

# NDP-50 Specifications

## Port Dimensions (164 GPM Max.)

Intake & discharge connection:

Polypropylene (PPG)	2" ANSI B16.5 #150
Kynar® (PVDF)	2" ANSI B16.5 #150
Aluminum (ADC-12)	2" ANSI B16.5 #150 (with tapped 2" Female NPT)
Stainless Steel (316)	2" ANSI B16.5 #150 or 2" Female NPT
Cast Iron	2" 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)
Hytrell® (TPC-ET)	248°F (120°C)
Santoprene® (TPE)	212°F (100°C)
Viton® fluoroelastomer	248°F (120°C)
Teflon® (PTFE)	212°F (100°C)

\* The maximum liquid temperature for metal and Kynar®-fitted 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: 1.12 gallons (4.25 liters)

PTFE diaphragm: 0.69 gallons (2.61 liters)

## Maximum Cycles Per Minute

Rubber diaphragm: 146

PTFE diaphragm: 220

## Maximum Size Solid

5/16" (8 mm)

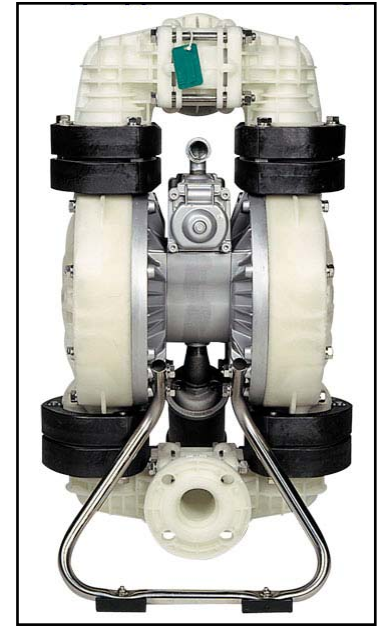
## Maximum Dry Suction Lift

Rubber-fitted pump capability: 19-feet

## Aluminum Air Motor—Standard

Optional: Epoxy-coated, Teflon®-coated, or Electroless Nickel Plate

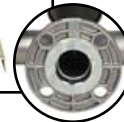
All Polypropylene, Aluminum, Cast Iron, and Stainless Steel Hytrell® fitted pumps include Buna N check balls & o-rings and Santoprene® fitted pumps include EPDM check balls & wetted o-rings. Kynar® (PVDF) pumps fitted with Santoprene®, Hytrell®, or Teflon® include Teflon® check balls & o-rings. Kynar®/EPDM fitted pumps include EPDM check balls & o-rings and Viton® fitted include Viton® balls & o-rings.



**Aluminum (top left)**  
**Dimensions:** 17.68" W x 30.67" H  
**Net Wt.:** 88 lbs. (39.9 kg)  
**Shipping Wt.:** 99 lbs.

**Polypropylene or Kynar® (top right)**  
**Dimensions:** 18.63" W x 32.32" H  
**Net Wt.:** 84 lbs. (38.1 kg)  
**Shipping Wt.:** 108 lbs.

**Cast Iron or Stainless Steel (left)**  
**Dimensions:** 17.72" W x 30.55" H  
**Net Wt.:** Cast Iron—159 lbs. (72.1 kg)  
 SS—162 lbs. (73.5 kg)  
**Shipping Wt.:** Cast Iron—168 lbs.  
 SS—173 lbs.



Note: ANSI Flange available for Cast Iron and Stainless Steel

## Model Number Nomenclature

**Series:** NDP-50 B x x

**Valve Type:** B = Ball

**Body Material:**  
 P = Polypropylene  
 V = Kynar® (PVDF)  
 A = Aluminum  
 S = Stainless Steel  
 F = Cast Iron

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

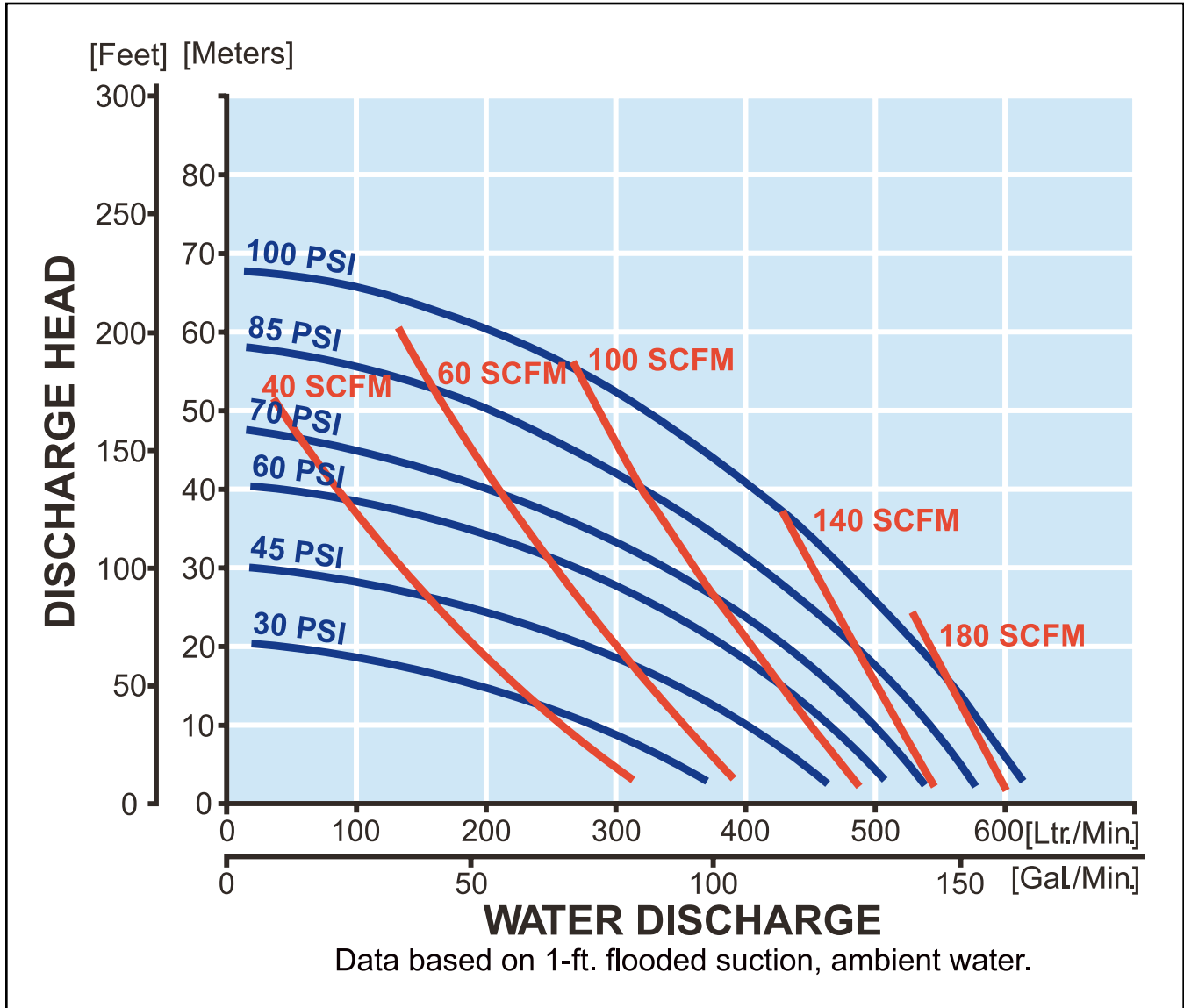
Note: For NPT-fitted Stainless Steel, add "NPT" at end of model number nomenclature.



**Yamada America, Inc.** 955 E. Algonquin Road, Arlington Heights, IL 60005  
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# NDP-50 Performance Curve — Rubber

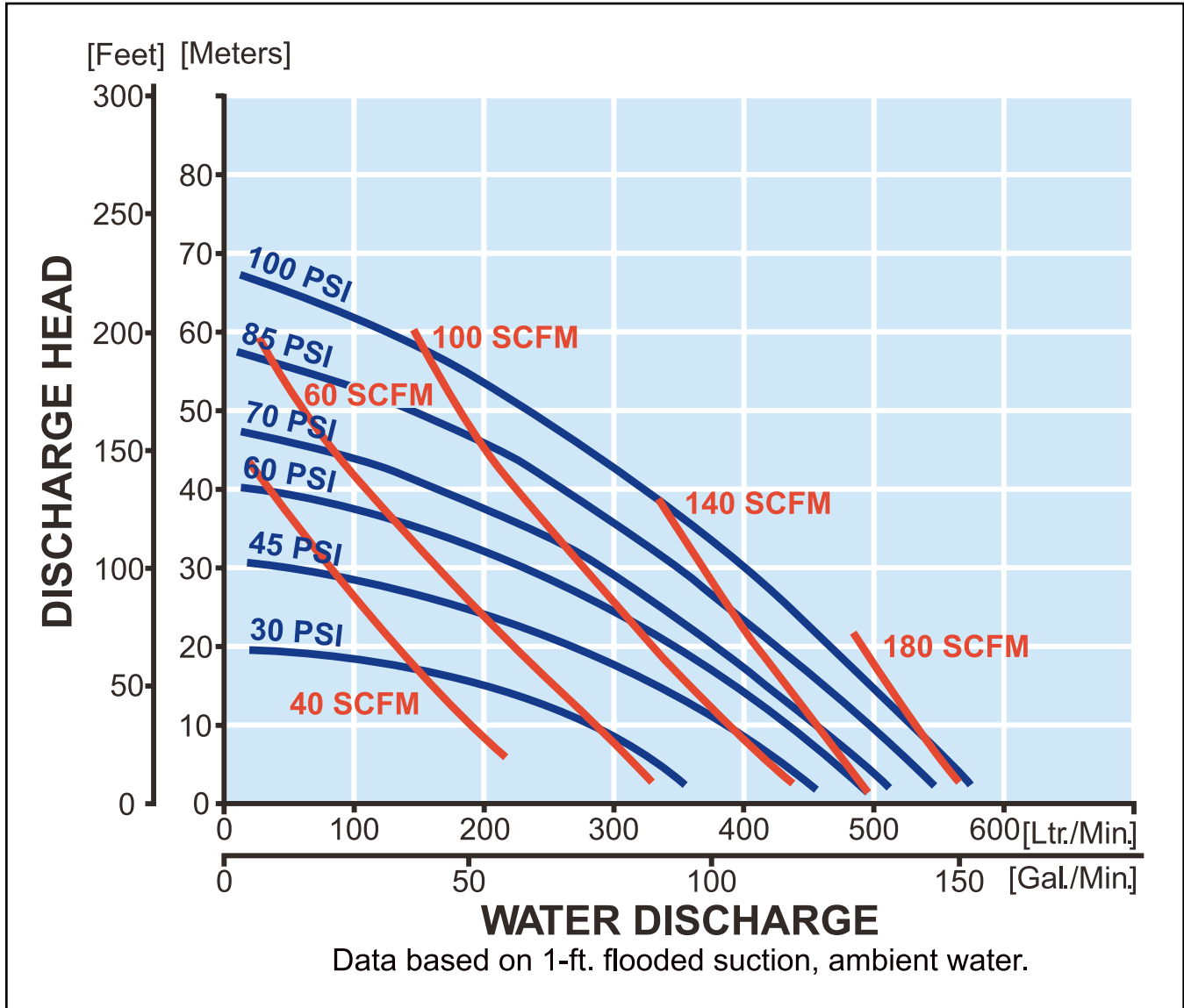
## Rubber Diaphragm Performance Curve



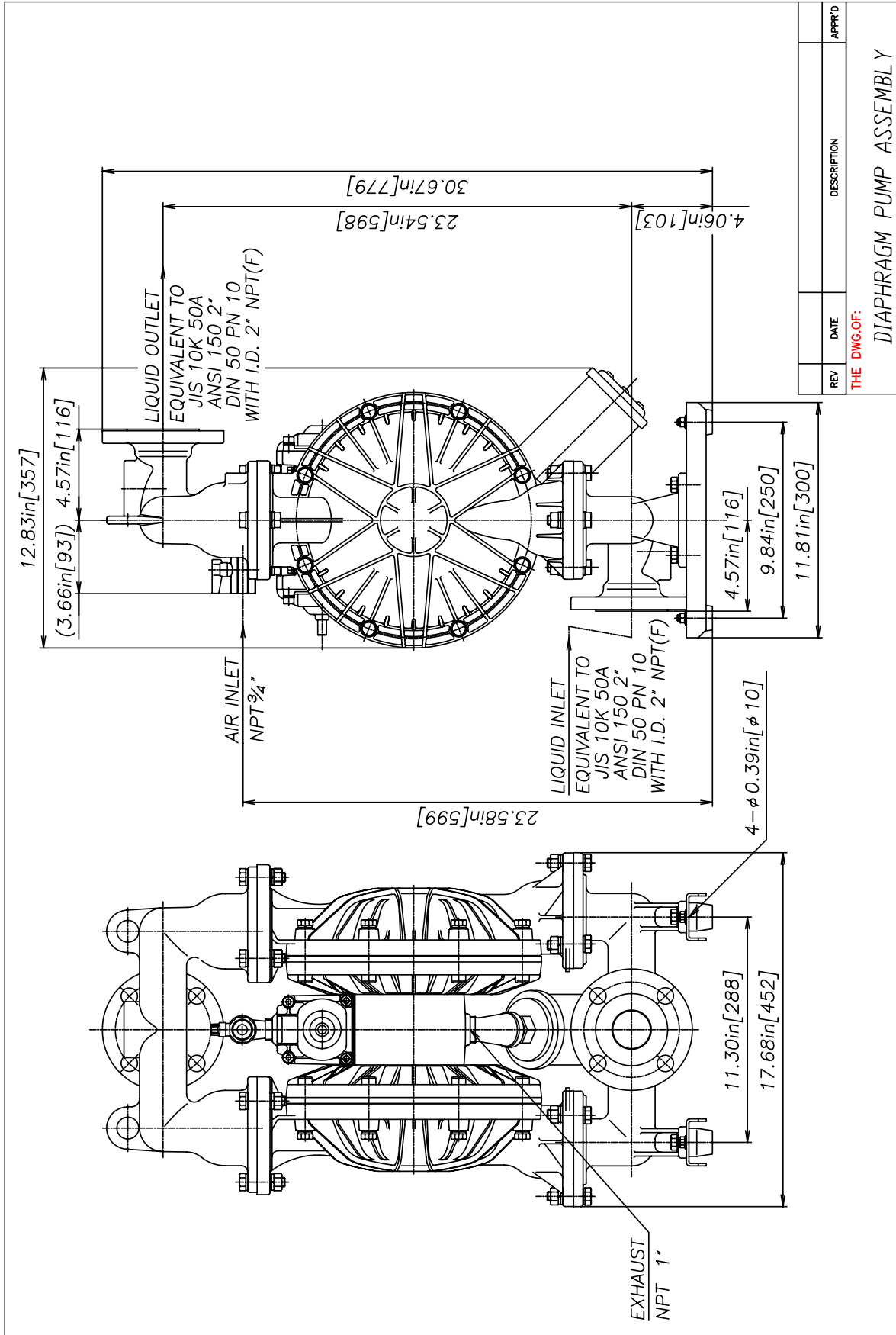
To calculate performance for Santoprene® and Hytrel®-fitted pumps, use Rubber Diaphragm Curve.

# NDP-50 Performance Curve — PTFE

## PTFE Diaphragm Performance Curve



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

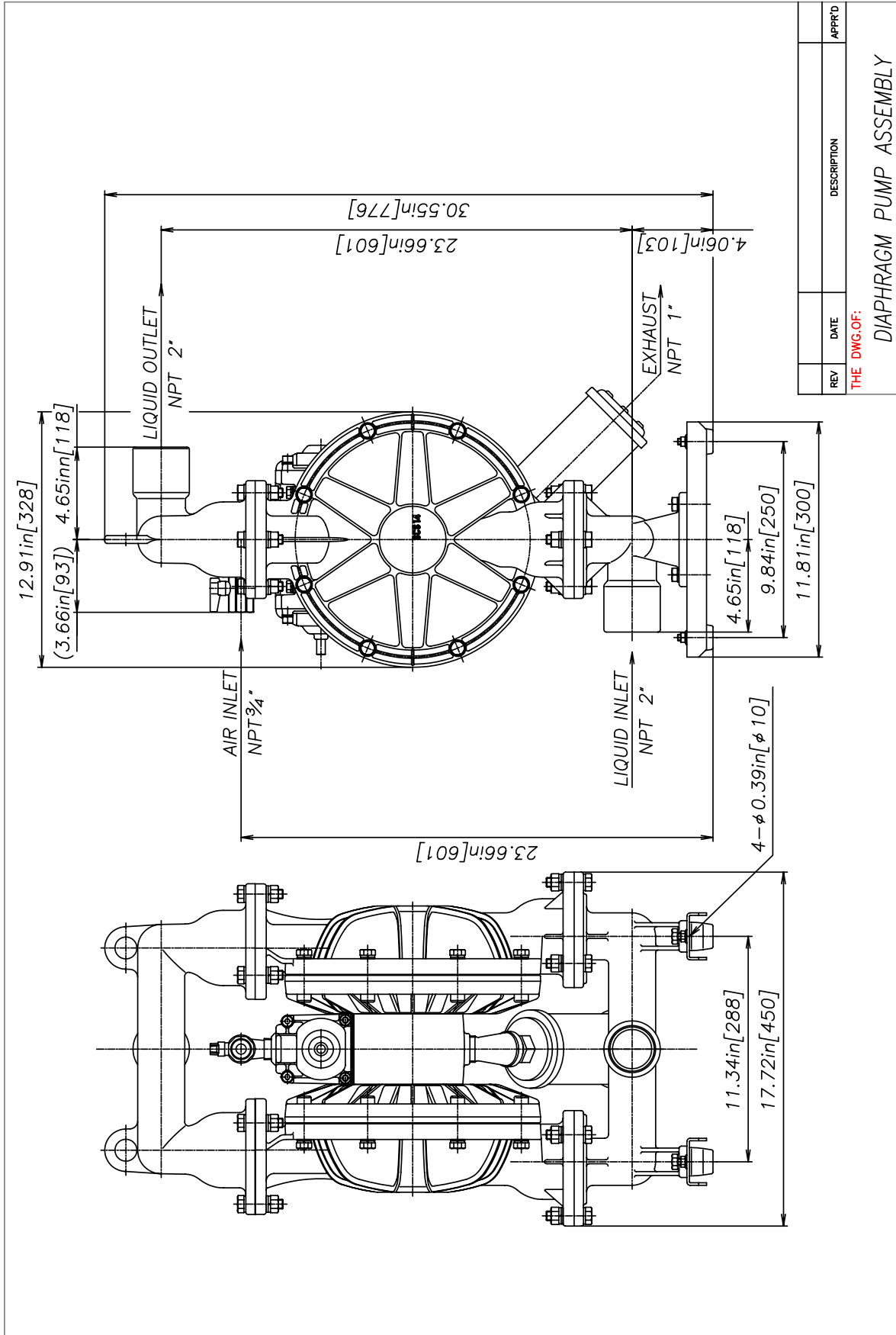


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THE DWG.OF:			
<b>DIAPHRAGM PUMP ASSEMBLY</b>			

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DATE	01/27/06	APPROVED BY	S.K.
THIRD ANG.PROJ.	DRAWING NUMBER:	NDP-50BA	
REV	0		

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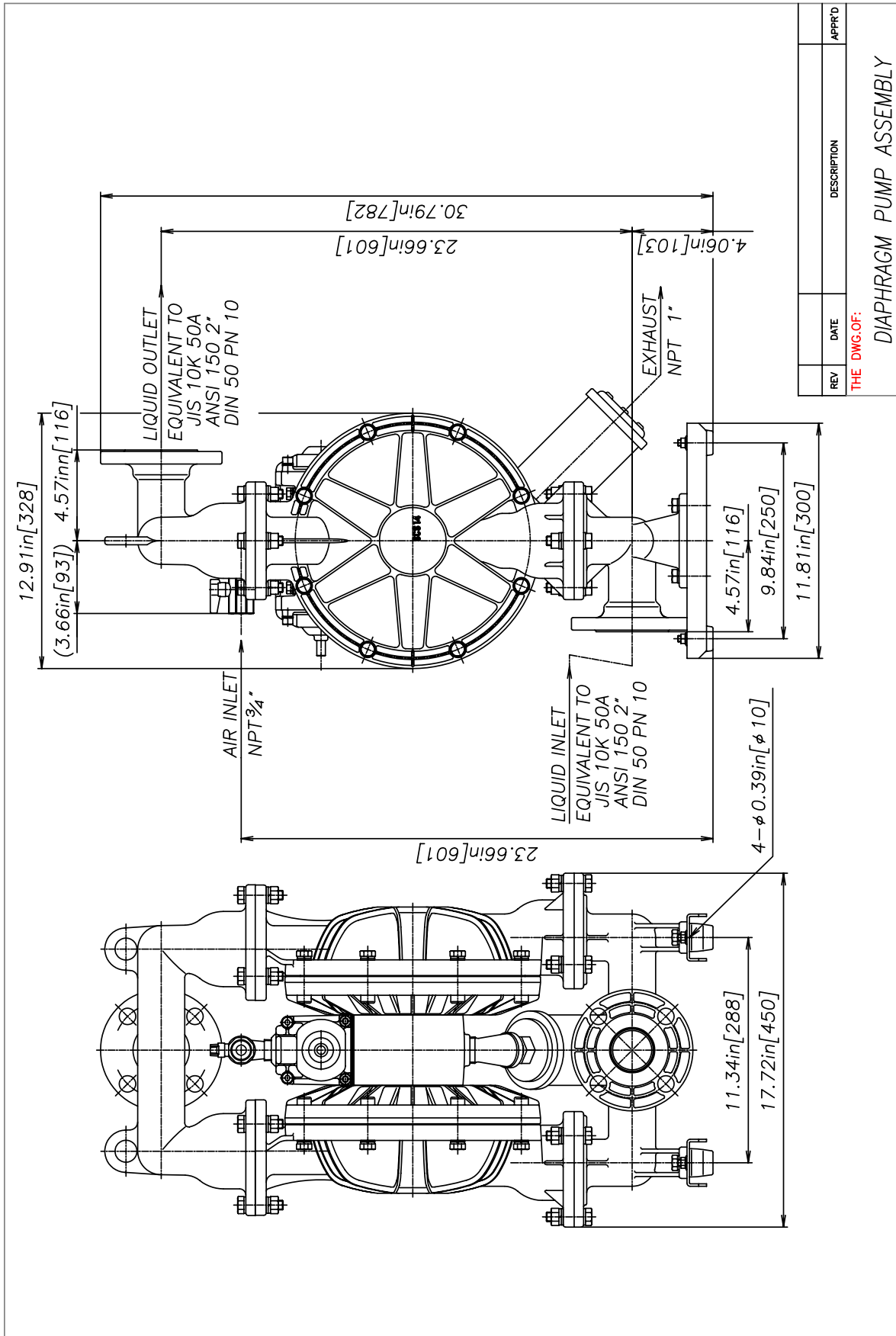




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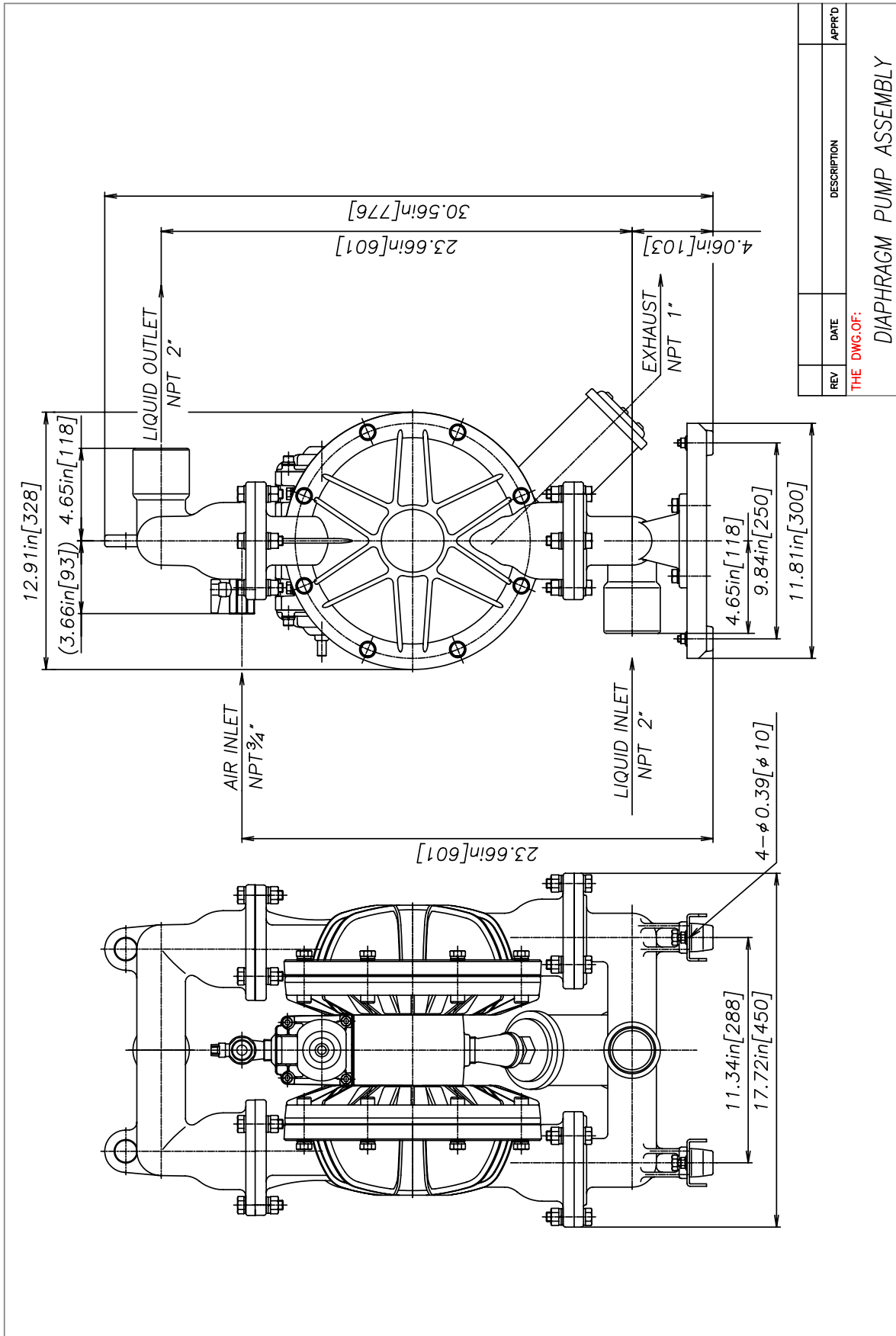
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REV			0

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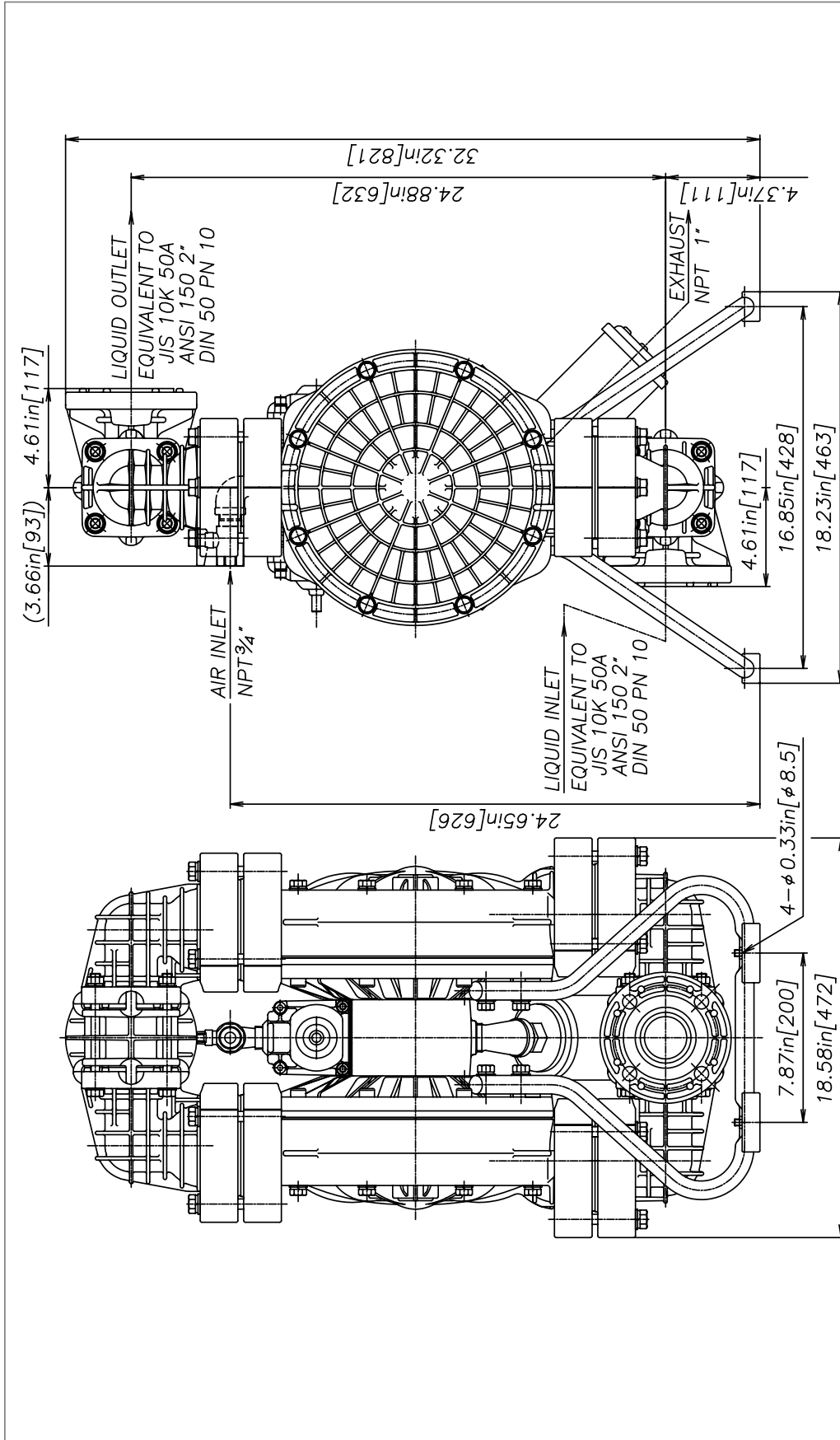


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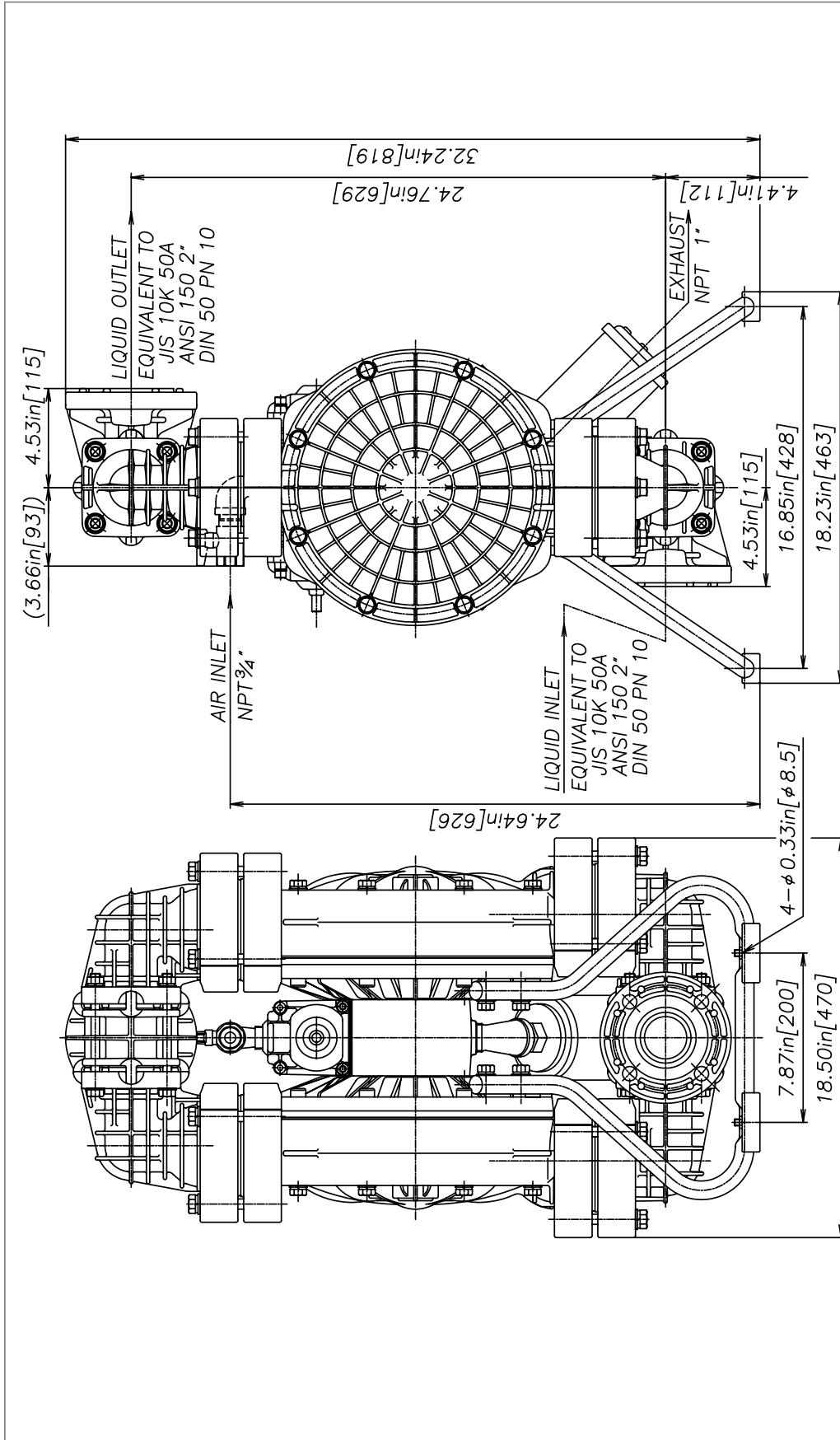


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ANG.PROJ.			

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