



**Beijer Ref India – Value HVAC & R Tools & Instruments Training-(2022)**

## Types of Tools

Tubing Tools

Refrigeration tools

Instruments

## Tubing Tools

1. Tube cutter – VTC-19 (1/8" – 3/4")  
VTC-28 (1/8" – 1 1/8")



- VTC-28B (1/8" – 1 1/8")  
VTC-32 (1/8" – 1 1/4")  
VTC-42 (1/4" – 1 5/8")



2. Ratchet wrench – VRT-20 1 1/4" – 5/16"



3. Deburrer – Round (4 to 40mm.)  
Pencil type



4. Flaring Tool – VFT-808-IN



## Refrigeration Tools

### 1. Charging hoses –

- a) VRP-22 134A-36-RYB (3 X ¼" – ¼" Connection)
- b) VRP-410A-36-RYB (1 X ¼" – ¼" & 2 X ¼"-5/16" Connection)
- c) VRP-22 134A-60-RYB (3 X ¼" – ¼" Connection)
- d) VRP-410A-60-RYB (1 X ¼" – ¼" & 2 X ¼"-5/16" Connection)

#### Note :-

- i) Working pressure for R22/ R134A/ R12 hoses : 0 – 500 psi
- ii) Working pressure for R410A hoses : 0 – 800 psi
- iii) R32 refrigerant has same working pressure as R410A.  
So hoses for R410A can be used for R32.

## Refrigeration Tools

### 2. Gauges–

68 mm. dia <b>Single</b> Gauge Manifold(For gases R410A,R134A,R22,R407C,R404A)			
Low pressure		High Pressure	
Without sight glass	With Sight glass	Without sight glass	With Sight glass
VMG-1-U-L	VMG-1-S-L	VMG-1-U-H	VMG-1-S-H

<b>Double</b> Gauge Manifold		
For gases R22,R404,R407C,R134A	For Gases R410A,R22,R404,R407C,R134A	With sight glass - For Gas - R32
VMG-2-R22-B-03	VMG-2-R410A-B-03	VMG-2-R32

## Refrigeration Tools

### Refrigerant Charging Scale –

Available in two models in both – 50 and 100 kg capacity :

**VES-50A/VES-100A & VES-50B/VES-100B**

The difference – The models **VES-50B/VES-100B** have

**Auto shut-off**



### **VES-50B/VES-100B**

Quantitative Filling Precision Control  
Easy Operation Schematic



High precision valve,  
accuracy control,  
filling weight  $\pm 20g$



The recovery/  
recycling weight can be set,  
convenient for operation



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

## Refrigeration Tools

### 3. Refrigerant Recovery unit–

#### Mini Recovery Unit VRR12L

##### One Key Operation

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

#### Mini Recovery Unit VRR24L

##### Lighter • Faster

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



Note : Both the above models are available with Oil separator option.



## Refrigeration Tools

### Specifications

Model	VRR12L		VRR12LOS				
Refrigerants	Category III: R12,R134a,R401C,R500						
	Category IV: R22,R401A, R401B, R402B, R407C, R407D, R408A,R409A,R411A R411B,R412A,R502,R509						
	Category V: R402A,R404A,R407A,R407B,R410A,R507						
Power Supply	220V-240V~/50-60Hz	115V~/60Hz	220V-240V~/50-60Hz	115V~/60Hz			
Motor	3/4 HP	3/4 HP	3/4 HP	3/4 HP			
Motor Speed	1450rpm/1750rpm	1750rpm	1450rpm/1750rpm	1750rpm			
Maximal Current Draw	4A	8A	4A	8A			
Compressor	Oil-less, Air-cooled, Piston style						
Automatic safety Shut-Off	38.5bar/3850kPa(558psi)						
Recovery Rate (Kg/min)	Category III	Category IV	Category V	Category III	Category IV	Category V	
	Vapor	0.20	0.25	0.25	0.20	0.25	0.25
	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	450×250×355mm						
Weight	13.0 Kg		14.2 Kg				



## Refrigeration Tools

### Specifications

Model	VRR24L		VRR24L-OS				
Refrigerants	Category III: R12,R134a,R401C,R500						
	Category IV: R22,R401A, R401B, R402B, R407C, R407D, R408A,R409A,R411A R411B,R412A,R502,R509						
	Category V: R402A,R404A,R407A,R407B,R410A,R507						
Power Supply	220V-240V~/50-60Hz	115V~/60Hz	220V-240V~/50-60Hz	115V~/60Hz			
Motor	1 HP	1 HP	1 HP	1 HP			
Motor Speed	1450rpm/1750rpm	1750rpm	1450rpm/1750rpm	1750rpm			
Maximal Current Draw	5A	10A	5A	10A			
Compressor	Oil-less, Air-cooled, Piston style						
Automatic safety Shut-Off	38.5bar/3850kPa(558psi)						
Recovery Rate (Kg/min)		Category III	Category IV	Category V	Category III	Category IV	Category V
	Vapor	0.40	0.50	0.50	0.40	0.50	0.50
	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 Temperature	0°C~40°C						
Dimensions	450×250×355mm						
Weight	13.5 Kg		14.7 Kg				



## Vacuum Pump

### VE N Series –

#### Single Stage

Model		VE115N	VE125N	VE135N
Flow Rate	50Hz	1.8 CFM	2.5 CFM	3.5 CFM
		51 L/min	70 L/min	100 L/min
	60Hz	2.0 CFM	3.0 CFM	4.0 CFM
		57 L/min	84 L/min	113 L/min
Ultimate Vacuum	Partial Pressure	2 Pa	2 Pa	2 Pa
	Total Pressure	150 micron	150 micron	150 micron
Power		1/4 HP	1/4 HP	1/3 HP
Inlet Port		1/4" Flare	1/4" Flare	1/4"&3/8" Flare
Oil Capacity		250 ml	250 ml	250 ml
Dimensions		290x124x224 mm	290x124x224 mm	318x124x234 mm
Weight		6.6 Kg	7.1 Kg	8.0 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	10.0 CFM
		42 L/min	70 L/min	128 L/min	170 L/min	226 L/min	283 L/min
	60Hz	1.8 CFM	3.0 CFM	5.0 CFM	7.0 CFM	9.0 CFM	12.0 CFM
		50 L/min	84 L/min	142 L/min	198 L/min	254 L/min	340 L/min
Ultimate Vacuum	Partial Pressure	2x10 <sup>-1</sup> Pa	2x10 <sup>-1</sup> Pa	2x10 <sup>-1</sup> Pa	2x10 <sup>-1</sup> Pa	2x10 <sup>-1</sup> Pa	2x10 <sup>-1</sup> 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" 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



Note : Also available in 6 and 8 CFM



## V-i Series with Vacuum Gauge & Anti Backflow Valve

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

### 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 <sup>-1</sup> Pa	2x10 <sup>-1</sup> Pa	2x10 <sup>-1</sup> Pa	2x10 <sup>-1</sup> 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

## VRD & VP Series – Industrial Vacuum Pump

### Specification

Model		VRD-16	VRD-24	VRD-30
Displacement speed m <sup>3</sup> /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 <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	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



## INSTRUMENTS

Leak Detector VLD-2  
For CFC/HCFC/HFC



Sound Level Meter  
VSM351

### Specification

Battery :	4X1.5V AABattery
Battery life :	≥8hours
Sensitivity :	≤3g/year
Sensor life :	1year(normal use)
Ambit temperature :	0-40°C
Calibration:	Automatic
Respond time :	≤3 Second
Probe length :	400mm
Dimension :	230mmX83mmx50mm
Weight :	380g

Model:	VSM351
Noise measurement scope:	30-130dB
Dimensions:	272X70X39mm
Weight:	386g



## INSTRUMENTS



### Infrared Thermometer VIT-300S

- Emissivity: 0.95
- Temperature range: -32°C~400°C
- Max measuring accuracy:  $\pm 2^{\circ}\text{C}$  or  $\pm 2\%$
- Ambient operation temperature:  $23^{\circ}\text{C} \pm 2^{\circ}\text{C}$
- Resolution: 0.1
- Response time: 500 ms
- Weight: 185 g



### Anemometer VAM361

Model:	VAM361
Wind speed measurement scope:	2-30m/s
Dimensions:	166X80X35mm
Weight:	375g

### Rotating speed meter VRM371

Model:	VRM371
Range:	0~99999r/min
Dimensions:	184X56X34mm
Weight:	100g ( excluding battery )





**Thank you**

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