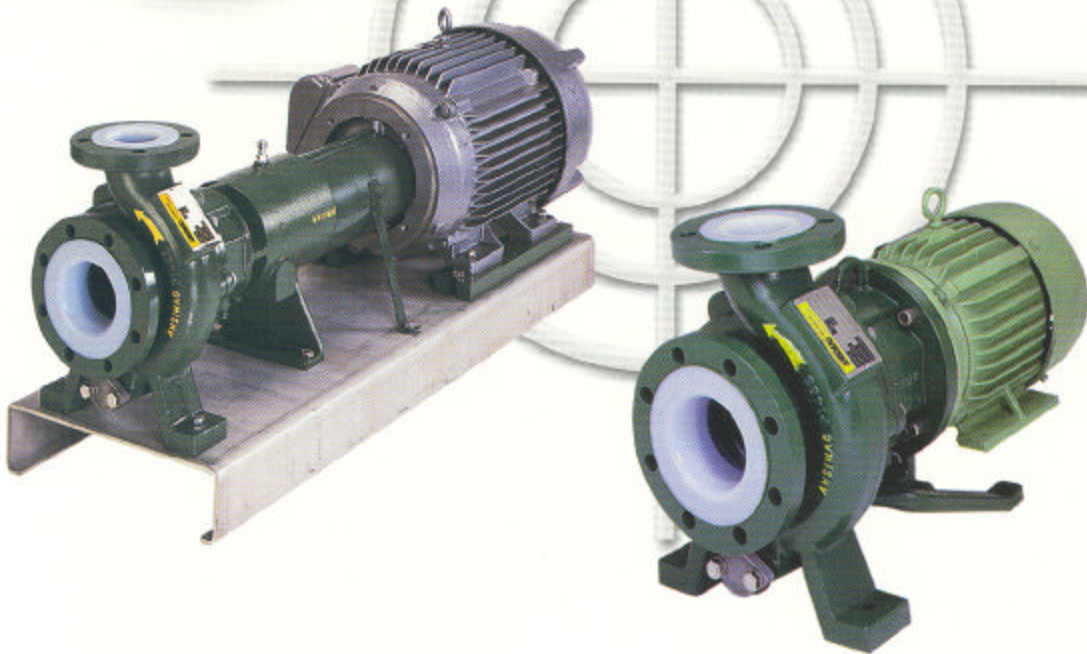


ANSIMAG[®]

Simple by Design™



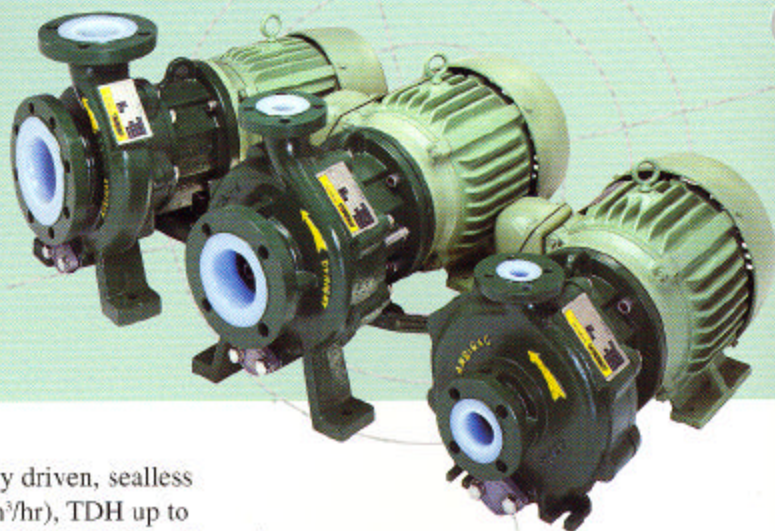
NON-METALLIC • MAG-DRIVE
CENTRIFUGAL PUMPS



Sundyne 
CORPORATION



NON-METALLIC • MAG-DRIVE CENTRIFUGAL PUMPS



Exceptionally Innovative,
Remarkably Simple for
Maximum Reliability
and Zero Emissions.

ANSIMAG K+ series pumps are non-metallic, magnetically driven, sealless centrifugal pumps capable of flows up to 700 GPM (159 m³/hr), TDH up to 330 ft. (101 m), and temperatures from -120°F (-85°C) to 250°F (121°C). The series consists of various pump sizes with maximum impeller diameters of either 6" or 8" and flanges that meet ANSI, ISO or JIS dimensional standards. Mounting configurations are closed coupled, which is compact and requires no alignment, or long coupled which utilizes a pump bearing frame and flexible coupling between the motor and pump shaft. The K+ series' non-rotating shaft and proprietary one-piece impeller makes the overall design the ultimate in simplicity.

Heavy Duty Operation

The pump design incorporates a ductile iron casing that is lined with fluoropolymer. This combination provides the mechanical strength of a metallic pump along with the corrosion resistance of a non-metallic pump. All ANSIMAG pumps utilize a non-rotating shaft that sees no oscillating loads and results in much higher load carrying capacities. The non-metallic rear casing/containment shell design approaches the strength of steel with a dual laminate of fluoropolymer and reinforced vinyl ester composite for high burst pressure resistance. The inner magnet assemblies are completely encapsulated for protection against the chemicals being pumped. The outer magnet assemblies are protected against corrosive atmospheres or any other potential physical damage.

Sealless, Magnetic Coupling

The magnetically coupled design provides sealless operation, completely eliminating fugitive emissions and the need for time consuming and expensive seal monitoring, maintenance and replacement. The superior strength of the rare earth magnets provides no-slip performance so there is no need for soft-start motors. In addition, due to the elimination of eddy currents by the non-metallic rear casing, motor selection is determined by hydraulic horsepower alone.

Non-Metallic

All wetted parts are made with ETFE or PFA fluoropolymers to handle most corrosive fluids and solvents up to 250°F (121°C). The non-metallic rear casing eliminates the generation of unwanted heat (eddy currents) associated with metal reinforcements reducing energy costs and motor sizes. The elimination of eddy currents also allows for the pumping of liquids that are sensitive to temperature rises.

Cost Effective Performance, Easy Installation

ANSIMAG pumps are competitively priced with standard sealed alloy pumps but provide heavy duty performance with no leaks, no emissions and low maintenance. Because most parts are interchangeable within the series, spare parts inventory costs are kept to a minimum. K+ series pumps also meet ANSI B73, ISO 2858 and JIS B8318 dimensional standards, so no expensive piping, motor or base changes are necessary when replacing leaking sealed pumps.



Mouth ring

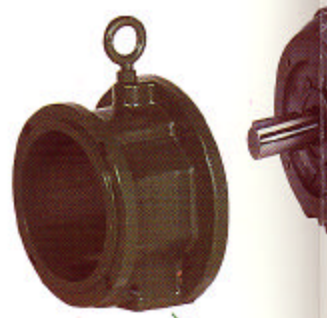
Removable for quick and easy field replacement. The hydropad design allows the pumping of almost any heat sensitive liquid. Available in CFR/PTFE or SiC.

Main Bushing

Oversized, heavy duty one-piece design maintains its rated performance long-term, even under the most abusive conditions. Available in SiC or carbon.

Shaft

The non-rotating shaft eliminates the need for internal fasteners and additional O-rings. The patented shaft groove allows unexpected particles to travel along the shaft without damaging the radial bearings and prevents a stagnation of flow in the rear casing.



Drain

Blind flange drain is standard. Plugged flange drain is available as an option.

Shaft Support/ Thrust Ring

One-piece construction is removable without special tools. The thrust ring is SiC and the shaft support is CFR/ETFE.



O-Ring

For better field reliability, there's only one fully confined sealing O-ring. Available in FKM, EPDM, or special materials by request.

Impeller

A CFR/ETFE single-piece impeller developed from a complex and proprietary process gives K+ series pumps maximum heat resistance, greater strength and better performance. Magnets embedded in the impeller make for an overall simple design. GFR/PFA is also available.



Outer Magnet

The superior strength enables the pump to run throughout the entire life requiring soft-start motor completely encapsulated in corrosive environments.

Rear Casing

The innovative design reduces costs by eliminating the need for an injection molding process. A composite construction provides higher burst pressure.

Casing

The top centerline discharge casing is made of ductile iron and is designed to handle heavy pipe loads. The seamless molded-in-place fluoropolymer liner is used for maximum corrosion resistance.

Note:

- CFR- Carbon Fiber Reinforced
- EPDM- Polymer of Ethylene and Propylene
- ETFE- Ethylene-Tetra-Flouro-Ethlene fluoropolymer
- FKM- Fluorocarbon Rubber
- GFR- Glass Fiber Reinforced
- PFA- Perfluoroalkoxy Fluoropolymer
- PTFE- PTFE
- SiC- Silicon Carbide

Driver

The driver can be either close-coupled or frame mounted. In a close-coupled configuration, the driver will accept either a NEMA C-face or an IEC motor.

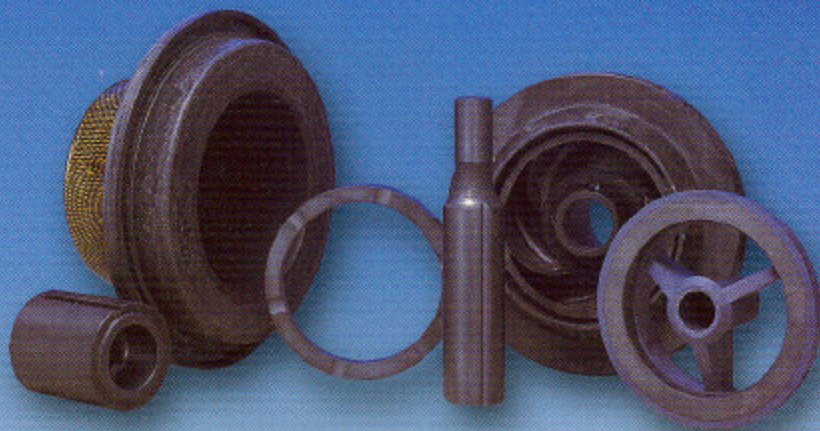


of the rare earth magnets
in at the rated torque
temperature range without
stors. The magnets are
ed for protection against
is inside and out.

ng/ g Support

ve rear casing design reduces energy
minating all unwanted heat. Its shell
n molded fluoropolymer backed by
cover. This design provides an even
pressure and safety factor.

Poly-Tetra-Flouro-Ethlene fluoropolymer
icon Carbide



First class materials, replaceable wear parts
for economical, long lasting performance.

- ✓ Shaft
- ✓ Shaft Support/Thrust Ring
- ✓ Mouth Ring
- ✓ Main Bushing
- ✓ Rear Casing/Containment Shell
- ✓ Impeller
- ✓ O-Ring

All wear parts, such as the pump shaft, thrust ring and bushing, are made from pure sintered silicon carbide which is extremely high wear resistant and inert to almost all chemicals. Impellers, rear casings and shaft supports are made from fluoropolymers. These parts are designed to be easily field replaceable and most are interchangeable within the series. In fact, you can tear down and put back together an ANSIMAG pump with a single wrench in 30 minutes or less! Simplify pump selection and unify your plant by using ANSIMAG pumps.

ANSIMAG K+ series pumps are versatile and can effectively handle a wide range of corrosive chemical liquids in the following applications:

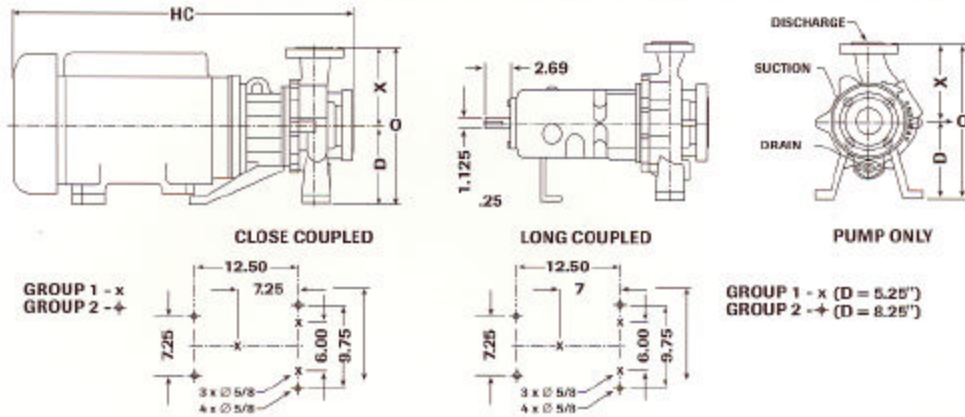
- Chemical Processing and Transfers
- Waste Chemical Treatment
- Filtration
- Bulk Storage
- Surface Treatment for Plating, Etching and Pickling
- Scrubber Systems
- High Purity Services
- Metal Finishing

The following is a partial list of liquids commonly pumped by ANSIMAG products:

| | | |
|----------------------|---------------------|-----------------------------|
| Acetic Acid | Bleach Solution | Nitric Acid + Sulfuric Acid |
| Ammonia | Ferric Chloride | Oleum |
| Benzene | Hydrochloric Acid | Phosphoric Acid |
| Caustic Soda | Hydrofluoric Acid | Sodium Hypochlorite |
| Chlorosulphonic Acid | Hydrogen Peroxide | Sulfuric Acid |
| Chromic Acid | Methyl Ethyl Ketone | Water |

Always consult factory for specific performance characteristics.

Dimensions for ANSI STANDARDS with NEMA MOTORS



| ANSI B73 NOMINAL | ANSIMAG MODEL | SUCTION FLANGE | DISCHARGE FLANGE | D | X | O | CP |
|---------------------|------------------|-------------------|---------------------|-------|-------|--------|--------|
| AA | K1516 | 1 1/2 | 1 | 5 1/4 | 6 1/2 | 11 3/4 | 17 1/2 |
| AB | K3156 | 3 | 1 1/2 | 5 1/4 | 6 1/2 | 11 3/4 | 17 1/2 |
| AC | K326s | 3 | 2 | 5 1/4 | 6 1/2 | 11 3/4 | 17 1/2 |
| AA | K1518 | 1 1/2 | 1 | 5 1/4 | 6 1/2 | 11 3/4 | 17 1/2 |
| A10 | K326 | 3 | 2 | 8 1/4 | 8 1/4 | 16 1/2 | 23 1/2 |
| - | K436 | 4 | 3 | 8 1/4 | 8 1/4 | 16 1/2 | 23 1/2 |
| A50 | K3158 | 3 | 1 1/2 | 8 1/4 | 8 1/2 | 16 3/4 | 23 1/2 |

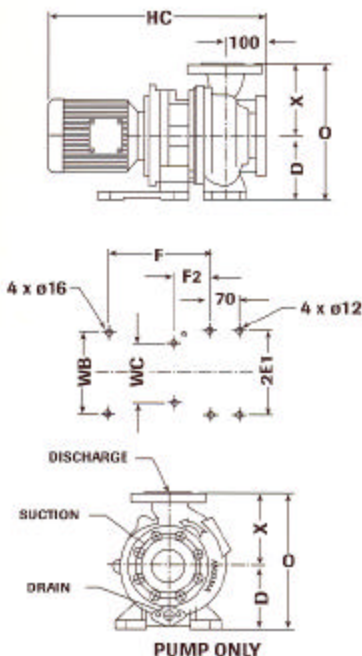
| MOTOR FRAME NEMA | HC |
|---------------------|-------|
| 143/145TC | 22.50 |
| 182/184TC | 25.00 |
| 213/215TC | 29.50 |
| 254/256TC | 32.85 |
| 284TSC | 35.80 |

DIMENSIONS ARE IN INCHES.

ANSI DIMENSIONAL PUMPS ARE ALSO AVAILABLE WITH IEC MOTORS.

Dimensions for ISO STANDARDS with IEC MOTORS

| ANSIMAG MODEL | SUCTION FLANGE | DISCHARGE FLANGE | D | X | O | 2E1 |
|------------------|-------------------|---------------------|-----|-----|-----|-----|
| Ki32160 | 50 | 32 | 132 | 160 | 292 | 190 |
| Ki50160 | 65 | 50 | 132 | 160 | 292 | 190 |
| Ki65160 | 80 | 65 | 160 | 180 | 340 | 212 |
| Ki32200 | 50 | 32 | 160 | 180 | 340 | 190 |
| Ki40200 | 65 | 40 | 160 | 180 | 340 | 212 |



| ANSIMAG MODEL | MOTOR FRAME IEC | F | F2 | WB | WC | HC |
|------------------|--------------------|-----|----|-----|-----|-----|
| Ki32160 | 80 | 236 | - | 203 | - | 525 |
| Ki50160 | 80 | 236 | - | 203 | - | 525 |
| Ki65160 | 80 | 255 | - | 267 | - | 545 |
| Ki32200 | 80 | 255 | - | 267 | - | 527 |
| Ki40200 | 80 | 255 | - | 267 | - | 547 |
| Ki32160 | 90 | 236 | - | 203 | - | 559 |
| Ki50160 | 90 | 236 | - | 203 | - | 559 |
| Ki65160 | 90 | 255 | - | 267 | - | 579 |
| Ki32200 | 90 | 255 | - | 267 | - | 561 |
| Ki40200 | 90 | 255 | - | 267 | - | 581 |
| Ki32160 | 100-112 | 236 | - | 203 | - | 581 |
| Ki50160 | 100-112 | 236 | - | 203 | - | 581 |
| Ki65160 | 100-112 | 255 | - | 267 | - | 601 |
| Ki32200 | 100-112 | 255 | - | 267 | - | 583 |
| Ki40200 | 100-112 | 255 | - | 267 | - | 603 |
| Ki32160 | 132 | 293 | 70 | 311 | 229 | 661 |
| Ki50160 | 132 | 293 | 70 | 311 | 229 | 661 |
| Ki65160 | 132 | 255 | - | 267 | - | 681 |
| Ki32200 | 132 | 255 | - | 267 | - | 663 |
| Ki40200 | 132 | 255 | - | 267 | - | 683 |
| Ki32160 | 160 | 293 | 70 | 311 | 229 | 808 |
| Ki50160 | 160 | 293 | 70 | 311 | 229 | 808 |
| Ki65160 | 160 | 293 | 70 | 311 | 229 | 828 |
| Ki32200 | 160 | 295 | - | 311 | 229 | 810 |
| Ki40200 | 160 | 295 | - | 311 | 229 | 830 |

DIMENSIONS ARE IN MILLIMETERS.

Specifications

Temperature Range:

-120°F* to 250°F
(-85°C to 121°C)

Maximum Discharge Pressure:

285 psi (19.3 Bars)

Maximum Flow:

700 GPM (159 m³/hr)

Maximum TDH:

330 ft. (101 m)

Slurry:

5% by weight (150 microns)
Consult factory if application exceeds this specification

Maximum Viscosity:

1700 SSU (365 centistokes)

Motors:

Up to 30 hp (22.5 kW)

Mounting:

Close coupled or long coupled
NEMA or IEC

Dimensional Standards:

ASME/ANSI B73
ISO 2858
JIS B8313

Models:

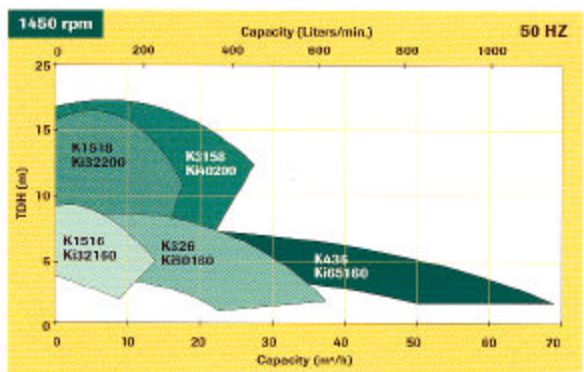
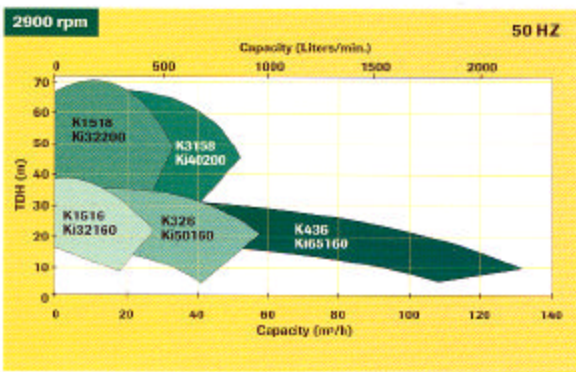
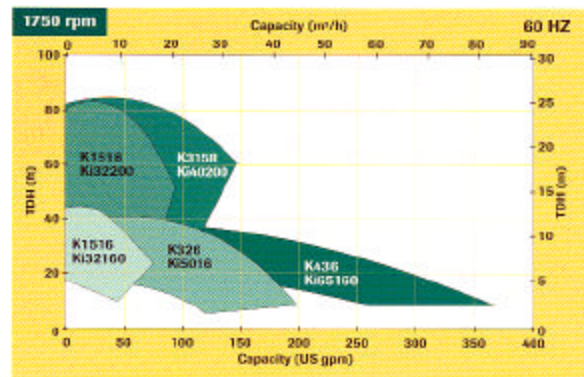
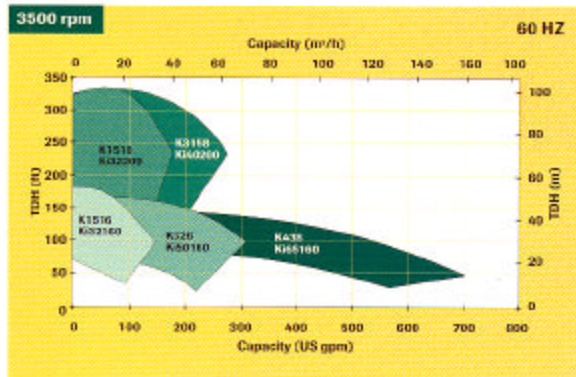
K1516 (1.5" x 1" x 6")
K3156 (3" x 1.5" x 6")
K326, K326s (3" x 2" x 6")
K436 (4" x 3" x 6")
K1518 (1.5" x 1" x 8")
K3158 (3" x 1.5" x 8")

* Special material is available for temperatures lower than -20°F

DIMENSIONAL DRAWINGS ARE FOR REFERENCE ONLY, NOT FOR CONSTRUCTION.



NON-METALLIC • MAG-DRIVE CENTRIFUGAL PUMPS



Note: Performance for K326s and K3156 is similar to K326

“When it comes to corrosion resistant, emission-free pumping, ANSIMAG makes the choice simple.”



KF SERIES



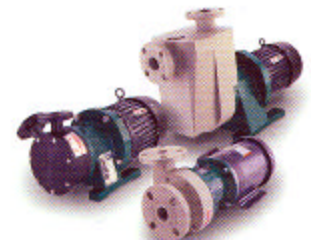
KP SERIES
Self-Priming



KV SERIES
Vertical



KM SERIES



G SERIES



DKP
Power monitors

www.sundyne.com

Manufacturers representatives, distributors, service centers and direct offices are located throughout the world. For a complete list, visit our website.



Sundyne
CORPORATION

• ANSIMAG • ANYSPEED • CASTER • GSP • HMD/KONTRO • MASO/SINE • SCMP • SUNDYNE COMPRESSORS • SUNDYNE • SUNFLO •

ANSIMAG • 14845 W. 64th Avenue • Arvada, Colorado 80007 USA • +1-303-425-0800 • Fax +1-303-425-0896 • www.ansimag.com