

As an industry-leading manufacturer of compressed air systems, KOTECH compressor nationwide service network provides system services at all times.



**Kotech Brand: KOMPRESSOR TECHNOLOGY INNOVATION**  
**Kotech Vision: To be the Pioneer in Industrial Equipment**  
**Kotech Mission: Constantly Improve the Ability of Resource Integration**

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# **KES Series Stationary Screw Air Compressor**

Flow rate: 0.31-58m<sup>3</sup>/min  
Power rate: 2.2-315kw

# Equipment

## Complete Unit

Ready-to-run, automatic, super-silence, vibration damped, all panels powder coated. Suitable for using in ambient temperatures upto +46 °C.

## Sound

Special-designed mute chassis, effective control of equipment noise.

## Airend

Genuine single-stage energy-saving airend and cooling fluid injection for optimized rotor cooling.

## Drive

Direct, high-flex coupling.

## Drive motor

Standard system German manufacture, IP 55, ISO F class insulation for additional reserve; PT 100 winding temperature sensor for motor monitoring; externally lubricated bearings

## Electrical components

IP 54 control cabinet control transformer, Siemens frequency converter, floating contacts for ventilation systems.

## Fluid air flow

Dry air filter; pneumatic inlet and venting valve; cooling fluid reservoir with three-stage separator system; pressure relief valve, minimum pressure checkvalve; fully piped connections, flexible line connections; low resistance fluid filtration system

## Cooling

Air-cooled; separate aluminium cooler for compressed air and cooling fluid; radial fan with separate electric motor

Siemens human-computer interactive intelligent controller can automatically adjust the flow and compressor energy in response to the current compressed air consumption demand. This powerful function is realized by Siemens PLCZ which can display the pressure, flow, power or alarm message seamlessly.

# Quality



## Our stable quality begins

Quality is the core and basic requirement for an air compressor. In the development of the second generation FL Series products, we have adopted the advanced airend as the quality assurance. By optimizing the host structure, the new type can achieve efficiency improvement up to 12% and minimize the operation costs. Meanwhile, the improved airend system can also provide proper displacement. The smaller specific power means the less equipment investment and energy consumption, which can reduce the overall cost.



## We are in sync with technology

An excellent compressor can provide the necessary parameters while supplying air so as to monitor the units operation status in real-time. Therefore, each FL Series compressor equipped Siemens intelligent controller can monitor the key operation point and adjust the system parameter, which can extend the runtime and reduce energy consumption. Wherever you are, it is easy for you to know the real-time operation status of compressors and take the necessary measures in time.



## More real energy consumption

The zero-service Siemens drive motor can guarantee the real energy data of compressors during its operation, and also can prevent the motor running over the rated power.

# Innovate



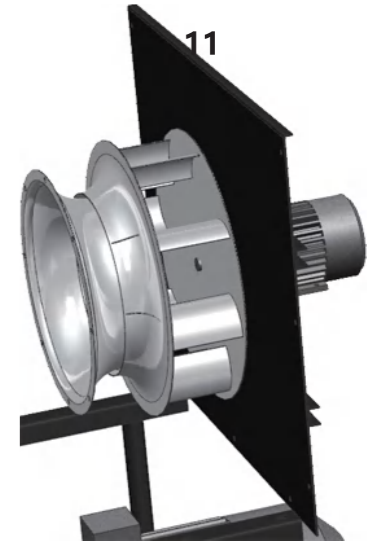
Intelligent adaptive controller can adjust the compressor adaptive operation intelligently according to the conditions change such as temperature and loading.

Using cooling oil having stronger affinity with air can make per unit of cooling oil containing much compressed air to enhance compression efficiency.

The optimized zero-service Siemens motor can not only prevent overload operation but also reduce the expensive energy costs significantly.

Siemens intelligent controller can monitor and adjust the system parameter. When sort of running incident happens, it can send email to you. No matter where you are, the compressors system will be accessed by web browser and proper action could be taken accordingly.

The design using full original Donaldson filter system is to achieve lower resistance and better filter effects.



When the fouling coefficient of cooler is up 15%, it can ensure the proper exhaust temperature maximumly even though in the environment with much dirt.

During operation of the compressor, the improved soft connection can effectively eliminate the leakage of air and oil caused by vibration.

The centrifugal fan up to 450pa, with negative pressure suction, ensure the compressor, s heat dissipation and excellent noise level.



With the unique oil-air separation design, the separation speed could be down to less than 2m/s, so as to achieve excellent separation effect and extend the working time of post-treated equipment and reduce consumption of energy.

The stable air end is suitable for full-load and variable load operation, which can ensure continuous and stable air output.





# Service

## AirCare - flexible maintenance with consistent compressed air quality

AirCare is a fast-responding and flexible maintenance program provided by KOTECH compressor, which provides customers with the necessary repair services according to their needs. It ensures the elimination of downtime due to unplanned maintenance and eliminates the expense of installing expensive monitoring systems and the cost of training in various compression techniques.

1. Comprehensive maintenance;
2. Reduce costs and provide productivity;
3. Comprehensive air system assessment



MODEL	L/min (Air delivery)	BAR (Suction Pressure)	BSPT (Exhaust)	mm (Dimension)	Noise (dB)	Kg (Weight)
KES-7.5	1.07	6	0.75''	800*645*970	61	249
	1.05	7				
	1.05	8				
	0.9	10				
	0.8	12.5				
KES-7.5VSD	0.42-1.34	6	0.75''	800*640*970	61	254
	0.34-1.15	7				
	0.33-1.1	8				
	0.29-0.97	10				
	0.23-0.78	12.5				
KES-11	1.92	6	1''	1035*640*1200	63	317
	1.86	7				
	1.52	8				
	1.38	10				
	1.15	12.5				
KES-11VSD	0.6-2	6	1''	1035*640*1200	61	322
	0.56-1.87	7				
	0.48-1.6	8				
	0.41-1.38	10				
	0.35-1.15	12.5				
KES-15	2.4	6	1''	1035*640*1200	63	350
	2.39	7				
	2.39	8				
	1.86	10				
	1.83	12.5				
KES-15VSD	0.83-2.76	6	1''	1035*640*1200	63	355
	0.80-2.65	7				
	0.72-2.4	8				
	0.66-2.2	10				
	0.54-1.8	12.5				
KES-18.5	2.94	6	1-1/4''	1425*930*1315	63	453
	2.92	7				
	2.91	8				
	2	10				
	2	12.5				
KES-18.5VSD	0.94-3.13	6	1-1/4''	1425*930*1315	63	458
	0.92-3.07	7				
	0.9-3	8				
	0.77-2.55	10				
	0.66-2.19	12.5				
KES-22	3.57	6	1-1/4''	1425*930*1315	63	480
	3.56	7				
	3.55	8				
	2.88	10				
	2.85	12.5				
KES-22VSD	1.32-4.4	6	1-1/4''	1425*930*1315	61	489
	1.2-4	7				
	1.11-3.7	8				
	0.93-3.11	10				
	0.8-2.66	12.5				
KES-30	5.5	6	1-1/4''	1604*1010*1470	64	635
	5.3	7				
	5.2	8				
	3.53	10				
	3.51	12.5				
KES-30VSD	1.74-5.8	6	1-1/4''	1604*1010*1470	64	640
	1.57-5.24	7				
	1.53-5.1	8				
	1.2-4	10				
	1.02-3.4	12.5				
KES-37	6.3	6	1-1/4''	1604*1010*1470	66	674
	6.26	7				
	6.2	8				
	5.7	10				
	5.1	12.5				

MODEL	L/min (Air delivery)	BAR (Suction Pressure)	BSPT (Exhaust)	mm (Dimension)	Noise (dB)	Kg (Weight)
KES-37VSD	2.15-7.15	6	1-1/4"	1640*1010*1470	66	674
	1.98-6.6	7				
	1.83-6.1	8				
	1.65-5.5	10				
	1.47-4.9	12.5				
KES-45	7.66	6	1-1/4"	1500*1010*1470	68	702
	7.61	7				
	7.56	8				
	6	10				
	5.87	12.5				
KES-45VSD	2.46-8.2	6	1-1/4"	1640*1010*1470	68	710
	2.44-8.12	7				
	2.25-7.5	8				
	1.95-6.5	10				
	1.76-5.87	12.5				
KES-55	9.65	6	2"	2360*1460*1895	72	1475
	9.58	7				
	9.49	8				
	8.44	10				
	7.3	12.5				
KES-55VSD	3.12-10.4	6	2"	2360*1460*1895	72	1535
	2.89-9.62	7				
	2.85-9.5	8				
	2.54-8.46	10				
	2.19-7.3	12.5				
KES-75	11.95	6	2"	2360*1460*1895	73	1480
	11.92	7				
	11.88	8				
	9.27	10				
	9	12.5				
KES-75VSD	4.35-14.5	6	2"	2360*1460*1895	73	1540
	4.2-14	7				
	3.75-12.5	8				
	3.3-11	10				
	2.88-9.6	12.5				
KES-90	14.85	6	2"	2360*1460*1895	74	1491
	14.82	7				
	14.78	8				
	11.8	10				
	11.6	12.5				
KES-90VSD	5.1-17	6	2"	2360*1460*1895	74	1650
	4.77-15.9	7				
	4.56-15.2	8				
	4.05-13.5	10				
	3.6-12	12.5				
KES-110	19.68	6	DN80	2900*1860*2060	78	2250
	19.58	7				
	19.47	8				
	14.69	10				
	14.56	12.5				
KES-110VSD	6.78-22.6	6	DN80	2900*1860*2060	78	2410
	6.3-21	7				
	6-20	8				
	4.8-16	10				
	4.2-14	12.5				
KES-132	24.8	6	DN80	2900*1860*2060	78	2450
	24.7	7				
	22.15	8				
	19.23	10				
	18.86	12.5				
KES-132VSD	7.56-25.2	6	DN80	2900*1860*2060	78	2610
	7.41-24.7	7				
	6.65-22.15	8				
	6.17-20.56	10				
	5.64-18.8	12.5				

MODEL	Air delivery (m³/min)	Suction Pressure (BAR)	Exhaust (BSPT)	Dimension (mm)	Noise (dB)	Kg (Weight)
KES-160	30.26	6	DN80	2900*1860*2060	78	2900
	30.15	7				
	26	8				
	23.84	10				
	20.2	12.5				
KES-160VSD	9.08-30.26	6	DN80	2900*1860*2060	78	3220
	9.05-30.15	7				
	7.89-26.5	8				
	7.2-24	10				
	6.06-20.2	12.5				
KES-185	33.16	6	DN80	2900*1860*2060	78	3480
	31.6	7				
	30.07	8				
	25.63	10				
	24.15	12.5				
KES-185VSD	10.08-33.6	6	DN80	2900*1860*2060	78	3720
	9.6-32	7				
	9.3-31	8				
	7.8-26	10				
	7.44-24.8	12.5				
KES-200	38.89	6	DN100	3650*2080*2530	85	4130
	36.4	7				
	33.87	8				
	30	10				
	27	12.5				
KES-200VSD	11.67-38.9	6	DN100	3650*2080*2530	85	4450
	10.95-36.5	7				
	10.23-34.1	8				
	9.24-30.8	10				
	8.09-26.96	12.5				
KES-250	44	6	DN100	3650*2080*2530	85	5020
	44	7				
	41	8				
	37.4	10				
	33.5	12.5				
KES-250VSD	13.31-44.35	6	DN100	3650*2080*2530	85	5340
	13.23-44	7				
	12.3-41	8				
	11.4-38	10				
	10.32-34.4	12.5				
KES-315	56	6	DN150	3650*2080*2530	85	7760
	53.22	7				
	50	8				
	47	10				
	41	12.5				
KES-315VSD	22.4-56	6	DN150	3650*2080*2530	85	8160
	21.29-53.22	7				
	20-50	8				
	18.8-47	10				
	16.4-41	12.5				

**\*Tips:**

1. Air cooling and water cooling are optional, and domestic brand motors are optional.
2. The volume flow (FAD) is the performance tested at the outlet of the whole unit under the rated exhaust pressure. Test standard: ISO1217-1996.

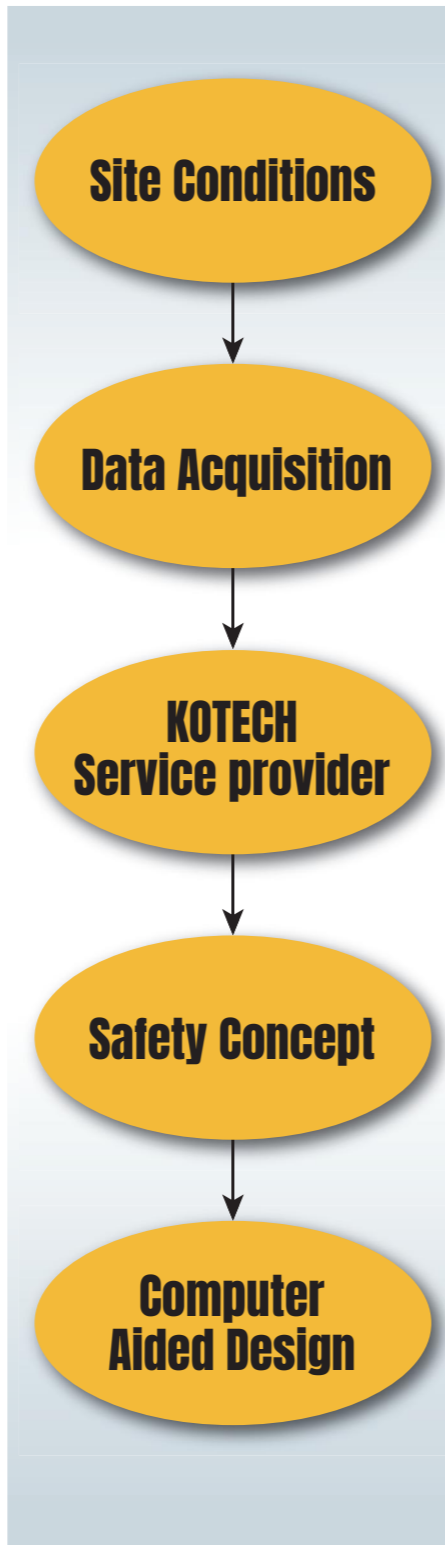
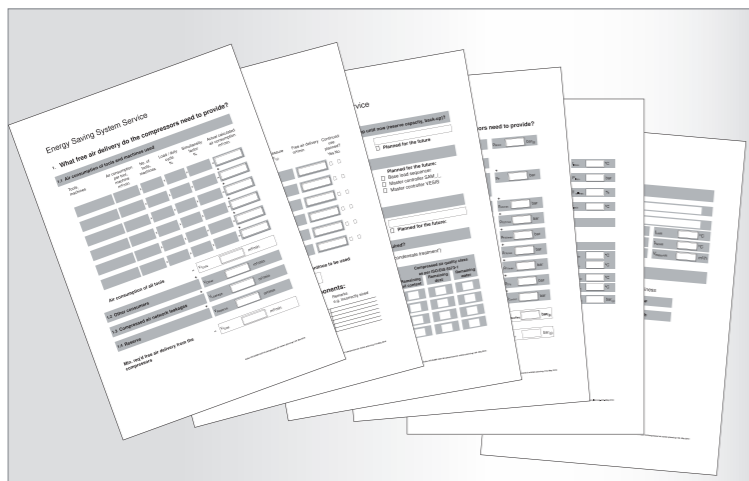


# Requirements Analysis

Modern compressed air equipment is usually a highly complex system. It will running on peak performance if these factors are properly considered in all phases of system planing, expansion and mord- ernization. KOTECH group provides system service to customers by conbining compressor units, customers' consula- tion and compressed air engineering & information technology.

The applications of compressed air is beyond human1 s imagination. The same precondition of using com- pressed air effcently, however, is reliable production and treatment of air itself. The air system must be able to produce economically and effectively under the required quality and quantity.

In another words, compressor, air-treatment machine and piping work must be properly selected with deter- mined size and control. In addition, there must be suffi- cient ventilation and proper treatment of condensate, and if possible, a method to collect waste heat created by compressor.



# Industrial 4.0 Create an intelligent air compressor station



Customermized design & solution: According to measuring instrument and data recorder, FU promise air can accurately determine the air dennand at different points and different time. It is particularly important to determine the values of maximum,minimum and average.

- 1 Testing The Efficiency Of Existing Air Systems
- 2 Application Of Compressed Air
- 3 Compressed Air Treatment



# System Cost Control

After learning the customer's actual air demand and operation conditions, we will consider all relevant parameters for you including required pressured, delivery capacity, air quality, system performance and energy consumption. Whatever compressed air you use, it is sure that KOTECH group's experienced engineers will provide you a complete air system, which runs at the maximum efficiency and meet your specific compressed air demand. Our expertise combining the understanding of range of compressed air product enables our engineers to minimize the cost of energy by all possible means.

## 01 Actual demanding of compressed air

The first step to design a compressed air system is to determine the actual air demand. By performing the following operations, the KOTECH group's engineers can understand the customer's specific air usage and comprehensive demand analysis.

## 02 Inspection power consumption

The accurate data will indicate the actual power consumption and energy efficiency of each analog system. Those information are the basis for the next step to achieve a compressed air system with energy optimized.

## 03 Compared Specific Power Requirement

Only by comparing the actual power consumption with the air capacity delivered, the specific power required can be calculated. And then, these information can truly indicate the energy efficiency of various systems.

