

Centrifugal Pumps

SJ4

TERAL

50Hz



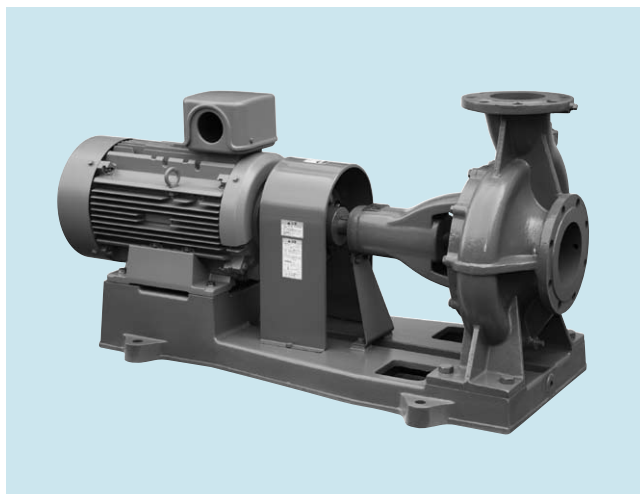
TERAL INC.

■ Applications

- Hot and cold water circulation and general water supply
- Supply of industrial water and distribution of waterworks

■ Features

- ① Most versatile pump compliant with Japan Industrial Standards (JIS B8313).
- ② Low noise because of tetrapolar electromotor drive.
- ③ Stable operation is possible within specifications with a wide water rate range.
- ④ Easy disassembly and inspection in a simplified structure and by adoption of the B.P.O. (back pull-out) method.
- ⑤ Robust structure for piping load with stable installation because of adoption of upright discharge.
- ⑥ Simple and rigid structure based on rational design allows for reduction in costs, user friendliness, and stable operation.



※Please note that product colors may differ from that in the photo.

Standard specifications

Liquid to be lifted	Liquid quality	Clean water
	Liquid temperature	0~80°C
Total suction head (In the case of 20°)		-6m (Suction port diameter 200: -5m) However, 60% or less of the total head if used with the total head of 10m or less.
Boost pressure		See the specifications
Structure	Impeller	Closed
	Bearing	Mechanical seal
	Shaft seal	Sealed ball bearing
Material	Impeller	FC200 (40×32H~80×65) CAC406 or SCS13 (125 × 100 or more)*1
	Spindle	SUS403
	Casing	FC200 or FCD450*1
Motor	Type	Totally-enclosed-fan-cooled motor indoor type
	Power	Three-phase/200V
	Synchronous rotation speed	1500min ⁻¹
Flange standard		JIS 10K flange
Paint color		7.5BG5/1.5

※1 Varies depending on type

■ Special specifications

Material change	All steel made, Impeller CAC406
Motor change	Voltage change, change to totally-enclosed-fan-cooled motor outdoor type, etc.

※Please note that in the case of change to special specifications, the outline drawing may be partially changed.

■ How to read the model type

SJ4 - 200 x 150 J 5 45

- | ① | ② | ③ | ④ | ⑤ |
|-------------------------------------|---|---|-------------------|---|
| ①Model | | | ④Frequency (50Hz) | |
| ②Nominal suction diameter (200mm) | | | ⑤Output (45kW) | |
| ③Nominal discharge diameter (150mm) | | | | |

■ Standard accessories

Motor	1
Common base	1
Pump-priming plug	1
Coupling	1 set
Coupling cover	1

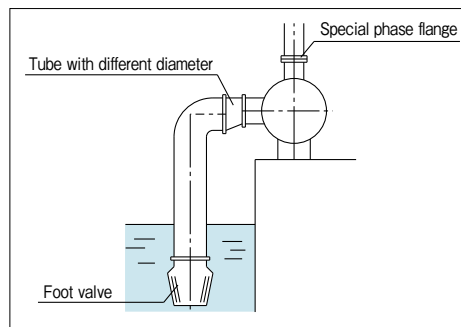
■ Special accessories

Foot valve	
Suction cover	
Sluice valve, Check valve	Packing, bolts and nuts attached
Foundation bolt	1 set
Mating flange	Packing, bolts and nuts attached
Special phase flange (in the case of a discharge diameter the same as the suction diameter)	
	Bolts and nuts attached
Tube with different diameter.....	See the figure below
Vibration isolated table	
Pressure gauge, vacuum gauge, compound gauge.....	Cock and pipe attached
Vibration proof fittings	

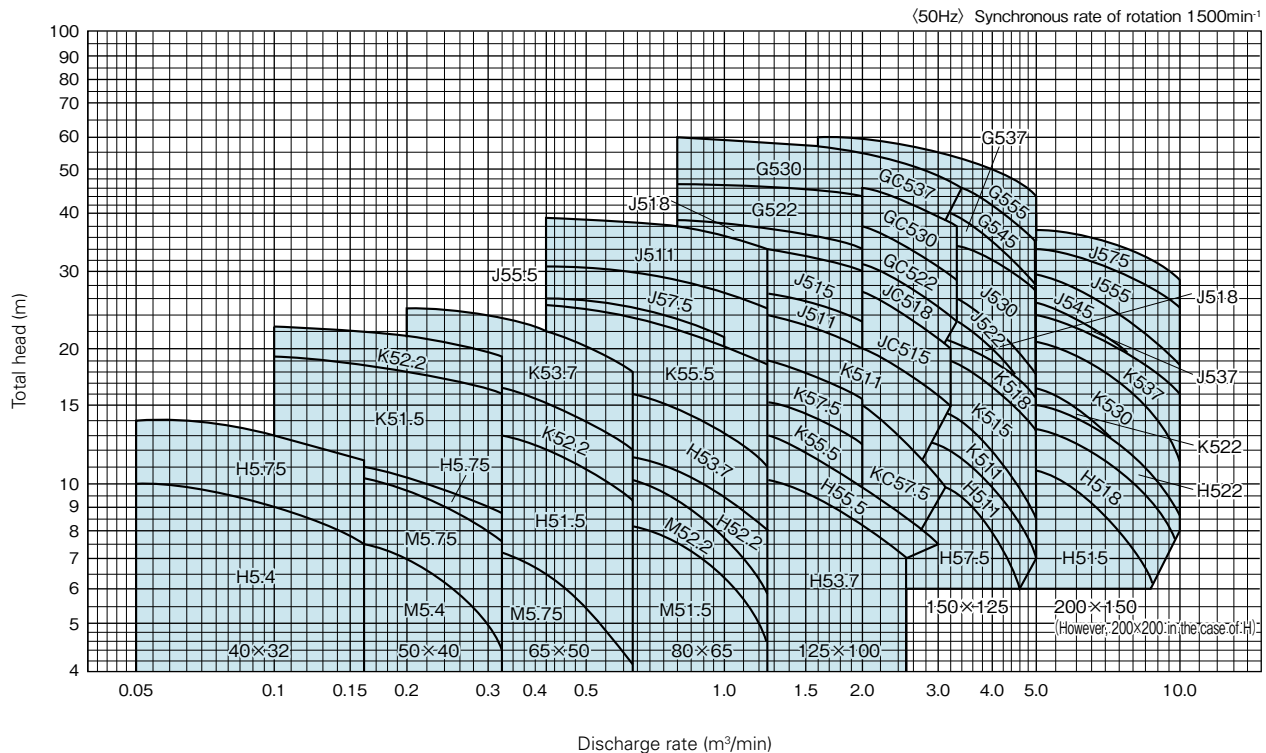
■ Foot valve, tube with different diameter, special phase flange application table

Nominal diameter mm		Foot valve nominal diameter mm	Tube with different diameter	Special phase flange
Suction s	Discharge d			
40	32	40	—	32/40
50	40	50	—	40/50
65	50	65	—	50/65
80	65	100	80×100	65/80
125	100	150	125×150	100/125
150	125	200	150×200	—
200	200	250	200×250	—
200	150	250	200×250	—

※Special phase flange is used to adjust the discharge diameter to the suction diameter.



Selection chart

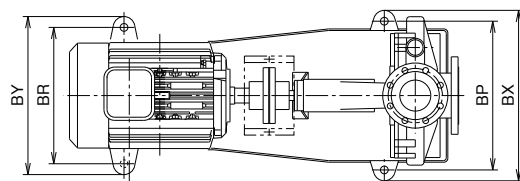


Specifications

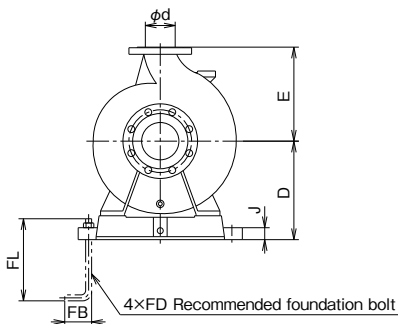
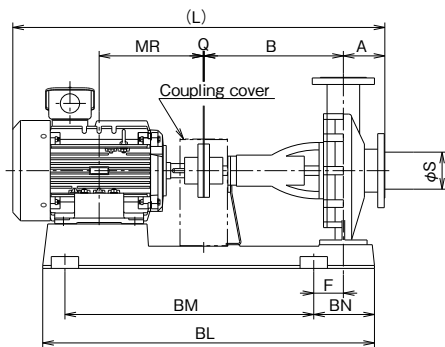
Nominal diameter mm	Model	Output kW	Specification							
			Discharge rate m ³ /min	Total head m	Discharge rate m ³ /min	Total head m	Discharge rate m ³ /min	Total head m	Discharge rate m ³ /min	Permissible boost pressure MPa
40	32	SJ4-40×32H5.4	0.4	0.05	10	0.10	9.2	0.16	7.6	1.00
		SJ4-40×32H5.75	0.75	0.05	14	0.10	13.1	0.16	11.5	0.96
50	40	SJ4-50×40M5.4	0.4	0.10	8.3	0.20	7.0	0.32	4.4	1.01
		SJ4-50×40M5.75	0.75	0.10	10.7	0.20	9.8	0.32	7.7	0.99
		SJ4-50×40H5.75	0.75	0.10	11.3	0.20	10.6	0.32	8.8	0.99
		SJ4-50×40K51.5	1.5	0.10	19.4	0.20	18.1	0.32	16.1	0.90
		SJ4-50×40K52.2	2.2	0.10	22.6	0.20	21.3	0.32	19.4	0.87
		SJ4-65×50M5.75	0.75	0.20	8.3	0.40	6.6	0.63	4.0	1.01
65	50	SJ4-65×50H51.5	1.5	0.20	14	0.40	12.4	0.63	9.5	0.96
		SJ4-65×50K52.2	2.2	0.20	17.6	0.40	15.6	0.63	12.2	0.92
		SJ4-65×50K53.7	3.7	0.20	24.7	0.40	22.6	0.63	18.3	0.85
		SJ4-80×65M51.5	1.5	0.40	8.9	0.80	7.6	1.25	4.5	1.01
		SJ4-80×65M52.2	2.2	0.40	11.2	0.80	9.5	1.25	5.8	0.99
		SJ4-80×65H52.2	2.2	0.40	12.3	0.80	11	1.25	8.0	0.98
80	65	SJ4-80×65H53.7	3.7	0.40	16.5	0.80	15	1.25	11	0.93
		SJ4-80×65K55.5	5.5	0.40	24.7	0.80	22.7	1.25	18.9	0.85
		SJ4-80×65J55.5	5.5	0.40	26	1.00	21.5	—	—	0.83
		SJ4-80×65J57.5	7.5	0.40	30.7	0.80	28.8	1.25	24.4	0.79
		SJ4-80×65J51.1	11	0.40	39.5	0.80	37.5	1.25	34.5	0.71
		SJ4-125×100H53.7	3.7	0.80	11	1.60	9.5	2.50	7.0	1.26
125	100	SJ4-125×100H55.5	5.5	0.80	14.9	1.60	13	3.00	7.5	1.22
		SJ4-125×100K55.5	5.5	0.80	16.2	1.60	14.2	2.00	12.7	1.20
		SJ4-125×100K57.5	7.5	0.80	19.7	1.60	17.6	2.00	16	1.17
		SJ4-125×100KC57.5	7.5	2.00	15	2.50	12.6	3.10	10	1.20
		SJ4-125×100K511	11	0.80	24.5	1.60	22.6	3.20	15	1.12
		SJ4-125×100J511	11	0.80	27.5	1.60	25.2	2.00	23.5	1.09
		SJ4-125×100J515	15	0.80	34.3	1.60	32	2.00	30	1.03
		SJ4-125×100JC515	15	2.00	27	2.50	24	3.20	20	1.08

Nominal diameter mm	Model	Output kW	Specification							
			Discharge rate m ³ /min	Total head m	Discharge rate m ³ /min	Total head m	Discharge rate m ³ /min	Total head m	Discharge rate m ³ /min	Permissible boost pressure MPa
125	100	SJ4-125×100J518	18.5	0.80	39	1.60	36.5	2.00	34.5	0.98
		SJ4-125×100JC518	18.5	2.00	31.3	2.50	28	3.30	23.5	1.02
		SJ4-125×100G522	22	0.80	47	1.60	45.5	2.00	44	0.90
		SJ4-125×100GC522	22	2.00	37.5	2.50	34	3.30	29	0.95
		SJ4-125×100G530	30	0.80	59	1.60	57.5	2.00	56	0.79
		SJ4-125×100G530	30	2.00	46	2.50	43	3.30	38	0.87
		SJ4-125×100G537	37	2.00	56	2.50	52	3.40	46	0.76
		SJ4-150×125H57.5	7.5	1.60	12.2	3.20	10	4.50	6.0	1.24
150	125	SJ4-150×125H511	11	1.60	14	3.20	12	5.00	7.0	1.22
		SJ4-150×125K511	11	1.60	17.5	3.20	14.5	5.00	8.4	1.19
		SJ4-150×125K515	15	1.60	22	3.20	19.5	5.00	13.5	1.15
		SJ4-150×125K518	18.5	1.60	23.2	3.20	21	5.00	16	1.14
		SJ4-150×125J518	18.5	1.60	27.5	3.20	23.5	4.60	17.5	1.09
		SJ4-150×125J522	22	1.60	30	3.20	26.7	5.00	18	1.07
		SJ4-150×125J530	30	1.60	38	3.20	35	5.00	27.5	1.00
		SJ4-150×125G537	37	1.60	47	3.20	40.5	5.00	28.5	0.89
200	200	SJ4-150×125G545	45	1.60	53.5	3.20	47.5	5.00	35	0.83
		SJ4-150×125G555	55	1.60	60.5	3.20	55	5.00	45	0.77
		SJ4-200×200H515	15	3.20	12.2	6.40	9.5	8.70	6.0	1.24
		SJ4-200×200H518	18.5	3.20	14.5	6.40	12.2	9.50	8.0	1.22
		SJ4-200×200H522	22	3.20	16	6.40	14	10.00	8.5	1.21
		SJ4-200×150K522	22	3.20	18	6.40	14.2	8.50	9.5	1.19
		SJ4-200×150K530	30	3.20	22.3	6.40	19	10.00	11.5	1.14
		SJ4-200×150K537	37	3.20	25.5	6.40	22.5	10.00	16.5	1.12
200	150	SJ4-200×150J537	37	3.20	27.8	6.40	23	9.00	17.5	1.08
		SJ4-200×150J545	45	3.20	31.5	6.40	26.5	10.00	19	1.05
		SJ4-200×150J555	55	3.20	36	6.40	32	10.00	25	1.00
		SJ4-200×150J575	75	3.20	39	6.40	36	10.00	29	0.94

Assembly drawing



Flange dimensions: JIS 10K flange or equivalent



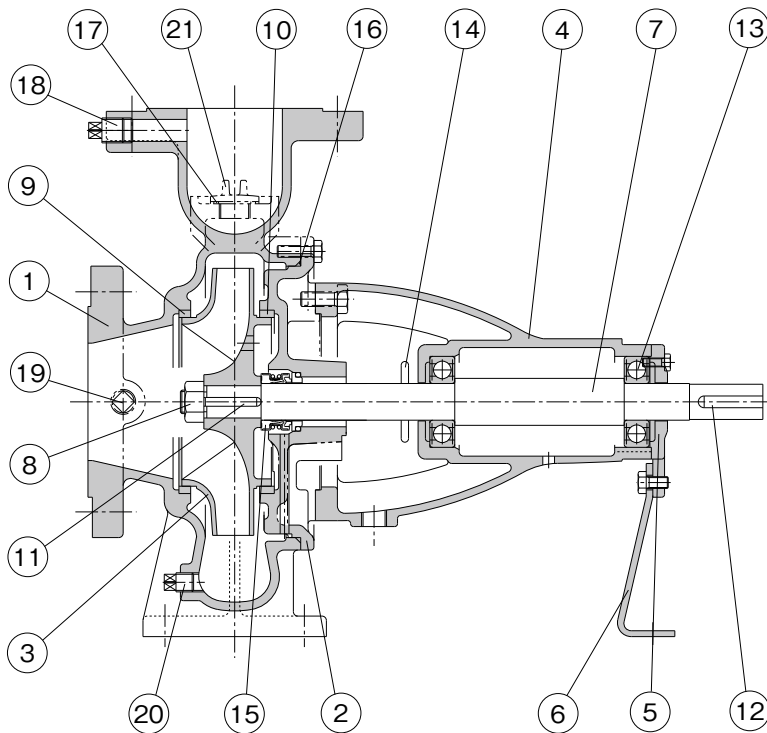
Note) Total length dimension and approximate mass may vary slightly depending on the motor manufacturer.

Dimensions

(Unit: mm)

Nominal diameter		Pump type	Output kW	Pump							Motor		Common base								Foundation bolt			Approx. mass kg		
Suction	Discharge			A	B	D	E	F	L	Q	Frame size	MR	J	BL	BM	BN	BP	BR	BX	BY	FB	FD	FL			
40	32	SJ4-40×32H5.4	0.4	80	360	210	180	45	679	3	71	120	25	615	420	105	290	230	325	265	45	M10	200	54		
		SJ4-40×32H5.75	0.75	80	360	215	180	45	712	3	80M	140	30	640	420	105	320	240	365	285	55	M12	250	61		
50	40	SJ4-50×40M5.4	0.4	80	360	182	160	45	679	3	71	120	25	615	420	105	290	210	325	245	45	M10	200	47		
		SJ4-50×40M5.75	0.75	80	360	182	160	45	712	3	80M	140	25	640	420	105	290	240	325	275	45	M10	200	56		
		SJ4-50×40H5.75	0.75	100	360	215	180	45	732	3	80M	140	30	640	420	105	320	240	365	285	55	M12	250	65		
		SJ4-50×40K51.5	1.5	100	360	235	225	40	778	3	90L	169	30	700	480	115	375	245	420	290	55	M12	250	83		
		SJ4-50×40K52.2	2.2	100	360	235	225	40	819	3	100L	193	30	740	480	115	375	275	420	320	55	M12	250	90		
65	50	SJ4-65×50M5.75	0.75	100	360	215	180	45	732	3	80M	140	30	640	420	105	320	240	365	285	55	M12	250	63		
		SJ4-65×50H51.5	1.5	100	360	215	200	40	778	3	90L	169	30	700	480	115	335	245	380	290	55	M12	250	81		
		SJ4-65×50K52.2	2.2	100	360	235	225	40	819	3	100L	193	30	740	480	115	375	275	420	320	55	M12	250	106		
		SJ4-65×50K53.7	3.7	100	360	235	225	55	835	3	112M	200	30	740	540	130	375	295	420	340	55	M12	250	118		
		SJ4-80×65M51.5	1.5	100	360	215	200	40	778	3	90L	169	30	700	480	115	335	245	380	290	55	M12	250	80		
80	65	SJ4-80×65M52.2	2.2	100	360	215	200	40	819	3	100L	193	30	740	480	115	335	265	380	310	55	M12	250	86		
		SJ4-80×65H52.2	2.2	100	360	235	225	40	819	3	100L	193	30	740	480	115	375	275	420	320	55	M12	250	107		
		SJ4-80×65H53.7	3.7	100	360	235	225	55	835	3	112M	200	30	740	540	130	375	295	420	340	55	M12	250	118		
		SJ4-80×65K55.5	5.5	100	470	270	250	80	1001	3	132S	239	40	950	660	170	430	340	485	395	70	M16	315	156		
		SJ4-80×65J55.5	5.5	125	470	320	280	80	1026	3	132S	239	40	950	660	170	470	340	525	395	70	M16	315	192		
		SJ4-80×65J57.5	7.5	125	470	320	280	80	1064	3	132M	258	40	950	660	170	470	340	525	395	70	M16	315	200		
		SJ4-80×65J511	11	125	470	320	280	100	1193	3	160M	323	40	1080	740	190	470	390	525	445	70	M16	315	252		
		SJ4-125×100H53.7	3.7	125	470	270	280	60	970	3	112M	200	40	870	600	150	430	310	485	365	70	M16	315	140		
		SJ4-125×100H55.5	5.5	125	470	270	280	80	1026	3	132S	239	40	950	660	170	430	340	485	395	70	M16	315	161		
		SJ4-125×100K55.5	5.5	140	470	320	280	80	1041	3	132S	239	40	950	660	170	470	340	525	395	70	M16	315	193		
125	100	SJ4-125×100K57.5	7.5	140	470	320	280	80	1079	3	132M	258	40	950	660	170	470	340	525	395	70	M16	315	201		
		SJ4-125×100KC57.5	7.5	140	470	320	280	80	1079	3	132M	258	40	950	660	170	470	340	525	395	70	M16	315	200		
		SJ4-125×100K511	11	140	470	320	280	100	1208	3	160M	323	40	1080	740	190	470	390	525	445	70	M16	315	251		
		SJ4-125×100J511	11	140	470	320	315	100	1208	3	160M	323	40	1080	740	190	470	390	525	445	70	M16	315	247		
		SJ4-125×100J515	15	140	470	320	315	100	1208	3	160L	345	40	1080	740	190	470	390	525	445	70	M16	315	270		
		SJ4-125×100JC515	15	140	470	320	315	100	1208	3	160L	345	40	1080	740	190	470	390	525	445	70	M16	315	269		
		SJ4-125×100J518	18.5	140	470	330	315	115	1256	3	180M	352	50	1120	840	205	480	440	550	510	90	M20	400	289		
		SJ4-125×100JC518	18.5	140	470	330	315	115	1256	3	180M	352	50	1120	840	205	480	440	550	510	90	M20	400	289		
		SJ4-125×100G522	22	140	530	360	355	95	1316	3	180M	352	50	1200	840	205	580	440	650	510	90	M20	400	360		
		SJ4-125×100GC522	22	140	530	360	355	95	1316	3	180M	352	50	1200	840	205	580	440	650	510	90	M20	400	360		
		SJ4-125×100G530	30	140	530	360	355	95	1390	4	180L	371	50	1200	840	205	580	440	650	510	90	M20	400	385		
		SJ4-125×100GC530	30	140	530	360	355	95	1390	4	180L	371	50	1200	840	205	580	440	650	510	90	M20	400	385		
		SJ4-125×100GC537	37	140	530	360	355	120	1455	4	200L	426	50	1280	940	230	580	490	650	560	90	M20	400	446		
		150	125	SJ4-150×125H57.5	7.5	140	470	320	315	80	1079	3	132M	258	40	950	660	170	470	340	525	395	70	M16	315	211
				SJ4-150×125H511	11	140	470	320	315	100	1208	3	160M	323	40	1080	740	190	470	390	525	445	70	M16	315	236
SJ4-150×125K511	11			140	470	320	355	100	1208	3	160M	323	40	1080	740	190	470	390	525	445	70	M16	315	233		
SJ4-150×125K515	15			140	470	320	355	100	1208	3	160L	345	40	1080	740	190	470	390	525	445	70	M16	315	245		
SJ4-150×125K518	18.5			140	470	330	355	115	1256	3	180M	352	40	1120	840	205	480	440	550	510	90	M20	400	295		
SJ4-150×125J518	18.5			140	530	360	355	95	1316	3	180M	352	50	1200	840	205	580	440	650	510	90	M20	400	396		
SJ4-150×125J522	22			140	530	360	355	95	1316	3	180M	352	50	1200	840	205	580	440	650	510	90	M20	400	406		
SJ4-150×125J530	30			140	530	360	355	95	1390	4	180L	371	50	1200	840	205	580	440	650	510	90	M20	400	431		
SJ4-150×125G537	37			140	530	395	400	95	1455	4	200L	426	50	1280	840	205	580	490	650	560	90	M20	400	543		
SJ4-150×125G545	45			140	530	395	400	95	1455	4	200L	426	50	1280	840	205	580	490	650	560	90	M20	400	623		
200	200	SJ4-150×125G555	55	140	530	395	400	120	1471	4	225S	432	50	1270	940	230	580	530	650	600	90	M20	400	675		
		SJ4-200×200H515	15	180	530	360	375	95	1308	3	160L	345	50	1170	840	205	580	410	650	480	90	M20	400	334		
		SJ4-200×200H518	18.5	180	530	360	375	95	1356	3	180M	352	50	1200	840	205	580	440	650	510	90	M20	400	410		
		SJ4-200×200H522	22	180	530	360	375	95	1356	3	180M	352	50	1200	840	205	580	440	650	510	90	M20	400	420		
		SJ4-200×150K522	22	160	530	360	375	95	1336	3	180M	352	50	1200	840	205	580	440	650	510	90	M20	400	419		
200	150	SJ4-200×150K530	30	160	530	360	375	95	1410	4	180L	371	50	1200	840	205	580	440	650	510	90	M20	400	444		
		SJ4-200×150K537	37	160	530	360	375	120	1475	4	200L	426	50	1280	940	230	580	490	650	560	90	M20	400	551		
		SJ4-200×150J537	37	160	670	430	400	120	1615	4	200L	426	50	1425	940	235	640	490	710	560	90	M20	400	610		
		SJ4-200×150J545	45	160	670	430	400	120	1615	4	200L	426	50	1425	940	235	640	490	710	560	90	M20	400	690		
		SJ4-200×150J555	55	160	670	430	400	160	1631	4	225S	432	50	1450	1060	275	640	530	710	600	90	M20	400	750		
		SJ4-200×150J575	75	160	670	485	400	155	1766	4	250SA	464	150	1550	1000	275	570	570	640	640	90	M20	400	860		

Sectional drawing



Parts list

No.	Part name	Qty	Materials
1	Casing	1	FC200
2	Casing cover	1	FC200
3	Impeller	1	FC200
4	Bearing case	1	FC200
5	Bearing cover	1	FC200
6	Attached leg	1	SS400
7	Spindle	1	SUS403
8	Impeller nut	1	SUS304
9	Wearing ring	1	CAC406
10	Wearing ring	1	CAC406
11	Impeller key	1	SUS304
12	Coupling key	1	S45C
13	Ball bearing	2	SUJ2
14	Deflector	1	CR
15	Mechanical seal	1	—
16	O-ring A	1	NBR
17	O-ring B	1	NBR
18	Plug A	1	SS400
19	Plug B	1	SS400
20	Plug	1	SS400
21	Pump-priming plug	1	CAC202