### ICA-20 Cryogenic coolant circulating pump

Desktop mini model, can be operated on the experimental bench. Fully enclosed compressor mechanical refrigeration, the inner wall plate of the cooling tank is equipped with cooling copper coils. The refrigerant (Freon) is continuously circulated through the coil on the inner wall of the tank to cool the refrigerant in the tank. Through the built-in circulation pump and external circulation pipeline, the refrigerant is transported to the mezzanine or condensation coil of the supporting equipment. Indirectly cools down the materials in the reactor, and cools and liquefies the steam in contact with the condenser tube. Specially equipped with rotary evaporator for cooling, the cooling effect is fast, the structure is compact, the area is small and the operation is convenient.

#### Technical parameters

Name		Cryogenic coolant circulating pump			
Model		ICA-20			
Refrigerant reservo	ir volume(L)	4			
Temperature range	•(°C)	20∼room temperature			
Temperature stabil	ity(℃)	±0.1			
Ambient temperatu	ıre(°C)	5~35			
Ambient humidity		≤70%			
Power source		220V50Hz			
Control mode		Digital display			
Safeguard					
Total power(W)		220V50Hz Digital display Delay, phase sequence, overcurrent, overheating 550W 2.5A R22 450W 350W 260W			
Machine current (	4)	2.5A			
Refrigerant		R22			
	10°C	450W			
Refrigerating capacity(W)	0°C	350W			
capacity(vv)	-10°C	260W			
	-20°C	180W			
	Power(W)	60W			
Circulating pump	FlowL/min)	32L			
	Lift (M)	3.8M			
	Motor power	53W			
Condenser	Heat exchange area	4.2m <sup>2</sup>			
	Nominal cooling capacity	1200W			
External circulation in	nterface size(mm)	8*10			
Opening size(mm)		200			
Coolant storage ta	nk material	304 statainless steel			
Overall size(mm)		430*220*600			
Weight(kg)		35KG			



**ICA-20** 



**Operation section** 

### ILTC series Low temperature coolant circulating pump

Mechanical refrigeration, providing cryogenic liquid and cryogenic water bath. Combined with rotary evaporator, vacuum freeze-drying box, circulating water vacuum pump, magnetic stirrer and other instruments, it can carry out multi-functional chemical reaction operations and pharmaceutical storage at low temperature. The constant current, constant pressure and circulating liquid of large cryogenic cooling circulating pump can meet the cooling needs of valuable instruments and equipment, such as electron microscope, electron probe, ultra-high vacuum sputtering instrument, X-ray machine, laser, accelerator.especially suitable for chemistry, biology and physics laboratories that need to work at low temperature and room temperature. it is a necessary equipment for laboratories such as medicine and health, chemical industry, food industry, gold industry, colleges and universities, scientific research, genetic engineering, polymer engineering.

#### **Features**

- (1) Fully enclosed compressor unit and circulating water pump, with advanced performance and reliable quality;
- (2) Special relays, protectors, capacitors, and refrigeration components for refrigeration units are imported original high-quality components;
- (3) Digital temperature display, microcomputer temperature control, simple and eye-catching operation;
- (4) The circulation system uses anti-corrosion materials and has the functions of preventing rust, corrosion and low-temperature liquid pollution;
- (5) It can be completed directly in the machine with an electric mixer;
- (6) For experiments under the conditions of -40  $^{\circ}$ C ~-60  $^{\circ}$ C, the coolant can be transported to the circulating pump installed in the place where it is used.





All electrical control components in the equipment are placed in a flameproof electrical box, and there are no external electrical control components. Specially customized flameproof condensing fans and large-flow flameproof circulating water pumps are used. Make the entire equipment meet the requirements for use in explosive environments.

ILTC-50/10、20、25、30、40、60、80、120EX

	Refrigeration performance			Cycle performance Temperature control performance		Working conditions			External dimension(mm)			Practical		
Model	Capacity of water storage	No-load minimum temperature ( C )	Refrigerating capacity(W)	Flow(L/min)	Lift(m)	Temperature range( °C )	Constant temperature range (°C)	Power source	Enviror		Length	Width	Height	opening
				1 low(L/IIIII)	Litt(III)		temperature range( C )	rower source	Temperature	Humidity	Length	Widti	Tieigitt	diamete
LTC-5/10	5L	-12	1213-290	_		-10~room temperature					510	340	720	
LTC-5/20	5L	-23	1248-319	-		-10~room temperature								_
ILTC-5/25	5L	-26	1248-319	-		-25~room temperature					450	360	960	
ILTC-5/30	5L	-32	1375-450	-		-30~room temperature								
ILTC-5/40	5L	-40	1420-462	-		-40~room temperature					550	460	1020	φ200
ILTC-5/60	5L	-63	1910-230	-		-60~room temperature								_
ILTC-5/80	5L	-83	1938-200	-		-80~room temperature		220V ±10%						
ILTC-5/120	5L	-120	2365-180	_		-120~room temperature		50HZ			540 420	420	770	
ILTC-10/10	10L	-12	1825-820	-		-10~room temperature								
ILTC-10/20	10L	-23	2100-780	-		-20~room temperature								
ILTC-10/25	10L	-26	2170-780			-25~room temperature					545 4	425	780	
ILTC-10/30	10L	-32	2436-820	-		-30~room temperature								
ILTC-10/40	10L	-40	2548-980	_		-40~room temperature								
ILTC-10/60	10L	-63	2732-310	35	4-6	-60~room temperature								
ILTC-10/80	10L	-83	2900-230			-80~room temperature					710	660	890	
ILTC-10/120	10L	-120	2982-200			-120~room temperature								
ILTC-20/20	20L	-23	3126-950			-20~room temperature					940	710	1010	
ILTC-20/30	20L	-32	3237-1023			-30~room temperature								φ290
ILTC-20/40	20L	-40	3635-980			-40~room temperature	±2				1040	810	1020	Ψ290
ILTC-20/60	20L	-63	4120-510			-60~room temperature								
ILTC-20/80	20L	-83	4530-360			-80~room temperature				(60-80%) Ventilation	905	710	1030	
ILTC-20/120	20L	-120	4889-270			-120~room temperature			25℃					
ILTC-30/20	30L	-23	3780-1150	_		-20~room temperature					630	520	1000	
ILTC-30/30	30L	-32	3960-1200	_		-30~room temperature							1000	
ILTC-20/40	30L	-40	4080-1270			-40~room temperature					940	710	1010	
ILTC-30/60	30L	-63	4330-680			-60~room temperature					0.0			
ILTC-30/80	30L	-83	4679-422			-80~room temperature		380V ±10% 50HZ			905	710	1030	
ILTC-30/120	30L	-120	4968-330			-120~room temperature					1040	810	1030	
ILTC-50/20	50L	-23	8520-2170			-20~room temperature					745	810	1030	
ILTC-50/30	50L	-32	8930-2280			-30~room temperature					743	010	1000	
ILTC-50/40	50L	-40	10256-2300			-40~room temperature					760	605	1030	
ILTC-50/60	50L	-63	10570-1600			-60~room temperature					1155	805	1140	
ILTC-50/80	50L	-83	11200-1480			-80~room temperature					1133	803	1140	
ILTC-50/120	50L	-120	11290-1260			-120~room temperature					1240	810	1250	
ILTC-80/20	80L	-23	9738-2626			-20~room temperature					1240	010	1230	
ILTC-80/30	80L	-32	9820-2820	70 6-8		-30~room temperature					1000	800	1100	
ILTC-80/40	80L	-40	10860-2830		6-8	-40~room temperature					1000		1100	
ILTC-80/60	80L	-63	11380-2100			-60~room temperature					1220	830	1350	
ILTC-80/80	80L	-83	11670-1800			-80~room temperature					1220	030	1330	φ340
LTC-80/120	80L	-120	11880-1200			-120~room temperature								φ340
ILTC-100/20	100L	-23	11245-2821	]		-20~room temperature								
ILTC-100/30	100L	-32	11380-3012	1		-30~room temperature					1040	810	1250	
LTC-100/40	100L	-40	11520-3160			-40~room temperature								
LTC-100/60	100L	-63	12300-2627	1		-60~room temperature								
LTC-100/80	100L	-83	12630-2160	1		-80~room temperature								1
ILTC-100/120	100L	-120	13760-1350	1		-120~room temperature	7				1460	1200	1350	

# IDVP-630 Diaphragm vacuum pump

Diaphragm vacuum pump is a kind of vacuum pump which is separated by diaphragm between the mechanical transmission part and the gas being pumped. Applications: rotary evaporator, distillation test products; concentrator, vacuum drying oven; parallel evaporator; filtration test, solid phase extraction test, etc.

#### **Features**

- 1. Integrated box design, simple and convenient operation
- 2. All parts in contact with the medium are made of polytetrafluoroethylene, which can withstand various corrosive gases such as acids, alkalis, and organic solvents.
- 3. Dry operation, environmentally friendly and clean, can replace circulating water vacuum pumps and rotary vane vacuum pumps.
- 4. The prototype has passed 1,500 hours of fatigue testing and can work stably and permanently.
- 5. Brand new air chamber structure design, leading the world in vacuum degree.
- 6. It adopts low-temperature heating motor, reasonable exhaust design, and low casing temperature (not higher than 45 degrees in summer).



IDVP-630+



# **Technical parameters**

	Model	Extreme pressure (mbar)	Maximum pumping rate(L/min)	Pressure gauge	Power source	External dimension (L×W×H/mm)	Weight(kg)
	IDVP-630	4~6	30	No	220-240V~,50Hz	270×180×330	14.5
1	:DVP-630+	4~6	30	Digital display	220-240V~,50Hz	310×180×330	15

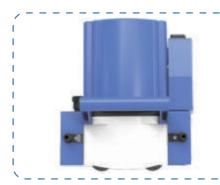
**IDVP-630** 

### **IDVP-633 Diaphragm vacuum pump**



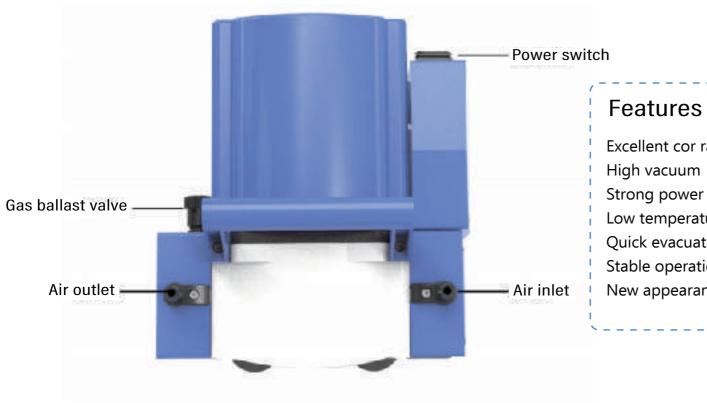






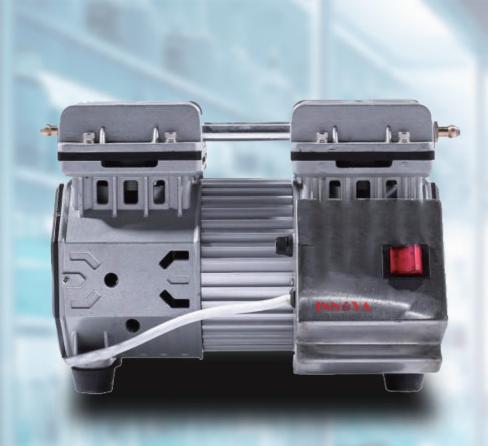






Excellent cor rasian resistance
High vacuum
Strong power
Low temperature rise
Quick evacuation
Stable operation
New appearance design

Model	IDVP-633
Environment temperature(℃)	5~35
Ambient relative humidity(%)	≤70
Motor power(W)	200
Maximum vacuum/ultimate pressure*(Pa/mbar)	600/6
Working power supply	220-240V,50Hz
Maximum pumping rate(L/min)	33
Inner diameter of air inlet(mm)	φ7
Inner diameter of air outlet(mm)	φ7
Connection hose for air inlet and outlet nozzles	φ12×φ8
Enclosure rating	IP20
Anti-pollution level	2
Air ballast function	Yes
Valve plate material	FFKM
Membrane material	PTFE+FKM
Air pipe material	FEP
Exhaust joint material	PTFE+C
Gas ballast material	FKM/PTFE+C
Air chamber material	ETFE
Equipment size W×D×H(mm)	270×250×210
Equipment weight(Kg)	9.5
Package Size W×D×H(mm)	325×305×250
Package weight(Kg)	10



## IDVP-500/IDVP-700 Diaphragm vacuum pump

New type of high quality pump. The vacuum pump is widely used in vacuum filtration, rotary evaporator, freezing, drying, vacuum concentration, molecular distillation and other research experiments. Exquisite design, low noise, smooth operation, the highest vacuum value can reach 700Kpa, strong pump power, corrosion-resistant cavity, safe and reliable.

### **Features**

- 1. No working medium (no oil) is required and no pollution is produced. The gas exchange chamber has built-in filter material to ensure the flow of air.
- 2. New technologies and new materials are used in the production process. It is easy to move and works smoothly, ensuring ideal vacuum degree and high air flow rate.
- 3. It adopts frictionless membrane movement, which produces no heat and no friction loss. The diaphragm is made of imported rubber, which is corrosion-resistant and has a long service life.
- 4. The machine body is designed with a self-cooling exhaust system to ensure 24-hour continuous operation.
- 5. The bearings adopt imported classic bearings, with smooth operation, low noise and high working efficiency.

Model	IDVP-500	IDVP-700	
Rated voltage/frequency	220V/50Hz	220V/50Hz	
Rated speed	≧1390r/min	≧1390r/min	
Input power	≦550W	≦800W	
Ambient temperature	5~40˚C	5~40˚C	
Ultimate vacuum degree	85 Kpa	90 Kpa	
Rated volume flow	40L/min	56L/min	
Dimensions	280*190*200mm	280*190*230mm	
Insulation level	В	В	
Weight	12Kg	12Kg	



## IWVP series circulating water vacuum pump

The circulating water multifunctional vacuum pump uses water as the working fluid and uses the negative pressure generated by the jet to evacuate. It is a research experiment, small trial and small production process for evaporation, distillation, crystallization, drying, sublimation, filtration and decompression, degassing and other processes. It is suitable for laboratories in universities, chemical industry, pharmaceuticals, biochemistry, food, pesticides, agricultural engineering, bioengineering and other industries. This pump has the characteristics of no oil, no pollution, low noise, convenience and flexibility. It uses a vertical motor and the pump body is directly No need to add water when launching water, one machine c an be used for multiple purposes.

Model	IWVP-95A	IWVP-95B	IWVP-2000	
Power	370W/550W	370W/550W	370W*2/550W*2	
Voltage	220V 50Hz	220V 50Hz	220V 50Hz	
Flow(Q)	80L/min	80L/min	80L/min*2	
Lift(H)	12m	12m	12m	
Chassis material	304 Stainless steel	Reinforced polypropylene / stainless steel	304 Stainless steel	
Maximum vacuum degree	0.098Mpa	0.098Mpa	0.098Mpa	
Single-end pumping capacity	10L/min	10L/min	10L/min	
Number of suction heads	5	5	5	
Water tank volume	50L	50L	60L	
Overflow	PP, φ12mm	PP, φ12mm	PP, φ12mm	
External dimension(mm)	400*340*830	400*340*830	540*350*870	
Packing size(mm)	430*520*910	430*520*910	550*450*1000	
Total Weight(kg)	30	30	60	

### IWVP-S series mini circulating water vacuum pump

The circulating water multifunctional vacuum pump uses water as the working fluid and uses the negative pressure generated by the jet to evacuate. It is a research experiment, small trial and small production process for evaporation, distillation, crystallization, drying, sublimation, filtration and decompression, degassing and other processes. It is suitable for laboratories in universities, chemical industry, pharmaceuticals, biochemistry, food, pesticides, agricultural engineering, bioengineering and other industries. This pump has the characteristics of no oil, no pollution, low noise, convenience and flexibility. It uses a vertical motor and the pump body is directly. No need to add water when launching water, one machine can be used for multiple purposes.



IWVP-SIII Transparent water tank table stainless steel anti-separation circulating water vacuum pump



IWVP-SIII Stainless steel anticorrosive tabletop circulating water vacuum pump

## Standard configuration

- This series has double taps, four taps, anti-corrosion materials and stainless steel materials. It can be used alone or in parallel. It is equipped with two vacuum gauges.
- The motor is manufactured by the motor manufacturer ODM and is sealed with fluororubber. No corrosive gas enters the inside of the motor.
- The tank body and control panel are made of polyvinyl chloride (PVC).
- The ejector, tee, check valve and air extraction nozzle are made of copper.
- The pump body and impeller are made of cast nylon.
- The water tank is equipped with a circulation pipe and circulation switch, and can also be used as circulating water.

Model	Power	Working power supply(V/HZ)	Flow(L/min)	Lift(M)	Maximum vacuum(Mpa)	Single-end pumping capacity(L/min)	Number of suction heads	Storage tank volume(L)	External dimensions (L*W*H)	Total Weight(kg)
IWVP-SI	180W	~220/50	60	8	0.098	10	2	15	400*280*420	15
IWVP-SII	180W	~220/50	60	8	0.098	10	2	15	400*280*420	16
IWVP-SIII	370W	~220/50	60	12	0.098	10	4	15	400*280*420	17
IWVP-SIV	370W	~220/50	60	12	0.098	10	4	15	400*280*420	19