

## SATURN<sub>SUMP</sub>

KGS

VERTICAL SUMP PUMPS

ENTIRELY MADE OF FIBERGLASS

FOR SEAWATER AND CORROSIVE FLUIDS

EUROPEAN FIRST

50 Hz



SINCE 1975

EN

Highly resistant to chemicals and corrosive agents, this special pump was designed to run into waste and contaminated water treatments as well as into the heaviest applications.

The entire construction, made of Fiberglass, offers a very high resistance, great robustness and a large range of ambient temperatures from -35°C to 40°C, and working temperatures up to 100°C without damaging the mechanical strength of the casing. The length of the submersible column varies from 0,5 m to 5 m (more length available on request).

## CHEMICAL RESISTANCE AND MECHANICAL STRENGTH

Argal offers various formulations of resins to cover a broad range of corrosive chemicals and moderately abrasive liquids.

These **SATURNSUMP** are a valuable alternative to metal pumps as they are a perfect combination of chemical resistance, mechanical strength, especially if operating in seawater applications (water and wastewater treatments, purification, desalination) or aquarium, marine parks, industrial processes using corrosive liquids, and even in scrubbers for gas effluents as well as other environmental processes.

## EXAMPLES OF APPLICATION

SECTORS	APPLICATIONS
Aquariums/Zoos	Saltwater
Chemical Process	Acids Chemical waste Waste Water
Desalination	Filtration Seawater Intake Chemical Transfer Concentrated Brine
Electric Utilities	Coal pile run-off
Electronics	Acids Chemical waste
Metal Finishing	Chromic acids Pickling acids Plating solutions
Petrochemical	Acids Chemical waste
Pharmaceutical	Organic Solvents
Pulp and Paper	Bleach
Mining	Abrasives and Corrosives
Scrubbers/Odor Control	Acids and Caustics



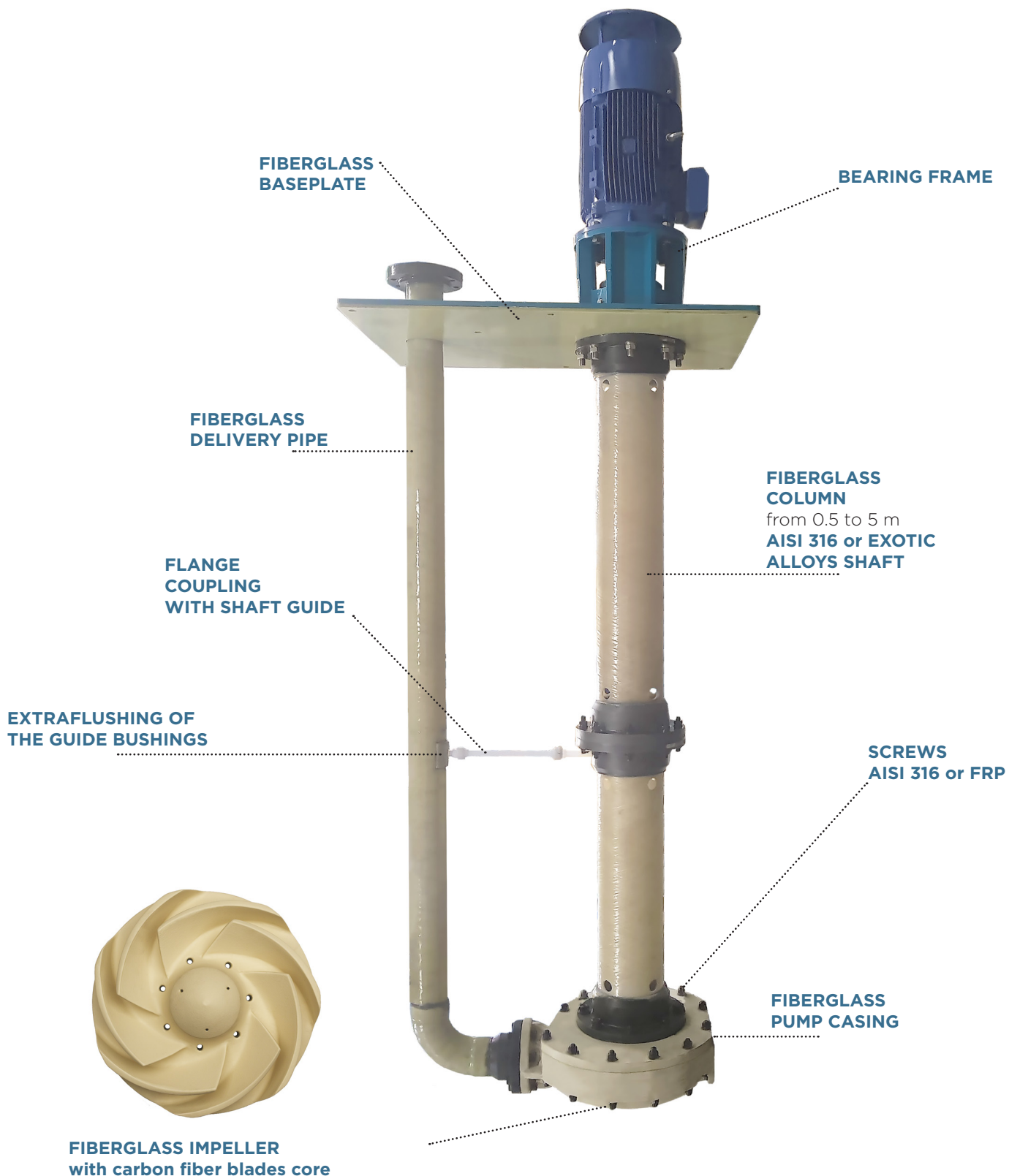
**KGS 6x4x13**  
made of V1G resin for general use

## TEMPERATURES

AMBIENT TEMPERATURE		Underplate length(m)
		0,5 - 5 (19.7 - 196.8 inches)
version	material	Max. ambient temperature (°C)
V1G	std vinyl ester resin	-10 - +40 (+14°F - +104°F)

WORKING TEMPERATURE		Underplate length (m)
		0,5 - 5 (19.7 - 196.8 inches)
version	material	Max. working temperature (°C)
V1G	std vinyl ester resin	80 (176°F)

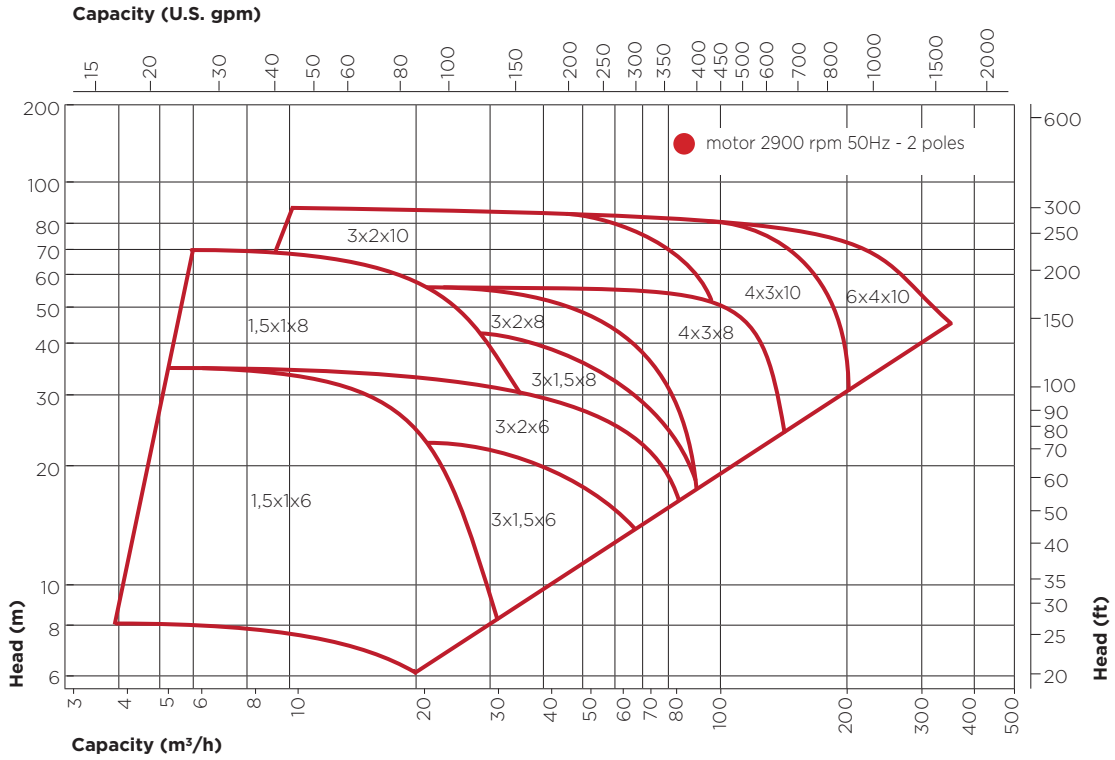
**KGS** pumps are centrifugal, vertical, with driven self-supporting pump shaft, single-stage with the volute casing and column directly submerged in the liquid to be pumped, coupled to a non-synchronous electric motor via a flexible coupling, with hydraulic connections to the axial inlet facing the bottom of the pump and radial outlet connected to a vertical piping system. The vertical piping ends with hydraulic connections to the system turned upwards on the base plate. The shaft guide bushings must be constantly kept wet with the liquid being pumped or with a clean liquid external flushed.



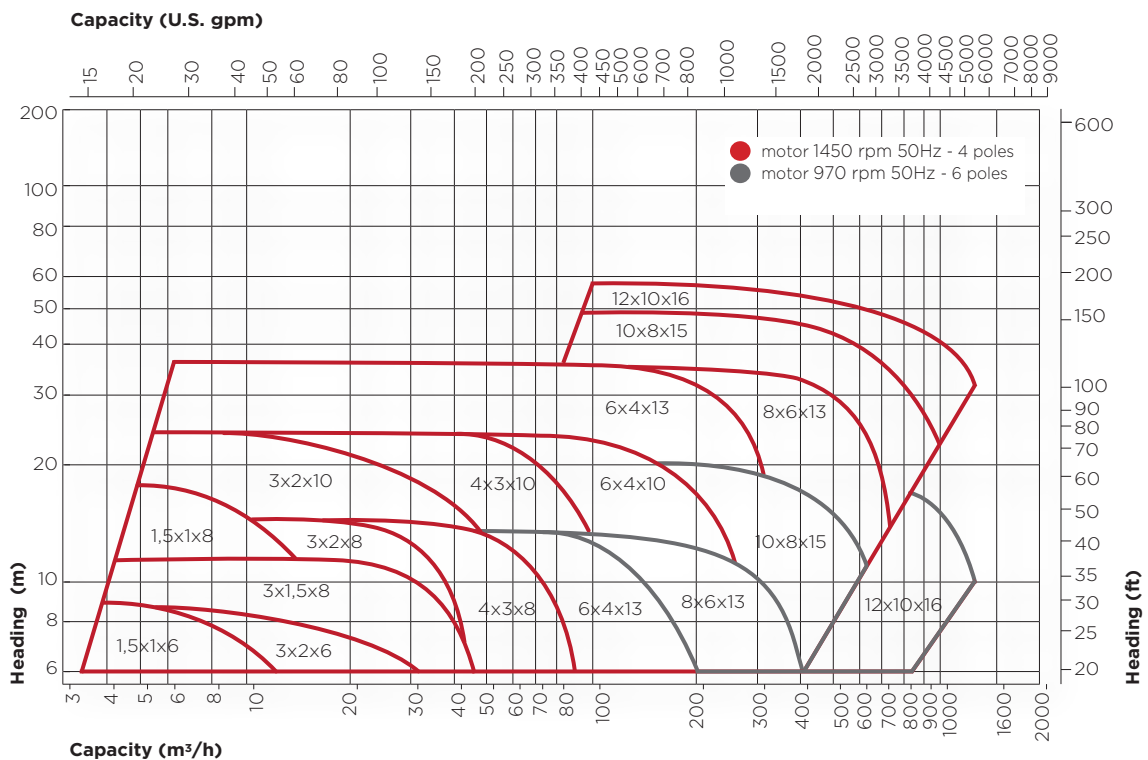
## CONSTRUCTION & CURVES

### 50 Hz

#### 2900 rpm



#### 1450 - 970 rpm



## FOR THE IDEAL SOLUTION

### 5 VERSIONS OF CONSTRUCTION

**VIG:** for the major part of corrosive agents containing acids, alkalis, detergents, sea water, brine, etc.

**VIA:** for liquids with a low concentration of abrasion: fossil shell flour, ashes, titanium dioxide.

**VIC:** Perfect for resisting to bleach corrosive liquids such as sodium hypochlorite (NaOCl) or hydroxide peroxide (H<sub>2</sub>O<sub>2</sub>);

**VIF:** a specific solution made up with a synthetic veil to ensure resistance to fluoride acid (HF) and other liquids with fluorine.

**VIX:** a specific solution to operate into ATEX areas with conductive resin liner.

FIBERGLASS RESIN	APPLICATIONS
VIG standard vinyl ester resin compound	General purpose
VIA vinyl ester resin compound	Abrasive liquids
VIC vinyl ester resin compound	Bleaches applications
VIF vinyl ester resin compound	Fluoridric applications
VIX vinyl ester with conductive resin liner	For Atex areas

### VAPOUR SEALS

**SATURN SUMP KGS** are equipped with vapour seal to block the diffusion of chemical vapours by creating a counterpressure of 60mbar.

**VR** - standard seal "static-dynamic".

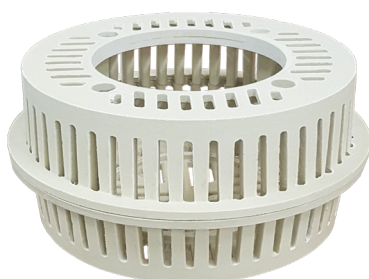
**VM** - single or double mechanical seal (external flushed)

### FLUSHING

It is possible to add an external flushing pipe: the connection starts from the guide bushings external part with clean water when pumping dirty liquids.



**KGS 3x2x6**  
made of VIX resin for ATEX Zones



**Strainer**

### STRAINER

It is also possible to add a strainer to block big solids out of pump.

MAG-DRIVE &  
MECH-SEALED  
CENTRIFUGAL  
PUMPS

PNEUMATIC  
AODD &  
METERING  
PUMPS  
PULSATION  
DAMPENERS

SUBMERSIBLE  
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SELF-PRIMING  
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SUMP PUMPS

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