Wings
PUMPS

Submersible Propeller Pumps

New-generation mechanical/electrical axial flow electric submersible pumps and mixed-flow electric submersible pumps from ***Wings Pumps*** provides high reliability, reduced installation and maintenance costs, with a longer lifetime.

ISO 9001
ISO 14001
ISO 45001
BUREAU VERITAS
Certification

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Wiroon & Gwyness

APPLICATIONS

Storm Water Drainage

Supports structures, channels and pipes that carry stormwater (rain water) to ponds, lakes, streams and rivers.

Irrigation and Aquaculture

Used for irrigation and aquaculture ecosystems. Environmentally-friendly.

Raw Water and Processed Water

Supports raw water intakes and applicable intakes for water treatment plants.

Sewage and Recirculation Sludge

Designed to move the thickest mixtures and pass large pieces of debris without damage or wear on the pump.

Municipality

Well-Integrated with municipality work and projects with high requirements.

Renewable Energy

can be used with solar cells for sustainable energy with smart device that properly manage the process and prevent pump damage.

KEY BENEFITS

Better Power Consumption

Save more power with Premium Efficiency Motors.

Stability and Reliability

Wings Pumps' advanced engineering provides better stability and reliability.

Wide Range of Operations

Wings Pumps are more versatile and can be used in a wide variety of operations.

High Flexibility in Installations

Wings Pumps can be installed perfectly in various situations and setups.

Flexibility in Material

Customize pumps with various material and composites to better suit your operations.

Internet of things

Through the cloud network system, the system organizes data and keeps tabs on the pump's operational state. User can be real-time observation possible.

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FEATURES AND BENEFITS

Our new-generation mechanical/electrical axial flow electric ***submersible pumps*** and mixed-flow electric submersible pumps from ***Wings Pumps*** provides high reliability, reduced installation and maintenance costs, with a longer lifetime.

With ***single-piece casting*** of propellers and other components, Wings Pumps provide superior dynamic balance with extremely strong and stable operations.

Our ***Premium Efficiency Motors*** are manufactured according to IE 60034-30 IE3 standards, providing improved efficiency, reduced energy consumption with less impact on the environment.

Wings Pumps are engineered and designed with ***Computational Fluid Dynamics*** (CFD) combined with predictive AI and powerful graphics for visualizations and simulations to foresee any multi-dimensional problems.

Our ***self-cleaning propeller*** blade design decreases clogging and minimizes risks caused by liquids containing fibrous material or sludge.

A slim design offers easy installation, low vibration and low Net Positive Suction Head (NPSH)

Smart technology, highly intelligent controls with 8 points of sensor monitoring devices with optional AI and IoT expansions.

Our special Coating offers higher resistance to abrasive and corrosive effects

ISO 9001 & ISO14001 & ISO45001 certified. With ISO certification, Wings Pumps provides reliability with a high standard giving you assurance and peace of mind.

able to operate at a high performance for longer than 12 hours.

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SUBMERSIBLE PROPELLER PUMP

1. Insulated Motor - for better reliability

All motors are fully submersible to a depth of at least 10 meters.

2. Unique seals provide extra safety

Our mechanical seal systems minimize shaft overhang while maximizing cooling and lubrication.

3. Sensors

Thermal sensors help prevent overheating. Leakage sensors alarms you of liquid intrusion through cables or seals.

4. Reliable and Efficient Hydraulics

Wings Pumps technology ensures maximum reliability and high efficiency.

5. Flexible Installation

Wings are designed according to the requirements of customer and suitability according to the actual situation

6. Spare Parts

All models have stock spare parts for at least five years.
Support advices and solution by professional.

PREMIUM EFFICIENCY MOTORS (IE3) IN ACCORDANCE WITH IEC60034-30,IEC60529

Class F Insulation (Up to 155°C/311°F)

Temperature rise according to IEC / NEMA Class A

Class H Insulation (Up to 180°C/356°F)

Temperature rise according to IEC / NEMA Class A

International Protection Standard IP68

International Protection Standard according to IEC 60529/DIN 40050

Better Savings on Power Consumption

Our highly efficient motors provide more savings with lower power consumption.

Better for the Environment

Our pumps are designed to be more more environmentally-friendly and have minimal impact on any ecosystem.

DOUBLE MECHANICAL SEAL

Double mechanical seals are designed to ensure maximum sealing safety. These seals virtually eliminate leakage of the fluid being handled in pumps. Made by SiC, Carbon, Cement Carbide and special requires.

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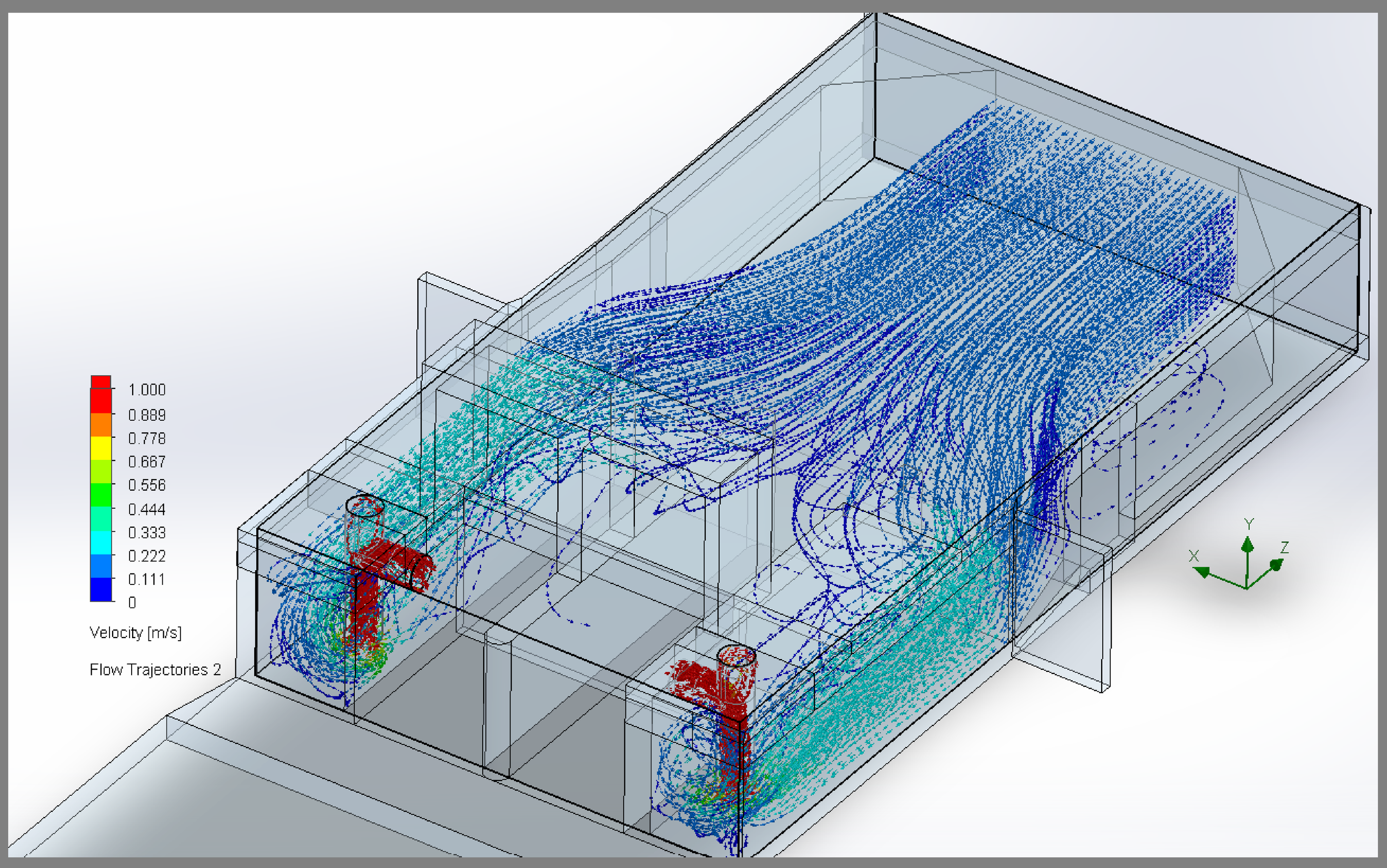
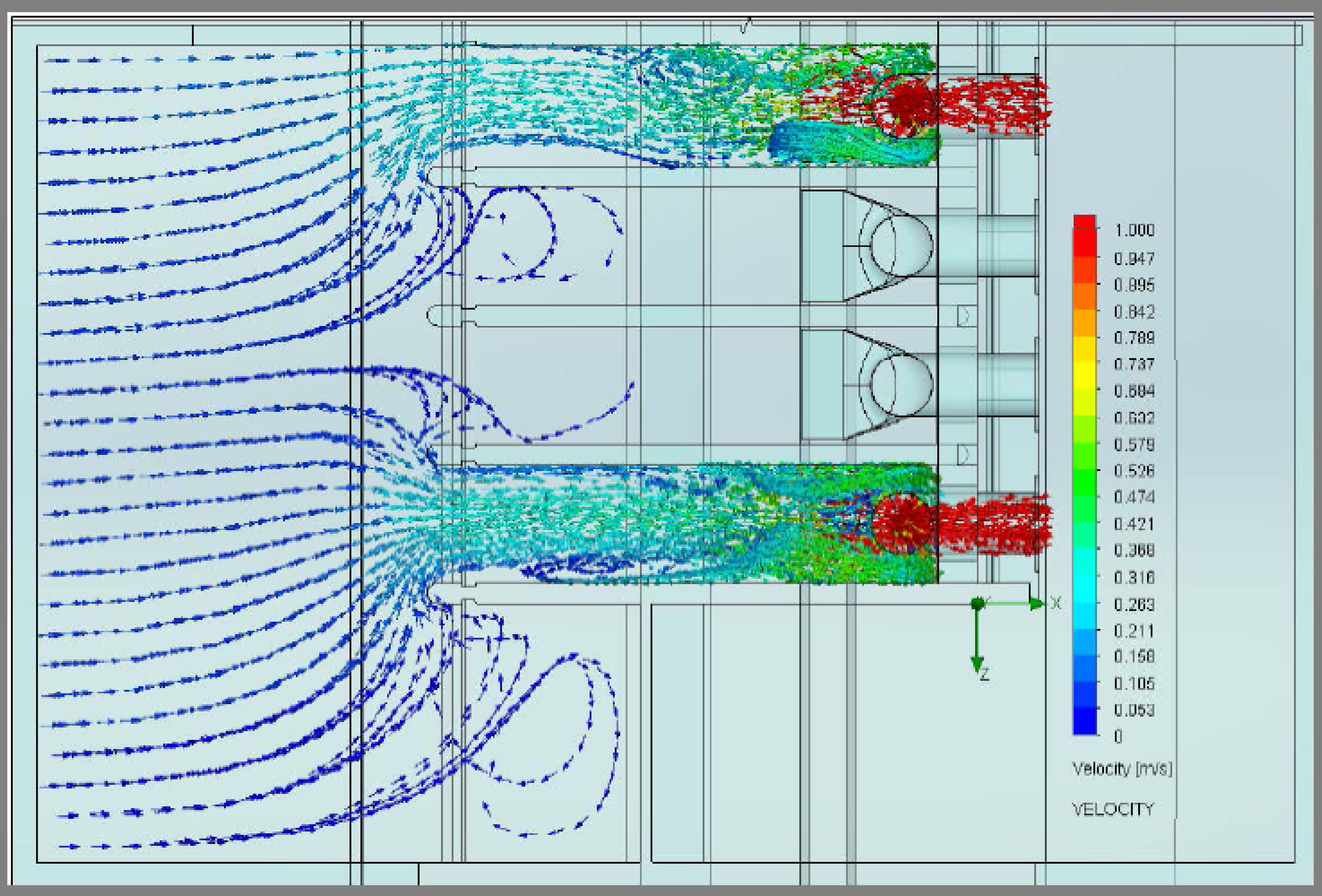
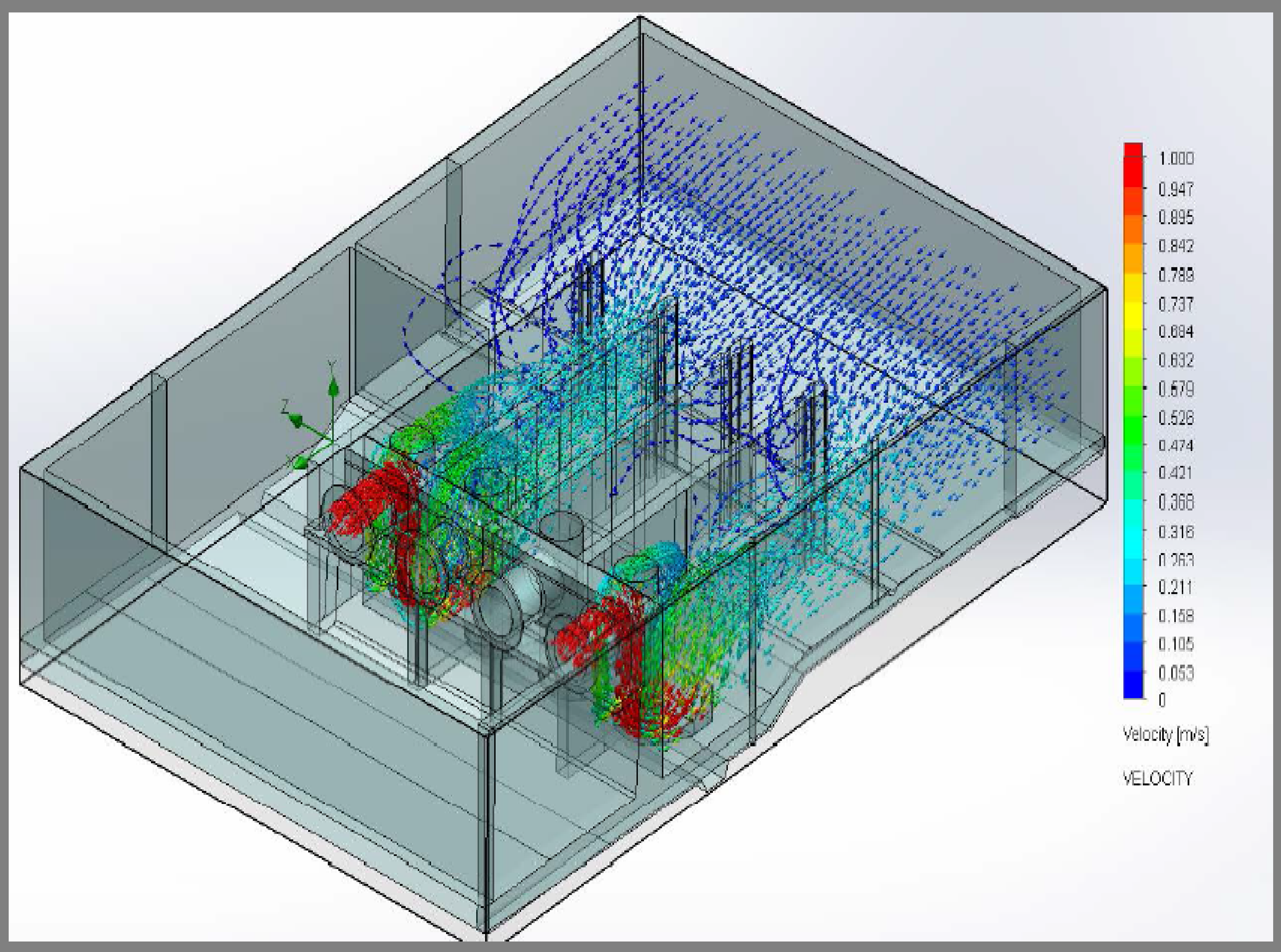
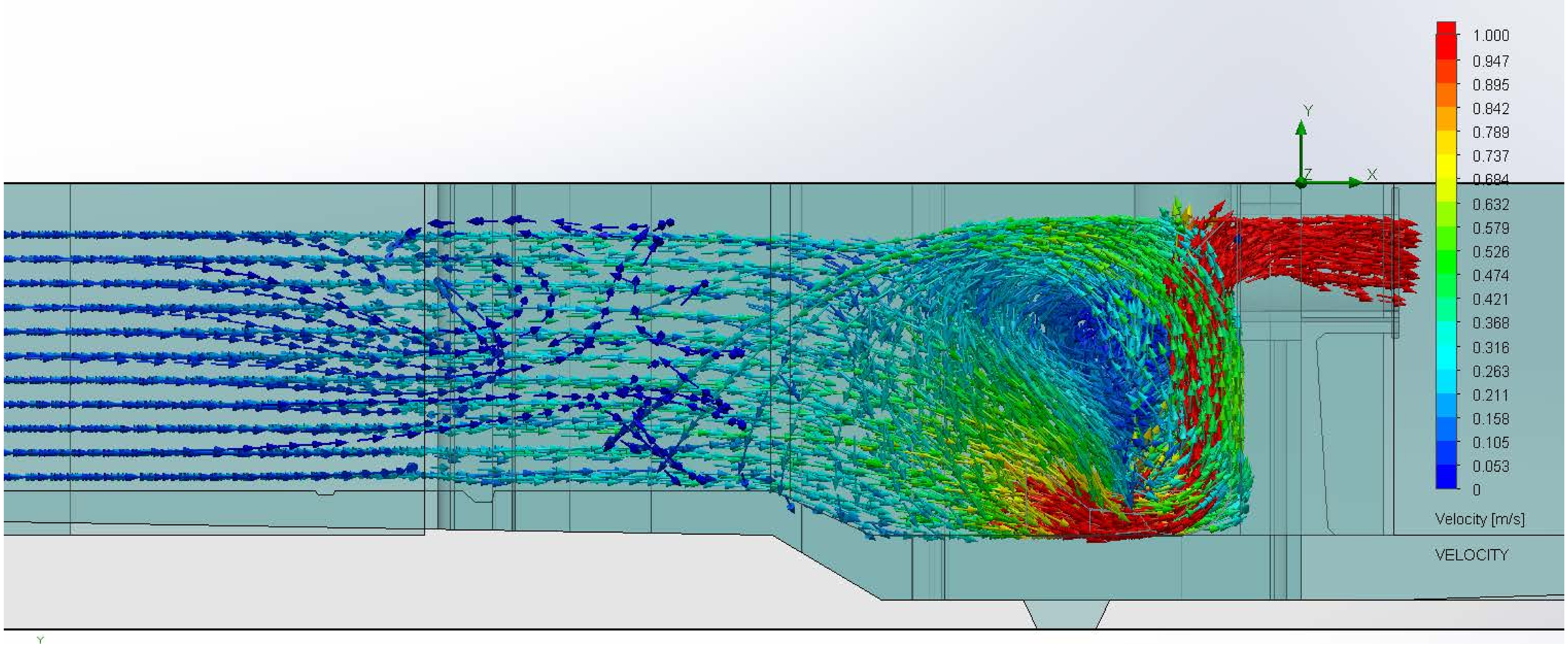
Designed and Engineered for Optimum Efficiency and Reliability with CFD

Wings is proud to be both designer, engineer and provider of water solutions. This is what gives us the ability to co-operate closely with the client and deliver results that fit their requirements, demands and needs. Besides engineering for our own projects, we can also offer design and engineering services to third parties. This way we are able to help all side involved to further develop water solutions that benefit businesses and the community.









SMART PROTECTION TECHNOLOGY WITH SENSOR MONITORING

Winding Temperature measurement component

For stator coil over-Temperature protection with PT100 in Phase A, Phase B and Phase C

Water leakage float switch in Junction box

When the junction box leaks, the float switch state will be switched and the resistance R is approximately equal to 0

Water leakage float switch in motor

In case of leakage in motor cavity, the float switch state will switch and the resistance R is approximately equal to 0

Water leakage electrode in Oil chamber

When water enters oil and reaches 10%, The resistance of oil and water mixed liquor will be less than 33kΩ

Bearing Temperature sensor in forward direction

The manifold block temperature measurement component PT100 send out directly proportional milliampere-level electric quantity signal

Vibration monitoring sensor

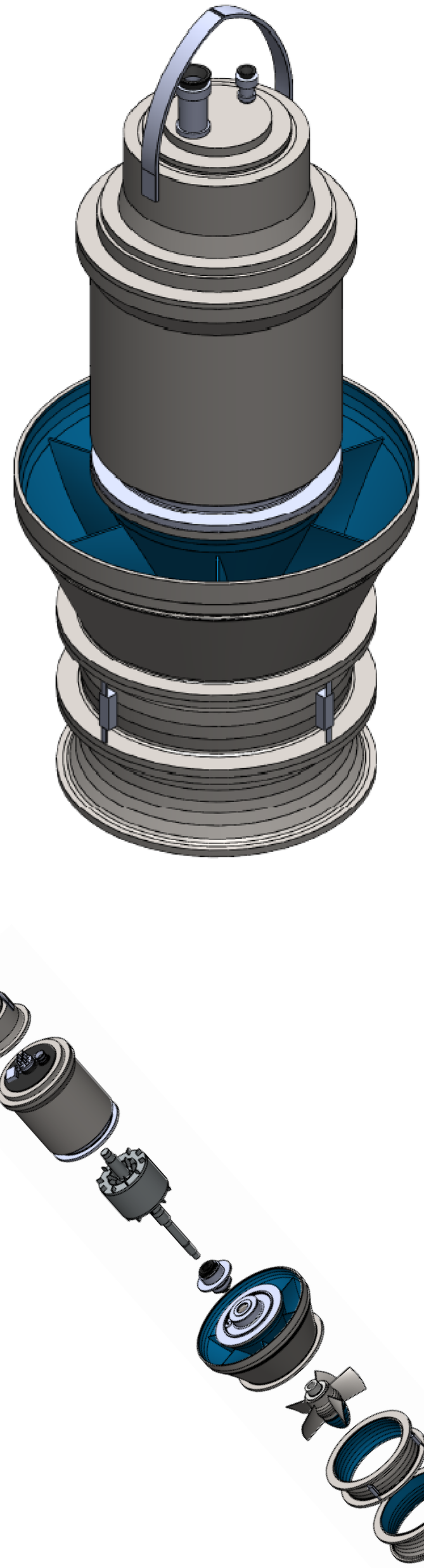
Sensors that monitor the level of vibration

Moisture Detector in Stator Housing (Optional)

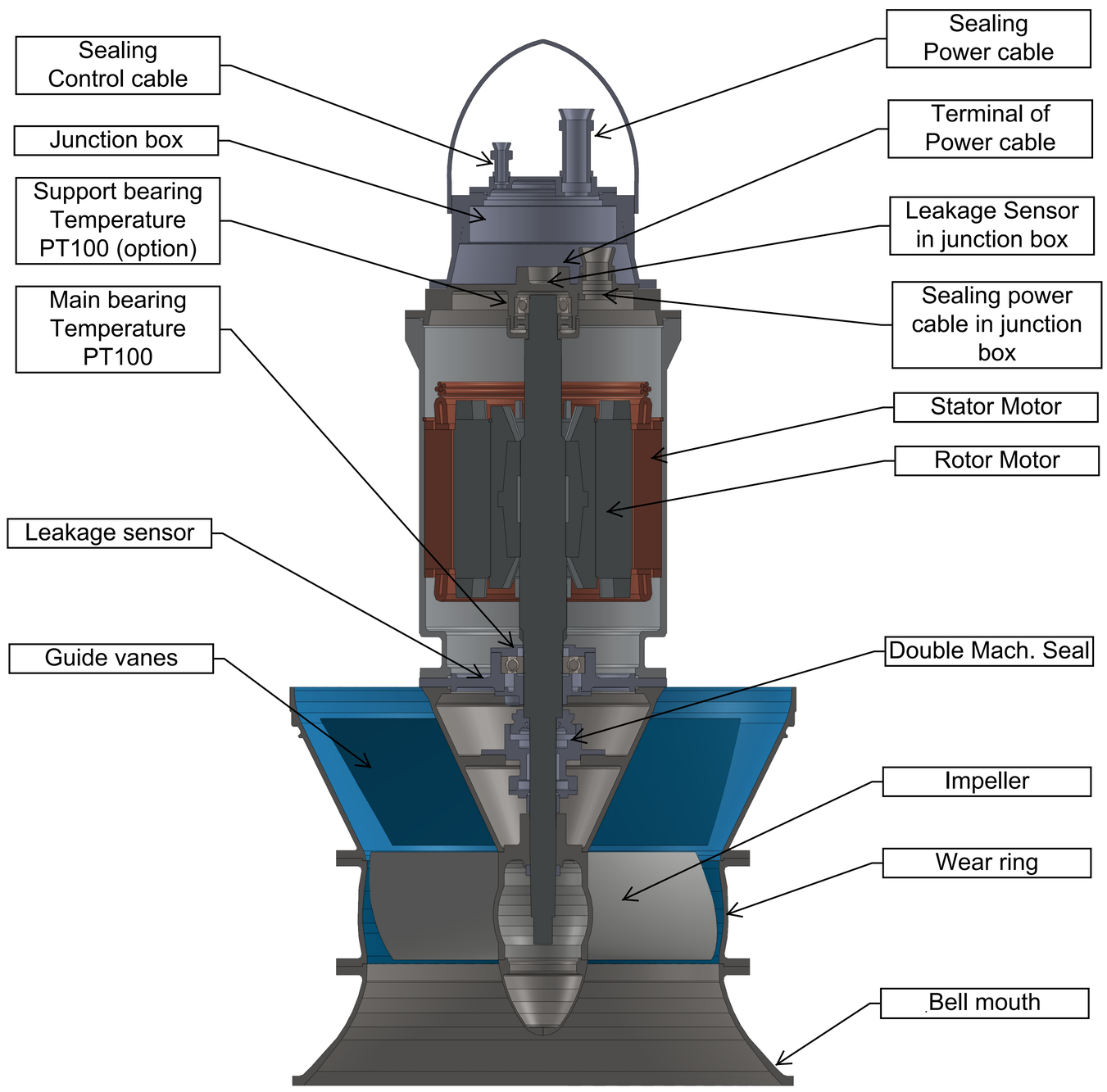
Detects levels of moisture

Corrorsion Protection

The zinc anodes protect the cast iron parts of the pump from corrosion attacks. Mounting sacrificing anodes of zinc to the pump body is a well proven method to reduce corrosion of iron casting.



MATERIAL



PUMP PART	MATERIAL
Motor housing/connection chamber	FC250 or customer request
Oil chamber/bearing flange	FC250 or customer request
Pump Shaft	SUS420J1, SUS329J3L, SUS316 or customer request
Pump Bowl and Diffusion vane	FC250, FC300 or customer request
Inlet bell mouth	FC250, FC300, SUS316 or customer request
Propeller	SUS420J1, SUS316, SUS304 or customer request
Wear ring	SUS420J1, SUS316, SUS304 or customer request
Lifting hoop	SUS316, SUS 304 or customer request

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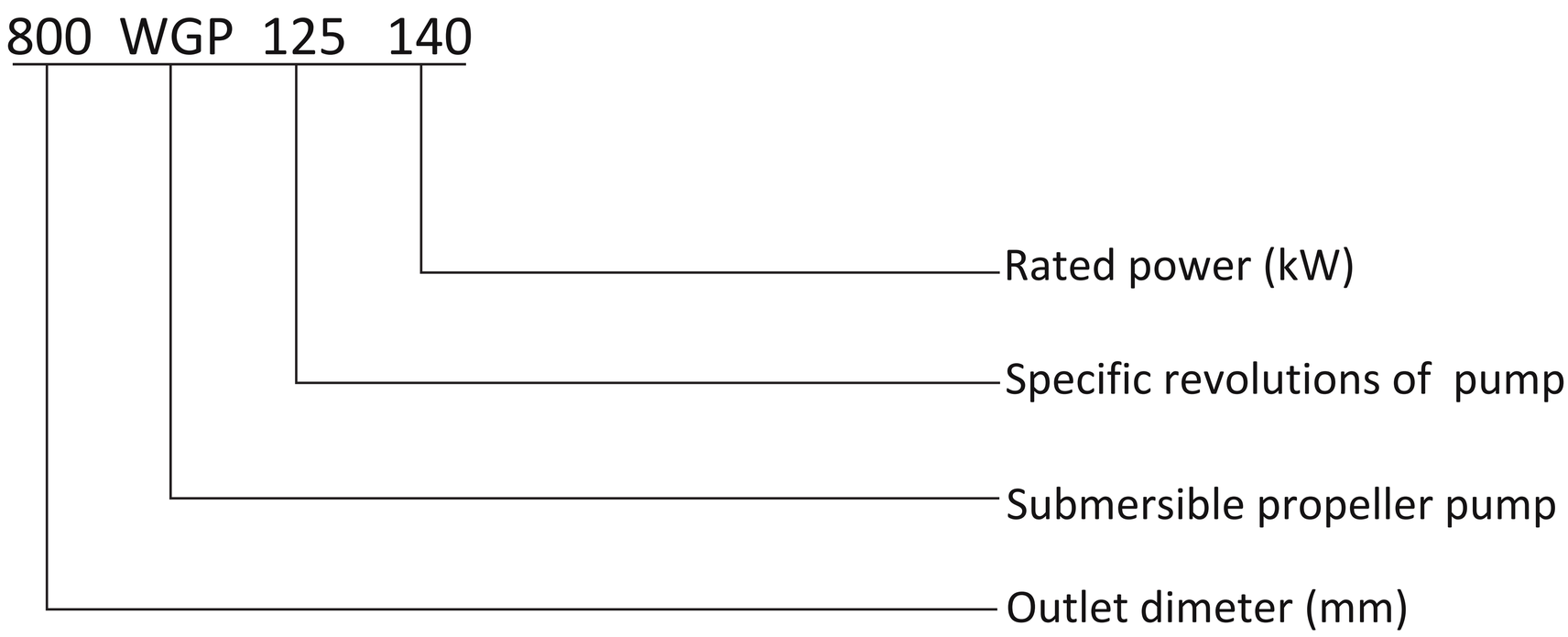
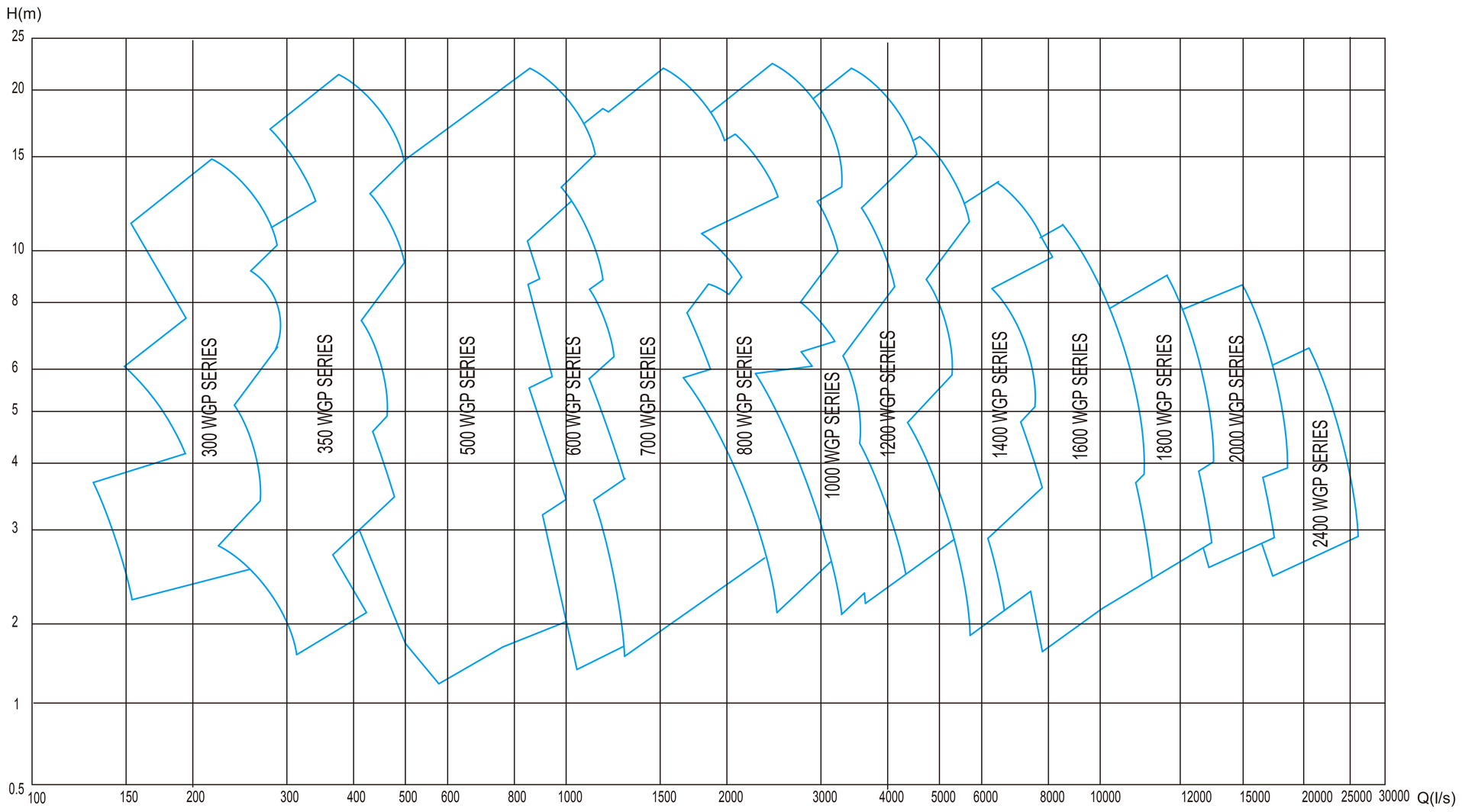
Product Model Instruction



OVERVIEW RANGE



PERFORMANCE	50 HZ
Capacity	Up to 10,200 l/s
Head	Up to 27.4 m
Motor Power	7.5 to 1,500 kW
Column pipe Diameter	300 to 1,500 mm

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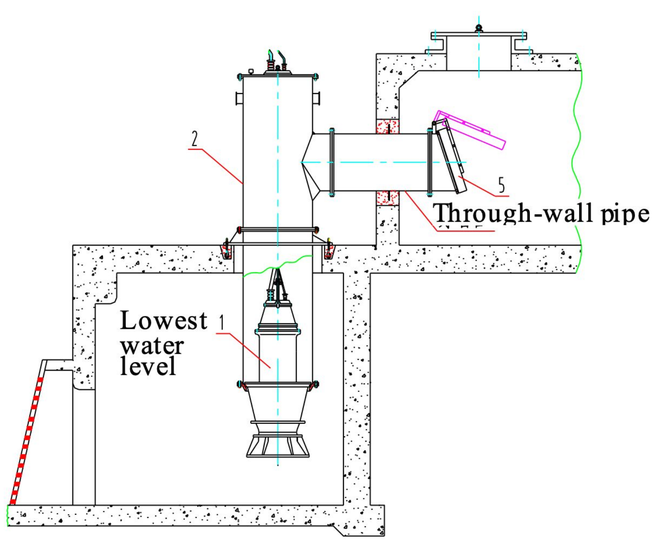
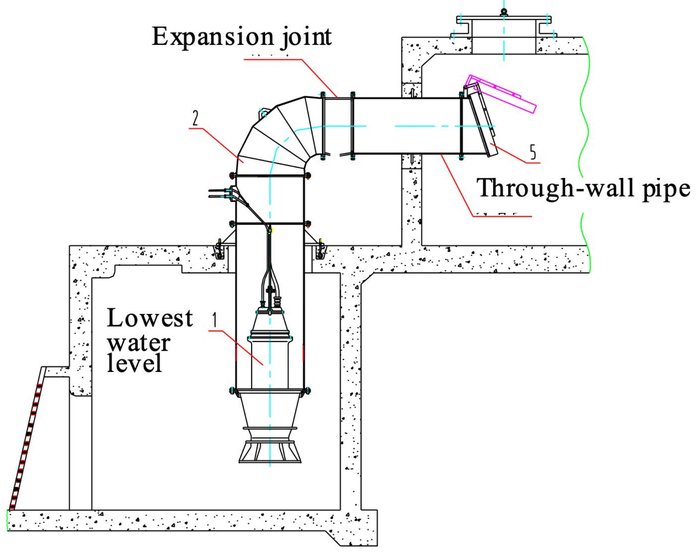
INSTALLATION TYPES

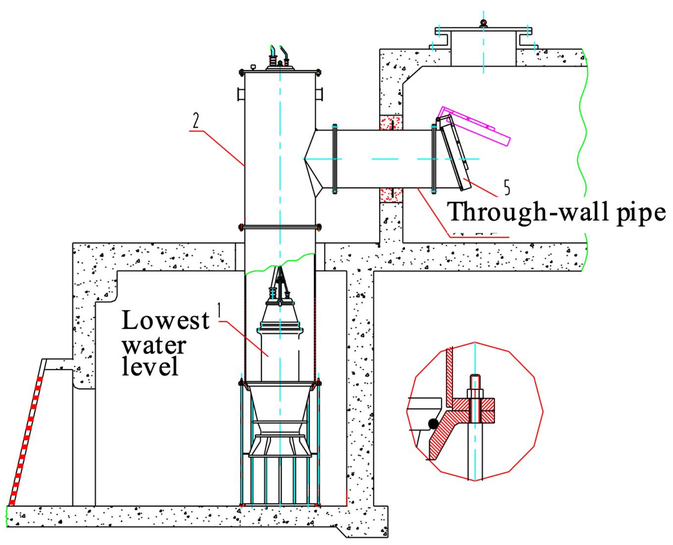
Structure Installation for Electric Submersible Pumps



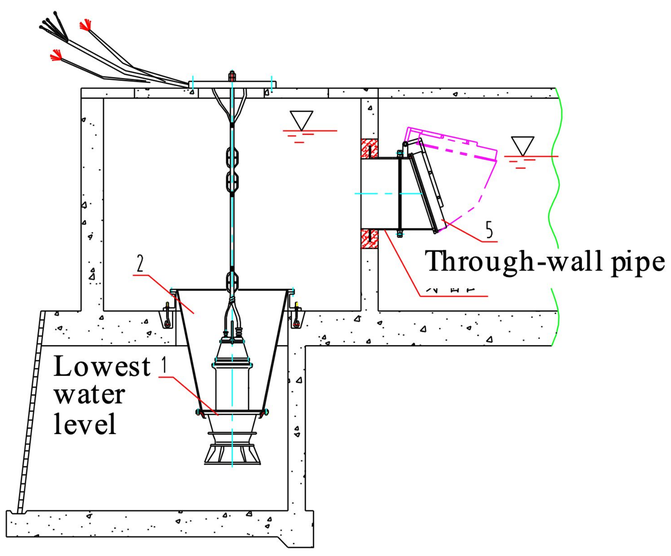
Shaft installation form (GT)



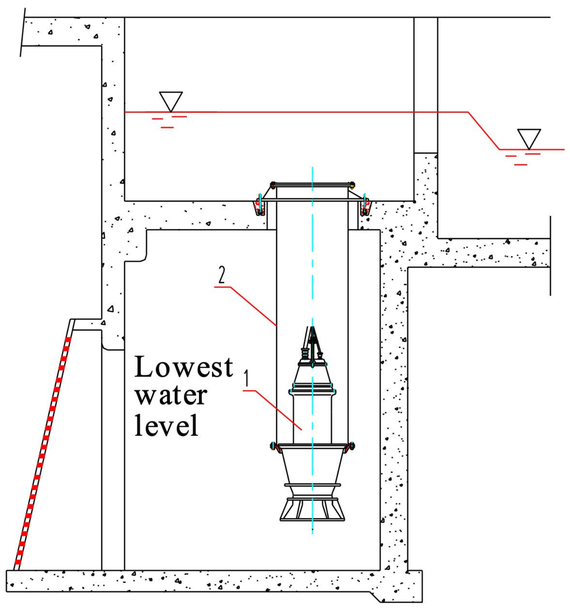
Shaft elbow installation form (GTW)



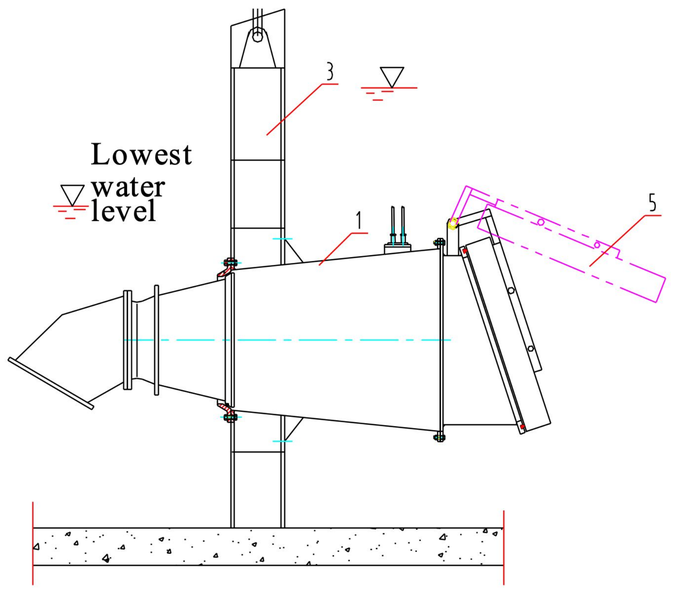
Shaft floor installation form (GD)



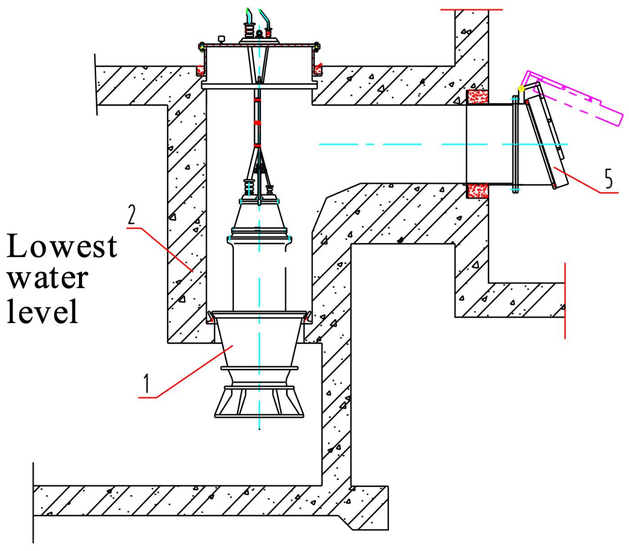
An open installation form (GK) used in installation of low-head pumps



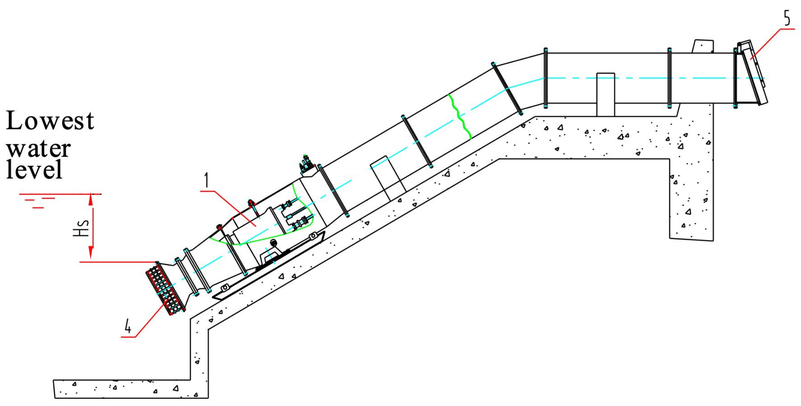
Another open installation form (GK)



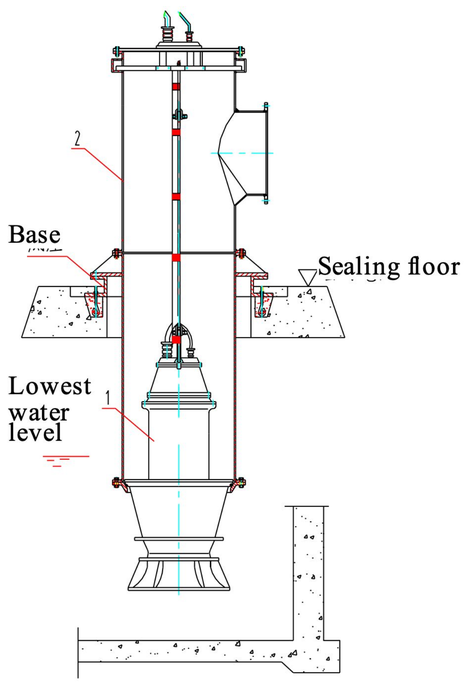
installation on gates (GZ)



Cement shaft installation form (SGT)



Inclined installation form (GW)



Shaft elbow installation form (GTW)

1. Electric submersible pump
2. Shaft
3. Gate
4. Filter screen
5. Flap valve

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