

### **300 Series REC General Purpose End Suction**

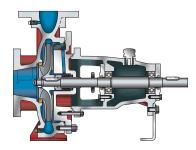
#### Uses:

Circulation, booster, irrigation, agricultural.

#### Features:

Close-coupled, enclosed impellers, centerline discharge, back pull-out.

•	
Discharge Size Range	1-1/4 - 12" 32 - 300 mm
Capacity	9,000 gpm (2,044 m <sup>3</sup> /hr)
Head	450 feet (137 meters)
Temperature	250° F (121° C)
Liquids Pumped	Water and Clear Liquids



## **300 Series REF General Purpose End Suction**

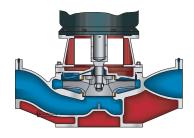
#### Uses:

Circulation, booster, irrigation, agricultural.

#### Features:

Flex-coupled, enclosed impellers, centerline discharge, back pull-out

back pull-out.	
Discharge Size Range	1-1/4 - 12" 32 - 300 mm
Capacity	9,000 gpm (2,044 m <sup>3</sup> /hr)
Head	450 feet (137 meters)
Temperature	250° F (121° C)
Liquids Pumped	Water and Clear Liquids



#### **300 Series REI General Purpose End Suction**

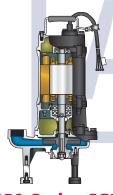
#### Uses:

Circulation, booster, irrigation, agricultural.

#### Features:

Close-coupled, enclosed impellers, vertical inline discharge, back pull-out.

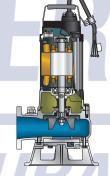
Discharge Size Range	2 - 14" 50 - 350 mm
Capacity	9,000 gpm (2,044 m <sup>3</sup> /hr)
Head	450 feet (137 meters)
Temperature	250° F (121° C)
Liquids Pumped	Water and Clear Liquids



# 330 Series SGV

#### **Submersible Grinder**

Uses: Sewage, sump waste, residential.	
Features: Open impellers, hardened stainless steel Quadra-Cutter, guide rail system.	
Discharge Size Range	1-1/4 - 2" 32 - 50 mm
Capacity	80 gpm (18 m <sup>3</sup> /hr)
Head	120 feet (37 meters)
Temperature	100° F (38° C)
Liquids Pumped	Sewage



## **330 Series SSE Submersible Sewage Ejector**

#### Uses:

Sewage, sump waste, residential.

#### Features:

Open impellers, single vane cutter

impellers, guide rail system.	
Discharge Size Range	2 - 3" 50 - 80 mm
Capacity	240 gpm (55 m <sup>3</sup> /hr)
Head	60 feet (18 meters)
Temperature	100° F (38° C)
Liquids Pumped	Sewage

# **330 Series SNC Submersible Non-Clog**

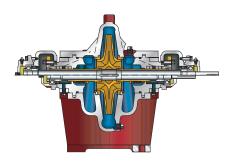
## Uses:

Sewage, sump waste, residential.

#### Features:

Open impellers, single vane cutter impellers, quide rail system

impeliers, guide rail system.	
Discharge Size Range	2 - 16" 50 - 400 mm
Capacity	6,400 gpm (1,454 m <sup>3</sup> /hr)
Head	140 feet (43 meters)
Temperature	100° F (38° C)
Liquids Pumped	Sewage and Heavy Solids



# **340 Series HD Double Suction HSC**

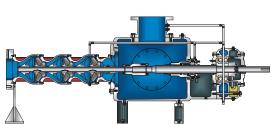
#### Uses:

Circulation, booster, HVAC, transfer, cooling tower.

#### Features:

Double suction, completely removable rotor assembly, case wear rings, grease lube.

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Discharge Size Range	2 - 44" 50 - 1100 mm
Capacity	73,000 gpm (16,580 m <sup>3</sup> /hr)
Head	550 feet (168 meters)
Temperature	250° F (121° C)
Liquids Pumped	Water and Clear Liquids



# **380 Series HT** Horizontal Turbine

#### Uses:

Boiler feed, high pressure, chemical injection.

#### Features:

Close-coupled, enclosed impellers, modular design, high efficiency.

Discharge Size Range	3 - 10" 80 - 250 mm
Capacity	2,500 gpm (567 m <sup>3</sup> /hr)
Head	2,500 feet (762 meters)
Temperature	400° F (204° C)
Liquids Pumped	Hot Condensate and Clear Liquids



**470 Series** 6" - 10" SEI

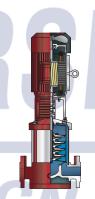
#### Uses:

Municipal, residential, mine dewatering, irrigation, agricultural.

#### Features:

Stamped stainless steel, modular design and wide hydraulic range.

Discharge Size Range	1- 6" NPT 25 - 150 mm
Capacity	1,100 gpm (250 m <sup>3</sup> /hr)
Head	2,000 feet (610 meters)
Temperature	150° F (66° C)
Liquids Pumped	water



### 470 Series VM Vertical Multistage

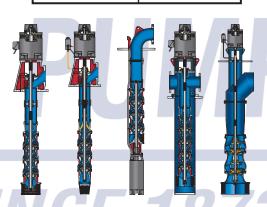
#### Uses:

Boiler feed, liguid feed process, chemical injection.

#### **Features**

Close-coupled, inline piping connection, removable stack, cartridge mechanical seal.

Discharge Size Range	1-1/4 - 6" 30 - 150 mm
Capacity	630 gpm (143 m <sup>3</sup> /hr)
Head	995 feet (303 meters)
Temperature	350° F (177° C)
Liquids Pumped	Water and Clear Liquids



# **480 Series Vertical Turbine**

#### **Vertical Turbine**

#### Uses:

Municipal, water well, irrigation, agricultural.

#### Features:

Modular design, enameled bowls, cast iron and fabricated discharge heads.

Discharge Size Range	4 - 30+" 100 - 760+ mm
Capacity	30,000+ gpm (6,815+ m <sup>3</sup> /hr)
Head	2,310 feet (704 meters)
Temperature	250° F (121° C)
Liquids Pumped	Water, Volatile Liquids, Chemicals

# 490 Series NOVO SST/AD/LS Self-Primer Centrifugal

#### Uses:

Lift station, sewage, storm water, mobile or stationary.

#### Features:

Self-primer, semi-open impeller, replaceable wear plate, back pull-out, clean-outs.

Discharge Size Range	1-1/2 - 12" 40 - 300 mm
Capacity	6,400 gpm (1,454 m <sup>3</sup> /hr)
Head	260 feet (79 meters)
Temperature	180° F (82° C)
Liquids Pumped	Water, Volatile Liquids, Chemicals

# Model REC Close-Coupled



Enclosed Impeller

Sizes: 1" to 12"
Flows: 9,000 GPM
Heads: 450 Feet
Temp: 250° F

#### Services:

- Aerospace
- Building Trades
- Chemical
- **Construction**
- Food & Beverage
- 🌇 General Industry
- Marine
- Mining & Aggregate
- **OEM**
- Oil & Gas
- Power Generation
- Petro-Chemical
- **Pharmaceutical**
- Pulp & Paper
- Semiconductor
- **Water** & Wastewater

#### **Motor**

- Standard stock C-face motor
- Available in a variety of enclosures including ODP, TEFC, Corro Duty, Washdown Duty and Explosion Proof
- Easily removable without disassembly of entire pump

#### **Shaft**

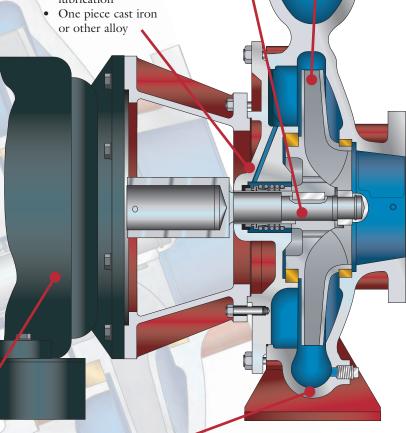
- 420 stainless steel alloy
- Rigid and sized to minimize deflection at seal area

# **Stuffing Box**

- Standard American-Marsh Series 810 Carbon/Silicon Carbide/Viton mechanical seal
- Easily replaceable 304 stainless steel shaft sleeve to extend life of shaft
- Internal flush line for lubrication



- Hydraulically balanced
- Back pump out vanes prohibit material from building up behind impeller
- One piece 304 stainless steel or other alloy
- Expertly machined to customer specifications
- Fully balanced prior to assembly



# Casing

- Heavy duty ASTM A48 cast iron or other alloy
- Fully cast integral feet for support
- Centerline discharge transmits residual pipe strain to feet of casing and eliminates the need for left- or right-handed casings and impellers
- Standard, heavy duty case wear ring
- Heavy wall thickness to provide generous corrosion allowance
- Centerline discharge is self-venting
- Integral vortex suppressor on suction
- Back pull-out for quick removal of impeller assembly
- Pressure taps on suction and discharge to verify pump performance
- Optional 300# suction and discharge flanges
- Standard 250 lb case working pressure

# Model REF

# Flex-Coupled

1-1/4" to 12" Sizes:

Flows: 9,000 GPM

Heads: 450 Feet Temp: 250° F

## Services:

- Aerospace
- Building Trades
- Chemical
- Construction
- Food & Beverage
- Reneral Industry
- Marine
- Mining & Aggregate
- OEM
- Oil & Gas
- Power Generation
- Petro-Chemical
- Pharmaceutical
- Pulp & Paper
- Semiconductor
- Water & Wastewater

# **Case Wear Ring**

- Standard bronze or other alloy
- Can be easily removed and replaced when worn
- For additional support, larger models have a front and back case wear ring

## **Impeller**

- Hydraulically balanced
- One piece 304 stainless steel or other alloy
- Expertly machined to customer specifications
- Fully balanced prior to assembly
- Back pump out vanes prohibit material from building up behind impeller

# Casing

- Standard ASTM A48 Class 30 cast iron
- Heavy wall thickness to provide for generous corrosion allowance
- Integral vortex suppressor on suction
- Fully cast integral feet for support when utilizing "back pull-out" feature
- Centerline discharge transmits residual pipe strain to feet of casing and eliminates the need for left- or right-handed casings and impellers
- Pressure taps on suction and discharge to verify pump performance
- Optional 300# suction and discharge flanges
- Centerline discharge is self-venting
- Standard 250 lb case working pressure

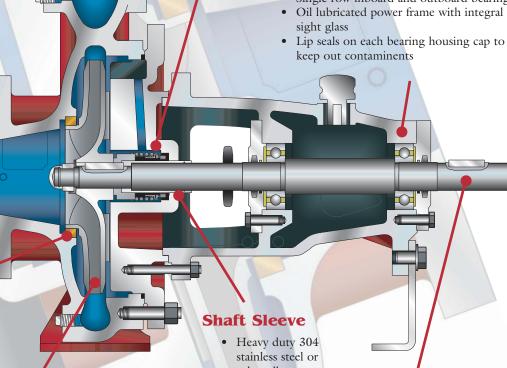
## **Stuffing Box**

Enclosed Impeller

- Standard American-Marsh Series 810 Carbon/Silicon Carbide/Viton mechanical seal
- One piece cast iron or other alloy
- Heavy duty with integral flush line for packing lubrication

# **Bearing Pedestal**

- Heavy duty ASTM A48 cast iron
- Single row inboard and outboard bearings



- other allov
- Protects the shaft from wear
- Can be easily removed and replaced when worn

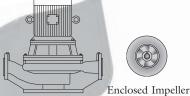
#### Shaft

- Designed and sized especially for the pump and its applications
- High strength 420 stainless steel material standard
- Efficiently designed to minimize shaft deflection at the stuffing box

# **Model REI**

**Vertical Inline** 

2" to 14" Sizes: 9,000 GPM Flows: Heads: 450 Feet 250° F Temp:



#### Shaft

- 420 stainless steel alloy
- Rigid and sized to minimize deflection at seal area

## Services:

- Aerospace
- **Building Trades**
- Chemical
- Construction
- Food & Beverage
- General Industry
- Marine
- 🋂 Mining & Aggregate
- **OEM**
- Oil & Gas
- **Power Generation**
- **Petro-Chemical**
- **Pharmaceutical**
- Pulp & Paper
- Semiconductor
  - Water & Wastewater

#### **Motor**

- Standard stock C-face motor
- Available in a variety of enclosures including ODP, TEFC, Corro Duty, Washdown Duty and **Explosion Proof**
- Easily removable without disassembly of entire pump

# **Impeller**

- · Hydraulically balanced
- Back pump out vanes prohibit material from building up behind impeller
- One piece 304 stainless steel or other alloy
- Expertly machined to customer specifications
- Fully balanced prior to assembly

# **Stuffing Box**

- Standard American-Marsh Series 810 Carbon/Silicon Carbide/Viton mechanical seal
- Easily replaceable 304 stainless steel shaft sleeve to extend life of shaft
- Internal flush line for lubrication
- One piece cast iron or other alloy

# Casing

- Heavy duty ASTM A48 cast iron or other alloy
- Cast integral square base
- Inline suction and discharge
- Integral vortex suppressor on suction
- Standard, heavy duty case wear ring
- Heavy wall thickness to provide generous corrosion allowance
- Back pull-out for quick removal of impeller assembly
- Pressure taps on suction and discharge to verify pump performance
- Optional 300# suction and discharge flanges
- Standard 250 lb case working pressure

# Model SGV

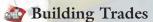
# Grinder

Sizes: 1-1/4" to 2"

Flows: 80 GPM Heads: 120 Feet



# Services:

















Power Generation

Petro-Chemical

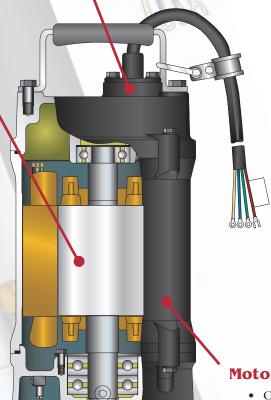
Pharmaceutical

Pulp & Paper

Water & Wastewater

# Cable Base

- Integral compression fitting creating a secure mount to the motor frame
- Epoxy sealed to resist moisture from entering the motor
- Stripped back leads to prevent wicking of moisture into the motor



# **Motor Windings**

 Air filled motor design for maximum life and lower operating temperatures

Cutter

Impeller

- Heavier duty class F insulation
- Motors available in single or three phase, 50 or 60 cycle and a variety of voltages
- Integral "Auto-Cut" overload protection that protects the motor from high amperage draw, locked impeller and/or high motor temperatures
- Single row outboard and double row inboard bearing for minimal shaft deflection and maximum mechanical seal life
- Optional moisture sensor in winding cavity for ultimate protection

#### Seal Chamber

- Double mechanical seal with Si-C/Si-C outboard and Carbon/Ceramic inboard face construction standard
- Integral seal moisture probe standard to indicate seal failure
- Oil lip seal mounted outside of the seal chamber stops large solids from gathering around the seal faces and stops stringy solids from adhering to mechanical seal spring hardware.
- Oil lubricated for maximum protection.



- Constructed out of high tensile cast iron for maximum protection
- Epoxy coated to prevent corrosion and allow for maximum housing life
- O-ring joints with machined registers to prevent the entrance of moisture
- Integral handle on top of motor to allow for easy installation

# Casing, Impeller & Cutter Ring Assembly

- High tensile, heavy wall cast iron casing designed for long life
- High tensile cast iron, semi-open impeller designed to pass sewage slurry efficiency and effectively
- Unique "Quadra-Cutter" cutter ring assembly has four cutters designed to macerate sewage or other solids
- The cutter ring assembly is hardened to 55-60 Rockwell C ensuring long life

# **Model SSE**

# Sump/Sewage

**Sizes:** 2" to 3"

Flows: 300 GPM

Heads: 90 Feet Temp: 140° F





Vortex Impeller

#### Cable Base

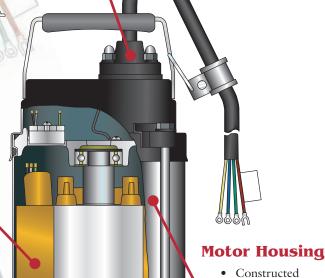
- Integral compression fitting creating a secure mount to the motor frame
- Epoxy sealed to resist moisture from entering the motor
- Stripped back leads to prevent wicking of moisture into the motor



- Building Trades
- Chemical
- Construction
- Food & Beverage
- General Industry
- **Marine**
- Min<mark>ing & A</mark>ggregate
- Oil & Gas
- Power Generation
- Petro-Chemical
- Pharmaceutical
- Pulp & Paper
- Water & Wastewater

# **Motor Windings**

- Air filled motor design for maximum life and lower operating temperatures
- Heavier duty class F insulation
- Motors available in single or three phase, 50 or 60 cycle and a variety of voltages
- Integral "Auto-Cut"
   overload protection that protects the motor from high amperage draw, locked impeller and/or high motor temperatures
- Single row outboard and single row inboard bearing for minimal shaft deflection and maximum mechanical seal life
- Optional moisture sensor in winding cavity for ultimate protection



- Constructed out of 300 stainless steel for maximum protection
- O-ring joints with machined registers to prevent the entrance of moisture
- Integral handle on top of motor to allow for easy installation

#### **Seal Chamber**

- Double mechanical seal with Si-C/Si-C outboard and Carbon/Ceramic inboard face construction standard
- Oil lip seal mounted outside of the seal chamber stops large solids from gathering around the seal faces and stops stringy solids from adhering to mechanical seal spring hardware.
- Oil lubricated for maximum protection.

# Casing & Impeller

- High tensile, heavy wall cast iron casing designed for long life
- High tensile cast iron, semi-open or single vane cutter impeller designed to pass sewage slurry efficiency and effectively
- Impellers are available in semi-open and single vane cutter geometries
- Integral air release valve for venting air from the casing

# **Model SNC Non-Clog Sump**





Single Vane Enclosed Impeller



Vortex Impeller

**Motor Windings** 

insulation

voltages

Air filled motor design for

maximum life and lower

Motors available in single

or three phase, 50 or 60

overload protection that

protects the motor from

locked impeller and/or

high motor temperatures

Single row outboard and

bearing for minimal shaft deflection and maximum

Optional moisture sensor in winding cavity for

cycle and a variety of

Integral "Auto-Cut"

high amperage draw,

double row inboard

mechanical seal life

operating temperatures

Heavier duty class F

Cutter

Sizes: 2" to 16" Flows: 6,200 GPM

Heads: 135 Feet 140° F Temp:

## Services:

Building Trades











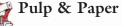


Oil & Gas

**Power Generation** 

**Petro-Chemical** 

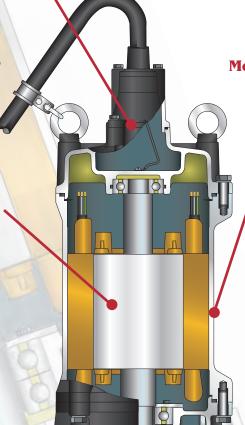
Pharmaceutical



Water & Wastewater

#### Cable Base

- Integral compression fitting creating a secure mount to the motor frame
- Epoxy sealed to resist moisture from entering the motor
- Stripped back leads to prevent wicking of moisture into the motor

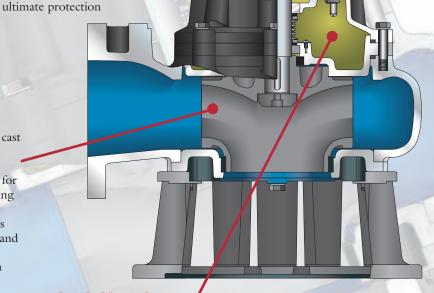


# **Motor Housing**

- Constructed out of high tensile cast iron for maximum protection
- Epoxy coated to prevent corrosion and allow for maximum housing life
- O-ring joints with machined registers to prevent the entrance of moisture
- Integral handle on top of motor to allow for easy installation

# Casing & Impeller

- · High tensile, heavy wall cast iron casing designed for long life
- Integral air release valve for venting air from the casing
- High tensile cast iron impeller designed to pass sewage slurry efficiency and effectively
- Impellers are available in semi-open, single vane cutter and enclosed geometries



#### Seal Chamber

- Double mechanical seal with Si-C/Si-C outboard and Carbon/Ceramic inboard face construction standard
- Integral seal moisture probe standard to indicate seal failure
- Oil lip seal mounted outside of the seal chamber stops large solids from gathering around the seal faces and stops stringy solids from adhering to mechanical seal spring hardware
- Oil lubricated for maximum protection

# Model HD Split Case

**Sizes:** 2" to 32+" **Flows:** 18,000+ GPM

Heads: 550 Feet Temp: 250° F



#### Double Suction Impeller

#### Services:

Aerospace

Building Trades

Chemical

General Industry

Marine

Mining & Aggregate

Oil & Gas

Power Generation

Petro-Chemical

**Pharmaceutical** 

Pulp & Paper

Semiconductor

Water & Wastewater

# **Impellers**

- Double suction minimizes axial thrust, enclosed, nonoverloading bronze standard, other alloys available
- Expertly machined to customer specifications
- Fully balanced before assembly

# **Heavy Duty Casing**

- Standard ASTM A48 Class 30 cast iron
- Horizontally split for easy access
- Casing has Thru-Bore which allows the removal of the entire rotating assembly, including both stuffing boxes, and the entire bearing housing assembly
- Heavy wall thickness to provide generous corrosion allowance and high working pressures
- Volute type casing with double suction provides suction and discharge nozzles cast integral with the lower half of the casing
- Suction and discharge connections are in lower half, allowing removal or inspection of upper half and rotating assembly without disturbing piping or driver
- Standard 250 lb case working pressure

# **Bearing Housings**

- Cartridge bearing arrangement allows the removal of the entire bearing housing assembly with the rotating element.
- Both the inboard and outboard bearing can be completely replaced without disturbing any other part of the rotating assembly.
- Both bearings are protected by lip seals to keep contaminents out of bearing housing

# **Shaft Sleeves**

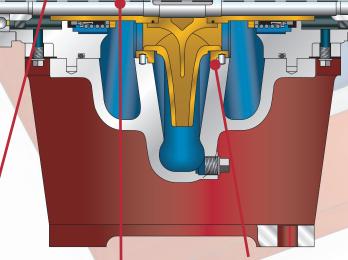
 Standard - replaceable bronze sleeves protect shaft from wear and corrosion

# Heavy Duty Outboard Bearing

- Heavy duty deep groove type ball thrust bearing, purge grease type lubrication standard
- Fixed rigidly in housing to take end thrust load
- Maintains impellers in their central position

# **Stuffing Boxes**

- Packed with bronze lantern ring and gland
- Fully removable with the rotating assembly
- Both stuffing boxes have integral vortex suppressors to minimize inlet losses



# **Heavy Duty Shaft**

- Designed and sized especially for the pump and its applications
- 420 stainless steel shaft standard

# Heavy Duty Inboard Bearing

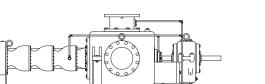
- Heavy duty deep groove type ball bearing, purge grease type lubrication standard
- Carries radial load; free to move axially

# Casing Wear Rings

- Standard bronze or other specified alloy
- Renewable, permits easy maintenance of proper running clearances
- Allows smooth transfer of fluid into impeller eye, increasing efficiency and lowering NPSH
- Pinned to prevent rotation

# **Model HT**

# **Horizontal Turbine**





Sizes: 3" to 10" Discharge

Flows: 2500 GPM Heads: 2500 Feet Temp: 400° F

#### Services:

- Aerospace
- Building Trades
- Chemical
- Food & Beverage
- General Industry
- Marine
- Mining & Aggregate
- M Oil & Gas
- Power Generation
- Petro-Chemical
- Pharmaceutical

# **Bowl Assembly**

- O-ring bowl construction allows for dry-pit applications
- Modular bowl assembly allows for the swapping of the entire bowl assembly during servicing
- Heavy wall ASTM A48 class 30 cast iron construction with 304 stainless steel impellers or other specified material
- Reversed bowl assembly allows low pressure on suction chamber
- Impellers are expertly machined to customer specifications
- 416 stainless steel pump shaft
- Heavy duty bronze bowl bearings standard
- Keyed impellers standard

## **Thrust Bearing Housing**

- Constructed of ASTM A48 class 30 cast iron
- Heavy duty, water cooled, duplex angular contact bearing assembly
- Ring oiled lubrication for longer life
- Dual bearing isolators minimize the entrance of contaminents
- Water cooling jacket fully surrounds the entire bearing assembly for uniform bearing cooling
- The entire cartridge style, two piece bearing housing with bearing assembly can be inspected, removed and/or replaced without complete pump disassembly

# Seal Coupling

- Allows for easy disassembling of the bowl assembly
- Radially and axially split keyed design

#### **Suction Head**

- Constructed of ASTM A48 class 30 cast iron
- Three openings to allow for multiple suction mounting orientations to allow for increased flexibility in the field
- 125 pound rating standard with option for 250 pound
- Centerline supported for higher temperature applications
- Necessary vent and drain openings standard

#### **Seal Chamber**

- Separate seal chamber ensures that the seal is protected during operation
- Standard 820 series component mechanical seal
- Integral bronze throat bushing standard
- Optional packing, component or cartridge seals available
- · Optional flush plans available upon request

# 6-10 Inch SEI Stamped Stainless Steel

Sizes: 6" to 10"
Flows: to 1100 GPM
Heads: to 2000 Feet

#### Services:

**Building Trades** 

General Industry

Marine

Mining & Aggregate

OEM

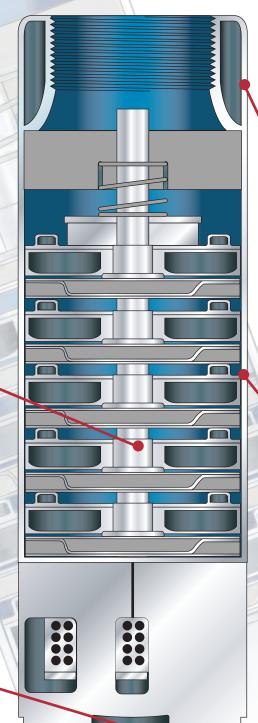
👺 Water & Waste Water

# Impeller Stack

- 304 stainless steel construction designed for long life and corrosion protection
- Heavily shrouded fabricated, stamped stainless steel impellers/diffusers
- Optimally designed impellers and diffusers provide maximum efficiency
- Stainless steel wearing ring reduces wear from high thrust
- Oversized 316 stainless steel colleted shaft for maximum reliability

#### **Motor Connection**

- Oversized, splined, 410 stainless steel shaft designed for long life and corrosion resistance
- NEMA motor connection allowing for ease in mounting to a wide variety of submersible motor manufacturers.
- Integral strainer designed to protect the pump from pumping large solids.



# Top End Bell

- 304 stainless steel top bearing for long life and reliability
- Internal, heavy duty, spring loaded, stainless steel check valve to protect the pumping assembly from water hammer and other pressure spikes.

#### **Exterior Shell**

- Constructed of 304 stainless steel for maximum corrosion resistance
- Unit can be supplied in 316 stainless steel upon request

# Model VM Vertical Multistage

Sizes: 1-1/4" to 4" Flows: to 630 GPM Heads: to 800 Feet

#### Services:

Building Trades

General Industry

**Marine** 

Mining & Aggregate

OEM

Water & Waste Water

# **Upper Pump Housing**

- Constructed of A48 class 30 cast iron, 304 or 316 stainless steel based on application
- External monitoring port for dry running detection
- Houses American-Marsh cartridge style mechanical seal for easy servicing in the field
- Two piece split coupling for easy connection to driver
- Integral coupling guard to protect user from rotating equipment
- Motor register machined to receive NEMA or IEC motors upon request

#### **Exterior Shell**

- Constructed of 304 stainless steel for maximum corrosion resistance
- Unit can be supplied in 316 stainless steel upon request

#### Driver

- Pump unit is designed to accept a NEMA C-face motor standard
- Wide variety of motor enclosures available for application flexibility
- IEC motors can be used upon request

# Impeller/Diffuser Stack Assembly

- Heavily shrouded impellers/diffusers are constructed of corrosion resistant stamped stainless steel for maximum life and durability
- Optimally designed impellers and diffusers provide maximum efficiency
- Wide choice of bearings based on fluid and application specifics
- Oversized and heavy duty 316 stainless steel shaft standard designed for unplanned loads
- Complete impeller/diffuser stack assembly can be removed and replaced to bring pump performance back up to factory tolerances



- Constructed of A48 class 30 cast iron, 304 or 316 stainless steel based on application
- Vertical inline suction and discharge gauge connections standard
- Heavy duty ANSI 250# suction and discharge flanges standard
- Optional victaulic, NPT, oval or metric flanges can be supplied upon request
- Heavy duty casted base standard to support entire pump assembly

# Model OLS Vertical Turbine

Flows To: 60,000 GPM Heads To: 1400+ Feet

Settings To: 1000+ Feet

#### Markets:

Building Trades

Chemical

Construction

le General Industry

Marine

Mining & Aggregate

oil & Gas

Power Generation

🎥 Petro-Chemical

Pharmaceutical

🌠 Pulp & Paper

**Water & Wastewater** 

# Discharge Head

- Heavy duty ASTM A48 class 30 cast iron construction standard (shown)
- Optional fabricated steel heads available
- High profile head allows for ease in servicing packing

Francis Enclosed Impeller

Francis Open

Impeller

- Carbon steel top shaft with stainless steel optional
- Headshaft coupling connects top shaft to headshaft
- Spacer couplings are available for use with mechanical seals
- Integral drip basin collects leakage from stuffing box

# **Bowl Assembly**

- Heavy wall ASTM A48 class 30 cast iron construction with 304 investment cast stainless steel impellers
- Impellers are expertly machined to customer specifications
- Diffuser bowls through 18" have standard vitreous enamel lining
- 416 stainless steel bowlshaft is standard
- Bronze bowl bearings standard
- Tapered impeller collets are used on bowls through 18" with keyed impellers used on larger sizes
- Heavy duty grease packed suction case bearing with sand collar



- Vertical holloshaft or solid shaft
- Can be supplied with a non-reverse ratchet or selfrelease coupling
- Top adjusting nut allows user to adjust lateral setting
- Bearing designed to carry thrust loads and is oil lubricated
- Available in WP-I, WP-II, TEFC & Explosion-Proof enclosures
- Optional right angle gear drives

## **Stuffing Box**

- Packed with lantern ring standard
- Grease port for throat bushing lubrication
- High pressure stuffing boxes and shaft sleeves are optional

# **Column Assembly**

- Heavy wall carbon steel construction
- Larger diameter, steel shaft material
- Heat straightened shafting standard
- Investment cast 304 stainless steel bearing retainer with cutlass rubber insert
- Product lubricated lineshaft bearings
- Threaded column is standard through
   12" and flanged for larger sizes
- Overall length is engineered to customer specifications

# **Discharge Case**

- Heavy duty ductile iron construction standard
- Two bronze bearings for additional support
- Additional vanes for minimizing turbulence thus improving efficiency

#### Strainer

- Basket or cone strainers are available upon request
- Galvanized steel, bronze or stainless steel materials are available
- Vortex suppressors can be supplied to minimize inlet losses



# Model ELS Vertical Turbine

Flows To: 60,000 GPM

Heads To: 1400+ Feet

Settings To: 1000+ Feet

#### Markets:

**Building Trades** 

**Chemical** 

**Construction** 

General Industry

Marine

🍑 Mining & Aggregate

Oil & Gas

Power Generation

Petro-Chemical

Pharmaceutical

羄 Pulp & Paper

👺 Water & Wastewater



 Vertical holloshaft or solid shaft

Motor

- Can be supplied with a non-reverse ratchet or self-release coupling
- Top adjusting nut allows user to adjust lateral setting
- Bearing designed to carry thrust loads and is oil lubricated
- Available in WP-I, WP-II, TEFC & Explosion-Proof enclosures
- Optional right angle gear drives

# **Discharge Head**

- Heavy duty ASTM A48 class 30 cast iron construction standard (shown)
- Optional fabricated steel heads available
- Carbon steel top shaft with stainless steel optional
- Headshaft coupling connects top shaft to headshaft
- Spacer couplings are available for use with mechanical seals
- Integral drip basin collects leakage from stuffing box

# **Tension Tube Assembly**

- Allows the tensioning of the enclosing tube to ensure proper lineshaft bearing alignment
- Allows for the means of using oil, grease or water for enclosed lineshaft lubrication
- Constructed of high quality bronze to resist corrosion and prevent "freezing" to the enclosing tube

# Discharge Case

- · Heavy duty ductile iron construction standard
- Tubing adapter connects inner column assembly to bowl assembly
- Two bypass ports with dual lip seals prevent pressurized fluid from the bowl assembly from entering the enclosing tube
- Additional vanes for minimizing turbulence thus improving efficiency

# **Bowl Assembly**

- Heavy wall ASTM A48 class 30 cast iron construction with 304 investment cast stainless steel impellers
- Impellers are expertly machined to customer specifications
- Diffuser bowls through 18" have standard vitreous enamel lining
- Impellers are available in enclosed or semi-open construction
- 416 stainless steel bowlshaft is standard
- Bronze bowl bearings standard
- Tapered impeller collets are used on bowls through 18" with keyed impellers used on larger sizes
- Heavy duty grease packed suction case bearing with sand collar

## Strainer

- Basket or cone strainers are available upon request
- Galvanized steel, bronze or stainless steel materials are available
- Vortex suppressors can be supplied to minimize inlet losses

# **Column Assembly**

- Heavy wall carbon steel construction
- Larger diameter, steel shaft material
- Heat straightened shafting standard
- Lineshaft bearings are spaced at five foot intervals and are constructed of high quality bronze
- Machined helical grooves in lineshaft bearing ensure uniform lubrication over the entire bearing surface
- The shaft enclosing tube isolates all shafting and bearings from the pumped fluid
- Overall length is engineered to customer specifications

# Model SUB Vertical Turbine

Flows To: 10,000 GPM

Heads To: 1400+ GPM Settings To: 1000+ Feet

#### Markets:

Building Trades

Chemical

Construction

General Industry

Marine

Mining & Aggregate

Oil & Gas

Power Generation

🍂 Petro-Chemical

Pharmaceutical

🙀 Pulp & Paper

Water & Wastewater



Francis Enclosed Impeller



Francis Open Impeller



Mixed Flow Impeller



Axial Flow Impeller

# **Discharge Case**

- Heavy duty ductile iron construction standard
- Two bronze bearings for additional support
- Additional vanes for minimizing turbulence thus improving efficiency

### Cable Guard

- Protect the motor leads during installation
- Manufactured of stainless steel to resist corrosion

# **Bowl Assembly**

- Heavy wall ASTM A48 class 30 cast iron construction with 304 investment cast stainless steel impellers
- Impellers are expertly machined to customer specifications
- Diffuser bowls through 18" have standard vitreous enamel lining
- Impellers are available in enclosed or semi-open construction
- 416 stainless steel bowlshaft is standard
- Bronze bowl bearings standard
- Tapered impeller collets are used on bowls through 18" with keyed impellers used on larger sizes

#### **Motor**

- Fully sealed with integral downthrust bearing
- Stainless steel motor shaft extension to resist corrosion
- An integral mechanical seal keeps water and contaminants out of motor casing

# Discharge Elbow & Surface Plate

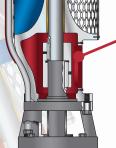
- High strength fabricated steel designed to support entire pump assembly
- Can be supplied with a variety of flange pressure ratings

# **Column Assembly**

- Heavy wall carbon steel construction
- Threaded column is standard through 12" and flanged for larger sizes
- Overall length is engineered to customer specifications

#### **Motor Bracket**

- Heavy duty ductile iron or fabricated steel construction standard
- Integral strainer to protect the bowl assembly
- Flared inlet to reduce losses into the bowl assembly
- Machined register to allow for proper alignment of the motor and bowl assembly



# Model MF & AF

Mixed & Axial Flow

Flows To: 300,000 GPM

Heads To: 100+ Feet **Settings To:** 100+ Feet

### Markets:

Building Trades

Chemical

Construction

腌 General Industry

Marine

할 Mining & Aggregate

Oil & Gas

**Power Generation** 

**Petro-Chemical** 

**Pharmaceutical** Pulp & Paper

Water & Wastewater



Axial Flow Impeller



Mixed Flow Impeller

# **Tension Tube Assembly**

- Allows the tensioning of the enclosing tube to ensure proper lineshaft bearing alignment
- Allows for the means of using oil, grease or water for enclosed lineshaft lubrication
- Constructed of high quality bronze to resist corrosion and prevent "freezing" to the enclosing tube

#### **Motor**

- Vertical holloshaft or solid shaft
- Can be supplied with a non-reverse ratchet or self-release coupling
- Top adjusting nut allows user to adjust lateral setting
- Bearing designed to carry thrust loads and is oil lubricated
- Available in WP-I, WP-II, TEFC & Explosion-Proof enclosures
- Optional right angle gear drives

# **Discharge Head**

- Fabricated steel above or below ground discharge head
- Carbon steel top shaft with stainless steel optional
- Headshaft coupling connects top shaft to headshaft
- Spacer couplings are available for use with mechanical seals
- Integral drip basin collects leakage from stuffing box

# **Discharge Case**

- Heavy duty ASTM A48 class 30 cast iron construction standard
- Tubing adapter connects inner column assembly to bowl assembly
- Two bypass ports with dual lip seals prevent pressurized fluid from the bowl assembly from entering the enclosing tube

# **Column Assembly**

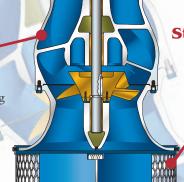
- Heavy wall carbon steel construction
- Larger diameter, steel shaft material
- Heat straightened shafting standard
- Lineshaft bearings are spaced at five foot intervals and are constructed of high quality bronze
- Machined helical grooves in lineshaft bearing ensure uniform lubrication over the entire bearing surface
- The shaft enclosing tube isolates all shafting and bearings from the pumped fluid
- Overall length is engineered to customer specifications

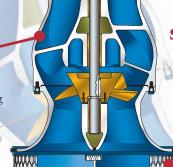
# **Bowl Assembly**

- Heavy wall ASTM A48 class 30 cast iron construction with bronze impellers
- Impellers are expertly machined to customer specifications
- Diffuser bowls through 18" have standard vitreous enamel lining
- Impellers are available in enclosed or semi-open construction
- 416 stainless steel bowlshaft is standard
- Bronze bowl bearings standard
- Tapered impeller collets are used on bowls through 18" with keyed impellers used on larger sizes
- Heavy duty grease packed suction case bearing with sand collar



- Basket strainers are available upon request
- Galvanized steel, bronze or stainless steel materials are available
- Vortex suppressors can be supplied to minimize inlet losses





# Model SST Self-Priming Centrifugal

Flows To: 3,400 GPM Heads To: 120 Feet

Solids To: 3" Diameter

Temps To: 180° F

#### Markets:

**W** Chemical

**Construction** 

🖺 General Industry

**Marine** 

Mining & Aggregate

OEM

Power Generation

**?** Petro-Chemical

Pulp & Paper

**Water & Wastewater** 

#### **Suction Inlet**

- Heavy duty check valve to keep liquid in the casing when the pump stops
- Check valve can be removed without disturbing suction piping
- Oil resistant with canvas reinforcement for durability
- Heavy, integral valve weight to ensure that the valve remains closed when the pump is off

#### **Removable Cleanout Plate**

- Quick access to the interior of the pump without disturbing suction or discharge piping
- The impeller, wear plate and check valve can be inspected and/or replaced by removing the cleanout plate
- Clogs can be removed easily
- Integral and replaceable, front & rear, oil and abrasion-resistant, rubber coated wear plate
- Integral pressure relief valve to protect the pump and casing from over pressurizing
- Running clearances can be adjusted by using integral hardware on the cover plate

## Casing

Vortex Impeller

- Standard ASTM A48 close grained cast iron
- Can be supplied in Novolloy abrasion resistant material, all bronze or all 316 stainless steel
- Heavy wall thickness to provide generous corrosion allowance
- Large priming chamber for quick prime times and large solids passing
- Oversized filling port for quick filling of the casing
- Bolt on suction and discharge spool pieces to meet jobsite requirements
- Large, oversized cleanout plate
- All ports with handles which can be opened without special tools
- Provisions for casing heater for use in cold weather applications
- All bolted connections utilize casing studs for ease in maintenance

# **Impeller**

- Standard close grain ductile iron
- Can be supplied in Novolloy abrasion resistant material, bronze or 316 stainless steel
- Two vane, balanced, semiopen, large diameter spherical solids handling
- Back pump out vanes to keep material from building up behind the impeller

# **Mechanical Seal**

- Tungsten Carbide vs.
  Tungsten Carbide face
  arrangement
- Oil bath lubrication
- Can run dry temporarily on high vacuum even when pumping highly abrasive liquids
- Integral stainless steel shaft sleeve

#### **Power Frame**

- Standard ASTM A48 close grained cast iron
- Back pull out feature allows for ease in service without disturbing suction or discharge piping
- Two independent oil reservoirs, one for the bearings & one for the mechanical seal
- Integral duel oil level eyes for oil level indication in the bearing and seal chamber
- Heavy duty, oil lubricated, oversized bearings for direct V-belt applications
- Heavy duty shaft bored and tapped to facilitate assembly of couplings or pulleys

# 6, 8 & 10 Inch SEI Motors

# 3-Wire Single/Three Phase

Sizes: Single Phase

5 to 15 HP Three Phase 5 to 250 HP

Voltages: 230, 380, 460 & 575 Volt

Frequencies: 50 & 60 Hz

#### Services:

Building Trades

General Industry

**Marine** 

Mining & Aggregate

OEM

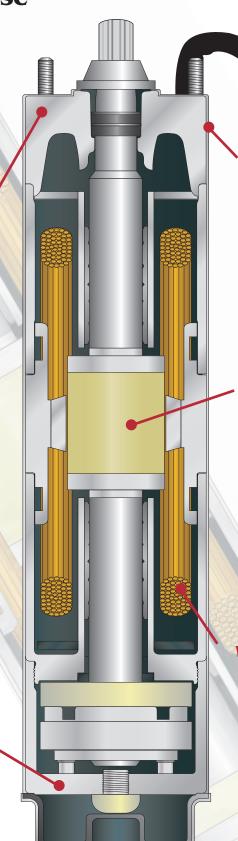
Water & Waste Water

# **Top End Bell**

- Integral NBR sand boot to reduce sand entrance into motor
- The mounting flange on top of the motor meets NEMA dimensional standards
- The end bell is constructed of nickel plated cast iron clad in 304 stainless steel for maximum corrosion protection
- Double lip seal construction to minimize contaminants from entering the motor
- Permanently installed type, PVC insulated, 3/6 conductor motor lead standard

#### **Bottom End Bell**

- Houses high thrust, six shoe, Kingsbury-type thrust bearing constructed of stainless steel and carbon graphite
- Integral pressure equalizing diaphragm designed specifically for 6 and 8 inch motor applications
- The end bell is constructed of nickel plated cast iron clad in 304 stainless steel for maximum corrosion protection



#### **Exterior Shell**

- Constructed of corrosion resistant 304 stainless steel
- The unit completely fits within a 6" or 8" well for ease in installation

## **Shaft Assembly**

- The oversized shaft is constructed of 431 stainless steel for maximum corrosion protection
- Splined for ease in coupling to various pump ends
- Supported by oversized carbon graphite bearings reducing shaft whip and extending motor life

# **Windings**

- Individually insulated copper conductors allowing for complete stator rewinding providing maximum life and durability.
- More winding material as compared to the competition allowing for higher power factors and higher operating speeds
- Water filled and lubricated to ensure long motor life



American-Marsh Pumps, one of the oldest pump lines in America, are pump products steeped in heritage. Since 1873, the American-Marsh line of pumps have withstood the test of time. Over the last 140 years, over 100 varieties of pumps have been designed and built. From steam pumps to centrifugal pumps, American-Marsh pumps have been built to meet the ever changing requirements of society. Over the last century, through continuous product development, more American-Marsh models have been retired than most other pump manufacturers have ever produced. Hundreds of thousands of pumps have been built, all designed with long life in mind, allowing many of them to last over 50 years in service.

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ANSI To 8" Discharge 7400 GPM, 985' END SUCTION To 12" Discharge 9000 GPM,

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