

# AIOLITH INC.

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## SCREW AIR COMPRESSOR



# ABOUT US

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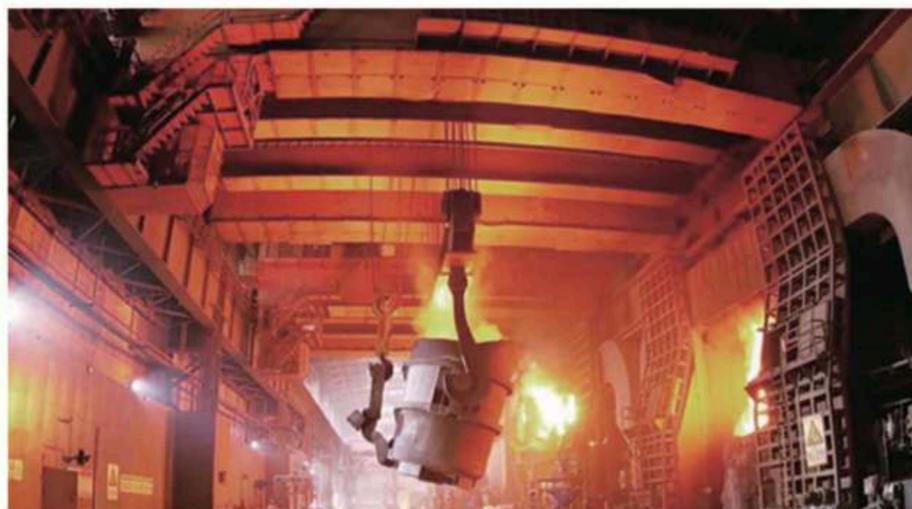
AIOLITH is a fast-growing cleaning equipment company in the United States, backed by over 18 years of manufacturing and industry experience. We specialize in designing and producing high-quality cleaning equipment, supported by large-scale production facilities and multiple warehouses to ensure reliable supply and consistent quality.

# APPLICATION

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Screw air compressor technology is becoming more and more mature, and has the characteristics of high performance, high efficiency, high reliability, low maintenance cost and intelligent control, can meet the actual gas demand of different users.

The application range of screw air compressor is very wide: heavy&light industry, mining, hydropower, seaport, engineering construction, oil and gas fields, railways, transportation, shipbuilding, energy, military industry ,spaceflight and other industries.





## Air - End

1. Adopts the international top-level third-generation asymmetric wire twin-screw air end, adheres to the exquisite manufacturing process, adopts the peak high efficiency low-pressure, high-efficiency tooth shape and the axial air inlet design.
2. Optimized flow channel design, with a large rotor, low speed and high efficiency. Increased energy efficiency by 5% -15% compared to the second generation.
3. Uses Swedish SKF heavy-duty bearings, double-lip lip shaft seal, durable and reliable. The bearing design life is 80,000-100,000 hours and the air end design life is about 200,000 hours.



## Motor

1. The motor uses high-performance motors of well-known brands. Permanent magnet synchronous motors (PM motors) use high-performance NdFeB permanent magnets which will not lose magnetism under 200 ° and its service life reaches as long as 15 years.
2. The stator coil uses the frequency converter special halo proof enameled wire, the insulation is outstanding and the service life is longer.
3. The motor has the function of temperature protection. It also has a wide range of motor speed regulation, high precision and wide range of volume regulation. The reliability is significantly improved with small size, low noise and large excess current.
4. Protection grade IP55, insulation grade F, effectively protects the motor and increases the service life of the motor, the efficiency is 5%-7% higher than similar products.



## Fan

1. The fan uses a large fan design to effectively enhance the fan's heat dissipation effect. The motor adopts a special internal design to adapt to harsh working conditions.
2. The fan motor adopts special winding and high protection grade design to adapt to harsh working conditions.
3. The fan is controlled by the controller to realize the automatic start and stop function, which effectively maintains the normal working temperature of the air compressor lubricant.



## Cooler

1. The heat exchanger uses high-quality raw materials and a unique internal channel design, which increases the heat exchange area and can effectively dissipate heat for the air compressor.
2. The inner wall of the heat exchanger is treated with corrosion protection to increase the service life of the heat exchanger and increase the heat transfer effect.
3. The radiator has passed the strict factory test, and the quality is reliable, which effectively prevents the high temperature of the air compressor and increases the service life of the machine.



## Intake - Valve

1. Intake valve is the core component to control the air intake of the air compressor.
2. Adopting the world famous brand air intake valve, it can automatically adjust the air volume by 0-100% according to the requirement of the system air quantity. It promises small pressure loss, stable action and long life consequently reduced operating costs.

## Controller



1. Adopts PLC multi language control system, beautiful and intuitive interface, easy to operate function, operators can quickly and easily adjust the compressor.
2. 14 protection functions such as overload protection, short circuit protection, reverse protection, low temperature protection, high voltage protection, etc. to fully protect the unit.
3. The advanced microcomputer control drive system realizes intelligent control, air volume variable speed control automatic adjustment of load start and soft start. Intelligent dynamic control, dynamic display of the working status of each component of the compressor, visual pressure, temperature, current working curve, etc.
4. Large memory and equipped with printer interface; It can use computer remote monitoring or multiple linkage control between air compressors.

## Inverter



1. The standard is equipped with high frequency reactor, effectively reducing the frequency converter and the external magnetic field dry reactance.
2. Reliably reduces peak current when it is started, realizes stable starting.
3. With high-performance current vector technology, it can easily drive induction motors.
4. High performance, high quality and high power density design, as well as significant improvements in usability, maintainability, environmental protection, installation space, and design standards, can further optimize the user experience.
5. Independent air duct design, resistances to all kinds of severe environmental pollution.
6. Rapidly track the change of pressure and control pressure fluctuation within  $\pm 0.01$  Mpa, optimal power is used to accurately provide necessary air.

## Oil - Filter



1. Adopts high-density filter material, the surface is treated with nano-electroplating.
2. The filter element has uniform pore size, small filter resistance, large flux, strong interception ability and long service life.
3. High filtration accuracy effectively filters impurities in lubricating oil, prolongs the service life of the equipment.

## Air - Filter



Adopting a design with high dust holding capacity and low flow resistance, which can filter out tiny fixed particles in the air. The dust removal effect can reach 99.5%, ensuring the normal operation of the components of the system and extending the service life.

## Intake-Value



The high-quality air-oil separation element and gas-liquid filter element are equipped with advanced three-stage-air-oil separation to keep the oil content below 3ppm to ensure the output of high-quality compressed air.



# BELT DRIVEN FIXED SPEED SCREW AIR COMPRESSOR

>> Uses a belt drive system;  
It is the classic entry-level fixed-speed screw compressor.

## FEATURES

If your dry ice blasting business has a limited budget and does not require 24/7 ultra-heavy continuous operation, the OL series is the most cost-effective choice with low maintenance costs. However, as an oil-injected screw compressor, the air contains trace amounts of oil. You must equip it with high-quality precision filters (for oil removal) at the backend; otherwise, residual oil will be blasted onto the cleaning surface, causing contamination.

## TECHNICAL PARAMETERS SUMMARY:

Power Range: 7.5kw - 45kw

Pressure: 8 / 10 / 12.5 bar

Model	Max Working Pressure (bar)	F.A.D (m <sup>3</sup> /min)	Motor Power (kw / hp)	Connection	Net Weight (kg)	Dimension (L*W*H mm)
AR-10CB	8 / 10 / 12.5	1.1 / 1.0 / 0.8	7.5 / 10	G1/2"	220	850*600*850
AR-15CB	8 / 10 / 12.5	1.7 / 1.5 / 1.3	11 / 15	G3/4"	280	850*600*950
AR-20	8 / 10 / 12.5	2.4 / 2.2 / 1.7	15 / 20	G1"	380	950*870*1230
AR-25	8 / 10 / 12.5	3.0 / 2.7 / 2.3	18.5 / 25	G1"	500	950*870*1230
AR-30	8 / 10 / 12.5	3.7 / 3.2 / 2.7	22 / 30	G1"	540	950*870*1230
AR-40	8 / 10 / 12.5	5.0 / 4.5 / 3.6	30 / 40	G1-1/2"	680	1150*990*1395
AR-50	8 / 10 / 12.5	6.2 / 5.6 / 4.6	37 / 50	G1-1/2"	730	1150*990*1395
AR-60	8 / 10 / 12.5	7.6 / 6.5 / 5.6	45 / 60	G1-1/2"	790	1150*990*1395

# DIRECT DRIVEN FIXED SPEED SCREW AIR COMPRESSOR



>> Motor and air-end are directly connected (1:1) with no energy loss.  
It features low RPM and a larger air-end, offering higher efficiency than the BELT DRIVEN.

## FEATURES

Suitable for large-scale, high-intensity dry ice cleaning projects (e.g., rust or paint removal on large factory equipment). The direct-drive design provides stronger power and more stable air volume, ensuring no pressure drop during long-term blasting. Like the OL series, it is oil-injected, so a strict post-processing system for water and oil removal is essential.

## TECHNICAL PARAMETERS SUMMARY:

Power Range: 15kw - 132kw

Pressure: 8 / 10 bar

Model	Max Working Pressure (bar)	F.A.D (m <sup>3</sup> /min)	Motor Power (kw / hp)	Connection	Net Weight (kg)	Dimension (L*W*H mm)
AR-20D	8	2.4	15 / 20	G1"	520	1410*850*1135
AR-25D	8	3.0	18.5 / 25	G1"	540	1410*850*1140
AR-30D	8	3.6	22 / 30	G1"	560	1410*850*1140
AR-50D	8	6.2	37 / 50	G1-1/2"	730	1530*930*1255
AR-60D	8	7.6	45 / 60	G1-1/2"	800	1530*930*1255
AR-75D	8	10.0	55 / 75	G1-1/2"	1180	1800*1125*1430
AR-100D	8	13.0	75 / 100	G2"	1470	2000*1300*1600
AR-120D	8	16.0	90 / 120	G2"	1950	2130*1400*1750
AR-150D	8	20.0	110 / 150	DN65	2450	2550*1550*1900
AR-180D	8	24.0	132 / 180	DN65	2500	2550*1550*1900



# OIL-FREE FIXED SPEED SCREW AIR COMPRESSOR

**>> Uses water instead of oil for lubrication and sealing;  
The discharged air is 100% pure and oil-free.**

## FEATURES

If your dry ice machine is used for cleaning in food factories, pharmaceutical workshops, or precision electronic components, LSW is the best choice. It eliminates oil at the source, ensuring an absolutely clean cleaning process. Critical Note: Although oil-free, the water lubrication means high exhaust humidity. It must be paired with a high-efficiency refrigerated dryer (or even an adsorption dryer); otherwise, moisture will cause dry ice pellets to clump and block the nozzle.

## TECHNICAL PARAMETERS SUMMARY:

Power: 7.5kw-132kw

Pressure: 7-10.5bar

Model	Pressure (bar)	F.A.D (m <sup>3</sup> /min)	Motor Power (kw / hp)	Connection	Net Weight (kg)	Dimension (L*W*H mm)
AR-10V	5-8 / 10	1.05 / 0.80	7.5 / 10	G3/4"	300	800*800*1200
AR-15V	5-8 / 10	1.70 / 1.40	11 / 15	G3/4"	420	1200*755*1130
AR-20V	5-8 / 10	2.20 / 1.90	15 / 20	G3/4"	420	1200*755*1130
AR-25V	5-8 / 10	3.00 / 2.20	18.5 / 25	G1"	600	1400*900*1285
AR-30V	5-8 / 10	3.60 / 3.00	22 / 30	G1"	620	1400*900*1285
AR-40V	5-8 / 10	5.10 / 3.90	30 / 40	G1-1/4"	740	1400*950*1390
AR-50V	5-8 / 10	6.30 / 5.30	37 / 50	G1-1/4"	860	1580*1000*1485
AR-60V	5-8 / 10	7.80 / 6.30	45 / 60	G2"	1020	1800*1360*1670
AR-75V	5-8 / 10	10.00 / 7.90	55 / 75	G2"	1080	1800*1360*1670

# 3-IN-1 TYPE SCREW AIR COMPRESSOR



## FEATURES

This series is ideal for dry ice blasting because it integrates the air compressor, air tank, and air dryer into one unit, providing the "clean & dry" air required for dry ice cleaning without needing complex installation.

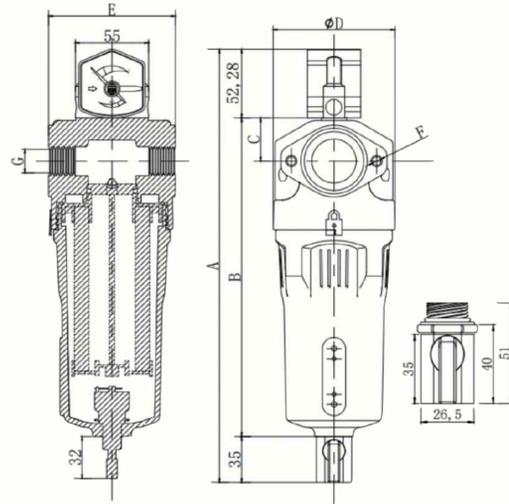
- Free installation: Integrated design means no complex piping is needed.
- Save factory space: Compact "4IN1" design occupies less floor area.
- Energy saving: Features Permanent Magnet VSD technology.
- Give clean & dry compressed air: Essential for preventing ice blockages in dry ice machines.

Model	Pressure (bar / psi)	F.A.D (m <sup>3</sup> /min / CFM)	Motor Power (kw / hp)	Air Tank (L)	Connection	Weight (kg)	Dimension (LWH)
AR10VC-8	8 / 116	1.10 / 38	7.5 / 10	250	G3/4"	350	1650*1000*1900
AR10VC-10	10 / 145	0.90 / 31	7.5 / 10	250	G3/4"	350	1650*1000*1900
AR10VC-12.5	12.5 / 181	0.80 / 28	7.5 / 10	250	G3/4"	350	1650*1000*1900
AR15VC-8	8 / 116	1.60 / 56	11 / 15	400	G3/4"	510	1930*870*2080
AR15VC-10	10 / 145	1.40 / 49	11 / 15	400	G3/4"	510	1930*870*2080
AR15VC-12.5	12.5 / 181	1.30 / 45	11 / 15	400	G3/4"	510	1930*870*2080
AR20VC-8	8 / 116	2.60 / 91	15 / 20	400	G3/4"	510	1930*870*2080
AR20VC-10	10 / 145	2.00 / 70	15 / 20	400	G3/4"	510	1930*870*2080
AR20VC-12.5	12.5 / 181	1.80 / 63	15 / 20	400	G3/4"	510	1930*870*2080
AR30VC-8	8 / 116	3.60 / 127	22 / 30	400	G1"	510	1930*870*2080
AR30VC-10	10 / 145	3.00 / 106	22 / 30	400	G1"	510	1930*870*2080
AR30VC-12.5	12.5 / 181	2.50 / 88	22 / 30	400	G1"	510	1930*870*2080

Model	Pressure (bar / psi)	F.A.D (m <sup>3</sup> /min / CFM)	Motor Power (kw / hp)	Air Tank (L)	Connection	Weight (kg)	Dimension (LWH mm)
AR15VC-16	15.8 / 229	1.0 / 35	11 / 15	400	G3/4"	510	1850*103*01880
AR15VC-16	15.8 / 229	1.5 / 53	15 / 20	400	G3/4"	510	1850*103*01880
AR15VC-16	15.8 / 229	2.3 / 81	22 / 30	400	G3/4"	560	1850*103*01880

\* Specifications may vary depending on the configuration. Machine color and appearance may differ accordingly. Please refer to the Sales Manager's information for the final confirmation.





## MAIN COMPONENTS

1. Compressed air inlet
2. Compressed air outlet
3. Filter cartridges
4. Stainless steel diamond mesh design has a large airflow area and low resistance
5. Aluminum alloy material, high-strength and high hardness material, internal and external surge treatment
6. The water valve is equipped with a sealing ring, which does not require the use of adhesive tape and is easy and fast to install
7. Differential pressure gauge: Accurately indicate the differential pressure condition of the filter element and remind timely replacement of the filter element

Grade		Kinds	Oil removal (ppm)	Initial differential pressure (bar)	Maximum particulate matter per cubic meter (1-5 micron)	Maximum particulate matter per cubic meter (0.5-1 micron)	Maximum particulate matter per cubic meter (0.1-0.5 micron)
C		Polymer filter	3	0.02	-	-	-
T		Coalescing filter	0.1	0.06	-	-	-
A		Coalescing filter	0.01	0.07	≤100,000	-	-
X		Efficient oil removal	0.003	0.04	≤10,000	-	-
H		Activated carbon filter	0.003	0.04	≤1,000	≤90,000	-
F		Dust removal filter	-	0.17	≤100	≤6,000	≤400,000
FF		Dust removal filter	-	0.19	≤10	≤400	≤20,000





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