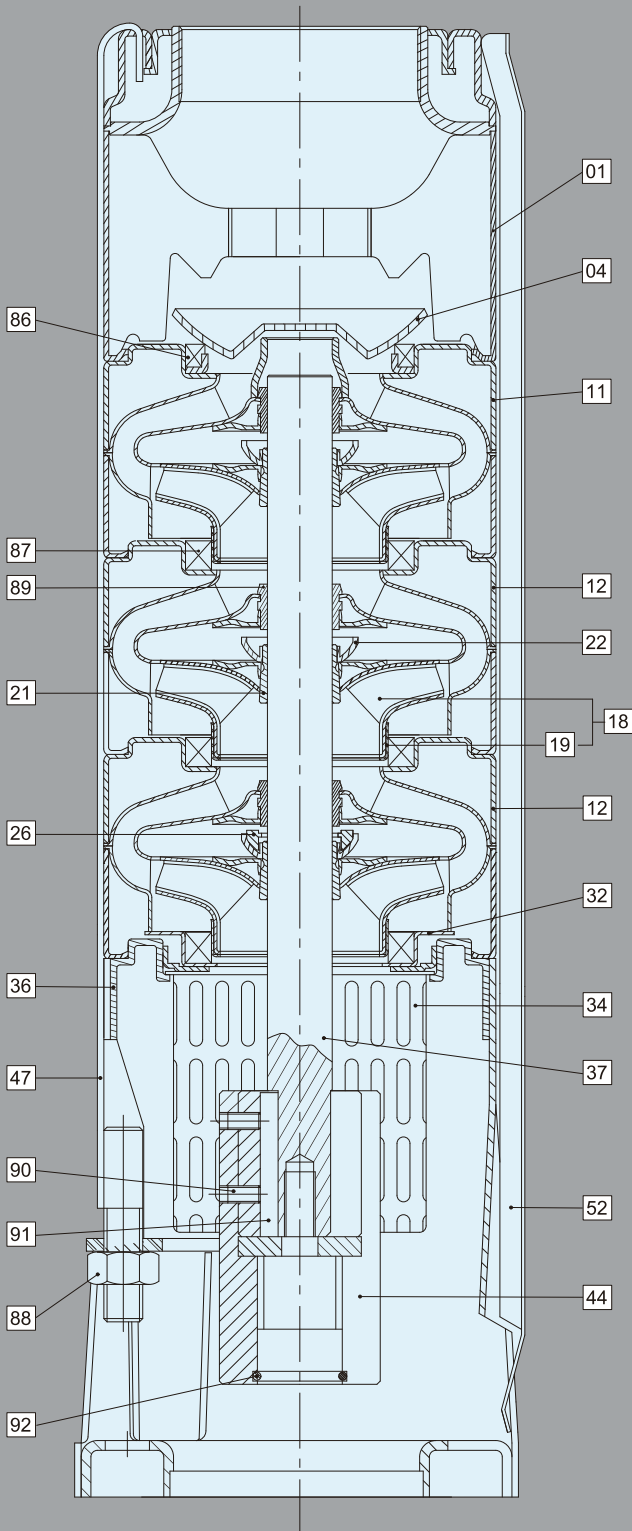


General Data

Example: SP-90



Material Specification-6" Pumps

Pos.	Components	Standard
01	Discharge	SUS304 / SUS316
04	Valve Cone	SUS304 / SUS316
11	Top Diffuser	SUS304 / SUS316
12	Diffuser	SUS304 / SUS316
18	Impeller	SUS304 / SUS316
19	Ring of Impeller	SUS304 / SUS316
21	Split Cone	SUS304 / SUS316
22	Split Cone Nut	SUS304 / SUS316
26	Spacing Washer For Stop Ring	Carbon+Graphite+PTFE
32	Neck Ring Retainer	SUS304 / SUS316
34	Strainer	SUS304 / SUS316
36	Suction Interconnector	SUS304 / SUS316
37	Pump Shaft	SUS431 / SUS316
44	Coupling	SUS431 / SUS316
47	Strap	SUS304 / SUS316
52	Cable Guard	SUS304 / SUS316
86	Valve Seat	SUS304+NBR / SUS316+NBR
87	Neck Ring	SUS304+NBR / SUS316+NBR
88	Nut	SUS304 / SUS316
89	Bearing	NBR
90	Screw	SUS304 / SUS316
91	Key	SUS304 / SUS316
92	O-ring	NBR

*AISI 316 stainless steel pumps are available on request.

6" Stainless Steel Submersible Pumps

Stairs' SP 6" range of submersible pumps are made of corrosion and abrasion resistant stainless steel and have been developed in accordance with state of the art technology. The SP 6" pumps are manufactured to the highest standards of highly efficient hydraulic impeller and diffuser design to reach high energy efficiency, dependable performance, rugged construction and long service life, even in difficult environments.

Applications

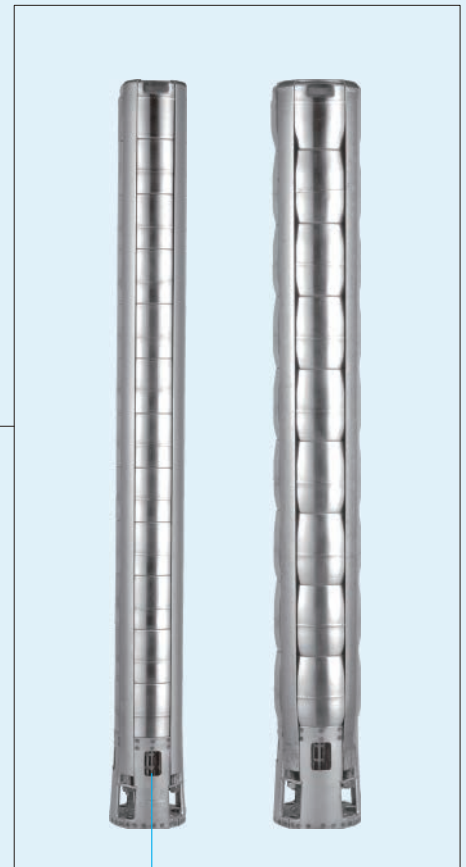
- ◆ Potable water supply
- ◆ Agricultural irrigation and livestock watering
- ◆ Municipal and industrial water supply
- ◆ Pressure boosting
- ◆ Mining applications
- ◆ Groundwater lowering
- ◆ Fountain

Pumped Liquids

- ◆ Clean, thin, non-aggressive and non-corrosive liquids without solid particles or fibers.

Operating Conditions

- ◆ Capacity (m³/h) min 6 max 90
- ◆ Total Head: Max. 789 m
- ◆ Max. ambient temperature (Liquid): 30°C
- ◆ Sand content: Max. 50 g/m³
- ◆ Screen size of each hole: 20 x 4 mm



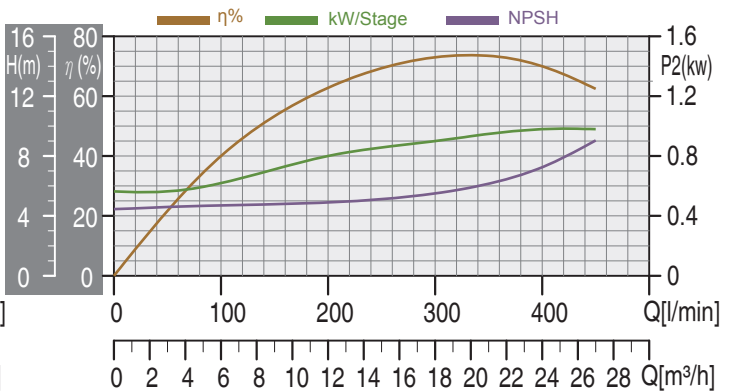
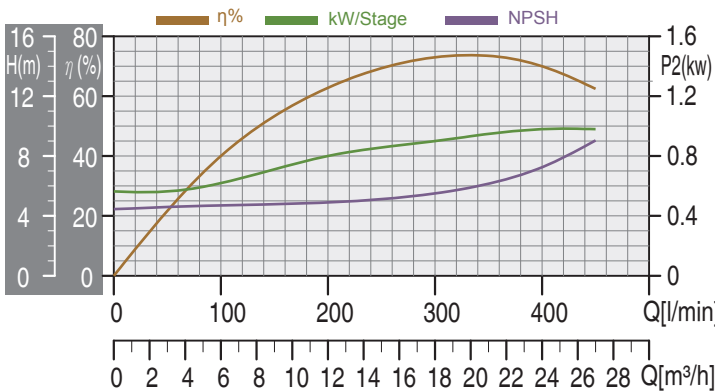
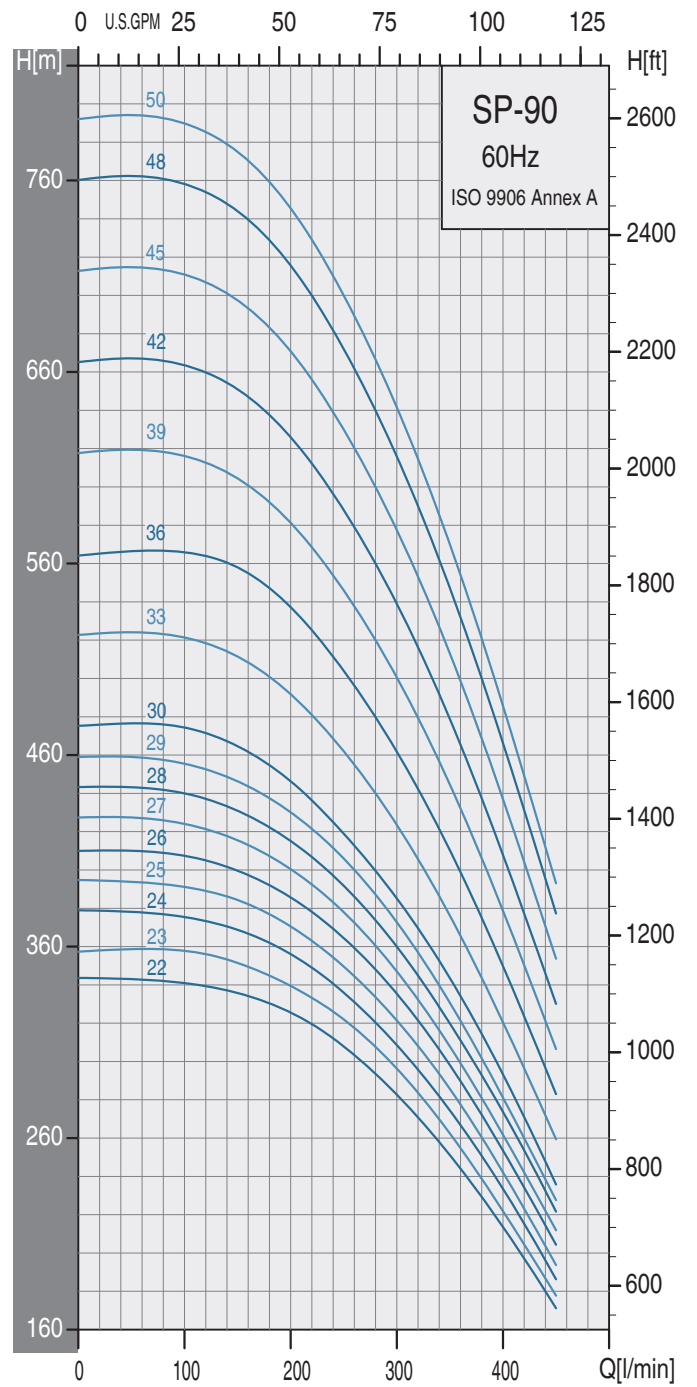
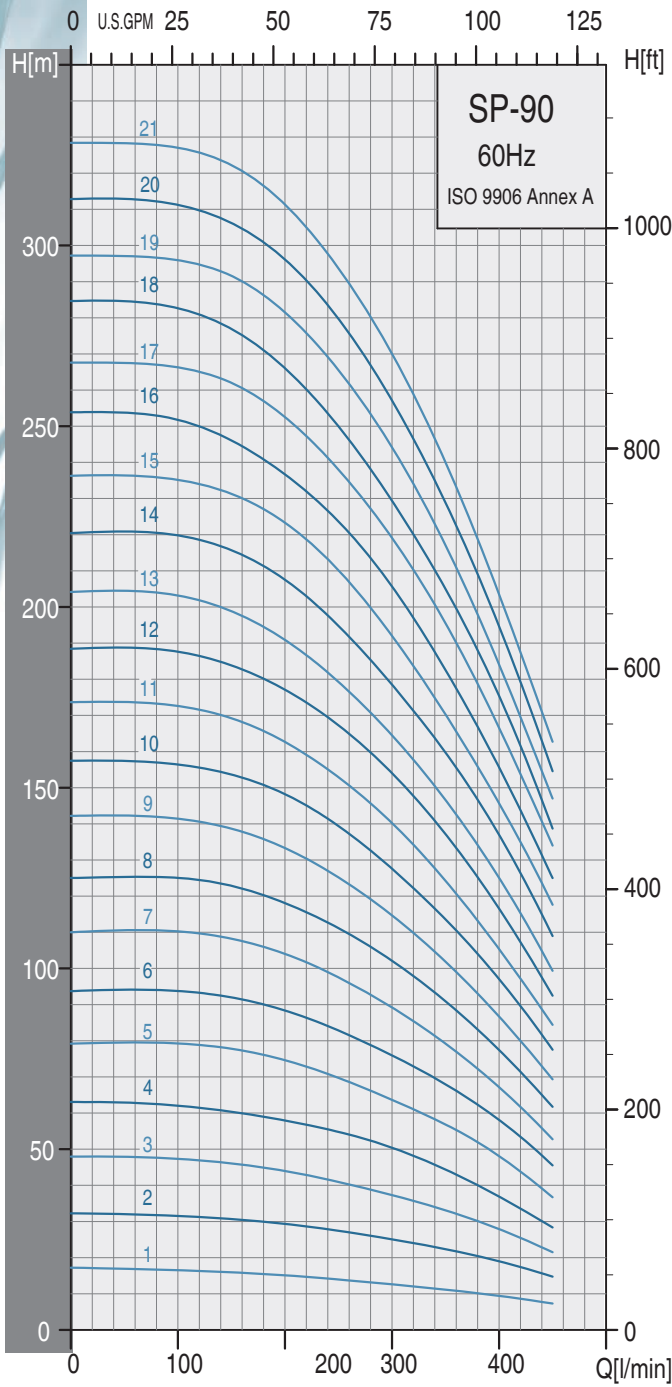
Features

- ◆ Stainless steel construction designed and built for years of trouble free operation
- ◆ Designed and built to operate in difficult conditions.
- ◆ All metal parts are made of 304 or 316 stainless steel, except for the shafts, which are made of 431 or 316 stainless steel.
- ◆ Heavy duty stainless steel discharge head with built-in check valve for preventing back flow in connection with pump stoppage and the risk of destructive water hammer is reduced to a minimum.
- ◆ NEMA standard of bracket mounting.
- ◆ High quality shaft bearings provide low friction and high wear resistance.
- ◆ The stop ring prevents damage to the pump during transport and in case of up-thrust in connection with start-up. The stop ring, which is designed as a thrust bearing, limits axial movements of the pump shaft.
- ◆ Stainless steel strainer to restrict the entry of sand and other extraneous material.

Stairs SP Series

SP 6"

SP90 Performance Curves



Selection Chart

60Hz

Dimensions and weights

Pump Type	Motor		m³/h l/min	Q capacity 3450 rpm							
	P2			6	9	12	15	18	21	24	27
	KW	HP		100	150	200	250	300	350	400	450
SP 90-1	1.1	1.5	17	15	14	13	13	13	9	8	
SP 90-2	2.2	3	32	31	29	28	25	23	19	16	
SP 90-3	3	4	48	47	44	41	38	33	28	22	
SP 90-4	3.7	5	62	60	58	55	50	45	37	28	
SP 90-5	5.5	7.5	79	78	75	70	63	57	48	37	
SP 90-6	5.5	7.5	93	92	88	83	76	68	58	46	
SP 90-7	7.5	10	110	108	103	98	89	79	68	53	
SP 90-8	7.5	10	125	122	118	112	102	91	78	62	
SP 90-9	7.5	10	141	138	133	125	115	102	88	70	
SP 90-10	9.3	12.5	157	154	148	140	128	115	98	78	
SP 90-11	9.3	12.5	172	169	162	153	140	125	106	84	
SP 90-12	11	15	188	184	177	167	154	138	117	93	
SP 90-13	11	15	203	199	190	179	165	147	125	100	
SP 90-14	13	17.5	220	216	208	195	179	160	138	110	
SP 90-15	13	17.5	235	231	223	210	192	170	146	119	
SP 90-16	15	20	252	247	237	224	206	184	156	126	
SP 90-17	15	20	268	262	252	238	219	196	166	134	
SP 90-18	15	20	283	277	266	250	230	205	176	140	
SP 90-19	18.5	25	295	292	282	266	245	218	185	147	
SP 90-20	18.5	25	311	307	297	280	258	229	195	155	
SP 90-21	18.5	25	327	322	312	294	271	241	205	163	
SP 90-22	18.5	25	341	336	325	308	282	251	214	170	
SP 90-23	22	30	357	351	340	322	295	262	223	178	
SP 90-24	22	30	376	369	357	336	309	275	233	186	
SP 90-25	22	30	392	384	372	350	322	287	243	194	
SP 90-26	22	30	408	400	386	365	336	298	253	205	
SP 90-27	26	35	424	416	400	378	347	308	263	212	
SP 90-28	26	35	440	431	415	392	360	320	273	220	
SP 90-29	26	35	456	446	430	406	373	331	283	228	
SP 90-30	26	35	473	465	446	420	385	343	293	236	
▶ SP 90-33	30	40	521	512	492	462	424	376	321	259	
▶ SP 90-36	30	40	566	558	537	504	462	410	350	283	
▶ SP 90-39	37	50	616	605	581	546	500	445	379	307	
▶ SP 90-42	37	50	663	651	626	588	539	479	408	330	
▶ SP 90-45	45	60	711	698	671	630	577	513	437	354	
▶ SP 90-48	45	60	758	744	716	672	616	574	466	377	
▶ SP 90-50	45	60	790	775	746	700	641	570	486	393	

HEAD IN METERS

Pump Type	Motor Dia.	Dimensions (mm)			Net Weight (Kg) Pump
		A	C*	C**	
		SP 90-1	4"	343	
SP 90-2	4"	403	131		6.4
SP 90-3	4"	464	131		7.9
SP 90-4	4"	524	131		9.3
SP 90-5	4"	566	131		9.9
	6"	585	142	142	10.8
SP 90-6	4"	626	131		11.3
	6"	645	142	142	12.2
SP 90-7	4"	687	131		12.6
	6"	706	142	142	13.7
SP 90-8	4"	747	131		13.9
	6"	766	142	142	15.1
SP 90-9	4"	808	131		15.2
	6"	827	142	142	16.6
SP 90-10	6"	887	142	142	18.0
SP 90-11	6"	948	142	142	19.5
SP 90-12	6"	1008	142	142	20.9
SP 90-13	6"	1069	142	142	22.4
SP 90-14	6"	1129	142	142	23.8
SP 90-15	6"	1190	142	142	25.3
SP 90-16	6"	1250	142	142	26.7
SP 90-17	6"	1311	142	142	28.2
SP 90-18	6"	1371	142	142	29.6
SP 90-19	6"	1432	142	142	31.1
SP 90-20	6"	1492	142	142	32.5
SP 90-21	6"	2553	142	142	34.0
SP 90-22	6"	1613	142	142	35.4
SP 90-23	6"	11674	142	142	36.9
SP 90-24	6"	1734	142	142	38.3
SP 90-25	6"	11795	142	142	39.8
SP 90-26	6"	1855	142	142	41.2
SP 90-27	6"	1916	142	142	42.7
SP 90-28	6"	1976	142	142	44.1
SP 90-29	6"	2037	142	142	45.6
SP 90-30	6"	2097	142	142	47.0
▶ SP 90-33	6"	2650	178	181	100.1
▶ SP 90-36	6"	2832	178	181	106.6
▶ SP 90-39	6"	3013	178	181	113.1
▶ SP 90-42	8"	3148	192	192	122.0
▶ SP 90-45	8"	3329	192	192	128.1
▶ SP 90-48	8"	3511	192	192	134.6
▶ SP 90-50	8"	3632	192	192	138.0

*Higher pressure , longer stages pumps up to 50 stages are available on request.

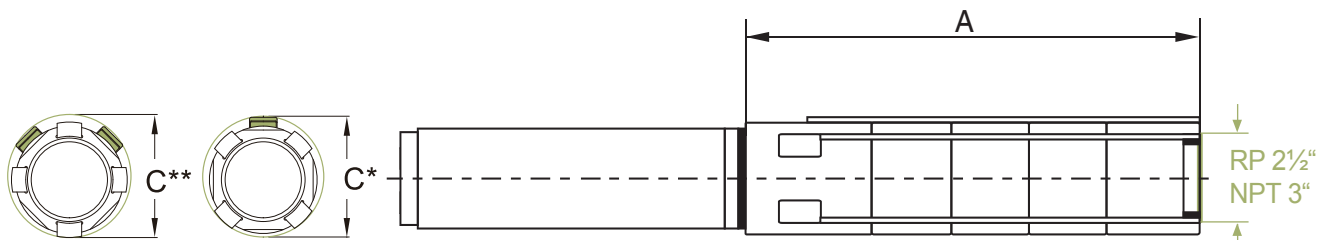
▶ With Sleeve .

C*: Maximum diameter of pump with one motor cable

C**: Maximum diameter of pump with two motor cable

SP-9033 to SP-9050 are mounted in sleeve for R 3 connection.

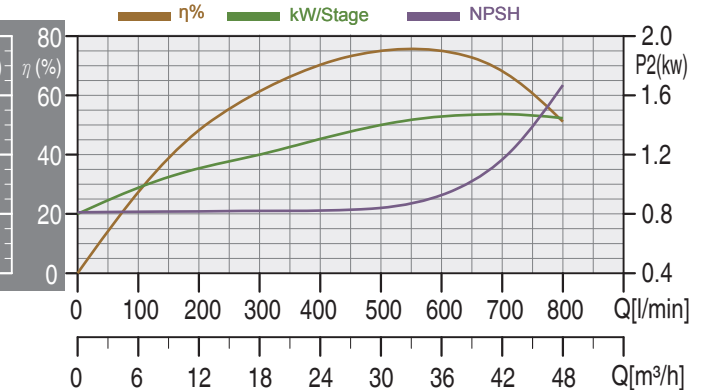
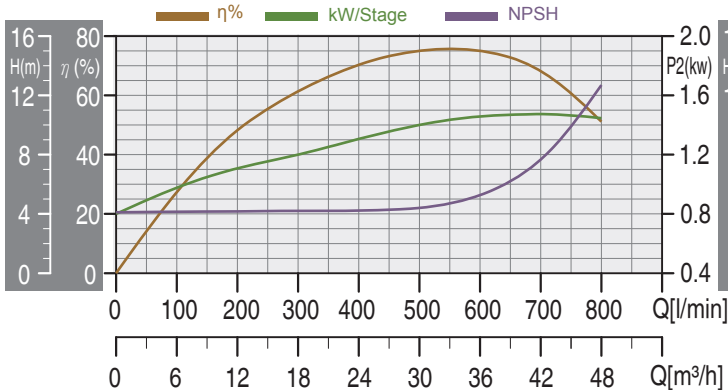
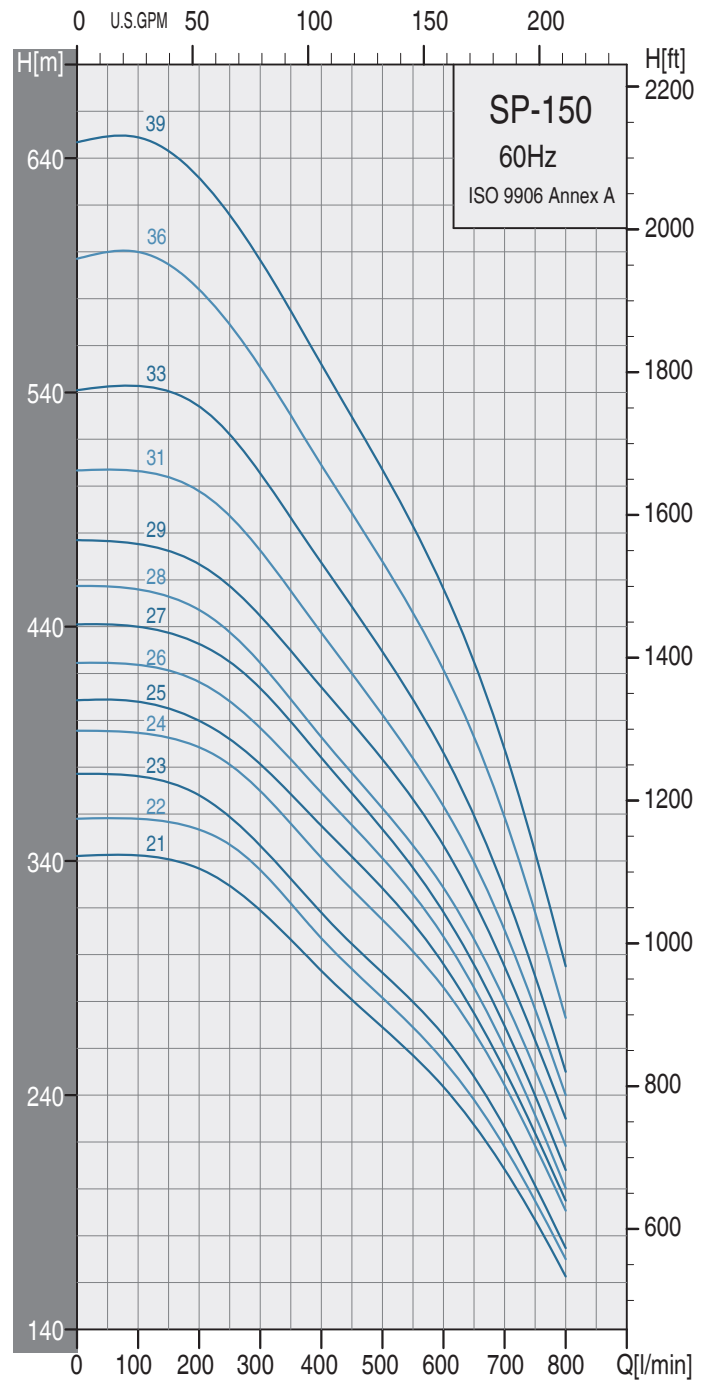
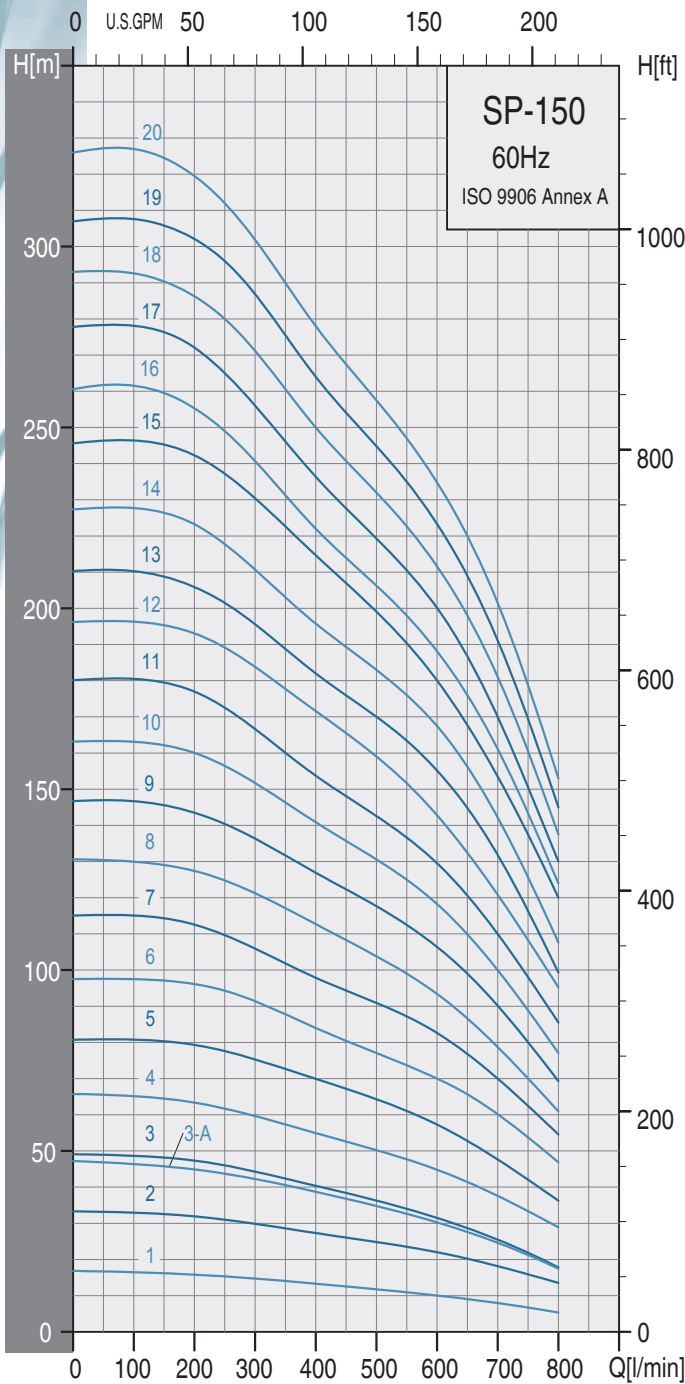
▶ With Sleeve .



Stairs SP Series

SP 6"

SP150 Performance Curves



Selection Chart

60Hz Dimensions and weights

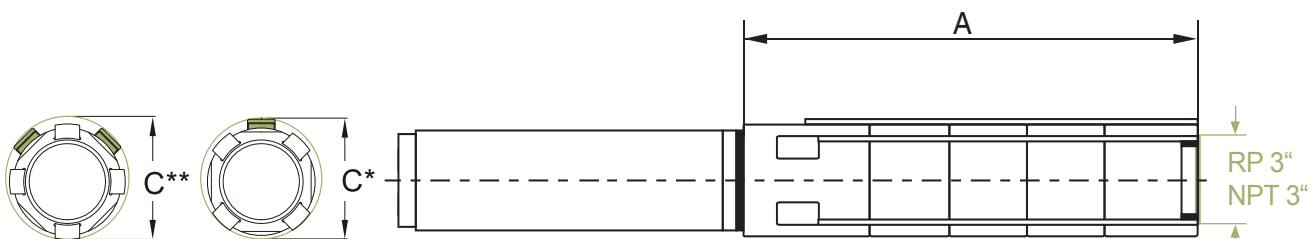
Pump Type	Motor		Q capacity 3450 rpm														
	P2 KW	HP	m³/h l/min	HEAD IN METERS													
				12	15	18	21	24	27	30	33	36	39	42	45	48	
SP 150-1	1.5	2	16	15.5	15	14	13.5	13	12	11	10	9	8	6	5		
SP 150-2	3	4	32	31	29	28	27	26	24	23	22	20	18	16	13		
SP 150-3A	3.7	5	44	43	42	40	38	36	34	32	30	27	24	21	17		
SP 150-3	4	5.5	47	46	45	42	40	38	36	34	32	29	26	22	18		
SP 150-4	5.5	7.5	63	62	59	57	55	53	50	47	45	41	37	34	28		
SP 150-5	7.5	10	79	77	75	72	70	67	64	61	58	53	47	42	36		
SP 150-6	9.3	12.5	97	94	91	87	84	81	78	75	70	66	60	54	47		
SP 150-7	9.3	12.5	113	110	106	102	98	94	91	87	82	77	70	63	55		
SP 150-8	11	15	128	125	121	117	113	108	104	99	93	87	78	70	61		
SP 150-9	13	17.5	144	140	137	131	127	122	117	113	106	99	90	79	69		
SP 150-10	13	17.5	160	156	152	146	141	136	130	125	118	110	100	88	77		
SP 150-11	15	20	177	172	167	160	154	148	143	137	129	120	110	97	86		
SP 150-12	18.5	25	193	189	184	178	172	166	158	152	143	133	120	108	95		
SP 150-13	18.5	25	207	202	195	189	182	176	170	163	155	145	108	117	99		
SP 150-14	18.5	25	223	217	210	204	196	189	183	176	167	156	142	126	107		
SP 150-15	22	30	242	237	230	223	215	207	198	190	180	167	154	137	120		
SP 150-16	22	30	255	249	241	231	222	214	206	198	188	176	161	143	124		
SP 150-17	22	30	272	265	256	246	236	227	219	210	200	187	170	150	130		
SP 150-18	26	35	286	280	271	260	250	241	232	223	212	198	181	160	138		
SP 150-19	26	35	302	296	287	275	264	254	245	235	223	209	191	169	145		
SP 150-20	26	35	312	302	290	278	267	257	247	242	235	220	201	178	153		
SP 150-21	30	40	337	329	318	306	293	280	269	257	244	227	208	186	162		
SP 150-22	30	40	353	347	336	322	307	294	282	269	255	238	218	195	170		
SP 150-23	30	40	367	358	346	333	318	305	292	280	266	248	226	201	175		
SP 150-24	37	50	388	381	370	356	342	328	315	302	286	267	244	218	190		
SP 150-25	37	50	400	392	381	369	355	342	328	314	296	275	251	224	195		
SP 150-26	37	50	416	408	396	383	369	356	341	326	308	286	260	231	200		
SP 150-27	37	50	432	425	414	399	384	369	354	337	318	296	270	240	208		
SP 150-28	37	50	447	438	424	409	393	377	363	347	328	306	280	250	218		
▶ SP 150-29	45	60	466	457	445	429	414	399	383	367	346	322	295	263	230		
▶ SP 150-31	45	60	497	487	472	455	437	420	403	384	363	340	310	276	240		
▶ SP 150-33	45	60	535	522	505	486	467	449	429	409	386	360	327	290	250		
▶ SP 150-36	55	75	584	569	551	530	509	488	468	446	422	393	359	318	273		
▶ SP 150-39	55	75	632	616	596	575	552	530	507	483	456	425	388	344	295		

Pump Type	Motor Dia.	Dimensions (mm)			Net Weight (Kg) Pump
		A	C*	C**	
SP 150-1	4"	366	131		6.7
SP 150-2	4"	462	131		8.4
SP 150-3A	4"	558	131		10.1
SP 150-3	4"	558	131		10.1
SP 150-4	4"	635	131		11.0
	6"	654	142	142	11.8
SP 150-5	4"	731	131		12.8
	6"	750	142	142	13.5
SP 150-6	6"	846	142	142	15.2
SP 150-7	6"	942	142	142	16.9
SP 150-8	6"	1038	142	142	18.6
SP 150-9	6"	1134	142	142	20.3
SP 150-10	6"	1230	142	142	22.0
SP 150-11	6"	1326	142	142	23.6
SP 150-12	6"	1422	142	142	25.3
SP 150-13	6"	1518	142	142	27.0
SP 150-14	6"	1614	142	142	28.7
SP 150-15	6"	1710	142	142	30.4
SP 150-16	6"	1806	142	142	32.1
SP 150-17	6"	1902	142	142	33.8
SP 150-18	6"	1998	142	142	35.5
SP 150-19	6"	2094	142	142	37.2
SP 150-20	6"	2190	142	142	38.9
SP 150-21	6"	2286	142	142	40.6
SP 150-22	6"	2382	142	142	42.3
SP 150-23	6"	2478	142	142	44.0
SP 150-24	6"	2574	142	142	45.6
SP 150-25	6"	2670	142	142	47.3
SP 150-26	6"	2766	142	142	49
SP 150-27	6"	2862	142	142	50.7
SP 150-28	6"	2958	142	142	52.4
▶ SP 150-29	6"	3431	177	181	112
▶ SP 150-31	6"	3623	177	181	118
▶ SP 150-33	6"	3815	177	181	124
▶ SP 150-36	8"	4056	192	192	133
▶ SP 150-39	8"	4344	192	192	142

*Higher pressure , longer stages pumps up to 39 stages are available on request.

▶ With Sleeve .

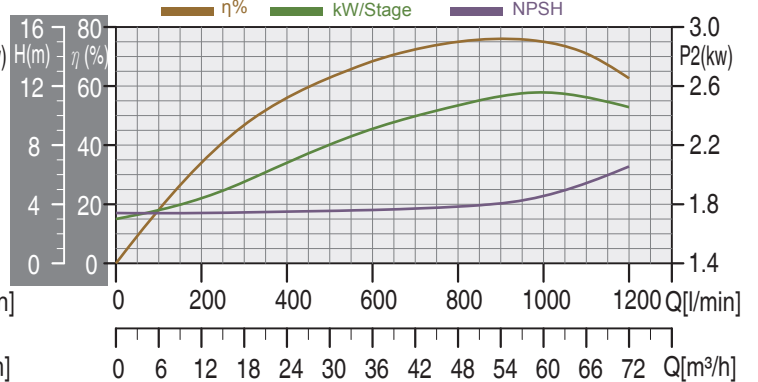
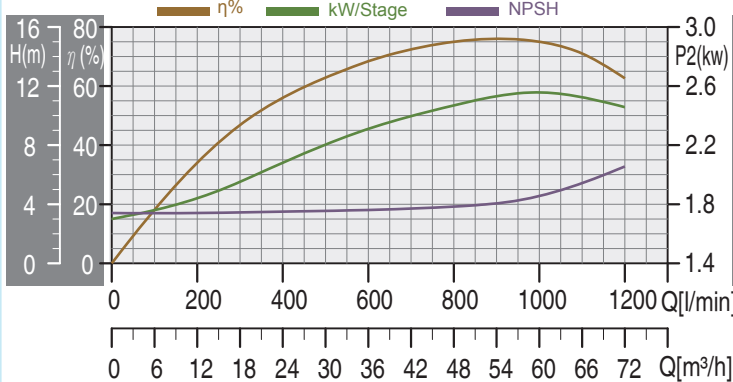
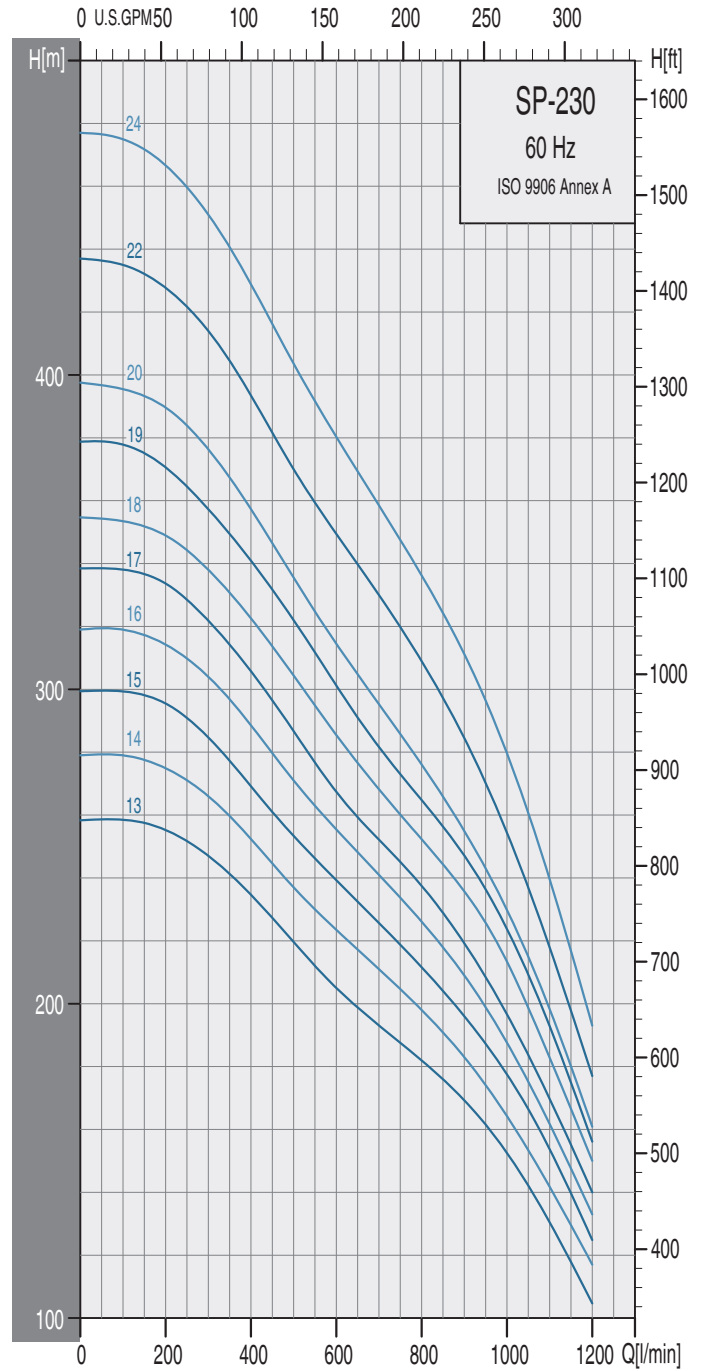
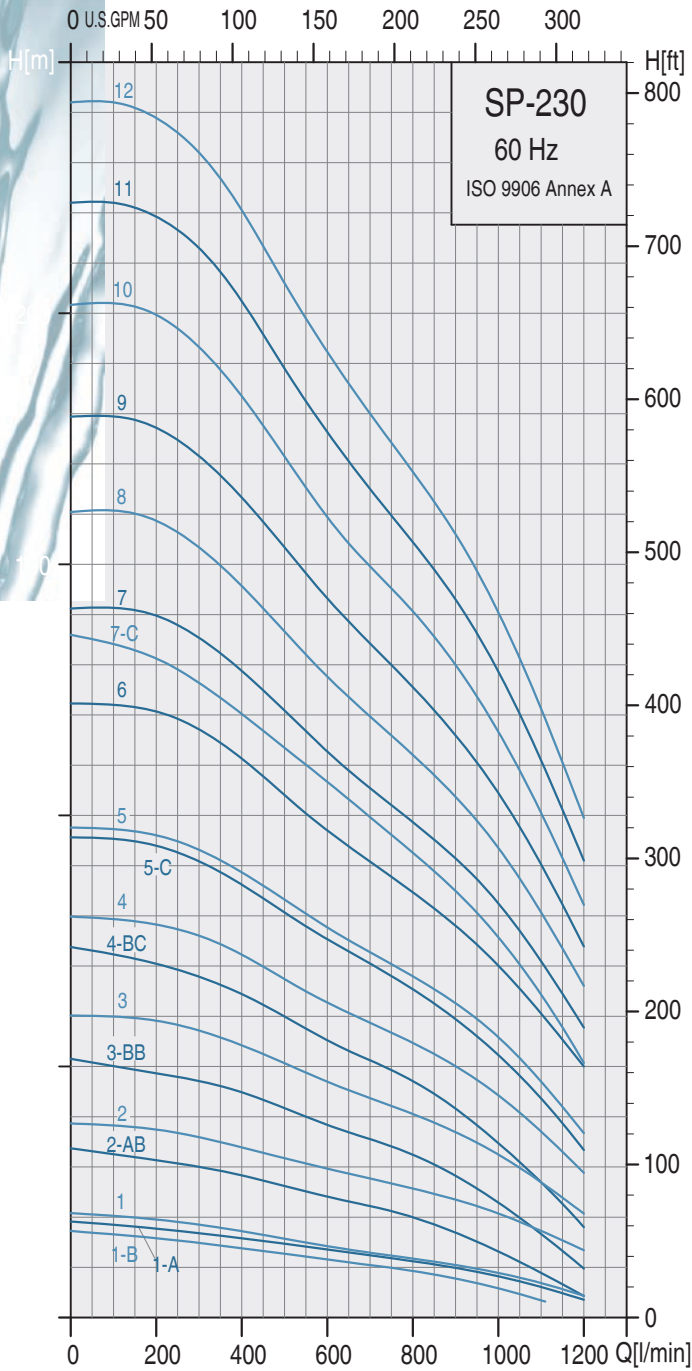
C* : Maximum diameter of pump with one moter cable.
 C** : Maximum diameter of pump with two moter cable.
 SP150-29 to SP150-39 are mounted in sleeve for R 3 connection.
 ▶ With Sleeve .



Stairs SP Series

SP 6"

SP230 Performance Curves



Selection Chart

60Hz

Pump Type	Motor		m³/h l/min	Q capacity 3450 rpm													
	P2			18	21	24	27	30	33	36	42	48	54	60	66	72	
	KW	HP		300	350	400	450	500	550	600	700	800	900	1000	1100	1200	
SP 230-1-B	1.5	2	15	14.5	14	13	12.5	12	11	10	9	8	6	3			
SP 230-1-A	2.2	3	17	16.5	16	15.5	15	14.5	14	13	11	10	8	6	3		
SP 230-1	3	4	18	17.5	17	16.5	16	15	14	13	12	11	8	6	4		
SP 230-2-AB	3.7	5	30	29	28	27	26	25	24	22	20	17	13	8	4		
SP 230-2	5.5	7.5	36	35	34	33	32	31	29	27	26	24	21	17	13		
SP 230-3-BB	5.5	7.5	47	46	45	43	42	40	38	35	32	28	23	16	10		
SP 230-3	7.5	10	57	56	54	53	51	48	47	44	40	37	33	27	21		
SP 230-4-BC	7.5	10	68	67	64	62	60	58	55	51	47	41	35	27	18		
SP 230-4	9.3	12.5	76	74	72	70	67	65	63	58	55	50	44	37	28		
SP 230-5-C	11	15	91	88	85	83	81	78	75	70	65	59	52	43	34		
SP 230-5	13	17.5	93	91	88	86	83	81	77	73	68	63	56	47	37		
SP 230-6	15	20	117	114	112	108	104	100	97	91	85	77	70	60	50		
SP 230-7C	15	20	126	123	120	117	114	110	107	99	93	85	76	65	51		
SP 230-7	18.5	25	136	133	128	125	121	117	113	106	98	92	83	71	57		
SP 230-8	18.5	25	153	150	146	141	137	132	127	120	113	104	94	80	66		
SP 230-9	22	30	172	167	163	158	154	148	143	135	126	116	105	90	74		
SP 230-10	22	30	194	188	184	177	172	165	159	150	141	130	117	100	83		
SP 230-11	26	35	213	208	202	196	189	183	176	165	155	143	128	111	91		
SP 230-12	30	40	232	227	220	213	206	199	192	180	169	156	140	121	100		
SP 230-13	30	40	247	242	235	227	220	213	205	193	182	168	153	130	105		
SP 230-14	37	50	266	259	252	245	237	230	223	211	198	183	164	142	117		
SP 230-15	37	50	285	277	269	261	254	246	239	226	212	196	177	154	125		
SP 230-16	37	50	304	297	289	280	271	263	255	241	226	209	188	162	133		
SP 230-17	37	50	322	315	306	296	287	277	267	252	237	219	197	170	140		
SP 230-18	45	60	337	331	323	314	305	295	286	268	252	236	214	183	150		
SP 230-19	45	60	357	349	341	332	322	312	301	282	265	247	224	192	156		
SP 230-20	45	60	376	367	357	346	335	325	315	295	276	255	230	198	161		
SP 230-22	55	75	414	405	393	382	370	359	349	330	309	285	254	218	177		
SP 230-24	55	75	451	441	429	416	404	392	380	358	336	311	279	239	193		

*Higher pressure, longer stages pumps up to 24 stages are available on request.

▶ With Sleeve .

Dimensions and weights

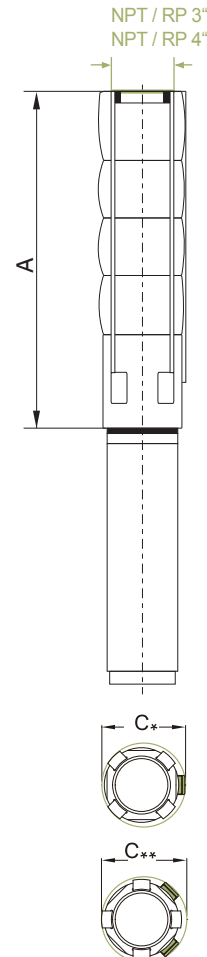
Pump Type	Motor Dia.	Dimensions (mm)			Net Weight (Kg) Pump
		A	C*	C**	
SP 230-1-B	4"	383	146		6.9
SP 230-1-A	4"	383	146		6.9
SP 230-1	4"	383	146		6.9
SP 230-2-AB	4"	496	146		9.2
SP 230-2	4"	496	146		9.2
SP 230-3-BB	4"	609	146		11.5
SP 230-3	4"	590	146		11.5
	6"	609	149	152	12.2
SP 230-4-BC	6"	722	149	152	13.7
SP 230-4	6"	722	149	152	13.7
SP 230-5-C	6"	835	149	152	16.0
SP 230-5	6"	835	149	152	16.0
SP 230-6	6"	948	149	152	18.3
SP 230-7C	6"	1061	149	152	20.6
SP 230-7	6"	1061	149	152	20.6
SP 230-8	6"	1174	149	152	22.9
SP 230-9	6"	1287	149	152	25.1
SP 230-10	6"	1400	149	152	27.4
SP 230-11	6"	1513	149	152	29.7
SP 230-12	6"	1626	149	152	32.0
SP 230-13	6"	1739	149	152	34.3
SP 230-14	6"	1852	149	152	36.6
SP 230-15	6"	1965	149	152	38.8
SP 230-16	6"	2078	149	152	41.1
SP 230-17	6"	2191	149	152	43.4
SP 230-18	6"	2304	149	152	45.7
SP 230-19	6"	2417	149	152	48.0
SP 230-20	6"	2859	149	152	50.2
SP 230-22	8"	3085	192	192	114.2
SP 230-24	8"	3311	192	192	123.0

C* : Maximum diameter of pump with one motor cable.

C** : Maximum diameter of pump with two motor cable.

SP230-22 to SP230-24 are mounted in sleeve for R 4 connection.

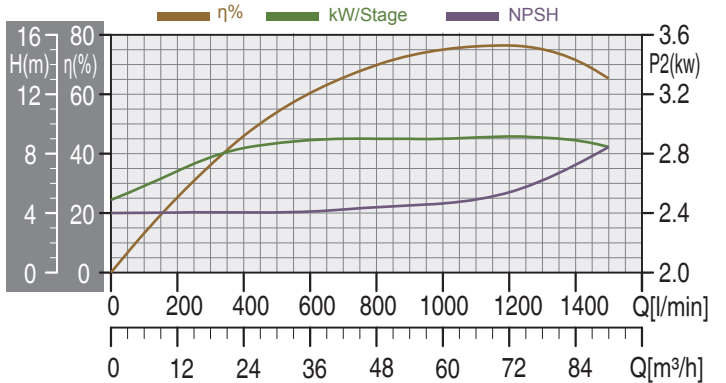
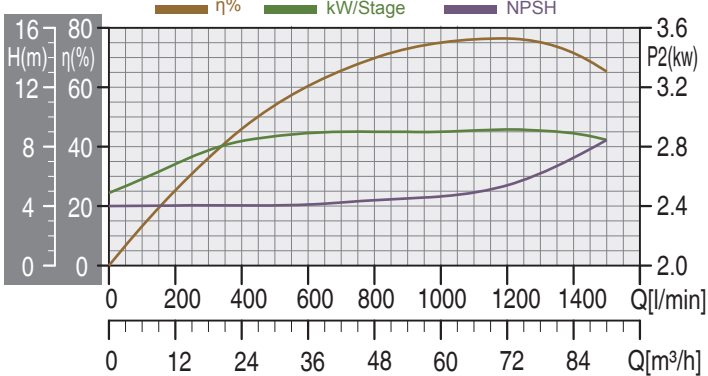
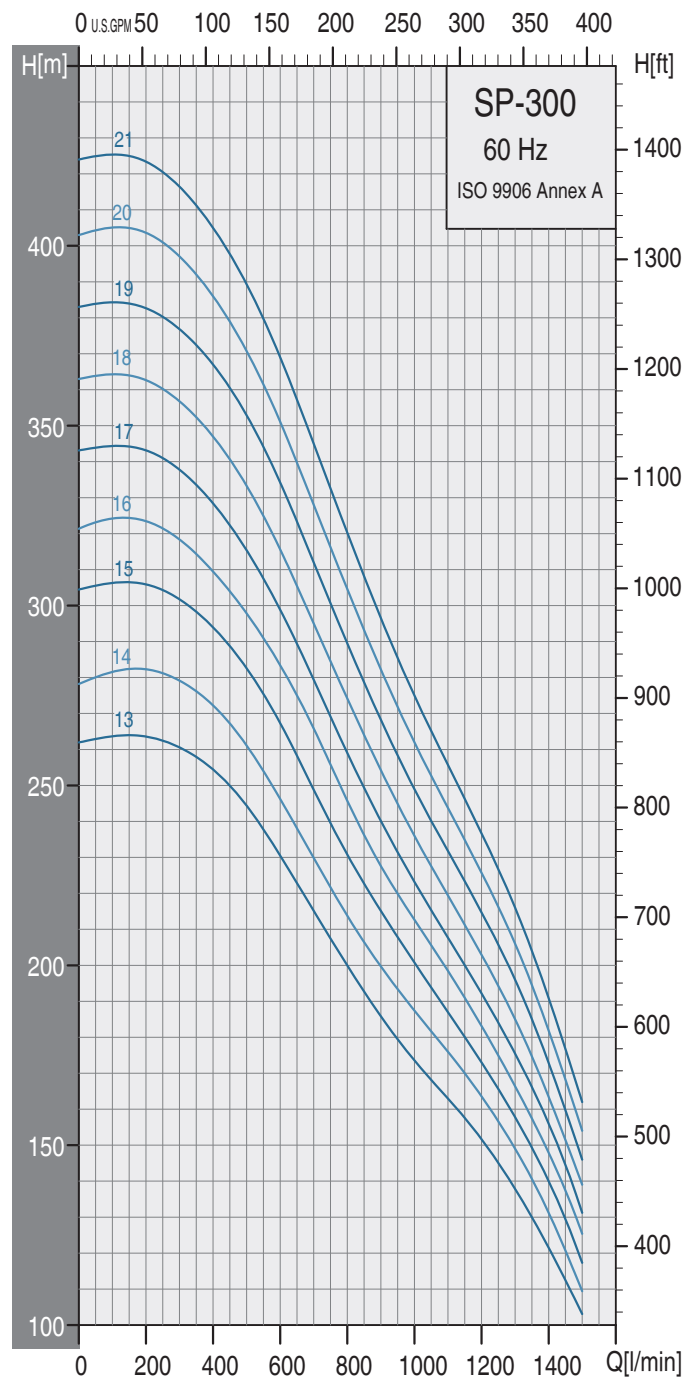
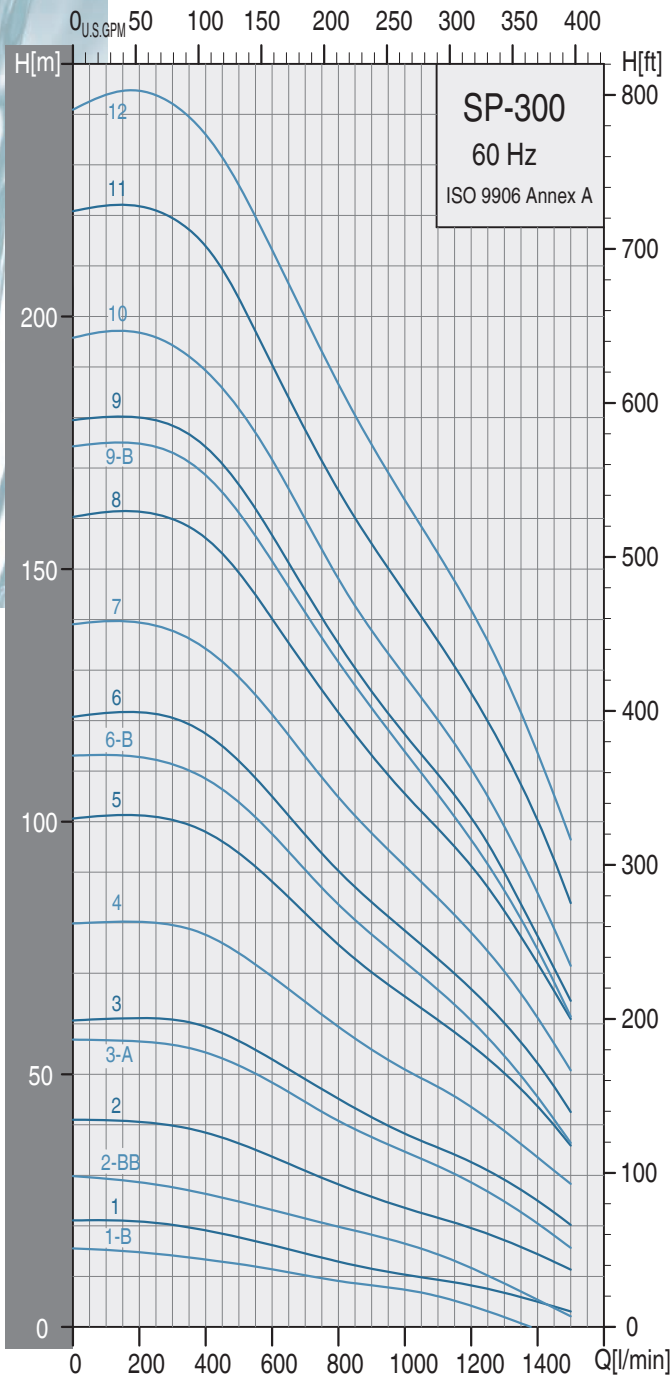
▶ With Sleeve .



Stairs SP Series

SP 6"

SP300 Performance Curves



Selection Chart

60Hz

Pump Type	Motor		m³/h l/min	Q capacity 3450 rpm												
	P2 KW	HP		24 400	27 450	30 500	36 600	42 700	48 800	54 900	60 1000	66 1100	72 1200	78 1300	84 1400	90 1500
SP 300-1-B	2.2	3	HEAD IN METERS	14	13	12	11	10	9	8	7	6	4	2		
SP 300-1	3.7	5		19	18	17	16	14	13	11	10	9	8	7	4	3
SP 300-2-BB	3.7	5		26	25	24	23	22	20	18	17	14	12	8	5	2
SP 300-2	5.5	7.5		38	37	36	34	31	28	26	24	22	19	17	15	11
SP 300-3-A	7.5	10		54	53	52	48	44	41	38	35	32	28	25	21	16
SP 300-3	9.3	12.5		59	58	57	53	49	46	42	38	36	33	29	25	20
SP 300-4	11	15		77	76	74	69	65	59	55	51	47	44	39	34	28
SP 300-5	13	17.5		98	96	94	88	82	76	70	66	61	56	50	44	36
SP 300-6-B	15	20		108	106	104	97	90	84	77	72	66	60	54	46	37
SP 300-6	18.5	25		117	115	112	105	97	90	84	78	73	67	60	52	43
SP 300-7	18.5	25		134	132	129	121	113	106	98	91	85	78	70	61	51
SP 300-8	22	30		156	153	149	140	131	122	113	106	98	91	83	72	61
SP 300-9-B	22	30		168	165	161	152	142	132	123	114	105	96	86	75	62
SP 300-9	26	35		174	171	167	157	146	136	126	117	109	101	90	77	65
SP 300-10	26	35		189	186	182	172	160	148	138	129	120	110	99	86	72
SP 300-11	30	40		214	209	204	190	177	166	155	146	136	126	114	100	84
SP 300-12	37	50		236	232	226	213	200	187	175	164	153	142	129	114	97
SP 300-13	37	50		255	250	245	230	215	200	186	174	163	152	138	121	104
SP 300-14	37	50		272	267	261	246	230	214	200	187	176	163	149	131	109
SP 300-15	45	60		294	289	283	267	249	230	215	200	187	173	158	140	118
SP 300-16	45	60		309	304	297	283	266	246	228	212	198	183	166	148	126
SP 300-17	45	60	328	322	316	299	279	259	240	223	208	192	175	157	131	
SP 300-18	55	75	347	341	333	315	295	274	254	236	219	203	185	163	139	
SP 300-19	55	75	367	361	253	334	312	289	268	249	232	215	196	173	146	
SP 300-20	55	75	386	378	371	351	328	305	282	262	244	226	206	182	154	
SP 300-21	63	85	405	398	389	369	345	320	297	275	256	237	216	191	162	

*Higher pressure , longer stages pumps up to 21 stages are available on request.

Dimensions and weights

Pump Type	Motor Dia.	Dimensions (mm)			Net Weight (Kg) Pump
		A	C*	C**	
SP 300-1-B	4"	383	146		6.9
SP 300-1	4"	383	146		6.9
SP 300-2-BB	4"	496	146		9.2
SP 300-2	4"	496	146		9.2
SP 300-3-A	6"	609	149	152	11.5
SP 300-3	6"	609	149	152	11.5
SP 300-4	6"	722	149	152	13.7
SP 300-5	6"	835	149	152	16.0
SP 300-6-B	6"	948	149	152	18.3
SP 300-6	6"	948	149	152	18.3
SP 300-7	6"	1061	149	152	20.6
SP 300-8	6"	1174	149	152	22.9
SP 300-9-B	6"	1287	149	152	25.1
SP 300-9	6"	1287	149	152	25.1
SP 300-10	6"	1400	149	152	27.4
SP 300-11	6"	1513	149	152	29.7
SP 300-12	6"	1626	149	152	32.0
SP 300-13	6"	1739	149	152	34.3
SP 300-14	6"	1852	149	152	36.5
SP 300-15	6"	1965	149	152	38.8
SP 300-16	6"	2078	149	152	41.1
SP 300-17	6"	2191	149	152	43.4
SP 300-18	8"	2332	183	183	51.1
SP 300-19	8"	2445	183	183	53.4
SP 300-20	8"	2558	183	183	55.7
SP 300-21	8"	2671	183	183	58

C* : Maximum diameter of pump with one moter cable.
 C** : Maximum diameter of pump with two moter cable.

