

Simms

Pump Company

Since 1919

Simmsite,[®] Structural Composite Pumps



VERTICAL PIT



SERIES 10000 MARINE & INDUSTRIAL



SERIES 6000 VERTICAL IN LINE



NAVY STANDARD



VERTICAL TURBINE



HORIZONTAL VORTEX

"The only Pump that is Impervious to Salt Water Corrosion"

"The only Pump that is Impervious to Salt Water Corrosion"



Pump Valve Company is pleased to introduce the following:

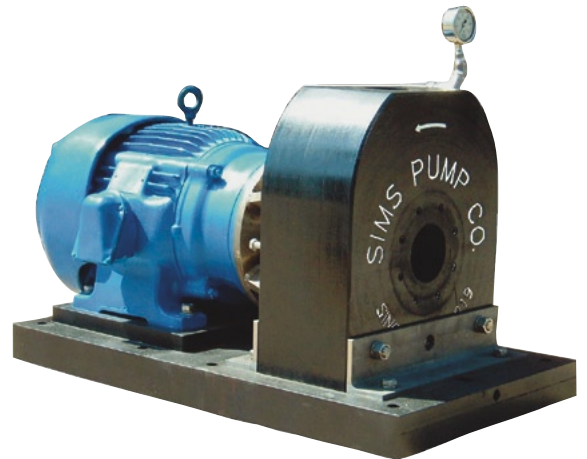


SIMS Marine & Industrial Pumps

Inspired by Corrosion problems from pumping Salt Water and Chemicals, SIMS Pump Company has developed a line of SIMSITE® Structural Composite Pumps, which never corrode in Salt Water and are corrosion resistant to most acid and alkaline solutions. These pumps are machined entirely from solid blocks of SIMSITE®, a patented structural graphite composite with multidirectional continuously interwoven fibers. These pumps are NAVY shock and vibration qualified! This unique manufacturing process eliminates casting defects, rough surfaces, internal voids & cracks, expensive patterns, and balance problems. Alignment issues, corrosion, erosion, and cavitation problems are all eliminated, which reduces turbulence and increases efficiency, performance and longevity. SIMSITE Pumps are far Superior to metallic pumps and only 15% the weight!

SIMS Series 10000, Shock Qualified, Marine & Navy Pumps

Under incentives to develop Commercial-Off-The-Shelf pumps (COTS) for Navy applications, Sims Pump Company designed and developed the first structural composite pumps to pass the rigorous shock qualification and vibration testing per Mil Spec 901D and Mil Std-167-1. These pumps were machined from solid blocks of SIMSITE®, a structural multidimensional interwoven graphite composite developed by SIMS specifically for NAVY applications. The pumps also incorporate SIMSITE®, Cartridge Mechanical Seals, SIMSITE® Sleeves and SIMSITE® Guide Bearings.



SIMS Navy Standard, Shock Qualified Pumps

Inspired by NAVSEA directives for innovative technology and MACHALT 536, SIMS Pump Company continues to be the leader in the composite industry, producing the first "production ready" SIMS Navy Standard Shock and Vibration qualified Composite Pumps. Machined entirely from Simsite Structural Composite material on 5-axis CNC machinery, SIMS Navy Standard Composite Pumps are lighter in weight, precision balanced and built to last. Improved reliability and reduced maintenance results in an excellent ROI and an estimated savings of \$1.5M annually when implemented Fleet-wide.

Sims
Custom

***engineers pumps
to meet your specific
requirements.***

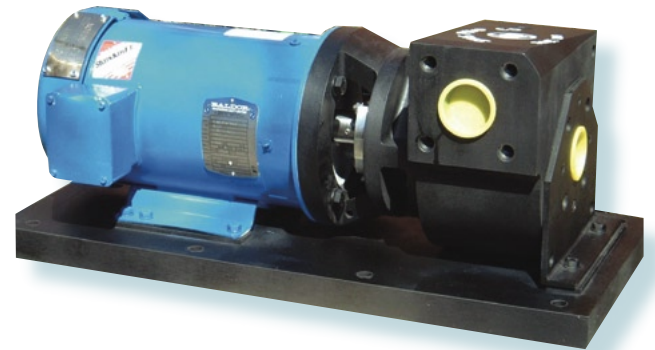


SIMS Series 6000, Maintenance Free, Vertical In-Line Pumps

Designed by SIMS to be a “drop-in” replacement for Vertical In Line pumps, the SIMS Series 6000 Pump is virtually maintenance free with permanently lubricated sealed bearings and the flexibility for installation as Vertical In Line, Vertical Offset, or Vertical Suction configurations. These pumps incorporate SIMSITE® Volute Casings, Casing Rings, Guide Bearings, and Frame Adaptors with an easy back “pull-out” design for ease of disassembly and assembly. The pump is disassembled by lifting the motor, frame adaptor, and rotating element together as one unit.

SIMS Horizontal Vortex Pumps

SIMS Vortex pumps are the solution to the harsh abrasion of shipboard sewage systems. The recessed impeller design eliminates close internal tolerances, nearly eliminating contact between the impeller and solids. SIMS Vortex Pumps are constructed utilizing SIMSITE® Patented Structural Graphite Composite materials with excellent mechanical and physical properties, wear characteristics, and unsurpassed corrosion resistance. SIMS Vortex Pumps combine the excellent qualities of our SIMSITE® Composite material and superior engineering to produce the longest lasting non-clogging pump on the market today.

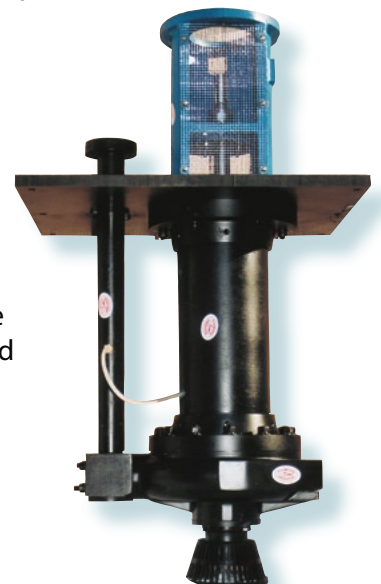


SIMS Chemical, ANSI Pumps

SIMS Chemical ANSI Style Pumps are machined from several different grades of SIMSITE®, depending on the solution being pumped. SIMS offers both phenolic and epoxy resin systems with several different multi-directional continuously interwoven fiber reinforcing systems. The volute casings are completely machined eliminating casting defects, internal voids, cracks, and “weak spots.” All of our pumps are computer designed, engineered, and machined allowing for increased performance and high efficiency. These pumps are lightweight with superior strength. Since these pumps are machined, they can be adapted for any piping system.

SIMS Vertical Pit Pumps

SIMS Vertical Pit Pumps are designed for versatility and longevity. The pump volute, guide bearings, spider bearings, base plate, discharge pipe and column pipe are all manufactured from SIMSITE®, a structural graphite composite, which is corrosion and chemical resistant. These pumps are impervious to salt water corrosion and will not clog or foul from marine growth. SIMS Vertical Pit Pumps, like SIMS Chemical Pumps, can withstand a wide range of pH and therefore make excellent chemical waste treatment, or environmental pumps. These pumps are not affected by chlorine and are excellent for pumping in chlorinated water applications.



SIMS Vertical Turbine Pumps

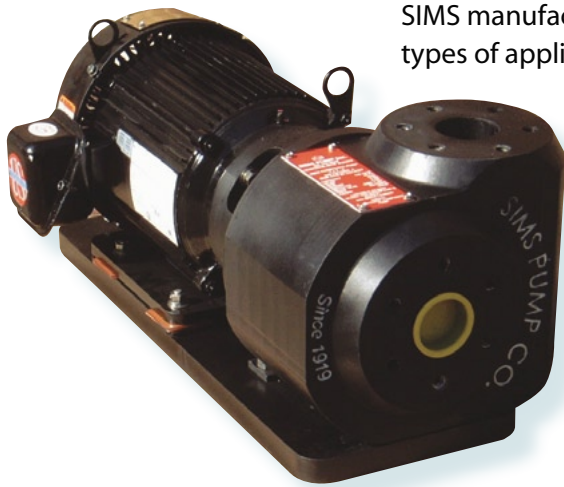
The SIMS Structural Composite Vertical Turbine Pump is very different from any other pump on the market.

The suction bell, casing bowls, impellers, casing rings, guide bearings and diffusers are completely machined on the outside as well as the inside. Casting imperfections, rough surfaces, alignment issues, corrosion and erosion problems are all eliminated with SIMSITE® vertical turbine pumps, which reduces turbulence and increases efficiency, performance and longevity. The SIMSITE® graphite guide bearings in these pumps can take dry running at start up and will not melt, deform, or seize like bronze, rubber or thermoplastic bearings.



Pump bowls can be added or subtracted from these pumps to meet your performance requirements. Because SIMS impellers are completely machined, design changes and modifications can easily be performed to meet the customer's specific design and pump performance requirements. SIMS manufactures pumps to meet your needs as opposed to trying to match a general range pump to your requirements.

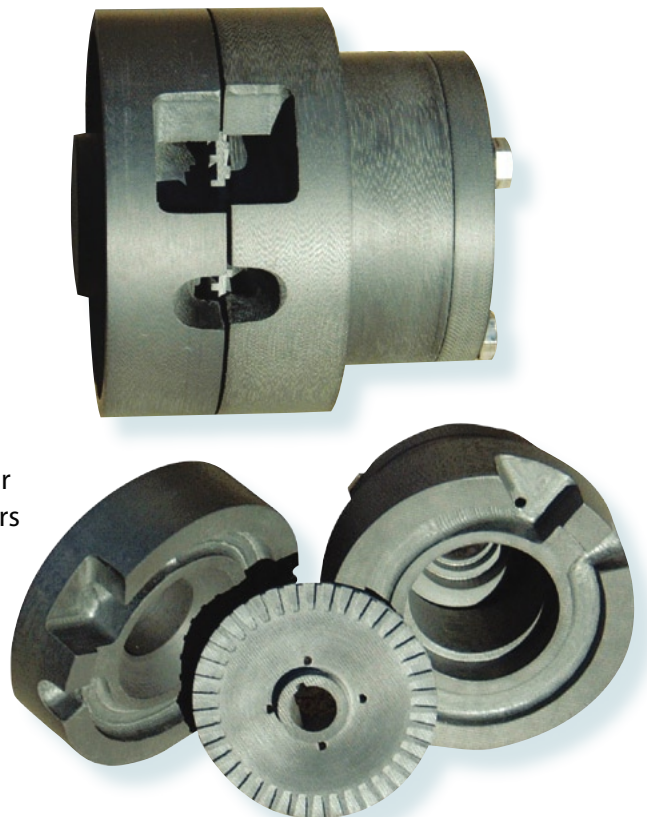
SIMS Specialty Pumps



SIMS manufactures pumps to specific performance conditions for many different types of applications and designs. This laundry pump was designed, engineered, manufactured, assembled and tested by SIMS for the US Navy in less than (4) four weeks! When a pump is designed for a specific application, the operating point becomes the best efficiency point of the pump. Therefore, the pump is not subject to high radial loading and/or suction & discharge recirculation cavitation. The result is a pump that lasts much longer and costs substantially less to operate.

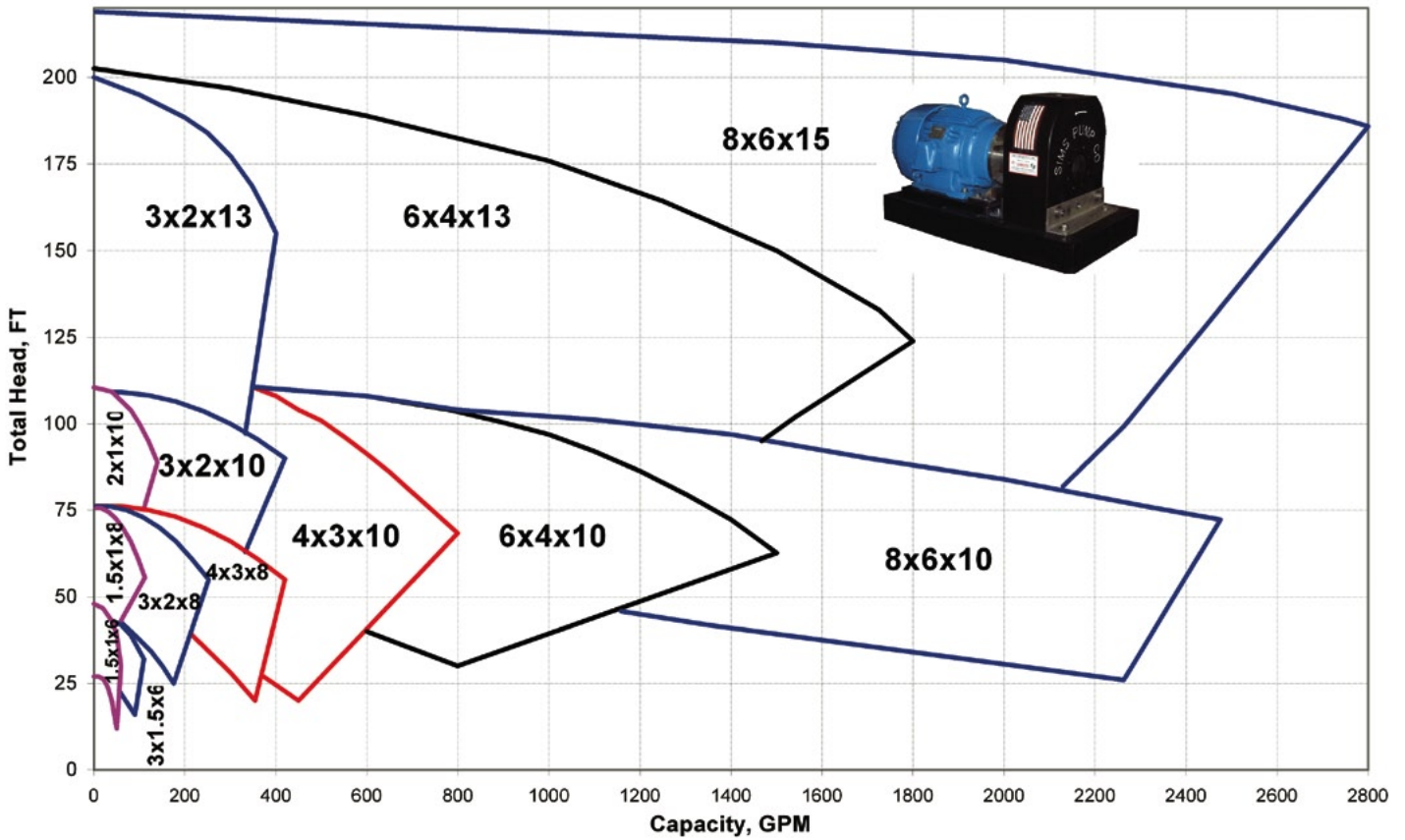
SIMS Regenerative Turbine Pumps

SIMS Regenerative Turbine Pumps are the solution for low flow, high head applications. SIMS is one of the few Companies that can custom engineer the performance for specific applications using this regenerative turbine technology. Unlike metallics, SIMSITE® components will maintain clearances and therefore performance for a much longer time because the structural graphite composite wears at a much slower rate.

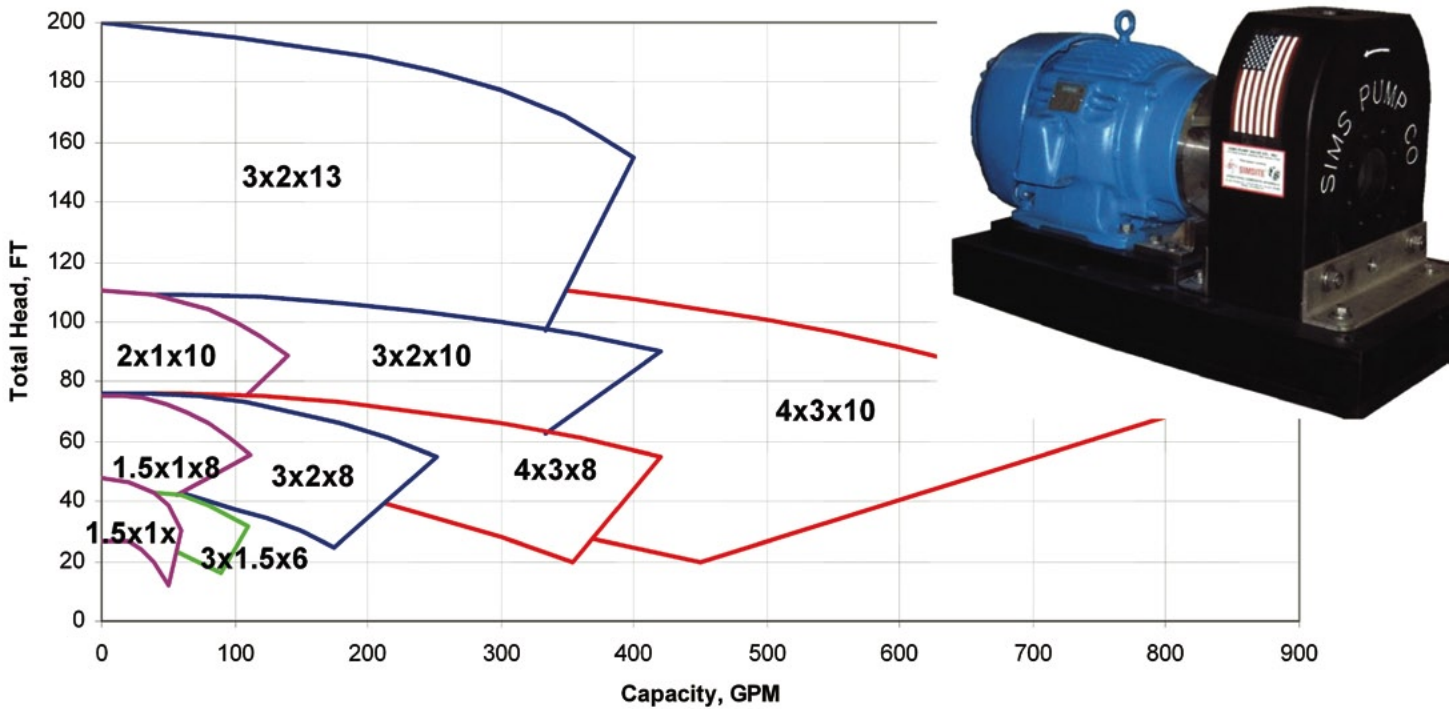


"The only Pump that is Impervious to Salt Water Corrosion"

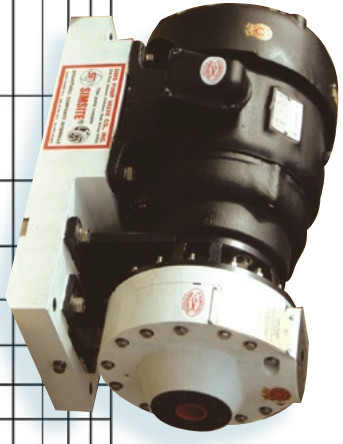
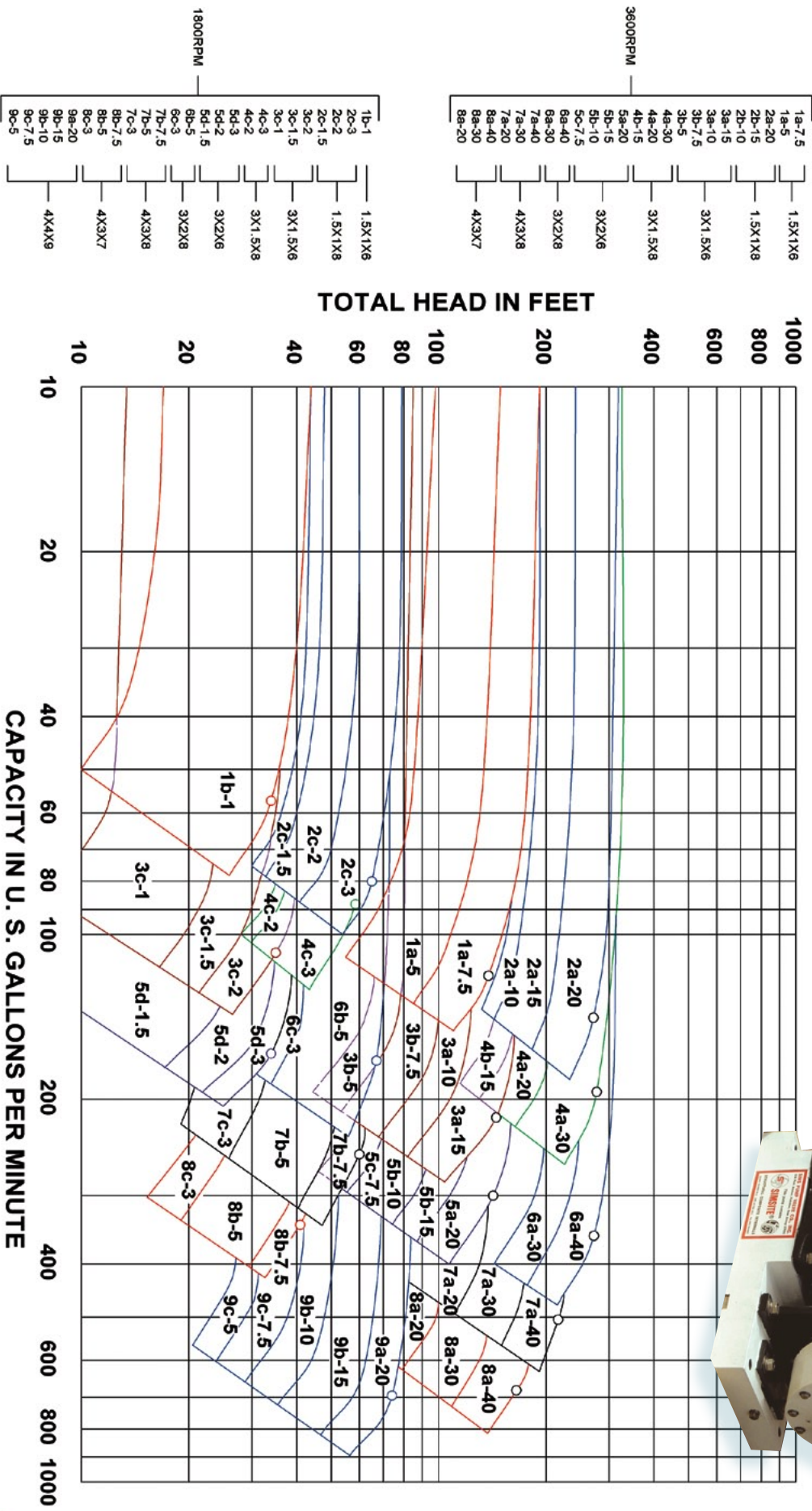
SIMS Pump, Series 10000 *1750 RPM Hydraulic Coverage*



SIMS Pump, Series 10000 *3550 RPM Hydraulic Coverage*



SIMS NAVY Pump, Series NS 1800 & 3600 RPM Hydraulic Coverage



"The only Pump that is Impervious to Salt Water Corrosion"

SIMSITE® Composite Pumps: Defying Time And Environments

Take parts that are virtually impervious to wear and corrosion ... add engineering know-how based on more than nine decades of experience ... and the result is the ideal pump for marine, industrial, and utility applications.

SIMS Pump Valve Company, a leading innovator of composite pump and bearing technology, offers SIMSITE® pumps and pump parts which defy the effects of salt water and most chemicals. These pumps can operate in a wide pH range. They run smoothly, dependably, day after day, year after year and require minimal maintenance. They can withstand high-flash temperatures and continuous running temperatures of 400°F.



SIMSITE® Pumps Are Engineered For High Efficiency

The SIMSITE® Pump is different from any other pump on the market because the casing volute and impeller are completely machined on the outside as well as the inside. Casing imperfections and rough surfaces are eliminated which reduces turbulence and increases efficiency. This offers the customer a high-efficiency pump that does not sacrifice wear or longevity. Additionally, SIMSITE® pumps are designed and engineered for your applications which translates into dependability and lower maintenance costs.

No longer do you have to tolerate a pump which was designed to wear or accept a pump which was designed for a range of services. Now, the SIMSITE® pump offers the best of both worlds – it is specifically designed to meet your requirements and as a result, operates at a higher efficiency. The SIMSITE® Impeller is also designed to meet your requirements and the impeller diameter is engineered specifically for the casing volute resulting in better performance and longevity.

SIMSITE®'s Unique Block Casing Design: Strength & Flexibility

The SIMSITE® casing utilizes a "solid block" design which eliminates structural problems found in other composite pumps. Because of this unique design, the SIMSITE® Pump can be mounted vertically or horizontally offering you tremendous flexibility. The casing volute is machined (as opposed to being cast) from a solid block of structural SIMSITE® composite enabling the pump to take pressures far beyond other composite pumps. Additionally, the casing volute is completely machined eliminating casting imperfections. The low coefficient of friction of the SIMSITE® material combined with its unique engineering design enables the pump to operate at higher efficiencies.

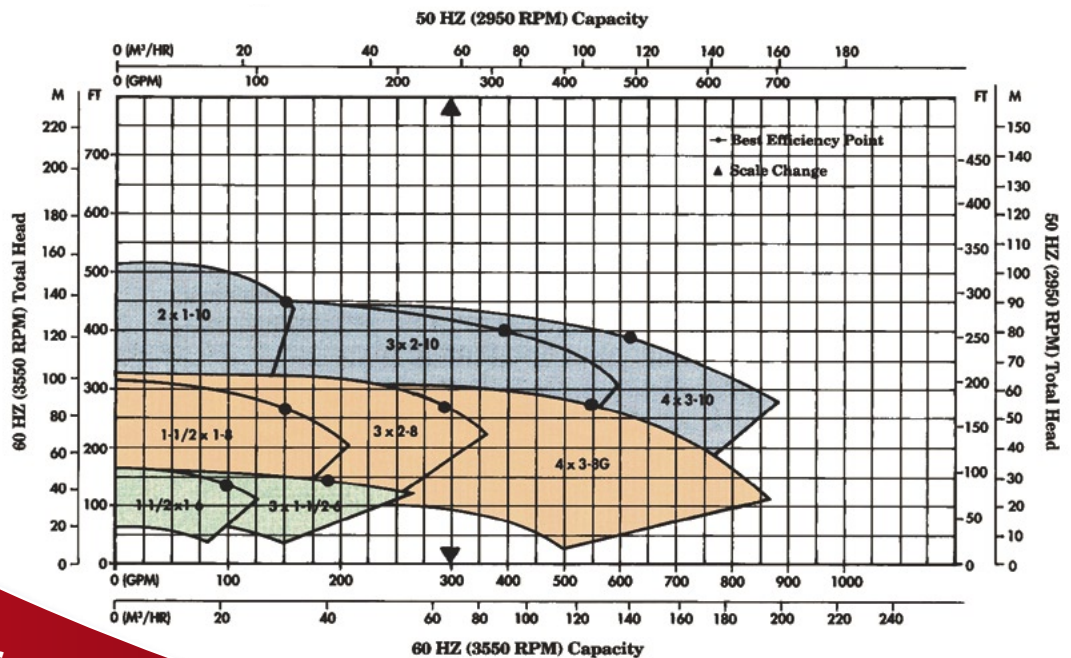


"The only Pump that is Impervious to Salt Water Corrosion"

Sims SIMSITE® Structural Composite Pumps

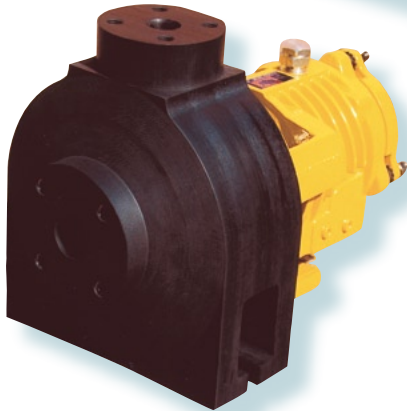
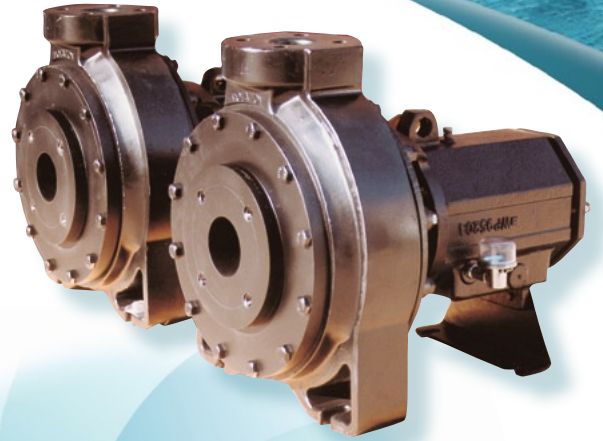
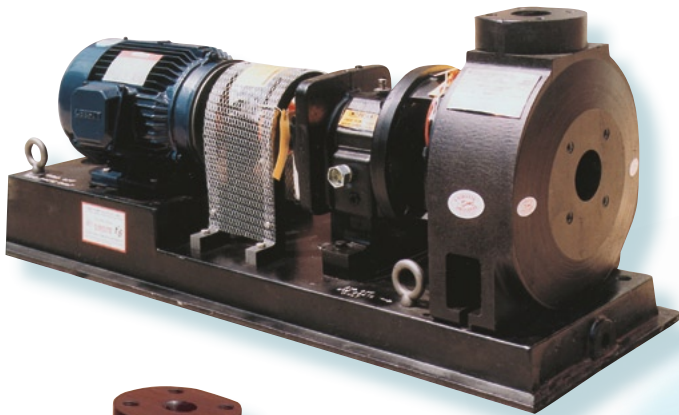
- **Simsite®** is a patented family of superior structural composite pumps and parts **approved by the US Navy**, for Navy, Marine, Chemical, Industrial and Waste water applications.
- **Corrosion resistant** and chemical resistant.
- **High Efficiency.** Superior to metallic pumps.
- **Light Weight.** 1/6 the weight of stainless steel.
- **NO electrolysis.**
- **Increased performance.**
- **Simsite® Casing.** Machined from a solid block of structural composite. Superior strength. Better performance. Longer Life.
- **Simsite® Impeller.** Open or Enclosed. Precision machined from one piece.
- **Simsite® Backplate.** Fits all mechanical seals or packing. Seal chamber can be enlarged for better seal life & performance.

SIMS Pump, Series 9000 2950 RPM



Sims
Custom
engineers pumps
to meet your specific
requirements.

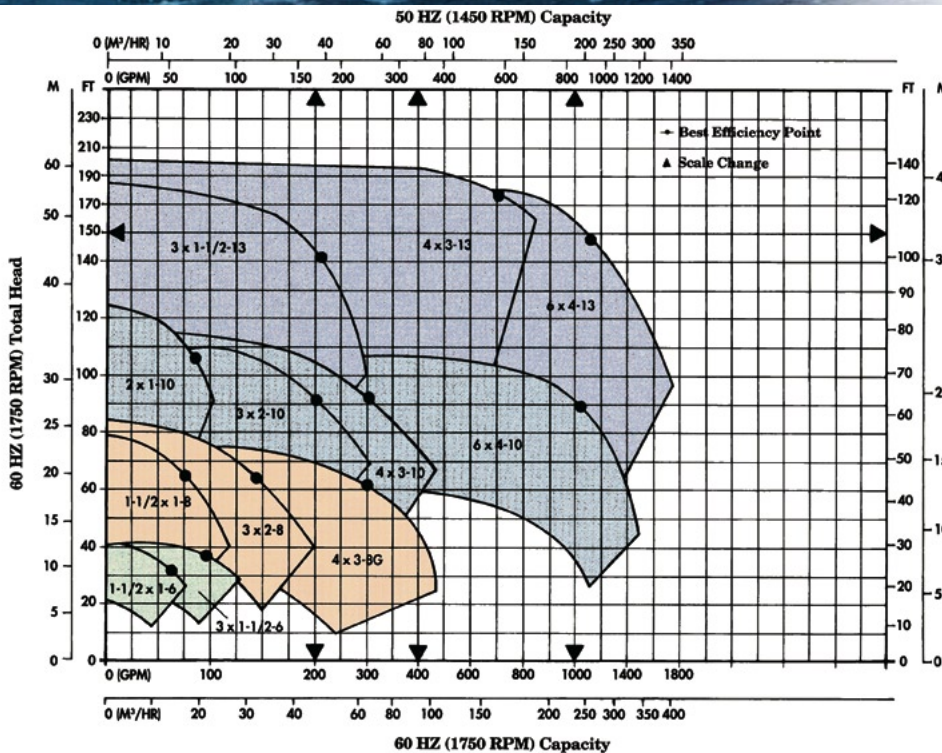
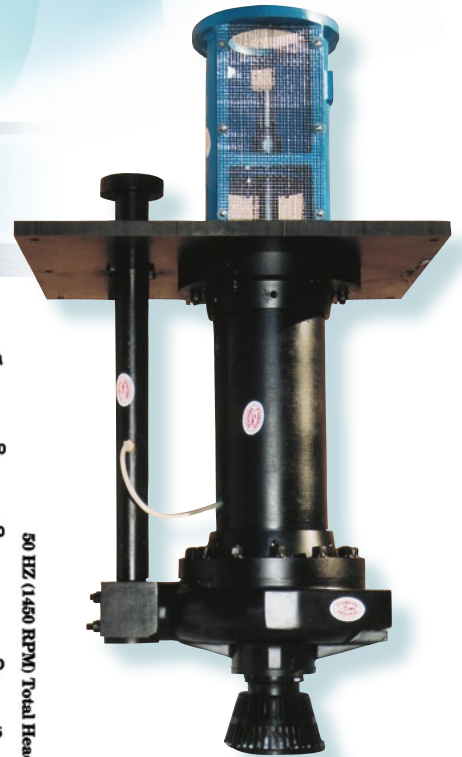
The pump that lasts and lasts
 ... You can achieve the ideal!



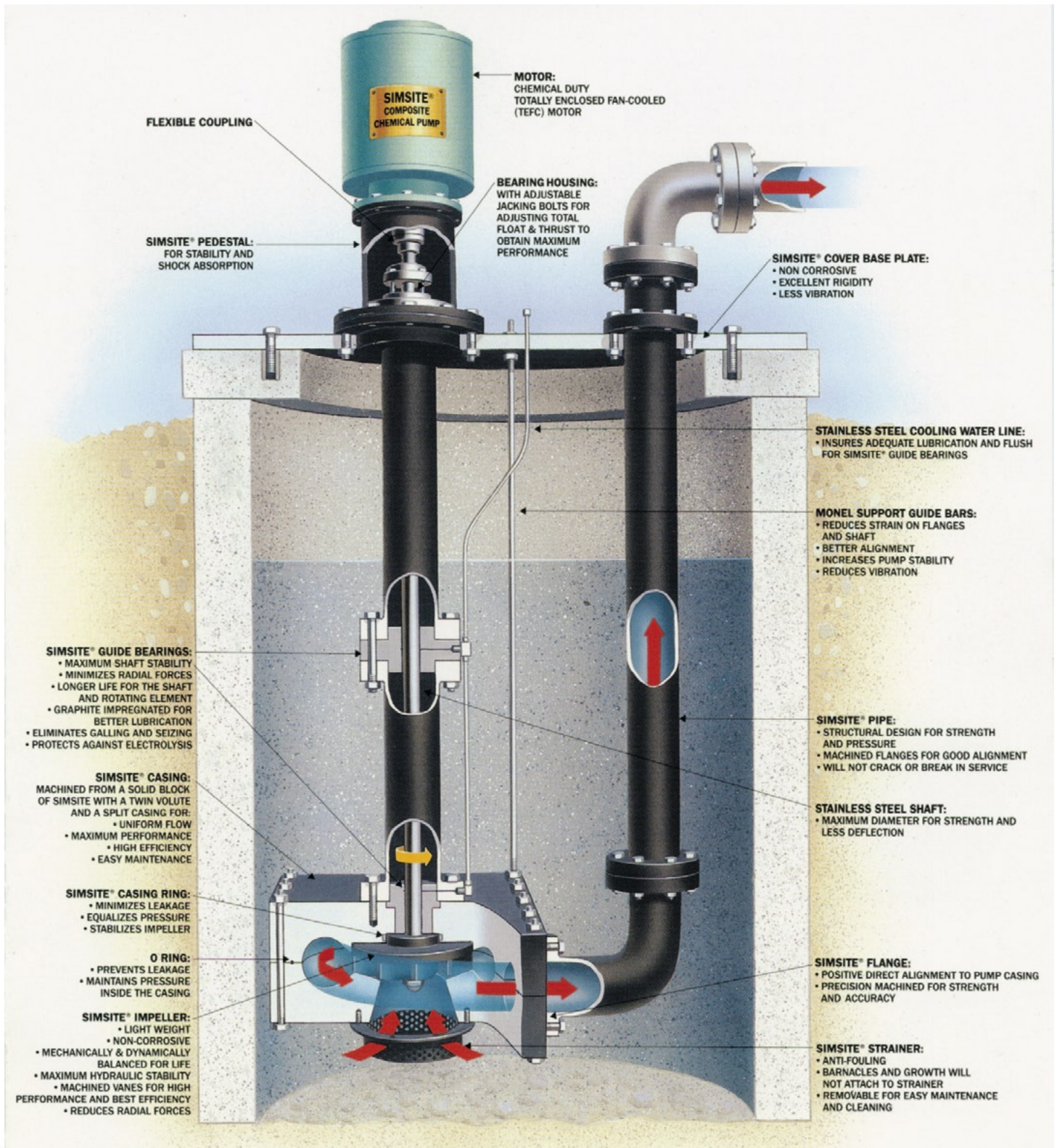
Sims SINCE 1919

**Manufactures a complete
 line of ANSI standard
 pumps! Custom engineered
 for your specifications.**

SIMS Pump, Series 9000 1750/1450 RPM



SIMSITE® Composite Pumps: The ideal Answer to Performance



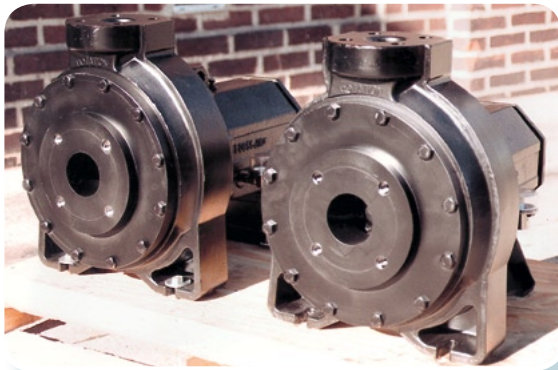
"The only Pump that is Impervious to Salt Water Corrosion"

Sims Pump offers you:

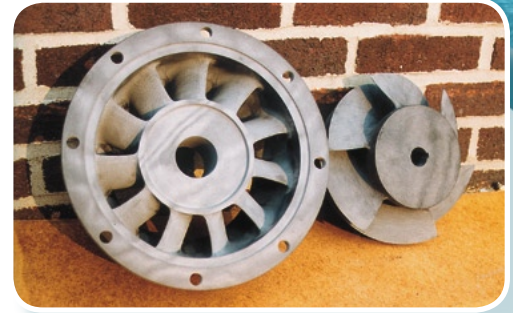
- Superior Pumps
- Superior Hydraulic Performance
- High Quality Pump Parts
- Fast Response...Fast Deliveries!!!
- Pump Trouble Shooting
- We can re-engineer and re-design **any** centrifugal pump*
- Specialists in solving cavitation problems
- Specialists in extending pump life
- Specialists in increasing efficiency

The following chart compares SIMSITE®

APPLICATION	GRP*	CAST IRON	BRONZE	STAINLESS STEEL	SIMSITE®
Resistance to salt water	Good	Poor	Fair	Good	Excellent
Resistance to chemicals	Good	Poor	Fair	Good	Excellent
Mechanical balance after six months service in salt water	No	No	No	No	Yes
Hydraulic balance after six months service in salt water	No	No	No	No	Yes
Method of manufacture	Cast	Cast	Cast	Cast	Precision Machined
Casting imperfections	Yes	Yes	Yes	Yes	No
Conducts electrolysis	No	Yes	Yes	Yes	No
Operates at 400° F	No	Yes	Yes	Yes	Yes
Subject to chloride stress corrosion	No	Yes	Yes	Yes	No
Subject to stress crack failure	Yes	Yes	Yes	Yes	No



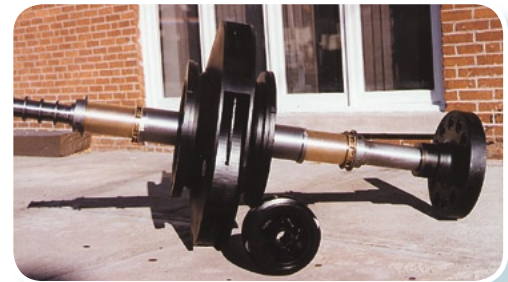
SIMSITE® CHEMICAL PUMPS
SIMSITE® GRADE 380



DIFFUSER & IMPELLER MANUFACTURED FROM SIMSITE® GRADE 375



SIMSITE® COMPOSITE BEARINGS



SIMSITE® IMPELLER & RINGS MANUFACTURED FROM HIGH STRENGTH SIMSITE® GRADE 300



SIMSITE® IMPELLER & RINGS TWO STAGE PUMP FROM SIMSITE® GRADE 300

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Phone 1-800-746-7303 (201) 792-0600
Fax – (201) 792-4803 www.simsite.com



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SIMSITE® Structural Composite Pumps

- *Corrosion Resistant*
- *Lightweight*
- *High Strength*
- *No Electrolysis*
- *Always Balanced*
- *Precision Machined*

SIMSITE® GRAPHITE PACKING RINGS



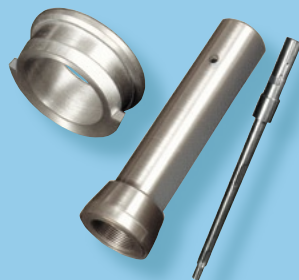
SIMSITE® COMPOSITE BEARINGS



SIMSITE® STRUCTURAL COMPOSITE IMPELLERS ARE FOR ALL CENTRIFUGAL PUMPS



SIMSITE® HORIZONTAL PUMPS



SIMS MANUFACTURES, **SHAFTS, SLEEVES,** AND OTHER COMPONENTS. (**BRONZE, STAINLESS STEEL, MONEL, INCONEL, AND TITANIUM**)



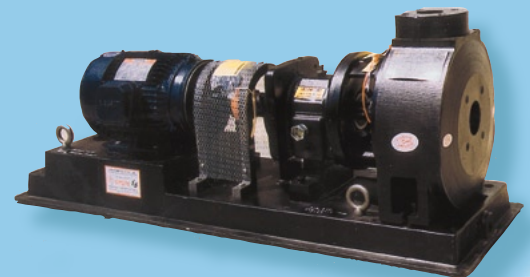
SIMSITE® VERTICAL PUMPS



SIMSITE® CASING RINGS



THE SILENT PRE-HEATER HUSHEATERS



SIMSITE® COMPOSITE PUMPS

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