

Vacuum Pump

High
Reliable

VE N SERIES

More Reliable, Higher Ultimate Vacuum



Forced oil cycling system



Integrated body structure



Big sight glass for monitoring oil level



Single Stage

Model	VE115N	VE125N	VE135N	VE160N	VE180N
Flow Rate	50Hz	1.8 CFM	2.5 CFM	3.5 CFM	6.0 CFM
		51 L/min	70 L/min	100 L/min	226 L/min
	60Hz	2.0 CFM	3.0 CFM	4.0 CFM	7.0 CFM
		57 L/min	84 L/min	113 L/min	198 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	1/4 HP	1/3 HP	1/2 HP	3/4 HP
Inlet Port	1/4" Flare	1/4" Flare	1/4" & 3/8" Flare	1/4" & 3/8" Flare	1/4" & 3/8" Flare
Oil Capacity	250 ml	250 ml	250 ml	415 ml	660 ml
Dimensions	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	2.5 CFM	4.5 CFM	6.0 CFM	8.0 CFM
		42 L/min	70 L/min	128 L/min	170 L/min	283 L/min
	60Hz	1.8 CFM	3.0 CFM	5.0 CFM	7.0 CFM	9.0 CFM
		50 L/min	84 L/min	142 L/min	198 L/min	254 L/min
Ultimate Vacuum	Partial Pressure	2x10 ⁻¹ Pa	2x10 ⁻¹ Pa	2x10 ⁻¹ Pa	2x10 ⁻¹ Pa	2x10 ⁻¹ Pa
	Total Pressure	15 micron	15 micron	15 micron	15 micron	15 micron
Power	1/4 HP	1/3 HP	1/2 HP	3/4 HP	1 HP	1 HP
Inlet Port	1/4" Flare	1/4" Flare	1/4" & 3/8" Flare	1/4" & 3/8" Flare	1/4" & 3/8" Flare	1/4" & 3/8" Flare
Oil Capacity	200 ml	200 ml	325 ml	580 ml	500 ml	590 ml
Dimensions	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

VE N SERIES

Dual Voltage (110-220V/50-60Hz)

Power plug

make this connection with different power plugs easily

Power supply conversion switch

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



Dual Stage

Model	VE215ND	VE225ND	VE245ND
Flow Rate	50Hz	1.5 CFM	2.5 CFM
		42 L/min	70 L/min
	60Hz	1.8 CFM	3.0 CFM
		50 L/min	84 L/min
Ultimate Vacuum	Partial Pressure	2x10 ⁻¹ Pa	2x10 ⁻¹ Pa
	Total Pressure	15 micron	15 micron
Power	1/4 HP	1/3 HP	1/2 HP
Inlet Port	1/4" Flare	1/4" Flare	1/4" & 3/8" Flare
Oil Capacity	200 ml	200 ml	325 ml
Dimensions	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	8.0 CFM
		170 L/min	226 L/min
	60Hz	7.0 CFM	9.0 CFM
		198 L/min	254 L/min
Ultimate Vacuum	Partial Pressure	2x10 ⁻¹ Pa	2x10 ⁻¹ Pa
	Total Pressure	15 micron	15 micron
Power	3/4 HP	1 HP	1 HP
Inlet Port	1/4" & 3/8" Flare	1/4" & 3/8" Flare	1/4" & 3/8" Flare
Oil Capacity	580 ml	500 ml	590 ml
Dimensions	395x145x257 mm	395x145x257 mm	395x145x257 mm
Weight	15.8 Kg	16.2 Kg	16.7 Kg

NEW REFRIGERANT SERIES

Suit for R410a, R407c, R1234a, R12, R22 refrigerant



High accuracy vacuum gauge
shows system pressure



Automatic anti-backflow
valve design



Integrated body structure



Big sight glass
for monitoring oil level



Single Stage

Model		V-i120SV	V-i140SV	V-i160SV	V-i180SV
Flow Rate	50Hz	1.8 CFM	3.5 CFM	5.0 CFM	7.0 CFM
		51 L/min	100 L/min	142 L/min	198 L/min
	60Hz	2.0 CFM	4.0 CFM	6.0 CFM	8.0 CFM
		57 L/min	113 L/min	170 L/min	226 L/min
Ultimate Vacuum	Partial Pressure	2 Pa	2 Pa	2 Pa	2 Pa
	Total Pressure	150 micron	150 micron	150 micron	150 micron
Power		1/4 HP	1/3 HP	1/2 HP	3/4 HP
Inlet Port		1/4" Flare	1/4" Flare	1/4" Flare	1/4" Flare
Oil Capacity		250 ml	250 ml	415 ml	660 ml
Dimensions		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	3.5 CFM	5.0 CFM	7.0 CFM
		51 L/min	100 L/min	142 L/min	198 L/min
	60Hz	2.0 CFM	4.0 CFM	6.0 CFM	8.0 CFM
		57 L/min	113 L/min	170 L/min	226 L/min
Ultimate Vacuum	Partial Pressure	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" Flare	1/4" Flare	1/4" Flare	1/4" Flare
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

NEW REFRIGERANT SERIES

Suitable for R410a, R407c, R134a, R12, R22 refrigerant



Smaller, lighter,
and more convenient
only 4kg



Specification

Model	V-i115S-M	V-i2115S-M
Flow Rate	1.5 CFM	1.5 CFM
Partial Pressure	2 Pa	2x10 ⁻¹ Pa
Total Pressure	150 micron	15 micron
Power	1/5 HP	1/5 HP
Inlet Port	1/4" Flare	1/4" Flare
Oil Capacity	150 ml	110 ml
Dimensions	240x88x183 mm	240x88x183 mm
Weight	3.5 Kg	4 Kg

Both AC&DC
can be operated



Specification

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



• Chinese patent



R32 REFRIGERANT SERIES



• Chinese patent



Suit for R32, 1234yf refrigerant

Integrated body structure



Horizontal position easy for reading



Enclosed switch



Dual Stage

Model		V-i240Y-R32	V-i260Y-R32	V-i280Y-R32
Flow Rate	50Hz	3.5 CFM 100 L/min	5.0 CFM 142 L/min	7.0 CFM 198 L/min
	60Hz	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
	Total Pressure	15micron	15 micron	15 micron
Power		1/2 HP	3/4 HP	1 HP
Inlet Port		1/4" Flare	1/4" Flare	1/4" Flare
Oil Capacity		325 ml	460 ml	500 ml
Dimensions		338x138x248 mm	395x145x270 mm	395x145x270mm
Weight		11.0 Kg	16.6 Kg	17.0 Kg



• Chinese patent



Smaller, lighter, and more convenient
Suite for R32, 1234yf refrigerant

Model	V-i2120
Flow Rate	12 CFM
Partial Pressure	2x10 ⁻¹ Pa
Total Pressure	15 micron
Power	1 HP
Inlet Port	1/4" & 3/8" Flare
Oil Capacity	500 ml
Dimensions	345x135x280 mm
Weight	11.5 Kg

VACCUM GAUGE

VACUUM GAUGE	Gauge Diameter	Unit	Assemble	MRP NO.	Thread
	Φ50mm	mbar/inHg	Axial	310500104	NPT1/8"
	Φ50mm	mbar/inHg	Radial	310500106	NPT1/8"
	Φ63mm	mbar/Mpa/Psi	Radial	310500601	NPT1/8"
	Φ75mm	mbar	Axial	310500301	NPT1/8"
	Φ80mm	mbar/Mpa/Psi	Radial	310500405	NPT1/8"



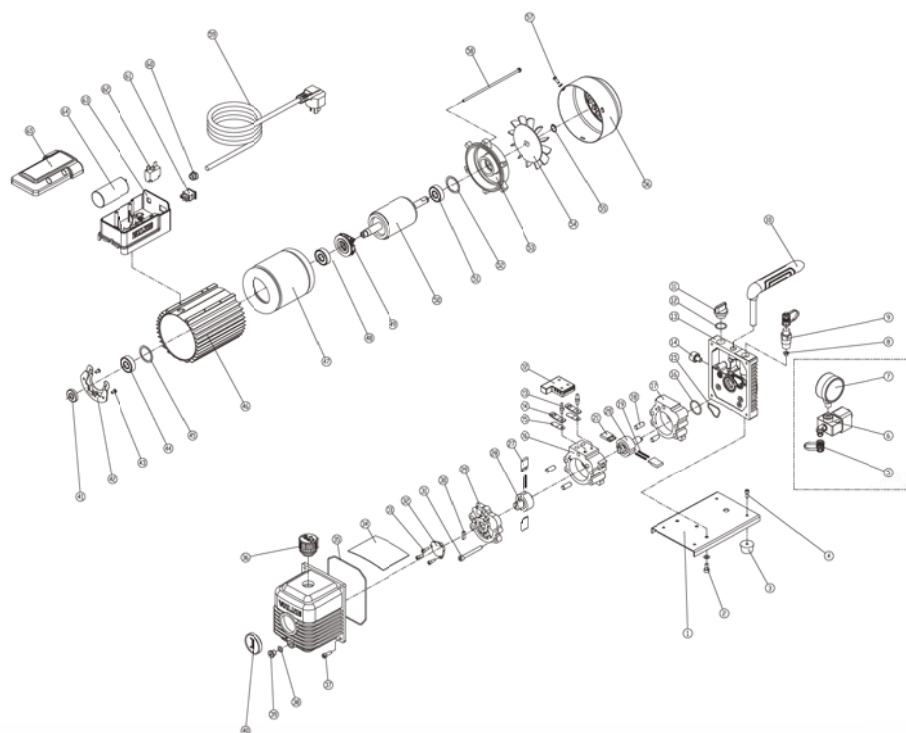
Vacuum Pump Oil

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

Value Vacuum Pumps can be operated with the oil listed below; using different oil can affect all specified ultimate vacuum and cold starting.

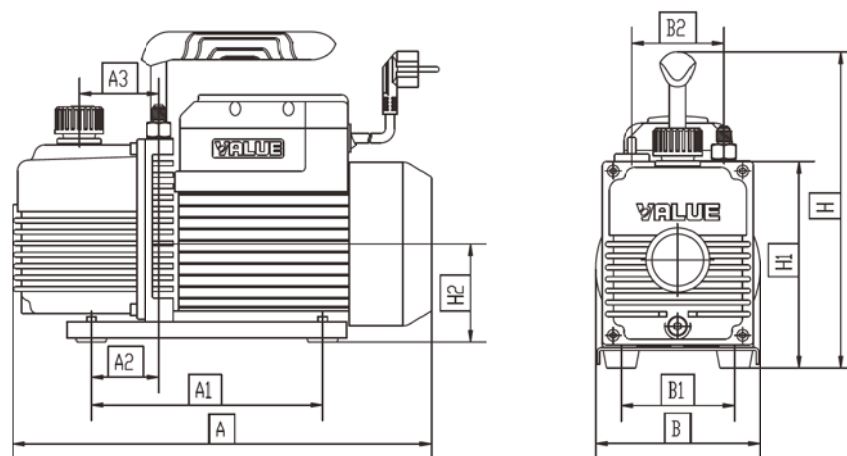
Model	VPO-46	VPO-68
Kinematic viscosity(40°C)	41.4-50.6mm ² /s	61.2-74.8mm ² /s
Viscosity Index	110	130
Flash Point	240°C	250°C
Pour Point	-10°C	-35°C
Type	Mineral Oil	Synthetic di-ester oil

EXPLODED VIEW FOR VE N SERIES



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

DIMENSION DRAWING



The dimension for VEN series pump(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

NEW REFRIGERANT VACUUM PUMP

Refrigerants category

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

New Refrigerant & Old Refrigerant Vacuum Pump			Old Refrigerant Vacuum Pump	New Refrigerant
R410A	R407C	R22	R22	R32 1234yf
	R404A	R12	R12	
	R507A	R502	R502	
	R134A	R500	R500	

Flow rate












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

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

Ultimate vacuum

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

	Single Stage	Dual Stage
Ultimate Vacuum	2Pa	2×10^{-1} Pa
Applicable Equipment	Household air-conditioning	Central air-conditioning
	Car air-conditioning	Large refrigerated warehouse
	Refrigerator	

Adapt for old refrigerant			Adapt for all refrigerant (including R22,R410A,etc....)		Adapt for all refrigerant (including R32,1234yf)
Household air-conditioning Household refrigerator Car air-conditioning	Large household air-conditioning Bus air-conditioning	Central air-conditioning Large refrigerated warehouse	Household air-conditioning	Central air-conditioning Large household air-conditioning	Central air-conditioning Large household air-conditioning
 VE115N(1L/S)	 VE160N(3L/S)	 VE245N(2L/S)	 V-i140SV(2L/S)	 V-i240SV(2L/S)	 V-i240Y-R32 V-i260Y-R32 V-i280Y-R32
 VE135N(2L/S)	 VE180N(4L/S)	 VE280N(4L/S)		 V-i280SV(4L/S)	 V-i2120
150 micron	150 micron	15 micron	150 micron	15 micron	15 micron

ACCESSORY

AC Power Supply Plug

Item	Description
C01	Israel plug
C02	China plug
C03	Australia plug
C04	South Africa plug
C05	Europe plug
C06	America plug
C07	Britain plug
C08	Japan plug
C09	Italy plug
C10	Argentina plug
C11	Brazil plug



C01



C02



C03



C04



C05



C06



C07



C08



C09



C10



C11

Intake Ports Adapter



Item	Description
T2	1/4" SAE
T3	1/4" SAE & 3/8 SAE
T4	1/4" SAE & 1/2" Acme
T5	1/4" Tube
T6	1/4" Tube(Locked with M12 x1 nut)
TG3	1/4" SAE Vacuum Gauge

INDUSTRIAL SERIES

VRD SERIES

Excellent Performance

Suitable for production line



Adjustable gas ballast valve



Oil anti-sucking



Internal forced oil cycling system, more reliable



The integrated cylinder structure



Specification

Model		VRD-16	VRD-24	VRD-30
Displacement speed m ³ /h	50 Hz	16 (4.4)	24(6.6)	30(8.3)
	60 Hz	19.2 (5.2)	28.8 (7.9)	36 (9.9)
Ultimate partial pressure gas ballast close		4x10 ⁻² Pa	4x10 ⁻² Pa	4x10 ⁻² Pa
Ultimate partial pressure gas ballast close		4x10 ⁻¹ Pa	4x10 ⁻¹ Pa	4x10 ⁻¹ Pa
Ultimate partial pressure gas ballast close		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)		≤58	≤58	≤58
Weight(Kg)		33Kg	36Kg	37Kg

INDUSTRIAL VACCUM PUMP

POWER SERIES

Powerful Fast

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



The integrated



Six air inlets design



Oil anti-sucking



Internal forced oil cycling system, more reliable



Specification

Model		VP2120	VP2200
Displacement speed m ³ /h (CFM)	50 Hz	20(12)	36(20)
	60 Hz	24(14)	43(24)
Ultimate partial pressure gas ballast close		4x10 ⁻² Pa	4x10 ⁻² Pa
Ultimate partial pressure gas ballast close		4x10 ⁻¹ Pa	4x10 ⁻¹ Pa
Ultimate partial pressure gas ballast close		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	≤58
Weight(Kg)		37Kg	41Kg