

PASCALI

WATER PUMPS



PASSSSK
with Flow Control

PASSS/24
with Flow Control

DOMESTIC WATER PRESSURE SOLUTIONS



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PACKED WITH HELPFUL CONTENT!**

www.pascalipumps.co.za



WATER PUMPS

Water pressure pumps or booster pumps as they are also known are designed to help increase volume and pressure of water flow from various water sources, to a water outlet.

One of the biggest reasons to install a pressure pump is to assist with the correction of low water pressure which can be a very frustrating problem to have, especially when it comes to activities like showering under a trickle of water or waiting very long to fill a glass of water.

Below are commonly asked questions regarding pressure pumps;

How does a pressure pump work?

A pressure pump is basically a motorised fan. The blades of the fan/impeller spin around to increase water movement and are powered by an electric motor.

All pressure pumps have an inlet and an outlet, and sensing devices, usually a pressure switch or flow control, that helps with maintaining the correct amount of pressure. For more control around the cut-off pressure etc. a pump pressure switch can be installed.

When is a pressure pump needed?

There are a multitude of household water pressure problems a pressure pump can help alleviate. Basically, a pressure pump can be used in any instance where a higher flow rate or increased water pressure is required, or to get water from point A to point B.

Typical applications include:

- Bringing water out of a water/rain harvesting tank
- Increasing a home's household pressure if it is too low
- Increasing water pressure for irrigation systems
- Pumping water from an alternative water source such as a river, pond or stream
- Feeding water to an apparatus that might require high volumes of water at a higher pressure for an industrial application.
- Boost water pressure as a result of low supply from city water.
- Push water from ground levels up multiple levels.

What causes low water pressure?

- Gravity – pumping uphill or to a house with multiple levels.
- Distance from the water source – the further the distance, the lower the pressure due to friction losses in the pipe.
- Size of water pipes – if water pipes are too small, lower volumes of water will run through and more pressure will be lost due to the friction of the water moving through the pipeline.
- Low city water pressure.
- Overuse of your water system by adding additional systems such as fixtures or irrigation systems.
- Plumbing problems such as clogged pipes, faulty pressure valves, small pipes, leaks etc.

These issues can not be solved with a pressure pump.

Will a pressure pump help with flow rate and/ or enhance pressure?

Flow rate refers to the amount of water running through a hose, pipe or faucet in a certain amount of time. Water pressure is the force that is needed to make water move from one place to another, or can also refer to the force the water exerts once released from a pipe or faucet.

Typically, pressure pumps boost water pressure, and can also, improve flow rate. The function of a pressure pump is to push water at a faster rate and a higher pressure. But these two states influence each other, and this is why it is important to understand and refer to pump curves. As the flow rate goes up, the pressure comes down.

To visualise the relationship between pressure and flow rate, image a running garden hose that you put your thumb over. By restricting flow rate with your thumb, the water comes out of the hose at a higher pressure. A pressure pump works in a similar way. The pump provides increased water flow/a high flow rate at very low pressure. The plumbing of the house, with multi-story's, elbows in the piping and taps create restrictions (like the thumbs on the hose) which means the flow rate for the home is going to be lower.

Everything you need to know... About Pressure Pumps



EASY PUMP SELECTION GUIDE

PERIPHERAL PUMPS

 PASQB60SK 0.37kW =	 SHOWER 10 - 25 lpm	 PASQB80SK 0.75kW =	 SHOWER 10 - 25 lpm	+	 BATH 12 - 20 lpm
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SELF-PRIMING JET PUMPS

 PASJETS 0.75kW =	 TOILETS 12 - 15 lpm	+	 FAUCETS 12 - 20 lpm	+	 SHOWER 10 - 25 lpm	+	 BATH 12 - 20 lpm
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 PASSSK 0.75kW =	 TOILETS 12 - 15 lpm	+	 SHOWER 10 - 25 lpm	+	 BATH 12 - 20 lpm
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CENTRIFUGAL PUMPS

 PASCMP146C 0.55kW =	 SHOWER 10 - 25 lpm	+	 BATH 12 - 20 lpm	<i>The further the water needs to travel, the more robust the pump needs to be.</i>
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 PASCMP158C 0.75kW =	 TOILETS 12 - 15 lpm	+	 FAUCETS 12 - 20 lpm	+	 SHOWER 10 - 25 lpm	+	 BATH 12 - 20 lpm
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 PASCMP170C 1.1kW =	 TOILETS 12 - 15 lpm	+	 FAUCETS 12 - 20 lpm	+	 SHOWER 10 - 25 lpm	+	 BATH 12 - 20 lpm	+	 DISHWASHER 10 - 15 lpm	+	 WASHING MACHINE 15 - 25 lpm
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How to select the correct pressure pump;

The first step to selecting the correct pressure pump is to know what it is going to be used for;

- Over what distance will the water be moved?
- What is the size of the pipe through which the water will be pumped?
- Is the water source above or below the pump?
- Know the extent to which the pressure pump needs to work – Is the house a multiple-story unit, with one or two bathrooms?
- How much water do you need to move or how many outlets must the pump be able to supply at one time?
- How much pressure is needed?

These are important questions and factors that will influence the type and quality pump that need to be purchased.

The further the water needs to travel, the more robust the pump needs to be.

Water weighs a lot and the longer the distance and the steeper the height the water needs to travel, the more pressure is put on the pump.

Secondly, you need to consider the following when purchasing a pressure pump:

- Flow rate: How much water can the pressure pump produce?
- Pressure boost: How much pressure can the pump add to the existing water pressure?
- Power: How much power does the pump require to operate?

PERIPHERAL PUMPS

PASQB80 • PASQB60

PASCALI

WATER PUMPS

APPLICATION

- Clean water without abrasive particles / non-aggressive liquid
- Domestic use
- In particular for delivering water in combination with small pressure sets for irrigation
- Installed in enclosed places, or at least protected against inclement weather
- 25 mm Inlet & outlet

OPERATING CONDITIONS

- Suction lift up to 6 m
- Liquid temperature up to +40°C
- Ambient temperature up to +40°C
- Max. working pressure: 6 bar

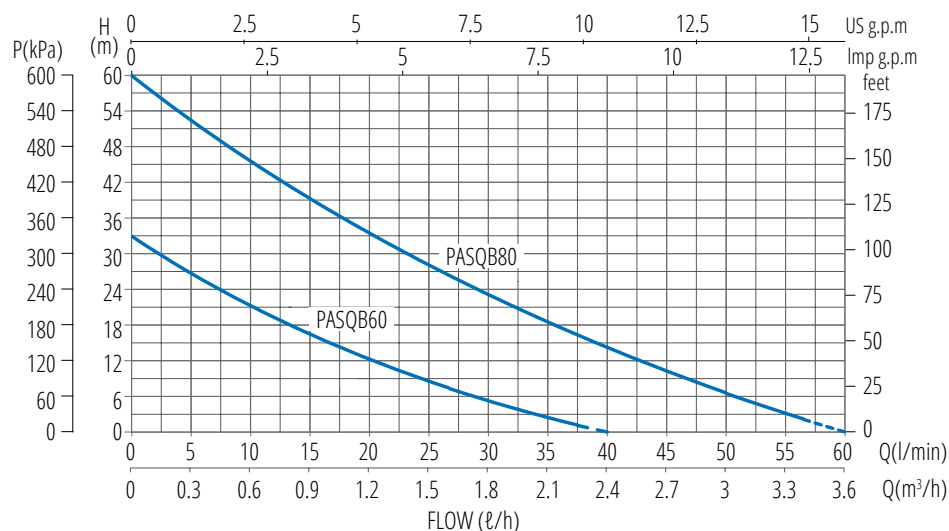
MOTOR

- 2-Pole induction motor
- Single-phase 50 Hz
- Insulation Class B
- Protection IP44
- With capacitor and thermal overload protection

MATERIALS

- Pump body - Cast iron
- Motor support - Aluminium
- Impeller - Brass
- Motor shaft - Stainless Steel
- Mechanical seal - Ceramic/Graphite
- 100% Copper winding

	QB60	QB80
PRESSURE (bar)	FLOW (ℓ/h)	FLOW (ℓ/h)
0.6	1750	3380
1.5	1140	3030
2.2	760	2470
2.8	350	2010
3.6	0	1410
4.0	00	1050
4.6	550	550
5.2	0	0



TYPE	POWER (W)	VOLTAGE (V)	INLET	OUTLET	MAX FLOW (m³/h)	MAX HEAD (m)
PASQB80	750	230	1"	1"	3,6	60
PASQB60	370	230	1"	1"	2,4	33

PERIPHERAL PUMP WITH FLOW CONTROL

PASQBSK • PASQB60SK

PASCALI peripheral pump with flow control. For domestic and garden irrigation use. Thermal overload protection, 100% copper winding and brass impeller. 25 mm Inlet & outlet.



FLOW SWITCH
PASSK10

Max 10 Amps.

Non-return valve included.

PERIPHERAL PUMP WITH PRESSURE CONTROL

PASQB/24

PASCALI peripheral pump with 24 ℓ pressure control system. For domestic and garden irrigation use. Thermal overload protection, 100% copper winding and brass impeller. 25 mm Inlet & outlet.



Complete with
PAS24L
PASSWAY
PASFLEXHOSE-2
PASY4010BAR
PASSK-2A

Non-return valve included.

SELF PRIMING JET PUMPS

PASJET100

PASCALI

WATER PUMPS

APPLICATION

- Clean water without abrasive particles
- Domestic use, irrigation of gardens and allotments
- High head
- Suitable for water lifting, distribution with small or medium pressure sets
- 25 mm Inlet & outlet

OPERATING CONDITIONS

- Suction lift up to 6 m
- Liquid temperature up to +40°C
- Ambient temperature up to +40°C
- Max. working pressure: 6 bar

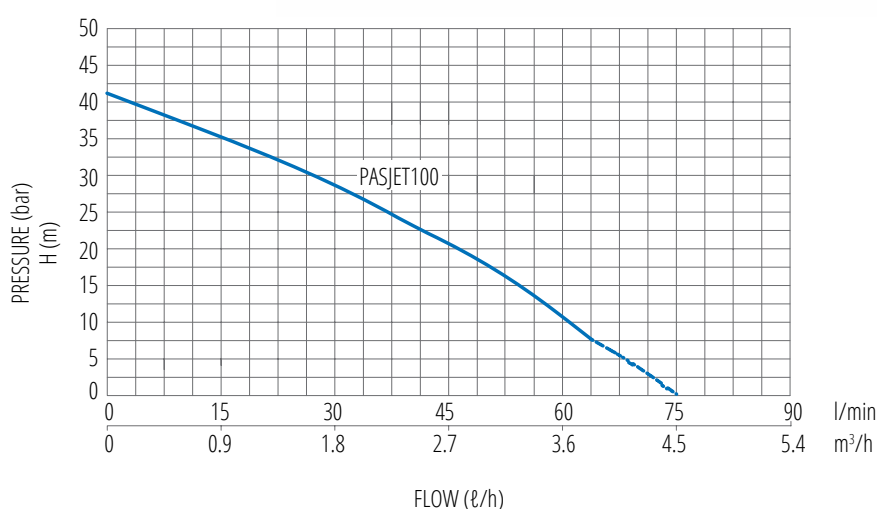
MOTOR

- 2-Pole induction motor
- Single-phase 50 Hz
- 0.75 kW
- Insulation Class B
- Protection IP44
- With capacitor and thermal overload protection

MATERIALS

- Pump body - Cast Iron
- Motor support - Cast Iron
- Impeller - Brass
- Motor shaft - Stainless Steel
- Mechanical seal - Ceramic/Graphite
- 100% Copper winding

FLOW (ℓ/h)	PRESSURE (bar)
4360	0.5
4030	1.5
3480	2.2
3050	2.5
2510	2.7
2000	3.0
1500	3.3
1050	3.6
540	3.9
0	4.2



TYPE	POWER (W)	VOLTAGE (V)	INLET	OUTLET	MAX FLOW (ℓ/h)	MAX HEAD (m)
PASJET100	750	230	1"	1"	4500	44

SELF PRIMING JET PUMP WITH FLOW CONTROL

PASJETSK

PASCALI self priming jet pump with flow control, for domestic and garden irrigation use. Thermal overload protection, 100% copper winding and brass impeller. 25 mm Inlet & outlet.



FLOW SWITCH
PASSK10

Max 10 Amps.

Non-return valve included.

SELF PRIMING JET PUMP WITH PRESSURE CONTROL

PASJET/24

PASCALI self priming jet pump with pressure control, for domestic and garden irrigation use. Thermal overload protection, 100% copper winding and brass impeller. 25 mm Inlet & outlet.



Complete with
PAS24L
PASSWAY
PASFLEXHOSE-2
PASY4010BAR
PASSK-2A

Non-return valve included.

STAINLESS STEEL JET PUMPS

PASSS80



WATER PUMPS

APPLICATION

- Clean water without abrasive particles
- Domestic use, irrigation of gardens and allotments etc.
- High head
- Suitable for water lifting, distribution with small or medium pressure sets
- Installed in enclosed places, or at least protected against inclement weather
- 25 mm Inlet & outlet

OPERATING CONDITIONS

- Suction lift up to 6 m
- Liquid temperature up to +40°C
- Ambient temperature up to +40°C
- Max. working pressure: 6 bar

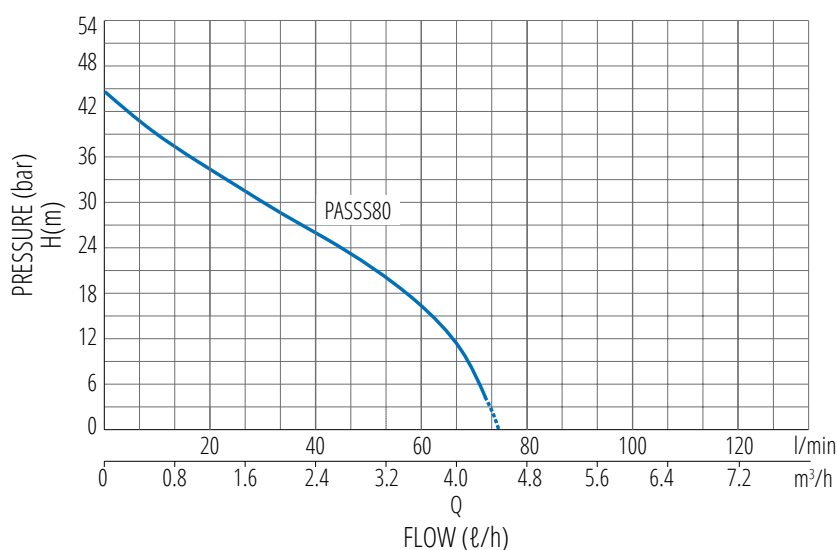
MOTOR

- 2-Pole induction motor
- Single-phase 50 Hz
- 0.75 kW
- Insulation Class B
- Protection IP44
- With capacitor and thermal overload protection

MATERIALS

- Pump body - Stainless Steel
- Motor bracket - Aluminium
- Impeller - Stainless Steel
- Shaft with rotor - Stainless Steel
- Ejector - POM
- Mechanical seal - Ceramic
- 100% Copper winding

FLOW (ℓ/h)	PRESSURE (bar)
3010	0.2
2410	1.2
2000	1.8
1500	2.5
1020	3.2
500	4.0
0	4.8



TYPE	POWER (W)	VOLTAGE (V)	INLET	OUTLET	MAX FLOW (ℓ/h)	MAX HEAD (m)
PASSS80	750	230	1"	1"	3000	48

STAINLESS STEEL JET PUMP WITH FLOW CONTROL

PASSSSK

PASCALI stainless steel jet pump with flow control, for domestic and garden irrigation use. Thermal overload protection, 100% copper winding and stainless steel impeller. 25 mm Inlet & outlet.



FLOW SWITCH
PASSK10

Non-return valve included.

STAINLESS STEEL JET PUMP WITH PRESSURE CONTROL

PASSS/24

PASCALI stainless steel jet pump with 24 ℓ stainless steel pressure tank, for domestic and garden irrigation use. Thermal overload protection, 100% copper winding and stainless steel impeller. 25 mm Inlet & outlet.



24L TANK
Complete
stainless steel tank.

Non-return valve included.

SINGLE IMPELLER CENTRIFUGAL PUMPS

PASCPM130 • PASCPM146 • PASCPM158 • 309CPM170 • PASCPM190



WATER PUMPS

APPLICATION

Single impeller centrifugal pumps, suitable for household, civil and industrial applications, with a very flat curve to guarantee constant pressure even when the delivery is low.

OPERATING CONDITIONS

- Liquid temperature up to 40°C
- Ambient temperature up to 40°C
- Total suction lift up to 7 m
- Max. working pressure: 6 bar

MOTOR

- 2-Pole induction motor
- Insulation Class B
- Protection IP44
- With capacitor and thermal overload protection

MATERIALS

- Pump body - Cast Iron
- Motor support - Cast Iron
- Impeller - Brass
- Motor shaft - Stainless Steel
- Mechanical seal - Ceramic/Graphite
- Copper winding

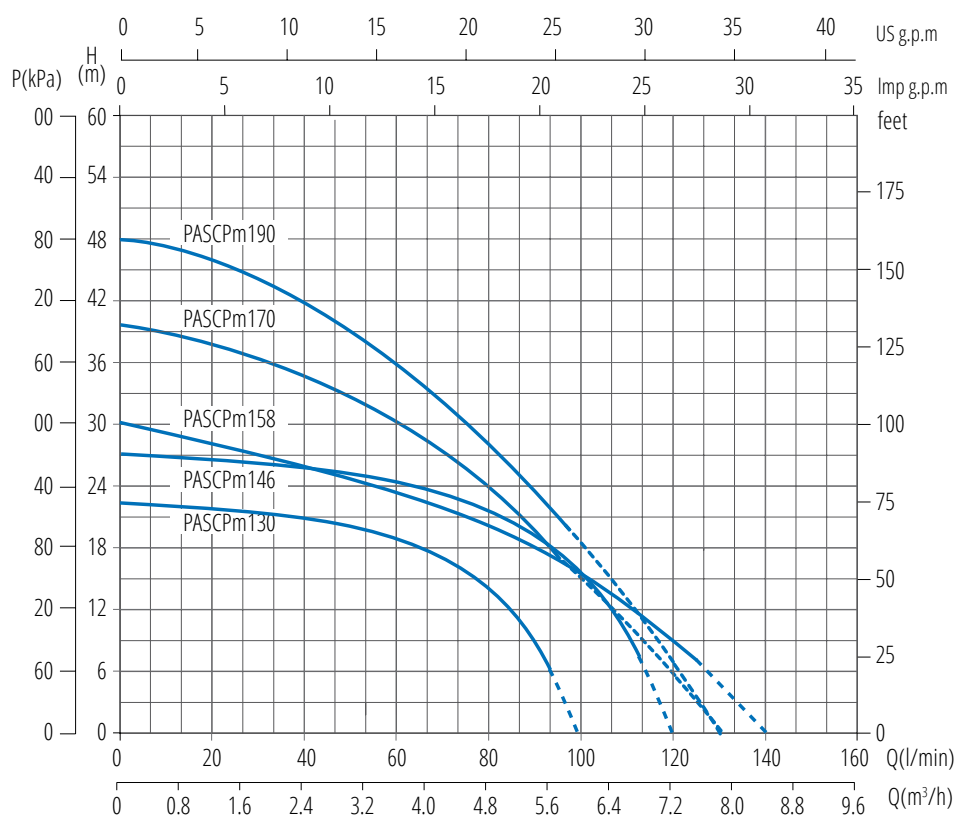


Complete with Flow Control

PASCPM146C

PASCPM158C

PASCPM170C



TYPE	WITH FLOW CONTROL	POWER		INLET	OUTLET	MAX. FLOW (m³/h)	MAX. HEAD (m)	HEAD RANGE (m)	MAX. SUCTION (m)
Single-phase		kW	HP						
220 V - 50 Hz									
PASCPM130		0.37	0.5	25 mm	25 mm	6	22	8~22	7
PASCPM146	PASCPM146C	0.55	0.75	25 mm	25 mm	6.6	26	11~26	7
PASCPM158	PASCPM158C	0.75	1	25 mm	25 mm	7.2	32	14~32	7
PASCPM170	PASCPM170C	1.1	1.5	32 mm	25 mm	7.8	40	17~40	7
PASCPM190		1.5	2	25 mm	25 mm	7.8	40	20~48	7

VARIABLE-FREQUENCY MULTISTAGE STAINLESS STEEL PUMP

PASVFG204 • PASVFG404



WATER PUMPS

APPLICATION

To keep the water pressure of the water supply system constant, a variable-frequency drive is required to compare the given pressure signal with the feedback signal of the water pressure of the pipe network to adjust the speed of the water pump to achieve constant water supply and water pressure. The VFG is a centrifugal multistage variable frequency water pump with magnetic motor and stainless steel impellers and diffusers. The pump body is stainless steel and has a 304 stainless steel welded shaft. The unit is "Plug and Play" and is composed of the water pump, inverter, stainless steel five-way connector, stainless steel gauge and pressure tank. LED display, easy to operate. It is suitable for water supply of various types of water works, pressure stations, hotels, residential areas, and other high-rise buildings.



OPERATING CONDITIONS

- High efficiency and energy saving, compared with the traditional water supply method, the variable frequency provides constant pressure and water supply which can save up to 60% in energy consumption
- Compact unit, high efficiency and cost effective
- Due to the decrease of the average speed and average torque, it limits the wear and tear on the shaft, which will greatly improve the lifetime of the pump
- The pump can soft start and soft stop, this can eliminate water hammer. Water hammer, is usually caused by the starting and stopping of a pump, the kinetic energy of the pump liquid increases, resulting in a high impact on the hydraulic network, often causing damage or burst pipes
- Installation is convenient, replacing a water tower, high water tank and traditional air pressure tank water pump
- All the internal parts are stainless steel (304), which ensures the quality of water
- Diaphragm pressure tank with poly prop lining. Air pressure must be maintained at 70% of operating/system pressure

MOTOR

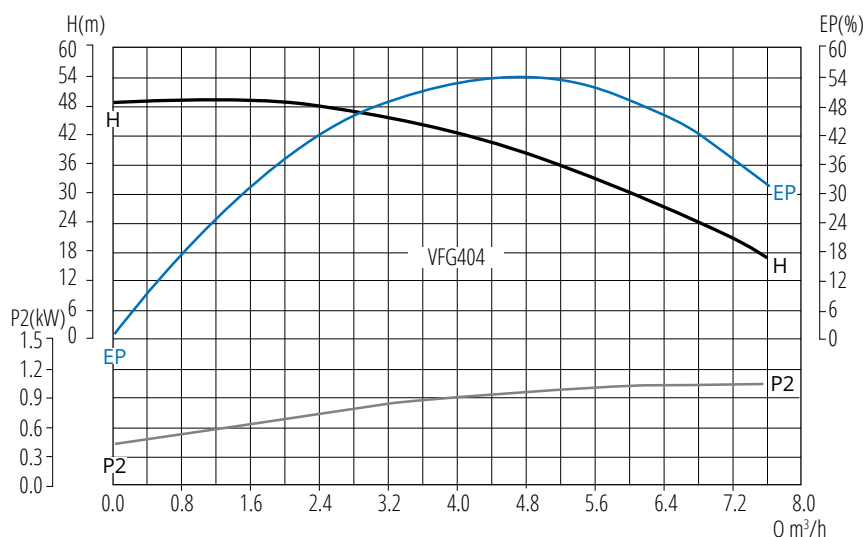
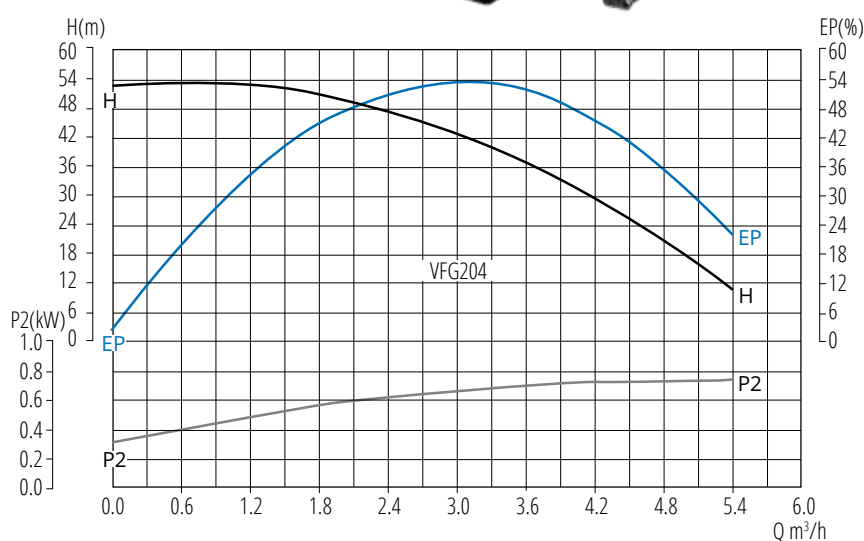
- Built-in Inverter, pressure tank, pressure sensor, pump and a permanent magnetic motor (IP65)
- Protection level: IP65
- The VSD is not for outdoor use unless it is covered with a pump cover

FEATURES

- Constant pressure
- Energy Saving
- Liquid temperature: (0°C~+100°C).

MATERIALS

- Pump body - Stainless Steel
- Impeller - Stainless Steel
- Diffuser - Stainless Steel
- Welded Shaft - 304 Stainless Steel



TYPE	RATED POWER P2 (kW)	RATED FLOW (m³/h)	2.0	3.0	4.0	5.0	6.0	7.0
PASVFG204	0.75	RATED HEAD (m)	48	42	34	18		
PASVFG404	1.1		48	47	42	37	30	24

TYPE	DRIVING MOTOR P2 (kW)	DRIVING MOTOR (rpm)	INLET	OUTLET	MAX. FLOW (m³/h)	MAX. HEAD (m)	RATED HEAD (m)	RATED FLOW (m³/h)
PASVFG204	0.75	3450 rpm	25 mm	25 mm	5.3	53	45	2
PASVFG404	1.1	3450 rpm	32 mm	25 mm	7.8	53	42	4

SUBMERSIBLE SEWAGE PUMPS

PASWSD75/50T

PASCALI

APPLICATION

Stainless steel submersible sewage pump, 220 V / 50 Hz, 100% copper winding, cast iron pump body with 5 m cable with float switch, oil-filled submersible motor. 50 mm Outlet.

OPERATING CONDITIONS

- Liquid temperature up to 35°C
- Maximum immersion depth: 20 m (with a cable of the appropriate length)
- Grain size inlet: Ø 50 mm
- Min. suction level: 100 mm

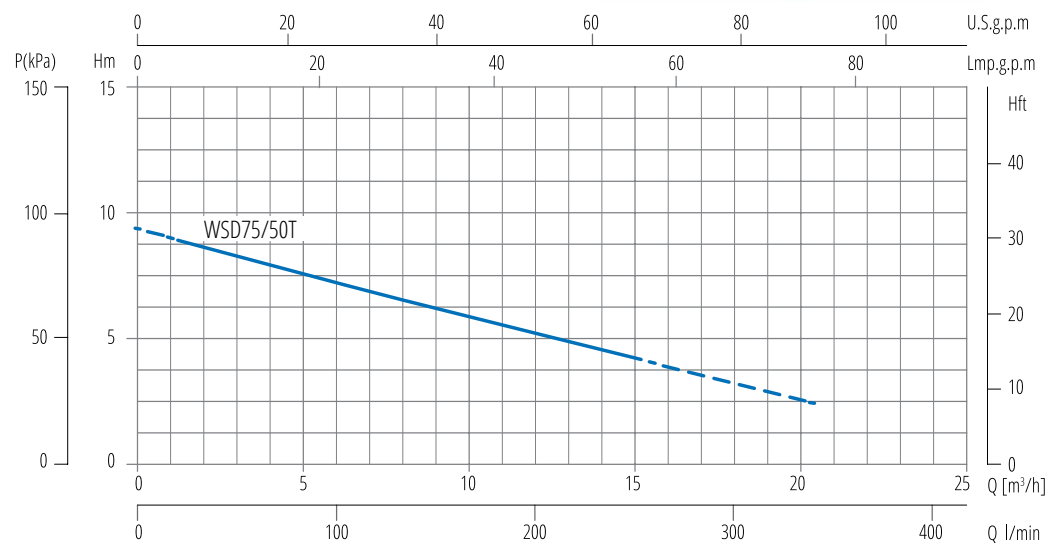
MATERIALS

- Motor body - Stainless Steel
- Pump body - Cast Iron
- Impeller - Stainless Steel
- Shaft with rotor - Stainless Steel AISI 304
- Mechanical seal with oil chamber - Silicon/Silicon/NBR



MOTOR

- Insulation Class F
- Protection IP68
- Thermal protection (only single-phase)



TYPE	NOMINAL POWER		INPUT POWER	AMPERE	Q = CAPACITY							
Single-phase	P2		P1	Single-phase	m³/h	0	2	4	6	8	10	12
					ℓ/1'	0	33	66	100	133	166	200
	220 V - 50 Hz	HP	kW	1 x 220 V	Total head in meters w.c.							
PASWSD75/50T	1	0.75	1.5	5.2	H (m)	9.5	8.75	8.2	7.5	6.8	5.9	5.4

ELECTRIC DIAPHRAGM PUMP

302FL40

Ideal for camping, boating, cattle and game spraying. Self priming and for intermittent use only.

GENERAL SPECIFICATIONS

- Permanent magnet and intermittent duty
- Built-in pressure switch automatically starts and stops pump when faucets are opened and closed
- Runs dry for extended periods of time without damage
- Built-in thermal protector
- Size: 13.2" L x 4.9" W x 4.1" H (335 x 12 x 105 mm)
- Weight (DC): N.W 4.22 lb (1.90 kg) G.W 5.11 lb (2.30 kg)
- Weight (AC): N.W 5.44 lb (2.45 kg) G.W 6.44 lb (2.90 kg)
- Pump design: 4 Chamber diaphragm
- Port size: 3/8" (9.5 mm) Hose barb

OPERATING PARAMETERS

- Max. liquid temperature: 60°C (140°F)
- Pressure max: 40 PSI (2.8 bar)
- Voltage: 12 V, 24 V DC, 115 V, 220 V AC
- Open flow: 4.47 GPM (17 ℓ/min)

MATERIAL

- Diaphragm material - Santoprene
- Check valve - EPDM or Viton
- Body material: - Polypropylene
- Spring material - Stainless Steel



CODE	VOLT	FLOW	PRESSURE	AMPS
	DC	gpm (lpm)	Psi (bar)	A
302FL40	12	4.47 (17.0)	40 (2.76)	9.2
302FL40D	Diaphragm			

SUBMERSIBLE PUMP COMBOS

PAS4AG0209C • PAS4AG0212C • PAS4AG0215C



WATER PUMPS

The PASCALI submersible borehole pump combo range covers a wide range of pumping duties for agricultural and domestic applications. Floating type impellers require less starting torque and are less affected by sand or other abrasive materials. All electrical connections have been connected for ease of installation. Stainless steel outlet.

APPLICATION

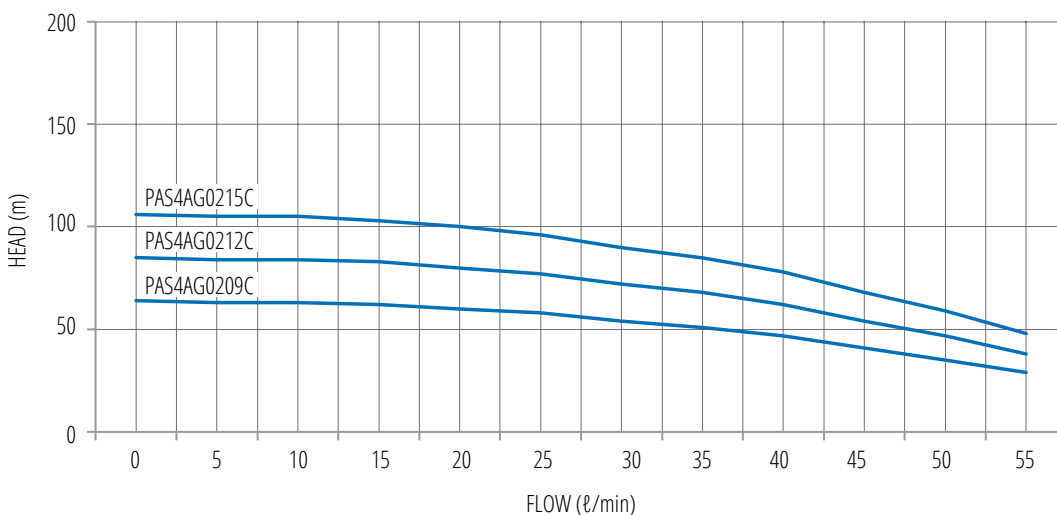
- Water supply from wells & reservoirs
- Domestic use, civil & industrial applications
- Garden irrigation

OPERATING CONDITIONS

- Maximum fluid temperature up to +35°C
- Maximum sand content: 0.25%
- Minimum well diameter: 4"

MOTOR

- Rewindable motor
- 100% copper wire
- POM Impeller
- Ceramic graphite seal
- Single-phase: 220 V-240 V / 50 Hz
- Must be equipped with start control box (sold separately)
- NEMA standards



MODEL	kW	HP	DELIVERY												
			l/h	0	300	600	900	1200	1500	1800	2100	2400	2700	3000	3300
			l/min	0	5	10	15	20	25	30	35	40	45	50	55
PAS4AG0209C	0.37	0.5	HEAD (m)	64	63	63	62	60	58	54	51	47	41	35	29
PAS4AG0212C	0.55	0.75		85	84	84	83	80	77	72	68	62	54	47	38
PAS4AG0215C	0.75	1		106	105	105	103	100	96	90	85	78	68	59	48

COMBO CONTENT

100mm Submersible pump | Submersible motor 230 V
Control box 230 V | Aluminum base plate | 2 x Compression adaptors
Ski rope | Submersible cable | Electrical cable
Plug Top (3 Point South African plug)



SPARE PARTS



WATER PUMPS



PASMEM24
PASCALI MEMBRANE

Pascal 24 liter replacement rubber membrane.



PAS3WAY
PASCALI BRASS CONNECTOR

Pascal 3 way brass connector. 25 mm.



PAS4WAY
PASCALI BRASS CONNECTOR

Pascal 4 way brass connector.



PAS5WAY
PASCALI BRASS CONNECTOR

Pascal 5 way brass connector.



PAS24L
PASCALI 24 L TANK

Pascal 24 litre steel tank complete.



PASSK10
PASCALI PUMP AUTOMATIC
CONTROL UNIT

230 V Flow switch max 10 Amps.



PASDSK2
PASCALI PUMP AUTOMATIC
CONTROL UNIT 230V 1.5KW

230 V Flow switch 1.5 kW



PASY4010BAR
PRESSURE GAUGE

Back inlet dry-pressure gauge. 8 mm.
50 mm 0-600 kPa



PASFLEXHOSE
PASCALI FLEXIBLE HOSE
QB24 JET/24 SS/24

Anti-vibration flexible hose for use on pressure tanks. 65 cm.



PASFLEXHOSE-2
PASCALI FLEXIBLE HOSE
QB24 JET/24 SS/24

Hose for use on pressure tanks. Short female thread size is 1/2 inch (15 mm), male thread size is 1/4 inch (8 mm).



PASSK-2A
PRESSURE SWITCH

Pressure switch on at 1,4 bar and off at 2,8 bar.



PASSK-1
PRESSURE SWITCH SK-1

Pascal pressure switch SK-1.





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