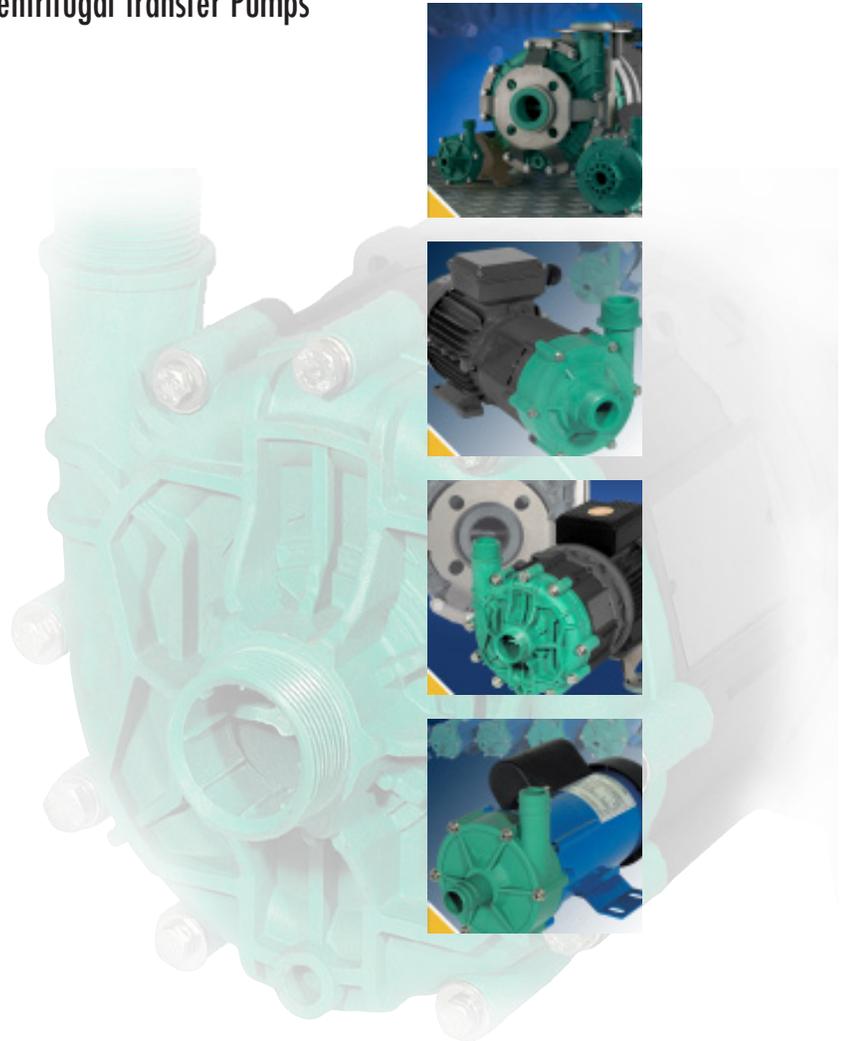


A measured step forward™

CENTRAN™ - Centrifugal Transfer Pumps



Lutz-JESCO Centrifugal Pumps

Products you can rely on



Lutz-JESCO's CENTRAN™ - Magnetic Drive Centrifugal - pumps are the ideal complement to our existing product range. The pumps are designed and built to address our customers needs and concerns with regard to safety, cost, diversity, and our environment. From the smallest TMB series to the high capacity G3 series, we have taken the same care to provide you with reliable Lutz-JESCO quality products.

The choice of engineered plastics and differentiated bearing materials allows for great flexibility in the handling of highly aggressive chemicals. The use of Neodymium-Iron-Boron magnets in the CENTRAN™ TMR G2/G3 series permits the pumping of high temperature liquids and gives a longer service life under harsh conditions.

The sealless design means greater environmental safety and no system downtimes, common to pumps with mechanical seals. In addition, the TMR G2/G3 series has a patented self-aligning mechanism to prevent any damage caused by dry-running or incipient cavitation.

The Lutz-JESCO CENTRAN™ series of magnetic drive centrifugal pumps is used in many different industry sectors, with flow rates ranging from 4 gpm up to 210 gpm. We look forward to providing you with a suitable solution to all of your fluid handling needs.



CENTRAN™ TMR G2/G3 Series

With the CENTRAN™ TMR series, Lutz-JESCO offers a reliable magnetically coupled pump with a patented bi-directional, self-alignment system that easily handles critical suction conditions caused by pressure loss. When used together with the "R" bearing system, the pumps are suitable for dry running. The series is designed for medium to large pumping capacities at higher system pressures.

Pump capacity: up to 210 gpm
Head pressure: up to 160 ft.



CENTRAN™ AM Series

With a proven track record, the CENTRAN™ AM series is ideal for transfers with medium flows and low pressure systems. The glass reinforced polypropylene and E-CTFE housing, combined with the available choice of bearing materials, allows the AM series to be used in a wide range of applications with a broad spectrum of frequently used chemicals.

Pump capacity: up to 55 gpm
Head pressure: up to 48 ft.



CENTRAN™ TMB Series

The CENTRAN™ TMB series is specifically designed for installations in small systems and equipment. The sturdy construction and reduced dimensions make the TMB series suitable for many OEM applications.

Pump capacity: up to 18.5 gpm
Head pressure: up to 35 ft.

Lutz-JESCO Centrifugal Pumps

For a variety of applications

Advantages of Lutz-JESCO Centrifugal Pumps

Sealless

The impeller is driven by the magnetic force of the outer magnets, therefore no mechanical seal is required. As the pump housing is hermetically sealed, no leakage can occur.

Different bearing systems for different needs

Bearing materials of carbon, ceramic, silicon carbide and Rulon® make it possible to configure the pumps individually for a variety of difficult operating conditions, such as dry running, suspended solids, or highly aggressive media.

Operating safety and high level of efficiency

The use of high-performance permanent magnets ensures high transmission forces even at elevated temperatures. The design of the bearing system and the use of compatible materials reduces energy loss through friction.

Benefits for the Customer

Power and efficiency

The maximum level of efficiency through optimized hydraulics results in lower power requirements.

Long service life

The use of high quality materials ensures a long service life of the pumps.

Easy to maintain

The limited number of components and wear parts can be replaced without special tools, thus reducing maintenance costs and lengthy downtimes.

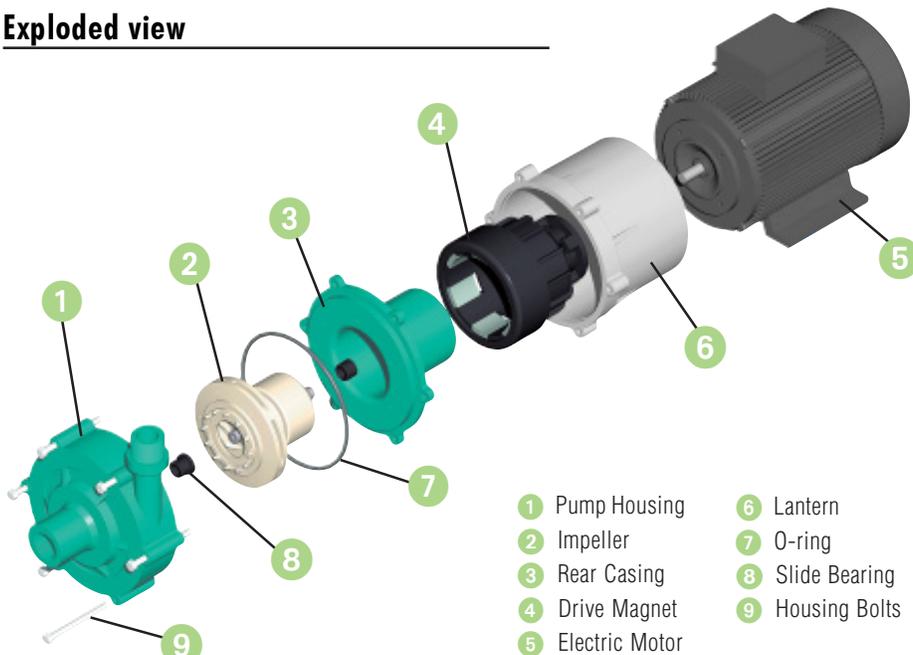
Designed for pumping virtually any chemical

CENTRAN™ Centrifugal pumps are designed to handle virtually any chemical, including acids, bases, mixtures of acids and bases, solvents, alkali stripping baths, galvanic baths, photo-chemicals, as well as radioactive, sterile, and highly corrosive liquids.

Typical Applications

- Water- and Wastewater treatment industry
- Galvanic / surface processing industry
- Dyeing and etching systems
- Electroplating and silver recovery
- Chemical industry
- Toxic liquids
- Graphic art machinery
- Medical equipment
- Photo industry
- Corrosive chemicals
- Metalwork machinery
- Fungicides and pesticides
- Refrigerators / Ice making machines
- Pure water (demineralized)
- Descaling
- Aquariums
- Laundry
- Cosmetic industry

Exploded view



Operating Principle

The magnetic coupling consists of two magnetic rotors, separated from each other by a closed rear casing. The drive magnet positioned on the motor shaft transfers the torque of the motor via a rotating magnetic field to the inner rotor enclosed in the rear casing. Depending on the pump design, the driven rotor is directly or indirectly connected with the impeller. Thus, the impeller is driven without the need of a shaft seal. A static seal between the pump housing and the rear casing prevents the occurrence of any leakage.

Lutz-JESCO Centrifugal Pumps

TMB Series

General Description

The CENTRAN™ TMB features a single-stage centrifugal impeller and a magnetic drive. The range of TMB pumps includes five models to deliver flows from 4 - 18.5 gpm and heads from 7.8 - 35 ft.

The CENTRAN™ TMB is made entirely of thermoplastics, with outstanding chemical and mechanical resistance due to the use of fiberglass reinforced polypropylene (GFR/PP). Materials of construction on wetted-end components are ceramics for the spindle, reinforced PTFE bearings, and a FKM o-ring gasket.

The drive magnet, located outside the casing and attached to the motor shaft, drives the magnetic impeller inside the casing. The traditional shaft seal and the consequent leakage problems are eliminated, preventing any corrosion of the outer parts (motor and bearings) in the environment.

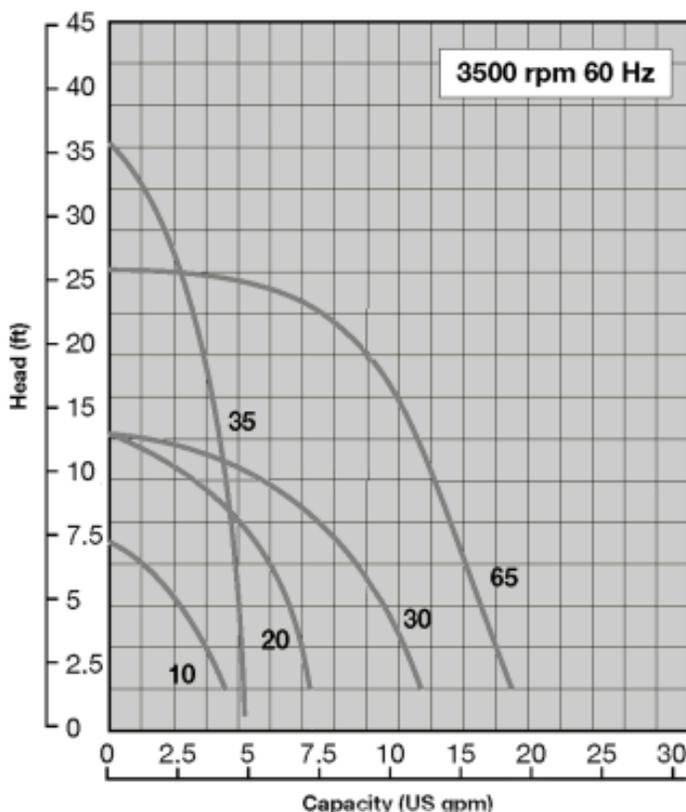
The CENTRAN™ TMB's compact size, low noise, and absence of a mechanical seal make these pumps ideal for many applications.



Materials of Construction

The drive magnet assembly is constructed of ferrite magnets. The volute casing is a monolithic injection moulded part, made of glass reinforced polypropylene with an encapsulated GFR/PTFE front spindle bearing. The connections can be either NPT or hose barb. The TMB's rear casing is made of the same thermoplastic material as the front casing and contains the rear spindle's bearing. The polypropylene impeller features a built-in ceramic spindle and ferrite magnets.

Performance Curve



Pump Construction

- **Pump material**
WR: Polypropylene (glass fiber reinforced)
GF: E-CTFE (carbon fiber filled)
- **Bearing material**
Rulon®, Ceramics
- **Housing seal**
Viton®
- **Magnet**
Ferrite

Lutz-JESCO Centrifugal Pumps

AM Series

General Description

The CENTRAN™ AM pump is a magnetically driven pump, designed to meet the continuous demands of the marketplace.

The AM series pumps are close coupled, horizontal end-suction centrifugals. The bodies are entirely built with reinforced thermoplastic polymers. The materials for the internal components are ceramic oxides, high density carbon, and fluorinated elastomers.

Performance

The drive magnet, located outside the casing and attached to the motor shaft, drives the magnetic impeller inside the casing.

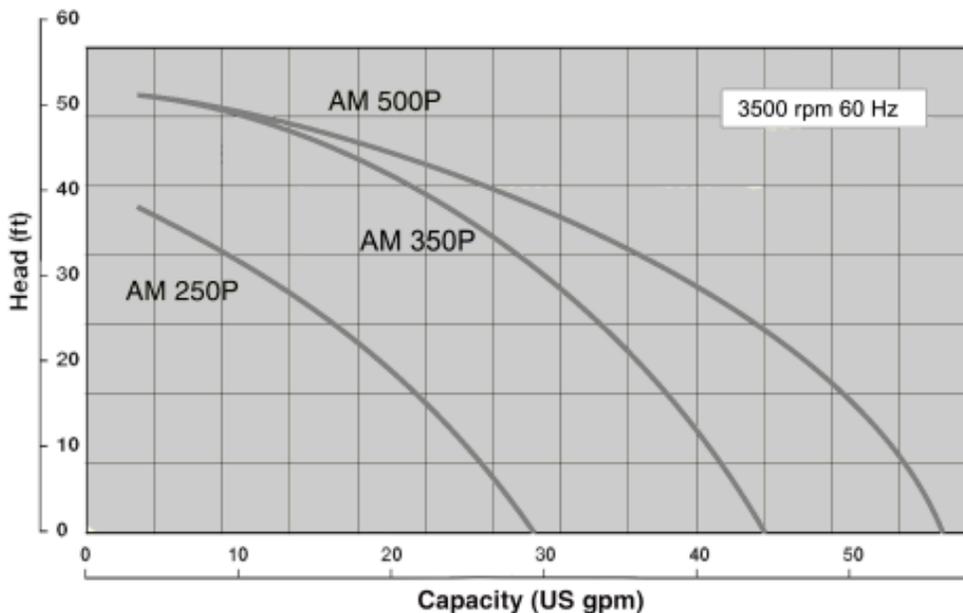
Special materials allow for occasional dry running operation.

The CENTRAN™ AM is built from three types of materials for a variety of applications, ranging from ultrapure water to wastewater, slightly abrasive liquids, caustics, and acids.

Working at maximum capacity, the CENTRAN™ AM is able to transfer fluids with specific gravities up to 1.8. The drive assembly is made of powerful Neodymium-Iron-Boron magnets.



Performance Curve



Pump Construction

Pump material

WR: Polypropylene
(glass fiber reinforced)

GF/GX: E-CTFE
(carbon fiber filled)

Bearing material

Carbon, Ceramics,
Silicon Carbide, Rulon®

Housing seal

Viton®, EPDM or Kalrez®

Magnet

Neodymium-Iron-Boron

Lutz-JESCO Centrifugal Pumps

TMR G2/G3 Series

The CENTRAN™ G2/G3 Patented Bi-directional, Self-alignment System

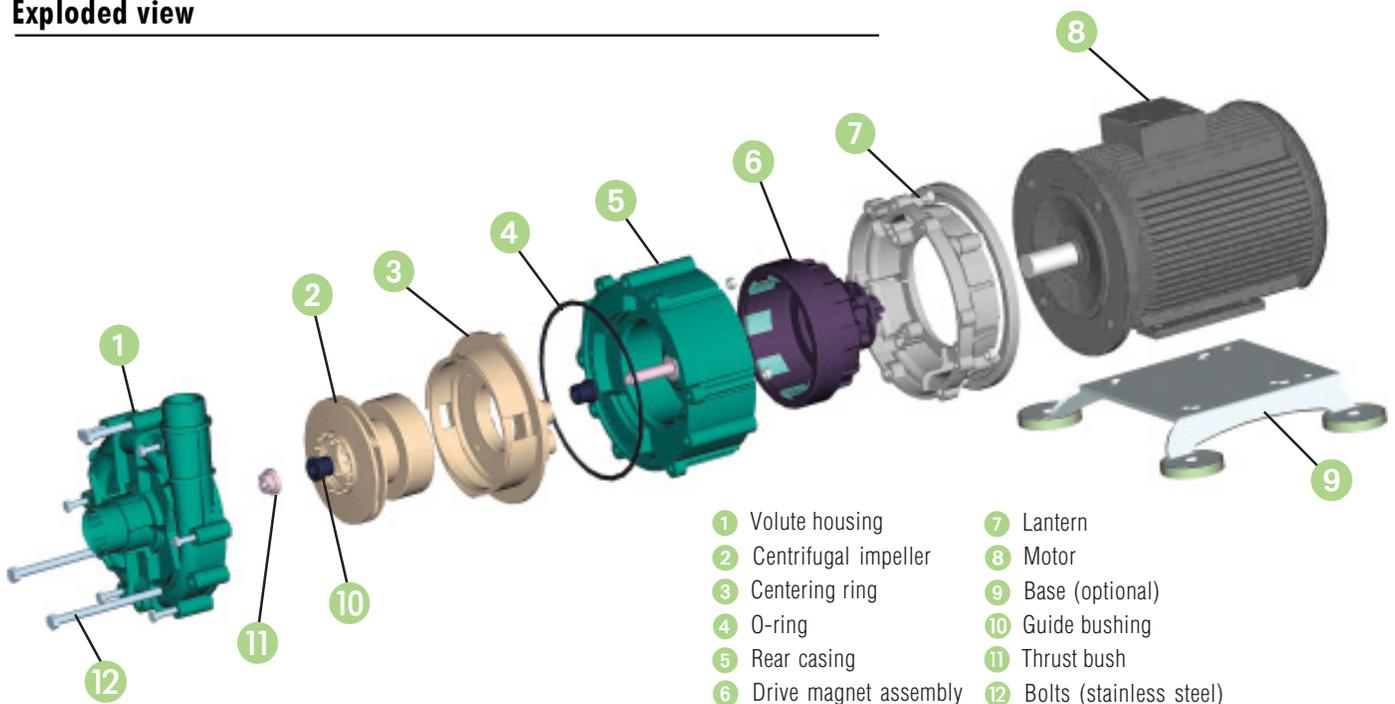
The principle of bi-directional self-alignment is used in order to define a neutral position without friction. With the use of an additional magnetic field and two work areas (one anterior and one posterior), the impeller can liberally choose to work referring to hydrodynamic loads which are determined by duty point (flow/head) on the performance curve. During standard operation, two rings, which are the limiting device of axial excursion, fix the work-space engaged by the impeller. If dry running occurs due to a drop in pressure or lack of liquid, the impeller assembly is automatically shifted by the additional magnetic field to a neutral position between the front and back axial bearings. In this position there is only negligible friction on the axial bearings.



Features and Benefits of the TMR Series

- Patented “bi-directional, self-alignment system” eliminates any excess friction
- Can safely run dry
- Sealless pumps, eliminating any rotating component of the seal
- Can handle virtually any chemical
- Can handle abrasive solids
- Balanced impeller reduces need for maintenance
- Superior Neodymium-Iron-Boron magnets
- Both NPT and ANSI connections available
- Easy installation and removal of motor
- Sturdy design for pressure resistance

Exploded view



Lutz-JESCO Centrifugal Pumps

TMR G2/G3 Series

General Description

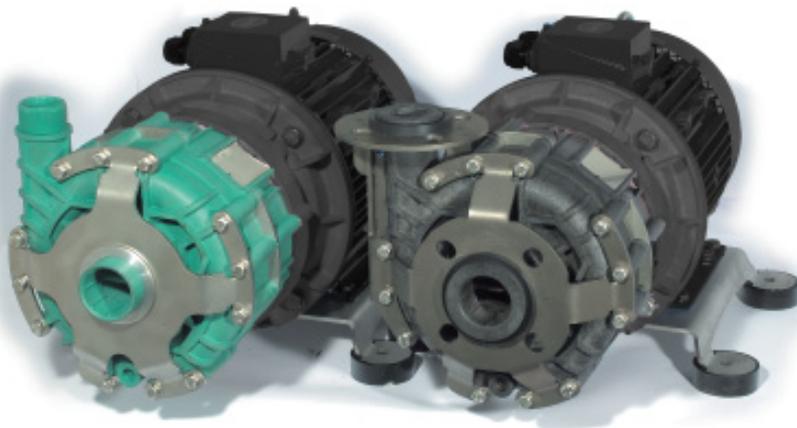
The CENTRAN™ G2/G3 pumps were designed to meet special marketplace demands. Excess friction is eliminated by controlling the impeller movement through the use of an additional magnetic field. This patented solution is called the bi-directional, self alignment system.

Features

CENTRAN™ G2/G3 pumps are defined as “sealless” because the rear casing divides the two magnetic units, creating a sealless hermetic case all around the impeller.

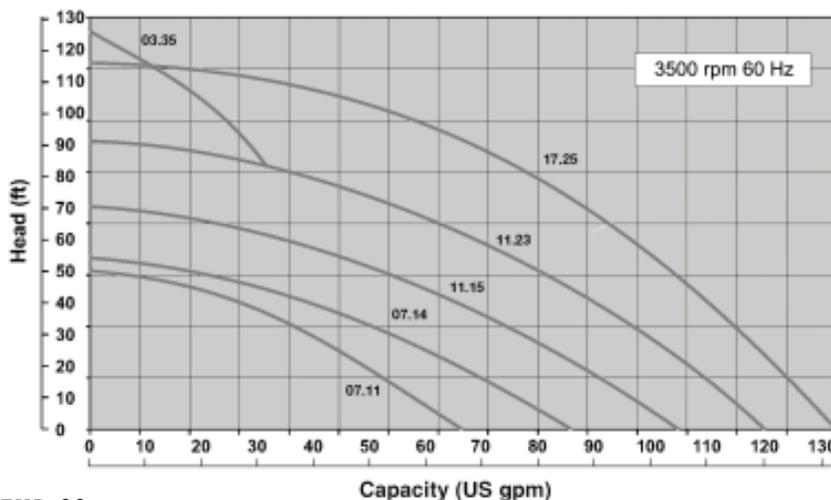
The only seal between the volute casing and the back casing is a static o-ring type gasket, eliminating any rotating component of the seal. The use of high-quality materials in the housing and bearing ensures excellent chemical and mechanical characteristics and allows the pumping of virtually any chemical, at low or medium temperatures, with pumps made of GFR-PP (glass fiber reinforced Polypropylene) or CFF-E-CTFE (Etylene-Chloro TrifluoroEtylene carbon fiber filled). Due to the internal materials of the pumps, both clean fluids and mediums containing small amounts of solids and high-density liquids can be pumped, as well as mediums that are moderately abrasive. Liquids with a specific gravity of 1.05, 1.35, and 1.8 can be pumped at maximum flow with the correct corresponding pump: N-standard, P-powered or S-strong-powered, respectively.

The volute casing can be rotated 90° to obtain various discharge positions. The pump's impeller is balanced in order to reduce the need for maintenance. The CENTRAN™ G2/G3 allow connections with NPT and ANSI flanges. The pump's motor can be installed and removed easily without dismantling or opening the volute casing (standard motors are NEMA). The housings have reinforcing ribs for pressure resistance. A stainless steel guard plate is optional on all models in order to protect the front casing from mechanical impact and piping stress. The pump base is stainless steel with ground terminals of chemical-resistant thermoplastic materials and can be supplied upon request.

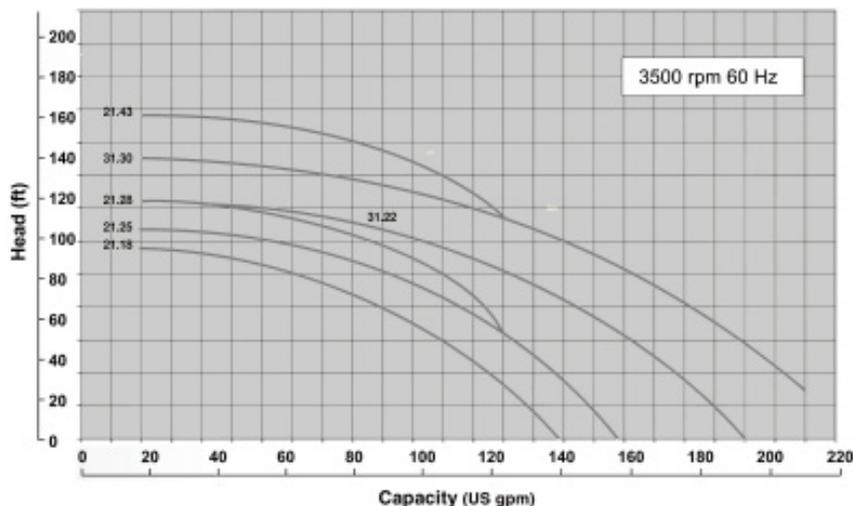


Performance Curves

TMR G2



TMR G3



Pump Construction

- Patented bi-directional, self-alignment system
- SS armored housing (G3 Series)
- **Pump material - WR:** Polypropylene (glass fiber reinforced)
GF/GX: E-CTFE (carbon fiber filled)
- **Bearing material:** Rulon®, Carbon, Ceramics, Silicon Carbide
- **Housing seal:** Viton®, EPDM or Kalrez®
- **Magnet:** Neodymium-Iron-Boron



Accessories



Chemical Feed Systems



Measuring and Control Technology



Transfer Pumps

Metering Pumps