



*ANSIMAG<sup>®</sup> Process Pumps  
ETFE-lined Sealless Pumps  
for Chemical Services*



**RELIABILITY  
REALIZED.**

# About Us.

Sundyne is a leading supplier of world-class precision-engineered fluid handling solutions (pumps, compressors and special fit-for-purpose systems) to the oil and gas production, refining, petrochemical, chemical, power and water process industries.

Our reputation is built on producing highly reliable equipment to exacting ASME, API, ISO, and other global standards and supporting them with "PlusONE" Customer Service. Sundyne integrally geared pumps, sealless magnetic drive pumps and compressors can be counted upon to run reliably for years between service or repair.

Sundyne pumps and compressors are the ideal solution for customers who value keeping their plants up and running.



With world-class manufacturing and service facilities in the United States, England, France, Spain, and China, Sundyne is well positioned to solve the challenges facing global customers. Sundyne serves customers in over 117 countries with a factory trained and certified network of representatives and distributors. Sundyne has over 900 employees, approximately 400 outside the United States.



# Why ANSIMAG?



## ■ Leading Supplier of ETFE-lined Process Pumps To The Chemical Process Industry

- Since 1985
- Over 50,000 pumps supplied
- Sealless Mag Drive Technology
- No mechanical seals to leak or fail
- Near universal chemical compatibility

## ■ Cost Efficient

- Non metallic (lined) construction
- Simple, low maintenance (close coupled) design

## ■ Application Expertise

- Most experienced and trained Sales Engineers in the industry

## ■ Quality

- ISO 9001:2008 - Quality Management System

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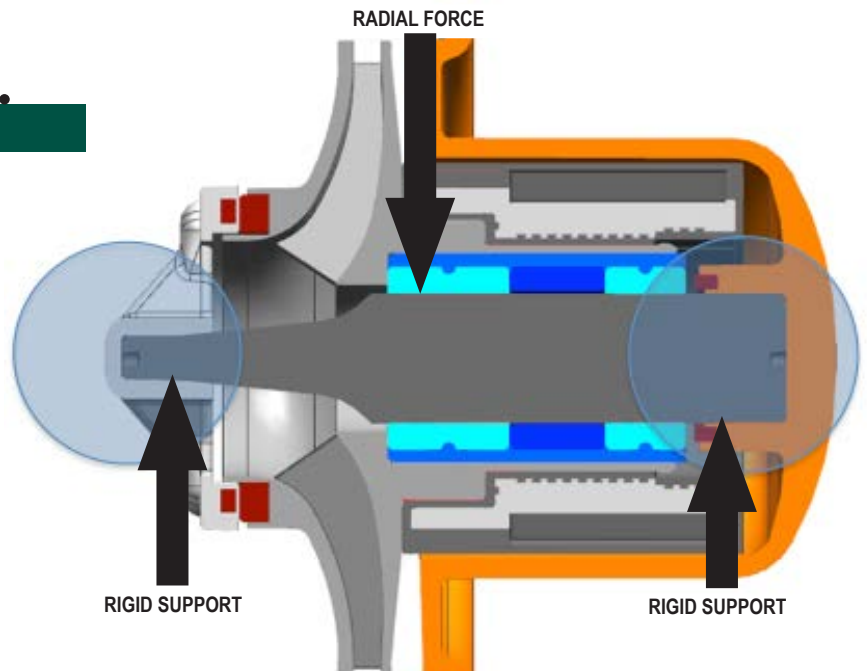
**ANSIMAG unique combination of Design Features, Application Expertise, and Local Support provide our Customers with the most reliable Sealless Process Pump solution for keeping their plant up and running. That's RELIABILITY REALIZED.**

# Features.

## FULLY SUPPORTED IMPELLER >

By rigidly supporting the stationary pump shaft at the pump suction and rear containment shell, ANSIMAG keeps your equipment up and running by providing a fully supported platform for the rotating impeller assembly, preventing any radial deflection when operating at low flow (or off BEP) conditions.

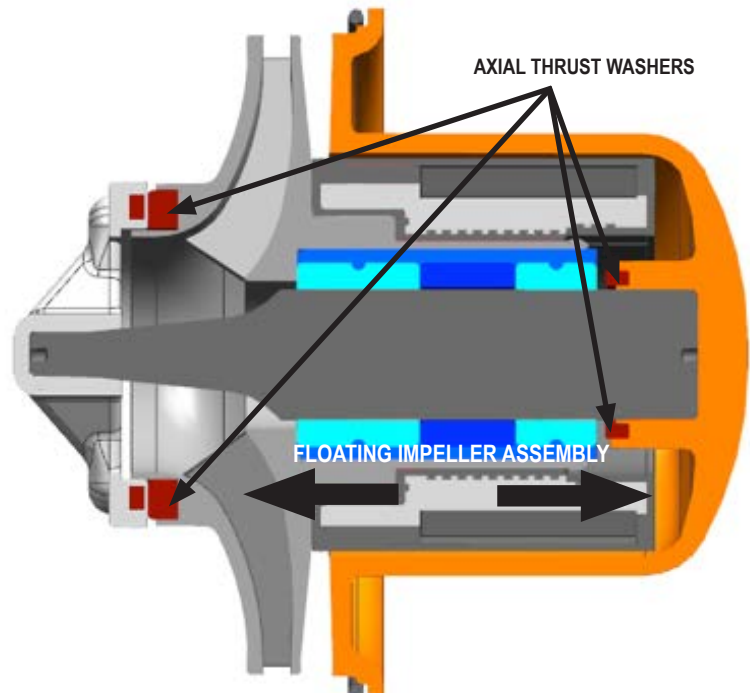
By preventing any radial impeller deflection, ANSIMAG increases the allowable operating range and RELIABILITY of the pump over cantilevered or overhung impeller designs.



## AXIAL THRUST WASHERS >

By using axial thrust washers, ANSIMAG increases the allowable operating range over "thrust balanced" methods.

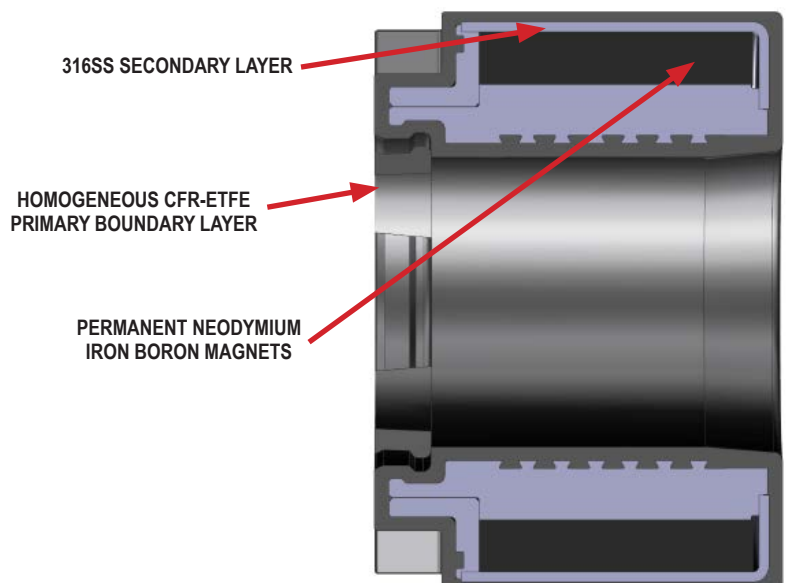
Unlike competitive designs, ANSIMAG axial thrust balancing design provides a positive thrust surface that is unaffected by cavitation, solids or transient suction conditions and effective over the complete operating range of the unit for increased pump RELIABILITY.



## FULLY ENCAPSULATED INNER DRIVE >

ANSIMAG patented inner drive encapsulation process hermetically seals the inner magnets, isolating them from process fluid, maintaining the integrity and strength of the magnets over the lifetime of the unit.

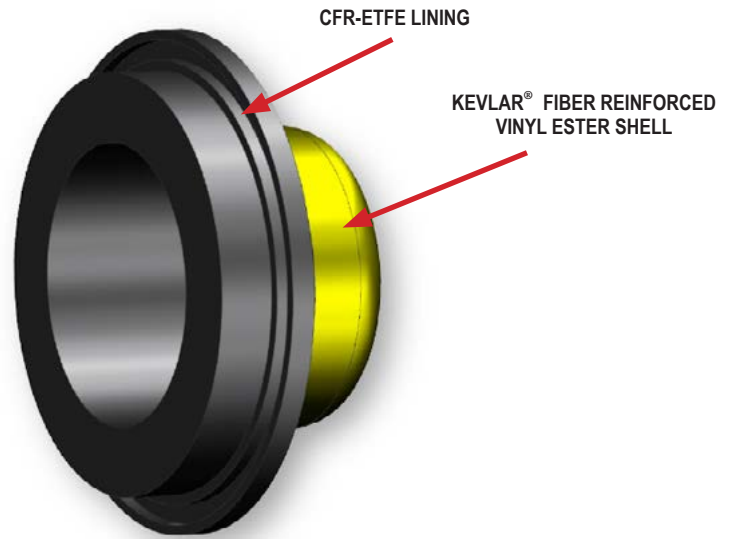
Homogenous primary boundary layer of CFR-ETFE hermetically seals the magnets. Unlike competitive designs, the chance for permeation is removed by eliminating any post injection molding machining or plastic welding. A secondary stainless steel layer is provided for increased durability.





### REPLACEABLE IMPELLER

ANSIMAG pumps feature a single piece closed impeller that is separate from the inner magnet drive. The impeller is attached to the inner magnet drive with ANSIMAG patented tongue and groove system. Unlike competitive designs, the single piece replaceable impeller enables a cost effective approach to both warehouse spares management and ease of re-rating operation conditions for the unit.



### NON-METALLIC CONTAINMENT SHELL

ANSIMAG pumps are as energy efficient as mechanically sealed pumps. The non-metallic CFR-ETFE lined containment shell generates no hysteresis losses during operation. No hysteresis loss means no heat generation and no power loss. With a burst pressure of 6X MAWP of the pump, the Kevlar® fiber reinforced vinyl ester shell provides ANSIMAG pumps with industry leading RELIABILITY.

### ANSIMAG



### COMPETITOR



### SIMPLE SEALLESS DESIGN

ANSIMAG pumps can be quickly and easily repaired in the field. Unlike the competition, ANSIMAG pumps consist of only 9 wetted parts. Routine maintenance or repairs can be performed in the field with no special training or tools.

# Typical Applications.

The ANSIMAG ETFE-lined sealless process pumps are ideal for most corrosive or acidic applications in the Chemical, Power & Industrial, Hydrocarbon and Oil & Gas industries.



## CHEMICAL PROCESSING

- **CHLOR-ALKALI**  
Sodium Hypochlorite, Sodium Hydroxide  
Sulfuric Acid, Chlorinated Brine
- **AGRICULTURAL CHEMICAL**  
Pesticides, Insecticides, Herbicides
- **FERTILIZER**  
Nitric Acid



## HYDROCARBON PROCESSING

- **DOWNSTREAM REFINING**  
Sour Water, Sulfuric Acid
- **DOWNSTREAM PETROCHEMICALS**  
Benzene, Xylene, Toluene



## POWER & INDUSTRIAL

- **AQUATIC & MARINE**  
Seawater, Caustic
- **BATTERY**  
Sulfuric Acid, Potassium Hydroxide
- **BIOFUELS**  
Bio-diesel, Ethanol
- **FOOD & BEVERAGES**  
Fragrances
- **MINING**  
Sodium Cyanide, Sulfuric Acid, Hydrochloric Acid
- **PHARMACEUTICAL**  
Silicon Oil (Heat Transfer Fluid)
- **PULP & PAPER**  
Chlorine, Sulfuric Acid
- **SEMICONDUCTOR**  
Hydrofluoric Acid, Sulfuric Acid
- **STEEL FINISHING, PICKLING, ETCHING, PLATING**  
Hydrochloric Acid
- **WATER & WASTEWATER TREATMENT**  
Sodium Hypochlorite, Sodium Hydroxide  
Sulfuric Acid, Ferric Chloride



## OIL & GAS

- **UPSTREAM**  
Produced Water, Crude Oil



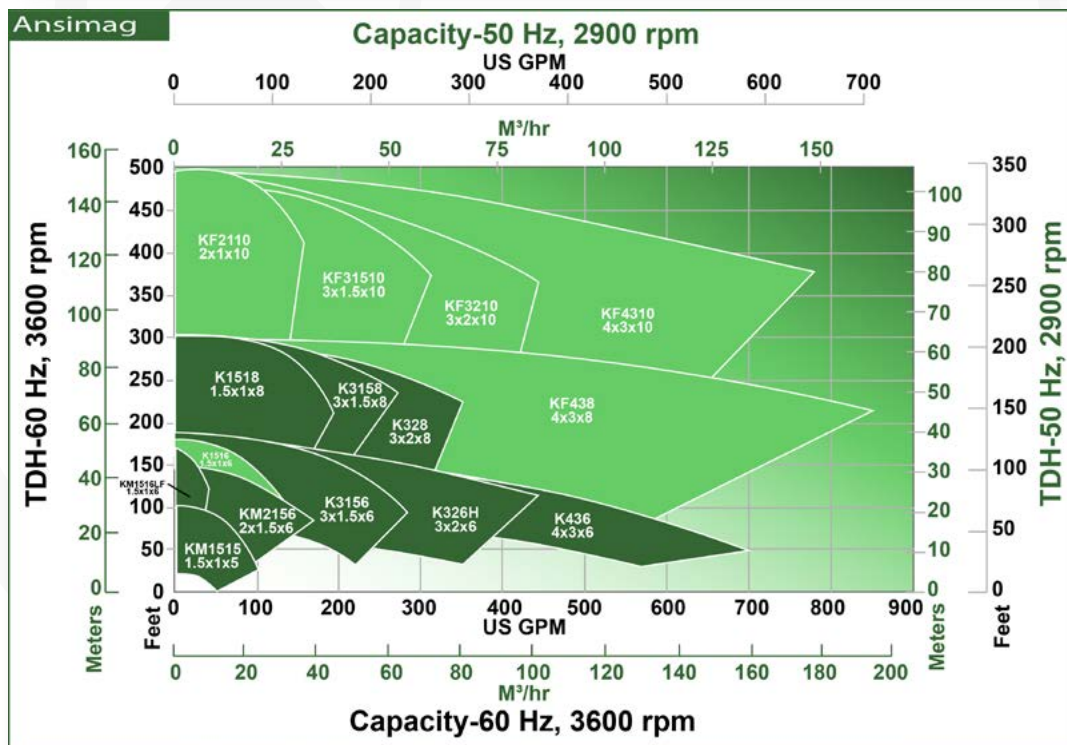
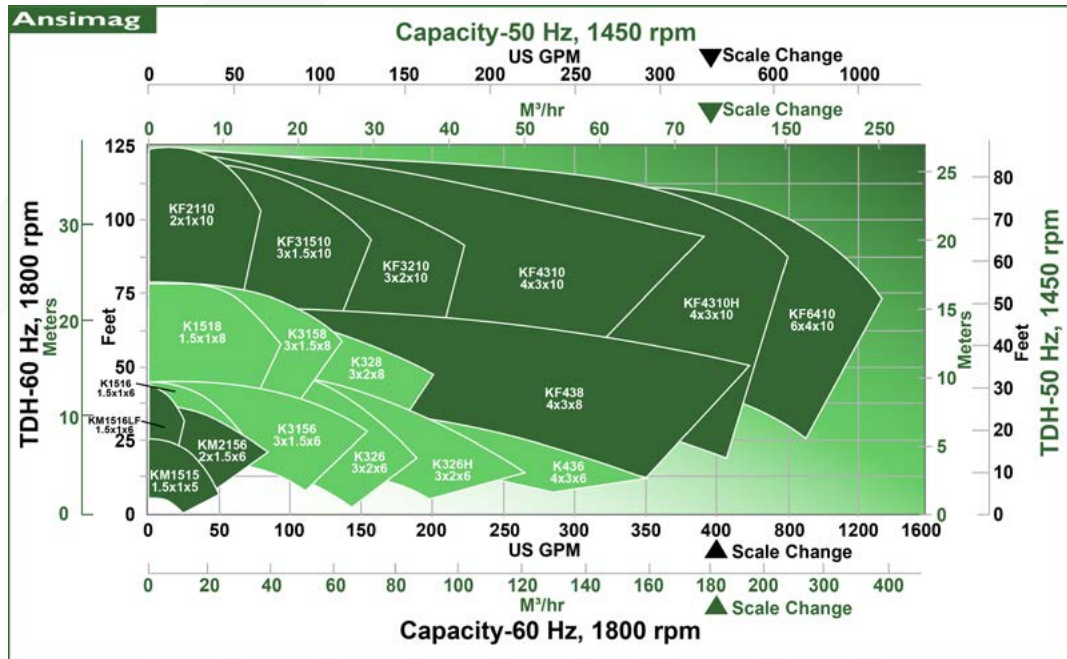
# Family Performance.



ANSIMAG pumps provide affordable replacement options for aging ASME/ANSI B73.3 and ISO 2858 sized pumps, because the line covers a wide range of sizes and standard external dimensions to facilitate sealless or sealed pump replacement without changing piping or baseplates.

Use these curves to find a pump model that meets your needs. For detailed sizing refer to the individual product pages with curves and specifications.

ANSIMAG sealless magnetic drive pumps are available for sizing at [www.sundyne.com/SundQuest](http://www.sundyne.com/SundQuest)



# Features & Benefits.

## REPLACEABLE IMPELLER

Single piece closed impeller, separate from the Inner Drive, can be easily changed out if process conditions change.

## SIMPLE BY DESIGN

With only 9 wetted parts, ANSIMAG pumps are the simplest, most reliable pumps to own, operate and maintain.

## AXIAL THRUST

Robust "Thrust Forward" design provides reliable operation even under the most difficult suction conditions.

## DURABLE CONSTRUCTION

Ductile iron exterior is designed for heavy-duty chemical applications.

## CHEMICALLY RESISTANT LINING

Carbon Fiber reinforced ETFE is chemically resistant to most chemicals.

## ZERO LEAKAGE

All ANSIMAG pumps feature a single, fully confined, O-ring to eliminate possible leakage.

## RUN FOR LIFE BUSHING

Silicone Carbide bushings provides near maintenance free operation for the life of the pump.

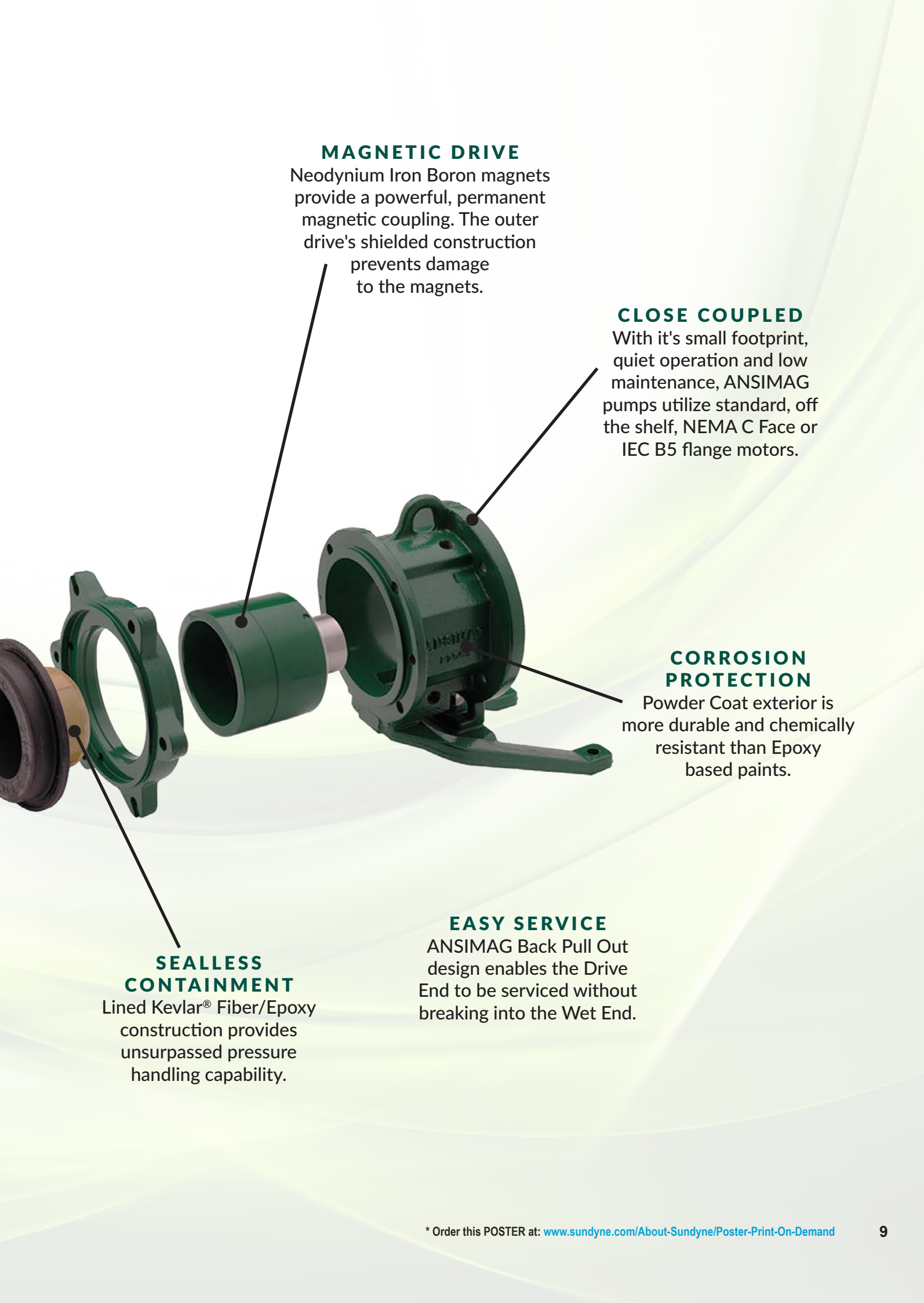
## FULLY ENCAPSULATED DRIVE

ANSIMAG fully encapsulated inner drive provides unsurpassed resistance to chemical attack.

## RADIAL THRUST

All ANSIMAG pumps feature a fully supported shaft to eliminate radial shaft deflection at a low flow operating conditions.





### MAGNETIC DRIVE

Neodymium Iron Boron magnets provide a powerful, permanent magnetic coupling. The outer drive's shielded construction prevents damage to the magnets.

### CLOSE COUPLED

With its small footprint, quiet operation and low maintenance, ANSIMAG pumps utilize standard, off the shelf, NEMA C Face or IEC B5 flange motors.

### CORROSION PROTECTION

Powder Coat exterior is more durable and chemically resistant than Epoxy based paints.

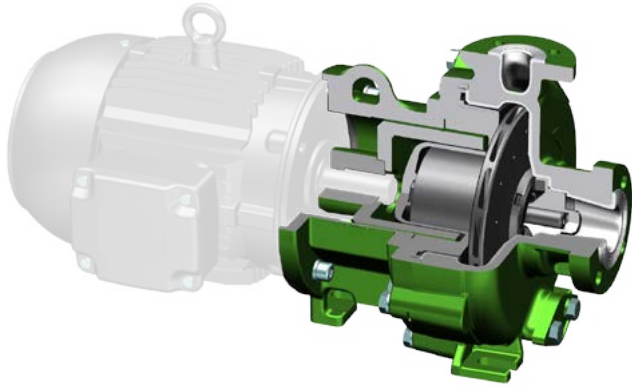
### SEALLESS CONTAINMENT

Lined Kevlar® Fiber/Epoxy construction provides unsurpassed pressure handling capability.

### EASY SERVICE

ANSIMAG Back Pull Out design enables the Drive End to be serviced without breaking into the Wet End.

# ANSI Pumps.



## K-Plus Series

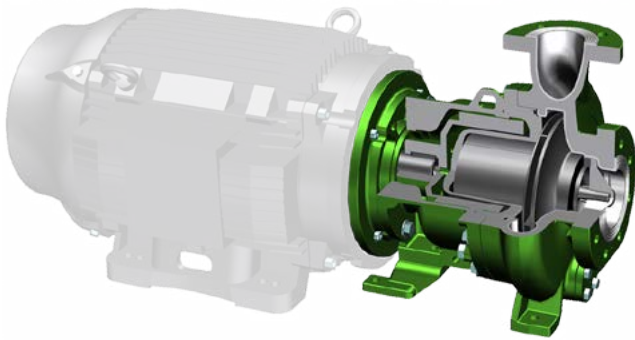
ASME B73.3 - 2015 compliant

Flow: to 600 GPM (140m<sup>3</sup>/hr)

Head: to 300 Feet (90m)

Temp: -20F (-29C) to 250F (121C)

Pressure: to 275 PSI (19 BAR)



## KF Series

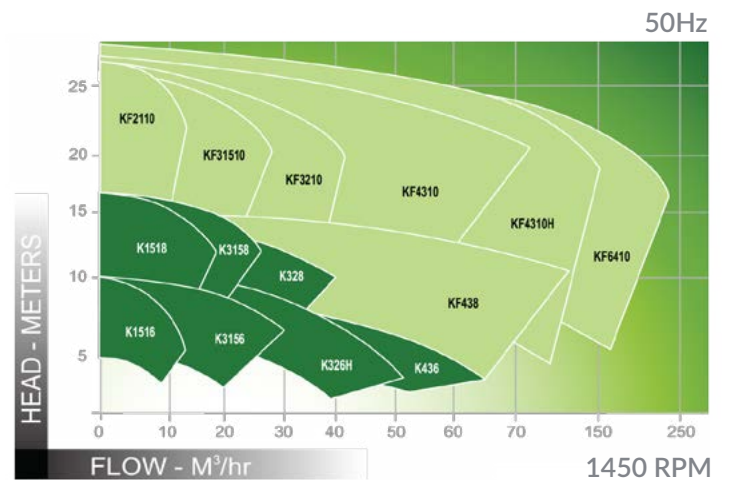
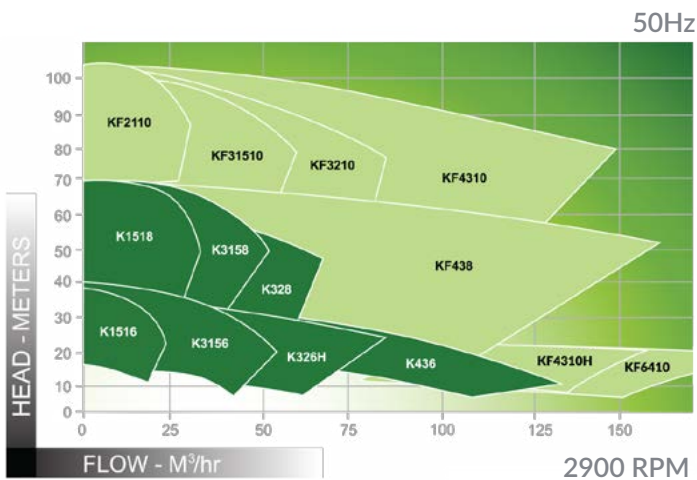
ASME B73.3 - 2015 compliant

Flow: to 1400 GPM (400m<sup>3</sup>/hr)

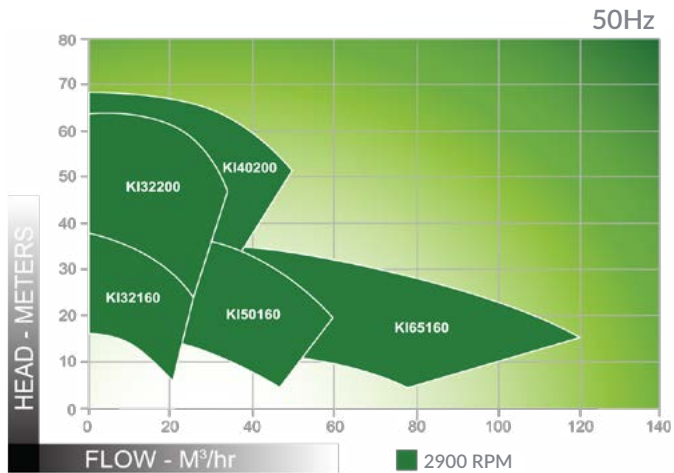
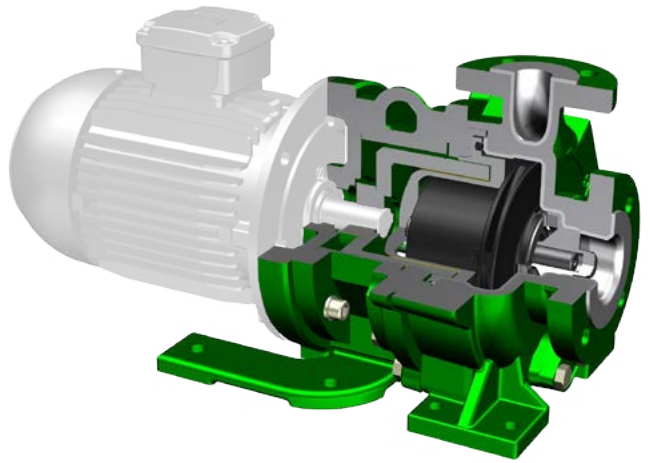
Head: to 500 Feet (150m)

Temp: -20F (-29C) to 250F (121C)

Pressure: to 350 PSI (24 BAR)



# ISO Pumps.



## KI Series

Casing / Flange Dimensions to ISO 2858

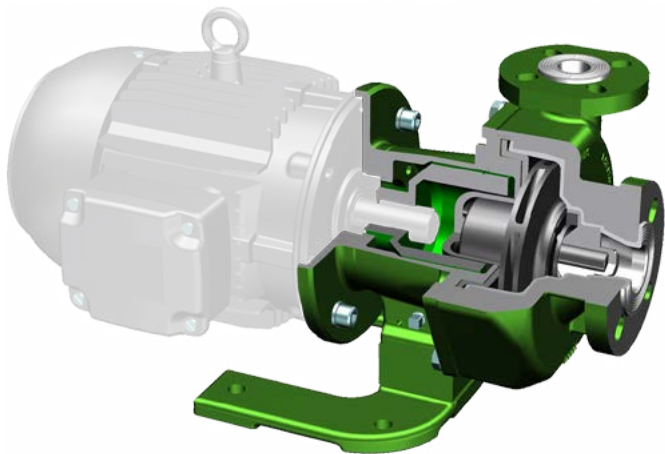
Flow: to 600 GPM (140m<sup>3</sup>/hr)

Head: to 300 Feet (90m)

Temp: -20F (-29C) to 250F (121C)

Pressure: to 232 PSI (16 BAR)

# General Industry Pumps.



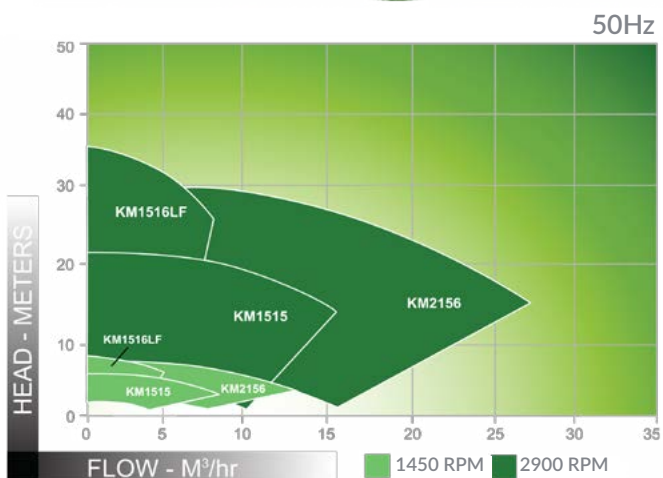
## KM Series

Flow: to 140 GPM (32m<sup>3</sup>/hr)

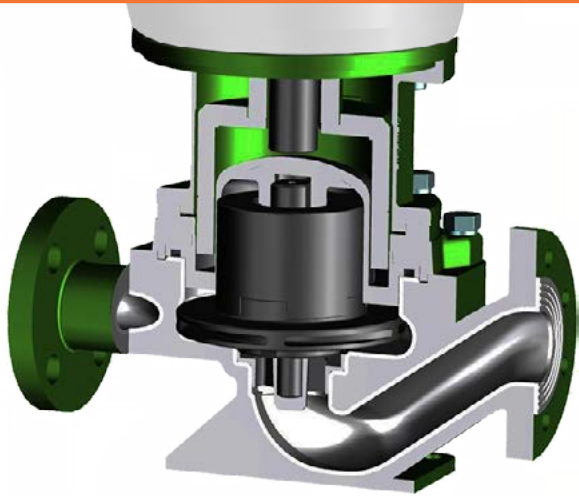
Head: to 175 Feet (53m)

Temp: -20F (-29C) to 250F (121C)

Pressure: to 150 PSI (10 BAR)



# Vertical Inline Pumps.



## KV Series

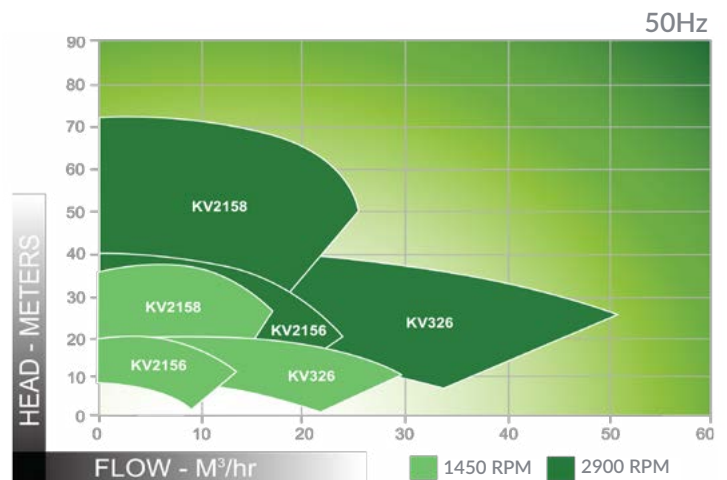
Casing / Flange Dimensions to ASME B73.2

Flow: to 600 GPM (140m<sup>3</sup>/hr)

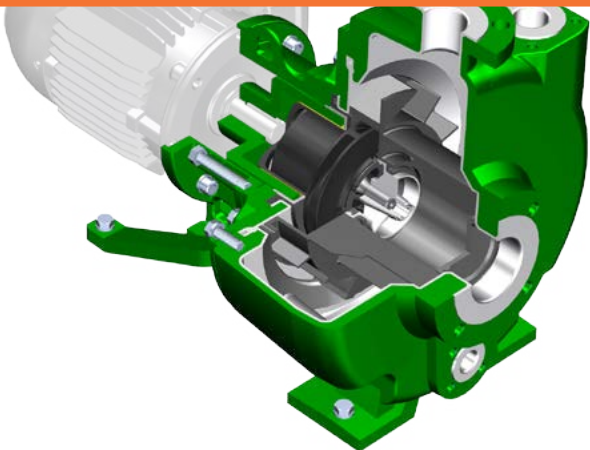
Head: to 300 Feet (90m)

Temp: -20F (-29C) to 250F (121C)

Pressure: to 275 PSI (19 BAR)



# Self Priming Pumps.



## KP Series

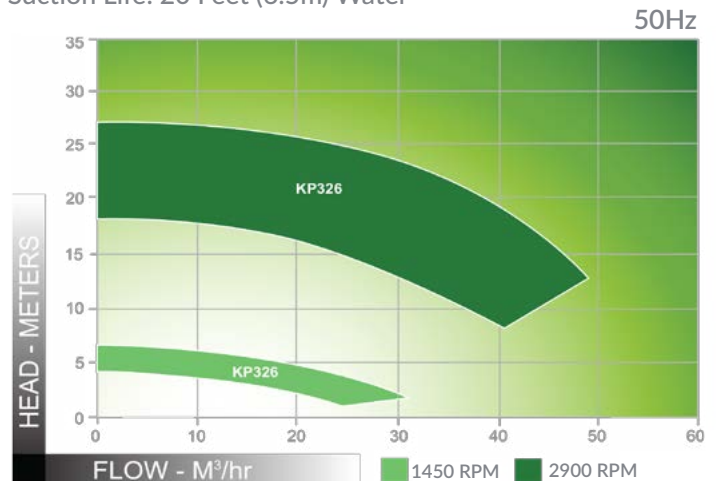
Flow: to 300 GPM (68m<sup>3</sup>/hr)

Head: to 150 Feet (46m)

Temp: -20F (-29C) to 250F (121C)

Pressure: to 275 PSI (19 BAR)

Suction Life: 20 Feet (6.5m) Water



# Low System Temperature Pumps.



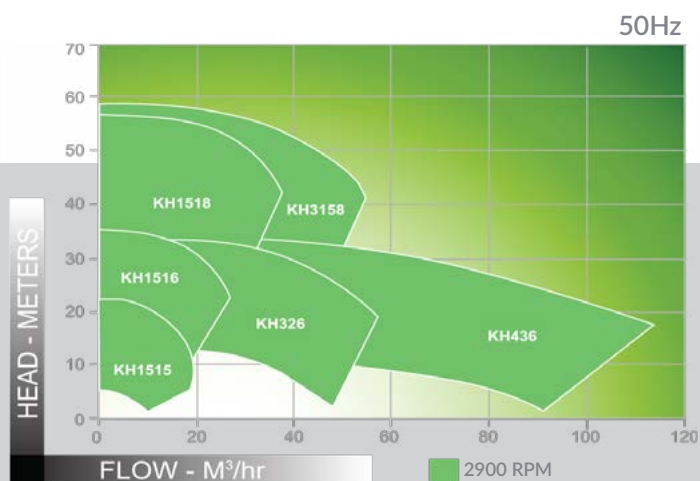
## KH Series

Flow: to 600 GPM (140m<sup>3</sup>/hr)

Head: to 300 Feet (90m)

Temp: -120F (-84C) to 250F (121C)

Pressure: to 275 PSI (19 BAR)



# Options & Accessories.

## POWER MONITOR >

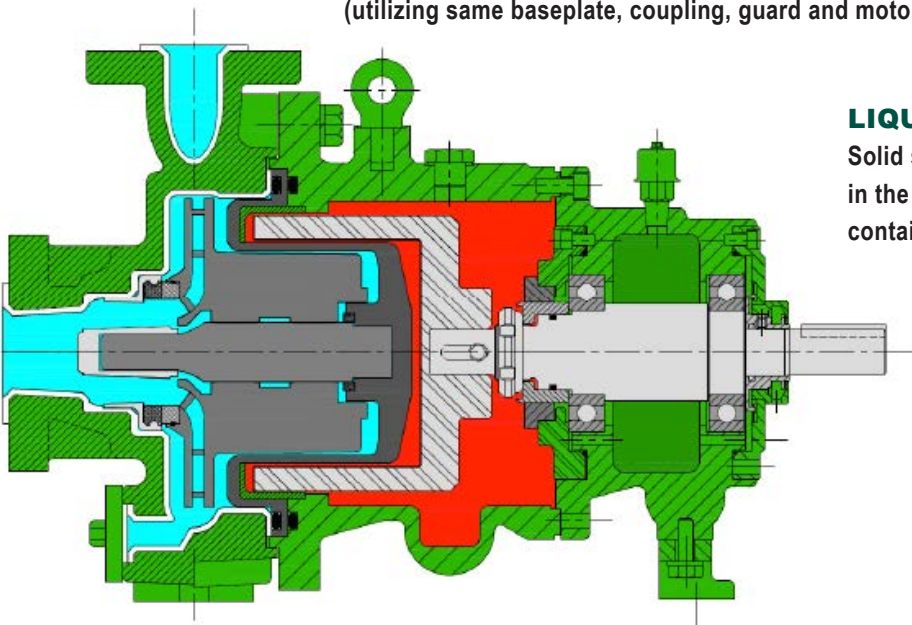
Installed in the Motor Control Center (MCC), a power monitor measures the power required to operate the pump. By setting High and Low trip points, the power monitor is the perfect solution for protecting your pump from:

- Dry running
- Low flow Operation
- High flow Operation
- Severe Cavitation
- Magnetic De-coupling



## LONG COUPLED >

Long coupled configurations conform to ANSI B73.3 dimensions for easy replacement of mechanically sealed pumps (utilizing same baseplate, coupling, guard and motor).



## LIQUID LEAK DETECTOR >

Solid state device for detecting liquid in the event of a leak in the primary containment shell.



## SECONDARY CONTROL & CONTAINMENT

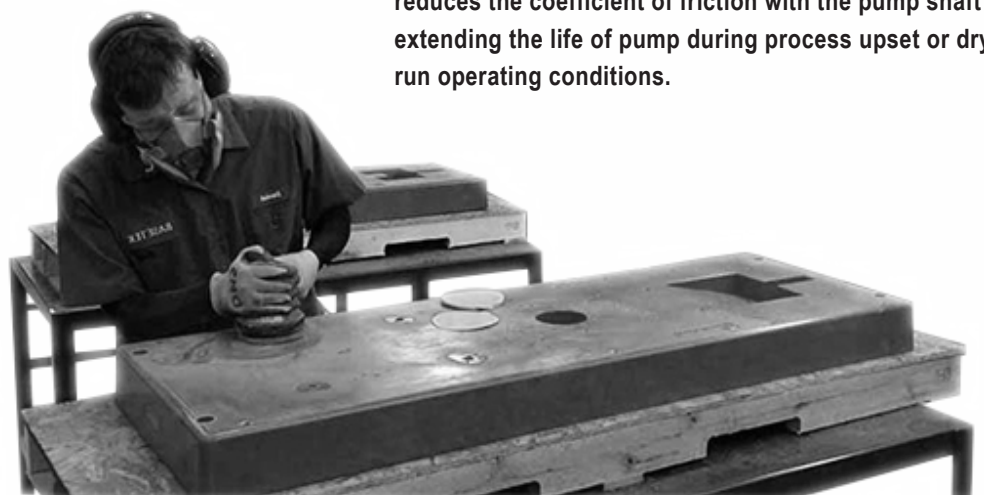
ASME B73.3 compliant back-up to control or contain leakage in the event primary pressure containment is breached.

## DRY RUN RESISTANT BEARINGS

Fitting an ANSIMAG pump with Carbon radial bushings reduces the coefficient of friction with the pump shaft extending the life of pump during process upset or dry run operating conditions.

## BASETEK® BASEPLATES >

Baseplates pre-engineered, chemically resistant polymer concrete bases provide a superior foundation to channel steel alternatives.



# Sales & Service Support.

**ANSIMAG  
AUTHORIZED  
DISTRIBUTORS**



## **Backed By Global Support**

The Sundyne global network of factory trained and certified distributors and representatives is ideally positioned to provide aftermarket support services to customers in more than 117 countries.



#### COMPRESSORS

#### PUMPS

#### GENUINE PARTS

#### SERVICE

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To learn more about our extended service offerings and specific application references, visit [www.sundyne.com](http://www.sundyne.com) or contact the dealer nearest you.

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ANSIMAG ETFE-lined Chemical Process Pumps Brochure\_010518: A4 (v.1) POD