

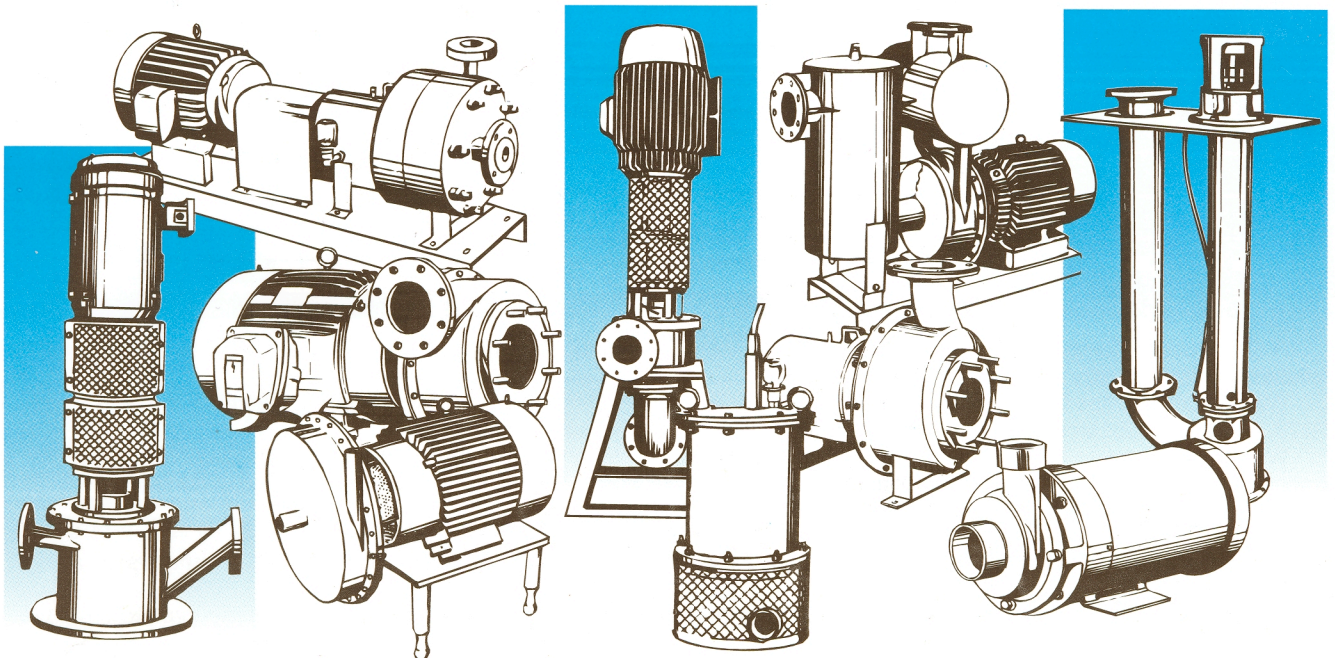


R.S.
CORCORAN
COMPANY

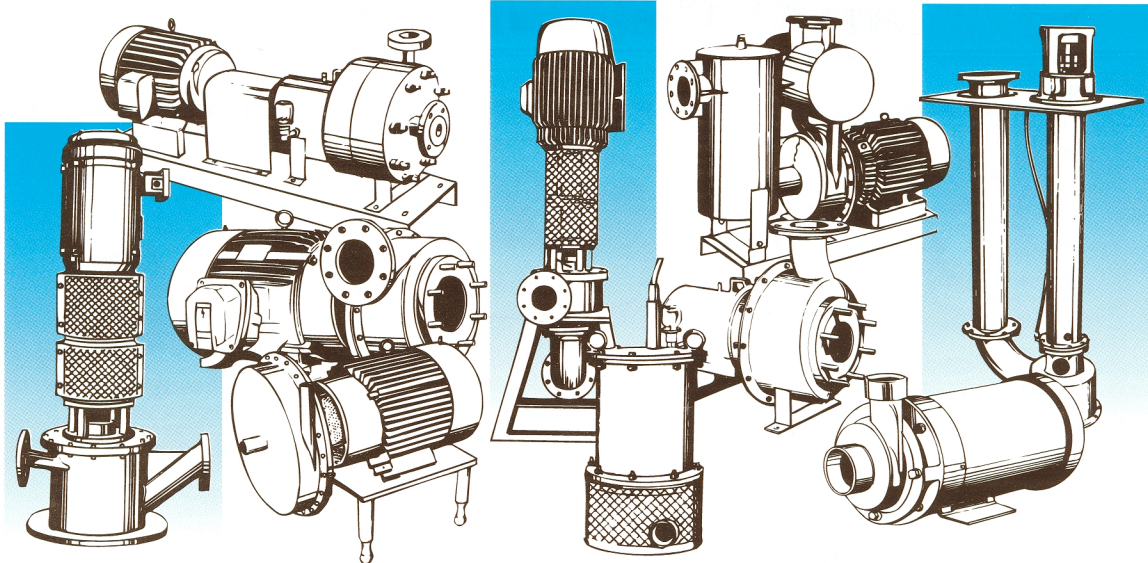


manufacturers of

**CORROSION-RESISTANT
CENTRIFUGAL PUMPS**



CORROSION-RESISTANT CENTRIFUGAL PUMPS



CORCORAN PUMPS ARE AVAILABLE IN A WIDE RANGE OF CORROSION-RESISTANT MATERIALS

Normally made from wrought metal that is uniformly dense and essentially porosity free. They are formed and fabricated using techniques developed by manufacturers of pipe, tanks and other process equipment.

The use of wrought metal in Corcoran pumps often offers other advantages over cast alloys. Two obvious advantages are higher density and better mechanical properties. In many instances the wrought metal has significantly higher corrosion-resistance than cast metals of similar composition.

MATERIAL	NORMALLY USED FOR FLUIDS SUCH AS...	STANDARD SIZES	SERIES					
			2000 4-1/2" IMP	3000 6" IMP	4000 8" IMP	5000 11" IMP	6000 14" IMP	8000 17" IMP
Type 316 Stainless	Cleaners, caustic materials, salt solutions, chlorinated solvents, general corrosion-resistant usage. Photographic chemicals, deionized water, fatty acids, phosphoric acid, citric acid and lactic acid	DISCHARGE X SUCTION						
		1/2x3/4FNPT	•	•	•	•		
Carpenter 20 Cb 3	Sulfuric acid, phosphoric acid, chromic acid, plating solutions	1/2x3/4FL	•	•	•	•		
		1x1-1/2FNPT	•	•	•	•	•	
Hastelloy B and C	Hydrochloric acid, Ferric Chloride	1x1-1/2FL	•	•	•	•	•	
		1-1/2x2FNPT	•	•	•	•	•	•
Titanium	Nitric acid, chrome sulfuric acid, chlorine water, ferric chloride, hot salt solution, sea water	1-1/2x2FL	•	•	•	•	•	•
		2x3FL		•	•	•	•	•
Monel	Sea water, hydrofluoric acid	3x4FL			•	•	•	•
		4x6FL				•	•	•
Nickel	Hot caustic solutions	5x6FL				•	•	•
		6x8FL					•	•
Metal-fitted PVC (CPVC)	Subject to temperature and pressure limitations							

R.S. Corcoran Company manufactures Corrosion-resistant Centrifugal Pumps for the Chemical Processing industry, the Pollution Control Industry and OEM Markets.

We fabricate pumps from plate material in 316L Stainless Steel, Carpenter 20 Cb-3 and Mo-4, Hastelloy B-2, C-22 and C-276, Ferralium 255, Monel, Nickel, Commercially Pure Titanium and other metals.

We offer a complete line of HORIZONTAL Pumps (close-coupled, grease lube flex-coupled, or oil lube ANSI B73.1 dimensional) single seal, dynamic seal, double seal, or packing -- each with SELF-PRIMER option. Also, a complete VERTICAL line, with submerged bearings or CANTILEVER.

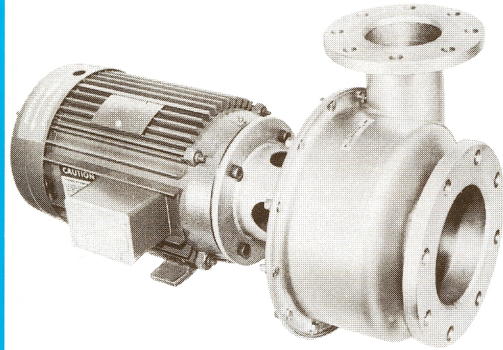
In addition, we manufacture a series of heavy duty, industrial design 316L Stainless Steel and exotic alloyed SUBMERSIBLE Sump Pumps available in 0.5 through 2 HP and 316 stainless steel (EXPLOSION-PROOF motors) SUBMERSIBLE Sump Pumps from 1 to 100 HP.

We offer the most adaptable and the most customer-oriented line of Corrosion-resistant Pumps on the market.

CORROSION-RESISTANT CENTRIFUGAL PUMPS

Horizontal Centrifugal Pumps

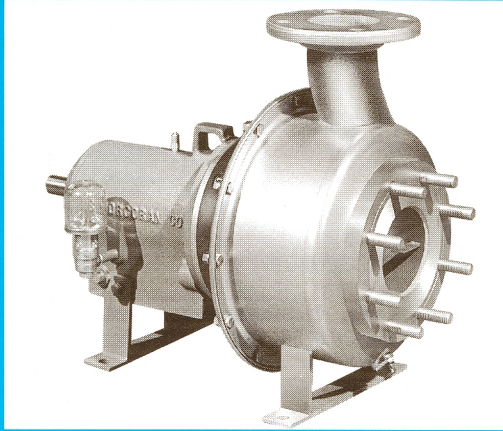
DIRECT MOUNTED Model-D



Direct-mounted (close-coupled) units are mounted directly to the motor rabbit through a stub shaft. This design is ideally suited for 6 pole (1150 rpm), 4 pole (1750 rpm), and most 2 pole (3450 rpm) applications. Motors are available through 75 hp in the TEFC enclosure. Consult the factory for special motor requirements: e.g. Mill & Chem, Explosion-Proof, Drip-Proof, Chemical Duty. Salient Features:

1. Lightweight: Eliminates bearing pedestal, flexible coupling, coupling guard, and mounting base. Pump/motor units can be secured in place by means of integral motor bases. Note: Most 2000 series Model weigh less than 50 lbs. (UPS-able)
2. Space saving: Normally occupy about half the space of a standard flex-coupled unit.
3. Options:
 - A. All Model D pumps are available in any of R.S. Corcoran Company's materials of construction.
 - B. All Model D pumps are available with any of R.S. Corcoran Company's sealing or packing arrangements.
 - C. All Model D pumps are available with the self-priming feature (D-SP).

FLEX MOUNTED Model-F



Flexible-coupled units consist of a pump bolted to a bearing pedestal to which power is transmitted by a flexible coupling from a power source. Flexible-coupled units are required by many end users for various reasons: 1) Standard rigid base motor is preferred, 2) C-face motors are not available, 3) ease of motor replacement is important, 4) certain electrical, mechanical or corporate codes require a channel mounted, flexible coupled pump.

All of these requirements are satisfied throughout the whole range of the R.S. Corcoran Company Model F pumps.

Several different bearing designs are available on all series:

1. Standard GREASE LUBRICATED bearing pedestal
2. Standard OIL LUBRICATED bearing pedestal
3. ANSI dimensional oil lubricated bearing pedestal

Options:

- A. All Model F Pumps are available in any of R.S. Corcoran Company's materials of construction
- B. All Model F pumps are available with any of R.S. Corcoran Company's sealing or packing arrangements
- C. All Model F pumps are available with the self-priming feature (F-SP)
- D. All Model F pumps are available as "pump only" including the bearing pedestal but not the channel base, coupling, or motor

OPTIONS

H Available Horizontal & Vertical Pumps

Corcoran's Model H option designates a double-mechanical seal. These seals are independently lubricated, normally by plant water at 20 psi higher than the pump discharge pressure. Model H double-seal pumps are particularly desirable for fluids that contain crystals or other light solids. Because the seals are lubricated by a clean external source, the crystals or solids are kept from the seal faces. For the same reason, double-seal pumps are used for fluids with low lubricity. They are also valuable for temperature protection where the fluid temperature is higher than the seal temperature rating, and in applications where the metallurgy of the pump is such that special seals would be very expensive and would have long delivery requirements (for example, titanium). Model H double-seal pumps may be provided in close-coupled Models (DH) and in Flex-coupled Models (FH) and in conjunction with the self-priming feature (DH-SP) or (FH-SP).

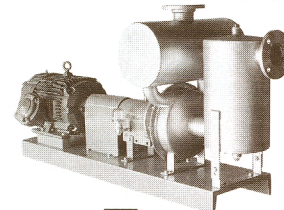
P Available Horizontal & Vertical Pumps

All series of pumps can also be supplied with stuffing box and packing. Model P. Each packed pump comes complete with 5 packing rings (choice of braided teflon or pure graphite) and a lantern ring for lubrication. Available on direct Mounted (DP) or Flex-coupled units (FP) and in conjunction with the self-priming feature (DP-SP) or (FP-SP).

SP Available Horizontal Pumps Only

Corcoran self-priming pumps secure self-priming action through the use of priming chambers and an internal recirculation system. As shown diagrammatically at right, liquid is circulated through the impeller, resulting in a low pressure area which draws the air in the suction line into the pump. The combined air and liquid are circulated through the air separator where the air is separated from the liquid, and the liquid is returned to the impeller to trap more air. The process is continued until the pump is fully primed.

Model F-SP One of many available options.



HOW IT WORKS



CORROSION-RESISTANT CENTRIFUGAL PUMPS

Vertical Centrifugal Pumps



Corcoran supplies a wide selection of pumps with vertical extended shafts in two basic styles. Model VE pumps provided with submerged bearings and Model VEC (vertical cantilever shaft pumps with all bearing above the mounting plate and no rubbing parts in the fluid being pumped. (See below)

Model VEC pumps are particularly desirable for fluids with suspended abrasive solids. C-flanged motor mounting is standard. VEC type pumps may also be supplied with a special chair mounting.

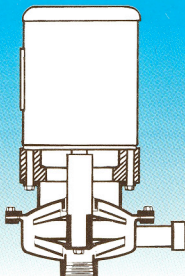
Both models may be provided with either bottom or top suction. The top suction (see below) avoids pumping residues collected at the bottom of the tank, and in VE models creates a suction rather than a discharge head at the steady bearing, helping to protect the bearing from abrasive materials and preventing material from moving along the shaft. The bottom suction, on the other hand, is ideal if it is desirable to empty the tank completely.

VORTEX IMPELLER

A recessed impeller removed from the fluid flow path. Vortex impellers are used when pumping liquids with solids in suspension which cannot be degraded by impeller contact or with solids in solution or suspension which will erode a standard impeller. The recessed vortex impeller creates a whirlpool or vortexing action which swirls the solution into and out of the pump casing with no appreciable impeller contact. Vortex impellers are available on horizontal pumps also.

TOP SUCTION

In this design the impeller eye is toward the top of the sump. The impeller is fed by gravity (static, suction head) through entry holes in the support column. The pump's extended end is able to rest very close to the bottom of the sump which precludes picking debris such as rags, bolts, and other potentially harmful detritus. Available on all styles of vertical sump pumps (standard extended, cantilever, and chair mount).

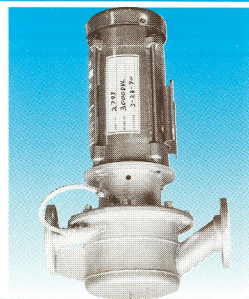


RE-PELLER OPTION

Specifically designed to prevent leakage up the shaft, without the use of seals. The key element in this revolutionary new design is a second impeller, sometimes called a "repeller," as illustrated in the drawing. The repeller or second impeller sets up a back pressure against the system pressure, effectively countering the system pressure and eliminating leakage up the shaft...which can be particularly troublesome with highly corrosive fluids.

VERTICAL IN-LINE

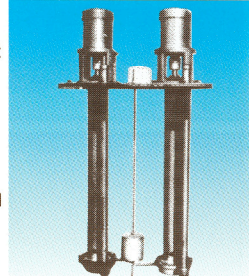
Pipeline mount or supported by an integral mounting plate; available with all sealing arrangements and materials of construction.



DUPLEX CONSTRUCTION

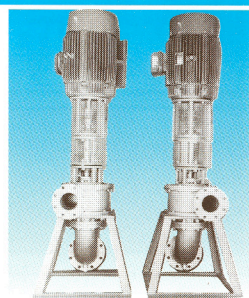
Vertical pumps combined on one special base plate. A combination float switch and mechanical alternator can be added which can cycle the pumps or bring both into operation at a given time. Each unit is carefully developed to meet the special requirements of a particular system.

Other electrical options are also available: high water alarm (visual and or audible); complete electrical control panel (NEMA 4 through NEMA 12), designed to meet all performance and safety requirements.



VERTICAL DRY PIT:

Pedestal-mounted, cantilever shaft design; available with all sealing arrangements and materials of construction; available with submersible (wash-down duty) electric motors; includes suction elbow.



HOW TO ORDER

Best results can be obtained by filing out a pump data sheet, preferably in conjunction with your R.S. Corcoran representative, or after consultation with the factory. To evaluate the requirements of the application adequately, the following information will be required.

FLUID TO BE PUMPED

Give chemical composition; viscosity in SSU; specific gravity; temperature in °F; boiling point in °F; and system suction pressure in psi. Describe any solids contained in the fluid, give the percentage of solids and tell whether the chemical will crystallize.

ELECTRICAL DATA

Describe the motor hp, rpm, voltage, number of phases, and type of enclosure required. If quick delivery is an important consideration, alternates are suggested.

FOR ALL VERTICAL PUMPS

Specify the type of mounting (in tank or dry mount, chair, etc.). Give extension length setting where applicable. Specify discharge location (at the pump, at the mounting plate). For extensions longer than 2', specify thrust bearing. Describe type of mounting plate seal (stuffing box or lip seal). Give required capacity in gpm, total head in feet, and NPSH available. If known, give the series and model number, the alloy of construction, the size of suction and discharge ports, and the port styles (whether NPT, flanged or hose). Housing gaskets should also be specified.



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