

Series ZDRI

Double Suction Pumps



www.flofab.com

Company profile

Flo Fab is a company which specialized in manufacturing and selling various pumps, tanks, and heat exchangers and its accessories. Our Factory occupies 30 thousand square feet, on 130 thousand square feet of land which is located in Bois-des-Filion

Quebec Canada. It

has a convenient transportation on major highways and is approximately 20 kilometers north of the city of Montreal. Our company pays great attention to product quality and the construction of quality management system. Our factory has been in business for more than 40 years.

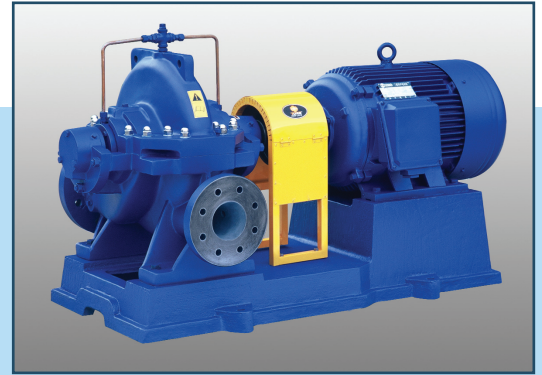
Our company has over 50 employees including, engineering, designers, R & D and quality control department. The products manufactured are strictly in accordance to standard and every pump is guaranteed to be tested and qualified before being shipped. All tanks and heat exchangers are ASME certified and also tested before being release for shipment.

Our product range covers more than one thousand types over 15 series such as clear water supply, air conditioning, chemical, drainage, sewage handling, boiler feed, condensing, chilled water, heating pumps for municipal, power stations, chemical industry and new or existing buildings.

Our company is not only on track but finds out and designs with the new technology and new products, we devote ourselves in

developing new pumping products especially in vertical inline pumps. In recent years we are the first to launch the ZDRI and XRI horizontal, vertical pumps to easy-disassemble these pumps while not removing the pump from the pipeline and also not removing the electric motor.

We will respond to our customers with new and excellent products.



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General Data

● Disassembly Diagram



When assembled



Take off the intermediate coupling



Take out the rotor components



Repair the wearing parts when pump is disassembled, ready to be repaired or serviced

● Product Introduction

Flo Fab introduces a Single-Stage Double-Suction pump and is the latest generation with an original structure and more advanced technologies than any other pump manufacturer. This series of pumps were developed on the basis of efficient energy-saving. These pumps have a Double-Suction impeller for lower flow requirement. These have passed the National Pump Product inspection Center. These pumps comprehensive performance meets the advance level of international requirements.

This pump has the best efficiency and stable performance with balance axial and radial forces. Compared with other types of pumps, it has noticeable higher cavitation performance and its efficiency is 2-5% higher. The great feature of these pumps is being able to service the pump parts without removing the pump casing and the electric motor from the system. This will save time and money to the owner.



General Data

● Product Introduction

◆ MAIN PURPOSE

Application is for cold and cooling water circulation in refrigeration systems, hot water circulation in heating, high-rise refrigeration, air-conditioning water circulation, industrial and city water supply.

◆ WORKING CONDITIONS

Parameters range Pump Series ZDRI : flow Q=150 to 3,600 m³/h(660 usgpm to 15,850 usgpm)

Pump ZDRI Head : H=6 to 200 meters (20 to 655 feet)

Working voltage and speeds: 230/460/480/575 volts 60 HZ 3 phase 1150/1750/3500 rpm

Other voltage and speeds : 200/380/400 volts 50 HZ 3 phase 980/1450/2900 rpm

Temperature: 120 deg C (250 deg F)

Pump size series ZDRI: 150 mm to 600 mm (6 x 6 to 24 x 24)

◆ STRUCTURE SPECIFICATIONS

ZDRI pumps whose suction and discharge are both on the same horizontal line and also vertical to the axial lead. For the structural design, the pump can be serviced without removing the motor and the pump casing from the system. The rotor assembly are combined and can be taken out one by one just by removing the coupling, thus this operation is done very quickly. The pump shaft adopts an independent bearing support to ensure the pump and motor power. The pump shaft has roller bearings while the bottom has a sliding bearing lubricated by the medium.

ZDRI Impeller: it's a single-stage double-suction impeller with balance axial and radial forces and automatically extends the bearings.

Bearings: Sealed type precision bearings

Mechanical seal: Long life is selected for the correct medium.

◆ PRODUCT CHARACTERISTICS

1. This type of pump has noticeable energy savings. The pump hydraulic performance is provided with an optimum design, whose efficiency is 2-4% higher than that of other type of centrifugal pumps.

2. This pump has a bold and break-through product design. It also has a separate bearing support assembly for stable and reliable operation thus solving the shortcomings of the original inline type pumps caused by the shaft extension shaft supported by the motor bearings, such as big vibrations and a high rate failure.

3. The impeller and the pump casing is most advantageous with modern hydraulic model with a unique axial force equilibrator to remove the axial and radial forces of the vertical pump, improve the operation stability and extend the service life of the bearings and the mechanical seal.

4. It is easy and inexpensive to replace the pump shaft: the pump's shaft is separated from the motor. If the pump shaft needs to be replaced for being worn out or corrosive, it's only necessary to replace a small section of it, which means very low cost to the owner.

5. The inline pump related motor is standard in the industry and is accessible everywhere.

6. Replacement parts are usually, wearing, impeller, mechanical seal, and bearings in which you will not need to lift heavy pump parts to have these replaced.

7. Compared to a horizontal single stage double-suction split case pump this has two major advantages :

7.a Vertical inline pumps have a vertical structure which is space-effective so the pump room will have more space available, effective saving the fixed investment.

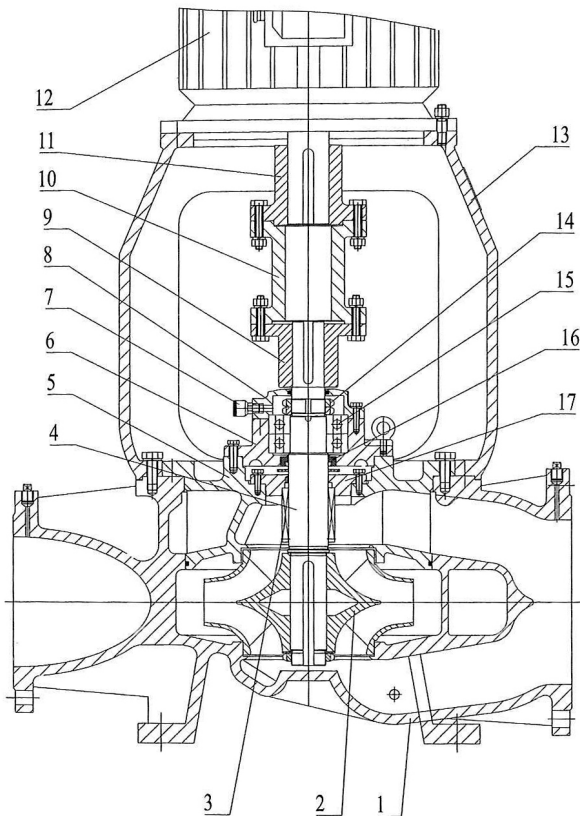
7.b Vertical inline pumps has a structure integrating pump and motor, so it doesn't need working procedures of installation and debugging like centering and alignment when it arrives on the jobsite, and the high concentricity precision between the pump and motor contributes to the pump's stable and low-noise operation.

Technical Data

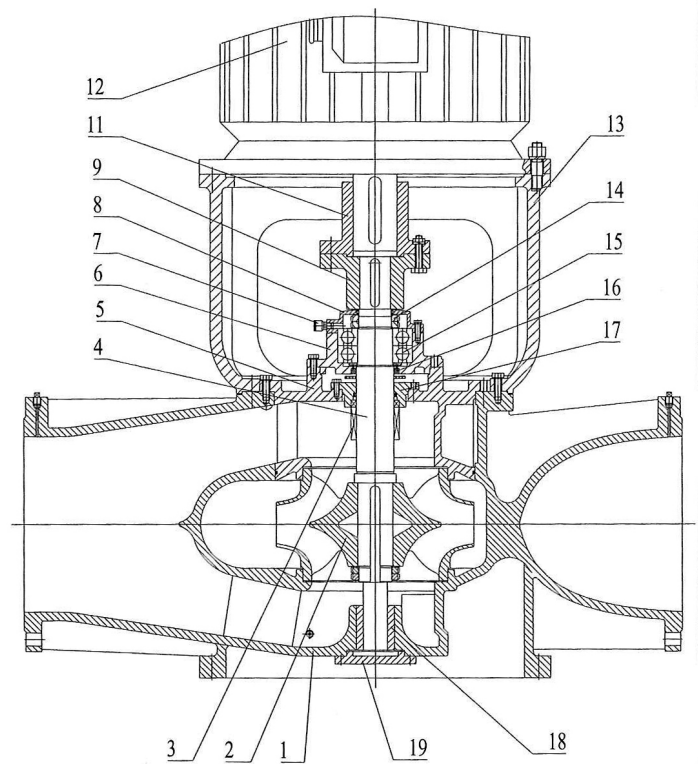
● Structure Drawing for Series ZDRI

Double Suction Assembly

Double Suction Pump Assembly
for up to 400 HP



Double Suction Pump Assembly
for larger than 400 HP



| | | | | | | |
|----------------------|------------------|---------------------------|--------------------|-----------------|-------------------|--------------|
| 1. Pump casing | 2. Impeller | 3. Mechanical seal | 4. Pump shaft | 5. Pump bracket | 6. Bearing cover | 7. Oil cup |
| 8. Bearing gland | 9. Pump coupling | 10. Intermediate coupling | 11. Motor coupling | 12. Motor | 13. Motor bracket | 14. Lock nut |
| 15. Rolloing bearing | 16. Oil seal | 17. Sealing seat | 18. Ball bearing | 19. Gland | | |

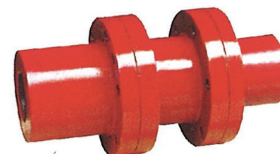
● Technical Characteristics for Series ZDRI

Double suction
Assembly

Low noise in running
if fitted with a famous-brand motor
Pump and motor are self-aligned



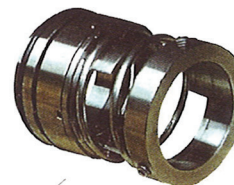
Stainless steel shaft



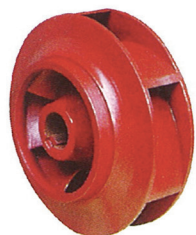
Three-node removable coupling
Both the motor and the pump casing are not removed during an overhaul



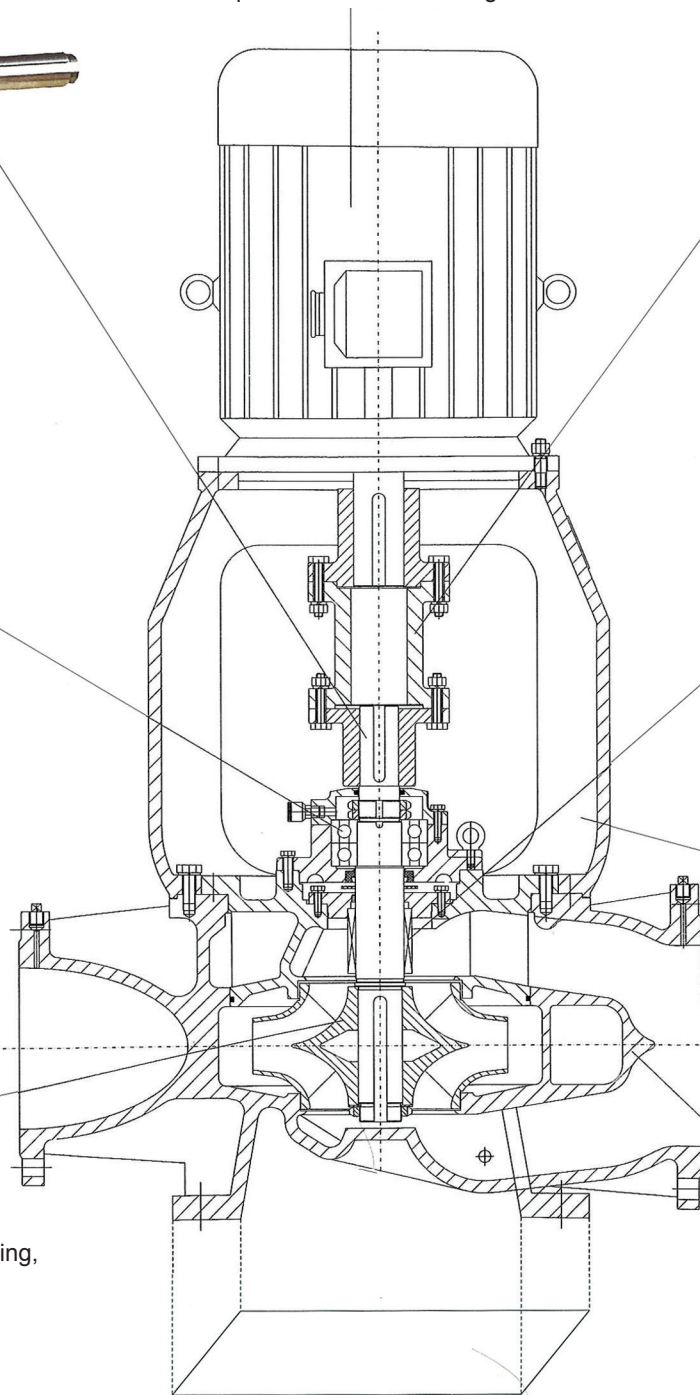
SKF bearings
Separate support,
easy for maintenance



No water-leak from the
mechanical seal



Impeller
Efficient and energy-saving,
removing axial force



The rotor part's disassembly
and maintenance can be
removed for servicing without
removing neither the pump nor
the motor from the system.

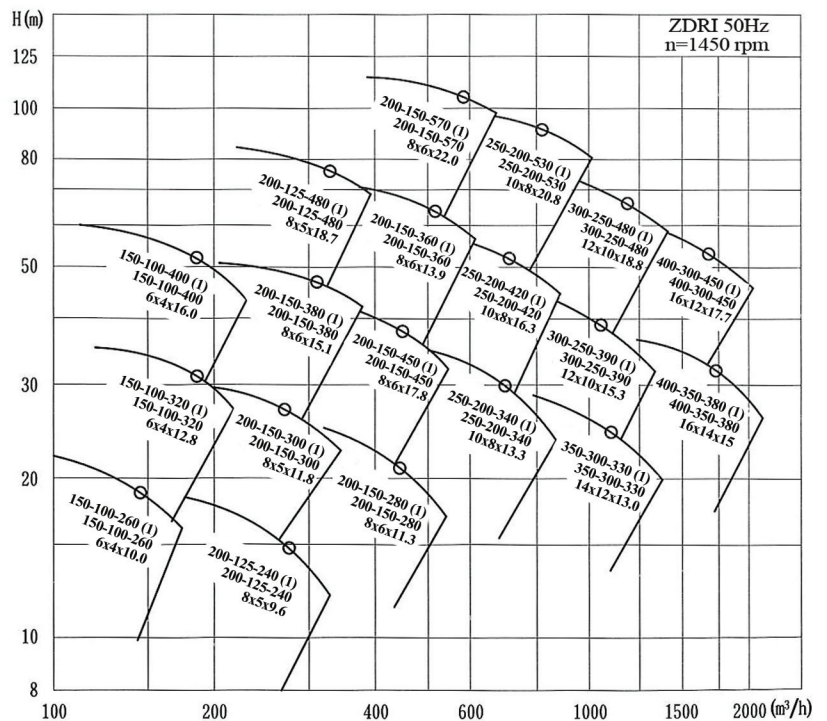
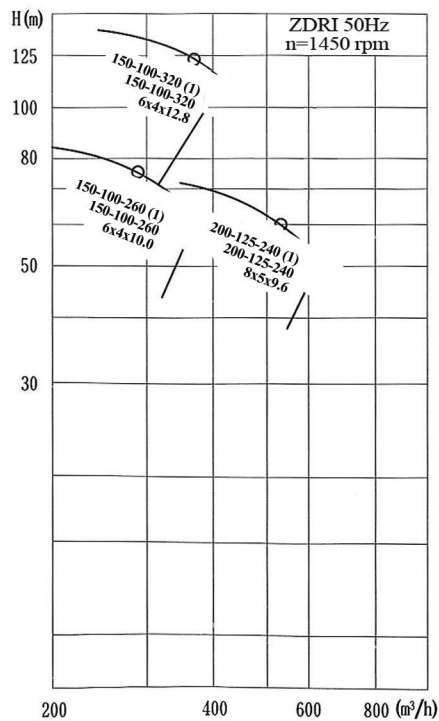
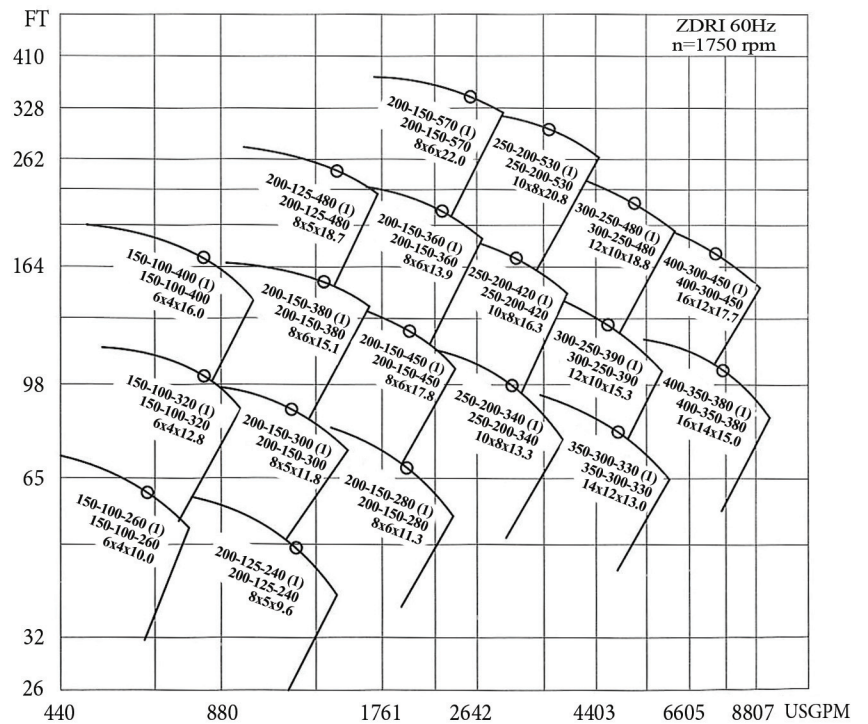
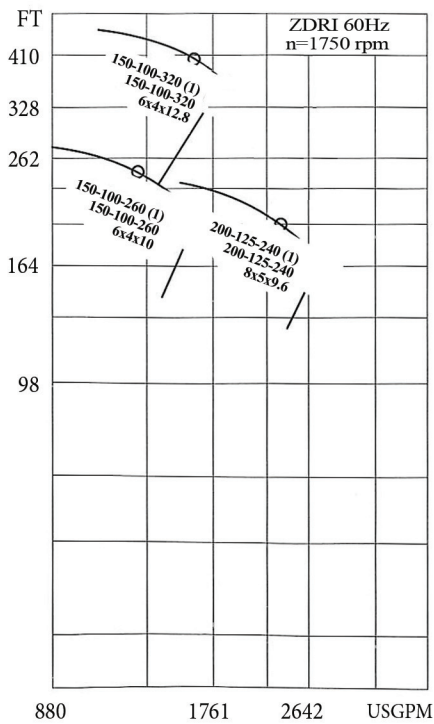
Pump casing
Excellent symmetrical dual-
spiral-casing hydraulic
model weakening the axial
and radial forces to the
bearings.

Space saving footprint

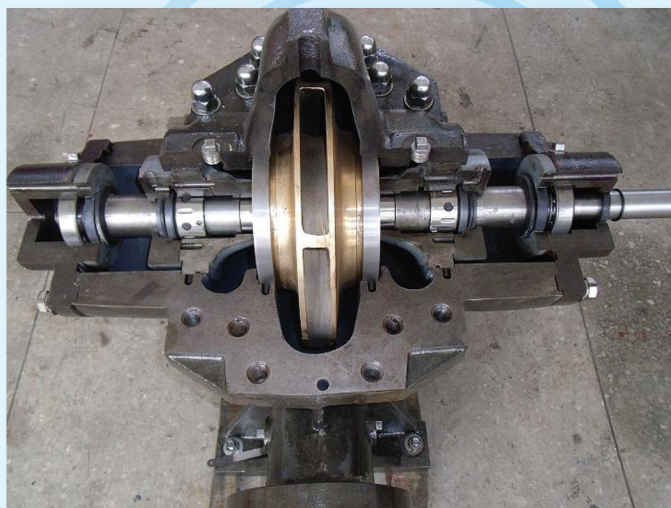
Technical Data

● Hydraulic Coverage for Series ZDRI

Double Suction Pump



Our company's other products





Proud pumps supplier for the New World Trade Center towers in New York

We are also a proud pumps supplier for the following completed and ongoing projects:



James Haley VA Hospital

Tampa, Florida
www.tampa.va.gov
 Eng: IC Thomasson Association Incorporated

Morton Plant North Bay Hospital

New Port Richey, Florida
www.mortonplant.com
 Eng: IC Thomasson Association Incorporated



Palm Beach Gardens Medical Center - ER Expansion

Plam Beach Gardens, Florida
www.pbgmc.com
 Eng: IC Thomasson Association Incorporated

Museum of Science and Industry

Tampa, Florida
www.mosi.org
 Eng: Advanced Systems Engineering



St-Joseph's Women's Hospital

Tampa, Florida
www.sjbhealth.org
 Eng: Smith, Seckman, Reid Engineering

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