

VALUE[®]

Making Your Job More Enjoyable



2019 VALUE.Rev1

ANBi

www.anbolutions.com



Making Your Job More Enjoyable



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.

Global leader

in refrigeration tools and vacuum solutions

MISSION OF VALUE — VALUE CREATES VALUE

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

1. Create value for customers — Help them succeed

To provide customers with innovative and qualitative products, services and systems to allow, customers complete tasks in a more efficient way, and to help them succeed.

2. Create value for employees — Help employees develop

Employees are the greatest wealth we own. Therefore we will help them acquire better skills and personal growth.

3. Create value for partners — Win-win among partners

To set up a fair, equitable and open cooperation platform for long-term win-win partnership.

4. Create value for society — Advance technologies

To do our possible to conserve resources, protect environment, and boost technological progress and social development.

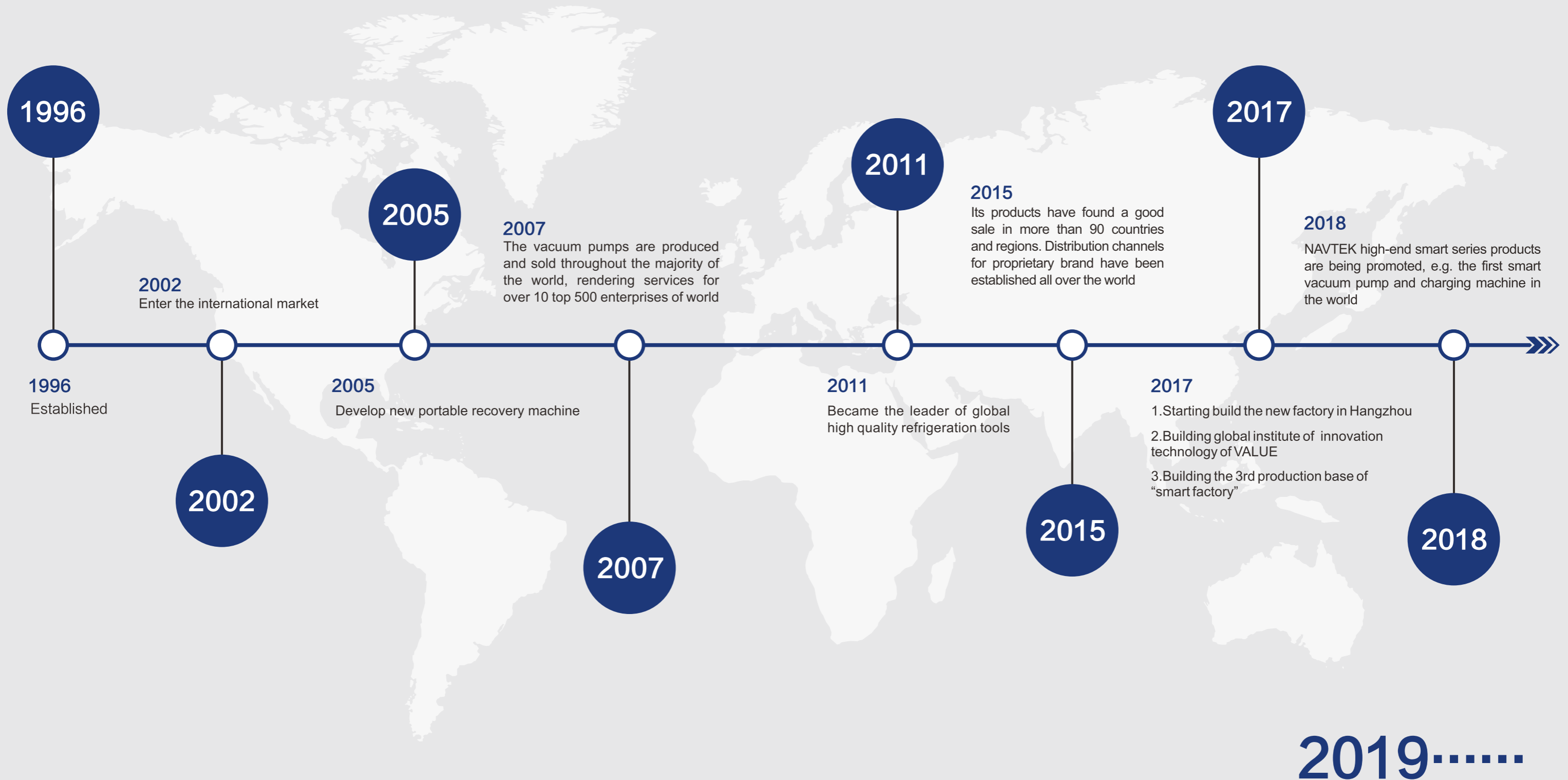
VISION OF VALUE

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

- Global Market
- Leading Technology
- One of the best

2. Platform for employees to realize their dreams!

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 quality management system certification, and we also have built 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 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

Core competitiveness
Speed • Innovation • High quality

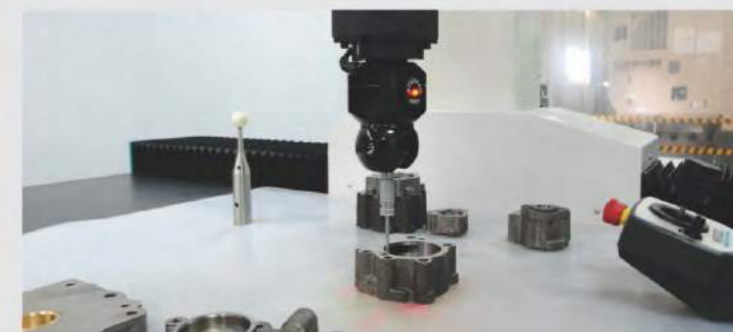
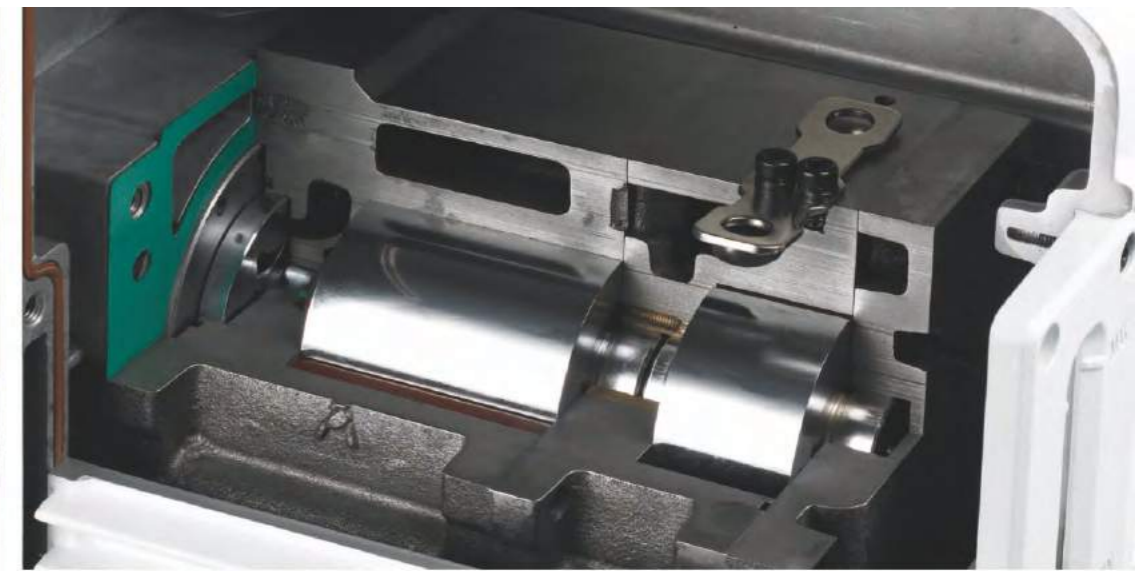


Global institute of innovation technology
of VALUE in Hangzhou



The third production base, a new smart factory is under construction

Wenling production base, it covers an area of 26,500m² with building area of 45,000m².



High quality manufacturing

VALUE is fully equipped with modernized processing and testing instruments, such as 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 certificate. And we also own product failure analysis lab, the constant temperature and humid workshop, new product trial center.

GLOBAL BRAND CHANNELS



VALUE's product has exported to more than 100 countries and regions, such as US, Japan, France, Italy, Spain, German, North Europe, Korea, Taiwan, Brazil, etc.
VALUE has also built our own brand distribution network in over 90 countries
VALUE provides products and service for over 10 Fortune 500 enterprises as well.



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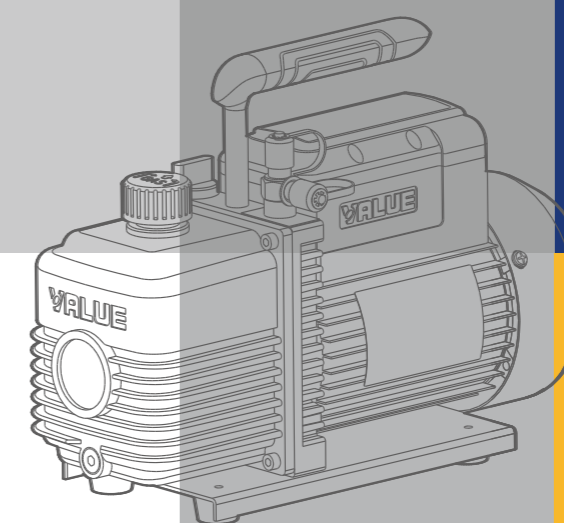


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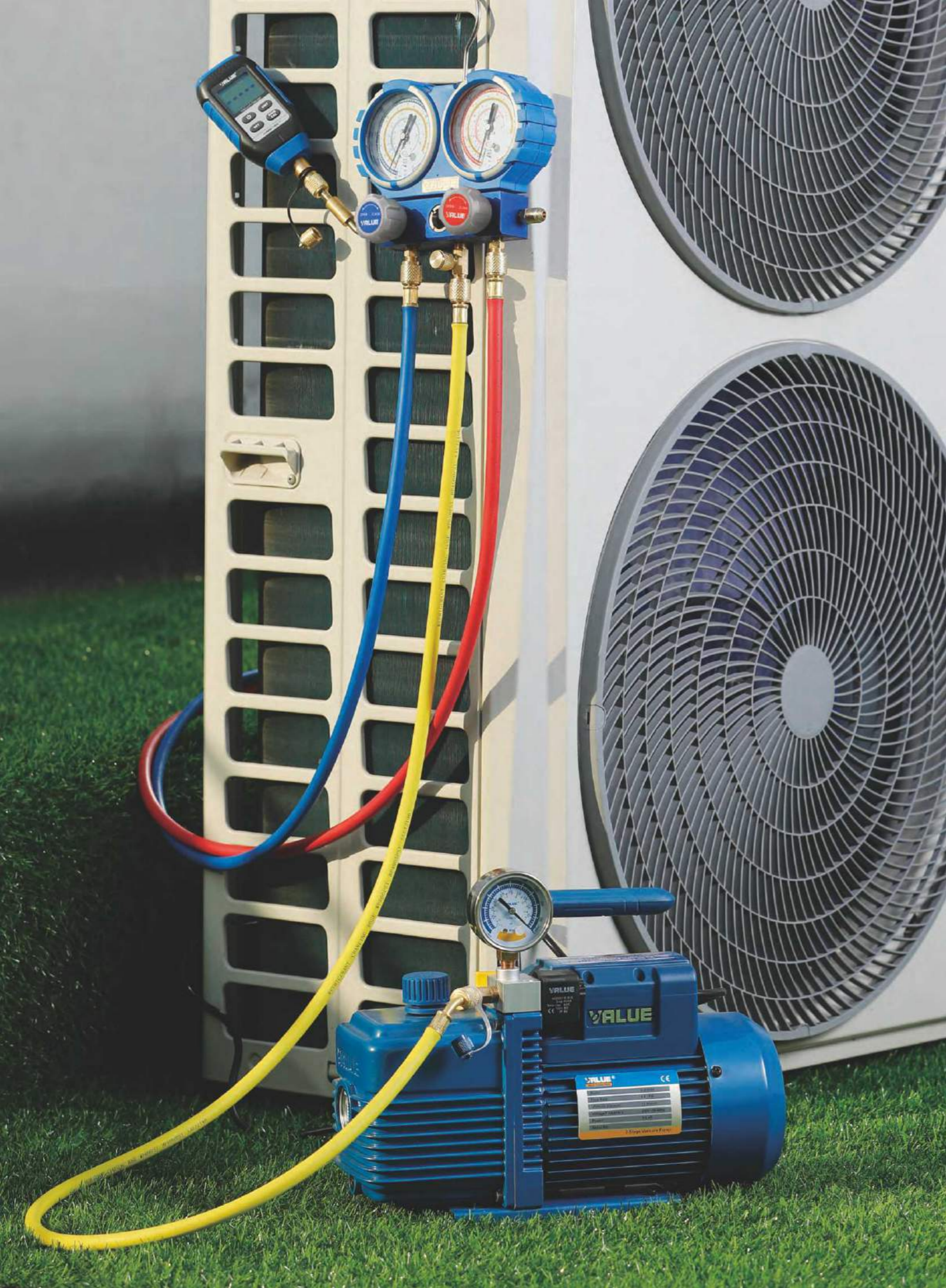


Vacuum Pump



Vacuum
Pump

High
Reliable



N Series Vacuum Pump

Making Your Job More Enjoyable

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

N Series Vacuum Pump

Making Your Job More Enjoyable

Vacuum Pump Selection		
Household air-conditioning	 VE115N(57L/min) 150 micron	 VE135N(113L/min) 150 micron
Large household air-conditioning Bus air-conditioning	 VE160N(198L/min) 150 micron	 VE180N(254L/min) 150 micron
Central air-conditioning Large refrigerated warehouse	 VE245N(142L/min) 15 micron	 VE280N(254L/min) 15 micron

Single Stage

Model	VE115N	VE125N	VE135N	VE160N	VE180N	
Flow Rate	50Hz	1.8 CFM 51 L/min	2.5 CFM 70 L/min	3.5 CFM 100 L/min	6.0 CFM 170 L/min	8.0 CFM 226 L/min
	60Hz	2.0 CFM 57 L/min	3.0 CFM 84 L/min	4.0 CFM 113 L/min	7.0 CFM 198 L/min	9.0 CFM 254 L/min
Ultimate Vacuum	Partial Pressure	2 Pa	2 Pa	2 Pa	2 Pa	2 Pa
	Total Pressure	150 micron	150 micron	150 micron	150 micron	150 micron
Power	1/4 HP	1/4 HP	1/3 HP	1/2 HP	3/4 HP	
Inlet Port	1/4" SAE	1/4" SAE	1/4" & 3/8" SAE	1/4" & 3/8" SAE	1/4" & 3/8" SAE	
Oil Capacity	250 ml	250 ml	250 ml	415 ml	660 ml	
Dimensions	290x124x224 mm	290x124x224 mm	318x124x234 mm	338x138x244 mm	395x145x257 mm	
Weight	6.6 kg	7.1 kg	8.0 kg	9.9 kg	14.6 kg	

Dual Stage

Model	VE215N	VE225N	VE245N	VE260N	VE280N	VE2100N	
Flow Rate	50Hz	1.5 CFM 42 L/min	2.5 CFM 70 L/min	4.5 CFM 128 L/min	6.0 CFM 170 L/min	8.0 CFM 226 L/min	10.0 CFM 283 L/min
	60Hz	1.8 CFM 50 L/min	3.0 CFM 84 L/min	5.0 CFM 142 L/min	7.0 CFM 198 L/min	9.0 CFM 254 L/min	12.0 CFM 340 L/min
Ultimate Vacuum	Partial Pressure	2x10 ⁻¹ Pa	2x10 ⁻¹ Pa	2x10 ⁻¹ Pa	2x10 ⁻¹ Pa	2x10 ⁻¹ Pa	2x10 ⁻¹ Pa
	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	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 Capacity	200 ml	200 ml	325 ml	580 ml	500 ml	590 ml	
Dimensions	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-Dual voltage

Making Your Job More Enjoyable

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

N Series Vacuum Pump-Dual voltage

Making Your Job More Enjoyable

Dual Stage

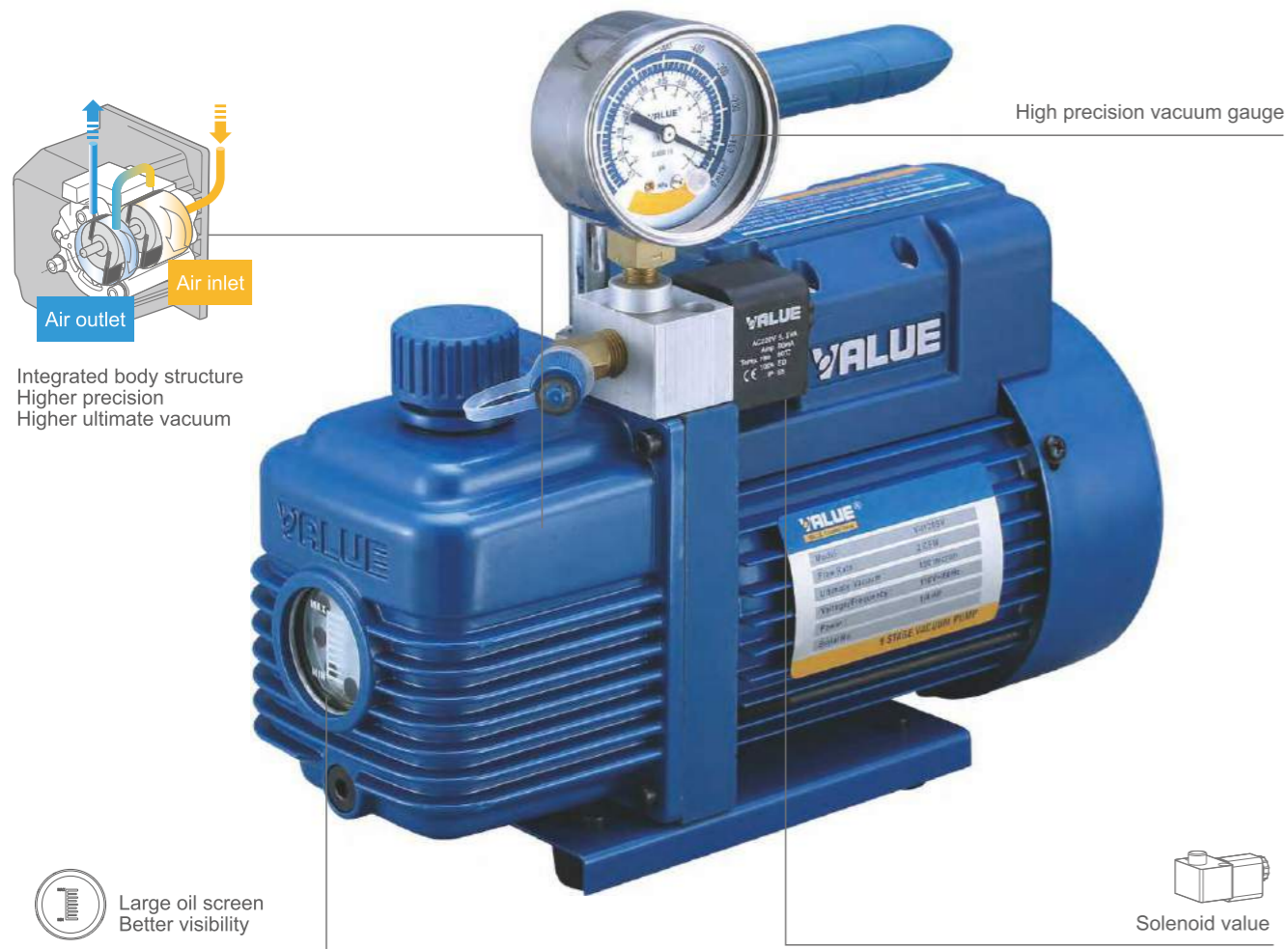
Model		VE215ND	VE225ND	VE245ND
Flow Rate	50Hz	1.5 CFM 42 L/min	2.5 CFM 70 L/min	4.5 CFM 128 L/min
	60Hz	1.8 CFM 50 L/min	3.0 CFM 84 L/min	5.0 CFM 142 L/min
Ultimate Vacuum	Partial Pressure	2x10 ⁻¹ Pa	2x10 ⁻¹ Pa	2x10 ⁻¹ Pa
	Total Pressure	15 micron	15 micron	15 micron
Power		1/4 HP	1/3 HP	1/2 HP
Inlet Port		1/4" SAE	1/4" SAE	1/4" & 3/8" SAE
Oil Capacity		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
Flow Rate	50Hz	6.0 CFM 170 L/min	8.0 CFM 226 L/min	10.0 CFM 283 L/min
	60Hz	7.0 CFM 198 L/min	9.0 CFM 254 L/min	12.0 CFM 340 L/min
Ultimate Vacuum	Partial Pressure	2x10 ⁻¹ Pa	2x10 ⁻¹ Pa	2x10 ⁻¹ Pa
	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		580 ml	500 ml	590 ml
Dimensions		395x145x257 mm	395x145x257 mm	395x145x257 mm
Weight		15.8 kg	16.2 kg	16.7 kg

i Series New Refrigerant Vacuum Pump

Making Your Job More Enjoyable

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



High Reliability

Integrated Body Structure

- Higher precision
- Higher ultimate vacuum

Large Oil Screen

- Better visibility

High Precision Vacuum Gauge




- More precise

Solenoid Valve

- Absolutely prevent backflow

i Series New Refrigerant Vacuum Pump

Making Your Job More Enjoyable

Vacuum Pump Selection		
Household air-conditioning	 V-i140SV(113L/min) 150 micron	
Large household air-conditioning Bus air-conditioning	 V-i240SV(113L/min) 15 micron	 V-i280SV(226L/min) 15 micron

Single Stage

Model		V-i120SV	V-i140SV	V-i160SV	V-i180SV
Flow Rate	50Hz	1.8 CFM 51 L/min	3.5 CFM 100 L/min	5.0 CFM 142 L/min	7.0 CFM 198 L/min
	60Hz	2.0 CFM 57 L/min	4.0 CFM 113 L/min	6.0 CFM 170 L/min	8.0 CFM 226 L/min
Ultimate Vacuum	Partial Pressure	2 Pa	2 Pa	2 Pa	2 Pa
	Total Pressure	150 micron	150 micron	150 micron	150 micron
Power		1/4 HP	1/3 HP	1/2 HP	3/4 HP
Inlet Port		1/4" SAE	1/4" SAE	1/4" SAE	1/4" SAE
Oil Capacity		250 ml	250 ml	415 ml	660 ml
Dimensions		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
Flow Rate	50Hz	1.8 CFM 51 L/min	3.5 CFM 100 L/min	5.0 CFM 142 L/min	7.0 CFM 198 L/min
	60Hz	2.0 CFM 57 L/min	4.0 CFM 113 L/min	6.0 CFM 170 L/min	8.0 CFM 226 L/min
Ultimate Vacuum	Partial Pressure	2x10 ⁻¹ Pa	2x10 ⁻¹ Pa	2x10 ⁻¹ Pa	2x10 ⁻¹ Pa
	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		318x124x265 mm	338x138x275 mm	395x145x318 mm	395x145x318 mm
Weight		9.0 kg	11.0 kg	16.6 kg	17.0 kg

i Series New Refrigerant Vacuum Pump

Making Your Job More Enjoyable

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



Integrated body structure
Higher precision
Higher ultimate vacuum

Large oil screen
Better visibility

Solenoid valve

Smaller, lighter,
and more convenient
only 4kg



High Reliability

Integrated Body Structure

- Higher precision
- Higher ultimate vacuum

Solenoid Valve

- Absolutely prevent backflow

Large Oil Screen

- Better visibility

Model	V-i115S-M	V-i215S-M
Flow Rate	1.5 CFM 42 L/min	1.5 CFM 42 L/min
Partial Pressure	2 Pa	2x10 ⁻¹ Pa
Total Pressure	150 micron	15 micron
Power	1/5 HP	1/5 HP
Inlet Port	1/4" SAE	1/4" SAE
Oil Capacity	150 ml	110 ml
Dimensions	240x88x183 mm	240x88x183 mm
Weight	3.5 kg	4 kg

i Series New Refrigerant Vacuum Pump

Making Your Job More Enjoyable

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



Integrated body structure
Higher precision
Higher ultimate vacuum

Large oil screen
Better visibility

Both AC & DC
can be operated



High Reliability

Integrated Body Structure

- Higher precision
- Higher ultimate vacuum

Large Oil Screen

- Better visibility

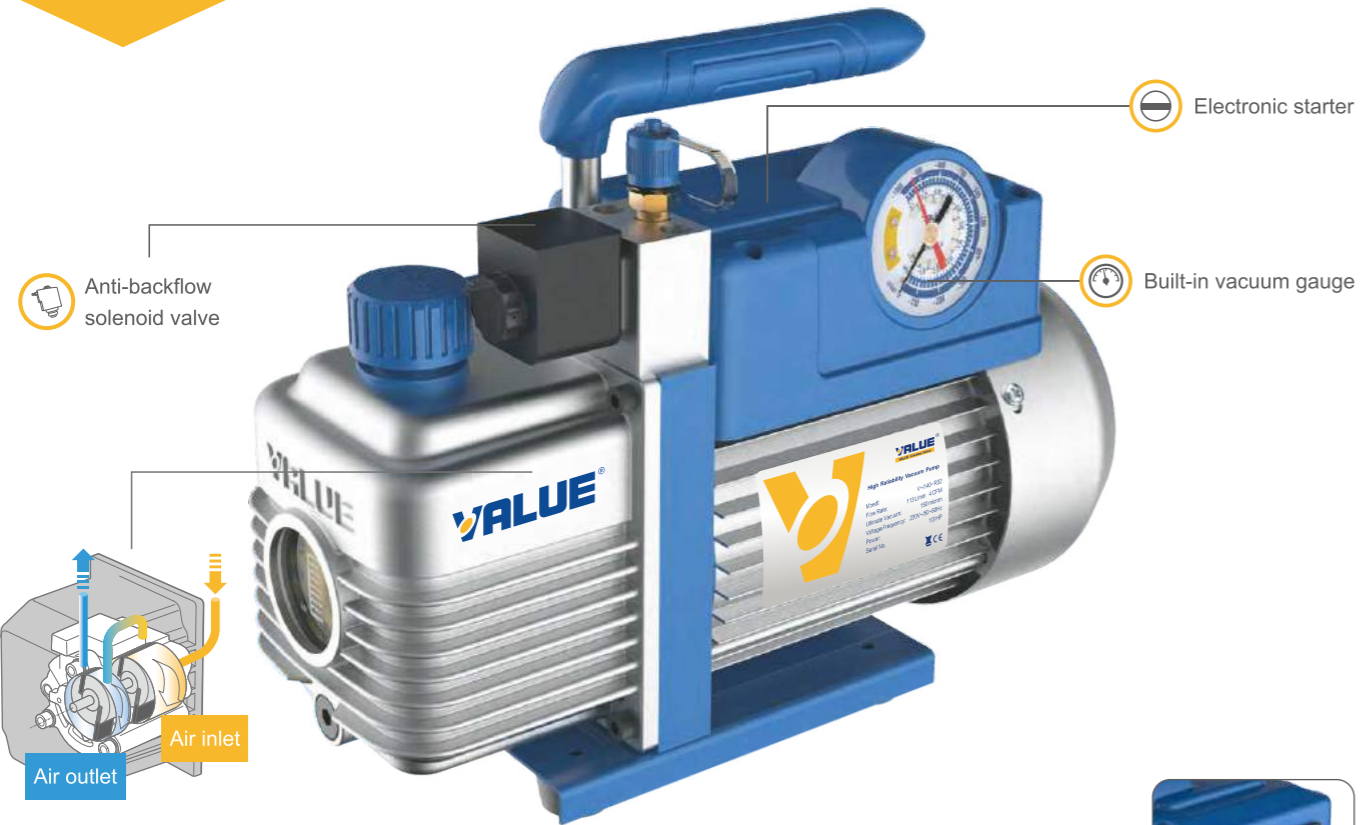
Model	V-i210H
Flow Rate	1.0 CFM 28 L/min
Partial Pressure	2x10 ⁻¹ Pa
Total Pressure	15 micron
Power	1/5 HP
Inlet Port	1/4" SAE
Oil Capacity	150 ml
Dimensions	240x88x183 mm
Weight	4 kg

R32 Series Vacuum Pump

Making Your Job More Enjoyable

Suitable for R32, 1234yf refrigerant

Suit for
R32



Integrated body structure
Higher precision
Higher ultimate vacuum



Electronic starter,
closed switch to make the
system explosion-proof

High Reliability

Electronic Starter-Enclosed Switch

- Explosion-proof design

Integrated Body Structure

- Higher precision
- Higher ultimate vacuum

Anti-backflow Solenoid Valve

- Preventing pump oil backflow from contaminating the vacuum system

Large Oil Screen

- Better visibility

Built-in Vacuum Gauge

- Built-in vacuum gauge prevents damage by impact

R32 Series Vacuum Pump

Making Your Job More Enjoyable

Single Stage

Model		V-i120-R32	V-i125-R32	V-i140-R32	V-i160-R32	V-i180-R32
Flow Rate	50Hz	1.8 CFM 51 L/min	2.5 CFM 70 L/min	3.5 CFM 100 L/min	5.0 CFM 142 L/min	7.0 CFM 198 L/min
	60Hz	2.0 CFM 57 L/min	3.0 CFM 84 L/min	4.0 CFM 113 L/min	6.0 CFM 170 L/min	8.0 CFM 226 L/min
Ultimate Vacuum	Partial Pressure	2 Pa	2 Pa	2 Pa	2 Pa	2 Pa
	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	1/4" SAE	1/4" SAE	1/4" SAE	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
Flow Rate	50Hz	1.8 CFM 51 L/min	3.5 CFM 100 L/min	5.0 CFM 142 L/min	7.0 CFM 198 L/min
	60Hz	2.0 CFM 57 L/min	4.0 CFM 113 L/min	6.0 CFM 170 L/min	8.0 CFM 226 L/min
Ultimate Vacuum	Partial Pressure	2x10 ⁻¹ Pa	2x10 ⁻¹ Pa	2x10 ⁻¹ Pa	2x10 ⁻¹ Pa
	Total Pressure	15 micron	15 micron	15 micron	15 micron
Power		1/3 HP	1/2 HP	3/4 HP	1 HP
Inlet Port		1/4" 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

R32 Only Vacuum Pump V-i2120

Making Your Job More Enjoyable

Suitable for R32, 1234yf refrigerant

Suit for
R32

Large oil screen
Better visibility



High Reliability

High Efficiency Motor

- More efficient
- Higher ultimate vacuum

Large Oil Screen

- Better visibility

Model	V-i2120
Flow Rate	12 CFM 340 L/min
Partial Pressure	2x10 ⁻¹ 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

Vacuum Pump Oil VPO-68

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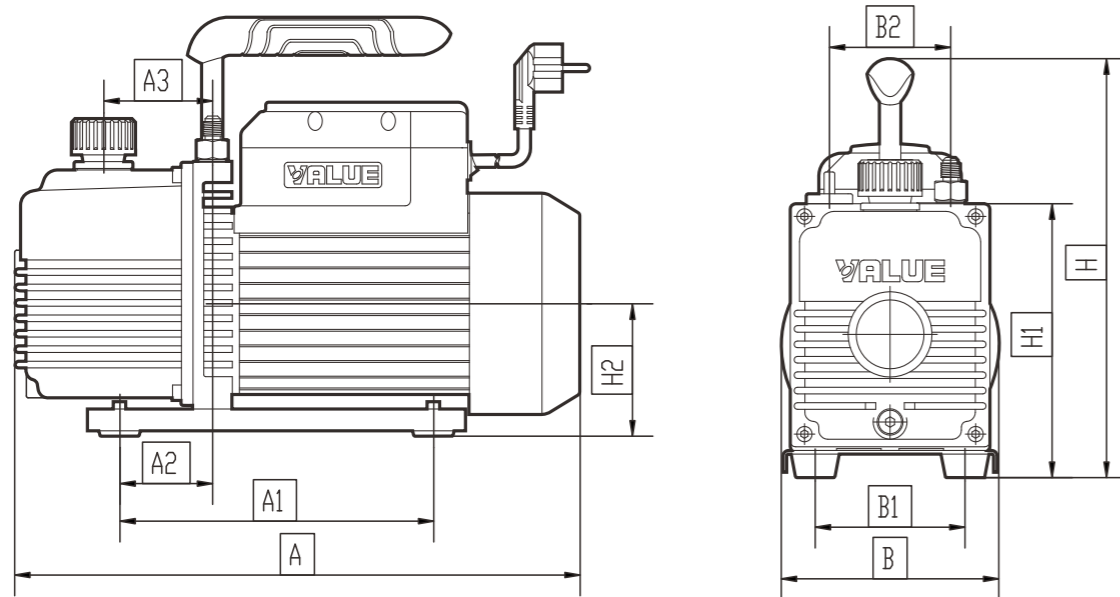
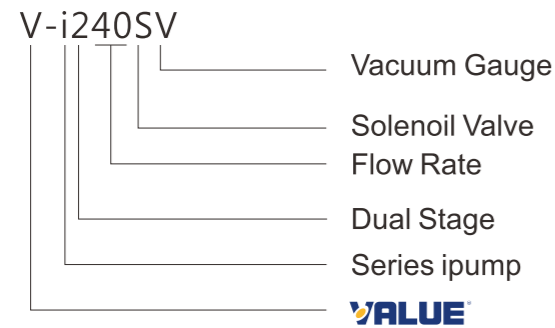
330ml

500ml

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

Vacuum Pump Selection

Making Your Job More Enjoyable



unit:mm

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

Vacuum Pump Selection

Making Your Job More Enjoyable

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	R32 1234yf
		R404A	R12	R12	
		R507A	R502	R502	
		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
Applicable machines	Household refrigerator	Central air conditioner	Central air conditioner
	Household air conditioner (below 5 Hp)	Large household air conditioner	Large refrigeration storage
	Car air conditioner	Bus 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 ⁻¹ Pa/15micron
Applicable machines	Household air conditioner	Central air conditioner
	Car air conditioner	Large and medium-sized refrigeration storage
	Refrigerator	

Higher ultimate vacuum



We did individual analysis on special applications such as medical 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 run reliably.

Model		VRD-16	VRD-24	VRD-30
Displacement speed m ³ /h	50 Hz	16	24	30
	60 Hz	19.2	28.8	36
Ultimate partial pressure gas ballast close		4x10 ⁻² Pa	4x10 ⁻² Pa	4x10 ⁻² Pa
Ultimate total pressure gas ballast close		4x10 ⁻¹ Pa	4x10 ⁻¹ Pa	4x10 ⁻¹ Pa
Ultimate total pressure gas ballast open		8x10 ⁻¹ Pa	8x10 ⁻¹ Pa	8x10 ⁻¹ 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	KF25/40	KF25/40
Oil capacity(L)		0.9~1.5L	1.3~2.0L	1.3~2.0L
Motor speed (rpm)	50 Hz	1440	1440	1440
	60 Hz	1720	1720	1720
Ambient temperature		5~40°C	5~40°C	5~40°C
Noise level (dB)		≤ 58dB	≤ 58dB	≤ 58dB
Weight(Kg)		33kg	36kg	37kg

Higher ultimate vacuum



Vacuum Pump

Model		VP2120	VP2200
Displacement speed m ³ /h	50 Hz	20	36
	60 Hz	24	43
Ultimate partial pressure gas ballast close		4x10 ⁻² Pa	4x10 ⁻² Pa
Ultimate total pressure gas ballast close		4x10 ⁻¹ Pa	4x10 ⁻¹ Pa
Ultimate total pressure gas ballast open		8x10 ⁻¹ Pa	8x10 ⁻¹ 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)		0.9~1.5L	1.3~2.0L
Motor speed (rpm)	50 Hz	1440	1440
	60 Hz	1720	1720
Ambient temperature		5-40°C	5-40°C
Noise level (dB)		≤ 58dB	≤ 58dB
Weight(kg)		37kg	41kg