

# SERIES 3610

## MODEL VHS

SINGLE STAGE  
FLEX-COUPLED  
VERTICAL SPLIT CASE

Sizes: 3" to 32" Discharge  
Flows: To 90,000 GPM  
Heads: To 700 Feet  
Temp: To 250°F

Services:

- Cooling Water
- Raw Water Intake
- Sea Water
- Industrial Process
- Condenser Circulating
- Irrigation & Drainage
- Municipal Water Supply

### SHAFT ASSEMBLY

- 4340 quenched and tempered high chrome steel shaft is stronger than standard carbon steel and has superior corrosion resistance
- Designed and sized specifically for the aggressive fire protection markets

### CASE WEAR RINGS

- Supplied in standard bronze or other specified allow
- Case wear rings are renewable which will renew factory running clearances and performance
- Pinned at the centerline to prevent rotation during operation

### IMPELLER

- Supplied standard in investment cast, 304 stainless steel
- Double suction design allows for hydraulically balanced design with broad band, high efficiency performance
- Machined and dynamically balanced prior to assembly

### BEARING HOUSINGS

- Cartridge style bearing is completely removable and replaceable without the need for casing top removal
- Inboard bearing can be inspected and replaced without the need for complete pump disassembly
- Designed for a minimum 50,000 hour bearing life using 6300 series, deep groove bearing provides superior support
- Specifiable purge grease lubrication design allows new grease to be installed while purging old grease through bottom purge port
- Bearing housing is protected from containments by using a lip seal at every location where the shaft enters the housings

### ROTATING ASSEMBLY

- Includes investment cast, 304 stainless steel, double suction impeller
- Modular design maximizes the sharing of common components
- 304 stainless steel shaft sleeves completely protect the shaft from wear and corrosion
- 304 stainless steel gland assemblies ensure that packing can be adjusted without the worry of corrosion
- Component, single cartridge and/or double cartridge mechanical seal can be supplied upon request
- 304 stainless steel shaft sleeve nuts are located outside of the fluid chamber minimizing corrosion and allowing for an easier disassembly when the need for service arises

### CASING

- Supplied standard in ASTM A536 ductile iron
- Heavy wall thickness for corrosion allowance and high pressure applications
- Horizontally split to permit complete access to the rotating assembly
- Casing assembly design features pry bar locations at each quadrant as well as jackscrews to aid in the casing top removal
- Single & double volute design significantly reduces radial loads on shafting and allows for a more compact & efficient design
- Cast integral, vortex suppressor in casing top at each impeller eye designed to reduce vortexing of fluid prior to it entering the impeller eye
- Threaded taps for gauges and pressure relief valve
- Dedicated cast support for the nameplate allows for a high visibility design
- Flush plan features 304 stainless steel tubing and valves to control packing lubrication
- Suction & discharge gauge package with 304 stainless steel buffer tube, fittings and ball valves
- Suction and discharge flanges supplied in 250 PSI rating with raised face for high pressure applications
- Alternate metallurgy options available upon request

### OUTBOARD BEARING HOUSING

- Bronze bushing provides radial support
- No outboard roller bearing minimizing contamination
- External flush line ensures adequate lubrication fluid and proper flushing of contaminants

### VERTICAL BASE

- Supplied standard in carbon steel or other specified material
- Machined register for C-Face motor installation
- Heavy duty, I-beam base for structural rigidity