

# 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
Neoprene	180°F (82°C)
Buna N	180°F (82°C)
EPDM	212°F (100°C)
Hytre <sup>®</sup> (TPC-ET)	248°F (120°C)
Santoprene <sup>®</sup> (TPE)	212°F (100°C)
Viton <sup>®</sup> fluoroelastomer	248°F (120°C)
Teflon <sup>®</sup> (PTFE)	212°F (100°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

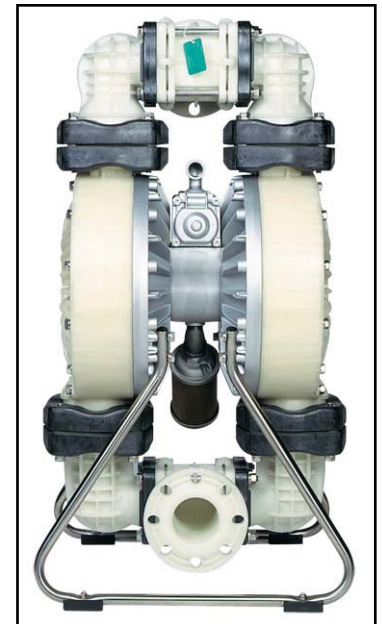
Rubber-fitted pump capability: 19-feet

## Aluminum Air Motor – Standard

Optional: Epoxy-coated, Teflon<sup>®</sup>-coated, or Electroless Nickel Plate

Notes: Hytre<sup>®</sup>-fitted pumps include Buna N check balls & wetted o-rings. Santoprene<sup>®</sup>-fitted pumps include EPDM check balls & wetted o-rings.

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



**Aluminum (top left)**  
**Dimensions:** 20.43" W x 40.75" H  
**Net Wt.:** 151 lbs. (68.5 kg)  
**Shipping Wt.:** 165 lbs.

**Polypropylene (top right)**  
**Dimensions:** 22.83" W x 41.10" H  
**Net Wt.:** 162 lbs. (73.5 kg)  
**Shipping Wt.:** 177 lbs.

**Cast Iron or Stainless Steel (left)**  
**Dimensions:** 20.54" W x 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 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<sup>®</sup> (TPO)  
T = Teflon<sup>®</sup> (PTFE)  
V = Viton<sup>®</sup> (FKM)  
H = Hytre<sup>®</sup> (TPE)

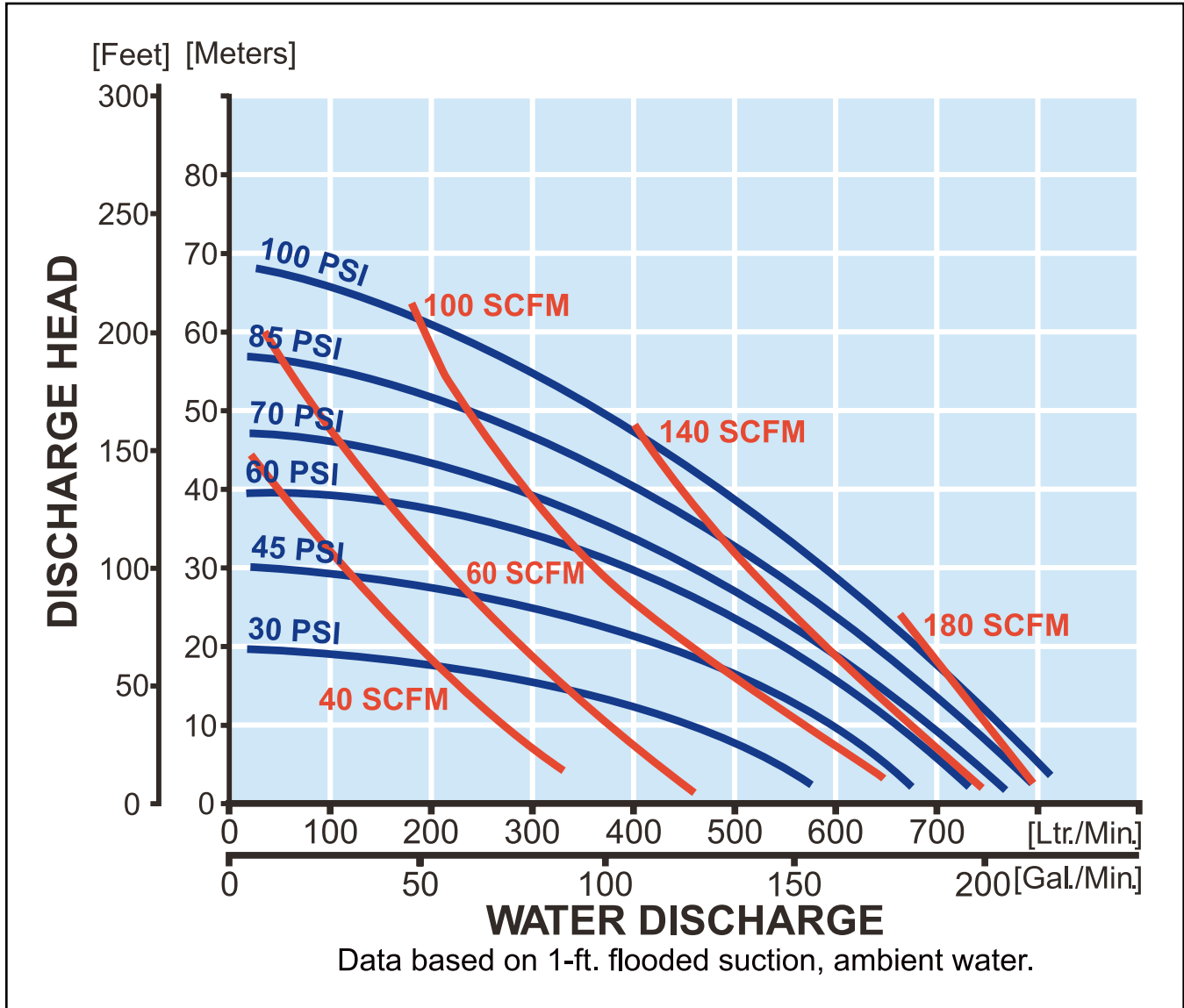
Note: For NPT-fitted Stainless Steel, add "NPT" at end of model number nomenclature.



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# NDP-80 Performance Curve — Rubber

## Rubber Diaphragm Performance Curve



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



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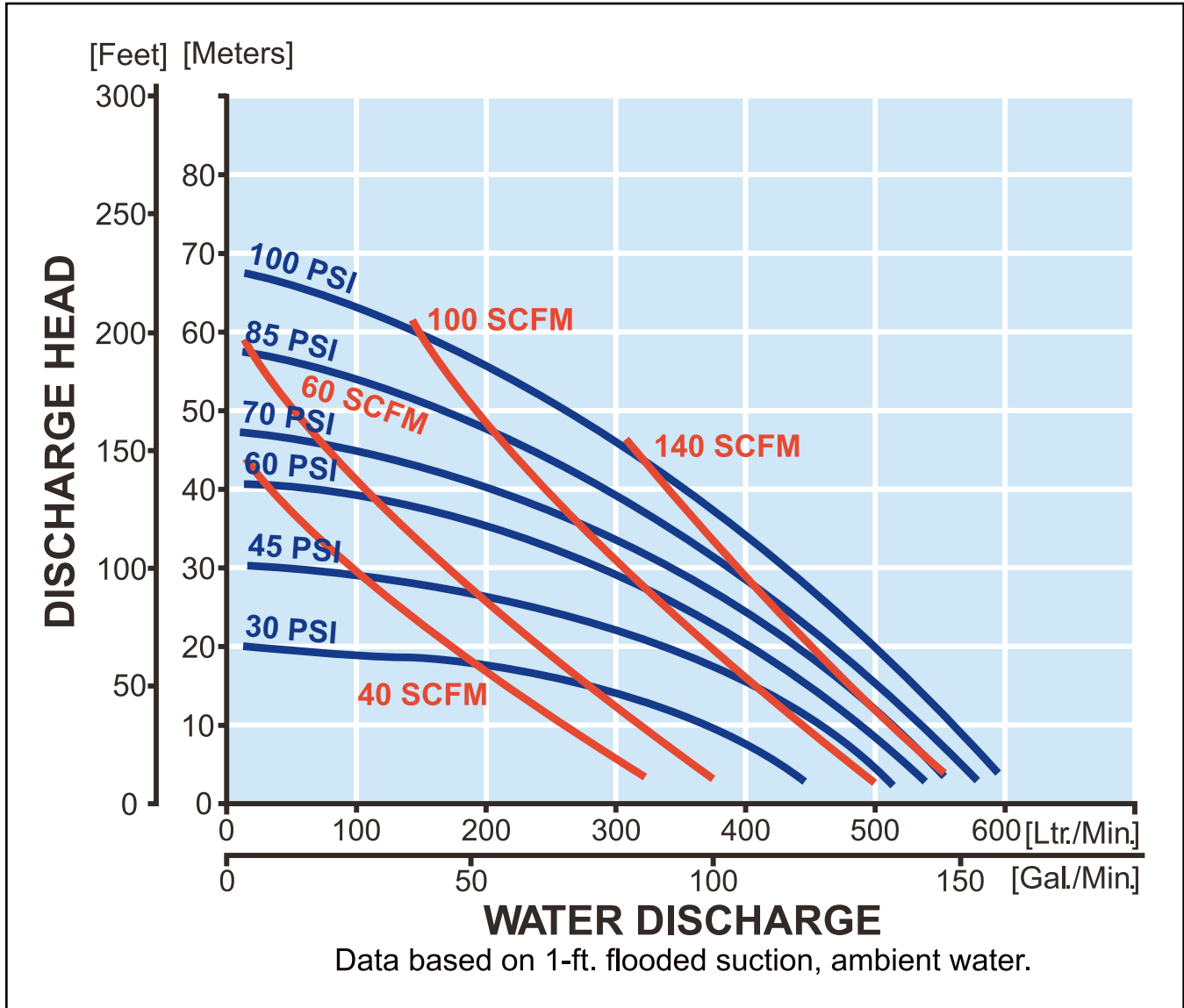
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# NDP-80 Performance Curve — PTFE

## PTFE Diaphragm Performance Curve



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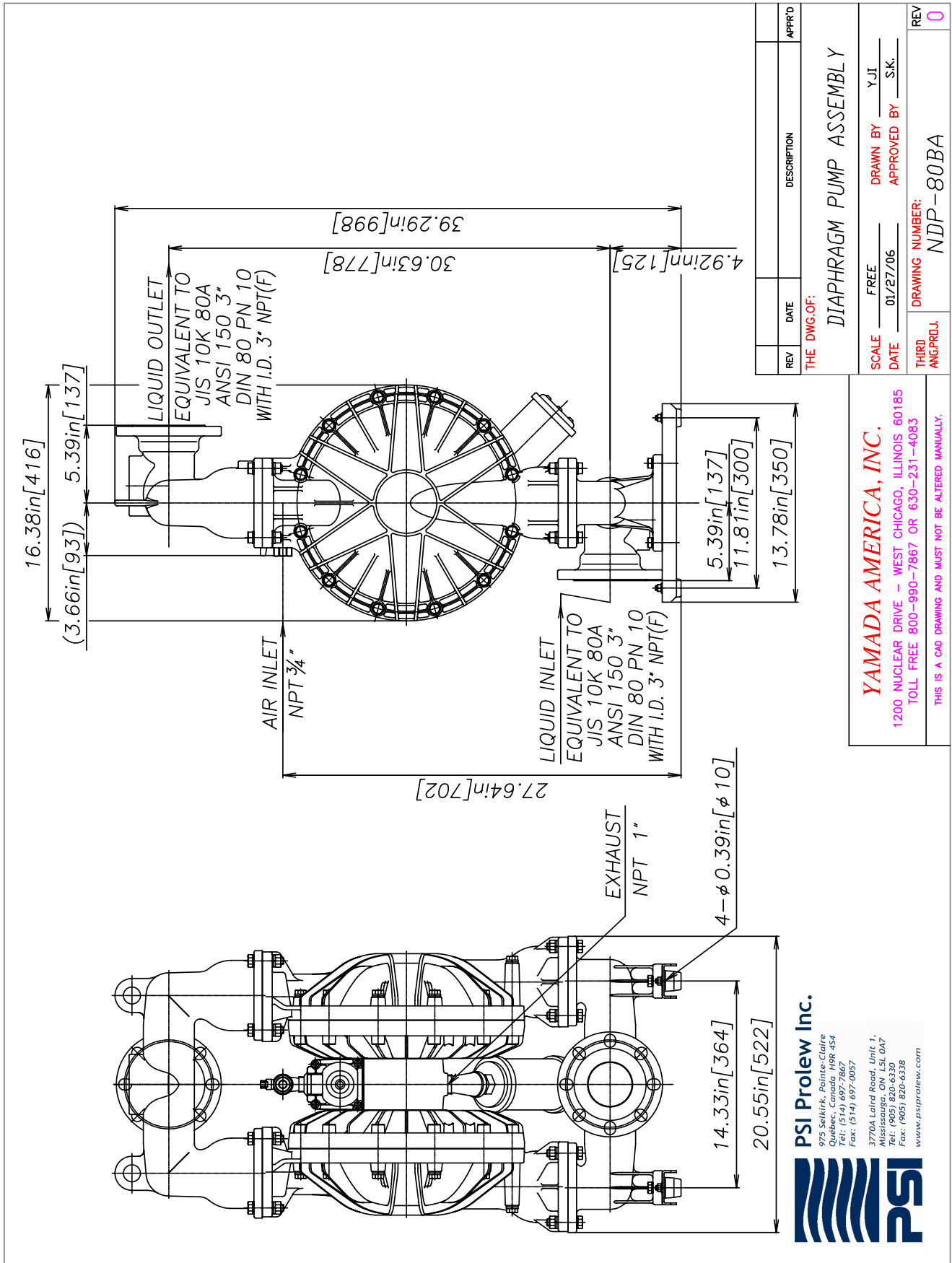
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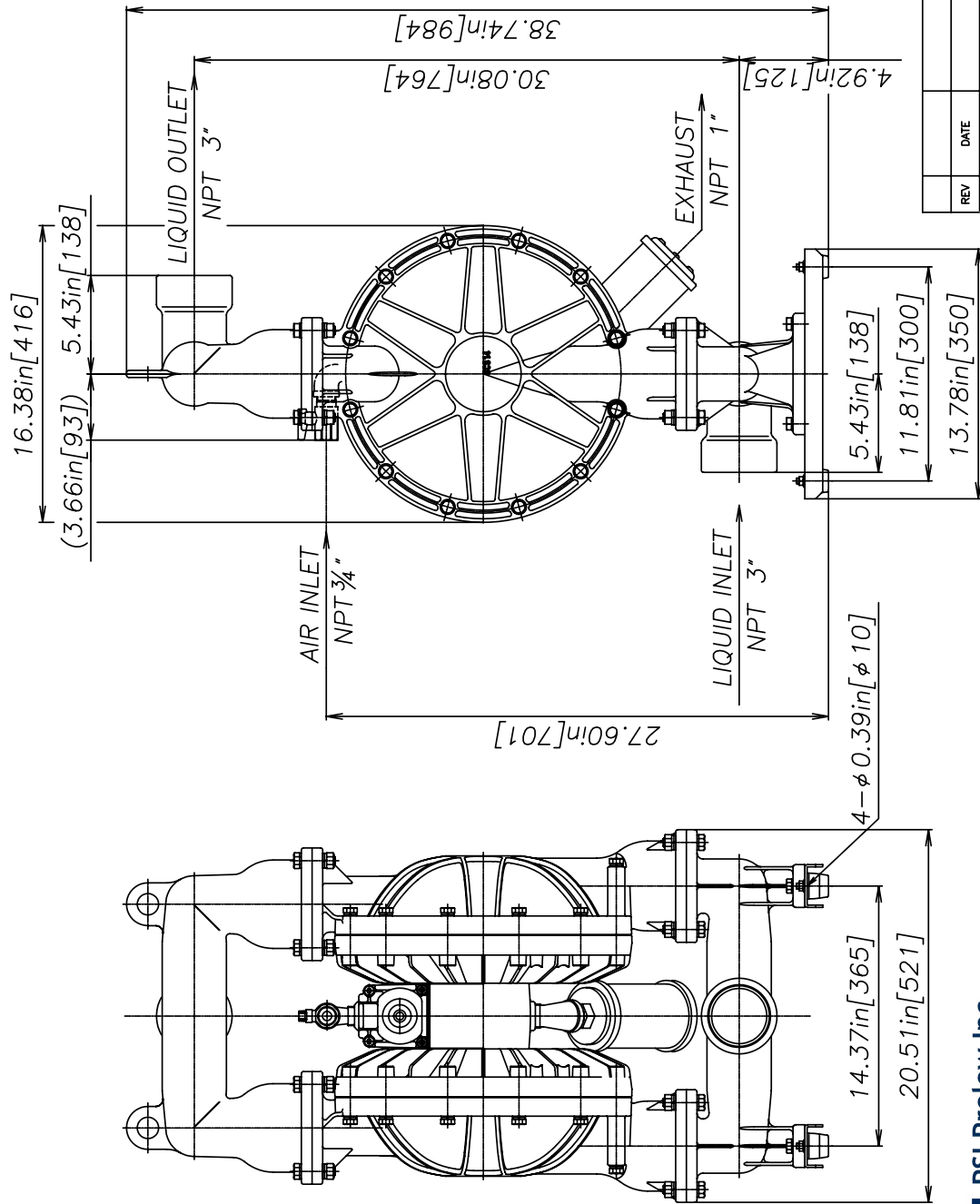
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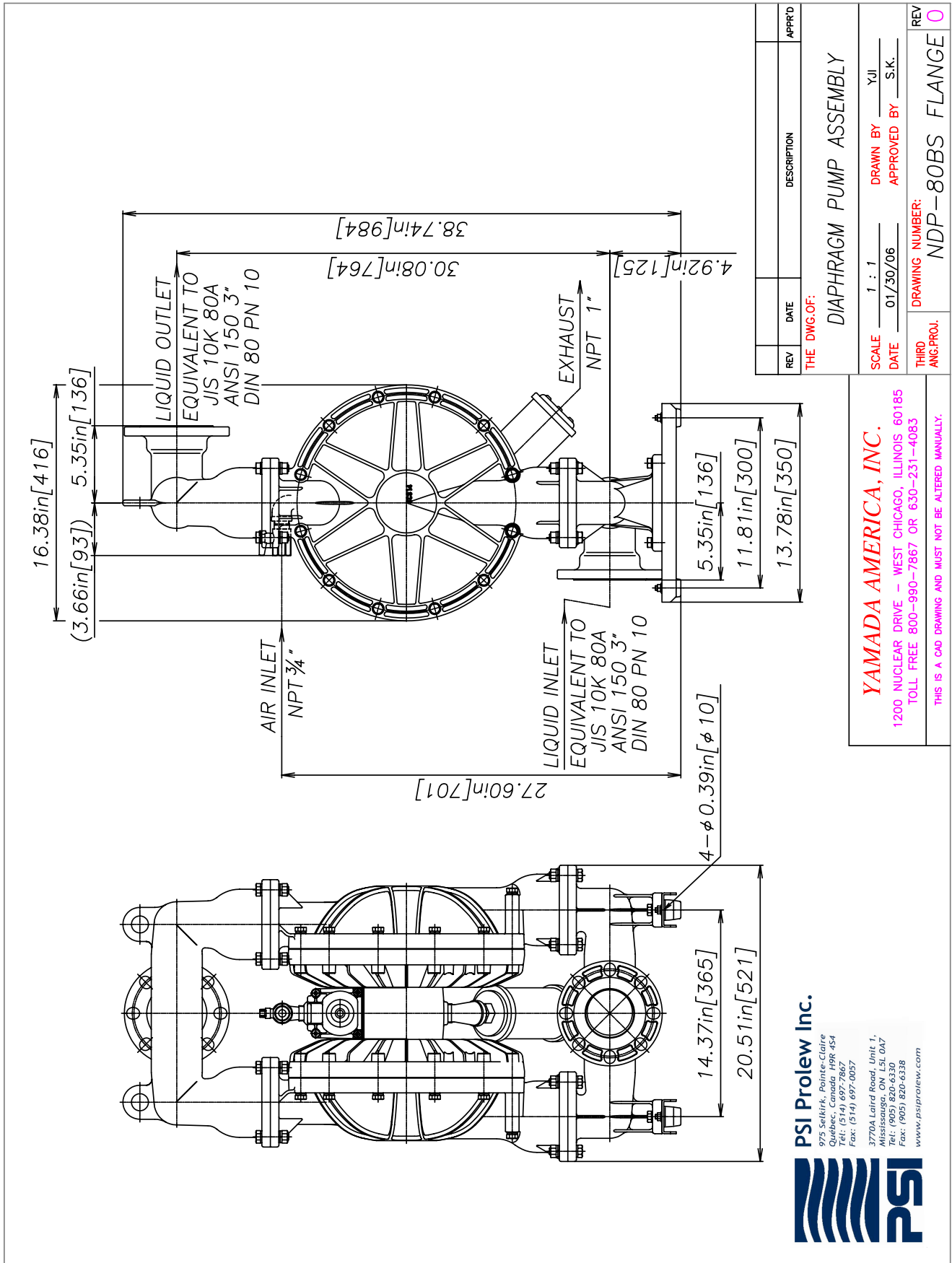


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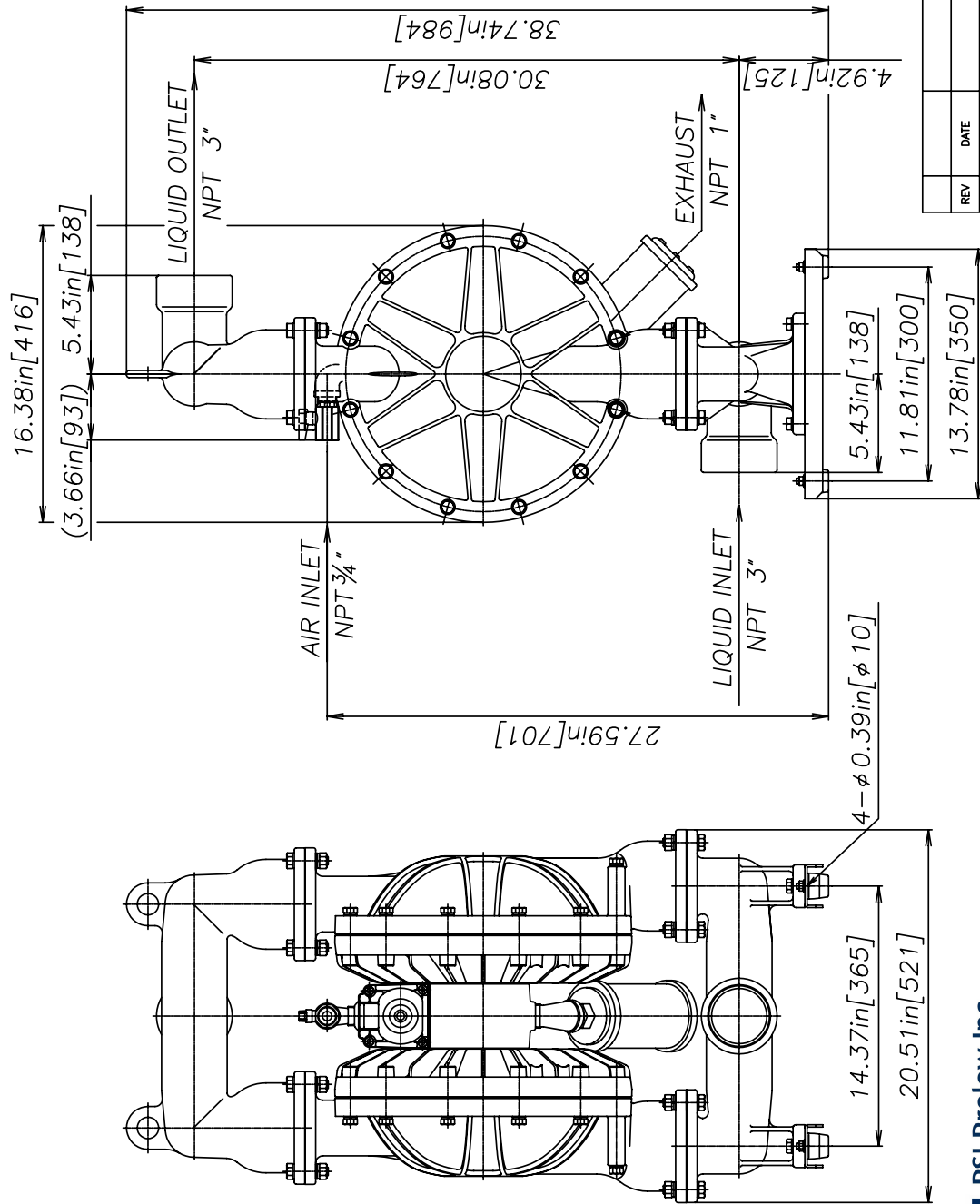
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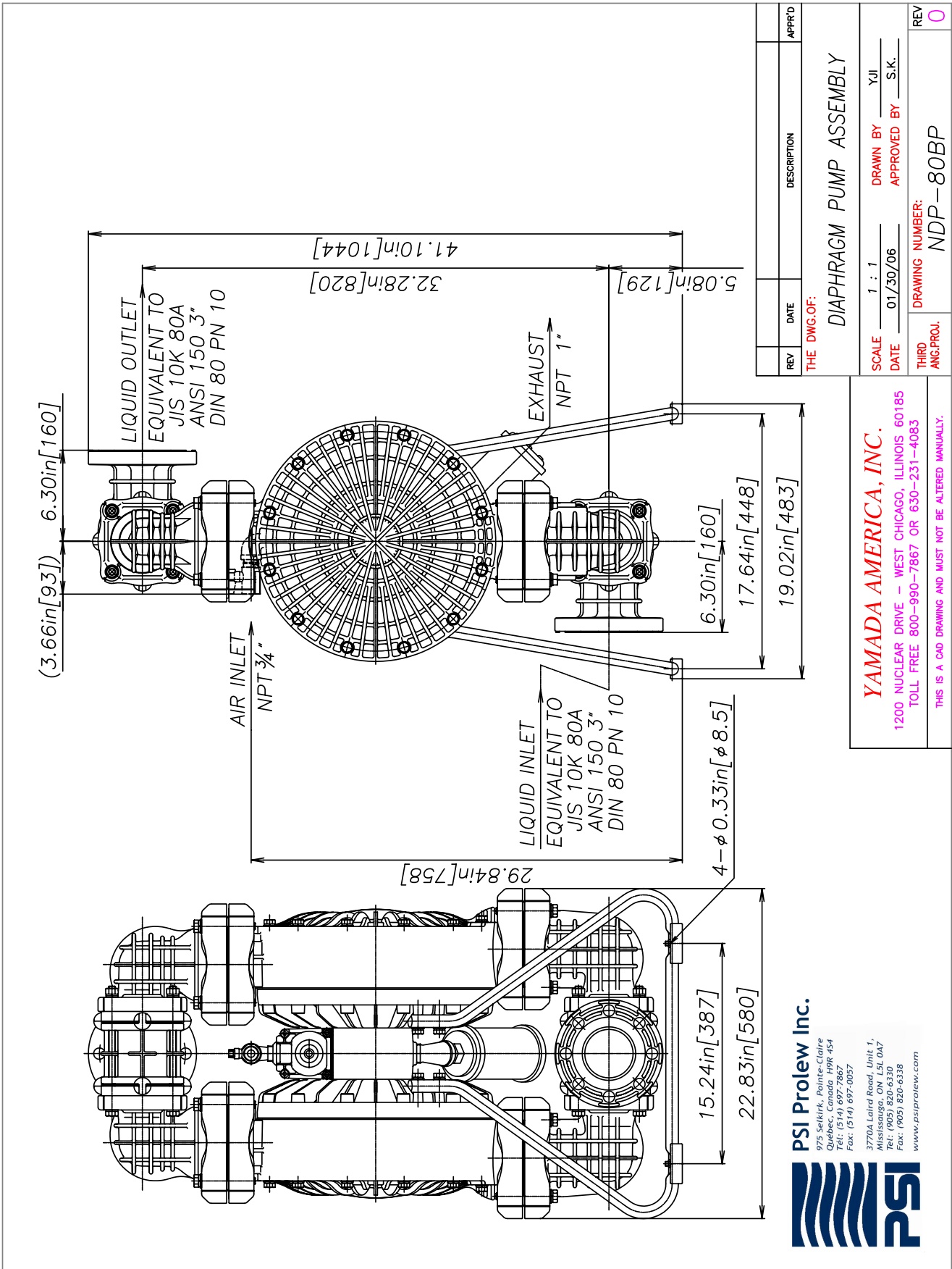
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