BIBUS

Supporting your success

Diaphragm Linear Pumps

SECOH

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Table of Contents

Secoh Shanghai Mec., Ltd. is a joint venture partnership with Secoh Japan, sepecialized in manufacturing diaphragm linear pump. Since establishment in 2005, Secoh is expanding quickly in China, Japan, Russia, USA, Europe, Australia, Middle east and other Asia areas.

Secoh diaphragm linear pump derives from Japan Taiko Kikai Industries Co.,Ltd., which is one of mature products with more than fifty years production experience. Secoh Shanghai has introduced a sort of technologies and equipments from Secoh Sangyo ltd in production and manangement. And we also have learned and developed techniques from Japanese engineers. In the past years, we have develped many series of customized diaphragm linear pump. By now, our pumps are widely used in sewage system, fishing, energy reservation and medical equipments, and have won very good reputation in those fields.

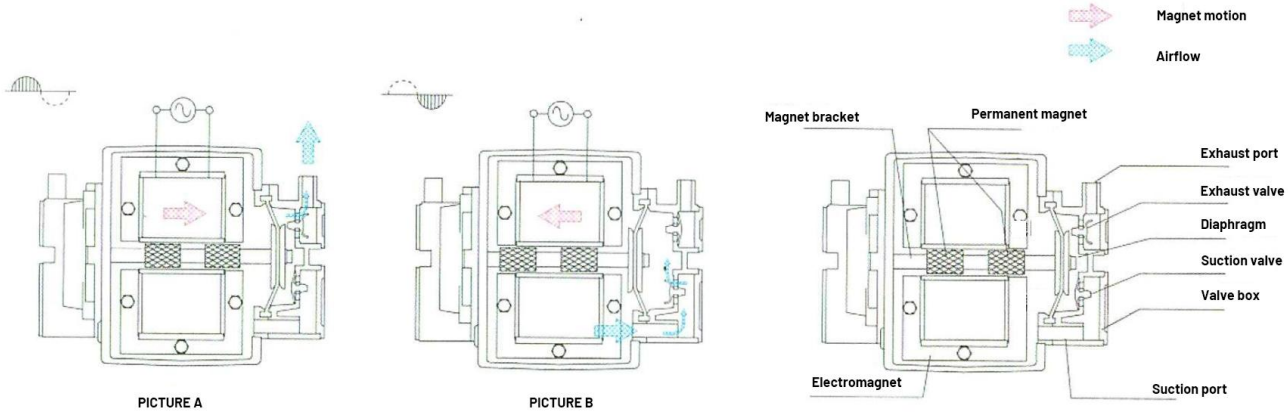
Low noise level, low power consumption, less maintenance, completely oil free, low virbration, and compact construction are major features of Secoh Pumps..

Secoh insists on innovation, technology, and training on employees. We have raised a professional R&D team and buisnee talents with Japnese staff. Secoh always appreciates honesty business, reliable quality, and competitive price, as our slogan for excellence service delivery to foreign and domestic customers. We will make all efforts for global sales and service network.

Technical Principles:

Operating Principle

Linear compressors function by energizing electromagnets that oscillate a magnet in opposite directions. First the magnet moves in the direction of the arrow in Fig.A and then in the direction of the arrow in Fig.B. The magnet moves back and forth between the electromagents at the same frequency as the power supply. The magnet is connected to two diaphragms and as the magnet oscillates, it changes the valve box volume, which creates vacuum or pressure.



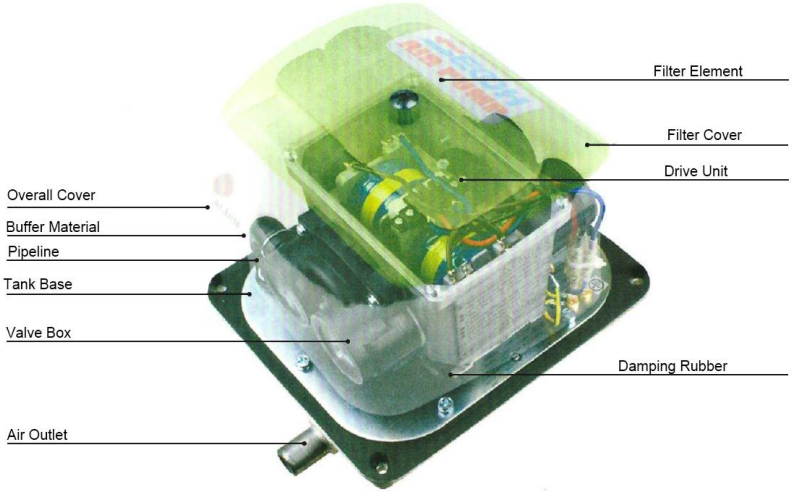
Advantages

- ✓ Completely Oil free, Low life expectancy
- ✓ Very little pulsation, Low noise
- ✓ Compact and light construction
- ✓ Low maintenance
- ✓ Pressure & vacuum Type
- ✓ High quality auto-stopper inclusive
- ✓ Air Suspension-style connection
- ✓ High heat dissipation, long life expectancy
- ✓ Low pressure loss Air circuit

Applications

- ✓ Waste Water Treatment Septic Tank
- ✓ Adding oxygen for breeding beach, ornamental fish, etc.
- ✓ Bubble Bath
- ✓ Producing Ozone, Mobile Restroom
- ✓ Air source for machine (air cooler, inkjet printer
- ✓ Producing vacuum (vacuum suction pen)
- ✓ Air massager
- ✓ Health care equipment (anti bed sore mattress)
- ✓ Laboratory equipment

Structure:



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JDK 20>50

JDK-20, JDK-30, JDK-40, JDK-50

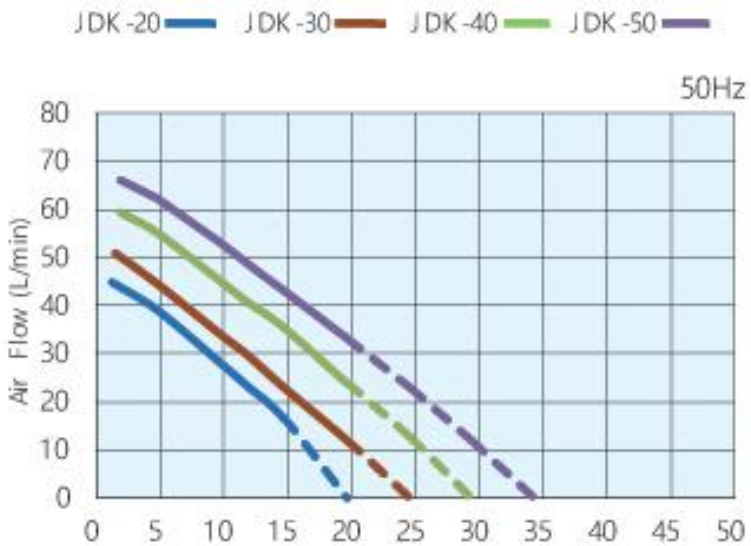
Specifications

Model	Units	JDK-20	JDK-30	JDK-40	JDK-50
Voltage	VAC	230	230	230	230
Frequency	Hz	50	50	50	50
Max. operating pressure	kPa	15	20	20	20
Rated Pressure	kPa	11.8	11.8	11.8	12.7
Air flow	L/min	20	30	40	50
Power	W	15	25	38	45
Weight	kg	4.3	4.3	4.3	4.3
Sound lever (1m)	dB(A)	33	34	36	39

*All specification values are only for reference, and are not guaranteed values.

*All specification and performance values are subject to change without notice

Performance Curves



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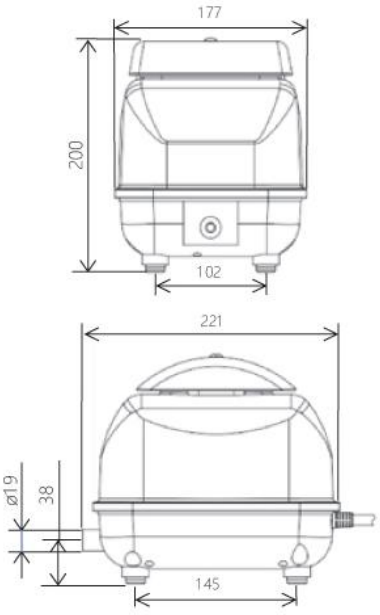

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JDK-S-60>120

JDK-S-60, JDK-S-80, JDK-S-100, JDK-S-120

Specifications

Model	Units	JDK-S-60	JDK-S-80	JDK-S-100	JDK-S-120
Voltage	VAC	230	230	230	230
Frequency	Hz	50	50	50	50
Max operating pressure	kPa	25	25	25	25
Rated pressue	kPa	20	20	20	20
Air flow	L/min	60	75	95	120
Power	W	45	55	75	90
Weight	kg	6.5	6.5	6.5	6.5
Sound lever (1m)	dB(A)	36	38	42	44

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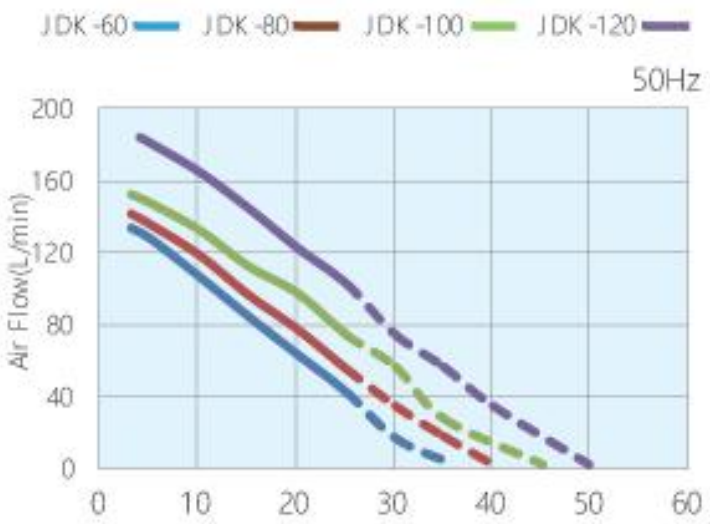
Performance Curves



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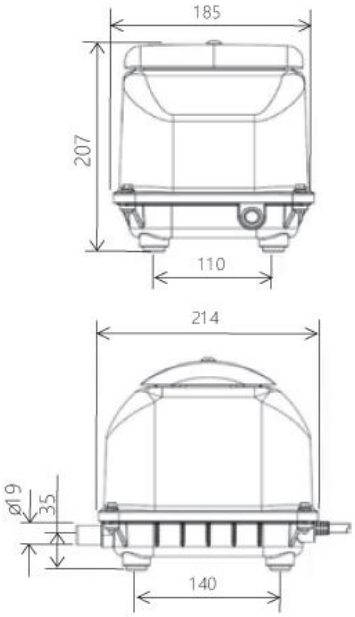

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JDK-S-150>250

JDK-S-150, JDK-S-200, JDK-S-250

Specifications

Model	Units	JDK-S-150	JDK-S-200	JDK-S-250
Voltage	VAC	230	230	230
Frequency	Hz	50	50	50
Operating range	kPa	15-30	15-30	15-30
Rated pressure	kPa	20	20	20
Air flow	L/min	150	200	250
Power	W	110	170	220
Weight	kg	10	10	10
Sound lever (1m)	dB(A)	46	48	50

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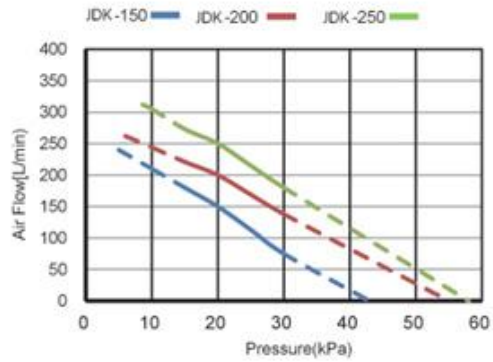
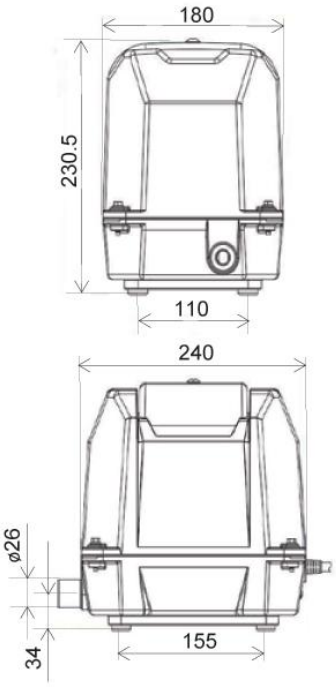
Performance Curves



Pressure relief valve as standard accessory

Dimensions(mm)



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JDK-S-300>500

JDK-S-300, JDK-S-400, JDK-S-450, JDK-S-500

Specifications

Model	Units	JDK-S-300	JDK-S-400	JDK-S-450	JDK-S-500
Voltage	VAC	230	230	230	230
Frequency	Hz	50	50	50	50
Operating pressure	kPa	15-30	15-30	15-30	15-30
Rated pressure	kPa	20	20	20	20
Air flow	L/min	300	400	450	500
Power	W	220	350	390	450
Weight	kg	18	18	18	18
Sound lever (1m)	dB(A)	52	54	55	56

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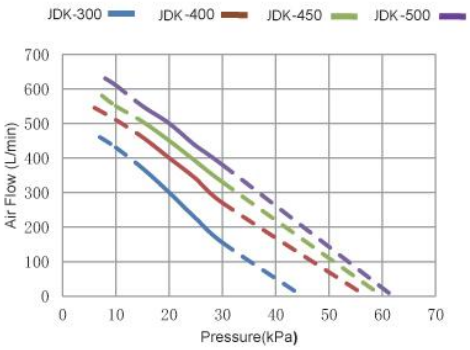

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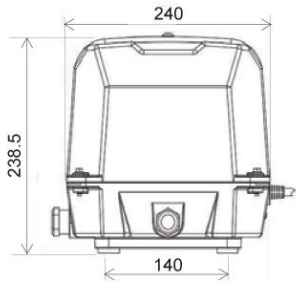

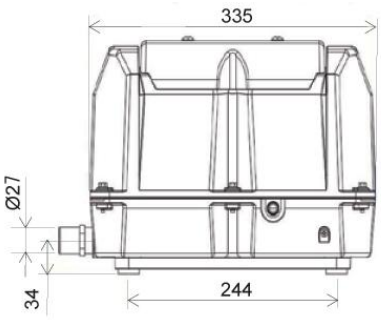

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MK 10 & MKC510V

Specifications

Model	Units	MK-10	MKC510V
Voltage	VAC	230	230
Frequency	Hz	50	50
Rated Pressure	kPa	10	10
Air flow	L/min	10	10
Power	W	9	9
Weight	kg	0.7	1.2
Sound lever(1m)	dB(A)	38	30

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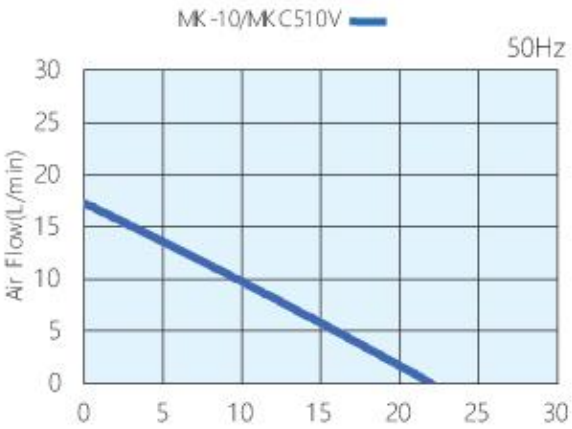
Performance Curves



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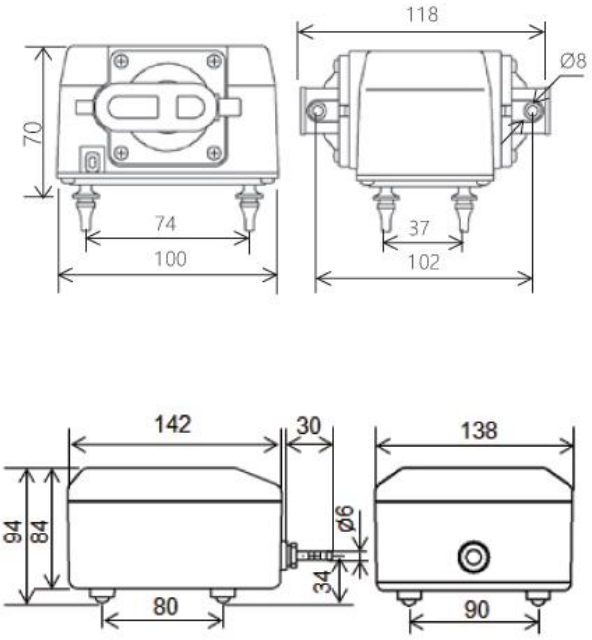

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TPS 10>15

TPS-5, TPS-8, TPS-10, TPS-15

Specifications

Model	Units	TPS-10	TPS-15
Voltage	VAC	230	230
Frequency	Hz	50	50
Rated pressure	kPa	8	8
Rated Vacuum		-8	-8
Air flow at Rated Pressure	L/min	10	15
Air Flow at Rated Vacuum		-9	-14
Power	W	5	11
Weight	kg	0.9	0.9
Sound lever (1m)	dB(A)	35	38

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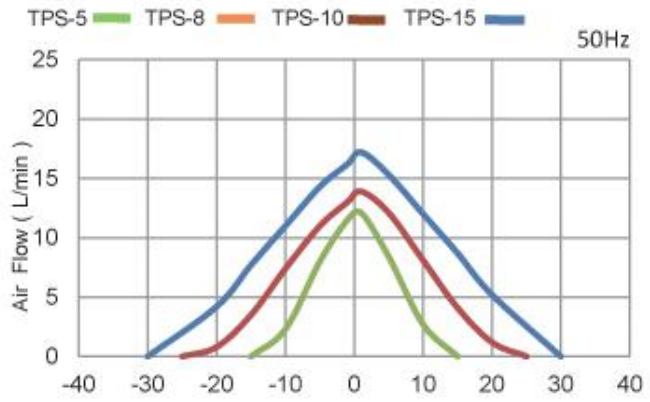
Performance Curves



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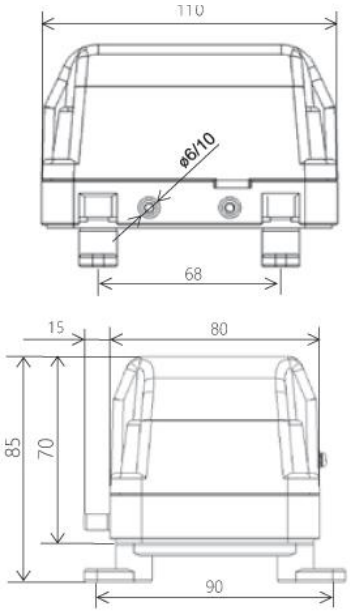

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SLL 20>50

SLL-20, SLL-30, SLL-40, SLL-50

Specifications

Model	Units	SLL-20	SLL-30	SLL-40	SLL-50
Voltage	VAC	230	230	230	230
Frequency	Hz	50	50	50	50
Rated pressure	kPa	11.8	11.8	11.8	12.7
Air flow	L/min	20	30	40	50
Power	W	15	25	35	50
Weight	kg	4.5	4.5	4.5	4.5
Sound lever (1m)	dB(A)	35	36	37	39

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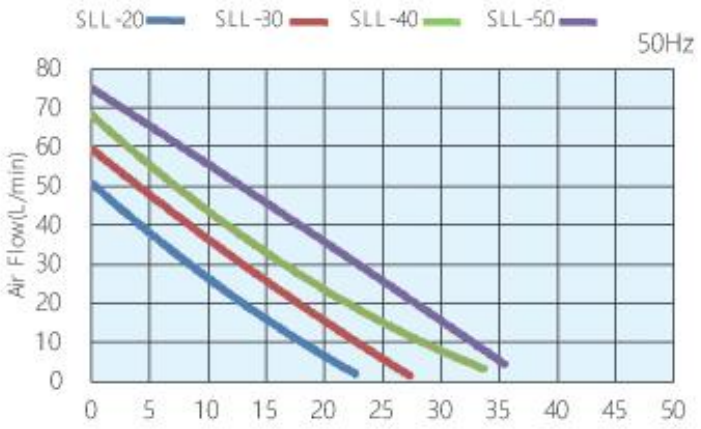
Performance Curves



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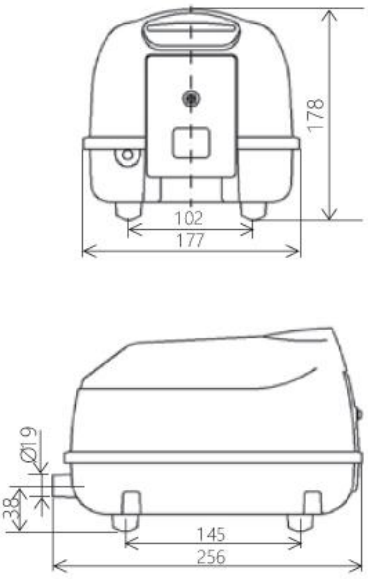

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EL-S-60>100

EL-S-60, EL-S-80-15, EL-S-80-17, EL-S-100

Specifications

Model	Units	EL-S-60	EL-S-80-15	EL-S-80-17	EL-S-100
Voltage	VAC	230	230	230	230
Frequency	Hz	50	50	50	50
Rated pressure	kPa	14.7	14.7	16.7	16.7
Air flow	L/min	60	80	85	100
Power	W	46	75	73	98
Weight	kg	8.5	8.5	8.5	8.5
Sound lever(1.5m)	dB(A)	36	38	38	40

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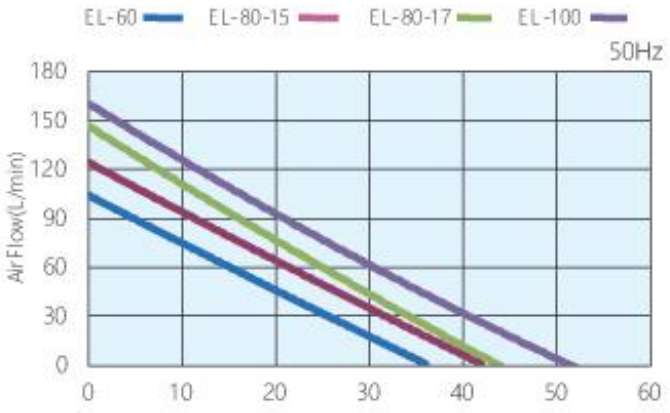
Performance Curves



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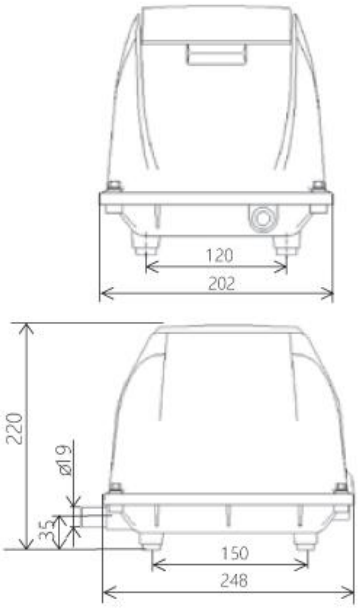

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EL-S-120W>200W

EL-S-120W, EL-S-150W, EL-S-200W

Specifications

Model	Unit	EL-S-120W	EL-S-150W	EL-S-200W
Voltage	VAC	230	230	230
Frequency	Hz	50	50	50
Rated pressure	kPa	19.6	19.6	19.6
Air flow	L/min	120	150	200
Power	W	110	140	200
Weight	kg	16	16	16
Sound lever (1.5m)	dB(A)	43	44	45

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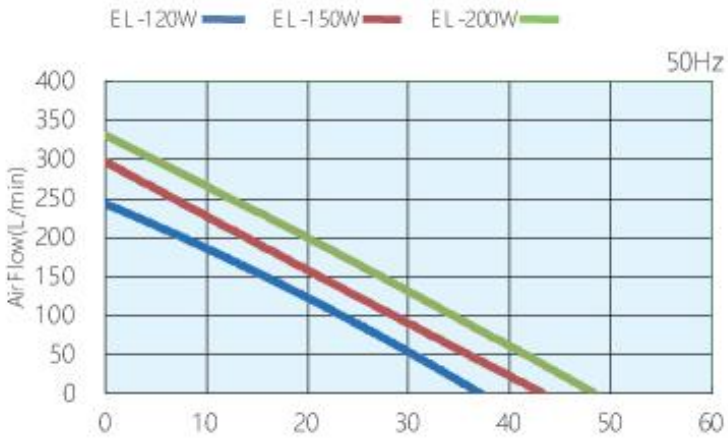
Performance Curves



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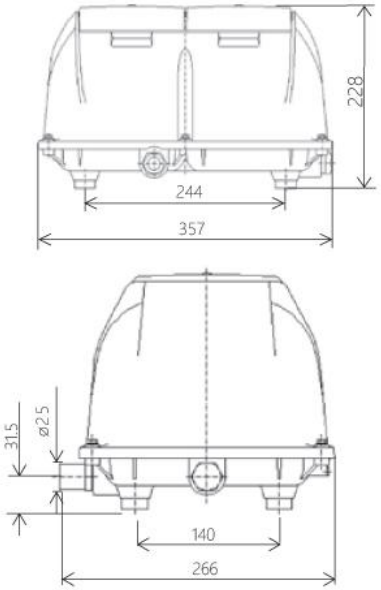

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EL 60N

Specifications

Model	Units	EL-S-60N
Voltage	VAC	230
Frequency	Hz	50
Rated pressure	kPa	14.7
Air flow	L/min	60
Power	W	50
Weight	kg	4.4
Sound lever(1m)	dB(A)	42

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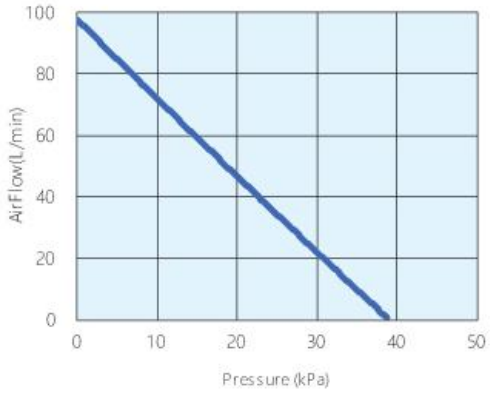
Performance Curves



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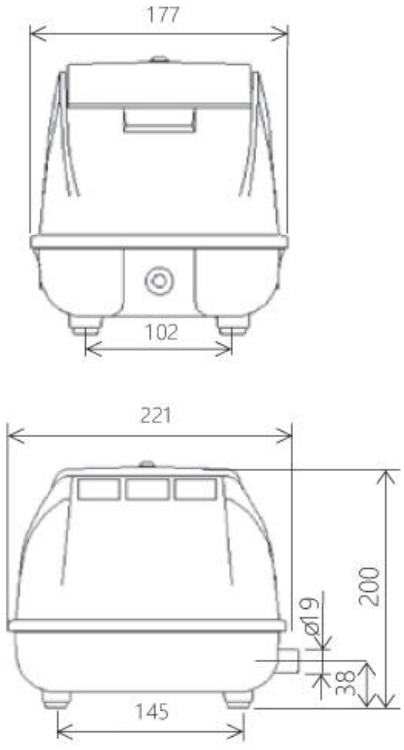

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SV 20>50

SV-20, SV-30, SV-40, SV-50

Specifications

Model	Units	SV-20	SV-30	SV-40	SV-50
Voltage	VAC	230	230	230	230
Frequency	Hz	50	50	50	50
Rated pressure	kPa	11.8(-11.8)	11.8(-11.8)	11.8(-11.8)	12.7(-12.7)
Air flow	L/min	23	30	42	50
Power	W	15	20	36	45
Weight	kg	2.5	2.5	2.5	2.5

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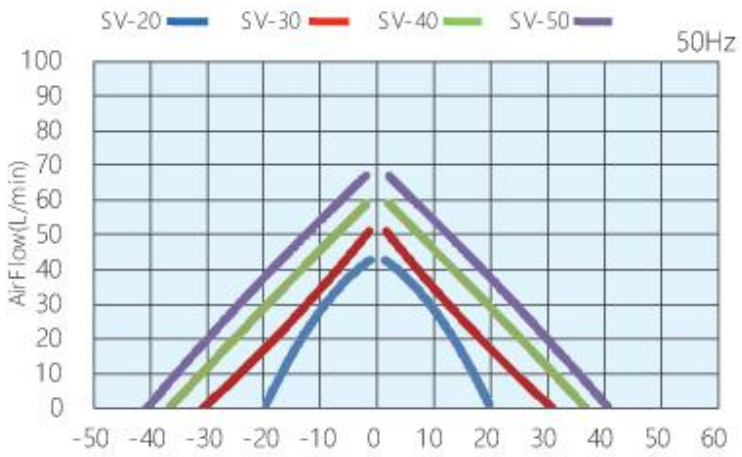
Performance Curves



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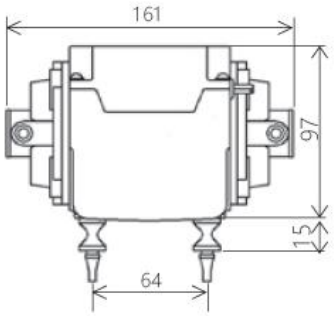

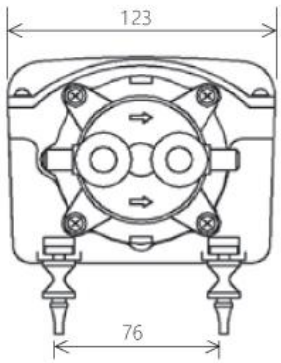

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Diaphragm Repair Kit Parts List

Pump	Diaphragm	Holder	Valve Box	Filter	Packing	Order number
JDK 20-50 						K-JDK 20/50-D
JDK 60/80 						K-JDK 60/80-D
JDK 100/120 						K-JDK 100/120-D
JDK 150/200/250 						SO 5300 5030
JDK 300/400/450/500 						SO 5300 5030

Pump model	JDK-20	JDK-30	JDK-40	JDK-50	BIBUS Code
Spare part	Spare part code				
Filter	Filter-JDK-20/-50				PA95.0002.0012A
Diaphragm set	D-SLL				PA95.0002.0007A
Service kit	K-JDK-20/50-D				PA95.0002.0028A
Magnet	K-SLL-M				PA95.0001.0014A
Accessories	Spare part code				BIBUS Code
Back pressure Gauge	BP1				PA95.0002.0001
Back pressure Gauge	44M				Not defined
Pressure relief valve	SE11				PA95.0002.0035

Pump model	JDK-S-60	JDK-S-80	JDK-S-100	JDK-S-120	BIBUS Code
Spare part	Spare part code				
Filter	Filter-JDK-60/-120				PA95.0002.0013A
Diaphragm set	D-JDK-60/120				PA95.0002.0005A
Service Kit	K-JDK-60/80-D				PA95.0002.0030A
Service Kit			K-JDK-100/120-D		PA95.0002.0025A
Magnet	kK-JDK-60/100-M, K-JDK-120-M				PA95.0002.0029A
Accessories	Spare part code				BIBUS Code
Back pressure Gauge	BP1				PA95.0002.0001
Back pressure Gauge	44M				Not defined
Pressure Relief Valve	SE11				PA95.0002.0035

Pump model	JDK-S-150	JDK-S-200	JDK-S-250	JDK-S-300	JDK-S-400	JDK-S-500	BIBUS Code
Spare part	Spare part code						
Filter	Filter-JDK-150/-500						PA95.0002.0011A
Diaphragm Set	D-JDK-150/500						PA95.0002.0004A
Service Kit	K-JDK-150/500-D						PA95.0002.0027A
Magnet	K-JDK-150/200-300/400-M						PA95.0002.0026A
Magnet			K-JDK-250/500-M				Not defined
Magnet				K-JDK-150/200-300/400-M			PA95.0002.0026A
Magnet						K-JDK-250/500-M	Not defined
Accessories	Spare part code						BIBUS Code
Back Pressure Gauge	BP1						PA95.0002.0001
Back Pressure Gauge	44M						Not defined
L-type hose	SE45-L						PA95.0002.0037

Technical references

Rated operating pressure

At rated operating pressure, the pumps can reach optimal performance and long life expectancy when the pump runs continuously. Contact Secoh distributor if the pump is operating above the rated pressure. Diaphragm and valve life may be shortened due to Excessive pressure.

Maximum operating pressure

It is allowable value when operating pressure exceeds rated pressure. Pump should not run with maximum operating pressure for a long time.

Life of the pump

The work life of the pump depends on the operating modes such as duty cycle, operating pressure/ vacuum and ambient temperature, air quality, ventilation, maintenance, etc.

Insulation class

The coils have class “E” insulation, which corresponds to a temperature limit of 120℃ (248°F)

Operating ambient temperature and humidity

The ambient temperature range should be from -10℃-40°C. Relative humidity cannot be higher than 90% (no condensation).

Overheat Protection

All series are supplied with a thermal overload device for coil protection.

Auto-stopper

The EL, JDK. TKO series are supplied with a protection switch which stops pump operation in case of further damages.

Ambient Environment

Make sure that the pump has good ventilation. Do not expose the pump to direct sunlight. Moderate ambient temperature will prolong the lifetime of the diaphragm and valve. Do not operate in a dusty environment. The life of the diaphragms and valves may be shortened by overheating due to easily clogged filter elements.

Storage

The pumps should not be stored in direct sunlight or at high temperature, as a rubber parts will deteriorate.

Safety Precautions

Air use only

SECOH pumps are designed for handling air only. Liquid, flammable or aggressive gasses and vapors cannot be used as medium to enter or let out the pump.

Location of installation

The pump must be installed above the water level. If the pump is set below, the siphon effect will cause water to enter the pump. It can lead to an electrical short circuit. The pumps should not be installed submerged in water, under snow, in places with a high temperature and/or high humidity.

Safety of electrical setting and piping

Make sure the power supply is equipped with a breaker of ground-fault protection. The electrical setting and piping project should be done by a qualified engineer with relevant certificate.

Modification of pump

It is strictly prohibited to modify the pump. Inappropriate modification will cause potential risk when running the product.

Safety of maintenance

Please make sure the power supply is cut before you perform maintenance on the pump.

*The information presented in this catalog is based on technical and test results of nominal units. It is believed to be accurate and is offered as an aid in the selection of the products. It is the users responsibility to determine suitability of the product for intended use and user assumes all risk and liability whatsoever in connection therewith. Environmental and application conditions may affect advertised lifetime.