

# VACUUM CATALOGUE

**Green Vacuum**

**20-Year Experience**

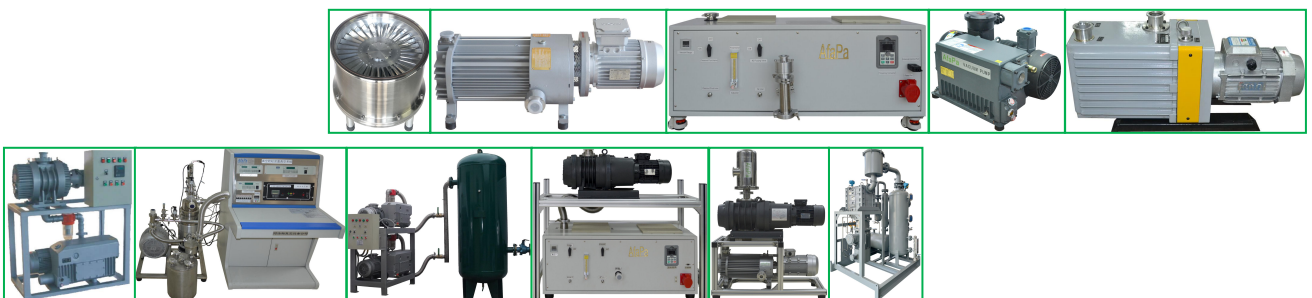
**Engineers Team**

**Dry Vacuum Pump**

**Vacuum Pump**

**Vacuum System**

**Vacuum Solution**



**2024.3**

## Company Profile



AfaPa Vacuum founded in 2004, is one of leading manufacturer of dry (oil-free) and eco-friendly vacuum pumps in China.

The company is a high-tech enterprise led by senior managers, engaged in the manufacturing and R&D of vacuum pumps, engineering and technical services with the most up to date advanced technologies. Currently, the company owns nearly twenty patents and has gained the certification of CE and ISO9000 quality management system.

### Our Enterprise Purpose:

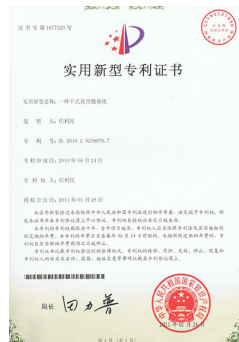
- ❖ **Green Vacuum: eco-friendly vacuum technology.**
- ❖ **Professional Vacuum: performed by engineers team.**
- ❖ **Vacuum solution: provider of technology.**

AfaPa company has its sales and service center in Shanghai and has established two bases in Yangzhou and Yancheng, Jiangsu Province.

AfaPa owns high-precision production equipment such as variety of CNC, and has high performance testing equipment such as 3D measuring machine, helium mass spectrometer vacuum leak detector, comprehensive test platform etc.

AfaPa company has good reputation among our customers at home and abroad.

## Certification



---

## 1. Dry Vacuum Pump



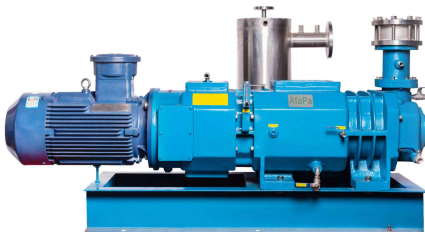
Dry Screw Vacuum Pump  
DPS020/050/080 >> [P.7](#)



Dry Scroll Vacuum Pump  
DPD020>> [P.10](#)



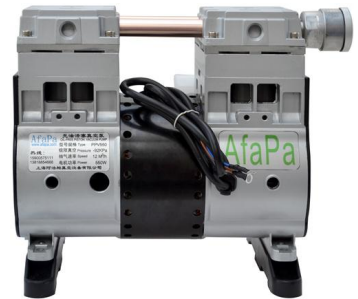
Dry Claw Vacuum Pump  
DCP70/110/150/200 >> [P.11](#)



Dry Screw Vacuum Pump  
DPSE100-1100 >> [P.12](#)



Dry Diaphragm Vacuum Pump  
DIP 2/4 >> [P.13](#)



Dry Piston Vacuum Pump  
PPV120-550 >> [P.13](#)

## 2. Oil Lubricated Vacuum Pump



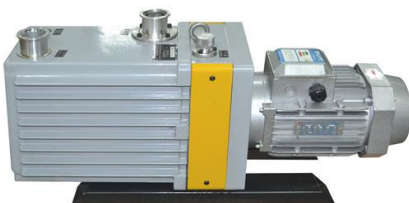
Rotary Vane Vacuum Pump  
SV010/020 >> [P.14](#)



Rotary Vane Vacuum Pump  
SV040/063/100 >> [P.14](#)



Rotary Vane Vacuum Pump  
SV160/200/250/300 >> [P.13](#)



Rotary Vane Vacuum Pump  
DV04/08/16/30/54/90 >> [P.15](#)



Rotary Vane Vacuum Pump  
RS1/2/4



Rotary Vane Vacuum Pump  
2X-4/8/15/30/700

---



### 3. Vacuum Pump



Molecular Vacuum Pump  
FF600/1200/1800/3600 >> [P.16](#)



Molecular Vacuum Pump  
FFB600/1200/1800/3600 >> [P.17](#)



Roots Vacuum Pump  
RVP100-12000 >> [P.18](#)



Roots Vacuum Pump  
RV100-12000 >> [P.19](#)



Liquid Ring Vacuum Pump  
LV170/230/280/400/500 >> [P.120](#)



Liquid Ring Vacuum Pump  
2BE >> [P.20](#)

### 4. Vacuum Accessories



KPa



MPa



Pa



Pa



Vacuum Valve



Vacuum Pump Oil



Vacuum Filter



Spare Parts

---

## 5. Vacuum System



Central Vacuum System  
CVS-1X20 >> [P.22](#)



Central Vacuum System  
CVS-2X100 >> [P.22](#)



Central Vacuum System  
CVS-2X250 >> [P.22](#)



Micro Vacuum System  
MVS20/40/63/100 >> [P.23](#)



Dry Micro Vacuum System  
SMVS20/50/80 >> [P.23](#)



Dry Micro Vacuum System  
SMVS20/50/80 >> [P.23](#)



Roots Rotary Vane Vacuum System  
RDS >> [P.24](#)



Roots Rotary Vane Vacuum System  
RRS1000/250 >> [P.24](#)



Roots Screw Vacuum System  
RSS250/50 >> [P.25](#)

---



Roots Water Ring Vacuum System  
JZJS >> P.26

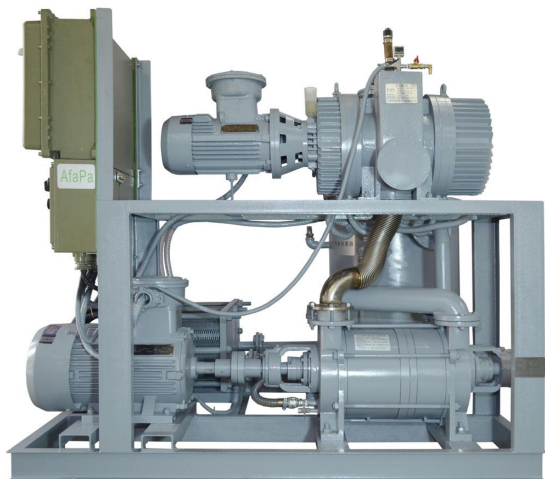


Roots Claw Vacuum System  
RCS70-600 >> P.27



Molecular Vacuum System  
FDS600/30 >> P.28

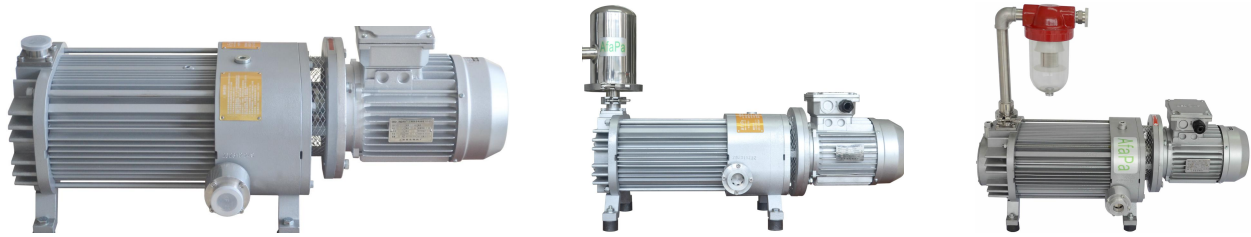
## 6. Vacuum Solution





---

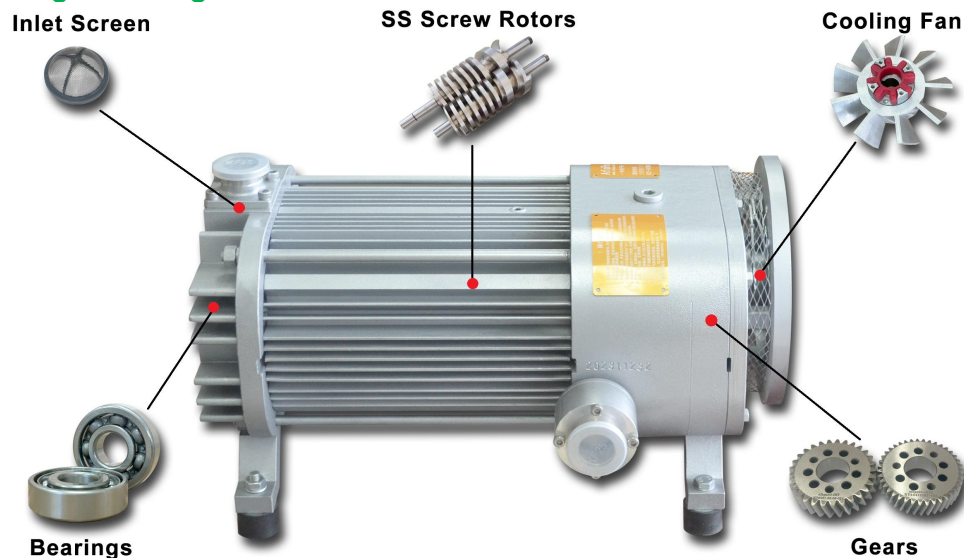
## DPS Air-cooled Dry Compound Screw Vacuum Pump



### First Air Cooled Dry Variable Pitch Screw Vacuum Pump

DPS dry compound screw vacuum pump is the innovation and development of AfaPa's products, using the fifth generation of compound variable pitch screw technology (30% energy saving, low exhaust temperature), with high efficiency, energy saving, environmental protection, lightweight, easy operation, reliable performance characteristics. It will be main developing trend of the vacuum pump in future.

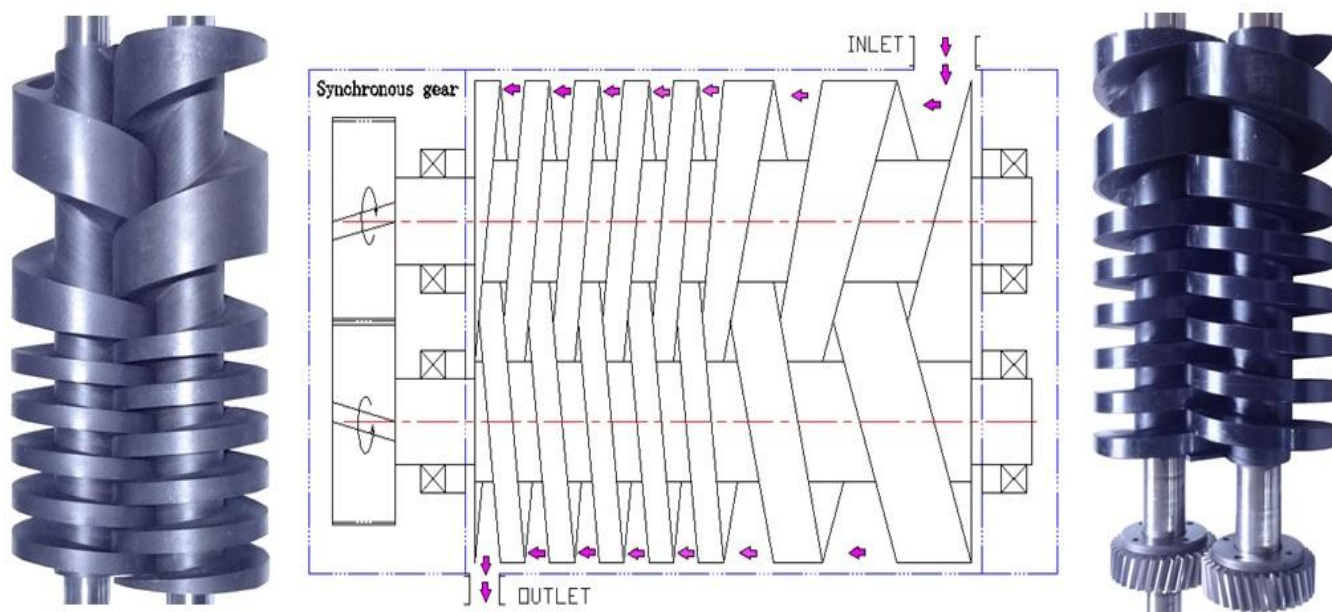
### Original Designs and Innovations



### Features

- ❖ Advanced technology, adopting advanced the fifth generation of compound variable pitch screw technology.
  - ❖ Environmental friendly, no-oil (oil free), no-water, non-pollution, clean vacuum.
  - ❖ The gas pumped can be recycled, applying for oil and gas recovery, solvent recycling and special gas recycling.
  - ❖ Energy-saving technology with variable pitch, reducing energy consumption by 30%.
  - ❖ PTPE coating, enhanced chemical corrosion resistance greatly.
  - ❖ Air-cooled structure, easy to operate.
  - ❖ Operating pressures from atmospheric pressure to ultimate vacuum pressure.
  - ❖ Saving manpower, longer maintenance intervals of up to ten thousand hours.
  - ❖ Easy to clean, if the dirt enter pump chamber, it can be filled with the gas or cleaning agent to cleaning.
  - ❖ Reliable sealing structure, use of a lip seal, mechanical seal and a gas seal structure, exhaust smooth, with good fluid-handling capabilities.
  - ❖ Light weight, using new lightweight materials.
  - ❖ Low voice and vibration, using high precision parts.
  - ❖ Low temperature rise, due to we use the new materials, and heat faster.
  - ❖ Shockproof prevent design, it can be placed on the ground directly.
-

## Principle



Dry compound screw vacuum pump are consist of two paralleled screw rotors and pump body form multiple sealed space, rotor and rotor, rotor and pump body all keep minuscule clearance(no touch, no friction), with the reverse gears driving, gas keep continuously transfer from inlet hole to outlet hole. Due to two rotors and pump body have no friction each other, need not lubrication oil, can keep clean gas. Gas keep continuously transfer, short passageway, high efficiency, outlet hole position lower than screw rotors, strong drainage ability, easy to clean, no intermediate bulkhead(claw vacuum pump and rotors vacuum pump have intermediate bulkhead), better exhaust and drainage, easy to maintain.

## Technical Specifications

Model	DPS020	DPS050	DPS080
Pumping Speed(m <sup>3</sup> /h)	20	50	80
Ultimate Vacuum(Pa)	3(50)		
Motor Power(Kw/Hp)	1.1/1.5	1.5/2	2.2/3
Structure	Horizontal Type	Horizontal Type	Horizontal Type
Inlet Hole	KF25	KF40	KF40
Outlet Hole	KF25	KF25	KF25
Cooling Method	Air Cooled		
Gear/Bearing Lubrication	100# Synthetic Gear Oil		
Sealing Method	Double Lip Teflon /Double Lip Rubber/Mechanical Seal		
Noise(dB)	69	70	71
Weight(Kg)	36	53	62



## DPSB Dry Screw Vacuum Pump (System) with Box



DPSB dry screw vacuum pump(system) with box is a new type vacuum system, it is designed and developed as customer requirements, including vacuum pump, frequency conversion governor, digital display vacuum gauge, cooling fan, metal frame, metal plate and other related components.

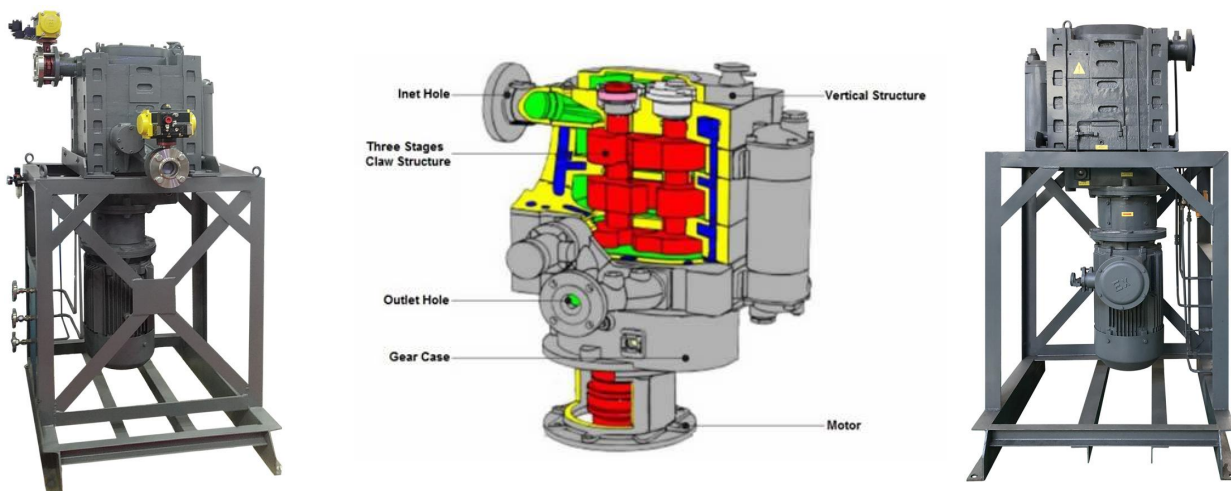
### Features

- ❖ Lower noise, obvious noise reduction, adapt to office and demanding environmental requirements.
- ❖ Beautiful appearance, in line with modern aesthetic requirements, color can be white or gray.
- ❖ Variable speed operation to meet customers' needs for different flow rates and different vacuum levels.
- ❖ Vacuum can be detected in real time and displayed in digital.
- ❖ The inverter's electrical protection function protect the vacuum pump, display faults and status.
- ❖ Large air volume for better air cooling effect, better heat dissipation and more stable vacuum.
- ❖ Lightweight and strong with metal frame.
- ❖ Stainless steel handle, easy to lift and move.

### Technical Specifications

Model	DPSB020	DPSB050	DPSB080
Vacuum Pump Type	DPS020	DPS050	DPS080
Pumping Speed(m <sup>3</sup> /h)	20	50	80
Ultimate Vacuum(Pa)	3(50)		
Motor Power(Kw/Hp)	1.1/1.5	1.5/2	2.2/3
Structure	Horizontal Type	Horizontal Type	Horizontal Type
Inlet Hole	KF25	KF40	KF40
Outlet Hole	KF25	KF25	KF25
Cooling Method	Air Cooled		
Gear/Bearing Lubrication	100# Synthetic Gear Oil		
Sealing Method	Double Lip Teflon /Double Lip Rubber/Mechanical Seal		
Noise(dB)	65	67	68
Weight(Kg)	48	68	77

## DCP Dry Claw Vacuum Pump



DCP Vacuum Pump is a high cost-effective environmental protection vacuum pump by self-dependent innovation and develop, which base on numerous foreign vacuum pump.

### Applications

DCP pump widely used in petroleum industry, pharmaceuticals industry, food industry, research institutes, aeronautics & astronautics.

### Features

- ❖ High ultimate vacuum, when matched with units, can get better vacuum degree,
- ❖ Low power consumption, fully start under atmospheric conditions,
- ❖ Stronger adaptation, the pump can pump contain less dust and corrosive gas,
- ❖ Good environmental protection, no industrial waste water, lower environmental protection cost.
- ❖ Good seal, using magnetic drive seal, which can pumping radioactive substance,
- ❖ High safety, contactless inner design, no friction,
- ❖ Low maintain cost, with an average of 20,000 hours of trouble-free work,
- ❖ Compact structure, small size, easy to install,
- ❖ Solvent recovery, organic solvent recovery, maximum economic value, reduce emissions.

### Technical Specifications

Model	Flow (L/S)	Flow (m <sup>3</sup> /h)	Ultimate Vacuum (Pa)	Motor Power (Kw/Hp)	Motor Speed (Rpm)	Noise dB (A)
DCP50	50	180	<50	7.5/10	3000	75
DCP70	70	250	<50	11/15	3000	75
DCP110	110	400	<50	15/20	3000	78
DCP150	150	540	<50	18.5/25	3000	78
DCP200	200	720	<100	22/30	3000	82

---

## DPSE Dry Variable Pitch Screw Vacuum Pump



DPSE dry compound screw vacuum pump is the innovation and development of AfaPa's products, using the fifth generation of compound variable pitch screw technology (30% energy saving, low exhaust temperature), with high efficiency, energy saving, environmental protection, lightweight, easy operation, reliable performance characteristics. It will be main developing trend of the vacuum pump in future.

### Applications

DPSE pump is ideal pump for corrosive field. The pump widely used in the fields of medical instruments, analysis instruments, biological products and pharmaceutical preparation, food and medicine packaging, gasoline vapor recycle, film preparation, high science engineering and chemical analysis, semiconductor, micro-electronics, solar energy and R&D labs etc.

### Features

- ❖ Adopting advanced the fifth generation of compound variable pitch screw technology.
- ❖ Environmental friendly, no-oil (oil free), no-water, non-pollution, clean vacuum.
- ❖ The pumped gas can be recycled, applying for oil and gas recovery, solvent recycling and special gas recycling.
- ❖ Energy-saving technology with variable pitch, reduce energy consumption by 30%.
- ❖ Chemical corrosion resistance, having anti-corrosion film PTPE.
- ❖ Water-cooled structure, easy to operate.
- ❖ Ultimate vacuum up to 5Pa.

### Technical Specifications

Model	Unit	DPSE100	DPSE300	DPSE400	DPSE600	DPSE700	DPSE800	DPSE1100
Pumping Speed	m <sup>3</sup> /h	110	280	390	550	650	800	1100
Ultimate Vacuum	Pa	5 (50)	5 (50)	5 (50)	5 (50)	5 (50)	5 (50)	10 (50)
Motor Power	Kw/Hp	4/5.5	7.5/10	11/15	15/20	22/30	30/40	37/50
Motor Speed	Rpm	2,900	2,900	2,900	2,900	2,900	2,900	2,900
Inlet Size	MM	DN40	DN80	DN80	DN100	DN100	DN100	DN125
Outlet Size	MM	DN30	DN40	DN40	DN60	DN60	DN60	DN80
Cooling Water Feeding	L/min	6	6	6	8	8	8	8
Cooling Water Temperature	℃	5-35	5-35	5-35	5-35	5-35	5-35	5-35
Cooling Water Pressure	Bar	2-4	2-4	2-4	2-4	2-4	2-4	2-4
Noise	dB	70	75	75	75	80	80	80
Weight	Kg	250	320	450	580	650	1050	1200

---



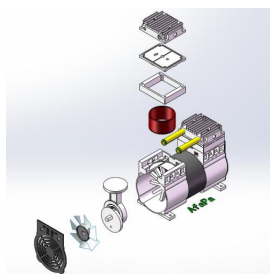
## DIP Oil-free Diaphragm Vacuum Pump



DIP pump widely used in experimental facilities, vacuum distillation, reactor, vacuum filtration, vacuum concentration, vacuum drying, besides, also can use for compressed and transfer gas.

Model	DIP2/DIPP2	DIPC2/DIPCP2	DIP4/DIPP4	DIPH4/DIPHP4
Pumping Speed (M <sup>3</sup> /h)	2	2	4	2
Pumping Speed (L/min)	30	30	60	30
Ultimate Vacuum (KPa)	-85(15)	-85(15)	-85(15)	-95(5)
Positive pressure (Psi)	—	40	40	—
Stages	1	1	2	2
Motor Power(W)	180	180	180	180
Dimension (L×W×H, MM)	250×135×210	250×135×210	315×135×210	315×135×210
Weight	7.5	8	10	10
Diaphragm Material	Anti-corrosive Rubber/PTFE	Anti-corrosive Rubber/PTFE	Anti-corrosive Rubber/PTFE	Anti-corrosive Rubber/PTFE
Noise (dB)	<50	<50	<50	<50
Function	Negative Pressure	Positive/ Negative Pressure	Positive/ Negative Pressure	Negative Pressure

## PP Oil-free Piston Vacuum pump



PP pump/compressor widely used in oxygen machine, dental medical equipment, test equipment, vacuum beauty slimming equipment, printing plate printing machine etc.

Model	Voltage(V)	Frequency (Hz)	Power (Kw/Hp)	Max. Vacuum		Max. Air Flow		Noise dB	Weight Kg
				mmHg	Kpa	L/min	m <sup>3</sup> /h		
PPV-120	220,110	50,60	0.12/0.16	-640	-84	30	1.8	48	1.8
PPV-200	220,110	50,60	0.20/0.27	-650	-86	50	3.0	48	3.6
PPV-320	220,110	50,60	0.32/0.42	-700	-92	90	5.5	52	6.0
PPH-320	220,110	50,60	0.32/0.42	-740	-98	68	4.1	52	6.0
PPV-450	220,110	50,60	0.45/0.6	-700	-92	120	7.2	53	8.5
PPH-450	220,110	50,60	0.45/0.6	-740	-98	100	6.0	53	8.5
PPV-550	220,110	50,60	0.55/0.75	-700	-92	200	12	54	9.0
PPH-550	220,110	50,60	0.55/0.75	-740	-98	166	10	54	9.0

## SV Oil Lubricated Single Rotary Vane Vacuum Pump



SV oil lubricated single rotary vane vacuum pump is new style Multi-function vacuum equipment, it developed from adsorbing numerous international famous company advanced technology, take the advantages of long service design, high vacuum degree, environmental protection, complete specification etc. We own the exclusive patent.

### Applications

SV pump widely used in vacuum package, materials drying, molecular distillation, concentration, vacuum loading and unloading, vacuum suction, plastic molding, abrasive tool, electronics, semiconductor, bio-pharmaceuticals, chemicals, scientific research etc.

### Technical Specifications

Model	Pump Speed (M <sup>3</sup> /h)	Ultimate Vacuum (Pa)	Motor Power (Kw/Hp)	Water Vapor Capacity (Kg/h)	Inlet Size (inch)	Motor Speed (Rpm)	Oil Feeding (L)	Noise dB (A)	Weight (Kg)	Dimensions (LXWXH, CM)
SVF-010 SVC-010	10	80	0.37/0.55	0.02	G1/2	1400	0.5	60	18	41X24X21
SVF-020 SVC-020	20	80	0.75/1.0	0.04	G1/2	2800	0.5	64	20	41X24X21
SVF-040 SVC-040	40	50	1.1/1.5	0.75	G1 1/4	1400	1.3	67	48	63X29X26
SVF-063 SVC-063	63	50	1.5/2.0	1	G1 1/4	1400	1.3	68	50	66X30X27
SVF-080 SVC-080	80	50	2.2/3.0	1.5	G1 1/4	2800	1.3	70	50	66X30X27
SVF-100 SVC-100	100	50	3.0/4.0	1.6	G1 1/4	1420	2	68	70	73X41X29
SVF-160 SVC-160	160	50	4.0/6.0	2.7	G2	1440	5	74	160	90X54X45
SVF-200 SVC-200	200	50	4.0/6.0	3.4	G2	1440	5	74	160	90X54X45
SVF-250 SVC-250	250	50	5.5/7.5	4.4	G2	1440	5	76	190	100X54X45
SVF-300 SVC-300	300	50	7.5/10.0	5.4	G2	1440	5	76	220	106X54X45
SVF-630 SVC-630	630	50	15/20.0	10	G3	950	15	78	640	150X90X76

**Remark:** SVF for high quality type, SVC for economic type, can do EX motor, replace of U4, R5, VCA, EU, EVC vacuum pump

## DV Double Stages Rotary Vane Vacuum Pump



DV double stage rotary vane vacuum pump is the basic vacuum equipment of pumping gas from closed container, which take the advantages of compact structure, small size, light-weight, low noise, low vibration etc. It not only independent use, but as the backing pump of the booster pump, diffusion pump, molecular pump. Pumping speed range is 4-90m<sup>3</sup>/h, the user can adjust as needs.

### Applications

DV pump widely used in vacuum smelting of metallurgy, machinery, electronics, semiconductors, refrigeration, chemical, petroleum, medicine, vacuum coating, vacuum heat treatment, vacuum drying, meteorological analysis, physical and chemical test.

### Features

- ❖ High ultimate vacuum, can continue work under high vacuum sates.
- ❖ Oil lubricated, exhaust oil vapor collection, preventing oil return device.
- ❖ Gas shock valve, draining out less water.

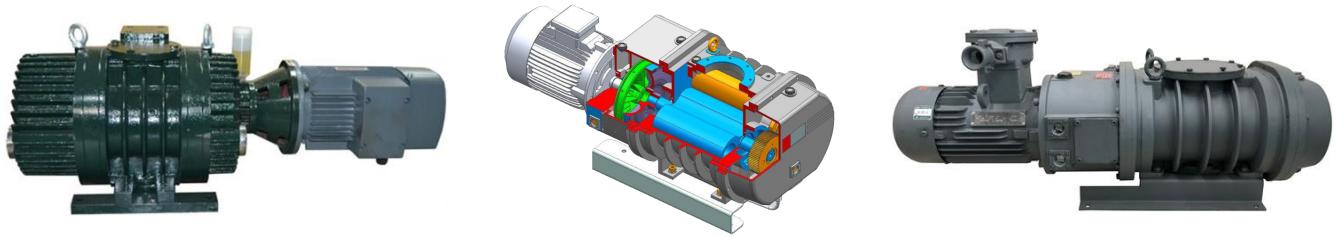
### Technical Specifications

Model	Unit	DV04	DV08	DV16	DV20	DV30	DV54	DV90
Pumping Speed	m <sup>3</sup> /h	4	8	16	21	30	54	90
	L/S	1	2	4	6	8	15	25
Ultimate Partial Vacuum	Pa	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>	4×10 <sup>-2</sup>
Ultimate Total Vacuum	Pa	1	1	1	1	1	1	1
Noise	dB (A)	65	65	66	68	70	70	72
Inlet Size	mm	φ20	KF25/φ30	KF25/φ30	KF40	KF40	KF40	KF50
Oil Filling	L	0.7	1	1.2	2	3	4	5
Voltage	V	380/220	380/220	380/220	380	380	380	380
Motor Power	Kw	0.25	0.37	0.55	0.75	1.1	1.5	2.2
Motor Speed	rpm	1400	1400	1400	1400	1400	1400	1400
N.W/G.W	Kg	17/18	20/22	22/24	40/50	60/70	75/86	85/98
Dimensions (L×W×H)	CM	47×17×26	52×17×29	57×17×29	57×20×35	65×24×43	70×24×43	77×24×43



---

## RV Roots Vacuum Pump



RV roots vacuum pump acts as the main pump, can use rotary vane vacuum pump, dry vacuum pump and liquid ring vacuum pump as backing pump. Pumping speed range is 100-12000m<sup>3</sup>/h, the users can adjust as needs.

### Applications:

RV pump widely used in solar energy, semiconductor production, pharmacy, metallurgy, laser technology, vacuum packaging, electrical engineering, mechanical engineering, automobile industry, vacuum coating, vacuum casting, vacuum smelting, vacuum degassing, vacuum distillation, freeze drying and other industries.

### Features

- ❖ Built-in overflow valve, when the inlet and outlet pressure exceeds its weight, the valve will automatically open to prevent overload.
- ❖ Combined with water cooling inside the pump and air cooling with heat sinks on the surface of pump, cooling system optimization.
- ❖ Rotor processed by the high-precision CNC machining, and perform a balance check.

### Technical Specifications

Model	Pumping Speed (M <sup>3</sup> /h)	Ultimate Partial Pressure (Pa)	Max Pressure Difference (Pa)	Motor Speed (Rpm)	Motor Power (Kw/HP)	Inlet Hole (MM)	Outlet Hole (MM)	Weight (Kg)	Backing Pump
RV100	108	5×10 <sup>-2</sup>	5300	1450	1.1/1.5	80	50	100	2X-4A
RV250	252	5×10 <sup>-2</sup>	5300	2900	1.1/1.5	80	50	100	2X-8A
RV540	540	5×10 <sup>-2</sup>	5300	2900	2.2/3.0	100	80	150	2X-15
RV1000	1080	5×10 <sup>-2</sup>	4300	2900	3/4.0	160	100	250	2X-30A
RV2200	2160	5×10 <sup>-2</sup>	4300	2900	5.5/7.5	200	160	500	2X-70A
RV3300	3240	5×10 <sup>-2</sup>	2700	2900	7.5/10	250	200	600	
RV4300	4320	5×10 <sup>-2</sup>	2700	2900	7.5/10	250	200	700	2Pcs 2X-70A
RV9000	9000	5×10 <sup>-2</sup>	2700	2900	18.5/25	250	200	1500	
RV12000	11880	5×10 <sup>-2</sup>	2700	2900	22/30	320	250	2000	

## FF Turbo Molecular Vacuum Pump



FF molecular pump is a high vacuum equipment (vacuum can be as high as  $10^{-8}$ Pa), it take the advantages of high vacuum, high pumping speed, oil-free etc. When the molecular pump keep running, the back pump must be operated under high vacuum and dedicated power supply.

### Applications

FF pump widely used in electronics, chemical, ion etching, CD-ROM manufacturing, semiconductor, solar, vacuum furnace, coating, light and other industrial enterprises and teaching, scientific research institutions.

### Technical Specifications

Model	FF-150/600		FF-200/1200		FF-250/1600		FF-400/3600
Pumping Speed (L/S)	600		1200		1600		3600
Compression Ratio(N <sub>2</sub> ) (Pa)	$>1 \times 10^9$		$>1 \times 10^9$		$>1 \times 10^9$		$>1 \times 10^8$
Compression Ratio(H <sub>2</sub> ) (Pa)	$>8 \times 10^3$		$>1 \times 10^4$		$>1 \times 10^4$		$>5 \times 10^2$
Ultimate pressure (Pa)	$<6 \times 10^{-8}$	$<3 \times 10^{-7}$	$<8 \times 10^{-8}$	$<2 \times 10^{-7}$	$<7 \times 10^{-8}$	$<5 \times 10^{-7}$	$<6 \times 10^{-7}$
Inlet Air Hole	CF150	XF150	CF200	XF200	CF250	XF250	CF400
Outlet Air Hole	KF40		KF40		KF50		KF100
Acceleration Time (min)	$<5$		$<5$		$<7$		$<11$
Motor Speed (n/min)	24000		24000		24000		12800
Back Pump (L/S)	4~8		8~15		15		25
Installation Method	Vertical $\pm 5^\circ$		Vertical $\pm 5^\circ$		Vertical $\pm 5^\circ$		Vertical $\pm 5^\circ$
Cooling Method	Air or Water		Air or Water		Air or Water		Water
Cooling Water Temperature( $^\circ\text{C}$ )	$<25$		$<25$		$<25$		$<25$
Ambient Temperature( $^\circ\text{C}$ )	$<40$		$<40$		$<40$		$<40$
Pump Baking Temperature( $^\circ\text{C}$ )	$<120$		$<120$		$<120$		$<120$
Weight(Kg)	28		36		42		101
Dimension ( $\Phi$ *H, MM)	$\Phi 280 \times 416$		$\Phi 320 \times 428$		$\Phi 340 \times 427$		$\Phi 340 \times 427$

## LV Liquid Ring Vacuum Pump/Water Ring Vacuum Pump



LV vacuum pump are usually used to pump gas and water vapor without solid particles, water-insoluble, non-corrosive gas, and the suction pressure can reach 33mbar absolute pressure (97% vacuum). The pump changing the material of pump host, it can also be used to pump corrosive gases or use corrosive liquids as working fluids. LV liquid/water ring pump are widely used in many processes in industrial production. Due to the rapid development of vacuum application technology, the application of water ring pumps is increasing.

### Applications

LV pump widely used in paper making, chemical, petrochemical, light industry, pharmaceutical, food, metallurgy, building materials, stone, coal washing, mineral processing, fertilizer, textile, and other industries in the process of vacuum evaporation, concentration, impregnation, drying, packaging and other processes.

### Features



**Stainless Steel Impeller**



**Mechanical Seal**

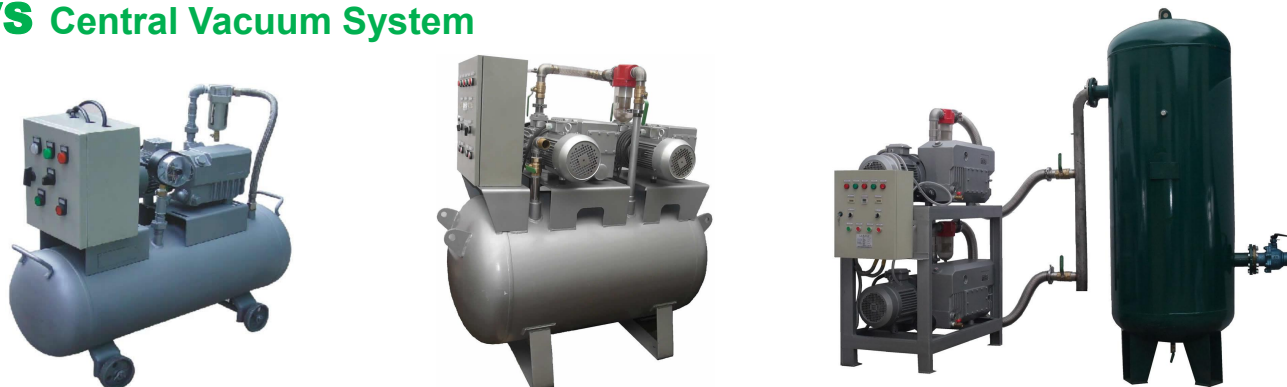
- ❖ Stainless steel impeller enhances corrosion and erosion resistance.
- ❖ Mechanical seals prevent leakage and reduce maintenance costs.
- ❖ The motor and the pump are coaxially connected and designed for easy installation, small footprint and easy maintenance.
- ❖ The vacuum can be up to 33mbar (-97%).
- ❖ Only one rotating part, no wear, long service life, low maintenance require.

### Technical Specifications

Model	Pumping Speed (M <sup>3</sup> /h)	Motor Power (Kw/Hp)	Inlet Hole (mm)	Outlet Hole (mm)	Weight (Kg)	Dimensions (L*W*H, mm)
LV030	27	0.81/1.0	G1"	G1"	33	460X190X250
LV050	52	1.45/1.94	G1"	G1"	34	480X190X250
LV080	80	2.35/3.15	G1 1/2"	G1 1/2"	54	550X230X270
LV110	110	3.85/5.16	G1 1/2"	G1 1/2"	62	570X230X300
LV170	165	4/5.5	DN50	DN50	97	640X330X360
LV230	230	5.5/7.5	DN50	DN50	113	670X330X370
LV280	280	7.5/10	DN65	DN65	144	770X350X390
LV400	400	11/15	DN65	DN65	194	850X380X430
LV500	500	15/20	DN80	DN80	340	1050X480X520



## CVS Central Vacuum System



CVS central vacuum system is all-in-one vacuum equipment, consist of SV single stage rotary vane vacuum pump, vacuum tank, vacuum gauge, electric controller and vacuum pipes.

### Features

- ❖ Environmental protection and high efficiency vacuum pump,
- ❖ Manual and automatic can be choose, vacuum degree can adjust,
- ❖ Easy to operating, big pumping speed, satisfy with any medical operation's big flow rate vacuum needs,
- ❖ Easy to moving, small space, no need pump house, can install anywhere,
- ❖ All-in-one CVS series is enterprises' first choice vacuum system

### Technical Specifications

Model	Pumping Speed (m <sup>3</sup> /h)	Vacuum Pump	Quantity (Pcs)	Vacuum Degree (MPa)	Vacuum Tank (L)
CVS-1X010	10	SV-010	1	0~-0.1	60~300
CVS-1X020	20	SV-020	1	0~-0.1	60~300
CVS-1X040	40	SV-040	1	0~-0.1	60~300
CVS-1X063	63	SV-063	1	0~-0.1	60~300
CVS-1X100	100	SV-100	1	0~-0.1	60~300
CVS-1X160	160	SV-160	1	0~-0.1	300~2000
CVS-1X250	250	SV-250	1	0~-0.1	300~2000
CVS-1X300	300	SV-300	1	0~-0.1	300~2000
CVS-2X010	20	SV-010	2	0~-0.1	60~300
CVS-2X020	40	SV-020	2	0~-0.1	60~300
CVS-2X040	80	SV-040	2	0~-0.1	300~2000
CVS-2X063	126	SV-063	2	0~-0.1	300~2000
CVS-2X100	200	SV-100	2	0~-0.1	300~2000
CVS-2X160	320	SV-160	2	0~-0.1	300~2000
CVS-2X250	500	SV-250	2	0~-0.1	300~2000
CVS-2X300	600	SV-100	2	0~-0.1	300~2000
CVS-3X160	480	SV-160	3	0~-0.1	300~2000
CVS-3X250	750	SV-250	3	0~-0.1	300~2000
CVS-3X300	900	SV-300	3	0~-0.1	300~2000

## MVS Micro- Vacuum System



MVS micro-vacuum system is all-in-one vacuum equipment, users connect power wire and vacuum pipeline, satisfy with one-stop vacuum needs.

Model	MVS-10	MVS-20	MVS-25	MVS-40	MVS-63	MVS-100
Vacuum Pump	SV-010	SV-020	SV-025	SV-040	SV-063	SV-100
Pumping Speed (M <sup>3</sup> /h)	10	20	25	40	63	100
Vacuum Range (MPa)	0~-0.1	0~-0.1	0~-0.1	0~-0.1	0~-0.1	0~-0.1
Motor Power (Kw/Hp)	0.35/0.48	0.75/1.0	0.75/1.0	1.1/1.5	1.5/2.0	2.2/3.0
Vacuum Dust Filter	VAF-15	VAF-15	VAF-15	VAF-32	VAF-32	VAF-32
Ball Valve	1/2'	1/2'	1/2'	1 1/4'	1 1/4'	1 1/4'
Power(V)	220/380	220/380	220/380	380	380	380
Inlet Hole Size	1/2'	1/2'	1/2'	1 1/4"	1 1/4"	1 1/4"

## SMVS Screw Micro Vacuum System



Model	SMVS020	SMVS050	SMVS080
Vacuum Pump	DPS020	DPS050	DPS080
Pumping Speed (M <sup>3</sup> /h)	20	50	80
Vacuum Rang (MPa)	0~-0.1	0~-0.1	0~-0.1
Motor Power (Kw/Hp)	1.1/1.5	1.5/2.0	2.2/3.0
Vacuum Dust Filter	VAF-20	VAF-32	VAF-32
Ball Valve	3/4"	1 1/4"	1 1/4"
Voltage	220/380	380	380
Inlet Hole Size	3/4"-Φ25	3/4"-Φ25	3/4"-Φ25

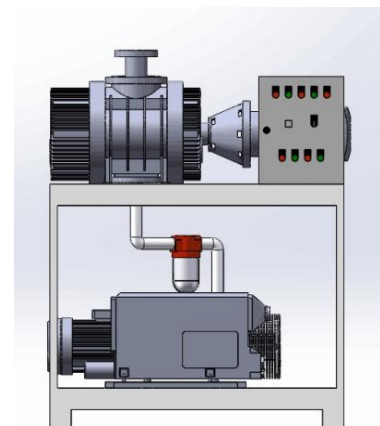
## RRS Roots Rotary Vane Vacuum System



RRS roots-vane vacuum system is high vacuum system, which consist of RV roots vacuum pump as main pump and SV single stage rotary vane vacuum pump as backing pump in series, it take the advantages of high vacuum, compact structure, convenient for operate. Suitable for pumping common gas and condensable & non-corrosive gas. Widely used in big pumping speed and all kinds of high vacuum systems. Such as vacuum smelting, power capacitor, transformer, vacuum impregnation, vacuum coating and so on.

### Features

- ❖ First and second stage connect directly, compact structure.
- ❖ Air cooled, no need water to cooled.
- ❖ Both are direct-coupled vacuum pump.
- ❖ Manual and auto can choose.
- ❖ High vacuum.
- ❖ Equipping with filter device, protect vacuum pumps.



### Technical Specification

Model	Pumping Speed (L/S)	Ultimate Vacuum (Pa)	Main Pump	Backing Pump
RRS-30-40	≥30	≤10	ZJ-30	SV-40
RRS-70-63	≥70	≤10	ZJ-70	SV-63
RRS-150-100	≥150	≤10	ZJ-150	SV-100
RRS-150-160	≥150	≤10	ZJ-150	SV-160
RRS-300-250	≥300	≤10	ZJ-300	SV-250
RRS-300-300	≥300	≤10	ZJ-300	SV-300
RRS-600-250	≥600	≤10	ZJ-600	SV-250
RRS-600-300	≥600	≤10	ZJ-600	SV-300



## RSS Roots Screw Vacuum System



RSS screw vacuum system is high vacuum system, which consist of RV roots vacuum pump as main pump and DPSB screw vacuum pump as backing pump in series, take the advantages of high vacuum, compact structure, convenient for operate. It is suitable to pumping all kind gas and solvent vapor, and weak corrosive gas. Widely used in big pumping speed and all kinds of high vacuum systems, such as scientific experiments, chemical and pharmaceutical, vacuum smelting, vacuum coating, semiconductor, electrical equipment and so on.

### Features

- ❖ First and second stage connect directly, compact structure.
- ❖ Air cooled, no need water to cooled.
- ❖ Manual and auto can choose.
- ❖ Both are direct-coupled vacuum pumps.
- ❖ High vacuum.
- ❖ Convenient to maintain, low noise.
- ❖ Stable and dependable.



### Technical Specifications

Model	Pumping Speed (L/S)	Ultimate Vacuum (Pa)	Main Pump	Backing Pump
RSS30-20	30	0.5	ZJB30	DPS020
RSS30-50	30	0.5	ZJB30	DPS050
RSS30-80	30	0.5	ZJB30	DPS080
RSS70-20	70	0.5	ZJB70	DPS020
RSS70-50	70	0.5	ZJB70	DPS050
RSS70-80	70	0.5	ZJB70	DPS080
RSS150-80	150	0.5	ZJB150	DPS080

## JZJS Roots Water Ring Vacuum System



JZJS roots water ring vacuum system, adopt roots vacuum pump as main pump and water ring vacuum pump as backing pump in series, which suitable for vacuum dry craft of containing big water vapor and corrosive condensable gas, such as vacuum distillation, evaporation, dehydration, crystallization, drying etc.

### Technical Specifications

Model	Pumping Speed (L/S)	Ultimate Vacuum ( $\leq$ Pa)	Units Model			Total Power (Kw/Hp)	Inlet Hole (mm)	Outlet Hole (mm)
			Main Pump	Middle Pump	Backing Pump			
JZJS30-25	30	$4 \times 10^2$	ZJ30		2SK-1.5A	4.75/6.3	$\phi 50$	$\phi 40$
JZJS70-25	70	$4 \times 10^2$	ZJ70		2SK-1.5A	5.5/7.5	$\phi 80$	$\phi 40$
JZJS70-50	70	$4 \times 10^2$	ZJ70		2SK-3A	9/12	$\phi 80$	$\phi 40$
JZJS150-50	150	$4 \times 10^2$	ZJ150		2SK-3A	10.5/14	$\phi 100$	$\phi 40$
JZJS150-100	150	$4 \times 10^2$	ZJ150		2SK-6A	18/25	$\phi 100$	$\phi 50$
JZJS300-100	300	$4 \times 10^2$	ZJ300		2SK-6A	19/25.4	$\phi 150$	$\phi 50$
JZJS600-200	600	$4 \times 10^2$	ZJ300		2SK-12A	29.5/39.5	$\phi 150$	$\phi 80$
JZJS30-21	30	25	ZJ30	ZJ30	2SK-1.5A	5.5/7.5	$\phi 50$	$\phi 40$
JZJS70-30-25	70	25	ZJ70	ZJ30	2SK-1.5A	6.25/8.3	$\phi 80$	$\phi 40$
JZJS70-70-25	70	25	ZJ70	ZJ70	2SK-1.5A	7/9.38	$\phi 80$	$\phi 40$
JZJS70-70-50	70	25	ZJ70	ZJ70	2SK-3A	10.5/14	$\phi 80$	$\phi 40$
JZJS150-70-50	150	25	ZJ150A	ZJ70	2SK-3A	12/16	$\phi 100$	$\phi 40$
JZJS150-150-50	150	25	ZJ150A	ZJ150	2SK-3A	13.5/8	$\phi 100$	$\phi 40$
JZJS150-150-100	150	25	ZJ150A	ZJ150	2SK-6A	21/28	$\phi 100$	$\phi 50$
JZJS300-70-50	300	25	ZJ300	ZJ70	2SK-3A	13/17.4	$\phi 150$	$\phi 40$
JZJS300-150-50	300	25	ZJ300	ZJ150	2SK-3A	14.5/19.4	$\phi 150$	$\phi 40$
JZJS300-150-100	300	25	ZJ300	ZJ150	2SK-6A	22/30	$\phi 150$	$\phi 50$
JZJS600-150-100	600	25	ZJ600	ZJ150	2SK-6A	25.5/34.1	$\phi 150$	$\phi 50$
JZJS600-300-100	600	25	ZJ600	ZJ300	2SK-6A	26.5/35.5	$\phi 150$	$\phi 50$
JZJS600-21	600	25	ZJ600	ZJ300	2SK-12A	33.5/49.2	$\phi 150$	$\phi 100$
JZJS1200-22	1200	25	ZJ1200A	ZJ600	2SK-20A	55.5/74.4	$\phi 300$	$\phi 125$

## RCS Dry Roots Claw Vacuum System



RCS roots claw vacuum system pump's chamber inner have no oil and water, can get higher vacuum, bigger pumping speed and high cost performance. Widely used in distillation, vacuum depression vaporization, vacuum drying, vacuum concentration, oil and gas recovery, adsorption & desorption, biofuel, flammable gas, corrosive gas

### Technical Specifications

Model	Pumping Speed (L/S)	Actual Flow (M3/h)	Ultimate Vacuum (Pa)	Motor Frequency (HZ)	Motor Power (Kw)	Motor Speed (Rpm)	Noise dB (A)
RCS70	70	250	<5	50	10.5	3000	78
RCS150	150	540	<5	50	10.5	3000	78
RCS300	300	1100	<5	50	19	3000	80
RCS600	600	2200	<5	50	24	3000	80

## RSL/H Dry Claw Vacuum Solvent Recovery System

RSL/H dry claw vacuum solvent recovery system is the key equipment of environmental protection, it not only reduce the solvent discharge to the environmental, but recovery the solvent and reuse, solve the cost of production greatly, and it is the first choice of chemicals and pharmaceuticals.

### Technical Specifications

Model	Pumping Speed (L/S)	Ultimate Vacuum (Pa)	Motor Power (Kw)	Media	Recovery Rate (%)	Drain Pressure (MPa)	Noise dB
RSL70/RSH70	70	<100/5	10.5	Solvent	>90	<0.15	78
RSL110/RSH110	110	<100/5	15	Solvent	>90	<0.15	78
RSL150/RSH150	150	<100/5	18.5	Solvent	>90	<0.15	80
RSL300/RSH300	300	<100/5	22	Solvent	>90	<0.15	80
RSL600/RSH600	600	<100/5	30	Solvent	>90	<0.15	80

---

## FDS Molecular Pump Dry (Double) Pump Vacuum System



FDS molecular vacuum pump system is ultra-high vacuum equipment, which adopting molecular vacuum pump and dry vacuum pump or double stages rotary vane vacuum pump in series, equipped with pre-pipeline, vacuum valves, molecular vacuum pump power, control box and composite vacuum gauge. Widely used in surface analysis, accelerator technology, semiconductor equipment, plasma technology, electric vacuum device manufacturing and vacuum technology.

### Technical Specifications

Model	FDS600/20	FDS1200/40	FDS1600/80
Main Pump	F600/150	F1200/200	F1600/250
Backing Pump	DV16/30/DPS020	DV30/54/DPS050	DV54/90/DPS080
Pump Speed(L/S)	> 600	> 1200	> 1600
Ultimate Vacuum(Pa)	$6 \times 10^{-6}$	$6 \times 10^{-6}$	$6 \times 10^{-6}$
Inlet Flange	DN150	DN200	DN250
Outlet Flange	KF40	KF40	KF50
Voltage(V/Hz)	220±20/50	220±20/50	220±20/50
Starting Time(Min)	< 5	< 5	< 5
Cooling Method	Air /water Cooled	Air /water Cooled	water Cooled
Weight(Kg)	28	32	36

---