



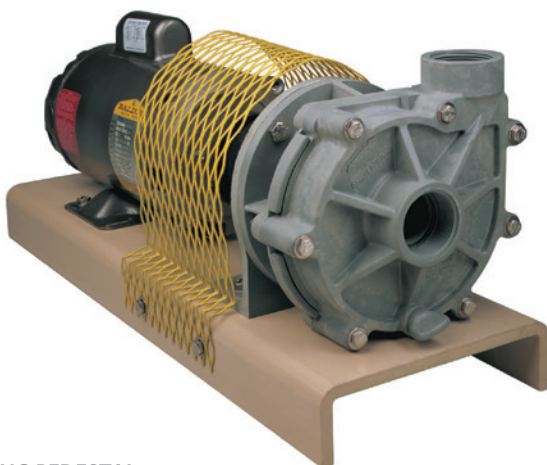
ADVANCE 1000



ADVANCE 3000

CLOSE-COUPLED AND EXTENSION BRACKET

Advance is designed to mount directly to NEMA 56J motors (C-face, threaded shaft), which are readily available in 1Ø and 3Ø, ODP, TEFC & TENV configurations. An extension bracket and 316 S.S. extension shaft are available to enable the use of a NEMA 56C motor (C-face, keyed shaft), which are also available in explosion-proof & chemical duty configurations.



BEARING PEDESTAL

A heavy-duty, bearing pedestal mount power frame is available for long coupling to a variety of motors, PTO, and engine drives.

DESIGN

Advance is molded out of high-quality glass-filled Noryl®, which gives it many advantages. It has good resistance to most acids, alkalis and inorganics. Noryl® has excellent tensile strength, very low water absorption, and a continuous temperature rating of 90° C.

We also offer the Advance line in polypropylene. The design of the pump, coupled with the chosen resins, produces a strong, durable, versatile unit. When used with the patented Impenatra® seal, the fluid pumped does not contact any metal parts. This allows it to properly handle many applications at a fraction of the cost of exotic alloys.

Engineered for high efficiency, Advance impellers are available as semi-open or enclosed to accommodate a wide variety of flows, pressures and fluids.

APPLICATIONS

Typical applications serviced by Advance include transfer of chemical process fluids, laser coolers, filtration systems, deionized water transfer, waste water reclamation, pressure spray systems, fountains, plating chemical transfer and recirculation, fume scrubbers, and pollution control equipment.

CORROSION RESISTANCE

Here is a small sampling of the chemicals handled:

- Sodium Hydroxide (10%)
- Ammonium Hydroxide (10%)
- Sodium Bicarbonate (SAT.)
- Ammonium Phosphate (SAT.)
- Potassium Bicarbonate (SAT.)
- Demineralized Water
- Ferric Chloride (SAT.)
- Ethylene Glycol
- Acetic Acid (10%)
- Nitric Acid (10%)
- Hydrochloric Acid (10%, 37%)
- Sulphuric Acid (10%, 60%)
- Nickel Plating Solutions

VERSATILITY

The pump can be close coupled to a 56J motor or mounted to a bearing pedestal. Both single and three phase motors in ODP and TEFC enclosures are readily available. An adapter kit is available to convert a 56C keyed-shaft motor to a 56J mount. A variety of elastomers, seals, impellers, and motors, can be combined to meet your exact requirements. All units are bench tested prior to shipping.

MARKETING

We are structured to sell unassembled pump ends, as well as completely assembled pump and motor units. We specialize in serving OEM's and distributors throughout the world.





NEW VARIABLE SPEED DRIVE PUMP SYSTEM

The amazing versatility of MDM's Advance® Pumps has been improved once again with the addition of the Yaskawa V1000 Variable Speed Drive, which is now available as a newly designed fluid control system. The combination of these two respected industry brands has produced a system that saves energy, increases efficiency and allows for the pumps to run at different speeds for different demands. This increased flexibility also adds to the life of the motor since the V1000 VFD ensures that it only runs at the necessary speed. This added efficiency also reduces cost of ownership over the lifetime of the product. In fact, some utilities even offer rebates for installing variable speed drives in new or retrofit work.

Another added benefit of the V1000 Energy Saving Control feature is that it ensures optimum performance by supplying the proper voltage for the load on the motor, thus maintaining the right amount of motor slip. Since system conditions frequently require reducing the flow rate, the design experts at MDM will size the pump to meet the maximum flow rate required by the system. Throttling valves, which are commonly installed to adjust the pump output are effective, but not energy efficient. A better and more energy-efficient design feature utilized by our engineers involves adjusting the pump impeller speeds, so the pump delivers only the required flow.

PUMP PERFORMANCE FEATURES (@ 50 HZ)

**Consult factory for proper sizing of motor and VFD*

- Up to 150 GPM or 62 m³/hr
- Up to 90' or 18 Meters TDH
- Up to 2.3 KW

BENEFITS

- Energy Savings
- Increased Equipment Life
- Easily adjustable flow rates - optimum pump output to meet demand
- Inherent soft-starting reduces wear and tear on motors and other system components such as piping and valves.
- Some utilities offer rebates for installing variable speed drives in new or retrofit work.
- Ability for integration with your system automation and monitoring

For cost savings, efficiency, reliability and hands-on personalized service, turn to the professionals at MDM Incorporated.



IMPENATRA®



WHAT'S DIFFERENT ABOUT THE IMPENATRA®?

- A proven, balanced design approach which eliminates hang up.
- Seal case is precision-molded of chemical-resistant thermoplastic.
- All metal surfaces, springs and shafts are isolated from fluid contact.
- Easily handles a wide range of chemical solutions including most acids, bases and inorganics.
- Every seal is individually inspected to ensure consistent quality and is readily available.

A unique, patented design in mechanical seals is available from Advance. The Impenatra® seal is a radically new approach to solve many shaft sealing problems. When used with the Advance® line of pumps, it isolates all metallic parts from contact with the fluid.

Alternately, corrosive chemicals require seals made of exotic alloys. The high prices and long lead times are objectionable. The Impenatra® seal offers a solution to both problems.

WHAT THIS MEANS TO YOU

- Unprecedented corrosion resistance, protects from attack by contained fluid and from surrounding environment.
- Easy to install, field adjustment not required.
- Offers good versatility at an excellent price.
- Reliability, due to simplicity of design and quality components.

TECHNICAL DATA:

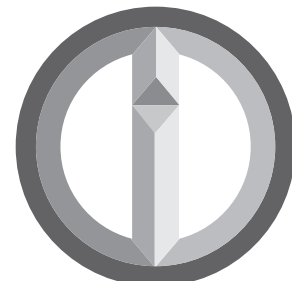
Seal Type - Stationary spring, reverse mount
Maximum Temperature - 90° C

MATERIALS OF CONSTRUCTION:

1. Seal case - injection molded polypropylene
2. Seal face - carbon graphite resin, binderless graphite or silicon carbide
3. Seal seat - high purity ceramic or silicon carbide
4. Elastomers - EPDM, Viton®, Kalrez® and Aflas®

EXAMPLE CORROSION RESISTANCE:

- Deionized Water
- Ferrous Chloride 100%
- Hydrochloric Acid 37%
- Hypo Acid Fixing Baths
- Nitric Acid 10%
- Phosphoric Acid
- Photographic Developers
- Plating Solutions
- Sodium Hydroxide
- Sodium Hypochlorite
- Sulfonic Acid (aerated)
- And much more...

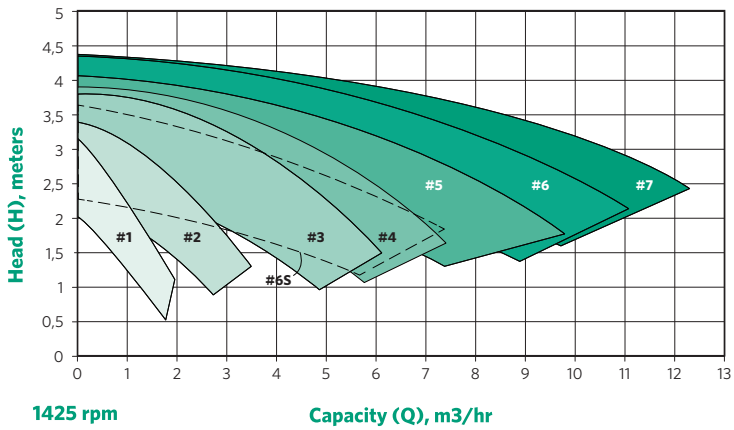


IMPENATRA®

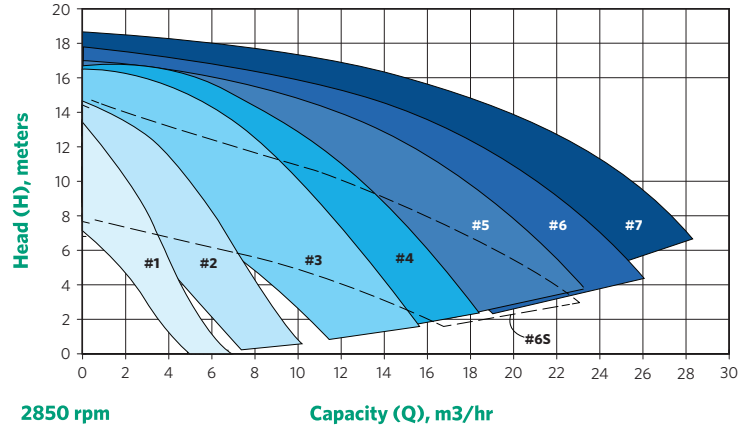
Impenatra® is a registered trademark of MDM Incorporated. Viton® is a registered trademark of The Chemours Company. Kalrez® is a registered trademark of Dupont. Noryl® is a registered trademark of SABIC. Aflas® is a registered trademark of Asahi Glass Co., Ltd.



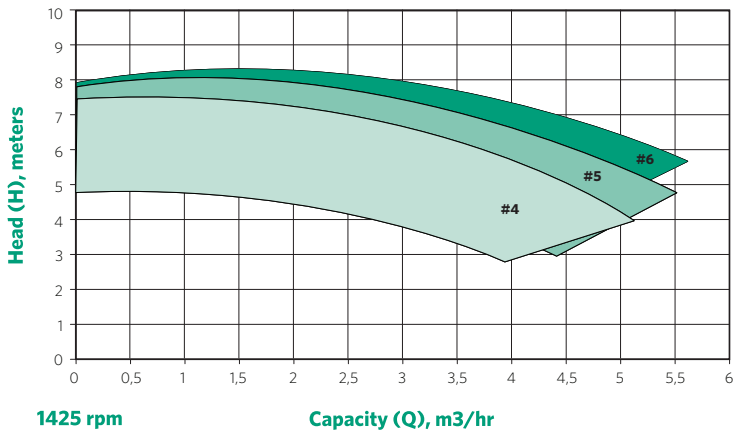
ADVANCE 1000 - 1425 RPM



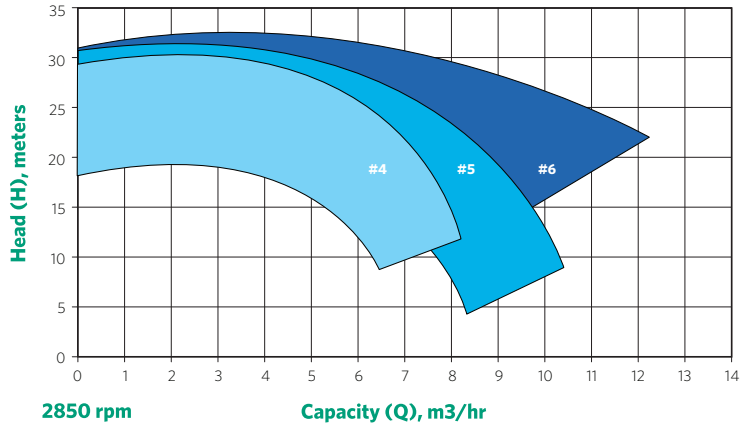
ADVANCE 1000 - 2850 RPM



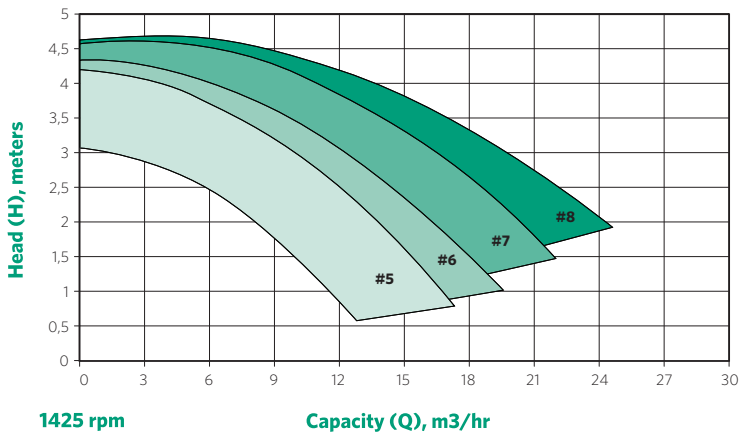
ADVANCE 3000 - 1425 RPM



ADVANCE 3000 - 2850 RPM



ADVANCE 4000 - 1425 RPM



ADVANCE 4000 - 2850 RPM

