WORLD CLASS · SUPER EFFICIENT · RELIABLE · SILENT

J|N|F|V

OIL FREE SCREW BLOWER

MEMBER OF CAGI Compressed Air & Gas Institute

MEMBER OF MULTILATERAL RECOGNITION ARRANGEMENT IAF

SYSTEM CERTIFICATION ISO 14001 SGS

KAISHAN

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KAISHAN

Kaishan Compressor Global

WORLD WIDE SUPPORT

Globally recognized industrial presence

Kaishan has steadily grown to become a significant, diversified engineering company developing high value machinery for industries worldwide.
With modern, specialized manufacturing facilities positioned in seven strategic locations, Kaishan's group of thirty-two subsidiary companies produce over 70,000 rotary screw and 250,000 reciprocating compressors annually. Kaishan is the world's third largest manufacturer of compressed air, mining and drilling equipment and supports industries in more than 60 countries including: USA, Australia, Germany, Japan, Korea, Russia, Africa and throughout Latin America.

Vertically integrated global strategy

Kaishan's global strategy of combining skilled engineering with highly efficient manufacturing allows us to provide performance proven, reliable equipment at a significant cost savings to our customers. Additionally, Kaishan's manufacturing processes are 85% vertically integrated insuring full control of the material supply chain. This vertical approach supplies high quality components at a lower cost, and affords Kaishan the ability to respond rapidly to changing market demands.

Practiced environmental sustainability

Integral to the design and manufacture of our products is outstanding energy efficiency. Kaishan's fundamental belief in environmental sustainability drives us to produce products that maximize energy efficiency and help to preserve precious energy resources. Single and two-stage compressors that produce more compressed air per unit of power input as well as expanders that utilize waste energy to produce electricity are just two of the fundamental products in our sustainable approach.

Throughout our manufacturing processes, unused waste materials are recycled at every stage to minimise the use of raw materials. This approach translates to lower initial costs and a smaller environmental footprint that helps us all. Kaishan's committment to environmental responsibility ensures that we will continue to develop technologies and manufacturing solutions that provide industry with machinery of exceptional value - now and well into the future.

HIGH EFFICIENCY
LOW NOISE
HIGH RELIABILITY

class zero
OIL-FREE ROTARY

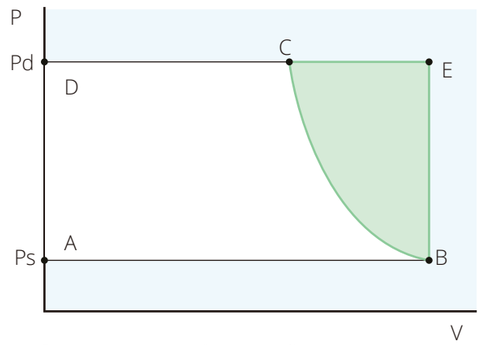
- With internal compression during operation, it has high thermal efficiency
- Good power balance, can be installed without foundation
- Exhaust pressure can reach 1.2bar, flow rate can reach 135m³/min
- Less air flow pulsation, greatly reducing noise
- Integrated control system, can be unattended and remotely controlled
- Noise insulation cover and cooling fan are standard

Machine nose

Kaishan has an oil-free screw host with completely independent patent design, and the casing is equipped with high-precision negative and negative rotors; Through high-precision synchronous gear meshing operation, air is sucked from the intake end, compressed and discharged to the exhaust end. The bearing is sealed with the compression cavity, and there is no lubricating oil in the compression cavity, providing customers with clean and oil-free air.

Rotor

The rotor is configured with the same diameter according to 4: 6 or 3: 5, and the patented Y-4 high-efficiency screw rotor profile is used; A variety of pressure ratio Vi designs provide different internal pressure ratio heads for different exhaust pressure applications to achieve the highest efficiency; Advanced processing technology ensures that the machine head is efficient and stable, more energy-saving and environmentally friendly, and its reliability reaches the international leading level.



Dynamo-meter diagram of oil-free screw blower (P-V diagram)

Compared with Roots blowers, the energy saving ratio of Kaishan JNFV oil-free screw blower increases with the increase of operating pressure.

A-B-C-D area is the internal power of the screw blower
A-B-E-D area is the internal power of the gas of the Roots blower
B-E-C area is the power saved by the screw blower compared with the Roots blower

Frequency converter

The customized high-performance inverter has excellent control performance and reliability beyond similar products. It can adapt to harsh power grids, temperatures, humidity and dust, and meets the environmental protection requirements of low noise and low electromagnetic interference in customer application places.

Motor

The high-efficiency motor customized for the performance curve of the blower further improves the efficiency of the whole machine and reduces the specific power; Allows long-term operation of the motor in a high temperature environment of 45°C, and the motor protection rating is IP54. Belt flexible connection or coupling direct connection can be selected according to working conditions.

Air filter element

Efficiently filter dust in the air; The intake filtration accuracy can reach 15um, while the pressure loss does not exceed 500Pa, and the filter element replacement cycle is 2000 hours.

Exhaust silencer

Reduce exhaust noise, the silencer has no wearing parts and does not need to be replaced after long-term use.

Main Application Scenarios

Sewage aeration
Aerate that sewage tank to supply oxygen to the bio-active substance in the tank and make it fully contact with the organic substance in the sewage
Typical applications: municipal sewage, paper-making sewage, printing and dyeing sewage, chemical sewage, medical sewage, food sewage, etc.

Pneumatic conveying
Use air pressure and flow of air to transport powdered or granular materials in pipes
Typical applications: power plants, cement plants, chemical industry, grain and food processing, pharmaceuticals, etc.

Biological fermentation
Used in production or fermentation processes to provide oxygen to bacteria
Typical applications: Bio pharmaceuticals, vaccine production, food fermentation, fertilizer production

Homogenization
Blow air from the bottom to the homogenization storage to stir the materials to achieve uniform distribution
Typical applications: cement plants, steel plants, power plants

Gas-water backwash
Remove the dirt trapped in the pores of the filter material and restore the filtration capacity of the filter material
Typical applications: water purification treatment, sewage treatment

Desulfurization and denitrification
Used for lime powder delivery/ atomization purge air to remove sulfides and nitrogen oxides from the gas
Typical applications: thermal power plants, petrochemical industry, fertilizer production, air pollution prevention and control

Fluidization process
A large number of solid particle are suspended between moving fluid so that the particles have certain apparent properties similar to that of the fluid
Typical applications: fluidized combustion, fluidized reaction, fluidized drying

Other Applications
Drying, dehumidification, gas pressurization, etc
No additional heating equipment is needed, and compressed air is used as a heating device to dry products; Provides high in a spray system
Pressure spraying gas; Provides pure air and more for high-quality gold plating

Specification Parameter Table

JNFV100 series (Belt Connection)

MODEL	Displacement (m³/min)									
Exhaust pressure (kPa)	30	40	50	60	70	80	90	100	110	120
JNFV100-6	7.8	5.6	4.7	4.5	-	-	-	-	-	-
JNFV100-8	8.7	7.8	6.5	5.6	4.7	4.2	-	-	-	-
JNFV100-11	30	8.7	8.7	8.4	7.4	6.5	5.9	5.3	4.8	4.5
JNFV100-15	8.7	8.7	8.7	8.4	8.3	8.2	8.2	7.4	6.9	6.5
JNFV100-18	8.7	8.7	8.7	8.4	8.3	8.2	8.2	8.2	8.2	7.2
JNFV100-22	8.7	8.7	8.7	8.4	8.3	8.2	8.2	8.2	8.2	8.2

JNFV160D Series (Direct Connection)

MODEL	Displacement (m³/min)									
Exhaust pressure (kPa)	30	40	50	60	70	80	90	100	110	120
JNFV160-8D	9.8	-	-	-	-	-	-	-	-	-
JNFV160-11D	16.1	12.2	9.5	-	-	-	-	-	-	-
JNFV160-15D	21.5	16.9	14.3	12.2	10.6	9.4	-	-	-	-
JNFV160-18D	24.6	21.4	18.6	16.2	14.1	12.3	10.8	9.5	8.5	-
JNFV160-22D	24.6	24.3	21.2	18.6	16.5	14.8	13.5	12.5	11.7	11.1
JNFV160-30D	24.6	24.4	24.2	24.1	23.5	21.1	19.1	17.5	16.3	15.5
JNFV160-37D	24.6	24.4	24.2	24.1	24.0	23.8	23.2	21.8	20.6	19.6
JNFV160-45D	24.6	24.4	24.2	24.1	24.0	23.8	23.5	23.3	22.0	21.0
JNFV160-55D	24.6	24.4	24.2	24.1	24.0	23.8	23.8	23.8	23.6	23.6

JNFV200D Series (Direct Connection)

MODEL	Displacement (m³/min)									
Exhaust pressure (kPa)	30	40	50	60	70	80	90	100	110	120
JNFV200-18D	25.7	22.1	-	-	-	-	-	-	-	-
JNFV200-22D	27.1	25.9	22.4	19.3	-	-	-	-	-	-
JNFV200-30D	38.8	33.4	29.7	26.6	24.1	-	-	-	-	-
JNFV200-37D	46.5	40.9	36.1	31.9	28.3	25.2	28.2	22.6	21.2	20.0
JNFV200-45D	46.5	46.4	43.6	38.8	34.7	31.2	28.2	25.6	23.3	21.2
JNFV200-55D	46.5	46.4	46.3	46.1	42.9	38.5	34.6	31.2	28.2	25.6
JNFV200-75D	46.5	46.4	46.3	46.1	46.0	45.8	45.5	42.3	39.7	37.1
JNFV200-90D	46.5	46.4	46.3	46.1	46.0	45.8	45.5	45.3	45.1	44.8

JNFV250D Series (Direct Connection)

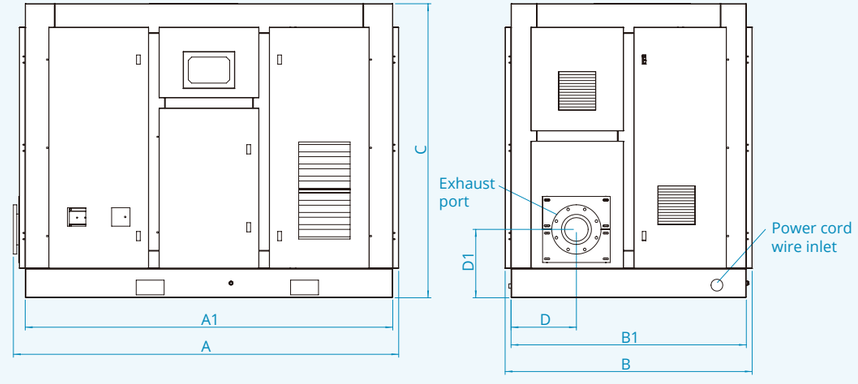
MODEL	Displacement (m³/min)									
Exhaust pressure (kPa)	30	40	50	60	70	80	90	100	110	120
JNFV250-37D	49.1	40.2	-	-	-	-	-	-	-	-
JNFV250-45D	54.4	48.9	41.2	-	-	-	-	-	-	-
JNFV250-55D	62.5	58.3	53.2	46.4	40.8	-	-	-	-	-
JNFV250-75D	62.5	62.3	62.2	62.0	60.8	54.0	48.5	44.5	41.6	-
JNFV250-90D	62.5	62.3	62.2	62.0	61.8	61.7	60.6	56.4	51.6	47.7
JNFV250-110D	62.5	62.3	62.2	62.0	61.8	61.7	61.6	61.5	61.3	61.2

JNFV280D Series (Direct Connection)

MODEL	Displacement (m³/min)									
Exhaust pressure (kPa)	30	40	50	60	70	80	90	100	110	120
JNFV280-75D	75.5	69.8	65.9	62.2	57.7	53.6	50.1	46.5	43.8	41.2
JNFV280-90D	86.7	81.6	76.5	73.6	69.2	64.3	60.1	55.8	52.5	49.2
JNFV280-110D	88.5	88.1	87.7	86.2	84.5	79.8	74.2	69.1	64.5	60.1
JNFV280-132D	88.5	88.1	87.7	87.4	87.1	86.9	86.7	81.7	76.0	72.1
JNFV280-160D	88.5	88.1	87.7	87.4	87.1	86.9	86.7	86.6	86.5	86.4

JNFV300D series (Direct Connection)

MODEL	Displacement (m³/min)									
Exhaust pressure (kPa)	30	40	50	60	70	80	90	100	110	120
JNFV300-132D	123.6	117.4	111.5	105.5	99.8	93.6	87.5	81.9	76.0	69.6
JNFV300-160D	135.8	135.2	134.7	134.2	121.8	113.5	106.1	99.6	92.1	84.4
JNFV300-200D	135.8	135.2	134.7	134.2	133.8	133.4	133.0	124.5	115.1	105.5
JNFV300-250D	135.8	135.2	134.7	134.2	133.8	133.4	133.0	132.6	132.3	132.0



Boundary Dimensions

MODEL	A	A1	B	B1	C	D	D1	Exhaust Port	
JNFV100	1440	1380	1060	1060	1520	415	250	DN80	belt connection
JNFV160D	2313	2200	1391	1300	1950	345	296	DN150	
JNFV200D	2620	2500	1680	1600	2000	445	465	DN200	
JNFV250D	2835	2700	1780	1700	2200	450	474	DN250	
JNFV280D	3618	3500	1891	1800	2200	454	474	DN300	
JNFV300D	3753	3600	1941	1850	2350	515	460	DN300	

* Due to technical updates and design changes, the installation dimensions may be adjusted, and the actual technical plan shall prevail.