

CASCADE

MANUFACTURERS OF MIXED FLOW & AXIAL FLOW PUMPS

Forward

Cascade Pump Company has been manufacturing Axial Flow and Mixed Flow pumping equipment since 1948. With individual pump capacities to 200,000 US Gallons Per Minute and operating heads to over 70 feet per stage, Cascade covers your low pressure, high capacity applications. Individual performance requirements will determine the most suitable pump type for your particular application. Some common field applications are environmental, industrial, water and wastewater treatment, storm water, irrigation, water features, water amusement rides, marine and dry dock applications. Each pump is engineered to satisfy the requirements of your application.

Cascade is located in Santa Fe Springs, California, between metropolitan Los Angeles and Orange County. The plant has a manufacturing area of 120,000 square feet. Our hydraulic laboratory performance testing capacity exceeds 100,000 US Gallons Per Minute with voltages of 230, 460, 2300 and 4160, and horsepower exceeding 2000 BHP.

Tests are conducted in accordance with ANSI/HI 2.6 Vertical Pump Tests as published by the Hydraulic Institute and customer specific requirements. Cascade Pump Company has been a member of the Hydraulic Institute since 1964.

Typical Installations

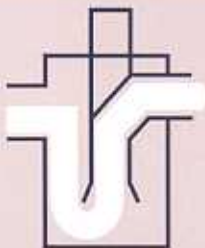
VERTICAL



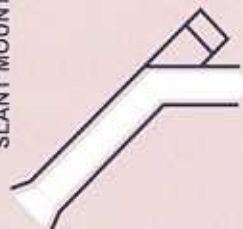
REVERSE PUMPING



CAN PUMP



SLANT MOUNT



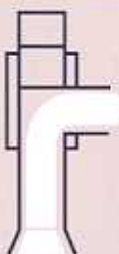
MULTI-DISCHARGE



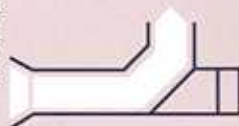
VERTICAL DISCHARGE



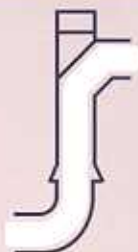
PULL OUT

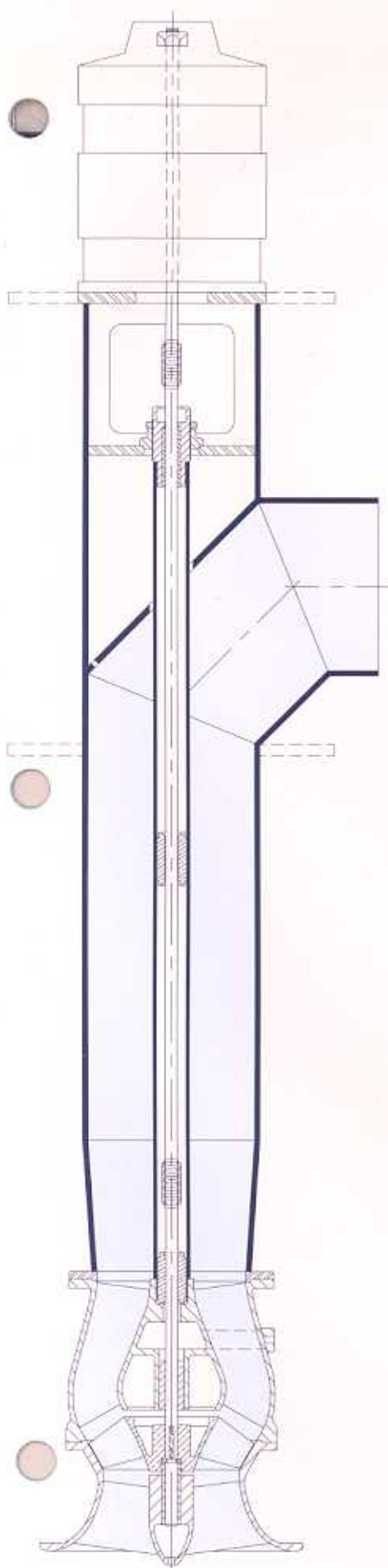


HORIZONTAL



DRY PIT





Driver: The pump is normally driven by a vertical electric motor or through a right angle gear drive coupled to a horizontal engine or electric motor. Hollow or solid shaft driver configurations with engineered shaft couplings and driver mounting design ensure proper installation and alignment in the field. Hydraulic and mechanical thrust created by the pump is carried by a thrust bearing in the driver.

Discharge: The pump mounting baseplate is located either above or below the pump discharge elbow. The elbow guides the flow from vertical to horizontal and can be provided as standard three segment, high efficiency multi-segment long radius, or right angle vaned configuration. The discharge nozzle can be furnished with an ASA drilled flange or plain end suitable for a mechanical pipe coupling.

Lineshaft Assembly: Depending on lubrication type the lineshaft is made from either C-1045 PSQ carbon steel for oil and grease lubrication or Type 416 stainless steel PSQ for product or positive water flush lubrication. Shaft coupling standard material is carbon steel Gr. C-1020. Other material options are available where additional strength or corrosion protection is desired. Enclosing tubes are made from Schedule 80 pipe. Lineshaft bearings are made from bronze with external threads to act as couplings for the enclosing tubes. Normal bearing spacing is 60", but may vary depending on shaft diameter and rotating speed. Open lineshaft product lubricated design has either bronze or fluted rubber bearings.

Column Assembly: Discharge elbow and column flanged sections are fabricated from carbon steel pipe and plate. Column flanges are machined on centers with rabbet fit registers to ensure positive alignment when connected to mating flanges.

Bowl Assembly: Standard construction suction and discharge bowls are Class 30 cast iron. The impeller/propeller is cast bronze held to the bowl shaft with split thrust collars and key made from 416 stainless steel. The suction bowl incorporates a flared inlet with straightening vanes. The discharge bowl has diffusion vanes that convert the velocity of the water leaving the impeller/propeller into pressure head. Bronze sleeve type shaft guide bushings are provided in the suction and discharge bowls. The standard bowl shaft material is 416 stainless steel PSQ.

Optional Features:

- Special coating suitable for corrosion or erosion applications.
- Spray-on or replaceable shaft sleeves.
- Long radius or right angle vaned discharge elbow.
- Special material for bowl and impeller/propeller castings.
- Special material for fabrication of discharge column and elbow.
- Separate soleplate for ease of installation and maintenance.
- Special shaft materials for corrosion or erosion capability.
- Replaceable bowl liner.
- Suction strainer.
- Special lubrication systems including water flush and automatic grease.

COMMON APPLICATIONS

Water and Wastewater Treatment Facilities
Flood Control (Storm Water)
Industrial
Water Parks and Water Features
Municipal
Marine (Dry Dock, Ship Board)
Fish Hatcheries
Rain Water
Agricultural

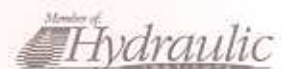


When requesting price information for quotation, estimating or planning purposes, please advise the following:

- Performance requirements (capacity and total head).
- Application (industrial, treatment plant, storm water, irrigation, etc.).
- Water quality.
- Construction.
- Pump dimensions (sump depth or elevations).
- Lubrication (oil, product, water flush, grease, etc.).
- Type of driver (electric motor, right angle gear/engine, etc.).
- Any special feature requirements.

CASCADE PUMP COMPANY

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CASCADE PUMPS ARE MADE IN THE USA