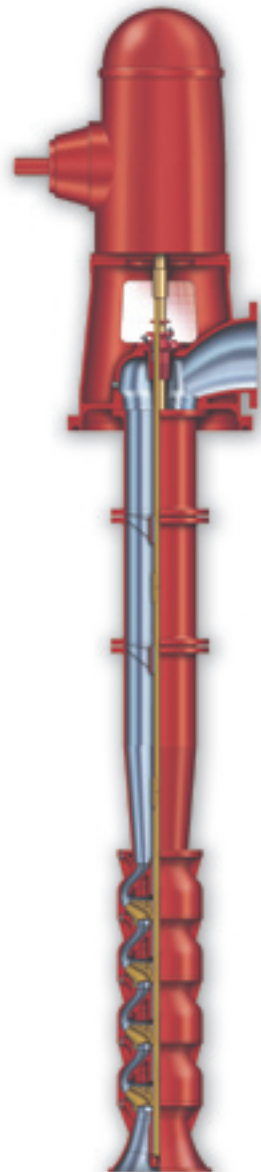


## JF Vertical Fire Pumps



# Sulzer Pumps

Sulzer Pumps combines more than 135 years of experience in pump development and manufacturing with a deep commitment to fully understand the needs of our customers.

Our detailed process and application knowledge has allowed us to develop innovative pumping

solutions for our focus segments including tailor made systems if required. Our active research & development supports this customer-oriented approach.

Sulzer Pumps has sales and service facilities in all the major markets of the world to provide fast and flexible response and support.

## Extensive Product Range

Sulzer pumps has a long history of providing innovative pumping solutions to business partners in the following industries:

- Oil & Gas
- Hydrocarbon Processing
- Pulp & Paper
- Power Generation
- Water & Wastewater
- Food, Metals & Fertilizers

### Fire Water Pumps

Compelling reasons dictate the installation of a Sulzer fire pump. Foremost among these is protection – protection of lives, equipment, possessions, and inventories of major assets. Maximum protection from the destructive hazards of fire demands the utmost in reliability and performance from fire fighting equipment.

Sulzer fire pumps are the end product of many years engineering and design experience in the vertical pump field – experience which insures a completely dependable source of fire protec-

tion for industrial and commercial applications. When used with a natural water source such Sulzer fire pumps provide fire protection wholly independent of regular water mains thus assuring instant response in time of need.

When property is thoroughly protected by a Sulzer fire pump, it receives a better “safety rating”, and consequently, a lower insurance rate. Often the saving in premiums is sufficient to cover the cost of the equipment in the matter of a few years.

### Advantages

- Minimum use of floor space.
- Can be installed inside or outside.
- No priming required, the pump bowl assembly is submerged in the fluid being pumped.
- Ruggedly built for supreme reliability.
- Consistent power requirements under normal operating conditions.
- Tested at rated and greater than rated flow conditions.
- Highly versatile and adaptable in terms of location and length.





## Design

JF vertical fire pumps are approved for 10 basic capacities: ranging from 113 to 1,135 m<sup>3</sup>/h (500 to 5,000 USGPM). The maximum approved pressure rating is 15 bar (220 psi). The pumps require no priming and are continually ready for instant operation. All approved fire pump models cannot overload drivers, either at maximum capacity or shutoff. The firewater pump is used in wells, reservoirs or other reliable natu-

ral water sources, and may be installed either inside or outside. Sulzer JF pumps are approved by Underwriters Laboratories (UL) or Factory Mutual (FM), as well as complying to the requirements of the National Fire Protection Association (NFPA).

Full packages include the pump, driver, controller, headers, accessories and piping mounted on a common base and is designed to operate automatically.

## Materials

The standard material combinations are chosen to withstand the corrosive effects of standing water or seawater;

- Shafts and other turned parts – 416SS, 316SS
- Impellers – 316SS, aluminium bronze
- Bowls – 316SS, aluminium bronze, Ni-resist, cast iron



# Design Features and Benefits

## Driver

A wide variety of pump drivers can be furnished such as electric motors and steam turbines. The diesel engine drive with a right angle gear or dual configuration increases availability by providing power independence for the fire pump during an emergency.

## Discharge Head

Discharge heads are furnished as high strength cast iron, close-grained surface type for easy access and simple installation. In addition, heads are approved as fabricated above or underground type to accommodate customer pipe requirements. Flange ratings are ASA and ANSI standard according to the approved discharge pressure.

## Column Assembly

Consists of flanged or threaded connections. Product lubricated columns have a Sulzer "unique" reversible bearing retainer doubling shaft life by changing wear surfaces.

## Impellers

Enclosed turbine impellers are precisely trimmed and balance to reduce vibration and wear. Impellers are affixed with either a locking collet or keyed construction and furnished with shrink fitted wear rings.

## Headshaft

One or two piece headshaft is provided for a hollow shaft drive and features axial adjustment. A solid shaft motor requires a separate motor stand and flanged coupling for a cast head to allow easy mobility.

## Pumpshaft

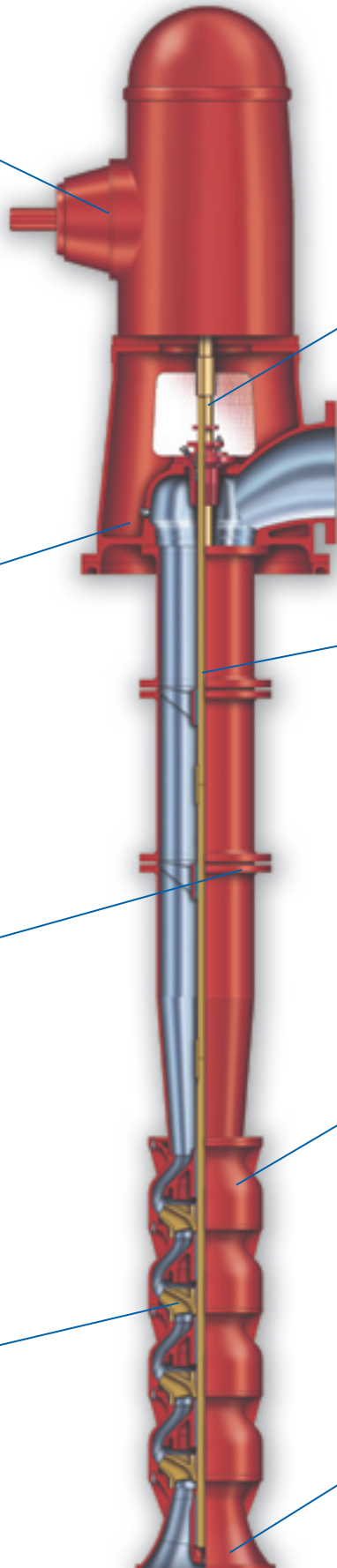
Various sizes and materials are available and are provided as high tensile pump shaft quality material to maintain alignment throughout.

## Bowl

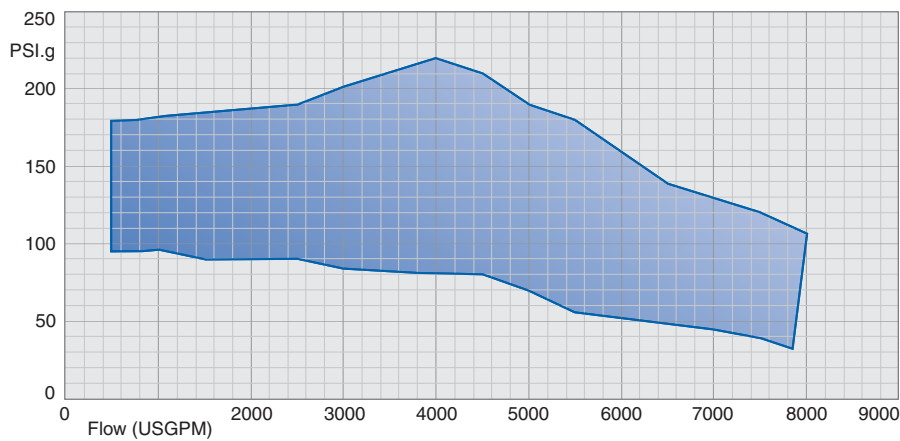
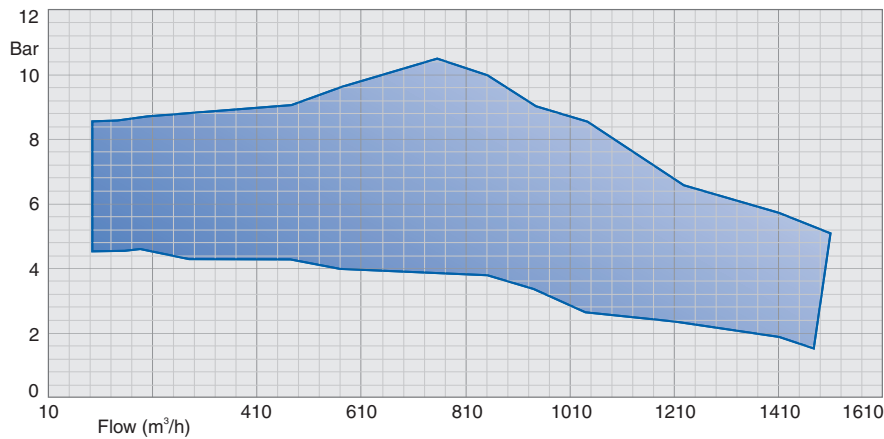
Bowls are cast and vitriform enamelled internally to achieve maximum efficiency. Dual bronze and rubber bearings provide alignment and dampen vibration as bowl wear rings (optional) increase bowl life.

## Suction

Standard design is an integral cast tail bearing for maximum shaft support. A suction bell provides efficient, unrestricted flow to the suction impeller. Strainers are not standard in order to avoid the risk of restricted flow in an emergency.



# Performance Range



# Operating Data

	JF 50 Hz	JF 60 Hz
Pump sizes	275 to 500 mm	11 to 20 inches
Capacity	114 to 1,135 m³/h	500 to 5,000 USGPM
Head	153 m	502 ft
Pressure (size dependant)	15 bar	220 psi
Temperature	-45 to 135 °C	-50 to 275 °F



Check our worldwide offices at  
[www.sulzerpumps.com](http://www.sulzerpumps.com)