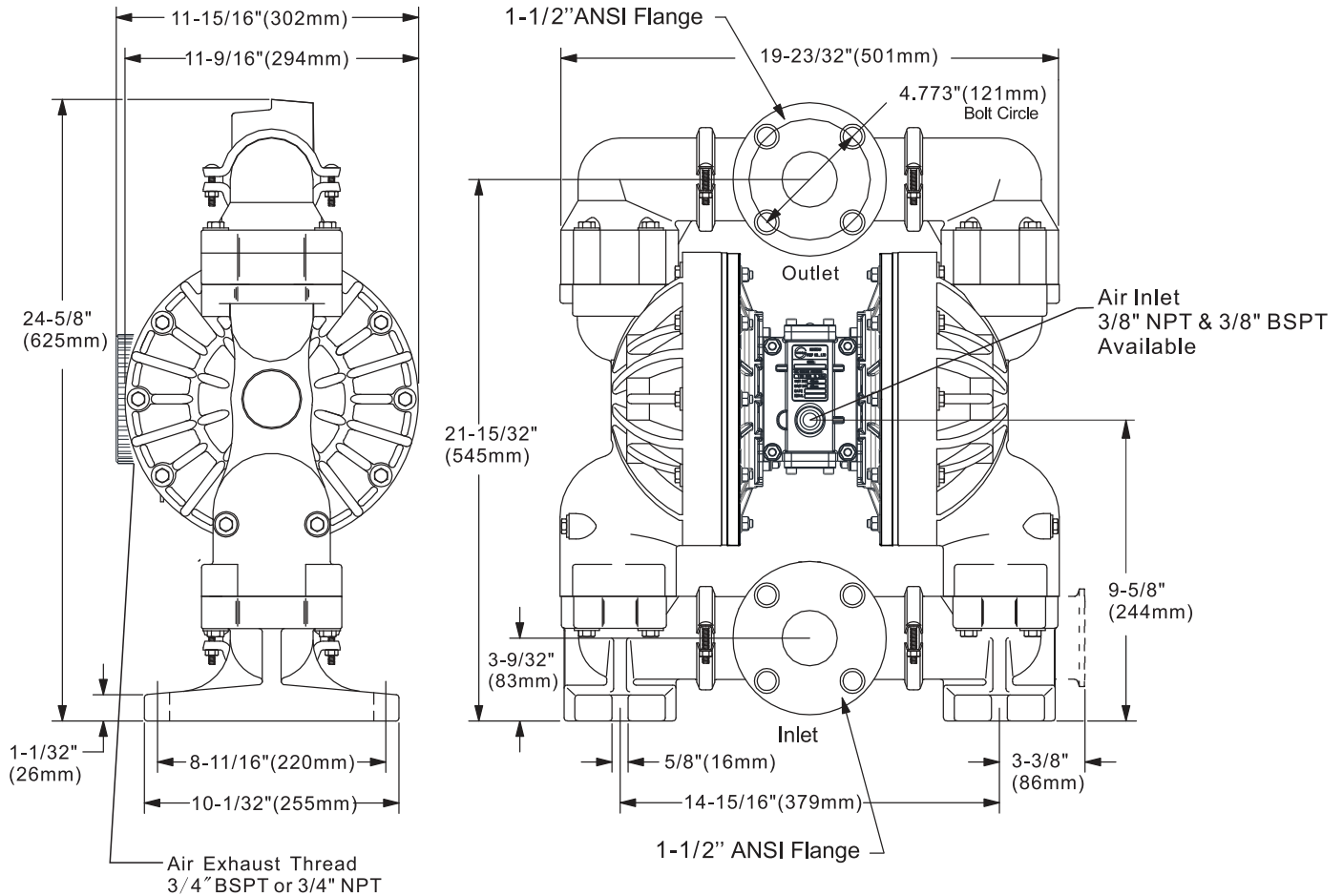




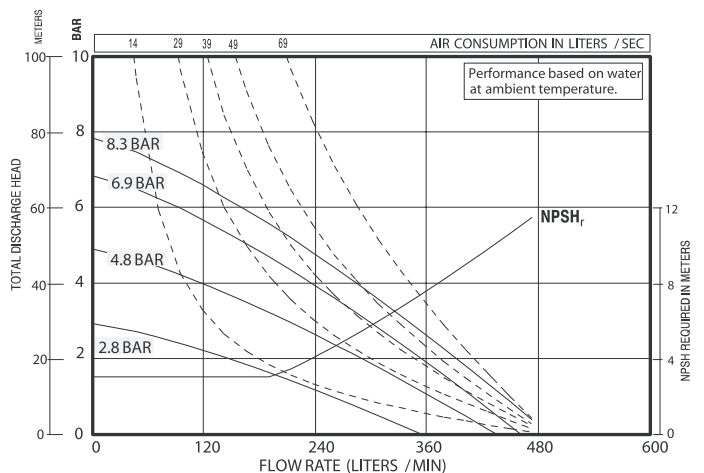
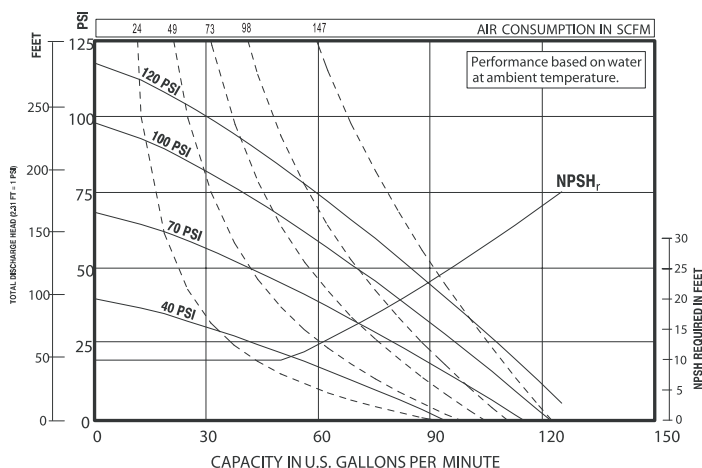
# 1-1/2" NON-METALLIC Models

## DIMENSIONS:

All dimensions are given in inches and millimeters (mm).



## PERFORMANCE CURVE:



## 2" NON-METALLIC Models

### SPECIFICATIONS:

**Air Inlet(female):** 3/8"BSPT(3/8"NPT Available On Request)

**Fluid Outlet:** 2" ANSI/DIN Flange

**Fluid Inlet:** 2" ANSI/DIN Flange

**Maximum Flow Rate:** 145GPM(548.8LPM)

**Max. Operating Pressure:** 120psi(8.3bar)

**Suspended Solids Max. Dia.:** 1/4"(6.4mm)

**Maximum Dry Suction Lift:** 14feet(4.27m)

**Weight:** 62 lbs(28.1kg)

**Sound Level:**70psi 60 cycles/min. 77.7db(A)



### MODEL DESCRIPTION & ORDERING:

| DP31 | - | 50        | X                | X                        | X             | X                   | X                  | X                 | X        |
|------|---|-----------|------------------|--------------------------|---------------|---------------------|--------------------|-------------------|----------|
|      |   | Pump Size | Center Body Mat. | Fluid Caps Manifold Mat. | Seat Material | Ball Check Material | Diaphragm Material | Fluid Connections | Hardware |

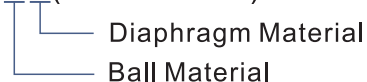
|                          |                                                  |                    |                                                       |                                            |
|--------------------------|--------------------------------------------------|--------------------|-------------------------------------------------------|--------------------------------------------|
| Pump Size                | 50-2"                                            |                    |                                                       |                                            |
| Center Body Mat.         | A-Aluminum                                       |                    | B-Cast Iron                                           |                                            |
| Fluid Caps Manifold Mat. | 3 - Grey Polypropylene Flange (3-piece manifold) |                    | P - Colorless Polypropylene Flange (3-piece manifold) | 4 - PVDC (Kynar) Flange (3-piece manifold) |
| Seat Material            | 2 - 316 Stainless Steel                          | 3 - Polypropylene  | 4 - PVDF (Kynar                                       | 8 - Hard 440 Stainless Steel               |
| Ball Check Material      | 1 - Neoprane                                     | 2 - Nitrile        | 3 - Viton                                             | 4 - PTFE                                   |
|                          | 5 - E.P.R.                                       | 8 - Polyurethane   | C - Hytrel                                            | E - Santoprene                             |
| Diaphragm Material       | 1- Neoprene                                      | 2- Nitrile         | 3 - Viton                                             | 4 - PTFE / Santoprene                      |
|                          | 5 - E.P.R.                                       | 6 - Composite PTFE | 9 - Hytrel                                            | B - Santoprene                             |
| Fluid Connections        | F-ANSI 150 Flange                                |                    |                                                       |                                            |
| Hardware                 | S-Stainless Steel                                |                    |                                                       |                                            |

### ACCESSORIES:

#### Service Repair Kits:

DP31-Air40(air section)

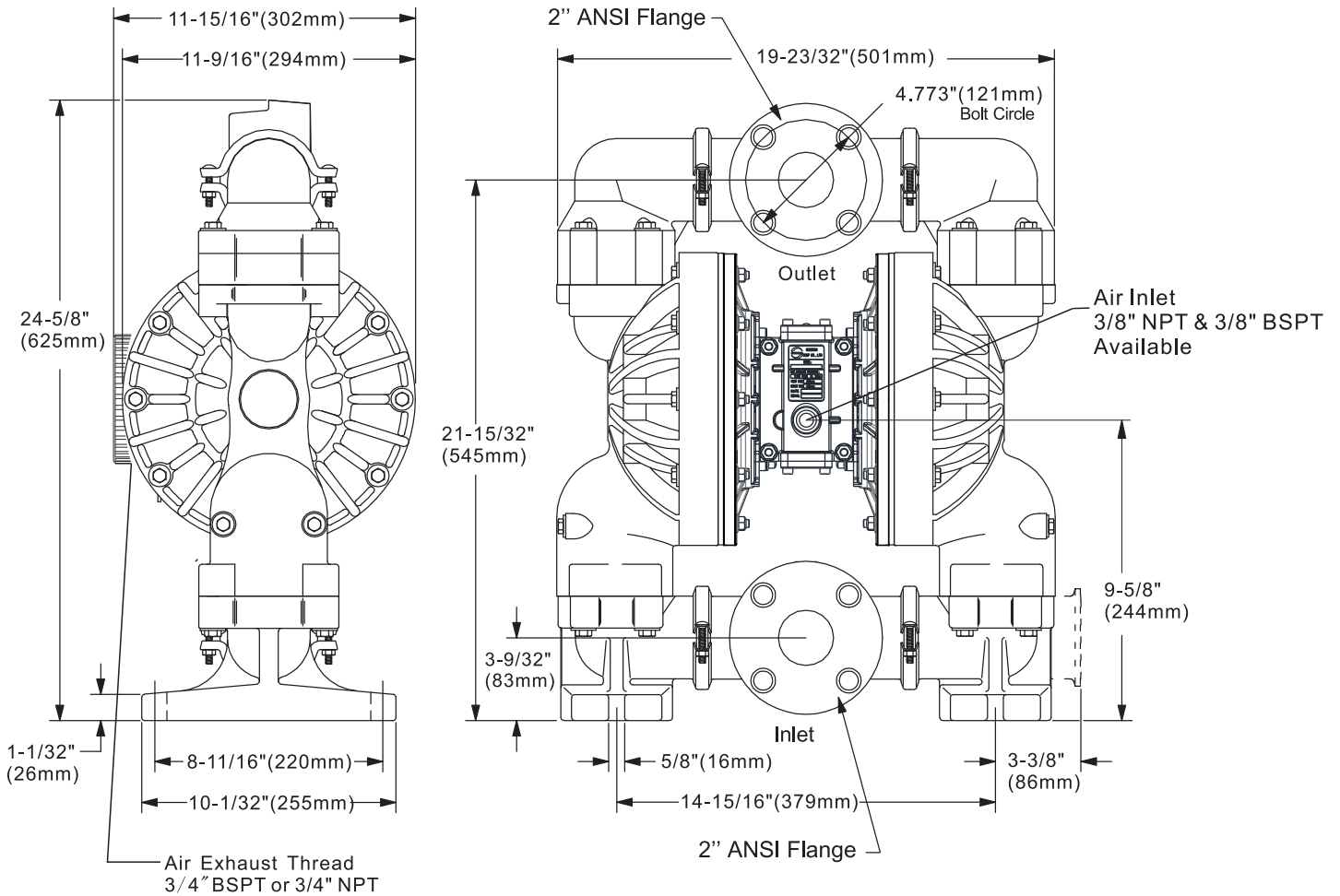
DP31-Flu40P-XX(fluid section)



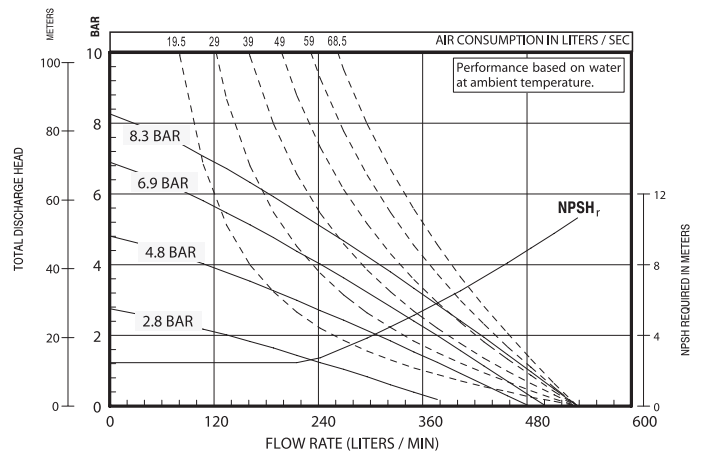
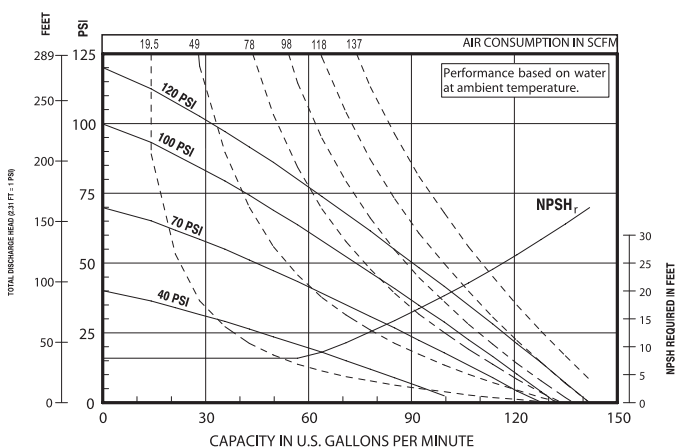
## 2" NON-METALLIC Models

### DIMENSIONS:

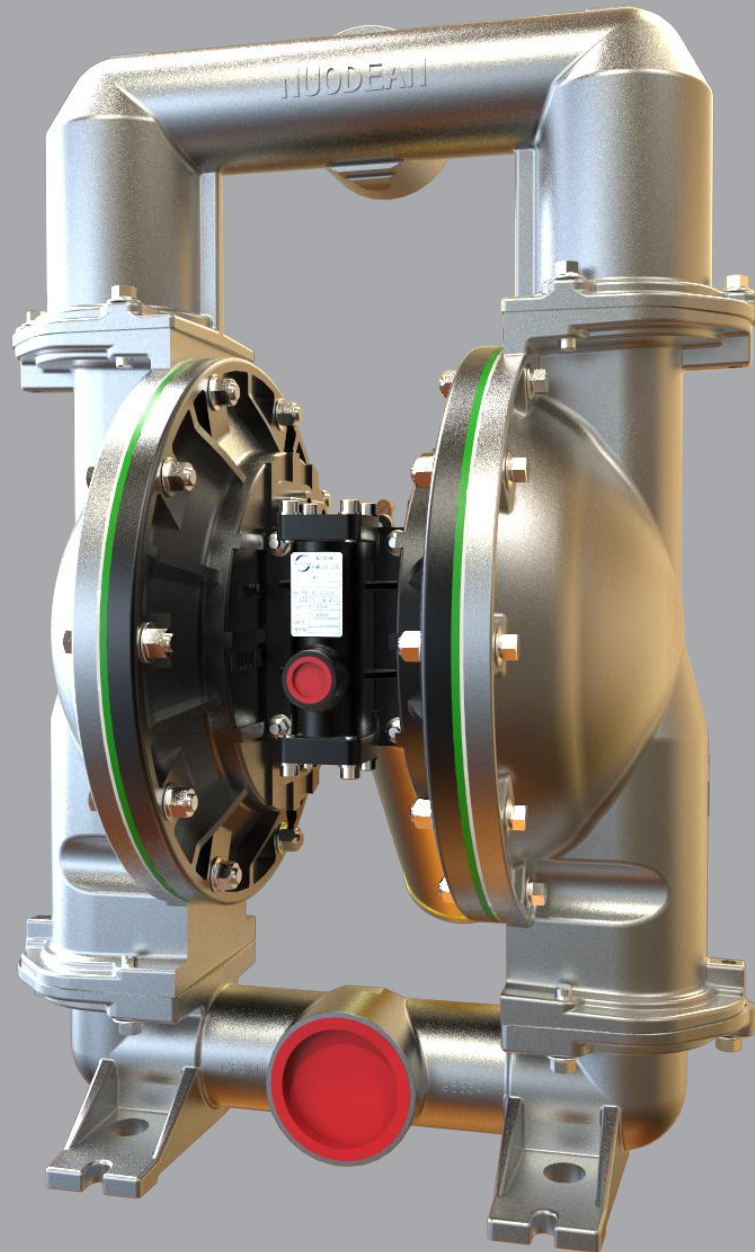
All dimensions are given in inches and millimeters (mm).



### PERFORMANCE CURVE:







## Metallic Models

The NUODEAN range of diaphragm pumps offers many materials of construction compatible for the chemical industry: Our metallic offering consists of aluminum, cast iron, stainless steel.

## 1/2" METALLIC Models

### SPECIFICATIONS:

**Air Inlet(female):** 1/4"BSPT(1/4"NPT Available On Request)

**Fluid Outlet:** Rp 1/2 (1/2-14 BSP,parallel)  
1/2-14 NPT

**Fluid Inlet:** Rp 1/2 (1/2-14 BSP,parallel)  
1/2-14 NPT

**Maximum Flow Rate:** 12 GPM(45.4 LPM)

**Max. Operating Pressure:** 100psi(6.9 bar)

**Suspended Solids Max. Dia.:** 3/32"(2.4mm)

**Maximum Dry Suction Lift:** 15feet(4.5m)

**Weight:** 62 lbs(28.1kg)

**Sound Level:**70psi 60 cycles/min. 75db(A)



### MODEL DESCRIPTION & ORDERING:

| DP31 | - | 15        | X                | X                        | X             | X                   | X                  | X                 | X        |
|------|---|-----------|------------------|--------------------------|---------------|---------------------|--------------------|-------------------|----------|
|      |   | Pump Size | Center Body Mat. | Fluid Caps Manifold Mat. | Seat Material | Ball Check Material | Diaphragm Material | Fluid Connections | Hardware |

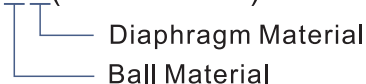
|                             |                   |                   |                     |                   |  |
|-----------------------------|-------------------|-------------------|---------------------|-------------------|--|
| Pump Size                   | 15-1/2"           |                   |                     |                   |  |
| Center Body Mat.            | A-Aluminum        |                   | R-Polypropylene     |                   |  |
| Fluid Caps<br>Manifold Mat. | A - Aluminum      |                   | S -Stainless Steel  |                   |  |
| Seat<br>Material            | F - Aluminum      | P - Polypropylene | S - Stainless Steel |                   |  |
| Ball Check<br>Material      | A-Santoprene      | C-Hytrel          | G-Nitrile           | S-Stainless Steel |  |
|                             | T-PTFE            | U-Polyurethane    | V-Viton             |                   |  |
| Diaphragm<br>Material       | A-Santoprene      | C-Hytrel          | G-Nitrile           |                   |  |
|                             | T-PTFE/Santoprene | U-Polyurethane    | V-Viton             |                   |  |
| Fluid Connections           | N-NPT Threads     |                   | B-BSP Threads       |                   |  |
| Hardware                    | S-Stainless Steel |                   | C-Carbon Steel      |                   |  |

### ACCESSORIES:

#### Service Repair Kits:

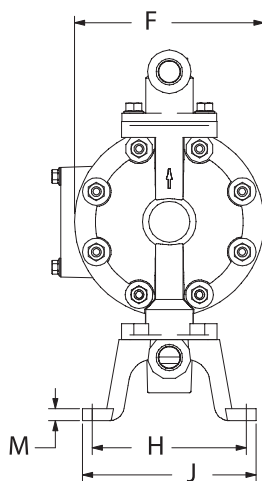
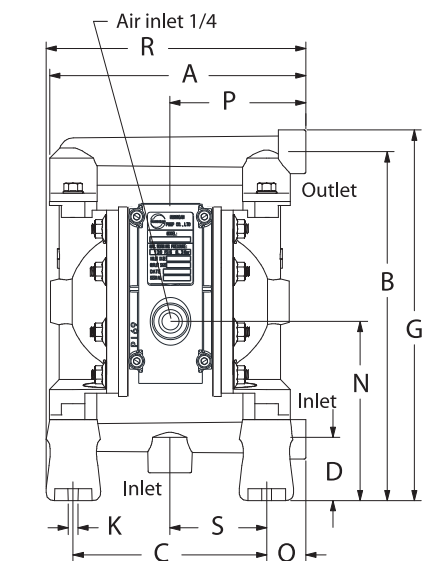
DP31-Air15(air section)

DP31-Flu15 - XX(fluid section)



# 1/2" METALLIC Models

## DIMENSIONS:



### DIMENSIONS

|   |                     |   |                   |   |                    |
|---|---------------------|---|-------------------|---|--------------------|
| A | 8-1/8" (206.0 mm)   | G | see below         | N | 6-5/16" (159.9 mm) |
| B | 11-1/16" (280.4 mm) | H | 4-7/8" (123.8 mm) | P | see below          |
| C | 6-1/8" (155.6 mm)   | J | 5-1/2" (139.7 mm) | Q | 1-1/4" (31.6 mm)   |
| D | 2" (50.8 mm)        | K | 5/16" (8.0 mm)    | R | see below          |
| E | see below           | L | 1-1/4" (31.8 mm)  | S | 3-1/16" (77.8 mm)  |
| F | 6" (152.4 mm)       | M | 3/8" (9.5 mm)     |   |                    |

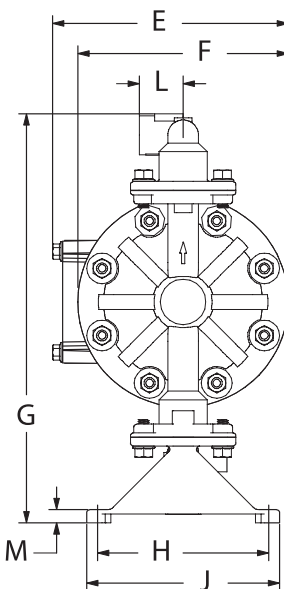
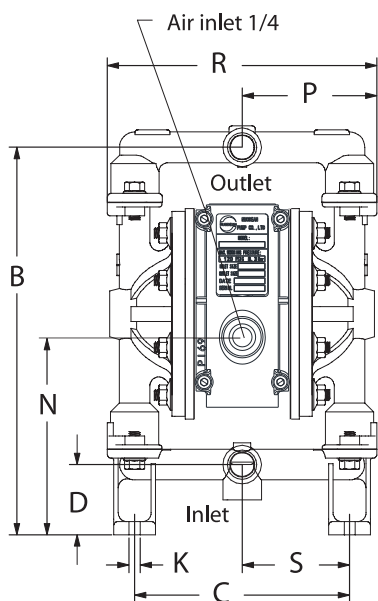
### Dimension

"E" 6-23/32" (170.6 mm)

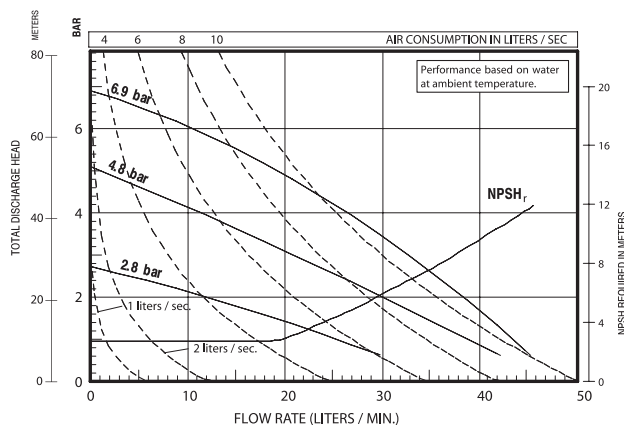
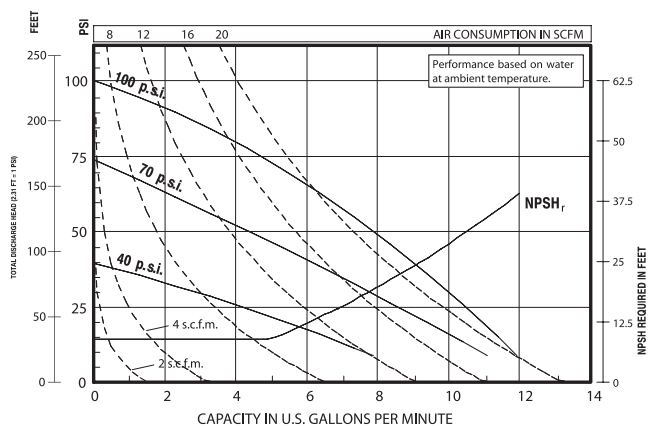
"G" 11-21/32" (296.0 mm)

"P" 3-27/32" (97.4 mm)

"R" 7-11/16" (194.9 mm)



## PERFORMANCE CURVE:



## 1" METALLIC Models

### SPECIFICATIONS:

**Air Inlet(female):** 1/4"BSPT(1/4"NPT Available On Request)

**Fluid Outlet:** Rp 1 (1-11 BSP,parallel)  
1-11 1/2 NPT

**Fluid Inlet:** Rp 1 (1-11 BSP,parallel)  
1-11 1/2 NPT

**Maximum Flow Rate:** 35 GPM(133 LPM)

**Max. Operating Pressure:** 120psi(8.3 bar)

**Suspended Solids Max. Dia.:** 1/8"(3.2mm)

**Maximum Dry Suction Lift:** 20feet(6.1m)

**Weight:** aluminum-19 lbs(8.6kg);  
stainless steel-36 lbs(16.3kg);  
cast iron-31 lbs(14.1kg);

**Sound Level:**70psi 60 cycles/min. 64.5db(A)



### MODEL DESCRIPTION & ORDERING:

| DP31 | - | 25        | X                | X                        | X             | X                   | X                  | X                 | X        |
|------|---|-----------|------------------|--------------------------|---------------|---------------------|--------------------|-------------------|----------|
|      |   | Pump Size | Center Body Mat. | Fluid Caps Manifold Mat. | Seat Material | Ball Check Material | Diaphragm Material | Fluid Connections | Hardware |

|                             |                   |                            |                    |                   |
|-----------------------------|-------------------|----------------------------|--------------------|-------------------|
| Pump Size                   | 25-1"             |                            |                    |                   |
| Center Body Mat.            | A-Aluminum        |                            | C-Cast Iron        |                   |
| Fluid Caps<br>Manifold Mat. | A - Aluminum      |                            | S -Stainless Steel | C-Cast Iron       |
| Seat<br>Material            | 1 - Aluminum      | 2 - 316 Stainless Steel    | 3-Polypropylene    | 4-PVDF(Kynar)     |
|                             | 5-Carbon Steel    | 8-Hard 400 Stainless Steel |                    |                   |
| Ball Check<br>Material      | 1-Neoprene        | 2-Nitrile                  | 3-Viton            | 4-PTFE            |
|                             | 5-E.P.R           | 6-Acetal                   | 8-Polyurethane     | A-Stainless Steel |
|                             | C-Hytrel          |                            | E-Santoprene       |                   |
| Diaphragm<br>Material       | 1-Neoprene        | 2-Nitrile                  | 3-Viton            | 4-PTFE/Santoprene |
|                             | 5-E.P.R           | 6-Acetal                   | 9-Hytrel           | B-Santoprene      |
|                             | G-Nitrile         |                            |                    |                   |
| Fluid Connections           | N-NPT Threads     |                            | B-BSP Threads      |                   |
| Hardware                    | S-Stainless Steel |                            | C-Carbon Steel     |                   |

### ACCESSORIES:

#### Service Repair Kits:

DP31-Air25(air section)

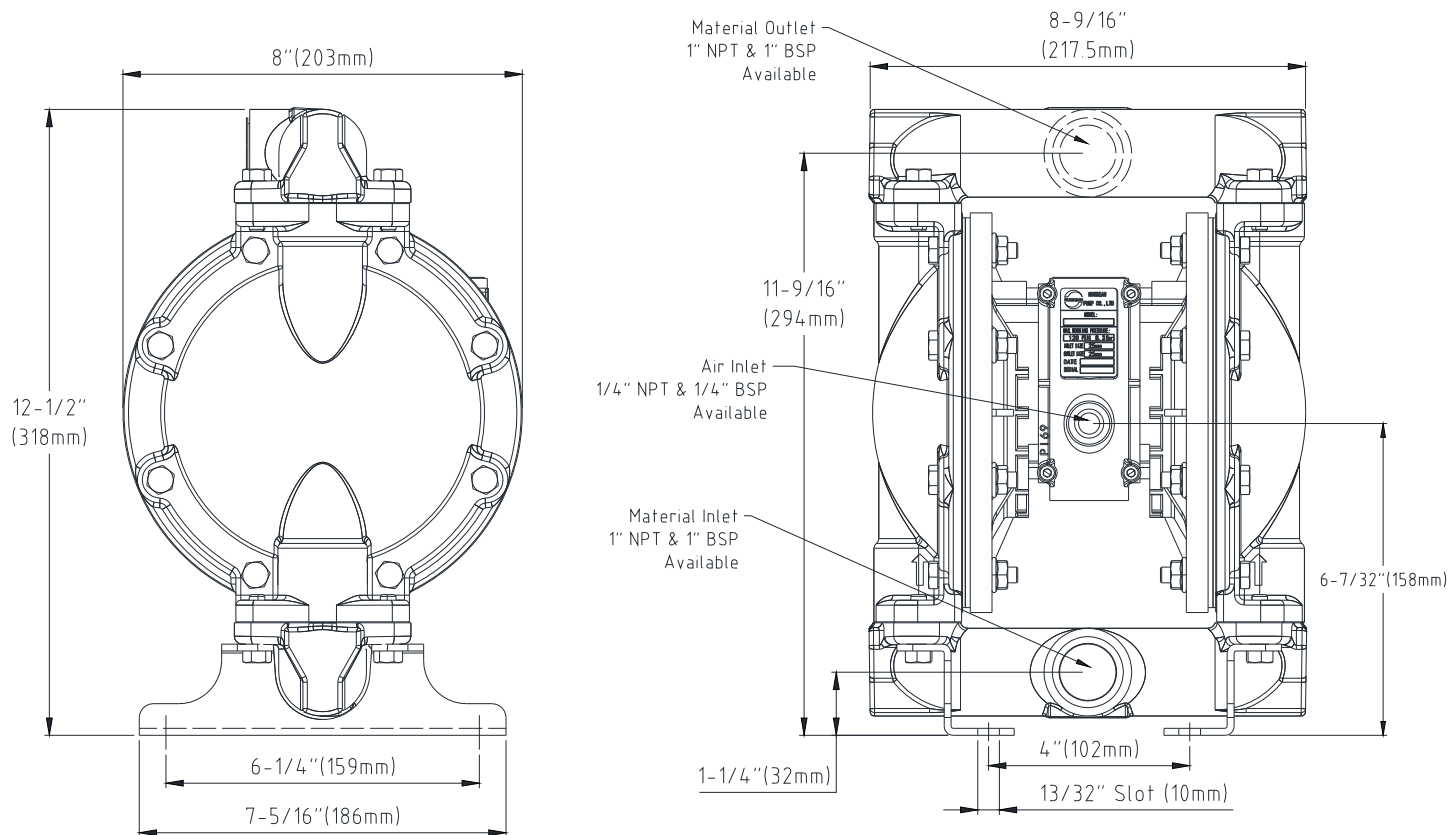
DP31-Flu25 - XX(fluid section)

Diaphragm Material  
Ball Material



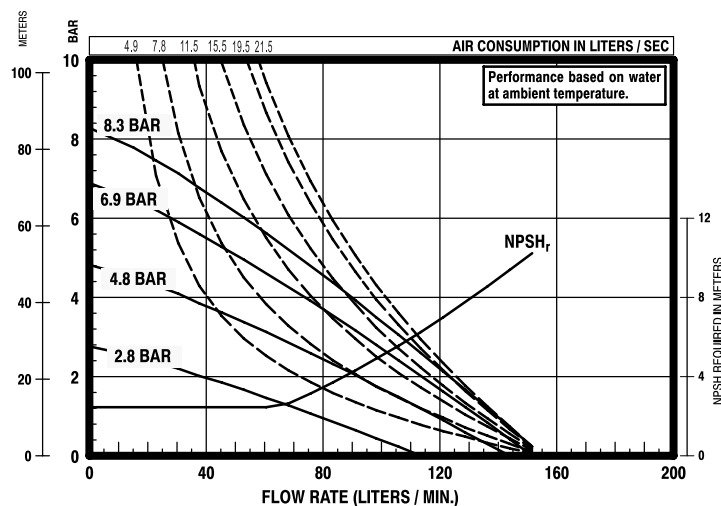
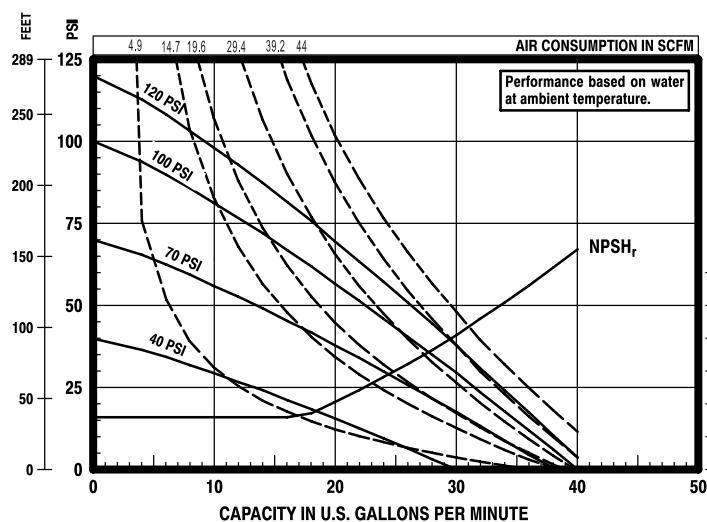
# 1" METALLIC Models

## DIMENSIONS:



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

## PERFORMANCE CURVE:



## 1-1/2" METALLIC Models

### SPECIFICATIONS:

**Air Inlet(female):** 3/8"BSPT(3/8"NPT Available On Request)

**Fluid Outlet:** Rp 1-1/2 (1-1/2 BSP,parallel)  
1-1/2 NPT

**Fluid Inlet:** Rp 1-1/2 (1-1/2 BSP,parallel)  
1-1/2 NPT

**Maximum Flow Rate:** 90 GPM(340.7 LPM)

**Max. Operating Pressure:** 120psi(8.3 bar)

**Suspended Solids Max. Dia.:** 1/4"(6.4mm)

**Maximum Dry Suction Lift:** 19feet(5.8m)

**Weight:** aluminum-51.5 lbs(23.4kg);  
stainless steel-84.5 lbs(38.3kg);  
cast iron-79.5 lbs(36.1kg);

**Sound Level:**70psi 60 cycles/min. 80.5db(A)



### MODEL DESCRIPTION & ORDERING:

| DP31                     | - | 40        | X                 | X                          | X               | X                   | X                  | X                 | X        |
|--------------------------|---|-----------|-------------------|----------------------------|-----------------|---------------------|--------------------|-------------------|----------|
|                          |   | Pump Size | Center Body Mat.  | Fluid Caps Manifold Mat.   | Seat Material   | Ball Check Material | Diaphragm Material | Fluid Connections | Hardware |
| Pump Size                |   |           | 40-1 1/2"         |                            |                 |                     |                    |                   |          |
| Center Body Mat.         |   |           | A-Aluminum        |                            |                 | C-Cast Iron         |                    |                   |          |
| Fluid Caps Manifold Mat. |   |           | A - Aluminum      |                            |                 | S -Stainless Steel  |                    | C-Cast Iron       |          |
| Seat Material            |   |           | 1 - Aluminum      | 2 - 316 Stainless Steel    | 3-Polypropylene |                     | 4-PVDF(Kynar)      |                   |          |
|                          |   |           | 5-Carbon Steel    | 8-Hard 400 Stainless Steel |                 |                     |                    |                   |          |
| Ball Check Material      |   |           | 1-Neoprene        | 2-Nitrile                  | 3-Viton         |                     | 4-PTFE             |                   |          |
|                          |   |           | 5-E.P.R           | 6-Acetal                   | 8-Polyurethane  |                     | A-Stainless Steel  |                   |          |
|                          |   |           | C-Hytrel          |                            |                 | E-Santoprene        |                    |                   |          |
| Diaphragm Material       |   |           | 1-Neoprene        | 2-Nitrile                  | 3-Viton         |                     | 4-PTFE/Santoprene  |                   |          |
|                          |   |           | 5-E.P.R           | 6-Acetal                   | 9-Hytrel        |                     | B-Santoprene       |                   |          |
|                          |   |           | G-Nitrile         |                            |                 |                     |                    |                   |          |
| Fluid Connections        |   |           | N-NPT Threads     |                            |                 | B-BSP Threads       |                    |                   |          |
| Hardware                 |   |           | S-Stainless Steel |                            |                 | C-Carbon Steel      |                    |                   |          |

### ACCESSORIES:

#### Service Repair Kits:

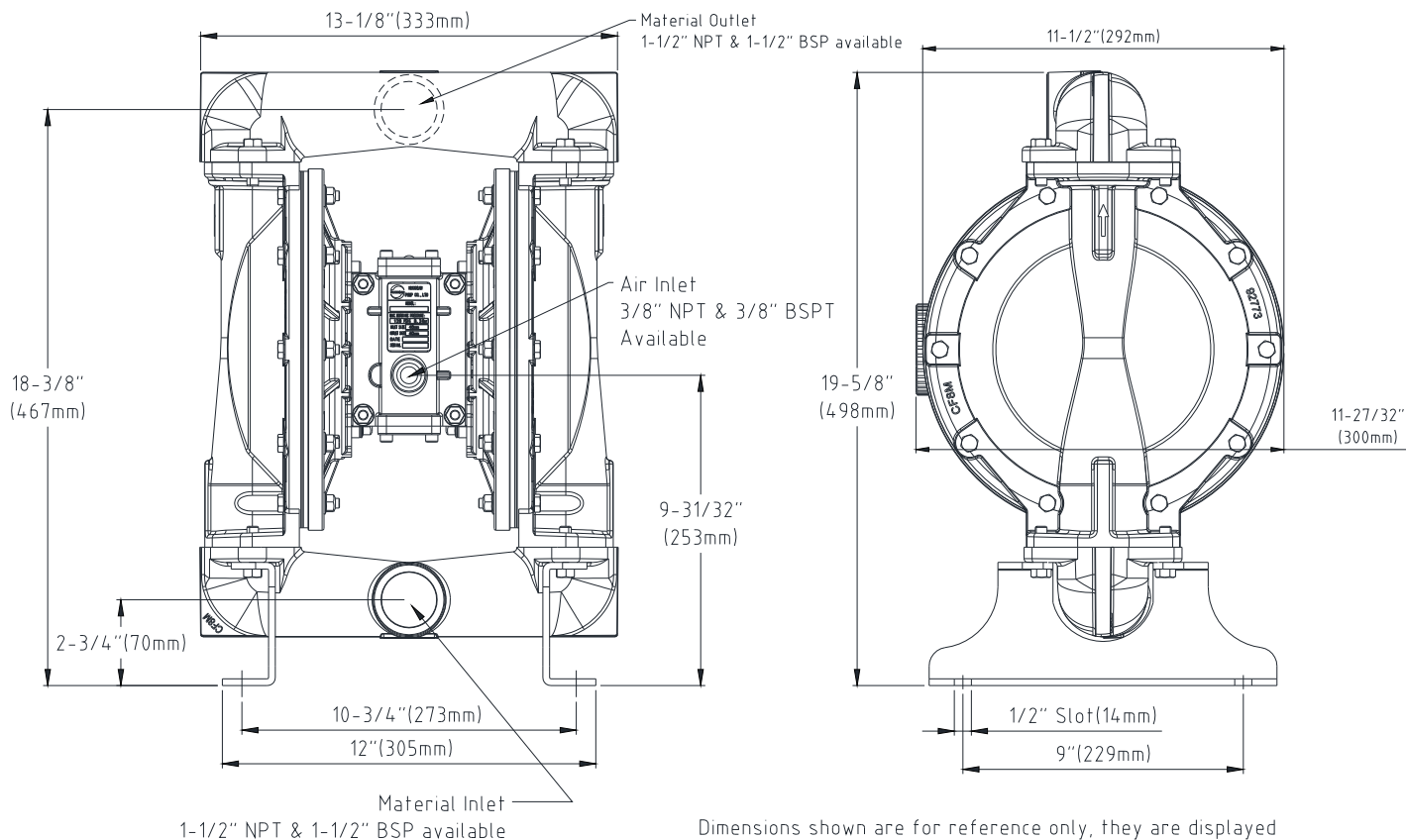
DP31-Air40(air section)

DP31-Flu40 - XX(fluid section)

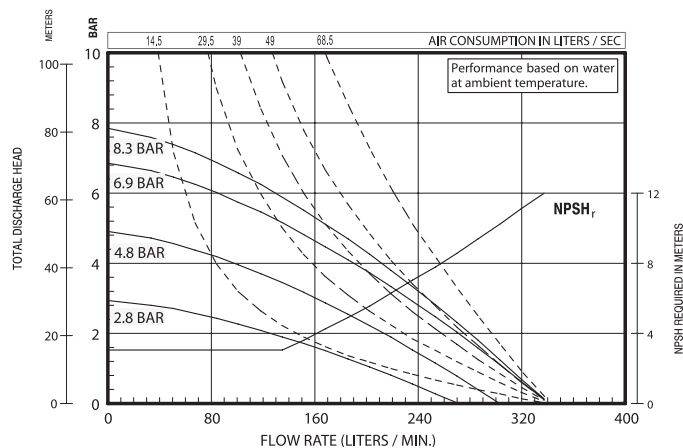
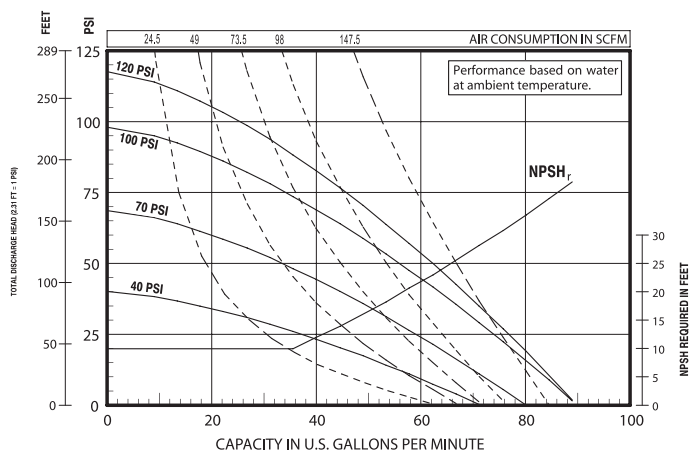
└─ Diaphragm Material  
└─ Ball Material

# 1-1/2" METALLIC Models

## DIMENSIONS:



## PERFORMANCE CURVE:



## 2" METALLIC Models

### SPECIFICATIONS:

**Air Inlet(female):** 3/4"BSPT(3/4"NPT Available On Request)

**Fluid Outlet:** Rp 2 (2" BSP,parallel)  
2" NPT

**Fluid Inlet:** Rp 2 (2" BSP,parallel)  
2" NPT

**Maximum Flow Rate:** 172 GPM(651 LPM)

**Max. Operating Pressure:** 120psi(8.3 bar)

**Suspended Solids Max. Dia.:** 1/4"(6.4mm)

**Maximum Dry Suction Lift:** 27.2feet(8.3m)

**Weight:** aluminum-65.2 lbs(29.6kg);  
stainless steel-125.4 lbs(56.9kg);  
cast iron-124.3 lbs(56.4kg);

**Sound Level:**70psi 60 cycles/min. 80.5db(A)



### MODEL DESCRIPTION & ORDERING:

| DP31 | - | 50        | X                | X                        | X             | X                   | X                  | X                 | X        |
|------|---|-----------|------------------|--------------------------|---------------|---------------------|--------------------|-------------------|----------|
|      |   | Pump Size | Center Body Mat. | Fluid Caps Manifold Mat. | Seat Material | Ball Check Material | Diaphragm Material | Fluid Connections | Hardware |

|                             |                   |                         |                |                    |                   |
|-----------------------------|-------------------|-------------------------|----------------|--------------------|-------------------|
| Pump Size                   | 50-2"             |                         |                |                    |                   |
| Center Body Mat.            | A-Aluminum        |                         |                | C-Cast Iron        |                   |
| Fluid Caps<br>Manifold Mat. | A - Aluminum      |                         |                | S -Stainless Steel | C-Cast Iron       |
| Seat<br>Material            | 1 - Aluminum      | 2 - 316 Stainless Steel | 4-PVDF(Kynar)  |                    | 5-Carbon Steel    |
|                             | E-Santoprene      | 8-Hard Stainless Steel  | 9-Hytrel       |                    | G-Nitrile         |
| Ball Check<br>Material      | 1-Neoprene        | 2-Nitrile               | 3-Viton        |                    | 4-PTFE            |
|                             | 5-E.P.R           | 6-Acetal                | 8-Polyurethane |                    | A-Stainless Steel |
|                             | C-Hytrel          |                         | E-Santoprene   |                    |                   |
| Diaphragm<br>Material       | 1-Neoprene        | 2-Nitrile               | 3-Viton        |                    | 4-PTFE/Santoprene |
|                             | 5-E.P.R           | 6-Acetal                | 9-Hytrel       |                    | B-Santoprene      |
|                             | G-Nitrile         |                         |                |                    |                   |
| Fluid Connections           | N-NPT Threads     |                         |                | B-BSP Threads      |                   |
| Hardware                    | S-Stainless Steel |                         |                | C-Carbon Steel     |                   |

### ACCESSORIES:

#### Service Repair Kits:

DP31-Air50(air section)

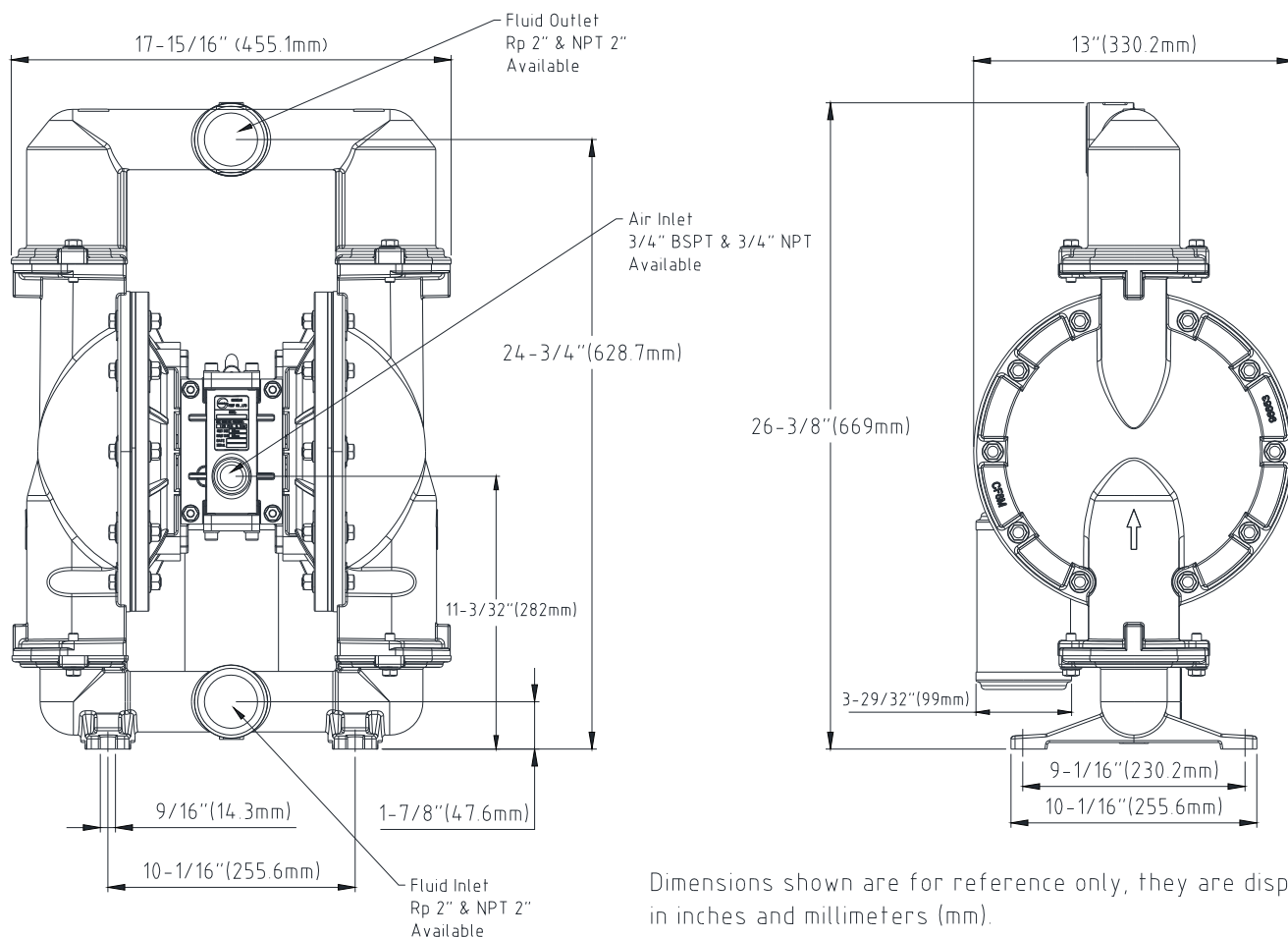
DP31-Flu50 - XX(fluid section)

Diaphragm Material  
Ball Material

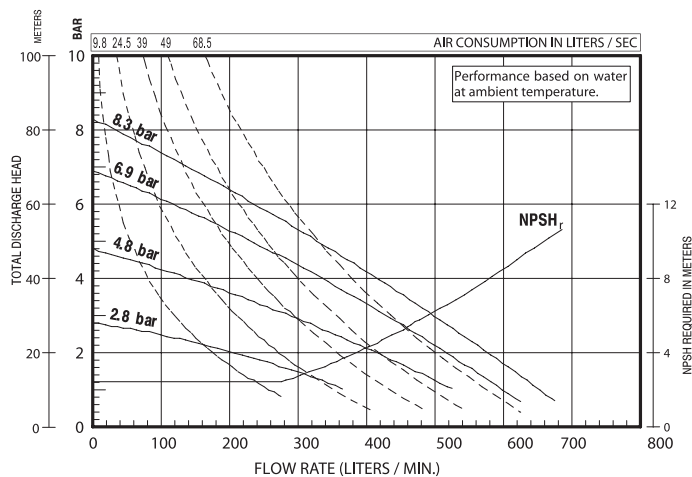
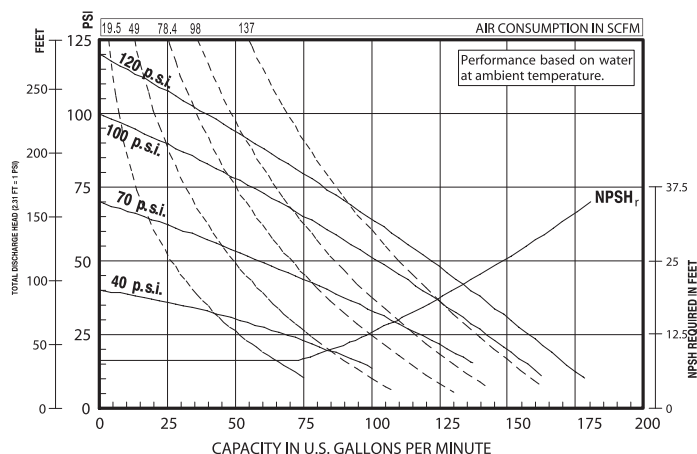


## 2" METALLIC Models

### DIMENSIONS:



### PERFORMANCE CURVE:



## 3" METALLIC Models

### SPECIFICATIONS:

**Air Inlet(female):** 3/4"BSPT(3/4"NPT Available On Request)

**Fluid Outlet:** Rp 3 (3" BSP,parallel)  
3" NPT

**Fluid Inlet:** Rp 3 (3" BSP,parallel)  
3" NPT

**Maximum Flow Rate:** 237 GPM(897 LPM)

**Max. Operating Pressure:** 120psi(8.3 bar)

**Suspended Solids Max. Dia.:** 3/8"(9.5mm)

**Maximum Dry Suction Lift:** 17.6feet(5.4m)

**Weight:** aluminum-109.8 lbs(49.8kg);  
stainless steel-222.2 lbs(100.79kg);  
cast iron-213.1 lbs(96.7kg);

**Sound Level:**70psi 60 cycles/min. 86.3 db(A)



### MODEL DESCRIPTION & ORDERING:

| DP31                     | - | 80        | X                 | X                        | X                       | X                   | X                  | X                 | X              |
|--------------------------|---|-----------|-------------------|--------------------------|-------------------------|---------------------|--------------------|-------------------|----------------|
|                          |   | Pump Size | Center Body Mat.  | Fluid Caps Manifold Mat. | Seat Material           | Ball Check Material | Diaphragm Material | Fluid Connections | Hardware       |
| Pump Size                |   |           | 80-3"             |                          |                         |                     |                    |                   |                |
| Center Body Mat.         |   |           | A-Aluminum        |                          |                         | C-Cast Iron         |                    |                   |                |
| Fluid Caps Manifold Mat. |   |           | A - Aluminum      |                          |                         | S -Stainless Steel  |                    | C-Cast Iron       |                |
| Seat Material            |   |           | 1 - Aluminum      |                          | 2 - 316 Stainless Steel |                     | 4-PVDF(Kynar)      |                   | 5-Carbon Steel |
|                          |   |           | E-Santoprene      |                          | 8-Hard Stainless Steel  |                     | 9-Hytrel           |                   | G-Nitrile      |
| Ball Check Material      |   |           | 2-Nitrile         |                          | C-Hytrel                |                     | 4-PTFE             |                   | E-Santoprene   |
| Diaphragm Material       |   |           | 2-Nitrile         |                          | 4-PTFE/Santoprene       |                     | 9-Hytrel           |                   | B-Santoprene   |
| Fluid Connections        |   |           | N-NPT Threads     |                          |                         | B-BSP Threads       |                    |                   |                |
| Hardware                 |   |           | S-Stainless Steel |                          |                         | C-Carbon Steel      |                    |                   |                |

### ACCESSORIES:

#### Service Repair Kits:

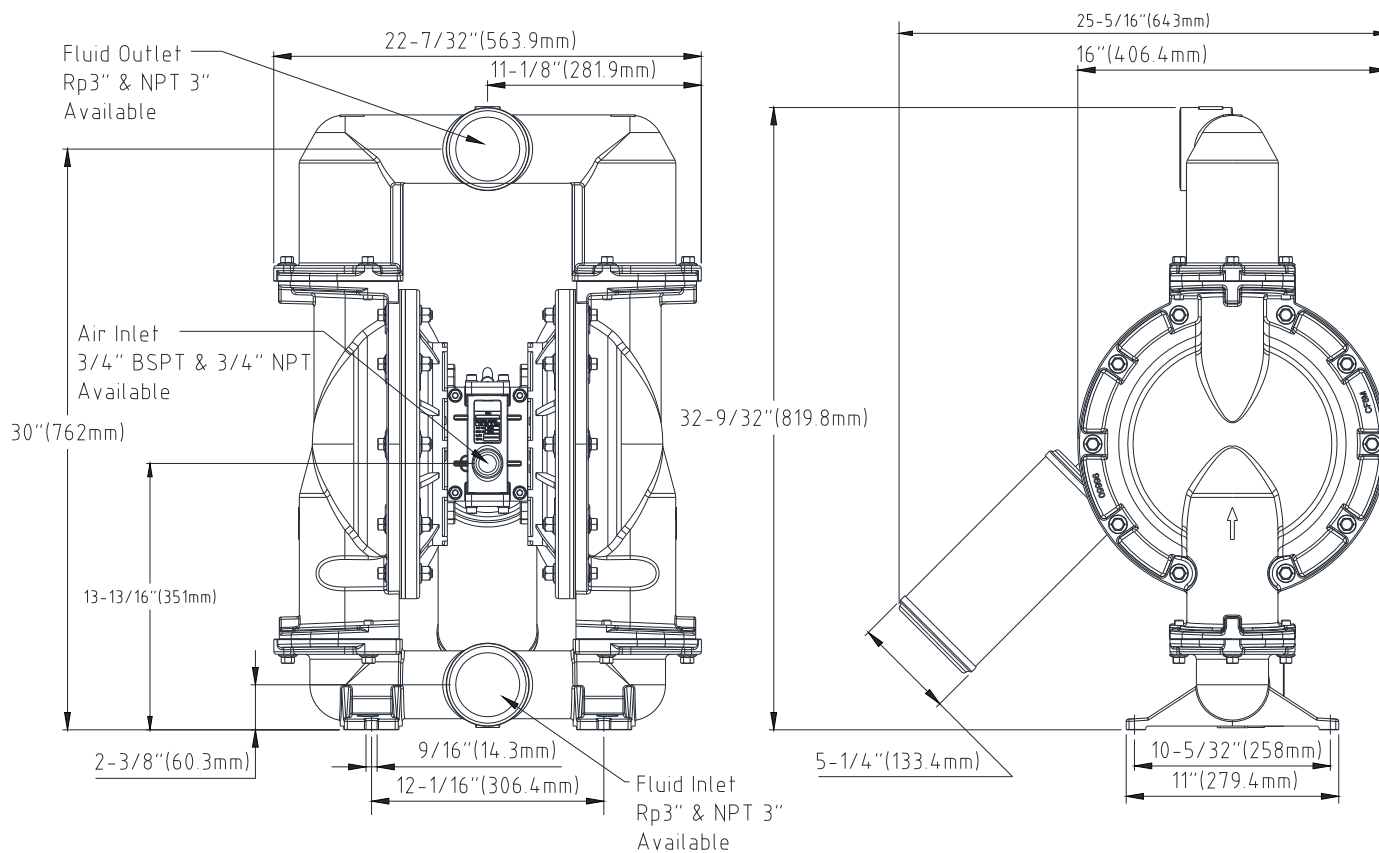
DP31-Air80(air section)

DP31-Flu80 - XX(fluid section)

Diaphragm Material  
Ball Material

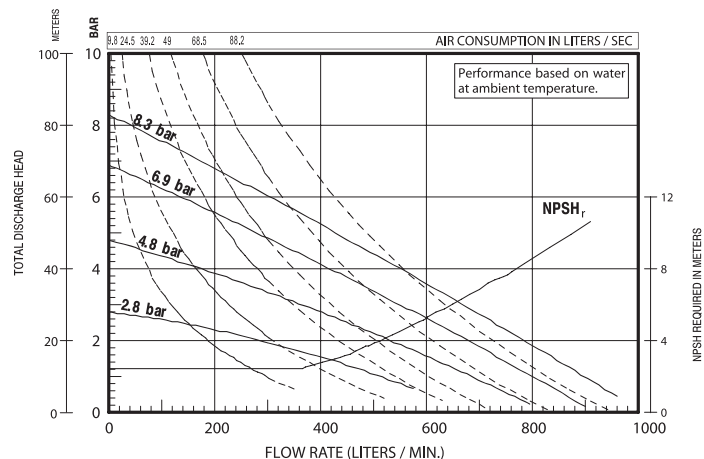
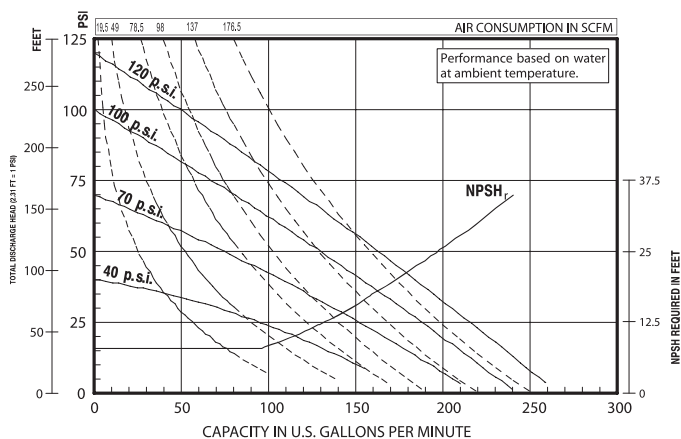
## 3" METALLIC Models

### DIMENSIONS:



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

### PERFORMANCE CURVE:



# **DRY POWDER DIAPHRAGM PUMP**

MODEL:DP36-XX-XXXXXX



Transfer and handle your dry process powder faster, cleaner and at a fraction of the cost associated with installed “systems”.

Consistent trouble-free transfer of powders up to 45-lbs.per cubic foot(721kgs. per cubic meter) dry-weight, such as carbon black, expanded mica, silicones, acrylic resins, 3D printing powders and pharmaceuticals.

- Replace manual powder processes
- Reduce airborne contamination-with direct transfer from the powdercontainer to your recipe.
- Uniqueair-induction system-avoids the possibility of powder pack-out.
- Portable-Can be moved from site to site.

## **ORDERING:**

| Position |              | 1         |   | 2 | 3 | 4 | 5 | 6 | 7 |
|----------|--------------|-----------|---|---|---|---|---|---|---|
| Example: | <b>DP36-</b> | <b>XX</b> | - | X | X | X | X | X | X |

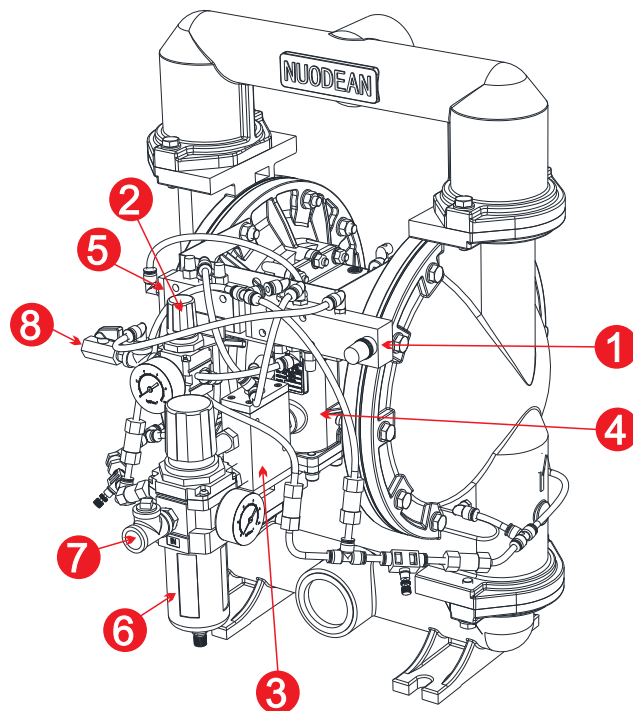
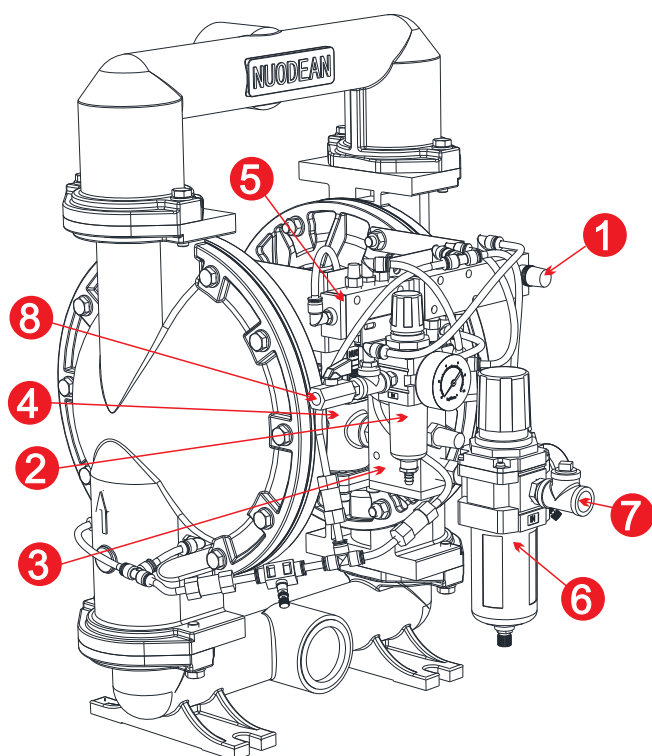
| Position 1<br>Size | Position 2<br>Connections | Position 3<br>Wetted Parts | Position 4<br>Hardware |
|--------------------|---------------------------|----------------------------|------------------------|
| 40-- 1-1/2"        | A-NPT Screwed             | A-Aluminum                 | P-Plated Steel         |
| 50-- 2"            | B-BSPT Screwed            | S-Stainless Steel          | S-Stainless Steel      |
| 80-- 3"            |                           |                            |                        |

| Position 5<br>Seat Material | Position 6<br>Ball Material | Position 7<br>Diaphragm Material |
|-----------------------------|-----------------------------|----------------------------------|
| A-Santoprene                | A-Santoprene                | A-Santoprene                     |
| S-Stainless Steel           |                             | M-Medical Grade Santoprene       |



# **DRY POWDER DIAPHRAGM PUMP**

MODEL:DP36-XX-XXXXXX



- 1 Delay Timer:** Insures proper, enough fluidization of the powder befer start-up
- 2 Air Filter/Regulator:** Included with pump
- 3 Main Air Control Valve:** Directly controlled by the Delay Timer, main start-up valve supplies air pressure directly to the pump's major air valve.
- 4 Pump Major Air Valve:** NUODEAN's air valve features patented, stall-free design.
- 5 2-postion 5-way valve:** Alternately blow the fluidizing air (or other inert gas) into the two fluid chambers to fluidize the powder inside .
- 6 Piggyback Air Filter/Regulator**
- 7 Air Inlet:** The compressed air that will drive the pump ,is connected to this Air Inlet.  
Maximum Air Inlet Pressure: 50psi(3.4 bar)
- 8 Fluidizing Gas Inlet:** The inert gas or air to fluidize the powder , is connected to this Fluidizing Gas Inlet.  
Maximum Fluidizing Pressure: 100psi(6.9 bar)

# 1" TRIPLE DIAPHRAGM PUMP(High Pressure)

MODEL:DP32-25XXXXXXX

## ◆SPECIFICATIONS:

**Air Inlet(Female):** 1/4"BSPT(1/4"NPT Available On Request)

**Fluid Outlet:** 1"BSPT Or 1"NPT;

**Fluid Inlet:** 1"BSPT Or 1"NPT;

**Maximum Flow Rate:** 35GPM(133LPM)

**Max. Operating Pressure:** 100psi(7bar)

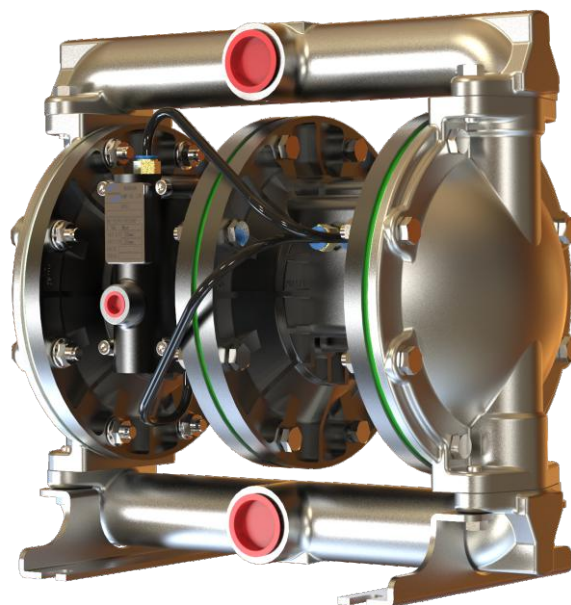
**Fluid Pressure Range:** 20-200psi(1.4-14bar)

**Suspended Solids Max. Dia.:** 1/8"(3.2mm)

**Maximum Dry Suction Lift:** 20feet(6.1m)

**Weight:** 51 lbs(23kg);

**Sound Level:** 70PSI 60 Cycles/Min 70db(A)



## ◆PRODUCT ADVANTAGES:

- 1. Stall-free Design.**
- 2. Self-lubricating,lube-free and maintenance-free air system.**
- 3. More flow and less pulsation:**Pilot Air-distribution Valve provides an positive,reliable,faster shif signal that avoids stall-out,and provides faster pump trip-over with less pulsation.
- 4. The use of dual ceramic dynamic seals:**More wear-resisting and to prevent & discharge pollution;Applicable to the harsh environment of air source;Long lifetime.
- 6. Anti-icing design:**With built-in vacuum pump chamber,it is anti-icing and effectively reduces the discharge air pressure and noise from work.

## ◆MODEL DESCRIPTIONS & ORDERING:

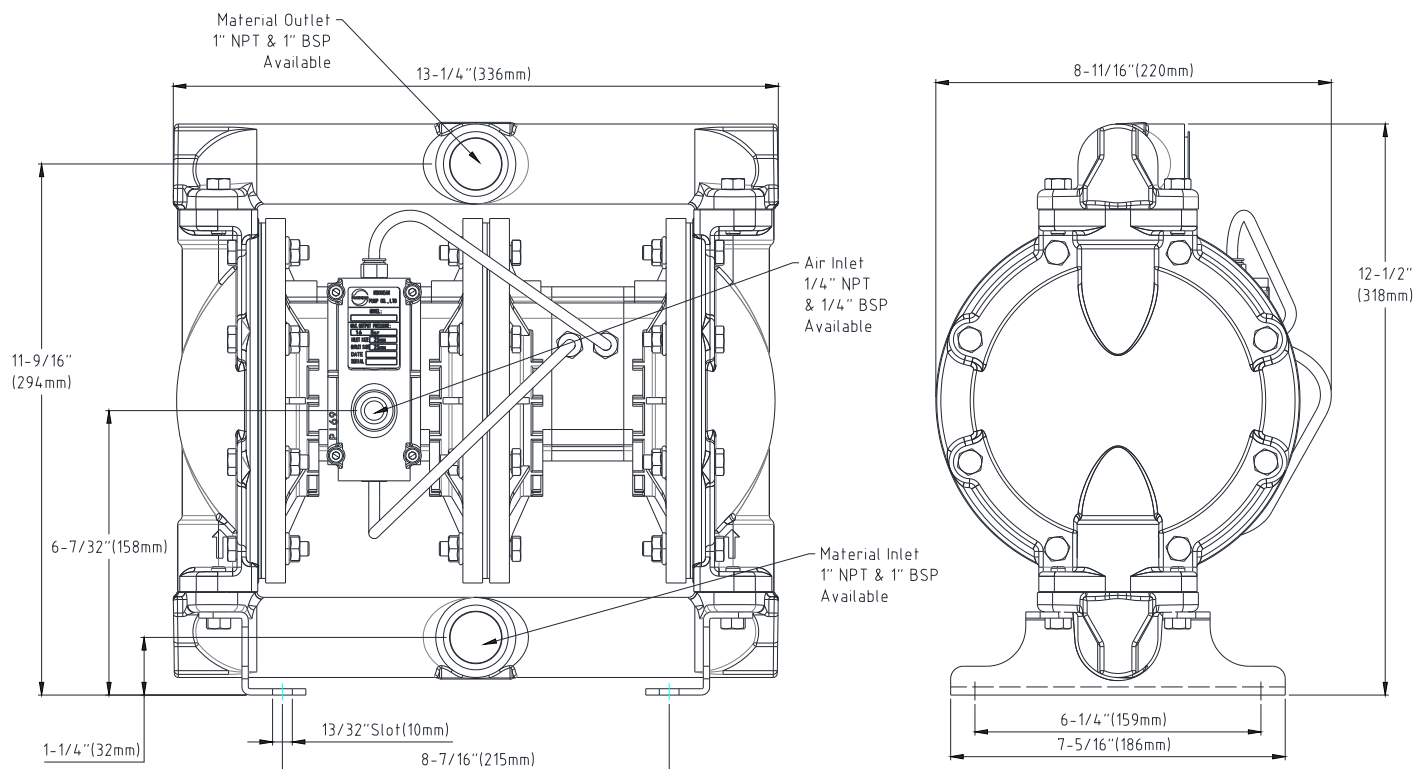
| DP32 | - | 25       | X               | X                      | X             | X                  | X                  | X                 | X        |
|------|---|----------|-----------------|------------------------|---------------|--------------------|--------------------|-------------------|----------|
|      |   | PumpSize | CenterBody Mat. | FluidCaps ManifoldMat. | Seat Material | BallCheck Material | Diaphragm Material | Fluid Connections | Hardware |

|                           |                  |                       |                   |               |  |
|---------------------------|------------------|-----------------------|-------------------|---------------|--|
| Pump Size                 | 25-1"            |                       |                   |               |  |
| CenterBody Mat.           | A-Aluminum       |                       | C-CastIron        |               |  |
| FluidCaps<br>ManifoldMat. | A - Aluminum     |                       | S -StainlessSteel | C-CastIron    |  |
| Seat<br>Material          | 1 - Aluminum     | 2 - 316StainlessSteel | 4-PVDF(Kynar)     | 5-CarbonSteel |  |
|                           | E-Santoprene     | 8-HardStainlessSteel  | 9-Hytrel          | G-Nitrile     |  |
| BallCheck<br>Material     | 2-Nitrile        | C-Hytrel              | 4-PTFE            | E-Santoprene  |  |
| Diaphragm<br>Material     | 2-Nitrile        | 4-PTFE/Santoprene     | 9-Hytrel          | B-Santoprene  |  |
| FluidConnections          | N-NPTThreads     |                       | B-BSPThreads      |               |  |
| Hardware                  | S-StainlessSteel |                       | C-CarbonSteel     |               |  |

# 1" TRIPLE DIAPHRAGM PUMP(High Pressure)

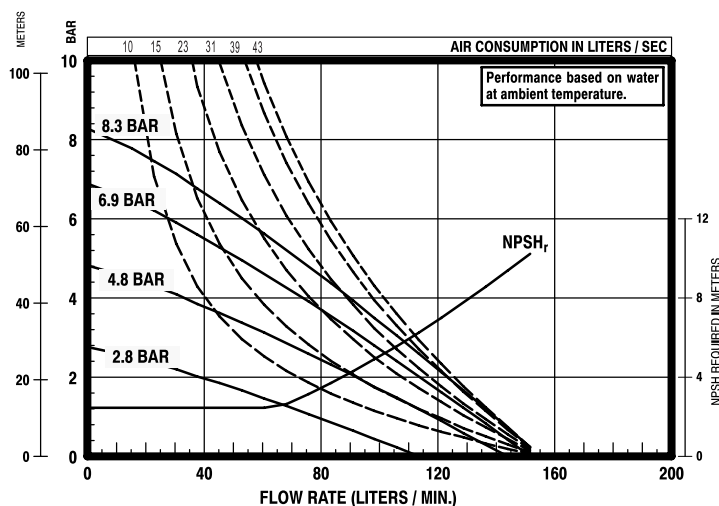
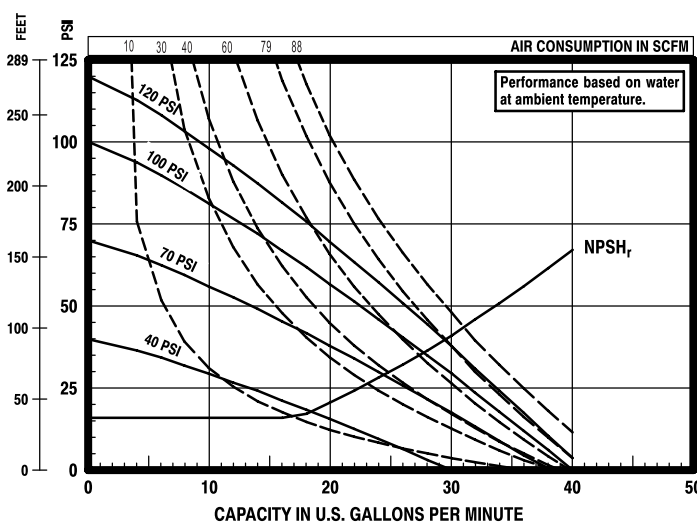
MODEL:DP32-25XXXXXXX

## DIMENSIONS:



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

## PERFORMANCE CURVE:



## ACCESSORIES:

### Service Repair Kits:

DP32-Air25 (air section)

DP32-Flu25 - XX (fluid section)

- Diaphragm Material
- Ball Material

## 1-1/2" TRIPLE DIAPHRAGM PUMP(High Pressure)

MODEL:DP32-40XXXXXXX

### ◆SPECIFICATIONS:

**Air Inlet(Female):** 3/8"BSPT(3/8"NPT Available On Request)

**Fluid Outlet:** 1-1/2"BSPT Or 1-1/2"NPT;

**Fluid Inlet:** 1-1/2"BSPT Or 1-1/2"NPT;

**Maximum Flow Rate:** 90GPM(340.7LPM)

**Max. Operating Pressure:** 100psi(7bar)

**Fluid Pressure Range:** 20-200psi(1.4-14bar)

**Suspended Solids Max. Dia.:** 1/4"(6.4mm)

**Maximum Dry Suction Lift:** 19feet(5.8m)

**Weight:** 110 lbs(50kg);

**Sound Level:** 70PSI 60 Cycles/Min 88.0db(A)



### ◆PRODUCT ADVANTAGES:

- 1. Stall-free Design.**
- 2. Self-lubricating,lube-free and maintenance-free air system.**
- 3. More flow and less pulsation:**Pilot Air-distribution Valve provides an positive,reliable,faster shif signal that avoids stall-out,and provides faster pump trip-over with less pulsation.
- 4. The use of dual ceramic dynamic seals:**More wear-resisting and to prevent & discharge pollution;Applicable to the harsh environment of air source;Long lifetime.
- 6. Anti-icing design:**With built-in vacuum pump chamber,it is anti-icing and effectively reduces the discharge air pressure and noise from work.

### ◆MODEL DESCRIPTIONS & ORDERING:

| DP32 | - | 40        | X                | X                        | X             | X                   | X                  | X                 | X        |
|------|---|-----------|------------------|--------------------------|---------------|---------------------|--------------------|-------------------|----------|
|      |   | Pump Size | Center Body Mat. | Fluid Caps Manifold Mat. | Seat Material | Ball Check Material | Diaphragm Material | Fluid Connections | Hardware |

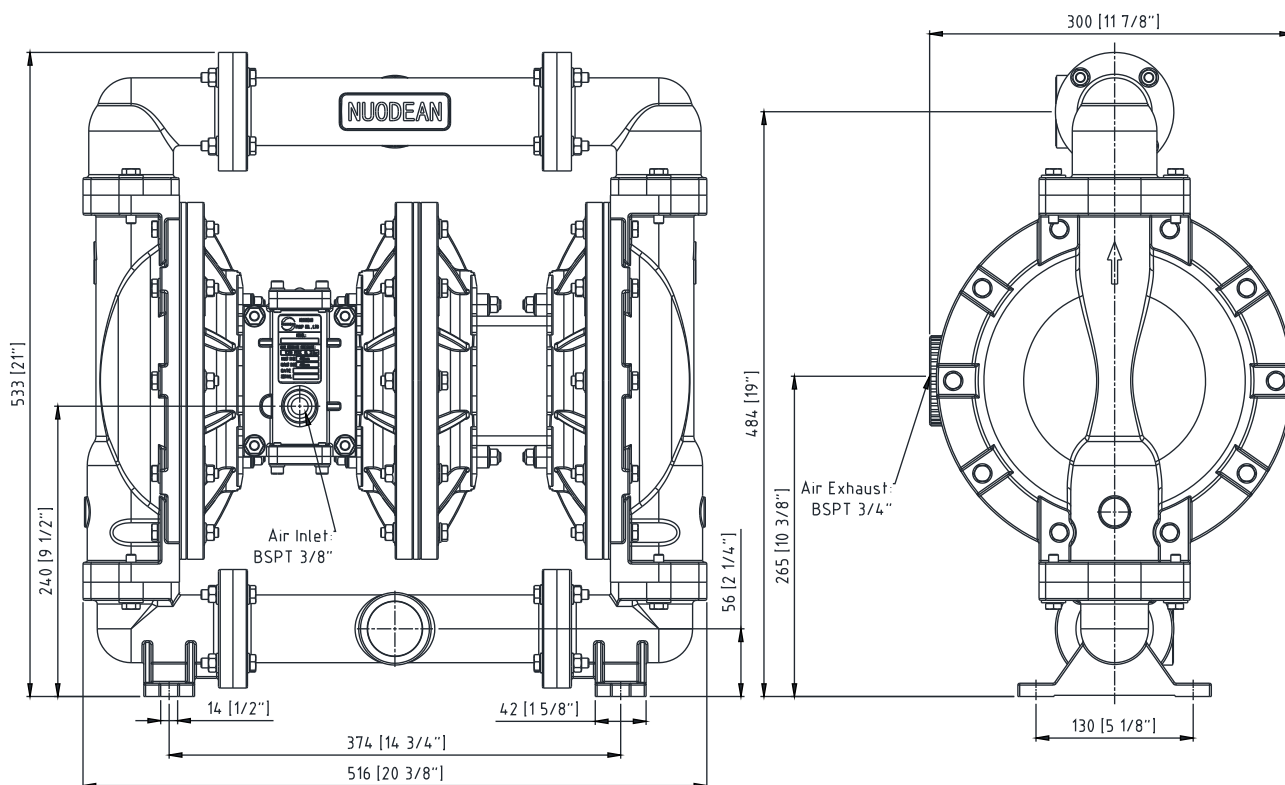
|                           |                  |                       |                   |               |  |
|---------------------------|------------------|-----------------------|-------------------|---------------|--|
| Pump Size                 | 40-1 1/2 "       |                       |                   |               |  |
| CenterBody Mat.           | A-Aluminum       |                       | C-CastIron        |               |  |
| FluidCaps<br>ManifoldMat. | A - Aluminum     |                       | S -StainlessSteel | C-CastIron    |  |
| Seat<br>Material          | 1 - Aluminum     | 2 - 316StainlessSteel | 4-PVDF(Kynar)     | 5-CarbonSteel |  |
|                           | E-Santoprene     | 8-HardStainlessSteel  | 9-Hytrel          | G-Nitrile     |  |
| Ball Check<br>Material    | 2-Nitrile        | C-Hytrel              | 4-PTFE            | E-Santoprene  |  |
| Diaphragm<br>Material     | 2-Nitrile        | 4-PTFE/Santoprene     | 9-Hytrel          | B-Santoprene  |  |
| FluidConnections          | N-NPTThreads     |                       | B-BSPThreads      |               |  |
| Hardware                  | S-StainlessSteel |                       | C-CarbonSteel     |               |  |



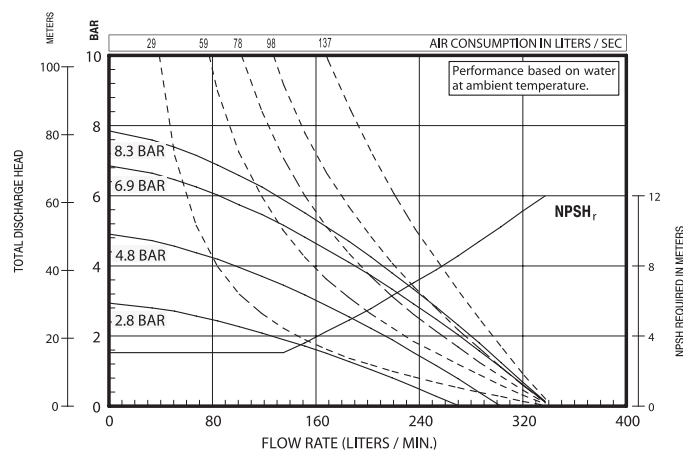
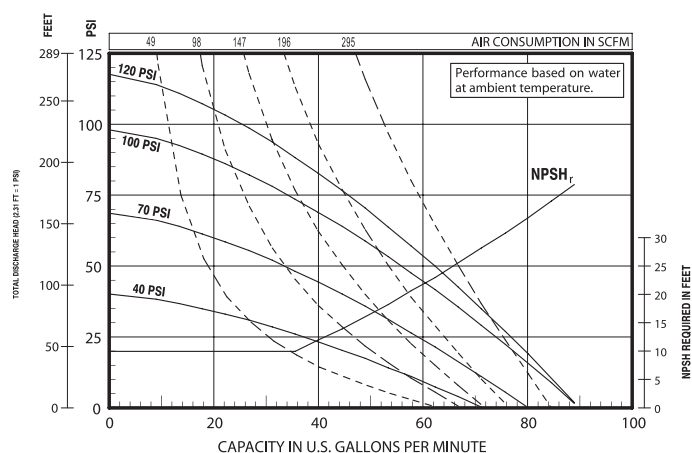
# 1-1/2" TRIPLE DIAPHRAGM PUMP(High Pressure)

MODEL:DP32-40XXXXXX

## DIMENSIONS:



## PERFORMANCE CURVE:



## ACCESSORIES:

### Service Repair Kits:

DP32-Air40(air section)

DP32-Flu40 - XX(fluid section)

- Diaphragm Material
- Ball Material

## 2" TRIPLE DIAPHRAGM PUMP(High Pressure)

MODEL:DP32-50XXXXXXX

### ◆SPECIFICATIONS:

**Air Inlet(Female):** 3/4"BSPT(3/4"NPT Available On Request)

**Fluid Outlet(Female):** 2"BSPT Or 2"NPT

**Fluid Inlet(Female):** 2"BSPT Or 2"NPT

**Maximum Flow Rate:** 172GPM(651LPM)

**Max. Operating Pressure:** 100psi(6.9bar)

**Fluid Pressure Range:** 20-200psi(1.4-1.4bar)

**Suspended Solids Max. Dia.:** 1/4"(6.4mm)

**Maximum Dry Suction Lift:** 27.2feet(8.3m)

**Weight:** 198 lbs(90kg)

**Sound Level:** 70PSI 60 Cycles/Min 90db(A)



### ◆PRODUCT ADVANTAGES:

- 1. Stall-free Design.**
- 2. Self-lubricating,lube-free and maintenance-free air system.**
- 3. More flow and less pulsation:**Pilot Air-distribution Valve provides an positive,reliable,faster shif signal that avoids stall-out,and provides faster pump trip-over with less pulsation.
- 4. The use of dual ceramic dynamic seals:**More wear-resisting and to prevent & discharge pollution;Applicable to the harsh environment of air source;Long lifetime.
- 6. Anti-icing design:**With built-in vacuum pump chamber,it is anti-icing and effectively reduces the discharge air pressure and noise from work.

### ◆MODEL DESCRIPTIONS & ORDERING:

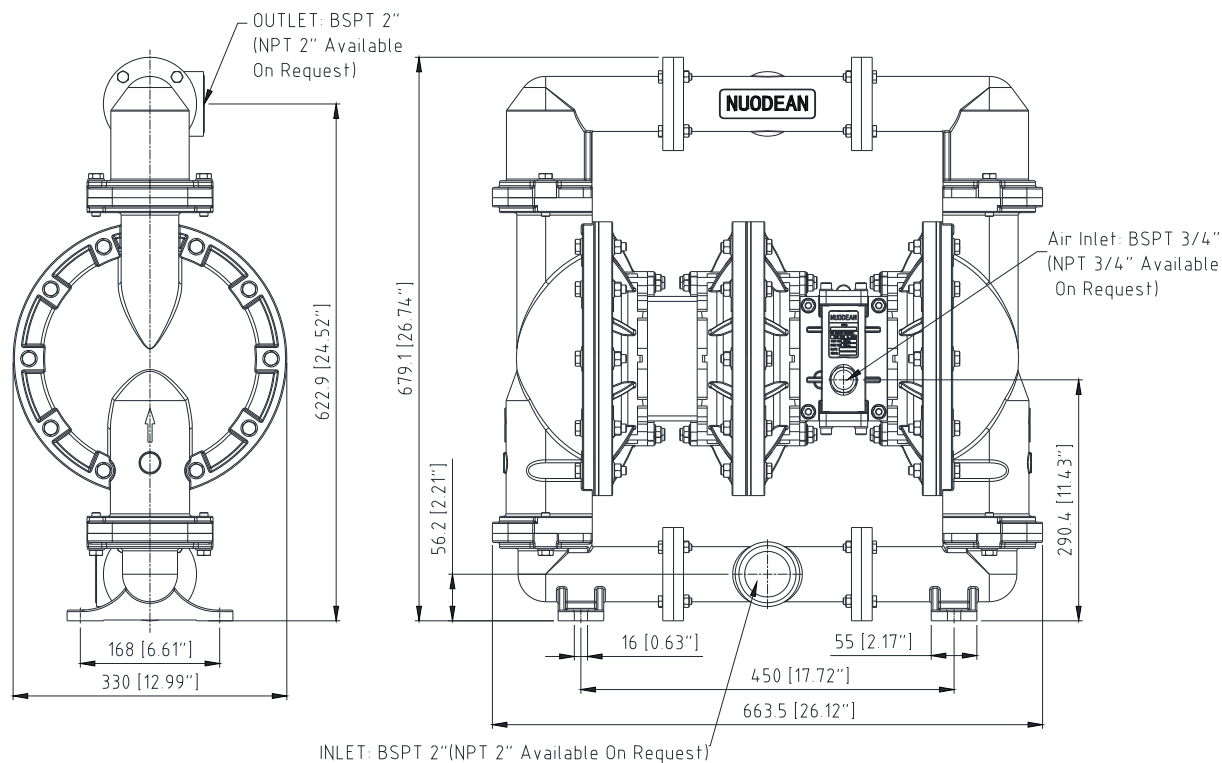
| DP32 | - | 50       | X               | X                      | X             | X                  | X                  | X                 | X        |
|------|---|----------|-----------------|------------------------|---------------|--------------------|--------------------|-------------------|----------|
|      |   | PumpSize | CenterBody Mat. | FluidCaps ManifoldMat. | Seat Material | BallCheck Material | Diaphragm Material | Fluid Connections | Hardware |

|                             |                   |                         |                    |                |  |
|-----------------------------|-------------------|-------------------------|--------------------|----------------|--|
| Pump Size                   | 50-2"             |                         |                    |                |  |
| Center Body Mat.            | A-Aluminum        |                         | C-Cast Iron        |                |  |
| Fluid Caps<br>Manifold Mat. | A - Aluminum      |                         | S -Stainless Steel | C-Cast Iron    |  |
| Seat<br>Material            | 1 - Aluminum      | 2 - 316 Stainless Steel | 4-PVDF(Kynar)      | 5-Carbon Steel |  |
|                             | E-Santoprene      | 8-Hard Stainless Steel  | 9-Hytrel           | G-Nitrile      |  |
| Ball Check<br>Material      | 2-Nitrile         | C-Hytrel                | 4-PTFE             | E-Santoprene   |  |
| Diaphragm<br>Material       | 2-Nitrile         | 4-PTFE/Santoprene       | 9-Hytrel           | B-Santoprene   |  |
| Fluid Connections           | N-NPT Threads     |                         | B-BSP Threads      |                |  |
| Hardware                    | S-Stainless Steel |                         | C-Carbon Steel     |                |  |

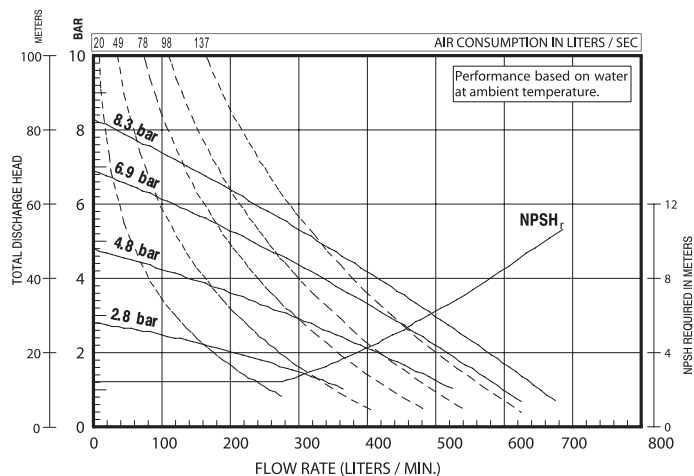
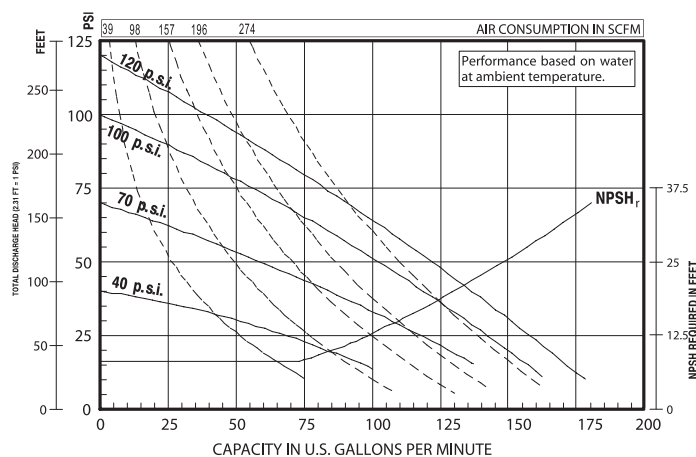
## 2" TRIPLE DIAPHRAGM PUMP(High Pressure)

MODEL:DP32-50XXXXXXX

### DIMENSIONS:



### PERFORMANCE CURVE:



### ACCESSORIES:

#### Service Repair Kits:

DP32-Air50 (air section)

DP32-Flu50 - XX (fluid section)

- Diaphragm Material
- Ball Material

## HEAVY DUTY FLAP-VALVE PUMP

MODEL:DP37-XXXXXXX

The Nuodean's Heavy duty diaphragm pump is designed to pump fluids containing solids up to 2 inches(50mm) in diameter. Built on the foundation of the DP Series line of pumps, the Heavy duty pumps features Nuodean's patented Stall-free/lube-free Air Valve and rugged, easy-to-service bolted construction.

### THIS PUMP ADAPT INNOVATIVE DESIGNES:

- The passage of fluid is horizontal, not vertical.
  - Fluid is easier to pass through.
  - Easier to repair or maintain.
  - No accumulation of fluid.
- Swing check valve is adopt.
  - Better passing ability for fluid
  - Easier to repair or maintain.
  - Longer lifetime.
  - modularized



Plus.... All the benefits of every NUODEAN PUMP

- Patented Non-lubricated & stall-free Air-Valve.
- Bolted Construction
- Faster trip-over, with less pulsation & more flow.
- Both of Main air valve & Pilot air valve adapt ceramic seals, with longer lifetime.
- Anti-icing design.



For stainless steel material: good solution for the food industry

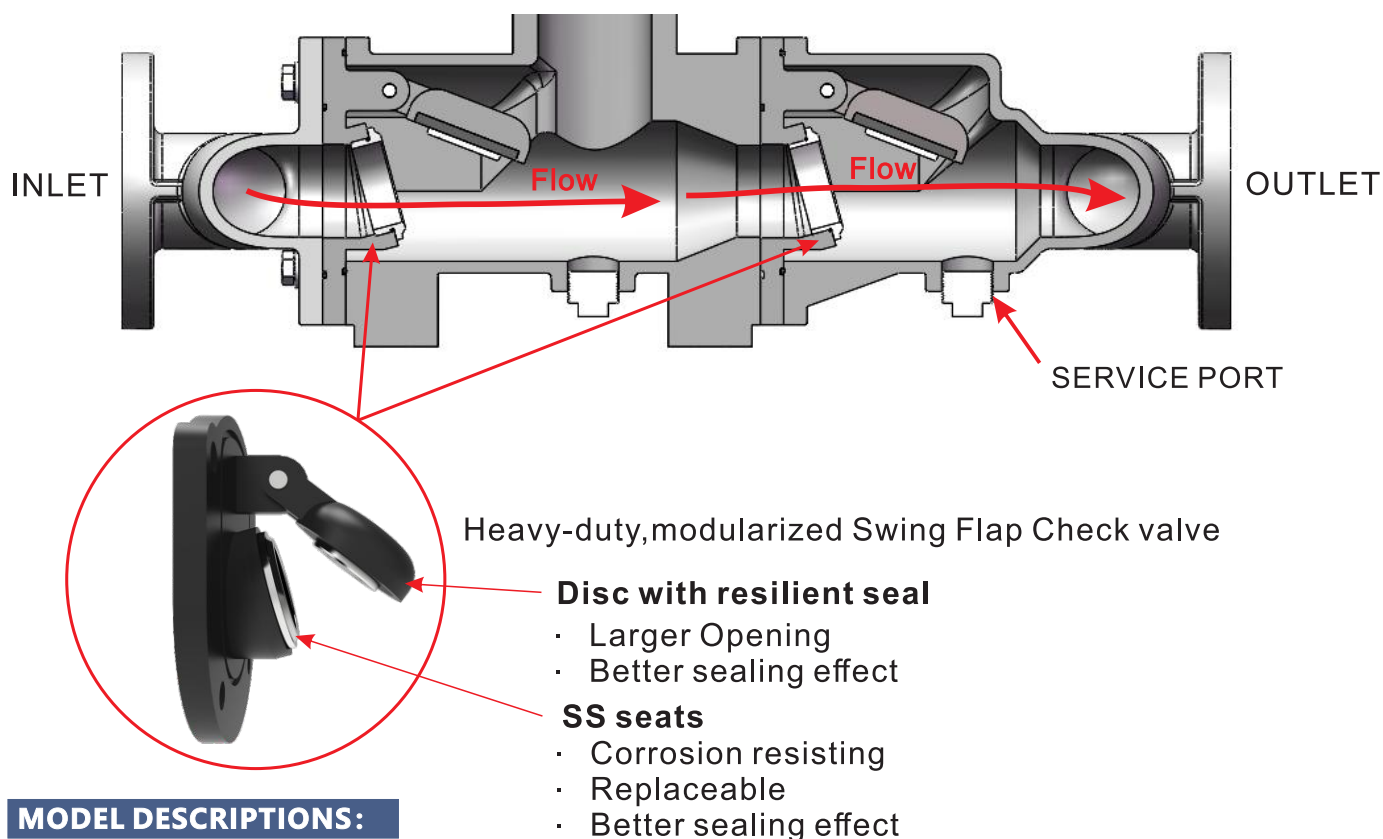


## HEAVY DUTY FLAP-VALVE PUMP

MODEL:DP37-XXXXXXX

### DESIGN FEATURES:

- Heavy-duty Swing Flap Check valve permits passage of up to 2 inch solids, longer lifetime, modularized.
- Easy access to valve chamber for ease of maintenance.
- In-line maintenance facilitates servicing pump without removal from installation.
- Horizontal constructure from suction to discharge keeps solids from settling in pump.
- Fluid is easier to pass through, due to Horizontal constructure from suction to discharge.
- Better passing ability for fluid, due to Horizontal constructure from suction to discharge.
- Easier to repair or maintain.



### MODEL DESCRIPTIONS:

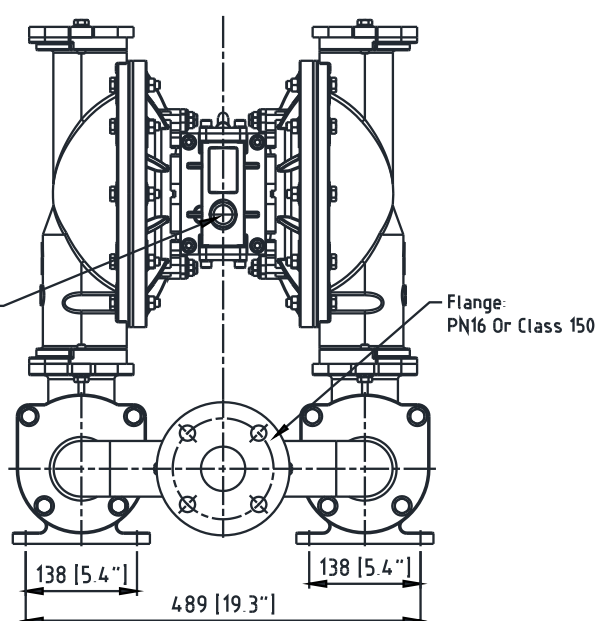
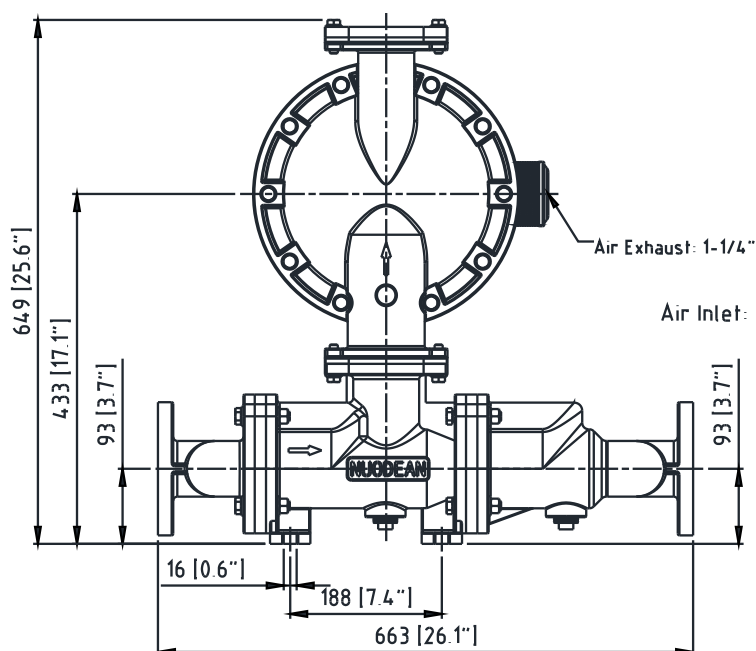
| DP37 | - | 50       | X               | X                      | X                  | X                 | X        |
|------|---|----------|-----------------|------------------------|--------------------|-------------------|----------|
|      |   | PumpSize | CenterBody Mat. | FluidCaps ManifoldMat. | Diaphragm Material | Fluid Connections | Hardware |

|                           |                  |                       |                   |                   |  |
|---------------------------|------------------|-----------------------|-------------------|-------------------|--|
| Pump Size                 | 50-2"            |                       |                   |                   |  |
| CenterBody Mat.           | A-Aluminum       |                       | C-CastIron        |                   |  |
| FluidCaps<br>ManifoldMat. | A - Aluminum     |                       | S -StainlessSteel | C-CastIron        |  |
| Seat<br>Material          | 1 - Aluminum     | 2 - 316StainlessSteel | 4-PVDF(Kynar)     | 5-CarbonSteel     |  |
|                           | E-Santoprene     | 8-HardStainlessSteel  | 9-Hytrel          | G-Nitrile         |  |
| BallCheck<br>Material     | 2-Nitrile        | C-Hytrel              | 4-PTFE            | E-Santoprene      |  |
| Diaphragm<br>Material     | 2-Nitrile        | 4-PTFE/Santoprene     | 9-Hytrel          | B-Santoprene      |  |
| FluidConnections          | N-NPTThreads     | F-FlangeANSI150       | B-BSPThreads      | F-FlangePN10/PN16 |  |
| Hardware                  | S-StainlessSteel |                       | C-CarbonSteel     |                   |  |

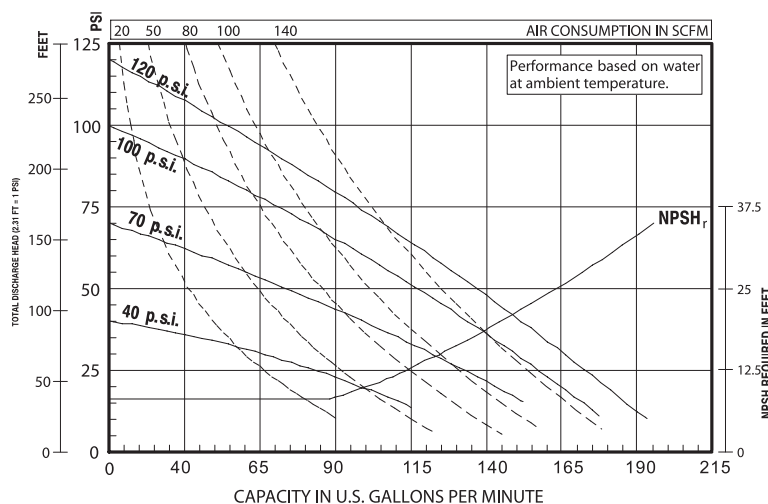
# HEAVY DUTY FLAP-VALVE PUMP

MODEL:DP37-XXXXXXX

## DIMENSIONS:



## PERFORMANCE CURVES:



## ◆SPECIFICATIONS:

### Air Inlet(Female):

3/4"BSPT(3/4"NPT Available On Request)

### Fluid Outlet:

Flange: 2" ANSI Class 150 /DN50 PN10

### Fluid Inlet(Female):

Flange: 2" ANSI Class 150 /DN50 PN10

**Maximum Flow Rate:** 172GPM(651LPM)

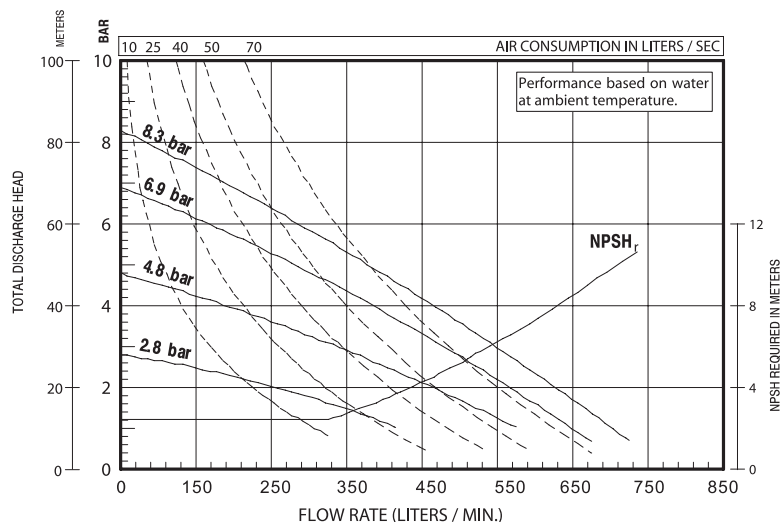
**Max. Operating Pressure:** 120psi(8.3bar)

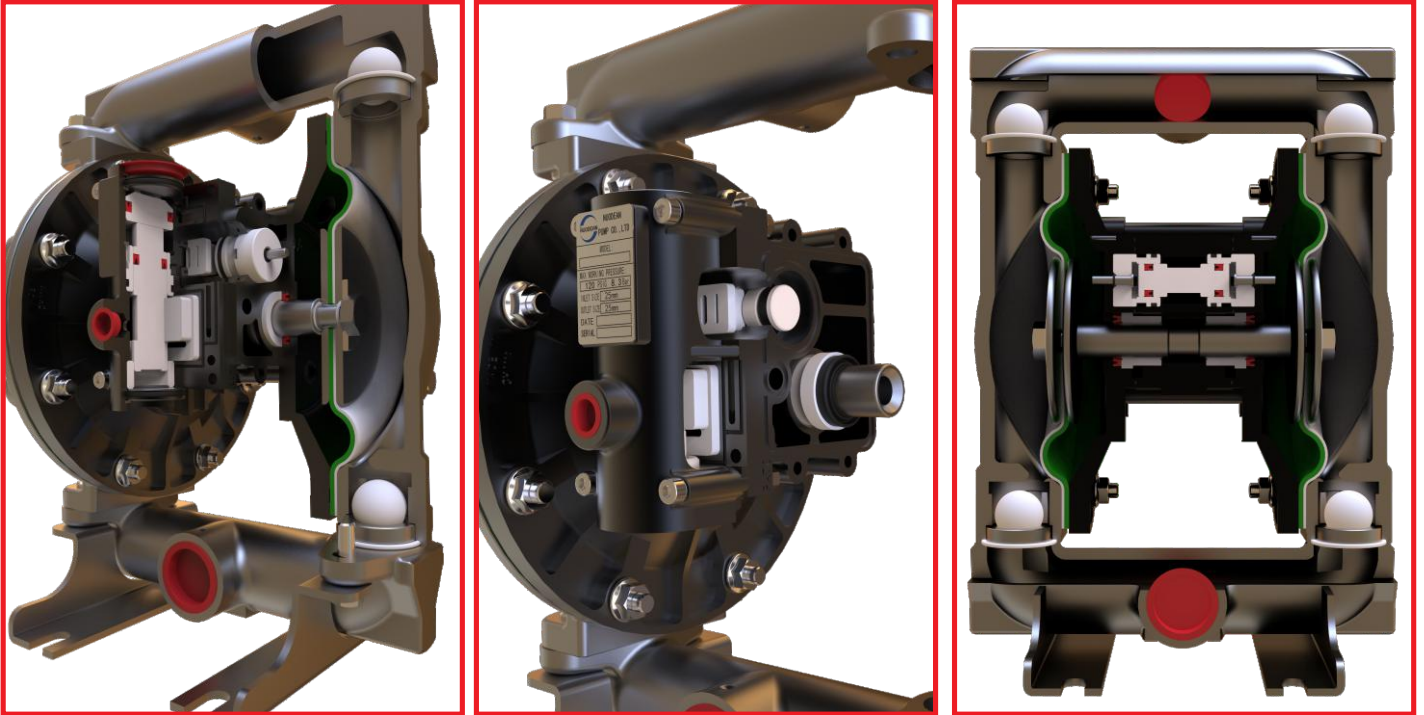
**Fluid Pressure Range:** 20-120psi(1.4-8.3bar)

**Suspended Solids Max. Dia.:** 2"(50mm)

**Maximum Dry Suction Lift:** 27.2feet(8.3m)

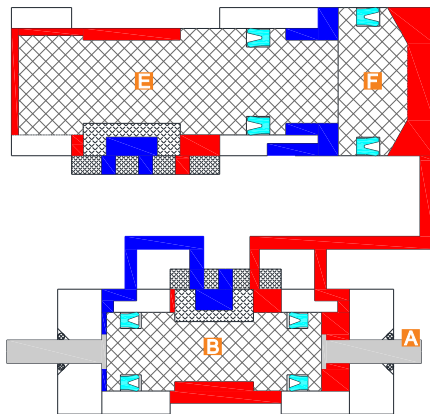
**Weight:** 130kgs



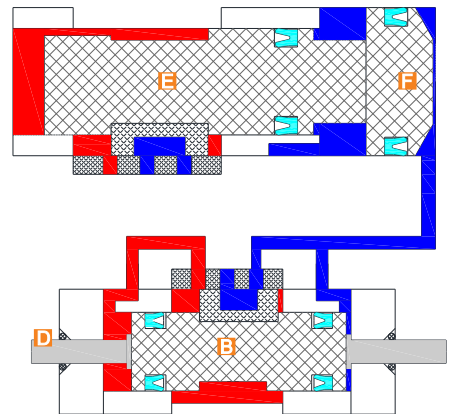


## WORKING PRINCIPLE

■ Compressed Air    ■ Atmospheric Pressure



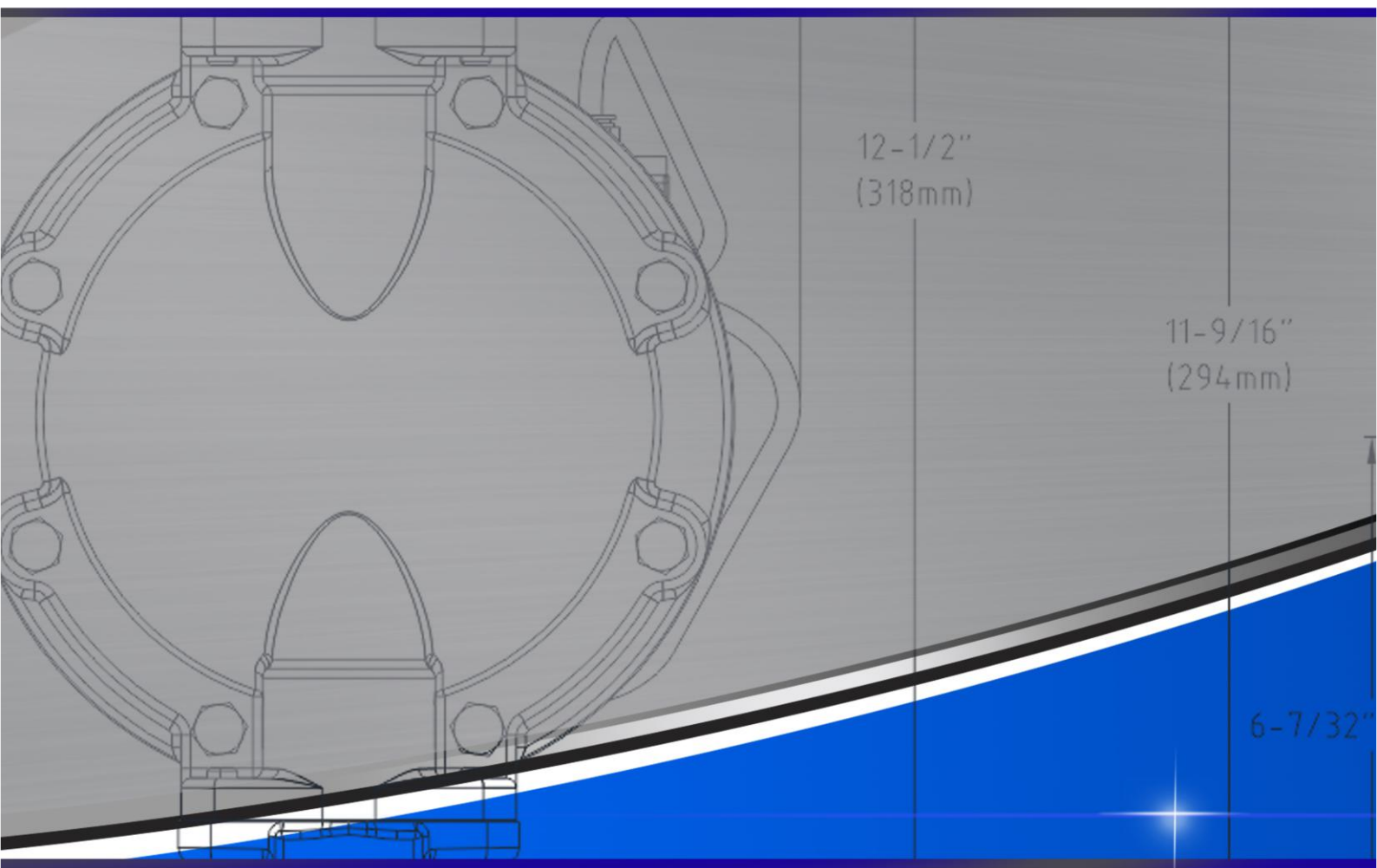
Diaphragm Moving From Right to Left



Diaphragm Moving From Left to Right

**We Have Our Own Patent Knowledge And Technique, We Are Professional In Pneumatic Diaphragm Pump Area.**

At NUODEAN we make successflow!



**QINGDAO NUODEAN PUMP CO., LTD**

Address: No.125-16 Tieqishan Road, Xifuzhen Subdistrict,  
Chengyang District, Qingdao, Shandong, China

Tel: +86-532-66731226

Fax: +86-532-66731227

Mobile: +86-15192098891

E-Mail: [sales@nuodeanpump.com](mailto:sales@nuodeanpump.com)

[info@nuodeanpump.com](mailto:info@nuodeanpump.com)