

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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VACUUM PUMPS

MINI SERIES

New Refrigerant Vacuum Pump

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

V-i115S-M

Mini Series



Only 4 kg



New

Smaller, lighter, and more convenient

| Model | Flow Rate | Partial Pressure | Total Pressure | Motor | Inlet Port | Oil Capacity | Dimensions | Weight |
|-----------|-----------|-----------------------|----------------|--------|------------|--------------|--------------|--------|
| V-i115S-M | 1.5 CFM | 2 Pa | 150 micron | 1/5 HP | 1/4"Flare | 150 ml | 240×88×183mm | 3.5 Kg |
| V-i215S-M | 1.5 CFM | 2×10 ⁻¹ Pa | 15 micron | 1/5 HP | 1/4"Flare | 110 ml | 240×88×183mm | 4 Kg |

Totally Upgrade

Mini Series

VH115N



New

| Model | Flow Rate | Partial Pressure | Total Pressure | Motor | Inlet Port | Oil Capacity | Dimensions | Weight |
|--------|-----------|------------------|----------------|--------|------------|--------------|---------------|--------|
| VH115N | 1.5 CFM | 2 Pa | 150 micron | 1/5 HP | 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 | | 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 | | 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

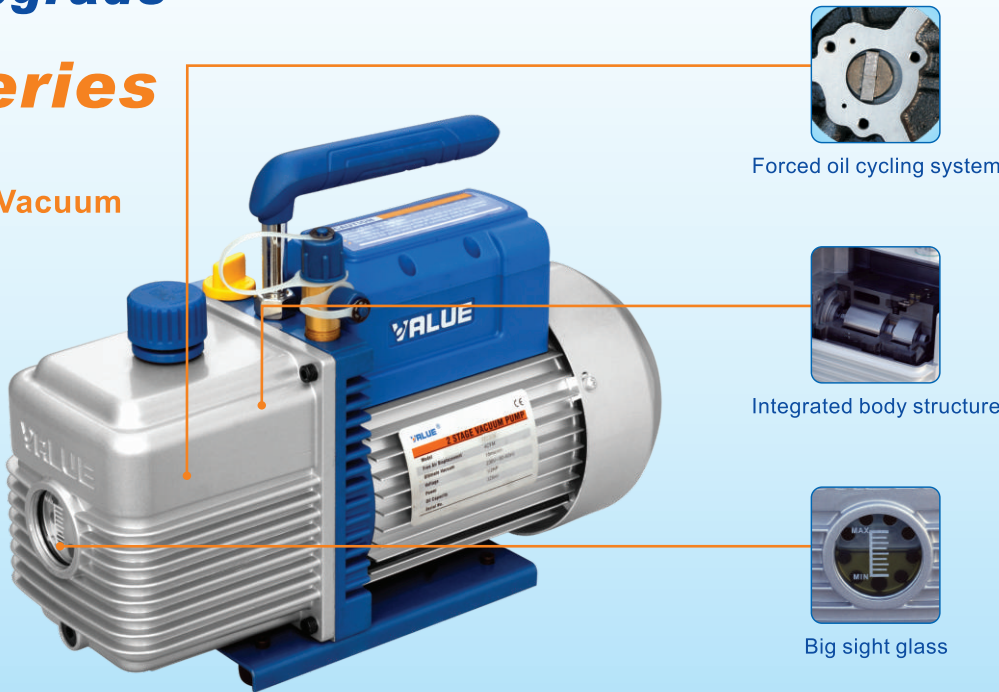
Totally Upgrade

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 |
| 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 |
| 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

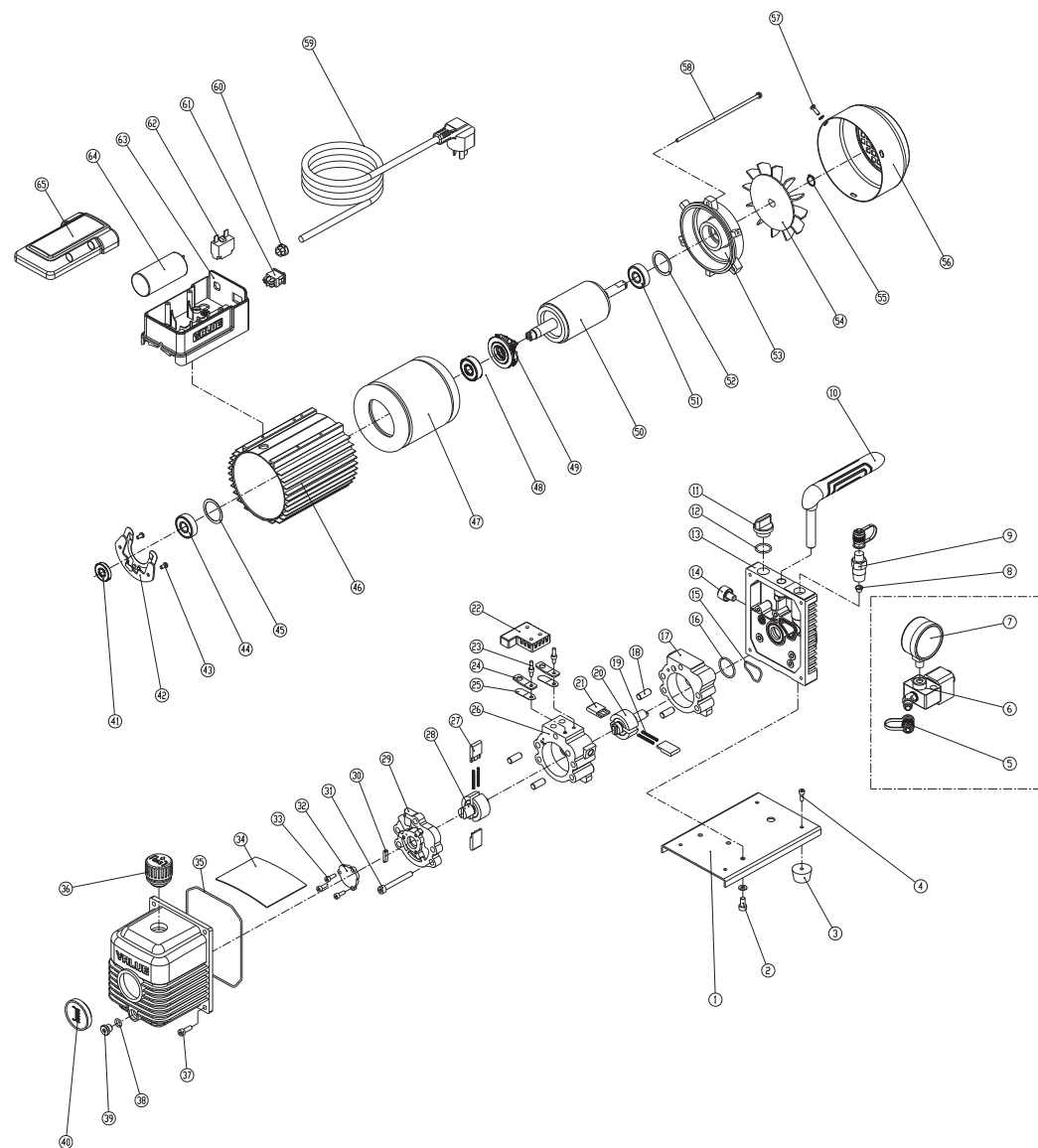


Dual stage

| 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 |
| 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 |

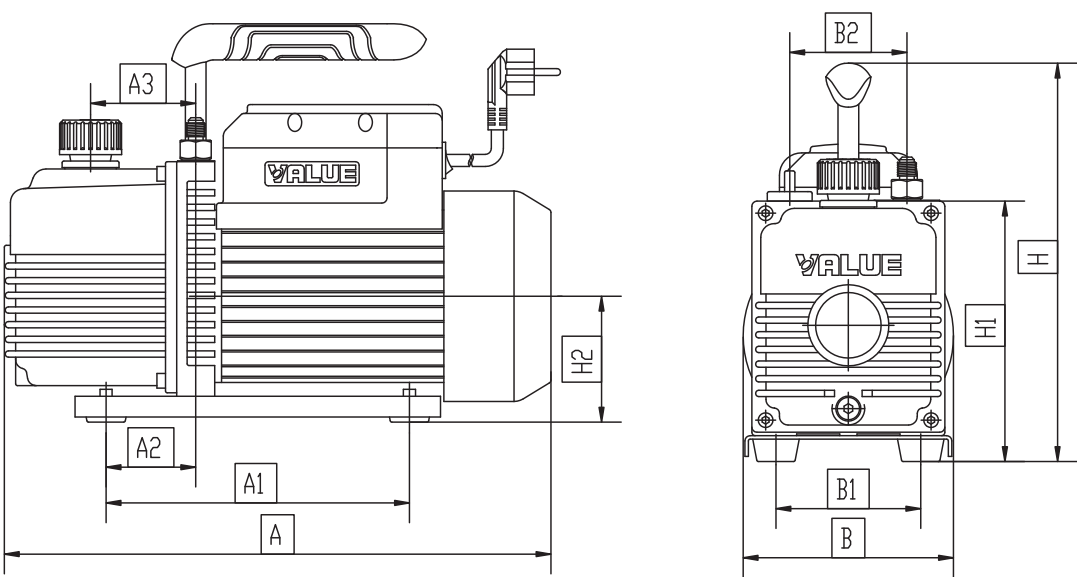
| Item No. | | VE260ND | VE280ND | VE2100ND |
|-----------------|------------------|-----------------------|-----------------------|-----------------------|
| Flow Rate | 50 Hz | 6 CFM | 8 CFM | 10 CFM |
| | | 170 l/min | 226 l/min | 283 l/min |
| | 60 Hz | 7 CFM | 9 CFM | 12 CFM |
| Ultimate Vacuum | 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.

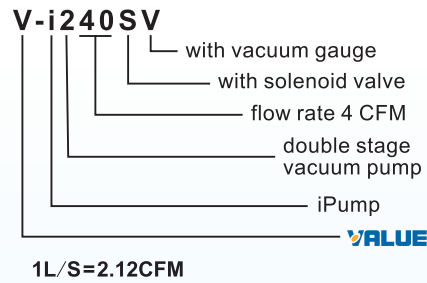
| Item/Model | VPO-46 | VPO-68 |
|--|-------------|------------------------|
| Kinematic Viscosity (40°C), mm ² /s | 41.4~50.6 | 61.2~74.8 |
| Viscosity Index | 110 | 130 |
| Flash Point(°C) | 240 | 250 |
| Pour Point(°C) | -10 | -35 |
| Type | Mineral oil | Synthetic di-ester oil |

330ml (11.5 Oz)

500ml (18 Oz)



Vacuum pump selection table

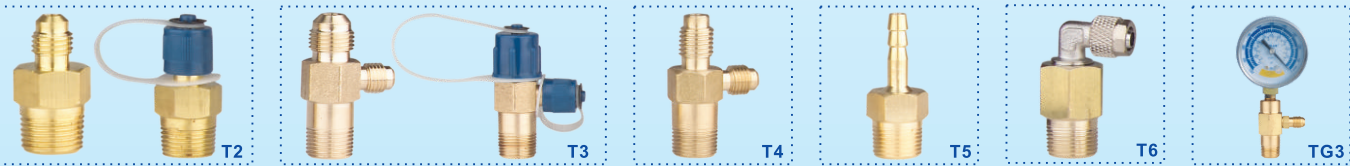


AC Power Supply Plugs



| 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 |
| | R404A | R12 |
| | R507A | R502 |
| | R134a | 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 |

VACUUM PUMP

POWER SERIES

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 .

VACUUM PUMP

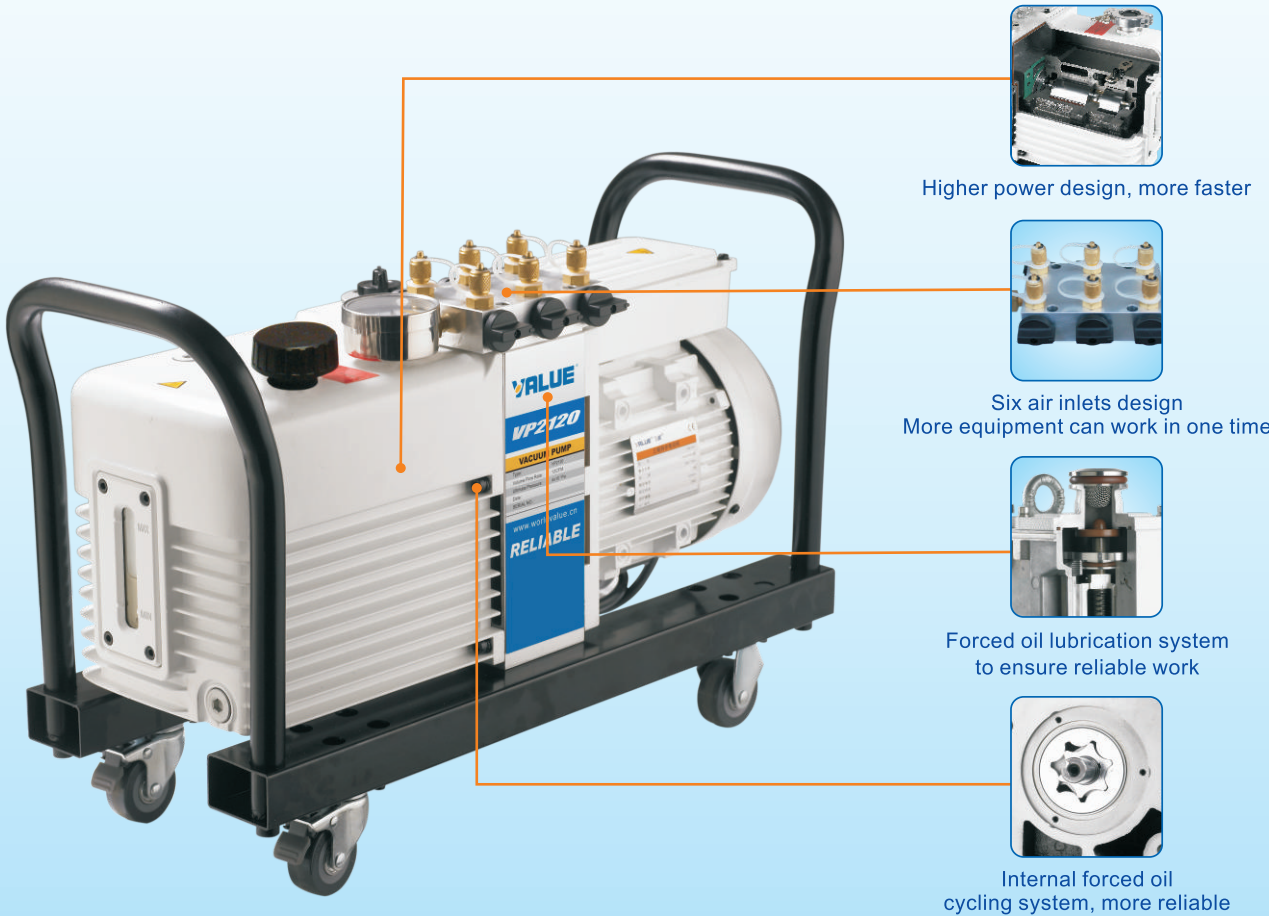
POWER SERIES

■ Superior performance

- Large cylinder with high power design , faster pumping
- Six air inlet structure and can be closed valves individually , so it can connect 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°C | 5-40°C |
| 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



| 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 | 57.6 | 78 |
| Ultimate partial pressure without gas ballast (Pa) | | 5×10 ⁻² | 5×10 ⁻² | 4×10 ⁻² | 4×10 ⁻² | 4×10 ⁻² | 4×10 ⁻² | 4×10 ⁻² |
| Ultimate total pressure without gas ballast (Pa) | | 5×10 ⁻¹ | 5×10 ⁻¹ | 4×10 ⁻¹ | 4×10 ⁻¹ | 4×10 ⁻¹ | 4×10 ⁻¹ | 4×10 ⁻¹ |
| Ultimate total pressure with gas ballast (Pa) | | 3 | 3 | 8×10 ⁻¹ | 8×10 ⁻¹ | 8×10 ⁻¹ | 8×10 ⁻¹ | 8×10 ⁻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 | 3.3~4.5 | 3.3~4.5 |
| 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

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℃-40℃ | | | | | |
| Dimensions | | 400×250×355mm | | | | | |
| Weight | | 13.5 kg | | | 14.8 kg | | |

REFRIGERANT RECOVERY UNIT

VRR12A/VRR12C

Recovery Unit

VRR12A



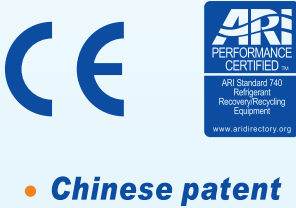
Filter drier



10cm(4 inch)
connection hose



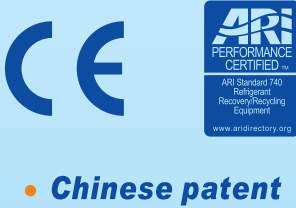
- Economical recovery with 3/4 HP, oil-less compressor
- Suitable for all commonly used refrigerants including R410A



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 | | | | | |
| Power Supply | | 220-240 VAC | | | 50-60 Hz | | |
| Motor | | 3/4HP | | | 1HP | | |
| Motor Speed | | 1450RPM/1750RPM | | | | | |
| Maximal Current Draw | | 4 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 | 0.20 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 | | |
| 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

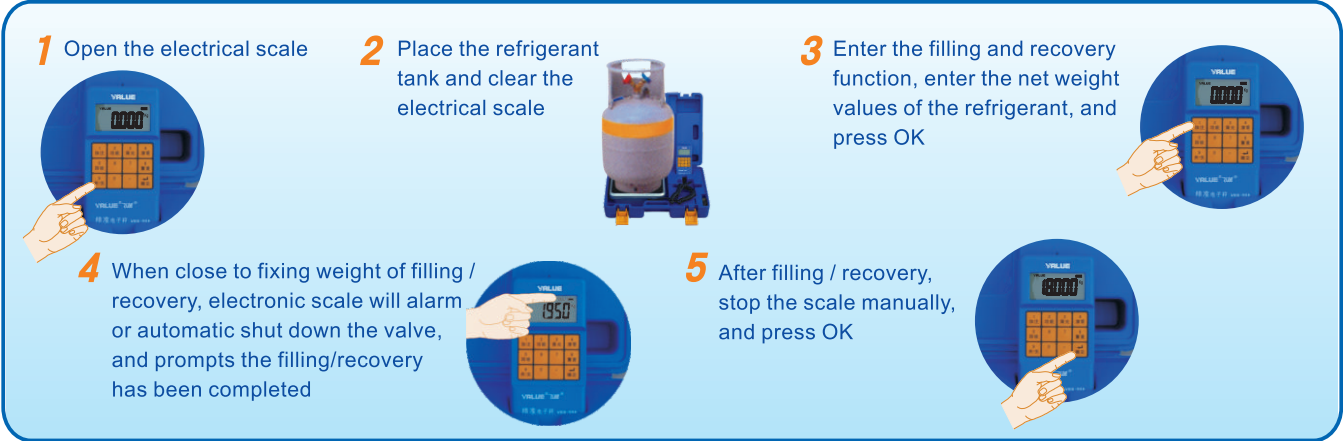
Accurate Measurement
VES-50A/VES-100A



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

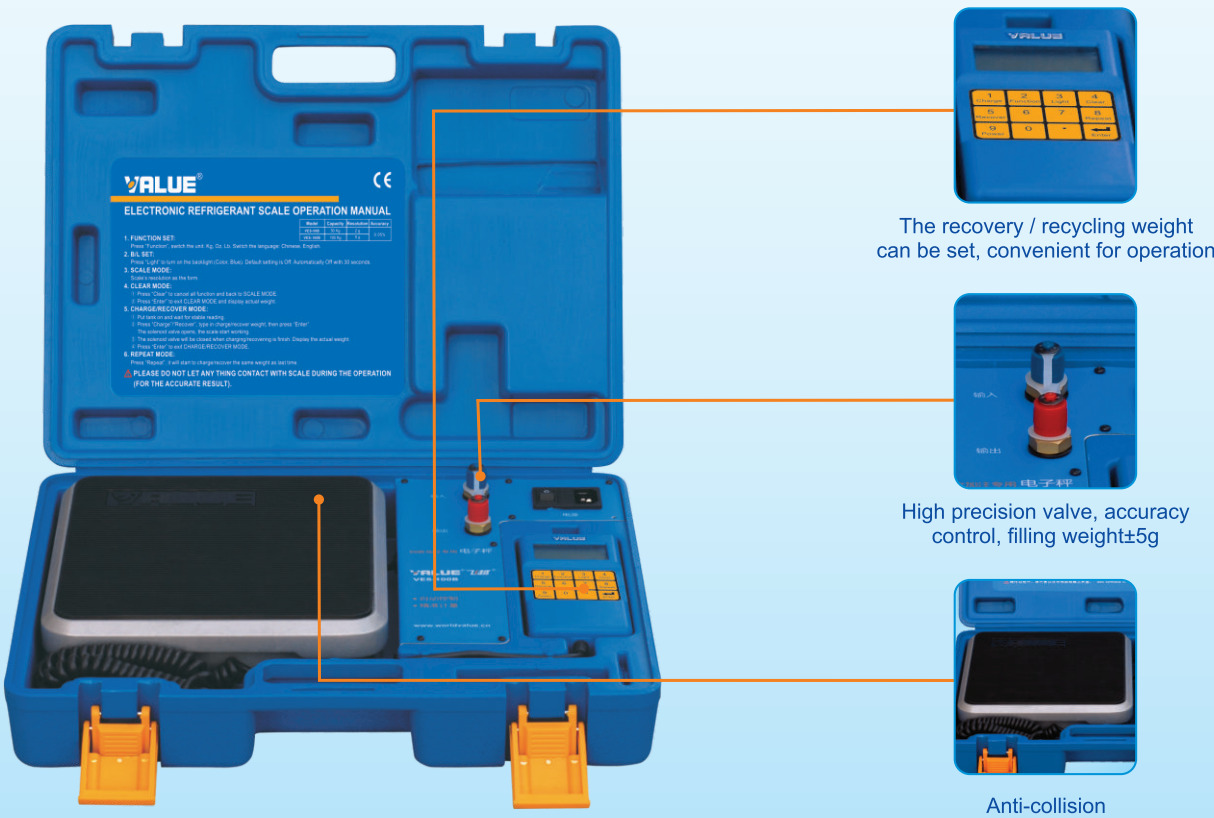


REFRIGERANT RECOVER/CHARGE SCALE

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 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 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, 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 | -30inHg~800psi | -30inHg~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 level

| Model | | VRP-U-R | VRP-U-Y | VRP-U-B |
|----------------|------------------|------------|-----------|------------|
| Pressure Scale | | 0~800psi | 0~800psi | 0~800psi |
| 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

New Accurate Measurement



- Axial spacing to sure the accurate size
- Using AC 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 | 230V~/50-60Hz | 115V~/60Hz | 100V~/50-60Hz |
| Weight | 5.6 Kg | | |

Electrical Flaring Tool

VET-19-F

New

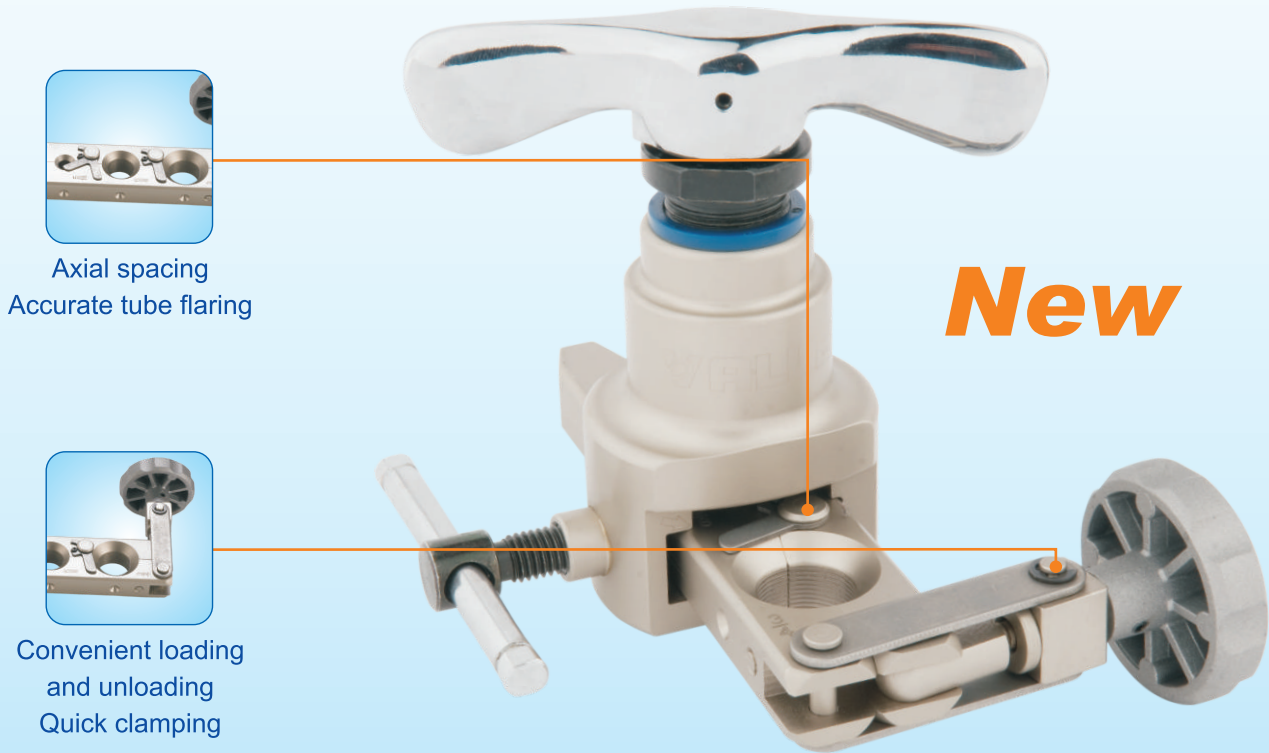


- 5-second fast and accurate flaring
- Unlimited by environment condition
- Flaring bar self centering design, easy use



| Model | VET-19-F | |
|-----------|-------------------------------------|--|
| Tube O.D. | 1/4", 5/16", 3/8", 1/2", 5/8", 3/4" | |
| Weight | 6.4 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-I



VFT-808-MI



| Model | Tube O.D. |
|------------|---|
| VFT-808-I | 1/4" , 5/16" , 3/8" , 1/2" , 5/8" , 3/4" |
| VFT-808-MI | 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

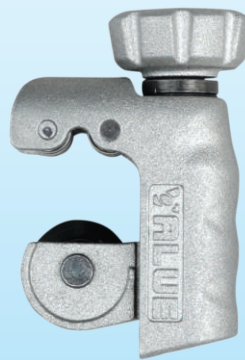
VTC-28B/32/42



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

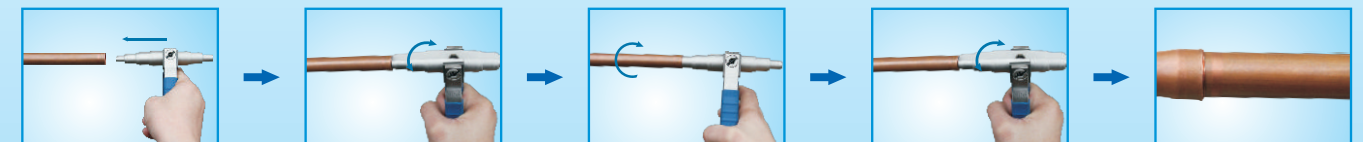
VST-22

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" | |

