

LINEAR AIR PUMP

**HIBLOW<sup>®</sup>**

**GENERAL  
CATALOG**

## Overseas Delivery



By establishing affiliated offices in Korea, the Philippines, U.S.A. Spain and France, Techno Takatsuki Co.,Ltd. is steadily expanding its overseas network of companies. Currently HIBLOW air pumps are being exported to the U.S.A. and Europe, as well as Korea, Southeast Asia and Australia, totalling some 40 different countries. With a view toward enhancing the reliability of its products, positive efforts are being made to meet safety standards in each country. Company strategy is global, supported by abundant technical know-how to keep pace with the fast growing age of high technology.

# Application Examples

Here are examples of some typical applications of our products. There are many more than illustrated.

## INDUSTRY

### Industrial facilities

- Solder removers
- Absorption transport devices
- Packaging machines
- Gas burners

### Physics & Chemistry

- Analyzing devices
- Stirring devices
- Floating germ measuring devices
- Washers

## ENVIRONMENT

### Waste water treatment

- Septic tanks
- Grease traps
- Other wastewater treatment plant functions

### Energy

- Fuel cell systems

### Food

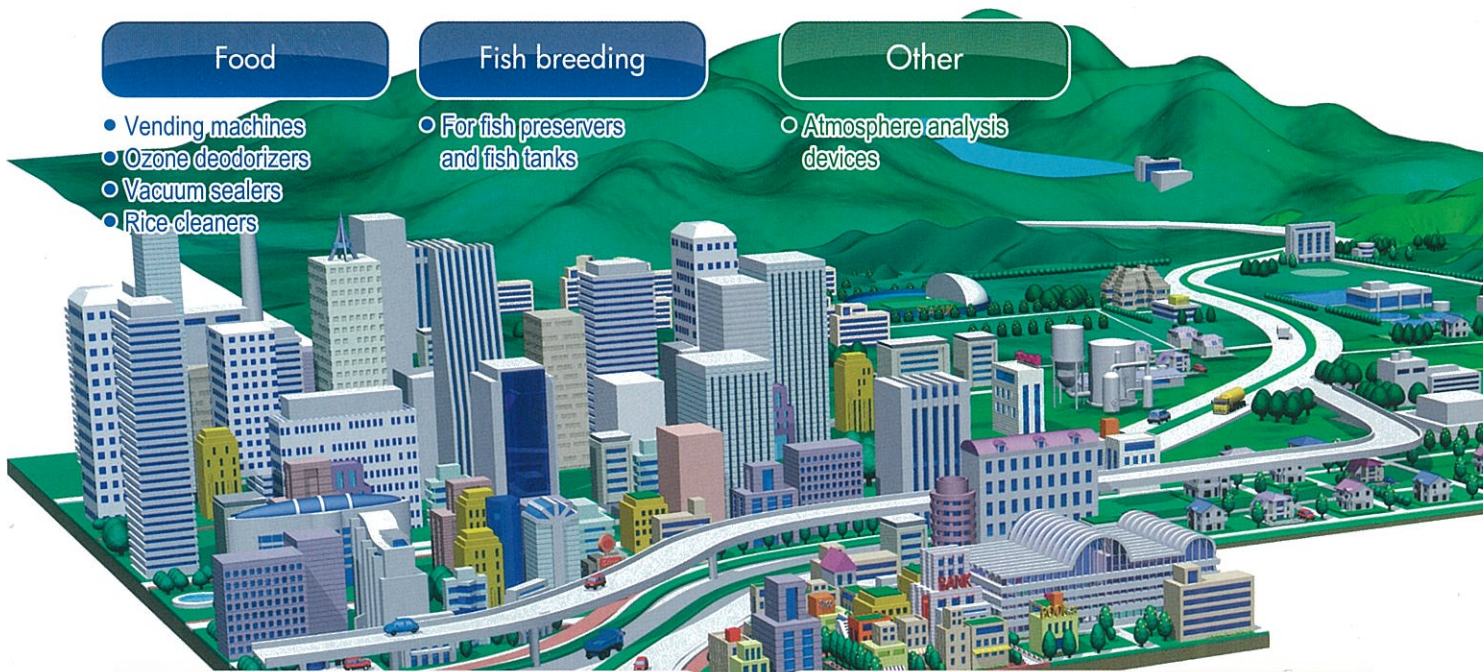
- Vending machines
- Ozone deodorizers
- Vacuum sealers
- Rice cleaners

### Fish breeding

- For fish preservers and fish tanks

### Other

- Atmosphere analysis devices



## MEDICAL TREATMENT

### Medical treatment

- Low frequency therapeutic equipment
- Medical check-up machines
- Blood-drawing machines
- Blood pressure gauges

### Health

- Massagers
- Cosmetic machines

### Nursing care & welfare

- Air mats that prevent bedsores
- Nursing care bathtubs

## DAILY LIFE

### Home facilities

- Fuel cell systems
- Washing machines
- Jacuzzi baths
- Airbeds
- Kitchen garbage disposals

### Hobby

- Bubbling display
- Air brush
- For aquarium

# HIBLOW® AIR PUMPS

## Advantage & Working Principle

### Advantage

#### 1 Durability

The moving parts consist of an actuating rod supported by two special synthetic rubber diaphragms which vibrate laterally, permitting long-term continuous operation.

#### 2 No Lubrication Necessary

There is no friction between moving parts and therefore no need for lubrication, An added advantage being that the exhausted air is always clean.

#### 3 High Efficiency

Operation is based upon the principle of electromagnetic vibration which eliminates the need for sliding parts, thereby minimizing power consumption and offering high efficiency.

#### 4 Compact and Powerful

"HIBLOW" air pumps incorporate two electromagnets, one to the front, the other to the rear, which act upon permanent magnets, providing perfectly-balanced vibration and allowing a compact but powerful device.

#### 5 Low Noise

Sound insulation was of prime importance when designing the pneumatic circuit and vibrating section and as a result it is exceptionally quiet.

#### 6 Smooth Air Flow

The exhaust rate is uniform and vibration minimal therefore it is ideally suited for applications which require consistent air pressure and supply.

#### 7 Easy Maintenance

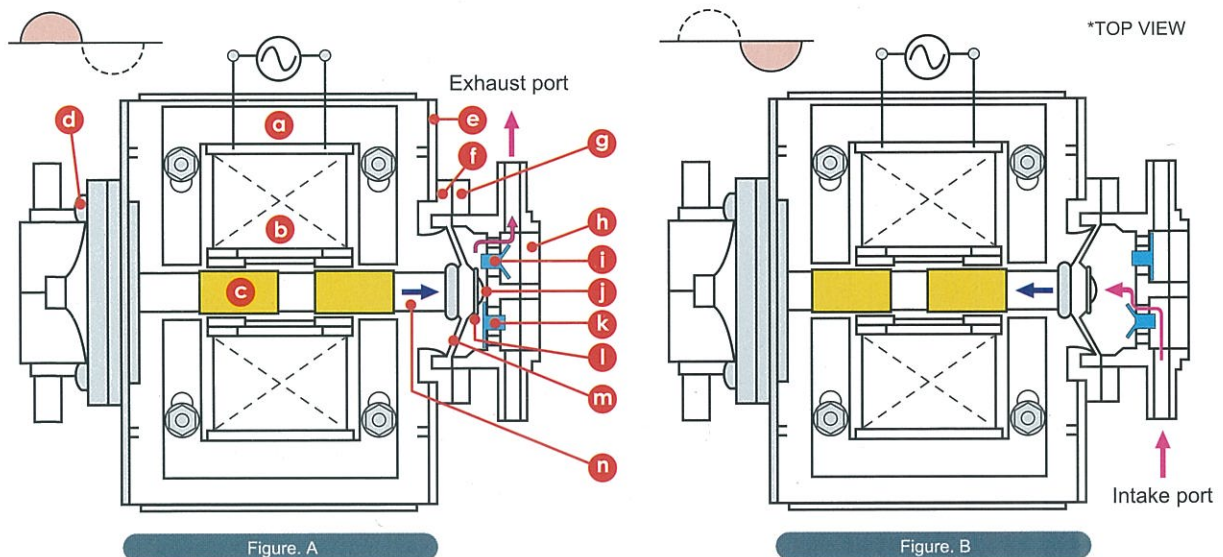
Apart from the simple replacement of some components, such as a broken diaphragm, long-term, maintenance-free operation is possible. Replacement parts come in a cassette.

### Working Principle

When the alternating current is applied to the electromagnet as in the figure, above the actuating rod moves first in the direction of the arrow as shown in Fig. A and then in the direction of the arrow as shown in Fig. B, by the magnetic attraction and repellent forces exerted between the electromagnet and the permanent magnets attached to the rod.

The rod vibrates at the same frequency as that of the power supply and changes the volume of the space enclosed between the casing and the diaphragm.

Thus, the air intake, compression and exhaust can be performed through the valves.



- |                        |                        |                           |                        |                 |                         |                 |
|------------------------|------------------------|---------------------------|------------------------|-----------------|-------------------------|-----------------|
| <b>a</b> Electromagnet | <b>b</b> Coil          | <b>c</b> Permanent-magnet | <b>d</b> Machine screw | <b>e</b> Frame  | <b>f</b> Diaphragm base | <b>g</b> Casing |
| <b>h</b> Rubber plug   | <b>i</b> Exhaust valve | <b>j</b> Center screw     | <b>k</b> Intake valve  | <b>l</b> Washer | <b>m</b> Diaphragm      | <b>n</b> Rod    |

Small capacity air pump

# C-5BN / 15H



## Pressure Type

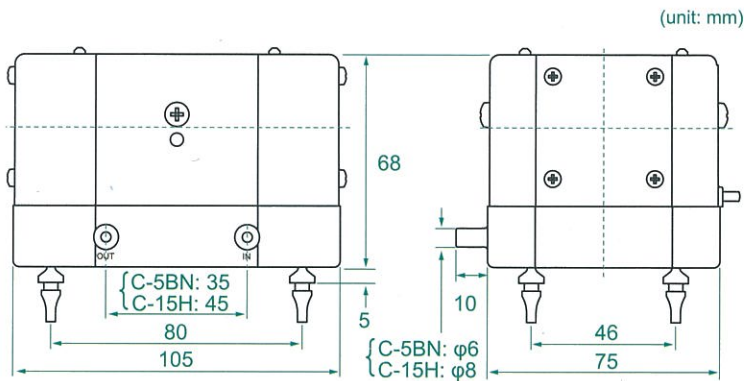
## Built-in use

\*No power plug included because it is designed for built-in use.  
\*Rubber-made legs are sharp-pointed. Not for self-standing installation.

## Applications

- Air mat, air bed (continuous air exhaust)
- Air bearing
- For burner (air supply)
- Scientific & chemical instruments (analysis and agitation)

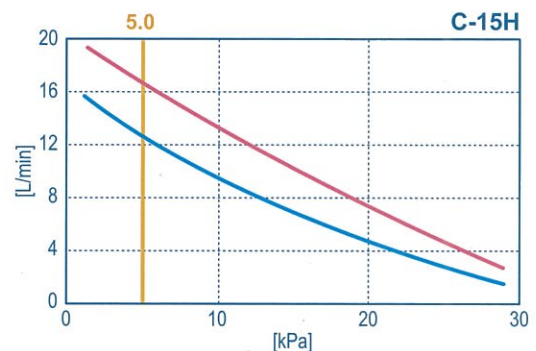
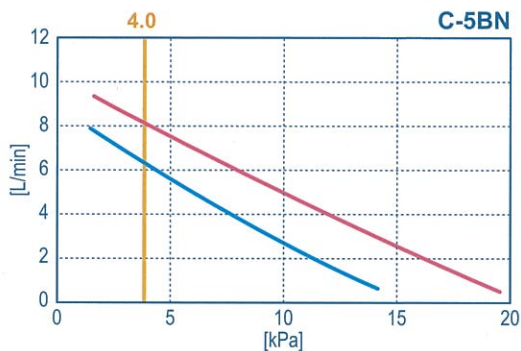
## Dimensions



## Specifications

		C-5BN		C-15H	
Rated voltage	V	AC100 / 120 / 230			
Power frequency	Hz	50	60	50	60
Rated pressure	kPa	4		5	
Airflow volume	L/min	6.5	8	14	17
Power consumption	W	8.5		10.5	11.5
Sound level	dBA	31	34	40.5	42.5
Weight	kg	0.69			

## Performance Curve



\* All characteristics values are only for reference, and are not guaranteed values.  
\* Note that the operating temperature for our pumps is 41°F(5°C) to 104°F(40°C).

## Small capacity air pump

# CD-8S

### Pressure & vacuum Type

### Built-in use

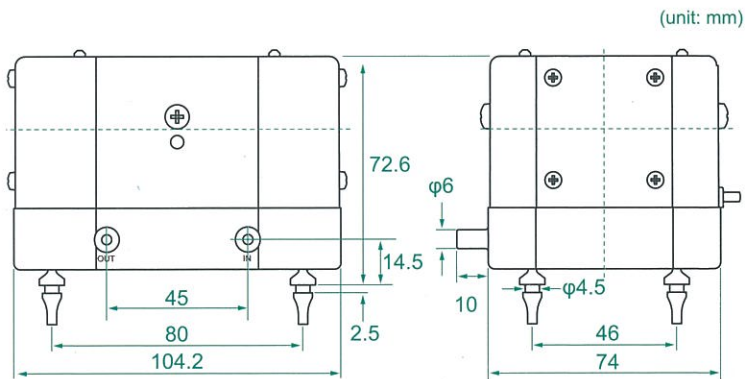
\*No power plug included because it is designed for built-in use.  
\*Rubber-made legs are sharp-pointed. Not for self-standing installation.

## Applications

- Air mat, air bed (continuous air exhaust)
- Air bearing
- For burner (air supply)
- Scientific & chemical instruments (analysis and agitation)



## Dimensions

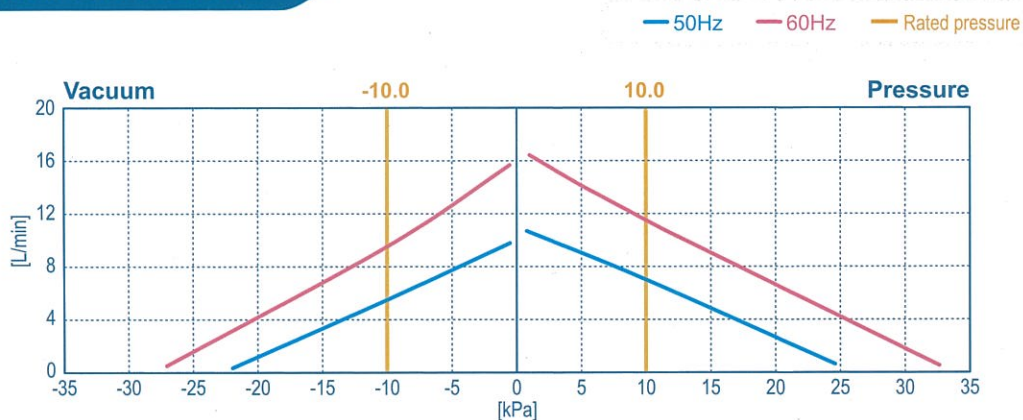


## Specifications

		CD-8S	
Rated voltage	V	AC100 / 120 / 230	
Power frequency	Hz	50	60
Rated pressure	kPa	10 (-10)	
Airflow volume	L/min	7 (-5.5)	11.5 (-9.5)
Power consumption	W	6.5 (6)	8.5 (8.3)
Sound level	dBA	31	34
Weight	kg	0.74	

\*The value in parentheses represents CD-8S vacuum.

## Performance Curve



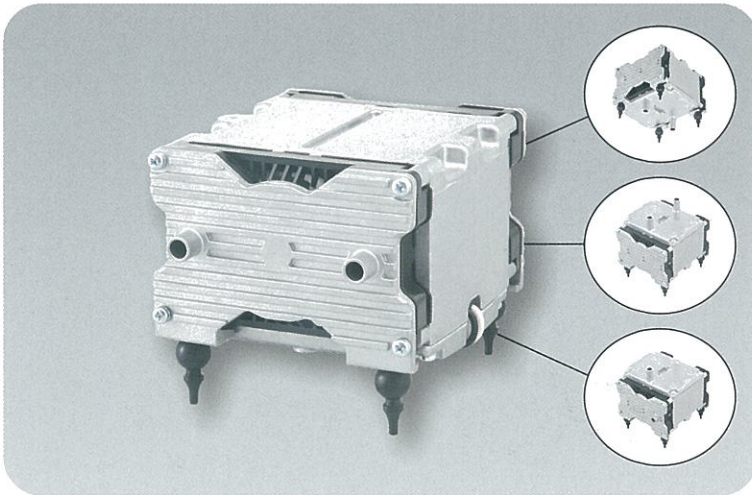
\* All characteristics values are only for reference, and are not guaranteed values.

\* Note that the operating temperature for our pumps is 41°F(5°C) to 104°F(40°C).

Small capacity air pump

# VP-4020(S) / 5030(S) / 6035(S)

**NEW**



\*The image shows pressure & vacuum type. Pressure type has one nozzle only. (Vacuum port is provided on the bottom or top of the pump.)  
 \*Customization of nozzle position is available. Images to the right are examples.

VP-4020,5030,6035 : Pressure

VP-4020S,5030S,6035S : Pressure & vacuum

Flexible body structure

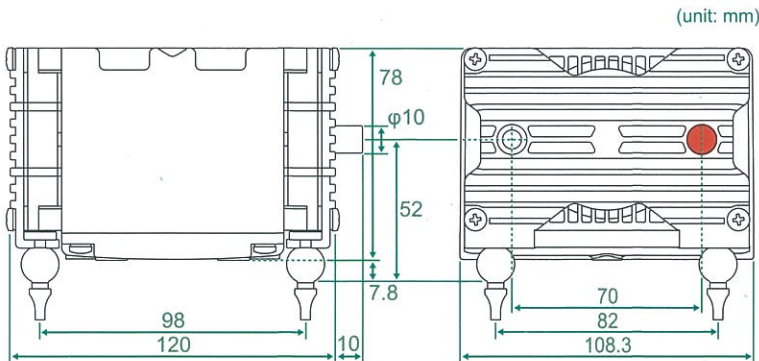
Built-in use

\*No power plug included because it is designed for built-in use.  
 \*Rubber-made legs are sharp-pointed. Not for self-standing installation.

## Applications

- Air mat, Air bed (continuous air exhaust)
- Air bearing
- Air massager
- Scientific & chemical instruments (analysis and agitation)

## Dimensions



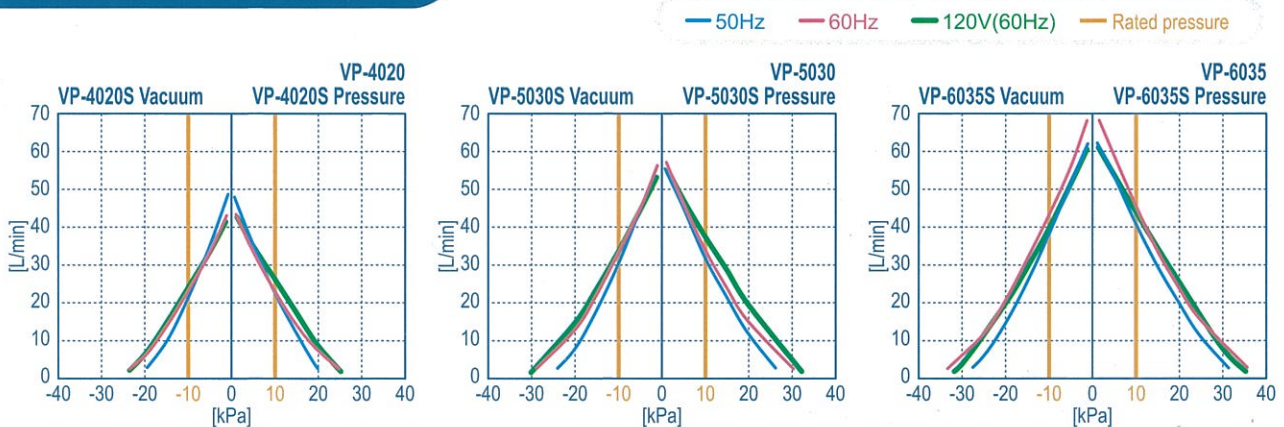
\*The figure represents the standard configuration. Customization of nozzle position is available.  
 \*The vacuum nozzle at the ● marked position shown in the figure is attached only on pressure & vacuum model. (The nozzle position depends on the customized configuration.)

## Specifications

		VP-4020(S)			VP-5030(S)			VP-6035(S)		
Rated voltage	V	AC100 / 120 / 230								
Power frequency	Hz	50	60	120V 60	50	60	120V 60	50	60	120V 60
Rated pressure	kPa	10 (-10)								
Airflow volume	L/min	22.5 (-20.5)	23.5 (-23)	32 (-30)	34 (-33.5)	34 (-33)	41 (-38)	46 (-43)	44 (-42)	
Power consumption	Rated	12	13.5	19.5	22	22	28.5	32.5	32	
	Max	16	17	18	23	26	27	30	36	35
Sound level	dB(A)	31.5	34.5	35	39	38	36.5	40.5	40	
Weight	kg	1.95								

\*The value in parentheses represents VP vacuum.

## Performance Curve



\* All characteristics values are only for reference, and are not guaranteed values.  
 \* Note that the operating temperature for our pumps is 41°F(5°C) to 104°F(40°C).

## Small capacity air pump

# GP-15(S)



\*GP-15S has vacuum nozzle on it at the ○ marked position as shown in the image to the left.

**GP-15 : Pressure Type**

**GP-15S : Pressure & vacuum Type**

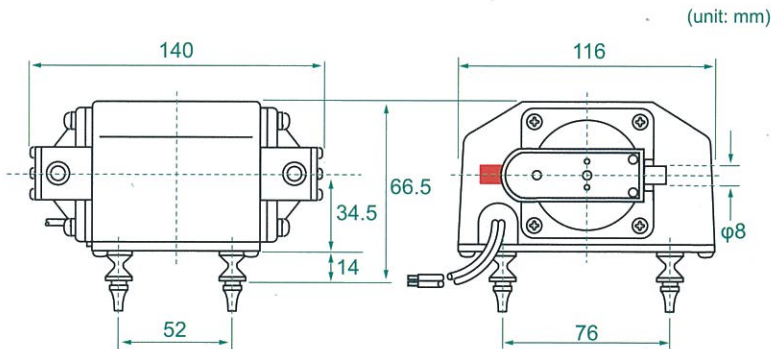
**Built-in use**

\*No power plug included because it is designed for built-in use.  
\*Rubber-made legs are sharp-pointed. Not for self-standing installation.

## Applications

- OEM pumping units
- Air massager
- Scientific & chemical instruments (analysis and agitation)

## Dimensions



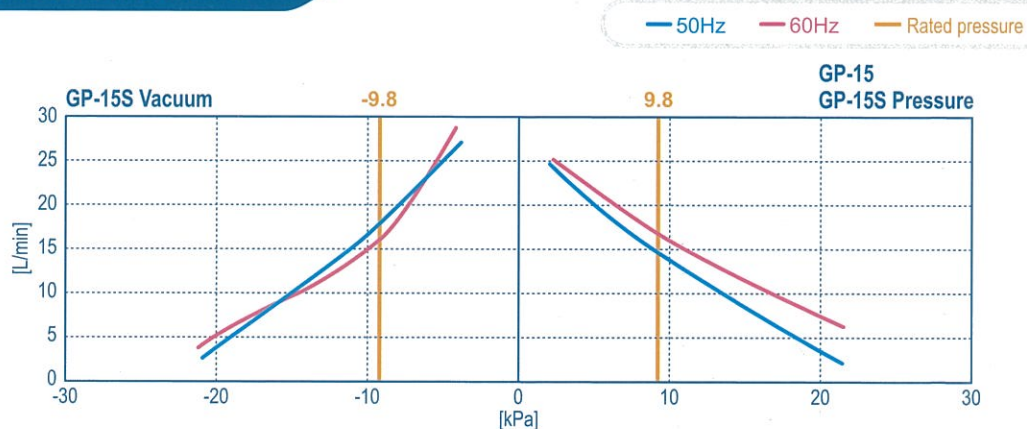
\*GP-15S has vacuum nozzle on it at the  marked position as shown in the image to the left.

## Specifications

		GP-15(S)	
Rated voltage	V	AC100 / 120 / 230	
Power frequency	Hz	50	60
Rated pressure	kPa	9.8 (-9.8)	
Airflow volume	L/min	15 (-17)	17 (-15)
Power consumption	W	15	
Sound level	dBA	40	42
Weight	kg	1.4	

\*The value in parentheses represents GP-15S vacuum.

## Performance Curve



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

\* Note that the operating temperature for our pumps is 41°F(5°C) to 104°F(40°C).



## Small capacity air pump

# GP-40(S)

**GP-40 : Pressure Type**

**GP-40S : Pressure & vacuum Type**

**Built-in use**

\*No power plug included because it is designed for built-in use.

\*Rubber-made legs are sharp-pointed. Not for self-standing installation.

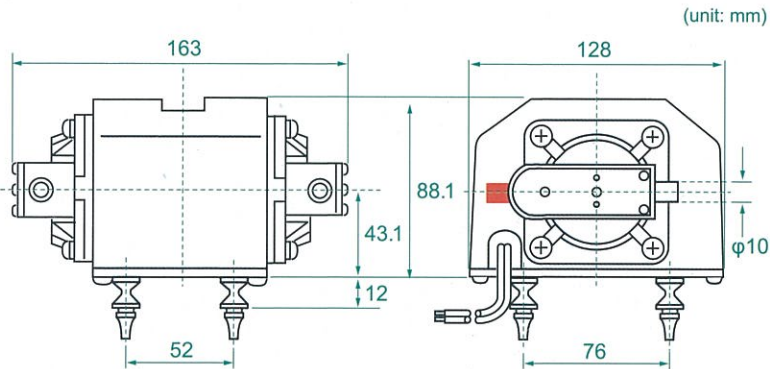
### Applications

- OEM pumping units
- Air massager
- Scientific & chemical instruments (analysis and agitation)



\*GP-40S has vacuum nozzle on it at the ○ marked position as shown in the image to the left.

### Dimensions



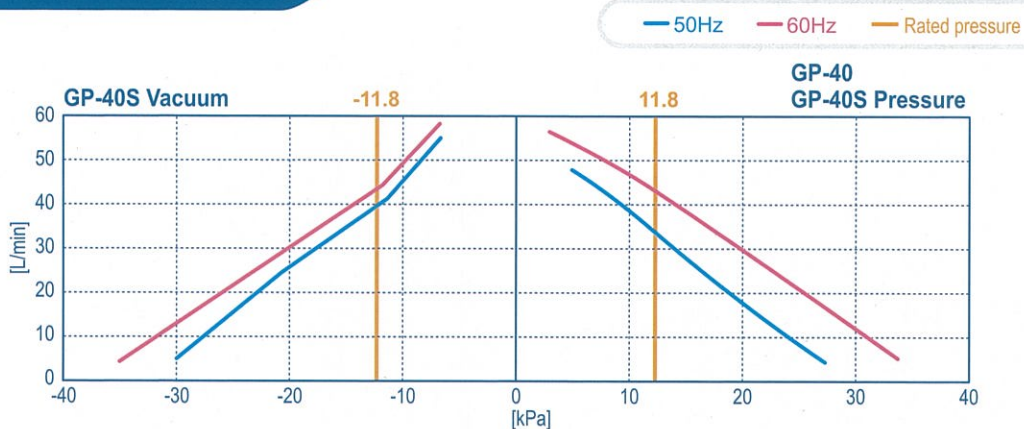
\*GP-40S has vacuum nozzle on it at the ■ marked position as shown in the image to the left.

### Specifications

		GP-40(S)	
Rated voltage	V	AC100 / 120 / 230	
Power frequency	Hz	50	60
Rated pressure	kPa	11.8 (-11.8)	
Airflow volume	L/min	35 (-40)	43 (-45)
Power consumption	W	31 (38)	34 (38)
Sound level	dBA	40 (45)	42 (45)
Weight	kg	2.6	

\*The value in parentheses represents GP-40S vacuum.

### Performance Curve



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

\* Note that the operating temperature for our pumps is 41°F(5°C) to 104°F(40°C).

**NEW**

Small capacity air pump

# KP-4020(S) / 5030(S) / 6035(S)

KP-4020,5030,6035 : Pressure

KP-4020S,5030S,6035S : Pressure & vacuum

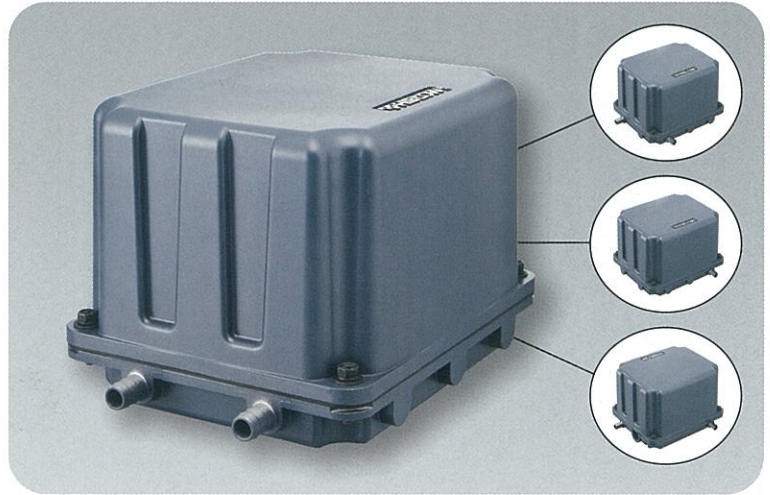
Flexible body structure

Built-in use

\*No power plug included because it is designed for built-in use.

## Applications

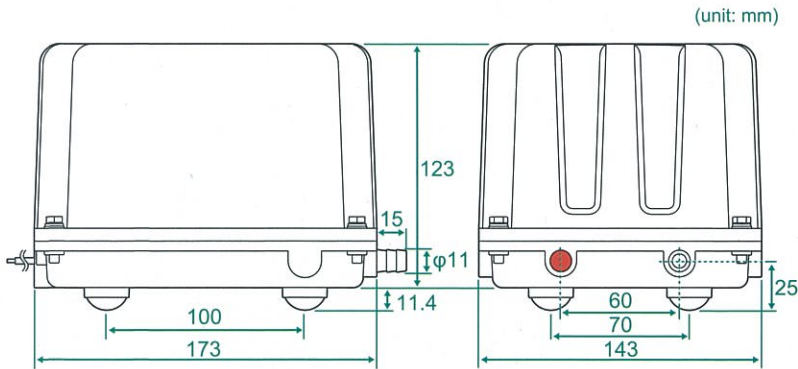
- Air mat, Air bed (continuous air exhaust)
- Air bearing
- Air massager
- Scientific & chemical instruments (analysis and agitation)



\*The image shows pressure & vacuum type. Pressure type has one nozzle only. (Vacuum port is provided on the bottom or top of the pump.)

\*Customization of nozzle position is available. Images to the right are examples.

## Dimensions



\*The figure represents the standard configuration. Customization of nozzle position is available.

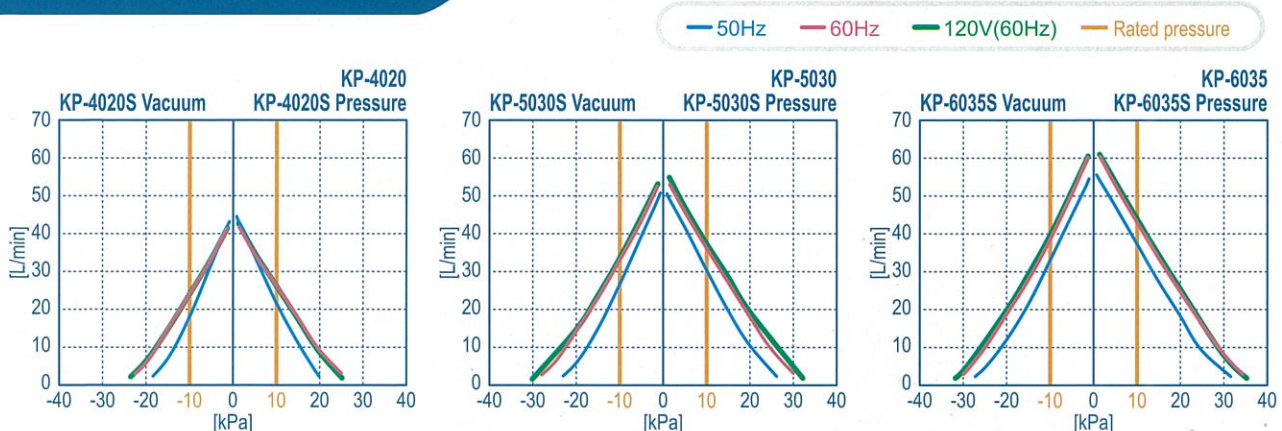
\*The vacuum nozzle at the ● marked position shown in the figure is attached only on pressure & vacuum model. (The nozzle position depends on the customized configuration.)

## Specifications

		KP-4020(S)			KP-5030(S)			KP-6035(S)		
Rated voltage	V	AC100 / 120 / 230								
Power frequency	Hz	50	60	120V 60	50	60	120V 60	50	60	120V 60
Rated pressure	kPa	10 (-10)								
Airflow volume	L/min	22 (-18.5)	26.5 (-24)	31 (-27)	36 (-33)	38 (-34)	43 (-39)	44 (-39.5)		
Power consumption	Rated	11.5	14.5	18	23	22	28	33		
	Max	16	17	18	23	26	27	24	33	35
Sound level	dBA	27.5	28.5	28	29	29.5	31.5	30		
Weight	kg	3.8								

\*The value in parentheses represents KP vacuum.

## Performance Curve



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

\* Note that the operating temperature for our pumps is 41°F(5°C) to 104°F(40°C).

Small & medium capacity air pump

# HP-40 / 60 / 80



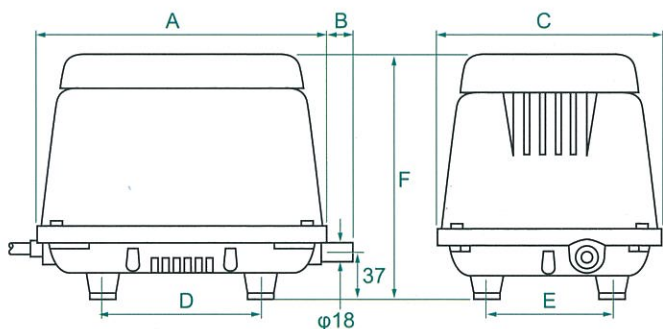
Pressure type

Outdoor (Rainproof) use

## Applications

- Low frequency therapeutic equipment and other medical & scientific apparatus
- Septic tank (biological contact aeration)
- Bubble bath (air bubble injection)
- Oxygen supply for fish breeding

## Dimensions



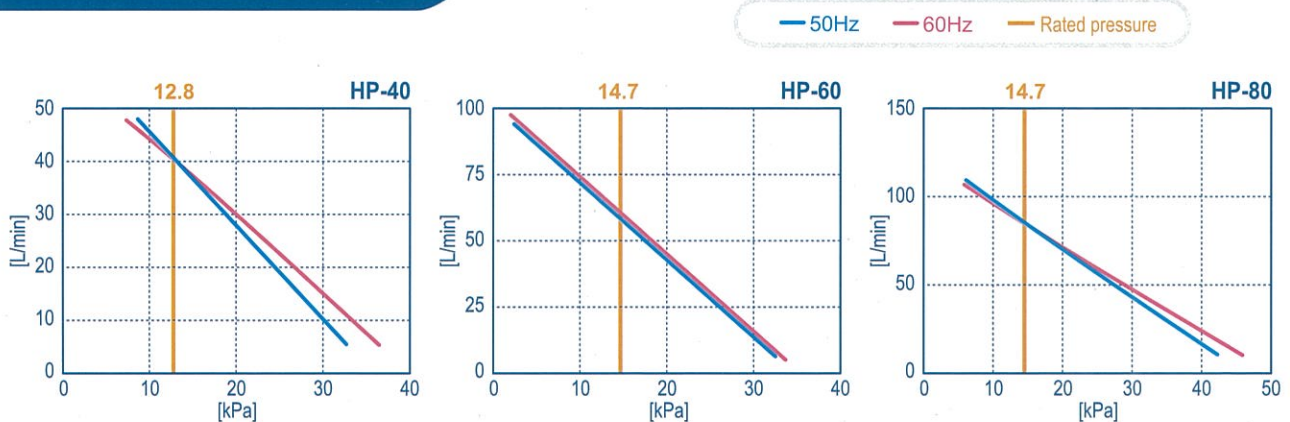
TYPE	A	B	C	D	E	F
HP-40	208	20	171	120	90	190
HP-60/80	235	21	180	130	100	196

(unit: mm)

## Specifications

		HP-40		HP-60		HP-80	
Rated voltage	V	AC120 / 230					
Power frequency	Hz	50	60	50	60	50	60
Rated pressure	kPa	12.8		14.7			
Airflow volume	L/min	40		60		80	
Power consumption	W	38		51		71	
Sound level	dBA	32		35		36	
Weight	kg	5.7		7			

## Performance Curve



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

\* Note that the operating temperature for our pumps is 41°F(5°C) to 104°F(40°C).

# Small & medium capacity air pump XP-40 / 60 / 80

**Pressure type**

**Dust control "Dust trap filter"**

**Easy restart by micro swith (XP-60 / 80 only)**

**No need of grounding**

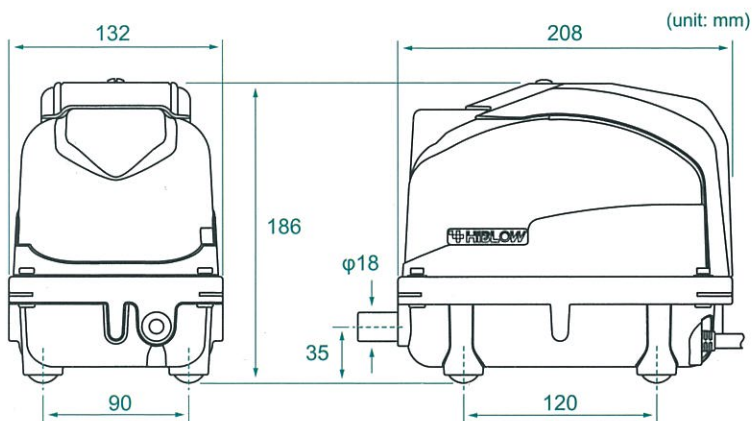
**Outdoor (Rainproof) use**

## Applications

- Septic tank (biological contact aeration)
- Air injection for bubble bath
- Small capacity compressor



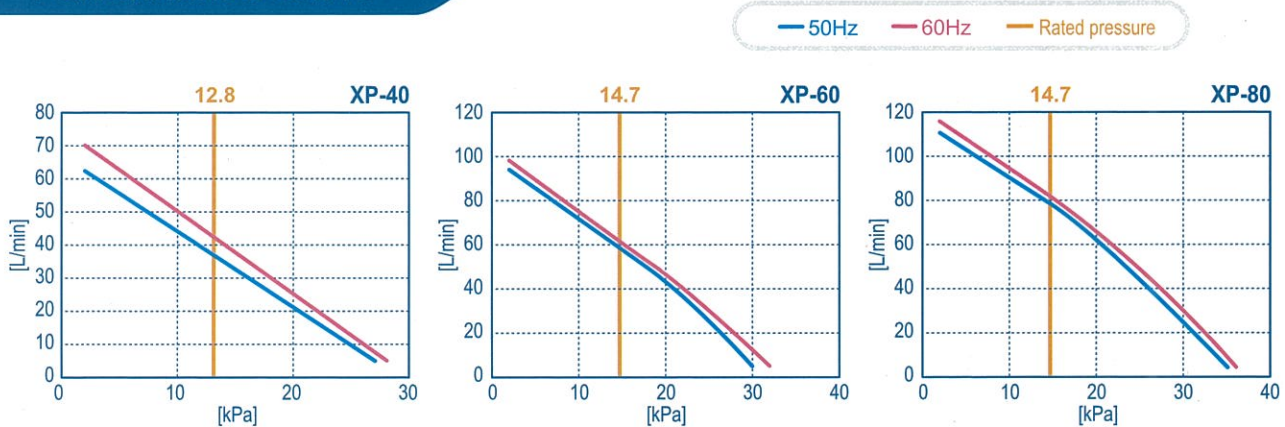
## Dimensions



## Specifications

		XP-40	XP-60	XP-80
Rated voltage	V	AC100 / 120 / 230		
Power frequency	Hz	50	60	50 60
Rated pressure	kPa	12.8	14.7	
Airflow volume	L/min	40	60	80
Power consumption	W	30	39	58
Sound level	dBA	33	35	36
Weight	kg	4.1	4.3	

## Performance Curve



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

\* Note that the operating temperature for our pumps is 41°F(5°C) to 104°F(40°C).

Medium capacity air pump

# CP-60W / 80W

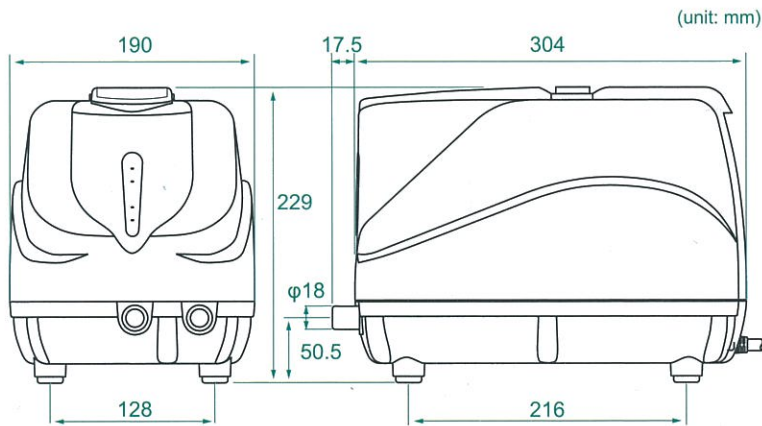


- Pressure type
- Dust control "Cyclon filter"
- Two directional control valve
- No need of grounding
- Outdoor (Rainproof) use

### Applications

- Septic tank (biological contact aeration)
- Air injection for bubble bath
- Small capacity compressor

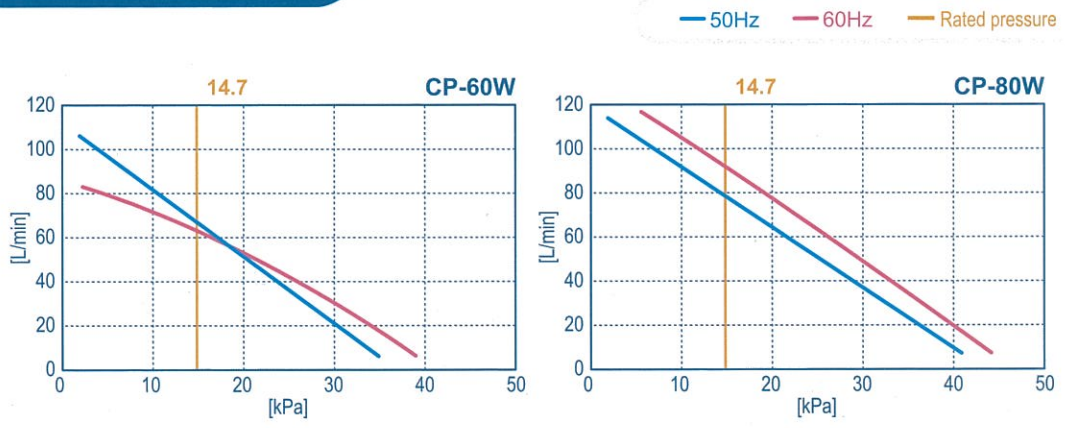
### Dimensions



### Specifications

		CP-60W		CP-80W	
Rated voltage	V	AC100 / 230			
Power frequency	Hz	50	60	50	60
Rated pressure	kPa	14.7			
Airflow volume	L/min	60		80	
Power consumption	W	39		58	
Sound level	dBA	35		36	
Weight	kg	6.4			

### Performance Curve



\* All characteristics values are only for reference, and are not guaranteed values.  
 \* Note that the operating temperature for our pumps is 41°F(5°C) to 104°F(40°C).

Large capacity air pump

# HP-100 / 120 / 150 / 200

Pressure type

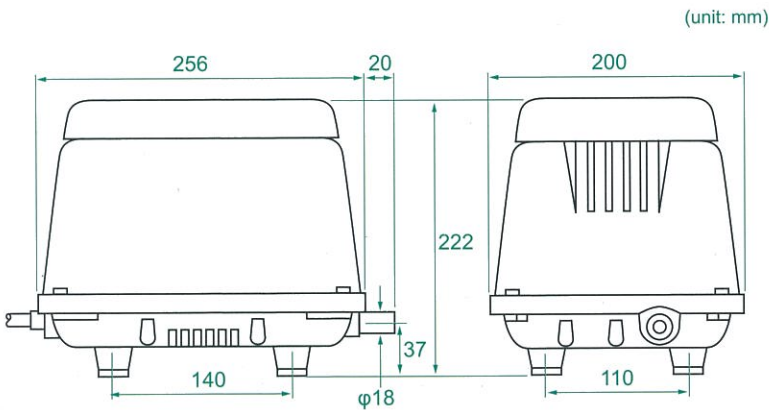
Outdoor (Rainproof) use

## Applications

- Septic tank (biological contact aeration)
- Air injection for bubble bath
- Small capacity compressor
- Oxygen supply for fish breeding



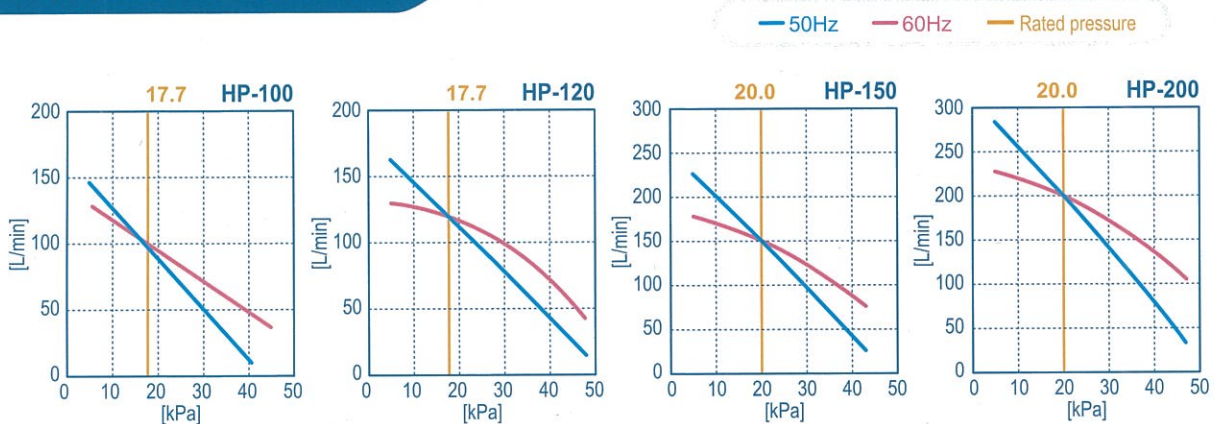
## Dimensions



## Specifications

		HP-100	HP-120	HP-150	HP-200
Rated voltage	V	AC100 / 120 / 230			
Power frequency	Hz	50 60	50 60	50 60	50 60
Rated pressure	kPa	17.7		20	
Airflow volume	L/min	100	120	150	200
Power consumption	W	95 100	115 125	125 155	210 250
Sound level	dBA	38	40	45 47	46 48
Weight	kg	8.5		9	

## Performance Curve

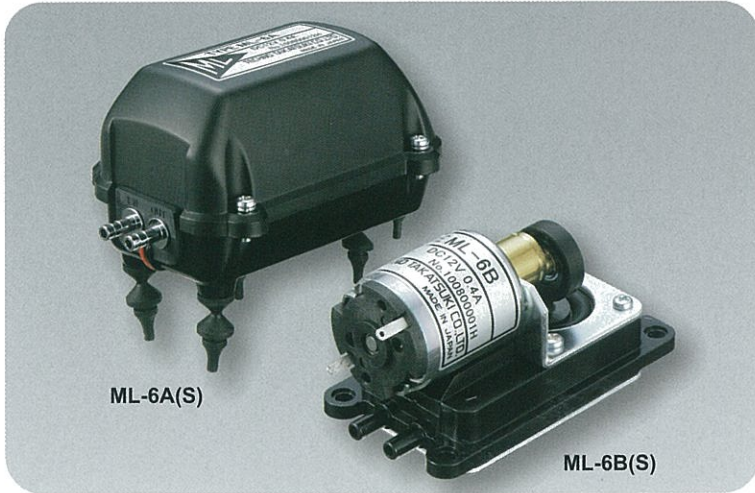


\* All characteristics values are only for reference, and are not guaranteed values.

\* Note that the operating temperature for our pumps is 41°F(5°C) to 104°F(40°C).

Small capacity air pump

# ML-6A(S) / 6B(S)



ML-6A(S)

ML-6B(S)

**DC motor driven**

**ML-6A / 6B : Pressure type**

**ML-6AS / 6BS : Vacuum type**

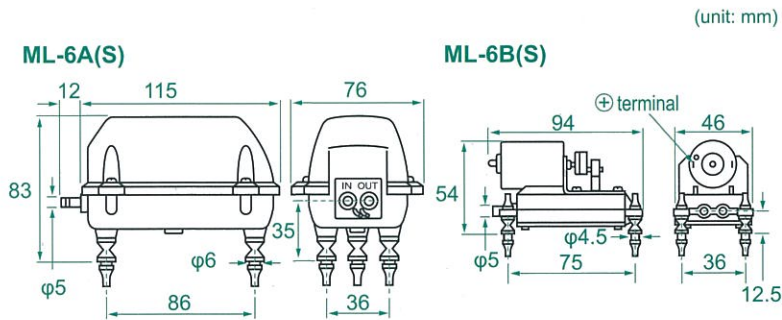
**Built-in use**

\*No power plug included because it is designed for built-in use.  
\*Rubber-made legs are sharp-pointed. Not for self-standing installation.

## Applications

- Supply and pressurization of air in air mats
- Extraction of air for vacuum packaging
- Suction means for air-tweezers
- Air sampling

## Dimensions

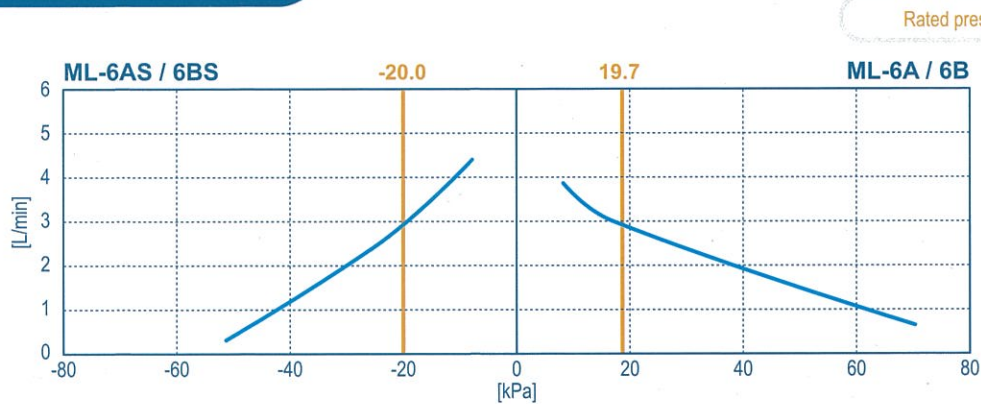


## Specifications

		ML-6A(S)	ML-6B(S)
Rated voltage	V	DC12	
Rated current	mA	450	
Rated pressure	kPa	19.7 (-20)	19.7 (-20)
Airflow volume	L/min	3 (-3)	3 (-3)
Sound level	dBA	37	58
Weight	kg	0.5	0.22

\*The value in parentheses represents ML-6AS, ML-6BS vacuum.

## Performance Curve



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

\* Note that the operating temperature for our pumps is 41°F(5°C) to 104°F(40°C).

## Small capacity air pump

# MR-6B(S)

**DC motor driven**

**MR-6B : Pressure type**

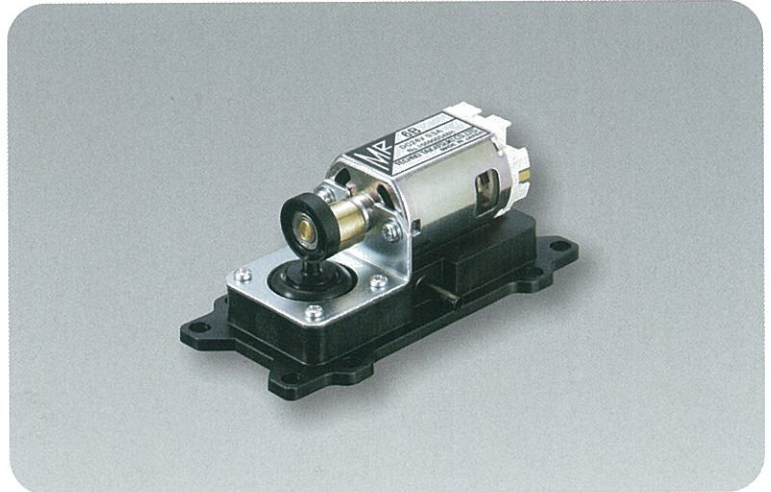
**MR-6BS : Vacuum type**

**Built-in use**

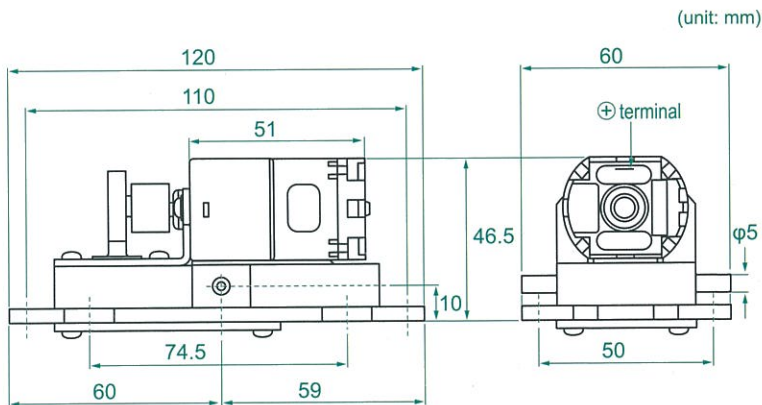
\*No power plug included because it is designed for built-in use.  
\*Rubber-made legs are sharp-pointed. Not for self-standing installation.

## Applications

- Supply and pressurization of air in air mats
- Extraction of air for vacuum packaging
- Suction means for air-tweezers
- Air sampling



## Dimensions

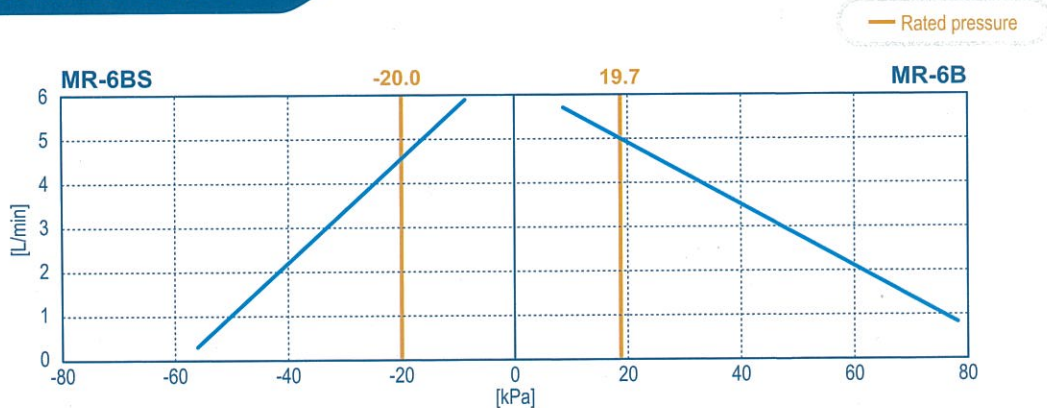


## Specifications

		MR-6B(S)
Rated voltage	V	DC24
Rated current	mA	500
Rated pressure	kPa	19.7 (-20)
Airflow volume	L/min	5 (-4.5)
Sound level	dBA	58
Weight	kg	0.28

\*The value in parentheses represents MR-6BS vacuum.

## Performance Curve



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

\* Note that the operating temperature for our pumps is 41°F(5°C) to 104°F(40°C).





## About ISO certification

ISO (International Organization for Standardization) 14001 Environmental Management Systems are intended to provide organizations including companies with the elements of an effective and voluntary environmental management system which can be integrated with other management requirements, to assist organizations to achieve environmental goals. And the ISO-14001 is called as "The environmental passport" in internationally approved standards. On the other hand, the ISO-9000 was established by ISO in 1987. These internationally approved standards provide specifications not for products but for quality-assurance systems. ISO 9000 consists of three separate standards: ISO 9001, 9002, and 9003. Of these, ISO 9001 is the most rigorous, encompassing points ranging from design control to after-sales service. To qualify for an ISO 9001 certificate, applicants must first pass in-company, customer, and third-party audits. After receiving ISO 9001 certification, regular checks are then conducted to ensure that the company maintains the required standards. In addition, management policies on product quality are documented and checked against actual practice throughout the entire organization. In essence, the ISO 9001 standard certifies that a company has not only established an outstanding quality-control record, but has also proven capable of sustaining this record.

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- 1995 Head office and Takatsuki factory in Japan got certification of "ISO-9001".
  - 1999 Hino Factory in Japan got certification of "ISO-9002".
  - 2000 Head office and Hino factory got certification of "ISO-14001".
  - 2001 HIBLOW PHILIPPINES got certification of "ISO-9002".  
Head office and Hino factory got certification of "ISO-9001/2000 version".
  - 2004 HIBLOW PHILIPPINES got certification of "ISO-9001/2000 version".
  - 2010 Head office and Hino factory got certification of "ISO-9001/2008 version".  
HIBLOW PHILIPPINES got certification of "ISO-9001/2008 version".
  - 2012 Head office and Hino factory got certification of "ISO-14001/2004 version".



## Cautions

- Our pumps are air pumps. Do not under any circumstances try to operate them in water or other liquids as the pump may be damaged.
- Note that the operating temperature for our pumps is 41°F (5°C) to 104°F (40°C).
- When using the pump to inject air into a liquid; make sure that the pump is higher than the surface level of the liquid, otherwise the liquid may run back into the pump when the power is turned off.
- Do not use pump near volatile liquids such as gasoline, thinners etc., as this would create the danger of an explosion.
- Do not excessively block the quantity of discharged air, cover the pump so that heat cannot escape, or use in temperatures higher than 104°F (40°C) otherwise pump life may be shortened and malfunctions occur.
- If the pump sounds unusual or the amount of discharged air is greatly reduced, turn off the power immediately because this may indicate adamaged diaphragm.
- Do not touch the pump with wet hands as there is a possibility of you receiving an electric shock.....
- The specifications given in this catalogue are subject to change without notice.
- Standard models are designed to operate on 100V AC, but 110V ~ 120V and 220V ~ 240V AC models are available on request, Please ask our sales department for further information.