

# VACUUM EQUIPMENT

GENERAL CATALOG



*The Air of Trust*

## HISTORY OF VACUUM EQUIPMENT SINCE 1993

**ANEST IWATA persists in excellence in technology**  
**ANEST IWATA has been the DRY Scroll technology leader since 1993.**

ANEST IWATA realizes the first-of the world technologies to its products as a pioneer in the world's industry.  
The world's first OIL-FREE SCROLL VACUUM PUMP was launched in 1993. It has been expanded to present line-ups.

OIL-FREE SCROLL VACUUM PUMP

**1993**

[ISP-500 releases]

The World's first Oil-free Scroll Vacuum Pump was launched.

**2003**

[UTC-050 releases]

High-vacuum pumping portable units were Introduced.

**1997**

[DVSL-500 releases]

A robust single-wrap structure direct-drive scroll vacuum pumps was Introduced.

**2007**

[ISP-1000 releases]

Largest pumping displacement model in ISP series was launched.

ANEST IWATA's vacuum equipment leads the world industries with its state-of-the-art technology.



# 2012

[SDM-320]  
[releases]

2012 Introduced SDM-320 for reduced vibration and sound attenuation



# 2016

[DVSL-500E]  
[releases]

High-efficiency three-phase motors were employed.



# 2013

[ISP-500C-TVT]  
[releases]

Leak-tight version was introduced in ISP series.



# 2008

[GVS-500]  
[releases]

The GVS series, affordable range of single wrap scroll vacuum pumps were introduced.



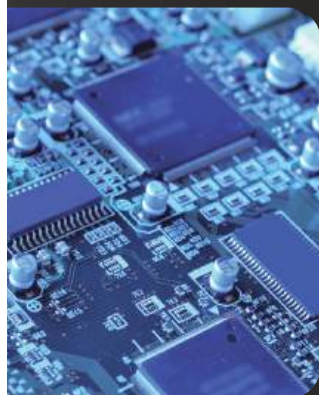
# 2011

[DVSL-501C-HC]  
[releases]

2011 Introduced hard coated unit to DVSL series



OIL-FREE SCROLL VACUUM PUMP



■ANEST IWATA's excellence of technology realizes the world's first OIL-FREE SCROLL VACUUM PUMP.

Its concept is to operate with no liquid lubricant inside.

■ANEST IWATA products receive high commendation from the global industry.

e.g.

- Photon Light Sources and Particle Accelerators.
- Outer Space Simulators.
- Advanced Medical Technologies/Care Units.
- Industries which sustain human's life such as Automotive area, Civil aerospace businesses, Electronics/Electrical products, Pharmaceutical products, food, Cosmetics.



## VACUUM EQUIPMENT LINE UP

# ANEST IWATA has wide range line up of Vacuum pump.

The performance of a vacuum pump is determined by its ultimate pressure and pumping speed. ANEST IWATA provides a wide variety of vacuum pumps, each with a different ultimate pressure and a different pumping speed. Customers can select the products that suit their budget and needs.

Ultimate pressure  
(Pa)

1

## ISP series (Scroll Meister)

Ultimate pressure 1~20Pa



ISP-50  
▶▶P.05



ISP-90  
▶▶P.06



ISP-250C  
▶▶P.07



SDM-320  
▶▶P.10



ISP-500C  
▶▶P.08

Medium-Vacuum

## DVSL series (S Dry)

Ultimate pressure 30~100Pa



DVSL-100C  
▶▶P.11



DVSL-500E  
▶▶P.12

100

## GVS series

Ultimate pressure 500~750Pa



GVS-250  
▶▶P.14



GVS-500E  
▶▶P.15

Low-Vacuum

## View of the icon



Single phase motor



Three phase motor



Vertical inlet



Horizontal inlet



CE conformity



CSA conformity



cTUV conformity



RoHS conformity

※Ultimate pressure : Absolute pressure uses in this catalog.

※Pumping speed: This indicates how many liters can be exhausted per minute. The unit is L/min.

Atmospheric pressure

100

500

## ■ Features of ANEST IWATA Vacuum pump

### Oil-Free

Conventional oil-sealed rotary pumps uses oil for sealing, which causes oil mists and back-diffusion of oil, resulting in contamination of room air or oil stains on the floor. ANEST IWATA was the first to develop an oil-free scroll pump in the world. The pump, which solves oil contamination and maintenance problems, is used by many customers in a wide range of applications from cutting-edge industries in the field of physical and chemical science to general-purpose uses.

### Scroll

The scroll mechanism is adopted whereby the processes of suction, compression and exhaust proceed continuously with little change in torque, resulting in low vibration and low noise. The suction chamber and exhaust chamber are not adjacent to each other, making the pump less prone to leaks and highly efficient.

### Air cooling

The use of an air cooling system, instead of a water cooling system, eliminates the need for the burdensome job of maintaining cooling water and allowing the pump to be installed in places where it was formerly difficult to install. Another feature of ANEST IWATA's vacuum pump is that they are light and compact and designed to minimize the installation space.

### How to select for ISP series

ISP-○○-●●

Design Pumping Speed of vacuum pump  
T: Three phase motor S: Single phase motor  
V: Vertical inlet H: Horizontal inlet  
※Selectable items are different from models.



ISP-1000E  
▶▶P.09

### Scroll Meister SERIES

The ISP Series consists of some models supporting medium- and high-vacuum pressures of 1 to 20 Pa and pumping speeds of 50 to 1000 L/min. The pumps are designed with focus on performance, boast an excellent track record in both cutting-edge industries and general-purpose applications.



DVSL-1000E  
▶▶P.13

### Dry SERIES

DVSL pumps are ideal for low-mid vacuum applications. There are 6 models with pumping speeds from 100L/min to 1,000L/min. All models include our air flush port for flashing moisture from inside the pump. Our HC version provides higher durability for demanding applications. We have 2 models for pumping speeds of 100L/min and 500L/min. Applications: Chucking, Dearing/Degassing, Vacuum foaming, Vacuum drying...

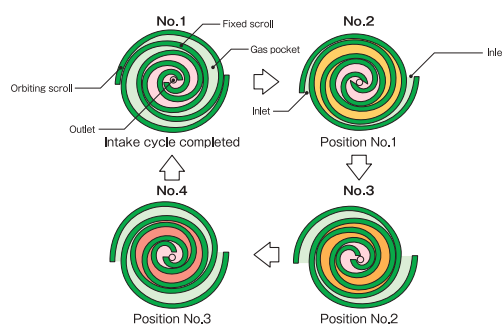


GVS-1000E  
▶▶P.16

GVS series pumps are ideal for low vacuum applications. We provide 3 models with pumping speeds of 250L/min, 500L/min and 1,000L/min with ultimate vacuum of 500Pa or 750Pa. Applications: Chucking, Dearing/Degassing, Vacuum foaming, Vacuum drying, Packing...

### Principle of compression

As the orbiting scroll orbits as shown in the illustration from the No.1 position to the No.4 position, crescent shaped gas pockets are gradually reduced. At the last stage compressed gas is exhausted through the center port.



### VTU/VTC

Ultimate pressure  $10^{-5} \sim 10^{-6}$  Pa



VTU-080-LH  
▶▶P.18



VTC-220-BV1  
▶▶P.18

Our high vacuum cart is ideal for high vacuum applications, and consists of our ISP series and a turbo molecular pump combination. There are 2 models, the compact VTU series and our customizable VTC series.

### VMC

Ultimate pressure 10Pa

VMC-1000-GU2  
▶▶P.18



Our VMC series provides rapid pump down speed and lower ultimate vacuum by combining our GVS pump with a mechanical booster pump. Applications: Chucking, Gas replacement, Vacuum foaming, Medical vacuum...

OIL-FREE SCROLL VACUUM PUMP

1000

3000

Pumping speed (L/min)

Best selling mid vacuum pumps

# ISP/SDM series (Scroll Meister)

## ISP-50



**ISP-50-SV1 / ISP-50-SV2**  
(100V model) (200V model)

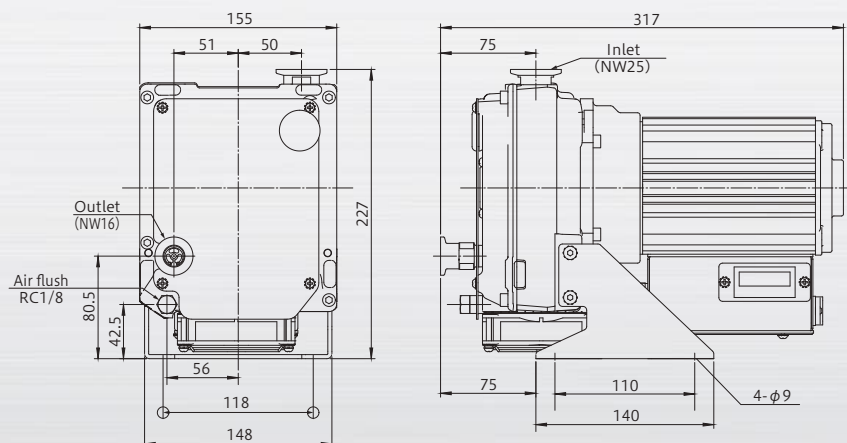


### Specifications

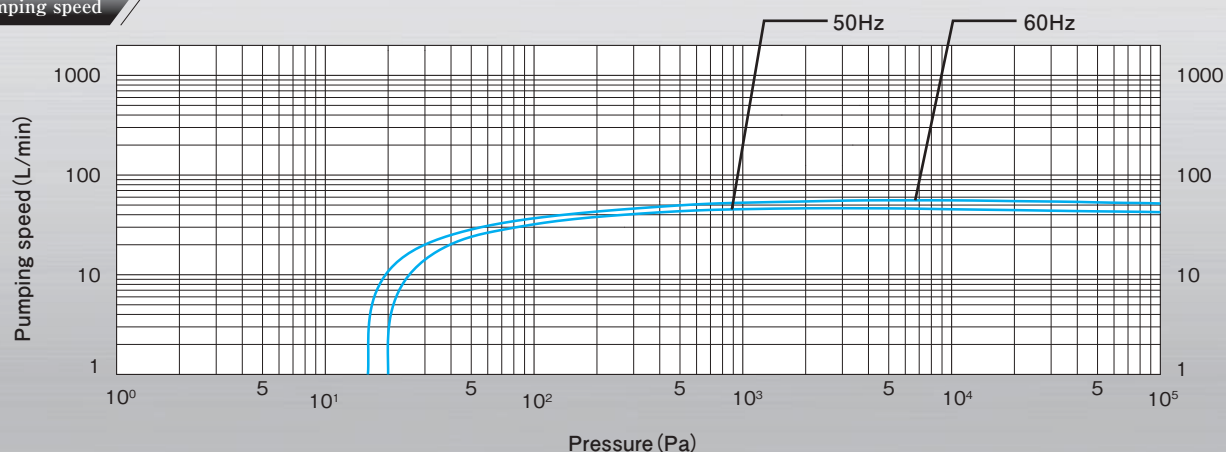
Model		ISP-50
Displacement	L/min (50/60Hz)	50/60
Ultimate pressure	Pa	$\leq 20 / \leq 15$ (50/60Hz)
Motor output	kW	0.1
Voltage	V Single phase	100,115/200,230
Noise level	dB (A)	48 (At air flush 57)
Leak tightness	Pa·m <sup>3</sup> /s	$\leq 1.0 \times 10^{-7}$
Ambient temperature	°C	5 ~ 40(Indoor)
Weight	kg	12
Water vapor capacity	g/day	3 (At air flush)
Air flush	L/min	4
Dimensions	mm	L317 × W155 × H227
Inlet connection		NW25
Outlet connection		NW16
Cooling Method		Air-cooled
Standard Accessories		Air Flush Attachment, Hour Meter, thermal protector

- Ultimate pressure is measured as total pressure.
- Noise level is measured at ultimate pressure in an anechoic room.

### Dimensions



### Pumping speed



# ISP-90

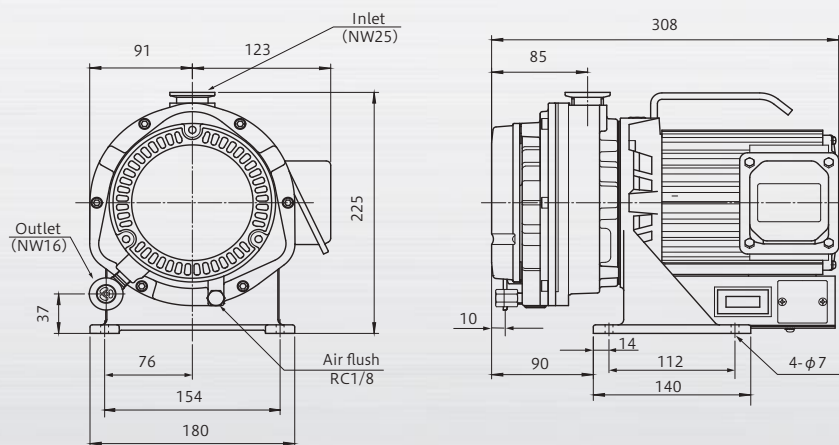


## Specifications

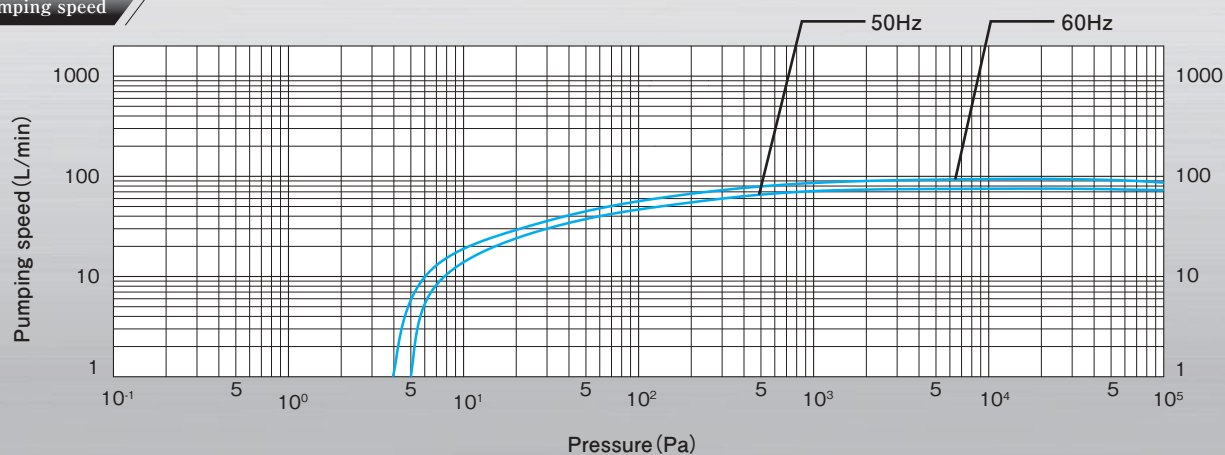
Model	ISP-90	
Displacement	L/min (50/60Hz)	90/108
Ultimate pressure	Pa	≤ 5
Motor output	kW	0.15
Voltage	V Single phase	100,115,200,230
Noise level	dB (A)	52 (At air flush 57)
Leak tightness	Pa·m <sup>3</sup> /s	≤ 1.0 × 10 <sup>-5</sup>
Ambient temperature	°C	5 ~ 40 (Indoor)
Weight	kg	14
Water vapor capacity	g/day	5 (At air flush)
Air flush	L/min	9
Dimensions	mm	L308 × W214 × H225
Inlet connection	NW25	
Outlet connection	NW16	
Cooling Method	Air-cooled	
Standard Accessories	Air Flush Attachment, Hour Meter, thermal protector	

- Ultimate pressure is measured as total pressure.
- Noise level is measured at ultimate pressure in an anechoic room.

## Dimensions



## Pumping speed





ISP/SDM series (Scroll Meister)

ISP-250C 1φ 3φ

ISP-250C-5V / ISP-250C-TV

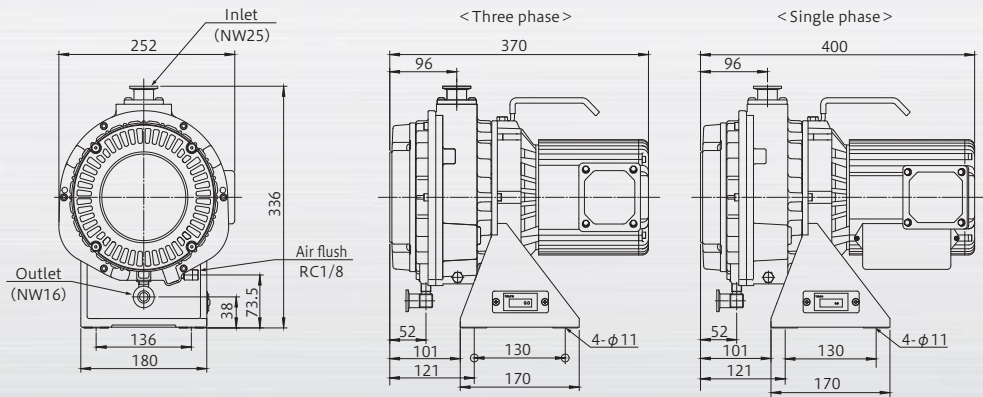


Specifications

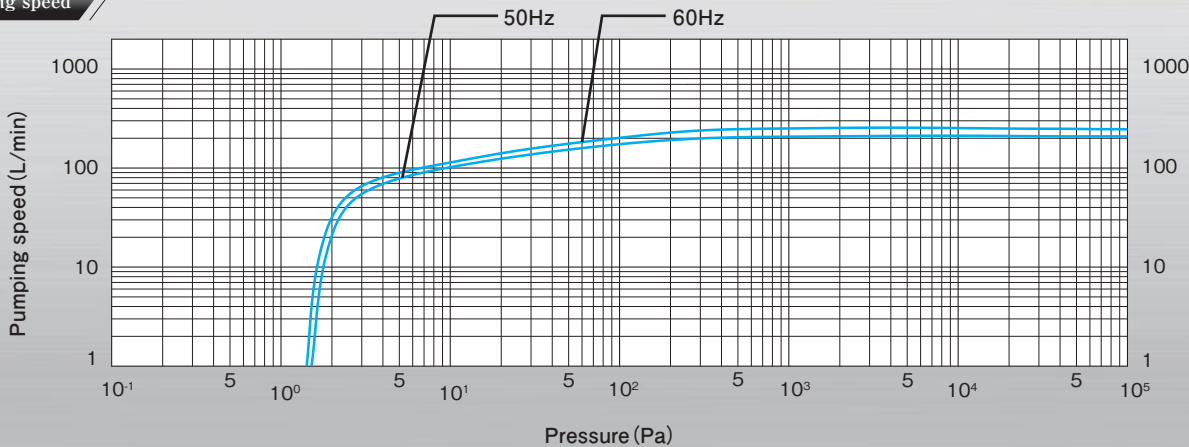
Model		ISP-250C
Displacement	L/min (50/60Hz)	250/300
Ultimate pressure	Pa	≦ 1.6
Motor output	kW	0.4
Voltage	Single phase	100,115,200,230
	Three phase	200,208,230,380,400,415,460
Noise level	dB (A)	58 (At air flush 66)
Leak tightness	Pa·m <sup>3</sup> /s	≦ 1.0 × 10 <sup>-5</sup>
Ambient temperature	°C	5 ~ 40(Indoor)
Weight	Single phase	25
	Three phase	23
Water vapor capacity	g/day	25 (At air flush)
Air flush	L/min	10
Dimensions	Single phase	L400 × W252 × H336
	Three phase	L370 × W252 × H336
Inlet connection		NW25
Outlet connection		NW16
Cooling Method		Air-cooled
Standard Accessories		Air Flush Attachment, Hour Meter, Only single phase motor with thermal protector

- Ultimate pressure is measured as total pressure.
- Noise level is measured at ultimate pressure in an anechoic room.

Dimensions



Pumping speed





# ISP-500C

1φ 3φ

ISP-500C-TH / ISP-500C-TV  
ISP-500C-SH / ISP-500C-SV

(Leak tight model)  
ISP-500C-THT / ISP-500C-TVT  
ISP-500C-SHT / ISP-500C-SVT

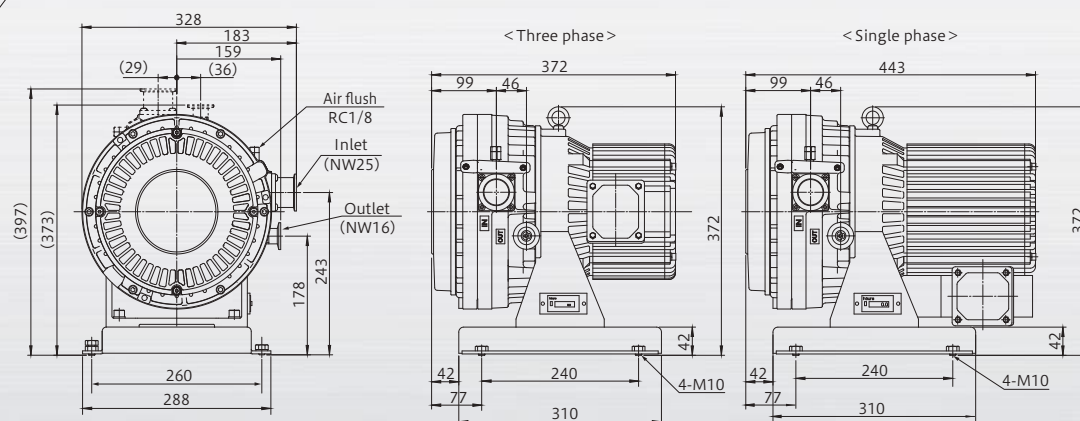


## Specifications

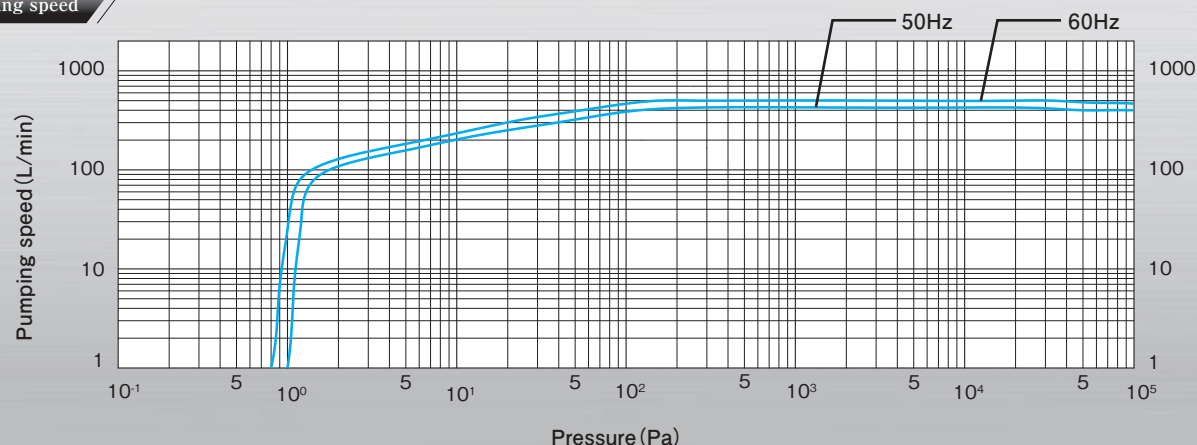
Model		ISP-500C	ISP-500C [Leak tight model]
Displacement	L/min (50/60Hz)	500/600	
Ultimate pressure	Pa	≤ 1	
Motor output	kW	0.6	
Voltage	Single phase	100,115,200,230	
	Three phase	200,208,230,380,400,415,460	
Noise level	dB (A)	62 (At air flush 70)	
Leak tightness	Pa·m <sup>3</sup> /s	≤ 1.0×10 <sup>-5</sup>	≤ 1.0×10 <sup>-7</sup>
Ambient temperature	°C	5 ~ 40 (Indoor)	
Weight	Single phase	44	
	Three phase	38	
Water vapor capacity	g/day	25 (At air flush)	
Air flush	L/min	10	
Dimensions	Single phase	L443 × W328 × H372 (L443 × W304 × H397)	
	Three phase	L372 × W328 × H372 (L372 × W304 × H397)	
Inlet connection		NW40	
Outlet connection		NW25	
Cooling Method		Air-cooled	
Standard Accessories		Air Flush Attachment, Hour Meter, Only single phase motor with thermal protector	

- Ultimate pressure is measured as total pressure.
- Noise level is measured at ultimate pressure in an anechoic room.
- Dimensions in parentheses are dimensions when inlet flange is located upward.

## Dimensions



## Pumping speed



ISP / SDM SERIES

# ISP/SDM series (Scroll Meister)

## ISP-1000E



ISP-1000E-TH / ISP-1000E-TV

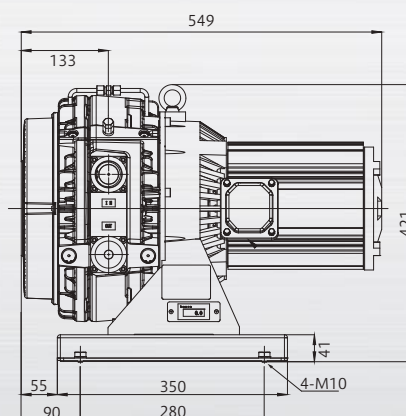
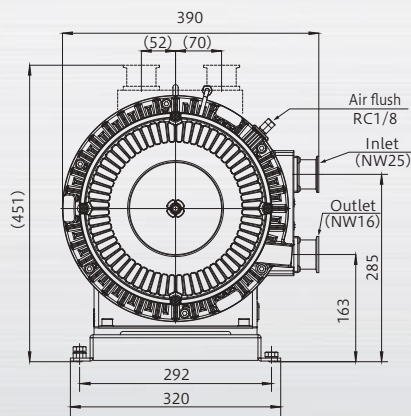


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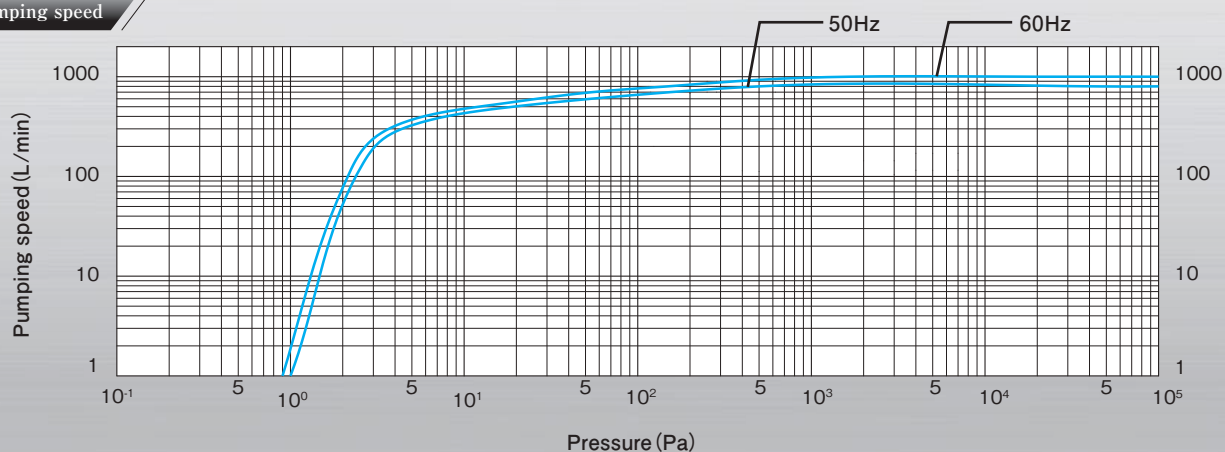
Model		ISP-1000E
Displacement	L/min (50/60Hz)	1000/1200
Ultimate pressure	Pa	≤ 1
Motor output	kW	1.4
Voltage	V Three phase	200,220,230,380,400,415,460
Noise level	dB (A)	67 (At air flush 74)
Leak tightness	Pa·m³/s	≤ 1.0 × 10 <sup>-5</sup>
Ambient temperature	°C	10 ~ 40 (Indoor)
Weight	kg	68
Water vapor capacity	g/day	25 (At air flush)
Air flush	L/min	10
Dimensions	mm	L549 × W390 × H421 (L549 × W359 × H451)
Inlet connection		NW40
Outlet connection		NW40
Cooling Method		Air-cooled
Standard Accessories		Air Flush Attachment, Hour Meter

- Ultimate pressure is measured as total pressure.
- Noise level is measured at ultimate pressure in an anechoic room.
- Dimensions in parentheses are dimensions when inlet flange is located upward.

### Dimensions



### Pumping speed



# SDM-320

SDM-320-TVL2 / SDM-320-THL2

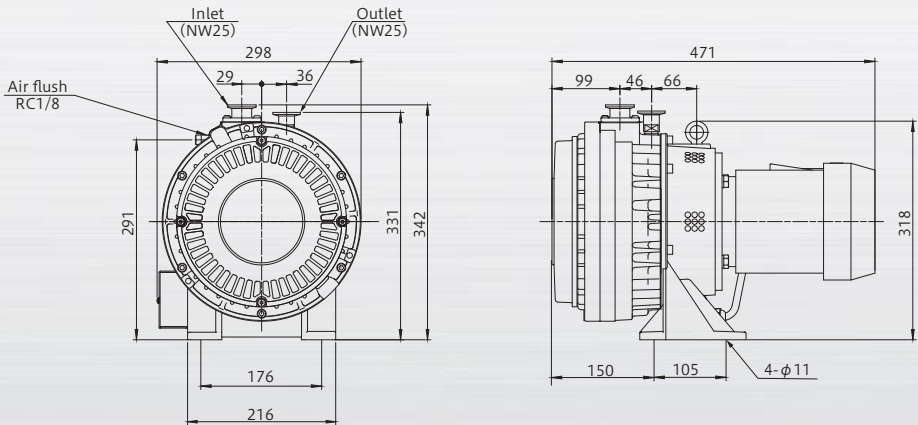


## Specifications

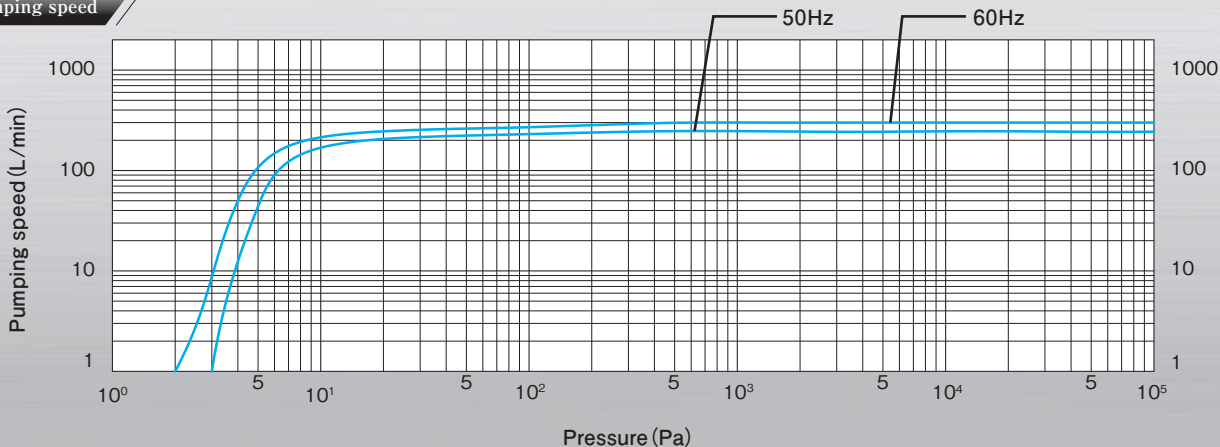
Model	SDM-320	
Displacement	L/min (50/60Hz)	315/380
Ultimate pressure	Pa	≤ 3
Motor output	kW	0.4
Voltage	V Three phase	200,220
Noise level	dB (A)	57 (At air flush 62)
Leak tightness	Pa·m <sup>3</sup> /s	≤ 1.0x10 <sup>-5</sup>
Ambient temperature	°C	5 ~ 40 (Indoor)
Weight	kg	37
Water vapor capacity	g/day	25 (At air flush)
Air flush	L/min	10
Dimensions	mm	L471 × W323 × H318 (L471 × W298 × H342)
Inlet connection	NW25	
Outlet connection	NW25	
Cooling Method	Air-cooled	
Standard Accessories	Air Flush Attachment, Hour Meter	

- Ultimate pressure is measured as total pressure.
- Noise level is measured at ultimate pressure in an anechoic room.
- Dimensions in parentheses are dimensions when inlet flange is located upward.

## Dimensions



## Pumping speed





Handles water carryover well, ideal for industrial application

# DVSL series (S Dry)

## DVSL-100C

DVSL-100C

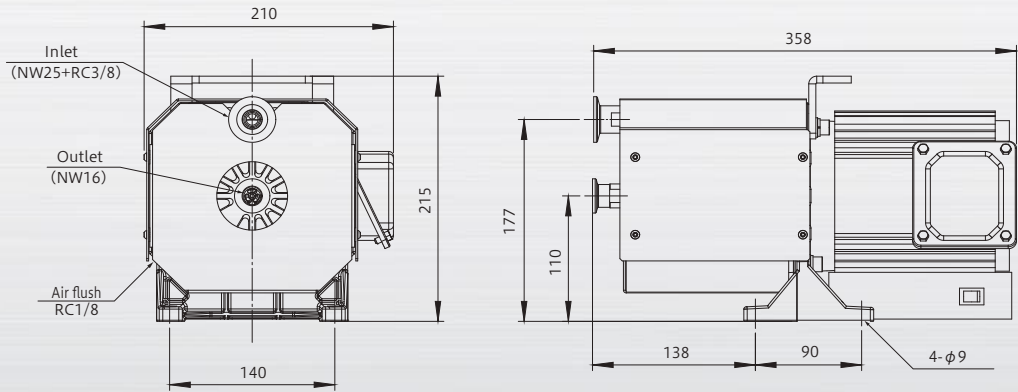


### Specifications

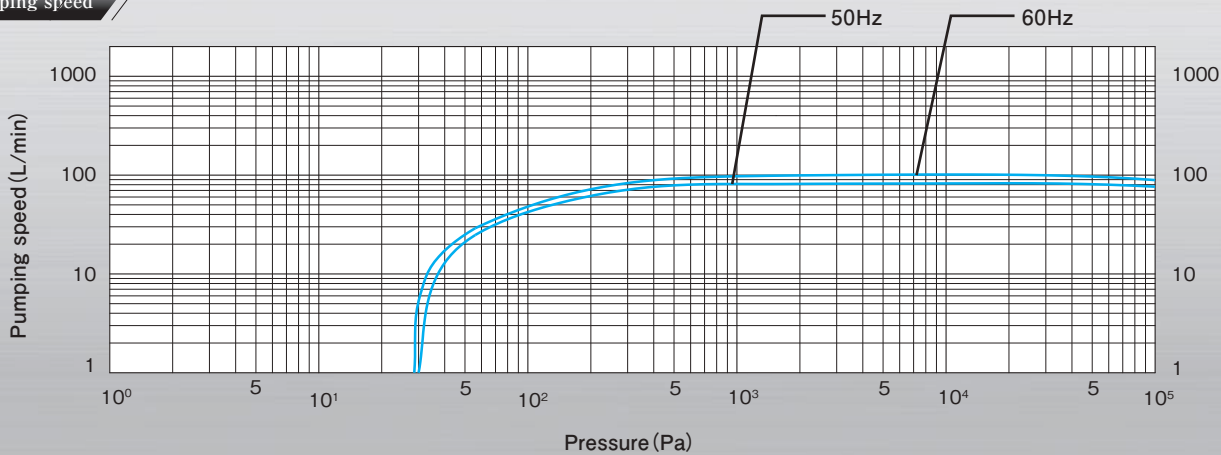
Model		DVSL-100C
Back-up material		Fluorine rubber
Displacement	L/min (50/60Hz)	100/120
Ultimate pressure	Pa	≦ 50
Motor output	kW (50/60Hz)	0.3/0.3
Voltage	V Single phase	100,115,200,230
Noise level	dB (A)	62 (At air flush 65)
Ambient temperature	°C	5 ~ 40(Indoor)
Weight	kg	15
Water vapor capacity	g/day	100 (At air flush)
Air flush	L/min	5
Dimensions	mm	L358 × W210 × H215
Inlet connection		NW25 (with Rc 3/8)
Outlet connection		NW16 (with Exhaust valve)
Cooling Method		Air-cooled
Standard Accessories		Air Flush Attachment, thermal protector
Optional		—

- Ultimate pressure is measured as total pressure.
- Noise level is measured at ultimate pressure in an anechoic room.
- Without hourmeter.

### Dimensions



### Pumping speed



# DVSL-500E

3φ    

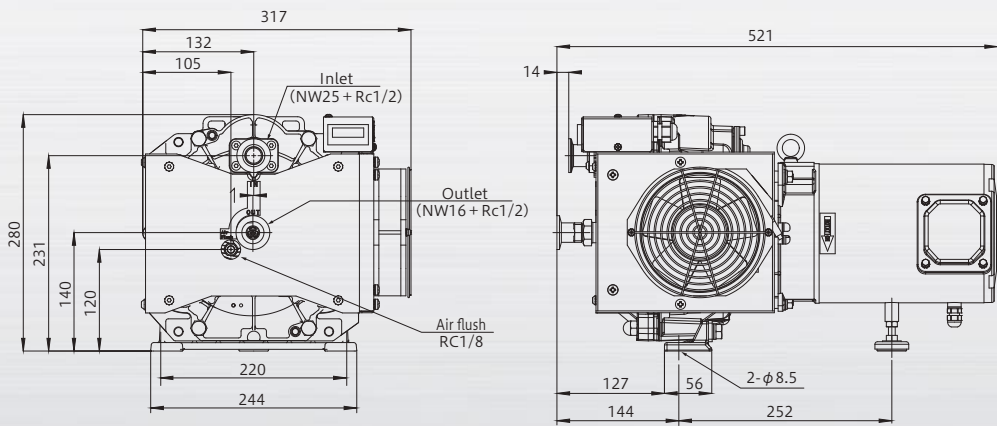
DVSL-500E / DVSL-501E



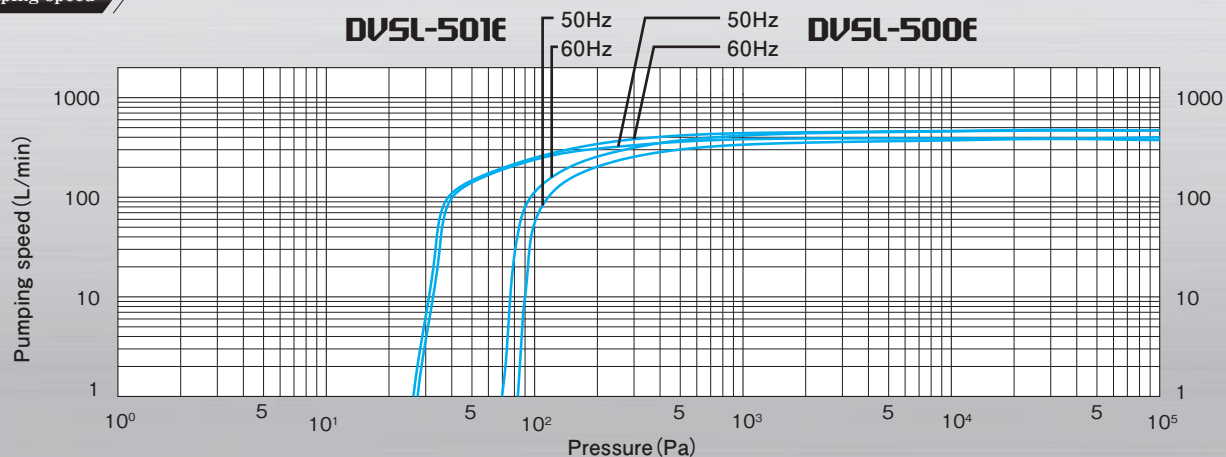
Specifications		DVSL-500E	DVSL-501E
Model		DVSL-500E	DVSL-501E
Back-up material		Silicon rubber	Fluorine rubber
Displacement	L/min (50/60Hz)	433/516	
Ultimate pressure	Pa	≦ 30	≦ 100
Motor output	kW (50/60Hz)	0.9/1.1	
Voltage	V Three phase	200,220,230,380,400,415,460	
Noise level	dB (A)	64 (At air flush 69)	
Ambient temperature	°C	5 ~ 40 (Indoor)	
Weight	kg	34	
Water vapor capacity	g/day	250 (At air flush)	
Air flush	L/min	10	
Dimensions	mm	L521 × W317 × H280	
Inlet connection		NW25 (with Rc 1/2)	
Outlet connection		NW25 (with Exhaust valve)	
Cooling Method		Air-cooled	
Standard Accessories		Air Flush Attachment, Hour meter,	
Optional		Moisture Separator	

- Ultimate pressure is measured as total pressure.
- Noise level is measured at ultimate pressure in an anechoic room.

## Dimensions



## Pumping speed



DVSL SERIES

DVSL series (S Dry)

DVSL-1002E

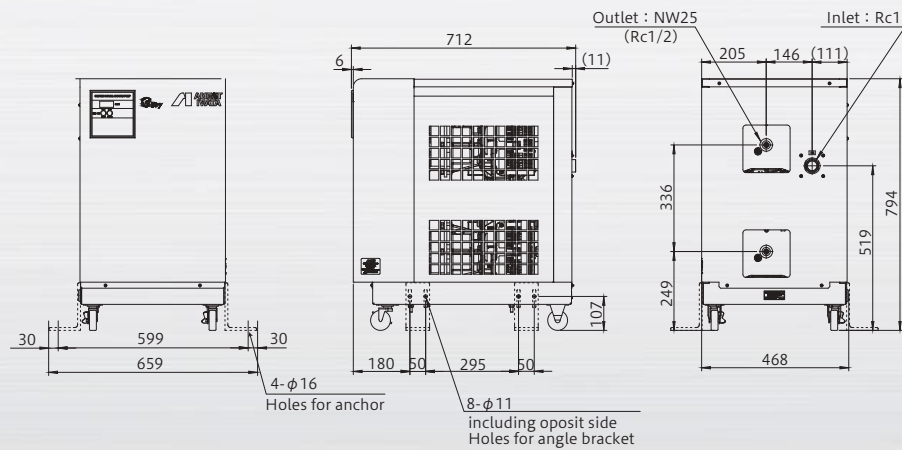


Specifications

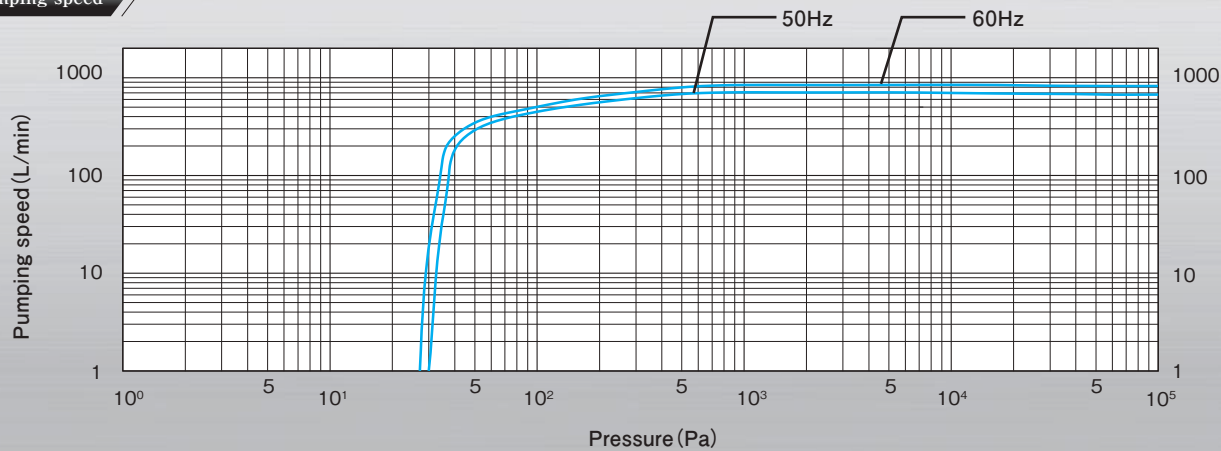
Model	DVSL-1002E	
Back-up material	Silicon rubber	
Displacement	L/min (50/60Hz)	845/1010
Ultimate pressure	Pa	≤ 30
Motor output	kW (50/60Hz)	2.4
Voltage	V Three phase	200,220
Noise level	dB (A)	69 (At air flush 74)
Ambient temperature	°C	5 ~ 40(Indoor)
Weight	kg	118
Water vapor capacity	g/day	250 (At air flush)
Air flush	L/min	※ 10
Dimensions	mm	L712 × W468 × H794
Inlet connection	Rc1	
Outlet connection	NW25 (with Rc1) × 2ports	
Cooling Method	Air-cooled	
Standard Accessories	Air Flush Attachment, Hour Meter, Electro magnetic switch, On-Off switch	
Optional	Moisture Separator	

- Ultimate pressure is measured as total pressure.
- Noise level is measured at ultimate pressure in an anechoic room.
- ※ Intake volume for each air flush port (two ports)

Dimensions



Pumping speed





Ideal pumps for steamy applications

# DVSL series (Hard coat specification)

## DVSL-100C-HC



Product dimensions and pumping speed are the same as the DVSL-100C.

### Specifications

Model	DVSL-100C-HC	
Back-up material	Fluorine rubber	
Displacement	L/min (50/60Hz)	100/120
Ultimate pressure	Pa	≤ 70
Motor output	kW (50/60Hz)	0.3/0.3
Voltage	V Single phase	100,115,200,230
Noise level	dB (A)	62 (At air flush 65)
Ambient temperature	°C	5 ~ 40 (Indoor)
Weight	kg	15
Water vapor capacity	g/day	100 (At air flush)
Air flush	L/min	5
Dimensions	mm	L358 × W210 × H215
Inlet connection	NW25 (with Rc 3/8)	
Outlet connection	NW16 (with Exhaust valve)	
Cooling Method	Air-cooled	
Standard Accessories	Air Flush Attachment, thermal protector	
Optional	—	

- Ultimate pressure is measured as total pressure.
- Noise level is measured at ultimate pressure in an anechoic room.

## DVSL-501E-HC



Product dimensions and pumping speed are the same as the DVSL-500E.

Model	DVSL-501E-HC	
Back-up material	Fluorine rubber	
Displacement	L/min (50/60Hz)	433/516
Ultimate pressure	Pa	≤ 100
Motor output	kW (50/60Hz)	0.9/1.1
Voltage	V Three phase	200,220,230,380,400,415,460
Noise level	dB (A)	64 (At air flush 69)
Ambient temperature	°C	5 ~ 40 (Indoor)
Weight	kg	34
Water vapor capacity	g/day	250 (At air flush)
Air flush	L/min	10
Dimensions	mm	L521 × W317 × H280
Inlet connection	NW25 (with Rc 1/2)	
Outlet connection	NW25 (with Exhaust valve)	
Cooling Method	Air-cooled	
Standard Accessories	Air Flush Attachment, Hour meter,	
Optional	Moisture Separator	

- Ultimate pressure is measured as total pressure.
- Noise level is measured at ultimate pressure in an anechoic room.

### Features

- The life time of scroll surface becomes 3 times longer caused by special coating was applied.\*1
- Chemical application is acceptable. Easy to use like DVSL series.\*2
- Various application with better ultimate pressure.  
Freeze drying system, evaporation, degassing, ultra pure water systems etc. which evacuate a lot of water vapor.

\*1 It is just reference compared with our product. This value changes depends on customer application.

\*2 Please contact us.

# Economical and high performance general vacuum pumps

## GVS series

**GVS-250** 1φ

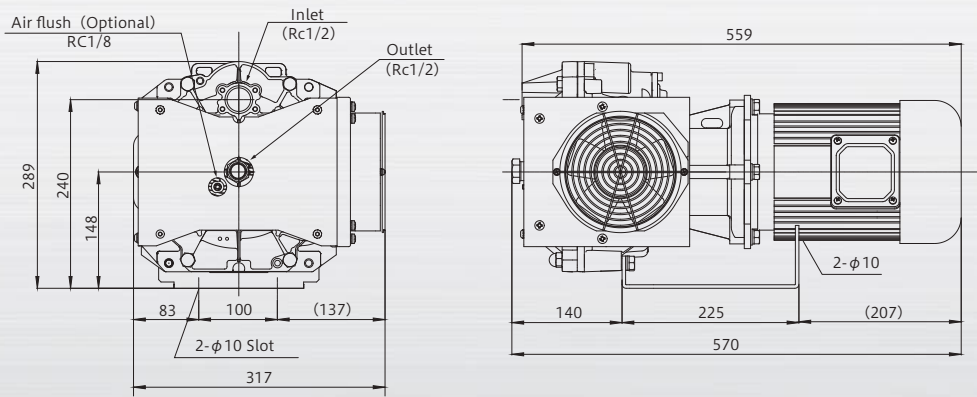


### Specifications

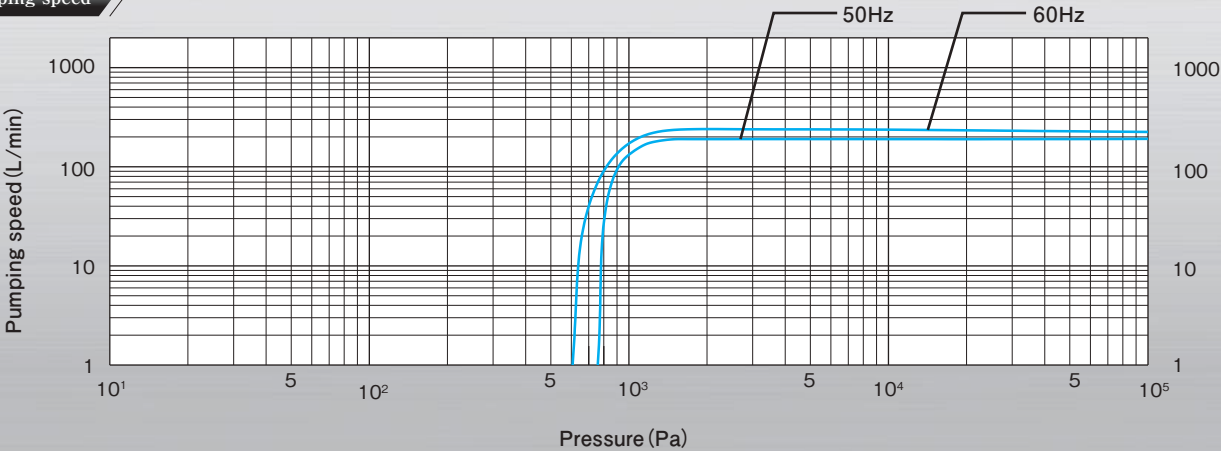
Model	GVS-250	
Back-up material	Silicon rubber	
Displacement	L/min (50/60Hz)	208/255
Ultimate pressure	Pa	≦ 750
Motor output	kW (50/60Hz)	0.75
Voltage	V Single phase	100,115
Noise level	dB (A)	61
Ambient temperature	℃	5 ~ 40(Indoor)
Weight	kg	39
Water vapor capacity	g/day	250 (At air flush)
Air flush	L/min	10 (At air flush)
Dimensions	mm	L570 × W317 × H289
Inlet connection	Rc 1	
Outlet connection	Rc 1/2	
Cooling Method	Air-cooled	
Optional	Air Flush Attachment, Moisture Separator	

- Ultimate pressure is measured as total pressure.
- Noise level is measured at ultimate pressure in an anechoic room.

### Dimensions



### Pumping speed



# GV5-500E

3φ



RoHS

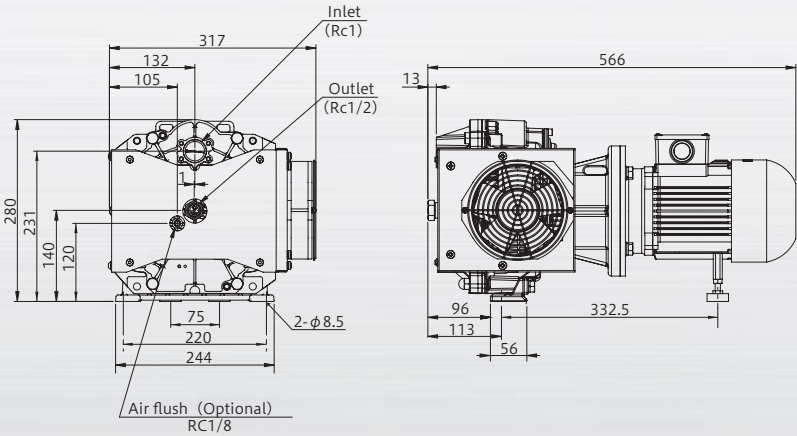
GV5-500E / GV5-501E



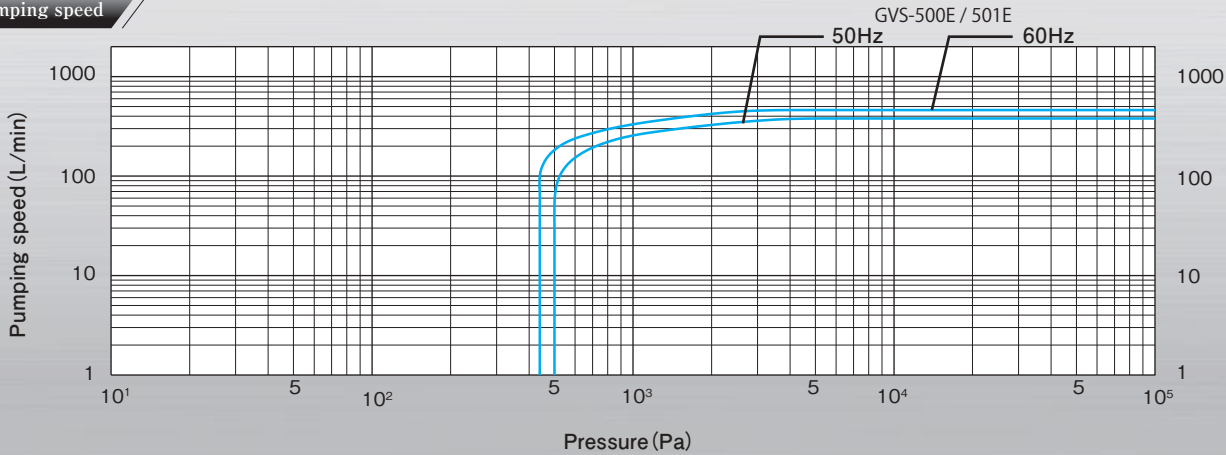
Specifications		
Model		GV5-500E    GV5-501E
Back-up material		Silicon rubber    Fluorine rubber
Displacement	L/min (50/60Hz)	432/512
Ultimate pressure	Pa	≦ 500
Motor output	kW (50/60Hz)	0.9/1.2
Voltage	V Three phase	200,220
Noise level	dB (A)	64
Ambient temperature	°C	5 ~ 40(Indoor)
Weight	kg	39
Water vapor capacity	g/day	250 (At air flush)
Air flush	L/min	10 (At air flush)
Dimensions	mm	L566 × W317 × H280
Inlet connection		Rc 1
Outlet connection		Rc 1/2
Cooling Method		Air-cooled
Optional		Air Flush Attachment, Moisture Separator

● Ultimate pressure is measured as total pressure.  
● Noise level is measured at ultimate pressure in an anechoic room.

## Dimensions



## Pumping speed





GVS series

GVS-1000E

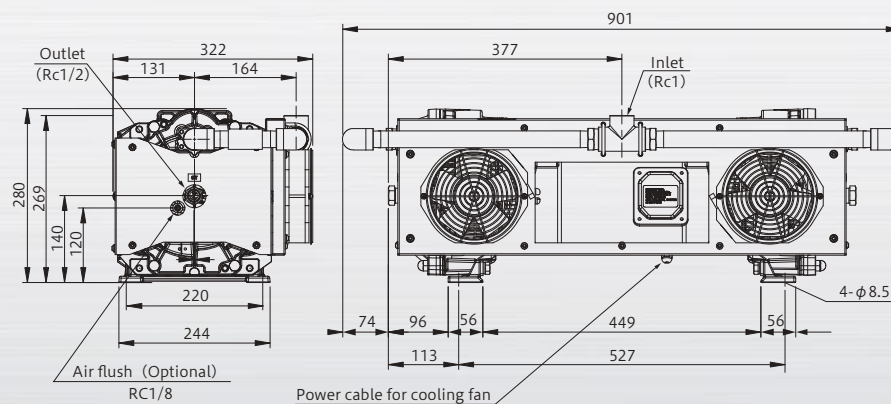


Specifications

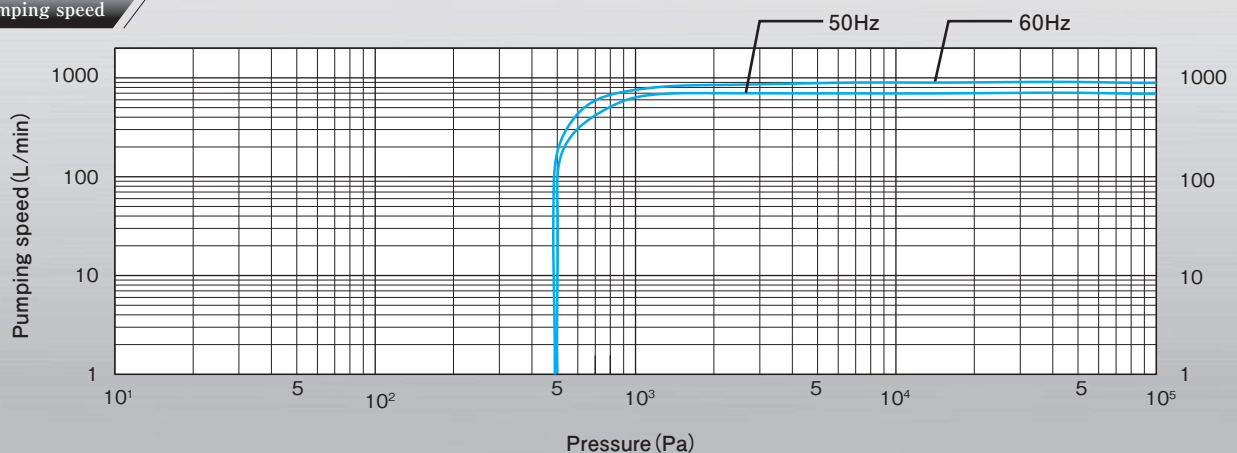
Model	GVS-1000E	
Back-up material	Silicon rubber	
Displacement	L/min (50/60Hz)	860/1031
Ultimate pressure	Pa	≦ 500
Motor output	kW (50/60Hz)	2.2
Voltage	V Three phase	200,220,400,440
Noise level	dB (A)	72
Ambient temperature	°C	5 ~ 40(Indoor)
Weight	kg	65
Water vapor capacity	g/day	500 (At air flush)
Air flush	L/min	※ 10 (At air flush)
Dimensions	mm	L901 × W322 × H280
Inlet connection	Rc 1	
Outlet connection	Rc 1/2	
Cooling Method	Air-cooled	
Optional	Air Flush Attachment, Moisture Separator	

- Ultimate pressure is measured as total pressure.
- Noise level is measured at ultimate pressure in an anechoic room.
- ※ Intake volume for each air flush port (two ports)

Dimensions



Pumping speed



Dry scroll pump + booster pump

# Booster Cart

## VMC-1000-GU2

3φ



RoHS



### Specifications

Model		VMC-1000-GU2
Displacement	L/min (50/60Hz)	1000
Ultimate pressure	Pa	10
Motor output	kW	1.4 (1.2+0.2)
Voltage (50/60Hz)	V Three phase	200
Noise level	dB (A)	66
Ambient temperature	°C	5 ~ 40 (Indoor)
Weight	kg	69
Inlet connection		VG40
Outlet connection		Rc2 1/2
Cooling Method		Air-cooled
Standard Accessories		Hour meter, Booster Select Switch, Oil for Booster Unit (100ml for oil change twice)
Operation Control		Fore Pump- Individual Operation, Tandem Operation
Optional		Moisture Separator, Air Flush Attachment, Inlet Flange Converter (VF40/NW40)

- Ultimate pressure is measured as total pressure.
- Noise level is measured at ultimate pressure in an anechoic room.

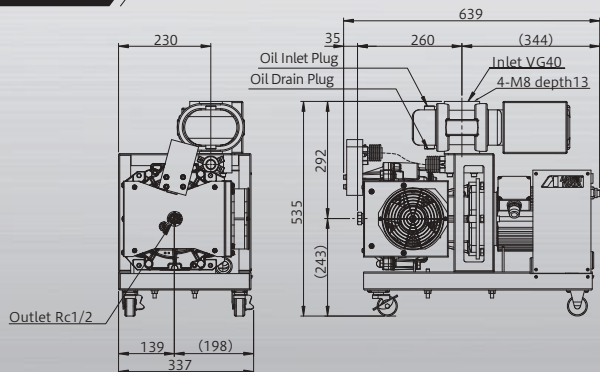
### Features

- Tough for continuous/repetition operation around atmospheric pressure.
- Easy installation and small foot print due to air cooled.
- Can be installed to the noise sensitive place due to low noise.
- Can be worked Scroll pump alone.

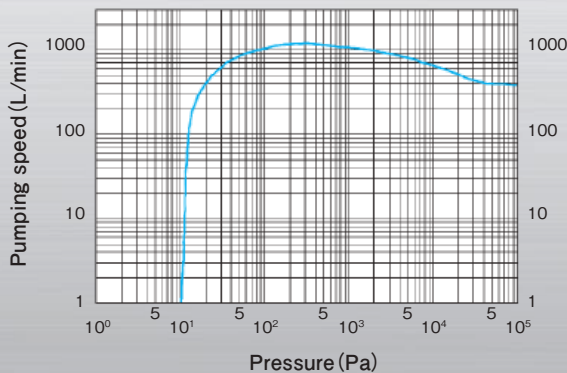
### Applications

- Vacuum chucking, Inert gas replacement, Vacuum forming, Medical vacuum system

### Dimensions



### Pumping speed



VMC SERIES

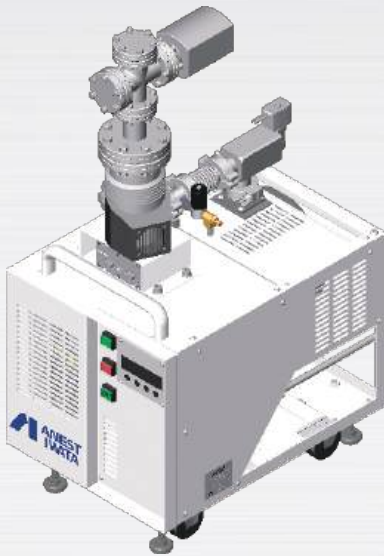
High pumping speed and flexible setting

# HIGH VACUUM PUMPING SYSTEMS

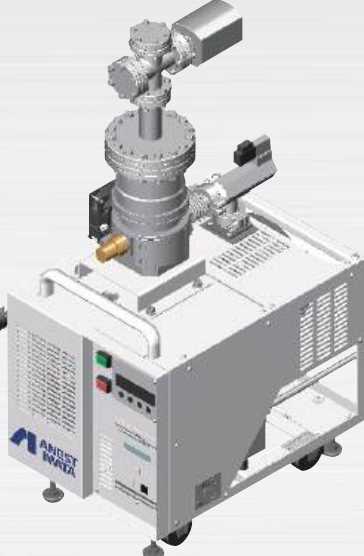
## VTC series



VTC-080-LV1



VTC-220-BV1



VTC-300-EH1



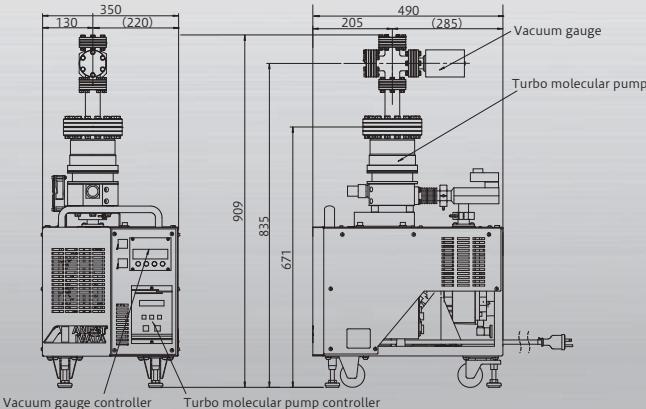
VTC SERIES

### Specifications

Model		VTC-080-LV1/2	VTC-220-BV1/2	VTC-300-EH1/2
Scroll Vacuum Pump		ISP-250C-SV		
Turbo molecular pump		SL-80 Leybold japan	TG220F Osaka Vacuum,Ltd	STP-301 EDWARDS
Ultimate pressure	Pa	10 <sup>-6</sup> (No baking)		
Voltage	V Single phase	100,115/200,230		
Ambient temperature	°C	15~40 (Indoor)	10~32 (Indoor)	5~40 (Indoor)
Dimensions (W x L x H)	mm	350 x 490 x 840	350 x 490 x 918	417 x 599 x 810
Optional		Chamber · Vacuum gauge · Automatic Shut-off Valve etc.		

- We can customize of the other type. Turbo molecular pump, Vacuum gase,etc.
- Ultimate pressure is measured as total pressure.

VTC-220-BV1



※ Please contact to us dimension of other model.



Compact and reasonable

# HIGH VACUUM PUMPING UNITS

## VTU series

### VTU-080-LH

- VTU-080-LH (ISP-90)
- VTU-080-LHA1 (With valve)
- VTU-080-LHA2 (With valve)
- VTU-080-LM1 (ISP-50-SV1)
- VTU-080-LMA1 (With valve)
- VTU-080-LM2 (ISP-50-SV2)
- VTU-080-LMA2 (With valve)



Specifications			
Model		VTU-080-LM	VTU-080-LH
Scroll Vacuum Pump		ISP-50	ISP-90
Turbo molecular pump		SL80 Leybold japan	
Ultimate pressure	Pa	10 <sup>-5</sup> (No baking)	
Voltage	V Single phase	AC100V, 200V	
Ambient temperature	°C	15 ~ 40 (Indoor)	
Dimensions (W x L x H)	mm	235 x 436 x 474	
Optional		Automatic Shut-off Valve etc.	

●Ultimate pressure is measured as total pressure.

#### Features

#### ● All of oil free

Complete Oil free Ultra High Vacuum pumping unit consisted Dry vacuum pump and Turbo molecular pump.

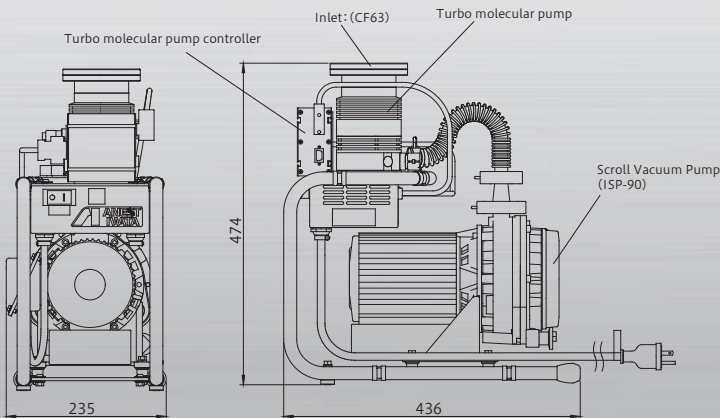
#### ● Compact

to be installed next by the systems due to small foot print.

#### ● Turn key operation

Both pump starts with only one operation.  
 ※Chamber volume including piping is limited. Please contact us.

### VTU-080-LH



VTU SERIES

## VACUUM EQUIPMENT OPTION

# A variety of options are available for vacuum pumps.

### Sound Enclosure for ISP-250

It reduces running noise by 5dB. Quieter and ideal ambient for laboratory experiments.

image of inlet port with clamp



**OCX-55549**



Built image of sound enclosure

- It weighs only 8 kg. Change to lbs.
- Easy to install.
- The enclosure has a small opening to read hour meter.
- It can attach a clamp to inlet port at after the installation.

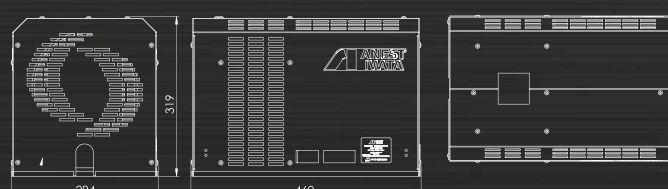
#### Noise level



#### Caution

- This enclosure fits ISP-250C only.
- Place enclosure with the pump from above. Remove handle at the top of motor before install the enclosure. Turn and remove a hex-head bolt to remove handle from the pump.
- Please install on a strong and level floor.
- Please install in a well-ventilated place.

#### Dimensions



## Vacuum Isolation Valve XLJ series

■ For high vacuum experimental equipment, semiconductor equipment, Gas recovery unit etc.

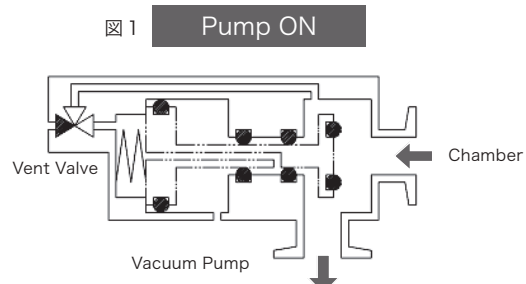
### XLJ-25-1G/2G/5G-X1453

※Different model due to the voltage

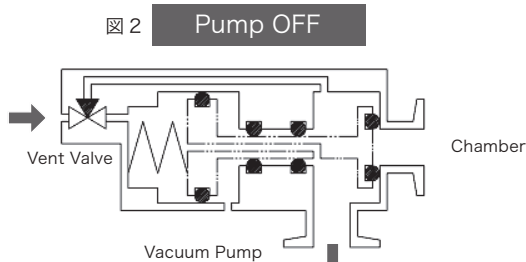


Built image  
of sound enclosure

### Principle



When the electrical power to the vacuum pump is on, the solenoid valve is closed, allowing the valve open due to differential pressure, so the vacuum pump can evacuate a chamber.



Interruption of electrical power to the pump causes the solenoid valve to open. Air is admitted into the solenoid valve causing the valve to close very quickly, and the vacuum pump will be atumosphere condition.

### ● Keep vacuum condition automatically

After the vacuum pump is stopped, sealing the chamber (non-exhaust system side) automatically. This valve is useful for emergency stop and power failure.

### ● Doesn't need compressed air. Easy to install

"This valve is run by differential pressure, so compressed air is not necessary.

Easy installation just connecting to vacuum pump power input."

### ● a wide variety of voltages

Available in AC100V / AC200V / DC24V

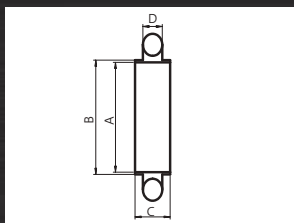
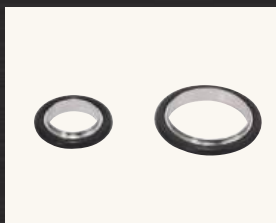
Be able to choise model depending on voltage

Be able to install directly to ISP-50, 90, 250C

### Specifications

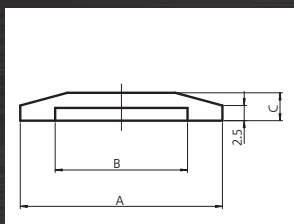
Model		XLJ-25-1G-X1453	XLJ-25-2G-X1453	XLJ-25-5G-X1453
Voltage		AC100V	AC200V	DC24V
Operating Pressure		Atm. ~ 10 <sup>-2</sup> Pa		
Leak Tightness Pa・m <sup>3</sup> /s	Internal	1.3 × 10 <sup>-8</sup> (Except gas transmission at standard temperature)		
	External	1.3 × 10 <sup>-10</sup> (Except gas transmission at standard temperature)		
Materials	Sealing	Fluorine rubber (Viton) O ring		
	Body	Body, Hood : Aluminum. Main part: SUS304 Valve: SUS304,SUS305 based, Brass		
	Lubricant	Fluorine-based grease		
Media		Air or inert gas		
Ambient temperature		5 ~ 40℃		
Inlet connection/Outlet connection		NW25		
Dimensions Length Height Width [mm]		149 × 116 × 49		
Weight		0.68 kg		

## Connecting ring with O-ring



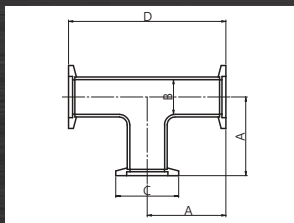
Model	A	B	C	D
KF16CRVS	16	17	8	3.9
KF25CRVS	25	26	8	3.9
KF40CRVS	40	41	8	3.9

## Blank flange



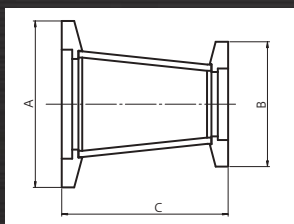
Model	A	B	C
KF16BS	30	17.2	5
KF25BS	40	26.2	5
KF40BS	55	41.2	5

## Tee



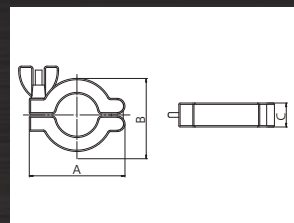
Model	A	B	C	D
KF16TE	40	19.05	30	80
KF25TE	50	25.4	40	100
KF40TE	65	38.1	55	130

## Reducer



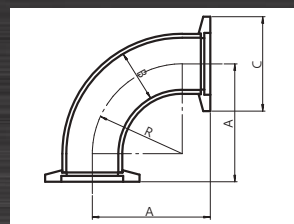
Model	A	B	C
KF25RA16	40	30	40
KF40RA16	55	30	40
KF40RA25	55	40	40

## Clamp



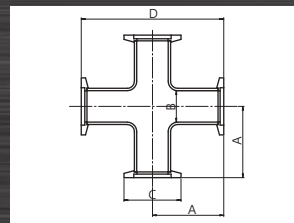
Model	A	B	C
KF16CLA	61	45	16
KF25CLA	72	55	16
KF40CLA	90	70	16

## Elbow



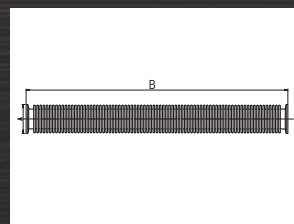
Model	A	B	C	D
KF16EL90E	40	19.05	30	28.6
KF25EL90E	50	25.4	40	38.1
KF40EL90E	65	38.1	55	57.2

## Cross



Model	A	B	C	D
KF16XE	40	19.05	30	80
KF25XE	50	25.4	40	100
KF40XE	65	38.1	55	130

## Flexible tube



Model	A	B
KF25FX250	40	250
KF25FX500	40	500
KF25FX1000	40	1,000
KF40FX250	55	250
KF40FX500	55	500
KF40FX1000	55	1,000



## Chamber

**VCH-20** 20L (Connection NW25)

**VCH-35** 35L (Connection NW40)

Used for multiple purposes such as gas pulsation prevention or use as an auxiliary tank



## Carrier

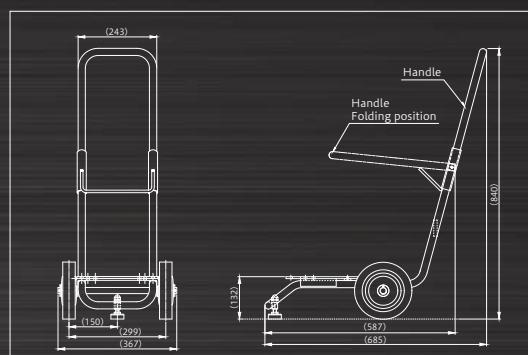
**OCX-899**

For moving and storing a vacuum pump

■Applicable models

**ISP-250B 250C**

**ISP-500B 500C**



## Moisture separator / Silencer

**Moisture separator /  
Silencer For DVSL · GVS series** (98882031)

Air hose (98804230)

Hose clamp (96993705)



Air hose and hose clamp  
are sold separately.

## Inlet filter

**Vacuum inlet filter 15A** (98891330)

Inlet connection Rp3/8

**Vacuum inlet filter 25A** (98891340)

Inlet connection Rp1



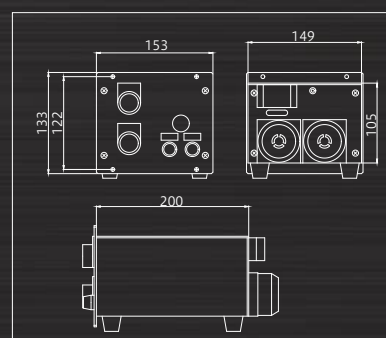
## Power-supply box

**OCX-61** (100V)

**OCX-62** (200V)

Power-supply box  
for vacuum pump protection  
with safety fuse for solenoid valve  
(Single phase · 100V/200V)

**FOR ISP-250C** Please contact to us of other model uses.



OPTION

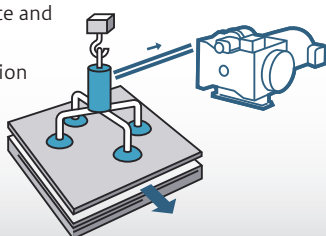
## APPLICATION

# Vacuum equipment of Anest Iwata are utilized in various applications.

## Vacuum Equipment Applications

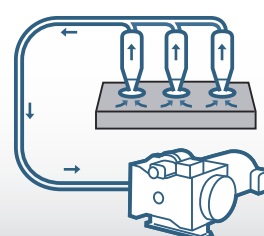
### 01 Pick and Place [ DVSL/GVS ]

Conveying workpiece and utilizing a pressure difference with suction pad.



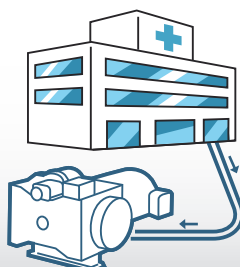
### 02 Vacuum Chuck [ DVSL/GVS ]

Chucking a workpiece by pressure difference. Suitable for distorted surface, soft, thin film and small objects.



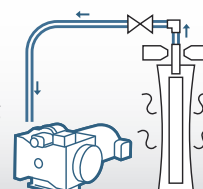
### 03 Medical [ ISP/DVSL/GVS ]

Used for various applications. Cancer therapy system, Sterilization and aspirator in the hospital etc.



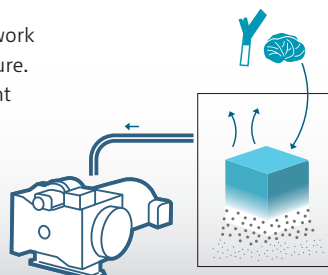
### 04 Vacuum drying [ DVSL/GVS ]

Removing unnecessary components from the work (workpiece?) using vacuum pressure. It is used for delicate material against heating and complex shape. For example ... Removing washing water from mechanical parts, Removing absorbed water molecular from resin pellets, and centrifugal system for chemicals etc.



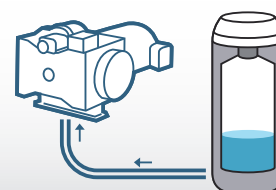
### 05 Vacuum-freeze drying [ DVSL/GVS ]

Sublimating frozen work under vacuum pressure. For example ... instant coffee, dry food, etc.



### 06 Vacuum heat insulation [ DVSL/GVS ]

Vacuum is suitable for heat-insulation as it doesn't cause heat conduction. For example ... Vacuum heat insulation sheet, thermos etc.



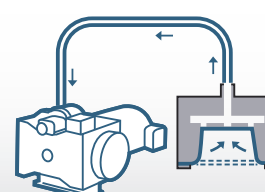
### 07 Vacuum impregnation [ DVSL/GVS ]

Penetrating the seasoning to groceries using a vacuum pressure. The mechanical components are utilized to infiltrate the adhesive.



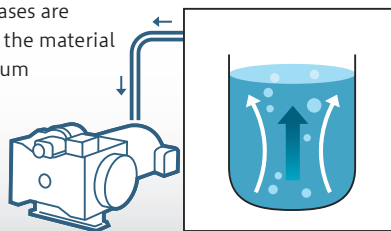
### 08 Vacuum Forming [ DVSL/GVS ]

Using a vacuum pressure to the molding resin materials.



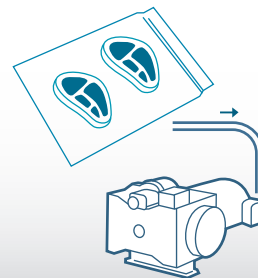
## 09 Degassing [ DVSL/GVS ]

Contained gases are sucked from the material using a vacuum pressure.



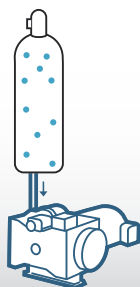
## 10 Vacuum packaging [ DVSL/GVS ]

Sucking the air from the sealed bag to prevent deterioration of the food and workpiece.



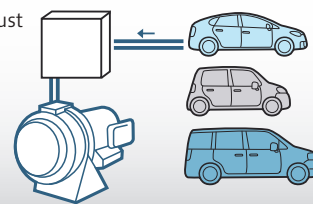
## 11 Gas recovery devices [ ISP/DVSL/GVS ]

Make it easier to fill the gas to the container which is under vacuum pressure. It is also used to recover the gases, which are the rare gas and the effective gas to the environment (ISP series).



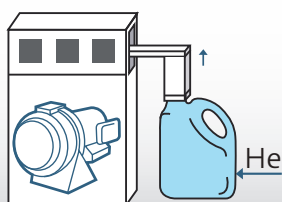
## 12 Exhaust gas inspection [ ISP ]

It is used for the inspection of particulate contained in the exhaust gas of automobiles.



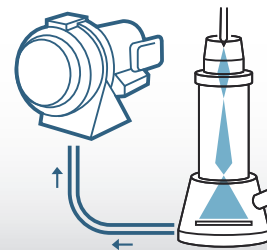
## 13 Leak detectors [ ISP/DVSL/GVS ]

Checking the leakage of containers by pressure change during the certain time under the vacuum pressure. Leak tight pump is needed for Helium leak tester to prevent the influence of background (ISP series).



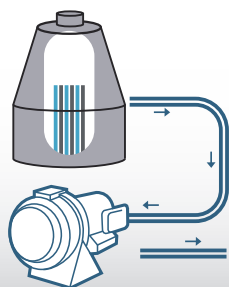
## 14 Electron microscope [ ISP ]

The vacuum pressure is needed in the chamber when the sample is scanned by shot electron beam.



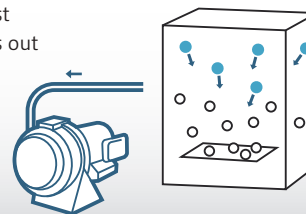
## 15 Vacuum heat treatment [ ISP ]

Preventing the oxidation and removing absorbed gas for heat treatment under the vacuum pressure.



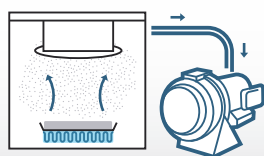
## 16 Sputtering [ ISP ]

Deposit metal on a surface by using fast ions to eject particles out of it from a target.



## 17 Evaporation deposition [ ISP ]

Deposit metal on a surface by heating a target in vacuum chamber.



## 18 Accelerator · Synchrotron [ ISP ]

By creating clean vacuum condition, we are supporting world's cutting-edge technologies such as accelerator and particle physics.



## Service Network

We at ANEST IWATA Corporation, put emphasis on before & after sales services, with the consideration that vacuum pumps are being operated for more than 8,000 hours a year.  
In order to run vacuum pumps safely and for such a long period of time, please conduct regular maintenance by our recommended maintenance standards of every year or 8,000 hours. OR In order to run our vacuum pumps safely and maintain the life of the pump, it is recommended to perform regular maintenance every 8,000 hours per our maintenance standards.

※ Exclude that of a part of model. Maintenance period varies depending on usage conditions etc.

### Service network



■ Service center of Yokohama. | Our facility includes a service center so we can do maintenance and repair work of our vacuum pumps.

■ Service center of overseas. | We have a lot of service centers around the world.

- China  
阿耐思特岩田(上海) 商贸有限公司  
中華人民共和國上海市徐匯區宛平南路200號2層(〒200030)  
TEL +86-(0) 21-6448-1059/1159
- Taiwan  
岩田友嘉精機股份有限公司  
中華民國台灣省新竹縣湖口鄉中興村光復北路31號  
TEL +886-35-983206
- Korea  
ANEST IWATA Korea Corporation  
516-1, Mongnae-dong, Danwon-ku, Ansan-si, Gyeonggi-do, 425-100, Korea  
TEL +82-31-364-8120

- Thailand  
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91/1, 5th Floor, Chaiyo Building, Room 5A10 Rama 9 Road, Huaykwang,  
Bangkok 10320 THAILAND  
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ANEST IWATA AIR ENGINEERING, Inc.  
5325 Muhlhauser Road West Chester, Ohio 45011 U.S.A.  
TEL +1-513-755-3100
- Germany  
ANEST IWATA Babatz GmbH  
Am Stahlbügel 2, 74206 Bad Wimpfen, Germany  
TEL +49-7063-93-3670

### ⚠ Precaution on usage

- This vacuum pump is suitable for clean processes only.
- Do not use explosive, flammable, toxic or corrosive substances or substances which contains chemicals, solvents or particals.
- ANEST IWATA will not perform maintenance work on pumps which have used hazardous substances.
- The thermal protector installed on a single phase motor will automatically rest after the motor has cooled down. Be sure to install overcurrent protective device.
- Do not alter or disassemble the product.
- Be sure to read instruction manual and understand it fully before use.
- The warranty period is based on instruction manual. Maintenance interval and the warranty period are different.
- Classification which is based on Foreign Exchange and Foreign Trade Control Act is necessary for export. Please contact us.

### ⚠ Caution for installation

- Install in an area which is not exposed to explosives, flammable gas, or other related things.
- Pumps do not have overcurrent protective device for burnout. Install overcurrent protective device properly for safety.
- Electric source cable is not included in the pump. Use electric source cable which is instructed by instruction manual.
- Periodic maintenance is required. Please install it in a location that can be maintained and ventilated.
- The specifications in the catalogue is measured by our company standards. There is no guarantee on your conditions and applications.
- When you start and stop the pump repeatedly, it may shorten life of the product. Please contact us if you like detailed information.

● Models, specifications and photos are subject to change without notice.

### ■ Contact Information



#### ANEST IWATA Corporation

3176, Shinyoshida-cho, Kohoku-ku, Yokohama 223-8501 Japan

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