

VALUE[®]

High Quality Vacuum Pump Refrigerant Recovery Unit and Refrigeration Tools



VALUE[®]

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**High Quality Vacuum Pump
Refrigerant Recovery Unit and Refrigeration Tools**



PROFESSIONAL MANUFACTURER

VALUE which is the global high-quality vacuum pump, recovery units, refrigeration tools leader, was founded in 1996. The company covers an area of 26500m², with building area of 45000m². The annual production is 250,000 for rotary-vane vacuum pumps and 20,000 for recovery units. Right now, **VALUE** has become the largest refrigeration vacuum pump, recovery unit manufacturer in the world. The company has a large number of vacuum technology experts, such as motor technical experts, quality management experts, manufacturing experts. The company has already used the customer demand analysis, value engineering analysis, failure mode analysis, lean production management, error proofing design, industrial design and the other the world's most advanced management tools and methods, to ensure that in the shortest possible time to provide customers with high-quality products and the best service.

QUALITY ASSURANCE

VALUE has the world's most advanced Japan OKUMA-BYJC vertical machining center, the German WENZEL three coordinate measuring equipment, also we have a constant temperature and clean assembly environment. The company has been through the German ISO 9001:2008 quality management system certification, the products have American UL, European CE, Canada CSA safety certification, for global customers providing the highest cost-effective products.



INNOVATION

VALUE continuous investment in research and development, to customer needs as a starting point to create and meet user's demand, the company has 50 patented technologies, continuing to lead the development of the industry.

GLOBAL SERVICE

VALUE has built the world more than 70 countries and regions of the sales network, products in Japan, the United States, Europe and other regions have a larger market, at the same time provide 10 of the world top 500 enterprises products and services; at the same time, provide suitable power products for all global customers; we also establish the network and the platform for over the world customers, provide products and services.



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VISION

To be one of the best refrigeration and vacuum equipment enterprises in the world.

MISSIONS

We committed to providing innovative products and services: creating value for customers, and continuing to meet the growing needs of the global customers for the refrigeration maintenance equipment and vacuum equipment, as well as creating value for our employees, our partners, and our society.

■ Creating value for customers

Science and technology as the foundation to provide customers with the best products and service; as well as strive to become customers trusted partner, at the same time realizing self value in the process of creating value for customers.

■ Creating value for employees

Employees are our greatest asset, and I thank staff with the spirit of proactive, honesty, cooperation and laughing to the change; I respect for personal dignity and unique personality, and I hope to help employees achieve better skills and individual value.

■ Creating value for partners

Achieve the expectations of the partners, to establish a fair, just and open communication platform, focusing on the quality of cooperation; we look forward to establish a long-term win-win partnership.

■ Creating value for society

Try best to conserve natural resources, protect the environment, and realize social value in the process of realizing enterprise value.

VALUES

■ Customer first

- Close to the customer, explore and service to the customers
- Understand customers' needs; try best to meet the expectations of our customers
- Consider the questions in customers' position; adhere to principles, finally to achieve the satisfaction both for customers and companies
- Respect customers, and maintenance VALUE image
- Build the relationships with customers, and ally with them

VALUES

■ Teamwork

- Actively integrate into the team, and be willing to accept the help from colleagues, and also help the team to complete the work
- Respect others, mutual trust, to hope to be treated the way towards colleagues
- Listen to the voice from the team, advocating diversification, be good at cooperation with different colleagues, fully embodies the principle of just business and not personal
- Share the knowledge and experience with colleagues, actively to help colleagues and be good at using team work to solve problems
- Communicate honestly, mutual encouragement, positive influence of the team, improve team morale and atmosphere

■ Integrity and Honesty

- Integrity, frank others
- Based on the facts, express the opinions through the proper ways and processes
- Admit mistakes, take responsibility, and correction timely
- Question any perceived bad behavior
- Always adhere to the company's values

■ Reform and Innovation

- Quickly adapt to the change of the company then treat rationally; cooperate sincerity and lead the team to face changes
- Find and timely treated the possible problems during the changes
- Be concerned about the customer needs and provide customers with innovative ideas and effective solutions
- Embrace change; seek opportunities, and make the opportunities into customer value
- Abandon the past, concerned about the future, develop new working method

■ Striving for excellence

- Do the right things, do the things right
- Identify priorities, the most important thing to do the best
- Be good at summing up, continuous learning and self-improvement
- Set a higher standard to measure our performance
- Good ownership, great sense of responsibility, and keep the passion

VACUUM PUMPS

MINI SERIES

New Refrigerant Vacuum Pump

Suit for R410A, R407C, R134a, R12, R22 refrigerant

V-i115S-M

Mini Series



Only 4 kg
1.5 CFM
1/5 HP

Smaller, lighter, and more convenient



New

Model	Voltage	Partial Pressure	Total Pressure	Inlet Port	Oil Capacity	Dimensions	Weight
V-i115S-M	220V/50-60Hz	2 Pa	150 micron	1/4"Flare	150 ml	240×88×183mm	3.5 Kg
V-i215S-M	220V/50-60Hz	2×10 ⁻¹ Pa	15 micron	1/4"Flare	110 ml	240×88×183mm	4 Kg

Totally Upgrade

Mini Series

VH115N



1.5 CFM
1/5 HP

New

Model	Voltage	Partial Pressure	Total Pressure	Inlet Port	Oil Capacity	Dimensions	Weight
VH115N	220V/50-60Hz	2 Pa	150 micron	1/4"Flare	150 ml	255×105×202mm	4 Kg

VACUUM PUMP

iPump SERIES

NEW REFRIGERANT

Suit for R410A, R407C, R134a, R12, R22 refrigerant

iPump

High Ultimate Vacuum

15 micron

2~8 CFM



Single Stage

Item No.		V-i120SV	V-i140SV	V-i160SV	V-i180SV
Flow Rate	50 Hz	1.8 CFM	3.5 CFM	5.0 CFM	7.0 CFM
		51 l/min	100 l/min	142 l/min	198 l/min
	60 Hz	2.0 CFM	4.0 CFM	6.0 CFM	8.0 CFM
		57 l/min	113 l/min	170 l/min	226 l/min
Ultimate Vacuum	Partial Pressure	2 Pa	2 Pa	2 Pa	2 Pa
	Total Pressure	150 micron	150 micron	150 micron	150 micron
Power		1/4 HP	1/3 HP	1/2 HP	3/4 HP
Inlet Port		1/4 " Flare	1/4 " Flare	1/4 " Flare	1/4 " Flare
Oil Capacity		250 ml	250 ml	415 ml	660 ml
Dimensions(mm)		290×124×255 mm	318×124×265 mm	338×138×275 mm	395×145×318 mm
Weight		6.7 kg	8.6 kg	10.3 kg	15.4 kg

Dual Stage

Item No.		V-i220SV	V-i240SV	V-i260SV	V-i280SV
Flow Rate	50 Hz	1.8 CFM	3.5 CFM	5.0 CFM	7.0 CFM
		51 l/min	100 l/min	142 l/min	198 l/min
	60 Hz	2.0 CFM	4.0 CFM	6.0 CFM	8.0 CFM
		57 l/min	113 l/min	170 l/min	226 l/min
Ultimate Vacuum	Partial Pressure	2×10 ⁻¹ Pa	2×10 ⁻¹ Pa	2×10 ⁻¹ Pa	2×10 ⁻¹ Pa
	Total Pressure	15 micron	15 micron	15 micron	15 micron
Power		1/3 HP	1/2 HP	3/4 HP	1 HP
Inlet Port		1/4 " Flare	1/4 " Flare	1/4 " Flare	1/4 " Flare
Oil Capacity		200 ml	325 ml	580 ml	500 ml
Dimensions(mm)		318×124×265 mm	338×138×275 mm	395×145×318 mm	395×145×318 mm
Weight		9.0 kg	11.0 kg	16.6 kg	17.0 kg

*Notice:according to the motor 220V only.

VACUUM PUMPS

VE N SERIES

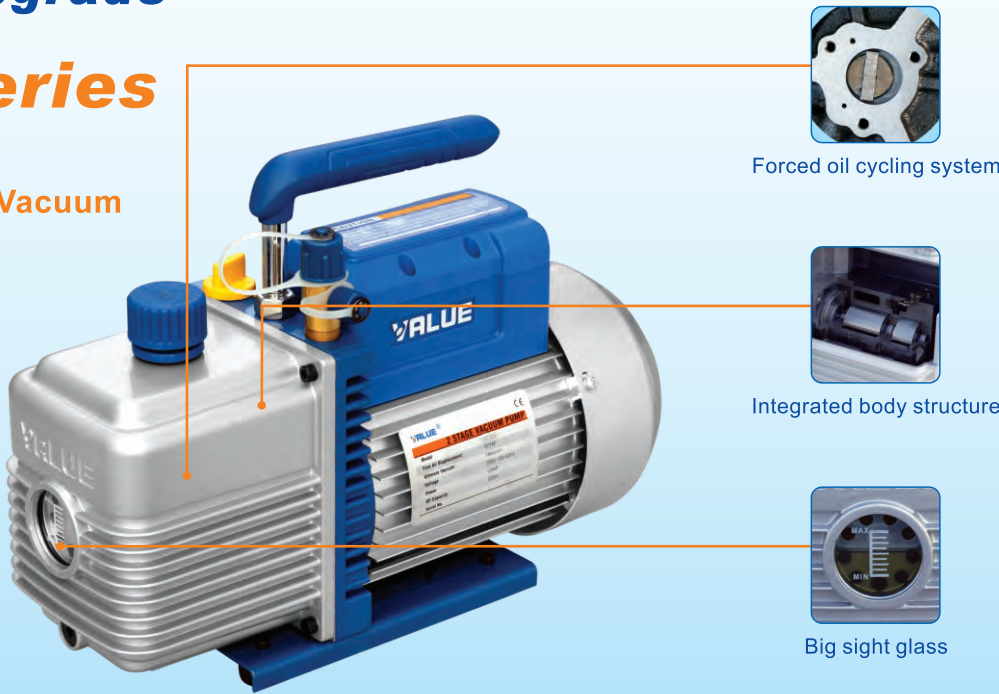
Totally Upgrade

VE N Series

More Reliable,
Higher Ultimate Vacuum

15 microns

2~10 CFM



Single stage

Item No.		VE115N	VE125N	VE135N	VE160N	VE180N
Flow Rate	50 Hz	1.8 CFM	2.5 CFM	3.5 CFM	6 CFM	8 CFM
		51 l/min	70 l/min	100 l/min	170 l/min	226 l/min
	60 Hz	2.0 CFM	3.0 CFM	4.0 CFM	7.0 CFM	9.0 CFM
		57 l/min	84 l/min	113 l/min	198 l/min	254 l/min
Ultimate Vacuum	Partial Pressure	2 Pa	2 Pa	2 Pa	2 Pa	2 Pa
	Total Pressure	150 micron	150 micron	150 micron	150 micron	150 micron
Power		1/4 HP	1/4 HP	1/3 HP	1/2 HP	3/4 HP
Inlet Port		1/4 " Flare	1/4 " Flare	1/4 " & 3/8 " Flare	1/4 " & 3/8 " Flare	1/4 " & 3/8 " Flare
Oil Capacity		250 ml	250 ml	250 ml	415 ml	660 ml
Dimensions(mm)		290×124×224	290×124×224	318×124×234	338×138×244	395×145×257
Weight		6.6 kg	7.1 kg	8.0 kg	9.9 kg	14.6 kg

Dual stage

Item No.		VE215N	VE225N	VE245N	VE260N	VE280N	VE2100N
Flow Rate	50 Hz	1.5 CFM	2.5 CFM	4.5 CFM	6 CFM	8 CFM	10 CFM
		42 l/min	70 l/min	128 l/min	170 l/min	226 l/min	283 l/min
	60 Hz	1.8 CFM	3 CFM	5 CFM	7 CFM	9 CFM	12 CFM
		50 l/min	84 l/min	142 l/min	198 l/min	254 l/min	340 l/min
Ultimate Vacuum	Partial Pressure	2×10 ⁻¹ Pa	2×10 ⁻¹ Pa	2×10 ⁻¹ Pa	2×10 ⁻¹ Pa	2×10 ⁻¹ Pa	2×10 ⁻¹ Pa
	Total Pressure	15 micron	15 micron	15 micron	15 micron	15 micron	15 micron
Power		1/4 HP	1/3 HP	1/2 HP	3/4 HP	1 HP	1 HP
Inlet Port		1/4 " Flare	1/4 " Flare	1/4 " & 3/8 " Flare	1/4 " & 3/8 " Flare	1/4 " & 3/8 " Flare	1/4 " & 3/8 " Flare
Oil Capacity		200 ml	200 ml	325 ml	580 ml	500 ml	590 ml
Dimensions(mm)		308×124×224	318×124×234	338×138×244	395×145×257	395×145×257	395×145×257
Weight		7.5 kg	8.5 kg	10.4 kg	15.8 kg	16.2 kg	16.7kg

VACUUM PUMPS

VE N SERIES

DUAL VOLTAGE

New

110~220V / 50~60Hz

Power plug

– make this connection with different power plugs easily.

Power supply conversion switch

– make sure this switch is set on the right place before your operating: 110V or 220V

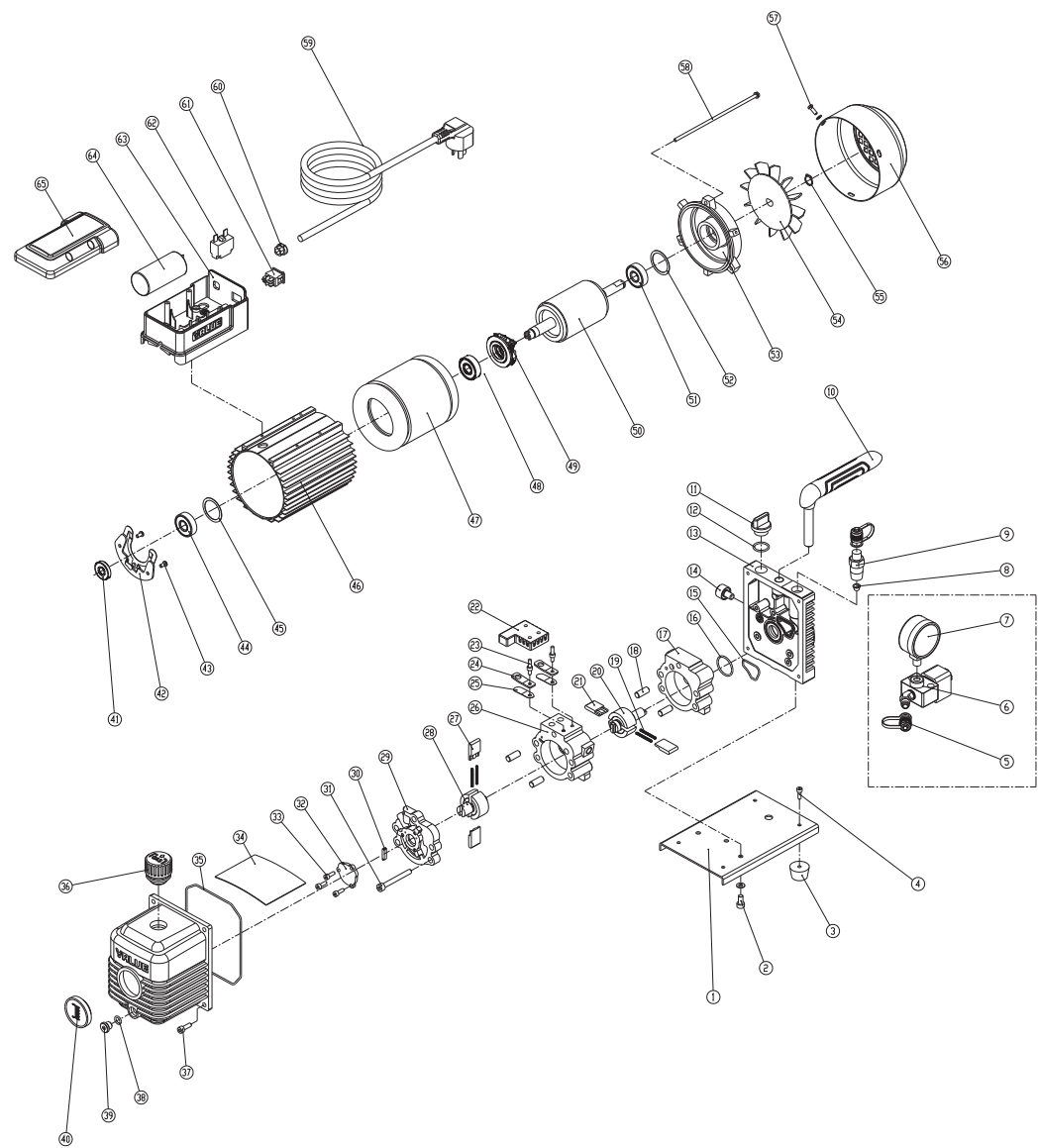


Dual stage

Item No.		VE215ND	VE225ND	VE245ND
Flow Rate	50 Hz	1.5 CFM	2.5 CFM	4.5 CFM
		42 l/min	70 l/min	128 l/min
	60 Hz	1.8 CFM	3.0 CFM	5.0 CFM
		50 l/min	84 l/min	142 l/min
Ultimate Vacuum	Partial Pressure	2×10 ⁻¹ Pa	2×10 ⁻¹ Pa	2×10 ⁻¹ Pa
	Total Pressure	15 micron	15 micron	15 micron
Power		1/4 HP	1/3 HP	1/2 HP
Inlet Port		1/4 " Flare	1/4 " Flare	1/4 " & 3/8 " Flare
Oil Capacity		200 ml	200 ml	325 ml
Dimensions(mm)		318×124×234	318×124×234	338×138×244
Weight		8.5 kg	8.5 kg	10.4 kg

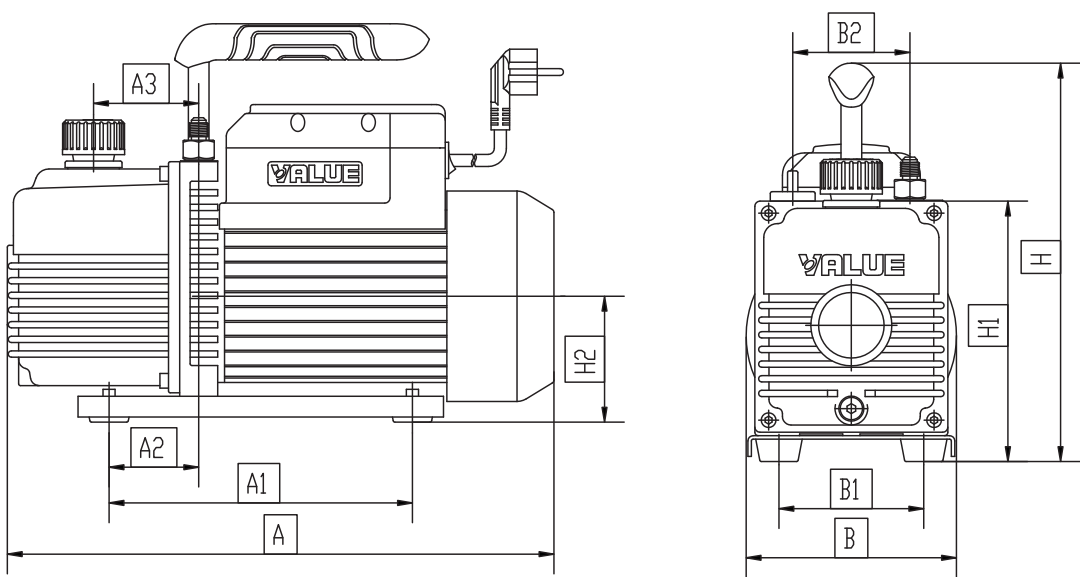
Item No.		VE260ND	VE280ND	VE2100ND
Flow Rate	50 Hz	6 CFM	8 CFM	10 CFM
		170 l/min	226 l/min	283 l/min
	60 Hz	7 CFM	9 CFM	12 CFM
		198 l/min	254 l/min	340 l/min
Ultimate Vacuum	Partial Pressure	2×10 ⁻¹ Pa	2×10 ⁻¹ Pa	2×10 ⁻¹ Pa
	Total Pressure	15 micron	15 micron	15 micron
Power		3/4 HP	1 HP	1 HP
Inlet Port		1/4 " & 3/8 " Flare	1/4 " & 3/8 " Flare	1/4 " & 3/8 " Flare
Oil Capacity		580 ml	500 ml	590 ml
Dimensions(mm)		395×145×257	395×145×257	395×145×257
Weight		15.8 kg	16.2 kg	16.7 kg

Exploded View for iPump Series



1	Base	18	Round pin	35	O ring	52	Gasket
2	Screw	19	Spring	36	Exhausting and oil inlet fitting	53	Motor cover
3	Rubber feet	20	Fore rotor	37	Screw	54	Fan
4	Screw	21	Fore rotary vane	38	O ring	55	Elastic collar
5	Inlet fitting cap	22	Anti-oil cover	39	Oil drain plug	56	Fan cover
6	Solenoid valve	23	Screw	40	Sight glass	57	Cross screw
7	Vacuum gauge	24	Control plate	41	Seal	58	Cross screw
8	Filter	25	Displacing valve	42	Centrifugal switch base	59	Power supply cord
9	Inlet fitting	26	Back stator	43	Cross screw	60	Insulating bushing
10	Handle	27	Back rotary vane	44	Bearing	61	Power switch
11	Oil fill cap	28	Back rotor	45	Gasket	62	Thermal protector
12	O ring	29	Pump back cover	46	Motor hull	63	Junction box
13	Trestle	30	Oil pump rotary vane	47	Motor stator	64	Capacitor
14	Gas ballast	31	Screw	48	Bearing	65	Junction box cover
15	O ring	32	Oil pump back cover	49	Centrifugal switch		
16	O ring	33	Screw	50	Motor rotor		
17	Fore stator	34	Anti-oil plate	51	Bearing		

Dimensional Drawing



Model	A	A1	A2	A3	B	B1	B2	H	H1	H2
VE115N	290	118	30	50	124	76	—	224	141	71
VE125N	290	118	30	50	124	76	—	224	141	71
VE135N	318	144	40	61	124	84	68	234	154	76
VE160N	338	144	40	61	138	84	74	244	166	78
VE180N	395	174	66	85	145	99	74	257	179	86
VE215N	308	118	30	50	124	76	—	224	141	71
VE225N	318	144	40	61	124	84	68	234	154	76
VE245N	338	144	40	61	138	84	74	244	166	78
VE260N	395	174	66	85	145	99	74	257	179	86
VE280N	395	174	66	85	145	99	74	257	179	86
VE2100N	395	174	66	85	145	99	74	257	179	86

Vacuum Pump Oil

A wide choice of oil is available to obtain the best performance from pumps under different application conditions.

VALUE vacuum pumps can be operated with the oil listed below; using different oils can affect all specified ultimate vacuum and cold starting.

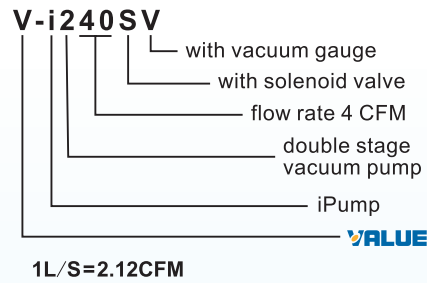
Item/Model	VPO-46	VPO-68
Kinematic Viscosity (40°C), mm ² /s	41.4~50.6	61.2~74.8
Viscosity Index	110	130
Flash Point(°C)	240	250
Pour Point(°C)	-10	-35
Type	Mineral oil	Synthetic di-ester oil

330ml (11.5 Oz)

500ml (18 Oz)



Vacuum pump selection table



AC Power Supply Plugs



Item	Description	Item	Description
C01	Israel plug	C06	America plug
C02	China plug	C07	Britain plug
C03	Australia plug	C08	Japan plug
C04	South Africa plug	C09	Italy plug
C05	Europe plug	C10	Argentina plug

Intake Ports Adapters



Item	Description	Item	Description
T2	1/4" SAE	T5	1/4" Tube
T3	1/4" SAE 3/8" SAE	T6	1/4" Tube (Locked with M12×1 nut)
T4	1/4" SAE 1/2" Acme	TG3	1/4" SAE Vacuum Gauge

How to select a correct vacuum pump

Refrigerants category

Flow rate

Ultimate vacuum

Refrigerants category

Vacuum pumps with solenoid valve should be used for pumping new refrigerants. Otherwise, there might be a risk that the pump oil returning to compressor, polluted and destroyed the refrigerants.

	New Refrigerant& old Refrigerant vacuum pump		Old refrigerant vacuum pump
R410A	R407C	R22	R22
	R404A	R12	R12
	R507A	R502	R502
	R134a	R500	R500

Flow rate

The flow rate of vacuum pump is usually represented by L/S, which means the working time has a direct relationship with the flow rate. It's required to select VALUE high reliable vacuum pumps which matches the equipment.

Flow rate	1~2L/S	3~4L/S	POWER
Applicable equipment	Household refrigerator	Central air-conditioning	Central air-conditioning
	Household air-conditioning	Large household air-conditioning	Large household air-conditioning
	Car air-conditioning	Bus air-conditioning	
		Large refrigerated warehouse	

Ultimate vacuum

Ultimate vacuum means the capacity of removing moisture. Pressure unit with Pa usually. The smaller figure, the higher ultimate vacuum achieves. New refrigerants central air-conditioning, Freezing and refrigeration equipment with low evaporator temperature need to use VALUE double stage vacuum pump.

	Single Stage	Dual Stage
Ultimate vacuum	2Pa	2×10 ⁻¹ Pa
Applicable equipment	Household air-conditioning	Central air-conditioning
	Car air-conditioning	Large refrigerated warehouse
	Refrigerator	

Adapt for old refrigerant			Adapt for all refrigerant (including R22,R410A,etc...)	
Household air-conditioning Household refrigerator Car air-conditioning	Large household air-conditioning Bus air-conditioning	Central air-conditioning Large refrigerated warehouse	Household air-conditioning	Central air-conditioning Large household air-conditioning
 VE115N	 VE160N	 VE245N	 V-i140SV(2L/S)	 V-i240SV(2L/S)
 VE135N	 VE180N	 VE280N		 V-i280SV(4L/S)
150 micron	150 micron	15 micron	150 micron	15 micron

HIGH RELIABILITY

POWER Series

Suit for large engineering equipment, refrigeration equipment and the other vacuum work

New



Powerful Fast

POWER Series high pumping speed vacuum pump

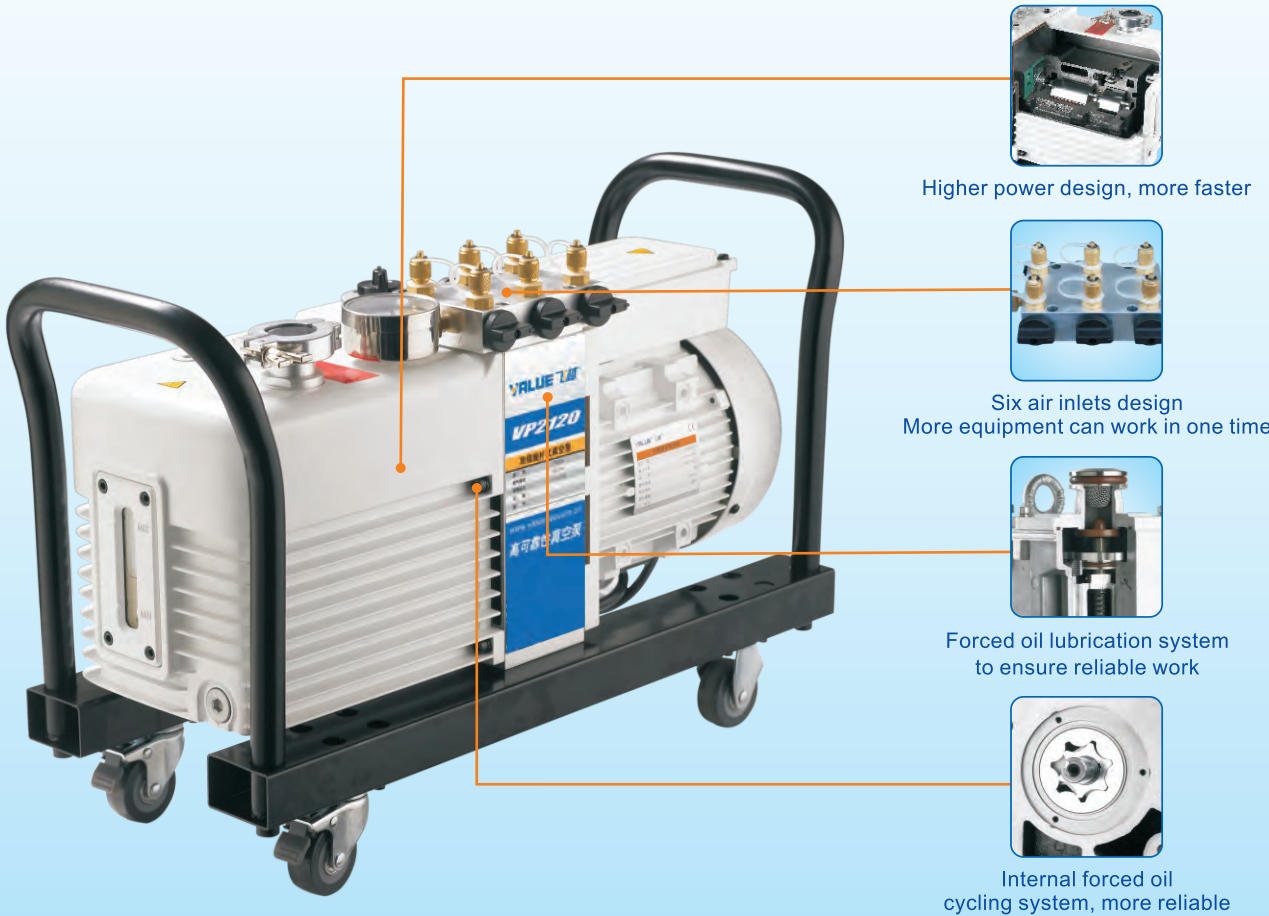
In order to solve the vacuum work for the large refrigeration equipment , **VALUE** specializes in development of POWER vacuum pump , large cylinder with high power design , can achieve a faster pumping work . At the same time , the six air inlet structure can be closed individually , so it can be connected with multiple devices . Innovative pump circulating oil inlet system and automatic anti oil design , suitable for all types of refrigeration equipments . High reliability design , pursuit of excellence tradition , makes the company POWER series vacuum pump to be a classic .

■ Superior performance

- Large cylinder with high power design, faster pumping
- Six air inlet structure and can be closed valves individually, so it can connecte to multiple devices at the same time
- Forced oil lubrication system to ensure reliable work
- Two-handle design for easy handling

■ Scope of application

- Large refrigeration equipment repair
- Refrigeration line
- Central air-conditioning repair
- Lithium bromide unit supporting
- Machinery and equipment industry



Model		VP2120	VP2200
Displacement speed (CFM)	50Hz	12	20
	60Hz	14	24
Ultimate partial pressure without gas ballast (Pa)		4×10 ⁻²	4×10 ⁻²
Ultimate total pressure without gas ballast (Pa)		4×10 ⁻¹	4×10 ⁻¹
Ultimate total pressure with gas ballast (Pa)		8×10 ⁻¹	8×10 ⁻¹
Power supply		single/3-ph	single/3-ph
Motor power (KW)		0.75/0.55	1.1/0.75
Inlet and outlet port DN (mm)		KF25	KF25/40
Oil capacity (L)		0.9~1.5	1.3~2.0
Motor speed (rpm)	50Hz	1440	1440
	60Hz	1720	1720
Ambient temperature (°C)		5-40℃	5-40℃
Noise level dB (A)		≤58	≤58
Weight (kg)		33	38

VACUUM PUMP

VRD SERIES

INDUSTRIAL VACUUM PUMPS

VALUE's VRD series vacuum pumps are designed and manufactured to meet the requirements of various scientific and industrial applications such as analytic instruments, laboratories and product line for refrigeration, electronics, light, semiconductor, etc..

Excellent Performance:

- Automatic anti-suckback valve, protect your system from oil and oil steam when power suddenly goes off.
- Internal forced oil cycling system, fully lubricates the pump and make the lifetime longer and vacuum better.
- Adjustable gas ballast for different needs of steam emission.
- High reliable integrated cylinder structure, suits production lines better.
- Different voltage types for different countries and regions.

Range of Use:

- Semiconductor Industry
- Scientific Instruments
- Mechanical Equipments
- Chemical Industry
- Vacuum Metallurgy
- Medical Instruments
- Vacuum Packaging



VACUUM PUMP

VRD SERIES

Dual Stage



HIGH RELIABILITY

Model		VRD-4	VRD-8	VRD-16	VRD-24	VRD-30	VRD-48	VRD-65
Displacement speed m ³ /h	50 Hz	4	8	16	24	30	48	65
	60 Hz	4.8	9.6	19.2	28.8	36	60	78
Ultimate Pressure (Pa)	Partial Pressure	5×10 ⁻²	5×10 ⁻²	4×10 ⁻²	4×10 ⁻²	4×10 ⁻²	4×10 ⁻²	4×10 ⁻²
	Total Pressure	5×10 ⁻¹	5×10 ⁻¹	4×10 ⁻¹	4×10 ⁻¹	4×10 ⁻¹	4×10 ⁻¹	4×10 ⁻¹
Power supply		single/3-ph	single/3-ph	single/3-ph	single/3-ph	single/3-ph	3-ph	3-ph
Motor power (KW)		0.4/0.37 (single/3-ph)	0.4/0.37 (single/3-ph)	0.75/0.55 (single/3-ph)	1.1/0.75 (single/3-ph)	1.1 (single/3-ph)	1.5 3-ph	2.2 3-ph
Inlet and outlet port DN(mm)		KF16/25	KF16/25	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	3.0~4.0	3.0~4.0
Motor speed (rpm)	50 Hz	1440	1440	1440	1440	1440	1440	1440
	60 Hz	1720	1720	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(A)		≤56	≤56	≤58	≤58	≤58	≤62	≤62
Type of Protection (IP)		44	44	44	44	44	44	44
Weight (kg)		19	21	30	35	43	62	65

VRD Power Supply Table

Model		VRD-4	VRD-8	VRD-16	VRD-24	VRD-30	VRD-48	VRD-65
Single Phase	100V/50Hz-60Hz	●	●	/	/	/	/	/
	110V/60Hz	●	●	/	/	/	/	/
	220V/50Hz	/	/	●	●	●	/	/
	220V/60Hz	/	/	●	●	●	/	/
	220V/50Hz-60Hz	●	●	/	/	/	/	/
3-Phase	380-420V/50Hz-60Hz	●	●	●	●	●	●	●
	200-220V/50Hz-60Hz	●	●	●	●	●	●	●

MINI REFRIGERANT RECOVERY UNIT

VRR12L/VRR24L

Mini Recovery Unit VRR12L

- One key operation, easy to use
- Equipped with high pressure protection
- Oil-less compressor
- Self-purge function
- 13.5Kg only, easy to carry.



• Chinese patent



VRR24L

- One key operation, easy to use
- Equipped with high, low pressure protection
- 80% over filling protection
- Twin-piston, oil-less compressor, faster recovery
- Self-purge function



• Chinese patent



Lighter · Faster

New

MINI REFRIGERANT RECOVERY UNIT

VRR12L/VRR24L

PARTS DIAGRAM VRR24L



SPECIFICATIONS

		VRR12L			VRR24L		
Refrigerants		Category III:R-12, R-134a, R-401C, R-500					
		Category IV:R-22, R-401A, R-401B, R-402B, R-407C, R-407D, R-408A, R-409A, R-411A, R-411B, R-412A, R-502, R-509					
		Category V :R-402A, R-404A, R-407A, R-407B, R-410A, R507					
Power Supply		220-240 VAC 50-60 Hz					
Motor		3/4HP			1HP		
Motor Speed		1450RPM/1750RPM					
Maximal Current Draw		4 A			5 A		
Compressor		Oil-less, Air-cooled, Piston style					
Automatic safety Shut-Off		38.5bar/3850kPa(558psi)					
Recovery Rate		Category III	Category IV	Category V	Category III	Category IV	Category V
	Vapor	0.20 kg/min	0.25 kg/min	0.25 kg/min	0.40 kg/min	0.50 kg/min	0.50 kg/min
	Liquid	1.60 kg/min	1.80 kg/min	2.20 kg/min	3.00 kg/min	3.50 kg/min	3.50 kg/min
	Push/pull	4.60 kg/min	5.60 kg/min	6.30 kg/min	7.50 kg/min	8.50 kg/min	9.50 kg/min
Operating Temperature		0°C-40°C					
Dimensions		400×250×355mm					
Weight		13.5 kg			14.8 kg		

REFRIGERANT RECOVERY UNIT

VRR12A/VRR12C

Recovery Unit

VRR12A



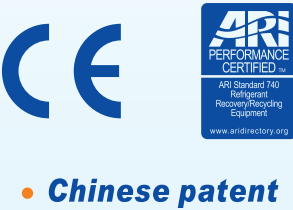
Filter drier



10cm(4 inch)
connection hose



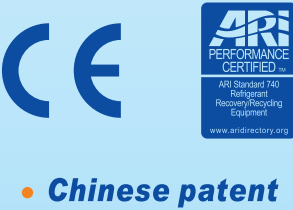
- Economical recovery with 3/4 HP, oil-less compressor
- Suitable for all commonly used refrigerants including R410A



Energy efficient
Environmental-friendly

VRR12C

- **80% overfilling protection**
The unit will automatically stop when the weight of recovered refrigerant reaches 80% capacity of the tank.
- **Low pressure protection**
The unit will automatically stop once the recover is complete, which reduces the need to monitor the whole process.
- **Oil separator device**
Purification and recycling of the refrigerants.

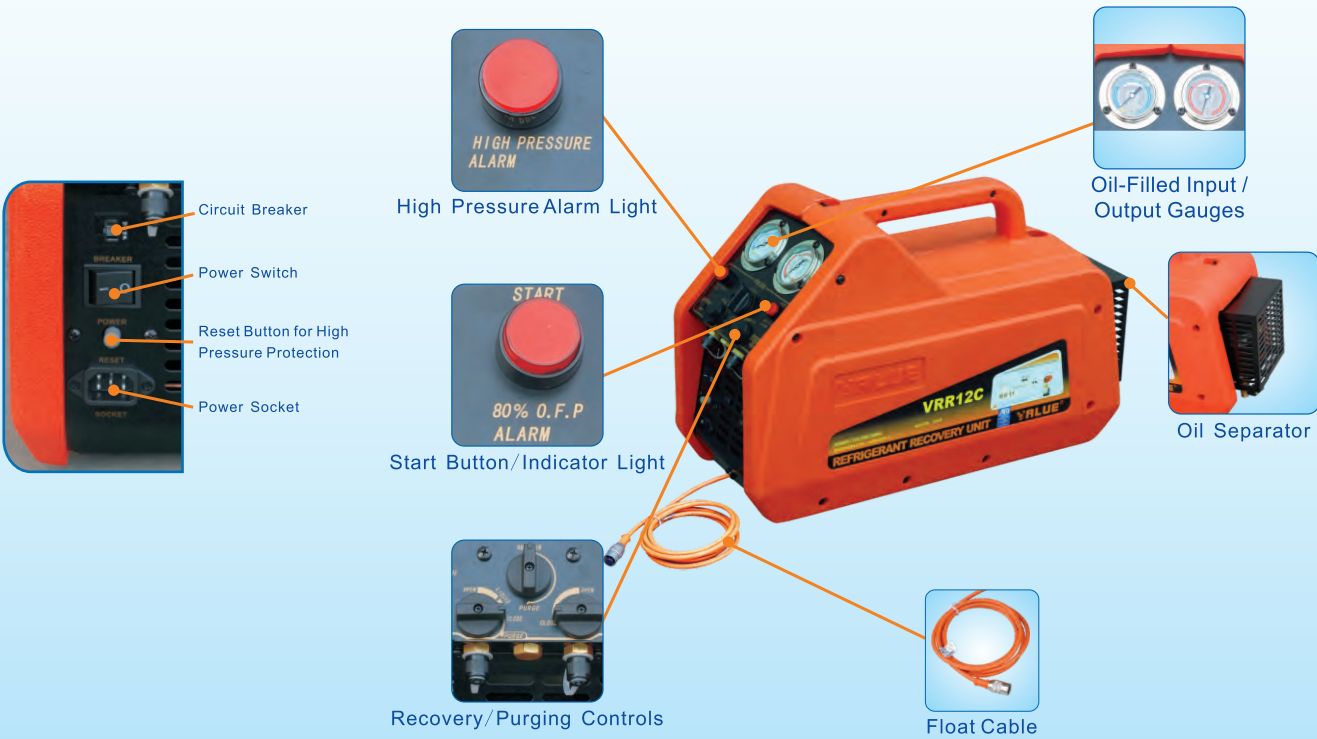


Filtration
Purification

REFRIGERANT RECOVERY UNIT

VRR12A/VRR12C

PARTS DIAGRAM VRR12C



SPECIFICATIONS

		VRR12A			VRR12C		
Refrigerants		Category III:R-12, R-134a, R-401C, R-500 Category IV:R-22, R-401A, R-401B, R-402B, R-407C, R-407D, R-408A, R-409A, R-411A, R-411B, R-412A, R-502, R-509 Category V :R-402A, R-404A, R-407A, R-407B, R-410A, R507					
		220-240 VAC 50-60 Hz					
		3/4HP			1HP		
Power Supply		1450RPM/1750RPM					
Motor		4 A					
Motor Speed		Oil-less, Air-cooled, Piston style					
Maximal Current Draw		38.5bar/558psi					
Compressor							
Automatic safety Shut-Off							
Recovery Rate		Category III	Category IV	Category V	Category III	Category IV	Category V
	Vapor	0.20 kg/min	0.25 kg/min	0.25 kg/min	0.15 kg/min	0.20 kg/min	0.20 kg/min
	Liquid	1.60 kg/min	1.80 kg/min	2.20 kg/min	1.40 kg/min	1.50 kg/min	1.90 kg/min
	Push/pull	4.60 kg/min	5.60 kg/min	6.30 kg/min	4.10 kg/min	5.00 kg/min	5.70 kg/min
Operating Temperature		0℃-40℃					
Dimensions		500×230×340mm			530×230×340mm		
Weight		16 kg			18 kg		

REFRIGERANT RECOVERY UNIT

VRR24A/VRR24C

Recovery Unit
VRR24A/24C
Faster Recovery

- **Twin-piston** compressor, suitable for A/C system with **large volume** of refrigerants.
- Equipped with high and low pressure protection with selective function of 80% O.F.P. and oil separator device.



- **Chinese patent**



SPECIFICATIONS

		VRR24A			VRR24C		
Refrigerants		Category III:R-12, R-134a, R-401C, R-500 Category IV:R-22, R-401A, R-401B, R-402B, R-407C, R-407D, R-408A, R-409A, R-411A, R-411B, R-412A, R-502, R-509 Category V :R-402A, R-404A, R-407A, R-407B, R-410A, R507					
		220-240 VAC 50-60Hz					
		3/4HP			1HP		
Power Supply		220-240 VAC 50-60Hz					
Motor		3/4HP			1HP		
Motor Speed		1450RPM/1750RPM					
Maximal Current Draw		5 A					
Compressor		Oil-less, Air-cooled, Piston style					
Automatic safety Shut-Off		38.5bar/558psi					
Recovery Rate		Category III	Category IV	Category V	Category III	Category IV	Category V
	Vapor	0.40 kg/min	0.50 kg/min	0.50 kg/min	0.35 kg/min	0.45 kg/min	0.45 kg/min
	Liquid	3.00 kg/min	3.50 kg/min	3.50 kg/min	2.50 kg/min	3.00 kg/min	3.00 kg/min
	Push/pull	7.50 kg/min	8.50 kg/min	9.50 kg/min	6.70 kg/min	7.50 kg/min	8.50 kg/min
Operating Temperature		0℃-40℃					
Dimensions		515×245×360mm			545×245×360mm		
Weight		16 kg			18 kg		

REFRIGERANT RECOVERY UNIT

VRE12P

REFRIGERANT RECOVERY & RECYCLING & EVACUATION STATION

VRE12P

- **Chinese patent**

Recovery filling
purification



SPECIFICATIONS

	Recovery Device	Vacuum Pump
Refrigerants	Cat III:R-12, R-134a, R-401C, R-500 Cat IV:R-22, R-401A, R-401B,R-402B, R-407C, R-407D, R-408A, R-409A, R-411A, R-411B, R-412A, R-502, R-509 Cat V :R-402A, R-404A, R-407A, R-407B, R-410A, R507	
	110-120V 60Hz	
	220-240V 50Hz 220-240V 50-60Hz	
Power Supply	220-240V 50-60Hz	
Motor	3/4HP	1/3HP
Maximal Current Draw	4A@50Hz	3.5A@50Hz
	8A@60Hz	6.5A@60Hz
Compressor	Oil-less, Air-cooled Piston style	
Automatic safety Shut-Off	38.5bar/558psi	

		Recovery Device		
Recovery Rate (kg/min)		Cat III	Cat IV	Cat V
	Vapor	0.20	0.25	0.25
	Liquid	1.60	1.80	2.20
	Push/pull	4.60	5.60	6.30
Vacuum pump		VE245		
Stage		2		
Flow Rate		5 CFM		
Ultimate Vacuum		25 micron		
Power		1/3 HP		
Working Current		3.5 A / 50 Hz		

REFRIGERANT RECOVER/CHARGE SCALE

VES-50A/VES-100A

Accurate Measurement
VES-50A/VES-100A




Accurate Measurement


Model	VES-50A	VES-100A
Weighting range	50 Kg	100 Kg
Resolution	2 g	5 g
Accuracy	±0.05%	
Display	LCD	
Power	DC 9V, at least 80h working time	
Working Environment	-10°C~40°C ≤75% Humidity	
Platform Size	237×237mm	
Weight	4 Kg	
Anti-collision	Yes	

Easy operation schematic


1 Open the electrical scale




2 Place the refrigerant tank and clear the electrical scale




3 Enter the filling and recovery function, enter the net weight values of the refrigerant, and press OK



4 When close to fixing weight of filling / recovery, electronic scale will alarm or automatic shut down the valve, and prompts the filling/recovery has been completed



5 After filling / recovery, stop the scale manually, and press OK

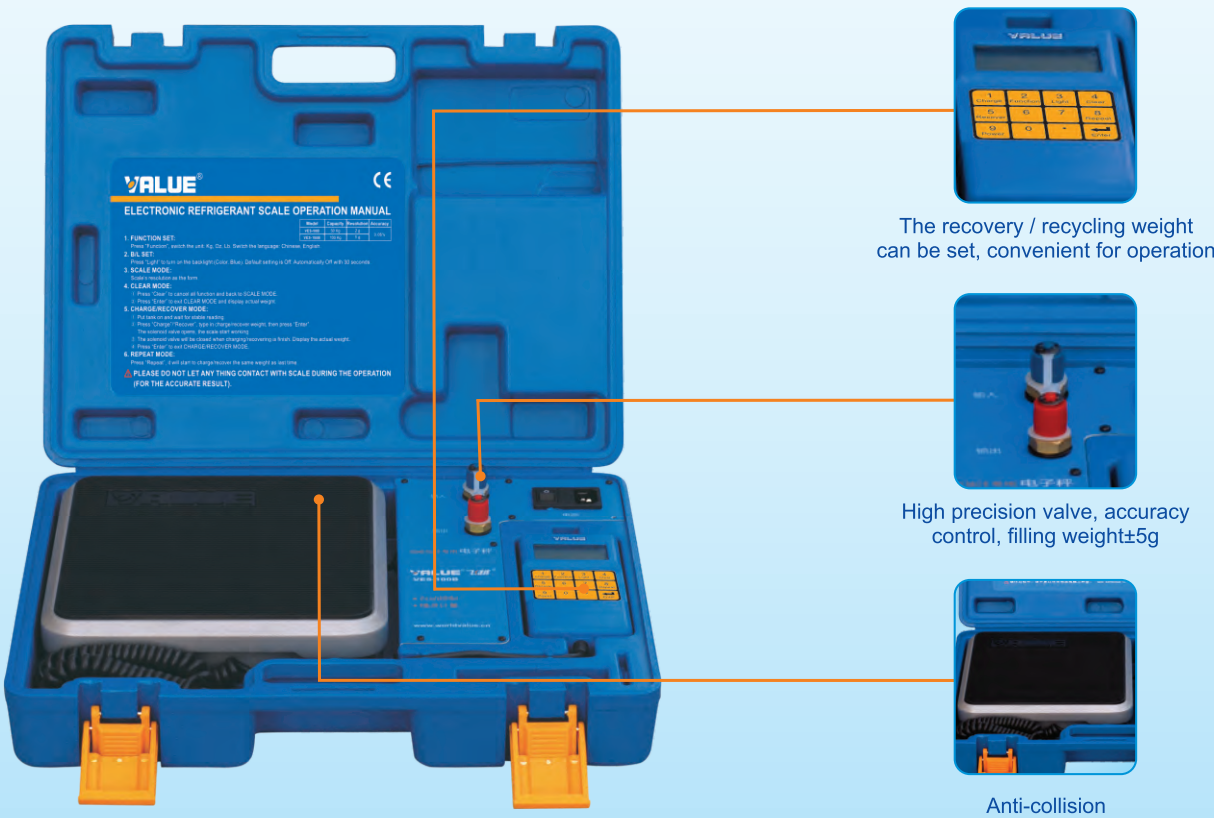


REFRIGERANT RECOVER/CHARGE SCALE

VES-50B/VES-100B

Accurate Measurement
VES-50B/VES-100B

Quantitative filling
precision control



Model	VES-50B	VES-100B
Weighting range	50 Kg	100 Kg
Resolution	2 g	5 g
Accuracy	±0.05%	
Display	LCD	
Power	DC 9V	
Working Environment	-10°C~40°C ≤75% Humidity	
Platform Size	237×237mm	
Weight	5 Kg	
Anti-collision	Yes	
Automatic Shut-off	Yes	

MANIFOLD GAUGE

VMG-2-R410A

Accurate Dual Manifold Gauge
(Anti-collision series)

Anti-collision manifold gauge specially for R410A

VMG-2-R410A

Accurate
Anti-collision



- Pressure gauge with high precision movement, precision grade1.6
- High strength rubber cover, fully anti-collision
- ϕ 12mm high strength refrigerant tube, to ensure high reliability
- The gauge handle with metal insert design, increase the strength

Manifold gauge specially for R410A

Model	VMG-2-R410A
Refrigerants	R410A
Gauge Diameter	80mm
Pressure Scale	0~800psi -30~500psi
Hose	Red:1/4",5/16" Yellow:1/4",1/4" Blue:1/4",5/16"



MANIFOLD GAUGE

VMG-2-R134a

Accurate Dual Manifold Gauge
(Anti-collision series)

Suit for R410A, R407C, R134a, R12, R22 refrigerant

VMG-2-R134a

- Pressure gauge with high precision movement, precision grade1.6
- High strength rubber cover, fully anti-collision
- ϕ 12mm high strength refrigerant tube, to ensure high reliability
- The gauge handle with metal insert design, increase the strength

Accurate
Anti-collision



Suit for R410A, R407C, R134a, R12, R22 refrigerant

Model	VMG-2-R134a
Refrigerants	R407C,R404A,R134a,R22
Gauge Diameter	80mm
Pressure Scale	0~400psi ; 0~140psi
Hose	Red:1/4"-1/4" ; Yellow:1/4"-1/4" ; Blue:1/4"-1/4" ; 90cm 120cm 150cm

MANIFOLD GAUGE

VMG-1-U-H/VMG-1-U-L

Accurate Single Gauge

(Anti-collision series)

Suit for R410A, R407C, R134a, R12, R22 refrigerant

VMG-1-U-H
VMG-1-U-L

Accurate
Anti-collision



- Pressure gauge with high precision movement, precision grade1.6
- High strength rubber cover, fully anti-collision
- The gauge handle with metal insert design, increase the strength

Model	VMG-1-U-H	VMG-1-U-L
Gauge Diameter	60mm	60mm
Pressure Scale	-30ingh~800psi	-30ingh~500psi

REFRIGERANT TUBE

VRP-U-R/VRP-U-Y/VRP-U-B

High Strength Refrigerant Tube

(General refrigerant series)

Suit for R410A, R134a, R12, R22 refrigerant

VRP-U-R
VRP-U-Y
VRP-U-B



High strength

- General: Suit for R410A, R134a, R12, R22 refrigerant
- Safe: Rubber tube wall is thickened and the diameter up to 12mm, to ensure the safety and reliability during the use
- Anti-leakage: High oil resistances, anti-leakage, reach to RMA-A leve

Model		VRP-U-R	VRP-U-Y	VRP-U-B
Pressure Scale		~800psi	~800psi	~800psi
Connector Size	R410A	1/4"-5/16"	1/4"-1/4"	1/4"-5/16"
	R134a R22 R22	1/4"-1/4"	1/4"-1/4"	1/4"-1/4"
Length		90cm	120cm	150cm

Electrical Flaring Tool

VET-19C-F (220V/50Hz)

New Accurate Measurement



- Axial spacing to sure the accurate size
- Using 220V /50HZ power supply, fast flaring in 10 seconds
- Innovative patent clamping structure for convenient flaring
- Steel ball positioning, more convenient for operation

Model	VET-19C-F
Applicable pipe	Copper Pipe
Tube O.D.	1/4", 5/16", 3/8", 1/2", 5/8", 3/4"
Power Supply	220V/50Hz
Weight	5.6 Kg

Electrical Flaring Tool

VET-19-F

New

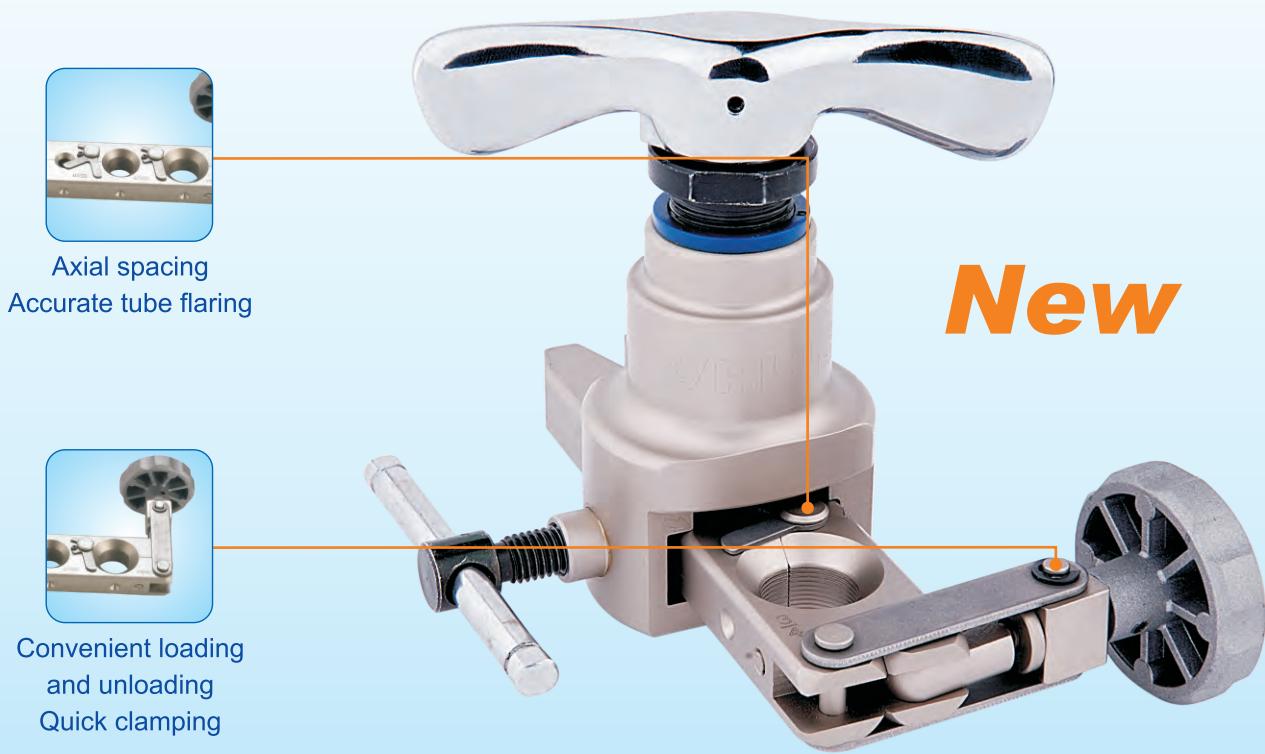


- 5-second fast and accurate flaring
- Unlimited by environment condition
- Flaring bar self centering design, easy use



Model	VET-19-F
Tube O.D.	1/4", 5/16", 3/8", 1/2", 5/8", 3/4"
Weight	6.2 Kg

R410A Flaring Tool
VFT-808C



Axial spacing
Accurate tube flaring

Chinese patent

- Axial spacing to sure the accurate size
- Innovative Patent Clamping structure for convenient operation
- Innovative design, operating more humane

Model	VFT-808C
Applicable pipe	Copper Pipe
Tube O.D.	1/4", 5/16", 3/8", 1/2", 5/8", 3/4"

Flaring Tool
VFT-808

Accurate tube
flaring

Chinese patent



VFT-808-MI

VFT-808-MIS



Model	Tube O.D.	Cutter Model
VFT-808-MI	6,8,10,12, 16,19mm 1/4" ,5/16" ,3/8" ,1/2" ,5/8" ,3/4"	VTC-28B
VFT-808-MIS	6,8,10,12, 16,19mm 1/4" ,5/16" ,3/8" ,1/2" ,5/8" ,3/4"	

TUBE CUTTER

VTC-19/28/28B/32/42

Sharp Tube Cutter

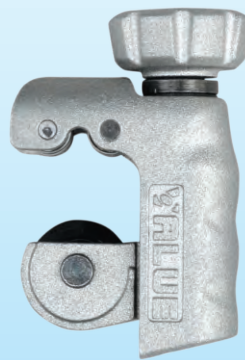
VTC-28B/32/42



Adjustment Knob
Japanese Rapid Tool Steel
Ball Bearings



VTC-19/28



- Grinding blade, uses high-quality alloy tool steel, Grinding process.
- Unique ball bearing design. Easy cutting.

• **Chinese patent**



Item No.	Description
VTC-19	For 1/8" ~ 3/4" (3~19mm)
VTC-28	For 1/8" ~ 1-1/8" (4~28mm)
VTC-28B	For 1/8" ~ 1-1/8" (4~28mm)
VTC-32	For 1/8" ~ 1-1/4" (4~32mm)
VTC-42	For 1/4" ~ 1-5/8" (6~42mm)

TUBE EXPANDERS

VST-22

Tube Expanders

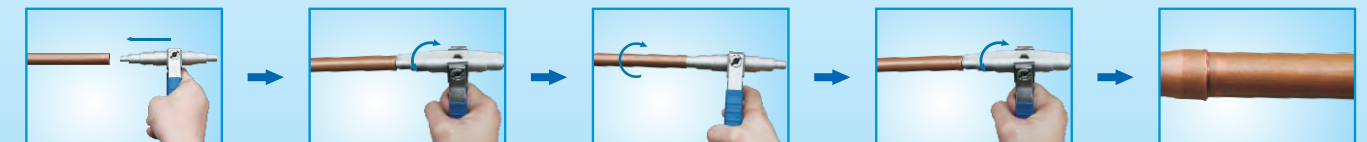
VST-22

Innovative invention patent, using the most simple structure for brass pipe expanding

New

Easy to carry

• **Patent for invention**



Model	Tube O.D.
VST-22	3/8" , 1/2" , 5/8" , 3/4" , 7/8"

INTEGRATED TOOLS KIT

VTB-5B-I

Integrated Tool Box
VTB-5B-I



Item No.	Spare Part	Description	Quantity
VTB-5B-I	Flaring Tool	VFT-808-I	1set
	Tube Cutter	VTC-28B	1pc
	Tube Cutter	VTC-19	1pc
	Manifold Gauge	VMG-2-R410A	1set
	Scraper	VTT-5	1pc
	PVC Box	Box	1pc



VFT-808-IS



VFT-808-MIS

Item No.	Tube O.D.	
	Flare	Tube Cutter
VFT-808-IS	1/4" , 5/16" , 3/8" , 1/2" , 5/8" , 3/4"	VTC-28B
VFT-808-MIS	Universal: 6, 8, 10, 12, 16, 19 mm 1/4" , 5/16" , 3/8" , 1/2" , 5/8" , 3/4"	

