

WVG/WVIG/WVNG

Vertical Multistage Centrifugal Pump



# **GEYSER PUMP**

Geyser pumps present Vertical Multistage Centrifugal Pumps. The range of Geyser Vertical Multistage Centrifugal Pumps covers: WVG series, AISI 304 pump material construction with Cast Iron Base WVIG series, AISI 304 pump material construction WVNG series, AISI 316 pump material construction WVG, WVIG, WVNG pumps have different pump sizes and various number of stages to provide the flow and pressure required.

The respective range series' coverage starts from: 1, 3, 5, 10, 15, 20, 32, 45, 64, 90. for the nominal flow from 1 m³/h up to 110 m³/h, for various pressures up to the maximum pressure of 30 bar.

The pumps are in line design, flange or with victaulic couplings port connection, the suction and discharge port of the base are on the same level with the same pipe dimensions. Stage construction: with stainless steel impellers, chambers and pressure casing. Pump stub shaft and motor shaft of the IEC standard motor are directly close coupled. Standard Electric motor driver: TEFC IP55 F Class Insulation, 50Hz, IEC Standard, vertical motor flange type B14, B5. All pumps are equipped with cartridge type mechanical seal for easy maintenance.

### **Applications**

### WATER SUPPLY AND PRESSURE BOOSTING

- Pressure boosting in buildings, hotels, residential complexes
- Pressure boosting stations, supply of water networks
- Pressure boosting for industrial water supply

### **IRRIGATION AND AGRICULTURE**

- Greenhouses
- Sprinkler irrigation
- Field irrigation (flooding)

### **LIGHT INDUSTRY**

- Washing and cleaning systems
- Car washing facilities
- Fire fighting systems
- Process water systems
- Machine tools (cooling lubricants)

### WATER TREATMENT

- Water softener and de-mineralization
- Reverse Osmosis systems
- Distillation systems
- Filtration
- Ultra-filtration systems

### HEATING, VENTILATION, AND AIR-CONDITIONING

- Boiler
- Induction heating
- Heat exchanger

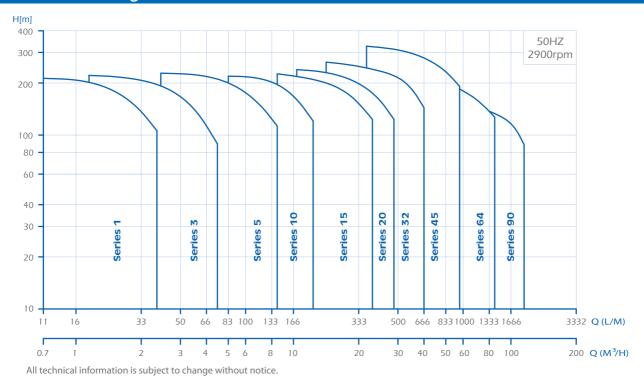
- Refrigerators
- Cooling towers and systems
- Temperature control systems

### **Features**

- In line design
- High efficiency
- Reliability

- Easy maintenance
- Wide range

### Performance Range - WVG, WVIG, WVNG SERIES



The specifications below qualify the curves shown on the following pages.

- Tolerance according to ISO 9906 Annex A
- The curves refer to effective speed of asynchronous motors at 50 Hz
- Symbols:

Q = Volume Flow Rate

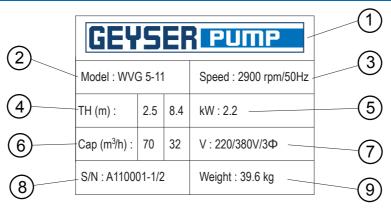
H = Total Head

P2 = Pump power input (shaft power)

Eta = Pump efficiency

NPSH = Net Positive Suction Head Required by the pump

### **Pump Nameplate Information**



### **Identification Code**

- 1. Geyser Pump Brand
- 2. Pump Type
- 3. Synchronous Speed
- 4. Head Range
- 5. Rated Power
- 6. Capacity
- 7. Voltage
- 8. Serial Number
- 9. Weight

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Number of stages

Nominal flow (m<sup>3</sup>/h)

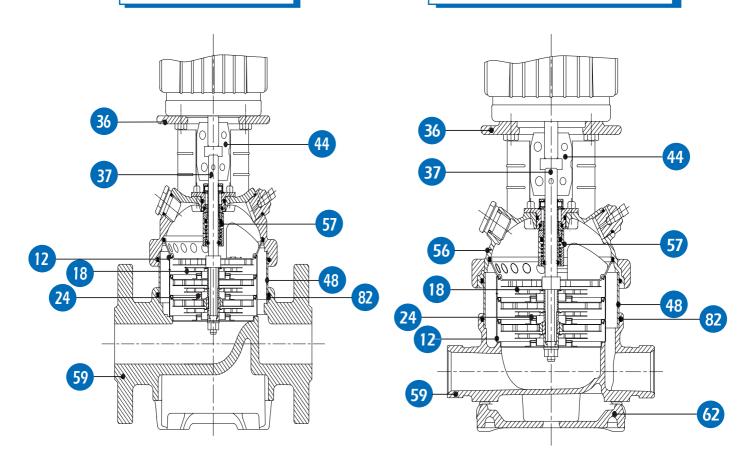
Pump Type

WVG: Cast Iron Base Version WVIG: AISI 304 Base Version WVNG: AISI 316 Base Version

# Constructions

## WVG-1,3,5,10,15,20

### WVIG/ WVNG-1,3,5,10,15,20



	Construction								
Pos.	Name	Material	WVG-1,3,5	5,10,15,20	WVIG-1,3,5	5,10,15,20	WVNG-1,3,5,10,15,20		
			Standard		Stand		Standard		
			Europe	USA	Europe	USA	Europe	USA	
36	Pump head	Cast Iron	EN-GJL-200	ASTM 25B	EN-GJS-450-10	ASTM 65-45-12	EN-GJS-450-10	ASTM 65-45-12	
44	Coupling	Fe-Cu-C	SINT C11	MPIF FC0525	SINT C11	MPIF FC0525	SINT C11	MPIF FC0525	
37	Shaft	Stainless steel	1.4057	AISI 431	1.4057	AISI 431	1.4401	AISI 316	
57	Mechanical seal	Cartridge type							
56	Pump head cover	Stainless steel	N/A	N/A	1.4301	AISI 304	1.4401	AISI 316	
12	Chamber	Stainless steel	1.4301	AISI 304	1.4301	AISI 304	1.4401	AISI 316	
18	Impeller	Stainless steel	1.4301	AISI 304	1.4301	AISI 304	1.4401	AISI 316	
48	Outer Sleeve	Stainless steel	1.4301	AISI 304	1.4301	AISI 304	1.4401	AISI 316	
24	Neck ring	PTFE							
82	O-ring for outer sleeve	EPDM							
59	Base	Cast Iron	EN-GJL-200	ASTM 25B	N/A	N/A	N/A	N/A	
	Base	Stainless steel	N/A	N/A	1.4301	AISI 304	1.4401	AISI 316	
62	Base plate	Cast Iron	N/A	N/A	EN-GJL-200	ASTM 25B	EN-GJL-200	ASTM 25B	

### **Product Data**

	WVG, WVIG, WVNG											
Range	1	3	5	10	15	20	32	45	64	90		
50Hz												
Flow range (m³/h)	0.7-2.3	1.2-4.4	2.5-8.4	5-12.9	8.5-23.4	10.5-28.9	15-39.9	22-57.9	30-84.9	45-119.9		
Max. working pressure (bar)	21.5	23	24	21.5	23	24.3	27.5	33	21.8	20		
Liquid handled												
Type of liquid WVG/WVIG  Non-corrosive liquids, for fluid transfer, circulation and pressure boosting of cold or hot clean water  Type of liquid WVNG  Industrial liquids and light acids												
Type of liquid WVNG	Industria	l liquids and	light acids	15 . 12								
Fluid temperature (°C)	0.37-2.2	0.37-3	0.37-5.5	-15~+120 0.37-7.5	1.1-15	1.1-18.5	1.5-30	3-45	4-45	5.5-45		
Motor power (kw)	0.37-2.2	0.37-3	0.37-5.5	0.37-7.5	1.1-15	1.1-18.5	1.5-30	3-45	4-45	5.5-45		
Electric motor		F 0.27.4		2011 (D. O. I.)	5011							
Mains connection 3 phase (V/Hz) (permissible voltage tolerance $\pm$ 109	For 0.37-4 kw : 220/380V (D.O.L), 50Hz From 5.5kw and up : 380/660V ( $\lambda$ - $\Delta$ ) , 50 Hz											
Insulation class				F								
Enclosure class IP 55												
Ambient temperature				Max. +50 °	°C							
WVG Pipe Connection												
Flange	DN 25/ DN 32	DN 25/ DN 32	DN 25/ DN 32	DN 40	DN 50	DN 50	DN 65	DN 80	DN 100	DN 10		
WVIG/WVNG Pipe Connection	51132		5.1152									
Flange	DN 25/ DN32	DN 25/ DN32	DN 25/ DN32	DN 40	DN 50	DN 50	DN 65	DN 80	DN 100	DN 10		
Victaulic-connections	R 1 1/4 DN32	R 1 1/4 DN32	R 1 1/4 DN32	R 2 DN50	R 2 DN50	R 2 DN50	N/A	N/A	N/A	N/A		
Shaft Seal												
Type			Mec	hanical Seals	SiC/SiC							
Seals EPDM (Standard)												
			,	Viton (Optio	nal)							
Pump materials												
WVG: Cast iron and Stainless steel EN 1.4301/AISI 304	√	$\sqrt{}$	√	√	$\sqrt{}$	√	$\sqrt{}$	V	√	√		
WVIG: Stainless steel EN 1.4301/AISI 304	$\sqrt{}$	V	√	$\sqrt{}$	$\sqrt{}$	√	$\sqrt{}$	√	√	$\sqrt{}$		
WVNG: Stainless steel EN 1.4301/AISI 316	$\sqrt{}$	√	<b>√</b>	$\sqrt{}$	$\sqrt{}$	√	$\sqrt{}$	√	<b>√</b>	√		

<sup>&</sup>gt;Flange standards : Refer to dimensional drawings

## **Mechanical Seals**



The Mechanical Seal of the pump is of the standard cartridge type, silicon carbide / EPDM or viton. Being cartridge type, the mechanical seal is easy to replace for the maintenance.

Depending on nature of application, alternative materials are available (on demand) for the seals and elastomers.

All technical information is subject to change without notice.



Jl. Suryopranoto No. 2 Komplek Ruko Harmoni Plaza Blok B 25 Jakarta Pusat 10130 Phone. (021) 769 0985, 7581 8472, 632 4005, 6312 558 Fax. (021) 765 5358, 633 0186, 633 0187 Email: info@tirta-potensia.co.id