

# SP4

## 4" SUBMERSIBLE PUMPS



 Clean water  
(Maximum sand content 150 g/m<sup>3</sup>)

 Domestic use

 Civil use



### CONSTRUCTION CHARACTERISTICS

<b>DELIVERY BODY</b>	Precision cast stainless steel AISI 304 complete with threaded delivery port in compliance with ISO 228/1
<b>IMPELLER</b>	Lexan 141-R for 1-1.5-2-4-6-8 SP4 Noryl FE1520PW for 10-12-15 SP4
<b>DIFFUSER</b>	Noryl FE1520PW
<b>STAGE CASING</b>	Stainless steel AISI 304
<b>PUMP SHAFT</b>	Stainless steel AISI 304
<b>DRIVE COUPLING</b>	Stainless steel AISI 316L up to 2.2 kW; Stainless steel AISI 304 for higher powers
<b>MOTOR 4"</b>	Oil filled motor Jacket: AISI 316 stainless steel Shaft: "DUPLEX" stainless steel
<b>POWER CABLE</b>	Length of power cable: – for P2 from 0.37 to 3 kW: 1.7 m – for P2 from 4 to 7.5 kW: 2.7 m

### PERFORMANCE RANGE

- Flow rate up to **340 l/min** (20.4 m<sup>3</sup>/h)
- Head up to **405 m**

### APPLICATION LIMITS

- Maximum liquid temperature **+35 °C**
- Maximum sand content **150 g/m<sup>3</sup>**
- **100 m** immersion limit
- Installation:
  - vertical
  - horizontal, with the following limits:
    - 1SP4 - 1.5SP4 - 2SP4 - 4SP4 up to **27 stages**
    - 6SP4 - 8SP4 up to **17 stages**
    - 10SP4 - 12SP4 - 15SP4 up to **12 stages**
- Starts/hour: **20** at regular intervals
- Minimum flow rate for motor cooling **8 cm/s**
- Continuous service **S1**

### INSTALLATION AND USE

Suitable for use with clean water with a sand content of no more than 150 g/m<sup>3</sup>. Because of their high efficiency and reliability, they are suitable for use in domestic, civil and industrial applications such as for the distribution of water in combination with pressure tanks, for irrigation, for washing plants and for pressure boosting in fire-fighting sets, etc..

### CONSTRUCTION AND SAFETY STANDARDS

- Single-phase 230 V - 50 Hz
- Three-phase 400 V - 50 Hz

The single-phase versions supplied with a capacitor included in the packaging.

EN 60335-1  
IEC 60335-1  
CEI 61-150

EN 60034-1  
IEC 60034-1  
CEI 2-3



### OPTIONS AVAILABLE ON REQUEST

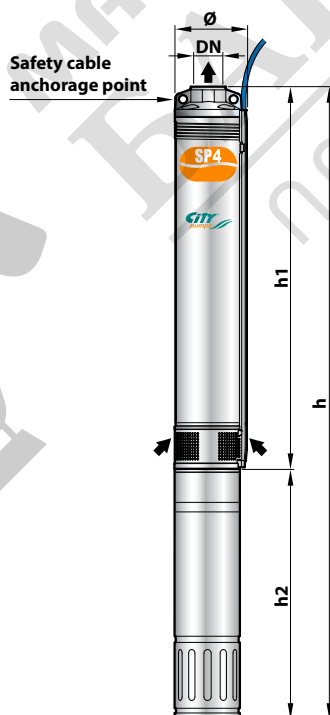
- Kit of cooling jacket complete with filter and supports



## DIMENSIONS AND WEIGHT

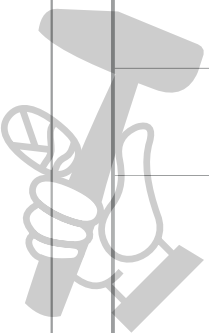
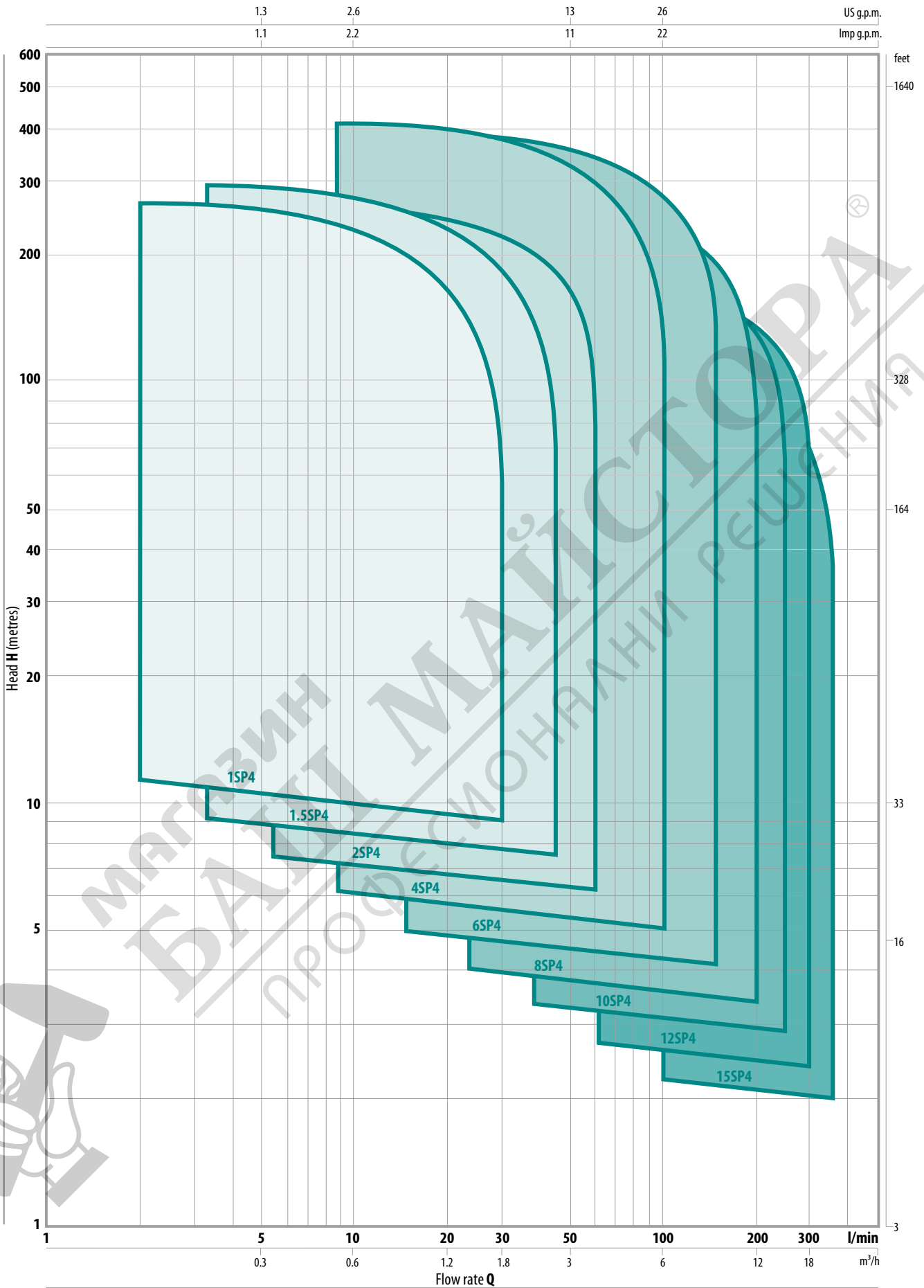
MODEL	PORT	DIMENSIONS mm				kg		
		DN	Ø	h1	h2		h	1~
1SP05-4M /R	1 1/4"	98	400	311	711	11.2		
1SP07-4M /R			517	331	848	13.2		
1SP10-4M /R			646	356	1002	15.9		
1SP15-4M /R			856	396	1252	19.6		
1SP20-4M /R			1065	437	1502	23.1		
1.5SP05-4M /R			308	311	619	10.3		
1.5SP07-4M /R			400	331	731	11.7		
1.5SP10-4M /R			499	356	855	14.2		
1.5SP15-4M /R			646	396	1042	17.5		
1.5SP20-4M /R			800	437	1237	20.9		
1.5SP30-4M /R			1134	492	1626	28.1		
2SP05-4M /R			2"	98	290	311	601	10.1
2SP07-4M /R					345	331	676	11.4
2SP10-4M /R					400	356	756	13.3
2SP15-4M /R					554	396	950	16.6
2SP20-4M /R					683	437	1120	19.5
2SP30-4M /R					929	492	1421	25.4
4SP07-4M					314	331	645	11.0
4SP10-4M /R					358	356	714	12.8
4SP15-4M /R					468	396	864	15.6
4SP20-4M /R					580	437	1017	18.3
4SP30-4M /R					756	492	1248	23.2
6SP07-4M /R					281	331	612	10.9
6SP10-4M /R					341	356	697	12.5
6SP15-4M /R					431	396	827	15.0
6SP20-4M /R					576	437	1013	17.8
6SP30-4M /R					695	492	1187	22.2
8SP10-4M /R					281	356	637	12.0
8SP15-4M /R					371	396	767	14.4
8SP20-4M /R					431	437	868	16.4
8SP30-4M /R					576	492	1068	21.0
10SP10-4M/R					616	356	972	14.0
10SP15-4M/R	762	396			1158	16.9		
10SP20-4M/R	981	437			1418	20.2		
10SP30-4M/R	1346	492			1838	26.4		
12SP10-4M/R	543	356			899	13.4		
12SP15-4M/R	689	396			1085	16.3		
12SP20-4M/R	835	437			1272	19.0		
12SP30-4M/R	1200	492			1692	25.2		
15SP15-4M/R	616	396			1012	15.7		
15SP20-4M/R	762	437			1199	18.4		
15SP30-4M/R	1054	492			1546	24.0		

MODEL	PORT	DIMENSIONS mm				kg		
		DN	Ø	h1	h2		h	3~
1SP05-4 /R	1 1/4"	98	400	311	711	11.2		
1SP07-4 /R			517	331	848	13.2		
1SP10-4 /R			646	356	1002	15.9		
1SP15-4 /R			856	371	1227	18.8		
1SP20-4 /R			1065	396	1461	21.6		
1.5SP05-4 /R			308	311	619	10.3		
1.5SP07-4 /R			400	331	731	11.7		
1.5SP10-4 /R			499	356	855	14.2		
1.5SP15-4 /R			646	371	1017	16.7		
1.5SP20-4 /R			800	396	1196	19.4		
1.5SP30-4 /R			1134	437	1571	24.9		
2SP05-4 /R			2"	98	290	311	601	10.1
2SP07-4 /R					345	331	676	11.4
2SP10-4 /R					400	356	756	13.3
2SP15-4 /R					554	371	925	15.8
2SP20-4 /R					683	396	1079	18.0
2SP30-4 /R					929	437	1366	22.2
4SP07-4 /R					314	331	645	11.0
4SP10-4 /R					358	356	714	12.8
4SP15-4 /R					468	371	839	14.8
4SP20-4 /R					580	396	976	16.8
4SP30-4 /R					756	437	1193	20.0
4SP40-4 /R					978	450	1428	23.9
4SP55-4 /R					1295	505	1800	31.1
4SP75-4 /R					1652	700	2352	44.1
6SP07-4 /R					281	331	612	10.9
6SP10-4 /R					341	356	697	12.5
6SP15-4 /R					431	371	802	14.2
6SP20-4 /R					576	396	972	16.3
6SP30-4 /R					695	437	1132	19.0
6SP40-4 /R					900	450	1350	22.5
6SP55-4 /R					1164	505	1669	27.7
6SP75-4 /R	1519	700			2219	40.4		
6SP100-4 /R	2063	800			2863	51.0		
8SP10-4 /R	281	356			637	12.0		
8SP15-4 /R	371	371			742	13.6		
8SP20-4 /R	431	396			827	14.9		
8SP30-4 /R	576	437			1013	17.8		
8SP40-4 /R	695	450			1145	20.4		
8SP55-4 /R	900	505			1405	25.4		
8SP75-4 /R	1164	700			1864	36.5		
8SP100-4 /R	1519	800			2319	43.9		
10SP10-4/R	2"	98			616	356	972	14.0
10SP15-4/R			762	371	1133	16.1		
10SP20-4/R			981	396	1377	18.7		
10SP30-4/R			1346	437	1783	23.2		
10SP40-4/R			1784	450	2234	28.2		
10SP55-4/R			2368	505	2873	36.1		
10SP75-4/R			3171	700	3871	51.2		
12SP10-4/R			543	356	899	13.4		
12SP15-4/R			689	371	1060	15.5		
12SP20-4/R			835	396	1231	17.5		
12SP30-4/R			1200	437	1637	22.0		
12SP40-4/R			1565	450	2015	26.5		
12SP55-4/R			2003	505	2508	32.9		
12SP75-4/R			2660	700	3360	46.9		
15SP15-4/R			616	371	987	14.9		
15SP20-4/R			762	396	1158	16.9		
15SP30-4/R	1054	437	1491	20.8				
15SP40-4/R	1346	450	1796	24.7				
15SP55-4/R	1711	505	2216	30.5				
15SP75-4/R	2295	700	2995	43.9				



# PERFORMANCE RANGE

50 Hz |  $n = 2900 \text{ min}^{-1}$



PERFORMANCE DATA

50 Hz | n= 2900 min<sup>-1</sup>

MODEL		POWER (P <sub>2</sub> )		Q	H metres						
Single-phase	Three-phase	kW	HP		m <sup>3</sup> /h	0	0.3	0.6	0.9	1.2	1.5
1SP05-4M/R	1SP05-4/R	0.37	0.50	0	0	5	10	15	20	25	30
1SP07-4M/R	1SP07-4/R	0.55	0.75		77	73	67	60	51	40	26
1SP10-4M/R	1SP10-4/R	0.75	1		107	101	93	83	71	55	36
1SP15-4M/R	1SP15-4/R	1.1	1.5		148	140	129	115	98	77	50
1SP20-4M/R	1SP20-4/R	1.5	2		206	197	182	161	136	107	70
					266	254	234	207	176	137	90
				Q	0	0.3	0.9	1.5	1.8	2.1	2.7
					0	5	15	25	30	35	45
1.5SP05-4M/R	1.5SP05-4/R	0.37	0.50		50	48	44	36	32	26	14
1.5SP07-4M/R	1.5SP07-4/R	0.55	0.75		81	78	71	59	52	43	23
1.5SP10-4M/R	1.5SP10-4/R	0.75	1		106	102	93	78	68	56	30
1.5SP15-4M/R	1.5SP15-4/R	1.1	1.5		156	151	136	115	100	83	45
1.5SP20-4M/R	1.5SP20-4/R	1.5	2		200	193	175	147	128	106	58
1.5SP30-4M/R	1.5SP30-4/R	2.2	3		288	277	250	211	184	153	83
				Q	0	0.6	1.2	1.8	2.4	3.0	3.6
					0	10	20	30	40	50	60
2SP05-4M/R	2SP05-4/R	0.37	0.50		48	46	44	39	33	25	14
2SP07-4M/R	2SP07-4/R	0.55	0.75		70	68	63	57	48	36	20
2SP10-4M/R	2SP10-4/R	0.75	1		90	88	82	74	62	46	26
2SP15-4M/R	2SP15-4/R	1.1	1.5		135	130	122	111	93	71	39
2SP20-4M/R	2SP20-4/R	1.5	2		180	173	164	150	126	96	52
2SP30-4M/R	2SP30-4/R	2.2	3		260	250	238	216	183	138	75
				Q	0	1.2	2.4	3.0	3.6	4.8	6.0
					0	20	40	50	60	80	100
4SP07-4M	4SP07-4/R	0.55	0.75		46	44	40	38	35	28	17
4SP10-4M/R	4SP10-4/R	0.75	1		60	56	52	49	45	35	23
4SP15-4M/R	4SP15-4/R	1.1	1.5		92	88	81	76	70	55	35
4SP20-4M/R	4SP20-4/R	1.5	2		120	112	104	98	90	70	45
4SP30-4M/R	4SP30-4/R	2.2	3		170	162	150	141	130	101	63
-	4SP40-4/R	3	4		230	220	202	190	175	137	85
-	4SP55-4/R	4	5.5		308	293	269	249	230	181	117
-	4SP75-4/R	5.5	7.5		405	385	350	325	300	235	155
				Q	0	1.5	3.0	4.5	6.0	7.5	9.0
					0	25	50	75	100	125	150
6SP07-4M/R	6SP07-4/R	0.55	0.75		27	26	24	22	19	15	11
6SP10-4M/R	6SP10-4/R	0.75	1		40	38	36	33	29	24	17
6SP15-4M/R	6SP15-4/R	1.1	1.5		61	58	54	50	44	35	26
6SP20-4M/R	6SP20-4/R	1.5	2		87	83	78	71	61	49	35
6SP30-4M/R	6SP30-4/R	2.2	3		114	107	100	91	79	62	45
-	6SP40-4/R	3	4		154	148	138	128	112	92	67
-	6SP55-4/R	4	5.5		210	200	186	170	149	121	86
-	6SP75-4/R	5.5	7.5		285	276	258	240	212	170	124
-	6SP100-4/R	7.5	10		380	365	340	315	280	233	173
				Q	0	2.4	4.8	6.0	7.2	9.6	12.0
					0	40	80	100	120	160	200
8SP10-4M/R	8SP10-4/R	0.75	1		27	26	24	23	22	17	10
8SP15-4M/R	8SP15-4/R	1.1	1.5		47	46	43	41	38	29	16
8SP20-4M/R	8SP20-4/R	1.5	2		60	58	55	52	48	37	21
8SP30-4M/R	8SP30-4/R	2.2	3		87	85	80	76	70	54	30
-	8SP40-4/R	3	4		112	110	104	99	92	70	40
-	8SP55-4/R	4	5.5		153	150	141	134	124	95	53
-	8SP75-4/R	5.5	7.5		205	200	190	181	167	128	72
-	8SP100-4/R	7.5	10		280	272	257	244	225	175	98
				Q	0	3.0	6.0	7.5	9.0	12	15.0
					0	50	100	125	150	200	250
10SP10-4M/R	10SP10-4/R	0.75	1		33	29	25	23	20.5	13.5	4
10SP15-4M/R	10SP15-4/R	1.1	1.5		43	39	35	31	27.5	18	6
10SP20-4M/R	10SP20-4/R	1.5	2		60	54	47	42	37.5	25	8
10SP30-4M/R	10SP30-4/R	2.2	3		87	79	69	62	55	36.5	11
-	10SP40-4/R	3	4		120	109	95	85	76	50	15
-	10SP55-4/R	4	5.5		163	148	129	116	103	68	21
-	10SP75-4/R	5.5	7.5		223	203	176	159	141	93	29
				Q	0	3.0	6.0	8.4	12	15.6	18.0
					0	50	100	140	200	260	300
12SP10-4M/R	12SP10-4/R	0.75	1		27	25	22.5	20.5	16.5	10.7	5
12SP15-4M/R	12SP15-4/R	1.1	1.5		38	35	31.5	28.5	23.2	15	7
12SP20-4M/R	12SP20-4/R	1.5	2		48	45	40.7	36.7	29.8	19.2	9
12SP30-4M/R	12SP30-4/R	2.2	3		75	70	63.3	57	46.5	30	14
-	12SP40-4/R	3	4		102	95	85.8	77.5	63	40.5	19
-	12SP55-4/R	4	5.5		135	125	113	102	83	53.5	25
-	12SP75-4/R	5.5	7.5		183	170	153.7	138.7	112.8	72.7	34
				Q	0	3.0	6.0	9.0	12	15	20.4
					0	50	100	150	200	250	340
15SP15-4M/R	15SP15-4/R	1.1	1.5		32	30	27.5	24.5	21.5	17.5	3
15SP20-4M/R	15SP20-4/R	1.5	2		43	40	36.5	32.5	28.5	23.5	5
15SP30-4M/R	15SP30-4/R	2.2	3		64	60	54.5	49	43	35	7
-	15SP40-4/R	3	4		86	80	73	65.5	57.5	46.5	9
-	15SP55-4/R	4	5.5		113	105	95.5	86	75.5	61	12
-	15SP75-4/R	5.5	7.5		156	145	132	119	104.5	84.5	17