

# NDP-80 Specifications

## Port Dimensions (215 GPM Max.)

Intake & discharge connection:

Polypropylene (PPG)	3" ANSI B16.5 #150
Aluminum (ADC-12)	3" ANSI B16.5 #150 (with tapped 3" Female NPT)
Stainless Steel (316)	3" ANSI B16.5 #150 or 3" Female NPT
Cast Iron	3" Female NPT
Air inlet (incl. ball valve):	3/4" Female NPT
Air exhaust (incl. silencer):	1" Female NPT

## Maximum Liquid Temperature\*

Diaphragm Material	Temperature
Buna N	180°F (82°C)
Neoprene	180°F (82°C)
Santoprene® (TPO)	180°F (82°C)
EPDM	212°F (100°C)
PTFE	212°F (100°C)
Hytrell® (TPEE)	248°F (120°C)
Viton® fluoroelastomer	248°F (120°C)

\*The maximum liquid temperature for metal pumps is determined by the elastomer (diaphragm material). Polypropylene pumps have a maximum liquid temperature of 180°F (82°C) regardless of diaphragm material.

## Air Supply Pressure (All Models)

20–100 PSI (1.4–7 kfg/cm)

## Discharge Volume Per Cycle

Rubber diaphragm: 2.26 gallons (8.57 liters)

PTFE diaphragm: 1.0 gallons (3.8 liters)

## Maximum Cycles Per Minute

Rubber diaphragm: 95

PTFE diaphragm: 160

## Maximum Size Solid

13/32" (10 mm)

## Maximum Dry Suction Lift

Rubber-fitted pump capability: 19-feet

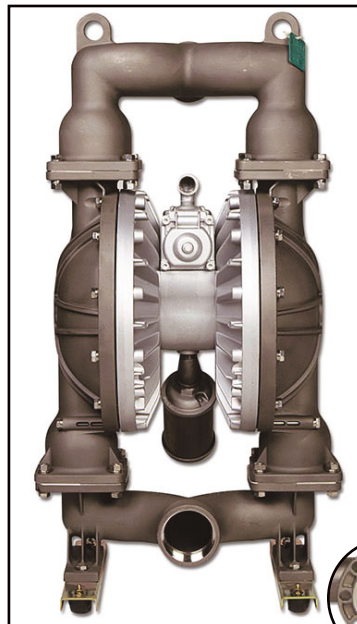
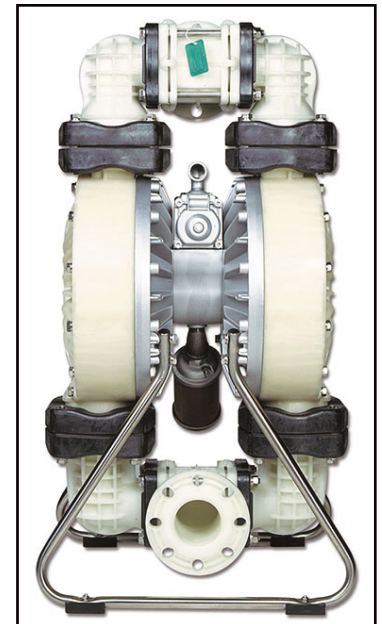
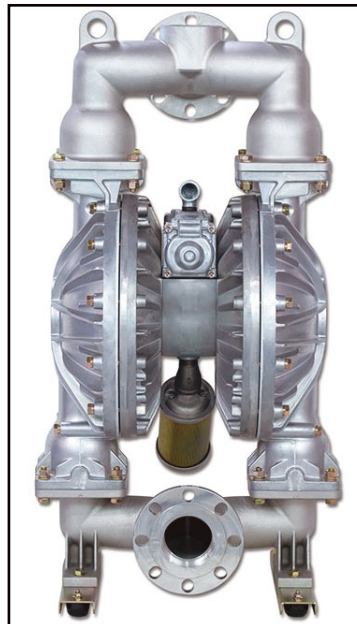
## Air Motor

Aluminum Air Motor–Standard

Optional coating: PTFE grey coated (XP)

Notes: Hytrell® fitted pumps include Buna-N wetted o-rings. Santoprene® fitted pumps include EPDM wetted o-rings.

AutoCAD® drawings are available on CDROM or at [yamadapump.com](http://yamadapump.com)



### Aluminum (top left)

**Dimensions:** 20.43" W × 40.75" H

**Net Wt.:** 151 lbs. (68.5 kg)

**Shipping Wt.:** 165 lbs.

### Polypropylene (top right)

**Dimensions:** 22.83" W × 41.10" H

**Net Wt.:** 162 lbs. (73.5 kg)

**Shipping Wt.:** 177 lbs.

### Cast Iron or Stainless Steel (left)

**Dimensions:** 20.54" W × 38.74" H

**Net Wt.:** Cast Iron – 271 lbs. (122.9 kg)

SS – 244 lbs. (110.7 kg)

**Shipping Wt.:** Cast Iron – 277 lbs.

SS – 263 lbs.

Note: ANSI Flange available for Stainless Steel

## Model Number Nomenclature

**Series:** NDP-80 Pump

**Material:** NDP-80 B x x

### Valve Type:

B = Ball

### Body Material:

P = Polypropylene  
A = Aluminum  
S = Stainless Steel  
F = Cast Iron

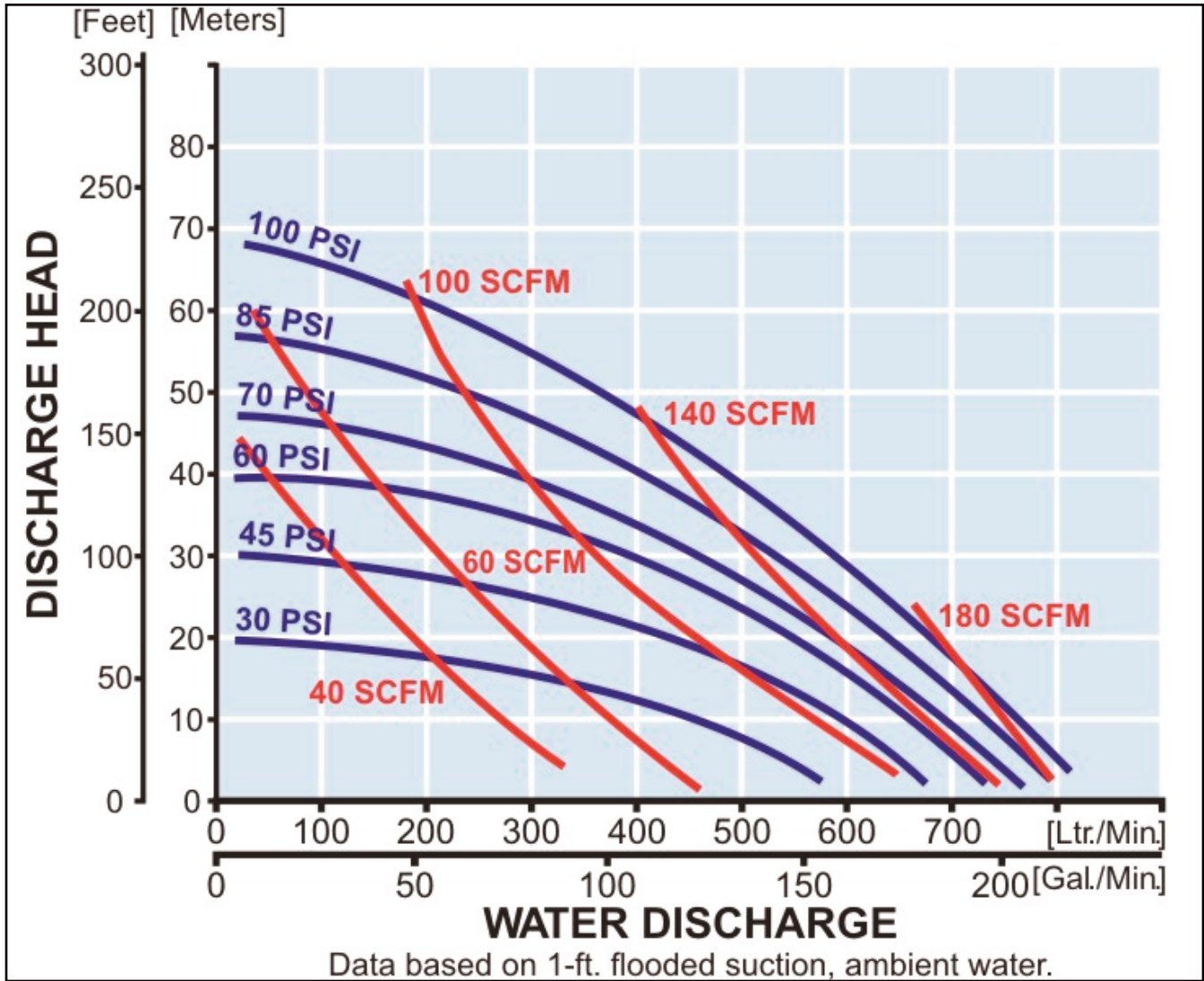
### Diaphragm Material:

C = Neoprene (CR)  
N = Buna N (NBR)  
E = Nordel™ (EPDM)  
S = Santoprene® (TPO)  
T = PTFE  
V = Viton® (FKM)  
H = Hytrell® (TPE)

Note: For NPT-fitted Stainless Steel, add "NPT" at end of model number nomenclature.

# NDP-80 Performance Curve – Rubber

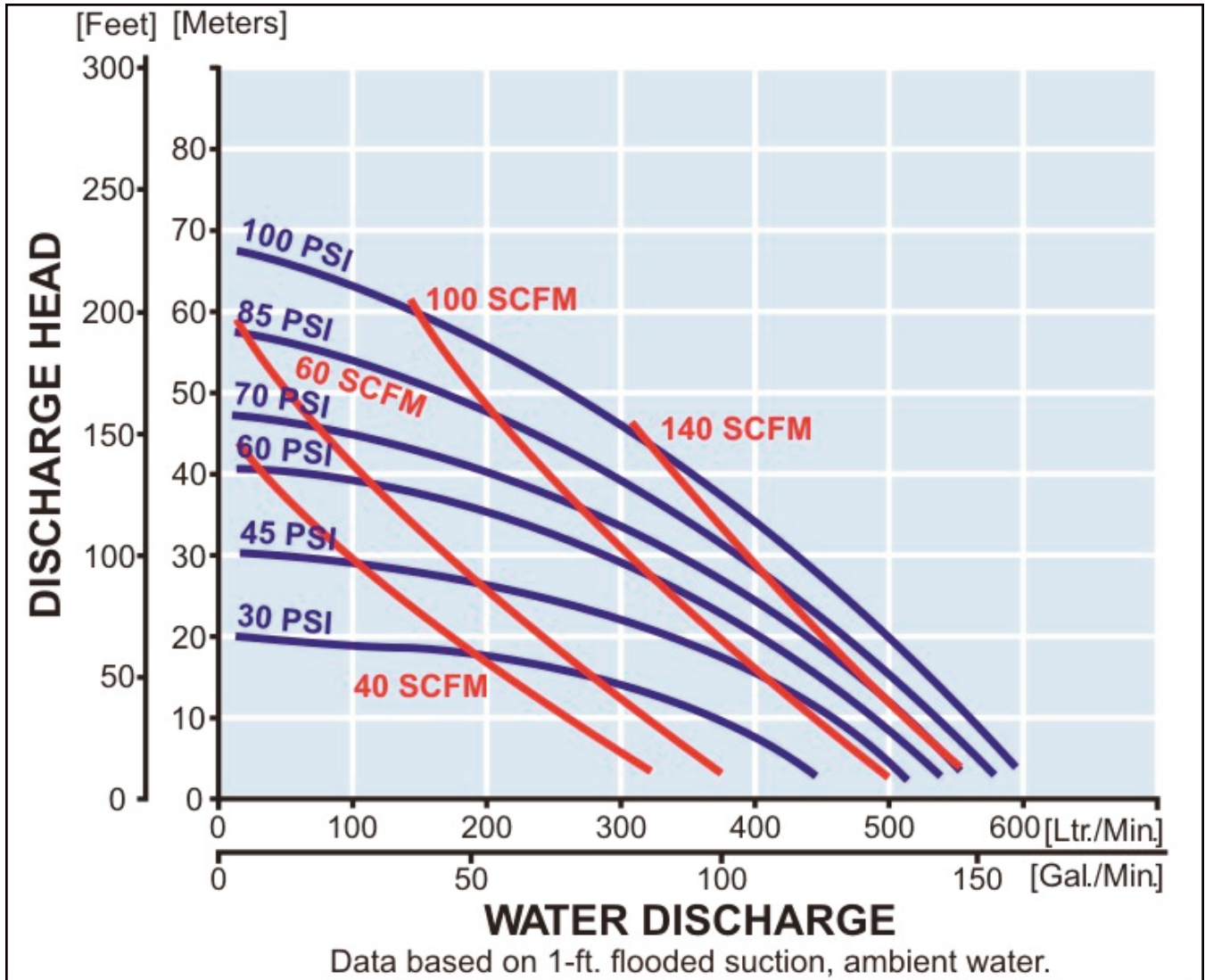
## Rubber Diaphragm Performance Curve



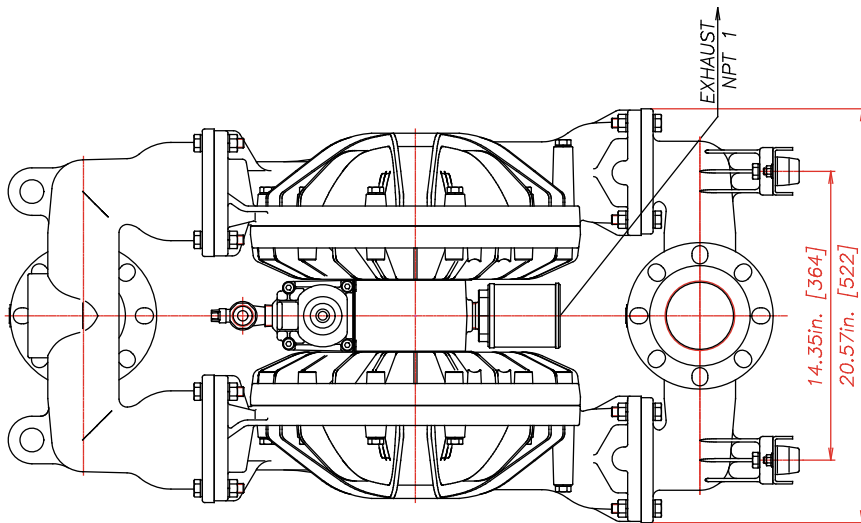
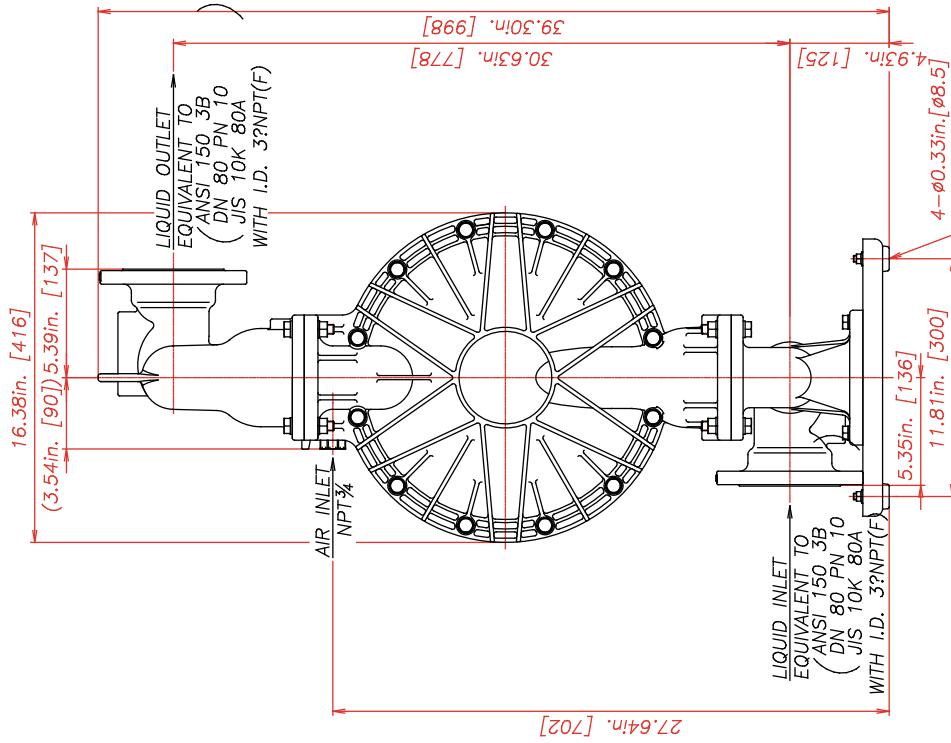
To calculate performance for Santoprene® and Hytrel®-fitted pumps, use Rubber Diaphragm Curve.

# NDP-80 Performance Curve – PTFE

## PTFE Diaphragm Performance Curve



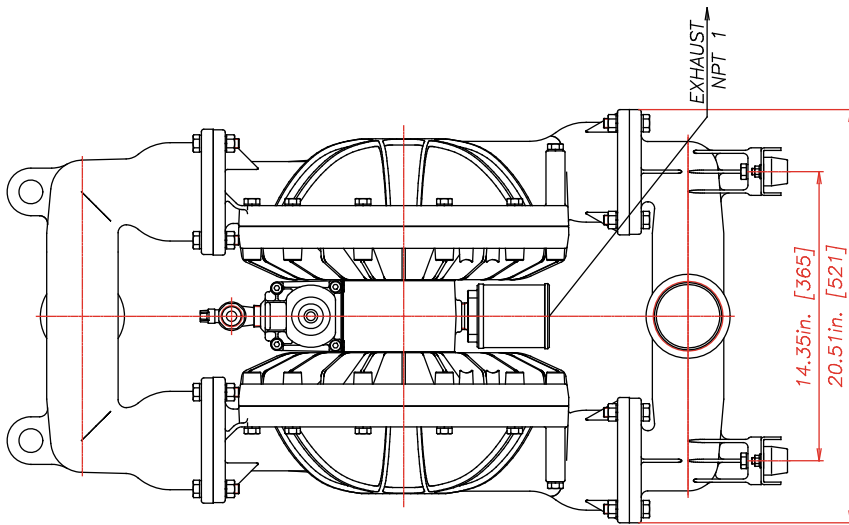
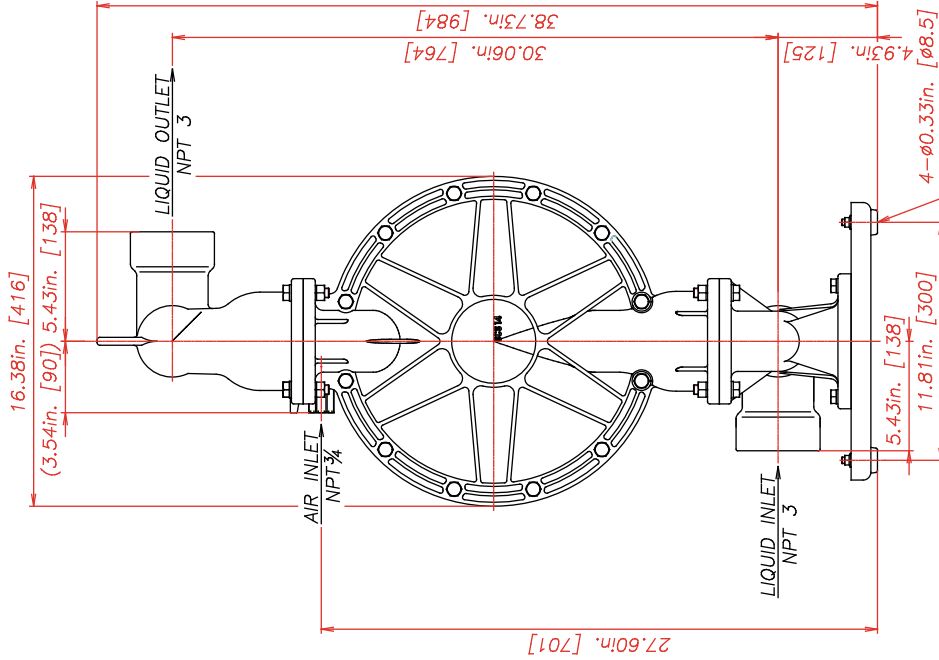
To calculate performance for Santoprene® and Hytrel®-fitted pumps, use Rubber Diaphragm Curve.



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THIRD ANG. PROJ.	DRAWING NUMBER: <b>NDP-80BA</b>		REV 1

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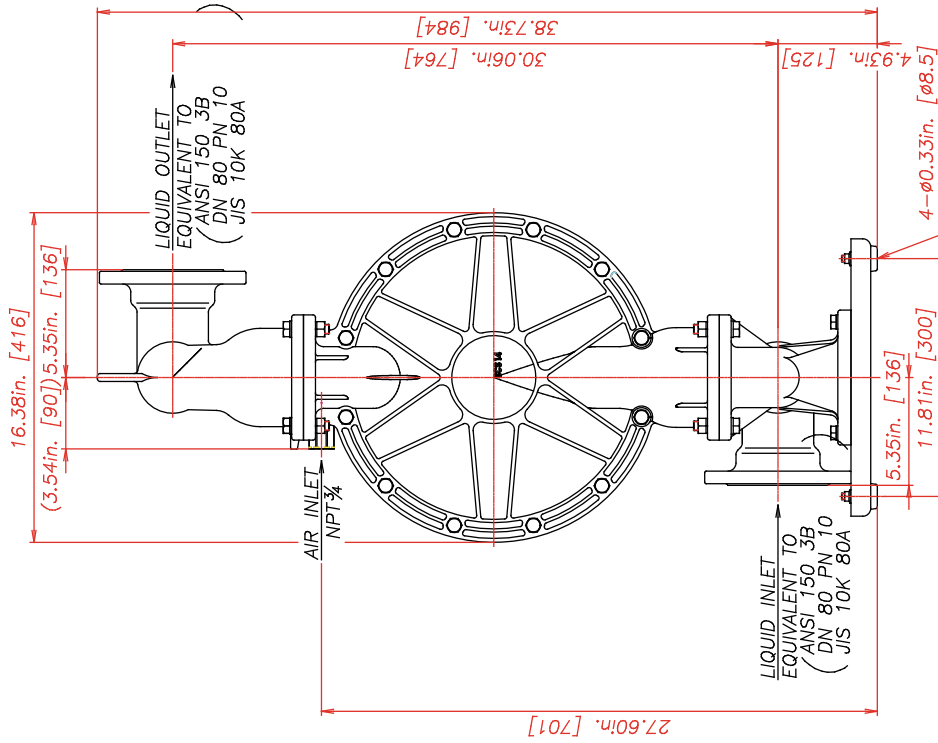
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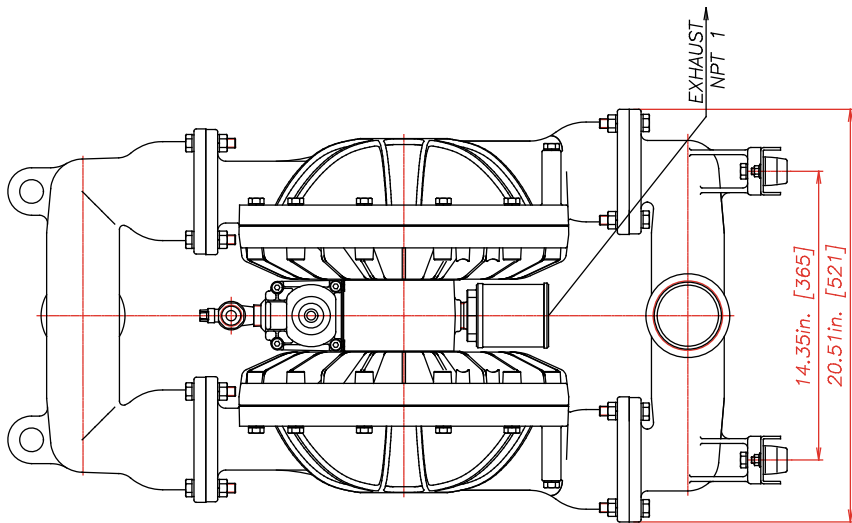
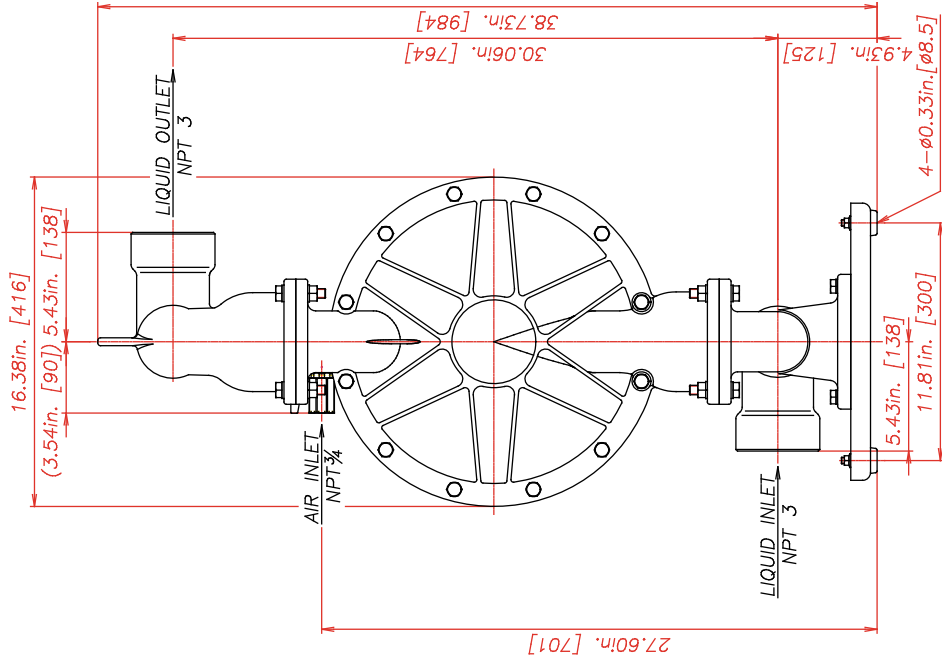
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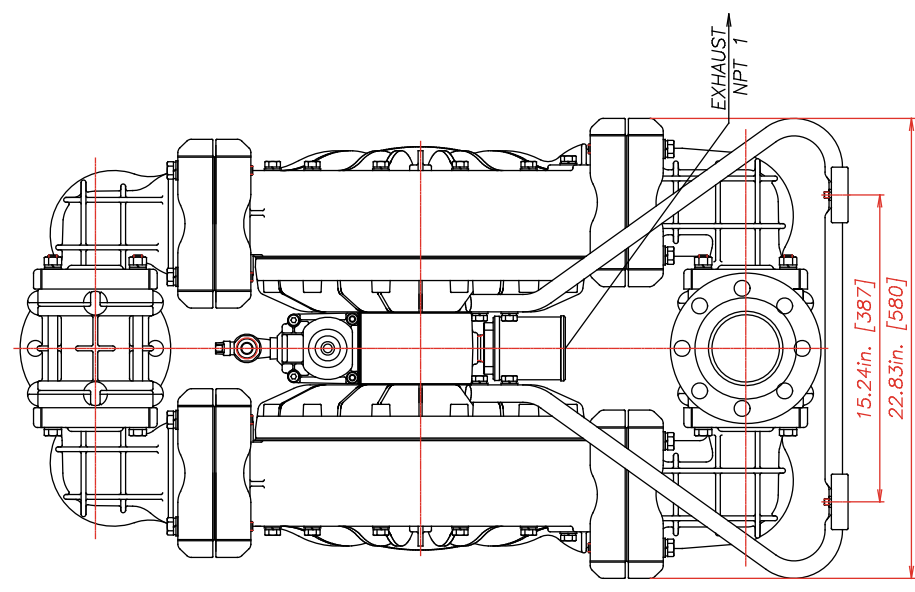
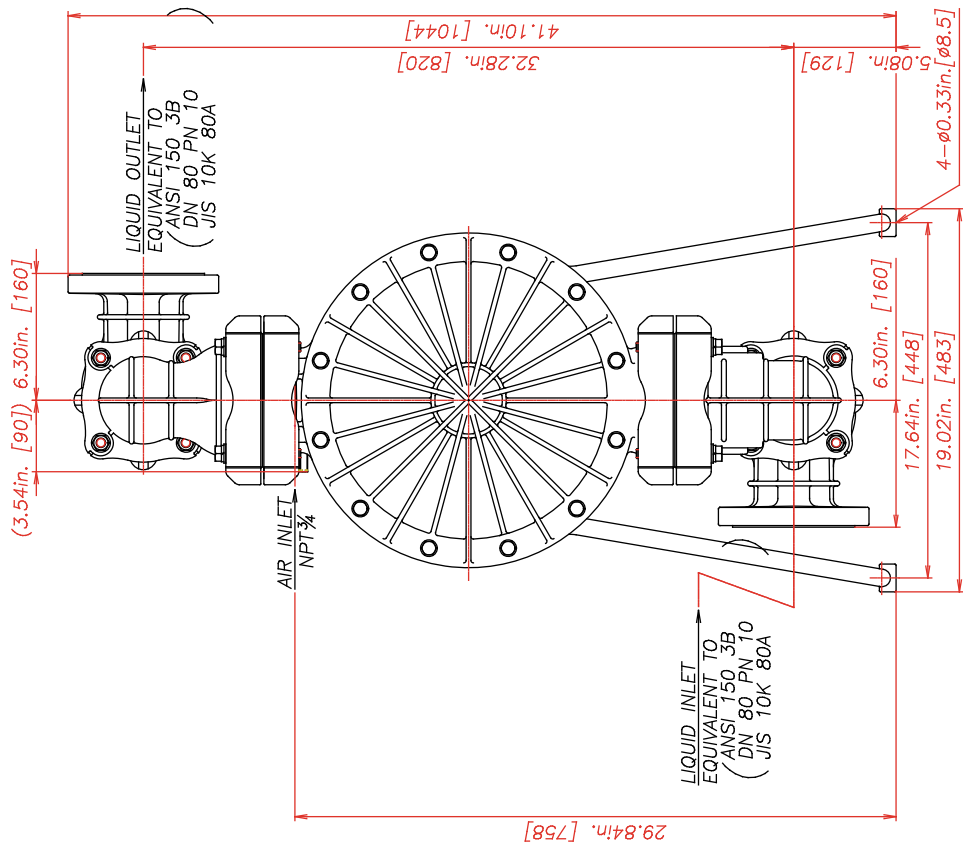
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