

# NDP-50 Specifications

## Port Dimensions

Intake & discharge connection:

Polypropylene (PPG)	2" ANSI Flange B16.5 #150
Kynar (PVDF)	2" ANSI Flange B16.5 #150
Aluminum (ADC-12)	2" ANSI Flange B16.5 #150 (with tapped 2" Female NPT)
Stainless Steel (316)	2" ANSI Flange B16.5 #150 or 2" Female NPT
Hastelloy	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)
Hytrel	248°F (120°C)
Santoprene	225°F (107°C)
Viton	248°F (120°C)
Teflon (PTFE)	212°F (100°C)

\*Polypropylene pumps have a maximum liquid temperature of 180°F (82°C) regardless of diaphragm material. Kynar pumps have a maximum temperature of 248°F (120°C) when fitted with Hytrel or Viton diaphragms.

## Air Supply Pressure (All Models)

20–100 PSI (1.4–7 kfg/cm)

## Discharge Volume Per Cycle

Rubber diaphragm: 1.14 gallons (4.3 liters)

PTFE diaphragm: 0.55 gallons (2.1 liters)

## Maximum Cycles Per Minute

Rubber diaphragm: 146

PTFE diaphragm: 220

## Maximum Size Solid

5/16" (8 mm)

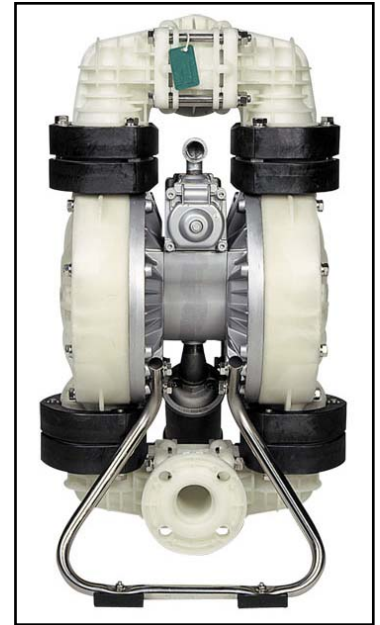
## Maximum Dry Suction Lift

Rubber-fitted pump capability: 19-feet

## Aluminum Air Motor—Standard

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

All Polypropylene, Aluminum, Cast Iron, Hastelloy, and SS Hytrel 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, Hytrel, 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, Hastelloy, or Stainless Steel (left)

**Dimensions:** 17.72" W x 30.55" H

**Net Wt.:** Cast Iron—159 lbs. (72.1 kg)

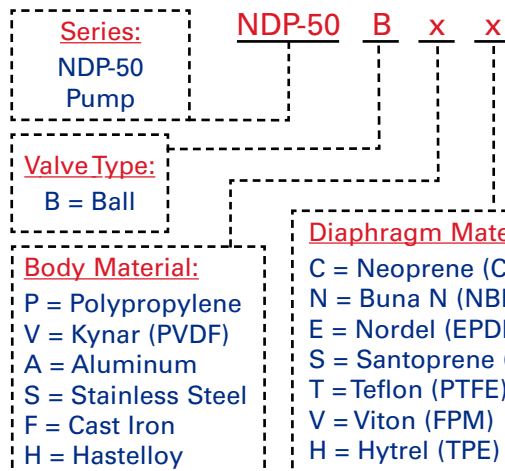
SS and Hastelloy—162 lbs. (73.5 kg)

**Shipping Wt.:** Cast Iron—168 lbs.  
SS and Hastelloy—173 lbs.



Note: ANSI Flange available for Cast Iron, Hastelloy, and Stainless Steel

## Model Number Nomenclature



Note: For NPT-fitted SS or Hastelloy, add "NPT" at end of model number nomenclature.



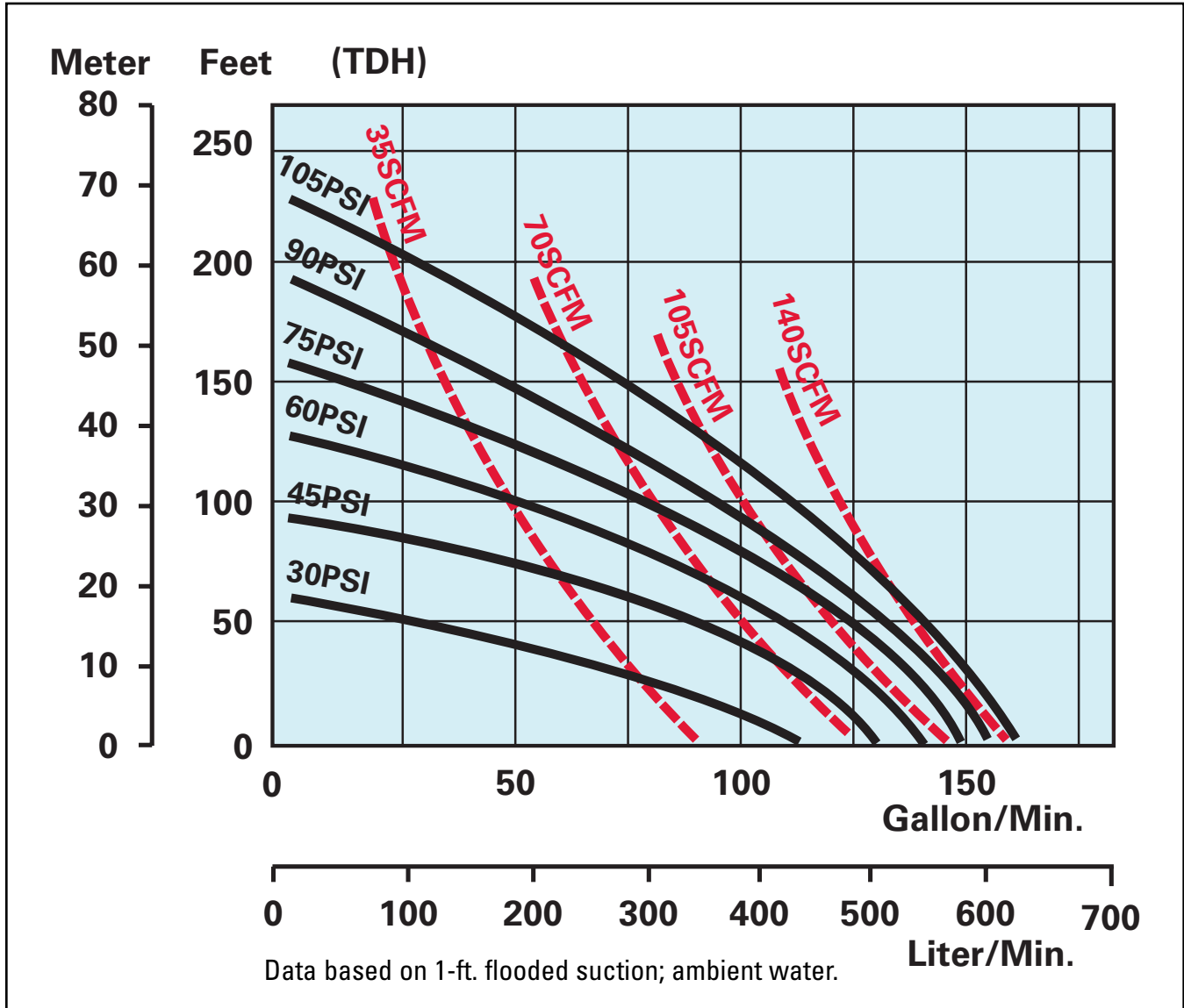
**Yamada America, Inc.** 1200 Nuclear Drive, West Chicago, Illinois 60185

USA Toll-Free: 800 990-7867 Phone: 630 231-4083 Fax: 630 231-7405

E-mail: sales@yamadapump.com Web: [yamadapump.com](http://yamadapump.com)

# NDP-50 Performance Curve — Rubber

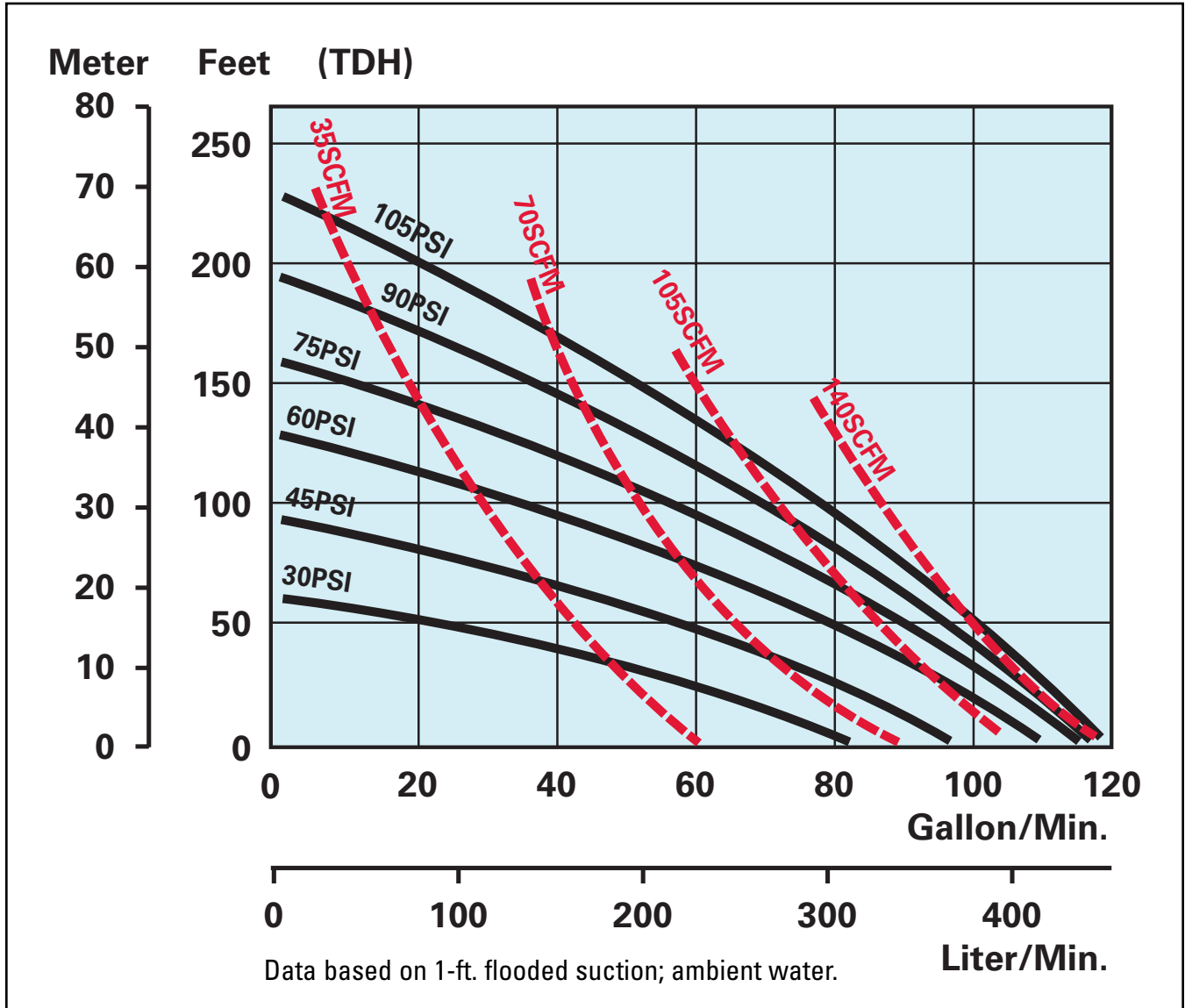
## Rubber Diaphragm Performance Curve



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

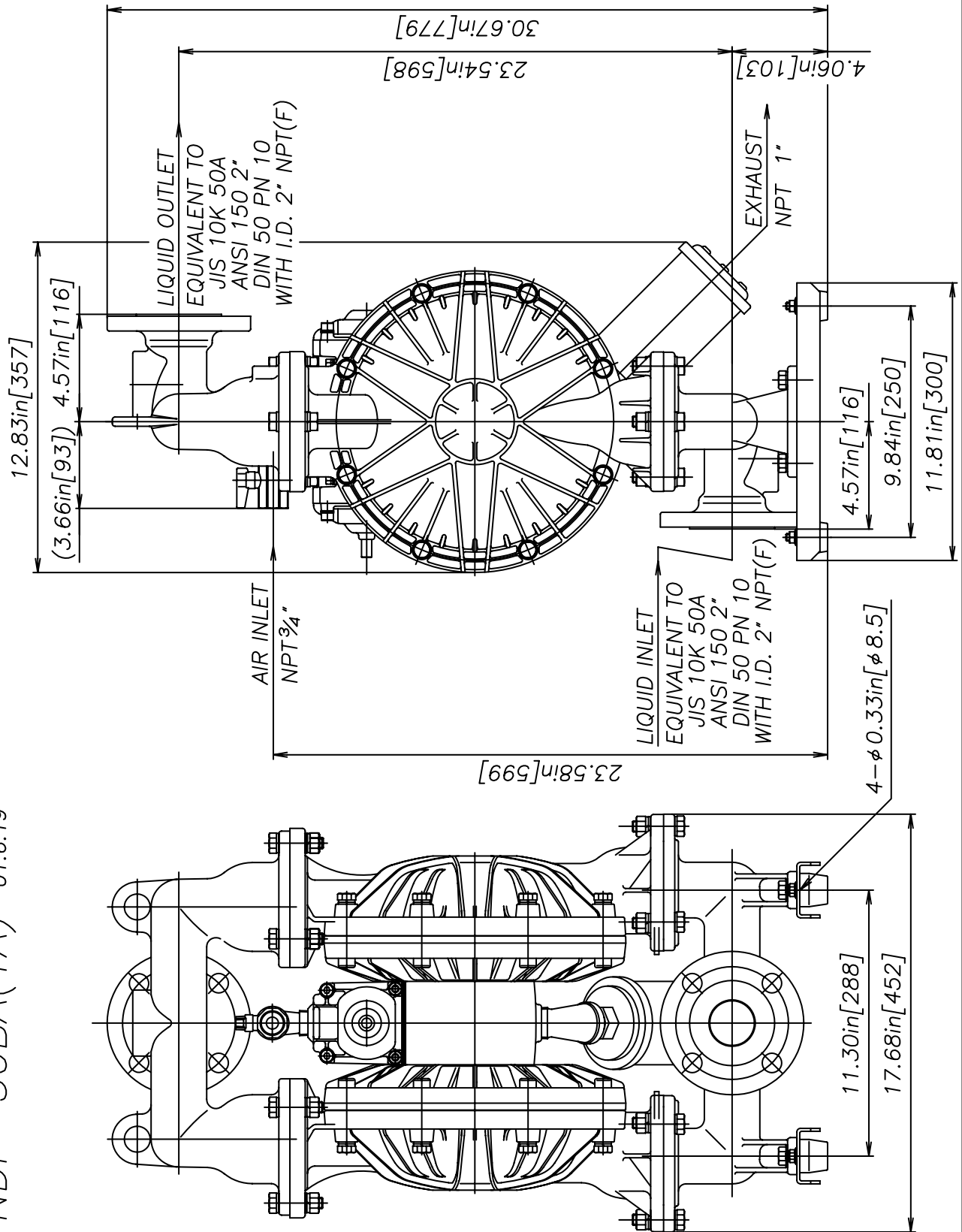
# NDP-50 Performance Curve — PTFE

## PTFE Diaphragm Performance Curve

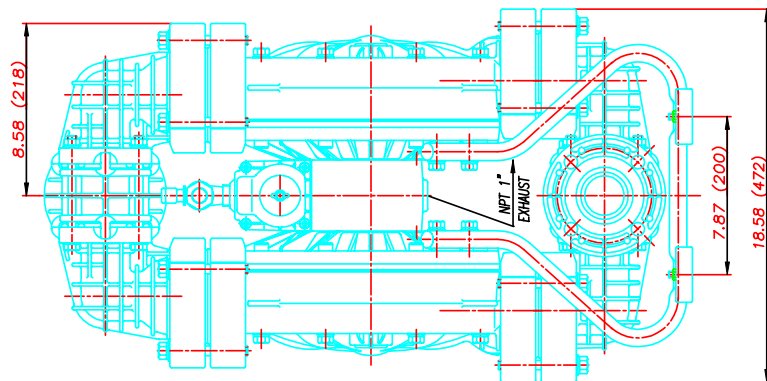
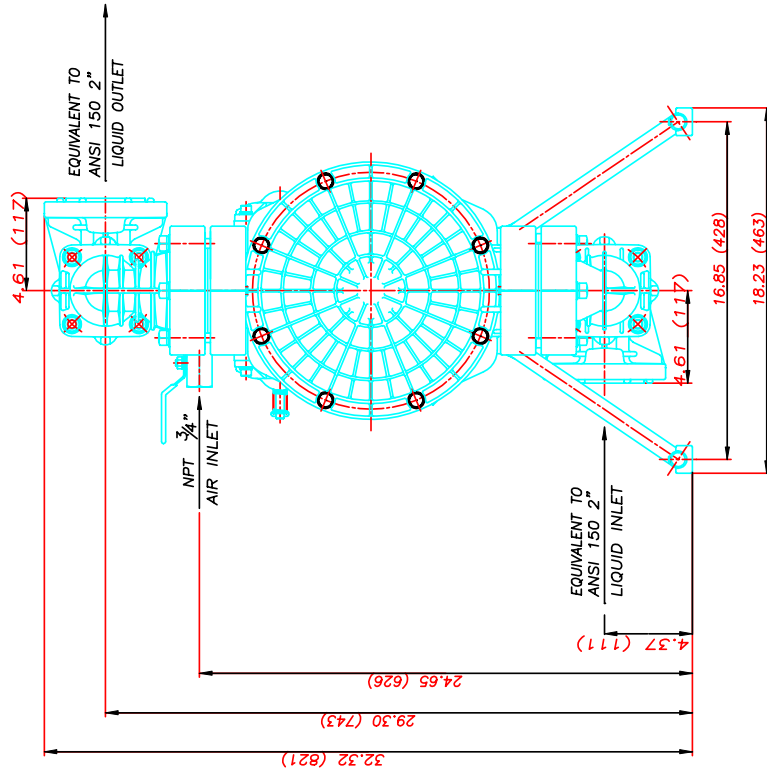


To calculate performance for Santoprene and Hytrel-fitted pumps, use Rubber Diaphragm Curve.

NDP-50BA(YA) 01.6.19



SYM	CHANGE NO.	DATE	APP'D BY	REV'D BY



NOTE:  
ALL DIMENSIONS ARE IN INCHES (MM)

REV	DATE	DESCRIPTION	APP'D

**YAMADA AMERICA, INC.**  
1200 NUCLEAR DRIVE - WEST CHICAGO, ILLINOIS 60185  
TOLL FREE: 800-990-7867 OR 630-231-4083

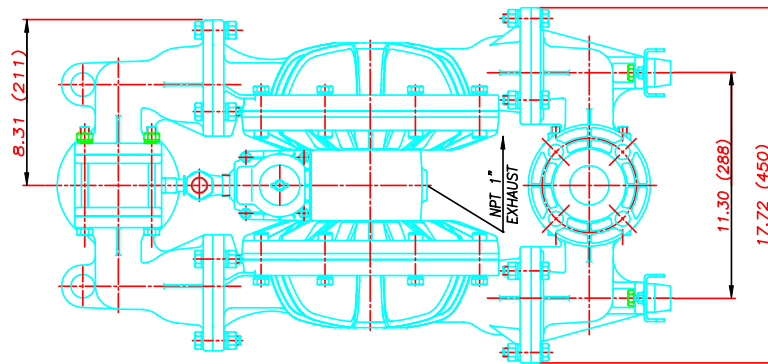
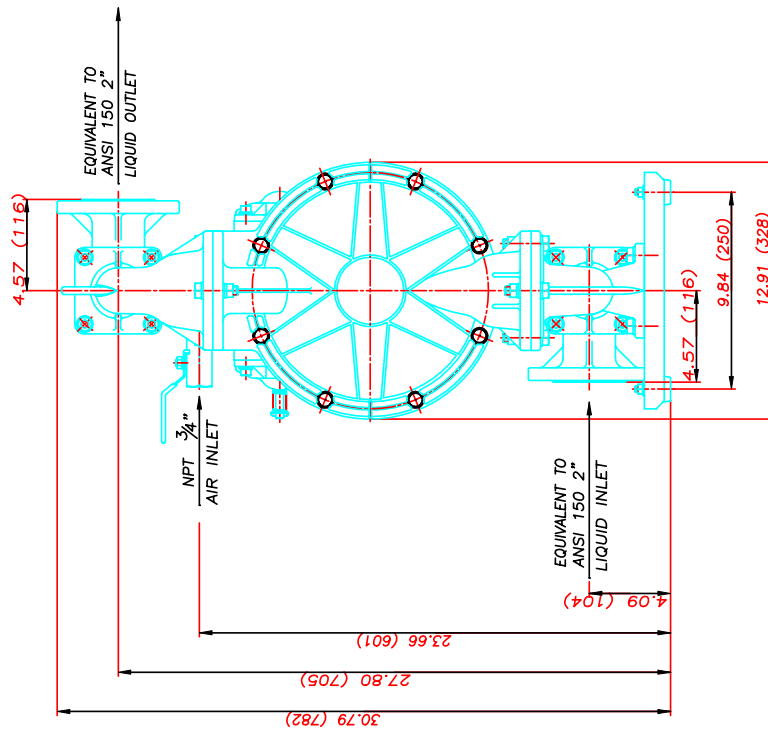
THE DWG. OF: **DIAPHRAGM PUMP ASSEMBLY**

THIS IS A CAD DRAWING AND MUST NOT BE ALTERED MANUALLY.

SCALE: **1:1** / **Z** DRAWN BY: **BRJ**  
DATE: **11/09/99** APPROVED BY: **S.K.**

DRAWING NUMBER: **NDP-50BP** REV: **0**

SYM	CHANGE NO.	DATE	APP'D BY	REV'D BY



NOTE:  
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REV	DATE	DESCRIPTION	APPROVED

THE DRAWING:

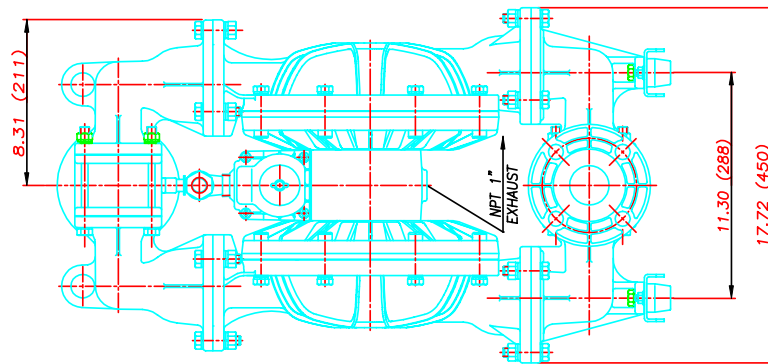
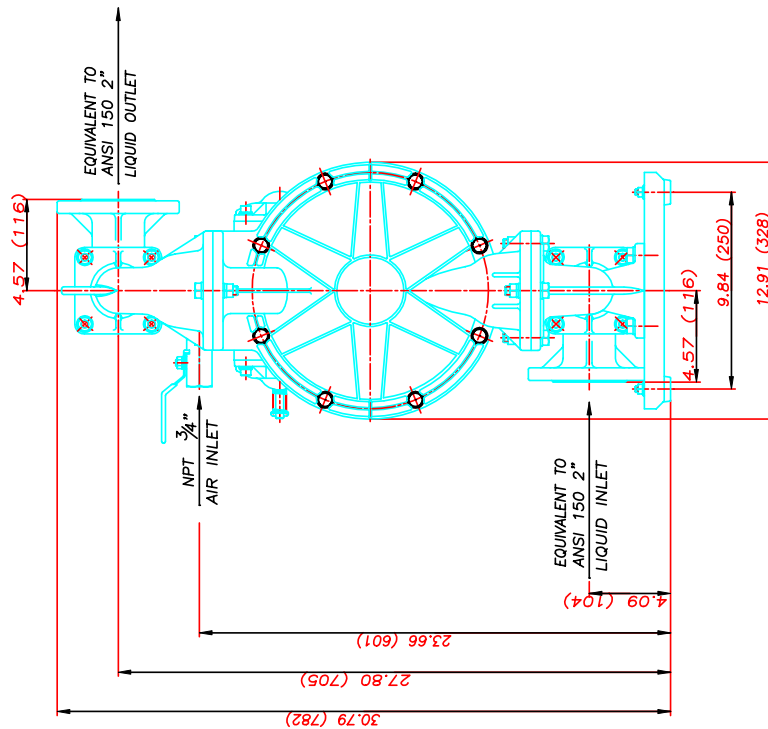
DIAPHRAGM PUMP ASSEMBLY

SCALE 1:1/2"  
DRAWN BY BRJ  
DATE 11/09/98 APPROVED BY S.K.

DRAWING NUMBER NDP-50BS (FLANGE) 0



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NOTE:  
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TOLL FREE 800-990-7867 OR 630-231-4083

THE DRAWING:  
DIAPHRAGM PUMP ASSEMBLY

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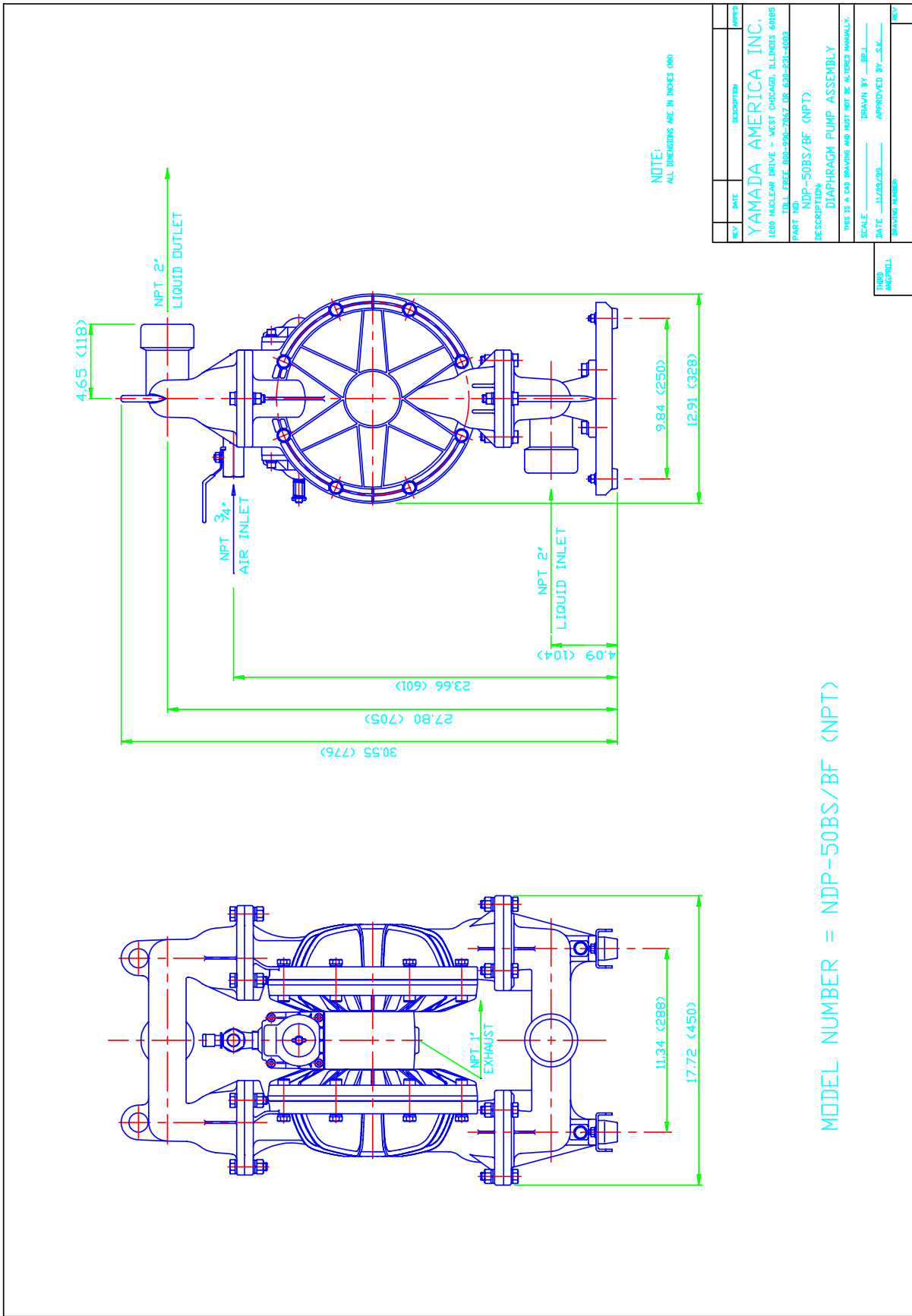
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DRAWN BY BRJ

DATE 11/09/09  
APPROVED BY S.K.

DRAWING NUMBER NDP-50BS (FLANGE) REV 0

THIRD ANGLE PROJECTION





REV	DATE	DESCRIPTION	APP'D

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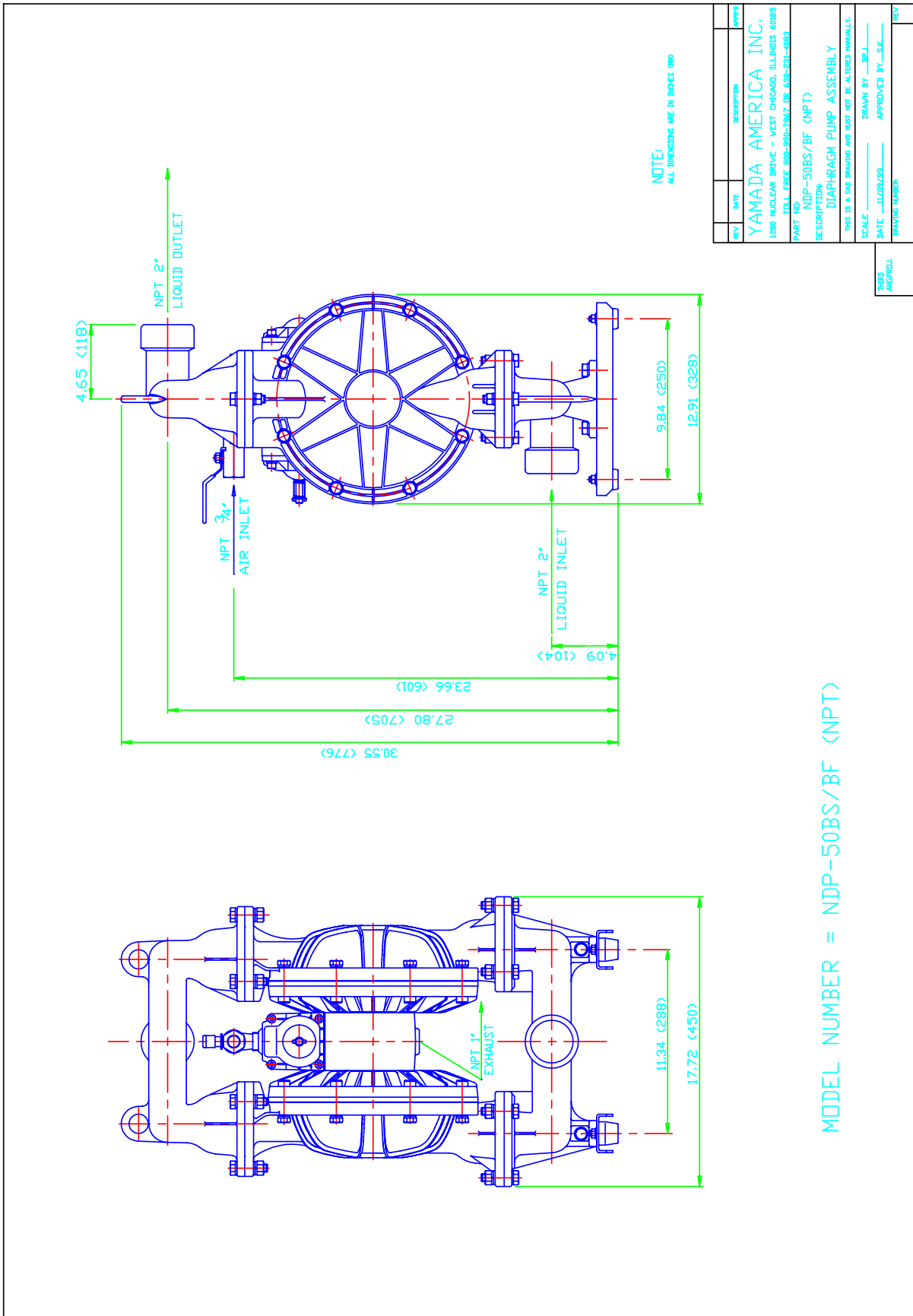
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 SCALE: \_\_\_\_\_ DRAWN BY: JBE1  
 DATE: 11/09/09 APPROVED BY: SK  
 DRAWING NUMBER: \_\_\_\_\_ REV: \_\_\_\_\_

MODEL NUMBER = NDP-50BS/BF (NPT)







REV	DATE	DESCRIPTION	APP'D

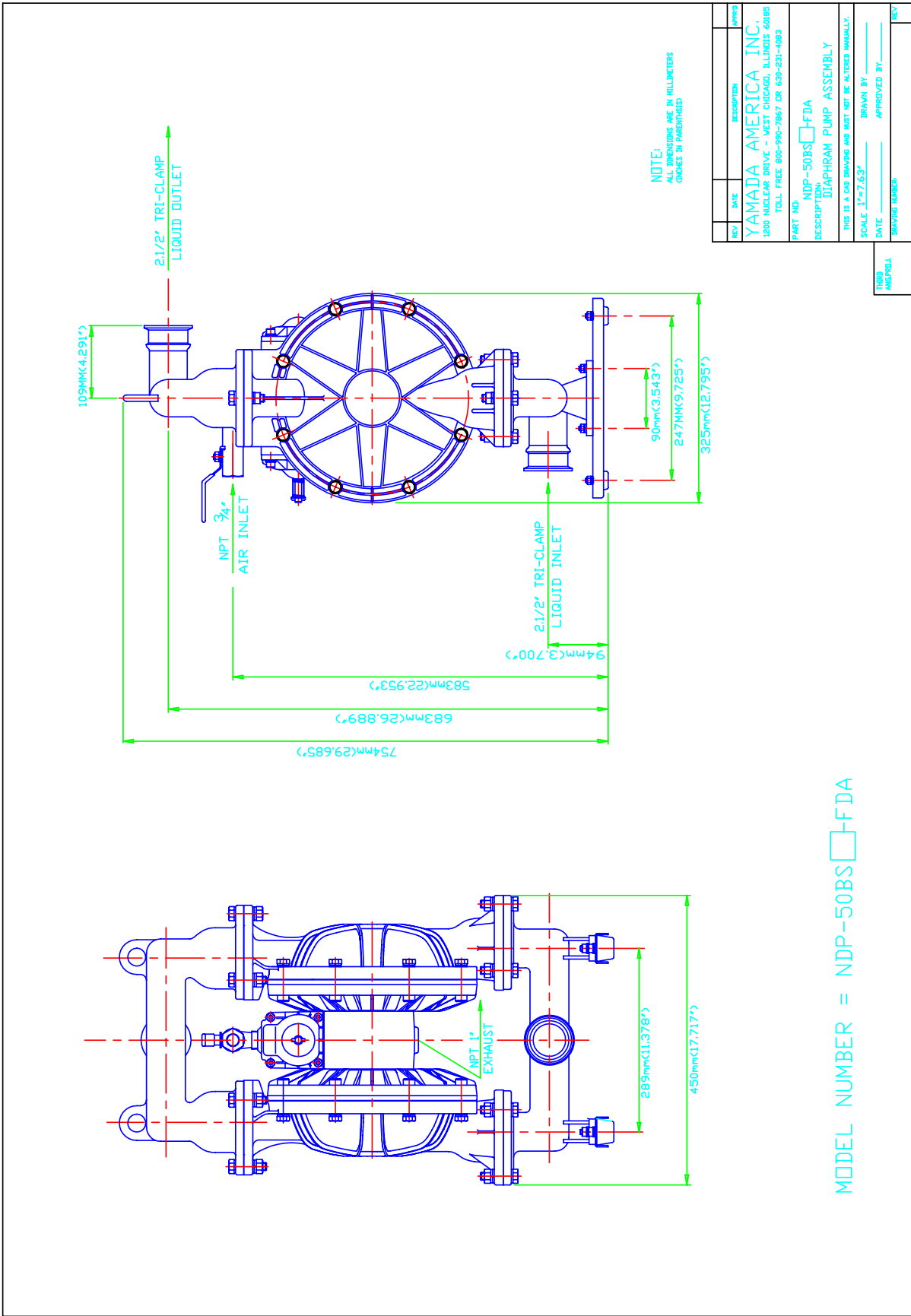
**YAMADA AMERICA INC.**  
 1200 NUCLEAR DRIVE - WEST CHICAGO, ILLINOIS 60185  
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PART NUMBER: NDP-50BS/BF (NPT)  
 DESCRIPTION: DIAPHRAGM PUMP ASSEMBLY

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 SCALE: \_\_\_\_\_ DRAWN BY: JBE1  
 DATE: 11/09/09 APPROVED BY: SK  
 DRAWING NUMBER: \_\_\_\_\_ REV: \_\_\_\_\_

MODEL NUMBER = NDP-50BS/BF (NPT)





REV	DATE	DESCRIPTION	APPROVED
<b>YAMADA AMERICA INC.</b> 1200 NUCLEAR DRIVE - WEST CHICAGO, ILLINOIS 60185 TOLL FREE 800-990-7867 DR 630-231-4083			
PART NO.		NDP-50BS	FDA
DESCRIPTION		DIAPHRAM PUMP ASSEMBLY	
THIS IS A CAD DRAWING AND MUST NOT BE ALTERED MANUALLY.			
SCALE		1"=7.63"	DRAWN BY
DATE			APPROVED BY
DRAWING NUMBER			REV

TROD  
ANGROLL

CAD DWG FILE: YAG2715

MODEL NUMBER = NDP-50BS  FDA



