



รายละเอียดคุณลักษณะเฉพาะ ข้อ 25.1



Vertical Turbine Pumps

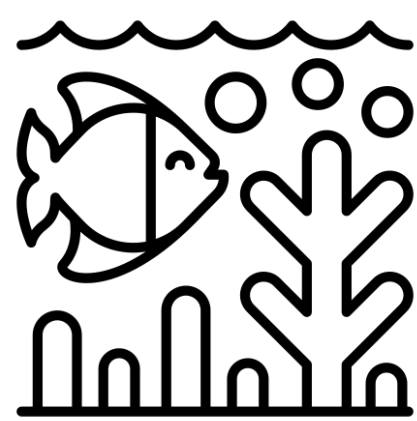
New-generation mechanical/electrical vertical turbine pumps from **Wings Pumps** provides high reliability, reduced installation and maintenance costs, with a longer lifetime.

APPLICATIONS



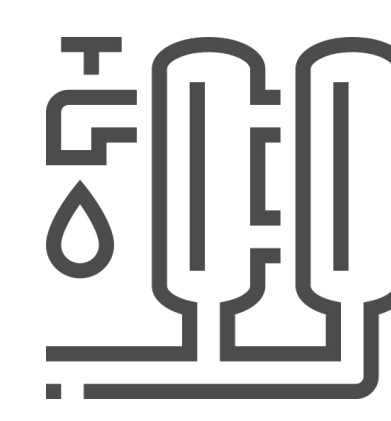
Storm Water Drainage

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



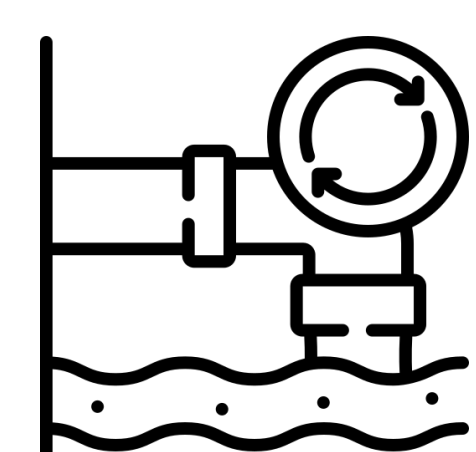
Irrigation and Aquaculture

Used for irrigation and aquaculture ecosystems. Environmentally-friendly.



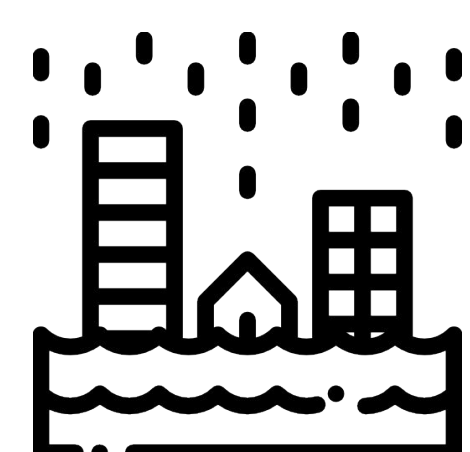
Raw Water and Processed Water

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



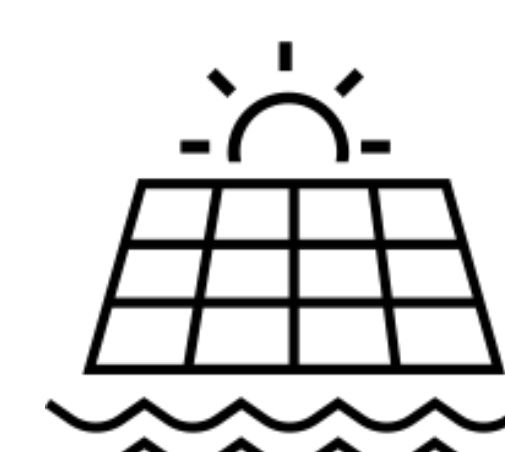
Sewage and Recirculation Sludge

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



Municipality

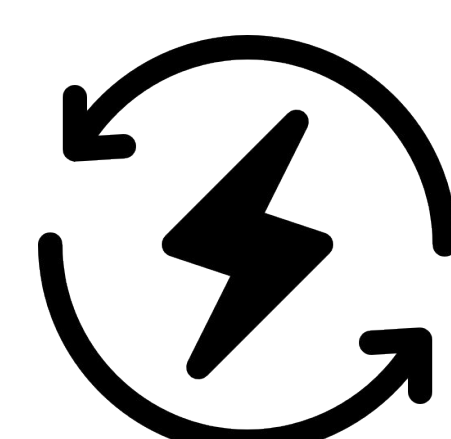
Well-Integrated with municipality work and projects with high requirements.



Renewable Energy

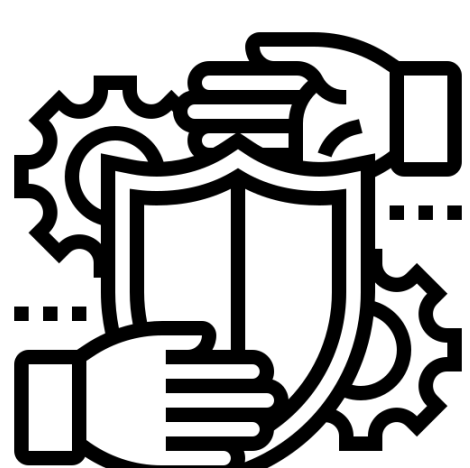
can be used with solar cells for sustainable energy with smart device that properly manage the process and prevent pump damage.

KEY BENEFITS



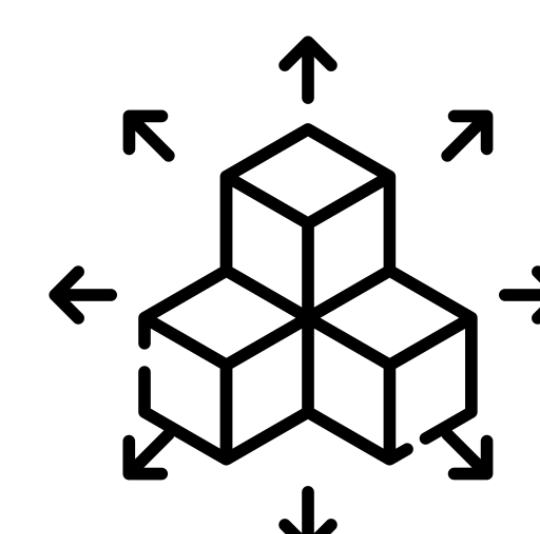
Better Power Consumption

Save more power with Premium Efficiency Motors.



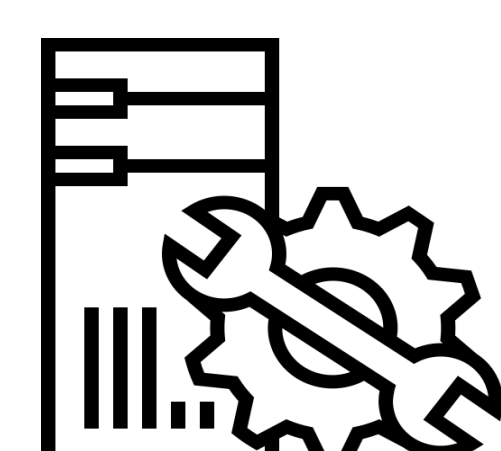
Stability and Reliability

Wings Pumps' advanced engineering provides better stability and reliability.



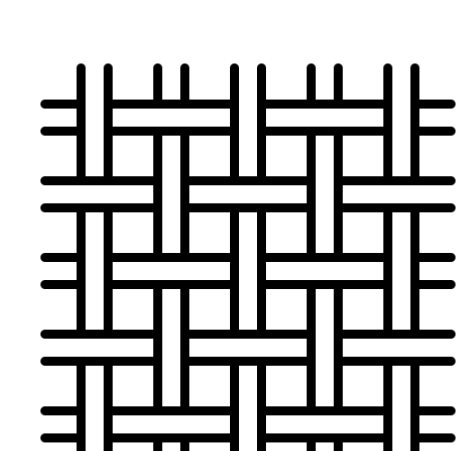
Wide Range of Operations

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.

FEATURES AND BENEFITS

Our new-generation mixed-flow Vertical turbine 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,IE4 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 Impeller** blade design decreases clogging and minimizes risks caused by liquids containing fibrous material or sludge.

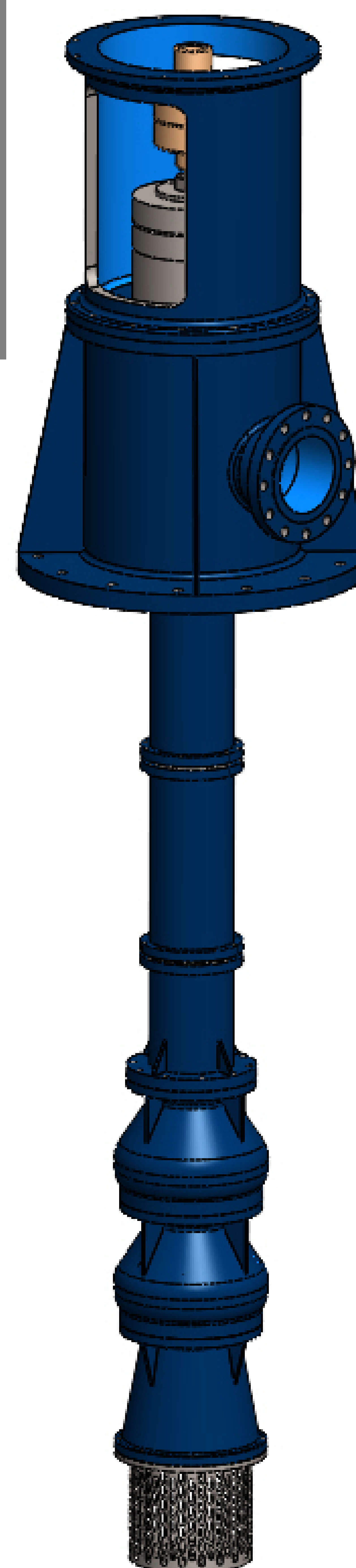
A **slim design** offers easy installation, low vibration and low Net Positive Suction Head (NPSH)

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.



VERTICAL TURBINE PUMP

1. Insulated Motor - for better reliability

All motors are fully submersible to a depth of at least 20 meters.

2. Unique seals provide extra safety

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

3. Sensors

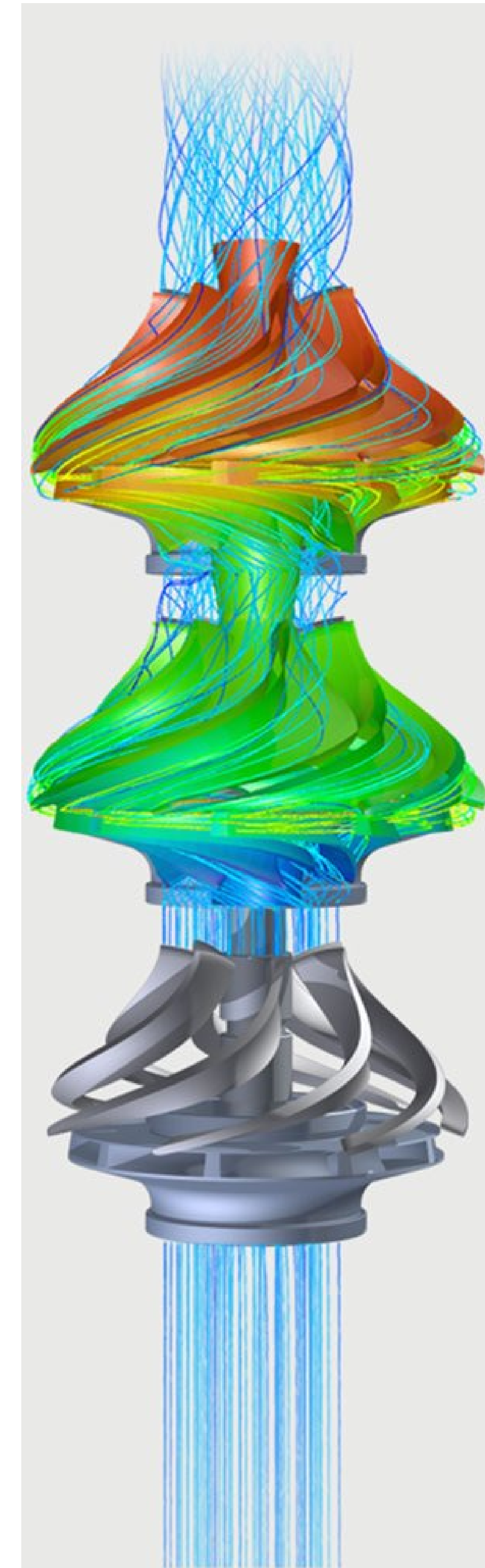
Thermal sensors help prevent overheating.
Vibration sensors alarms rotation part .

4. Reliable and Efficient Hydraulics

Wings Pumps technology ensures maximum reliability and high efficiency.

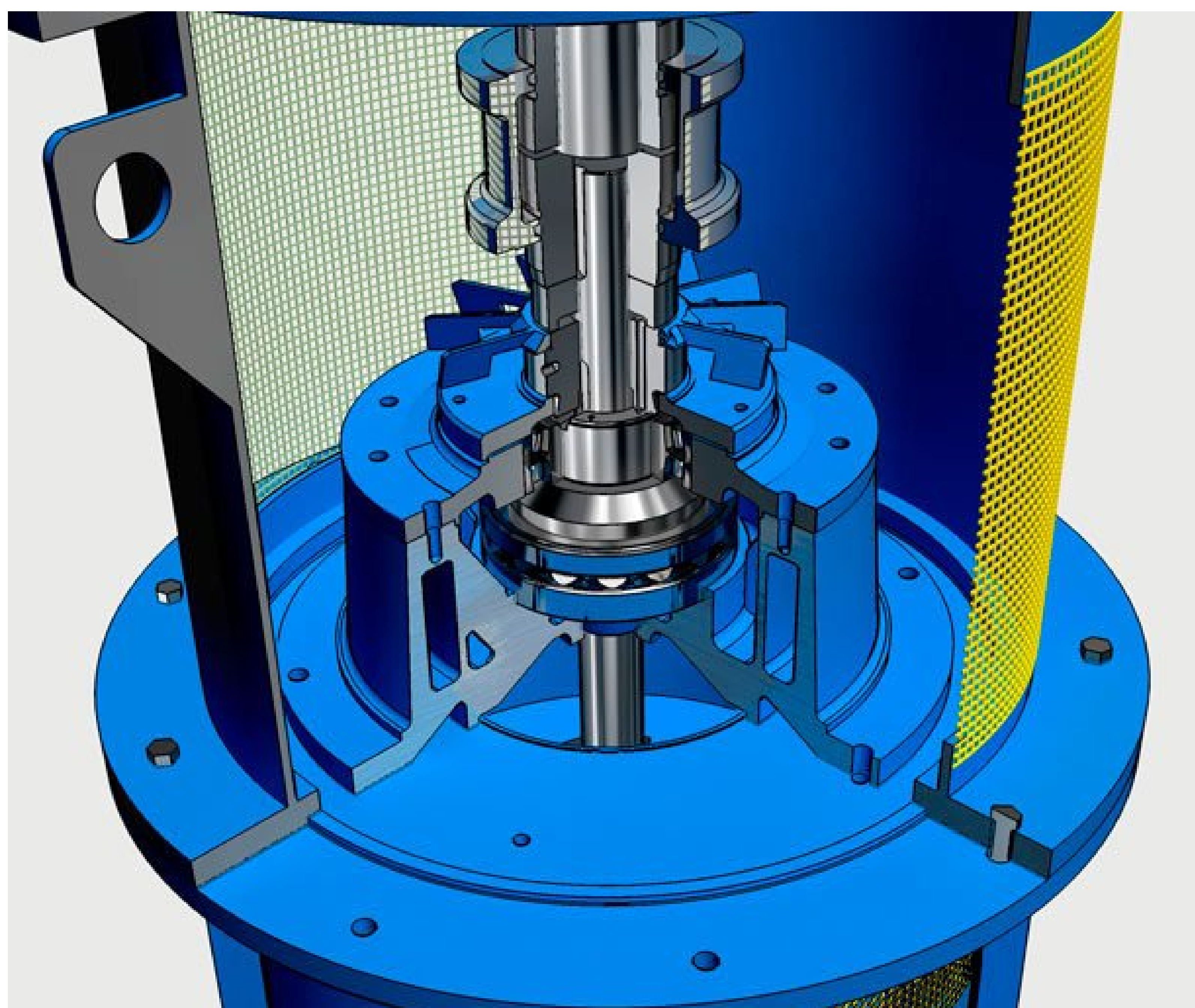
5. Flexible Installation

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



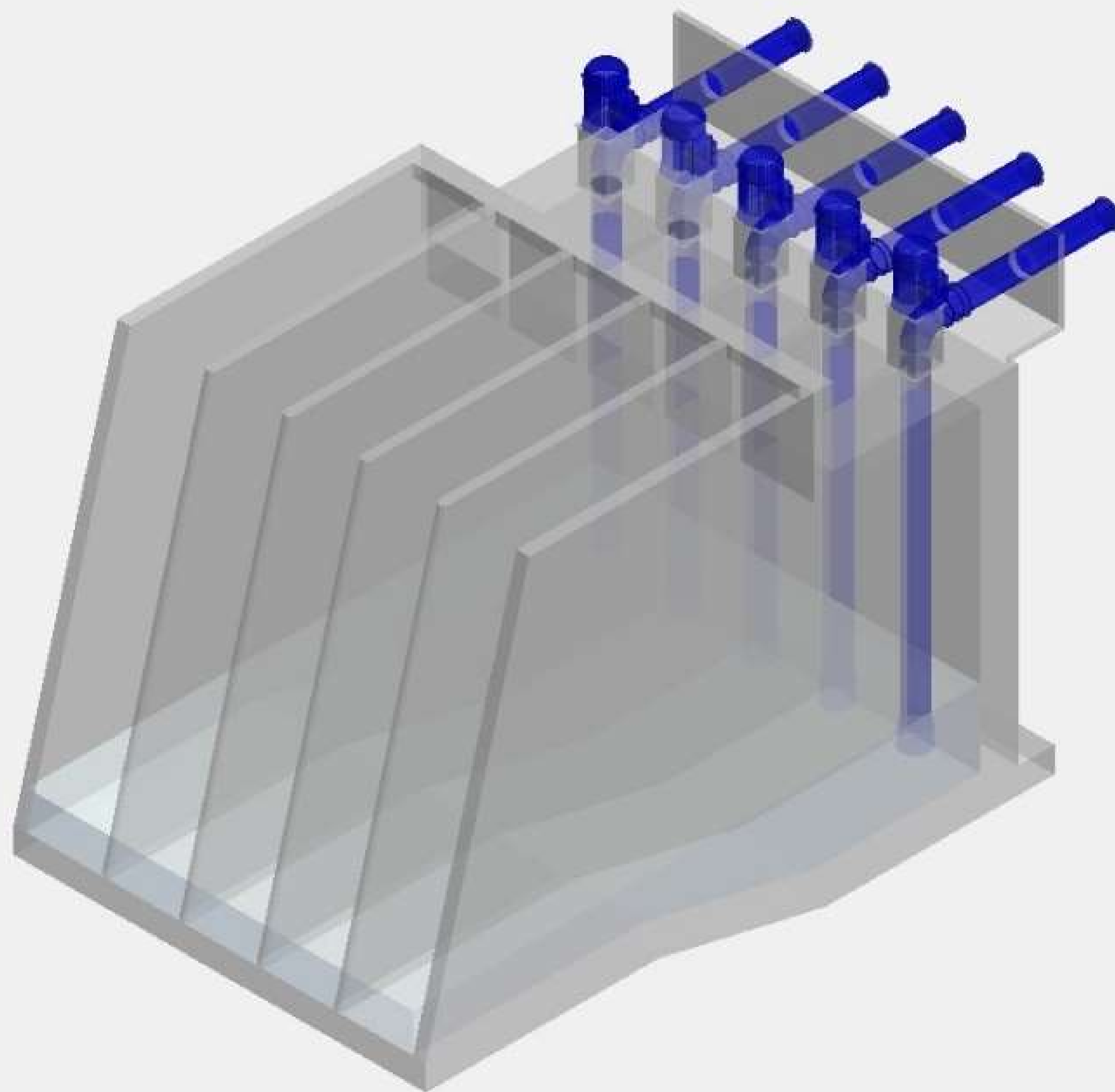
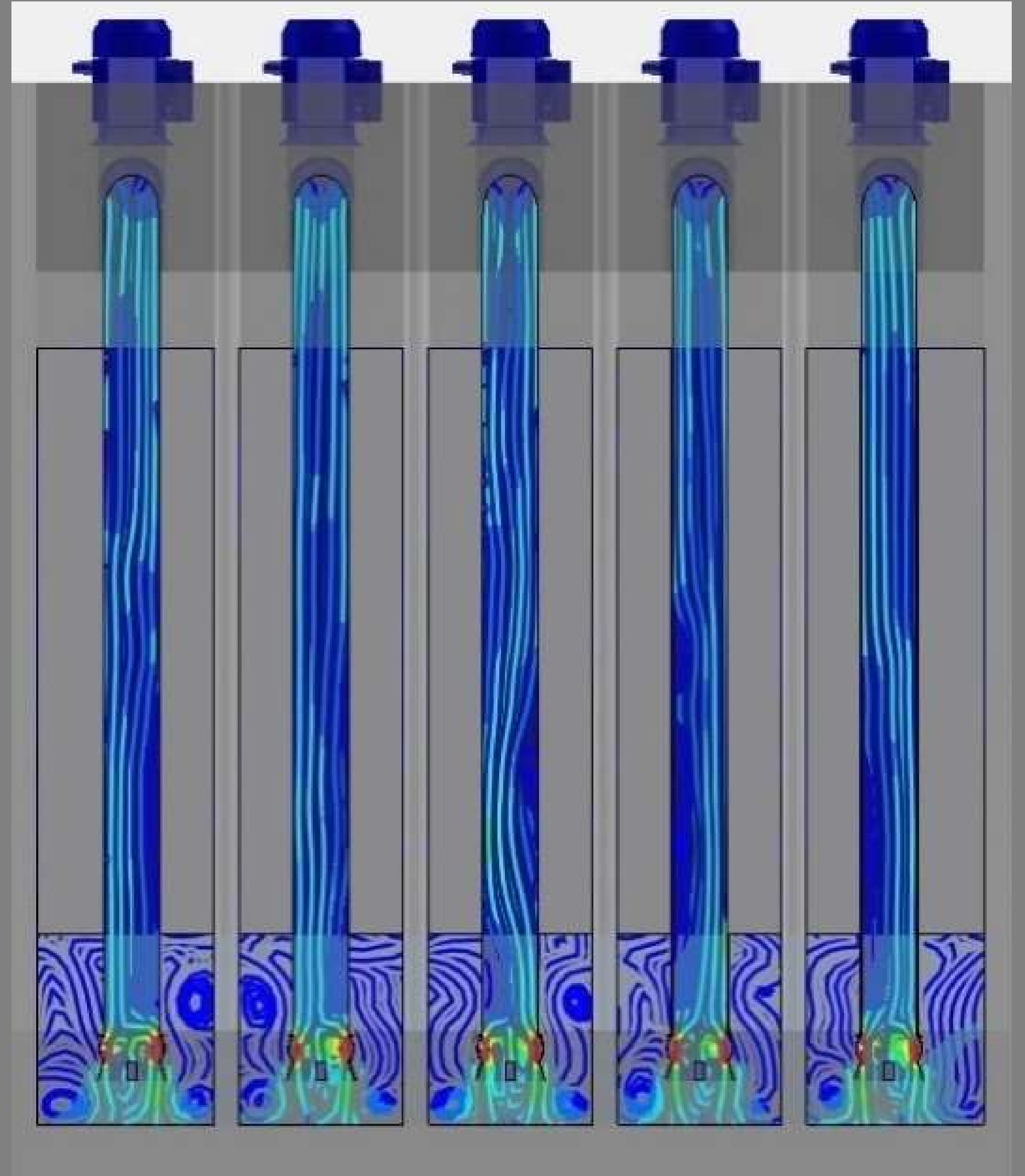
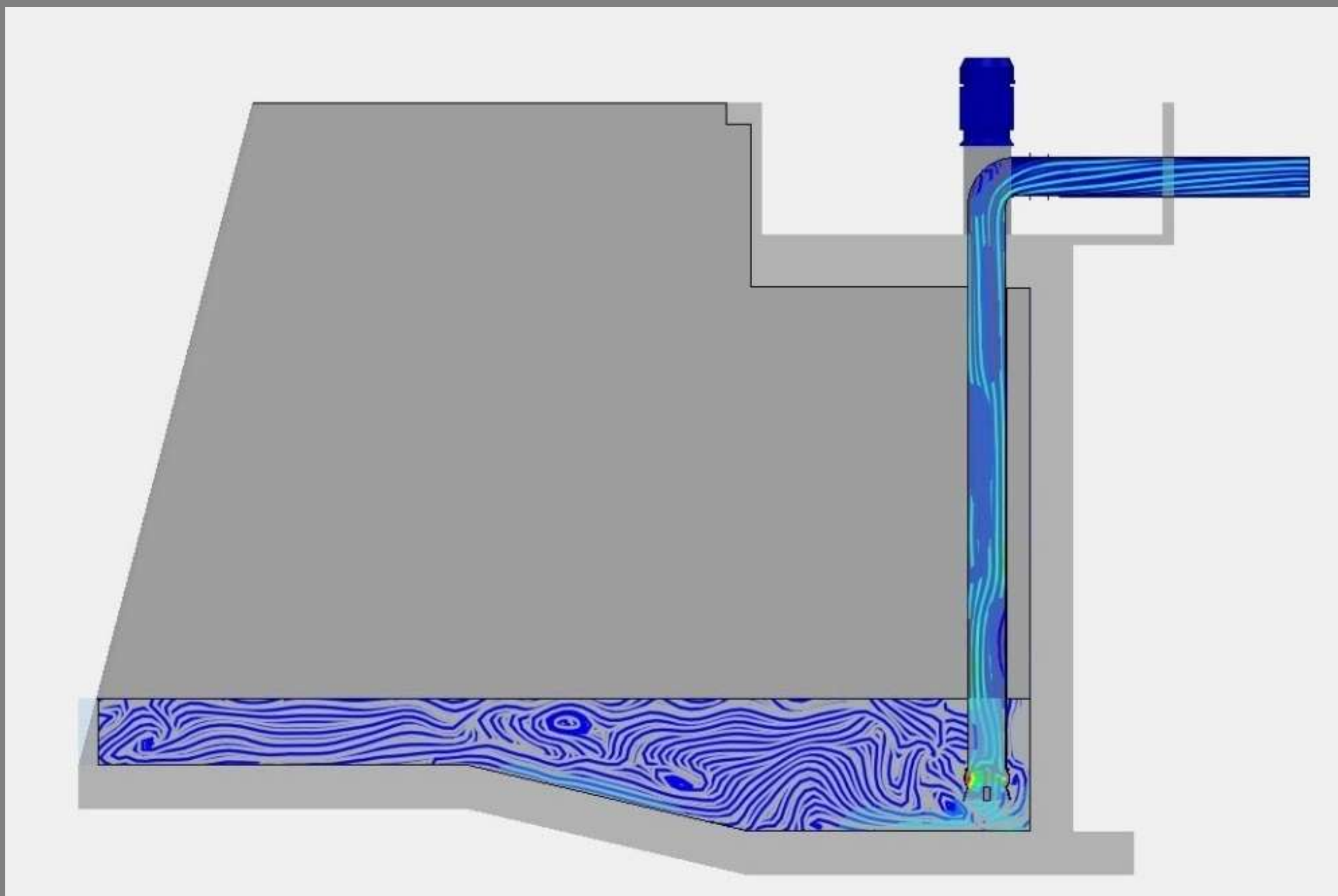
DOUBLE MECHANICAL SEAL

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.



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 cooperate 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

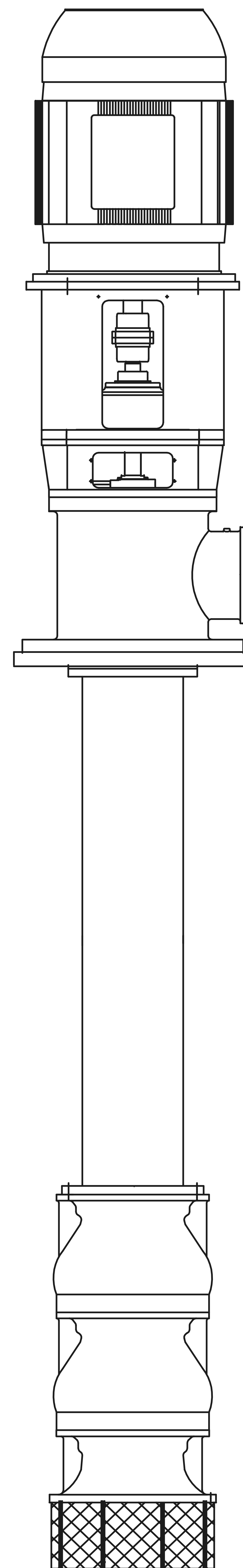
For stator coil over-Temperature protection
with PT100 in Phase A, Phase B and Phase C

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



MATERIAL

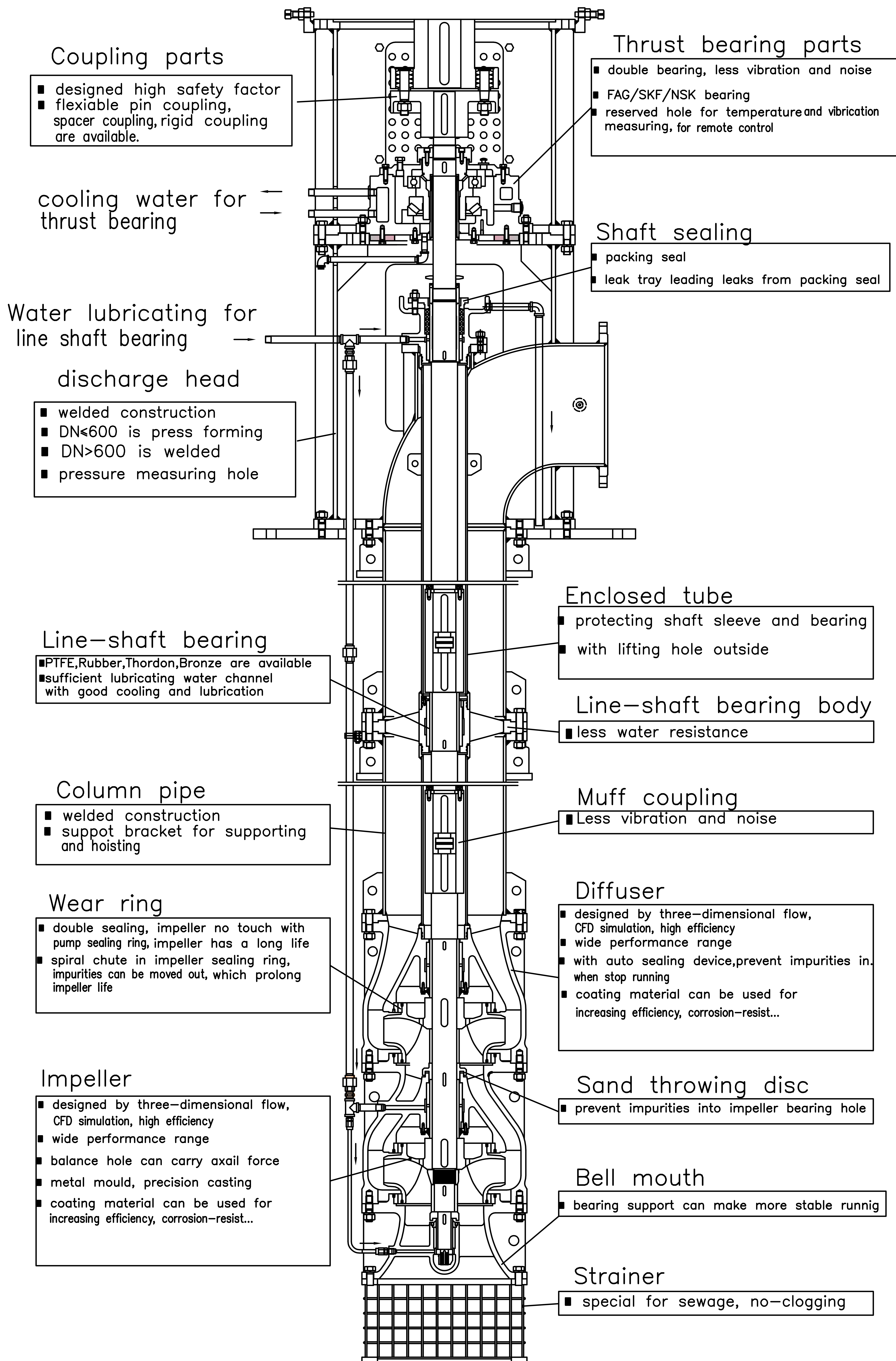


MATERIALS OF MAIN PARTS

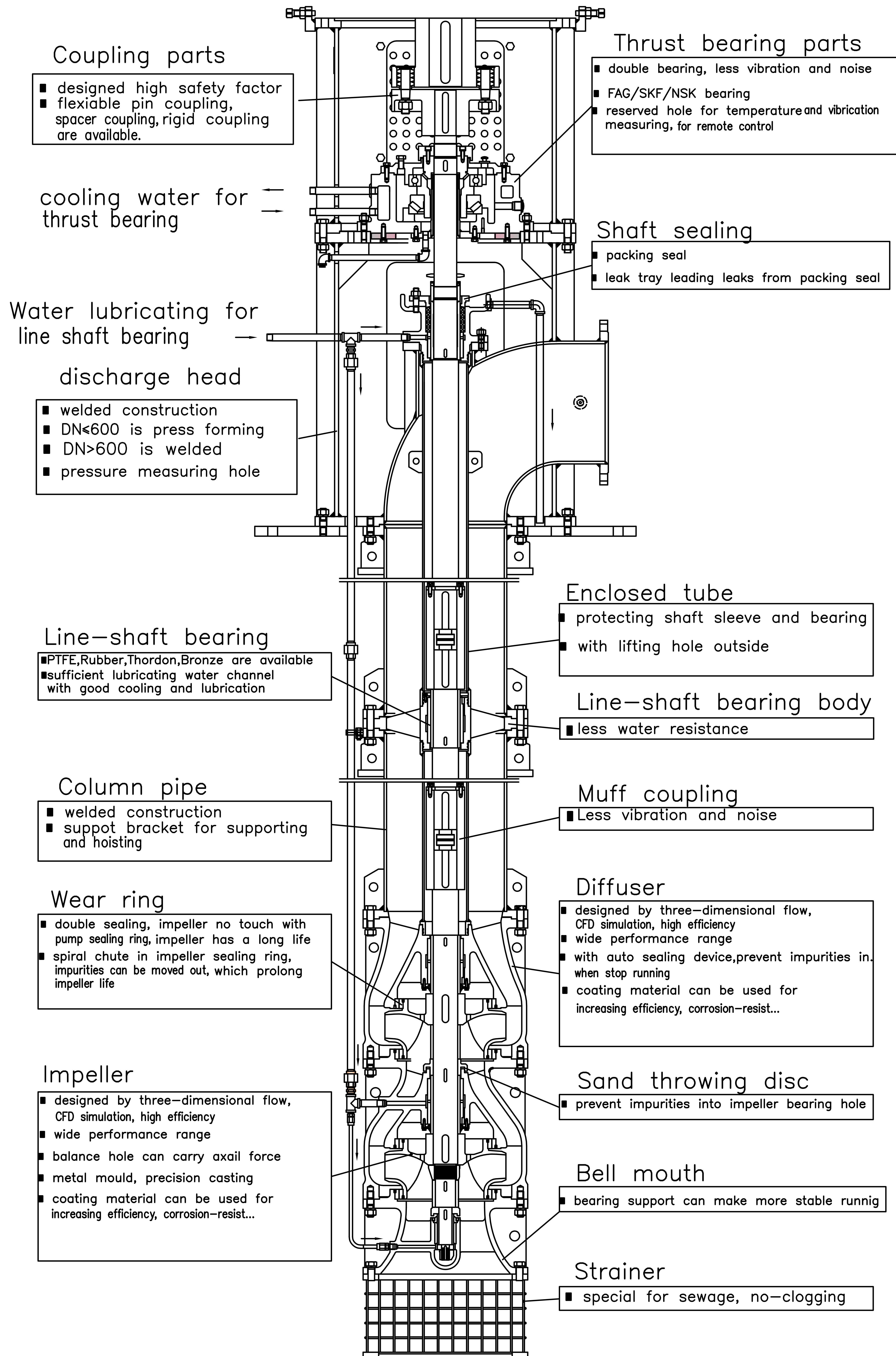
Usage Pump Parts	Clear water	Sewage	Sea water	
	I	II	III	IV
Discharge head/ Column pipe/ Enclosing tube	Carbon steel	Carbon steel	Ni-resist Iron,SS302	SS316L
Diffuser/ Bell mouth	Cast Iron	Cast Iron, Ductile Iron, Cast Steel , SS420	Ni-resist Iron	SS316L
Impeller/Impeller wear ring	Cast Iron, Cast Steel	Ductile Iron, SS420,SS302	SS316L	SS316L
Shaft/shaft sleeve/muff coupling	Steel 45#, SS420	Steel 45#, SS420	SS302	SS316L
Line shaft bearing	PTFE/Thordon			

Remark: other materials can be by customer’s request.

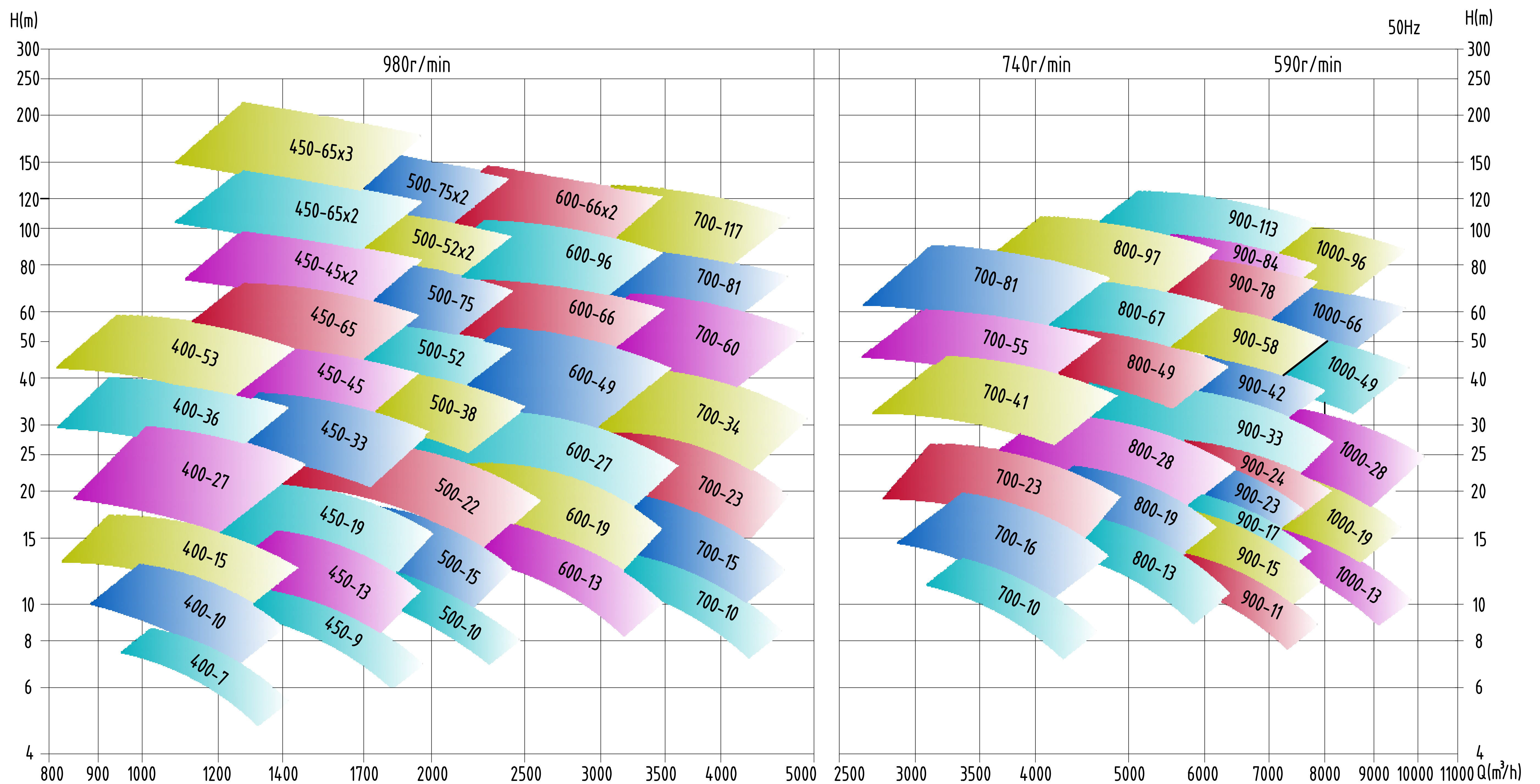
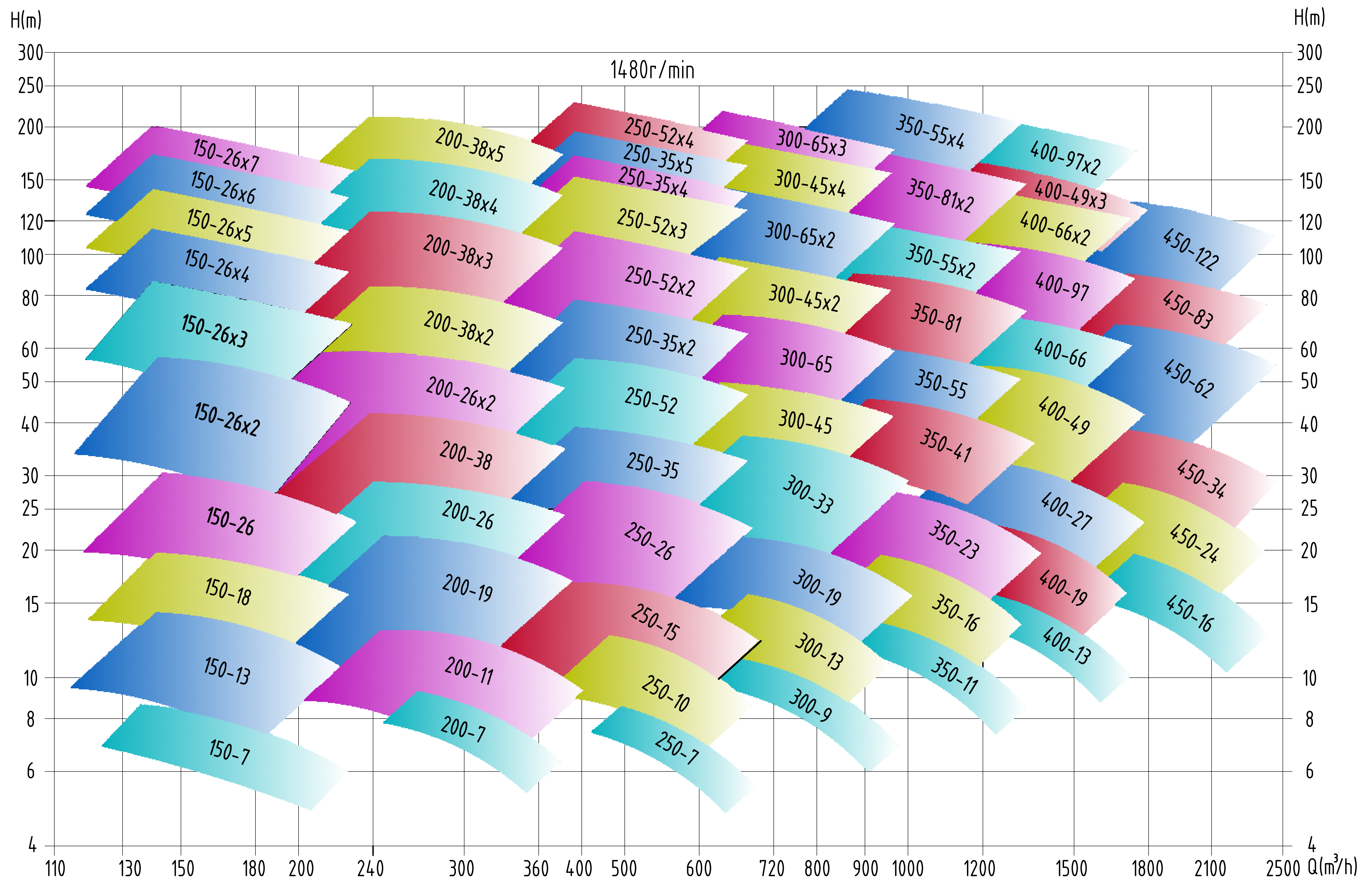
Enclosed line shaft



Enclosed line shaft



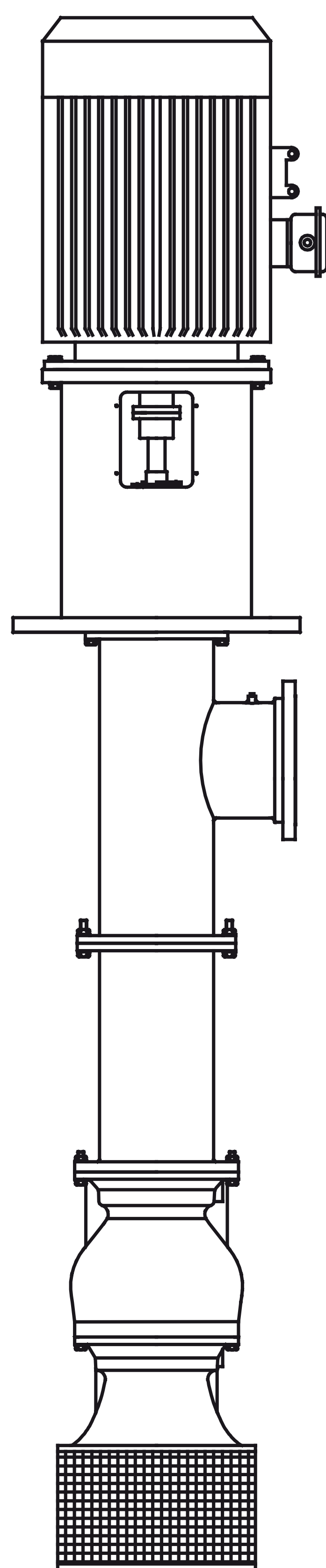
OVERVIEW RANGE



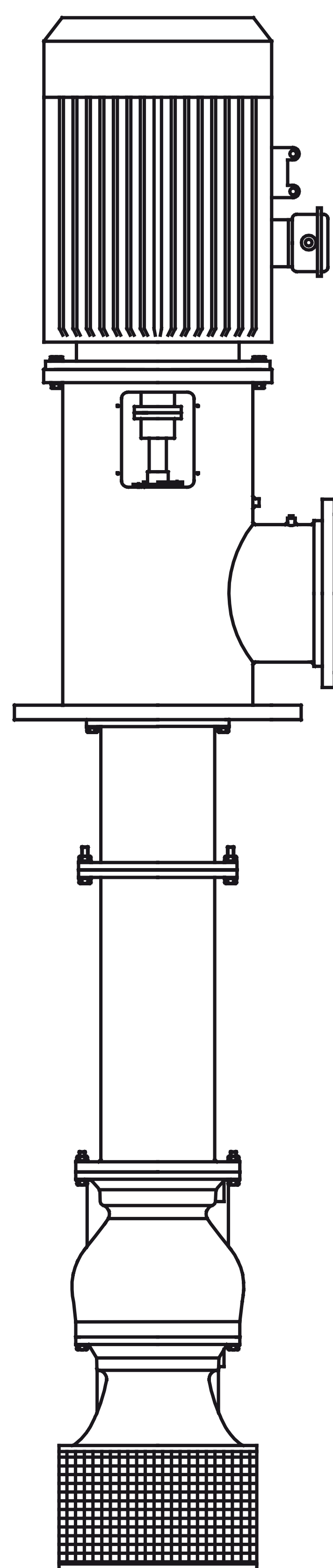
Remark : This graph shows a standard model only. Pumps can be designed according to customer needs.

INSTALLATION TYPES

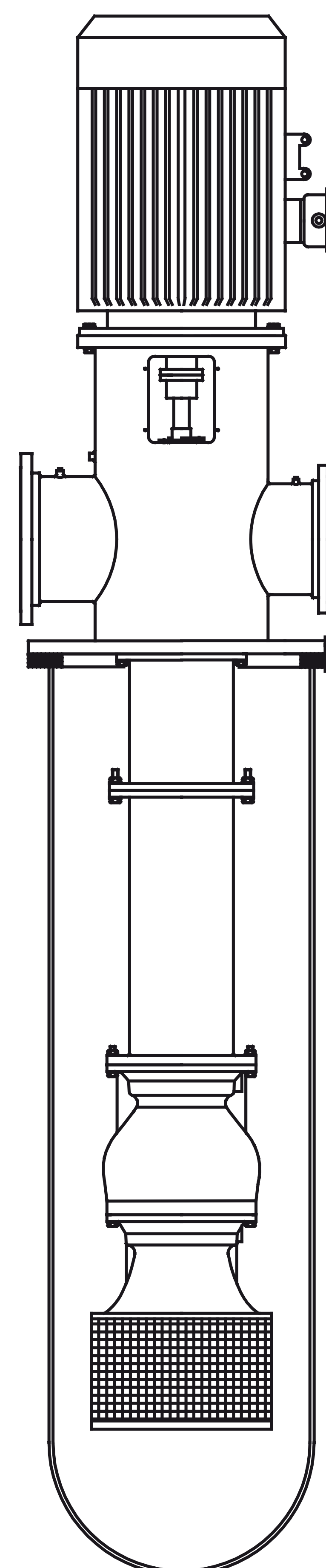
Structure Installation for Vertical Turbine Pumps



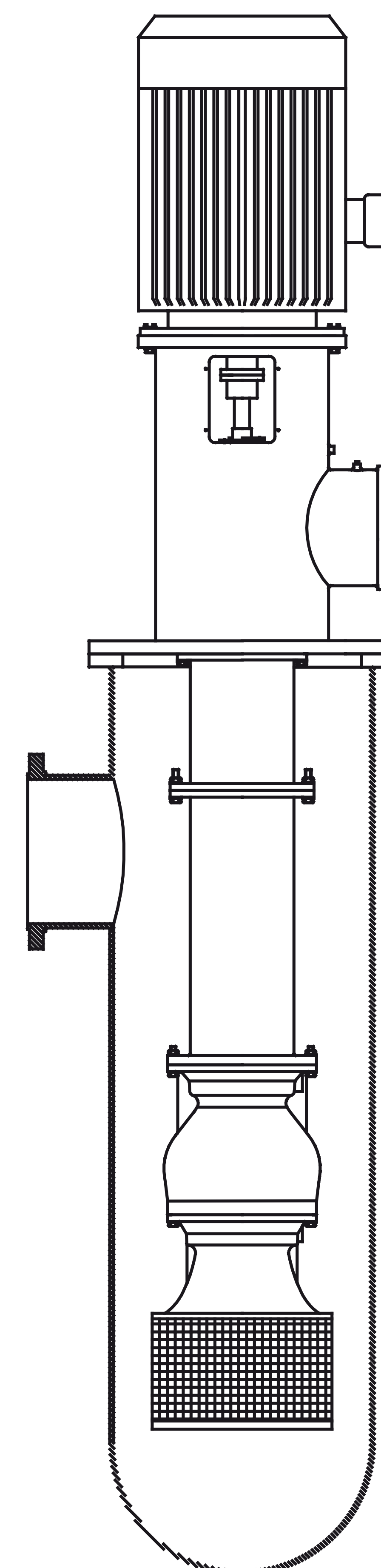
Underground



Above ground



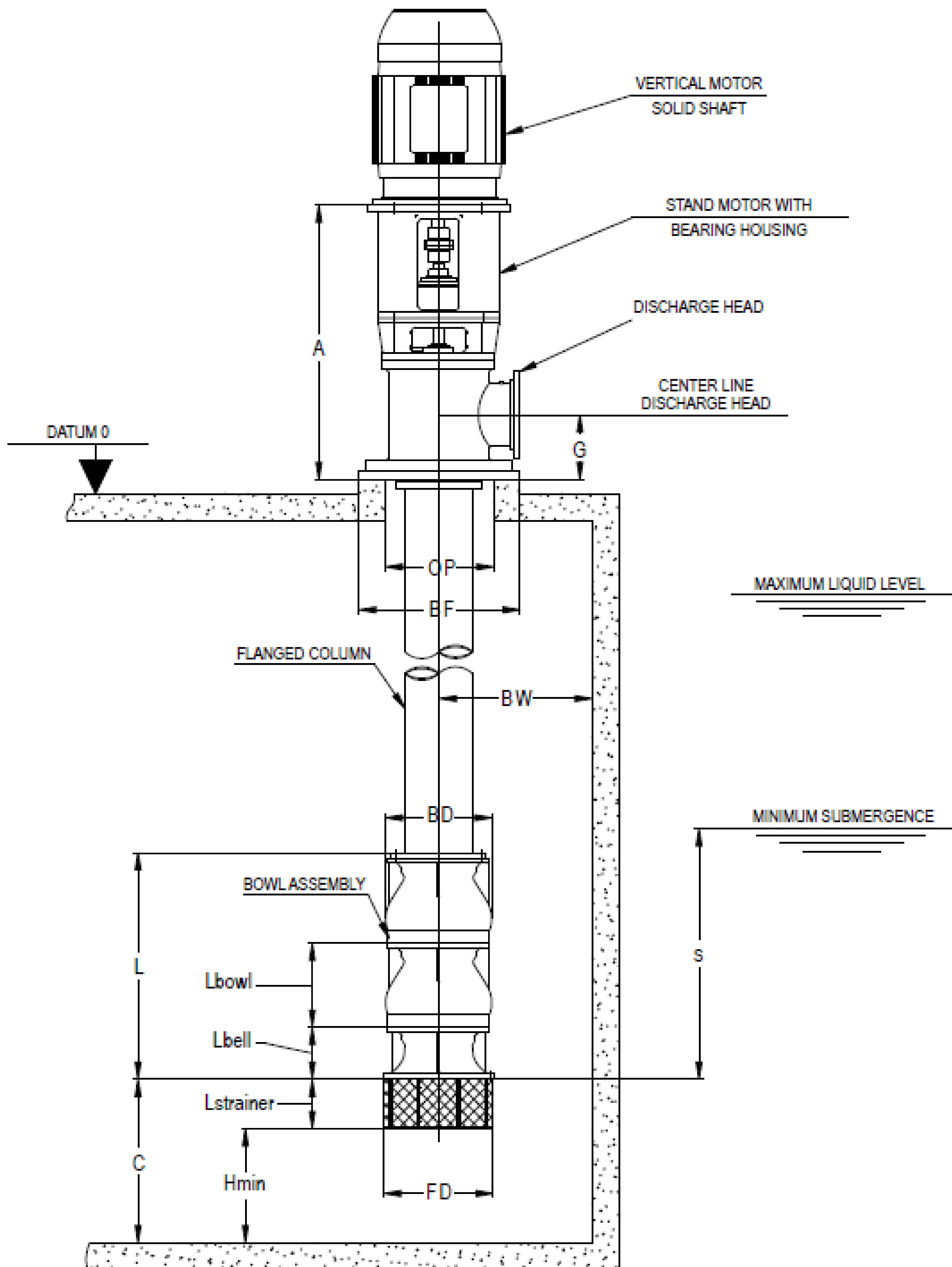
Inlet in the head



Inlet in the can

INSTALLATION TYPES

Structure Installation for Vertical turbine Pumps



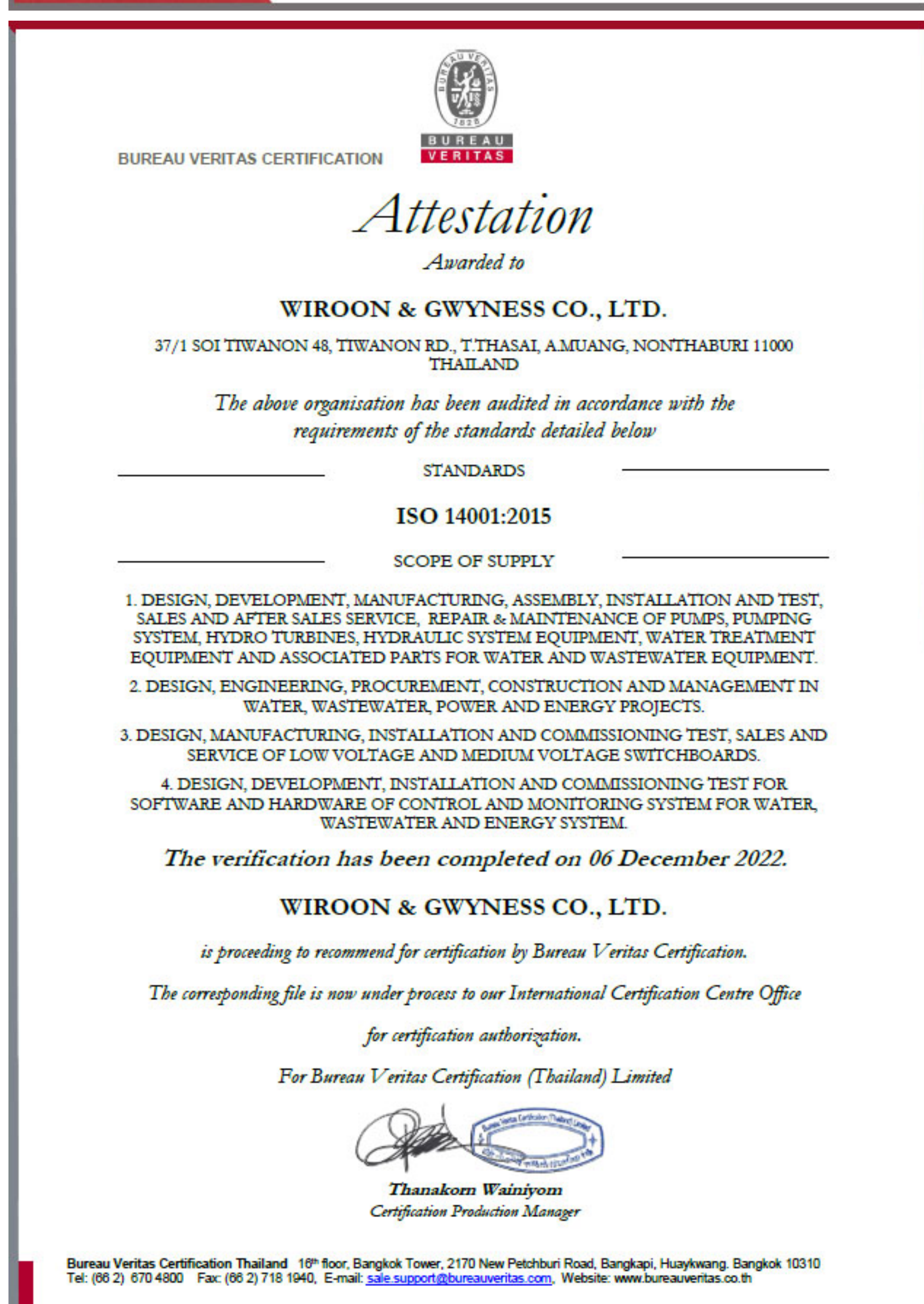
CERTIFICATION



ISO 9001 : 2015

Bureau Veritas Certify that the Management system has been audited and found to be in accordance with the requirement of the Management system standards detailed below

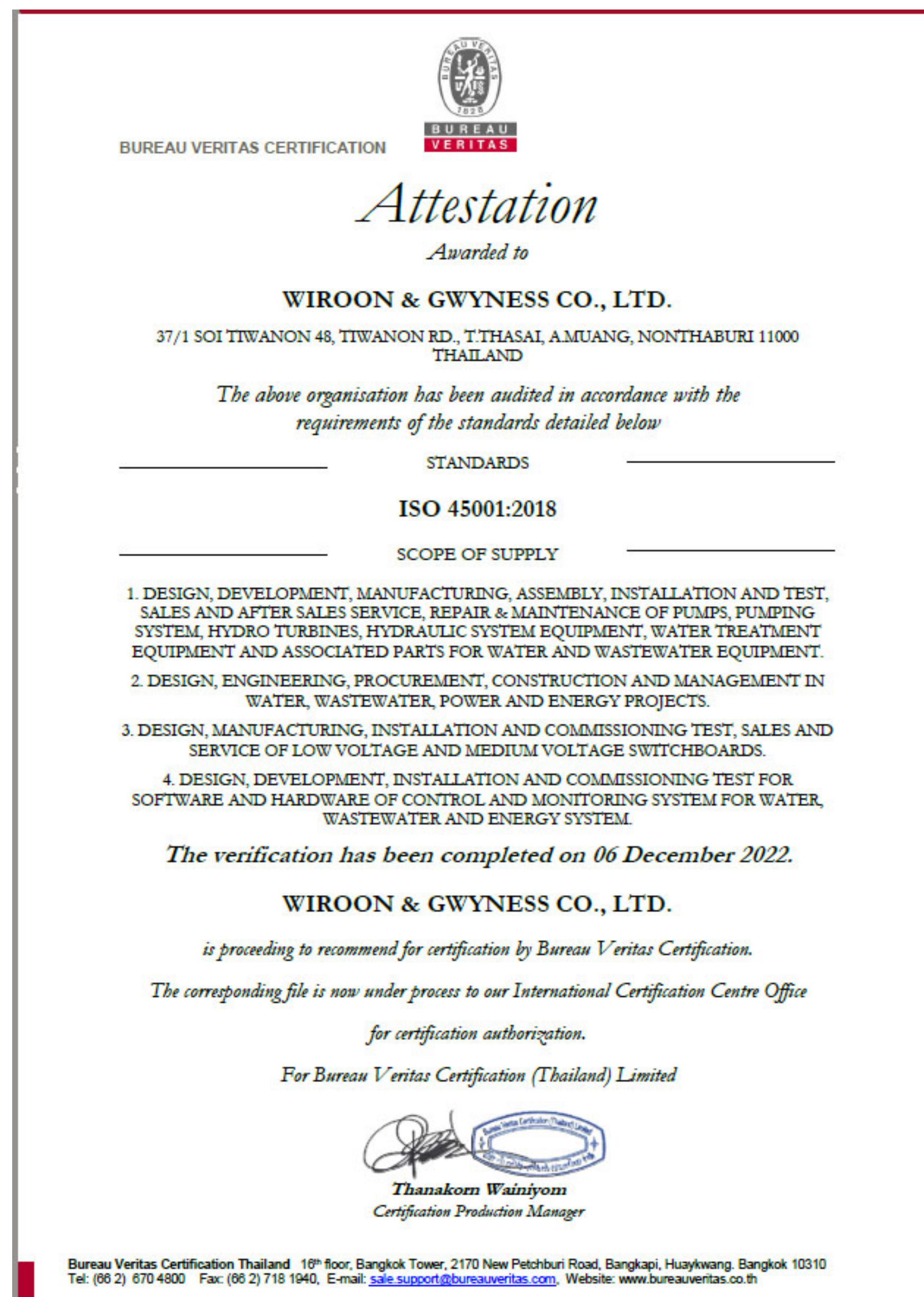
DESIGN, DEVELOPMENT, MANUFACTURING, ASSEMBLY, INSTALLATION AND TEST, SALES AND AFTER SALES SERVICE, REPAIR & MAINTENANCE OF PUMPS, PUMPING SYSTEM, HYDRO TURBINE, HYDRAULIC SYSTEM EQUIPMENT, WATER TREATMENT EQUIPMENT AND ASSOCIATED PARTS FOR WATER AND WASTEWATER EQUIPMENT.



ISO 14001 : 2015

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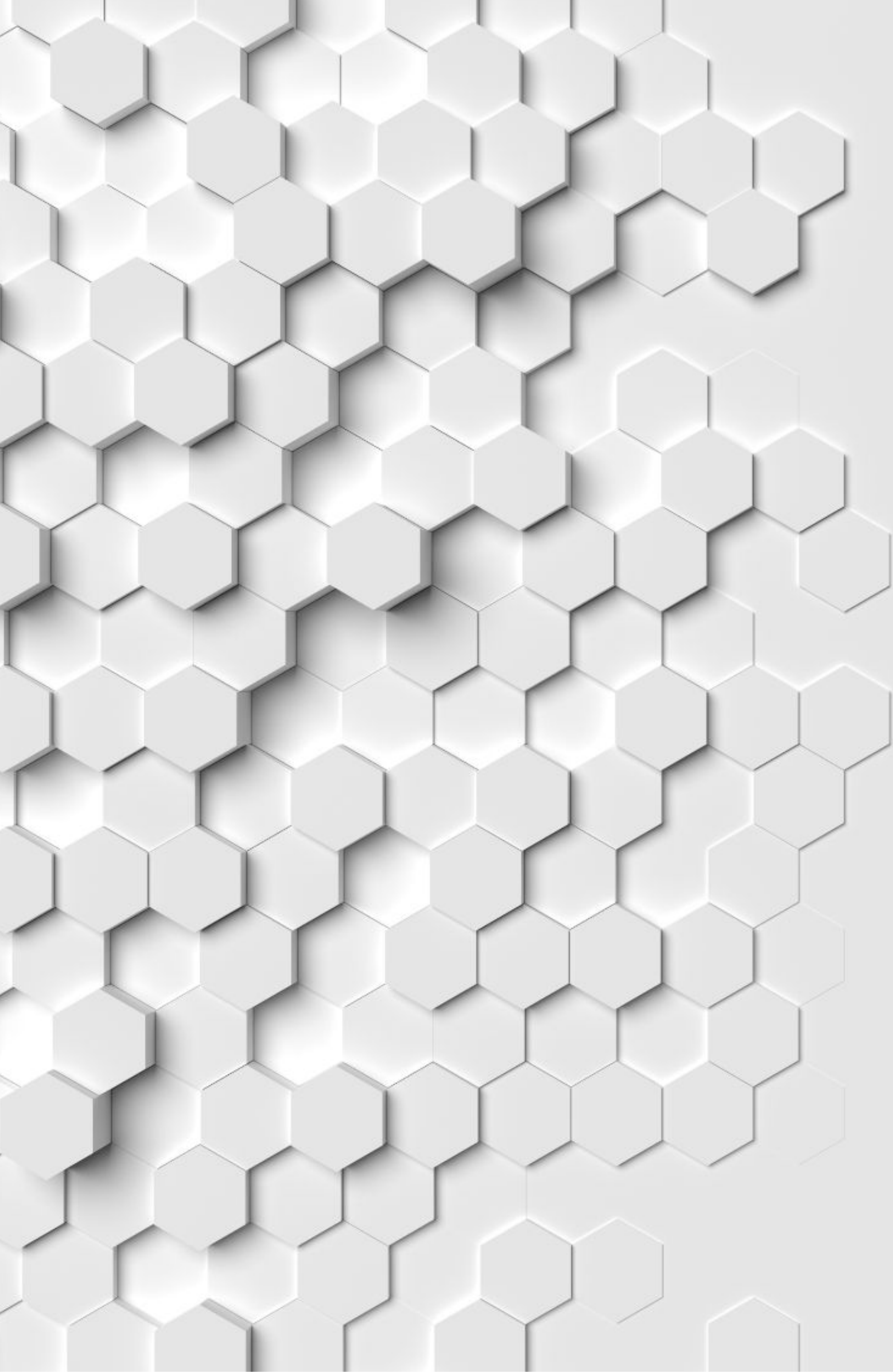
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ISO 45001 : 2018

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