

www.vortexcompressor.com

Vortex Kompresör, Ankara Hamak Makina San. Tic. A.Ş.'nin tescilli markasıdır.



VORTEX
COMPRESSOR

Ankara Hamak Makina Sanayi ve Ticaret A.Ş.

Turgut Özal Bulv. 29.Sokak No:1 Sanayi Bölgesi Kazan 06980 Ankara/ TURKEY

Tel: +90 312 814 45 77 (pbx) Fax: +90 312 814 45 11

E-mail: info@vortexcompressor.com

Visit Our Web Site For More Information: www.vortexcompressor.com

VORTEX
COMPRESSOR

rotaryscrewcompressors
airdryers
airfilters



rotaryscrewcompressors

VORTEX is a leading provider of compressed air equipments of all types when ever or where ever you need in the world

Company Introduction

Ankara Hamak Makina San. Tic. A.Ş is founded in 1991 in Maltepe/Ankara. Until year 2000 Ankara Hamak increased its market potential, quality and stability to produce reliable products in the market. In year 1998 Ankara Hamak registered its trademark Vortex Compressor as its brand name. From that year to date Vortex's experienced and engineered structure provides extensive range of compressed air solutions to the global market.

From the beginning of 2007, Vortex moved its new facility to Kazan/Ankara with totally 3500 sqm closed area. Vortex Compressor's main branch is Rotary Screw Air Compressors also Vortex is producing wide range of rotary screw and reciprocating compressors and other compressed air treatment products. Vortex knows the vitality of the pressurized air requirements in the applications and works to provide these vital units under its reliable brand name. Today, Global market demands that companies stay competitive with "Best Practice" solutions. Vortex Compressor provides the best price and quality, stability, efficiency ratio to keep up its sale performance in the market.

Quality Policy

Vortex Compressor is one of the leading screw compressor manufacturers in Europe. Vortex is supplying most of all its equipments from Globally Famous Brands to keep its maximum quality. Vortex products are being sold in 22 World Countries at the end of year 2006. Most of these are European countries. Vortex is aware of the importance of quality and planning. Vortex Compressor manufactures its products according to CE and GOST-R regulations. In order to certify its quality Vortex Compressor certified ISO9001:2000 by BVQI



Vortex's new Kazan Facilities covers an area of 6000 m² with 3500 m² closed area

- ▶ Extensive range of Vortex Products are being manufactured in this new Hi-tech plant
- ▶ 3500 m² production area controlled with latest technology productions systems and production units revisioned to hi-tech machines and equipments in this new plant
- ▶ New Management and Organizational Systems integration is finished with new Kazan Facilities



CONTENTS

	PAGES
VORTEX-Company Introduction	2
VORTEX-Higher Efficiency & More Savings	3
VORTEX-Compressor Features	4
VORTEX-Rotary Screw Compressors with V-Belt Drive (to 132kW)	5
VORTEX-Rotary Screw Compressors with 1:1 Drive (to 400kW)	6
VORTEX-Rotary Screw Compressors with VSD (to 400kW)	7-8
VORTEX-NexusS1,R1,Air Manager and Analog Controllers	9-10
VORTEX-Refrigerated Air Dryers	11
VORTEX-Absorption Air Dryers	12
VORTEX-Air Filters	13
VORTEX-Air Receivers	14
General Spare Parts	14
Mount on Compressors	15-16
Adv. Spare Parts System & Maintenance	17
Tech. Support & Reliability of Vortex	18
Compressor Room and Schematics	19
Best Practise of Vortex	20
Technical Specifications and Tables	21-22

Higher Efficiency & More Savings

Vortex Compressor is designed after many experiences for years in compressor market. The main purpose while designing Vortex Compressor was “easy maintenance” which means that compressor will enable everyone to reach each component easily.

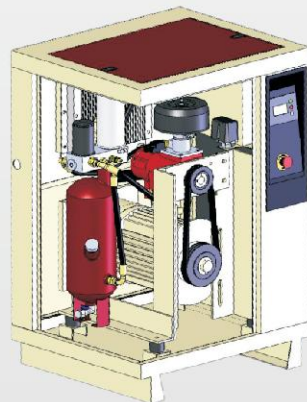
Vortex's design with full of engineering advantages allows lower prices and higher performances.

Quality, balance, reliability and low prices are basic determining factors of Vortex that you can find at your first glance which perfectly fits to your and market demands.



Maintenance Is No More Complex

According to operating principle of Rotary screw compressor, they need periodic maintenance to carry on its performance for years. From the first day's of Vortex Compressor's fundamental was manufacturing easy serviceable compressors. This allows no professionalism or no additional staff for servicing the basic components for the compressors. The compressors manufactured around year 2000 were having complexity and other problems. Vortex solved this with new design basics allowing less service time and higher efficiency at different medium conditions. Vortex's this vision became solid philosophy for all Vortex Products and created a different view at Rotary Screw Market that allowed all Vortex products to be exported all around the world. These advantages enables all Vortex Compressor Products to be sold around the World, providing companies high efficient, reliable and easy products.



Professional Quality High Standards

It is powerful

Vortex Electric Motors are TEFC / IP 54 with increased performance and reliability. The belt drives or the direct drives are optimized according to best performance air flow rates.

It is Reliable

You will always satisfy with compact design. The components are selected to run at optimum duty points.

Stable System Pressure

Very sensitive sensors and equipments enable Vortex Compressors to provide stable pressures to your systems. Working at levels of mbar, between idle or full load phases always Vortex will carry out the desired pressure serving your usage. (This can be obtained by NEXUS S1 panels)

It saves your energy and money

Frequency drive, high efficiency electric motor, pressure loss avoiding valve blocks and compact systems enables you the maximum efficiency.

Improved System Performance

The new Vortex design will increase your corporation's performance. The new technology screw rotors are at maximum efficiency.



Enhanced Product Consistency

All of the Vortex Products are designed and manufactured with the highest consistency. If you know how to deal with one Vortex Compressor then you can deal with all Vortex Products.

Robust Engineered Design

Vortex Compressor, are designed to work in different circumstances. Standard Vortex Compressor's duty points are described in data sheets. Regarding to your specifications products can be modified.

**ERS Series 5.5 - 132
With V-Belt Drive**

Economic Rotary Screw Solution

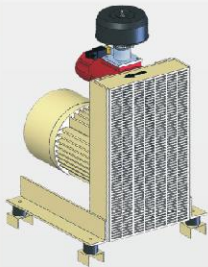
Vortex ERS serie is designed for low cost solutions to the industry. Elegant design and top performance enables this series to be number one solution to companies' compressed air systems.

ERS series with V-Belt drive range is from 5.5 kW to 132 kW allowing 7.5-13 bar pressure discharge and supplying flow rate from 0.42 to 25 m³/min

High Standard, Low Costs

Vortex Uses best parts to form a substantially high performance and long term reliable products for the companies.

Solutions are brought according to needs, ERS series is a cost effective and low operating costed solution for the industries.



Vortex ERS series with V-Belt applications lets easy maintenancing and low maintenance cost for the industry.



- ▶ Lower Noise
- ▶ Spin-On filters
- ▶ Special Belt Tensioning System
- ▶ 7-13 bar discharge pressure
- ▶ 24 hrs continues operation
- ▶ Compact Design
- ▶ Fireproof, rustproof, soundproof cabinet
- ▶ Non-Vibrated Operation
- ▶ Full protection
- ▶ Low Energy Consumption
- ▶ **Optional:** 60 Hz electric motor
- ▶ **Optional:** Soft Start
- ▶ **Optional:** Exproof Cabinet

**ERS Series 132 - 400
With Direct Drive**



All Vortex Products offer cost effective solutions with lower operating costs

- ▶ **Direct couple;** (Without transmission loss, Low rotational speeds provide high performance and high power savings, significantly less maintenance duty)
- ▶ **Motor Properties;** (High efficiency EFF2 standards electric motor, strong for harsh areas to last long periods)
- ▶ **Air-ends;** (World wide quality screws by global manufacturers', With bigger rotors which let low speed, quiet operation and power consumption, longer maintenance periods)
- ▶ **NEXUS S1** equipped on the all range of direct drive compressors (132 kW to 400kW). Allows full control at these ranges.

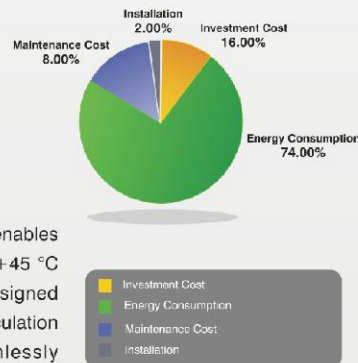
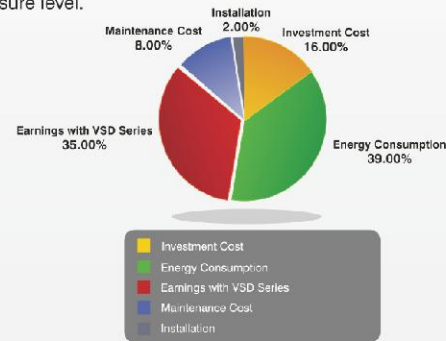


Vortex Compressors with top quality equipped products will work at high efficiency, satisfying continues reliability. Every single Vortex Compressor is manufactured diligently and delivered to you with maximum care. Also first starting and other technical supports are provided you with Vortex's expertise and customer satisfaction visioned assistance.

To achieve maximum efficiency and sustainable performance, compressors and air treatment units should be chosen wisely and integrated into your system with an expert's assistance.

VSD Series Gives What Exactly You Need

A VSD Compressor operates by varying air compression element speed in response to changes in detected air system pressure in order to maintain an exact and constant targeted pressure level. As air system demand falls, and more air is delivered into the air system than is being used, system pressure will begin to rise-the VSD Compressor will reduce speed, and hence output, to maintain the Target Pressure level. An increase in system demand, above that which is being produced, will cause system pressure to begin fall the VSD Compressor will increase speed, and hence output, to maintain the Target Pressure level.



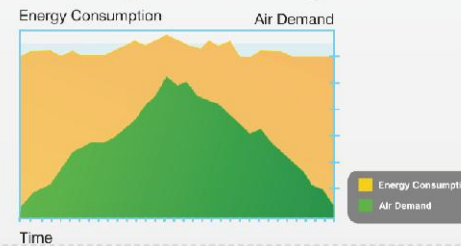
Vortex's special design, containing in its own separately cooled cabinet enables outstanding performance even the ambient temperatures are up to +45 °C. Simply brings you Efficiency and Easier Maintenance. Engineered designed Vortex Frequency Inverter cabinets are designed to allow perfect air circulation in its module and allows Vortex VSD series to operate seamlessly.

VORTEX Energy Efficient Package Offers the Following Advantages:

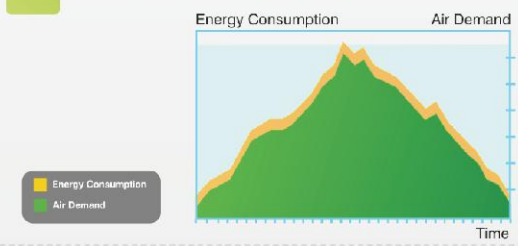
- ▶ Energy Save up to 25-35%
- ▶ No Compression higher than necessary
- ▶ No idle running phases
- ▶ Soft start eliminates peak start up current
- ▶ No air relied when compression is at max. pressure no loss of energy
- ▶ Lower maintenance costs and longer service life

Vortex VSD series compressors are exceptionally efficient variable-speed rotary screw compressors. Needs minimal maintenance. Larger models from the 132kW upwards are equipped with the speed-controlled 1:1 direct drive. Each VSD compressor model is capable of 100 percent duty cycles without any increase in maintenance requirement.

Fluctuating Demand and High Waste Energy



Controlled Costs with VSD



Operating Procedure of Standart Rotaryscrew Compressors

Standart Rotary screw compressors working with a full load, no load control operate between two set pressure points. When maximum pressure is reached the compressor goes off load. During periods of medium to low air demand, the no load power consumption can be excessive wasting large amounts of energy.

Advantages of VSD Series

Because there is no unnecessary power generated, Vortex VSD can reduce energy costs by 35% or more. Lifecycle costs of the compressor can be reduced by an average of 25%. In general, the extra cost of a VSD compressor compared to a fixed speed one can be earned back after just one to two years.



Analog Control

Vortex ERS series from 5.5 to 37 kW uses Analog Control Panels to bring the prices more reasonable for our customers. As there is no limitation at Vortex for compressed air systems, you can still select PLC control panel as an option.



NEXUS S1 Means Full Control Over Your Compressor

A Nexus PLC user interface is a proven high quality easy panel for every user. In Vortex ERS series starting from 37 kW, Nexus S1 is Standard equipped. Nexus S1 is an ideal choice to control your Vortex Compressor with sophisticated control options. You can configure nearly all compressor options from Nexus S1. When you have more than one compressor or spare compressors in your system than your choice should be NEXUS S1 with modular package system.

VORTEX NEXUS S1

Nexus S1 compressor controller is a robust designed PC-based industrial computer with a real-time operating system and update capability. When compressor is operating every option can be seen at a glance.

Also Connections between Nexus series are possible with Nexus Air Manager which enables monitoring and full control over your compressors.



NEXUS Get Full Control In Your Hands

In your system pressure demand is determined by the air management system and the pressure is adjusted to its lowest value.

Installing the air management system is so simple that you do not have to deal with so many cables. By only one connection the entire compression system can be controlled.

Regardless of your compressed air system size air management system is regulated properly without facing any trouble.

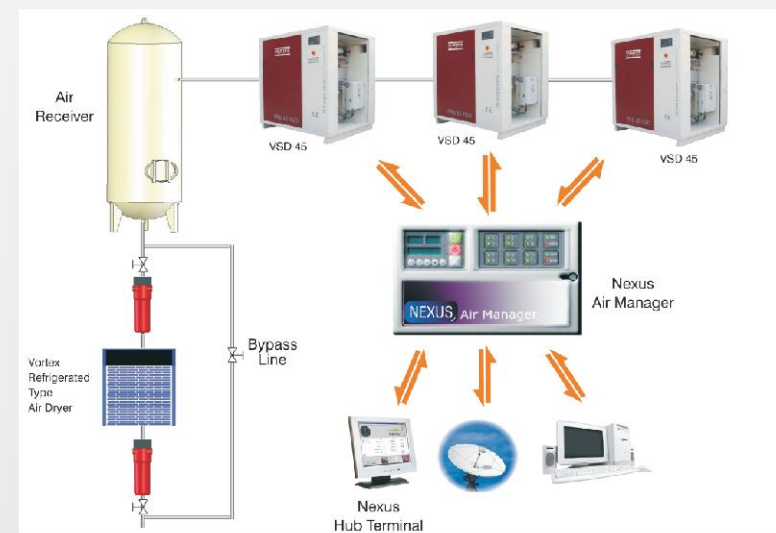


Feel the Comfort of Full Control

Nexus Air manager will regulate the air supplying according to your air demand than the compressed air will be supplied with the lowest cost available at high compressed air needed industry. It is so easy to integrate Vortex Nexus Air Manager with your system, you are going to have no cable complexity and other connection problems. Each compressor can be connected to your LAN computer network and controlled by nexus air manager. Nexus air manager applications is number one solution for multi compressor using systems.

Multi Compressors, One Terminal, One Solution!

NEXUS Air Manager is compatible to connect computer or other I/O devices to check and manage all the air systems fully from home, telephone or from one main terminal.

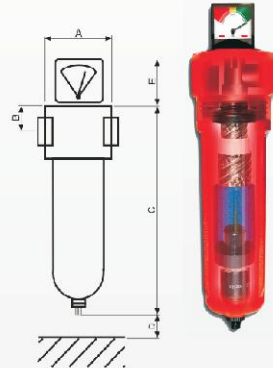


Vortex Air Filters

Choose Your High Standards

Vortex design and manufactures compressed air and gas filtration products for use in almost every industrial environment. Every model of compressed air/gas filters include unique elements which are designed by Vortex to remove solid, liquid, oil vapor or odor. Vortex compressed air/gas filters overcome the corrosion by an electrostatic powder paint is applied to all surfaces to ensure excellent protection. Inner surfaces are painted by a special anticorrosion epoxy paint to ensure maximum corrosion control.

An advance form of borosilicate glass microfibre media ensures strong and durable elements which provides absolute efficiency. In spite of the filtration media combines high dirt holding capability with high flow capacity it also supply economic filtration and low energy losses. The strong and light form of Vortex filters and elements extend continuous filter performance and long service life with reducing maintenance time.



Filter Model	Pipe Size BSP	Flow Rate		Element Model	Housing Dimensions (mm)				
		m ³ /h	scfm		A	B	C	D	E
G24	1/4"	24	14	M24	72	19	193	100	22
G48	3/8"	48	29	M48	72	19	193	100	22
G25	1/4"	25	16	M25	96	20	237	110	22
G50	3/8"	50	30	M50	96	20	237	110	22
G100	1/2"	100	58	M100	96	20	237	150	22
G150	3/4"	150	88	M150	117	34	375	190	56
G200	3/4"	200	117	M200	117	34	375	250	56
G250	1"	250	147	M250	117	34	485	300	56
G300	1 1/4"	300	176	M300	117	34	485	350	56
G500	1 1/4"	500	294	M500	117	34	530	380	56
G600	1 1/2"	600	353	M600	117	34	530	425	56
G851	2"	851	506	M851	170	64	722	480	56
G1210	2"	1210	712	M1210	170	64	722	580	56
G1510	2 1/2"	1510	886	M1510	235	72	760	430	56
G1810	3"	1810	1065	M1810	235	72	760	550	56
G2210	3"	2210	1300	M2210	235	72	760	600	56
G3600	4"	3600	2118	M1200x3	360	126	840	650	56

All filters are in conformity with the Pressure Equipment Directive (97/23/EC).
Pop-up indicators supplied as standard on models G24, G48, G25, G50 and G100. Dial Pressure Gauge type pressure indicators are fitted to models G150 to G250 as standard. Also gauge type indicators can be fitted to G24, G48, G25, G50 and G100.



P Series: A specially designed 5 micron prefiltering element. Suitable for use in the majority of applications, that require a filtration to remove solid and liquid particles down to 5 microns.

Y Series: This grade of element should be used when very high quality compressed air is required. It uses the finest grade glass microfibre to reduce oil concentrations to 0,01 micron.

A Series: An activated carbon granule is used to remove odor and oil vapour particles down to 0,003 ppm. These highly efficient elements are designed to use in applications such as medical food processing.

Specification	Pre Filtering	General Purpose	Oil Removal	Activated Carbon
Grade	P	X	Y	A
Partical Removal (Micron)	5	1	0,01	0,01
Max. Oil carryover at 21 C (mg/m ³)	5	0,5	0,01	0,003
Max. Working Temperature (C)	80	80	80	25
Initial Pressure Loss (mbar)	40	80	100	80
Pressure Loss for Element Change (mbar)	700	700	700	700
Max. Working Pressure (bar.g)	16	16	16	16
Element Colour Code	Green	Blue	Red	Metallic

Working Pressure (bar)	1	3	5	7	9	11	13	15	17	20
Working Pressure (bar.g)	15	44	73	100	131	160	189	218	247	290
Correction Factor	0,5	0,71	0,87	1	1,22	1,22	1,32	1,44	1,57	1,7

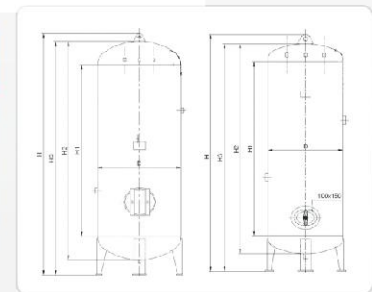
For maximum flow rate, multiply flow rate shown in the above table by the correction table corresponding to the working pressure.

Vortex Air Receivers

Vortex Air Tanks with CE certifications ready and like other Vortex Products they are reliable and high quality products. Vortex Air tanks will satisfy your needs with their good standing for years and giving high performance allowing you to trust them all the time.



Model	Working Pressure (bar)	Volume (L)	Diameter (mm)	Dimensions (mm)				Manhole Dimensions (mm)
				H1	H2	H3	H	
HT 510	10	500	640	1400	1800	1950	2050	100x150
HT 515	15	500	640	1480	1800	1950	2050	100x150
HT 1010	10	1000	650	1450	1990	2200	2300	100x150
HT 1015	15	1000	650	1450	1990	2200	2300	100x150
HT 2010	10	2000	1200	1480	2120	2360	2460	340x440
HT 2015	15	2000	1200	1480	2120	2360	2460	340x440



Vortex Spare Parts: When Quality and Price matters all your compressed air equipments can be derived from Vortex



You can supply all your needs with Vortex spare parts and components.

Vortex's High Quality and full consistency of the equipments will fit all your compressed air applications. Vortex Engineering and Technical Information will always support you at your applications.

In the professional view of Vortex's spare parts and other components your job will gain value and quality and your performance will be at top level.

Vortex's time and value giving opinions and spare parts will effect you too.

NEW!

MCVD SERIES

Mount on Compressors with Air Dryer 2.2 kW to 22 kW (3-30 HP)

Plug and Start Work !!

Vortex's Compact and Complete package series are designed according to fulfill you workshop needs. Lower noise than excepted standard compressors, higher screw performance output and higher savings

Advantages

- Full & Easy Control With PLC
- Top Quality Electrical Equipment
- Simple & Simpler Maintenance
- Sound Proof Cabinet
- Oil Level Indicator
- Flawless operation
- Cabin Lightning
- Integrated Air Dryer (MCVD Models)
- Integrated 2nd stage Filter (MCVD Models)
- Wide Range Standard Spare Parts



MCVD 11 mounted on Tank with Air Dryer and 2nd Stage Filter

More powerful more spacesaver

Lower Space requirements allow best working space with maximum air delivery output, Complete system satisfies the maximum efficiency. All the installations are made between the system. Only plug the electricythen you have the conditioned air and screw compressor performance output.

Optional

- Inverter Drive
- P and A filters
- Analog Control Panel
- Without Air Tank
- 60 Hz Electric Motor

Another great solution for your compressed air requirements.



MCV 11 mounted on Tank (Base model of Mount on Tank Compressors)

BEST SOLUTION , BEST PARTNER, PLUG and WORK TECHNOLOGY FROM VORTEX with new MCVD DESIGN

Choose your plug and Work Compressor with Vortex

Your choice ,Our application Vortex assists you to put on which filter on the compressor on any application. You can get the exact requirements from Vortex Compressors.

Work Space Saver

Space saving technology and designed combined together to fulfill you needs

Vortex's Innovative design puts a different style with design features & Quality

Air tank with CE
Premium Quality Vortex Filters
Premium Quality Air End
Engineered Design

Easy to connect

No need for additional Compressor Room put it directly in your work place

Factory build system installation

Air Tank, 2nd stage filter, Air Dryer and Compressor connections are installed and integrated in the system. You only need to connect your air line to the compressor and go.

Technical Specifications

Model	Maximum Working Pressure bar	Capacity FAD*			Motor Power		Weight kg	Noise dB(A)**
		m ³ /min	cfm	l/sec	kw	HP		
MCVD 2.2	7,5	0,34	12,03	5,66	2,2	3	450	70
	10	-	-	-				
MCVD 5.5	7,5	0,84	29,71	14,00	5,5	7,5	520	70
	10	0,68	24,05	11,33				
MCVD 7,5	7,5	1,15	40,67	19,17	7,5	10	560	71
	10	0,90	31,83	15,00				
MCVD11	7,5	1,74	61,54	29,00	11	15	580	73
	10	1,41	49,87	23,50				
MCVD 15	7,5	2,44	86,29	40,67	15	20	610	73
	10	1,99	70,38	33,17				



* Unit performance measured according to ISO 1217, Ed.3, Annex C-1986
** Noise level measured according to Pharoip/Cag PH3NTC2.2 test code, tolerance 3 dB(A)
Reference conditions: Absolute inlet pressure: 1 bar (14.5 psi), intake air temperature 20°C (68°F)
60 Hz version is available in this model range.

Vortex Advanced Spare Part System Shows You the Right Way

Advanced Spare Part System is a Normal Cataloging, Stocking and Grouping System which helps your organization to learn the vortex spare part model immediately which you and Vortex can gain time and money. Every part is defined and stocked according to stock system of vortex.

Also you will receive the parts in boxes according to your maintenance requires or your demanded extra parts. Let Vortex to increase your organizations revenue

The spare parts are ready for your orders.They are checked again to avoid any mistake which means money and time.

We know the importance of the compressed air for you. Let us to deal all your compressed air requirements by our professionals.Organized Vortex Structure will show you the difference

With Vortex Spare Part System

- ▶ You will gain time and money
- ▶ You dont need to be professional to maintain a Vortex Product

Standart Maintenance System

- 1.Maintenance Kit Degree 1
- 2.Maintenance Kit Degree 2
- 3.Maintenance Kit Degree 3
- 4.Maintenance Kit Degree 4
- 5.Standard Order Maintenance



Let Vortex Compressor to add value to your organization

Vortex genuie spare parts are put in the regular maintenance kits which are easy for delivery, storing and maintaining your products. You can realize the Organized Vortex Structure after you receive a Vortex Product.

Full Technical Support

Do not hesitate to take professional Support from Vortex Air-Systems. Vortex is dedicated to supply full support to its customers.

Best Air Supply according your needs Optimizing your compressed air system is very important for energy savings. Firstly casculating your system needs and then choosing the best system will reduce your costs. The pressure you need the system you get.

Customer Satisfaction

In any company pauses in production harms the company's reliability, we are aware of this subject and so our service specialists are always ready to give you the best quality help where or when you need.

Best Quality Spare Parts

We always advice using genuine spare parts for your compressors to sustain long term operation without any failure.

Reliability In your Applications

Compressed air system needs to be designed and installed regarding to applications' air consumption, operating conditions and type of application.

Three units of ERS15 – 15 kW compressors' installation is shown on the left picture. Vortex Engineers decided to assemble three 15kW compressor instead of one 45 kW to enable best solution regarding to the application.

Vortex Compressors is always ready to support its global customers in selecting the right compressors and in designing compressor room and assisting them for private projects.

Vortex Full Revision

With Vortex Full Revision you can revision your system by yourself or by your dealer located in your country. To revision your compressor Vortex Supplies needed documentation and information and all parts to you. A revision is always needed for sustaining your compressors performance

Vortex Full Technical Support

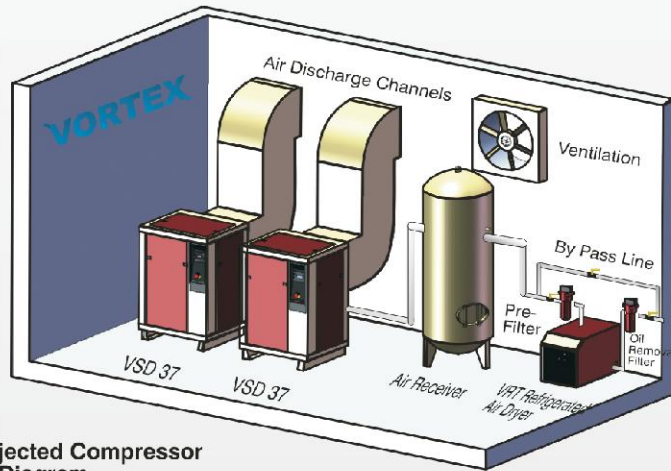
In compressor applications in the knowledge of urgent technical supports vitality. Vortex supplies full technical support continuously also involves assistance,consultancy and trainings. Vortex always ensures its quality with its after-sale performance and reliability.

Vortex Guarantee Extension

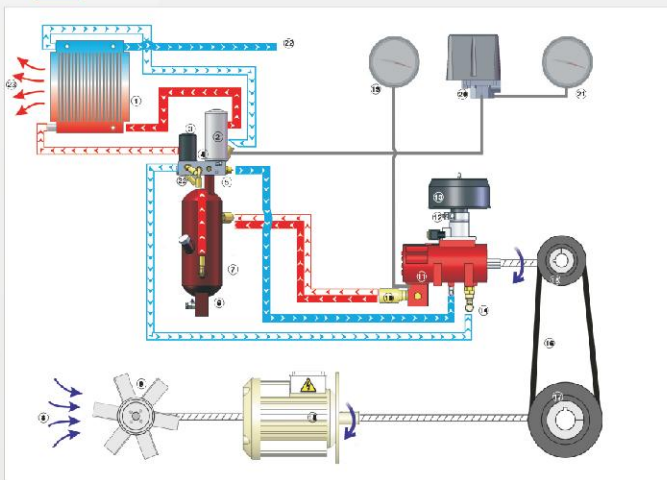
With Vortex's annual contracts. Vortex products guarantee period can be extended and your Vortex product will be maintained and performance controls are going to be checked in periods by Vortex service staff according to contracts terms to ansure maximum product performance and lower your loads for responsibility of your Vortex products after expired guarantee periods.



Compressor Room Placement of the Vortex compressor

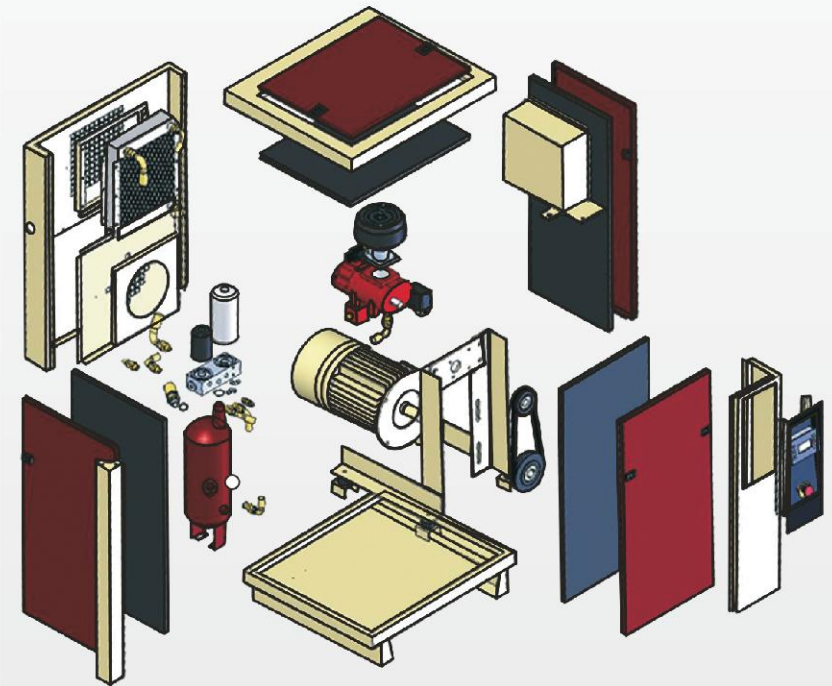


Oil Injected Compressor Flow Diagram



- 1- Air-Oil Radiator
- 2- Air/Oil Separator
- 3- Oil Filter
- 4- Combination Block
- 5- Temperature Sensor
- 6- Oil Tank
- 7- Oil Level Indicator
- 8- Air Inlet
- 9- Axial Fan
- 10- Air-Oil Outlet
- 11- Oil-Injected air-end
- 12- Air Suction Valve
- 13- Air Filter
- 14- Oil Inlet
- 15- Air-end Pulley
- 16- V-Belt
- 17- Electric Motor Pulley
- 18- Electric Motor
- 19- Temperature Sensor
- 20- Pressure Sensor
- 21- Manometer
- 22- Compressed Air Discharge
- 23- Hot Air Discharge

VORTEX FLOW DIAGRAM LEGEND	
	HOT AIR
	COLD AIR
	HOT OIL
	COLD OIL
	COUPLING LINE
	MEASUREMENT LINE



Vortex Compressor's development program involves the 3D and 2D drawings of each product in Vortex's Product Lists.

The drawings allow interactive design changes with the manufacturing and engineering departments and allow detailed information about the compressors.

For Advanced Spare Part system and stock following and reorganization these drawings are vital for a Compressor Manufacturer.

Technical Specifications ERS 5,5 - 400

Technical Specifications VSD 5,5 - 400

Model	Maximum Working Pressure bar	Capacity FAD*			Motor Power		Dimensions W x L x H mm	Weight kg	Noise dB(A)**
		m ³ /min	cfm	l/sec	kW	HP			
ERS 5,5	7,5	0,84	29,71	14,00	5,5	7,5	650 x 750 x 1160	185	70
	10	0,68	24,05	11,33					
	13	0,56	19,81	9,33					
ERS 7,5	7,5	1,15	40,67	19,17	7,5	10	650 x 750 x 1160	195	70
	10	0,90	31,83	15,00					
	13	0,69	24,40	11,50					
ERS 11	7,5	1,74	61,54	29,00	11	15	750 x 820 x 1230	252	71
	10	1,41	49,87	23,50					
	13	1,12	39,81	18,67					
ERS 15	7,5	2,44	86,29	40,67	15	20	750 x 820 x 1230	387	73
	10	1,99	70,38	33,17					
	13	1,58	55,88	26,33					
ERS 18,5	7,5	3,09	109	51,50	18,5	25	850 x 930 x 1390	420	73
	10	2,52	89	42,00					
	13	2,10	74	35,00					
ERS 22	7,5	3,60	127	60,00	22	30	850 x 930 x 1390	480	74
	10	3,00	106	50,00					
	13	2,55	90	42,50					
ERS 30	7,5	5,20	184	86,67	30	40	970 x 980 x 1545	540	74
	10	4,25	150	70,83					
	13	3,60	127	60,00					
ERS 37	7,5	6,20	219	103,33	37	50	970 x 980 x 1545	587	73
	10	5,30	188	88,33					
	13	4,56	161	78,00					
ERS 45	7,5	7,25	257	120,83	45	60	1050 x 1100 x 1590	845	75
	10	6,20	219	103,33					
	13	5,20	184	86,67					
ERS 55	7,5	9,50	336	158,33	55	75	1200 x 1300 x 1690	940	76
	10	7,90	280	131,67					
	13	6,60	234	110,00					
ERS 75	7,5	12,20	432	203,33	75	100	1700 x 1800 x 1840	1350	79
	10	10,10	358	168,33					
	13	8,50	301	141,67					
ERS 90	7,5	15,50	549	258,33	90	125	1700 x 1800 x 1840	1750	82
	10	13,00	460	216,67					
	13	11,30	400	188,33					
ERS 110	7,5	17,70	627	295,00	110	150	1700 x 1800 x 1840	1980	84
	10	15,50	549	258,33					
	13	13,50	478	225,00					
ERS 132	7,5	24,00	850	400,00	132	180	1800 x 2750 x 1940	2150	84
	10	20,80	729	343,33					
	13	17,00	602	283,33					
ERS 160	7,5	28,50	1018	475,00	160	220	2000 x 2500 x 1940	2420	86
	10	24,00	850	400,00					
	13	20,00	714	333,33					
ERS 200	7,5	36,00	1286	600,00	200	270	2750 x 1800 x 1980	3290	88
	10	28,80	1028	480,00					
	13	23,80	840	396,67					
ERS 250	7,5	42,50	1518	708,33	250	340	4000 x 2000 x 2000	4450	88
	10	36,00	1286	600,00					
	13	—	—	—					
ERS 315	7,5	50,80	1814	846,67	315	430	4000 x 2000 x 2000	4800	—
	10	42,50	1521	710,00					
	13	—	—	—					
ERS 400	7,5	83,70	2275	1061,67	400	540	4000 x 2000 x 2000	5200	—
	10	56,10	2003	935,00					
	13	—	—	—					

Model	Maximum Working Pressure bar	Capacity FAD*						Motor Power		Dimensions W x L x H mm	Weight kg	Noise dB(A)**
		m ³ /min		cfm		l/sec		kW	HP			
		max	min	max	min	max	min					
VSD 5,5	7,5	0,84	0,33	29,71	11	14,00	5,55	5,5	7,5	650 x 900 x 1155	220	68
	10	0,68	0,33	24,05	11	11,33	5,55					
	13	0,56	0,33	19,81	11	9,33	5,55					
VSD 7,5	7,5	1,15	0,60	40,67	21	19,17	10,00	7,5	10	650 x 900 x 1155	240	68
	10	0,90	0,60	31,83	21	15,00	10,00					
	13	0,69	0,60	24,40	21	11,50	10,00					
VSD 11	7,5	1,74	0,80	61,54	28	29,00	13,33	11	15	820 x 920 x 1225	300	70
	10	1,41	0,80	49,87	28	23,50	13,33					
	13	1,12	0,80	39,81	28	18,67	13,33					
VSD 15	7,5	2,44	1,10	86,29	38	40,67	18,33	15	20	820 x 920 x 1225	320	71
	10	1,99	1,10	70,38	38	33,17	18,33					
	13	1,58	1,10	55,88	38	26,33	18,33					
VSD 18,5	7,5	3,09	1,20	109	42	51,50	20,00	18,5	25	930 x 1100 x 1380	470	71
	10	2,52	1,10	89	39	42,00	18,33					
	13	2,10	1,10	74	39	35,00	18,33					
VSD 22	7,5	3,60	1,20	127	42	60,00	20,00	22	30	930 x 1100 x 1380	530	72
	10	3,00	1,20	106	42	50,00	20,00					
	13	2,55	1,20	90	42	42,50	20,00					
VSD 30	7,5	5,20	1,22	184	43	86,67	20,33	30	40	1230 x 1050 x 1550	620	72
	10	4,25	1,21	150	42	70,83	20,17					
	13	3,60	1,21	127	42	60,00	20,17					
VSD 37	7,5	6,20	1,30	219	46	103,33	21,67	37	50	1230 x 1050 x 1550	667	72
	10	5,30	1,29	188	45	88,33	21,50					
	13	4,56	1,28	161	45	78,00	21,33					
VSD 45	7,5	7,25	1,60	257	56	120,83	26,67	45	60	1400 x 1200 x 1590	925	74
	10	6,20	1,40	219	49	103,33	23,33					
	13	5,20	1,30	184	46	86,67	21,67					
VSD 55	7,5	9,50	2,30	336	81	158,33	38,33	55	75	1500 x 1300 x 1700	1010	74
	10	7,90	2,20	280	77	131,67	36,67					
	13	6,60	2,00	234	70	110,00	33,33					
VSD 75	7,5	12,20	2,60	432	91	203,33	43,33	75	100	1700 x 1800 x 1945	1400	78
	10	10,10	2,60	358	91	168,33	43,33					
	13	8,50	2,60	301	91	141,67	43,33					
VSD 90	7,5	15,50	3,00	549	105	258,33	50,00	90	125	1700 x 1800 x 1840	1750	82
	10	13,00	3,00	460	105	216,67	50,00					
	13	11,30	3,00	400	105	188,33	50,00					
VSD 110	7,5	17,70	4,30	625	151	295,00	71,67	110	150	1700 x 1800 x 1840	2040	84
	10	15,50	4,30	548	151	258,33	71,67					
	13	13,50	4,30	478	151	225,00	71,67					
VSD 132	7,5	24,00	5,00	848	176	400,00	83,33	132	180	1800 x 2750 x 1940	2240	84
	10	20,80	5,00	728	176	343,33	83,33					
	13	17,00	5,00	601	176	283,33	83,33					
VSD 160	7,5	28,50	5,00	1007	176	475,00	83,33	160	220	2000 x 2500 x 1940	2550	86
	10	24,00	5,00	848	176	400,00	83,33					
	13	20,00	5,00	707	176	333,33	83,33					
VSD 200	7,5	36,00	7,00	1272	247	600,00	116,67	200	270	2750 x 1800 x 1980	3340	88
	10	28,80	7,00	1017	247	480,00	116,67					
	13	23,80	7,00	841	247	396,67	116,67					
VSD 250	7,5	42,50	7,30	1501	257	708,33	121,67	250	340	4000 x 2000 x 2000	4690	88
	10	36,00	7,30	1272	257	600,00	121,67					
	13	—	—	—	—	—	—					
VSD 315	7,5	50,80	8,00	1794	282	846,67	133,33	315	430	4000 x 2000 x 2000	4840	—
	10	42,50	7,50	1505	264	710,00	125,00					
	13	—	—	—	—	—	—					
VSD 400	7,5	83,70	—	2250	—	1061,67	1061,67	400	540	4000 x 2000 x 2000	5240	—
	10	56,10	—	1981	—	935,00	935,00					
	13	—	—	—	—	—	—					



* Unit performance measured according to ISO 1217, Ed.3, Annex C-1996
 ** Noise level measured according to Pneurop/Cagi PN8NT02.2 test code; tolerance 3 dB(A)
 Reference conditions: Absolute inlet pressure 1 bar (14.5 psi), intake air temperature 20°C (68°F).
 60 Hz version is available in this model range.

* Unit performance measured according to ISO 1217, Ed.3, Annex C-1996
 ** Noise level measured according to Pneurop/Cagi PN8NT02.2 test code; tolerance 3 dB(A)
 Reference conditions: Absolute inlet pressure 1 bar (14.5 psi), intake air temperature 20°C (68°F).
 60 Hz version is available in this model range.