

General Data

4"WPS® and 4"WPS®-CP pumps are constructed of stainless steel throughout and are suitable for both continuous and intermittent operation for a variety of applications:

- Domestic and general water supply
- Small waterworks and fountains
- Irrigation
- Tank applications
- Pressure boosting
- Heating pumps
- Dewatering, mining, hot springs
- Industrial applications

Note: For other applications, please contact Well Pumps.

4"WPS®-CP

4"WPS®-CP pumps offer the following features:

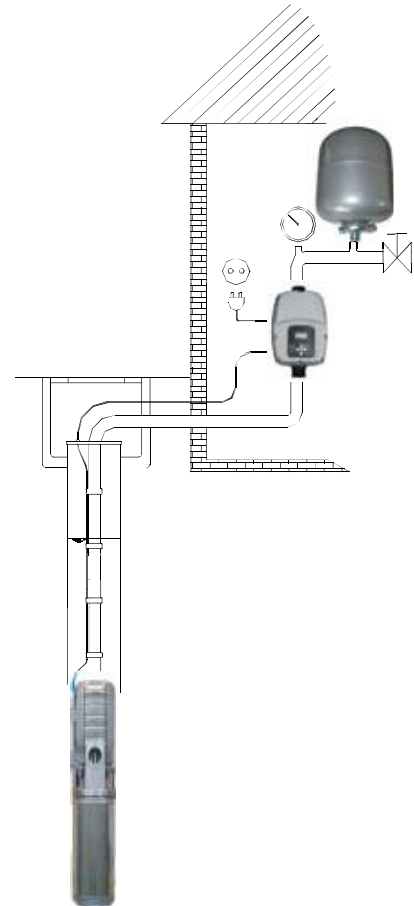
- Pump entirely made out of stainless steel and fits in 4" or larger drilled wells
- Constant pressure with two set pressures possible
- Capacity from 0.2 to 8 m³/h and a maximum head of 140m
- Motor rating up to 2kW, 90Hz
- Single phase supply to the controller
- Incorporated jam free check valve
- Dry-running protection
- High efficiency of pump and motor
- Excellent resistance to wear
- Soft start
- Overvoltage and undervoltage protection
- Overload protection
- Overtemperature protection.
- Variable speed
- Second set-pressure possible

The 4"WPS®-CP pump is fitted with a three phase 230V Well Pumps motor. The 4"WPS®-CP controller needs a single-phase supply and transforms it to a three-phase current to the motor. The controller is fitted with a frequency drive and performs a constant pressure of the flow through a variable speed of the pump. As a consequence, the pump can be set to operate in any duty point in the range between the pump min. and max. performance curves.

In case of a pump fault, an alarm will be indicated on the LCD screen of the 4"WPS®-CP controller.

The 4"WPS®-CP pump is sold as a kit and consists of the following elements:

- A 4" submersible pump WPS® entirely made of stainless steel.
- A WPS® high speed submersible motor able to run at variable frequencies up to 90Hz.
- A WPS®-CP constant pressure controller including a variable speed drive, a flow detection and a pressure sensor.
- A pressure vessel of 8 liter.



General Data

4" WPS®

4" WPS® pumps offer the following features:

- Pump entirely made out of stainless steel and fits in 4" or larger drilled wells
- Capacity from 0,5 to 15m³/h and a maximum head of 410m
- Motor rating up to 7,5kW, 50Hz
- Incorporated jam free check valve, designed for low loss of head
- Coupling with 4"Nema standard for motor assembly
- Generously dimensioned intermediate bearings located at each stage of the pump
- High efficiency of pump and motor
- Very strong construction and excellent resistance to wear
- Rugged cable guard
- Great ease of dismantling and assembly

Pump and motor range

4" WPS®-CP pump range consists of three flow models: 2, 4 and 6 m³/h. The 4" WPS® pump range consists of five flow models: 1.5, 2.5, 4, 7 and 12m³/h. The pump-end is entirely made out of Stainless Steel DIN 1.4301, AISI 304 or 1.4401, AISI 316. Seals and bearings are standard constructed out of NBR rubber but are also available in Viton® for special applications.

4" WPS®-CP motors are in Stainless Steel DIN 1.4301, AISI 304 and available in three motor powers: 1100W, 1500W and 2000W.

4" WPS® motors are in Stainless Steel DIN 1.4301, AISI 304 or DIN 1.4401, AISI 316 and available in single phase from 0,37kW up to 2,2kW and in three phase from 0,37kW up to 7,5kW.

Construction of the pump



Impeller

- 1 6 contact points with the shaft
- 2 6 welding points on each vane
- 3 5 different shapes and 8 flows
- 4 Stainless steel sheet with a minimum thickness of 1mm

Diffusor

- 5 Stainless steel sheet with a minimum thickness of 1mm
- 6 Generously dimensioned intermediate bearing in NBR (or Viton®) at each pump stage
- 7 Neck ring in NBR (or Viton®) with reinforced stainless steel ring

Top Bearing

- 8 Water-lubricated upper bearing in NBR (or Viton®) for each pump

Shaft

- 9 Hexagonal shaft in stainless steel
- 10 Pin to ensure motor power up to 7,5kW
- 11 High-quality coupling made of full stainless steel shaft



4" WPS®

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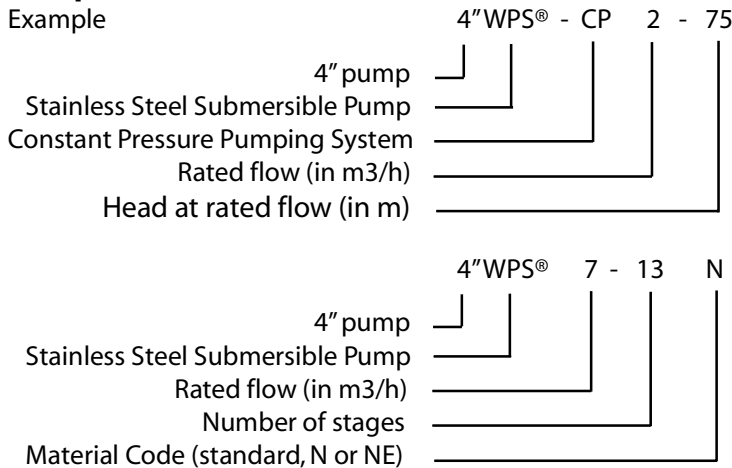
Pipe connection

All 4" WPS®-CP pump types have a threaded pipe connection Rp1 ½"

The 4" WPS® pumps have a Rp1 ½" connection for the models 4" WPS® 1,5 (NE), 4" WPS® 2,5 (NE) and 4" WPS® 4 (NE). The 4" WPS® 7 (NE) and 4" WPS® 12 (NE) pumps have a Rp 2" outlet.

Pump identification code

Example



Pumped liquids

4" WPS® and 4" WPS®-CP pumps are designed for pumping thin, clean, non-aggressive and non-explosive liquids, not containing solid particles.

4" WPS® and 4" WPS®-CP pumps are suitable for pumping liquids with a content of sand up to 50 g/m³. A higher content of sand will shorten pump life.

The maximum fluid temperature is 30°C. For higher temperatures, please contact Well Pumps.

Operating condition

4" WPS® and 4" WPS®-CP pumps can be installed in horizontal or vertical position. The maximum pumped liquid temperature is limited to 30°C with a minimum flow over the motor of 8 cm/sec and this to ensure the cooling of the motor. For applications with a higher liquid temperature or lower cooling speeds, please contact Well Pumps S.A.

Curve Conditions

- Curve tolerances according to ISO 9906, Annex A.
- The performance curves show pump performance at actual speed of the standard motor range.
- The measurements were made with airless water at a temperature of 20°C and a kinematic viscosity of 1 mm²/s (1 cSt). For pumping liquids with a higher density than clear water, motors must be used with correspondingly higher outputs.
- Q/H: The curves are inclusive of valve and inlet losses at the actual speed.
- Power curve: P₂ shows pump input power at the actual speed for each individual pump size.
- Efficiency curve: η shows pump stage efficiency.

Service

The pump and motor are very easy to maintain and repair. The modular pump and motor design facilitates installation and service. The cable and the plug are fitted to the pump with screws which enables replacement.

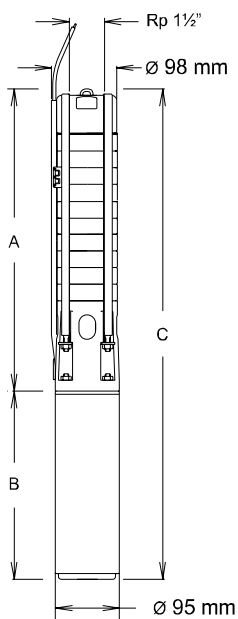
Technical Data

Selection Chart 4"WPS®-CP 2

Pump Type	Flow [m³/h]					Max. Head [m] at 0 m³/h	Full load current	
	1	1,5	2	2,5	3		Motor [A]	Supply [A]
4"WPS®-CP 2-60	67	63	59	55	49	70	4,8	8,3
4"WPS®-CP 2-90	101	98	92	84	77	107	7,1	12,3
4"WPS®-CP 2-120	134	129	122	113	103	142	9,3	16,1

4"WPS®-CP

Dimensions and Weights 4"WPS®-CP 2



Pump Type	Pump Power P ₂		A [mm]	B [mm]	C [mm]	Weight [kg]	
	[kW]	[HP]				Pump End	Electropump
4"WPS®-CP 2-60	1,1	1,5	300	295	595	3,2	14,1
4"WPS®-CP 2-90	1,5	2	349	340	689	3,8	15,2
4"WPS®-CP 2-120	2,0	2,7	397	375	772	4,4	18,6

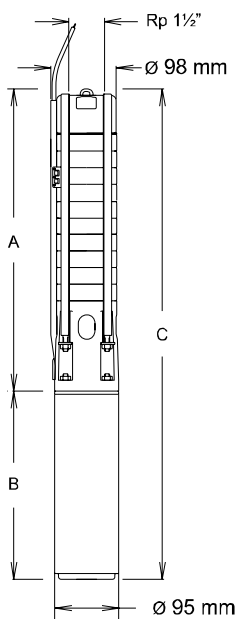
Technical Data

Selection Chart 4"WPS®-CP 4

Pump Type	Flow [m³/h]					Max. Head [m] at 0 m³/h	Full load current	
	2	3	4	5	6		Motor [A]	Supply [A]
4"WPS®-CP 4-45	51	47	43	35	25	56	4,8	8,3
4"WPS®-CP 4-60	69	64	58	50	38	76	7,1	12,3
4"WPS®-CP 4-85	101	95	85	72	55	111	9,3	16,1

4"WPS®-CP

Dimensions and Weights 4"WPS®-CP 4



Pump Type	Pump Power P ₂		A [mm]	B [mm]	C [mm]	Weight [kg]	
	[kW]	[HP]				Pump End	Electropump
4"WPS®-CP 4-45	1,1	1,5	276	295	571	2,9	13,8
4"WPS®-CP 4-60	1,5	2	300	340	640	3,2	14,6
4"WPS®-CP 4-85	2,0	2,7	349	375	724	3,9	18,1

