

# NDP-20 Specifications

## Port Dimensions (31.7 GPM Max.)

Intake & discharge connection:

Polypropylene (PPG)	3/4" Female NPT
Aluminum (ADC-12)	3/4" Female NPT
Stainless Steel (316)	3/4" Female NPT
Air inlet (incl. ball valve):	1/4" Female NPT
Air exhaust (incl. silencer):	3/4" Female NPT

**ANSI Flange** also available — consult Yamada.

## 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)
Hytrel® (TPEE)	248°F (120°C)
Viton® fluoroelastomer	248°F (120°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 kgf/cm)

## Discharge Volume Per Cycle

Rubber diaphragm: 0.163 gallons (615 cc)  
PTFE diaphragm: 0.143 gallons (539 cc)

## Maximum Cycles Per Minute

Rubber diaphragm: 195  
PTFE diaphragm: 195

## Maximum Size Solid

1/16" (2.0 mm)

## Maximum Dry Suction Lift

Rubber-fitted pump capability: 18-feet

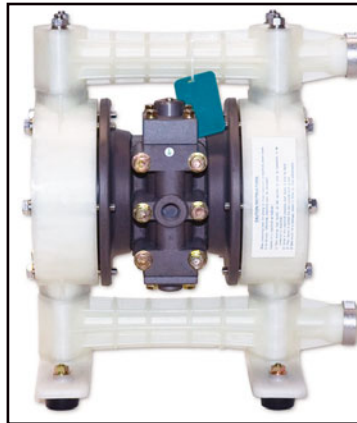
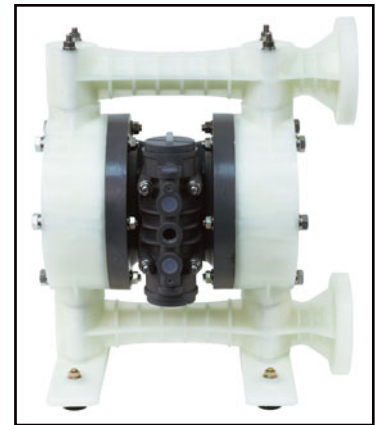
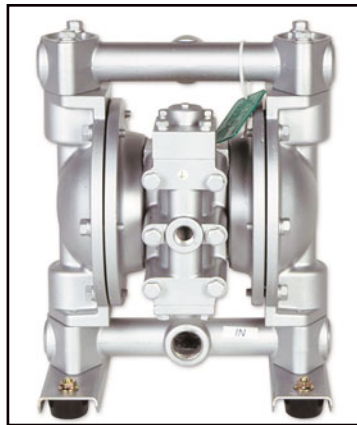
## Air Motors

Aluminum air motor is standard on metal pumps. Polypropylene air motor is standard on polypropylene and Kynar® pumps.

**Optional air motors:** Polypropylene air motor for metal pumps; PTFE grey coating (XP) for aluminum motors.

**Optional Split Manifold**—contact Yamada

Notes: Hytrel® fitted pumps include Buna N check balls & wetted o-rings. Santoprene® fitted pumps include Santoprene® check balls & EPDM wetted o-rings.



## Aluminum (NPT)

**Dimensions:** 9.80" W × 12.60" H

**Net Wt.:** 19.8 lbs. (9.0 kg)

**Shipping Wt.:** 23 lbs.

## Polypropylene

**ANSI Flange Dimensions:**

12.44" W × 14.75" H

**NPT Dimensions:**

12.44" W × 14.50" H

**Net Wt.:** 17.6 lbs. (8.2 kg)

**Shipping Wt.:** 22.6 lbs.

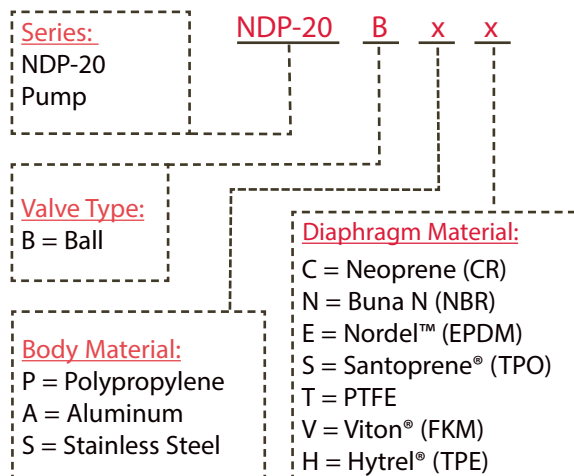
## Stainless Steel (NPT)

**Dimensions:** 9.80" W × 12.60" H

**Net Wt.:** 30.8 lbs. (13.9 kg)

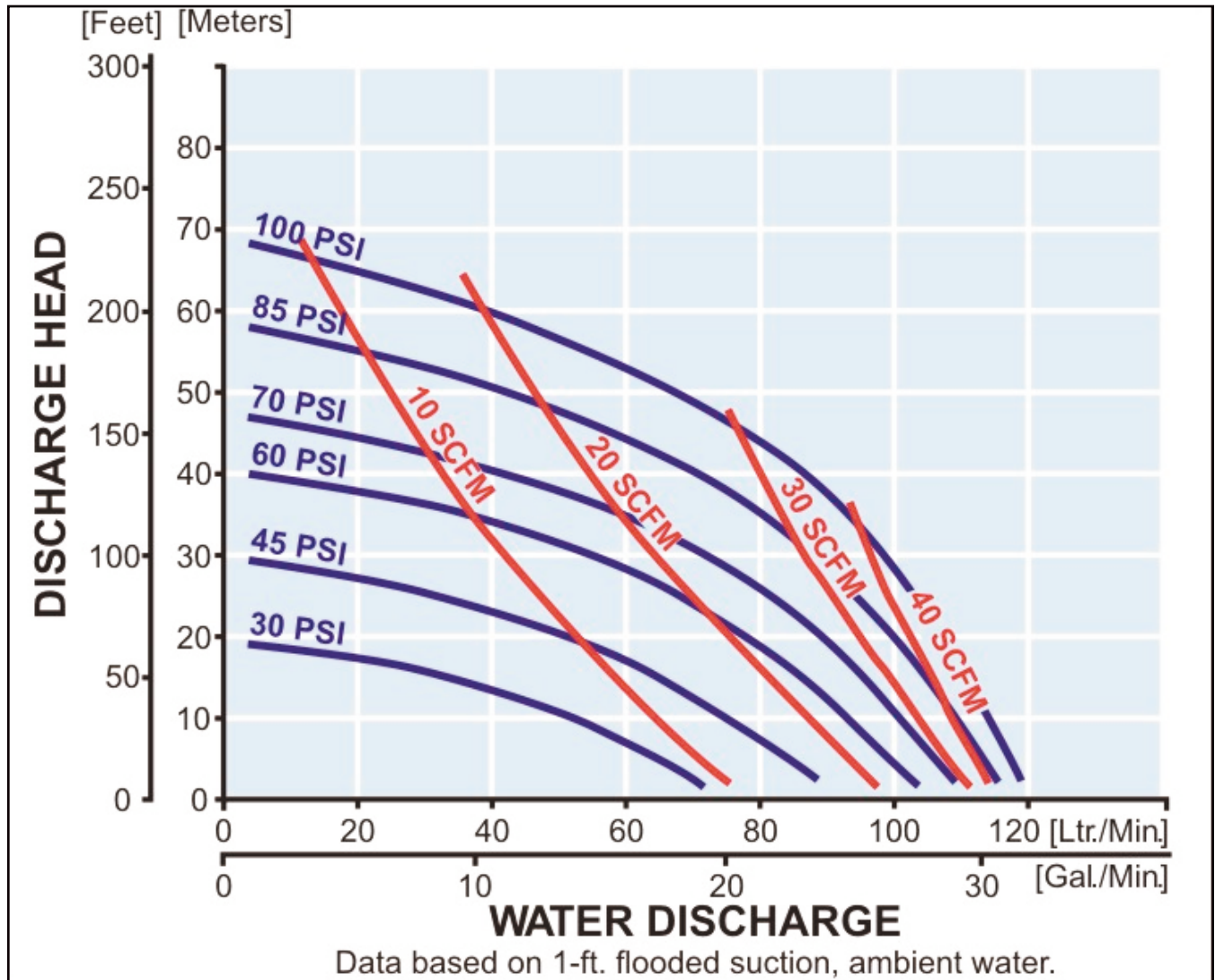
**Shipping Wt.:** 32 lbs.

## Model Number Nomenclature



# NDP-20 Performance Curve – Rubber

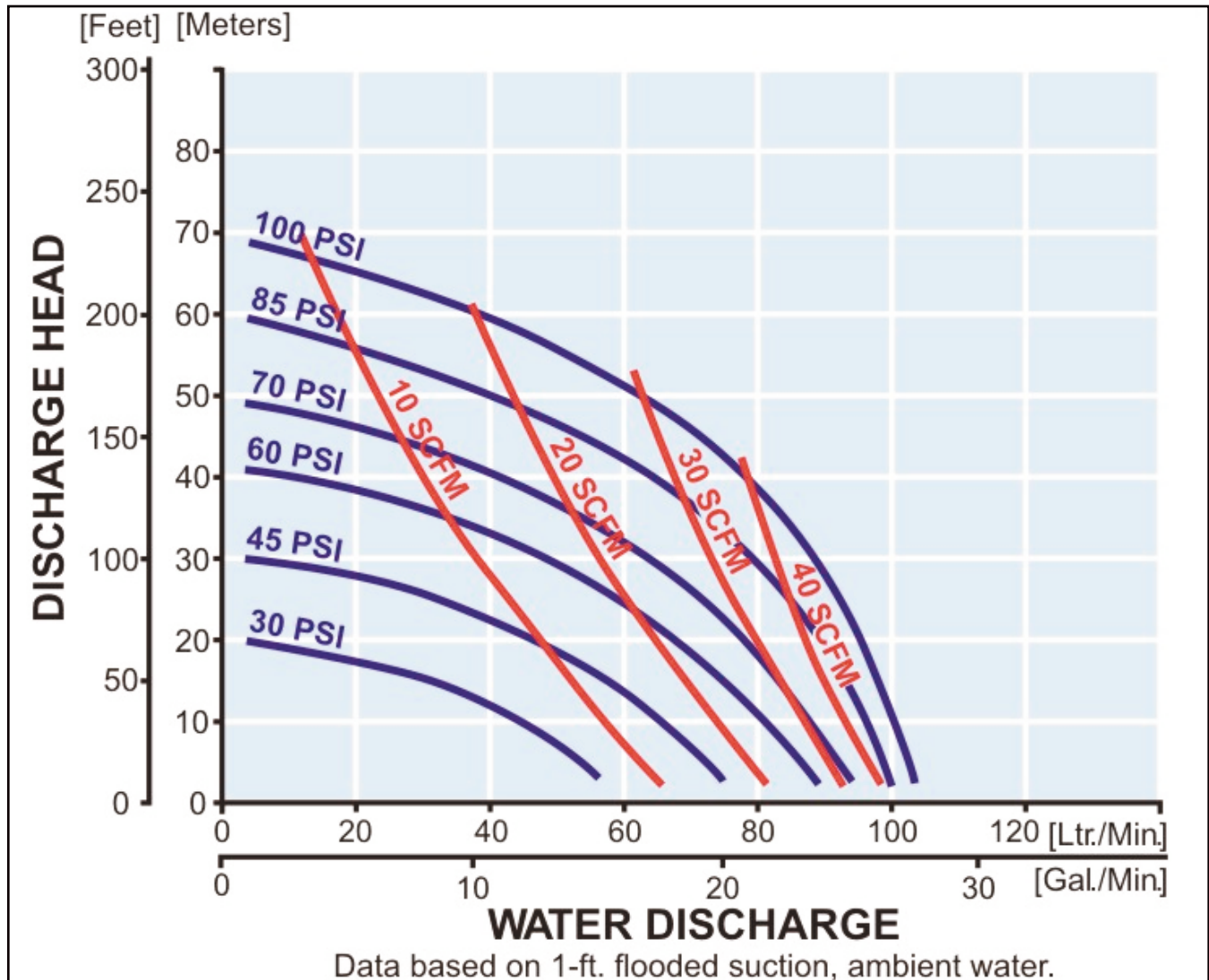
## Rubber Diaphragm Performance Curve



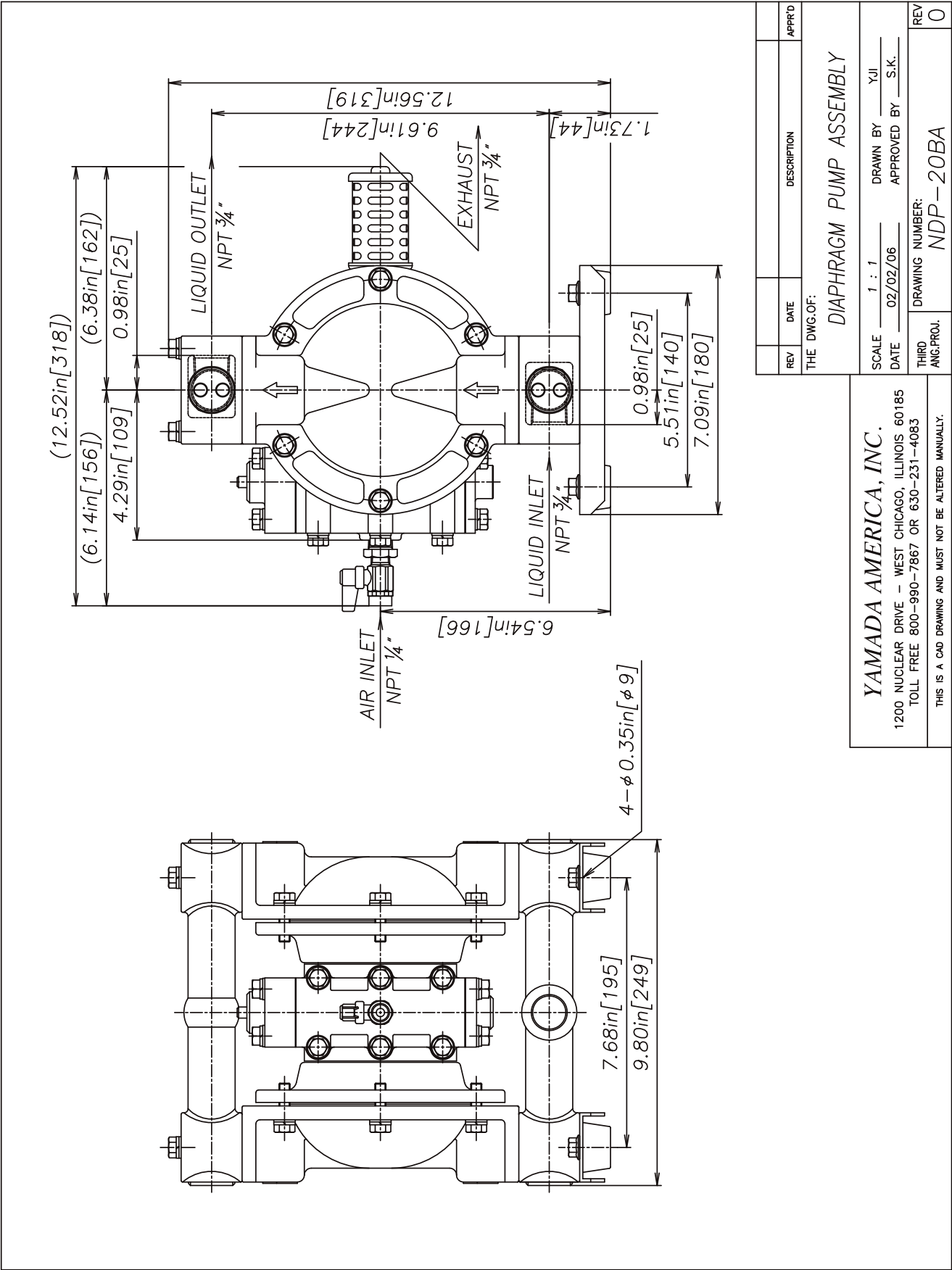
To calculate performance for Santoprene® and Hytrel®-fitted pumps, use Rubber Diaphragm Curve.

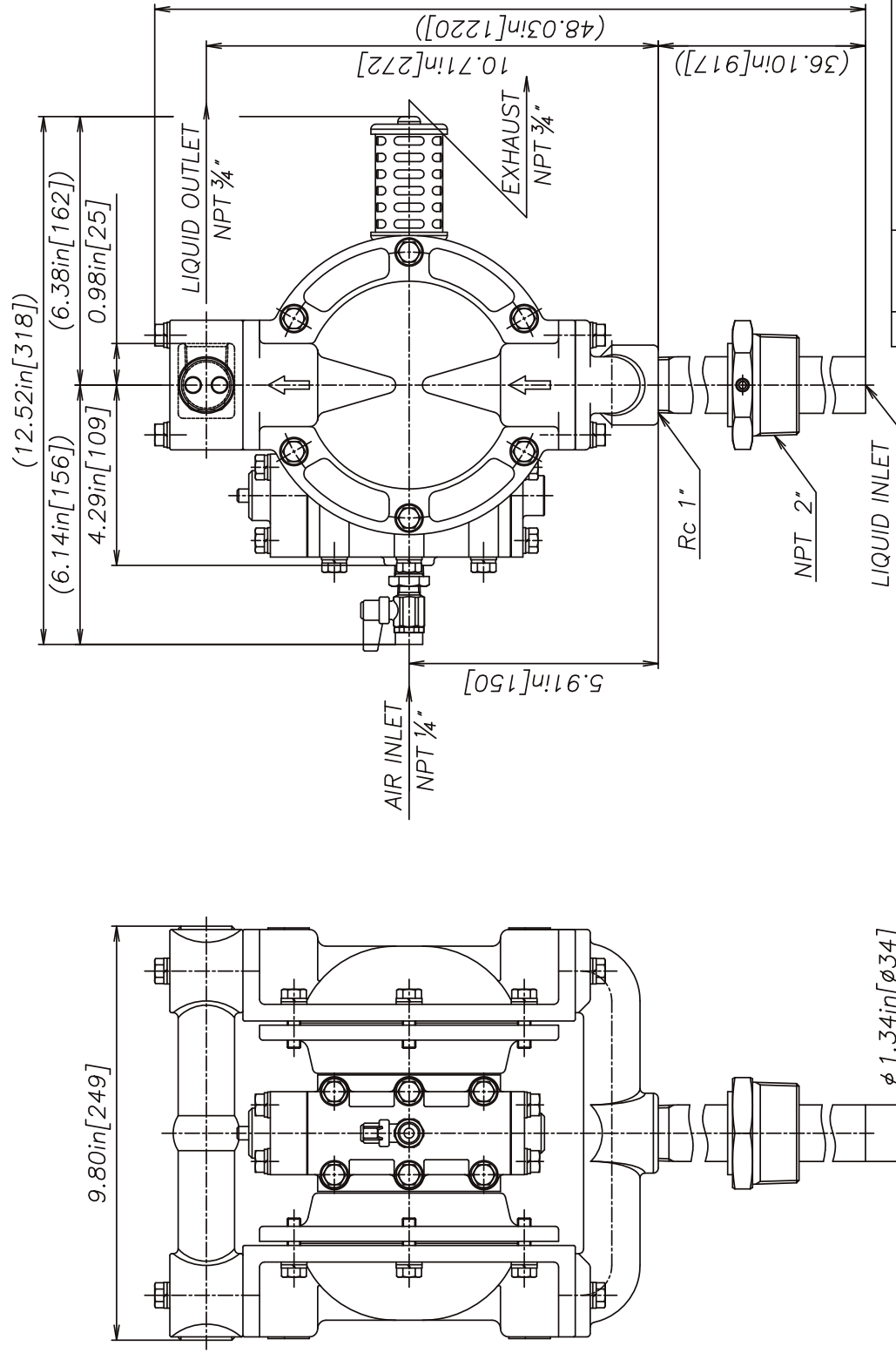
# NDP-20 Performance Curve – PTFE

## PTFE Diaphragm Performance Curve



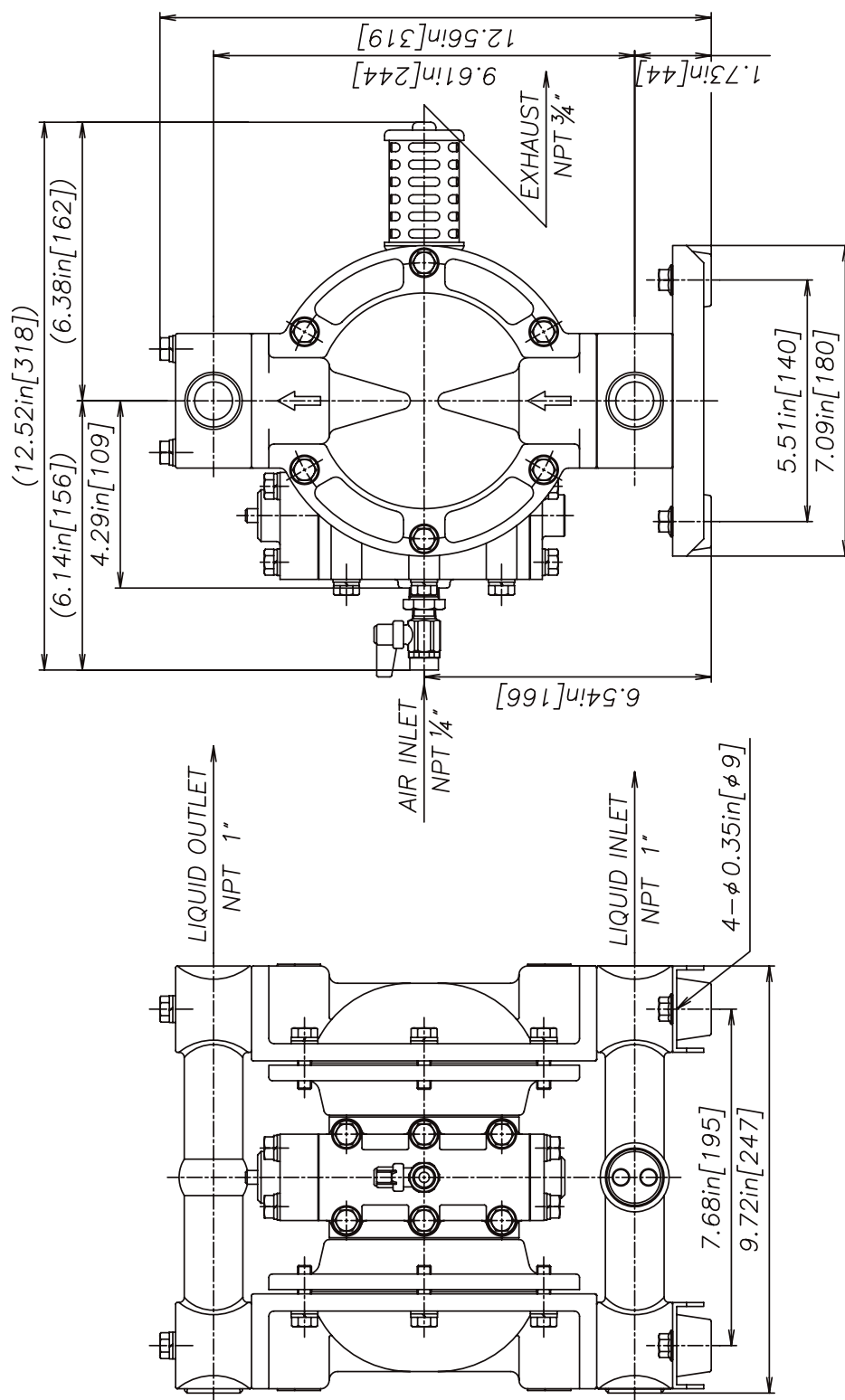
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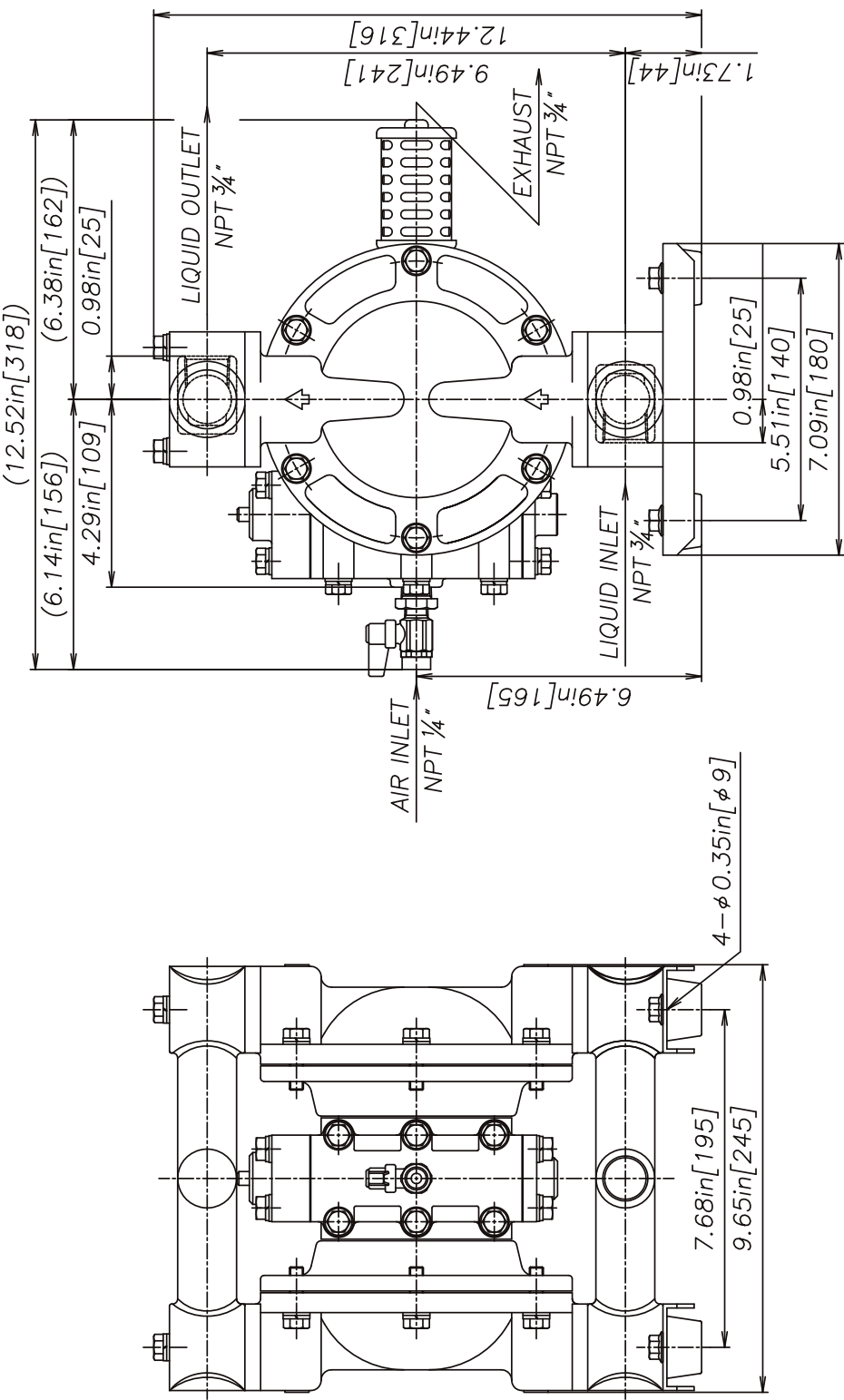


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DIAPHRAGM PUMP ASSEMBLY			
SCALE 1 : 1			
DRAWN BY YJI			
DATE 02/02/06			
APPROVED BY S.K.			
DRAWING NUMBER: NDP-20BA-D			
REV	THIRD ANG.PROJ.	REV	
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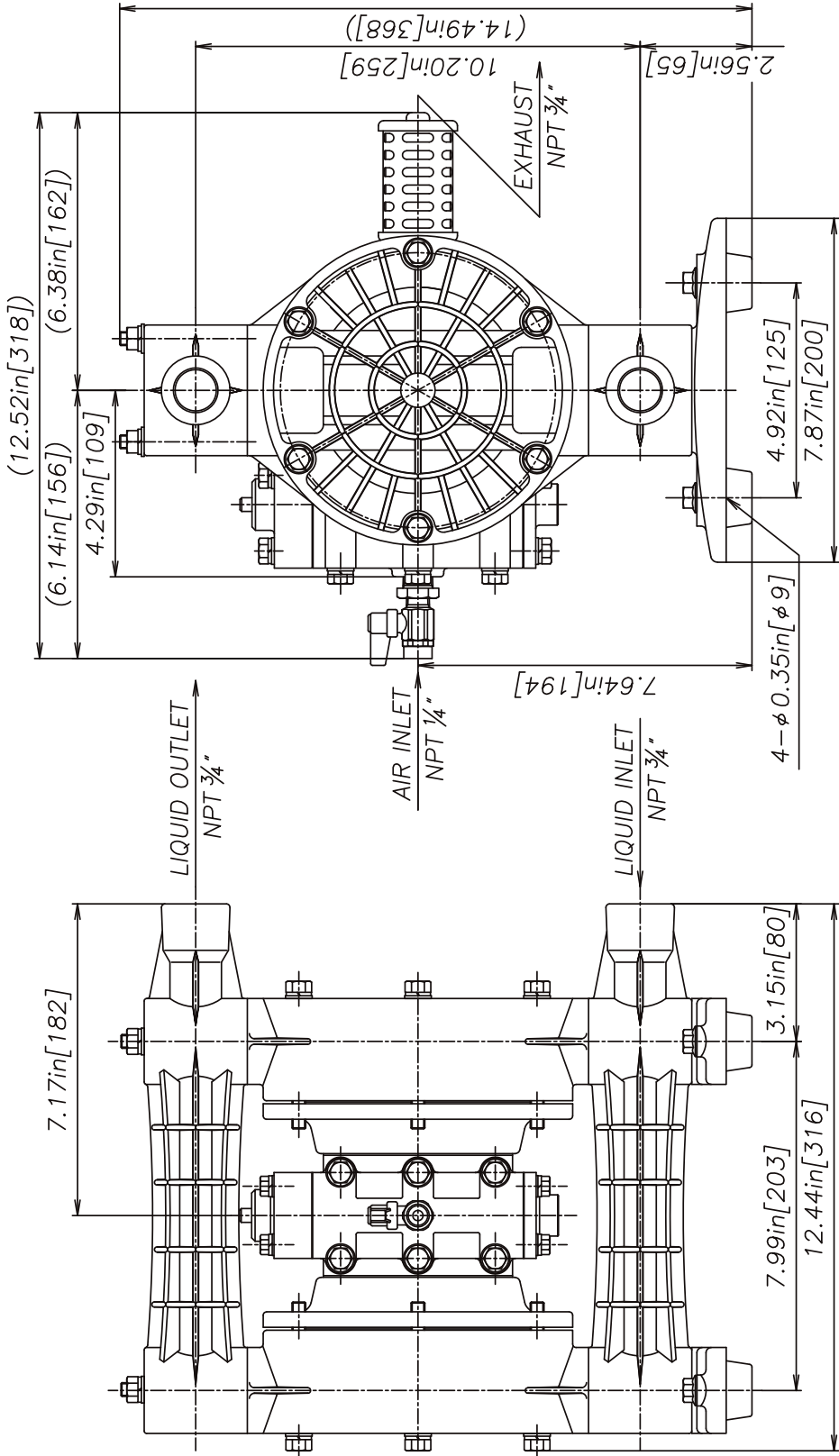
<p><b>YAMADA AMERICA, INC.</b></p> <p>1200 NUCLEAR DRIVE - WEST CHICAGO, ILLINOIS 60185</p> <p>TOLL FREE 800-990-7867 OR 630-231-4083</p> <p>THIS IS A CAD DRAWING AND MUST NOT BE ALTERED MANUALLY.</p>		<p>THE DWG. OF:</p> <p><b>DIAPHRAGM PUMP ASSEMBLY</b></p>	
REV	DATE	DESCRIPTION	APPR'D
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THIRD ANG. PROJ.	DRAWING NUMBER:		REV
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APPROVED BY S.K.			
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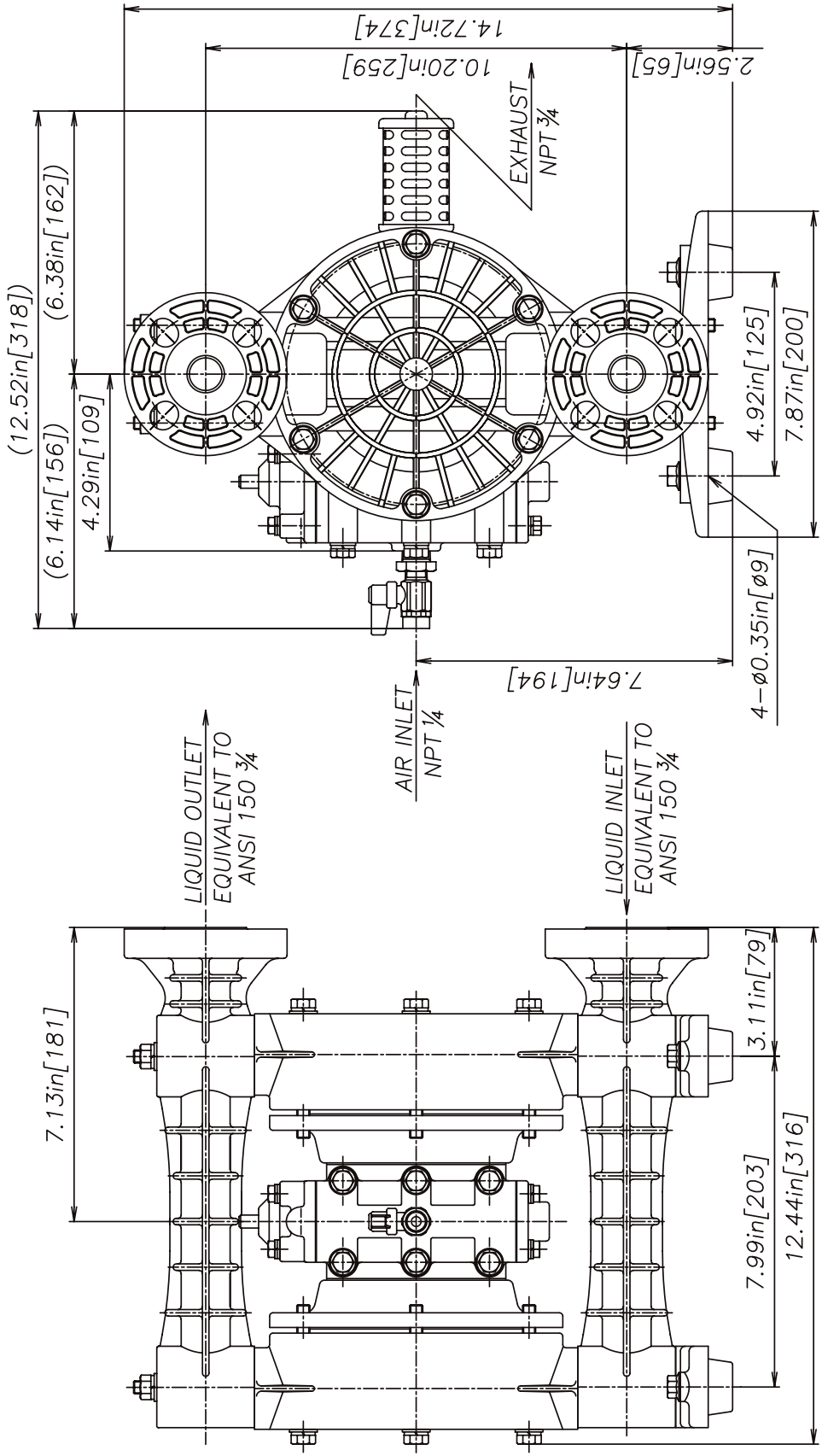




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APPROVED BY S.K.			
DRAWING NUMBER: NDP-20BP NPT			
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DATE 02/02/06			
APPROVED BY S.K.			
DRAWING NUMBER: NDP-20BP FLANGE			
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