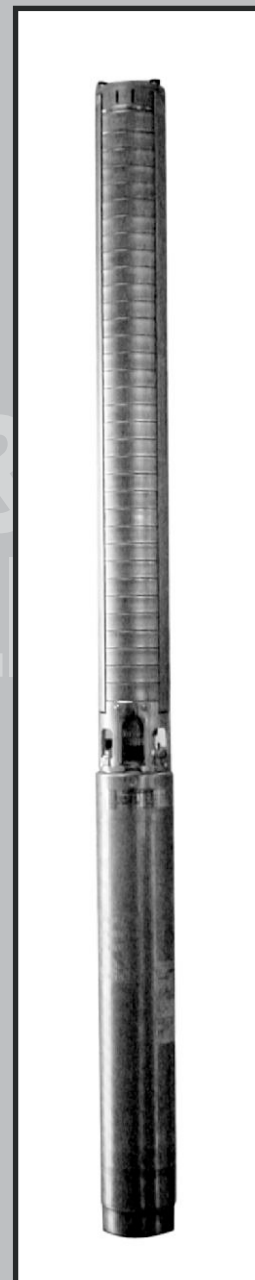
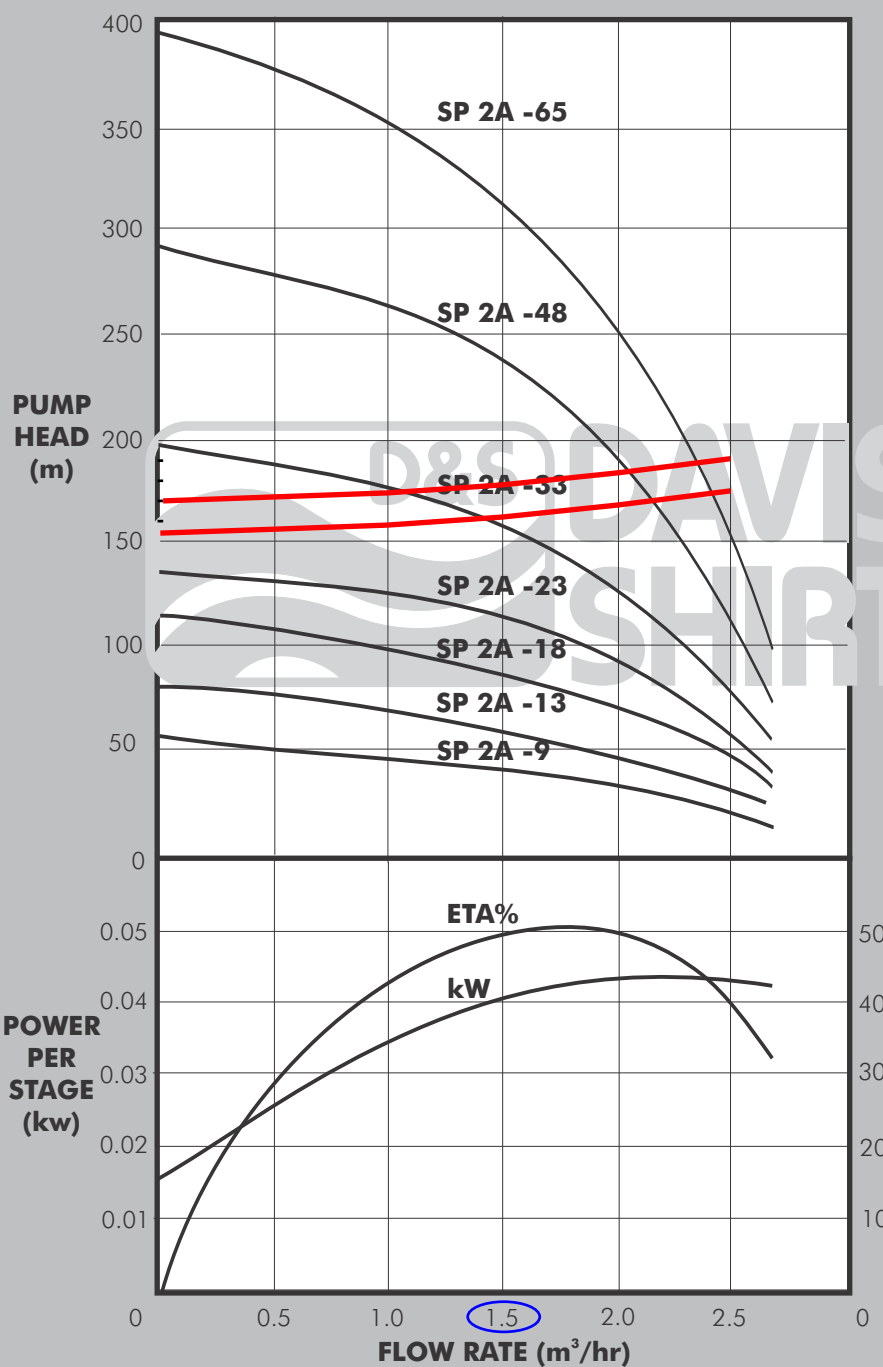




DATA SHEET

Multistage Centrifugal
Borehole Pumps

SP 2A



PUMP

GRUNDFOS SP submersible pumps are designed specifically for borehole supply applications. They are of multistage centrifugal impeller design and all parts are made from stainless steel with water lubricated rubber bearings. A submersible motor is fitted beneath the pump and suction is effected through a strainer between the pump and motor.

Standard pumps are designed for the pumping of non-aggressive water. 'N and R' versions are available for applications requiring a higher degree of corrosion resistance.

All SP pumps carry a drinking water approval and meet European Minimum Efficiency Index guidelines

MOTOR

The pump is coupled to a sealed, liquid cooled 2-pole asynchronous squirrel-cage GRUNDFOS motor constructed of stainless steel. Single phase motors require control boxes, while three phase motors require a remote Direct-on-Line starter. If unstable supply voltage is likely an additional quick tripping control relay is recommended.

Enclosure Class: IP58

Insulation Class: B

Speed: 2900 rpm

OPERATING CONDITIONS

Pumped Liquid: Thin, clean, chemically non-aggressive liquids without solid particles or fibres.

Max Liquid Temperature: +40°C.

Max Water Depth: Up to 1.5 kW 1ph and 2.2 kW 3 ph - 150 m
2.2 kW 1ph and 3 kW 3 ph- 600 m

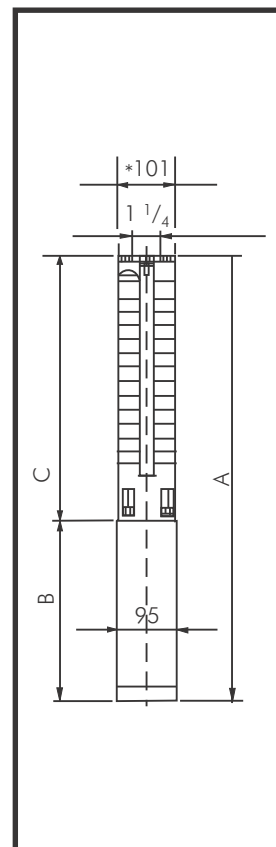
Minimum Borehole Diameter: 110mm

ELECTRICAL DATA

Pump Type	Motor		Full Load Current (A)		Start Current (A)	
	kW	HP	1x240 V	3x415 V	1x240 V	3x415 V
SP 2A-9	0.37	0.5	3.8		13	
SP 2A-13	0.55	0.75	5.5		19	
SP 2A-18	0.75	1.0	7.0		26	
SP 2A-23	1.1	1.5	7.1	3.7	31	16
SP 2A-33	1.5	2.0	9.8	4.4	38	21
SP 2A-48	2.2	3.0	14.0	5.7	62	26
SP 2A-65	3.0	4.0		8.1		35

DIMENSIONS AND WEIGHTS

Pump Type	Dimensions (mm)					Weight (kg)	
	A		B		C	1x240 V	3x415 V
	1x240 V	3x415 V	1x240 V	3x415 V			
SP 2A-9	600		256		344	11	
SP 2A-13	719		291		428	13	
SP 2A-18	839		306		533	15	
SP 2A-23	984	944	346	306	638	17	16
SP 2A-33	1190	1190	346	346	844	20	19
SP 2A-48	1781	1554	573	346	1208	39	30
SP 2A-65		2058		493	1565		41



* Maximum diameter of the pump inclusive of cable guard and motor

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GR04F-10/12

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Pump and System Curve Calculations

<u>High Scenario</u>								
Well Depth	420	ft	129	m				
Reservoir Height	82	ft	25	m				
Static Head	502	ft	154	m				
<u>Low Scenario</u>								
Well Depth	460	ft	141	m				
Reservoir Height	92	ft	29	m				
Static Head	552	ft	170	m				
Flow Rate (m3/h)	Flow Rate (cfs)	Length (ft)	Diameter (ft)	Coeff	dP (ft)	dp (m)	High Scenario	Low Scenario
0.5	0.0049	1700	0.1	140	3.4	1.04	156	172
1	0.00981	1700	0.1	140	12.3	3.75	158	174
1.5	0.01471	1700	0.1	140	26	7.92	162	178
2	0.01962	1700	0.1	140	44.2	13.47	168	184
2.5	0.02452	1700	0.1	140	66.8	20.36	175	191