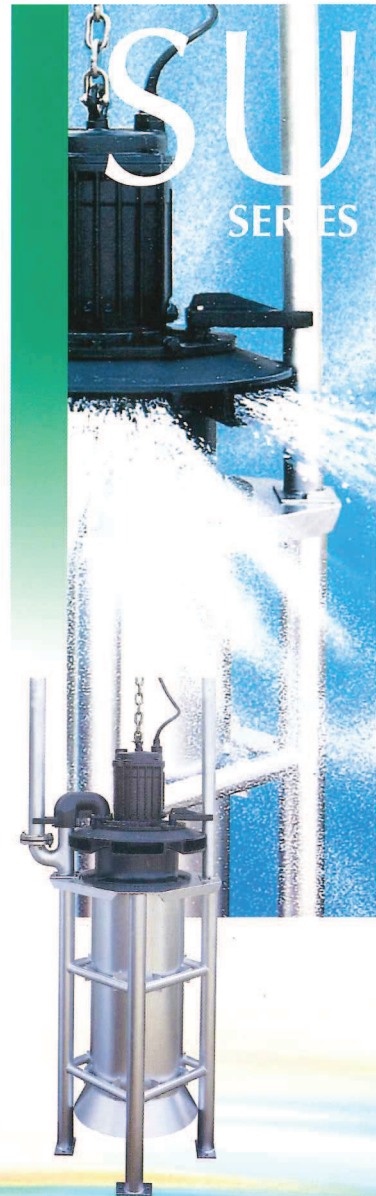
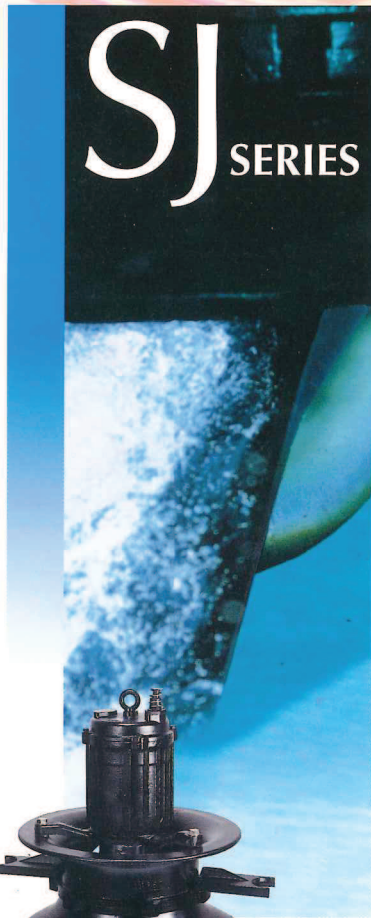


ShinMaywa

Submersible Aerator




SJ·SJL/SU series



Submersible Aerator

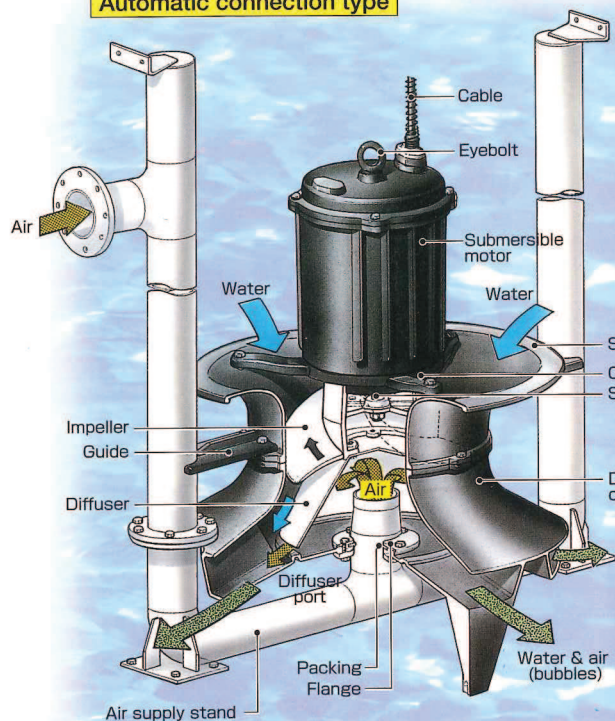
SJ·SJL Series

Downward discharge type

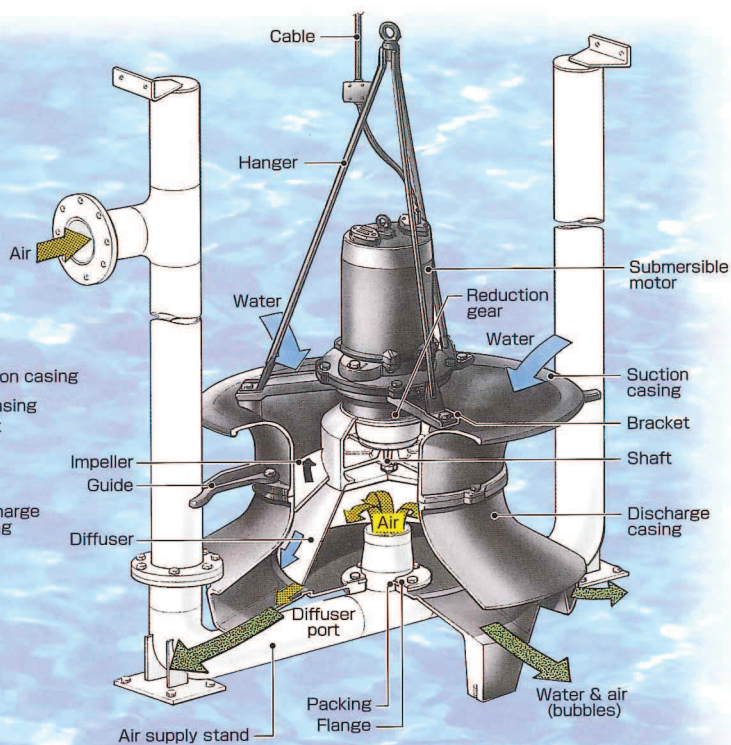
 Water flow
 Airflow
 Water & air (bubbles) flow

The SJ & SJL Series offers powerful downward water flow to ensure mixing and high oxygen transfer efficiency. The compact, lightweight body allows for easy installation and maintenance.

Automatic connection type



SJ Series



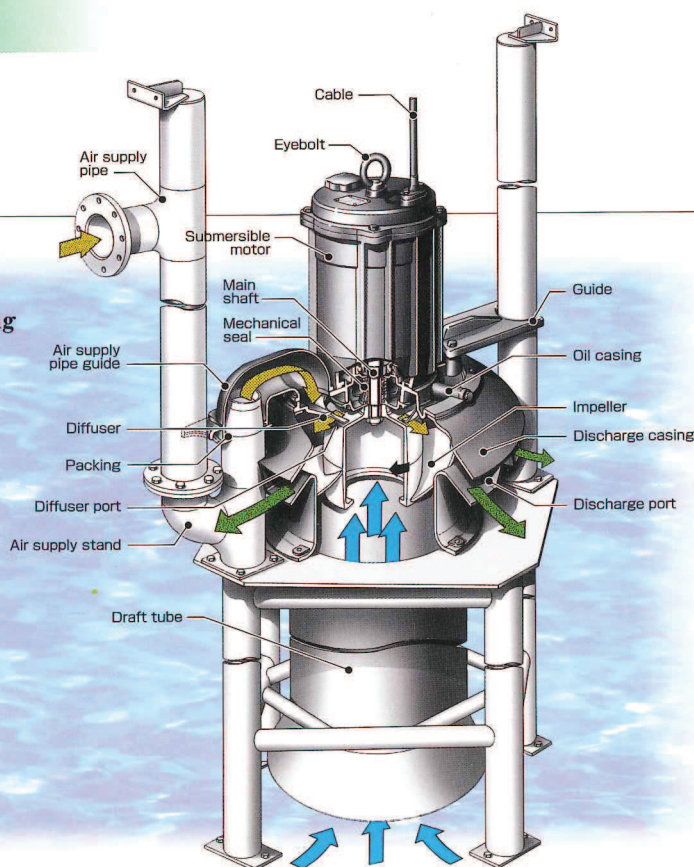
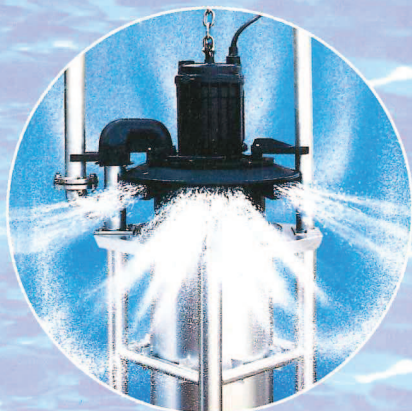
SJL Series

Submersible Aerator

SU Series

Upward discharge type
Multipolar motor direct-drive

The SU Series has a compact, lightweight body with powerful upward flow. It is ideal for aeration and mixing in a deep tank that is efficient in creating a uniform current.



Applications

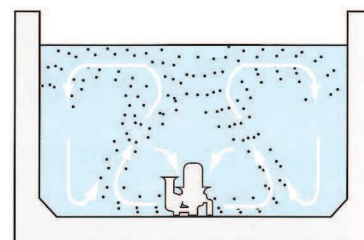
- Sewage treatment: Aeration and mixing
- Agricultural wastewater treatment: Aeration and mixing
- Industrial wastewater treatment: Aeration and mixing
- Oxygen-free tank, anaerobic tank: mixing
- Flow regulating tank: Aeration and mixing

Features

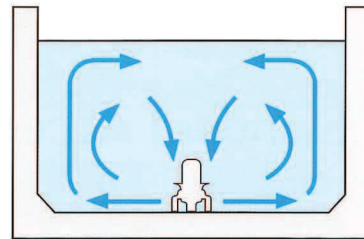
- Multipolar motor direct-drive design is compact and lightweight. No oil replacement is needed because no speed reducer is used. The SJ Series is a solution for high cost performance and lower maintenance.
- Newly developed axial-flow impeller and downward discharge casing ensure high mixing flow velocity over the tank bottom as well as wide, uniform convection.
- Bubble miniaturization effect offers a high oxygen transfer rate with lower energy consumption.
- SJ is applicable the water temperature of 0~60°C only changing the cable.
- Clogging prevention design and high-quality 4-end-face SiC double mechanical seals ensure durability in the application of long-term continuous operation under water.
- Motor can be removed from the casing by simply unfastening the bolts, which provides ample maintenance accessibility.
- Lightweight and tough cabtyre cable with special reinforcement is employed.
- Switching between anaerobic and aerobic settings is easy. Good for high-level applications in various facilities.

Flow patterns in tank

● Aeration flow



● Mixing flow

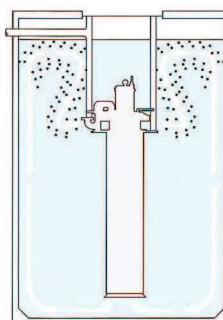


Features

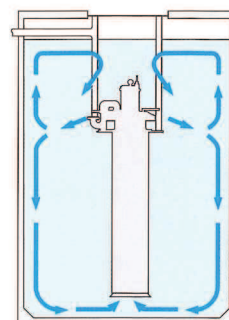
- Multipolar motor direct-drive design is compact and lightweight as well as high cost efficiency and lower maintenance.
- Upward discharge design provides efficient aeration and mixing even in a deep tank.
- Newly developed axial-flow impeller and discharge casing ensure high efficiency of oxygen transfer.
- SU is applicable the water temperature of 0~60°C only changing the cable.
- Clogging prevention design and high-quality end face SiC double mechanical seals ensure durability in the application of long-term operation under water.
- Lightweight and tough cabtyre cable with special reinforcement is employed.
- Switching between anaerobic and aerobic settings is easy. Good for high-level applications in various facilities.
- 1.5kW small models (SU15 Series) are available. Good for application at small-scale treatment facilities.

Flow patterns in tank

● Aeration flow



● Mixing flow



Main Specifications

		SJ	SJL	SU
Applicable Fluids	Liquid Type	Wastewater (Sewage, Industrial Wastewater, etc)		
	Water Temperature	0~40℃		
Material	Cable	2PNCTS		
	Main Shaft	SUS329J1		
	Impeller	SCS13		
	Suction/Discharge housing	FC250		
Motor	Name	Submersible Induction	Submersible Motor with Reduction Gear	Submersible Induction
	Insulation Class	E		
	Phase	3-Phase		
	Number of Poles	10P/12P (50Hz/60Hz)	4P	10P/12P (50Hz/60Hz)
	Starting Method	DOL	DOL:2.2~7.5kW Star-Delta:11~30kW	DOL
	Overheat Protection	Micro Thermal Protector (MTP)		

Special Specifications

	SJ	SJL	SU
Cable Extension	15·20·30m *Please inquire regarding length over 30m		
Protector	Leakage Detector		

*For custom specification other than on the above, please consult us.

Standard Accessories

- Cable 1pc (10m)
- Cable Fastening Bracket 1pc
- Connector (P/F type) 1set

Special Accessories

- Lifting Chain
- Special Tools
- Foundation Bolts
- Guide Pipe

Cable Specifications

Model	Type	Area (mm ²)	Cores	Uses	Outer Dia (mm)
SJ8 SJ15 SJ22	2 PNCTS	2 2 (2)	4 2 (2)	Power Control (Reserve)	φ16 (φ18)
SJ37		3.5 2 (2)	4 2 (2)	Power Control (Reserve)	φ18 (φ20)
SJ55		5.5 2 (2)	4 2 (2)	Power Control (Reserve)	φ20 (φ22)
SJ75		8 2 (2)	4 2 (2)	Power Control (Reserve)	φ22 (φ24.5)
SJL22 SJL37	2 PNCTS	2 2 (2)	4 2 (2)	Power Control (Reserve)	φ16 (φ18)
SJL55		3.5 2 (2)	4 2 (2)	Power Control (Reserve)	φ18 (φ20)
SJL75		5.5 2 (2)	4 2 (2)	Power Control (Reserve)	φ20 (φ22)
SJL110		5.5 2 (2)	7 2 (2)	Power Control (Reserve)	φ28
SJL150		14 2 (2)	7 2 (2)	Power Control (Reserve)	φ33
SJL220		22 2 (2)	7 2 (2)	Power Control (Reserve)	φ40
SJL300		30 2 (2)	7 2 (2)	Power Control (Reserve)	φ45

Model	Type	Area (mm ²)	Cores	Uses	Outer Dia (mm)
SU15 SU22	2 PNCTS	2 2 (2)	4 2 (2)	Power Control (Reserve)	φ16 (φ18)
SU37		3.5 2 (2)	4 2 (2)	Power Control (Reserve)	φ18 (φ20)
SU55		5.5 2 (2)	4 2 (2)	Power Control (Reserve)	φ20 (φ22)
SU75		8 2 (2)	4 2 (2)	Power Control (Reserve)	φ22 (φ24.5)
SU110		8 2 (2)	7 2 (2)	Power Control (Reserve)	φ30
SU150		14 2 (2)	7 2 (2)	Power Control (Reserve)	φ33

Aeration and Mixing Performance

Model	Output	Discharge Water Volume	Airflow Range	Reference Performance		Necessary Blowing Pressure at Air Supply Connection Port	Applicable Tank Size			Main Body Weight	Inlet Stand Weight
				Airflow	Oxygen Transfer Rate		Max. Volume	Max. Surface Area	Max. Length of Rectangle		
	kW	m³/min	m³/min (Normal)	m³/min (Normal)	kgO₂/h	kPa (mmAg)	m³	m²	m	kg	kg
SJ8	0.75	7	0.4~ 1.6	1.0	3.3	Installation water depth+1.0 (+100)	130	24	6.7	140	13
SJ15	1.5	9	0.6~ 3.0	1.6	6.0	Installation water depth+2.0 (+200)	280	52	8.1	190	18
SJ22	2.2	11	0.9~ 4.1	2.4	9.0	Installation water depth+2.5 (+250)	460	85	9.5	220	18
SJ37	3.7	17	1.1~ 6.8	3.8	14.4	Installation water depth+3.5 (+350)	670	124	12.8	250	22
SJ55	5.5	28	1.6~ 9.7	5.6	21.4	Installation water depth+2.5 (+250)	1,000	185	14.3	330	32
SJ75	7.5	39	3.2~12.9	7.5	28.9	Installation water depth+3.0 (+300)	1,400	260	17.5	560	52
SJL22	2.2	13	0.9~ 4.1	2.4	8.2	Installation water depth+1.5 (+150)	460	85	9.5	250	18
SJL37	3.7	21	1.1~ 6.8	3.8	13.8	Installation water depth+2.0 (+200)	670	124	12.8	330	23
SJL55	5.5	34	1.6~ 9.7	5.6	20.0	Installation water depth+2.0 (+200)	1,000	185	14.3	640	33
SJL75	7.5	47	3.2~12.9	7.5	27.5	Installation water depth+2.5 (+250)	1,400	260	17.5	900	53
SJL110	11	70	4.3~19.3	11.8	42.5	Installation water depth+1.5 (+150)	2,000	370	21.2	1,250	80
SJL150	15	95	6.4~25.8	16.1	58.1	Installation water depth+1.5 (+150)	2,700	500	24.6	1,550	84
SJL220	22	140	8.6~40.8	24.7	85.0	Installation water depth+1.0 (+100)	4,000	740	30.0	3,100	146
SJL300	30	190	12.9~53.7	33.3	112.0	Installation water depth+0.5 (+50)	5,500	1,020	35.0	4,200	206
SU15	1.5	9	0.6~ 3.2	1.6	6.0	Installation water depth+3.0 (+300)	250	46	7.5	175	12
SU22	2.2	11	0.4~ 4.6	2.4	9.2	Installation water depth+4.0 (+400)	350	65	8.8	195	12
SU37	3.7	17	1.1~ 7.5	4.3	15.7	Installation water depth+5.0 (+500)	600	110	11.5	230	15
SU55	5.5	28	1.6~10.7	6.4	23.6	Installation water depth+5.0 (+500)	900	165	13.9	320	20
SU75	7.5	39	3.2~14.5	8.6	31.6	Installation water depth+6.0 (+600)	1,250	230	16.5	360	32
SU110	11	55	5.4~21.5	11.8	45.0	Installation water depth+5.0 (+500)	1,800	330	20.0	700	52
SU150	15	75	6.4~25.8	16.1	62.5	Installation water depth+7.5 (+750)	2,400	440	23.0	1,000	55

Note: The performance values are achievable in clear water at 20°C with a dissolved oxygen concentration of 0 mg/L, with a variation of ±10% depending on the measurement conditions. They need to be corrected according to type, temperature and dissolved oxygen concentration of the water in the aeration tank. The values of the adaptive tank are available when the sludge concentration is 5,000 mg/L. The airflow rate corresponds to the standard condition.

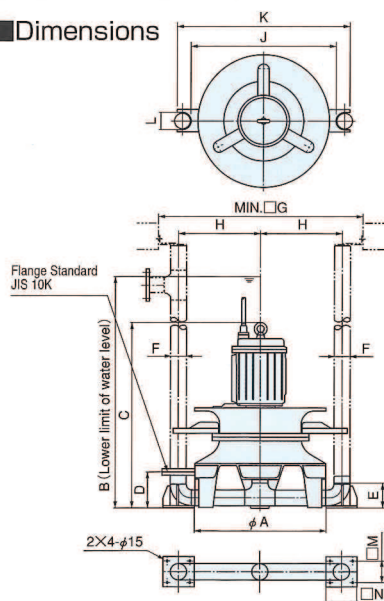
(Standard condition: Temperature of 20°C, atmospheric pressure [absolute pressure of 101.3kPa], relative humidity 65%)

Values in { } are informative.

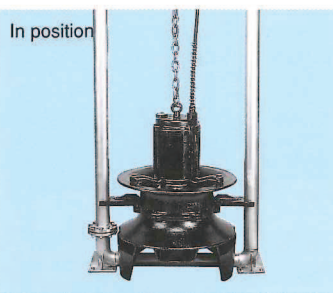
SJ-P

Automatic

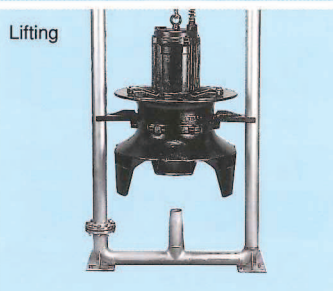
■ Dimensions



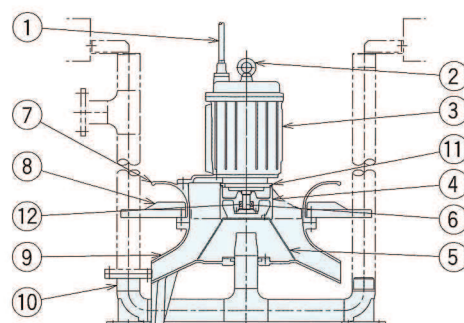
In position



Lifting



■ Section view



● Material list

Symbol	Part name	Material
1	Cable	2PNCTS
2	Eyebolt	SUS304
3	Submersible motor	—
4	Impeller	SCS13
5	Diffuser	SUS304
6	Main shaft	SUS329J1
7	Suction casing	FC250
8	Guide	FC200
9	Discharge casing	FC250
10	Air supply stand	SUS304
11	Shield ring	NBR
12	Locking element	—

● Dimension table (SJ-P Series)

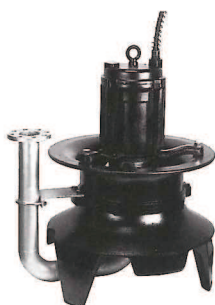
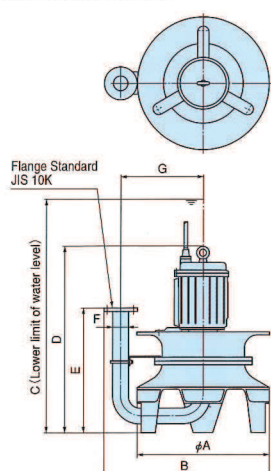
Unit: mm

Model	Output (kW)	A	B	C	D	E	F	G	H	J	K	L	M	N
SJ8-P	0.75	510	1,100	810	150	100	50A	850	340	609	738	71	100	150
SJ15-P	1.5	600	1,300	894	200	120	65A	1,006	410	732	877	87	110	160
SJ22-P	2.2	670	1,500	934	200	120	65A	1,050	432	777	922	87	110	160
SJ37-P	3.7	740	1,700	1,052	200	140	80A	1,150	460	820	978	100	120	170
SJ55-P	5.5	890	1,900	1,102	250	180	100A	1,350	560	994	1,148	126	150	200
SJ75-P	7.5	1,080	2,100	1,294	300	220	125A	1,600	660	1,162	1,350	158	200	250

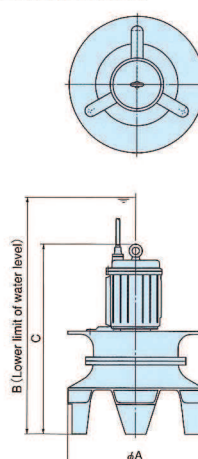
SJ-F

Flange

■ Dimensions



■ Dimensions



● Dimension table (SJ-F Series)

Unit: mm

Model	Output (kW)	A	B	C	D	E	F	G
SJ8-F	0.75	510	633	1,100	810	550	50A	300
SJ15-F	1.5	600	808	1,300	894	646	65A	420
SJ22-F	2.2	670	843	1,500	934	650	65A	420
SJ37-F	3.7	740	903	1,700	1,052	700	80A	440
SJ55-F	5.5	890	1,070	1,900	1,102	800	100A	520
SJ75-F	7.5	1,080	1,305	2,100	1,294	900	125A	640

Note: An aerator has to be fixed using guide pipes, anchor weight, anchor ropes, etc. so that it does not move after installation even on an inclined or slippery surface.

SJ-K

Mixing

● Dimension table (SJ-K Series)

Unit: mm

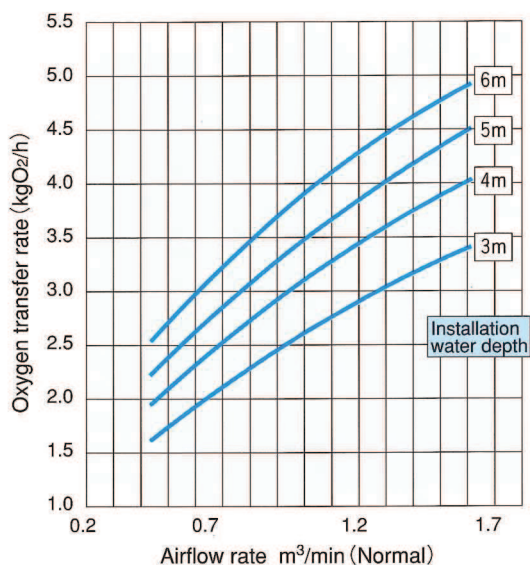
Model	Output (kW)	A	B	C
SJ8-K	0.75	510	1,100	810
SJ15-K	1.5	600	1,300	894
SJ22-K	2.2	670	1,500	934
SJ37-K	3.7	740	1,700	1,052
SJ55-K	5.5	890	1,900	1,102
SJ75-K	7.5	1,080	2,100	1,294

Note: An aerator has to be fixed using guide pipes, anchor weight, anchor ropes, etc. so that it does not move after installation even on an inclined or slippery surface.

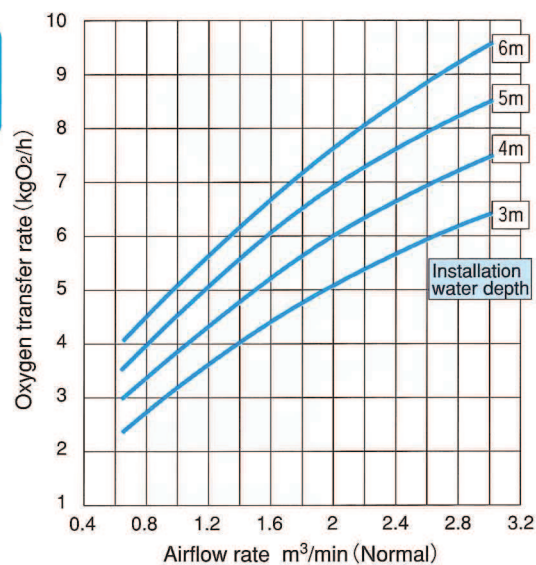
Performance Curves

(Condition: Clear water at 20°C with a dissolved oxygen concentration of 0 mg/L)

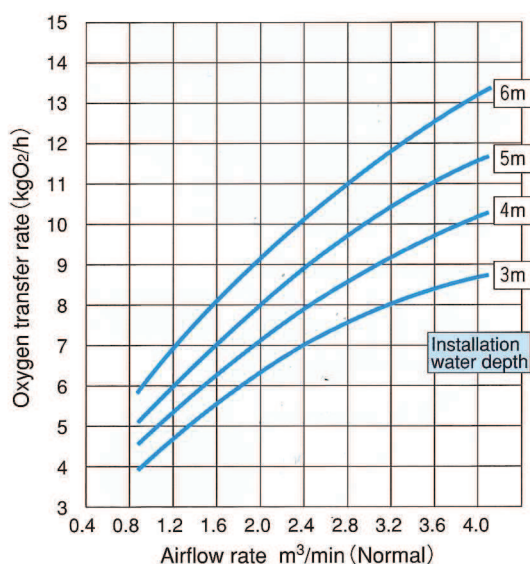
SJ8



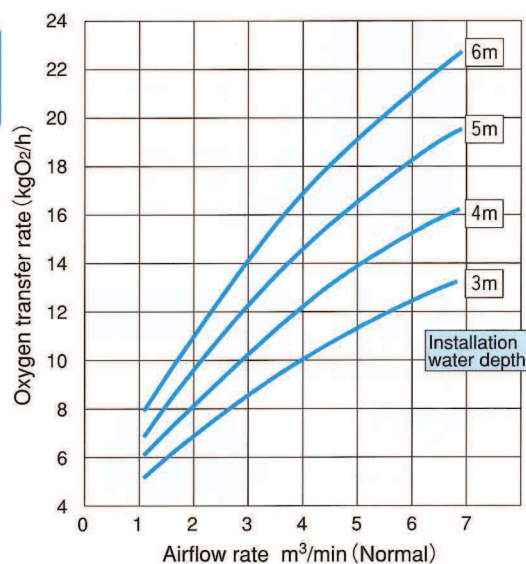
SJ15



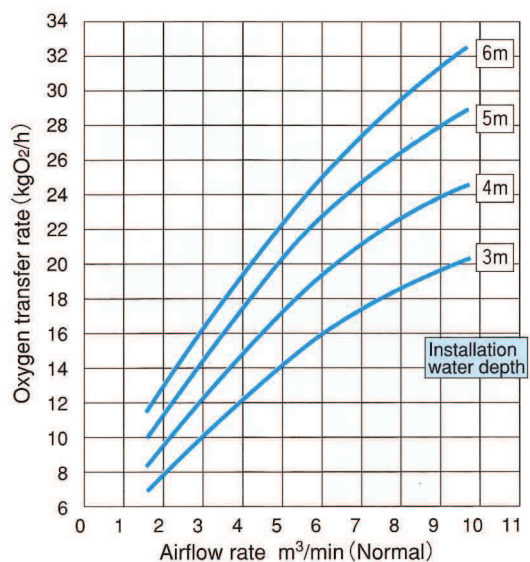
SJ22



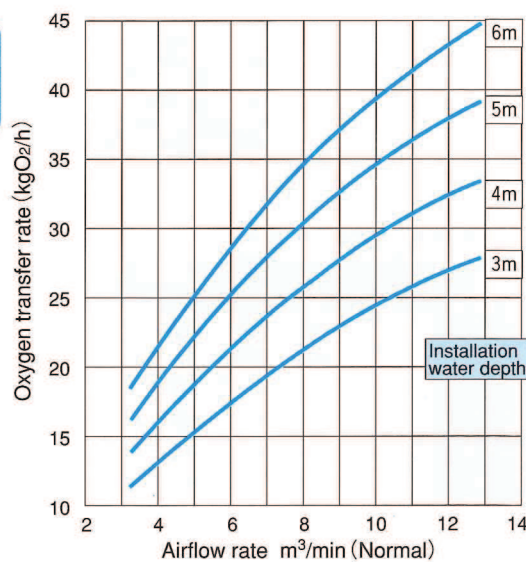
SJ37



SJ55



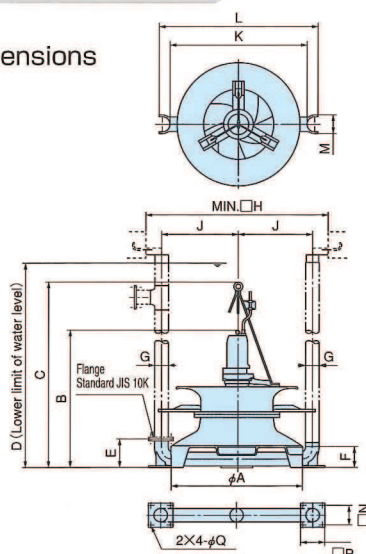
SJ75



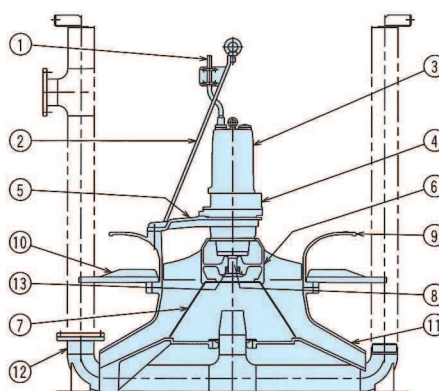
SJL-P

Automatic

■ Dimensions



■ Section view



● Material list

Symbol	Part name	Material
1	Cable	2PNCTS
2	Hanger	SUS304
3	Submersible motor	—
4	Speed reducer	—
5	Bracket	FC200
6	Impeller	SCS13
7	Diffuser	SUS304
8	Main shaft	SUS420J1
9	Suction casing	FC250
10	Guide	FC200
11	Discharge casing	FC250
12	Air supply stand	SUS304
13	Locking element	—

● Dimension table (SJL-P Series)

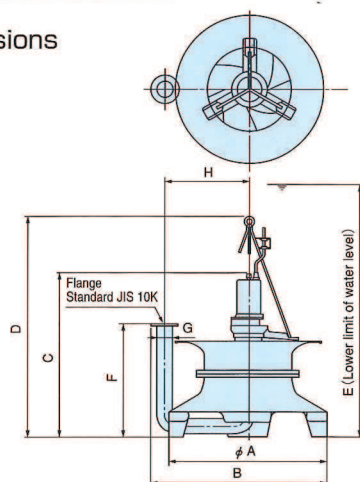
Unit: mm

Model	Output (kW)	A	B	C	D	E	F	G	H	J	K	L	M	N	P	Q
SJL22-P	2.2	740	983	1,383	1,500	200	120	65A	1,086	450	814	915	86	110	160	15
SJL37-P	3.7	900	1,055	1,414	1,700	200	140	80A	1,290	530	960	1,075	100	120	170	15
SJL55-P	5.5	1,150	1,305	1,757	1,900	250	180	100A	1,530	650	1,175	1,319	124	150	200	15
SJL75-P	7.5	1,400	1,453	1,870	2,100	300	220	125A	1,880	800	1,440	1,620	160	200	250	15
SJL110-P	11	1,640	1,759	2,200	2,300	350	260	150A	2,200	930	1,676	1,890	184	220	270	19
SJL150-P	15	1,900	1,864	2,305	2,500	350	260	150A	2,460	1,060	1,936	2,150	184	220	270	19
SJL220-P	22	2,300	2,194	2,635	2,700	450	400	200A	3,000	1,325	2,414	2,680	236	260	320	19
SJL300-P	30	2,600	2,389	2,830	2,900	550	500	250A	3,400	1,475	2,664	2,980	286	310	370	19

SJL-F

Flange

■ Dimensions



● Dimension table (SJL-F Series)

Unit: mm

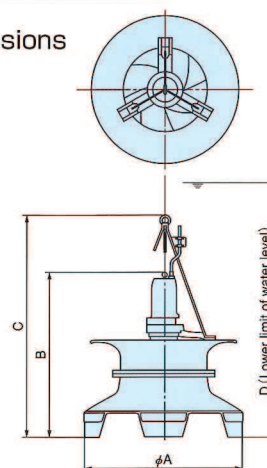
Model	Output (kW)	A	B	C	D	E	F	G	H
SJL22-F	2.2	740	888	983	1,383	1,500	600	65A	430
SJL37-F	3.7	900	1,043	1,055	1,414	1,700	650	80A	500
SJL55-F	5.5	1,150	1,330	1,305	1,757	1,900	900	100A	650
SJL75-F	7.5	1,400	1,565	1,453	1,870	2,100	1,000	125A	740
SJL110-F	11	1,640	1,830	1,759	2,200	2,300	1,150	150A	870
SJL150-F	15	1,900	2,080	1,864	2,305	2,500	1,250	150A	990
SJL220-F	22	2,300	2,515	2,194	2,635	2,700	1,350	200A	1,200
SJL300-F	30	2,600	2,900	2,389	2,830	2,900	1,600	250A	1,360

Note: An aerator has to be fixed using guide pipes, anchor weight, anchor ropes, etc. so that it does not move after installation even on an inclined or slippery surface.

SJL-K

Mixing

■ Dimensions



● Dimension table (SJL-K Series)

Unit: mm

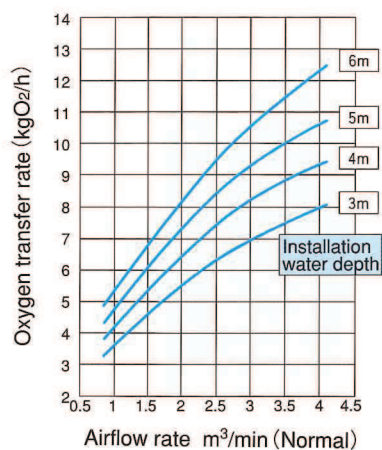
Model	Output (kW)	A	B	C	D
SJL22-K	2.2	740	983	1,383	1,500
SJL37-K	3.7	900	1,055	1,414	1,700
SJL55-K	5.5	1,150	1,305	1,757	1,900
SJL75-K	7.5	1,400	1,453	1,870	2,100
SJL110-K	11	1,640	1,759	2,200	2,300
SJL150-K	15	1,900	1,864	2,305	2,500
SJL220-K	22	2,300	2,194	2,635	2,700
SJL300-K	30	2,600	2,389	2,830	2,900

Note: An aerator has to be fixed using guide pipes, anchor weight, anchor ropes, etc. so that it does not move after installation even on an inclined or slippery surface.

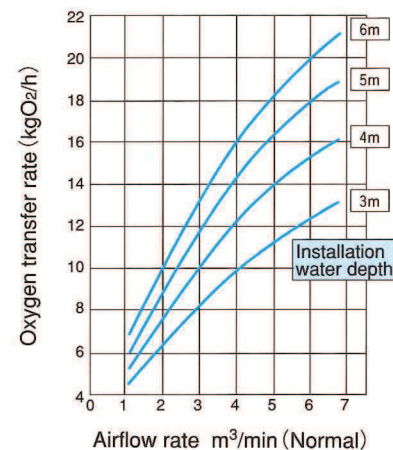
Performance Curves

(Condition: Clear water at 20°C with a dissolved oxygen concentration of 0 mg/L)

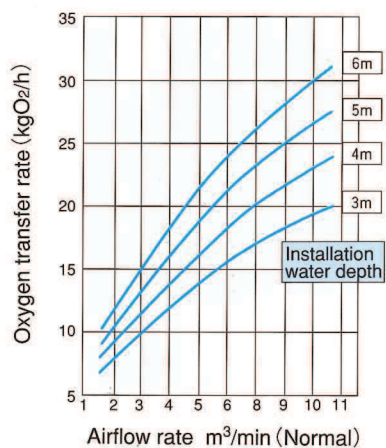
SJL22



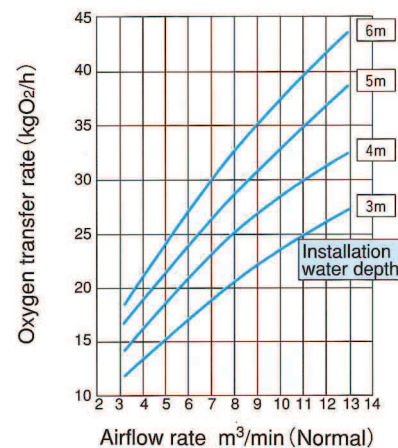
SJL37



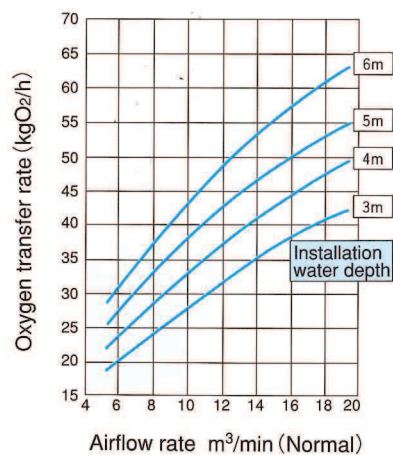
SJL55



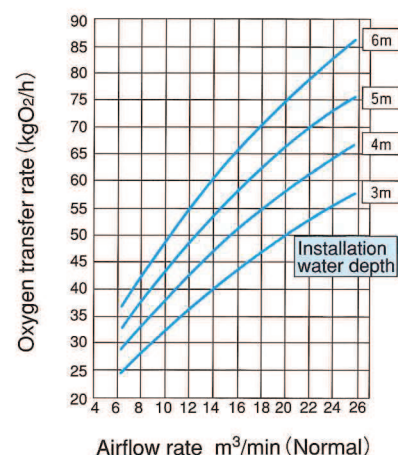
SJL75



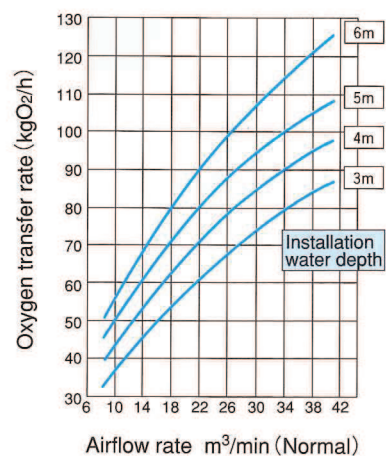
SJL110



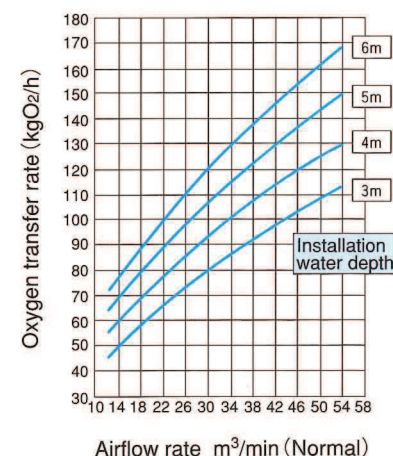
SJL150



SJL220

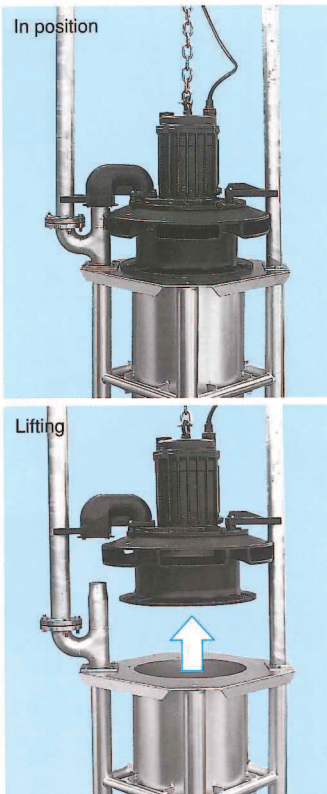
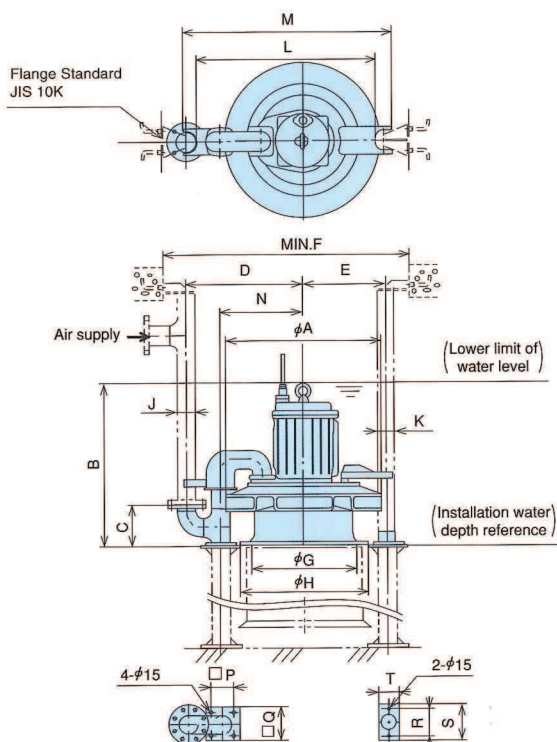


SJL300

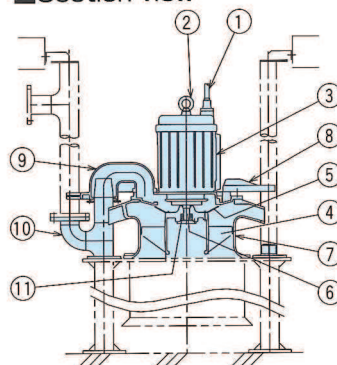


SU-P Automatic

■Dimensions



■Section view



●Material list

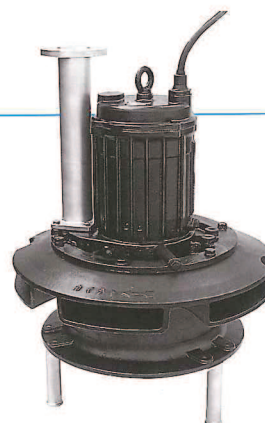
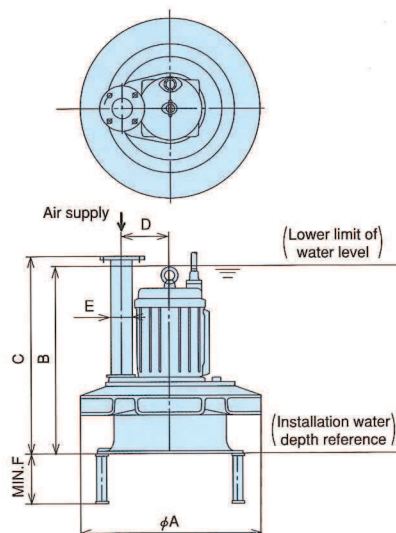
Symbol	Part name	Material
1	Cable	2PNCTS
2	Eyebolt	SUS304
3	Submersible motor	—
4	Impeller	SCS13
5	Diffuser	SUS304
6	Shaft	SUS329J1
7	Discharge casing	FC250
8	Guide	FC200
9	Air supply pipe guide	FC250
10	Air supply stand	SUS304
11	Locking element	—

Unit: mm

Model	Output (kW)	A	B	C	D	E	F	G	H	J	K	L	M	N	P	Q	R	S	T
SU15-P	1.5	600	665	200	495	350	1,050	420	506	65A	50A	768	905	355	100	125	120	170	80
SU22-P	2.2	670	684	200	495	350	1,050	480	560	65A	50A	768	905	355	100	125	120	170	80
SU37-P	3.7	740	770	200	555	390	1,150	520	600	80A	65A	852	990	393	120	150	130	180	100
SU55-P	5.5	890	798	250	685	480	1,400	616	716	100A	80A	1,049	1,206	479	150	200	140	190	120
SU75-P	7.5	890	886	300	740	535	1,550	616	716	125A	100A	1,129	1,300	489	200	230	170	220	140
SU110-P	11	1,150	1,168	350	920	610	1,900	854	960	150A	125A	1,359	1,560	625	200	250	200	250	180
SU150-P	15	1,400	1,386	350	1,025	720	2,200	1,004	1,110	150A	125A	1,574	1,775	730	200	250	200	250	180

SU-F Flange

■Dimensions



Unit: mm

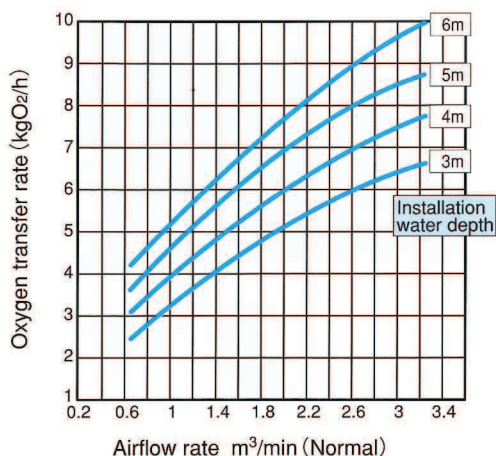
Model	Output (kW)	A	B	C	D	E	F
SU15-F	1.5	600	665	665	189	65A	200
SU22-F	2.2	670	684	665	189	65A	200
SU37-F	3.7	740	770	684	198	80A	200
SU55-F	5.5	890	798	845	232	100A	200
SU75-F	7.5	890	886	945	232	125A	250
SU110-F	11	1,150	1,168	1,136	277	150A	400
SU150-F	15	1,400	1,386	1,354	277	150A	400

Note: An aerator has to be fixed using guide pipes, anchor weight, anchor ropes, etc. so that it does not move after installation even on an inclined or slippery surface.

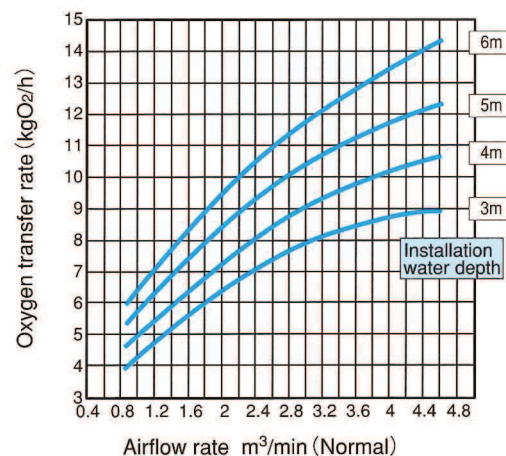
Performance Curves

〈Condition: Clear water at 20°C with a dissolved oxygen concentration of 0 mg/L〉

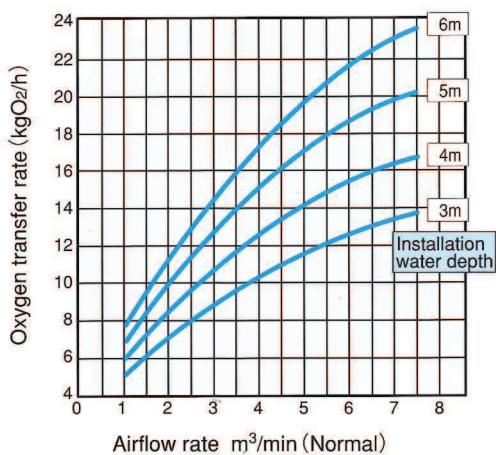
SU15



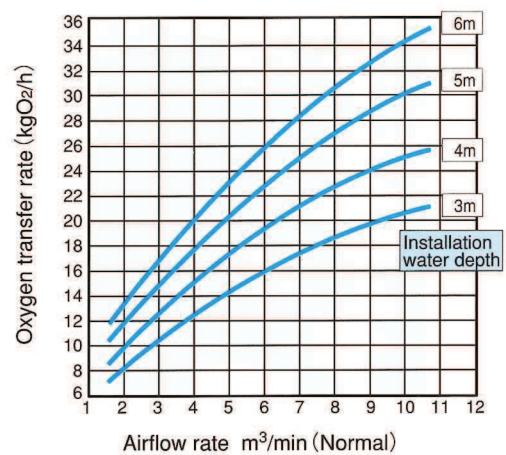
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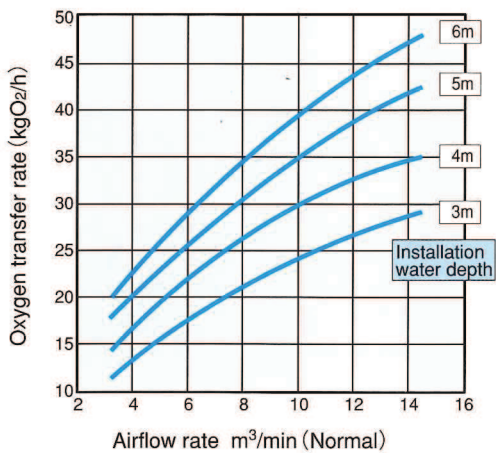
SU37



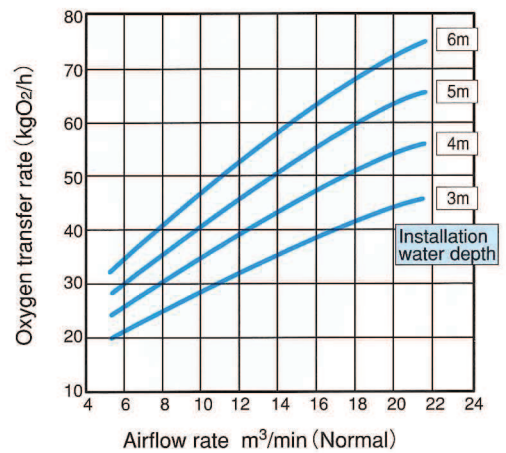
SU55



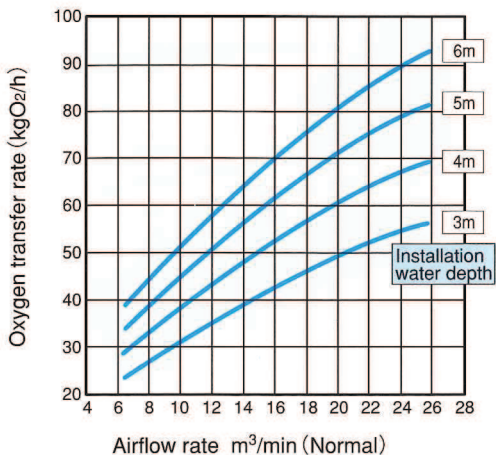
SU75



SU110



SU150



Submersible Aerator SJ Series



▲SJ8-P

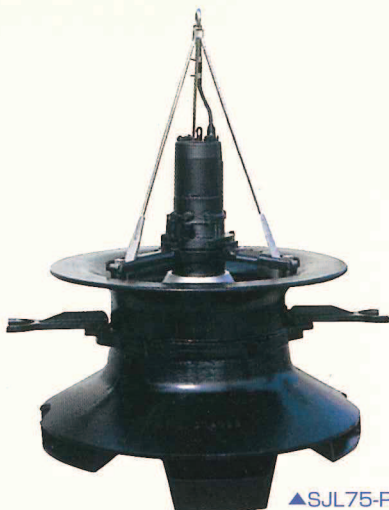


▲SJ37-P



▲SJ75-P

Submersible Aerator SJL Series



▲SJL75-P



▲SJL300-P

Submersible Aerator SU Series



▲SU-P



▲SU-F



Specifications and dimensions are subject to change without notice.

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ShinMaywa ONO PLANT

ISO 9001(No.956445)/ISO 14001(No.771888)