

Centrifugal Pumps

SJ

TERAL

50Hz



TERAL INC.

Applications

- General water supply in buildings and apartments, etc
- Hot and cold water circulation
- Supply of industrial water
- Distribution of waterworks
- Irrigation and watering in rice fields and dry fields

Features

- ① Small in size and weight by adoption of a bipolar motor.
- ② Performance covering a wide range of specifications is comparable to a large sized one.
- ③ Easy installation in a small space.
- ④ Assembly and disassembly without piping disconnection possible and easy maintenance and inspection because of B.P.O. (back pull-out) structure.
- ⑤ Advantageous for piping load with stabilized installation because of upright discharge.
- ⑥ Product compliant with Japanese Industrial Standards (JIS B8313).



※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	-6m (20°C) However, -5m (20°C) in the case of 100 × 80
Boost pressure	See the specifications
Structure	Impeller: Closed
	Bearing: Mechanical seal
	Shaft seal: Sealed ball bearing
Material	Impeller: CAC406 (65×50M, 80×65M...FC200)
	Spindle: SUS403
	Casing: FC200 or FCD450*1
Motor	Type: Totally-enclosed-fan-cooled motor indoor type
	Power: Three-phase/200V
	Synchronous rotation speed: 3000min ⁻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 (65×50M, 80×65M only)
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

SJ 32 × 32 M 5 1.5

① ② ③ ④ ⑤

- ① Model
- ② Nominal suction diameter (32mm)
- ③ Nominal discharge diameter (32mm)
- ④ Frequency (50Hz)
- ⑤ Output (1.5kW)

Standard accessories

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

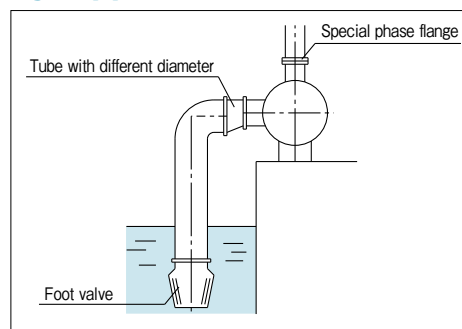
Special accessories

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	

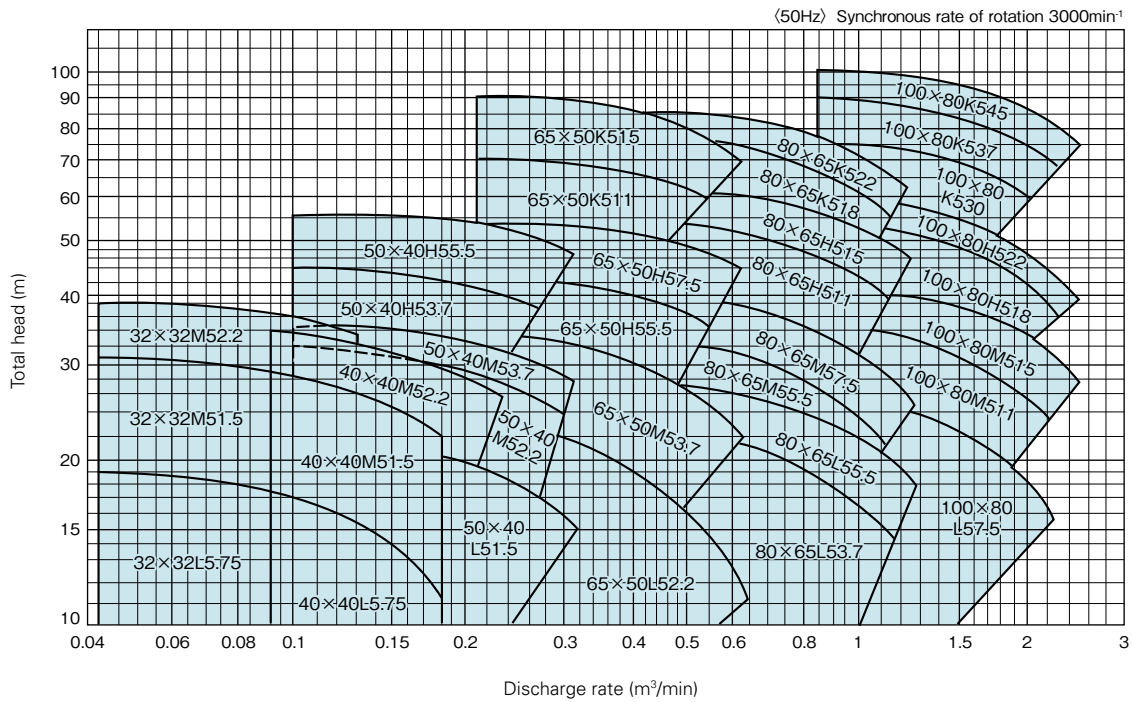
Foot valve, tube with different diameter, special phase flange application table

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

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



Selection chart

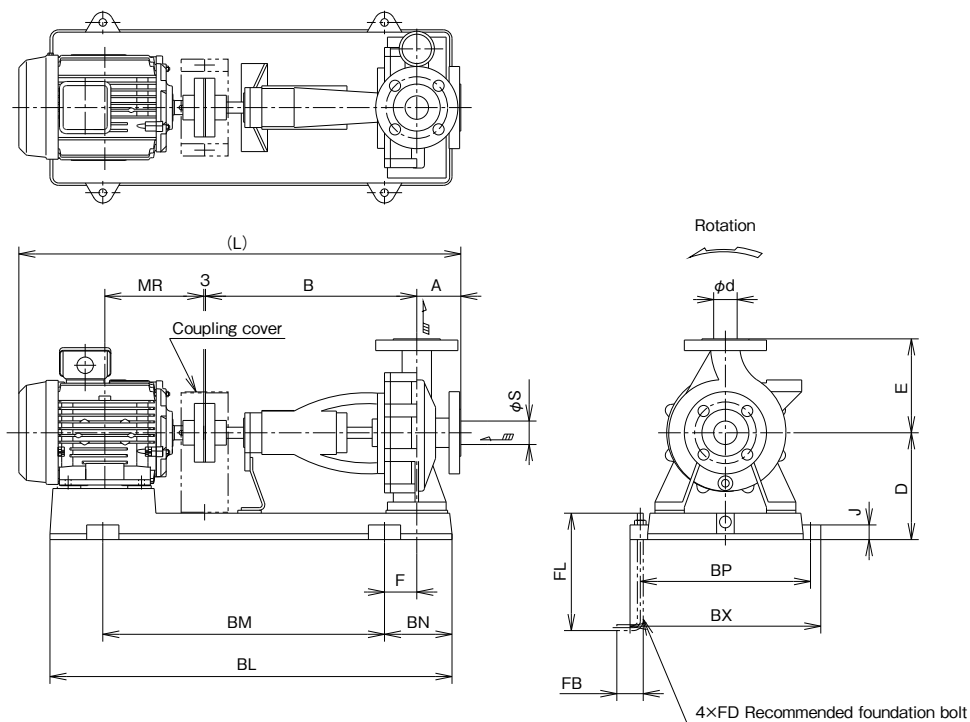


Specifications

Nominal diameter mm		Model	Output kW	Specification						Permissible boost pressure MPa
				Discharge rate		Total head		Discharge rate			Total head
Suction	Discharge			m ³ /min	m	m ³ /min	m	m ³ /min	m	
32	32	SJ32x32L5.75	0.75	0.04	18.8	0.06	18.5	0.09	17.5	0.81
		SJ32x32M51.5	1.5	0.04	30.5	0.06	30	0.09	29	0.69
		SJ32x32M52.2	2.2	0.04	38	0.09	36	0.13	33	0.62
40	40	SJ40x40L5.75	0.75	0.09	17.5	0.14	14	0.18	11	0.80
		SJ40x40M51.5	1.5	0.09	29	0.14	25.5	0.18	21.5	0.69
		SJ40x40M52.2	2.2	0.09	34	0.15	31	0.23	26	0.65
50	40	SJ50x40L51.5	1.5	0.14	21.2	0.21	19.3	0.31	15	0.77
		SJ50x40M52.2	2.2	0.10	31.7	0.21	28.5	0.30	24	0.68
		SJ50x40M53.7	3.7	0.10	34.8	0.21	32.2	0.31	27.5	0.65
		SJ50x40H53.7	3.7	0.10	43.5	0.21	40.5	0.27	37	0.56
		SJ50x40H55.5	5.5	0.10	56	0.21	53	0.31	47	0.44
65	50	SJ65x50L52.2	2.2	0.21	22	0.42	18	0.63	11	0.77
		SJ65x50M53.7	3.7	0.21	33	0.42	28.5	0.63	21.5	0.66
		SJ65x50H55.5	5.5	0.21	42.5	0.42	38.5	0.55	34	0.58
		SJ65x50H57.5	7.5	0.21	53.5	0.42	50.5	0.63	43	0.47
		SJ65x50K511	11	0.21	70	0.42	64.5	0.55	58.5	0.28
		SJ65x50K515	15	0.21	90	0.42	82.5	0.63	67.5	0.08
80	65	SJ80x65L53.7	3.7	0.42	22.2	0.84	18.3	1.15	14	0.76
		SJ80x65L55.5	5.5	0.42	27.5	0.84	23.8	1.25	17.8	0.71
		SJ80x65M55.5	5.5	0.42	31.5	0.84	26.5	1.11	20.6	0.66
		SJ80x65M57.5	7.5	0.42	39	0.84	33.5	1.25	24.5	0.60
		SJ80x65H511	11	0.42	52.5	0.84	46	1.14	38.5	0.46
		SJ80x65H515	15	0.42	61	0.84	55	1.25	44.7	0.38
		SJ80x65K518	18.5	0.42	76.5	0.84	66.5	1.17	54	0.22
		SJ80x65K522	22	0.42	84	0.84	76	1.25	61	0.15
100	80	SJ100x80L57.5	7.5	0.84	24.8	1.67	20.8	2.2	15.5	0.74
		SJ100x80M511	11	0.84	34	1.67	28.5	2.2	23	0.64
		SJ100x80M515	15	0.84	40	1.67	35.5	2.5	26.5	0.59
		SJ100x80H518	18.5	0.84	53	1.67	44.5	2.28	34.5	0.43
		SJ100x80H522	22	0.84	57.5	1.67	51.5	2.5	37.5	0.41
		SJ100x80K530	30	0.84	75	1.67	65.5	2.0	58.5	0.23
		SJ100x80K537	37	0.84	88	1.67	80	2.3	67	0.09
		SJ100x80K545	45	0.84	99	1.67	92	2.5	73	0.01

Assembly drawing

Flange dimensions: JIS 10K flange or equivalent



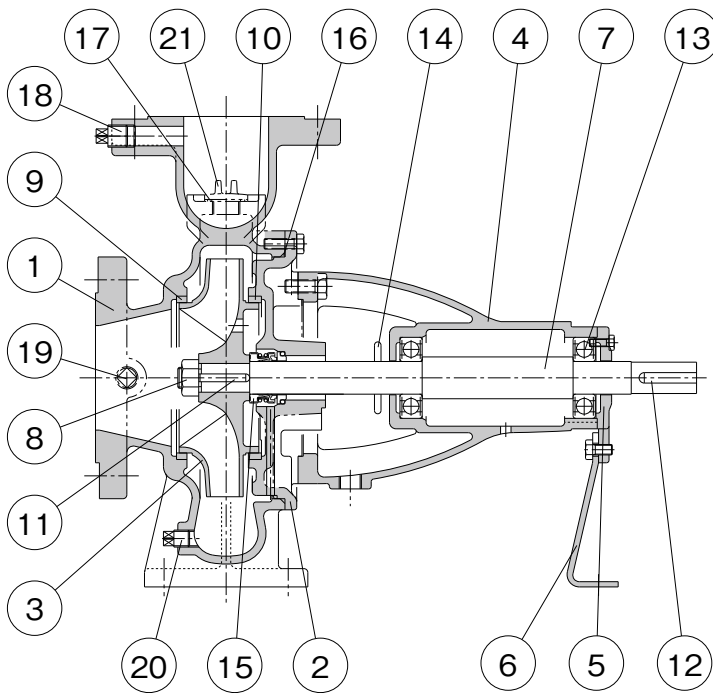
Note) Total length dimension and approximate mass may vary slightly depending on the motor manufacturer.

Dimensions

(Unit: mm)

Nominal diameter		Pump type	Output kW	A	B	D	E	F	J	L	MR	BL	BM	BN	BP	BX	FB	FD	FL	Approx. mass kg
Suction ϕ_s	Discharge ϕ_d																			
32	32	SJ32×32L5.75	0.75	75	360	162	120	55	25	707	140	650	445	115	230	265	45	M10	200	58
		SJ32×32M51.5	1.5	75	360	182	160	55	25	753	168.5	685	480	115	290	325	45	M10	200	72
		SJ32×32M52.2	2.2	75	360	182	160	55	25	753	168.5	685	480	115	290	325	45	M10	200	73
40	40	SJ40×40L5.75	0.75	75	360	162	120	55	25	707	140	650	445	115	230	265	45	M10	200	59
		SJ40×40M51.5	1.5	75	360	182	160	55	25	753	168.5	685	480	115	290	325	45	M10	200	73
		SJ40×40M52.2	2.2	75	360	182	160	55	25	753	168.5	685	480	115	290	325	45	M10	200	74
50	40	SJ50×40L51.5	1.5	80	360	162	140	55	25	758	168.5	685	480	115	230	265	45	M10	200	70
		SJ50×40M52.2	2.2	80	360	182	160	55	25	758	168.5	685	480	115	290	325	45	M10	200	79
		SJ50×40M53.7	3.7	80	360	202	160	70	30	815	200	730	540	130	290	335	55	M12	250	92
		SJ50×40H53.7	3.7	80	360	230	180	70	30	815	200	730	540	130	290	335	55	M12	250	99
65	50	SJ50×40H55.5	5.5	80	360	230	180	55	30	871	239	820	540	130	350	395	55	M12	250	128
		SJ65×50L52.2	2.2	80	360	162	140	55	25	758	168.5	685	480	115	260	295	45	M10	200	72
		SJ65×50M53.7	3.7	80	360	202	160	70	30	815	200	730	540	130	290	335	55	M12	250	96
		SJ65×50H55.5	5.5	100	360	230	180	55	30	891	239	820	540	130	350	395	55	M12	250	145
		SJ65×50H57.5	7.5	100	360	230	180	55	30	891	239	820	540	130	350	395	55	M12	250	150
80	65	SJ65×50K511	11	100	360	265	225	95	40	1058	323	950	660	170	400	456	70	M16	315	201
		SJ65×50K515	15	100	360	265	225	95	40	1058	323	950	660	170	400	456	70	M16	315	211
		SJ80×65L53.7	3.7	100	360	202	160	70	30	835	200	730	540	130	290	335	55	M12	250	104
		SJ80×65L55.5	5.5	100	360	202	160	70	30	891	239	820	540	130	320	365	55	M12	250	128
		SJ80×65M55.5	5.5	100	360	230	180	55	30	891	239	820	540	130	350	395	55	M12	250	137
		SJ80×65M57.5	7.5	100	360	230	180	55	30	891	239	820	540	130	350	395	55	M12	250	142
		SJ80×65H511	11	100	360	245	200	95	40	1058	323	950	660	170	400	456	70	M16	315	192
		SJ80×65H515	15	100	360	245	200	95	40	1058	323	950	660	170	400	456	70	M16	315	202
100	80	SJ80×65K518	18.5	100	360	265	225	95	40	1058	345	950	660	170	400	456	70	M16	315	217
		SJ80×65K522	22	100	360	265	225	95	40	1106	352	1000	660	170	440	496	70	M16	315	268
		SJ100×80L57.5	7.5	100	360	230	180	55	30	891	239	820	540	130	350	395	55	M12	250	150
		SJ100×80M511	11	100	360	245	200	95	40	1058	323	950	660	170	400	456	70	M16	315	201
		SJ100×80M515	15	100	360	245	200	95	40	1058	323	950	660	170	400	456	70	M16	315	211
		SJ100×80H518	18.5	100	360	265	225	95	40	1058	345	950	660	170	400	456	70	M16	315	225
		SJ100×80H522	22	100	360	265	225	95	40	1106	352	1000	660	170	440	496	70	M16	315	277
		SJ100×80K530	30	100	470	290	250	100	50	1289	371	1120	740	190	440	510	90	M20	400	325
SJ100×80K537	37	100	470	320	250	100	100	1324	396	1200	800	200	440	480	90	M20	400	340		
SJ100×80K545	45	100	470	320	250	100	100	1324	396	1200	800	200	440	480	90	M20	400	430		

Sectional drawing



Parts list

No.	Part name	Qty	Materials
1	Casing	1	FC200
2	Casing cover	1	FC200
3	Impeller	1	CAC406
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	1	SS400
19	Plug	1	SS400
20	Plug	1	SS400
21	Pump-priming plug	1	CAC202

MEMO

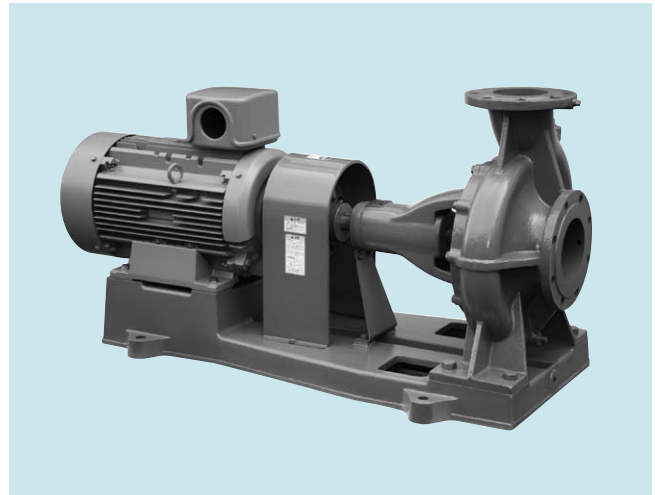
A series of horizontal dashed lines for writing, spanning the width of the page.

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 x 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 × 150 J 5 45

① ② ③ ④ ⑤

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

Standard accessories

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

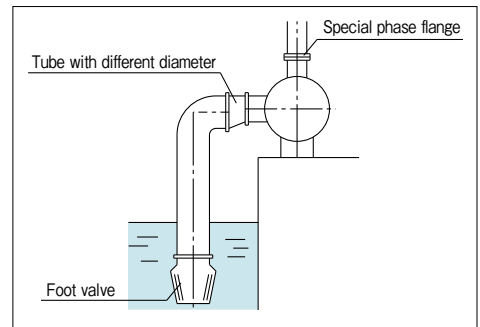
Special accessories

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	

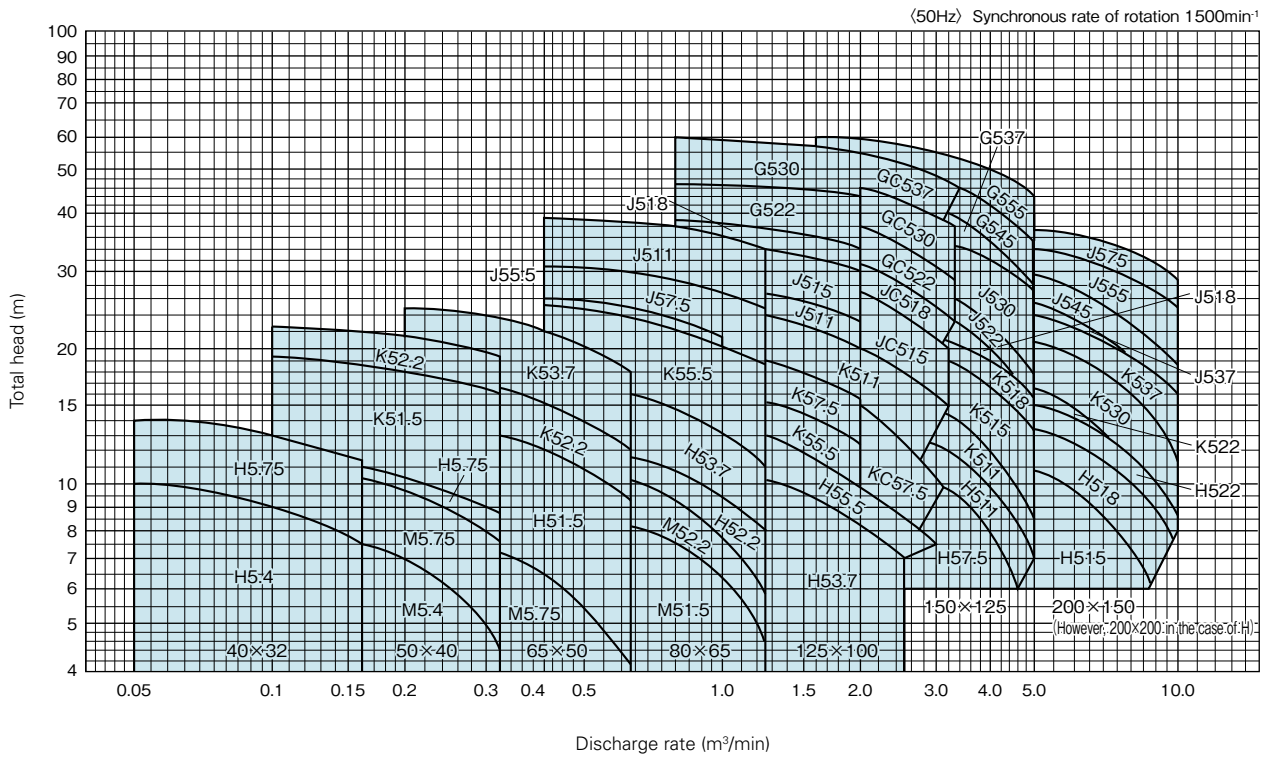
Foot valve, tube with different diameter, special phase flange application table

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

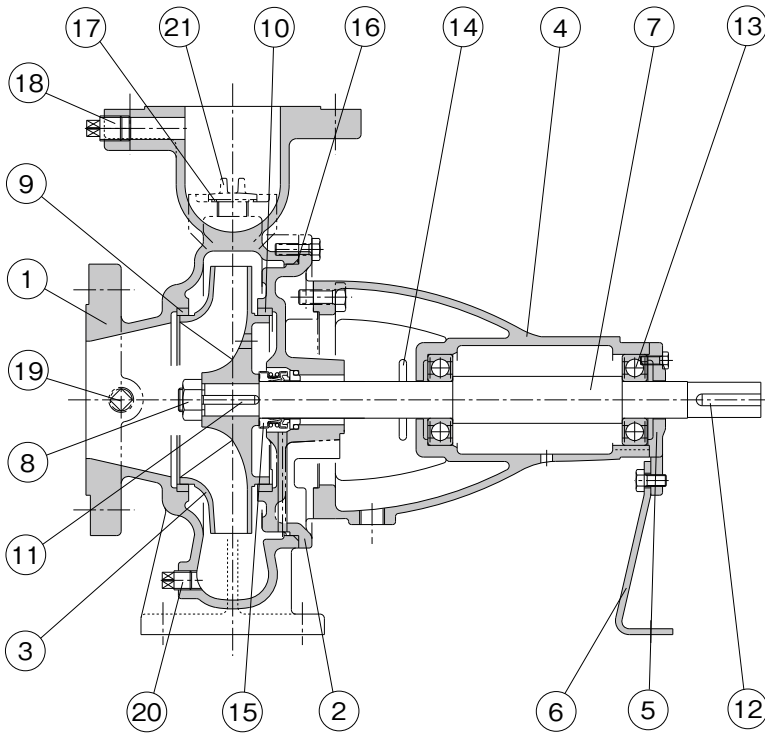


Specifications

Nominal diameter mm		Model	Output kW	Specification						
				Discharge rate m³/min	Total head m	Discharge rate m³/min	Total head m	Discharge rate m³/min	Total head m	Permissible boost pressure MPa
40	32	SJ4-40x32H5.4	0.4	0.05	10	0.10	9.2	0.16	7.6	1.00
		SJ4-40x32H5.75	0.75	0.05	14	0.10	13.1	0.16	11.5	0.96
50	40	SJ4-50x40M5.4	0.4	0.10	8.3	0.20	7.0	0.32	4.4	1.01
		SJ4-50x40M5.75	0.75	0.10	10.7	0.20	9.8	0.32	7.7	0.99
		SJ4-50x40H5.75	0.75	0.10	11.3	0.20	10.6	0.32	8.8	0.99
		SJ4-50x40K51.5	1.5	0.10	19.4	0.20	18.1	0.32	16.1	0.90
		SJ4-50x40K52.2	2.2	0.10	22.6	0.20	21.3	0.32	19.4	0.87
		SJ4-50x40M5.75	0.75	0.20	8.3	0.40	6.6	0.63	4.0	1.01
65	50	SJ4-65x50H51.5	1.5	0.20	14	0.40	12.4	0.63	9.5	0.96
		SJ4-65x50K52.2	2.2	0.20	17.6	0.40	15.6	0.63	12.2	0.92
		SJ4-65x50K53.7	3.7	0.20	24.7	0.40	22.6	0.63	18.3	0.85
		SJ4-80x65M51.5	1.5	0.40	8.9	0.80	7.6	1.25	4.5	1.01
80	65	SJ4-80x65M52.2	2.2	0.40	11.2	0.80	9.5	1.25	5.8	0.99
		SJ4-80x65H52.2	2.2	0.40	12.3	0.80	11	1.25	8.0	0.98
		SJ4-80x65H53.7	3.7	0.40	16.5	0.80	15	1.25	11	0.93
		SJ4-80x65K55.5	5.5	0.40	24.7	0.80	22.7	1.25	18.9	0.85
		SJ4-80x65J55.5	5.5	0.40	26	1.00	21.5	—	—	0.83
		SJ4-80x65J57.5	7.5	0.40	30.7	0.80	28.8	1.25	24.4	0.79
		SJ4-80x65J51.1	11	0.40	39.5	0.80	37.5	1.25	34.5	0.71
		SJ4-125x100H53.7	3.7	0.80	11	1.60	9.5	2.50	7.0	1.26
125	100	SJ4-125x100H55.5	5.5	0.80	14.9	1.60	13	3.00	7.5	1.22
		SJ4-125x100K55.5	5.5	0.80	16.2	1.60	14.2	2.00	12.7	1.20
		SJ4-125x100K57.5	7.5	0.80	19.7	1.60	17.6	2.00	16	1.17
		SJ4-125x100KC57.5	7.5	2.00	15	2.50	12.6	3.10	10	1.20
		SJ4-125x100K51.1	11	0.80	24.5	1.60	22.6	3.20	15	1.12
		SJ4-125x100J51.1	11	0.80	27.5	1.60	25.2	2.00	23.5	1.09
		SJ4-125x100J51.5	15	0.80	34.3	1.60	32	2.00	30	1.03
		SJ4-125x100JC51.5	15	2.00	27	2.50	24	3.20	20	1.08

Nominal diameter mm		Model	Output kW	Specification						
				Discharge rate m³/min	Total head m	Discharge rate m³/min	Total head m	Discharge rate m³/min	Total head m	Permissible boost pressure MPa
125	100	SJ4-125x100J518	18.5	0.80	39	1.60	36.5	2.00	34.5	0.98
		SJ4-125x100JC518	18.5	2.00	31.3	2.50	28	3.30	23.5	1.02
		SJ4-125x100G522	22	0.80	47	1.60	45.5	2.00	44	0.90
		SJ4-125x100GC522	22	2.00	37.5	2.50	34	3.30	29	0.95
		SJ4-125x100G530	30	0.80	59	1.60	57.5	2.00	56	0.79
		SJ4-125x100G530	30	2.00	46	2.50	43	3.30	38	0.87
		SJ4-125x100GC537	37	2.00	56	2.50	52	3.40	46	0.76
		SJ4-150x125H57.5	7.5	1.60	12.2	3.20	10	4.50	6.0	1.24
		SJ4-150x125H511	11	1.60	14	3.20	12	5.00	7.0	1.22
		SJ4-150x125K511	11	1.60	17.5	3.20	14.5	5.00	8.4	1.19
150	125	SJ4-150x125K515	15	1.60	22	3.20	19.5	5.00	13.5	1.15
		SJ4-150x125K518	18.5	1.60	23.2	3.20	21	5.00	16	1.14
		SJ4-150x125J518	18.5	1.60	27.5	3.20	23.5	4.60	17.5	1.09
		SJ4-150x125J522	22	1.60	30	3.20	26.7	5.00	18	1.07
		SJ4-150x125J530	30	1.60	38	3.20	35	5.00	27.5	1.00
		SJ4-150x125G537	37	1.60	47	3.20	40.5	5.00	28.5	0.89
		SJ4-150x125G545	45	1.60	53.5	3.20	47.5	5.00	35	0.83
		SJ4-150x125G555	55	1.60	60.5	3.20	55	5.00	45	0.77
		SJ4-200x200H515	15	3.20	12.2	6.40	9.5	8.70	6.0	1.24
		200	200	SJ4-200x200H518	18.5	3.20	14.5	6.40	12.2	9.50	8.0	1.22
SJ4-200x200H522	22			3.20	16	6.40	14	10.00	8.5	1.21
SJ4-200x150K522	22			3.20	18	6.40	14.2	8.50	9.5	1.19
SJ4-200x150K530	30			3.20	22.3	6.40	19	10.00	11.5	1.14
SJ4-200x150K537	37			3.20	25.5	6.40	22.5	10.00	16.5	1.12
SJ4-200x150J537	37			3.20	27.8	6.40	23	9.00	17.5	1.08
SJ4-200x150J545	45			3.20	31.5	6.40	26.5	10.00	19	1.05
SJ4-200x150J555	55			3.20	36	6.40	32	10.00	25	1.00
SJ4-200x150J575	75			3.20	39	6.40	36	10.00	29	0.94

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

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A series of horizontal dashed lines for writing.

Your Dealer

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