

A New Vision for Quality Pumps **TNP** Series

Non-Metallic Magnetic Drive Pumps TRUFLO'S TNP SERIES of non-metallic, magnetically driven sealless pumps are capable of flowrates to 700gpm (159m3/hr), TDH up to 330ft (101m). Temperature ranges are from -120° F (-85° C) to 250° F (121° C). Our family of pumps range from our S series, beginning size 1515, to our M series 436, to our future L series. TRUFLO® TNP impeller diameters range from 5"-8", and our flanges meet either ANSI or ISO dimensional standards. Our mounting configuration is close-coupled with future release designs for long coupled versions. Close-coupled configurations require no alignment as the outer drive connects directly to the motor drive shaft (no couplings required). Our nonrotating shaft and one piece impeller makes our design maintenance friendly.

### **RANGE OF OPERATION**

Our pumps incorporate a ductile iron casing that is lined with a fluoropolymer. This combination of materials allow for the mechanical strength of metal with the corrosion resistance of a non-metallic lining. All **TRUFLO® TNP** designs use a non-rotating shaft that allows for ease of maintenance and improved performance over standard rotating shaft designs. Our rear containment shell, with its dual laminate of a fluoropolymer, is then reinforced with a vinyl ester composite for high burst pressure resistance. Our unique, no-weld impeller design has eliminated the weld associated with other designs and thus allows for a more chemical impervious barrier. Our outer magnet assemblies are designed for protection against corrosive environments.

## SEALLESS DESIGN

Our magnetic design provides sealless operation and chemical containment. By virtue of being sealless, we have eliminated fugitive emissions as well as the need for expensive, complicated mechanical seal monitoring, maintenance, and replacement. Our rare earth magnets allow for superior no-slip performance.

## **NON- METALLIC**

All of our wetted parts are made from ETFE fluoropolymers to handle a wide range of corrosive fluids and solvents up to 250° F. Our non-metallic rear containment eliminates unwanted "edy currents" associated with metal designs. Truflo's design allows for little to no heat to be transferred to your pumpage and aids in the improvement in pump life from either running far left or far right on the pump performance curve.

## **COST EFFECTIVE**

**TRUFLO® TNP** non-metallic designed pumps eliminate the need for high alloy metal pumps and complicated and expensive single or double-seal systems. Our designs also incorporate many common parts that allow flexibility on inventory and shared parts usage between sizes.

## **FEATURES**

- 🔊 Flowrates to 700gpm
- http://www.science.com/science
- Interpretation Interpretatio Interpretatio Interpretation Interpretation Inte
- ₲ Impeller diameters range from 5"-8"
- los Sealless magnetic design
- Rare earth magnets allow for superior no-slip performance
- S ETFE parts handle a wide range of corrosive fluids and solvents up to 250° F

## **COMMONLY PUMPED LIQUIDS**

Acetic Acid	<b>Bleach Solution</b>	Nitric Acid + Sulfuric Acid
Ammonia	Ferric Chloride	Oleum
Benzene	Hydrochloric Acid	Phosphoric Acid
Caustic Soda	Hydroflouric Acid	Sodium Hypochlorite
Chlorosulfuric Acid	Hydrogen Peroxide	Sulfuric Acid
Chromic Acid	Methyl Ethyl Ketone	Water



# TNP<sup>s</sup> Series



#### **DRAIN**

Our casing drain is a standard feature that allows for easy and safe removal of chemicals in the casing if required.

#### **2** CASING

The top discharge ANSI configuration allows for maximum pump interchangeability. Our unique ETFE Roto-Molding process promotes equal delivery of liner material throughout casing for improved corrosion resistance and longer life.

#### **3 SHAFT SUPPORT**

One-piece construction that is easily removed.

## MOUTH RING

Easily removable for quick field replacement. The unique design allows for handling of a variety of chemicals and specific heat parameter. Available in SiC.

#### **5** IMPELLER/INNER MAGNET

Our unique ETFE injection molding process allows us to ensure high quality, stronger, and more chemically resistant impellers. Our process has eliminated welding that can contribute to premature impeller failure.

#### **MAIN BUSHING**

Our large, one-piece, highperformance bushing is grooved to allow for field and particle flow through the pump.

#### **7** SHAFT

This non-rotating design allows for ease of installation and maintenance. This shaft is oversized to handle a variety of pump requirements.

## **8** O-RING

Available in VITON<sup>®</sup>, Teflon<sup>®</sup> Encapsulated VITON<sup>®</sup>, or EPDM.

#### REAR CONTAINMENT SHELL

Our shell is an injectionmolded flouropolymer with a composite encapsulation. This design offers some of the industries strongest containment shell burst pressure resistance.

## REAR CASING SUPPORT

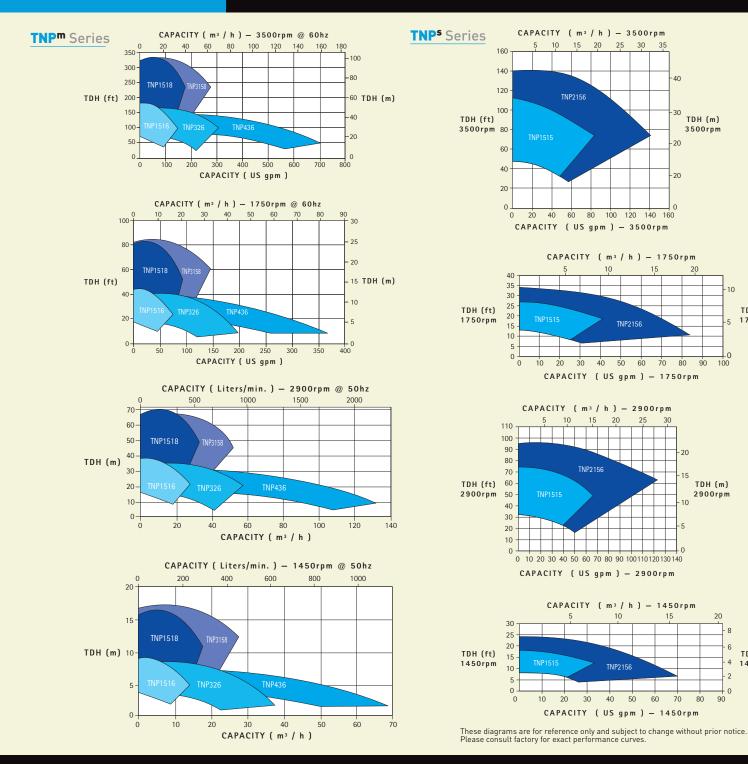
#### **OUTER MAGNET**

Our rare earth magnets make it possible to run the pump at rated torque throughout the temperature range without having to use special motors or starters. Our magnets are fully encapsulated for superior protection from corrosion.

#### BRACKET

Designed to mate with several motor sizes. In a close-coupled confifguration, the driver will accept either a NEMA C-face or an IEC motor.

CFR - Carbon Fiber Reinforced ETFE - Ethylene-Tetra-Flouro-Ethlene fluoropolymer SiC - Silicone Carbide



Call for information on the full line of TRUFLO<sup>®</sup> pumps







7105 Cessna Drive, Greensboro, NC 27409 Phone: 800-789-1864 • Fax: 336-664-1353 E-mail: sales@truflo.com • Web: www.truflo.com 40

30

20

-20

0

20

80 90 100

20

15

10

0

70 80 90

TDH (m)

2900rpm

20

8

6

4

- 2

0

TDH (m)

1450rpm

10

- 5

- 0

TDH (m)

1750rpm

TDH (m)

3500rpm