



Approved by Fortune 500 Companies and Global Users

# HIGH RELIABILITY Vacuum Pump



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VALUE Creates Value  
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# WELCOME TO VALUE.....

## PROFILE

VALUE company is professionally dedicated to the research and manufacture of vacuum equipments, which has a location area of 26600m<sup>2</sup> and building area of 41800m<sup>2</sup>. With the three core competitiveness of continuous technique innovation capability, social resources integrating capability and worldwide distribution network, VALUE is at the advanced position in vacuum industry globally since.

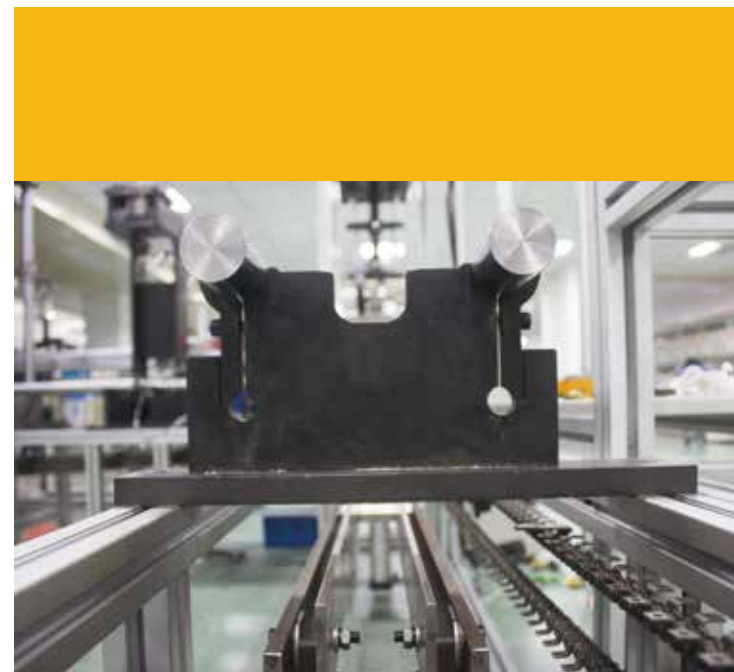


We focus on research, making the impossible possible;  
We continue innovating, not conceited with current achievements;  
VALUE insists on the innovative spirit and rigorous attitude all the time;  
We commit to providing products and service with high quality and high performance-price ratio, to create value and meet your requirements.

## HONOR & CAPABILITY

VALUE is honored as National High Tech-Science Corporation, Member of National Vacuum Technique Standardization Technical Committee, China Porch Program Corporation, National Sci-Innovative Enterprise, UN Environment Programme Equipment-Bidder Enterprise, China Aviation Industry Supporting Corporation.....

With the annual production capacity of 500,000 pieces, VALUE achieved the turnover of 250 million RMB in 2014, with 130 million from abroad markets.



## INNOVATION

VALUE commits continuous investments to R&D, to develop better products. We invest 15 million in research every year, and have got over 100 patents in China.

VALUE possesses a large number of talents, with 35% of whom are high-educated experts. With over 40 senior experts in motor, electric, vacuum technology and industrial designing, we are capable of offering personalized design and service for you in the shortest time.

## QUALITY

Our products are qualified with world's most advanced quality level. We have European CE, American UL, Canada CSA safety certificates and German TUV ISO9001 certificate. And we also own product failure analysis lab, homo-thermal and homo-humid workshop, product model experiment center.

VALUE is fully equipped with modernized processing and testing instruments, such as Japan DMG Mori Seiki horizontal machining center, Japan OKUMA-BY-JC vertical machining center, German WENZEL three coordinates measuring equipment, etc. We carry out ERP data management and precise manufacture mode.

## GLOBAL DISTRIBUTION

VALUE has sound sales network which covers more than 90 countries and regions, such as US, Japan, France, Italy, Spain, German, North Europe, Korea, Taiwan, Brazil, etc. VALUE has also built our own brand distribution network in over 80 countries. VALUE provides products and service for 10 Fortune 500 enterprises as well.





# High Reliability

We try our best to meet your requirements



## Advanced Manufacture Process

Value has the world most advanced Japan OKUMA vertical machine center, German WENZEL three coordinate measuring equipment, constant temperature and clean assemble environment. All these allows value to provide clients the highest quality and highest standard products.



## Strict Quality Control

Value has been passed the the German ISO9001:2008 quality management system certification, and the entire company is using ERP system to control the manufacture quality, in order to make sure each piece we provide is high quality and reliable.



## Advanced Design

We collected surveys from 120 clients of over 20 countries; we observed and understand the use in different applications; we analysed customers' concern; We apply VEA(Value Engineering analysis), FMA(FailurModes Analysis), error-preventive design and etc, to make sure all products' reliability starded from the very first step.

## Chosen Excellent Material

To ensure the reliability, we use German imported oil seal, fluorubber leakproof material, Swiss SANDVIK valve which has a life proof of 10 billion times, Japanese imported vacuum pump oil and etc. All elected material is excellent quality, allows our unbeatable quality.

## Scientific Mechanical Structure

Unique designed integrated pump body structure, and tangent arc between rotor and stator design, scientifically ensures the rigidity and accuracy. Processed by aero-technology, the sleeve helps to provide a longer service life.

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Dual Stage Vacuum Pump

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Dual Stage Vacuum Pump

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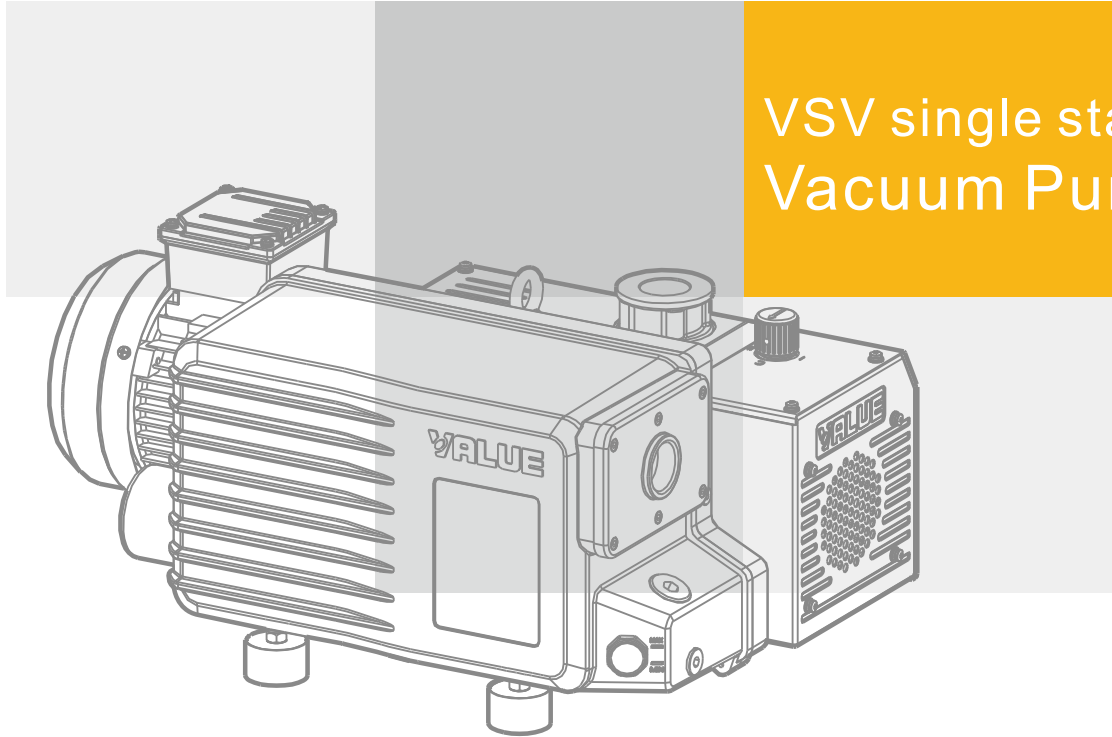


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VSV single stage  
Vacuum Pump

Meeting All Your Needs

				
Wind Energy	Solar	Oil and Gas	Electric Power Engineering	Automotive & Transport
				
Glass	Space and Aeronautics	Plastic and Rubber	Analytics & Laboratory	Battery
				
Vulcanization	Medical & Hospitals	Filter Press	Machine Building	Waste Management
				
Metallurgical Industry	Semiconductor	LED	Printing	Wood Industry
				
Lifting	Vacuum Packaging	Film Plating	Surface Technology	Vacuum Forming



Integrated anti-sucking back valve



Gas ballast helps to evacuate more vapor



German-made oil seal effectively prevents oil leakage



High quality oil mist filters contribute to avoid oil exhaust and get a longer service life



VSV Single Stage Vacuum Pump  
Full application of vacuum technology

Vacuum technology plays critical role in industrial field. We always follow closely the application of vacuum pump in different industries and know what our customers most concern: good at pumping certain condensable gas, no oil exhaust or oil leakage, no emulsification of pump oil, guarantee of high reliability...



# VSV-020

## High Reliability



Chinese patent

- High efficient oil mist filters contribute to solve the issues of oil exhaust and smoking as well as prolong the service life.
- Sealing parts are made from fluororubber, which improved the performance of anti-corrosion and solved oil leakage issues.
- Horizontal CNC machining of Japanese Mori Seiki guarantees high reliability.
- Unique industrial design generated elegant appearance.
- Integrated design of pump and motor made the product lighter and smaller.

### Specifications

Model			VSV-020
Displacement speed		m³/h	20
Ultimate pressure	Without gas ballast	mbar	/
	With gas ballast I	mbar	≤0.5
Ultimate total pressure	With gas ballast II	mbar	/
	With gas ballast I	mbar	15
Water vapor tolerance	With gas ballast II	mbar	/
	With gas ballast I	mbar	15
Noise level		dB	≤65
Power supply			Single/3-Phase
Power rating		KW	0.75
Motor speed (50/60Hz)		rpm	3000/3600
Ambient temperature		°C	10-40
Oil capacity		L	0.5
level of protection			/
Intake and exhaust			G3/4"
Weight		Kg	19.5
Dimension(L*W*H)		mm	317×249×219

# VSV-022/028

## High Reliability



- High efficient oil mist filters contribute to solve the issues of oil exhaust and smoking as well as prolong the service life.
- Sealing parts are made from fluororubber, which improved the performance of anti-corrosion and solved oil leakage issues.
- Multiple shifts design for gas ballast to meet customers' demand of ultimate vacuum and capability of vapor evacuation.
- Horizontal CNC machining of Japanese Mori Seiki guarantees high reliability.
- Unique industrial design generated elegant appearance.

### Specifications

Model			VSV-022
Displacement speed		m³/h	22
Ultimate pressure	Without gas ballast	mbar	≤0.1
	With gas ballast I	mbar	≤0.5
Ultimate total pressure	With gas ballast II	mbar	≤1.5
	With gas ballast I	mbar	15
Water vapor tolerance	With gas ballast II	mbar	30
	With gas ballast I	mbar	15
Noise level		dB	≤58
Power supply			Single/3-Phase
Power rating		KW	1.1
Motor speed (50/60Hz)		rpm	1440/1720
Ambient temperature		°C	10-40
Oil capacity		L	1
level of protection			IP54
Intake and exhaust			G3/4"
Weight		Kg	30
Dimension(L*W*H)		mm	496×268×248

### Specifications

Model			VSV-028
Displacement speed		m³/h	28
Ultimate pressure	Without gas ballast	mbar	≤0.1
	With gas ballast I	mbar	≤0.5
Ultimate total pressure	With gas ballast II	mbar	≤1.5
	With gas ballast I	mbar	15
Water vapor tolerance	With gas ballast II	mbar	30
	With gas ballast I	mbar	15
Noise level		dB	≤58
Power supply			Single/3-Phase
Power rating		KW	1.1
Motor speed (50/60Hz)		rpm	1440/1720
Ambient temperature		°C	10-40
Oil capacity		L	1
level of protection			IP54
Intake and exhaust			G3/4"
Weight		Kg	30
Dimension(L*W*H)		mm	496×268×248

# VSV-040/065

## High Reliability



- High efficient oil mist filters contribute to solve the issues of oil exhaust and smoking as well as prolong the service life.
- Sealing parts are made from fluororubber, which improved the performance of anti-corrosion and solved oil leakage issues.
- Multiple shifts design for gas ballast to meet customers' demand of ultimate vacuum and capability of vapor evacuation.
- Horizontal CNC machining of Japanese Mori Seiki guarantees high reliability.
- Unique industrial design generated elegant appearance.
- Integrated design of pump and motor made the product lighter and smaller.

### Specifications

Model		VSV-040	
Displacement speed	m³/h	40	
Ultimate pressure	Without gas ballast	mbar	≤0.1
	With gas ballast I	mbar	≤0.5
Ultimate total pressure	With gas ballast II	mbar	≤1.5
	With gas ballast I	mbar	15
Water vapor tolerance	With gas ballast II	mbar	30
Noise level	dB	≤59	
Power supply		3-Phase	
Power rating	KW	1.1	
Motor speed (50/60Hz)	rpm	1440/1720	
Ambient temperature	°C	10-40	
Oil capacity	L	2	
level of protection		IP54	
Intake and exhaust		G1 1/4"	
Weight	Kg	39.2	
Dimension(L*W*H)	mm	555×304×268	

### Specifications

Model		VSV-065	
Displacement speed	m³/h	65	
Ultimate pressure	Without gas ballast	mbar	≤0.1
	With gas ballast I	mbar	≤0.5
Ultimate total pressure	With gas ballast II	mbar	≤1.5
	With gas ballast I	mbar	15
Water vapor tolerance	With gas ballast II	mbar	30
Noise level	dB	≤61	
Power supply		3-Phase	
Power rating	KW	1.5	
Motor speed (50/60Hz)	rpm	1440/1720	
Ambient temperature	°C	10-40	
Oil capacity	L	2	
level of protection		IP54	
Intake and exhaust		G1 1/4"	
Weight	Kg	42.5	
Dimension(L*W*H)	mm	555×311×268	

# VSV-100

## High Reliability



● Chinese patent

- High efficient oil mist filters contribute to solve the issues of oil exhaust and smoking as well as prolong the service life.
- Sealing parts are made from fluororubber, which improved the performance of anti-corrosion and solved oil leakage issues.
- Multiple shifts design for gas ballast to meet customers' demand of ultimate vacuum and capability of vapor evacuation.
- Horizontal CNC machining of Japanese Mori Seiki guarantees high reliability.
- Unique industrial design generated elegant appearance.

### Specifications

Model		VSV-100	
Displacement speed	m³/h	100	
Ultimate pressure	Without gas ballast	mbar	≤0.1
	With gas ballast I	mbar	≤0.5
Ultimate total pressure	With gas ballast II	mbar	≤1.5
	With gas ballast I	mbar	15
Water vapor tolerance	With gas ballast II	mbar	30
Noise level	dB	≤62	
Power supply		3-Phase	
Power rating	KW	2.2	
Motor speed (50/60Hz)	rpm	1440/1720	
Ambient temperature	°C	10-40	
Oil capacity	L	2	
level of protection		IP54	
Intake and exhaust		G1 1/4"	
Weight	Kg	72	
Dimension(L*W*H)	mm	703×406×286	

# VSV-160/200

## High Reliability



- High efficient oil mist filters contribute to solve the issues of oil exhaust and smoking as well as prolong the service life.
- Sealing parts are made from fluororubber, which improved the performance of anti-corrosion and solved oil leakage issues.
- Multiple shifts design for gas ballast to meet customers' demand of ultimate vacuum and capability of vapor evacuation.
- Horizontal CNC machining of Japanese Mori Seiki guarantees high reliability.
- Unique industrial design generated elegant appearance.

### Specifications

Model		VSV-160	
Displacement speed		m³/h	160
Ultimate pressure	Without gas ballast	mbar	≤8×10 <sup>-2</sup>
	With gas ballast I	mbar	≤0.5
Ultimate total pressure	With gas ballast II	mbar	≤1.5
	With gas ballast I	mbar	30
Water vapor tolerance	With gas ballast II	mbar	50
Noise level		dB	≤70
Power supply			3-Phase
Power rating		KW	4
Motor speed (50/60Hz)		rpm	1440/1720
Ambient temperature		°C	10-40
Oil capacity		L	5~7
level of protection			IP54
Intake and exhaust			G2"
Weight		Kg	132
Dimension(L*W*H)		mm	930×533×436

### Specifications

Model		VSV-200	
Displacement speed		m³/h	200
Ultimate pressure	Without gas ballast	mbar	≤8×10 <sup>-2</sup>
	With gas ballast I	mbar	≤0.5
Ultimate total pressure	With gas ballast II	mbar	≤1.5
	With gas ballast I	mbar	30
Water vapor tolerance	With gas ballast II	mbar	50
Noise level		dB	≤70
Power supply			3-Phase
Power rating		KW	4
Motor speed (50/60Hz)		rpm	1440/1720
Ambient temperature		°C	10-40
Oil capacity		L	5~7
level of protection			IP54
Intake and exhaust			G2"
Weight		Kg	132
Dimension(L*W*H)		mm	930×533×436

# VSV-300

## High Reliability



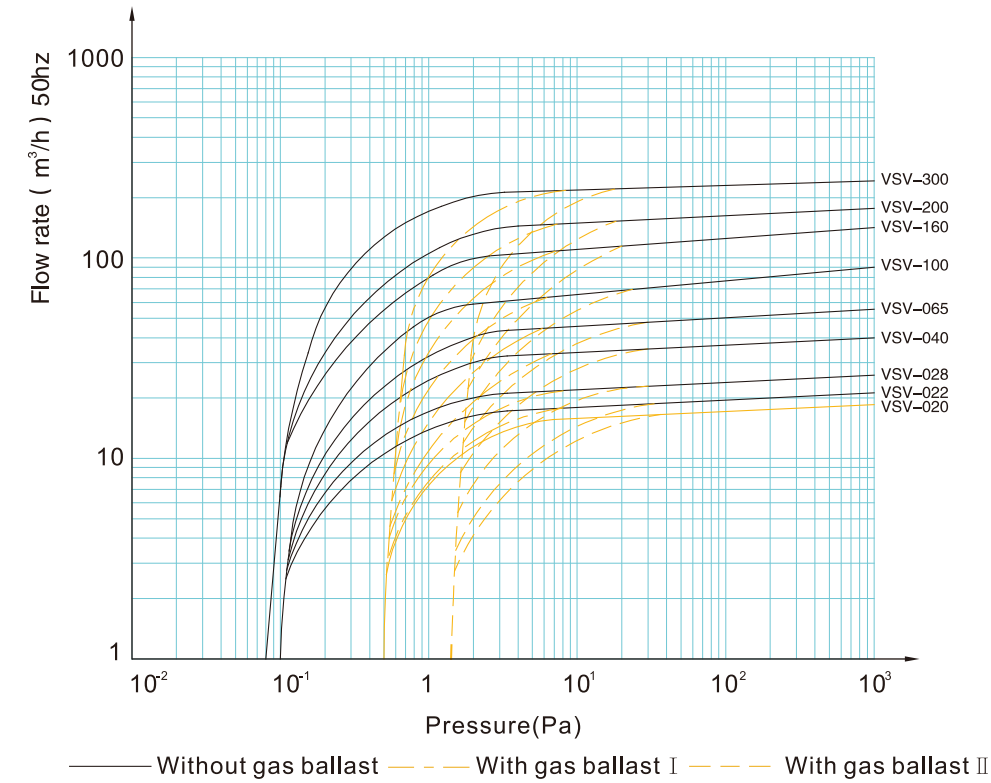
- High efficient oil mist filters contribute to solve the issues of oil exhaust and smoking as well as prolong the service life.
- Sealing parts are made from fluororubber, which improved the performance of anti-corrosion and solved oil leakage issues.
- Multiple shifts design for gas ballast to meet customers' demand of ultimate vacuum and capability of vapor evacuation.
- Horizontal CNC machining of Japanese Mori Seiki guarantees high reliability.

### Specifications

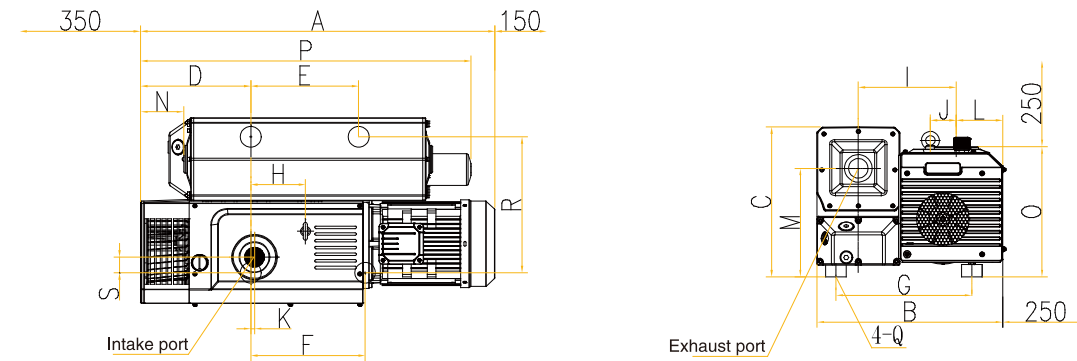
Model		VSV-300	
Displacement speed		m³/h	300
Ultimate pressure	Without gas ballast	mbar	≤8×10 <sup>-2</sup>
	With gas ballast I	mbar	≤0.5
Ultimate total pressure	With gas ballast II	mbar	≤1.5
	With gas ballast I	mbar	30
Water vapor tolerance	With gas ballast II	mbar	50
Noise level		dB	≤71
Power supply			3-Phase
Power rating		KW	5.5
Motor speed (50/60Hz)		rpm	1440/1720
Ambient temperature		°C	10-40
Oil capacity		L	7~9
level of protection			IP54
Intake and exhaust			G2"
Weight		Kg	205
Dimension(L*W*H)		mm	1035×540×434



Flow Rate Characteristic

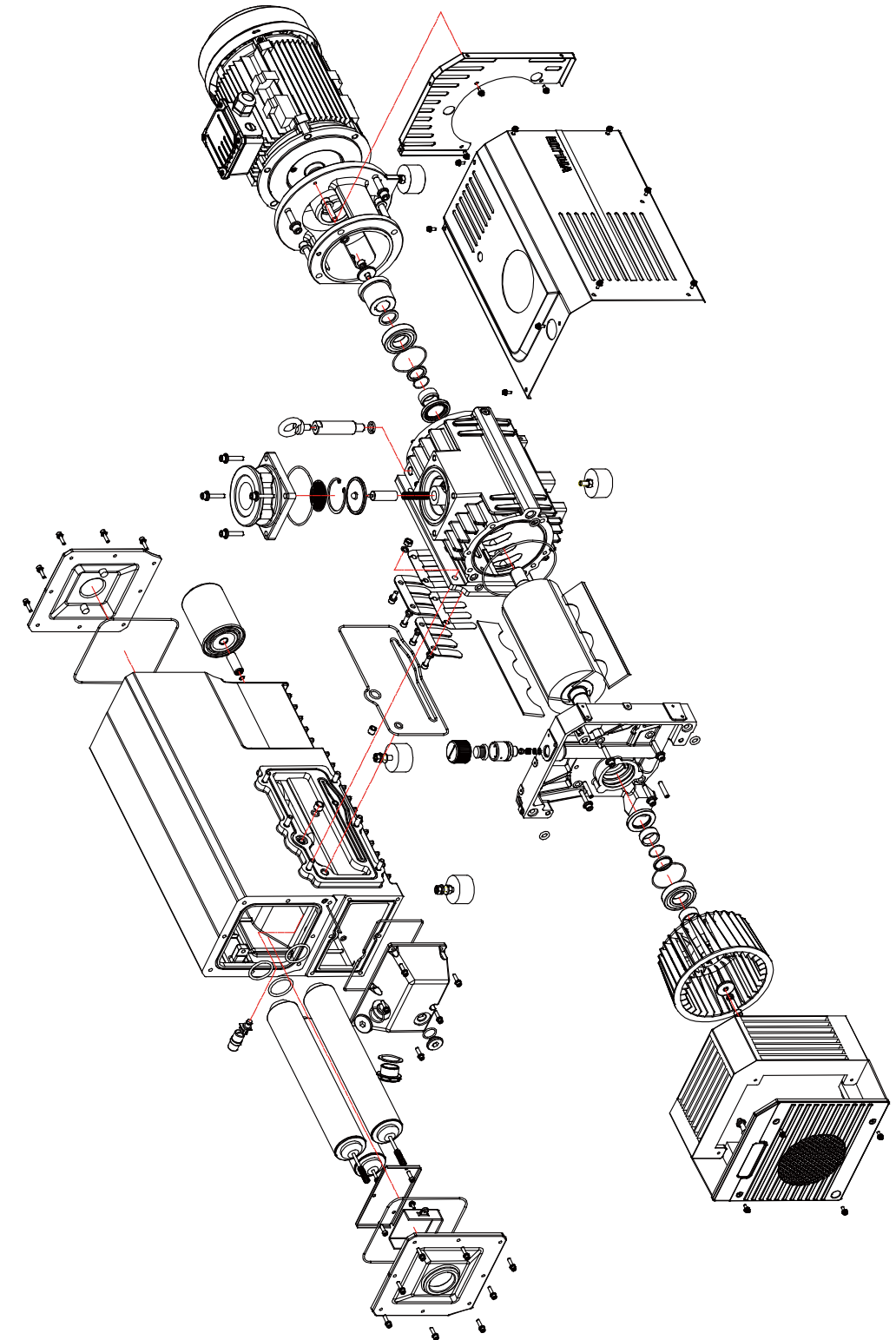


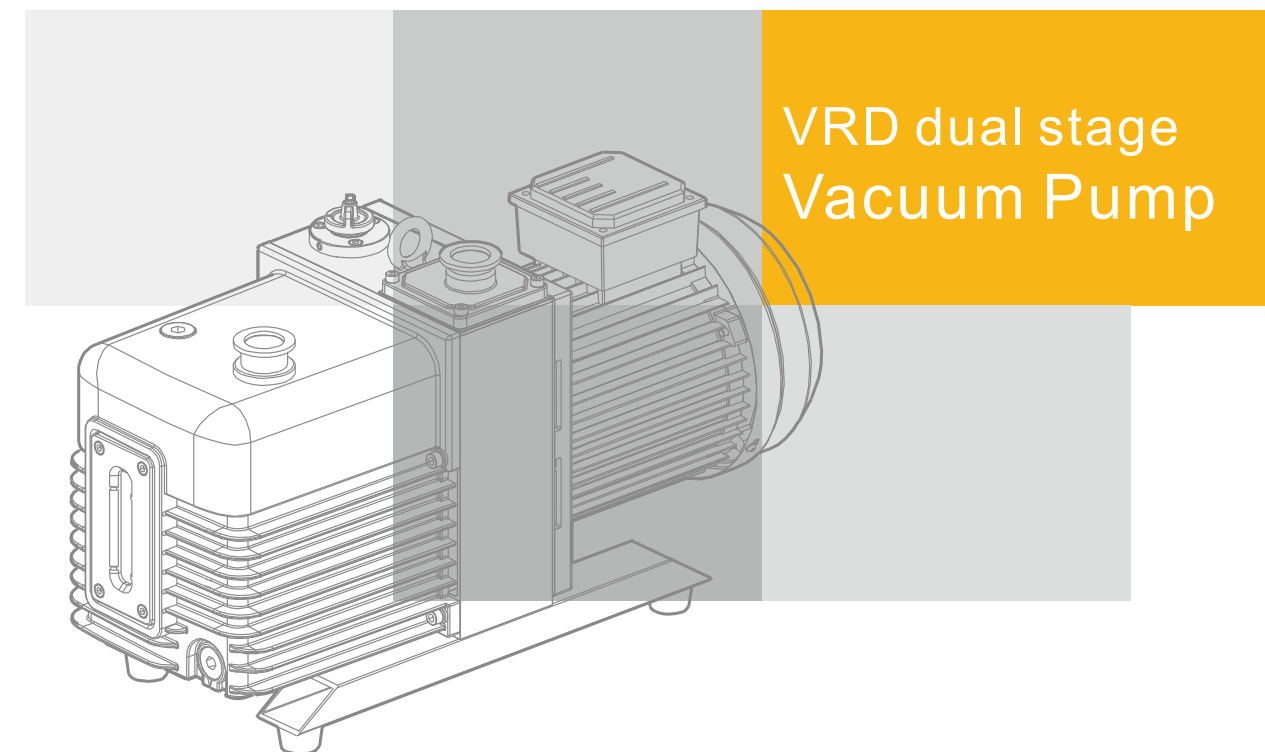
Dimension



VSV Dimensions ( Unit: mm )																						
Model	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	Intake port	Exhaust port	
VSV-020	317	249	219	72	140	110.5	131	/	127.5	/	14	72	157	17	184	303	M8	125.8	5.3	G1/2" G3/4" /		
VSV-022/028	496	268	248	112	220	300	190	108	146	25	20	80	182	27	204	392	M6	194	35	G3/4"	G3/4"	
VSV-040	555	304	268	149	215	200	235	58	179	51	5	72	203	33	252	464	M8	235	33	G1" 1/4	G1" 1/4	
VSV-065	555	311	268	149	215	200	254	58	189	51	5	72	203	33	252	464	M8	242	33	G1" 1/4	G1" 1/4	
VSV-100	703	406	286	165	225	225	320	131	226	42	27	91	220	61	280	578	M10	258	41	G1" 1/4	G1" 1/4	
VSV-160/200	930	533	436	263	252	305	394	113	298	66	32	135	305	134	382	930	M10	394	45	G2"	G2"	
VSV-300	1035	540	434	326	313	332	394	159	284	75	11	135	314	132	377	966	M10	394	45	G2"	G2"	

Exploded drawing





VRD dual stage  
Vacuum Pump



## Meeting All Your Needs



### Refrigeration industry

Automatic pumping line of refrigerator, air-condition water dispenser; refrigerant charging machine; helium leak detector; helium recovery system etc.



### Medical industry

Plasma sterilizers, vacuum freeze drying, vacuum mixing etc. Considering there is a large amount of  $H_2O_2$  gas and water vapor which will be exhausted into vacuum pump, value designed weak corrosion-resistant vacuum pump VRD-M series.



### Analytical instruments

Spectrometer, scanning electron microscope, leak detector, physics & chemistry analytical instrument etc.



### Power industry

$SF_6$  gas recovery, detecting instrument, oil filter etc.



### Electronics, semi-conductor industry

Vacuum oven, glove box, sapphire furnace, polycrystalline furnace, single crystal furnace, vacuum annealing, hardening furnace, vacuum sintering furnace, heat treatment furnace, evaporation coating, ion plating, sputtering equipment, LC injection, plasma cleaning, roughing pump for roots pump, molecular pump, diffusion pump.



Two-shift adjustable gas ballast valve satisfies the different requirements of condensable gas to be exhausted



Dual automatic anti-sucking back design protects vacuum system from oil pollution when pump stops running and needs to be easily restarted



Integrated cylinder structure and pin connection convenient and accurate for maintenance and inspection



Forced oil circulation system ensures stable running of the pump

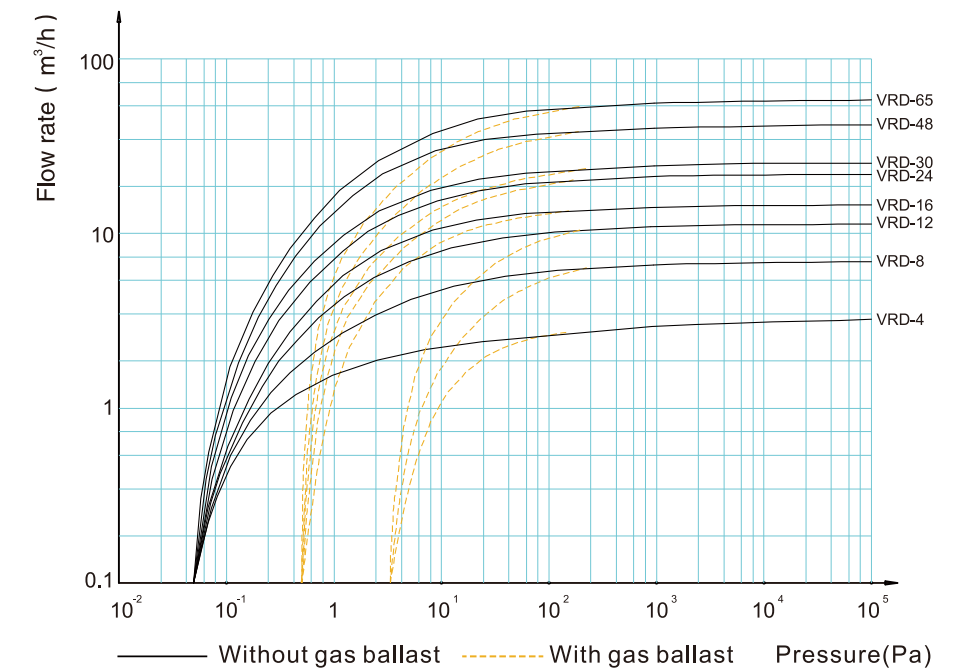


## VRD Series Vacuum Pump Perfect design and performance

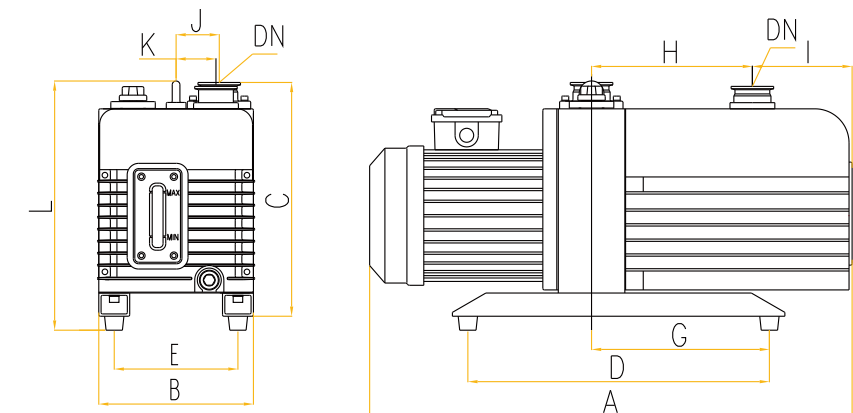
Constantly pursuing on highest technology norms, VALUE's VRD series vacuum pump reached new highest level: integrated cylinder structure and innovative oil circulation system results in super stability; auto anti-sucking back valve and two shifts gas ballast makes best reliability; Perfect combination of technology and aesthetics helps to become classic...



## Flow Rate Characteristic



## Dimension



VRD Dimensions												
Model	A	B	C	D	E	G	H	I	J	K	L	DN
VRD-4	460	144	207	210	110	126	154	45	45	34	/	KF16/25
VRD-8	460	144	207	210	110	126	154	45	45	34	/	KF16/25
VRD-12	410	144	207	210	110	126	154	45	45	34	/	KF16/25
VRD-16	520	188	272	320	148	160	165	69	59	38	295	KF25
VRD-24	560	188	272	320	148	160	185	82	59	47	295	KF25/40
VRD-30	560	188	272	320	148	160	185	82	59	47	295	KF25/40
VRD-48	730	234	358	396	190	200	223	157	69	55	390	KF40
VRD-65	730	234	358	396	190	200	223	157	69	55	390	KF40

## VRD Series Perfect Performance




• Chinese patent


- Tow-Shift adjustable gas ballast valve satisfies different requirements of condensable vapor(such as water vapor) to be exhausted out of pump in different processes.
- Dual protection of oil anti-sucking back ensures vacuum system from oil pollution when pump stops running and needs to be easily restarted.
- Forced oil circulation system consisted of oil pump and constant pressure oil supply mechanism ensures stable running of the pump.
- Less components are used, easy to maintain and repair.

## Specifications


Model		VRD-4	VRD-8	VRD-12	VRD-16	VRD-24	VRD-30	VRD-48	VRD-65
Displacement speed m³/h(L/s)	50Hz	4(1.1)	8(2.2)	12(3.2)	16(4.4)	24(6.6)	30(8.3)	48(13.3)	65(18)
	60Hz	4.8(1.3)	9.6(2.6)	14(3.8)	19.2(5.2)	28.8(7.9)	36(9.9)	57.6(16)	78(21.6)
Ultimate partial pressure gas ballast close(Pa)		5×10 <sup>-2</sup>	5×10 <sup>-2</sup>	4×10 <sup>-2</sup>	4×10 <sup>-2</sup>	4×10 <sup>-2</sup>	4×10 <sup>-2</sup>	4×10 <sup>-2</sup>	4×10 <sup>-2</sup>
Ultimate total pressure gas ballast close(Pa)		5×10 <sup>-1</sup>	5×10 <sup>-1</sup>	4×10 <sup>-1</sup>	4×10 <sup>-1</sup>	4×10 <sup>-1</sup>	4×10 <sup>-1</sup>	4×10 <sup>-1</sup>	4×10 <sup>-1</sup>
Ultimate total pressure gas ballast open(Pa)		3	3	8×10 <sup>-1</sup>	8×10 <sup>-1</sup>	8×10 <sup>-1</sup>	8×10 <sup>-1</sup>	8×10 <sup>-1</sup>	8×10 <sup>-1</sup>
Power supply		Single/3 Phase	Single/3 Phase	Single Phase	Single/3 Phase	Single/3 Phase	Single/3 Phase	3-Phase	3-Phase
Power rating(kw)		0.4/0.37	0.4/0.37	0.55	0.75/0.55	1.1/0.75	1.1	1.5	2.2
Intake and exhaust DN(mm)		KF16/25	KF16/25	KF25	KF25	KF25/40	KF25/40	KF40	KF40
Oil capacity(L)		0.6~1.0	0.6~1.0	0.6~1.0	0.9~1.5	1.3~2.0	1.3~2.0	3.3~4.5	3.3~4.5
Motor speed (rpm)	50Hz	1440	1440	2100	1440	1440	1440	1440	1440
	60Hz	1720	1720	2100	1720	1720	1720	1720	1720
Ambient temperature(°C)		5-40	5-40	5-40	5-40	5-40	5-40	5-40	5-40
Noise level(dB)		≤56	≤56	≤57	≤58	≤58	≤58	≤62	≤62
Weight(kg)		19	21	16	30	35	43	62	65




Two-shift adjustable gas ballast valve satisfies the different requirements of condensable gas to be exhausted




Dual automatic anti-sucking back design protects vacuum system from oil pollution when pump stops running and needs to be easily restarted



Integrated cylinder structure and pin connection convenient and accurate for maintenance and inspection



Forced oil circulation system ensures stable running of the pump



VRD-M dual stage vacuum pump  
——Specially for corrosion-resistant

We did individual analysis on special applications such as medical industry. Because large amount of corrosive gas and vapor needs to be pumped, we used stainless spring, fluorubber oil seal and etc. to upgrade our product, which ensures the pump to run reliably.



### VRD-M Series

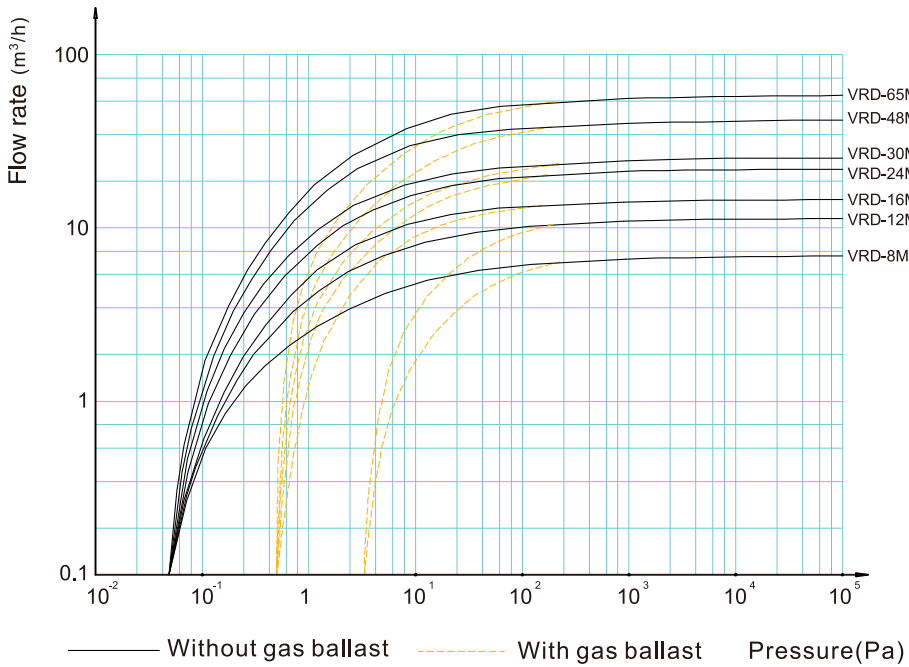
#### H<sub>2</sub>O<sub>2</sub> Plasma Sterilizers Pump

- Stainless spring is used for a better corrosion resistance.
- Tow-Shift adjustable gas ballast valve satisfies different requirements of condensable vapor(such as water vapor) to be exhausted out of pump in different processes.
- Dual protection of oil anti-sucking back ensures vacuum system from oil pollution when pump stops running and needs to be easily restarted.
- Forced oil circulation system consisted of oil pump and constant pressure oil supply mechanism ensures stable running of the pump.
- Less components are used, easy to maintain and repair.

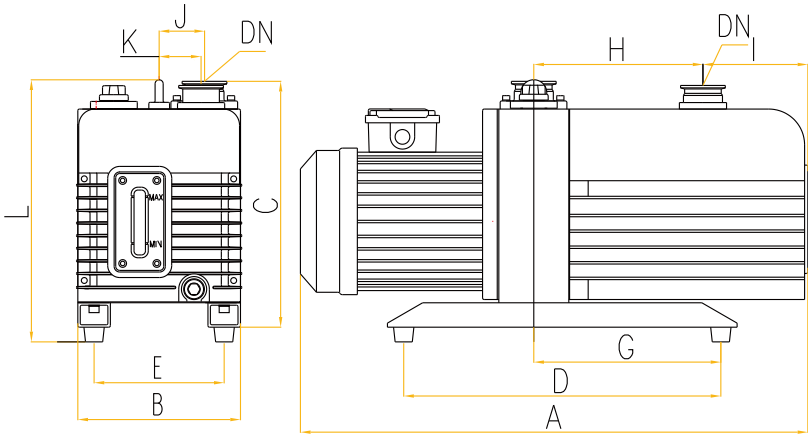
Specifications

Model		VRD-8M	VRD-12M	VRD-16M	VRD-24M	VRD-30M	VRD-48M	VRD-65M
Displacement speed m³/h(L/s)	50Hz	8(2.2)	12(3.2)	16(4.4)	24(6.6)	30(8.3)	48(13.3)	65(18)
	60Hz	9.6(2.6)	14(3.8)	19.2(5.2)	28.8(7.9)	36(9.9)	57.6(16)	78(21.6)
Ultimate partial pressure gas ballast close(Pa)		5×10 <sup>-2</sup>	4×10 <sup>-2</sup>	4×10 <sup>-2</sup>	4×10 <sup>-2</sup>	4×10 <sup>-2</sup>	4×10 <sup>-2</sup>	4×10 <sup>-2</sup>
Ultimate total pressure gas ballast close(Pa)		5×10 <sup>-1</sup>	4×10 <sup>-1</sup>	4×10 <sup>-1</sup>	4×10 <sup>-1</sup>	4×10 <sup>-1</sup>	4×10 <sup>-1</sup>	4×10 <sup>-1</sup>
Ultimate total pressure gas ballast open(Pa)		3	3	8×10 <sup>-1</sup>	8×10 <sup>-1</sup>	8×10 <sup>-1</sup>	8×10 <sup>-1</sup>	8×10 <sup>-1</sup>
Power supply		Single/3 Phase	Single Phase	Single/3 Phase	Single/3 Phase	Single/3 Phase	3-Phase	3-Phase
Power rating(kw)		0.4/0.37	0.55	0.75/0.55	1.1/0.75	1.1	1.5	2.2
Intake and exhaust DN(mm)		KF25	KF25	KF25	KF25/40	KF25/40	KF40	KF40
Oil capacity(L)		0.6~1.0	0.6~1.0	0.9~1.5	1.3~2.0	1.3~2.0	3.3~4.5	3.3~4.5
Motor speed (rpm)	50Hz	1440	2100	1440	1440	1440	1440	1440
	60Hz	1720	2100	1720	1720	1720	1720	1720
Ambient temperature(°C)		5-40	5-40	5-40	5-40	5-40	5-40	5-40
Noise level(dB)		≤56	≤57	≤58	≤58	≤58	≤62	≤62
Weight(kg)		21	16	30	35	43	62	65

Flow Rate Characteristic

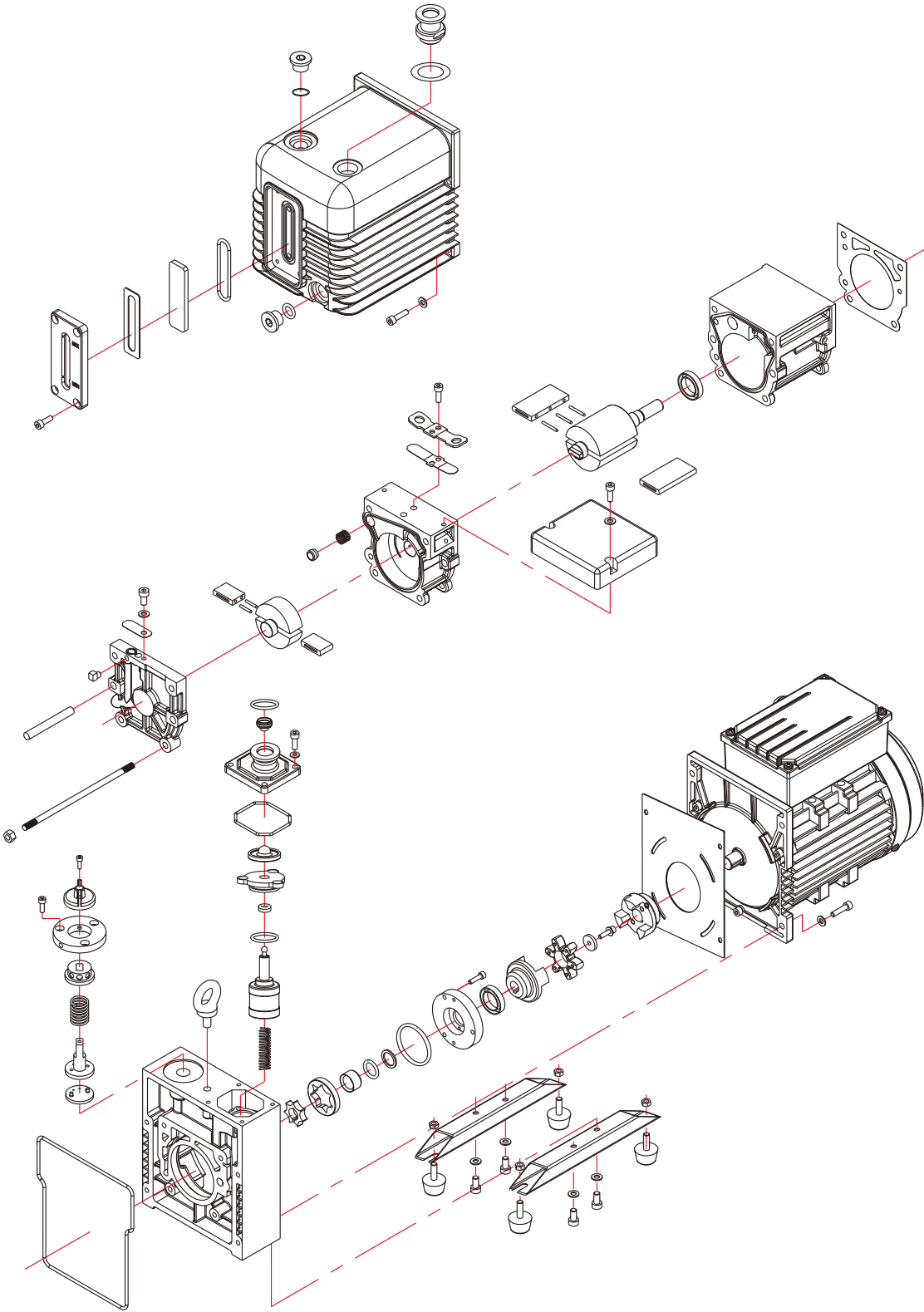


Dimension

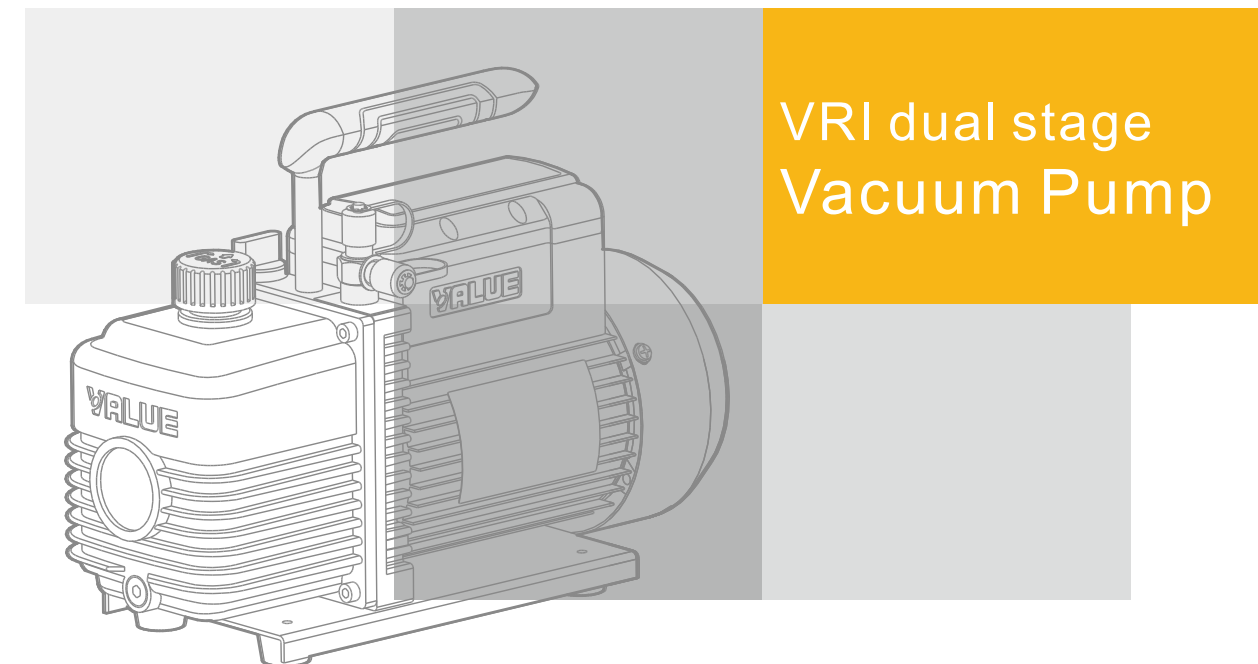


VRD-M Dimensions												
Model	A	B	C	D	E	G	H	I	J	K	L	DN
VRD-8M	460	144	207	210	110	126	154	45	45	34	/	KF25
VRD-12M	410	144	207	210	110	126	154	45	45	34	/	KF25
VRD-16M	520	188	272	320	148	160	165	69	59	38	295	KF25
VRD-24M	560	188	272	320	148	160	185	82	59	47	295	KF25/40
VRD-30M	560	188	272	320	148	160	185	82	59	47	295	KF25/40
VRD-48M	730	234	358	396	190	200	223	157	69	55	390	KF40
VRD-65M	730	234	358	396	190	200	223	157	69	55	390	KF40

Exploded drawing







VRI dual stage  
Vacuum Pump

## Meeting All Your Needs



Laboratory equipment, analytical instruments, laser applied equipment.



Mini-type food packaging machine, vacuum moulding machine.



Vacuum exhaust station, auxiliary pump for scanning electron microscope.



Semiconductor manufacturing equipment, sputtering equipment, evaporation coating equipment.



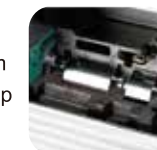
Vacuum freeze drying equipment, medical instrument.



Equipped with solenoid valve to prevent anti-sucking back



Forced oil cycling system makes high reliability of the pump



Integrated cylinder structure ensures high ultimate vacuum



Convenient to manage the oil level by big sight glass design



## VRI Series Vacuum Pump Better reliability and higher ultimate vacuum

Rotary vane technology simplified the processing of vacuum pump. Integrated cylinder structure, good material and advanced precise machining guarantee the pump to continuously run with stable and high ultimate vacuum. Forced oil pump lubrication system guarantees high reliability and the big sight glass design prevents oil shortage.



VRI-1

Smaller, Lighter

- Forced oil cycling system makes high reliability of the pump.
- Equipped with solenoid valve to prevent anti-sucking back.
- Convenient to manage the oil level with big sight glass design.
- Integrated cylinder structure ensures high ultimate vacuum.
- Smaller, lighter, and easy to carry.

Specifications

Model		VRI-1
Displacement speed m³/h(L/s)	50Hz	1.0(0.3)
	60Hz	1.0(0.3)
Ultimate partial pressure gas ballast close(Pa)		1×10 <sup>-1</sup>
Ultimate total pressure gas ballast close(Pa)		1
Ultimate total pressure gas ballast open(Pa)		/
Power supply		Single Phase
Power rating(kw)		0.15
Intake and exhaust DN(mm)		Adapter
Oil capacity(L)		0.12
Motor speed (rpm)	50Hz	2500
	60Hz	2500
Ambient temperature(°C)		5-40
Noise level(dB)		≤62
Weight(kg)		4



VRI-2/4/8

More reliable and high ultimate vacuum

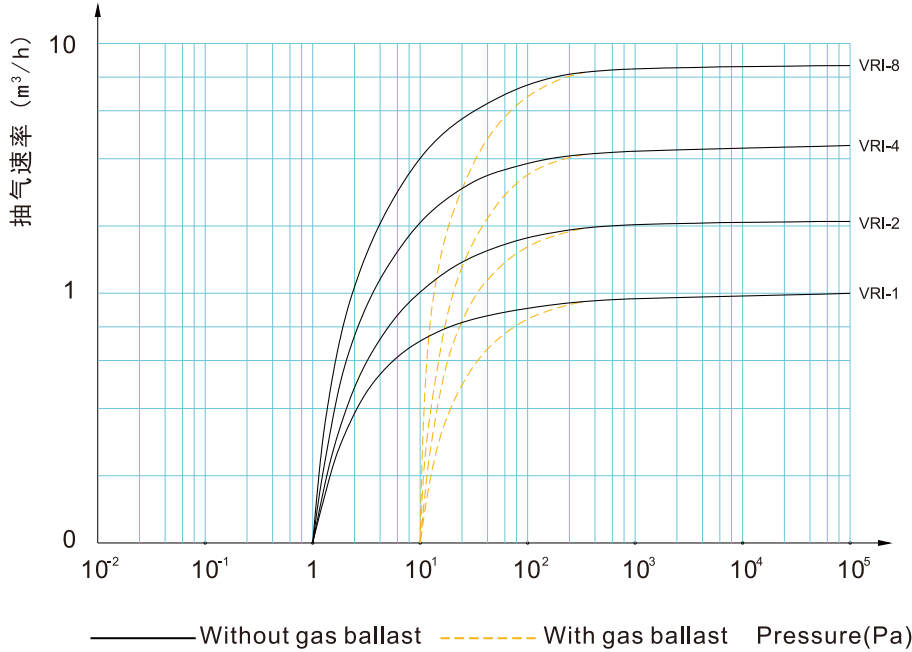
- Forced oil cycling system makes high reliability of the pump.
- Equipped with solenoid valve to prevent anti-sucking back.
- Convenient to manage the oil level by big sight glass design.
- Integrated cylinder structure ensures high ultimate vacuum.

Specifications

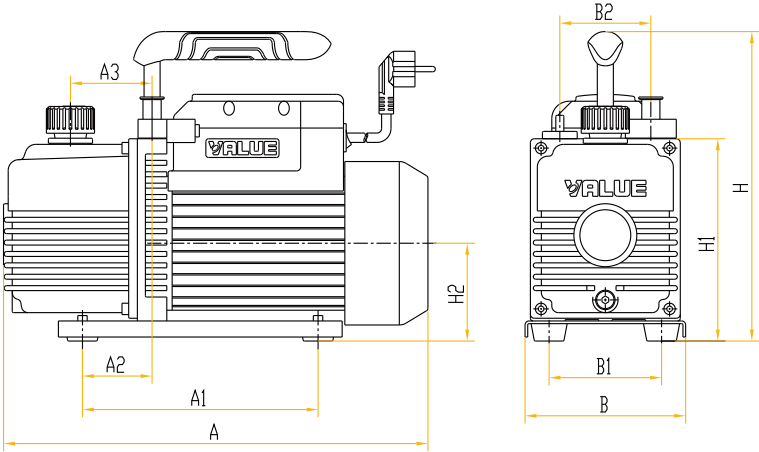
Model		VRI-2	VRI-4	VRI-8
Displacement speed m³/h(L/s)	50Hz	2(0.6)	4(1.1)	8(2.2)
	60Hz	2.4(0.7)	4.8(1.3)	9.6(2.7)
Ultimate partial pressure gas ballast close(Pa)		1×10 <sup>-1</sup>	1×10 <sup>-1</sup>	1×10 <sup>-1</sup>
Ultimate total pressure gas ballast close(Pa)		1	1	1
Ultimate total pressure gas ballast open(Pa)		10	10	10
Power supply		Single Phase	Single Phase	Single Phase
Power rating(kw)		0.25	0.37	0.55
Intake and exhaust DN(mm)		KF16/Adapter	KF16/Adapter	KF16/25/Adapter
Oil capacity(L)		0.2	0.3	0.5
Motor speed (rpm)	50Hz	1440	1440	1440
	60Hz	1720	1720	1720
Ambient temperature(°C)		5-40	5-40	5-40
Noise level(dB)		≤62	≤62	≤65
Weight(kg)		9	11	17



Flow Rate Characteristic

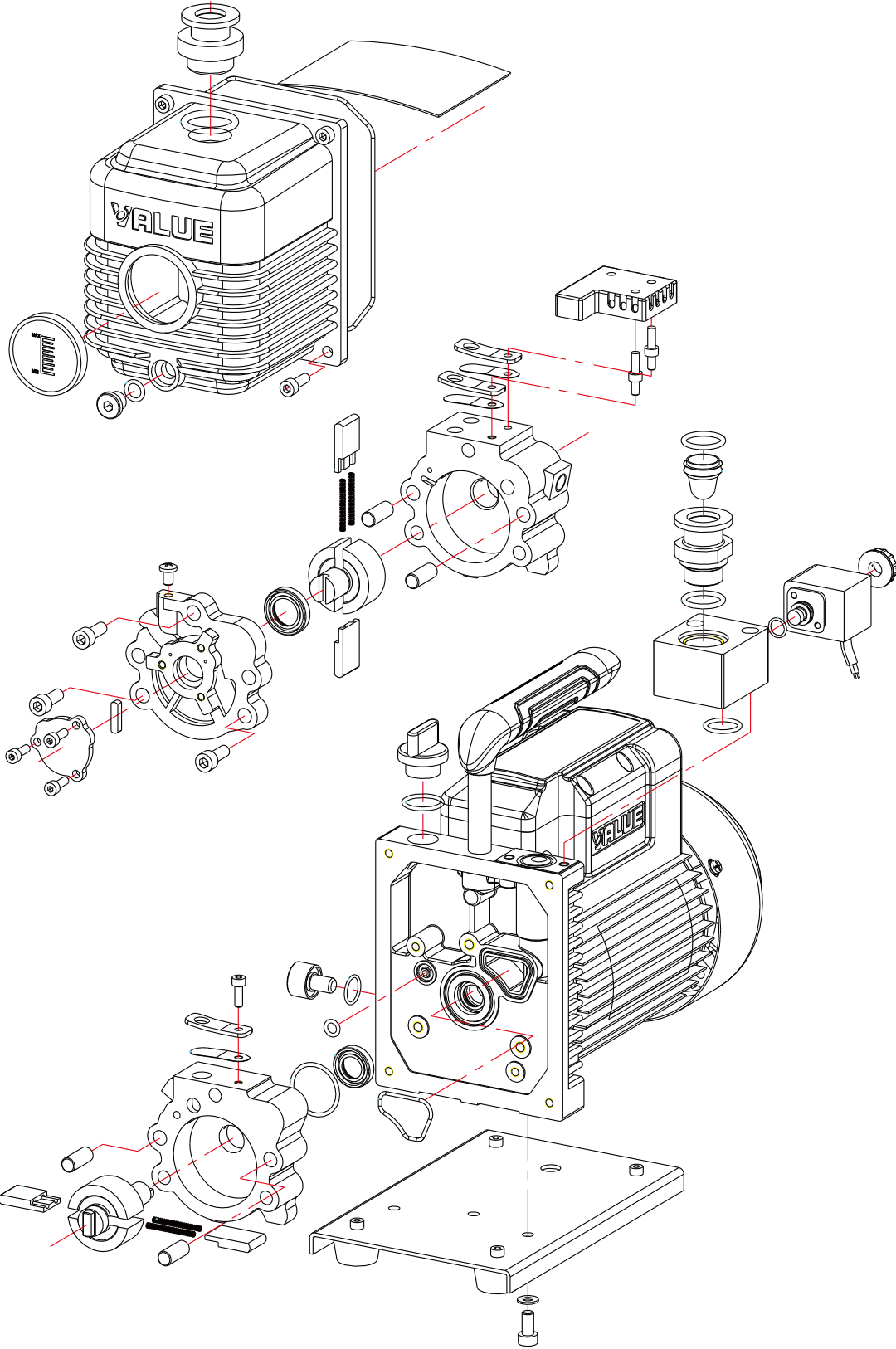


Dimension



VRI Dimensions										
Model	A	A1	A2	A3	B	B1	B2	H	H1	H2
VRI-1	240	111	25.5	50	88	53	/	155	119	65
VRI-2	318	176	52	61	124	84	68	234	154	76
VRI-4	337	176	52	61	138	84	74	244	166	78
VRI-8	395	214	78	85	145	99	74	257	178	86

Exploded drawing



# Genuine Parts

We provide our customers with full range of genuine parts including oil mist filters, vacuum pump oil, and third party components. Almost all requirements of our customers could be satisfied and our technical team is ready to help for selection of correct parts. Meanwhile with our professional know-how, we help to analyze the operating cost of our customers.



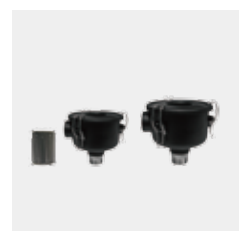
## OIL Mist Filter

Model:  $\Phi 55 \times 147$   
Applies to: VSV-020  
Model:  $\Phi 55 \times 215$   
Applies to: VSV-020/028  
Model:  $\Phi 72 \times 243$   
Applies to: VSV-040/065/100  
Model:  $\Phi 72 \times 425$   
Applies to: VSV-160/200/300



## OIL Mist Filter/Filter Element

VOT-8A/B  $\Phi 53 \times 92$   
VOT-30B/C  $\Phi 79 \times 100$   
VOT-65C  $\Phi 118 \times 166$   
A for KF16; B for KF25; C for KF40



## Dust Filter/Filter Element

Model: G3/4"  $\Phi 65 \times 69$   
Applies to: VSV-020  
Model: G1-1/4"  $\Phi 98 \times 70$   
Applies to: VSV-040/065/100  
Model: G2"  $\Phi 150 \times 222$   
Applies to: VSV-160/200/300



## Gas Ballast Element

Model:  $\Phi 12 \times 20$   
Applies to: VSV-020/040/065  
Model:  $\Phi 19 \times 28$   
Applies to: VSV-100  
Model:  $\Phi 32 \times 24$   
Applies to: VSV-160/200/300



## Oil Filter

Model:  $\Phi 78 \times 85$   
Applies to: VSV-040/065/100  
Model:  $\Phi 93 \times 140$   
Applies to: VSV-160/200/300



## Tube Joints

$\Phi 22 \times M20$  Aluminum alloy; Applies to VRD-4/8/8M  
 $\Phi 18 \times M20$  Aluminum alloy; Applies to VRD-4/8/8M  
 $\Phi 15 \times M20$  Aluminum alloy; Applies to VRD-4/8/8M  
 $\Phi 12 \times M20$  Aluminum alloy; Applies to VRD-4/8/8M  
 $\Phi 8 \times M20$  Aluminum alloy; Applies to VRD-4/8/8M



## KF Model Air Inlet

KF16 stainless steel; Applies to VRD-4/8/8M  
KF25 stainless steel;  
Applies to VRD-4/8/8M/16/16M/24/24M/30/30M  
KF40 stainless steel;  
Applies to VRD-24/24M/30/30M/48/48M/65/65M



## 55 Permanent seat

M20 Aluminum alloy; Applies to VRD-4/8/8M



## O-Ring

VPS116  $\Phi A:18 \Phi B:5.3$   
Applies to VRD-4/8/8M  
VPS125  $\Phi A:28 \Phi B:5.3$   
Applies to VRD-4/8/8M/16/16M/24/24M/30/30M  
VPS140  $\Phi A:42 \Phi B:5.3$   
Applies to VRD-24/24M/30/30M/48/48M/65/65M



## Hoop

VPS216 A:45 B:61 C:16  $\Phi D:22$   
Applies to VRD-4/8/8M  
VPS225 A:55 B:72 C:16  $\Phi D:32$   
Applies to VRD-4/8/8M/16/16M/24/24M/30/30M  
VPS240 A:70 B:90 C:18  $\Phi D:47$   
Applies to VRD-24/24M/30/30M/48/48M/65/65M



## Center Reset

VPS316  $\Phi A:17 \Phi B:16 C:3.9 D:8$   
Applies to VRD-4/8/8M  
VPS325  $\Phi A:26 \Phi B:25 C:3.9 D:8$   
Applies to VRD-4/8/8M/16/16M/24/24M/30/30M  
VPS340  $\Phi A:41 \Phi B:40 C:3.9 D:8$   
Applies to VRD-24/24M/30/30M/48/48M/65/65M



## Filter

VPS416  $\Phi A:17 \Phi B:16 C:3.9 D:8 E:21$   
Applies to VRD-4/8/8M  
VPS425  $\Phi A:26 \Phi B:25 C:3.9 D:8 E:21$   
Applies to VRD-4/8/8M/16/16M/24/24M/30/30M  
VPS440  $\Phi A:41 \Phi B:39 C:3.9 D:8 E:36$   
Applies to VRD-24/24M/30/30M/48/48M/65/65M  
VPS425A  
Applies to VRD-4/8/8M  
VPS440A  
Applies to VRD-24/24M/30/30M



## Flange

VPS516  $\Phi A:30 \Phi B:18.2 D:4.5$   
Applies to VRD-4/8/8M  
VPS525  $\Phi A:40 \Phi B:27.2 D:4.5$   
Applies to VRD-4/8/8M/16/16M/24/24M/30/30M  
VPS540  $\Phi A:50 \Phi B:42.2 D:5$   
Applies to VRD-24/24M/30/30M/48/48M/65/65M



## Pump Oil

VPO-46H  
Applies to: VSV-020; VRD-4/8/8M  
VPO-68H  
Applies to: VSV-020/022/028/040/065/100/  
160/200/300  
VRD-16/16M/24/24M/30/30M  
VPO-100H  
Applies to: VRD-48/48M/65/65M



## Adapter

Customized according to customers' requirements