

ROTATING EQUIPMENTS

Centrifugal Pumps

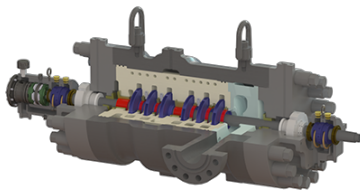
We work with leading rotating equipment supplier in the industry and carry top-rated brands of pumps you can trust to keep your business running.
We also extend maintenance services on all rotating equipments.

These pumps are pressure producing devices and are used to move low viscosity fluids for any application and for any market. Big and small, frame mounted or close coupled, radially or axially split, sealed or sealless, metallic or non-metallic, single or multistage, horizontal or vertical configured, radial flow, mixed flow, and axial flow designs.



PWA ANSI/ASME Process pump

These pumps are pressure producing devices and are used to move low viscosity fluids for any application and for any market. Big and small, frame mounted or close coupled, radially or axially split, sealed or sealless, metallic or non-metallic, single or multistage, horizontal or vertical configured, radial flow, mixed flow, and axial flow designs... we have multiple options to offer our customers.



API 610

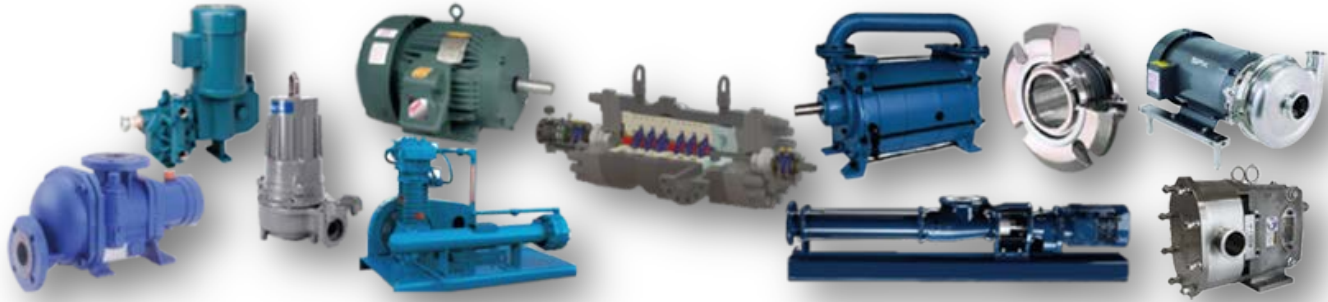
Centrifugal pumps, single stage and multistage, horizontal and vertical, radially split and axially split designed in strict compliance with API-610 and ISO 13709 specifications, without any exceptions to specification and 100% Made in America for applications including petroleum refining, gas processing, oil processing, petrochemical, hydrocarbon and crude oil pipeline, offshore (platform) installations and aviation jet fueling.



Sealless Pumps

Sealless centrifugal pumps are designed in both horizontal and vertical configurations and are built using various non-metallic and metallic materials. Sealless pumps are preferred when absolutely no leakage or emissions can be tolerated, or to replace expensive double mechanical seals and seal support systems, or to eliminate costly mechanical seal repair and maintenance expense. Ultimately, sealless pumps can result in lower risks for personnel and the environment while also increasing productivity by eliminating costly downtime.





ROTATING EQUIPMENTS

Centrifugal Pumps



Self-Priming Pumps

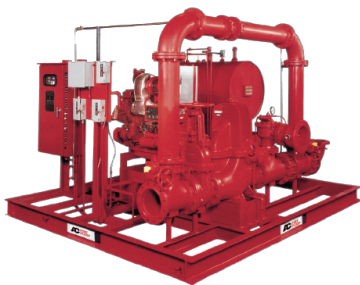
Self-Priming pumps are typically horizontal end suction pumps with an attached or integral priming chamber allowing the pump to use an air/water mixture to reach a fully primed pumping condition. Self-priming pumps are applied when a pump needs to evacuate air in the suction pipe and lift fluid into the pump from a source below the centerline of the pump. Self-priming pumps are used for a wide range of industrial and municipal applications, are either engine or motor driven and also used when a vertical pump is not practical or preferred.

Horizontal Pumping System



Horizontal Pumping Systems (HPS) are multistage, diffuser type, centrifugal pumps with heavy duty thrust chambers of various size and API-685 seal chambers. HPS are capable of a wide range of flows and pressures and are typically used in the oil fields for fluid transfer, measurement, salt water disposal, high pressure injection, gas processing, pipeline booster and water flooding applications. Typical fluids pumped include water and oil, saltwater, amine, glycol, condensate and liquid natural gas.

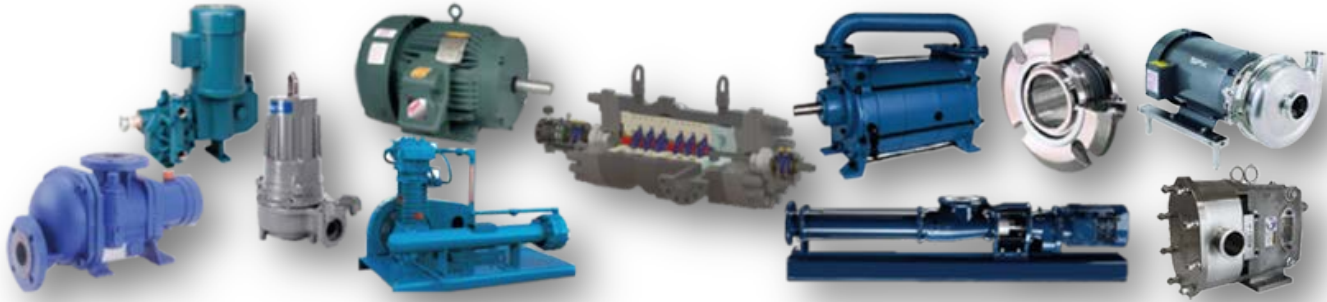
Fire Pump Packages



Custom designed and built, fire pump packages are UL listed, FM approved and built in accordance with NFPA 20. Systems integrate pumps, using end suction, inline, horizontal split case and vertical turbine models, either diesel engine or motor driven, and includes controls, inlet and outlet piping, valves and fittings per NFPA 20. Prefabricated and house units, as well as computer and CAD designs are available.

Vertical Turbine Pumps Vertical deep well (borehole), canned lineshaft and submersible turbine pumps built for API-610, industrial, offshore (platform), residential and agricultural applications. Mixed and axial flow, vertical and horizontal designs, are also available. Flows to 200,000 GPM and multiple material options.





ROTATING EQUIPMENTS

Positive Displacement Pumps

PD pumps are flow producing devices and are typically used to move higher viscosity or sheer sensitive fluids for any application and for any market. Complete pumps and spare parts are available.



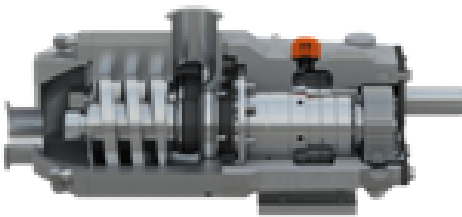
Rotary Gear

FST represents several world class suppliers for different types and classes of rotary gear pumps. Rotary gear pumps are generally used to pump clean fluids that are not suitable for a centrifugal pump due to viscosity or control reasons. Rotary gear pumps do not handle solids well and generally need the viscosity of the fluid to lubricate the driven and idler gears that otherwise would wear prematurely due to metal to metal contact. Rotary gear pumps use metallic and/or nonmetallic components depending on the application and are used in a wide range of markets and services.”



Rotary Vane Pumps

Vane pumps operate using self-adjusting vanes in the rotor that maintain close clearances with the stator. Vane pumps are self-priming and also have excellent run dry capability when using non-metallic vanes. Vane pumps are used in a wide range of oil & gas, chemical, marine, power and several other general industrial applications and markets and are available in both sealed and sealless designs.

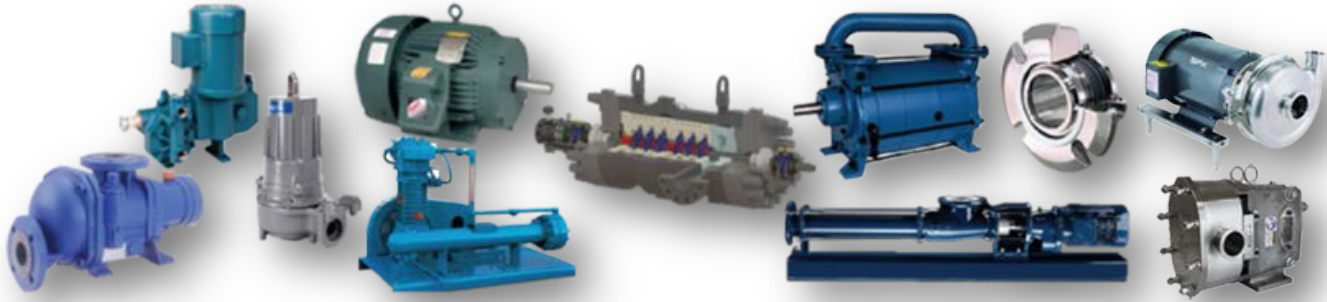


Rotary Screw Pumps (twin and 3 screw pumps)

Screw pumps are preferred due to their reliability, quiet running and versatility and are applied in many markets such as hydrocarbon and chemical processing, food & beverage, Navy and commercial marine, crude oil transfer, multiphase, power generation, pulp & paper, hydraulic elevators and general machinery. Screw pumps can handle thinner liquids or liquids containing solids since the screws are timed preventing them from making physical contact.



SCAN ME



ROTATING EQUIPMENTS

Positive Displacement Pumps



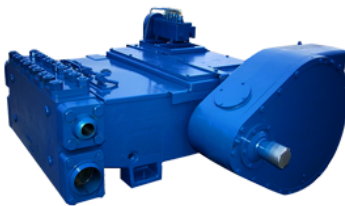
Rorary Lobe Pumps

Typically lobe pumps are used in sanitary or ultraclean applications but they can also be applied when transporting various forms of sludge, bio-solids or greases. Unlike other rotary positive displacement pumps, lobe pump use timing gears to prevent the two rotors from contacting one another, allowing them to be more tolerant of solids and also to be more shear sensitive. Lobe pumps are used in multiple markets including food & beverage, pharmaceutical, biotechnology, chemical, municipal and other industrial markets.



Progressive Cavity Pumps

PC pumps are versatile since they can pump either thin or very viscous fluids and can handle abrasive solids. PC pumps are shear sensitive and available in sanitary (CIP capable) or industrial designs. Typical markets include municipal, food & beverage, oil & gas, chemical, pulp & paper and mining & minerals.



Plunger/Piston Pumps

These pumps use a plunger or a piston to displace a fluid in a cylinder and have the ability to create very high pressures that are necessary in a wide range of applications and markets. Typically plunger pumps are used for the higher pressure applications, in some cases achieving 10,000-30,000 psig.



Air Operated Double Diaphragm Pumps

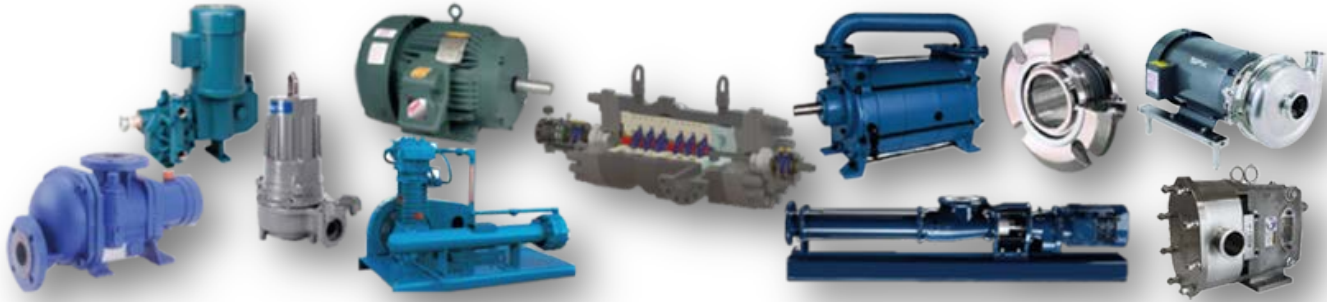
AODD pumps are one of the more versatile types of positive displacement pumps since they are self-priming, shear sensitive, can run dry and are inherently explosion proof. AODD pumps require a compressed gas, normally air, to power the pump and are portable by design. AODD pumps are constructed using a wide range of metallic and nonmetallic materials and also an equally wide range of diaphragm elastomers, ball or flap check valves.



Sealless Pumps

Sealless refers to the absence of a dynamic seal where the pump shaft penetrates the pump casing. Sealless pumps are either the magnetically driven or canned motor designs. Hose pump designs are also inherently sealless. Sealless pumps are used for various reasons, but mostly when pumping volatile or toxic liquids where any amount of leakage cannot be tolerated.





ROTATING EQUIPMENTS

Submersible Pumps

A submersible pump is a pump that is completely immersed in a body of fluid, including the electric motor. Submersible pumps are used for clean fluids and fluids with up to 70% solids. Solids can be very small to pipe size diameter. Submersible pumps can come in a wide range of metallurgies and be rated for temperatures up to and over 200 degrees F. Big and small and even multistage, submersible pumps are designed for radial, mixed and axial flow applications.

Rorary Grinder Pumps

Grinder pumps are typically sewage pumps with a hardened shredder that are commonly used in high pressure sewage systems and other industrial applications. Grinder pumps reduce the waste to a fine slurry, eliminating clogging and offer solutions for a range of residential and commercial applications and are ideal when terrain does not permit the use of gravity sewers.



Heavy Duty Abrasive Pumps

These pumps are extremely heavy duty and are designed for heavy, abrasive solids up to 70% by volume. Manufactured in the hardest materials, most suppliers offer options like recessed impellers and integral pump agitators for increased reliability and performance.

Sewage & Waste Water Pumps

Sewage and wastewater pumps use efficient, self-cleaning, non-clog impellers capable of passing large diameter solids and sludge. Some suppliers also offer recessed impellers to eliminate clogging due to stringy solids. Typically manufactured in either cast iron or stainless steel, submersible sewage and wastewater pumps are the workhorse for the municipal water and waste water industry.



Dewatering Pumps

Dewatering pumps are designed to pump clean liquids or liquids with small suspended solids and are ideal for applications such as mine dewatering, power plant sumps, construction sites dewatering, tunneling and industrial mill sumps. Dewatering pumps can fit through smaller diameter openings, such as manholes and can generate higher pressures.



General Service Pumps

General service submersible pumps are used in a wide range of fairly simple, non-abrasive and non-corrosive services. These pumps are applied in residential, commercial and light industrial applications and typically in intermittent services.





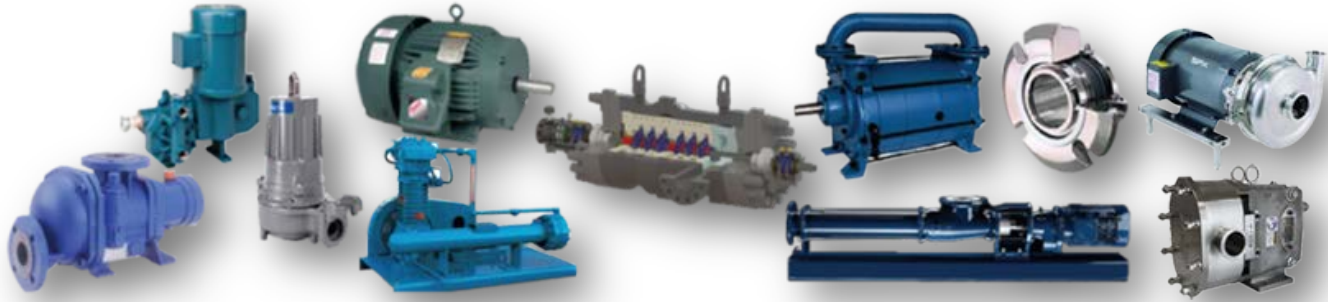
ROTATING EQUIPMENTS

Metering Pumps

Typical types of metering pumps use diaphragm, hydraulic diaphragm, plunger or peristaltic positive displacement designs to deliver a precise volume of liquid per unit of time. Metering pumps are adjustable by changing the stroke length, rate of displacement or both so that each pump can repeatedly deliver product as required. Metallic and non-metallic materials are available to handle the wide range of metered fluids with flow rates ranging from .001 GPH to over 4000 GPH. Accuracy to plus or minus 1%.



SCAN ME



ROTATING EQUIPMENTS

Specialty Pumps

Designed to overcome difficult or unusual pump application where traditional centrifugal and positive displacement pumps fail. FST represents several specialty pump manufacturers who make products that are more reliably or efficiently meet the demands for difficult or unusual pump applications. While many of these pumps have a very narrow application bandwidth, they are excellent solutions when needed.



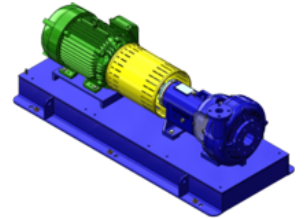
Hydraulically Balanced Diaphragm Pump



Regenerative Turbine Pump



Diaphragm Process Pump



Hydraulically Balanced Diaphragm Pump



Eccentric Disc



Drum Pumps



High Pressure Pitot Tube



Peristaltic Pumps

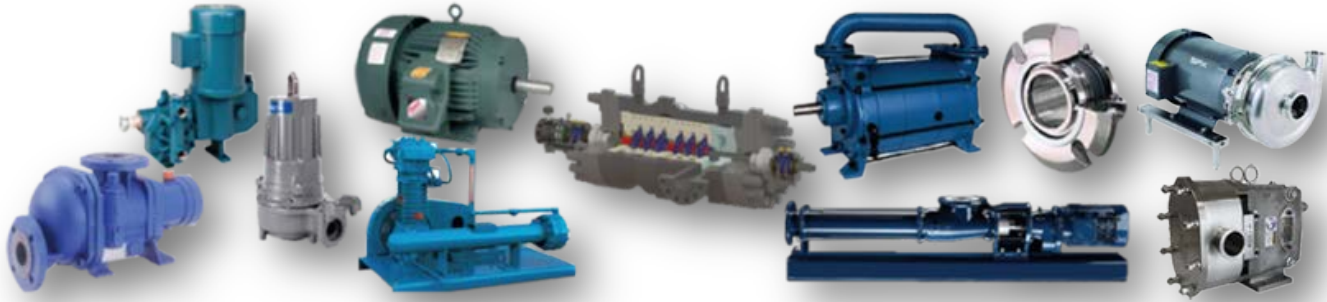


Drum Unloaders



Homogenizers





ROTATING EQUIPMENTS

Vacuum Pumps & Blowers

Vacuum pumps and blowers move air or gas for the purpose of creating a vacuum or compressing it. FST represents multiple manufacturers of both vacuum pumps and blowers of various sizes and type. Vacuum pumps are either liquid ring type or positive displacement, lubricated or non-lubricated. Blowers are either positive displacement or centrifugal. Vacuum pumps and blowers are used in a wide range of services and markets.



Dry Vacuum,
Multistage Roots Type



Liquid Ring Pumps &
Compressors



Oil Sealed
Lubricated Vane



Truck Pumps, Rotary
Vane



Piston Pumps



Dry Claw



Dry Vane



Lobe Style Blowers

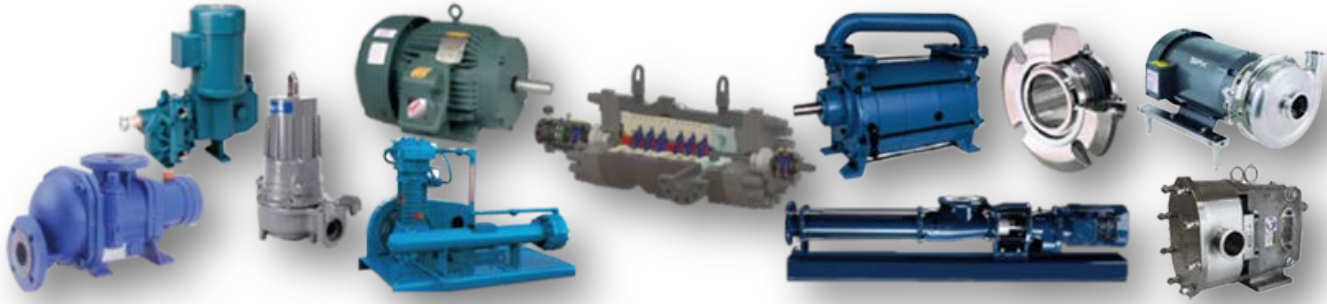


Multistage Centrifugal Blowers



Regenerative Blowers



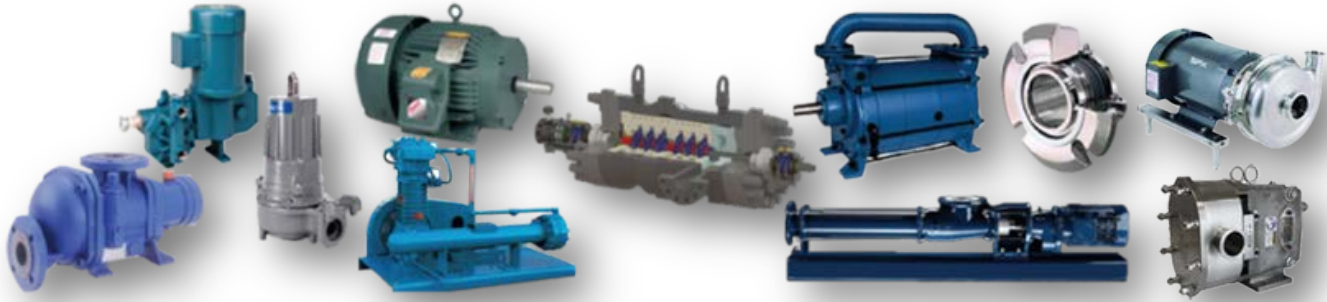


ROTATING EQUIPMENTS

Air Compressors

FST represents multiple world class manufacturers of air compressors of all types and categories. This includes positive displacement types such as piston, (single and two stage), rotary vane and rotary screw, and dynamic types such as a centrifugal compressor, and all compressors come in low, medium or high pressure designs. Compressors convert power into energy in the form of compressed air and are used in every market and in applications too numerous to describe. Compressors typically compress air that is stored for multiple uses or is an integral part of a continuous process whether compressing air or a wide range of gases.





ROTATING EQUIPMENTS

Mechanical Seals & Packing

FST represents multiple world-class manufacturers of mechanical seals and packing. Single and double seals, balanced and unbalanced, dry running, split seals, component or cartridge designs for pumps, compressors and tank agitators.

Mechanical seals and packing are used to contain fluids within a rotating mechanical device along the shaft that is penetrating it. Mechanical seals use a combination of precisely engineered seal faces, one rotating and one stationary, that are lapped flat within one light band, such that the fluids cannot pass across the faces and also o-rings or gaskets that serve as secondary seals to positively prevent the fluid from leaking to atmosphere. Packing can be multiple rings of braided fibrous material or die formed rings of grafoil that wrap around the shaft and then get compressed with a gland thus containing the fluid inside a rotating mechanical device.



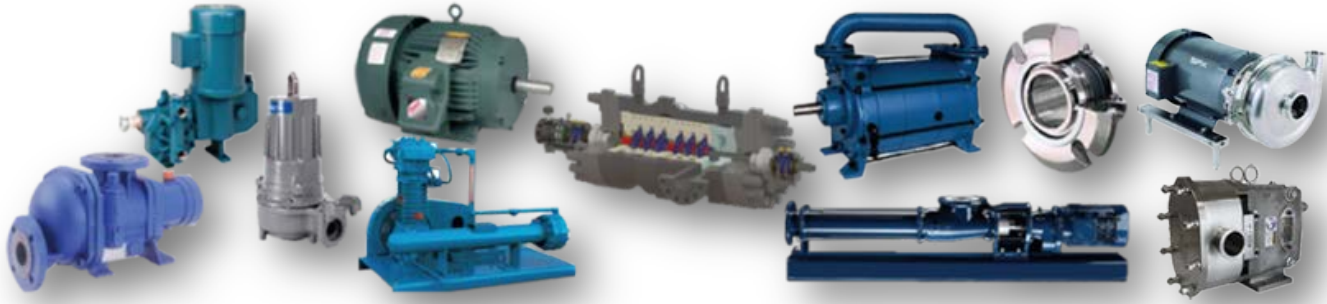
Mechanical Seals



Packing



SCAN ME



ROTATING EQUIPMENTS

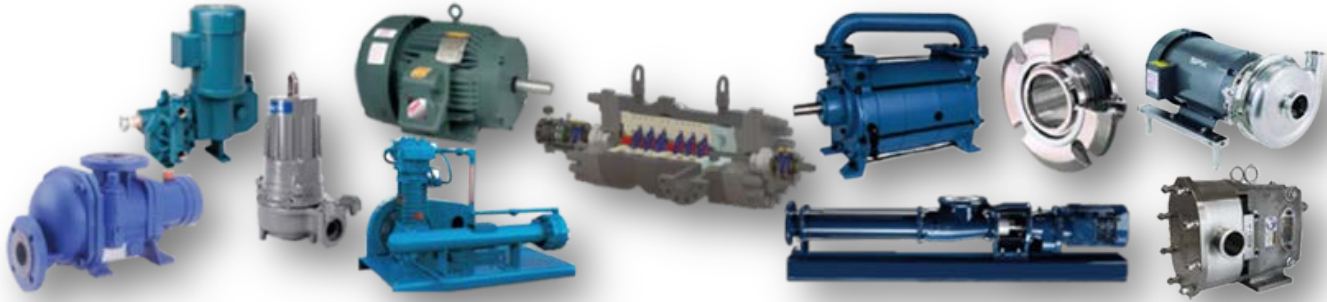
Electrical Motors

FST represents several major, world-class manufacturers of electric motors of every size, enclosure, and type. Motors are rotating devices that convert electrical energy into mechanical energy that is used to power some sort of rotating machinery such as pumps. Motors are one of the most common devices found in all industries and markets. Single, two and three phase designs, big and small, multiple voltage ratings and enclosure classifications, NEMA and non-NEMA, we have all the solutions and selections.



All Types of Electrical motors

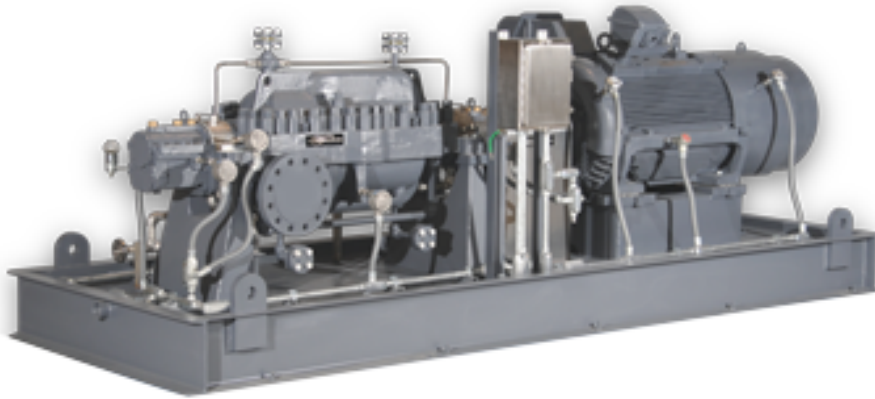




ROTATING EQUIPMENTS

Pump Skids

FST offers custom fabrication of Pump skids as per your project requirements



Pre Assembled and customized Skids

