



Hydraulic Axial Flow With Hybrid Driven (Diesel Engine and Electric Motor)

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

CERTIFIED
ISO 9001
ISO 14001
ISO 45001
ISO 50001



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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



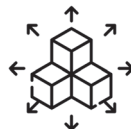
Better Power Consumption

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

HYP mobile hydraulic power unit provides a convenient and reliable power source for various hydraulic tools. It has the characteristics of high work efficiency, small size, light weight and strong power. A hydraulic power unit can connect and drive various forms of hydraulic tools, such as hydraulic breakers, hydraulic circular saws, hydraulic chain saws, hydraulic pumps, etc., to complete various tasks.

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Design Standards

ASTM	:	American Society for Testing Materials
AISI	:	American Iron and Steel Institutes
JIS	:	Japanese industrial standard
DIN	:	Deutsche Industries Norman

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.



AXIAL FLOW PUMP DRIVE WITH HYDRAULIC

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 hydraulic system

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)

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.

EMISSION ENGINE EU STAGE III AND EPA 3

Better Savings on Power Consumption

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

Better for the Environment

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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.



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 switch 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 33k Ω

Bearing Temperature sensor in forward direction

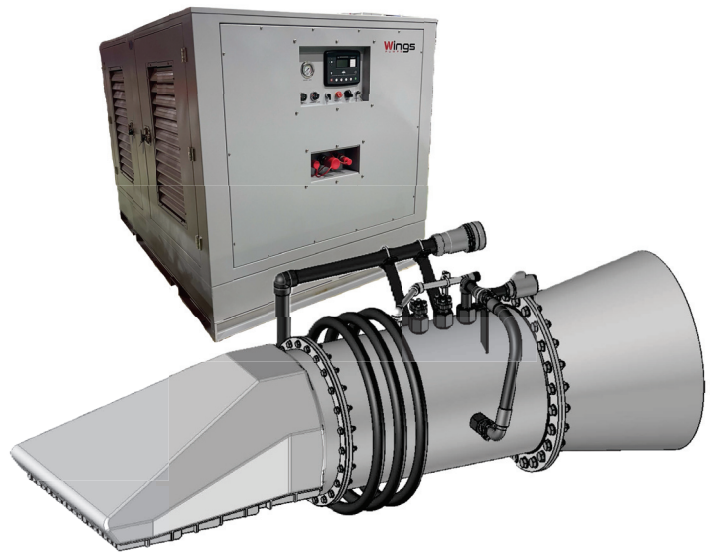
The manifold block temperature measurement component PT100 send out directly proportional milliampere-level electric quantity signal

Vibration monitoring sensor

Sensors that monitor the level of vibration

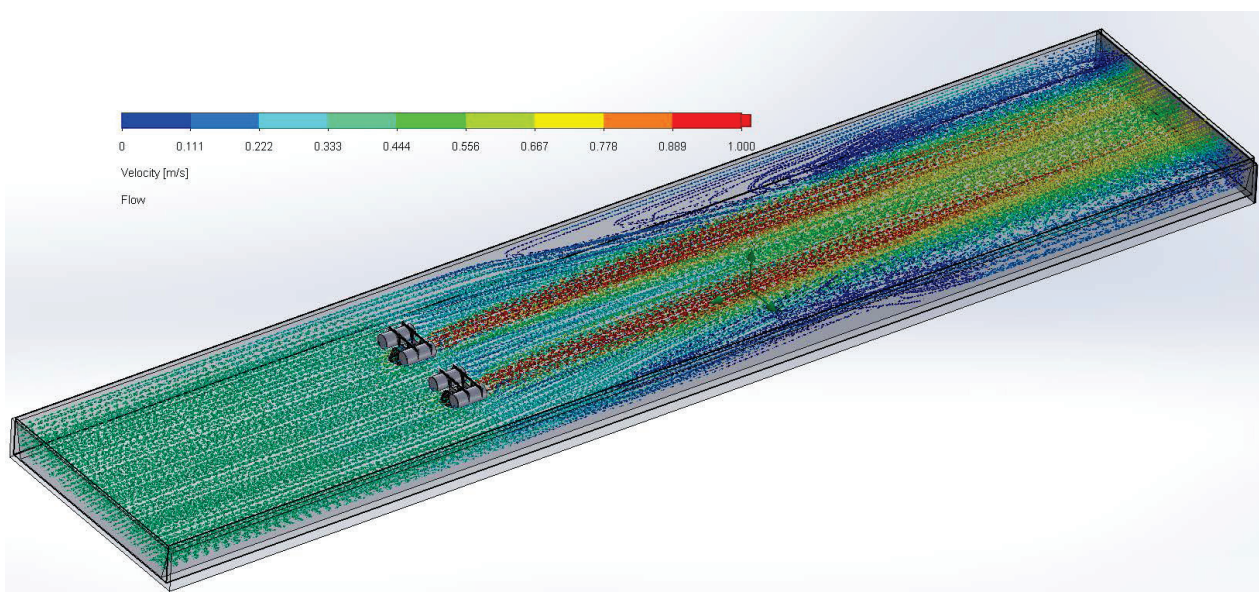
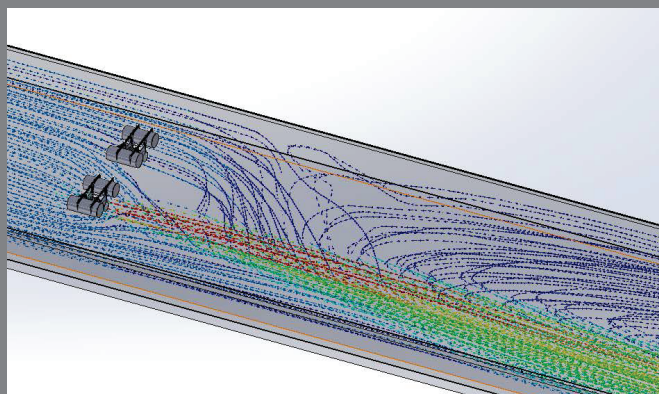
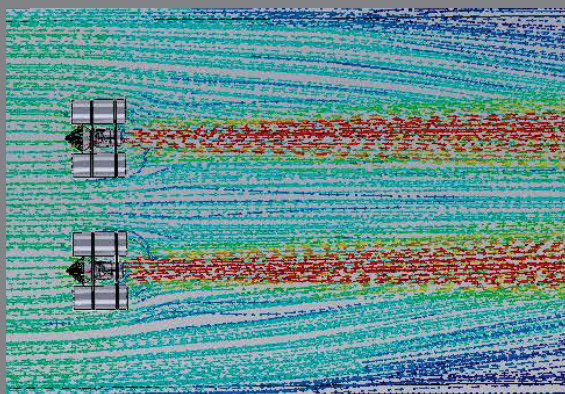
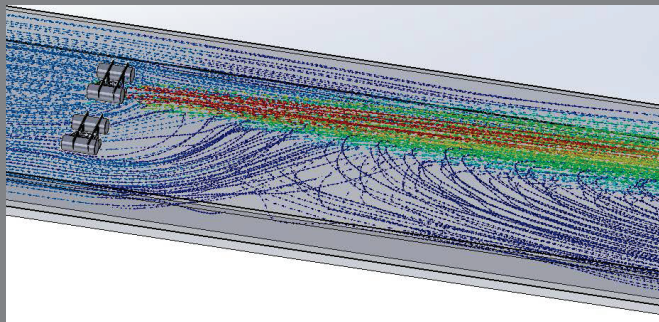
Moisture Detector in Stator Housing (Optional)

Detects levels of moisture

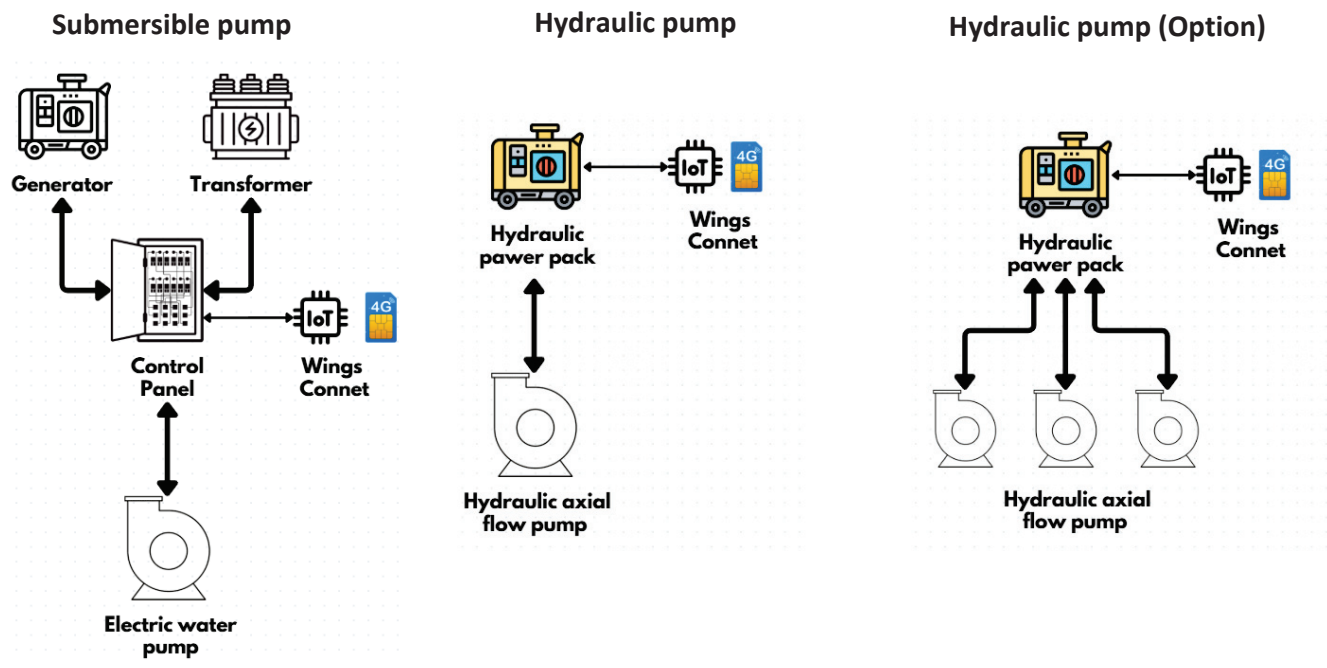


Designed and Engineered for Optimum Efficiency and Reliability with CFD

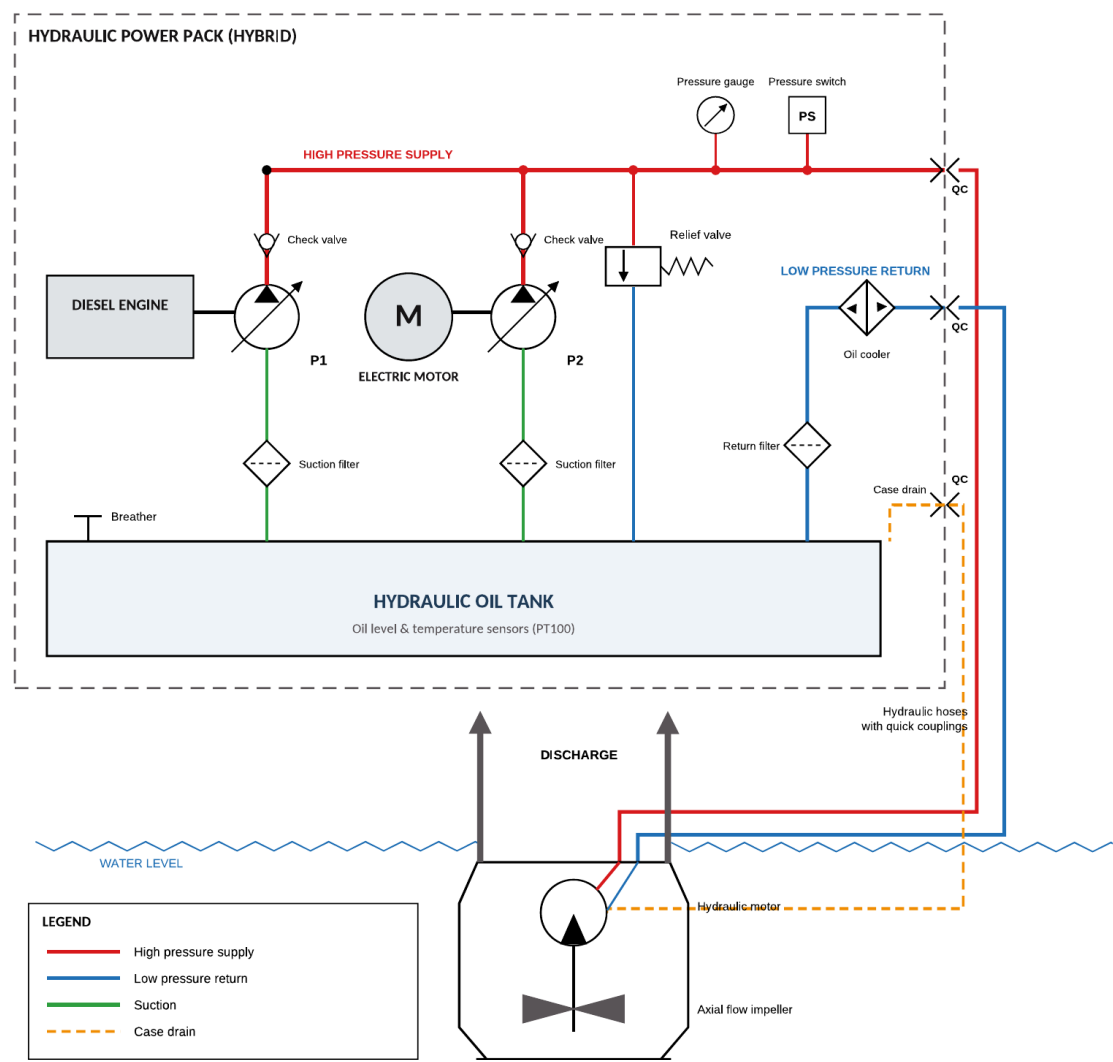
Wings is proud to be both designer, engineer and provider of water solutions. This is what gives us the ability to co-operate closely with the client and deliver results that fit their requirements, demands and needs. Besides engineering for our own projects, we can also offer design and engineering 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.



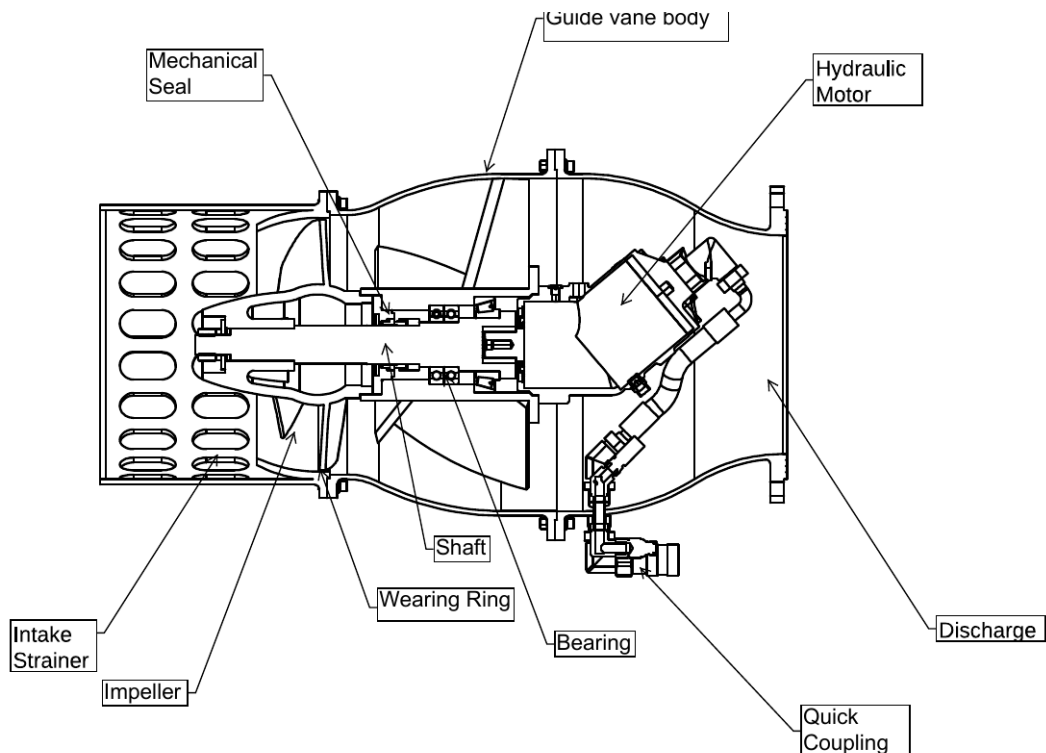
Compare



Hydraulic Diagram



Material



GENERAL INFORMATION FOR MATERIAL OF CONSTRUCTION

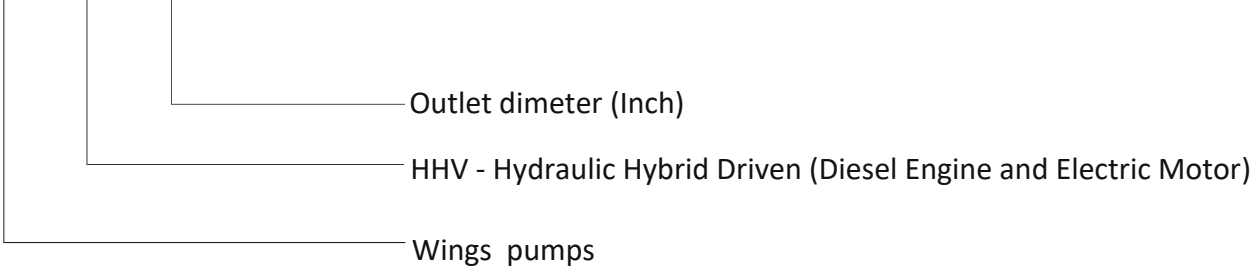
Part description	Material of Construction
Intake / Strainer	Stainless Steel / Alloy Steel / Cast Iron
Impeller	Cast Iron / Bronze / Cast Steel / Stainless Steel / Duplex SS
Guide vane body	Alloy Steel / Cast Iron / Ni. Cl. / Cast Steel / Stainless Steel / Duplex SS
Wearing Ring	Cast Iron / Bronze / Cast Steel / Stainless Steel / Duplex SS
Shaft	Carbon Steel / Stainless Steel / Duplex SS / Super Duplex SS
Bearing	Anti-friction bearing (angular contact ball / tapered roller), oil or grease lubricated
Mechanical Seal	Double mechanical seal - Silicon Carbide / Carbon / Tungsten Carbide
Hydraulic Motor	Cast Iron / Alloy Steel housing, totally enclosed with high-pressure seals
Discharge	Alloy Steel / Carbon Steel / Stainless Steel
Quick Coupling	Carbon Steel (zinc plated) / Stainless Steel

Material standards & grades

Material	JIS	US	DIN / EN	British
Cast Iron	FC250 FC300	ASTM A48, CL. 35 ASTM A48, CL. 40	1691 GG 25 1691 GG30	BS EN 1561-GJL 250 BS EN 1561-GJL 300
Bronze	-	ASTM B62, B145 Alloy4A	CuSn5ZnPb	BS EN 1982-CC491K
Alloy Steel (Weathering, Plate)	G 3125, SPA-H	ASTM A242	EN 10025-5 S355J0WP (1.8945)	BS EN 10025-5 S355J0WP
Carbon Steel (Plate)	G 3101, SS400	ASTM A36	EN 10025-2 S235JR (1.0038)	BS EN 10025-2 S235JR
Stainless Steel (Plate)	G 4304, SUS304 G 4304, SUS316 G 4304, SUS316L	ASTM A276 Type 304 ASTM A276 Type 316 ASTM A276 Type 316L	1.4301 (X5CrNi18 10) 1.4401 (X5CrNiMo17122) 1.4404 (X2CrNiMo17122)	304 S15 316 S31 316 S11
Stainless Steel (Castings)	G 5121, SCS13 G 5121, SCS14	ASTM A351, Gr. CF8 ASTM A351, Gr. CF8M	1.4308 1.4408	EN 10213-4 1.4308 EN 10213-4 1.4408
Stainless Steel (Shaft)	SUS 420J2	ASTM A276, Type 420 ASTM A276, Type 431	1.4028 (X30Cr13) 1.4057 (X20CrNi17)	420 S45
Duplex Stainless Steel	-	ASTM UNS S32205	1.4462	-

Product Model Instruction

WG - HHV - 30

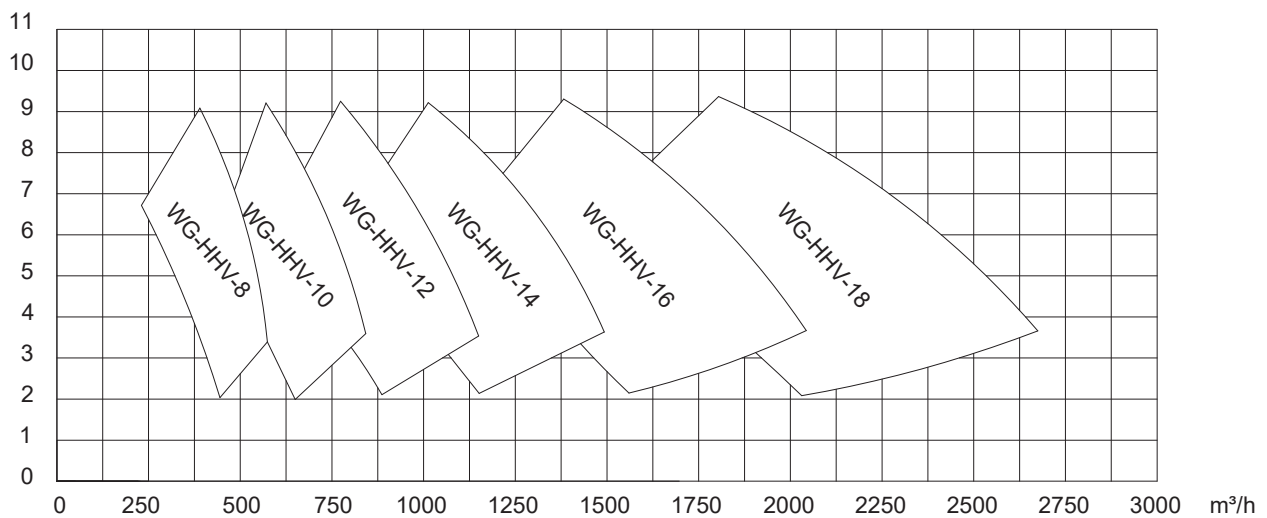
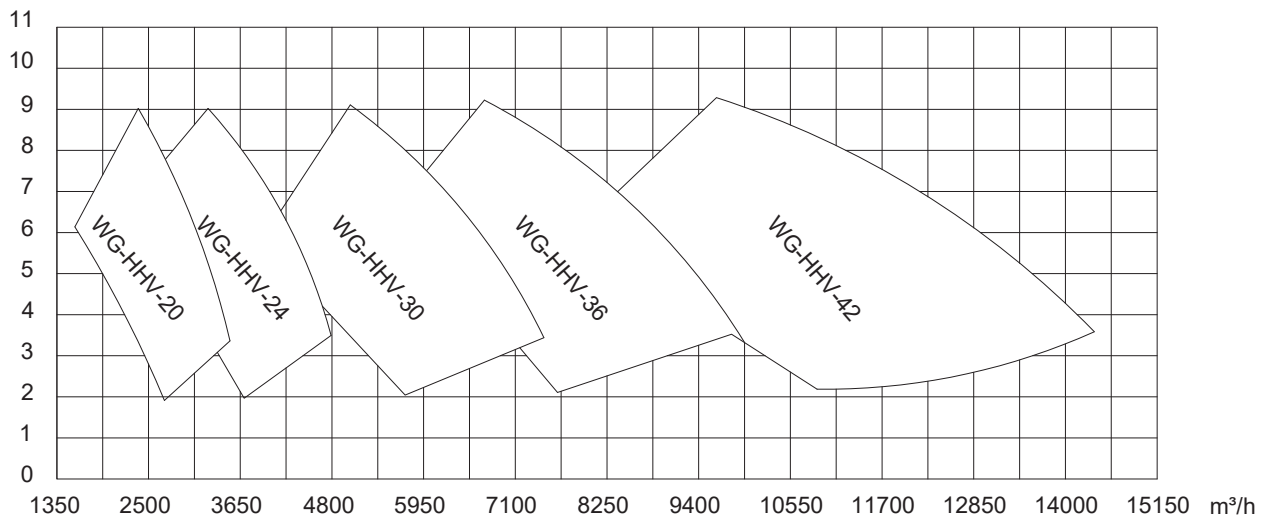
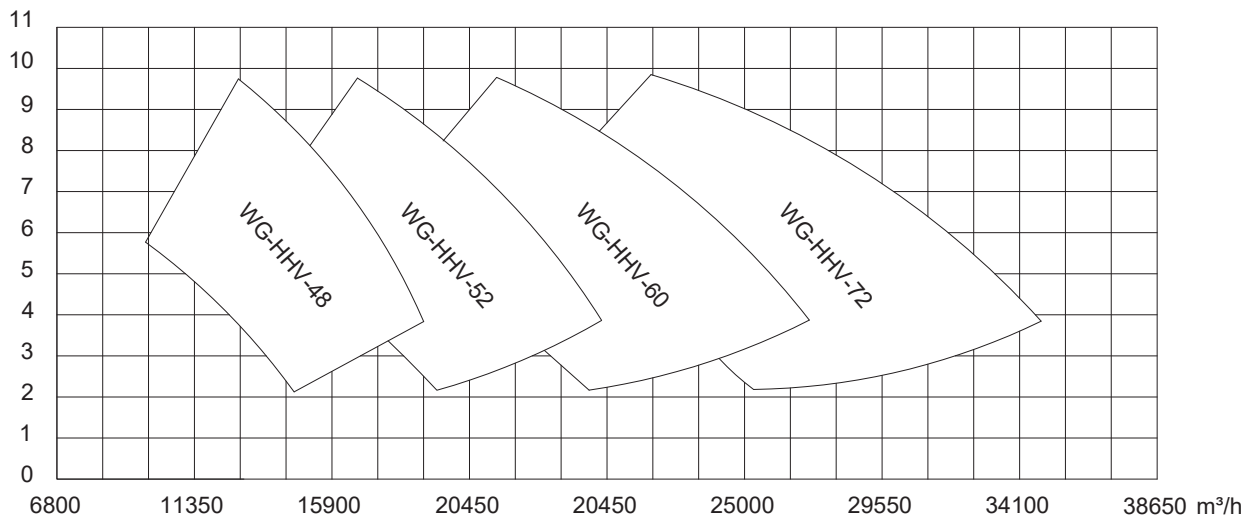


Overview information

Model	Max flow rate (m³/h)	Max Head (m)	Outlet dia. (inch)	Weight (kg)	Shaft power (HP)	Pressure (bar)	Hydraulic flow (lpm)	Dimension (mm)
WG-HHV-16	2160	5	16	400	210	280-330	180-240	700x700x1230
WG-HHV-24	3600	5	24	430-450	260	280-330	220-260	720x720x1230
WG-HHV-30	7200	5	30	900-1100	360	280-330	280-320	850x850x1450
WG-HHV-42	12600	6	42	1400-1600	500	330-350	300-370	1200x1200x1550

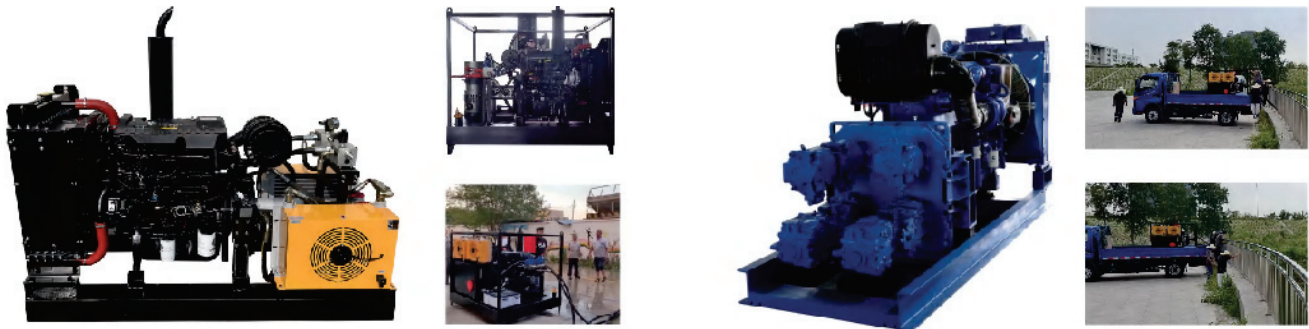


Overview range



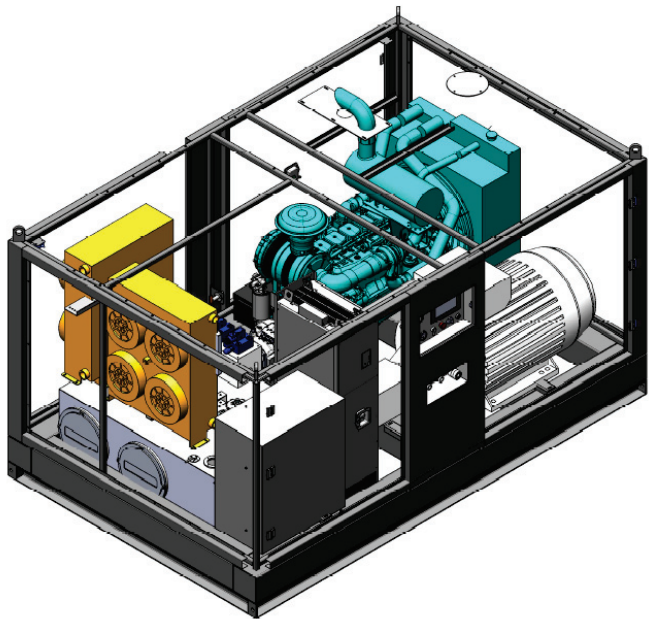
Portable Hydraulic Power Unit

WG-HYHP mobile hydraulic power unit provides a convenient and reliable power source for various hydraulic tools, it has the characteristics of high work efficiency, small size, light weight and strong power.



Skid Power Unit Overview information

Model	Flow rate (LPM)	Pressure (bar)	Weight (kg)	Engine	Fuel tank (liter)	Hydraulic tank (liter)	Dimension (mm)
WG-HYHP-180	540-680	160-200	2300	Diesel(Cummins,Deutz)	350	350	2200x1570x1550
WG-HYHP-310	540-680	160-200	2500	Diesel(Cummins,Deutz)	380	400	2880x1050x1550
WG-HYHP-550	680-1060	200-300	2900	Diesel(Cummins,Deutz)	480	580	3000x1100x1650
WG-HYHP-600	760-1120	200-300	3800	Diesel(Cummins,Deutz)	650	680	3050x1100x1600



INSTALLATION TYPES

Structure Installation for Hydraulic axial pump at pontoon

Structure Hydraulic axial pump



Hydraulic Power pack



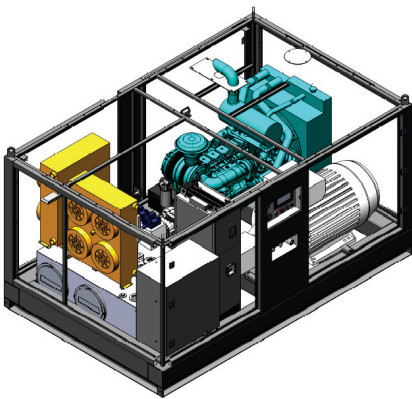
Drive with Diesel Engine



Drive with electric motor



Drive with Hybrid





wings
P U M P S

CERTIFIED
ISO 9001
ISO 14001
ISO 45001
ISO 50001



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