



AMERICAN-MARSH PUMPS

“DURABILITY BY DESIGN SINCE 1873”

500 Series

Flex-Coupled End Suction Fire Pumps

Vertical Inline Fire Pumps

Split Case Fire Pumps

Vertical Turbine Fire Pumps

**Flows to: 5,000 GPM
Heads to: 840 Feet**

Built Per N.F.P.A. 20



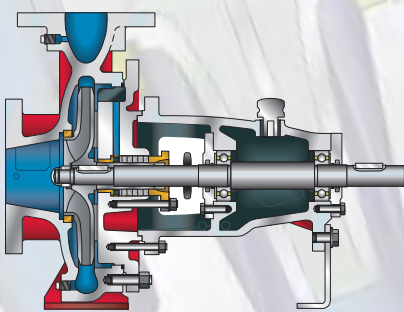
140 Years of Pump Manufacturing

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 has withstood the test of time. During 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 made, all designed for longevity, allowing many of them to continue servicing customers over 50 years.

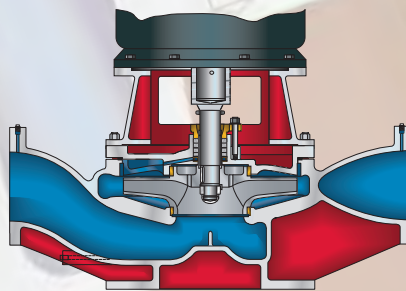
All of our pumps have three superior characteristics; Design, Performance, and Durability. Our engineering department, which includes an in-house pattern shop, designs each pump so that installation and maintenance is easy. Our performances are engineered to meet or beat the competition in each category. For 140 years, American-Marsh Pumps prod-

ucts have provided cost effective solutions by building pumps to last. Durability by design is always the most cost effective solution. From engineering and design to final assembly, experienced people control each step of the manufacturing process with quality control inspections performed at each step. All pumps shafts are heat straightened. All impellers are computer balanced. Pump testing is done in our new state of the art test facility. All of these factors ensure you receive consistent quality product every time.

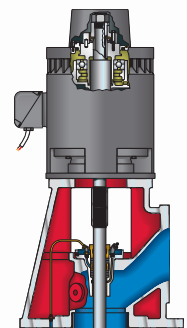
American-Marsh Pumps has provided quality pump products for over 140 years. At American-Marsh Pumps, we know that long life and superior performance are the keys to satisfied customers. By understanding your needs, we can design products that meet those needs. Our product family reflects years of customer input, product upgrades, redesign and new product development, all focused on meeting and exceeding your expectations.



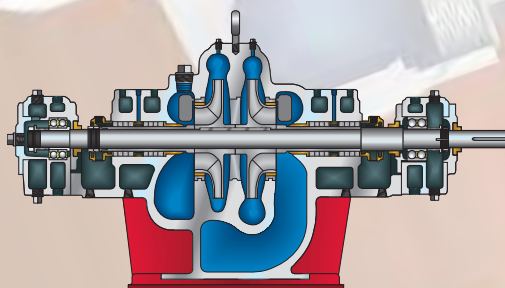
Model FP-REF



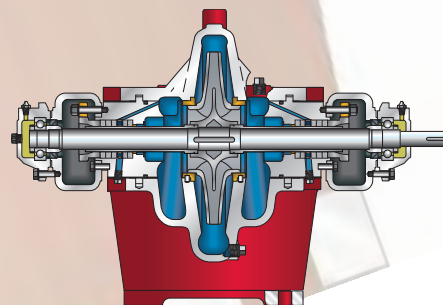
Model FP-REI



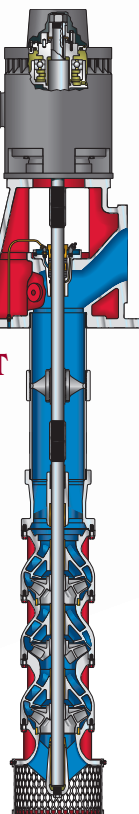
Model FP-VT



Model FP-HH/FP-HJ/FP-HK



Model FP-HD



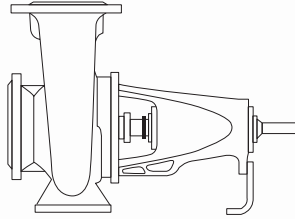
Model FP-REF

Flex-Coupled

Sizes: 1-1/4" to 10"
Flows: 5,000 GPM
Heads: 500 Feet

Services:

 **Fire Protection**



Enclosed 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 lb suction and discharge flanges
- Centerline discharge is self-venting
- Standard 250 lb case working pressure

Bearing Housing

- Heavy duty ASTM A48 cast iron
- Single row inboard and outboard bearings
- Grease lubricated power frame with oversized roller bearings
- Lip seals on each bearing housing cap to keep out contaminants

Stuffing Box

- Packing with lantern ring standard
- One piece cast iron or other alloy
- Heavy duty with integral flush line for packing lubrication

Shaft Sleeve

- Heavy duty 304 stainless steel or other alloy
- Protects the shaft from wear
- Can be easily removed and replaced when worn

Impeller

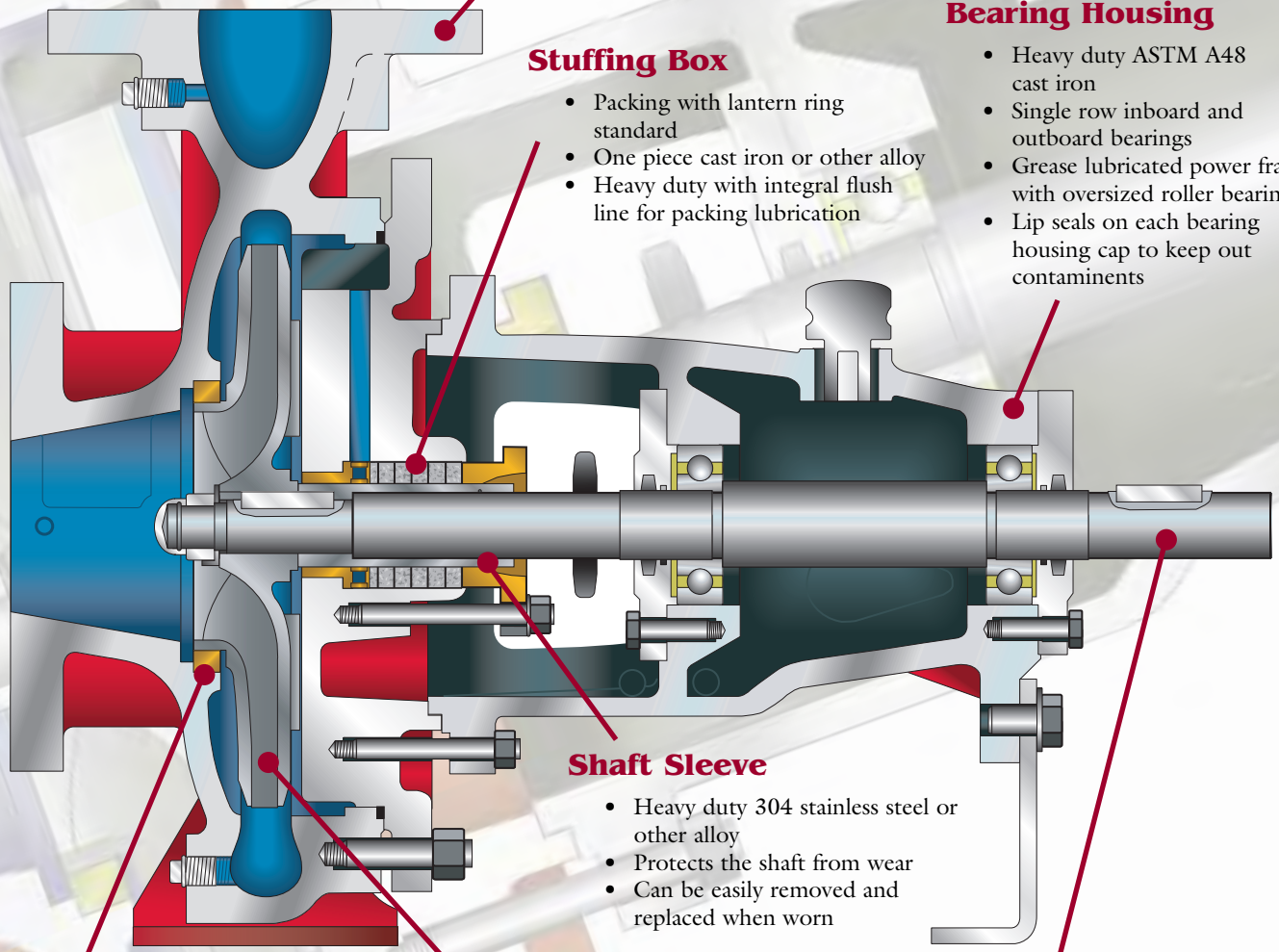
- Hydraulically balanced
- One piece 304 stainless steel or other alloy
- Expertly machined to customer specifications
- Fully balanced prior to assembly
- Back pump out vanes prohibit material from building up behind impeller

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

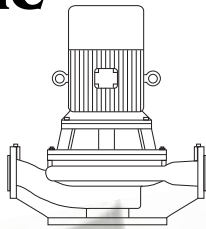
Shaft

- 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 FP-REI Vertical Inline

Sizes: 2" to 10"
Flows: 5,000 GPM
Heads: 500 Feet



Enclosed Impeller

Services:

 Fire Protection

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

Stuffing Box

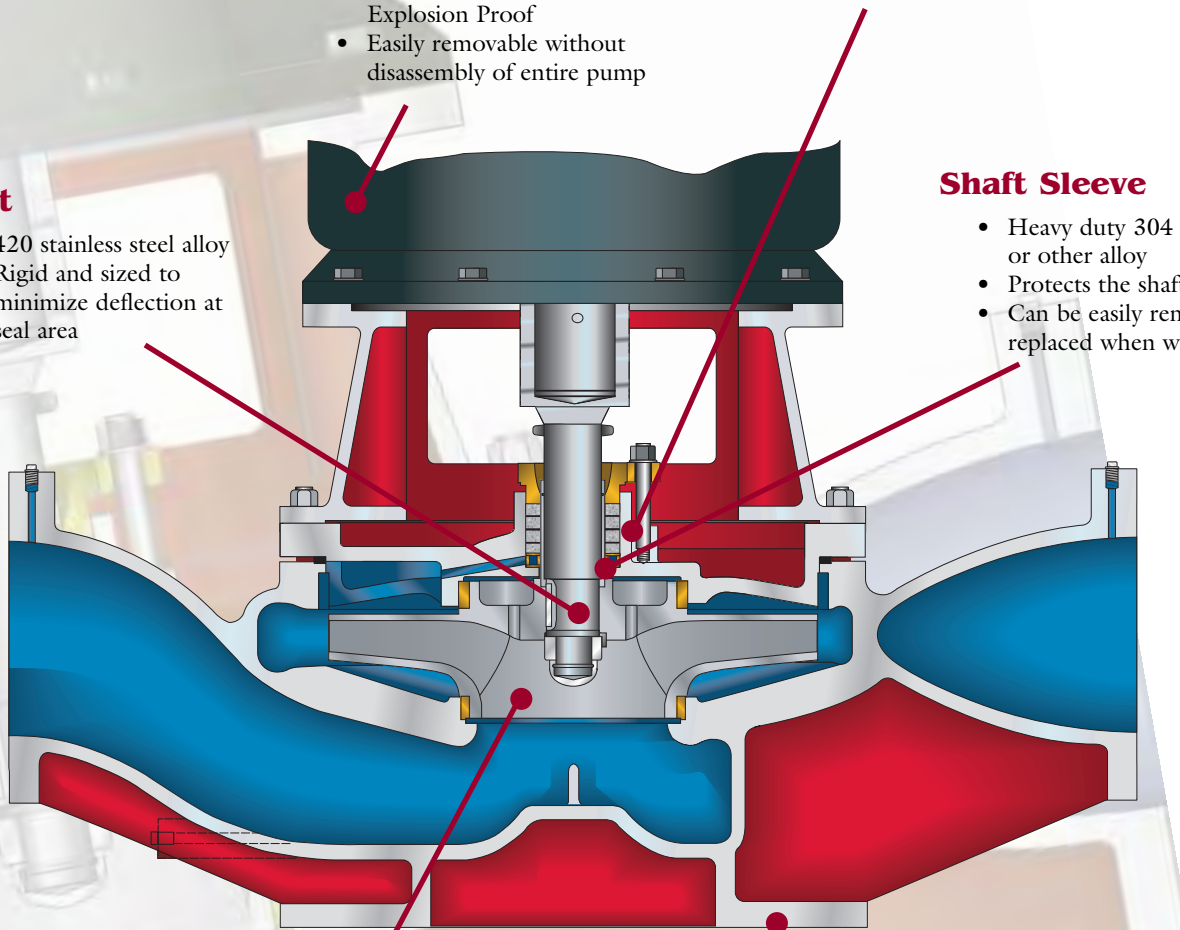
- Packing with lantern ring standard
- Internal flush line for lubrication
- Heavy duty with integral flush line for packing lubrication

Shaft

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

Shaft Sleeve

- Heavy duty 304 stainless steel or other alloy
- Protects the shaft from wear
- Can be easily removed and replaced when worn



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

Casing

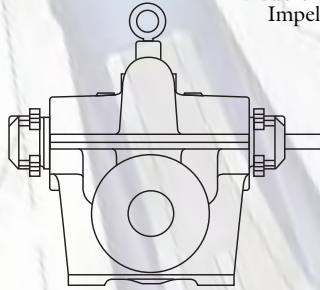
- Heavy duty ASTM A48 cast iron or other alloy
- Cast integral square base
- Inline suction and discharge
- Integral vortex suppressor on suction
- Standard, heavy duty case wear ring
- Heavy wall thickness to provide generous corrosion allowance
- Back pull-out for quick removal of impeller assembly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

Model FP-HD Split Case

Sizes: 2" to 10"
Flows: 5,000 GPM
Heads: 500 Feet

Services:

 **Fire Protection**



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

Impellers

- Double suction minimizes axial thrust, enclosed, non-overloading 304 stainless steel standard, other alloys available
- Expertly machined to customer specifications
- Fully balanced before assembly

Shaft Sleeves

- Standard - replaceable 304 stainless steel sleeves protect shaft from wear and corrosion

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 contaminants out of bearing housing

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

Heavy Duty Inboard Bearing

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

Heavy Duty Shaft

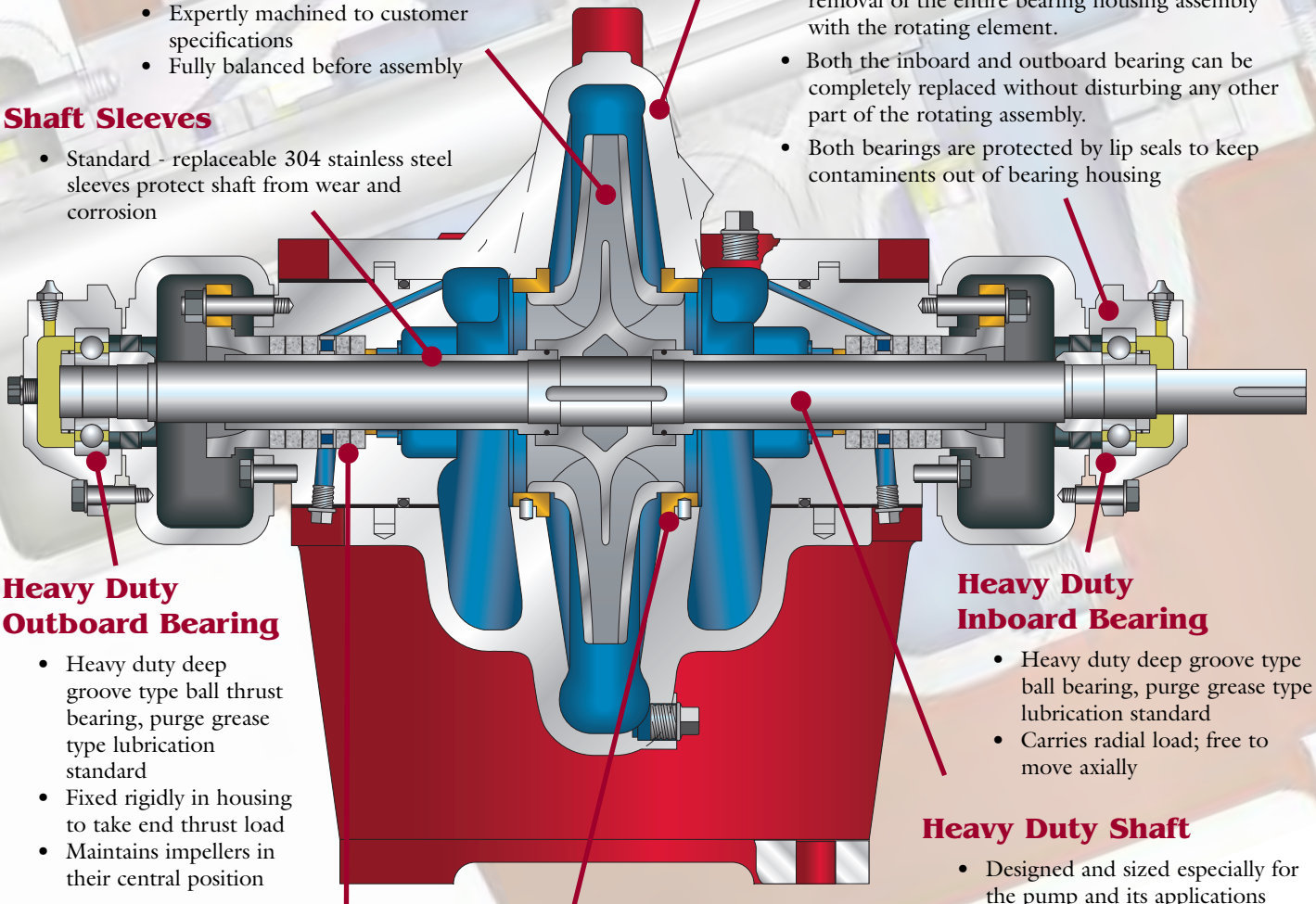
- Designed and sized especially for the pump and its applications
- 420 stainless steel shaft standard

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

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



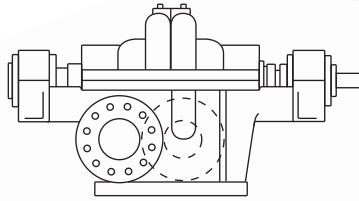
Model FP-HH/FP-HJ/FP-HK

Multi-Stage Centrifugal

Sizes: 1-1/2" to 10"
 Flows: 1,400 GPM
 Heads: 500 Feet



Double Suction Impeller



Casing

- Standard ASTM A48 Class 30 cast iron
- Horizontally split for easy access
- Heavy wall thickness to provide generous corrosion allowance
- Extra large, streamlined passage area between stages, for smooth flow and high efficiency
- Tongue and groove casing fits, with offset, to prevent rotation of rings and bushings
- Standard 400 lb discharge and 250 lb suction flanges

Services:

 Fire Protection

Impellers

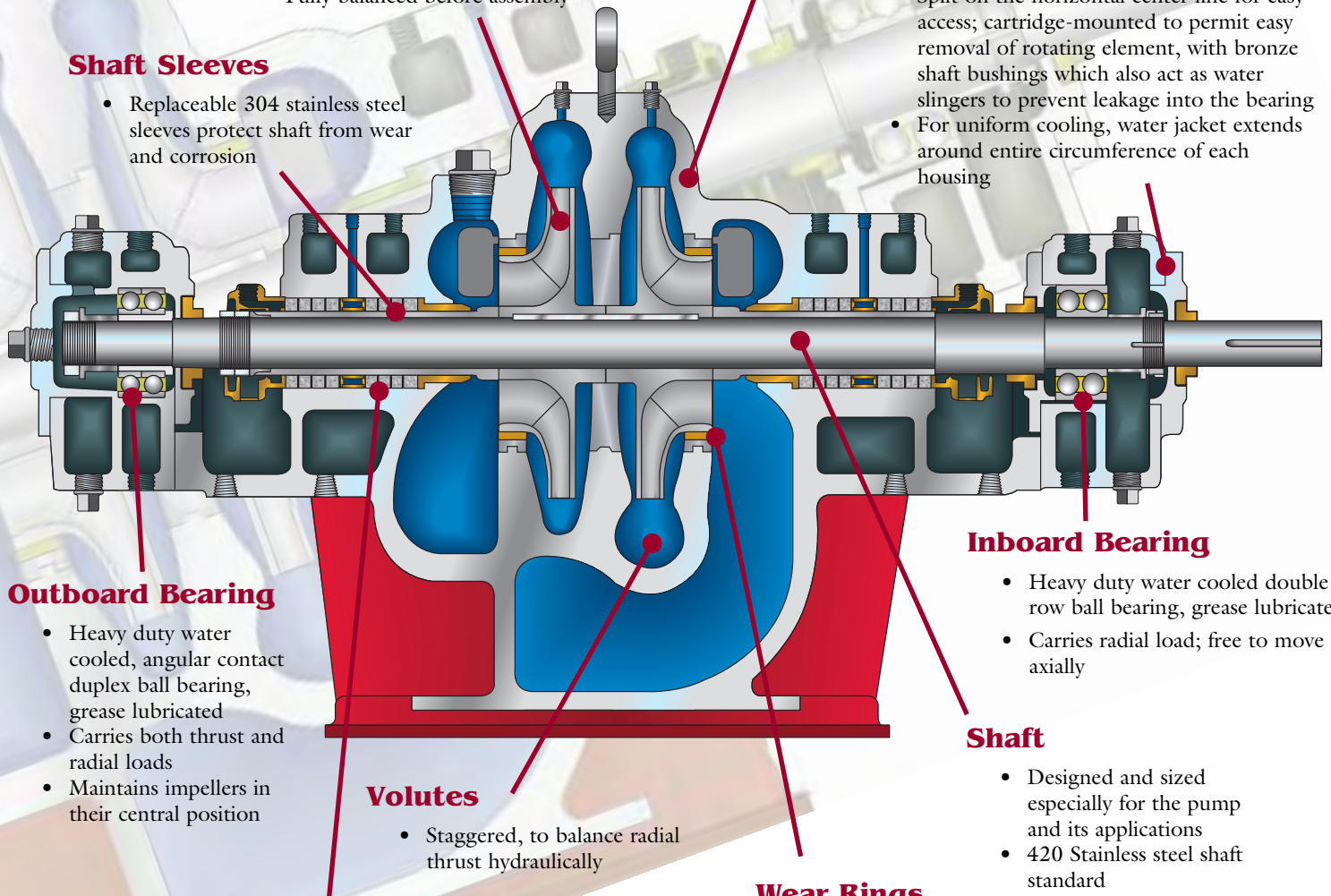
- One piece 304 stainless steel or other alloy
- Expertly machined to customer specifications
- Opposed, to balance axial thrust hydraulically
- Fully balanced before assembly

Shaft Sleeves

- Replaceable 304 stainless steel sleeves protect shaft from wear and corrosion

Bearing Housings

- Split on the horizontal center line for easy access; cartridge-mounted to permit easy removal of rotating element, with bronze shaft bushings which also act as water slingers to prevent leakage into the bearing
- For uniform cooling, water jacket extends around entire circumference of each housing



Outboard Bearing

- Heavy duty water cooled, angular contact duplex ball bearing, grease lubricated
- Carries both thrust and radial loads
- Maintains impellers in their central position

Inboard Bearing

- Heavy duty water cooled double row ball bearing, grease lubricated
- Carries radial load; free to move axially

Shaft

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

Volutes

- Staggered, to balance radial thrust hydraulically

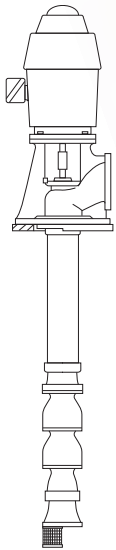
Stuffing Boxes

- Extra deep, water cooled, with throat bushings and split glands (optional flush type gland as shown)
- Maximum of first stage pressure on inboard and outboard boxes
- Lantern rings standard
- Optional mechanical seals available on request

Wear Rings

- Standard bronze case and impeller rings
- Case rings designed for tongue and groove fit to prevent rotation
- Machined to close tolerance
- Oversized large wearing surfaces

Model FP-VT Vertical Turbine



Flows To: 5,000 GPM
Heads To: 800 Feet

Markets:

 Fire Protection



Discharge Head

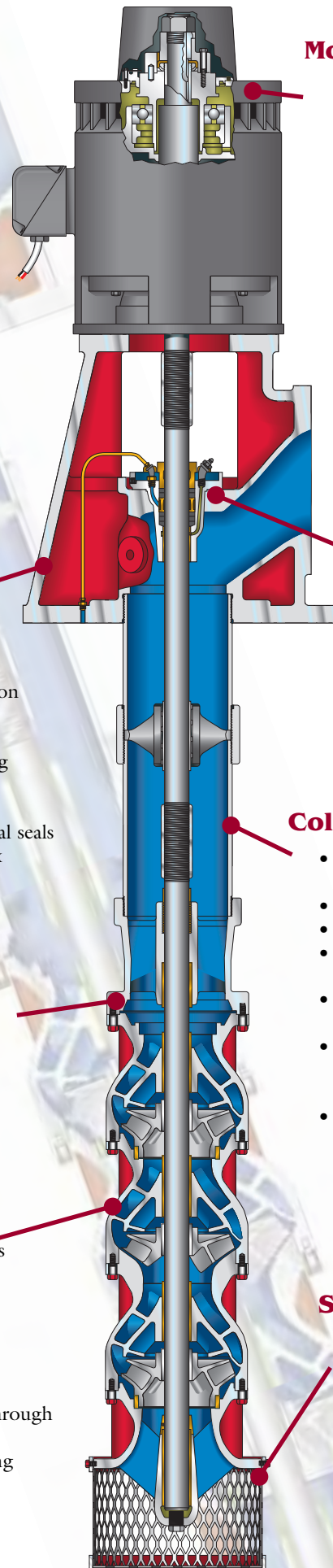
- Heavy duty ASTM A48 class 30 cast iron construction standard (shown)
- Optional fabricated steel heads available
- High profile head allows for ease in servicing packing
- Carbon steel top shaft with stainless steel optional
- Headshaft coupling connects top shaft to headshaft
- Spacer couplings are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

Discharge Case

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

Bowl Assembly

- Heavy wall ASTM A48 class 30 cast iron construction with 304 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



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

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
- 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

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

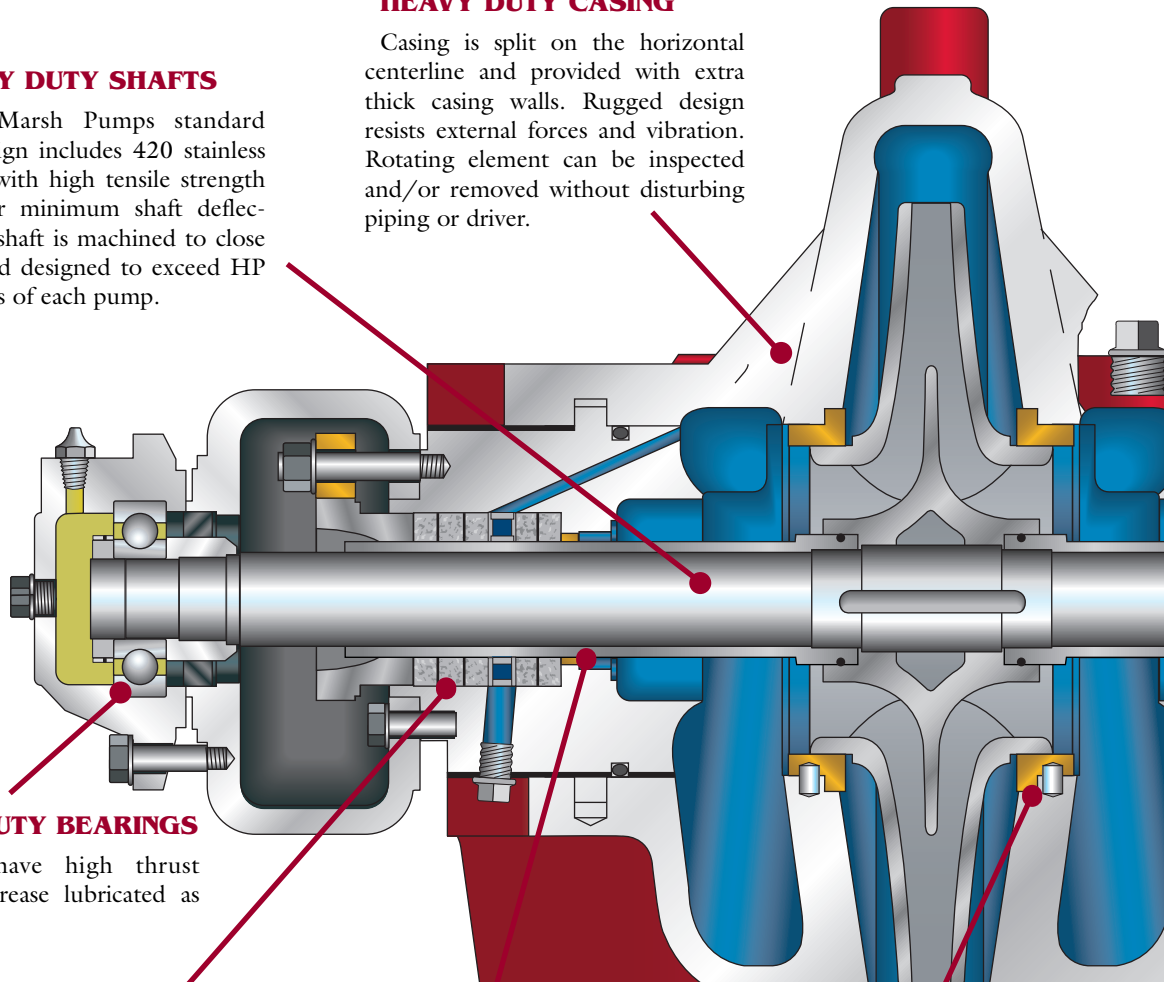
Our long tradition of quality pump manufacturing began in 1873 making us one of the first pump manufacturers in this country. **American-Marsh Pumps** provides the user dependability and durability. Durability by design is always the most cost effective solution.

HEAVY DUTY SHAFTS

American-Marsh Pumps standard product design includes 420 stainless steel shafts with high tensile strength designed for minimum shaft deflection. Each shaft is machined to close tolerance and designed to exceed HP requirements of each pump.

HEAVY DUTY CASING

Casing is split on the horizontal centerline and provided with extra thick casing walls. Rugged design resists external forces and vibration. Rotating element can be inspected and/or removed without disturbing piping or driver.



HEAVY DUTY BEARINGS

Bearings have high thrust capability. Grease lubricated as standard.

PACKING HOUSING

Stuffing Boxes are provided with packing, bronze lantern ring and bronze gland.

SHAFT SLEEVES

Standard bronze sleeves are machined to exact standards to protect the shaft.

WEAR RINGS

Standard case wear rings permit easy maintenance of proper running clearances, and are oversized with large wearing surfaces to extend the life of each pump. Rings are available in bronze, iron, stainless steel or other alloys as required.

OTHER PUMP PRODUCTS

MULTI-STAGE To 8" Discharge 2500 GPM, 2500'	END SUCTION To 12" Discharge 9000 GPM, 450'	VERTICAL SUMP To: 12" Discharge 9000 GPM, 985'	ANSI To 8" Discharge 7400 GPM, 985'	SELF PRIMER To 12" Discharge 6400 GPM, 200'
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