

**VENUS**<sup>®</sup>  
COMPRESSORS



**Compressor Technology  
Beyond Innovation**



[www.venuscompressor.com](http://www.venuscompressor.com)



## Company Profile

Venus group of companies is engaged in the field of Air compressor business since two decades. It has achieved a trusted name in field of Screw compressors with its innovative Permanent Magnet technology & Oil Free water injected Screw Compressors. We as Venus, offers the complete solution for compressed air systems, we have the entire range which makes us the complete solution provider for compressed air system. Our entire range consist of - Fixed Speed Screw Compressor, Variable Speed Screw Compressor with Induction & Permanent magnet motors, Refrigerant air Dryers, Oil Free Water Injected Screw Compressors, Air Receivers, Oil Free Piston Compressors, High Pressure Reciprocating Air Compressors, Low Pressure Reciprocating Air Compressors, Micro Filters.

We at Venus are proud of our Innovation, Unmatched Quality, Supreme efficiency, Reliability, and best in class after Sales Support.

VENUS team has all the skill set & experience, to deliver the world class product and service to our esteemed customers. Our engineers and technicians ensure that each machine is designed and build to perform in the harsh climatic conditions. Our highly skilled assembly team take pride in precise assembly of quality parts into exceptional machines. Our trained technicians check each assembled machine to ensure that only the perfect machine leaves the plant.

### Mile Stone

We launched the Permanent Magnet motor technology in screw compressors with variable frequency drive which led to the roll out of new technology throughout the industries across nation. This technology has brought 30% power saving in compressed air systems.

**Our Installation base of 4500 + machines in india is growing stronger year after year. With more than 2000+ installations for PM technology machines, we are certainly way ahead of our competition, making us the front runner in this technology.**

### Vision & Mission

Company's vision is to continuously working on compressed air technology and bringing innovative products in the market which position us as the leader in this market.

Company Mission is to bring innovative products in the field of compressed air technology and become a preferred name in the industry which is known for efficient Power saving machines, Intelligent compressor control, Smart Synchronizing system, Reliable product & one touch/call service system.

### Our Products

- Fixed Speed Compressors with Induction Motor
- Variable Speed Compressors with Permanent Magnet & Induction Motor
- Oil Free Water Injected Screw Compressor.
- Reciprocating Air Compressors - Lubricated & Oil free
- High Pressure Reciprocating Compressors.
- Refrigerated Air Dryers & Filters
- Standard & High Pressure Receivers
- Vacuum Pumps

## Piping Parameter & Selection

Flow Rate			Length									
			164ft	328ft	492ft	984ft	1640ft	2460ft	3280ft	4265ft	5249ft	6561ft
Nm <sup>3</sup> /h	NI/min	cfm	50m	100m	150m	300m	500m	750m	1000m	1300m	1600m	2000m
10	167	6	16.5	16.5	16.5	16.5	16.5	16.5	16.5	25	25	25
30	500	18	16.5	16.5	16.5	25	25	25	25	25	25	40
50	833	29	16.5	25	25	25	25	25	40	40	40	40
70	1167	41	25	25	25	25	40	40	40	40	40	40
100	1667	59	25	25	25	40	40	40	40	40	40	63
150	2500	88	25	40	40	40	40	40	40	63	40	63
250	4167	147	40	40	40	40	63	63	63	63	63	63
350	5833	206	40	40	40	63	63	63	63	63	63	76
500	8333	294	40	40	63	63	63	63	63	76	63	76
750	12500	441	40	63	63	63	63	76	76	76	76	100
1000	16667	589	63	63	63	63	63	76	76	100	76	100
1250	20833	736	63	63	63	63	63	100	100	100	100	100
1500	25000	883	63	63	63	76	76	100	100	100	100	100
1750	29167	1030	63	63	76	76	76	100	100	100	100	100

## Air Flow Unit Conversion

Air Flow	Symbol	Convert to	Conversion factor
Cubic feet per minute	scfm	m <sup>3</sup> h <sup>-1</sup>	x 1.699
Cubic feet per minute	scfm	m <sup>3</sup> m <sup>-2</sup>	x 0.0283
Cubic feet per minute	scfm	l min <sup>-1</sup>	x 28.316
Cubic feet per minute	scfm	l s <sup>-1</sup>	x 0.4719
Cubic metres per minute	m <sup>3</sup> min <sup>-1</sup>	scfm	x 35.315
Cubic metres per hour	m <sup>3</sup> h <sup>-1</sup>	scfm	x 0.5885
Litres per minute	l min <sup>-1</sup>	scfm	x 0.0353
Litres per second	l s <sup>-1</sup>	scfm	x 2.119

## Pressure Unit Conversion

Pressure	kPa	bar	psi	kg cm <sup>-2</sup>
1 kPa	1	0.01	0.145	0.0102
1 bar	100	1	14.5	1.02
1 psi	6.9	0.069	1	0.07
1 kg cm <sup>-2</sup>	98	0.981	14.2	1

# Screw Compressor

## Fixed Speed (Direct Drive) / VFD Option Available



### Technical Specification

Model	Power	RPM	Free Air Delivery	Working Pressure	Noise	Machine Dimension	Weight	Air Outlet
	KW	Max.	CFM	Mpa	db	(L*W*H)mm/(Weight) KG		Inch
TSC-10 D	7.5	2950	46	0.80	60±2	900*650*920	205	G 1/2"
			34	1.00				
			30	1.30				
TSC-15 D	11	2950	72	0.80	65±2	1080*700*1090	235	G 3/4"
			49	1.00				
			46	1.30				
TSC-20 D	15	2950	85	0.80	65±2	1080*700*1090	310	G 3/4"
			71	1.00				
			60	1.30				
TSC-25 D	18.5	2950	113	0.80	72±2	1300*850*1160	435	G 1"
			95	1.00				
			78	1.30				
TSC-30 D	22	2950	134	0.80	72±2	1300*850*1160	435	G 1"
			113	1.00				
			99	1.30				
TSC-40 D	30	2950	184	0.80	72±2	1500*1000*1350	540	G 1"
			138	1.00				
			124	1.30				
TSC-50 D	37	2950	240	0.80	72±2	1500*1000*1350	610	G 1 1/2"
			191	1.00				
			138	1.30				
TSC-60 D	45	2950	283	0.80	74±2	1500*1000*1350	650	G 1 1/2"
			247	1.00				
			215	1.30				
TSC-75 D	55	2950	371	0.80	78±2	1750*1250*1600	1090	G 2"
			307	1.00				
			265	1.30				
TSC-100 D	75	2950	480	0.80	82±2	1750*1250*1600	1150	G 2"
			410	1.00				
			346	1.30				
TSC-120 D	90	2950	576	0.80	82±2	2050*1450*1680	1230	G 2"
			516	1.00				
			434	1.30				
TSC-150 D	110	2950	717	0.80	86±2	2450*1660*1700	1450	G 2 1/2"
			600	1.00				
			516	1.30				
TSC-175 D	132	2950	883	0.80	86±2	2450*1660*1700	1700	G 2 1/2"
			706	1.00				
			636	1.30				
TSC-220 D	160	2950	1035	0.80	88±2	3250*1950*2050	3050	DN 100
			930	1.00				
			740	1.30				

The dimension & weight can vary as per company offering & product improvement.  
The company on product improvement and reserves the right of design improvement parameters are subject to change without prior notice.

# Screw Compressor Fixed Speed (Direct Drive) / VFD Option Available

Model	Capacity (cfm)	Working Pressure (Mpa)
TSC-15D	40	1.60
TSC-20D	55	1.60
TSC-30D	75	1.60
TSC-50D	134	1.60

The dimensions & weight can vary as per company offering & product improvement.



## Features

- Direct Driven feature provide zero transmission losses with low RPM Screw Element
- 2 Years warranty for Screw Air End
- Oil cooler is designed for 45° C ambient Temp, which is suitable for Indian climatic circumstances
- All parts are designed with universal design code / standard
- No Hose pipe or Rubber parts in System which ensures peak reliability & low down time.

## Advantages

### Mechanical

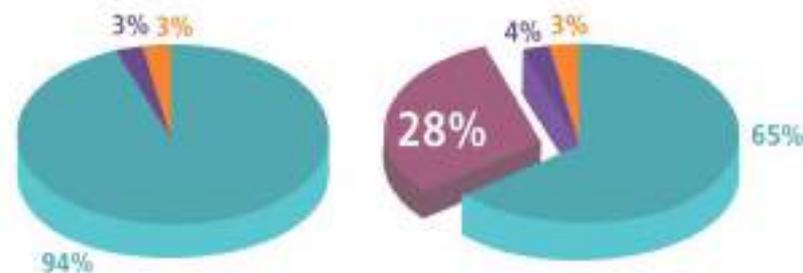
- Minimum maintenance
- Smooth Start
- Smooth control

### Electrical

- Low starting current
- High efficiency
- Improved power factor
- Reduced maximum Demand



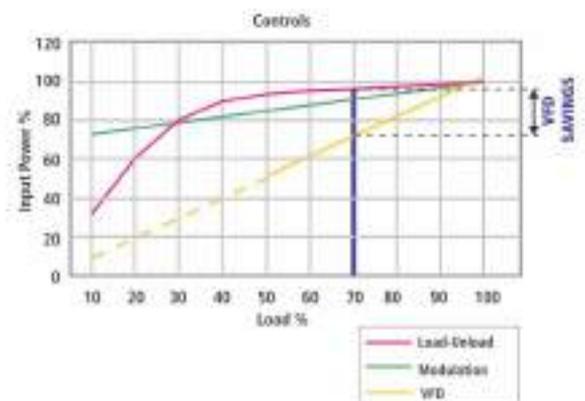
## 10 Year Life Cycle Cost



Compressor without VFD

Compressor with VFD

■ Electricity ■ VFD Saving ■ Equipment ■ Maintenance



# Permanent Magnet Screw Compressor



## The introduction of the advantage of VENUS series Permanent magnet compressors

### Energy saving efficiency:

Under full load condition, permanent magnet compressors can generate maximum air output under the minimum energy consumption, and at de-rated loads the permanent magnet compressor generate the proportionate flow & consume minimum energy without compensating on motor efficiency.

VENUS series variable frequency control with permanent magnet motor, can start and stop unlimited times, hence no need to set the pressure range, it only needs to set a pressure point, the ability to generate enough air as per the demand of the plant & to maintain a set pressure point makes this compressor, one of the best in industry.

### The incomparable reliability:

The connecting parts of permanent magnet compressors are much less than that of other equivalent compressors, it is directly driven by permanent magnet motor. There is almost zero transmission loss. There are hardly any parts which wear out, making it a highly reliable technology. The maintenance of the machine is very simple & economical. Our Air cooled motors are far more reliable & efficient than available oil cooled motors, making it an obvious choice.

### The remarkable technology:

The permanent magnet structure of permanent magnet compressors uses less electricity to provide more compressed air and bigger air volume adjustment range. Comparing with fixed speed compressor, it can save energy by 25%- 35%. Comparing with variable frequency compressor with Induction motor, it can save energy by 10%- 15%. It is certain that the saving in compressed air system directly linked to the demand fluctuations, the more it is, the better would be energy saving with VFD + Permanent magnet machine.

**Permanent magnet compressor** can keep high efficiency even in low speed unlike a induction motor, ensuring advantage in energy saving even at low speed. The variation in RPM can be achieved from 10% to 100%, however with induction motor it can only be between 50% to 100% thanks to low heat generation by magnet motor even at low speeds.

There will be an unloading time for the Fixed Speed air compressor as it works on load/unload cycle. Even when its not making air, it still need consume 35-45% of its full load electricity, but VENUS IPM series has no unloading stage as it can throttle between 10- 100% of plant demand, hence there is no waste of Energy.

### Saving energy when it starts up (Variable frequency energysaving):

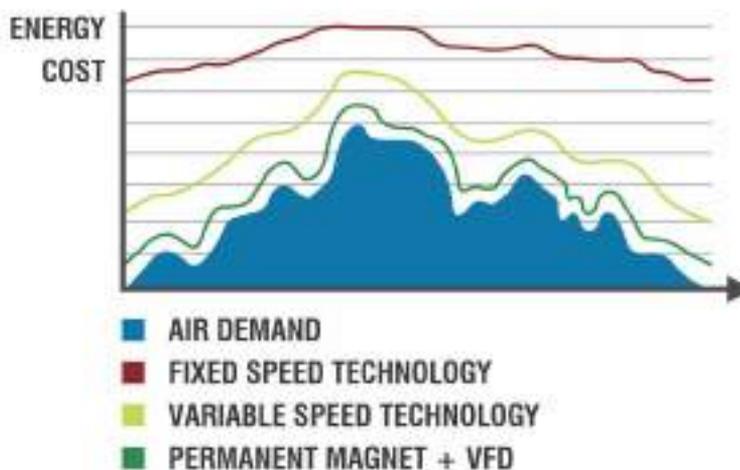
Fixed Speed air compressor startup current is about 3 to 6 times of the rated working current, if frequently started, it wastes a lot of energy, apart from energy losses, there are many harm effects on motor & other components of compressed air system. VENUS IPM series start with no current shock, the soft start ensure that maximum current shall not exceed its rated working current, there will be no waste of energy. At the same time, it also greatly reduces the impact on power grid equipment, and won't cause harm to electrical equipment.

### One shaft structure:

Permanent magnet motor & airend is mounted on the single shaft, the structure is more compact, and it does not need belt, gear, coupling and other transmission components. This makes it highly efficient energy transmission system unlike other compressors where there is large amount of transmission losses. No motor bearing: rotor with permanent magnet is installed directly on the outer part of the male rotor shaft, such structure does not need bearing hence it is far more reliable & trouble free machine.



## How Permanent Magnet motor is better (Benefit of VFD with PM technology)



The green portion in the graph is air demand, which fluctuates depending upon consumption pattern of various compressed air consuming machines in the plant. The red line shows fixed speed induction motor compressor. It loads and unloads as per the signal received from the farthest end of the plant. The response time is very poor. One can increase the response time by installing a flow controller, additional receiver, bigger piping etc. however there is no appreciable change in the curve.

The second curve is that of standard variable speed drive, which is better than fixed speed machine but not as efficient as PM+VSD.

Third curve which is going parallel to the air demand, is the best solution for SME.

The SMEs have a typical problem of low consumption in second shift and very low consumption in third shift, which can be addressed very perfectly by PM+VSD.

### High efficiency permanent magnet motor:

Equipped with high efficiency permanent magnet compressor the PM series is far better in energy saving compared to Induction + VFD compressor. The full load efficiency is superior than IE4 induction motor & in low speed, it can still keep high efficiency unlike an induction motor wherein the efficiency of motor degrade drastically at low speeds. At de-rated speed or different speed conditions, the efficiency of permanent magnet compressor is higher than that of the ordinary Induction motor, keeps it ahead of induction motor with respect to energy saving.

### Compact

Thanks to low footprints of magnet motor, the PM series compressor is really compact almost half of the size of the regular compressor. This saves a lot of installation space & certainly it saves a cost in a way to customer.

### Better Service Life

Permanent magnet compressor adopts high performance bonded NDFEB permanent magnets, without losing magnetism even at 180degrees, the service life is more than 15 years.

Stator coil adopts inverter dedicated corona resistant enabled wire. Insulation performance is outstanding, and the service life is much longer.

It can achieve soft start, the motor current won't exceed full load current at the running time. It greatly reduces the chance of motor burning due to excessive heat.

# Permanent Magnet Screw Compressor



## Benefits of Permanent Magnetic Motor

The benefits of PERMANENTMAGNET field-excited motors over electromagnetically-excited motors include:

- Higher efficiency since no electrical energy is used or losses incurred for developing or maintaining the motor's magnetic field.
- Higher torque and power density.
- Linear torque speed characteristics that are more predictable.
- Better dynamic performance due to higher magnetic flux density in air gap.
- Simplified construction and essentially maintenance-free.
- Compact size.
- Less bearing current due to large air gap.
- Low temperature due to less rotor losses.
- Ramp up time- shorter, constant power up to maximum speed.



Inbuilt GSM remote monitoring systems

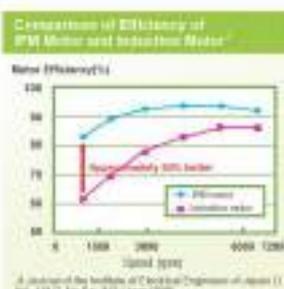
Be a part of **Global Energy Conservation Drive**, by using **VENUS** make **Permanent Magnet Motor Screw Compressors**

### GSM Features

- Remote monitor on mobile
- Break down alerts
- Services alerts to service & maintenance engineers
- 1 Year data backup service- Energy log book, Maintenance schedule can be maintained
- Live status of compressor



### Touch graphic PLC Controller



### Direct Drive



### Shaft Less Motor



# Variable Screw Compressor with Permanent Magnetic Motor (Direct Drive)

## Technical Specification

Model	Power	RPM	Free Air Delivery	Working Pressure	Noise	Machine Dimension	Weight	Air Outlet
	KW	Max.	CFM	Mpa	db	(L*W*H)mm/(Weight) KG		Inch
TSC - 10 PMV	7.5	3000	46	0.80	60±2	900*650*920	205	G ½"
			34	1.00				
			30	1.30				
TSC - 15 PMV	11	3000	72	0.80	65±2	1080*800*1090	235	G ¾"
			49	1.00				
			46	1.30				
TSC - 20 PMV	15	3000	85	0.80	65±2	1080*700*1090	310	G ¾"
			71	1.00				
			60	1.30				
TSC - 25 PMV	18.5	3000	113	0.80	72±2	1300*850*1160	435	G 1"
			95	1.00				
			78	1.30				
TSC - 30 PMV	22	3000	134	0.80	72±2	1300*850*1160	435	G 1"
			113	1.00				
			99	1.30				
TSC - 40 PMV	30	3000	184	0.80	72±2	1500*1000*1350	540	G 1"
			138	1.00				
			124	1.30				
TSC - 50 PMV	37	3000	240	0.80	72±2	1500*1000*1350	610	G 1½"
			191	1.00				
			138	1.30				
TSC - 60 PMV	45	3000	283	0.80	74±2	1500*1000*1350	650	G 1½"
			247	1.00				
			215	1.30				
TSC - 75 PMV	55	3000	371	0.80	78±2	1750*1250*1600	1090	G 2"
			307	1.00				
			265	1.30				
TSC - 100 PMV	75	3000	480	0.80	82±2	1750*1250*1600	1150	G 2"
			410	1.00				
			346	1.30				
TSC - 120 PMV	90	3000	576	0.80	82±2	2050*1450*1680	1230	G 2"
			516	1.00				
			434	1.30				
TSC - 150 PMV	110	3000	717	0.80	86±2	2450*1660*1700	1450	G 2½"
			600	1.00				
			516	1.30				
TSC - 175 PMV	132	3000	883	0.80	86±2	2450*1660*1700	1700	G 2½"
			706	1.00				
			636	1.30				
TSC - 220 PMV	160	3000	1035	0.80	88±2	3250*1950*2050	3050	DN 100
			930	1.00				
			740	1.30				

Tolerance on flow & pressure as per ISO 1217

The sound level is measured at 1m distance at free field condition.

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The dimensions & weight can vary as per company offering & product improvement.

# Oil Free Water Injected



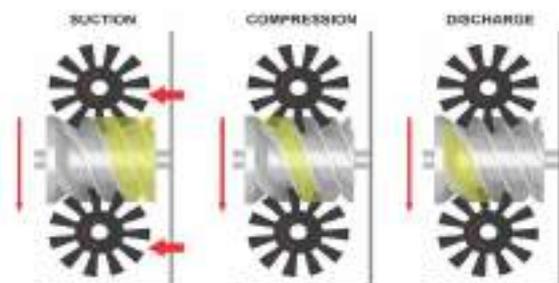
## Technical Specification (Fixed Speed Screw Air Compressor)

Item	Rated power	Working Pressure	Flow (CFM)	Water lubrication	Intake temperature	Exhaust temperature	RPM	Clean O Air	Cooling Method	Noise Level	Dimension	Outlet size	Total weight	Start-up mode
	kw	Mpa	m3/min	L	C°	C°	rpm	ppm		dB(A)	LxWxH (mm)		Kg	
OF-10W	7.5	0.7/0.8/1.0	1.2/1.1/1.0	20	2-40C°	ambient temperature +20C°	3000	0	Water cooling	61	1100x800 x1000	G1"	480	Y-Δ
OF-15W	11	0.7/0.8/1.0	1.6/1.5/1.3	20	2-40C°	ambient temperature +20C°	3000	0	Water cooling	61	1100x800 x1000	G1"	500	Y-Δ
OF-20W	15	0.7/0.8/1.0	2.4/2.3/2.0	27	2-40C°	ambient temperature +20C°	3000	0	Water cooling	61	1400x1000 x1200	G1"	520	Y-Δ
OF-25W	18.5	0.7/0.8/1.0	3.1/2.8/2.5	27	2-40C°	ambient temperature +20C°	3000	0	Water cooling	61	1400x1000 x1200	G1"	520	Y-Δ
OF-30W	22	0.7/0.8/1.0	3.7/3.4/3.0	27	2-40C°	ambient temperature +20C°	3000	0	Water cooling	61	1400x1000 x1200	G1"	560	Y-Δ
OF-40W	30	0.7/0.8/1.0	5.2/4.7/4.3	40	2-40C°	ambient temperature +20C°	3000	0	Water cooling	64	1920x1170 x1320	G1½"	1050	Y-Δ
OF-50W	37	0.7/0.8/1.0	6.1/5.6/5.0	40	2-40C°	ambient temperature +20C°	3000	0	Water cooling	66	1920x1170 x1320	G1½"	1050	Y-Δ
OF-60W	45	0.7/0.8/1.0	7.5/6.8/6.0	40	2-40C°	ambient temperature +20C°	3000	0	Water cooling	66	1920x1170 x1320	G2"	1610	Y-Δ
OF-75W	55	0.7/0.8/1.0	10.0/9.0/7.8	100	150	ambient temperature +20C°	3000	0	Water cooling	66	1930x1320 x1535	G2"	1610	Y-Δ
OF-100W	75	0.7/0.8/1.0	13.0/12.0/10.0	100	200	ambient temperature +20C°	3000	0	Water cooling	70	1930x1320 x1535	G2"	1880	Y-Δ

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Axial loads act on both sides of the main rotor.

Radial loads act on both the top and underside of the main rotor.

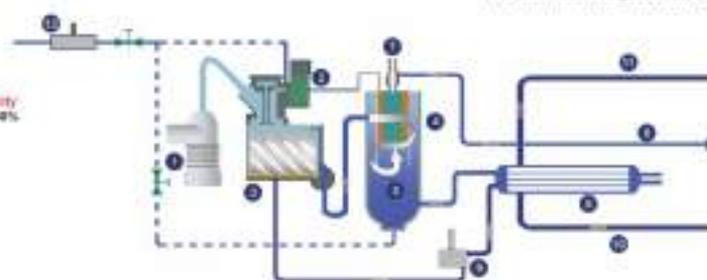
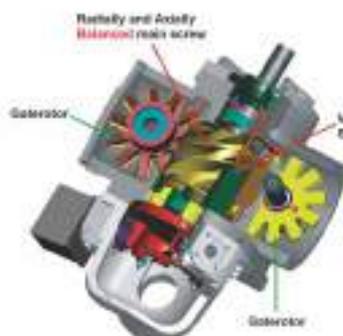




## Technical Specification (Permanent Magnet Motor)

Item	Rated power	Working Pressure	Flow (CFM)	Water lubrication	Intake temperature	Exhaust temperature	RPM	Clean O Air	Cooling Method	Noise Level	Dimension	Outlet size	Total weight	Start-up mode
	kw	MPa	m3/min	L	C°	C°	rpm	ppm		dB(A)	LxWxH (mm)		Kg	
OF-10WRP	7.5	0.7/0.8/1.0	1.2/1.1/1.0	20	2-40C°	ambient temperature +20C°	3000	0	Water cooling	61	1100x800 x1000	G1"	520	A/C Drive
OF-15WP	11	0.7/0.8/1.0	1.6/1.5/1.3	20	2-40C°	ambient temperature +20C°	3000	0	Water cooling	61	1100x800 x1000	G1"	550	A/C Drive
OF-20WP	15	0.7/0.8/1.0	2.4/2.3/2.0	27	2-40C°	ambient temperature +20C°	3000	0	Water cooling	61	1400x1000 x1200	G1"	600	A/C Drive
OF-25WP	18.5	0.7/0.8/1.0	3.1/2.8/2.5	27	2-40C°	ambient temperature +20C°	3000	0	Water cooling	61	1400x1000 x1200	G1"	600	A/C Drive
OF-30WP	22	0.7/0.8/1.0	3.7/3.4/3.0	27	2-40C°	ambient temperature +20C°	3000	0	Water cooling	61	1400x1000 x1200	G1"	630	A/C Drive
OF-40WP	30	0.7/0.8/1.0	5.2/4.7/4.3	40	2-40C°	ambient temperature +20C°	3000	0	Water cooling	64	1920x1170 x1320	G1½"	1150	A/C Drive
OF-50WP	37	0.7/0.8/1.0	6.1/5.6/5.0	40	2-40C°	ambient temperature +20C°	3000	0	Water cooling	66	1920x1170 x1320	G1½"	1150	A/C Drive
OF-60WP	45	0.7/0.8/1.0	7.5/6.8/6.0	40	2-40C°	ambient temperature +20C°	3000	0	Water cooling	66	1920x1170 x1320	G2"	1750	A/C Drive
OF-75WP	55	0.7/0.8/1.0	10.0/9.0/7.8	100	150	ambient temperature +20C°	3000	0	Water cooling	66	1930x1320 x1535	G2"	1750	A/C Drive
OF-100WP	75	0.7/0.8/1.0	13.0/12.0/10.0	100	200	ambient temperature +20C°	3000	0	Water cooling	70	1930x1320 x1535	G2"	2080	A/C Drive

The company reserves the right of design improvement parameters are subject to change without prior notice. The dimensions & weight can vary as per company offering & product improvement.



1. Air Filter
2. Inlet Valve
3. Air End
4. Water Separator Tank
5. Water
6. Water Cooler
7. Min. Pressure Valve
8. Air Outlet
9. Water Filter
10. Chilled Water Inlet
11. Water Outlet
12. Make Up Water Line

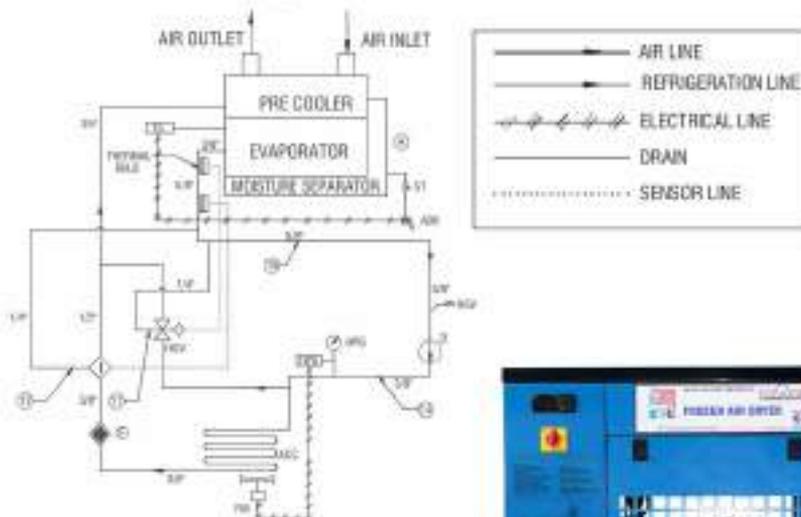
# Refrigerated Air Dryer

## Technical Specification

Base Model	Suitable for Inlet Flow (CFM)	Maximum Pressure Bar g	Power Supply V/Ph/HZ	Air Connection In / Out	Rated Power* kW Air Cooled
DSR-7.5F	25	16	230/1/50	1" BSP(F)	0.15
DSR-10F	45	16	230/1/50	1" BSP(F)	0.20
DSR-15F	68	16	230/1/50	1¼" BSP(F)	0.40
DSR-20F	85	16	230/1/50	1½" BSP(F)	0.50
DSR-30F	134	16	230/1/50	1½" BSP(F)	1.00
DSR-40F	180	16	230/1/50	1½" BSP(F)	0.90
DSR-50F	250	16	230/1/50	1½" BSP(F)	1.40
DSR-60F	300	16	230/1/50	1½" BSP(F)	1.60
DSR-75F	400	16	230/1/50	2" BSP(F)	1.90
DSR-100F	500	16	415/3/50	3" BSP (F)	2.30
DSR-125F	600	16	415/3/50	3" BSP (F)	2.80
DSR-180F	800	16	415/3/50	3" BSP (F)	3.80
DSR-220F	1000	16	415/3/50	4" NB ASME Flg	5.00
DSR-250F	1250	16	415/3/50	4" NB ASME Flg	5.70
DSR-300F	1500	12.5	415/3/50	5" NB ASME Flg	6.80
DSR-400F	2000	12.5	415/3/50	6" NB ASME Flg	8.70
DSR-500F	2500	12.5	415/3/50	6" NB ASME Flg	11.00

The company on product improvement and reserves the right of design improvement parameters are subject to change without prior notice. The dimensions & weight can vary as per company offering & product improvement.

## Schematic Diagram



## Features

- Environment Friendly
- More Reliability
- Power Saving
- Consistent Dew Point
- Low Pressure Drop
- Compact Design
- Ease of Installation
- Reduced Maintenance



# Micro Filter



## Description

Compressed air contains considerable quantity of solid & oil impurities. These impurities will be the major cause of downtime in compressed air systems. Venus with its rich experience provides innovative solutions to produce clean air by means of using sophisticated filtering system. Venus Compressed Air Filters (Microfilters) are designed to remove solid & oil residue from compressed air system.

## Catagories

### Pre Filter

High efficiency , general protection, dust particles, water mist and oil mist, whose diameter more than 1  $\mu\text{m}$  can be removed, the residual content of oil mist does not exceed  $0.6\text{mg}/\text{m}^3$  ( $21^\circ\text{C}$ )

### High Efficiency Filter (Post Filter)

High efficiency, Oil removal filtration, dust particles , water mist and oil mist whose diameter more than  $0.01 \mu\text{m}$  can be removed, the residual oil content of oil mist does not exceed  $0.01 \text{mg}/\text{m}^3$  ( $21^\circ\text{C}$ )

### Activated Carbon filter

Dust Particle whose diameter more than  $0.01 \mu\text{m}$  , oil vapour and odour can be removed , the maximum residual content of oil vapour does not exceed  $0.003\text{mg}/\text{m}^3$  ( $21^\circ\text{C}$ )

## Features

- Venus Compressed air filters have High quality large filtering media
- Venus Compressed Air Filters have Epoxy resin treated housings
- Venus Compressed air filters are designed for Very low pressure drop
- Venus compressed air filters have Differential pressure indicators
- Particle removal: 0.01 micron
- Oil retention:  $0.003 \text{mg}/\text{m}^3$
- Inlet air temperature:  $0^\circ\text{C}$  to  $80^\circ\text{C}$  Request

## Filter Chart

Air Filter Model	Pipe Size	Flow Rate @0.7Mpa (m3/min)	Flow Rate @0.7 (CFM)
VF010	Rc1/2"	1.0	35.3
VF020	Rc3/4"	1.5	53.0
VF030	Rc3/4"	1.8	63.5
VF040	Rc1"	2.0	70.6
VF060	Rc1"	3.6	127.1
VF070	Rc1"	5.0	176.5
VF080	Rc1 1/2"	7.5	264.8
VF090	Rc2"	10.0	353.0
VF100	Rc2 1/2"	13.0	458.9
VF110	Rc2"	17.0	600.1
VF120	Rc2 1/2"	19.0	670.7
VF130	Rc3"	25.0	882.5
VF140	Rc4"	28.0	988.4
VF150	Rc3"	41.0	1447.3
VF160	Rc4"	48.0	1694.4

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# Oil Free Reciprocating Air Compressor



## Single Stage Units (Belt Drive)

Model	OB 21 0812-2	OB 21 0812-3	OB 21 HK-5	OB 21 GN-7.5	OB 21 JN-10	OB 31 JN-15	OB 31 LN-20
No. of Cylinders & Stages	Two / One	Two / One	Two / One	Two / One	Two / One	Three / One	Three / One
Piston Displacement Capacity	266 ltr/min 9.40 cfm	332 ltr/min 11.70 dfm	793 ltr/min 28 cfm	850 ltr/min 30 cfm	1036 ltr/min 36.60 dfm	2106 ltr/min 74.40 cfm	2299 ltr/min 81.20 cfm
Maximum Working Pressure	8.50 bar 123 psi	8.50 bar 123 psi	6.00 bar 87 psi	7.00 bar 102 psi	6.00 bar 87 psi	6.00 bar 87 psi	6.00 bar 87 psi
Air Receiver Capacity - litres (Including Accessories)*	150	225	225	225	300	500	300-500
Capacity - hp / kw	2 hp 1.50 kw	3 hp 2.25 kw	5 hp 3.75 kw	7.50 hp 5.60 kw	10 hp 7.50 kw	15 hp 11.25 kw	20 hp 15 kw

\*Standard Accessories: The Air Receiver is equipped with Pressure gauge, Safety valve, Air delivery valve, manual water drain valve, Automatic on-off pressure control switch, Motor sliding Rail, Motor Pulley, "V" Belt Set, Belt Safety Guard etc.

## Double Stage Units (Belt Drive)

Model	OB 22 HK-3	OB 22 HK-5	OB 22 LN-10	OB 22 LN-12.5	OB 32 LN-15	OB 32 LN-20
No. of Cylinders & Stages	Two / Two	Two / Two	Two / Two	Two / Two	Two / Two	Three / Two
Piston Displacement Capacity	302 ltr/min 10.70 cfm	438 ltr/min 15.50 cfm	1016 ltr/min 35.90 cfm	1155 ltr/min 40.80 cfm	1877 ltr/min 66.30 cfm	2269 ltr/min 80.10 cfm
Maximum Working Pressure	10 bar 145 psi	10 bar 145 psi	10 bar 145 psi	10 bar 145 psi	10 bar 145 psi	10 bar 145 psi
Air Receiver Capacity - litres (Including Accessories)*	150	225	300	300	500	500
Capacity - hp / kw	3 hp 1.50 kw	5 hp 3.75 kw	10 hp 7.50 kw	12.50 hp 9.30 kw	15 hp 11.20 kw	20 hp 15 kw

\*Standard Accessories: The Air Receiver is equipped with Pressure gauge, Safety valve, Air delivery valve, manual water drain valve, Automatic on-off pressure control switch, Motor sliding Rail, Motor Pulley, "V" Belt Set, Belt Safety Guard etc.

## Single Stage Units (Direct Drive)

Model	OD 11BC-0.25	OD 21BC-0.5	OD 21BC-1.0	OD 21DC-
No. of Cylinders & Stages	One / One	Two / One	Two / One	Two / One
Piston Displacement Capacity	45 ltr/min 1.60 cfm	90 ltr/min 3.20 cfm	90 ltr/min 3.20 cfm	130 ltr/min 4.60 cfm
Maximum Working Pressure	8.50 bar 123 psi	8.50 bar 123 psi	10 bar 145 psi	8.50 bar 123 psi
Air Receiver Capacity - litres (Including Accessories)*	25~45	25~45	45~70	45~70
Electric Power	1 ph. 215 V	1 ph. 215 V	1 ph. / 215 V 3 ph. / 415 V	1 ph. / 215 V 3 ph. / 415 V
Capacity - hp / kw	0.25 hp 0.19 kw	0.50 hp 0.37 kw	1.00 hp 0.75 kw	1.00 hp 0.75 kw

\*Standard Accessories: The Air Receiver is equipped with Pressure gauge, Safety valve, Air delivery valve, manual water drain valve, Electric Motor & Automatic on-off pressure control switch.

# Lubricated Reciprocating Air Compressor

Model	Motor H.P.	Piston Displacement		Maximum Pressure		Tank Capacity
		C.F.M.	L.P.M.	Kg/cm <sup>2</sup> g	Psig	Liters
<b>Two Stage Compressors</b>						
VC-284	3.00	10.80	305	12.50	175	150
VC-282	5.00	17.30	490	12.50	175	225
VC-303	7.50	26.23	742	12.50	175	225
VC-454S	10.00	37.80	1070	12.50	175	300
VC-111T2	12.50	49.50	1400	12.50	175	300/500
VC-65T-15	15.00	63.50	1800	12.50	175	500
VC-65T-20	20.00	84.80	2401	12.50	175	500

<b>Single Stage Compressors</b>						
VC-285	3.00	15.80	430	5.62	80	150
VC-294	5.00	26.50	750	5.62	80	225
VC-305	7.50	40.00	1130	5.62	80	225
VC-57S	10.00	68.10	1928	4.21	60	300
VC-57S2	12.50	88.00	2490	2.81	40	300
VC-65S2	15.00	81.60	2305	3.52	50	500
VC-65S2D	20.00	127.80	3610	2.81	40	500

<b>Multistage High Pressure Compressors</b>						
VC-261	3	7.60	215	35.15	500	150
VC-47T2-75	7.50	24	680	35.15	500	300
VC-47T2-10	10	32.25	913	35.15	500	300
VC-47T2-12.5	12.5	36.36	1030	35.15	500	300
VC-57T2-15	15	41.80	1183	35.15	500	500
VC-57T2-20	20	49.50	1400	35.15	500	500
VC-65TH-15	15	55	1557	30.15	500	500
VC-65TH-20	20	73	2067	30.15	500	500

<b>Duplex High Pressure Compressor</b>						
VC-65TH-15-Duplex	15 x 2	110	3115	35.15	5.00	500
VC-65TH-20-Duplex	20 x 2	146	4134	35.15	5.00	750

## Single/Two Stage Vacuum Pumps

Model	Motor hp	No. of Cylinders	Piston Displacement cfm	Vacuum (Hg) Pressure inches
285V	1.50	2	21.60	29.00
285VT	1.50	2	10.80	29.60
294V	2.00	2	34.60	29.00
294VT	2.00	2	17.30	29.65
305V	5.00	2	60.00	29.00
305VT	5.00	2	30.00	29.70
57V	7.50	2	110.00	29.00
57VT	7.50	2	55.00	29.65
65V	10.00	3	149.60	29.20
65VT	10.00	3	99.00	29.65



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Textile



Power Plant



Paper



Ceramic



Pharma



Water Treatment



Plastic



Chemical



Foundries



Refinery



Cement



Food



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