

# PRODUCTION PROGRAMME OVERVIEW





# OUR DEVELOPMENT HISTORY

Established in 1995, SHANGHAI KAIQUAN PUMP (GROUP) is currently a major pump manufacturer with its total assets worth RMB 4.5 billion. Its activities cover engineering, production, sales and maintenance service of pumps for water supply, wastewater disposal and other sectors.

The company owns 7 production plants in 5 industrial zones in the provinces and cities of Shanghai, Zhejiang, Hefei, Shijiazhuang and Shenyang.

It has 7,000+ employees, including 1,200 engineers, who are mainly reputable specialists and professors, holders of doctor's and master's degrees and lead engineers, forming a strong professional team with innovative thinking capabilities.





SHANGHAI KAIQUAN PUMP (GROUP) has won many national awards such as China's Contract Abiding and Trustworthy Enterprise, National Leading-Edge Social Security and Employment Private Enterprise, China's Innovative Science and Technology Enterprise, China's Top 100 Mechanical Engineering Companies, China's Top 10 Power Engineering Companies, National Advanced Mechanical Engineering Team, Shanghai's High-Tech Enterprise, Shanghai Quality Golden Award, Shanghai's Top 100 Science and Technology Enterprises, etc.

Aspiring to add value to our customers, we use advanced ERP and CRM systems to control the end-to-end order process. The company has 7 divisions, 23 branches and more than 600 offices, with the service network across the country. We are also implementing the Blue Marine service and a quick response principle to keep up with the needs of our customers at all times and to meet the industry standards in terms of product reliability and top quality.

Looking ahead, the Group will continue to drive the growth of the pump industry both in China and in other countries as part of its development strategy. We will persistently enhance the hydraulic research and our leadership in pumps and integrated systems by using innovative technology to create highly efficient production. Thus, we will reduce the cost of water use and help improve the energy efficiency of the industry. We will make every effort to build a strong brand and rank among the top 10 of the global pump industry.

## OUR RUSSIAN OFFICE

**Our official representative office in the Russian Federation is KQ LLC. Since November 2022 it has been successfully promoting the pump brand on the Russian market.**

KQ LLC is a team of professional engineers whose combined effort successfully promotes the pump brand in the Russian market thus securing the brightest future and prosperity for our company.

The company plans to expand its dealer and service network in Moscow and other Russian regions, to offer the best prices and short delivery times and to engage in large-scale marketing and PR activities.



# WQ (11–22 kW)

## Submersible sewage pumps

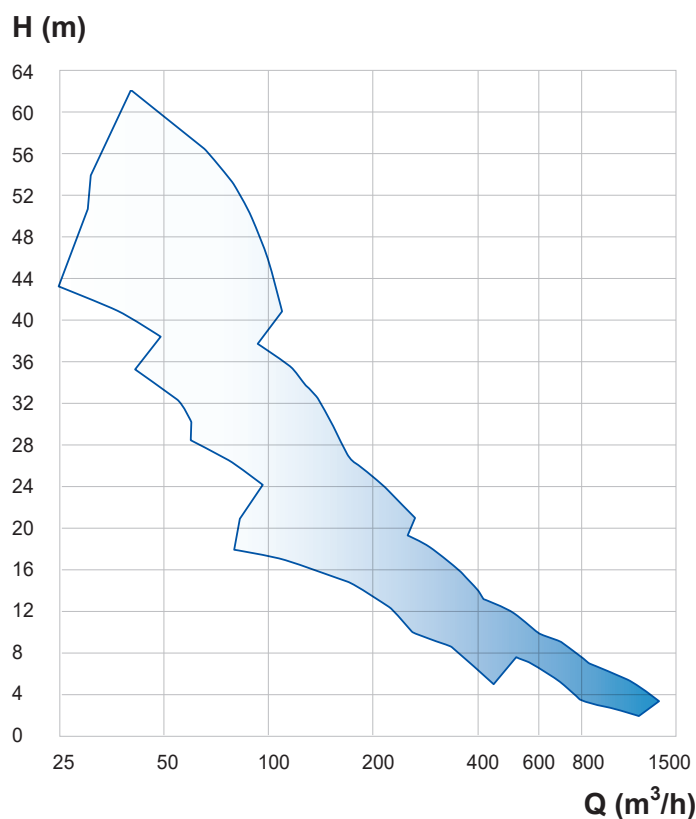
Energy efficient and reliable pumps with innovative hydraulic design

### Benefits:

- high efficiency
- electric motor with overload protection
- impeller with increased solids handling capability
- leakage and bearing temperature sensors
- self-cleaning mechanical seal
- unique short-shaft design
- SKF bearings and EagleBurgmann mechanical seals
- custom-tailored material selection and sensor list



### Performance curve



### Specifications

Flow rate	25–1,300 m³/h
Head	4–62 m
Pumped liquid temperature	up to 40 °C
Impeller and casing	QT500 (B4-50)
Pump housing	HT250 (C4-25)
Pump shaft	Cr13/3Cr13
Motor insulation class	H (up to 180 °C)
Temperature sensors	1. Overheating protection element embedded in the motor winding 2. Bearing temperature PT100 on request
Leakage protection	1. Oil chamber leakage sensor 2. Leakage sensor in the motor cavity

\* The pump motor has a larger diameter rotor to improve heat exchange with the environment. The motor can be provided with a cooling jacket (option).

### Applications



Sewage and drainage pumping stations



Wastewater treatment



Water intake



Irrigation



# WQ (30 kW and higher)

## Submersible sewage pumps

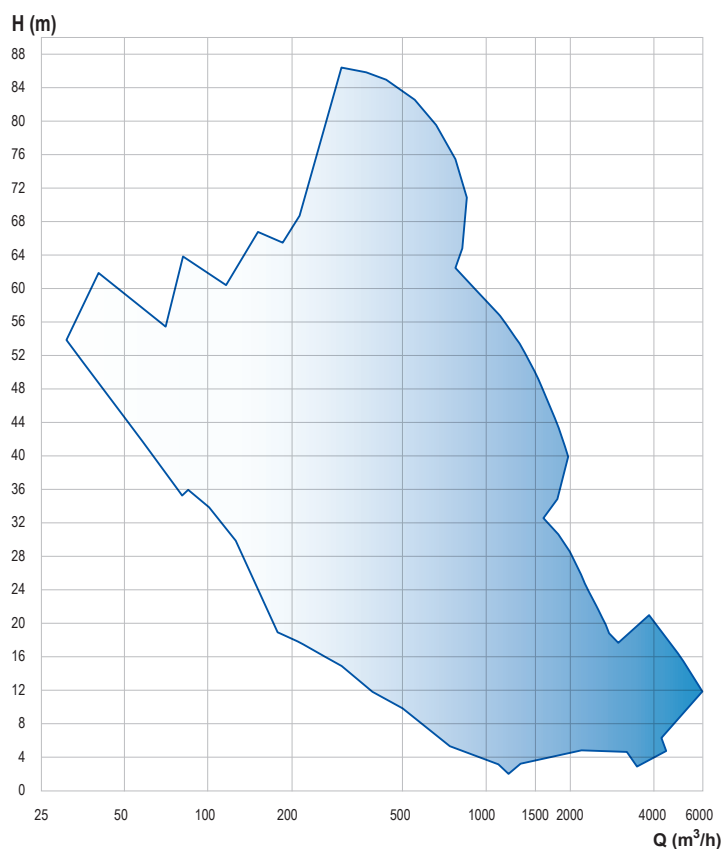
Energy efficient and reliable pumps with innovative hydraulic design

### Benefits:

- high efficiency
- electric motor with overload protection
- impeller with increased solids handling capability
- leakage and bearing temperature sensors
- self-cleaning mechanical seal
- unique short-shaft design
- SKF bearings and EagleBurgmann mechanical seals
- cooling jacket and HV motor as an option
- integrated sensors for remote monitoring



### Performance curve



### Specifications

Flow rate	25–12,500 m³/h
Head	4–46–62 m
Pumped liquid temperature	up to 40 °C
Impeller and casing	QT500 (B4-50)
Pump housing	HT250 (C4-25)
Pump shaft	Cr13/3Cr13
Motor insulation class	H (up to 180 °C)
Temperature sensors	1. PT100 embedded in motor windings 2. Bearing temperature PT100
Leakage protection	1. Oil chamber leakage sensor 2. Leakage sensor in the motor cavity 3. Leakage sensor in the terminal box
Vibration sensor	Available

\* The pump motor has a larger diameter rotor to improve heat exchange with the environment. The motor can be provided with a cooling jacket (option).

### Applications



Sewage and drainage pumping stations



Wastewater treatment



Water intake



Irrigation



# WQE / WQEC

## Submersible sewage pumps

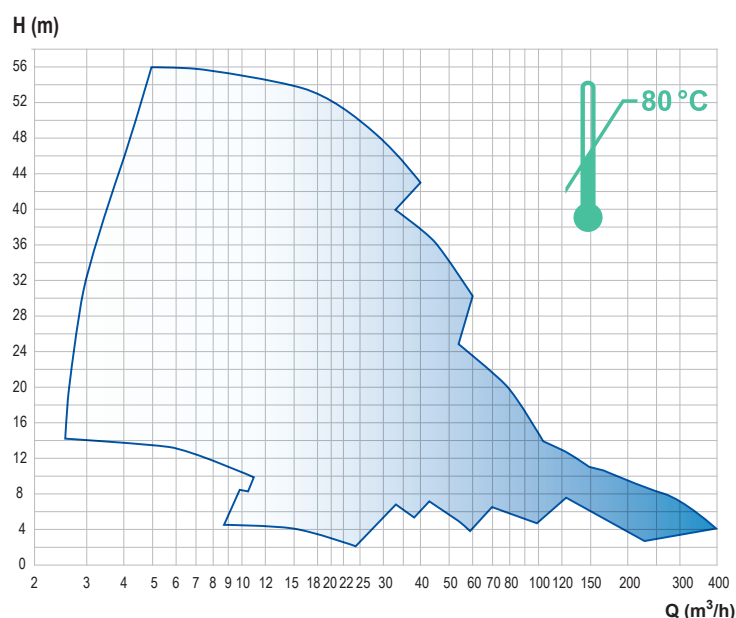
Up to 7.5 kW WQE / WQEC compact submersible sewage pumps

### Benefits:

- customised clog-proof liquid end
- channel-type impeller featuring improved solids handling and resistant to material wrapping around the impeller
- unique combination of mechanical seal and bearing
- overheat-protected electric motor with a leakage sensor (for WQEC model)
- easy to disassemble and service since the pump and motor are combined in a single casing
- high-temperature version to pump liquids up to 80 °C as an option
- integrated sludge agitator



### Performance curve



### Specifications

Flow rate	5–380 m³/h
Head	6–54 m
Pumped liquid temperature	up to 40 °C (up to 80 °C on request)
Pump housing	HT200
Impeller	HT200
Motor ingress protection	IP68
Pump shaft material	2Cr13
Bearing	SKF
Shaft mechanical seal	EagleBurgmann

### Applications



Public utilities



Civil engineering



Wastewater  
treatment  
systems



Municipal  
drainage  
systems



# WQS / WQES

## Submersible sewage pumps with a shredder

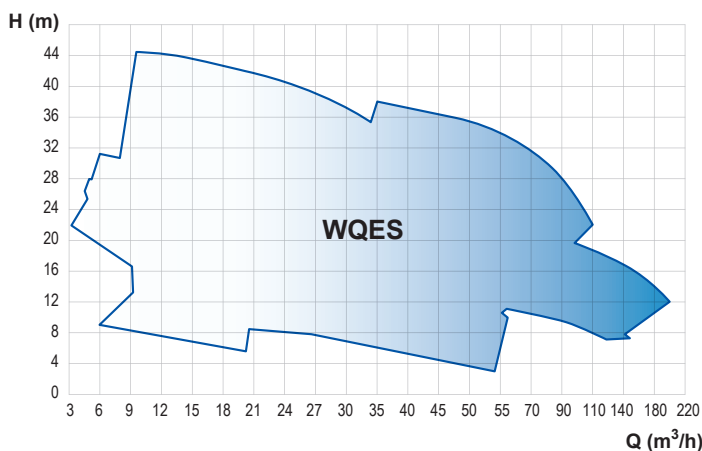
High-performance pumps with a stand-alone shredder module capable of efficient shredding of long-fibre materials

### Benefits:

- leak-proof cable glands and triple cable seal
- leak-proof motor
- shaft mechanical seal
- SKF bearings (service life: up to 100,000 hours) and EagleBurgmann seals
- easy to install and service



### Performance curve



### Specifications

Flow rate	3–300 m³/h
Head	up to 45 m
Pumped liquid temperature	up to 40 °C
Impeller and casing	HT200
Pump housing	HT200
Pump shaft	2Cr13
Motor insulation class	H (up to 180 °C)

\* The pump motor has a larger diameter rotor to improve heat exchange with the environment.

### Shredders



### Applications



Wastewater treatment



Municipal wastewater disposal



Rainwater containing solids and fibres



# WL / WLD

## Vertical sewage pumps

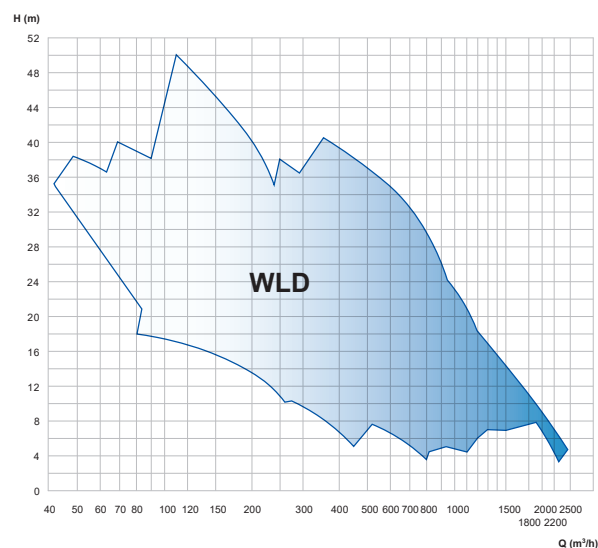
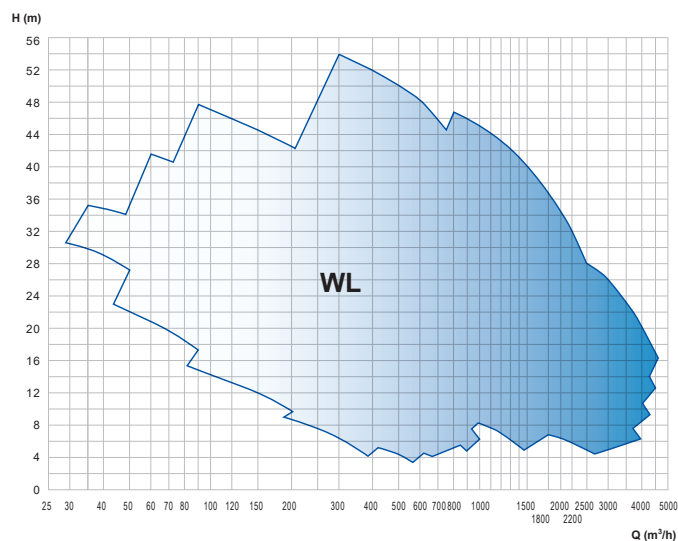
WL / WLD pumps  
11 kW and higher

### Benefits:

- unique impeller with increased solids handling capability and high efficiency
- IE3/IE4 electric motors
- IP55 motors
- SKF bearings (service life: up to 100,000 hours) and EagleBurgmann seals
- extensive capacity range
- reliable design and easy operation



### Performance curve



### Specifications

**Flow rate:** 40–2,300\* m<sup>3</sup>/h  
**Head:** up to 50 m  
**Pumped liquid temperature:** up to 80 °C  
**Pump housing:** HT250  
**Impeller:** ductile iron

**Pump shaft material:** 2Cr13/3Cr13  
**Bearing:** SKF  
**Shaft mechanical seal:** EagleBurgmann  
**Enclosure class:** IP55  
**Pump coating:** electrophoretic

### Applications



Water  
intake



Wastewater  
treatment plants



Sewage pumping  
stations



Public buildings



High-rise  
buildings

# KQDP / KQDQ

## Water supply and booster pumps

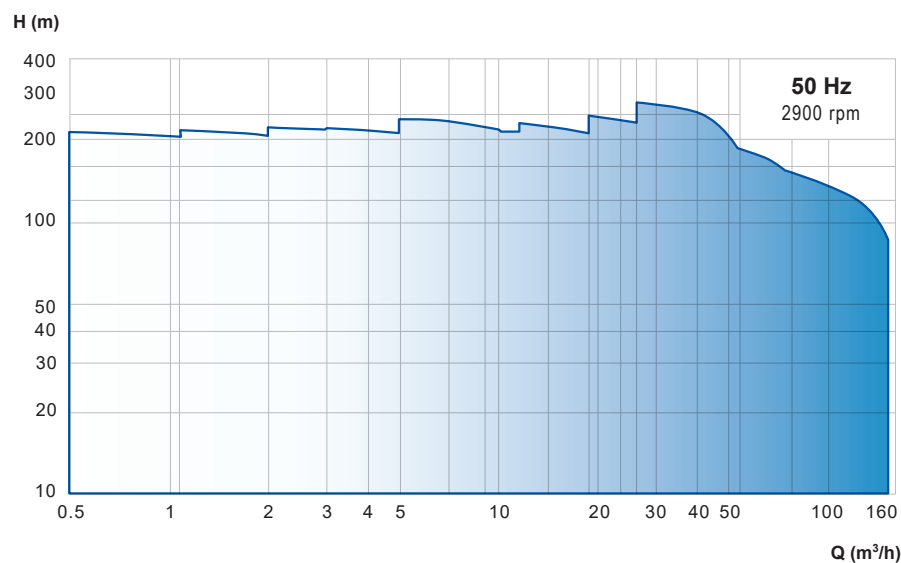
KQDP / KQDQ vertical multistage centrifugal pumps, third generation product line

### Benefits:

- high efficiency (up to 84%) and  $MEI \geq 0.7$
- wide performance range
- wide selection of custom-tailored designs
- compact and robust design
- high-precision manufacturing with a focus on quality
- motor IE class: IE3/IE4



### Performance curve



### Specifications

Flow rate (m³/h)	0.5–250*
Head (m)	5–285
Pumped liquid temperature	20–120 °C
Bearings	SKF/NSK
Mechanical seal	cartridge type
Motor IE class	IE3/IE4
Impellers	SS304
Diffuser	SS304
Pump housing	<b>KQDP</b> – cast iron <b>KQDQ</b> – SS304
Motor support	cast iron
Baseplate	cast iron

\* Capacities above 108 m³/h are available on request.

### Applications



Water utilities



Pumping  
of liquids



Pressure  
boosting



HVAC systems



Heating



# KQL / KQW

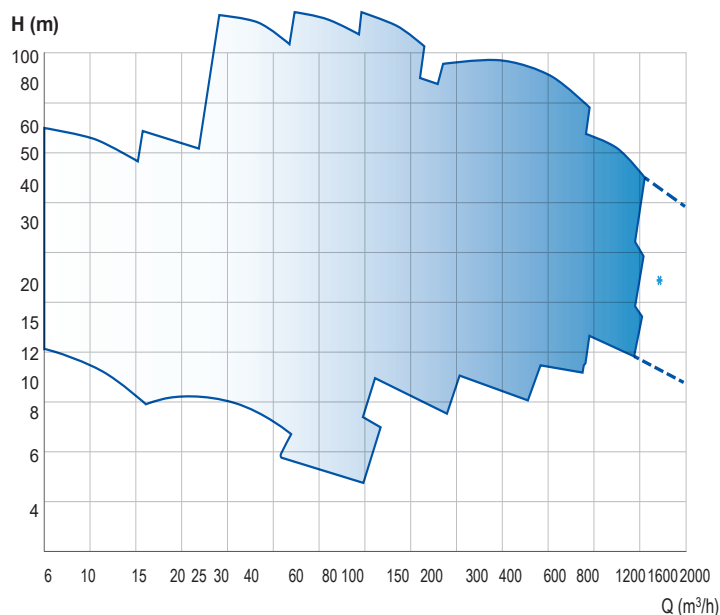
## Water supply and booster pumps

KQL / KQW vertical and horizontal directly coupled single-stage pumps

### Benefits:

- excellent energy efficiency due to high hydraulic efficiency
- motor IE class: IE3/IE4
- motor ingress protection class: IP55
- wide performance range and high quality due to sandblasted cast casing and electrophoretic surface coating
- long-life mechanical seal and bearing and low vibration

### Performance curve



\* Models with capacities above 1,320 m³/h are available on request.

### Specifications

Flow rate	1.8–2,000* m³/h
Head	up to 127 m
Pumped liquid temperature	–10 to 120 °C
Pump housing	cast iron
Impeller	cast iron (SS304 available on request)
Pump shaft material	Grade 45 steel
Sleeve material	SS304
Bearing	SKF (NSK for < 4 kW models)
Shaft mechanical seal, baseplate	shaft diameter < 35 mm: Kaiquan
	shaft diameter > 45 mm: EagleBurgmann
Motor	IE3 or IE4 class
Ingress protection	IP55
Pump coating	electrophoretic



### Applications



Water utilities



Pumping  
of liquids



Pressure  
boosting



HVAC systems



Heating

# KQWS

## Water supply and booster pumps

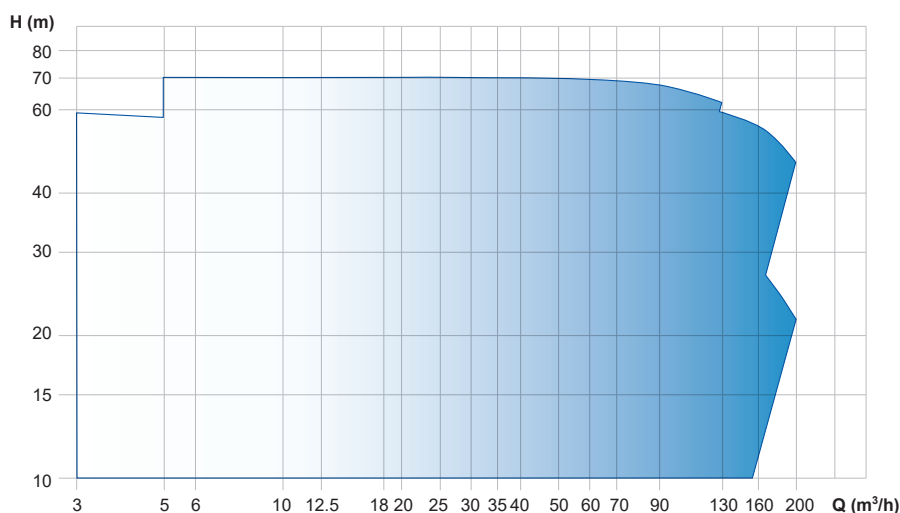
Directly coupled overhung pumps made of pressed AISI 304 stainless steel

### Benefits:

- compact design
- reduced vibration due to impeller directly coupled to the motor shaft
- motor shaft made of AISI 304 stainless steel
- optimised hydraulic performance
- optimal balance between the price and life-cycle cost
- low NPSH



### Performance curve



### Specifications

Flow rate	up to 180 m³/h
Head	up to 280 m
Pumped liquid temperature	up to 100 °C
Power	up to 22 MW
Shaft sealing	EagleBurgmann
Maximum efficiency	70%

### Applications



Water utilities



Pumping of liquids



Pressure boosting



HVAC systems



Heating



# KQSN, KQSNL, SGG

## Water supply and booster pumps

Double-suction pumps

### Benefits:

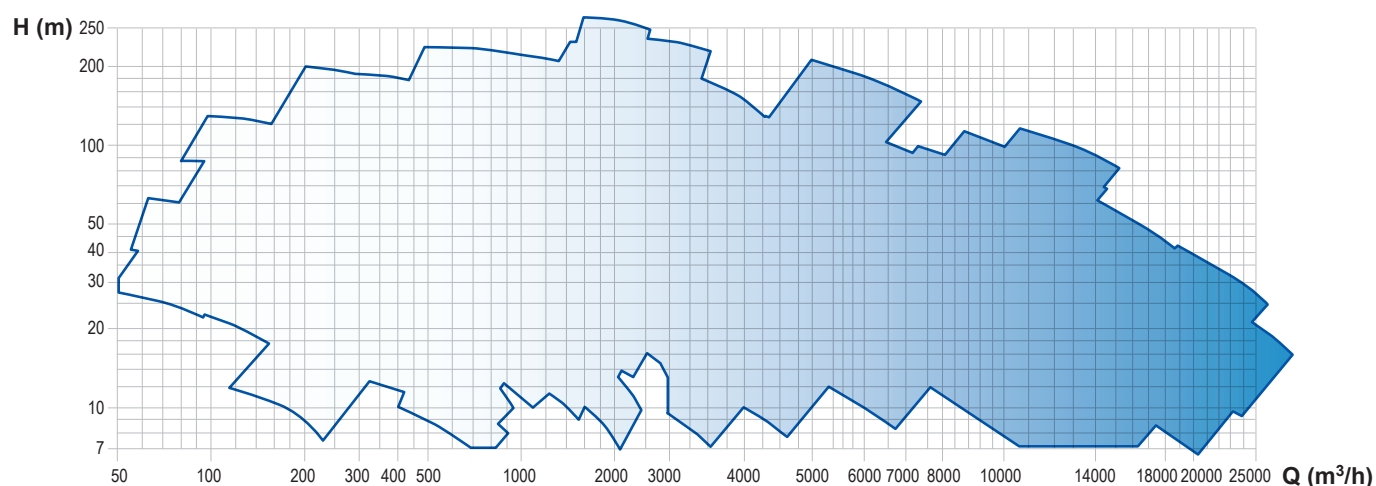
- in-line design (enabling pump maintenance without disconnecting from the pipeline)
- double volute and double-suction impeller reduce radial and axial shaft loads
- optimised hydraulic performance
- low NPSH and high efficiency
- robust design
- low life-cycle cost
- horizontal and vertical mounting
- bearings with extended life
- custom-tailored material selection



### Specifications

Flow rate	up to 31,000 m <sup>3</sup> /h
Head	up to 280 m
Pumped liquid temperature	up to 150 °C
Bearing	SKF/FAG
Power	up to 9 MW
HV version	yes
Maximum efficiency	92%

### Performance curve



### Applications



Irrigation



Water  
intake



Water supply



Pressure  
boosting



Water  
recycling

# KQHS, KQDS

## Water supply and booster pumps

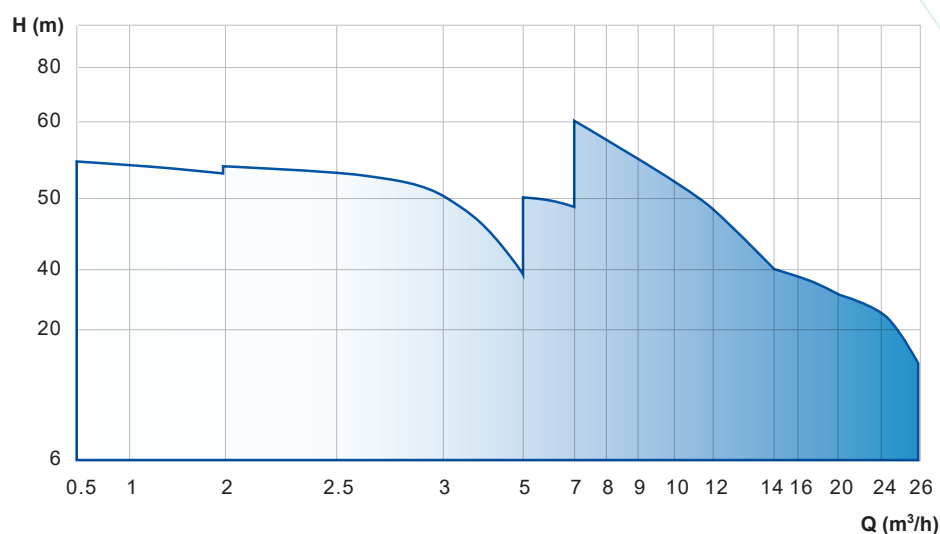
Horizontal multistage pumps  
with AISI 304 stainless steel liquid end

### Benefits:

- compact design
- high reliability
- easy maintenance
- wide performance range
- low noise
- custom-tailored design



### Performance curve



### Specifications

Flow rate	up to 26 m³/h
Head	up to 60 m
Pumped liquid temperature	up to 110 °C
Motor	IE3
Maximum efficiency	65%

### Applications



Water treatment  
systems



Water wells



Pressure  
boosting



HVAC  
systems



# SGL, SGW

## Water supply and booster pumps

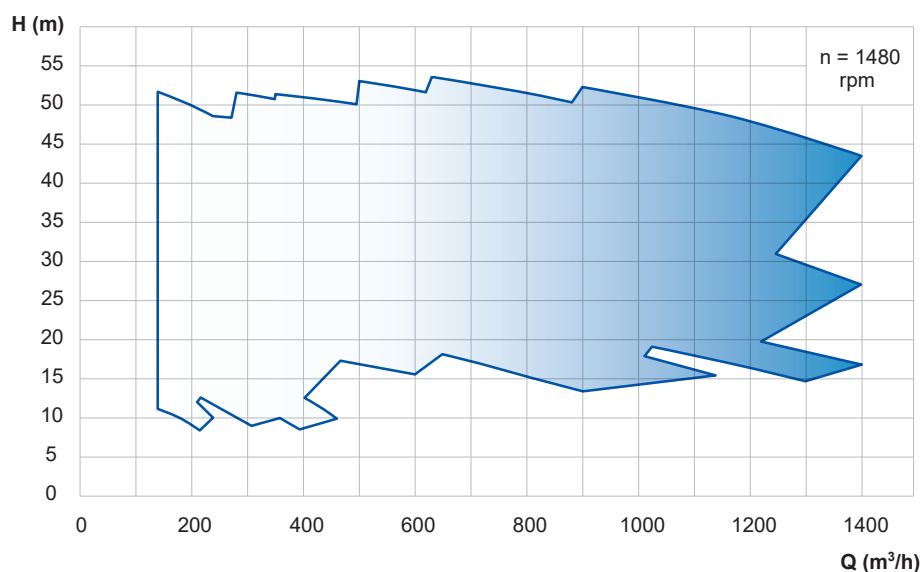
New-generation SGL / SGW vertical and horizontal directly coupled single-stage pumps

### Benefits:

- optimised hydraulic performance
- motor IE class: IE3/IE4
- low NPSH
- robust design
- low life-cycle cost
- bearings with extended life
- custom-tailored design



### Performance curve



### Specifications

Flow rate	up to 1,400 m³/h
Head	up to 53 m
Pumped liquid temperature	up to 120 °C
Bearing	SKF
Power	up to 200 kW
Maximum efficiency	88%

### Applications



Irrigation



Water intake



Water supply



Pressure boosting



Water recycling



Heating

# KQH, KQWH

## Water supply and booster pumps

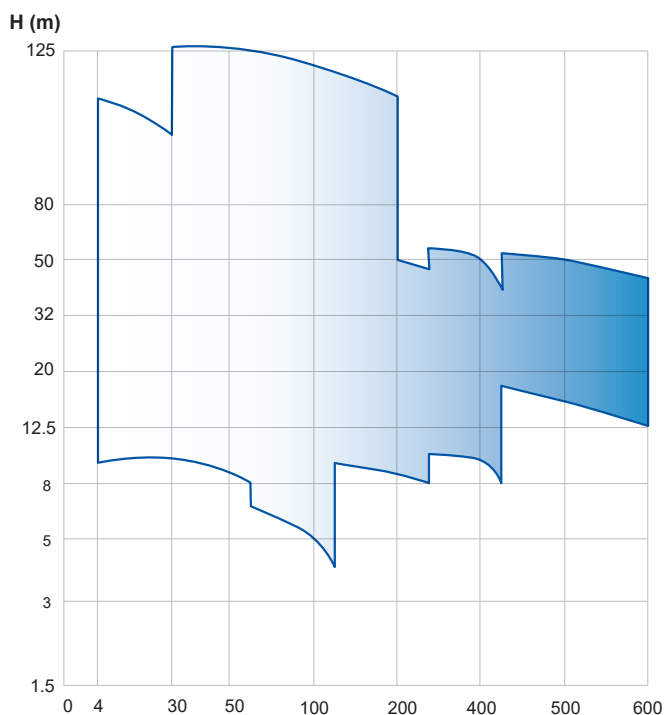
Vertical and horizontal directly coupled single-stage pumps

### Benefits:

- excellent energy efficiency due to high hydraulic efficiency and IE3 and IE4 class motor
- ingress protection: IP55
- wide performance range and high quality due to sandblasted cast casing and electrophoretic surface coating
- long-life mechanical seal and bearing and low vibration



### Performance curve



\* Models with capacities of above 1,320 m³/h are available on request.

### Specifications

Flow rate	1.8–2,000* m³/h
Head	up to 127 m
Pumped liquid temperature	–10 to 120 °C
Pump housing	cast iron
Impeller	cast iron (SS304 available on request)
Pump shaft material	Grade 45 steel
Sleeve material	SS304
Bearing	SKF (NSK for < 4 kW models)
Shaft mechanical seal, baseplate	shaft diameter < 35 mm: Kaiquan
	shaft diameter > 45 mm: EagleBurgmann
Motor	IE3 or IE4 class
Ingress protection	IP55
Pump coating	electrophoretic

### Applications



Water utilities



Pressure boosting



HVAC  
systems



Heating





Empower water  
Empower future

**Office in Russia**

KQ LLC: 123592, Moscow, Kulakova str. 20, bldg. 1,  
Orbita Technopark, Building Alpha  
Phone: 8 800 333 66 66

**Headquarters of SHANGHAI KAIQUAN PUMP (GROUP) in China**  
4255/4287 CAO'AN ROAD, JIADING DISTRICT, SHANGHAI



[www.kq.com.ru](http://www.kq.com.ru)



[kaiquan.com.cn](http://kaiquan.com.cn)