





## **VALUE Mechanical & Electrical Products CO., LTD**

Add: No. 5 Third Street, East Industrial Park, Wenling, Zhejiang, China Tel:+86-576-86191959 Fax:+86-576-86191957 Email:value@worldvalue.cn www.worldvalue.cn









## 

Empower smart work,
Forge bright future,
VALUE creates value!



WHO IS VALUE

VALUE is the leader of global air conditioner refrigeration tools dedicated to refrigeration tools and vacuum solutions. Over the past 20 years, the Company has kept technological innovation, and explored cutting-edge technologies concerning air conditioner refrigeration tools with the purpose of offering innovative and quality products, services and system solutions to users, and helping customers complete tasks in a more easier way.

The annual production capacity is 600,000 for rotary-vane vacuum pumps and 80,000 recovery unit. Right now, Value has become the largest manufacturer of refrigeration vacuum pump, recovery unit and tools in the world.

We provide our customers with innovative and qualitative solutions of refrigeration tools and vacuum systems to help them succeed, and to advance technologies.

## **VISION OF VALUE**

To be the leader in solutions of refrigeration tools and vacuum system.

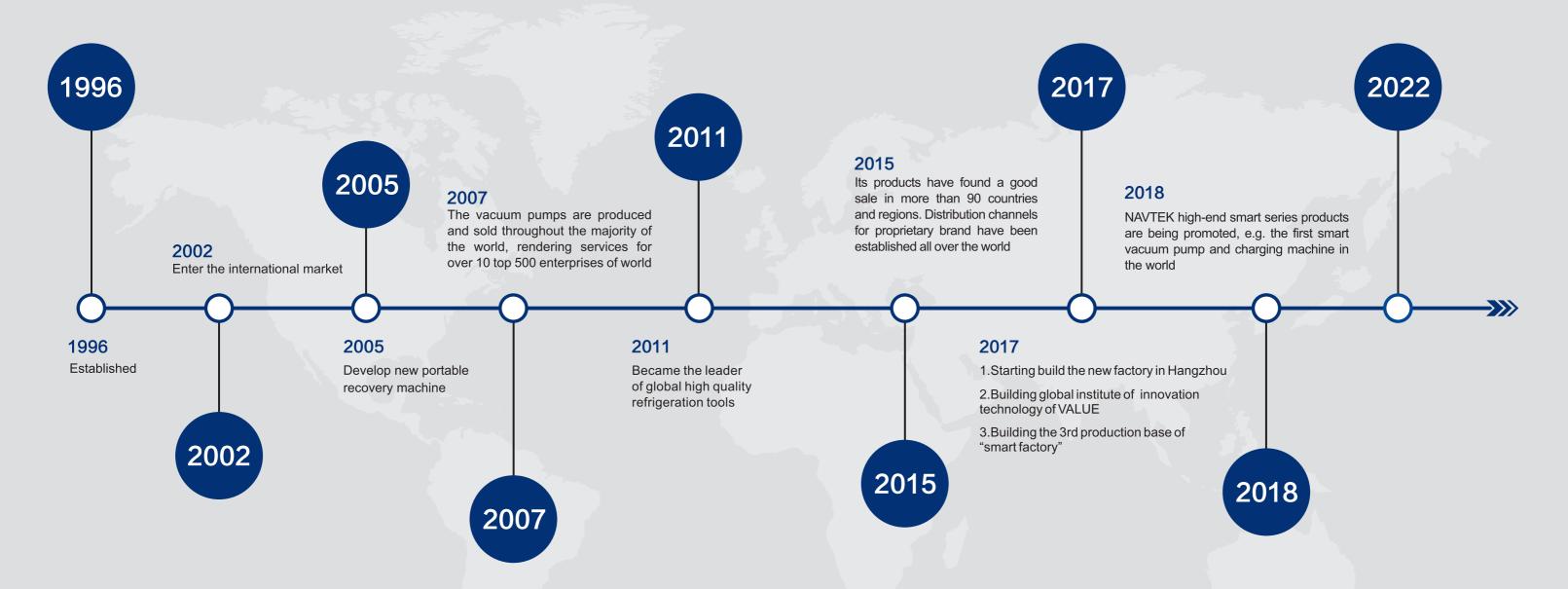
- —Global Market
- ——Leading Technology
- --One of the best

## Global leader

in refrigeration tools and vacuum solutions



## **DEVELOPMENT HISTORY**





## **Welcome to VALUE**

Global leader of refrigeration tools and vacuum solutions

## **ABOUT US**

VALUE is the global leader of refrigeration tools and vacuum solutions. After 20 years of historical accumulation, the three core competencies which are continuous technological innovation capabilities, social resource integration capabilities and brand channels all over the world, have made the company keep its leadership in the global refrigeration industry.

VALUE has accumulated the industry's veteran expert teams with experienced, we are always working on innovative work unswervingly to develop the best products, which can provide personalized design and service in the shortest time to meet customer needs. We have built a global innovation and Technology Research Institute, a huge proportion of R & D funds is invested every year, innovative development of the industry's leading products; the quality of our products reaches the world first-class level, through the CE, UL, CSA and other security certification and ISO9001:2015 quality management system certification, and we also have bulit product failure analysis laboratory, thermostat and constant humidity production workshop and product prototype test center. We have introduced a lot of high precision manufacturing technology and equipment, Japanese Multi-Tasking machining center, Japanese SEIKI horizontal machining center and OKUMA vertical machining center, Germany WENZEL three coordinate measuring instrument and other modern machining and testing equipment, the full implementation of the ERP data management and lean production management system.

Through years of development, we have our owned global brand and channels. It has built "VALUE" independent brand sales channels in more than 90 countries, and has provided services for more than 10 of world top 500 enterprises.

"speed, innovation, high quality", create value for customers



Speed • Innovation • High quality

















## **High quality manufacturing**

VALUE is fully equipped with modernized processing and testing instruments, such as Japanese Multi-Tasking machining center, Japanese DMG Mori Seiki horizontal machining center, Japanese OKUMA-BYJC vertical machining center, German WENZEL three coordinates measuring equipment, etc. We carry out ERP data management and lean production management system.



## **Precision measure industry benchmark**

Our products are qualified with world's most advanced quality level. We have European CE, American UL, Canada CSA safety certificates and German TUV ISO9001: 2015 certificate. And we also own product failure analysis lab, the constant temperature and humid workshop, new product trial center.



## **GLOBAL BRAND CHANNELS**













## **CLASSIC SERIES OF VALUE**





"Creating value for customers" is the core mission of VALUE. VALUE Helps customers to accomplish work easier, efficiently and with high quality. We continue to study the working process of the user's pain point, experience the user's experience, we developed high reliability series vacuum pump, light / fast series recovery machine, enjoyable series pipe tools and precision measuring instrument series, provides a full range of high-quality refrigeration maintenance tools for customers, help customers more easily complete maintenance work of air conditioning products.

VALUE's Classic series to provide customers with a high quality full range of refrigeration maintenance tools.

Leading Technology, Superior Quality, Best Experience.

Making your job more enjoyable



## **CONTENTS**

## **Classic Series of VALUE**

| Vacuum   | gump   |
|----------|--------|
| Vacadiii | Parrip |

| N Series Vacuum Pump —————             | 0 |
|--|---|
| i Series New Refrigerant Vacuum Pump — | 0 |
| R32 Series Vacuum Pump —————           | 0 |
| Vacuum Pump Oil —————                  | 0 |
| Vacuum Pump Selection —————            | 0 |
| Power Series Vacuum Pump ————          | 1 |









## Recovery machine

| M Series Recovery Unit | <br>1 |
|------------------------|-------|
| L Series Recovery Unit | <br>1 |







## Refrigeration tools

| Manifold Gauge —————                                    | 2 |
|---|---|
| Single Gauge ————                                       | 2 |
| Pressure Gauge ————                                     | 2 |
| Digital Manifold Gauge —————                            | 3 |
| Quick Coupler ——————                                    | 3 |
| Refrigeration hoses ——————————————————————————————————— | 3 |
| Valve Core Removal Tool ——————                          | 3 |
| Valve Opener ——————                                     | 3 |
| Check Valve —————                                       | 4 |
| Refrigerant Scale ————————————————————————————————————  | 4 |
|   |   |







## Pipe tools/HVAC instrument

## Pipe tools

| > | Cordless Flaring Tool —————  | 45 |
|---|------------------------------|----|
| > | Flaring Tool —————           | 47 |
| > | Power Tube Tool —————        | 51 |
| > | Bending Tool —————           | 53 |
| > | Power Tube Expander ————     | 55 |
| > | Hydraulic Tube Expander ———— | 56 |
| > | Tube Expander ————           | 57 |
| > | Tube Cutter —                | 58 |
| > | Integrated Tool              | 59 |
| > | Tool Kit ————                | 61 |
|   |                              |    |
| Н | VAC instrument ————          | 63 |
| С | ondensate Pump ————          | 69 |





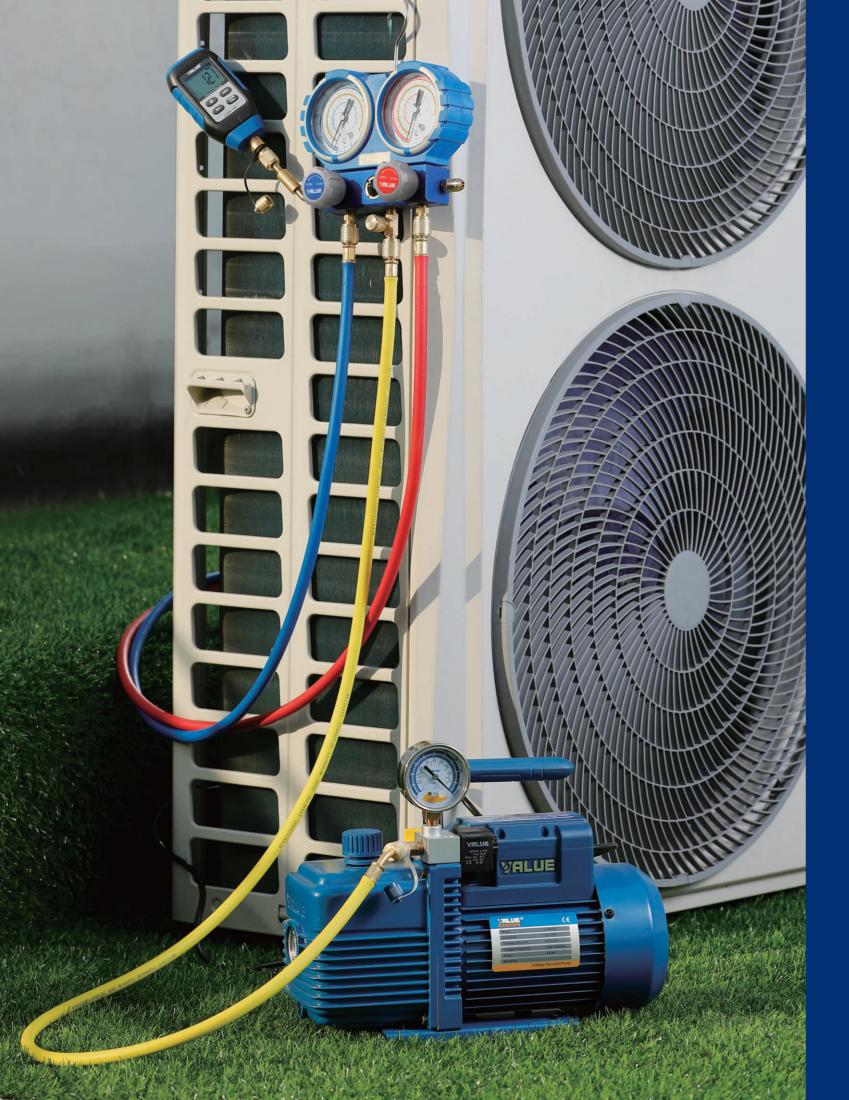
| Vacuum Pump —————               | 73 |
|---------------------------------|----|
| Recovery Unit ————              | 79 |
| Leak Detector —————             | 81 |
| Manifold Gauge —————            | 83 |
| Wireless Refrigerant Scale ———— | 87 |













# Vacuum Pump

High · Reliable



## **N Series Vacuum Pump**

Suitable for R407C, R404A, R507A, R134a refrigerant



## **High Reliablility**

| Integra | ted B | ody | Stru | cture |
|---------|-------|-----|------|-------|
|---------|-------|-----|------|-------|

Higher precision

Higher ultimate vacuum

## Forced Oil Cycling System

High reliability

### Large Oil Screen

Better visibility

### Single Stage

|            | Model                     | VE115N         | VE125N         | VE135N          | VE160N          | VE180N          |
|------------|---------------------------|----------------|----------------|-----------------|-----------------|-----------------|
|            |                           | 1.8 CFM        | 2.5 CFM        | 3.5 CFM         | 6.0 CFM         | 8.0 CFM         |
| Flow       | 50Hz                      | 51 L/min       | 70 L/min       | 100 L/min       | 170 L/min       | 226 L/min       |
| Rate       | 60Hz                      | 2.0 CFM        | 3.0 CFM        | 4.0 CFM         | 7.0 CFM         | 9.0 CFM         |
|            | 00112                     | 57 L/min       | 84 L/min       | 113 L/min       | 198 L/min       | 254 L/min       |
| Ultimate   | Ultimate Partial Pressure | 2 Pa           | 2 Pa           | 2 Pa            | 2 Pa            | 2 Pa            |
| Vacuum     | 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" SAE       | 1/4" SAE       | 1/4" & 3/8" SAE | 1/4" & 3/8" SAE | 1/4" & 3/8" SAE |
| Oil Capa   | city                      | 250 ml         | 250 ml         | 250 ml          | 415 ml          | 660 ml          |
| Dimensio   | ons                       | 290x124x224 mm | 290x124x224 mm | 318x124x234 mm  | 338x138x244 mm  | 395x145x257 mm  |
| Weight     |                           | 6.6 kg         | 7.1 kg         | 8.0 kg          | 9.9 ka          | 14.6 kg         |

## Dual Stage

|            | Model            | VE215N                | VE225N                | VE245N                | VE260N                | VE280N                | VE2100N               |
|------------|------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
|            |                  | 1.5 CFM               | 2.5 CFM               | 4.5 CFM               | 6.0 CFM               | 8.0 CFM               | 10.0 CFM              |
| Flow       | 50Hz             | 42 L/min              | 70 L/min              | 128 L/min             | 170 L/min             | 226 L/min             | 283 L/min             |
| Rate       | 60Hz             | 1.8 CFM               | 3.0 CFM               | 5.0 CFM               | 7.0 CFM               | 9.0 CFM               | 12.0 CFM              |
|            | 00112            | 50 L/min              | 84 L/min              | 142 L/min             | 198 L/min             | 254 L/min             | 340 L/min             |
| Ultimate   | Partial Pressure | 2x10 <sup>-1</sup> Pa |
| Vacuum     | Total Pressure   | 15 micron             | 15 micron             | 15 micron             | 15micron              | 15 micron             | 15 micron             |
| Power      |                  | 1/4 HP                | 1/3 HP                | 1/2 HP                | 3/4 HP                | 1 HP                  | 1 HP                  |
| Inlet Port | t                | 1/4" SAE              | 1/4" SAE              | 1/4" & 3/8" SAE       | 1/4" & 3/8" SAE       | 1/4" & 3/8" SAE       | 1/4" & 3/8" SAE       |
| Oil Capa   | city             | 200 ml                | 200 ml                | 325 ml                | 580 ml                | 500 ml                | 590 ml                |
| Dimensio   | ons              | 308x124x224 mm        | 318x124x234 mm        | 338x138x244 mm        | 395x145x257 mm        | 395x145x257 mm        | 395x145x257 mm        |
| Weight     |                  | 7.5 kg                | 8.5 kg                | 10.4 kg               | 15.8 kg               | 16.2 kg               | 16.7 kg               |

## N Series Vacuum Pump

Suitable for R407C, R404A, R507A, R134a refrigerant



## **High Reliability**

**Integrated Body Structure** 

Higher precision

Higher ultimate vacuum

Forced Oil Cycling System

High reliability

Large Oil Screen

Better visibility

### **Dual Stage**

| Model                 |                  | VE215ND               | VE225ND               | VE245ND               |
|-----------------------|------------------|-----------------------|-----------------------|-----------------------|
|                       | 50Hz             | 1.5 CFM               | 2.5 CFM               | 4.5 CFM               |
| Flow                  | 30112            | 42 L/min              | 70 L/min              | 128 L/min             |
| Rate                  |                  | 1.8 CFM               | 3.0 CFM               | 5.0 CFM               |
|                       | 60Hz             | 50 L/min              | 84 L/min              | 142 L/min             |
| Ultimate              | Partial Pressure | 2x10 <sup>-1</sup> Pa | 2x10 <sup>-1</sup> Pa | 2x10 <sup>-1</sup> Pa |
| Vacuum                | Total Pressure   | 15 micron             | 15 micron             | 15 micron             |
| Power                 |                  | 1/4 HP                | 1/3 HP                | 1/2 HP                |
| Inlet Port            |                  | 1/4" SAE              | 1/4" SAE              | 1/4" & 3/8" SAE       |
| Oil Capacity          | у                | 200 ml                | 200 ml                | 325 ml                |
| Dimensions            | ;                | 318x124x234 mm        | 318x124x234 mm        | 338x138x244 mm        |
| Weight                |                  | 8.5 kg                | 8.5 kg                | 10.4 kg               |
|                       |                  |                       |                       |                       |
| Model                 |                  | VE260ND               | VE280ND               | VE2100ND              |
|                       | 50Hz             | 6.0 CFM               | 8.0 CFM               | 10.0 CFM              |
| Flow                  | 30HZ             | 170 L/min             | 226 L/min             | 283 L/min             |
| Rate                  | 0011             | 7.0 CFM               | 9.0 CFM               | 12.0 CFM              |
|                       | 60Hz             | 198 L/min             | 254 L/min             | 340 L/min             |
| Ultimate              | Partial Pressure | 2x10 <sup>-1</sup> Pa | 2x10 <sup>-1</sup> Pa | 2x10 <sup>-1</sup> Pa |
| Vacuum Total Pressure |                  | 15micron              | 15 micron             | 15 micron             |
| Power                 |                  | 3/4 HP                | 1 HP                  | 1 HP                  |
| Inlet Port            |                  | 1/4" & 3/8" SAE       | 1/4" & 3/8" SAE       | 1/4" & 3/8" SAE       |
| Oil Capacity          | у                | 580 ml                | 500 ml                | 590 ml                |
| Dimensions            | ;                | 395x145x257 mm        | 395x145x257 mm        | 395x145x257 mm        |
| Weight                |                  | 15.8 kg               | 16.2 kg               | 16.7 kg               |

03 VALUE Creates value 04



## **I Series New Refrigerant** Vacuum Pump

Suitable for R410A, R407c, R134a, R12, R22 refrigerant



## **High Reliability**

### **Integrated Body Structure**

• Higher ultimate vacuum

- **High Precision Vacuum Gauge** • Higher precision
  - More precise

#### **Solenoid Valve**

Absolutely prevent backflow

### Large Oil Screen

• Better visibility

## Single Stage

| Model                     |                | V-i120SV       | V-i140SV       | V-i160SV       | V-i180SV       |
|---------------------------|----------------|----------------|----------------|----------------|----------------|
|                           | 50Hz           | 1.8 CFM        | 3.5 CFM        | 5.0 CFM        | 7.0 CFM        |
| Flow                      | 5002           | 51 L/min       | 100 L/min      | 142 L/min      | 198 L/min      |
| Rate                      | 60Hz           | 2.0 CFM        | 4.0 CFM        | 6.0 CFM        | 8.0 CFM        |
|                           | 00H2           | 57 L/min       | 113 L/min      | 170 L/min      | 226 L/min      |
| Ultimate Partial Pressure | 2 Pa           | 2 Pa           | 2 Pa           | 2 Pa           |                |
| Vacuum                    | 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" SAE       | 1/4" SAE       | 1/4" SAE       | 1/4" SAE       |
| Oil Capaci                | ity            | 250 ml         | 250 ml         | 415 ml         | 660 ml         |
| Dimension                 | าร             | 290x124x255 mm | 318x124x265 mm | 338x138x275 mm | 395x145x318 mm |
| Weight                    |                | 6.7 kg         | 8.6 kg         | 10.3 kg        | 15.4 kg        |

### **Dual Stage**

| Model        |                  | V-i220SV              | V-i240SV              | V-i260SV              | V-i280SV              |
|--------------|------------------|-----------------------|-----------------------|-----------------------|-----------------------|
|              | 50Hz             | 1.8 CFM               | 3.5 CFM               | 5.0 CFM               | 7.0 CFM               |
| Flow         | 5002             | 51 L/min              | 100 L/min             | 142 L/min             | 198 L/min             |
| Rate         | 60Hz             | 2.0 CFM               | 4.0 CFM               | 6.0 CFM               | 8.0 CFM               |
|              | 00H2             | 57 L/min              | 113 L/min             | 170 L/min             | 226 L/min             |
| Ultimate     | Partial Pressure | 2x10 <sup>-1</sup> Pa | 2x10 <sup>-1</sup> Pa | 2x10 <sup>-1</sup> Pa | 2x10 <sup>-1</sup> Pa |
| Vacuum       | Total Pressure   | 15 micron             | 15 micron             | 15 micron             | 15micron              |
| Power        |                  | 1/3 HP                | 1/2 HP                | 3/4 HP                | 1 HP                  |
| Inlet Port   |                  | 1/4" SAE              | 1/4" SAE              | 1/4" SAE              | 1/4" SAE              |
| Oil Capacity |                  | 200 ml                | 325 ml                | 580 ml                | 500 ml                |
| Dimensions   | S                | 318x124x265 mm        | 338x138x275 mm        | 395x145x318 mm        | 395x145x318 mm        |
| Weight       |                  | 9.0 kg                | 11.0 kg               | 16.6 kg               | 17.0 kg               |





**Making Your Job More Enjoyable** 

## **R32 Series Vacuum Pump**

Suitable for R32, 1234yf refrigerant



### **Electronic Starter • Enclosed Switch**

• Explosion-proof design

**Integrated Body Structure** 

• Higher ultimate vacuum

• Preventing pump oil backflow from

**Anti-backflow Solenoid Valve** 

### Large Oil Screen

Better visibility

### **Built-in Vacuum Gauge**

• Built-in vacuum gauge prevents damage by impact

system explosion-proof

### Single Stage

Higher precision

| Model        |                           | V-i120-R32     | V-i125-R32     | V-i140-R32     | V-i160-R32     | V-i180-R32     |
|--------------|---------------------------|----------------|----------------|----------------|----------------|----------------|
|              | 5011                      | 1.8 CFM        | 2.5 CFM        | 3.5 CFM        | 5.0 CFM        | 7.0 CFM        |
| Flow         | 50Hz                      | 51 L/min       | 70 L/min       | 100 L/min      | 142 L/min      | 198 L/min      |
| Rate         | 0011-                     | 2.0 CFM        | 3.0 CFM        | 4.0 CFM        | 6.0 CFM        | 8.0 CFM        |
|              | 60Hz                      | 57 L/min       | 84 L/min       | 113 L/min      | 170 L/min      | 226 L/min      |
| Ultimate     | Ultimate Partial Pressure | 2 Pa           |
| Vacuum       | Total Pressure            | 150 micron     | 150 micron     | 15micron       | 150 micron     | 150 micron     |
| Power        |                           | 1/4 HP         | 1/4 HP         | 1/3 HP         | 1/2 HP         | 3/4 HP         |
| Inlet Port   |                           | 1/4" SAE       |
| Oil Capacity |                           | 250 ml         | 250 ml         | 250 ml         | 415 ml         | 660 ml         |
| Dimensions   |                           | 290x124x223 mm | 290x124x223 mm | 318x124x237 mm | 338x138x249 mm | 395x145x262 mm |
| Weight       |                           | 6.7 kg         | 7.2 kg         | 8.6 kg         | 10.3 kg        | 15.4 kg        |

### **Dual Stage**

| Model        |                  | V-i220-R32            | V-i240-R32            | V-i260-R32            | V-i280-R32            |
|--------------|------------------|-----------------------|-----------------------|-----------------------|-----------------------|
|              | 50Hz             | 1.8 CFM               | 3.5 CFM               | 5.0 CFM               | 7.0 CFM               |
| Flow<br>Rate | 50 <b>1</b> 12   | 51 L/min              | 100 L/min             | 142 L/min             | 198 L/min             |
|              | 2.0 CFM          | 4.0 CFM               | 6.0 CFM               | 8.0 CFM               |                       |
|              | 60Hz             | 57 L/min              | 113 L/min             | 170 L/min             | 226 L/min             |
| Ultimate     | Partial Pressure | 2x10 <sup>-1</sup> Pa | 2x10 <sup>-1</sup> Pa | 2x10 <sup>-1</sup> Pa | 2x10 <sup>-1</sup> Pa |
| Vacuum       | 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" SAE              | 1/4" SAE              | 1/4" SAE              | 1/4" SAE              |
| Oil Capacity |                  | 200 ml                | 325 ml                | 580 ml                | 500 ml                |
| Dimensions   |                  | 318x124x237 mm        | 338x138x249 mm        | 395x145x262 mm        | 395x145x262 mm        |
| Weight       |                  | 9.0 kg                | 11.0 kg               | 16.6 kg               | 17.0 kg               |



V-i2120

R32 Only Vacuum Pump Suitable for R32, 1234yf refrigerant



## **High Reliability**

**High Efficiency Motor** 

• More efficient

Higher ultimate vacuum

## Large Oil Screen

Better visibility

| Model            | V-i2120               |
|------------------|-----------------------|
| Flavo Bata       | 12 CFM                |
| Flow Rate        | 340 L/min             |
| Partial Pressure | 2x10 <sup>-1</sup> Pa |
| Total Pressure   | 15 micron             |
| Power            | 1 HP                  |
| Inlet Port       | 1/4" & 3/8" SAE       |
| Oil Capacity     | 500 ml                |
| Dimensions       | 345x135x280 mm        |
| Weight           | 11.5 kg               |

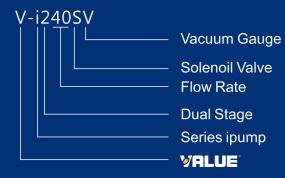
## VPO-46 Vacuum Pump Oil

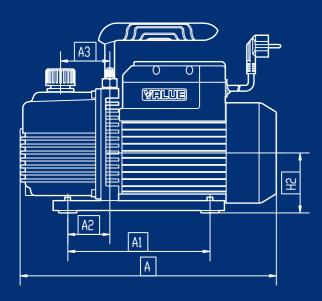


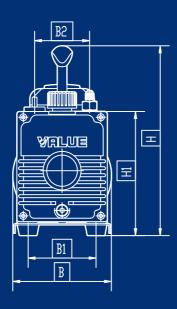
| Model                     | VPO-46                     |
|---------------------------|----------------------------|
| Kinematic viscosity(40°C) | 41.4-50.6mm²/s             |
| Viscosity Index           | 110                        |
| Flash Point               | 240°C                      |
| Pour Point                | -10°C                      |
| Capacity                  | 230ml, 280ml, 330ml, 500ml |
| Туре                      | Mineral Oil                |

07 VALUE Creates value 08

## **Vacuum Pump Selection**







#### Unit:mm

| Model   | А   | A1  | A2 | A3 | В   | B1 | B2 | Н   | 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 Selection**

## Select by refrigerant

As for the vacuum supply of new refrigeration plants, vacuum pump with anti-backstreaming valve should be adopted. Otherwise there will be risk of backstreaming into the compressor, polluting and destroying the refrigerant ingredients, and influencing the refrigeration effect. i series pump could ensure high reliability.

| Vacuum pump selection | i Series pump | N Series pump |      |      | R32 Series pump |
|-----------------------|---------------|---------------|------|------|-----------------|
| Refrigerant           | R410A         | R407C         | R22  | R22  |                 |
|                       |               | R404A         | R12  | R12  | R32             |
|                       |               | R507A         | R502 | R502 | 1234yf          |
|                       |               | R134a         | R500 | R500 |                 |

## **Select by pumping rate**

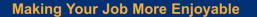
The pumping rate of vacuum pump is generally indicated by L/min. The operation time is directly related to the pumping rate.

| Vacuum pump selection | 60~120L/min               | 180~240L/min                    | 180~240L/min                |
|-----------------------|---------------------------|---------------------------------|-----------------------------|
|                       | Household refrigerator    | Central air conditioner         | Central air conditioner     |
| Analizable escabiana  | Household air conditioner | Large household air conditioner |                             |
| Applicable machines   | (below 5 Hp)              | Bus air conditioner             | Large refrigeration storage |
|                       | Car air conditioner       | Large refrigeration storage     |                             |

## **Select by vacuum degree**

Vacuum degree appears as Pa/micron. Higher vacuum degree is represented by smaller figures.

| Vacuum pump selection | Single-stage vacuum pump  | Double-stage vacuum pump       |  |
|-----------------------|---------------------------|--------------------------------|--|
| Vacuum degree         | 2 Pa/150micron            | 2x10 <sup>-1</sup> Pa/15micron |  |
|                       | Household air conditioner | Central air conditioner        |  |
| Applicable machines   | Car air conditioner       | Large and medium-sized         |  |
|                       | Refrigerator              | refrigeration storage          |  |



## **Power Series Vacuum Pump** Higher ultimate vacuum

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



### VRD-16/24/30 Options













Model VRD-30 VRD-16 VRD-24 Displacement speed (m³/h) 60 Hz 19.2 28.8 36 Ultimate partial pressure gas ballast close 4x10<sup>-2</sup> Pa 4x10<sup>-2</sup> Pa 4x10<sup>-2</sup> Pa Ultimate total pressure gas ballast close 4x10<sup>-1</sup> Pa 4x10<sup>-1</sup> Pa 4x10<sup>-1</sup> Pa Ultimate total pressure gas ballast open 8x10<sup>-1</sup> Pa 8x10<sup>-1</sup> Pa 8x10<sup>-1</sup> Pa Power supply single/3-ph single/3-ph single/3-ph Power rating(kw) 0.75kW/0.55kW 1.1kW/0.75kW 1.1kW Inlet and exhaust DN KF25/40 KF25/40 KF25 Oil capacity(L) 0.9~1.5L 1.3~2.0L 1.3~2.0L 50 Hz 1440 1440 1440 Motor speed (rpm) 60 Hz 1720 1720 1720 Ambient temperature 10~40°C 10~40°C 10~40°C ≤ 58dB ≤ 58dB ≤ 58dB Noise level (dB) 33kg 36kg 37kg Weight(Kg)

## **Power Series Vacuum Pump** Higher ultimate vacuum



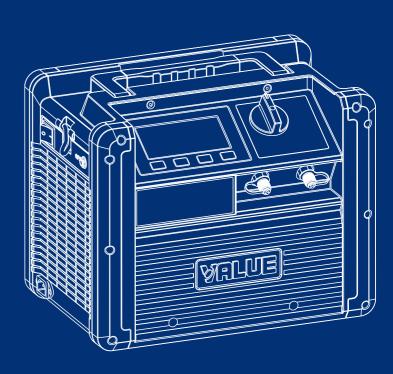
| Model                            |              | VP2120                | VP2200                |  |
|----------------------------------|--------------|-----------------------|-----------------------|--|
| Displacement speed (m³/h)        | 50 Hz        | 20                    | 36                    |  |
| Displacement speed (III /II)     | 60 Hz        | 24                    | 43                    |  |
| Ultimate partial pressure gas ba | allast close | 4x10° Pa              | 4x10° Pa              |  |
| Ultimate total pressure gas ball | ast close    | 4x10 <sup>-1</sup> Pa | 4x10 <sup>-1</sup> Pa |  |
| Ultimate total pressure gas ball | ast open     | 8x10 <sup>-1</sup> Pa | 8x10 <sup>-1</sup> Pa |  |
| Power supply                     |              | single/3-ph           | single/3-ph           |  |
| Power rating(kw)                 |              | 0. 75/0.55kW          | 1.1/0.75kW            |  |
| Inlet and exhaust DN             |              | 7/16"-20UNF           | 7/16"-20UNF           |  |
| Oil capacity(L)                  |              |                       | 1.3~2.0L              |  |
| Mater aread (mm)                 | 50 Hz        | 1440                  | 1440                  |  |
| Motor speed (rpm)                | 60 Hz        | 1720                  | 1720                  |  |
| Ambient temperature              |              | 10~40 °C              | 10~40 °C              |  |
| Noise level (dB)                 |              | ≤ 58dB                | ≤ 58dB                |  |
| Weight(kg)                       |              | 37kg                  | 41kg                  |  |





# **Recovery Unit**

Light · Fast







## **Making Your Job More Enjoyable**

## VRR24M-C

Suit for

**R32** 

Recovery Unit



## **Light** • Fast

### **DC** brushless Motor

- Faster recovery
- Lighter

### Oil-free Compressor

• Suitable for all commonly used refrigerants

## **Better Visibility**

- Easy to read large LCD display
- Backlit display for clarity

### **Self-purge Function** • Prevent mixing of various refrigerants

## **Micro Channel Condenser**

- Fast recovery • Better cooling performance compare to traditional condenser

## VRR12M Recovery Unit



## Light • Compact

### **DC** brushless Motor

- Faster recovery
- Lighter

## **High Pressure Protection**

Safe to use

### **Better Visibility**

- Easy to read large LCD display
- Backlit display for clarity

### Oil-free Compressor

Suitable for all commonly used refrigerants

### **One Key Operation**

• Easy to use

### **Self-purge Function**

• Prevent mixing of various refrigerants

| Model                 |         | VRR12M  | VRR12M       |             |  |  |  |
|-----------------------|---------|---|--------------|-------------|--|--|--|
| Refrigerant           |         | Categorys III: R12,R134a,R401C,R500,1234yf Categorys IV: R22,R401A, R401B, R402B, R407C, R407D, R408A,R409A,R411A R411B,R412A,R502,R509 Categorys V: R402A,R404A,R407A,R407B,R410A,R507,R32 |              |             |  |  |  |
| Power Supply          |         | 220-240V~50/60Hz  | 115V~/60Hz   |             |  |  |  |
| Motor                 |         | Brushless DC motor 3/4HP  |              |             |  |  |  |
| Motor Speed           |         | 3000 rpm  |              |             |  |  |  |
| Maximal Current Draw  |         | 2.6 A   | 5.5 A        | 5.5 A       |  |  |  |
| Compressor            |         | Oil-less, Air-cooled, Piston style  |              |             |  |  |  |
| Automatic Safety S    | nut-Off | 38.5bar/3850kPa(558psi)   |              |             |  |  |  |
|                       |         | Categorys III   | Categorys IV | Categorys V |  |  |  |
| Recovery Rate         | Vapor   | 0.20  | 0.25         | 0.25        |  |  |  |
| (kg/min)              | Liquid  | 1.76  | 1.98         | 2.42        |  |  |  |
| Push/Pull             |         | 4.60  | 5.60         | 6.30        |  |  |  |
| Operating Temperature |         | 0 °C-40 °C  |              |             |  |  |  |
| Dimensions            |         | 304×202×360 mm  |              |             |  |  |  |
| Weight                |         | 7.8 kg  |              |             |  |  |  |

| Model                 |           | VRR24M-C   |              |             |  |  |
|-----------------------|-----------|--|--------------|-------------|--|--|
| Refrigerant           |           | Categorys III: R12, R134a, R401C, R500, 1234yf Categorys IV: R22, R401A, R401B, R402B, R407C, R407D, R408A,R409A,R411A R411B,R412A,R502,R509 |              |             |  |  |
|                       |           | Categorys V : R402A,R404A,R407B,R410A,R507,R32   |              |             |  |  |
| Power Supply          |           | 220-240V~50/60Hz   | 115V~/60Hz   |             |  |  |
| Motor                 |           | Brushless DC motor 1HP   |              |             |  |  |
| Motor Speed           |           | 3000 rpm   |              |             |  |  |
| Maximal Current Draw  |           | 6.5 A  | 12 A         | 12 A        |  |  |
| Compressor            |           | Oil-less, Air-cooled, Piston style   |              |             |  |  |
| Automatic Safety S    | nut-Off   | 38.5bar/3850kPa(558psi)  |              |             |  |  |
|                       |           | Categorys III  | Categorys IV | Categorys V |  |  |
| Recovery Rate         | Vapor     | 0.43   | 0.54         | 0.54        |  |  |
| (kg/min)              | Liquid    | 3.60   | 4.00         | 4.20        |  |  |
|                       | Push/Pull | 7.50   | 8.50         | 9.50        |  |  |
| Operating Temperature |           | 0 °C-40 °C   |              |             |  |  |
| Dimensions            |           | 370×250×297 mm   |              |             |  |  |
| Weight                |           | 11 kg  |              |             |  |  |







## Making Your Job More Enjoyable

## L Series Recovery Unit



## **Light** • Fast

### One Key Operation

• Easy to use

### **High Pressure Protection**

Safe to use

### Oil-free Compressor

Suitable for all commonly used refrigerants

### **Self-purge Function**

• Prevent mixing of various refrigerants

| Model                 |           | VRR12L-R32                         |  |                | VRR12LOS-R32   |              |             |  |  |
|-----------------------|-----------|------------------------------------|--|----------------|----------------|--------------|-------------|--|--|
| Refrigerant           |           | Categorys IV : R                   | Categorys III:R12, R134a, R401C, R500, 1234fy<br>Categorys IV:R22,R401A, R401B, R402B, R407C, R407D, R408A, R409A, R411A, R411B, R412A, R502, R509<br>Categorys V:R402A, R404A, R407A, R407B, R410A, R507, R32 |                |                |              |             |  |  |
| Power Supply          |           | 220V-240V~/50-6                    | 60Hz   | 115V~/60Hz     | 220V-240V~/50- | 60Hz 115     | V~/60Hz     |  |  |
| Motor                 |           | 3/4 HP                             | :  | 3/4 HP         | 3/4 HP         | 3/4          | HP          |  |  |
| Motor Speed           |           | 1450rpm/1750rpr                    | 450rpm/1750rpm 1750rp  |                | 1450rpm/1750rp | m 175        | 1750rpm     |  |  |
| Maximal Current Draw  |           | 4 A                                |  | 8 A            | 4 A            | 8 A          | 8 A         |  |  |
| Compressor            |           | Oil-less, Air-cooled, Piston style |  |                |                |              |             |  |  |
| Automatic Safety Sl   | nut-Off   | 38.5bar/3850kPa(558psi)            |  |                |                |              |             |  |  |
|                       |           | Categorys III                      | Categorys  | IV Categorys V | Categorys III  | Categorys IV | Categorys V |  |  |
| Recovery Rate         | Vapor     | 0.20                               | 0.25   | 0.25           | 0.20           | 0.25         | 0.25        |  |  |
| (kg/min)              | Liquid    | 1.60                               | 1.80   | 2.20           | 1.60           | 1.80         | 2.20        |  |  |
|                       | Push/Pull | 4.60                               | 5.60   | 6.30           | 4.60           | 5.60         | 6.30        |  |  |
| Operating Temperature |           | 0 °C-40 °C                         |  |                |                |              |             |  |  |
| Dimensions            |           | 450×250×355 mm                     |  |                |                |              |             |  |  |
| Weight                |           | 13.0 kg                            |  |                | 14.2 kg        |              |             |  |  |

## L Series Recovery Unit



## Light • Fast

### **One Key Operation**

**Self-purge Function** 

• Easy to use

Prevent mixing of various refrigerants

### **Twin Cylinder**

Faster recovery

### Oil-free Compressor

Suitable for all commonly used refrigerants

## **High Pressure Protection**

Safe to use

| Model VRR24L-R32        |   |                                    |              | VRR24LOS-R32 |                |                    |             |  |
|-------------------------|---|------------------------------------|--------------|--------------|----------------|--------------------|-------------|--|
| Refrigerant             | Categorys III : R12, R134a, R401C, R500, 1234fy efrigerant Categorys IV : R22, R401A, R401B, R402B, R407C, R407I Categorys V : R402A, R404A, R407A, R407B, R410A, R50 |                                    |              |              |                | 11A, R411B, R412A, | R502, R509  |  |
| Power Supply            |   | 220V-240V~/50-6                    | 60Hz 115     | V~/60Hz      | 220V-240V~/50- | 60Hz 115V-         | -/60Hz      |  |
| Motor                   |   | 1 HP                               | 1 H          | P            | 1 HP           | 1 HP               |             |  |
| Motor Speed 1450 rpm/17 |   | 1450 rpm/1750 rp                   | om 175       | 1750 rpm     |                | pm 1750            | 1750 rpm    |  |
| Maximal Current Draw    |   | 5 A                                | 10           | 4            | 5 A            | 10 A               | 10 A        |  |
| Compressor              |   | Oil-less, Air-cooled, Piston style |              |              |                |                    |             |  |
| Automatic Safety S      | hut-Off   | 38.5bar/3850kPa(558psi)            |              |              |                |                    |             |  |
|                         |   | Categorys III                      | Categorys IV | Categorys V  | Categorys III  | Categorys IV       | Categorys V |  |
| Recovery Rate           | Vapor   | 0.40                               | 0.50         | 0.50         | 0.40           | 0.50               | 0.50        |  |
| (kg/min)                | Liquid  | 3.00                               | 3.50         | 3.50         | 3.00           | 3.50               | 3.50        |  |
|                         | Push/Pull   | 7.50                               | 8.50         | 9.50         | 7.50           | 8.50               | 9.50        |  |
| Operating Temperato     | ıre   | 0°C-40°C                           |              |              |                |                    |             |  |
| Dimensions 450×250      |   | 450×250×355 m                      | 250×355 mm   |              |                |                    |             |  |
| Weight 13.5 I           |   | 13.5 kg                            | .5 kg        |              | 14.7 kg        |                    |             |  |

## L Series Recovery Unit



## Light • Fast

### **One Key Operation**

**High Pressure Protection** 

• Easy to use

Safe to use

### **Self-purge Function**

Prevent mixing of various refrigerants

## Oil-free Compressor

• Suitable for all commonly used refrigerants

#### Model VRR12L VRR12L-OS Categorys III: R12, R134a, R401C, R500 Categorys IV: R22, R401A, R401B, R402B, R407C, R407D, R408A, R409A, R411A, R411B, R412A, R502, R509 Refrigerant Categorys V: R402A, R404A, R407A, R407B, R410A, R507 220-240V~/50-60Hz 115V~/60Hz 115V~/60Hz Power Supply 220V-240V~/50-60Hz 3/4 HP 3/4 HP 3/4 HP 3/4 HP Motor Speed 1450 rpm/1750 rpm 1750 rpm 1450 rpm/1750 rpm 1750 rpm 8 A Maximal Current Draw 8 A Compressor Oil-less, Air-cooled, Piston style Automatic Safety Shut-Off 38.5bar/3850kPa(558psi) 0.20 0.25 0.25 0.20 0.25 0.25 Recovery Rate 1.60 2.20 2.20 Liquid 4.60 5.60 Push/Pull 6.30 Operating Temperature 0°C-40°C 400×250×355 mm Dimensions 14.2 kg Weight

## L Series Recovery Unit



## Light • Fast

### **One Key Operation**

• Easy to use

#### **Self-purge Function**

• Prevent mixing of various refrigerants

### Twin Cylinder

Faster recovery

## Oil-free Compressor

Suitable for all commonly used refrigerants

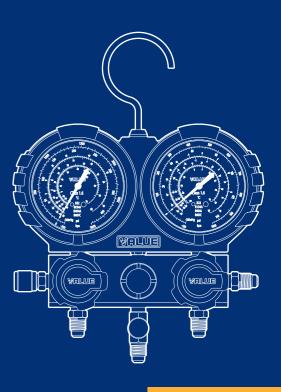
## **High Pressure Protection**

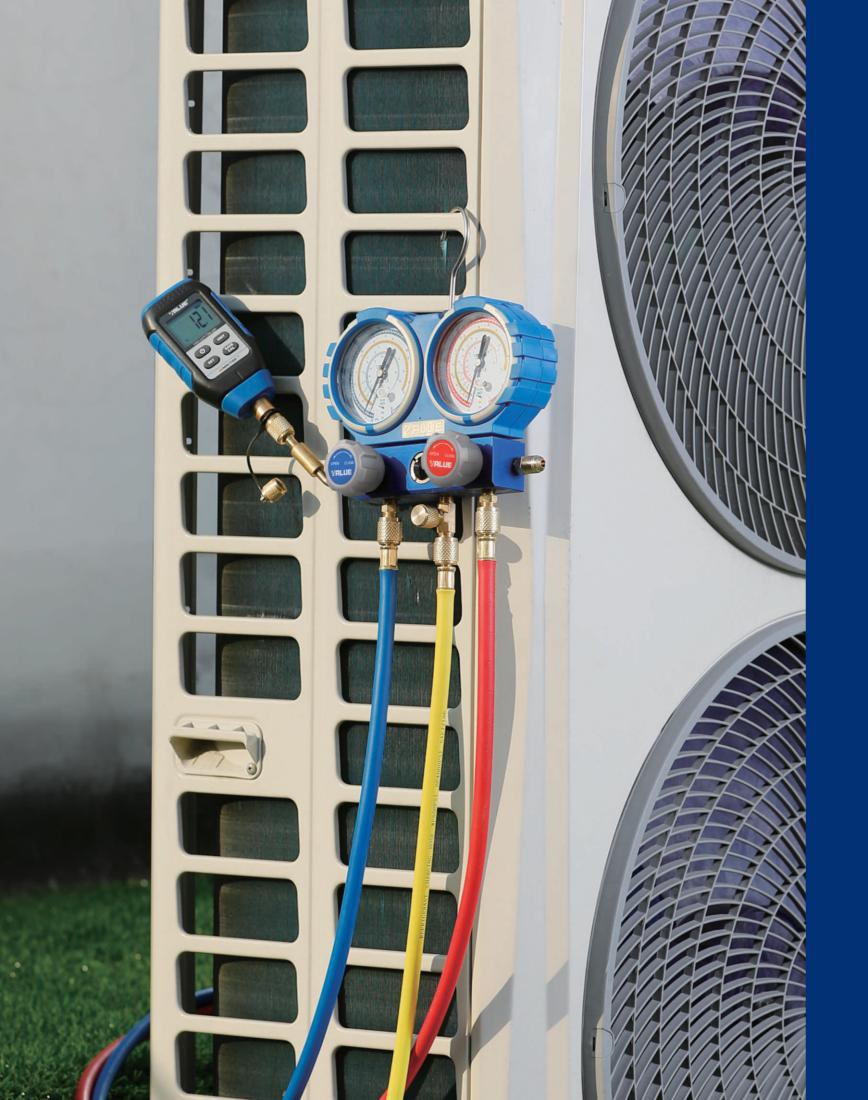
Safe to use

| Model VRR24L   |                            |                                    |           |          | VRR24L-OS          |               |            |          |             |
|--|----------------------------|------------------------------------|-----------|----------|--------------------|---------------|------------|----------|-------------|
| Categorys III : R12, R134a, R4010<br>  Refrigerant   Categorys IV : R22, R401A, R4010<br>  Categorys V : R402A, R404A, R40 |                            |                                    |           | R401B, R | 402B, R407C, R407D |               | 1A, R411B, | R412A, R | 2502, R509  |
| Power Supply   |                            | 220-240V~/50-60Hz 115V~/60Hz       |           |          | 220V-240V~/50-     | 60Hz          | 115V~/60Hz |          |             |
| Motor  |                            | 1 HP                               | 1 HP 1 HP |          |                    | 1 HP          |            | 1 HP     |             |
| Motor Speed  | or Speed 1450 rpm/1750 rpm |                                    | 1750 rpm  |          | 1450 rpm/1750 rpm  |               | 1750 rpm   |          |             |
| Maximal Current Draw   |                            | 5 A                                |           | 10 A     |                    | 5 A           |            | 10 A     |             |
| Compressor   |                            | Oil-less, Air-cooled, Piston style |           |          |                    |               |            |          |             |
| Automatic Safety SI  | nut-Off                    | 38.5bar/3850kPa(558psi)            |           |          |                    |               |            |          |             |
|  |                            | Categorys III                      | Catego    | orys IV  | Categorys V        | Categorys III | Catego     | rys IV   | Categorys V |
| Recovery Rate  | Vapor                      | 0.40                               | 0.50      |          | 0.50               | 0.40          | 0.50       |          | 0.50        |
| (kg/min)   | Liquid                     | 3.00                               | 3.50      |          | 3.50               | 3.00          | 3.50       |          | 3.50        |
|  | Push/Pull                  | 7.50                               | 8.50      |          | 9.50               | 7.50          | 8.50       |          | 9.50        |
| Operating Temperatu  | ire                        | 0°C-40°C                           |           |          |                    |               |            |          |             |
| Dimensions   |                            | 450×250×355 mm                     |           |          |                    |               |            |          |             |
| Weight 13.5 kg   |                            | 13.5 kg                            | 3.5 kg    |          | 14.7 kg            |               |            |          |             |









## **Manifold Gauge**

Suitable for R32, R407, R410A, R134a, 1234yf refrigerant



## **Precision/Impact-Resistant**

## Impack-resistant

- Impack-Resistant design
- Durable rubber cover

## Sight Glass

Easily view refrigerant movement and condition during charging and recovery

#### Accurate

Precision pressure gauge

### Aluminum knob

Anti corrosion

| Model          | VMG-2-R32   | VMG-2-R32-B-03                   | VMG-2-1234yf   |
|----------------|---|----------------------------------|--|
| Refrigerant    | R32   | R32, R407, R410A, R134a          | 1234yf   |
| Gauge Diameter | Ф80 mm  | Ф68 mm                           | Ф80 mm   |
| Pressure Scale | -30inHg~800 psi; -30inHg~500 psi                      | -30inHg~400 psi; -30inHg~130 psi |  |
| Hose           | Red&Blue: 1/4"-5/16", 2x1pc<br>Yellow: 1/4"-1/4", 1pc | 1                                | Red&Blue: M12X1.5 - M12X1.5, 2X1pc<br>Yellow: M12X1.5 - 1/2" Acme, 1pc |
| Length         | 3x120 cm  | 1                                | 150 cm   |
| Package        | Blow Case   | Blister packing                  | Blow Case  |

## **Manifold Gauge**

## VMG-2-R600-B

| Model          | VMG-2-R600-B                         | VMG-2-R600-B-03                      |
|----------------|--------------------------------------|--------------------------------------|
| Refrigerant    | R600, R600a, R290                    | R600, R600a, R290                    |
| Gauge Diameter | Ф68 mm                               | Ф68 mm                               |
| Pressure Scale | -30inHg ~ 435 psi; -30inHg ~ 130 psi | -30inHg ~ 435 psi; -30inHg ~ 130 psi |
| Hose           | Red&Blue&Yellow: 1/4"-1/4", 3x1 pc   | /                                    |
| Length         | 120 cm                               | /                                    |
| Package        | Blow Case                            | Blister packing                      |

#### VMG-2-R22

| Model          | VMG-2-R22                            | VMG-2-R22-02                         | VMG-2-R22-03                         |
|----------------|--------------------------------------|--------------------------------------|--------------------------------------|
| Refrigerant    | R404A, R407C, R134a, R22             | R404A, R407C, R134a, R22             | R404A, R407C, R134a, R22             |
| Gauge Diameter | Ф80 mm                               | Ф80 mm                               | Ф80 mm                               |
| Pressure Scale | -30inHg ~ 400 psi; -30inHg ~ 140 psi | -30inHg ~ 400 psi; -30inHg ~ 140 psi | -30inHg ~ 400 psi; -30inHg ~ 140 psi |
| Hose           | Red&Blue&Yellow: 1/4"-1/4", 3x1 pc   | Red&Blue&Yellow: 1/4"-1/4", 3x1 pc   | /                                    |
| Length         | 120 cm                               | 120 cm                               | /                                    |
| Package        | Blow Case                            | Blister packing                      | Blister packing                      |

| Model          | VMG-2-R22-B                          | VMG-2-R22-B-02                       | VMG-2-R22-B-03                       |
|----------------|--------------------------------------|--------------------------------------|--------------------------------------|
| Refrigerant    | R404A, R407C, R134a, R22             | R404A, R407C, R134a, R22             | R404A, R407C, R134a, R22             |
| Gauge Diameter | Ф68 mm                               | Ф68 mm                               | Ф68 mm                               |
| Pressure Scale | -30inHg ~ 400 psi; -30inHg ~ 140 psi | -30inHg ~ 400 psi; -30inHg ~ 140 psi | -30inHg ~ 400 psi; -30inHg ~ 140 psi |
| Hose           | Red&Blue&Yellow: 1/4"-1/4", 3x1 pc   | Red&Blue&Yellow: 1/4"-1/4", 3x1 pc   | /                                    |
| Length         | 120 cm                               | 120 cm                               | /                                    |
| Package        | Blow Case                            | Blister packing                      | Blister packing                      |

### VMG-2-R410A

|   | Model           | VMG-2-R410A  | VMG-2-R410A-0  | )2  | VMG-2-R410A-03   | VMG-2-R410A-04  |                                | VMG-2-R410A-05   |  |  |
|---|-----------------|--|--|---|--|-----------------|--------------------------------|--|--|--|
| _ | Refrigerant     | R410A  |  | R410A, R407C, R134a, R22                                |  |                 |                                | R410A, R407C, R404A, R134a                                 |  |  |
|   | Gauge Diameter  | Ф80 mm   |  |   |  |                 |                                |  |  |  |
|   | Pressure Scale  | 0~800 psi; -30inHg ~ 500 ps                                | si   |   |  |                 |                                |  |  |  |
| _ | Hose            | Red&Blue:<br>1/4"-5/16", 2x1 pc<br>Yellow: 1/4"-1/4", 1 pc | Red&Blue:<br>1/4"-5/16", 2x1 pc<br>Yellow: 1/4"-1/4",<br>With 2 pcs adapte | 1 pc  | Red&Blue:<br>1/4"-5/16", 2x1 pc<br>Yellow: 1/4"-1/4", 1 pc | /               |                                | Red&Blue:<br>1/4"-5/16", 2x1 pc<br>Yellow: 1/4"-1/4", 1 pc |  |  |
|   | Length          | 150 cm   |  |   |  |                 |                                |  |  |  |
|   | Package         | Blow case  | Blow case  |   | Blister packing  | Blister packing |                                | Blister packing  |  |  |
|   |                 |  |  |   |  |                 |                                |  |  |  |
|   | Model           | VMG-2-R410A-B  |  | VMG-2-R410A-B-02  |  |                 | VMG-2-R410A-B-03               |  |  |  |
|   | Refrigerant     | R410A, R407C, R134a, R                                     | 22   | R410A, R407C, R134a, R22                                |  |                 | R410A, R407C, R134a, R22       |  |  |  |
| _ | Gauge Diameter  | Ф68 mm   |  | Ф68 mm  |  |                 | Ф68 mm                         |  |  |  |
| _ | Pressure Scale  | 0 ~ 800 psi; -30 ~ 500 psi                                 |  | 0 ~ 800 psi; -30inHg ~ 500 psi                          |  |                 | 0 ~ 800 psi; -30inHg ~ 500 psi |  |  |  |
|   | Hose            | Red&Blue: 1/4"-5/16", 2x1 pc<br>Yellow: 1/4"-1/4", 1 pc    |  | Red&Blue: 1/4"-5/16", 2x1 pc<br>Yellow: 1/4"-1/4", 1 pc |  |                 | 1                              |  |  |  |
|   | Standard Length | 120 cm   |  | 120 cm  |  |                 | /                              |  |  |  |
|   | Package         | Blow case  |  |   | Blister packing  |                 |                                | Blister packing  |  |  |

NOTICE: All information listed above is standard size, if you require other size, please appoint in the order.



Suitable for R134a refrigerant



## **Precision/Impact-Resistant**

#### Impack-resistant

- Impack-Resistant design
- Durable rubber cover

#### Accurate

Precision pressure gauge

### Aluminum knob

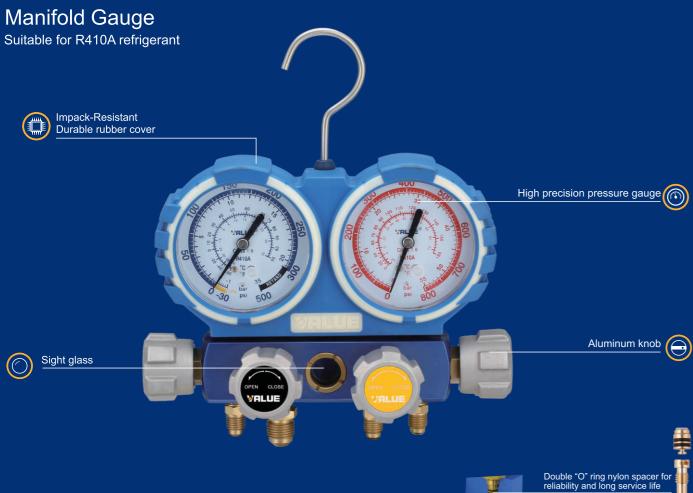
## Anti corrosion

## Sight Glass

Easily view refrigerant movement and condition during charging and recovery

| Model          | VMG-2-R134a                       | VMG-2-R134a-B                         | VMG-2-R134a-02 | VMG-2-R134a-B-02  |  |  |
|----------------|-----------------------------------|---------------------------------------|----------------|---|--|--|
| Refrigerant    | R134a                             |                                       |                |   |  |  |
| Gauge Diameter | Ф80 mm                            | Ф68 mm                                | Ф80 mm         | Ф68 mm  |  |  |
| Pressure Scale | -30inHg~400 psi; -30inHg~140 psi  | -30inHg~400 psi; -30inHg~140 psi      |                | -30inHg ~ 400 psi; -30inHg ~ 140 psi                                    |  |  |
| Hose           | Red & Blue & Yellow: 1/4"-1/4", 3 | Red & Blue & Yellow: 1/4"-1/4", 3x1pc |                | Red & Blue: 1/2"Acme, M14x1.5, 2x1pc<br>Yellow: 1/2"Acme, 1/2"Acme, 1pc |  |  |
| Length         | 120 cm                            |                                       | 120 cm         | 120 cm  |  |  |
| Package        | Blow Case                         | Blow Case                             |                | Blow Case   |  |  |
| Quick Couplers | VHF-SA 1set                       |                                       | VHF-SB 1set    | VHF-SB 1set   |  |  |

## **VMG-4-R410A**



## **Precision/Impact-Resistant**

Precision pressure gauge

## Impack-resistant

- Impack-Resistant design
- Durable rubber cover

## Sight Glass

Package

 Easily view refrigerant movement and condition during charging and recovery

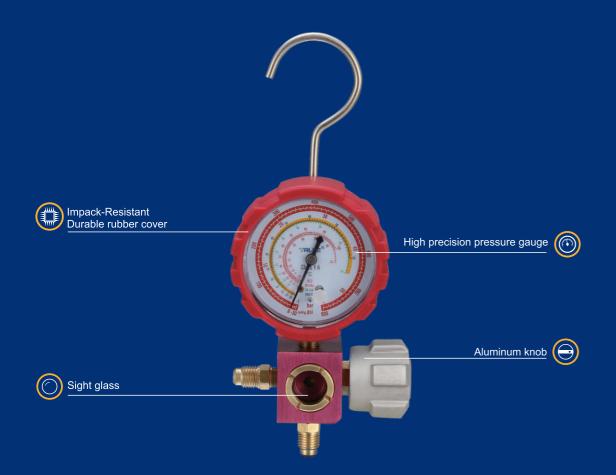
| Model          | VMG-4-R410A   |
|----------------|---|
| Refrigerant    | R410A   |
| Gauge Diameter | Ф80 mm  |
| Pressure Scale | -30inHg ~ 800 psi; -30inHg ~ 500 psi  |
| Hose           | Red&Blue: 1/4"-5/16", 2x1 pc<br>Yellow: 1/4"-1/4", 1 pc<br>Black: 3/8"-3/8", 1 pc |
|                |   |

Blow Case

Aluminum knob

• Anti corrosion

## **Single Gauge**



## **Precision/Impact-Resistant**

#### Impack-resistant

### • Impack-Resistant design

• Durable rubber cover

Precision pressure gauge

### Aluminum knob

Anti corrosion

### Sight Glass

 Easily view refrigerant movement and condition during charging and recovery

| Model                  |         | VMG-1-U-H               | VMG-1-U-L          | VMG-1-S-H          | VMG-1-S-L          |  |  |  |  |
|------------------------|---------|-------------------------|--------------------|--------------------|--------------------|--|--|--|--|
| Gauge Diammeter        |         | Ф68 mm                  | Ф68 mm             |                    |                    |  |  |  |  |
|                        | ABH/ABL | R134a                   |                    |                    |                    |  |  |  |  |
|                        | BBH/BBL | R22/R134a/R404A/R407C   |                    |                    |                    |  |  |  |  |
| Refrigerant (Optional) | CBH/CBL | R22/R134a/R410A/R407C   |                    |                    |                    |  |  |  |  |
| Reingerant (Optional)  | DBH/DBL | R410A                   |                    |                    |                    |  |  |  |  |
|                        | EBH/EBL | R404A/R134a/R410A/R407C |                    |                    |                    |  |  |  |  |
|                        | FBH/FBL | R600/R600a/R290         |                    |                    |                    |  |  |  |  |
| Pressure Scale         |         | -30 inHg ~ 800 psi      | -30 inHg ~ 500 psi | -30 inHg ~ 800 psi | -30 inHg ~ 500 psi |  |  |  |  |
| Sight glass            |         | Without With            |                    |                    |                    |  |  |  |  |
| Package                |         | Blister packing         |                    |                    |                    |  |  |  |  |

## **Pressure Gauge**

| High / Low Pressure Gauge  | Gauge Diameter | Unit              | Refrigerant                      | MRP NO.                | Thread  |
|--|----------------|-------------------|----------------------------------|------------------------|---------|
| WALES OF O   | Ф68 mm         | °C/°F/<br>Pis/Bar | R134a                            | 342260108<br>342260109 | NPT1/8" |
|  | Ф68 mm         | °C/Psi/Bar        | R22<br>R134a<br>R404A<br>R407C   | 342260110<br>342260111 | NPT1/8" |
| Manual Control of the | Ф68 mm         | °C/Psi/Bar        | R22<br>R134a<br>R410A<br>R407C   | 342260112<br>342260113 | NPT1/8" |
| Wall State of the  | Ф68 mm         | °C/°F/<br>Psi/Bar | R410A                            | 342260114<br>342260115 | NPT1/8" |
|  | Ф68 mm         | °C/Psi/Bar        | R404A<br>R134a<br>R410A<br>R407C | 342260118<br>342260119 | NPT1/8" |
|  | Ф68 mm         | Psi/Bar           | R600<br>R600a<br>R290            | 342266427<br>342266428 | NPT1/8" |
| Waster Company of the | Ф68 mm         | Psi/Bar           | R22<br>R410A<br>R32              | 342260122<br>342260123 | NPT1/8" |
|  | Ф68 mm         | Psi/Bar           | R32<br>R134a<br>R410A<br>R407C   | 342260124<br>342260125 | NPT1/8" |



## **Pressure Gauge**

| High / Low Pressure Gauge  | Gauge Diameter | Unit                     | Refrigerant                    | MRP NO.                | Thread  |
|--|----------------|--------------------------|--------------------------------|------------------------|---------|
|  | Ф68тт          | °C/Psi/Bar               | R22<br>R134a<br>R410A<br>R407C | 342260112<br>342260113 | NPT1/8" |
|  | Ф68тт          | °C/Pis/Bar               | R22<br>R134a<br>R410A<br>R407C | 342266501<br>342266502 | NPT1/8" |
|  | Ф68тт          | °C/Psi/Bar               | R22<br>R134a<br>R404A<br>R407C | 342266110<br>342266110 | NPT1/8" |
|  | Ф68тт          | °C/Psi/Bar               | R32<br>R134a<br>R410A<br>R407C | 342266124<br>342266125 | NPT1/8" |
| Section 19 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1   | Ф80 mm         | °C/°F/Pis/Bar            | R410A                          | 342260101<br>342260102 | NPT1/8" |
|  | Ф80 mm         | °C/Psi/Bar               | R22<br>R134a<br>R410A<br>R407C | 342260104<br>342260105 | NPT1/8" |
| Value   Valu   | Ф80 mm         | °C/Psi/kg/cm²            | R22<br>R134a<br>R404A<br>R407C | 342260401<br>342260402 | NPT1/8" |
| ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( )  | Ф80 mm         | °C/°F/Psi/<br>Bar/kg/cm² | R134a                          | 342260405<br>342260406 | NPT1/8" |
| VILLUT TO THE PARTY OF THE PART | Ф80 mm         | °C/°F/Psi/kPa            | R410A                          | 342260409<br>342260410 | NPT1/8" |

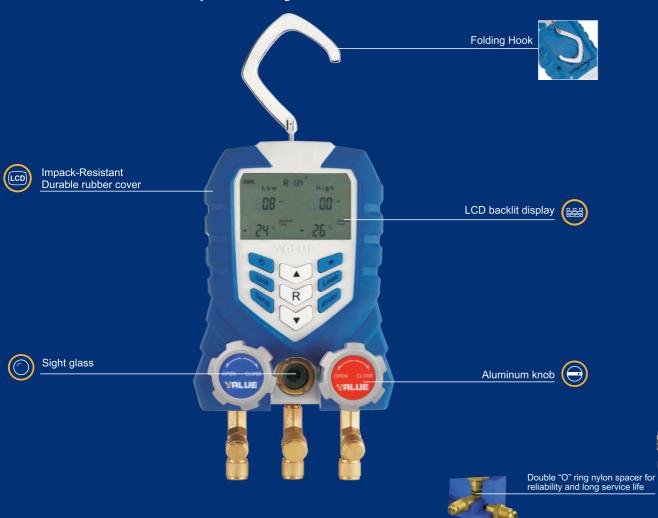
## **Pressure Gauge**

| High / Low Pressure Gauge  | Gauge Diameter | Unit                     | Refrigerant                      | MRP NO.                | Thread  |
|--|----------------|--------------------------|----------------------------------|------------------------|---------|
|  | Ф80 mm         | °C/Bar/Psi               | R404A<br>R134a<br>R410A<br>R407C | 342260411<br>342260412 | NPT1/8" |
| 010<br>010<br>010<br>010<br>010  | Ф80 mm         | °C/°F/Psi/<br>Bar/kg/cm² | R32                              | 342260413<br>342260414 | NPT1/8" |
| The control of the    | Ф80 mm         | °C/°F/Psi/<br>Bar/kg/cm² | 1234yf                           | 342260415<br>342260416 | NPT1/8" |
|  | Ф80 mm         | °C/Psi/Bar               | R32<br>R134a<br>R410A<br>R407C   | 342260421<br>342260422 | NPT1/8" |
| THE PROPERTY OF THE PROPERTY O | Ф80mm          | °C/Psi                   | R134a                            | 342260407<br>342260408 | NPT1/8" |
|  | Ф80mm          | °C/Psi/Bar               | R407F<br>R134a<br>R442A<br>R453A | 342260419<br>342260420 | NPT1/8" |
|  | Ф80mm          | °C/Bar/Psi               | R134a<br>R404A<br>R448A<br>R452A | 342260437<br>342260438 | NPT1/8" |
|  | Ф80тт          | °C/Bar/Pis               | R449A<br>R404A<br>R448A<br>R452A | 342260441<br>342260442 | NPT1/8" |
|  | Ф80mm          | °C/Bar/Pis               | R134a<br>R404A<br>R449A<br>R452A | 342260445<br>342260446 | NPT1/8" |

## VDG-1

## Digital Manifold Gauge

Suitable for R32, R410A, R22, 1234yf, R134a refrigerant



## **Precision/Impact-Resistant**

#### Impack-resistant

- Impack-Resistant design
- Durable rubber cover

### **Sight Glass**

• Easily view refrigerant movement and condition during charging and recovery

#### Accurate

Precision pressure gauge

### Wide Range of Application

Suit for more than 40 refrigerants

### **LCD Backlit Display**

Clearly display, easy to read

#### Aluminum knob

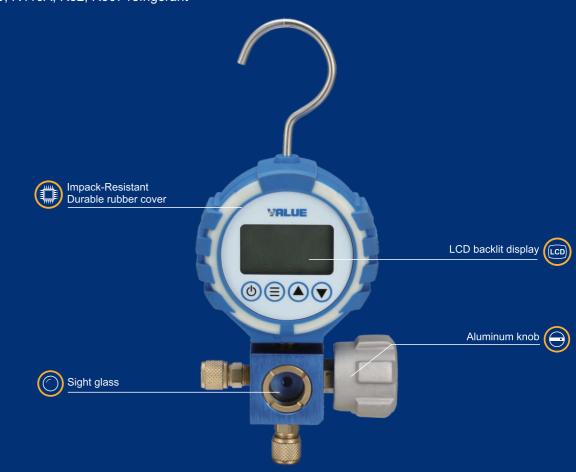
Anti corrosion

| Model                    | VDG-1         |
|--------------------------|---------------|
| Operating temperature    | 10~90% RH     |
| Measuring range pressure | -14.5~725 psi |
| Net weight               | 1.2 kg        |

## VDG-S1

## Digital Single Gauge

Suitable for R22, R134a, 1234yf, R290, R404A R407C, R410A, R32, R507 refrigerant



## **Precision/Impact-Resistant**

#### Impack-resistant

- Impack-Resistant design
- Durable rubber cover

### **Sight Glass**

 Easily view refrigerant movement and condition during charging and recovery

#### Accurate

Precision pressure gauge

## Wide Range of Application

Suit for 9 refrigerants

#### **LCD Backlit Display**

Clearly display, easy to read

## Aluminum knob

Anti corrosion

| Model               | VDG-S1   |
|---------------------|--|
| Refrigerant         | R22, R134a, 1234yf, R290, R404A, R407C, R410A, R32, R507 |
| Pressure display    | psi bar Kpa Mpa kgf/cm²                                  |
| Pressure resolution | 1 psi; 0.1 bar; 10 kPa; 0.01 Mpa; 0.1 kgf/cm²            |
| Connection          | 2x1/4" SAE   |
| Power               | 9 V battery  |

## **VDG-4-S1**

## Digital Manifold Gauge





## **Precision/Impact-Resistant**

#### Impack-resistant

- Impack-Resistant design
- Durable rubber cover

### Sight Glass

Easily view refrigerant movement and condition during charging and recovery

#### Accurate

Precision pressure gauge

## Wide Range of Application

Suit for 9 refrigerants

#### LCD Backlit Display

Clearly display, easy to read

#### Aluminum knob

Anti corrosion

| Model               | VDG-4-S1  |
|---------------------|---|
| Refrigerant         | R22, R134a, 1234yf, R290, R404A, R407C, R410A, R32, R507                                  |
| Pressure display    | psi bar Kpa Mpa kgf/cm²   |
| Pressure resolution | 1 psi; 0.1 bar; 10 kPa; 0.01 Mpa; 0.1 kgf/cm²   |
| Hose                | Red & Blue: 1/4"-5/16", 2x150 cm<br>Yellow: 1/4"-1/4", 150 cm<br>Black: 3/8"-3/8", 150 cm |
| Power               | 9V*2 battery  |

## **VDG-2-S1**

## Digital Manifold Gauge





## **Precision/Impact-Resistant**

#### Impack-resistant

- Impack-Resistant design
- Durable rubber cover

### **Sight Glass**

Easily view refrigerant movement and condition during charging and recovery

#### Accurate

Precision pressure gauge

Wide Range of ApplicationSuit for 9 refrigerants

## LCD Backlit Display

Clearly display, easy to read

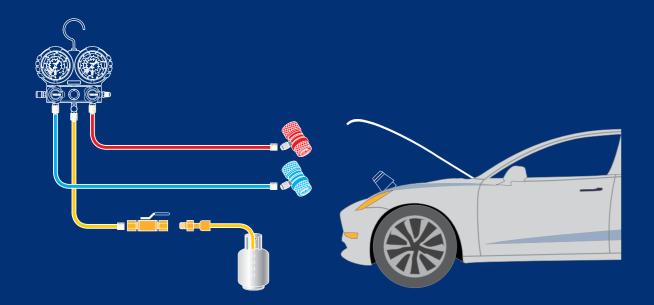
## Aluminum knob

Anti corrosion

| Model               | VDG-2-S1  |
|---------------------|---|
| Refrigerant         | R22, R134a, 1234yf, R290, R404A, R407C, R410A, R32, R507      |
| Pressure display    | psi bar Kpa Mpa kgf/cm²                                       |
| Pressure resolution | 1 psi; 0.1 bar; 10 kPa; 0.01 Mpa; 0.1 kgf/cm²                 |
| Hose                | Red & Blue; 1/4"-5/16", 2x150 cm<br>Yellow: 1/4"-1/4", 150 cm |
| Power               | 9V*2 battery  |

## **Quick Coupler**





## **Quick-connect**

## Easy to Use

Automatically lock, one-step connection

#### Durable

- High strength, high pressure resistance
- Long service life

## High Oil-resistance, Anti-seeping

- 3-layer reinforce refrigerant tube, Effective avoid seeping
- Longitudinal die-casting seal, prevent leakage of connector

### VHF quick couples series

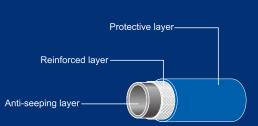
| Model       | VHF-SA   | VHF-SB    | VHF-SC   | VHF-SY    |
|-------------|----------|-----------|----------|-----------|
| Description | 1/4" SAE | M14 × 1.5 | 3/8" SAE | M12 × 1.5 |

## **Refrigerant Hose**





Check Valve



## **High strength**

### Wide Range of Application

**Check Valve** 

• It's suit for R410A, R134a, R22,etc

• Effectively complete the pipeline switching

## Safe and Reliable

• Rubber tube reinforced thickness 12mm, Ensure safe and reliable using

### High Oil-resistance, Anti-seep

- 3 layer reinforce refrigerant tube, Effective avoid seeping
- Pure copper connector, Longitudinal die-casting

| Model            | R410A               |  | R134a     |                 |
|------------------|---------------------|--|-----------|-----------------|
| Working pressure | 0 ~ 800 psi         |  | 0~500 psi |                 |
| VRP-U-R          | 1/4"-5/16"          |  | 1/4"-1/4" |                 |
| VRP-U-Y          | 1/4"-1/4"           |  | 1/4"-1/4" |                 |
| VRP-U-B          | 1/4"-5/16"          |  | 1/4"-1/4" |                 |
| Length           | 90 cm 120 cm 150 cm |  |           |                 |
|                  |                     |  |           |                 |
| Model            | R410A R134a,        |  | 2, R12    | R134a, R22, R12 |
| Working pressure | 0~800 psi 0~500 ps  |  |           | 0~500 psi       |

| Model            | R410A               | R134a, R22, R12 | R134a, R22, R12 |
|------------------|---------------------|-----------------|-----------------|
| Working pressure | 0~800 psi           | 0~500 psi       | 0~500 psi       |
| VRP-C-R          | 1/4"-5/16"          | 1/4"-1/4"       | 1/2" M14x1.5    |
| VRP-C-Y          | 1/4"-1/4"           | 1/4"-1/4"       | 1/2" -1/2"      |
| VRP-C-B          | 1/4"-5/16"          | 1/4"-1/4"       | 1/2" M14x1.5    |
| Length           | 90 cm 120 cm 150 cm |                 |                 |





## VCR1

Valve Core Removal Tool





# **Big Boy High-Flow Evacuation Hoses**



For best evacuation performance,
Use VALUE VCR1 Valve Core Removal Tool

## **Evacuation Hose**

### Fast & Efficient

- 1/2" large diameter for fast evacuation
- 4-layer construction for low permeation

- 3200 psi burst pressure, 640 psi working pressure
- Vacuum rated to 20 microns

| Model    | VHB-1           | VHB-2           |
|----------|-----------------|-----------------|
| Length   | 180 cm          | 180 cm          |
| Diameter | 1/2"            | 1/2"            |
| Fitting  | 3/8" - 1/4" SAE | 1/2" - 1/4" SAE |

## **Fast Recovery and Evacuation**

For Use With Both 1/4" and 5/16" Flare Fittings

Rated For R410A Systems

**Vacuum Rated to 20 Microns** 

Metal Handle for Durability

37 | VALUE Creates value | 38

## **Valve Opener**





## Safe, low leakage

| Model | VVO-1        | VVO-2         | VVO-3          |
|-------|--------------|---------------|----------------|
| Size  | 1/4"-1/4"SAE | 1/4"-5/16"SAE | 5/16"-5/16"SAE |

## **Check Valve**



| Item | Description                         | Item | Description                         |
|------|-------------------------------------|------|-------------------------------------|
| CV01 | Male: 1/4"SAE Female: 5/16" SAE     | Cv07 | Male: 1/4"SAE Female: 1/4" SAE      |
| CV02 | Male: 1/4"SAE Female: 5/16" SAE 45° | CV08 | Male: 5/16"SAE Female: 5/16"SAE 45° |
| CV03 | Male: 1/4"SAE Female: 5/16" SAE 60° | CV09 | Male: 5/16"SAE Female: 5/16"SAE 60° |
| CV04 | Male: 5/16"SAE Female: 5/16" SAE    | CV10 | Male: 5/16"SAE Female: 1/4" SAE     |
| CV05 | Male: 1/4"SAE Female: 1/4" SAE 45°  | CV11 | Male: 5/16"SAE Female: 1/4"SAE 45°  |
| CV06 | Male: 1/4"SAE Female: 1/4" SAE 60°  | CV12 | Male: 5/16"SAE Female: 1/4" SAE 60° |

## Adapter



| Item | Description                          | Item | Description                     |
|------|--------------------------------------|------|---------------------------------|
| V01  | Male: 5/16"SAE 90° Female: 5/16" SAE | V05  | Male: 1/4"SAE Female: 5/16" SAE |
| V02  | Male: 1/4"SAE 90° Female: 5/16" SAE  | V06  | Male: 5/16"SAE Female: 1/4" SAE |
| V03  | Male: 5/16"SAE 90° Female: 1/4" SAE  | V07  | Male: 1/4"SAE Female: 5/16" SAE |
| V04  | Male: 1/4"SAE 90° Female: 1/4" SAE   | V08  | Male: 5/16"SAE Female: 1/4" SAE |

## **Refrigerant Scale**



## **High Measurement**

### **High Precise Senor**

Precise measurement

High precision

## **LCD Backlit Display**

Clear display, easy to read

### Compact

Easy to carry

| Model               | VES-50A                   | VES-100A   |  |  |
|---------------------|---------------------------|------------|--|--|
| Weighting range     | 50 kg                     | 100 kg     |  |  |
| Resolution          | 2 g                       | 5 g        |  |  |
| Accuracy            | ±0.05% F.S                | ±0.05% F.S |  |  |
| Display             | LCD                       |            |  |  |
| Power               | DC 9V                     |            |  |  |
| Working enbironment | -10°C~40°C, ≤75% Humidity |            |  |  |
| Platform size       | 237×237 mm                |            |  |  |
| Weight              | 5 kg                      |            |  |  |

## **Refrigerant Scale**



## **High Measurement**

### **High Precise Senor**

Precise measurement

## High precision

## Compact

Easy to carry

### **LCD Backlit Display**

Clear display, easy to read

### High Precise Valve

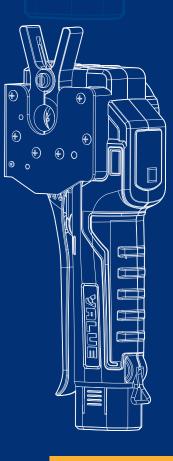
Quantitative filling precision control

| Model               | VES-50B                   | VES-100B    |  |  |
|---------------------|---------------------------|-------------|--|--|
| Weighting range     | 50 kg                     | 100 kg      |  |  |
| Resolution          | 2 g                       | 5 g         |  |  |
| Accuracy            | ± 0.05% F.S               | ± 0.05% F.S |  |  |
| Display             | LCD                       |             |  |  |
| Power               | DC 9V/AC(100V~230V)       |             |  |  |
| Working enbironment | -10°C~40°C, ≤75% Humidity |             |  |  |
| Platform size       | 237×237 mm                |             |  |  |
| Weight              | 6.5 kg                    |             |  |  |
| Automatic shut-off  | Yes                       |             |  |  |









VET-19Li

**Cordless Flaring Tool** 

# **VET-19Li Redefine Easy Flaring**

Comprehensive Upgrade · New Experience





## **Quick Accurate Flaring**

## Easy Flaring

- Lithium-driven
- One-key operation, and high efficiency

### 45° Eccentric Design

Point contact reaming, accurate flaring

### **Innovative Clamp**

- Quick assembling
- Accurate positioning, perfect flaring

### Comfortable Handle

- Compact structure, only 1.3 kg
- Comfortable and effortless grip

### Long Battery Endurance

- 2000 mAh Li-Battery Available for 90 times (3/8")
- 50W rapid charging, only 35 min for fully charge

| Model           | VET-19Li   |
|-----------------|--|
| Battery         | 7.4V Li-battery  |
| Applicable Pipe | Copper pipe  |
| Tubing O.D.     | 1/4", 3/8", 1/2", 5/8" (16 mm), 3/4" (19 mm)<br>Options (6 mm, 10 mm, 12 mm) |
| Dimensions      | 252x101x100mm  |
| Weight          | 1.3 kg   |

**Annular Rivet Connection** 

Precise of flared









## **Accurate Flaring**

## **Hand or Drill-Powered**

• Lightweight Aluminum Body

• Easy to use

Lightweight

Accurate and consistent flaring

## 45°Eccentric design

**Axial Spacing** 

• Point contact flare, dimension standard, easy to use

| Model        | Tubing O.D.  | Accessory     | Packaging |
|--------------|--|---------------|-----------|
| VFT-808E-I   | 1/4", 5/16", 3/8", 1/2", 5/8", 3/4"                            | 1             | Blow case |
| VFT-808E-MI  | 6, 8, 10, 12, 16, 19 mm<br>1/4", 5/16", 3/8", 1/2", 5/8", 3/4" | 1             | Blow case |
| VFT-808E-IS  | 1/4", 5/16", 3/8", 1/2", 5/8", 3/4"                            | VTC-32, VTT-5 | Blow case |
| VFT-808E-MIS | 6, 8, 10, 12, 16, 19 mm<br>1/4", 5/16", 3/8", 1/2", 5/8", 3/4" | VTC-32, VTT-5 | Blow case |





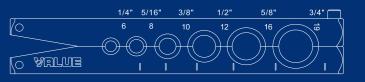
## Usage method of quick-clamp











## Accurate Flaring

### **Annular Rivet Connection**

### 45°Eccentric design

Precise of flared

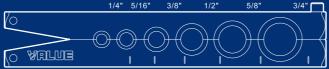
• Point contact flare, standard dimension, easy to use

| Model        | Tubing O.D.  | Accessory | Packaging       |
|--------------|--|-----------|-----------------|
| VFT-808-IN   | 1/4", 5/16", 3/8", 1/2", 5/8", 3/4"                            | 1         | Blister packing |
| VFT-808-I    | 1/4", 5/16", 3/8", 1/2", 5/8", 3/4"                            | 1         | Blow case       |
| VFT-808-I-02 | 1/4", 5/16", 3/8", 1/2", 5/8", 3/4"                            | 1         | Carton          |
| VFT-808-MI   | 6, 8, 10, 12, 16, 19 mm<br>1/4", 5/16", 3/8", 1/2", 5/8", 3/4" | 1         | Blow case       |
| VFT-808-IS   | 1/4", 5/16", 3/8", 1/2", 5/8", 3/4"                            | VTC-32    | Blow case       |
| VFT-808-MIS  | 6, 8, 10, 12, 16, 19 mm<br>1/4", 5/16", 3/8", 1/2", 5/8", 3/4" | VTC-32    | Blow case       |

## **Flaring Tool**

Special design for R410A system





## **Accurate Flaring**

**Annular Rivet Connection** 

45°Eccentric design

Precise of flared

• Point contact flare, dimension standard, easy to use

| Model      | Tubing O.D.                         | Accessory | Packaging |
|------------|-------------------------------------|-----------|-----------|
| VFT-809-I  | 1/4", 5/16", 3/8", 1/2", 5/8", 3/4" | 1         | Blow case |
| VFT-809-IS | 1/4", 5/16", 3/8", 1/2", 5/8", 3/4" | VTC-32    | Blow case |

## The Outstanding Advantage of **VALUE's Flaring Tool**

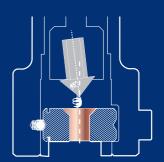
**Annular rivet connection** 



| FAQ of copper pipe Reason   |  | Solutions   | Result of flaring                            |
|---|--|---|--|
| Uneven bell mouth dimensions falls short, and cannot be normally used | Traditional flaring bar Large space between up and down clamps  Excessive gap of flaring bar | Annular rivet connection  Annular rivet connection makes left and right flaring bar, and will never dislocate  Small space between left and right bar | Even and smooth orifice, accurate dimensions |

## 45° Eccentricity

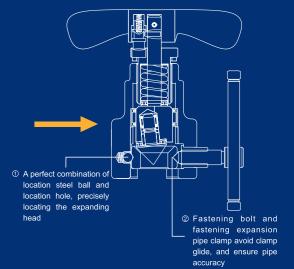
45° eccentricity, point contact reaming, standard dimensions, more convenient to use



## Precise Placing







## VTB-22L

51 VALUE Creates value

## **Power Tube Bender**

It is a tough and frustrating job for HVAC Service Techs when bending large diameter tubes, which consumes tremendous labor work while needs precise focus on bending angles. Furthermore, to get the tube out of a traditional bender mandrel is another frustrating moment. Suitable for tubing sizing 1/4" to 7/8" OD, VALUE VTB-22L saves tons of your time and labor, and makes the job much easier. By pressing a single controller switch, you can bend the tube to any desired angle. When a bend is completed, the baffle will push the tube out automatically while tool resets, helping you to remove the tube effortlessly. Its large capacity lithium battery makes around 90 bends each charge and can be fully charged in 35 minutes. Reverse bending kit VTBRK is available and sold separately.

Leading Technology, Superior quality, Best Experience

## **Making Your Job More Enjoyable**



## VTB-22L Power Tube Bender

## NEW





**Easy Operation** 

Ergonomic handle design

• Stop any time for customized angles

VALUE Creates value | 52

## **Industry's First Power Tube Bender**

## **Battery-Driven Effortless Bending**

- Powerful for large size tubing
- Push and hold for 90° bending
- Automatic tube release

## **Large Lithium Battery**

- Around 90 bends per charge
- Quick charge in 35 minutes

### **Patented Tubing Size Selector**

- 7 sizes in one selector
- Easy to switch to different tubing size setting

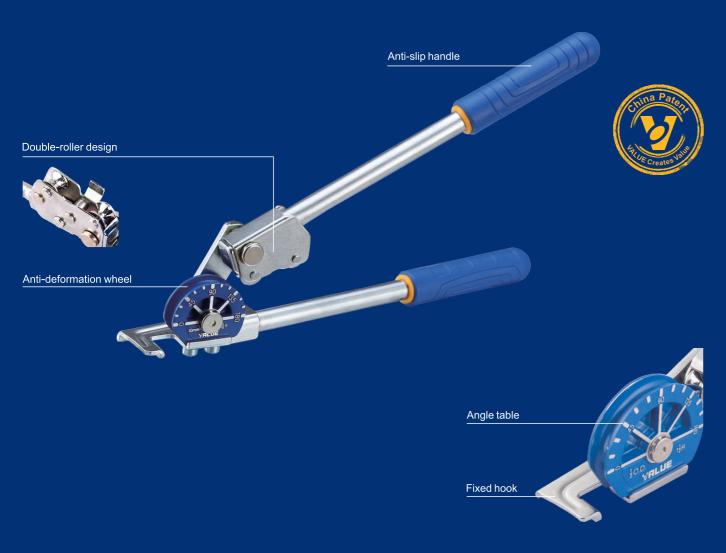
#### Other Features

- Quick connect mandrel and crossbar
- Battery power indicator

| Model        | VTB-22L   |
|--------------|---|
| Battery Type | 7.2V 2Ah 14.4Wh   |
| Tubing Type  | Soft (HVACR) Copper   |
| Tube OD      | 1/4"(6mm), 5/16"(8mm), 3/8"(10mm), 1/2"(12mm), 5/8"(16mm), 3/4"(19mm), 7/8"(22mm) |
| Weight       | 2.8 kg (with battery)   |
| Accessory    | Carry Case  |

Accessory Carry Case

## **Bending Tool**



## **Easy to Bend**

#### Double-roller

- Unique X-TURN steering structure It's easier to bend on 90°
- Double-roller, reducing the pipe's friction, easy to bend

## Angle Table

• The angle of bending is clearly visible

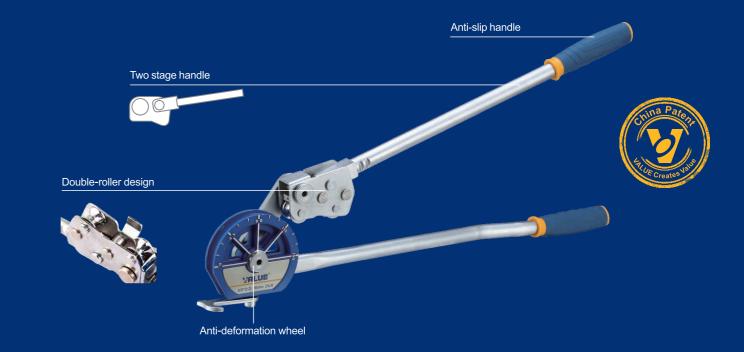
### **Anti-slip Handle**

Easy to use

## VBT-1/2 Bending Tool

| Model               | VBT-1                     | VBT-1A   | VBT-2  | VBT-2A |
|---------------------|---------------------------|--|--------|--------|
| Bending Size        | 3/8"                      | 10 mm  | 1/2"   | 12 mm  |
| Bending Radius      | 15/16"                    | 15/16"   | 1-1/2" | 1-1/2" |
| Bending Angle       | 0 ~ 180°                  | 0 ~ 180°   |        |        |
| Applicable Material | All soft pipes, thin-wall | All soft pipes, thin-wall copper pipes and annealled treated hard pipe |        |        |

## **Bending Tool**







## **Easy to Bend**

### Double-roller

- Unique X-TURN steering structure It's easier to bend on 90°
- Double-roller, reducing the pipe's friction, easy to bend

### Two Stage Handle

 Easy to bend, larger angle of bending

#### Angle Table

The angle of bending is clearly visible

### Anti-slip handle

Easy to use

### VBT-3/4/5 Bending Tool

| Model               | VBT-3  | VBT-4       | VBT-5       |  |
|---------------------|--|-------------|-------------|--|
| Bending Size        | 5/8", 16 mm  | 3/4", 19 mm | 7/8", 22 mm |  |
| Bending Radius      | 2-1/4"   | 3"          | 3-1/4"      |  |
| Bending Angle       | 0 ~ 180°   |             |             |  |
| Applicable Material | All soft pipes, thin-wall copper pipes and annealled treated hard pipe |             |             |  |

# **Power Tube Expander**



# **Effortless, Quick & Accurate Expanding**

- One-button operation
- Automatic pressure relief
- Quick connect heads

- Large capacity lithium battery
- Complete an expansion in 10 seconds
- Up to 220 expansions per charge
- Quick charge in 35 minutes

- Innovative head design minimizing 3/8" tube splitting
- Battery power indicator
- LED flash light

| Model           | VTE-29D                                  | VTE-42D  |
|-----------------|--|--|
| Battery         | 7.4V Li-battery                          | 7.4V Li-battery  |
| Applicable Pipe | Copper pipe                              | Copper pipe  |
| Tubing O.D.     | 3/8", 1/2", 5/8", 3/4", 7/8", 1", 1-1/8" | 3/8", 1/2", 5/8", 3/4", 7/8", 1", 1-1/8"<br>1-1/4", 1-3/8", 1-1/2", 1-5/8" |
| Dimensions      | 209x67x249 mm                            | 209x67x249 mm  |
| Weight          | 1.5 kg                                   | 1.5 kg   |

# **Hydraulic Tube Expander**















# **Easy To Expand**

### Hydraulic Expander

- One hand operation
- Suitable for larger diameter copper

#### Compact

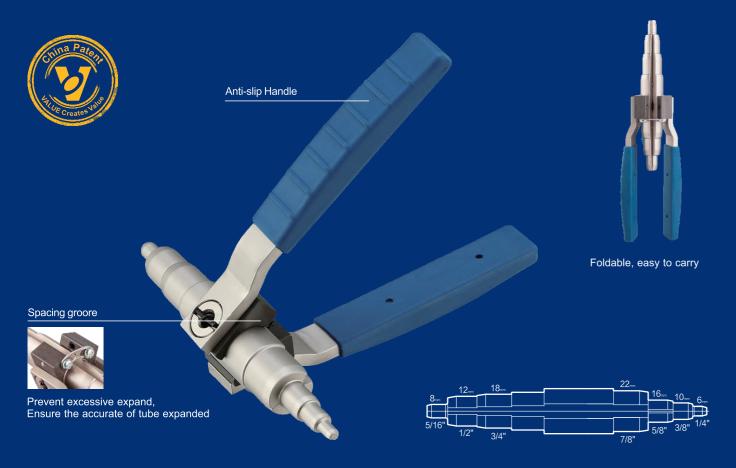
- Convenient for narrow spaces
- Easy to use

Automatic pressure relief

Quick connect headsPatented expander head, 180° quick locking

| Model    | Tube O.D.  | Accessory    |
|----------|--|--------------|
| VHE-29D  | 3/8", 1/2", 5/8", 3/4", 7/8", 1", 1-1/8"                                 | VTT-5 VTC-32 |
| VHE-29DM | 10, 12, 15, 16, 18, 22, 28 mm  | VTT-5 VTC-32 |
| VHE-29E  | 3/8", 1/2", 5/8", 3/4", 7/8", 1", 1-1/8"                                 | 1            |
| VHE-29EM | 10, 12, 15, 16, 18, 22, 28 mm  | 1            |
| VHE-42E  | 3/8", 1/2", 5/8", 3/4", 7/8", 1", 1-1/8", 1-1/4", 1-3/8", 1-1/2", 1-5/8" | 1            |
| VHE-42EM | 10, 12, 15, 16, 18, 22, 28, 35, 42 mm                                    | /            |

# **Tube Expander**





# **Easy to Expand**

### Easy to Use

Simple structure for expanding copper tubing

### Anti-slip handle

• Easy to use

### Easy to Carry

• Foldable design for portability

### **Spacing Groore**

• To prevent over flared, ensure the accurate of tube flared

| Model     | VST-22  | VST-22B  |
|-----------|---|--|
| Tube O.D. | 3/8", 1/2", 5/8", 3/4", 7/8"<br>10, 12, 16, 18, 22 mm | 1/4", 5/16", 3/8", 1/2", 5/8", 3/4", 7/8"<br>6, 8, 10, 12, 16, 18, 22 mm |

## **Tube Cutter**



# Easy to Cut

**High-Quality Cutting Blade** 

Sharp and durable

#### Ball Bearing

Easy cutting and better quality

### Aluminum Alloy

• Light weight, easy to carry and use

| Model     | VTC-19    | VTC-32      | VTC-35      | VTC-42      | VTC-70      |
|-----------|-----------|-------------|-------------|-------------|-------------|
| Tube O.D. | 1/8"~3/4" | 1/8"~1-1/4" | 1/8"~1-3/8" | 1/4"~1-5/8" | 1/4"~2-5/8" |
|           | 3~19 mm   | 4~32 mm     | 4~35 mm     | 6~42 mm     | 6~67 mm     |



# VALUE Creates Value

### **Making Your Job More Enjoyable**

# VTT-5 Tube Deburring



### **Easy to Deburr**

### **Compact Design**

• Easy to carry

#### Spare Blade

• 2 spare blades are included

#### Replaceable Blades

• Easy to change blade

### VRT-201/202 Ratchet Spanner





### **Easy to Rotary**

#### Ratchet

 Advanced ratchet, leave out the tedious transformation steps, easy to use, and easy to rotary

#### **Anti-slip Handle**

 Power holding, anti-slip, easy to rotary

# VRT-101 Capillary Tube Plier





### **Easy to Shear**

### Sharp Blade

• Excellent stainless steel blade, easy to shear capillary

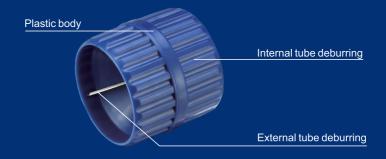
### **Spacing Spring**

Easy to use

### **Anti-slip Handle**

• Power holding, anti-slip, easy to shear

### VRT-301 Deburring Tool



### **Easy to Deburr**

Multi-blade Alloy Steel Internal Surface

Easy to deburring

Slip-resistant Aluminum Body Design

Light weight

Tube O.D.: 4-40 mm (1/8"-1-5/8")





Internal tube deburring External tube deburring

### VRT-102 Sealing Pliers





### Easy to Seal

#### **Inactivate Jaw**

 Power clamp force, it can seal copper pipe quickly

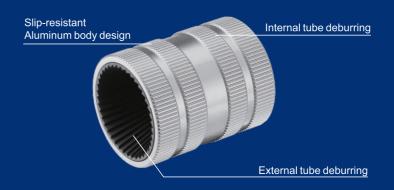
#### **Force Adjusting Nut**

Easy to adjust clamp force

#### **Ergonomic Design Handle**

Anti-slip design, easy to use

### VRT-302 Internal & External Reamer



### Easy to Deburr

Multi-blade Alloy Steel Internal Surface

Easy to deburring

Slip-resistant Aluminum Body Design

Light weight

Tube O.D.: 8-35 mm (1/3"-1-2/5")





temal tube deburring Internal tube deburring

**Tool Kit** 







### **Easy to Carry**

Aluminum alloy toolbox, easy to carry

### **Protect Tools**

 Aluminum alloy toolbox, better protection tools during transportation

| Complete With  | Descrition         | Quantity |
|----------------|--------------------|----------|
| Vacuum Pump    | 1.5CFM             | 1pc      |
| Flaring Tool   | VFT-808-I          | 1set     |
| Tube Cutter    | VTC-32             | 1pc      |
| Tube Deburring | VTT-5              | 1pc      |
| Manifold Gauge | VMG-2-R410A        | 1set     |
| Tube Expanders | VST-22             | 1pc      |
| Package        | Aluminum alloy box | 1pc      |



# **Easy to Carry**

Blow molding toolbox, easy to carry

#### Easy to Use

• Include cutter, tube expander, manifold, refrigerant hose

| Model          | VTB-5B-I    | VTB-5B-I |             | VTB-5B-II |             | ·III     |
|----------------|-------------|----------|-------------|-----------|-------------|----------|
| Complete With  | Descrition  | Quantity | Descrition  | Quantity  | Descrition  | Quantity |
| Flaring Tool   | VFT-808-I   | 1set     | VFT-808-I   | 1set      | VFT-808-I   | 1set     |
| Tube Cutter    | VTC-32      | 1pc      | VTC-32      | 1pc       | VTC-32      | 1pc      |
|                | VTC-19      | 1pc      | VTC-19      | 1pc       | VTC-19      | 1pc      |
| Manifold Gauge | VMG-2-R410A | 1set     | VMG-2-R410A | 1set      | VMG-2-R410A | 1set     |
| Tube Deburring | VTT-5       | 1pc      | VTT-5       | 1pc       | VTT-5       | 1pc      |
| Adapter        | 1           | 1        | V01 V08     | 1set      | V01 V08     | 1set     |
| Adapter        | 1           | 1        | 1           | 1         | CV01-CV12   | 1set     |
| Package        | Blow case   | 1pc      | Blow box    | 1pc       | Blow box    | 1pc      |





### VMC-1

### **Digital Clamp Multimeters**

Clamp VMC-1, design of high precise smart chip, It can accurately measure the change of small current; 28mm jaw, it's specially designed for you to repair an unexpected wire and circuit detection; compact design, 28mm jaw (28) better experience, it's easy to use. High precision chip LCD backlit display Compact design MINI

### **Precise Measurement**

### High precision chip

Precise measurement

### Compact design

Easy to carry

#### LCD backlit display

 Large screen data display, better readability

#### 28mm jaw

 Suitable for more demanding circuit maintenance

| Model                         | VMC-1        |
|-------------------------------|--------------|
| Max Measurement Voltage       | 600V         |
| Max Measurement AC Current    | 400 A        |
| Max Measurement Capacitance   | 4 mF         |
| Temperature Measurement Range | -40°C~1000°C |

# **HVAC** instrument Accurate

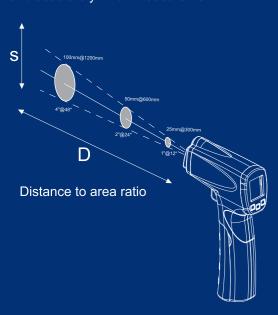


63 VALUE Creates value

### **VIT-300S**

### **Infrared Thermometer**

VALUE VIT-300S non-contact infrared thermometer can help determine the surface temperature by measuring the infrared energy of the target surface. The design of low power consumption makes the product serve a longer period, reducing the frequency of battery change for users. In addition, the high precision infrared sensor can help users quickly and accurately finish measurement.





### **Precise Measurement**

### Precision Infrared Sensor

Accurate measurement, respond faster

### **LCD Backlit Display**

Clear display, easy to read

#### Large-aperture Silicon Mirror

- Measureds long distance
- Wide measuring range

### One-key Temperature Measurement

Easy to use, convenient

# Model VIT-300S Emissivty 0.10~1.00 adjustable Temperature Range -32 ℃~400 ℃ (−25.6 °F~752 °F) Max Measuring Accuracy ±2 °C or ±2% Response Time 500 mS Debug Mode Single-process debugging

### VMV-1

### Vacuum Gauge

It uses the Pirani high-precision vacuum sensor to precisely measure vacuum levels. Digital display affords a comprehensive view of vacuum conditions. When reaching the preset vacuum level, it will buzz as a reminder. When the vacuum level decreases from the pre-set vacuum level, it will buzz rapidly and flash the backlight to warn of leaks.

Buzzing Remind



### **Precise Measurement**

### **Ergonomic Design**

Easy to carry

### **Buzzing Alert**

- Vacuum level reminder
- Vacuum leakage warning

#### **Precision Vacuum Sensor**

Pirani sensor

### Large Backlit Display

- Easy-to-read large digital display
- Backlit display for clarity

| Model                     | VMV-1   |  |
|---------------------------|---|--|
| Maximum overload pressure | 72 PSi/0.5 Mpa  |  |
| Range                     | 0~10000 Pa、0~100.00 mBar、0~75.000 mmHg、0~75000 Microns                      |  |
| Resolution                | 0.01( < 10 Pa)、 0.0001( < 10 mBar)、 0.0001( < 10 mmHg)、 1( < 30000 Microns) |  |
| Accuracy                  | 2~100Pa: ±5% of reading(at 20 °C)   |  |
| Operating temperature     | 0~50 °C   |  |
| Unit                      | Pa、mBar、mmHg、Microns  |  |
| sensor                    | Pirani sensor   |  |
| Dimensions                | 147x59x33 mm  |  |
| Weight                    | Only 125 a  |  |

### VMS-1

### **Sound Level Meter**

Sound Level Meter VMS-1, with micro capacitor-type microphone sensing technology and bandwidth weighting network design, to enable small interference on the sound field, fast response and a precise, efficient noise measurement.



### **Precise Measurement**

#### **Ergonomic Design**

Easy to carry

Micro Capacitor-type Microphone Sensing Technology And Bandwidth Weighting Network Design

- Fast response
- Accurate and Efficient

#### Large Backlit Display

- Easy-to-read large digital display
- Backlit display for clarity

#### VMS-1 Model 30~130 dB Noise measurement scope ±1.5 dB 31.5Hz~8kHz 0.1 dB Fast: 125ms / Slow: 1000ms Sampling rate Power 1.5V AAAx3 32x26 mm LCD size 155x57x35 mm Dimensions Only 88g Weight

### VMA-1

### Anemometer

Anemometer VMA-1, with magnetic sensor technology and precision computing amplifier chip, enable to directly convert the airflow rate into electrical signals; through the microprocessor chip to process data, using the electronic digital display to provide you with accurate measurements. It resolved the issues with traditional anemometer such as large volume and initial high airspeed, so as to achieve precision measurement.



High sensitivity wind rotor

### **Precise Measurement**

Large Backlight Display

#### **Ergonomic Design**

Easy to carry

### **High Sensitivity Wind Rotor**

- 6 vanes high sensitivity wind rotor
- Low friction bearing technology

#### Large Backlit Display

- Easy-to-read large digital display
- Backlit display for clarity

| Model                               | VMA-1         |
|-------------------------------------|---------------|
| Wind Speed Measurement Scope        | 0~12          |
| Accuracy of wind-speed measurement  | ± (5%rdg+0.5) |
| Accuracy of temperature measurement | ±2 °C         |
| Wind Scale Accuracy                 | ±1            |
| Wind-speed resolution               | 0.1 m/s       |
| Temperature resolution              | 0.1 °C        |
| Sampling rate                       | 500 ms        |
| Power                               | 1.5V AAAx3    |
| LCD size                            | 32x26 mm      |
| Dimensions                          | 164x57x30 mm  |
| Weight                              | 95 g          |

# S1/S2

Mini Condensate Pump

### M1/M2

Condensate Pump





Electrode water level sensor

# **Ultra-Quiet, Reliable**

### **Ultra-Quier DC motor**

• Quiet operation

### **Large Capacity Tank**

Reducing work times and extending life

### Electrode water level sensor

### **Easy Maintenance**

• Snap-on stucture, easy disassembling and cleaning of water tank

### Water Pipe Isolates from PCB

Anti-leakage & Anti-short circuit

#### LED flash light

Effectively monitor product running condition

| Model                          | M1               | M2                |
|--------------------------------|------------------|-------------------|
| Voltage                        | 100-240V/50-60Hz | 100-240V/50-60Hz  |
| Discharge head (Max.)          | 12m / 39ft       | 12m / 39ft        |
| Flow rate (Max.)               | 24L/h 6.4 US GPH | 40L/h 10.6 US GPH |
| Effective water tank capacity  | 200ml            | 200ml             |
| Unit output (Max.)             | 9kW 30000btu/h   | 13kW 45000btu/h   |
| Noise at 1m                    | 19dB(A)          | 21dB(A)           |
| Applicable ambient temperature | 0°C-50°C         | 0°C-50°C          |





Electrode water level sensor

# **Ultra-Quiet, Reliable**

### Ultra-Quier DC motor

Quiet operation

### Mini Design

### Built-in Filter

 Effectively filter impurities and prevent blockage

### Water Pipe Isolates from PCB

Anti-leakage & Anti-short circuit

| Model                          | S1               | S2                |
|--------------------------------|------------------|-------------------|
| Voltage                        | 100-240V/50-60Hz | 100-240V/50-60Hz  |
| Discharge head (Max.)          | 10m / 33ft       | 10m / 33ft        |
| Flow rate (Max.)               | 24L/h 6.4 US GPH | 40L/h 10.6 US GPH |
| Effective water tank capacity  | 50ml             | 50ml              |
| Unit output (Max.)             | 9kW 30000btu/h   | 13kW 45000btu/h   |
| Noise at 1m                    | 19dB(A)          | 21dB(A)           |
| Applicable ambient temperature | 0°C-50°C         | 0°C-50°C          |



# High-end Series Ushering in the smart era of HVAC tools



### **Making Your Job More Enjoyable**

Leading Technology, Superior Quality, Best Experience



Leading Technology, Superior Quality, Best Experience.

**Making Your Job More Enjoyable** 

### **Li-battery Vacuum Pump**

Suit for R32, 1234yf

The cordless vacuum pump VRP-2D II, designed with high performance lithium batteries, is designed to allow constant vacuum pumping for 50 minutes; Lightweight design that enables the product to be carried to workplace very conveniently; Smart motor drives the product to achieve a faster vacuum pumping and higher ultimate vacuum with a lighter weight; At the same time, the product configured with the ball valve switch, it can be closed more easily after completing the vacuum pumping operation. Leading Technology, Superior quality, Best Experience

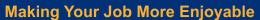


Contemporary Good Design

Easy-to-use & portable

Mini Design

• Easy-to-use & portable





### Lithium-powered, Portable and Light

### DC Motor

**MANATEK** 

 Lighter weight, more powerful, Faster evacuation

### **Ball Valve Switch**

- Easy operation, better experience
- Easy-to-turn off

### **High Performance Lithium Battery**

- Dual Stage Running time reaches 50 minutes
- Single Stage Running time reaches 75 minutes

#### **Big Sight Glass**

- Easy-to-see
- Ensuring high-reliability operation

| Model           | VRP-2DLi                    | VRP-2S <mark>Li</mark> |  |
|-----------------|-----------------------------|------------------------|--|
| Flow Rate       | 2.0 CFM                     | 2.0 CFM                |  |
| Flow Rate       | 57 L/min                    | 57 L/min               |  |
| Ultimate Vacuum | 2 Pa                        | 2 Pa                   |  |
| Olumate vacuum  | 23 micron                   | 150 micron             |  |
| Pump Design     | Dual stage                  | Single stage           |  |
| Inlet Port      | 1/4" SAE                    | 1/4" SAE               |  |
| Oil Capacity    | 160 ml                      | 180 ml                 |  |
| Battery         | 18V 5Ah                     | 18V 5Ah                |  |
| Running time    | 50 min                      | 75 min                 |  |
| Dimensions      | 233×90×190 mm 233×90×190 mm |                        |  |
| Weight          | 3.2 kg 2.7 kg               |                        |  |
|                 |                             |                        |  |





Making Your Job More Enjoyable

Mini Design

• Easy-to-use & portable

### **VRP-4DLi**

Li-battery Vacuum Pump Suit for R32, 1234yf



### Lithium-powered, Portable and Light

### DC Motor

 Lighter weight, more powerful, Faster evacuation

### **Ball Valve Switch**

- Easy operation, better experience
- Easy-to-turn off

### **High Performance Lithium Battery**

Running time reaches 50 minutes

### **Big Sight Glass**

- Easy-to-see
- Ensuring high-reliability operation

| Model           | VRP-4D <b>L</b> i |
|-----------------|-------------------|
| Flow Rate       | 4.0 CFM           |
| Flow Rate       | 114 L/min         |
| Ultimate Vacuum | 2 Pa              |
| Oitimate vacuum | 15 micron         |
| Pump Design     | Double stage      |
| Inlet Port      | 1/4" SAE & 3/8"   |
| Oil Capacity    | 260 ml            |
| Battery         | 18V 9Ah           |
| Running time    | 50 min            |
| Dimensions      | 320×112×242 mm    |
| Weight          | 7 kg              |

73 VALUE Creates value

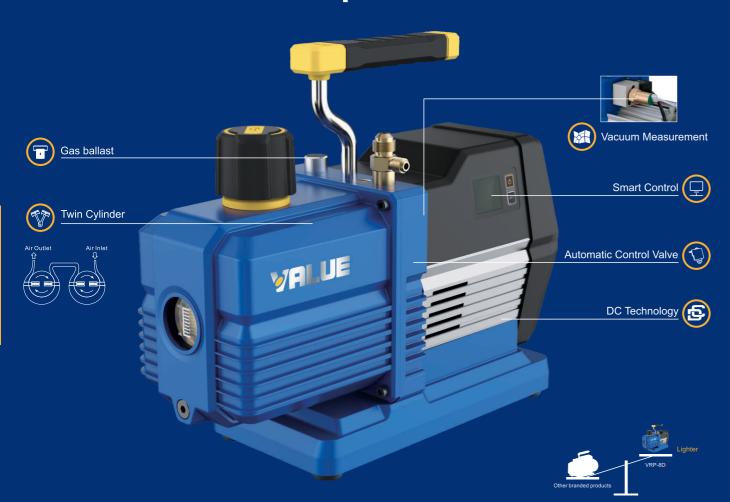
**Automatic Control Valve** 

Prevent oil back flow

Preserve vacuum

**Making Your Job More Enjoyable** 

# **Smart Vacuum Pump**



### **Smart Control Technology**

### **DC Technology**

- Lighter
- More efficient

#### **Smart Control**

- Extended evacuation for better vacuum
- Automatic control
- Task reminder

### **Vacuum Measurement Technology**

- Precise micron measurement
- Vacuum display

### Twin Cylinder

Higher ultimate vacuum

| Model           | VRP-6D                | VRP-8D                |
|-----------------|-----------------------|-----------------------|
| Flow Rate       | 6.0 CFM               | 8.0 CFM               |
| Flow Rate       | 170 L/min             | 226 L/min             |
| 100 ( )/        | 15 micron             | 15 micron             |
| Ultimate Vacuum | 2x10 <sup>-1</sup> Pa | 2x10 <sup>-1</sup> Pa |
| Pump Design     | Dual stage            | Dual stage            |
| Motor Power     | 3/4 HP                | 3/4 HP                |
| Inlet Port      | 1/4" & 3/8" SAE       | 1/4" & 3/8" SAE       |
| Oil Capacity    | 600 ml                | 600 ml                |
| Dimensions      | 346×145×302 mm        | 346×145×302 mm        |
| Weight          | 11.5 kg               | 11.5 kg               |

Suit for R32,1234yf, R410A, R22, R134a refrigerant & et

# Vacuum Pump

**R32** 



### **Accurate/Efficient**

### **Built-in Solenoid Valve**

- Preserve vacuum during power failure
- Prevent oil back flow

### **Embedded Vacuum Gauge**

Precision/Anti-Shock

### DC Technology

LighterMore efficient

### Precision Manufacturing

More reliable

| Model           | VRP-6DV               | VRP-8DV               |
|-----------------|-----------------------|-----------------------|
|                 | 6.0 CFM               | 8.0 CFM               |
| Flow Rate       | 170 L/min             | 226 L/min             |
| Ultimate Vacuum | 15 micron             | 15 micron             |
| Oilimale vacuum | 2x10 <sup>-1</sup> Pa | 2x10 <sup>-1</sup> Pa |
| Pump Design     | Dual stage            | Dual stage            |
| Motor Power     | 3/4 HP                | 3/4 HP                |
| Inlet Port      | 1/4" & 3/8" SAE       | 1/4" & 3/8" SAE       |
| Oil Capacity    | 600 ml                | 600 ml                |
| Dimensions      | 346×145×302 mm        | 346×145×302 mm        |
| Weight          | 11.5 kg               | 11.5 kg               |

Suit for R32,1234yf, R410A, R22, R134a refrigerant & etc



### VRP-15D

Vacuum Pump



Suitable for evacuation of large commercial refrigeration, central AC systems.

With industrial grade technology, VRP-15D solves the problems of long-time evacuation, inadequate vacuum level in the service for large commercial refrigeration or central AC systems. The dual stage rotary vane pump and inverter motor lead to faster evacuation and a deeper vacuum. Integrate pump cylinder and built-in oil back-flow prevention assure the superior performance and reliability. The combination of enhanced technology and aesthetic design enable the VRP-15D to be a top of class product.

Leading Technology, Superior Quality, Best Experience.

**Making Your Yob More Enjoyable** 





Anti-suckback anti-suckback valve

### **Double Speed, Super Vacuum Performance**

| Industrial | Grade | Design |
|------------|-------|--------|
|------------|-------|--------|

High Quality, Super High Vacuum

High Evacuation Performance

### DC Motor

Light, Fast

### **Integrated Dual Stage Pump**

High Vacuum Level

#### **Oil Back Flow Prevention**

 No system oil contamination during power failure

#### Oil Drain Valve

Ball valve design, Easier to drain

#### Sight Glass

Easy to see, Eliminate oil shortage

| Model           | VRP-15D              |
|-----------------|----------------------|
| Flow Rate       | 15 CFM               |
| FIOW Rate       | 425 L/min            |
| Ultimate Vacuum | 0.67 Pa              |
| Ollinate vacuum | 5 micron             |
| Pump Design     | Dual stage           |
| Motor Power     | 3/4 HP               |
| Inlet Port      | 1/4", 3/6", 1/2" SAE |
| Oil Capacity    | 880 ml               |
| Dimensions      | 414×152×310 mm       |
| Weight          | 15 kg                |



### **Making Your Job More Enjoyable**

# **VRDDF**Recovery Unit

**MANATEK** 

### Suitable for R290, R600a

VRDDF Recovery unit is suitable for Group IIA, Division 2, Group D T4. It is design reference to UL121201, CSA C22.2 No.213-17 and EN 60079-7 standards. VRDDF adopts secure starter, substantial security circuit to limit energy, the engine temperature limit, such as IP rating for elaborate design, suitable for A2L, A2, R290 R600a refrigerants.

Leading Technology, Superior Quality, Best Experience.

**Making Your Yob More Enjoyable** 



### VRDDF Recovery Unit



# Designed for R290, R600a

FORBID to use Group IIB, Group IIC refrigerant.

### Designed for R290, R600a

 Design reference to UL 121201, CSA C22.2 No. 213 and EN 60079-7 Standards

#### **Oil-Free Compressor**

Suitable for all commonly used refrigerants

### **Fast and Efficient Recovery**

- Brushless DC motor
- Twin cylinder with 2-row oversized condenser

#### Purge Function

Prevent mixing of various refrigerants

### Large Backlit Display

- Easy-to-read large LCD display
- Backlit for clarity

#### IP54 Design

Tested to be waterproof and dustproof

| Model                            |           | VRDDF   |   |             |  |
|----------------------------------|-----------|---|---|-------------|--|
| Ca                               |           | Categorys III: R12, R134a, R4   | Categorys III: R12, R134a, R401C, R500, 1234yf, R600a |             |  |
| Refrigerant                      |           | Categorys IV: R22, R401A, R401B, R402B, R407C, R407D, R408A, R409A, R411A, R411B, R412A, R502, R509, R290 |   |             |  |
|                                  |           | Categorys V : R402A, R404A, R407A, R407B, R410A, R507, R32, R507  |   |             |  |
| Power Supply                     |           | 220-240V~50/60Hz 115V/60Hz  |   |             |  |
| Motor                            |           | Brushless DC motor 1HP  |   |             |  |
| Motor Speed                      |           | 3000 rpm  |   |             |  |
| Maximal Current Draw 6.5 A       |           | 6.5 A   | 12 A  | 12 A        |  |
| Compressor                       |           | Oil-less, Air-cooled, Piston style  |   |             |  |
| Automatic Safety S               | hut-Off   | 38.5bar/3850kPa(558psi)   |   |             |  |
|                                  |           | Categorys III   | Categorys IV  | Categorys V |  |
| Recovery Rate                    | Vapor     | 0.43  | 0.54  | 0.54        |  |
| (kg/min)                         | Liquid    | 3.60  | 4.00  | 4.20        |  |
|                                  | Push/Pull | 7.50  | 8.50  | 9.50        |  |
| Operating Temperature 0 °C-40 °C |           | 0 °C-40 °C  |   |             |  |
| Dimensions 370×250×297 mm        |           |   |   |             |  |
| Weight 11 kg                     |           |   |   |             |  |

-Cylinder

**Brushless DC Motor** 

More efficient

**Making Your Job More Enjoyable** 

### **Making Your Job More Enjoyable**

### VRR36C4



### **Fastest · Most Powerful**

### 4-Cylinder

More powerful

#### **Large Digital Display**

- Easy-to-read large LCD display
- Backlit for clarity

### Super-Efficient Condenser

- Over-sized micro-channel condenser
- 3 cooling fans

### **Dual Oil-Free Compressors**

• Suitable for all commonly used refrigerants

| Model   |            | VRR36C4  | VRR36C4  |             |  |
|---|------------|--|--|-------------|--|
| Refrigerant                                   |            | Categorys IV : R22, R401A, R4<br>R411B,R412A,F | Categorys III: R12, R134a, R401C, R500, 1234yf Categorys IV: R22, R401A, R401B, R402B, R407C, R407D, R408A,R409A,R411A R411B,R412A,R502,R509 Categorys V: R402A,R404A,R407A,R407B,R410A,R507,R32 |             |  |
| Power Supply                                  |            | 220-240V~50/60Hz                               | 115V~50/60Hz   |             |  |
| Motor   |            | Brushless DC motor 1.5HP                       | Brushless DC motor 1.5HP   |             |  |
| Motor Speed                                   |            | 3000 rpm                                       | 3000 rpm   |             |  |
| Maximal Current                               | Draw       | 8.5 A 12 A                                     |  |             |  |
| Compressor Oil-less, Air-cooled, Piston style |            |  |  |             |  |
| Automatic Safety                              | / Shut-Off | 38.5bar/3850kPa(558psi)                        |  |             |  |
|   |            | Categorys III                                  | Categorys IV   | Categorys V |  |
| Recovery Rate                                 | Vapor      | 0.55   | 0.73   | 0.72        |  |
| (kg/min)                                      | Liquid     | 4.20   | 5.78   | 7.63        |  |
|   | Push/pull  | 8.10   | 9.00   | 9.90        |  |
| Operating Temperature 0 °                     |            | 0 ℃-40 ℃                                       | 0°C-40°C   |             |  |
| Dimensions                                    |            | 410×275×300 mm                                 | 410×275×300 mm   |             |  |
| Weight  |            | 19 kg  | 19 kg  |             |  |

### VML-1

### **Leak Detector**



### **Precise Measurement**

### **Ergonomic Design**

• Easy to carry

### **Lithium Battery**

Rechargeable

### Semiconductor Sensor

- Precise measurement
- Extended service life

### **External Power Supply**

Extended use

| Model                         | VML-1  |
|-------------------------------|--|
| Suitable for refrigerant      | CFC, HCFC, HFC refrigerant                               |
| Minimum of leakage            | ≤3g/year (R134A)   |
| Response time                 | ≤3s (regarding the size and distance of source of leaks) |
| Life time of battery          | ≥8 hours   |
| Pressure of system under test | ≥50 kPa  |
| Life time of sensor           | ≥1 yearunder normal usage                                |
| Power                         | 5V   |
| Calibration                   | auto   |
| Weight                        | 350 g  |
| Length of probe               | 40 cm  |

**MANATEK** 

**Making Your Job More Enjoyable** 

### **VRM2-0101**

Digital Manifold Gauge



# **Precision / Impact-Resistant**

#### Accurate

 Precision pressure gauge with Class 0.4 accuracy

### **Folding Hook**

• Hidden hook design ,easy to transport

#### **Ball Valve Handle**

- Efficient, convenient, easy
- Better work experience

### **Digital Display**

Easy to read

### Impact-Resistant

- Impact-resistant design
- Durable rubber cover

| Model           | VRM2-0101  |
|-----------------|--|
| Refrigerants    | R22, R134a, R1234yf, R290, R404A, R407C, R410A, R32, R507  |
| Pressure Scale  | -30 inHg~720 psi   |
| Hose            | Red 1/4"-5/16"; Yellow1/4"-1/4"; Blue1/4"-5/16" With 2 pcs adapters: Male: 5/16" SAE Female:1/4" SAE |
| Standard Length | 3x150 cm   |
| Package         | Blow Case  |

NOTICE: All information listed above is standard type, if you have other requirement, please appoint in the order.

### VRM2-B-0401

Manifold Gauge



# **Precision / Impact-Resistant**

### Accurate

 Precision pressure gauge with Class 1.0 accuracy

• Hidden hook design ,easy to transport

**Folding Hook** 

#### **Ball Valve Handle**

- Efficient, convenient, easy
- Better work experience

### Impact-Resistant

- Impact-resistant design
- Durable rubber cover

| Model           | VRM2-B-0401   | VRM2-B-0501                                     |
|-----------------|---|---|
| IVIOGEI         | VRIVIZ-D-040 I  | V NIVIZ-D-030 I                                 |
| Refrigerants    | R22, R134a, R410A, R407C  | R22, R134a, R404A, R407C                        |
| Gauge Diameter  | Ф68 mm  | Ф68 mm  |
| Pressure Scale  | -30 inHg ~ 800 psi; -30 inHg ~ 550 psi  | -30 inHg ~ 400 psi; -30 inHg ~ 350 psi          |
| Hose            | Red 1/4"-5/16"; Yellow 1/4"-1/4"; Blue 1/4"-5/16"<br>With 2 pcs adapters: Male: 5/16" SAE Female:1/4" SAE | Red 1/4"-1/4"; Yellow 1/4"-1/4"; Blue 1/4"-1/4" |
| Standard Length | 3x150 cm  | 3x150 cm  |
| Package         | Blow Case   | Blow Case                                       |

NOTICE: All information listed above is standard type, if you have other requirement, please appoint in the order.



# **Precision / Impact-Resistant**

#### Accurate

 Precision pressure gauge with Class 0.4 accuracy

### **Folding Hook**

Hidden hook design ,easy to transport

### **Ball Valve Handle**

- Efficient, convenient, easy
- Better work experience

### **Digital Display**

Easy to read

### Impact-Resistant

- Impact-resistant design
- Durable rubber cover

| Model           | VRM1-0101   |
|-----------------|---|
| Refrigerants    | R22, R134a, R1234yf, R290, R404A, R407C, R410A, R32, R507                           |
| Pressure Scale  | -30 inHg~720 psi  |
| Hose            | Red 1/4"-5/16" ; Yellow1/4"-1/4" With 1 pc adapter: Male: 5/16" SAE Female:1/4" SAE |
| Standard Length | 2x150 cm  |
| Package         | Blow Case   |

NOTICE: All information listed above is standard type, if you have other requirement, please appoint in the order.

# VRM1-B-0403

Manifold Gauge



# **Precision / Impact-Resistant**

### Accurate

 Precision pressure gauge with Class 1.0 accuracy

Hidden hook design ,easy to transport

**Folding Hook** 

### Ball Valve Handle

- Efficient, convenient, easy
- Better work experience

### Impact-Resistant

- Impact-resistant design
- Durable rubber cover

| Model          | VRM1-B-0403              | VRM1-B-0404              |
|----------------|--------------------------|--------------------------|
| Refrigerants   | R22, R134a, R410A, R407C | R22, R134a, R410A, R407C |
| Gauge Diameter | Ф68 mm                   | Ф68 mm                   |
| Pressure Scale | -30 inHg ~ 800 psi;      | -30 inHg ~ 550 psi;      |
| Package        | Blister packing          | Blister packing          |

NOTICE: All information listed above is standard type, if you have other requirement, please appoint in the order

Large Screen Backlight Electronic Display

Wireless Bluetooth Control

# **Wireless Refrigerant Scale**

Suitable for larger size refrigerant cylinders



# **Precise Charging**

VRS-50I-01

4xAA, 4xAAA

210x260 mm

2.0 kg

50 kg

2 g 0.05%

#### **Wireless Bluetooth Control**

More convenient

Model

### Large Backlit Display

Weighting range

Resolution

Accuracy

Dimensions Weight

Power

### **Precision Sensor**

### Accuracy 0.05%

**Integrated Handle Design** 

### Magnesium alloy weighing pan

• Only 2.0Kg, easy to carry

### **Aluminium Weighing Pan** • High strength, High reliability • More durable

**Wireless Bluetooth Control** 

More convenient

Larger Size Weighing Pan

**Precise Charging** 

Aluminium Weighing Pan

### **Precision Sensor**

- Precision measurement
- Accuracy 0.05%

#### Large Backlit Display

• Large screen data display, better readability

### Larger Size Weighing Pan

• Suitable for larger size refrigerant cylinders

### **Integrated Handle Design**

| Model           | VRS-60 -01  | VRS-120-01  |
|-----------------|-------------|-------------|
| Weighting range | 60 kg       | 120 kg      |
| Resolution      | 5 g         | 10 g        |
| Accuracy        | 0.05%       | 0.05%       |
| Power           | 4xAA, 4xAAA | 4xAA, 4xAAA |
| Dimensions      | 320x270 mm  | 320x270 mm  |
| Weight          | 4.7 kg      | 4.7 kg      |

• Large screen data display, better readability

### • Precision measurement

VRS-100I-01

4xAA, 4xAAA

210x260 mm

100 kg

5 g

0.05%

2.0 kg

87 | VALUE Creates value

| _ |  |
|---|--|
| _ |  |
|   |  |
|   |  |
| _ |  |
|   |  |
|   |  |
| _ |  |
|   |  |
|   |  |
|   |  |
|   |  |
|   |  |
| _ |  |
|   |  |
| _ |  |
|   |  |
|   |  |
|   |  |
|   |  |