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COMPRESSED-AIR SYSTEMS FOR THE FOOD AND BEVERAGE INDUSTRY

SOLLANT GROUP

In the food and beverage industry, compressed air serves not only as a critical auxiliary component in processing but also as a key medium directly involved in production. In numerous application scenarios, obtaining high air quality is a prerequisite for ensuring product quality. The food and beverage industry generally requires compliance with the internationally recognized ISO 8573-1 standard.

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COMPRESSED AIR QUALITY (TRIPLE CLASS O)

1.Oil-free: Certified oil-free air, guaranteed to be free of oil mist or oil vapor.
2.dry: dry air with a dew point pressure of-90°C.
3.Particle-free: No particulate matter larger than 1 μm was detected.

COMPREHENSIVE SOLUTION – TRIPLE CLASS O

In certain industries, compressed air is often an integral part of the product itself. Triple Class O combines oil-free, particle-free, and ultra-dry air characteristics and are fully certified across all stages of compression, drying, and filtration, ensuring the highest quality of compressed air as defined by the ISO 8573 standard.
Class O is the highest air quality grade defined by ISO 8573, representing the cleanest air conditions. Triple Class O is specifically designed for high-sensitivity processes; it is not only suitable for battery manufacturing, semiconductor production, and cleanroom environments but also provides top safety assurance for the food and beverage industry

TYPES OF COMPRESSED AIR POLLUTION

1.Water (Humidity)
Water vapor is the primary contaminant in compressed air. Moisture from ambient air enters the system through the intake port; if not removed promptly, it can cause corrosion of pneumatic equipment and lead to bacterial growth. For example, a 100-kW compressor can release approximately 85 liters of water over an 8-hour operating cycle.

2 .Oil
The oil content in compressed air is influenced by the type of machine and its design. In oil-injected screw compressors, the oil content in the air at 20°C is below 3mg/m^3, but further reduction may be required using multi-stage filters.

3 .Particles
In typical industrial environments, each cubic meter of air contains more than 140 million dust particles. Since the vast majority of these particles are smaller than 2 micrometers in size, inlet filters can remove only approximately 20% of them. Additionally, "piping contaminants," such as rust particles, may also be generated within the piping system.

4 .Microorganisms
More than 80% of pollutant particulate matter has a diameter smaller than 2 μm and can easily penetrate the intake filter. These fine particles, when mixed with water and oil contaminants, create ideal conditions for the growth of bacteria (0.2–4 μm) and viruses (as small as 0.04 μm).

WATER INJECTED OIL-FREE SCREW AIR COMPRESSOR

Advanced water- lubricated Screw air end

1. Made of stainless steel, there is no danger of rust or corrosion on the air end head
2. Using water as the compression seal and cooling medium, the air is cleaner after rinsing with water, and it can be pure and oil-free
3. The single screw air machine does not theoretically have a clearance volume. At the rated speed, it has excellent dynamic lubrication performance and high working efficiency
4. The axial and radial forces of the single screw are balanced, and the star wheel rotates freely with the screw under the lubrication of the water film. Therefore, the host components run smoothly under low load, ensuring low noise and durability

High efficiency motor

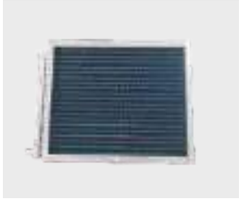
1. Special motor for air compressor imported bearings, protection grade IP54, insulation grade F, suitable for use in various environments, suitable for harsh environments such as dust and high temperature
2. High energy efficiency motor, less electricity, long-term use can significantly reduce the use cost
3. The motor has a large margin design and a large starting torque, which can meet

Advanced and reliable electronic control system

1. Intelligent control system, with good human-machine communication interface; high-quality electrical components are selected, and contactors are imported brands
2. Special program, with multi-channel pressure sensor and multi- channel temperature sensor, compare hensivedetection of the running state of the unit, automatic control of the machine state, no need for special care
3. Emergency stop function,there is a push-type emergency stop switch at a prominent position of the unit, which can be immediately stopped in an emergency
4. Independent air duct design, suitable for various working conditions.

Plate cooler (for water cooling)

1. It is made of stacked metal sheets with a certain corrugated shape. The material is corrosion resistant, easy to clean, and has a long service life
2. Unit volume, large heat exchange area, high heat exchange efficiency, keep the water temperature within a reasonable range
3.Compact structure, light weight and small footprint.



Tube-fin air cooler (for air cooling)

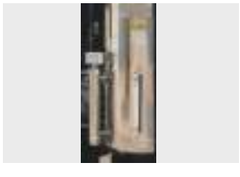
1. The heat exchange tube is made of copper, which will not exchange with ions in water, corrosion resistance, and long service life
2. With high-efficiency axial fan, the air volume is sufficient,the cooling effect is good, and the external air duct is not easy to accumulate dust
3. The cooler is placed on the top, the hot air is discharged upwards, there will be no backflow and the internal working temperature of the machine is stable.

Efficient water filtration

The water filter is a full-flow filter. The shell is made of stainless steel with a special filter core. It has high filtration accuracy and long life. It can reliably remove impurities in the system to ensure the supply of clean lubricating water. The water filter is the standard configuration of the water circulation system to keep the system clean.

Special intake valve

The valve body is made of corrosion-resistant material, suitable for various environments, and has a long service life; heavy hammer structure, accurate and rapid air volume control, low-pressure loss; high integration, no wearing parts, simple maintenance and convenient adjustment.



Efficient water-vapor separation barrel

1. Adopt an excellent cyclone separation structure design, which has been tested and proved to have good water-vapor separation effect
2. Use stainless steel material to prevent corrosion
3. Water level with three-level sensor alarm, automatically eliminate excess water, or makeup water automatically when there is less water.

Renewable ion exchange water softener

1. Fully automatic control of operation and regeneration operation process without manual operation
2. Use ion exchange resin to reduce the hardness of raw water, to achieve the purpose of softening hard water, avoiding scaling and protecting the system
3. The exchange resin is renewable and the cost of use is low.

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Water Injected Oil-Free Screw Air Compressor

Our water-injected oil-free screw air compressor represents the pinnacle of clean, efficient, and reliable compressed air technology. Replacing traditional lubricants with purified water for lubrication, sealing, and cooling within the compression chamber, it delivers 100% oil-free compressed air that meets the stringent ISO 8573-1 Class 0 certification—eliminating any risk of oil contamination for the most demanding applications.

Core Advantages

Ultimate Air Purity: Constructed with 304 food-grade stainless steel for all water-contact components, the compressor ensures oil-free air compliant with FDA and GMP standards, ideal for pharmaceuticals, food & beverage, electronics, and medical industries.
Exceptional Energy Efficiency: Water’ s high thermal conductivity enables near-isothermal compression (operating temperature ⩽45°C), reducing energy consumption by 15–20% compared to dry-type oil-free screw compressors. Direct-drive design further minimizes power loss.
Low Maintenance & Longevity: The oil-free system removes oil filters, separators, and coolers, cutting maintenance costs by 70%. Only air and water filters require replacement. Corrosion-resistant stainless steel rotors extend service life to over 100,000 hours.
Eco-Friendly & Quiet: Zero oil usage eliminates waste oil disposal. The closed water circulation system is fully recyclable. Sound-absorbing casing reduces noise to 65–70 dB(A) for quiet operation.

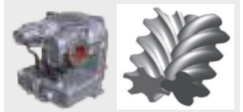
Applications

Perfect for industries requiring ultra-clean air:
Food & Beverage: Bottling, packaging, and food processing
Pharmaceuticals: Drug manufacturing and sterile environments
Electronics: Semiconductor and precision component production
Medical: Hospital and laboratory air supply
Textiles & Printing: Oil contamination-sensitive processes
Choose our water-injected oil-free screw air compressor for unmatched air purity, maximum energy savings, and minimal lifecycle costs—the ultimate solution for clean compressed air.

Oil- Free Water Lubricated Variable Speed Screw Air Compressor Specification

Model	Working Pressure (bar)	Capacity (m^3/min)	Power (kw)	Noise (dB)	Weight (kg)	Dimensions(mm)	Air outlet
SLTOF-5.5VW	8	0.3-0.78	5.5	58±3	460	800*800*1200	3/4''
	10	0.2-0.65					
SLTOF-7VW	8	0.35-1.15	7.5	58±3	510	800*800*1200	3/4''
	10	0.3-1.02					
	12.5	0.24-0.81					
SLTOF-11VW	8	0.54-1.55	11	60±3	620	1150*755*1340	3/4''
	10	0.45-1.32					
	12.5	0.35-1.01					
SLTOF-15VW	8	0.75-2.30	15	63±3	670	1150*755*1340	3/4''
	10	0.65-2.12					
	12.5	0.6-1.60					
SLTOF-18.5VW	8	0.9-3.10	18.5	65±3	730	1400*900*1450	1''
	10	0.9-2.62					
	12.5	0.6-2.10					
SLTOF-22VW	8	1.1-3.42	22	65±3	780	1400*900*1450	1''
	10	0.97-3.15					
	12.5	0.85-2.62					
SLTOF-30VW	8	1.55-5.05	30	67±3	1150	1550*1150*1550(A) 1500*1150*1300(W)	1 1/4''
	10	1.25-4.20					
	12.5	1.10-3.18					
SLTOF-37VW	8	1.91-6.70	37	67±3	1200	1550*1150*1550(A) 1500*1150*1300(W)	1 1/4''
	10	1.60-5.80					
	12.5	1.42-5.00					
SLTOF-45VW	8	2.50-7.80	45	68±3	1490	1980*1300*1760(A) 1800*1300*1670(W)	2''
	10	1.91-6.15					
	12.5	1.70-5.65					
SLTOF-55VW	8	3.0-9.60	55	70±3	1570	1980*1300*1760(A) 1800*1300*1670(W)	2''
	10	2.50-8.55					
	12.5	2.30-7.45					
SLTOF-75VW	8	3.95-12.60	75	73±3	2250 1750	2100*1600*1900(A) 2200*1500*1800(W)	2''
	10	3.40-11.42					
	12.5	3.0-9.85					
SLTOF-90VW	8	5.0-14.80	90	73±3	3150 2580	2400*1600*2000(A) 2200*1500*1800(W)	2 1/2''
	10	4.30-13.05					
	12.5	3.72-12.10					
SLTOF-110VW	8	6.0-19.50	110	78±3	3150 2700	3000*1700*2250(A) 2200*1500*1800(W)	2 1/2''
	10	5.07-16.80					
	12.5	4.65-15.15					
SLTOF-132VW	8	6.75-22.52	132	78±3	3500 2700	3000*1700*2250(A) 2200*1500*1800(W)	2 1/2''
	10	6.0-20.30					
	12.5	5.07-18.25					
SLTOF-160VW	8	8.5-28.11	160	80±3	3900	2700*1800*2050	DN80
	10	7.6-24.50					
	12.5	6.7-22.15					
SLTOF-185VW	8	10-33.65	185	80±3	4050	2700*1800*2050	DN100
	10	8.72-28.5					
	12.5	7.75-24.5					
SLTOF-200VW	8	11.2-36.63	200	80±3	4200	2700*1800*2050	DN100
	10	9.68-32.75					
	12.5	9.2-27.50					
SLTOF-220VW	8	12.2-39.5	220	80±3	4400	2700*1800*2050	DN100
	10	11.2-35.80					
	12.5	9.0-29.50					

DRY OIL-FREE SCREW AIR COMPRESSOR



Industry-leading original oil-free air end

1. The air compression chamber is completely separated from the oil chamber. The air compression chamber uses a The airend features non-contact rotors and corrosion-resistant coated rotors, sealed by multi-stage labyrinth seals with conditioned sealing air, ensuring absolute oil-free compression. The oil chamber has a wear-free sealing system with seal. The two do not contact ;
2. The compressed air passing through the cooler after thefirst stage of compression has inseparable water vapor. In order to prevent the water vapor from corroding the surface of the compressor's second-stage main machine rotor, the second-stage rotor is made of stainless steel, which is more reliable
3. The industry's first-class super coating (UITRACOAT) is applied to the rotor and compression chamber inner wall of the main machine. It can effectively prevent softening and shedding that are easy to occur with general coatings such as Teflon. It has excellent anti-corrosion and reduces meshing clearance.During the whole life cycle, there is no significant decrease in air volume
4.Filtered lubricating oil is used for cooling in the cabinet compartment of the air end. Efficient cooling, avoiding the scale caused by water cooling, thus improving the reliability of operation.

Smart electronic control system

Large-size color LCD touch screen, with a good human-machine communication interface; custom vector inhuman, perfectly matched with the motor; a special program, fully monitoring the parameters of the machine, automatically control the state of the machine, no need for special care; independent air duct design, suitable for each kinds of working condition.

Independent air intake system

Independent air intake to ensure that the intake air temperature is equal to the ambient temperature. Large-capacity air filter is used,which has better filtering effect, lower intake pressure loss, energy saving and high efficiency.Maintenance and
replacement are more convenient

Noise reduction sheet metal design

The multiple noise reduction design iscalculated according to the noise theory. The special flame retardant muffler cotton is attached inside to reduce the noise of the unit and provide a quieter environment for use.

Efficient water cooler

Sollant dry screw air compressor water cooler uses a new type of threaded finned tube shell and tube heat exchanger. Compressed air goes inside the tube, cooling water goes to the shell side, and the tube nest is a new plum blossom copper tube, which is more conventional than water cooling. For the heater, the advantages are as follows
1. Compressed air goes through the tube and the pressurebearing capacity of the outer finned tube is improved ;
2. Cooling water walks on the shell side. Compared with the process selection in the walking pipe, the cooling water passes through multiple sets of baffle parts, the degree of turbulence increases, the probability of the formation of dirt attached to the pipe wall is reduced, the equipment cleaning cycle is extended, and the user's maintenance cost is reduced.
3. The gas travels along the tube and the fins extend axially in the tube. Compared with the outer fins sweeping the wind, the pressure drop generated by the unit windward area is lower than that of the outer fins. It is safe and reliable to use, and the fins are not easy to fall off ;
4. The installation of the heat exchanger is simple and the same as that of the conventional shell and tube heat exchanger ;
5. The side of the tube is made of stainless steel to prevent corrosion and rust of the cooler due to high temperature and high pressure, which affects the life of the compressor and air quality
6. The tube nest can be disassembled independently, which is convenient for users to maintain
7. Compressed air goes to the tube side and water goes to the shell side to reduce the noise generated by compressed air.

Noise reduction venturi

The first and second air ends of the air compressor all adopt the newly developed venturi muffler, and there is also an impedance integrated muffler, which can greatly eliminate the noise emitted by the compressor pipeline.

Reliable hydraulic intake valve

High-efficiency intake valve adopts hydraulic control, the work is more stable and reliable, avoiding the regular replacement of pneumatic components, reducing unnecessary downtime and maintenance costs.

Silent centrifugal fan

Silent centrifugal fan Sollant dry screw air compressor adopts the latest centrifugal fan, which has large cooling air volume, low noise, stable and uniform wind pressure, so that the cooling area of the cooler is fully utilized, and the noise of the air compressor is greatly reduced by 6-8dB(A). Give customers a quiet environment

Dry Oil-Free Variable Speed Screw Air Compressor

Model	Working pressure		Capacity		Power		Noise	Air outlet pipe diameter	Net weight		Dimensions(mm)					
											Air-cooled L*W*H			Water-cooled L*W*H		
	bar	psig	m^3/min	cfm	kW	hp	dB		Air-cooled	Water-cooled						
SLTOF-45VD	7	102	4.5-7.8	159-275	45	60	69±3	DN50	1800	1850	2200	1400	2000	2200	1500	1720
	8	116	4.0-6.8	141-240	45	60	69±3	DN50	1800	1850	2200	1400	2000	2200	1500	1720
	10	145	3.7-6.4	132-226	45	60	69±3	DN50	1800	1850	2200	1400	2000	2200	1500	1720
SLTOF-55VD	7	102	5.7-9.8	202-346	55	75	69±3	DN50	1900	1950	2200	1400	2000	2200	1500	1720
	8	116	5.2-9.0	182-318	55	75	69±3	DN50	1900	1950	2200	1400	2000	2200	1500	1720
	10	145	4.4-7.8	157-275	55	75	69±3	DN50	1900	1950	2200	1400	2000	2200	1500	1720
SLTOF-75VD	7	102	7.6-13.0	268-459	75	100	70±3	DN50	2000	2050	2200	1400	2000	2200	1500	1720
	8	116	7.2-12.2	253-431	75	100	70±3	DN50	2000	2050	2200	1400	2000	2200	1500	1720
	10	145	6.6-11.2	234-396	75	100	70±3	DN50	2000	2050	2200	1400	2000	2200	1500	1720
SLTOF-90VD	7	102	9.6-16.0	332-565	90	120	71±3	DN50	2100	2150	2200	1400	2000	2200	1500	1720
	8	116	8.1-13.8	286-487	90	120	71±3	DN50	2100	2150	2200	1400	2000	2200	1500	1720
	10	145	7.6-13.1	269-463	90	120	71±3	DN50	2100	2150	2200	1400	2000	2200	1500	1720
SLTOF-110VD	7	102	12.1-20.6	429-727	110	150	71±3	DN65	3100	3150	3000	1990	2180	2800	1900	1990
	8	116	11.6-19.5	408-689	110	150	71±3	DN65	3100	3150	3000	1990	2180	2800	1900	1990
	10	145	11.1-19.5	391-664	110	150	71±3	DN65	3100	3150	3000	1990	2180	2800	1900	1990
SLTOF-132VD	7	102	14.7-24.8	518-876	132	175	73±3	DN65	3200	3250	3000	1990	2180	2800	1990	1990
	8	116	13.6-23.0	480-812	132	175	73±3	DN65	3200	3250	3000	1990	2180	2800	1990	1990
	10	145	11.5-19.5	406-689	132	175	73±3	DN65	3200	3250	3000	1990	2180	2800	1990	1990
SLTOF-160VD	7	102	16.9-28.5	596-1006	160	215	73±3	DN65	3300	3400	3000	1990	2180	2800	1900	1990
	8	116	15.6-26.3	550-929	160	215	73±3	DN65	3300	3400	3000	1990	2180	2800	1900	1990
	10	145	14.1-23.8	497-840	160	215	73±3	DN65	3300	3400	3000	1990	2180	2800	1900	1990
SLTOF-185VD	7	102	19.5-32.8	687-1158	185	250	74±3	DN65	3400	4500	3000	1990	2180	2800	1990	1990
	8	116	17.1-28.9	605-1021	185	250	74±3	DN65	3400	4500	3000	1990	2180	2800	1990	1990
	10	145	16.3-27.5	575-971	185	250	74±3	DN65	3400	4500	3000	1990	2180	2800	1990	1990
SLTOF-200VD	7	102	20.0-33.6	706.3-1186.6	200	270	74±3	DN100	5570	5000	4500	2000	2150	3100	2200	2103
	8	116	20.0-33.6	706.3-1186.6	200	270	74±3	DN100	5570	5000	4500	2000	2150	3100	2200	2103
	10	145	17.3-29.2	610.9-1031.2	200	270	74±3	DN100	5570	5000	4500	2000	2150	3100	2200	2103
SLTOF-250VD	7	102	27.3-46.0	964-1624	250	335	74±3	DN100	5800	5200	4500	2000	2150	3100	2200	2103
	8	116	25.3-42.0	893-1511	250	335	74±3	DN100	5800	5200	4500	2000	2150	3100	2200	2103
	10	145	22.7-38.2	803-1348	250	335	74±3	DN100	5800	5200	4500	2000	2150	3100	2200	2103

Dry Oil-Free Fixed Speed Screw Air Compressor

Model	Working pressure		Capacity		Power		Noise	Air outlet pipe diameter	Net weight		Dimensions(mm)					
											Air-cooled L*W*H			Water-cooled L*W*H		
	bar	psig	m^3/min	cfm	kW	hp	dB		Air-cooled	Water-cooled						
SLTOF-45FD	7	102	7.8	275.5	45	60	69±3	DN50	1900	1950	2200	1400	2000	2200	1500	1720
	8	116	6.8	240.1	45	60	69±3	DN50	1900	1950	2200	1400	2000	2200	1500	1720
	10	145	6.4	226.2	45	60	69±3	DN50	1900	1950	2200	1400	2000	2200	1500	1720
SLTOF-55FD	7	102	9.8	346.1	55	75	69±3	DN50	2000	2050	2200	1400	2000	2200	1500	1720
	8	116	9.0	317.8	55	75	69±3	DN50	2000	2050	2200	1400	2000	2200	1500	1720
	10	145	7.8	275.5	55	75	69±3	DN50	2000	2050	2200	1400	2000	2200	1500	1720
SLTOF-75FD	7	102	13.0	459.1	75	100	70±3	DN50	2150	2200	2200	1400	2000	2200	1500	1720
	8	116	12.2	430.8	75	100	70±3	DN50	2150	2200	2200	1400	2000	2200	1500	1720
	10	145	11.2	395.5	75	100	70±3	DN50	2150	2200	2200	1400	2000	2200	1500	1720
SLTOF-90FD	7	102	16.0	565.0	90	120	71±3	DN50	2250	2300	2200	1400	2000	2200	1500	1720
	8	116	13.8	487.3	90	120	71±3	DN50	2250	2300	2200	1400	2000	2200	1500	1720
	10	145	13.1	462.6	90	120	71±3	DN50	2250	2300	2200	1400	2000	2200	1500	1720
SLTOF-110FD	7	102	20.6	727.5	110	150	71±3	DN65	3360	3400	3000	1990	2180	2800	1900	1990
	8	116	19.5	688.6	110	150	71±3	DN65	3360	3400	3000	1990	2180	2800	1900	1990
	10	145	18.8	663.9	110	150	71±3	DN65	3400	3400	3000	1990	2180	2800	1900	1990
SLTOF-132FD	7	102	24.8	875.8	132	175	73±3	DN65	3500	3550	3000	1990	2180	2800	1900	1990
	8	116	23.0	812.2	132	175	73±3	DN65	3500	3550	3000	1990	2180	2800	1900	1990
	10	145	19.5	688.6	132	175	73±3	DN65	3500	3550	3000	1990	2180	2800	1900	1990
SLTOF-160FD	7	102	28.5	1006.5	160	215	73±3	DN65	3750	3850	3000	1990	2180	2800	1900	1990
	8	116	26.3	928.8	160	215	73±3	DN65	3750	3850	3000	1990	2180	2800	1900	1990
	10	145	23.8	840.5	160	215	73±3	DN65	3750	3850	3000	1990	2180	2800	1900	1990
SLTOF-185FD	7	102	32.8	1158.3	185	250	74±3	DN65	3860	3960	3000	1990	2180	2800	1900	1990
	8	116	28.9	1020.6	185	250	74±3	DN65	3860	3960	3000	1990	2180	2800	1900	1990
	10	145	27.5	971.2	185	250	74±3	DN65	3860	3960	3000	1990	2180	2800	1900	1990
SLTOF-200FD	7	102	36.8	1299.6	200	270	74±3	DN100	5730	5230	4500	2000	2150	3100	2200	2103
	8	116	34.6	1221.9	200	270	74±3	DN100	5730	5230	4500	2000	2150	3100	2200	2103
	10	145	30.6	1080.6	200	270	74±3	DN100	5730	5230	4500	2000	2150	3100	2200	2103
SLTOF-250FD	7	102	46.0	1624.5	250	335	74±3	DN100	7000	6000	5070	2200	2300	3100	2200	2103
	8	116	42.8	1511.5	250	335	74±3	DN100	7000	6000	5070	2200	2300	3100	2200	2103
	10	145	38.2	1347.7	250	335	74±3	DN100	7000	6000	5070	2200	2300	3100	2200	2103

AIR TREATMENT

Refrigerant dryer:

Removes moisture through condensation. Options include non-circulating models (simple structure, low cost), circulating models (automatic start/stop, energy efficient), and VSD dryers (variable frequency drive – the lowest total cost of ownership).

Technical Indicators					
Inlet Temperature	Inlet Pressure	Ambient Temperature (Air-cooled)	Cooling Temperature	Outlet Dew Point	Operating Frequency
45℃	0.7Mpa	38℃	32℃	7℃	30~90/120Hz

Note: Other special standards can be customized; more details please contact us.

Environmentally friendly and low-carbon: The refrigeration system uses environmentally friendlyrefrigerants such as R513A and R410A, offering green and high efficiency. It utilizes countercurrent heatexchange to increase the heat exchange area and air flow path, resulting in strong pre-cooling and lowpressure drop. With large-diameter, zero-gas drainer provides high drainage capacity and resistsclogging.

Precise and stable: The system offers continuous operation and precise, load-linked frequency control. Itmonitors target temperature to determine load, enabling wide frequency adjustment range of 30-120Hz, quickly and precisely matching the compressor frequency to the actual heat load and avoiding
energy waste.

Specification and parameter table for air-cooled VSD refrigerated air dryer

MODEL	AIR CAPACITY (m^3/min*)	REFRIGERATION COMPRESSOR POWER(kW)	POWER SUPPLY(V/Hz)	INLET/ OUTLET	DIM ENSIONS(mm)			WEIGHT(KG)
					LENGTH	WIDTH	HEIGHT	
SLTDV-069AH	6.9	1.04	220	Rp1-1/2	1050	630	1235	166
SLTDV-110AH	11	1.52	220	Rp2	1050	680	1235	182
SLTDV-140AH	14	2.18	220	Rp2-1/2	1050	760	1235	205
SLTDV-180AH	18	2.99	220	Rp2-1/2	1050	820	1280	220
SLTDV-220AH	22	3.4	220	Rp3	1080	820	1330	260
SLTDV-280AH	28	4.25	380	Rp3	1300	820	1475	315
SLTDV-320AH	32	4.78	380	Rp3	1300	850	1475	330
SLTDV-380AH	38	5.92	380	DN100	1450	1000	1500	470
SLTDV-460AH	46	7.48	380	DN100	1550	1020	1600	535
SLTDV-550AH	55	8.42	380	DN125	1600	1050	1650	580
SLTDV-670AH	67	10.5	380	DN125	1700	1100	1650	650
SLTDV-750AH	75	10.8	380	DN125	2060	1680	2075	1000
SLTDV-900AH	90	12.7	380	DN150	2150	1700	2200	1075
SLTDV-1100AH	110	16.4	380	DN150	2200	1700	2200	1200
SLTDV-1300AH	130	19.6	380	DN200	2300	1700	2200	1400

Note: The whole seres adopts eco-fendy refngerant R410A, pressure drop 0.015MPa, frequency 50/0Hz, of which 220Vis 1Ph and 380V is 3Ph;SLTDV-900AH/1100AH/1300AH three models of 60Hz will be different.

Specification and parameter table for water-cooled VSD refrigerated air dryer

MODEL	AIR CAPACITY (Nm^3/min)	REFRIGERATION COMPRESSOR POWER(kW)	Power Supply (v)	INLET/ OUTLET	COOLING-WATER		DIM ENSIONS(mm)			WEIGHT(KG)
					Flow rateth	INLET/OUTLET	LENGTH	WIDTH	HEIGHT	
SLTDV-280WH	28	4.25	380	Rp3	3.1	R2	1300	850	1475	295
SLTDV-320WH	32	4.78	380	Rp3	3.6	R2	1300	850	1475	308
SLTDV-380WH	38	5.92	380	DN100	4.2	R2	1450	1000	1500	405
SLTDV-460WH	46	7.48	380	DN100	5.1	R2	1550	1020	1600	470
SLTDV-550WH	55	8.42	380	DN125	6.1	R2	1600	1050	1650	510
SLTDV-67OWH	67	10	380	DN125	7.4	R2	1700	1100	1650	545
SLTDV-750WH	75	10.2	380	DN125	8.3	R2	2060	1270	2075	820
SLTDV-90OWH	90	12	380	DN150	10	R2	2150	1330	2200	900
SLTDV-1100WH	110	15.5	380	DN150	12.2	R2-1/2	2200	1360	2200	980
SLTDV-1300WH	130	18.4	380	DN200	14.4	R2-1/2	2300	1420	2200	1120
SLTDV-1500WH	150	20.5	380	DN200	16.6	R2-1/2	2400	1700	2300	1230
SLTDV-1800WH	180	24	380	DN200	20	R2-1/2	2500	1750	2300	1505
SLTDV-2200WH	220	31	380	DN250	24.4	R3	2600	1800	2300	1705
SLTDV-2600WH	260	36.8	380	DN250	28.8	R3	2600	1800	2400	1830
SLTDV-3000WH	300	44	380	DN250	33.3	R3	3200	2000	2500	2550
SLTDV-3300WH	330	44	380	DN250	36.7	R3	3200	2000	2500	2550

Note: The whole series adopts eco-friendly refrigerant R410A, pressure drop 0.015MPa, frequency is 50Hz/60Hz.

AIR TREATMENT

Desiccant (adsorption) dryer:

Utilizes hygroscopic materials for drying. Regeneration methods include heat-free regeneration, heating and purging regeneration, compressed heat dryer (HOC), and blower-based regeneration dryer.

Technical Indicators	
Inlet Temperature	≤38°C
Working Pressure Range	0.6~1.0MPa
Air Consumption	≤7%
Inlet Oil Content	≤0.1ppm
Pressure Dew Point	-20~-40°C
Adsorbent	Activated Alumina
Control Mode	Microcomputer Automatic Control

Note: Other special standards can be customized; more details please contact us.

Strictly in accordance with ISO9001, GB150 standards, IS07183 refrigerated air dryer standard, QS, pressure vessel inspection apecification for design, manufacture and testing, which ensure the safeand rellable operation of products. Reasonable tower structure and control procedures to ensure theimpact of compressed air and desiccant bearing and contact time.

The adsorbent is the national standard purity alumina, molecular sieve, vacuum negative pressurefilling way, not easy to powder, long service life. The adsorption tank with pressure vessel certificateis adopted to ensure the safety performance. The heater has high strength performance, highpressure resistance, electric shock resistance, good heating and insulation Intelligent controller, real-time display of operating parameters, high precision, better system stability, easy to clean.

High performance pneumatic control valve, quick action response, long eervice life, good stability.Equipped with standard low power solenoid valve, high precision, quick response. Sound mufler,multi-layer fiber material, sound insulation material, equipped with a unique design of mechanicalnoise reduction, less nolse.

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Heated Regenerative Desiccant Dryer Specification Table

Voltage	Model	capacity m^3/min	pressure
220V/50HZ/1PH	SLT-WRO10	1.5	7-10bar
	SLT-WRO20	2.6	7-10bar
	SLT-WRO30	3.8	7-10bar
	SLT-WRO65	7.2	7-10bar
	SLT-WR100	11	7-10bar
380V50HZ/3P	SLT-WR135	14	7-10bar
	SLT-WR185	18	7-10bar
	SLT-WR235	22	7-10bar
	SLT-WR265	28	7-10bar
	SLT-WR320	32	7-10bar
	SLT-WR365	38	7-10bar
	SLT-WR450	45	7-10bar
	SLT-WR550	52	7-10bar
	SLT-WR600	60	7-10bar
	SLT-WR650	65	7-10bar
	SLT-WR850	72	7-10bar

ZERO LOSS BLOWER HEAT

Desiccant Air Dryer

Technical Indicators	
Inlet Temperature	≤38℃
Working Pressure Range	0.6~1.0MPa
Ambient Temp	≤-40℃
Regen Mode	Blower Heated Regeneration
Pressure Dew Point	≤-40℃
Inlet Oil	≤0.1ppm
Power	AC/380V/50HZ
Standard Adsorption Cycle	8h
Regenerative Air Consumption	0

Note: Other special standards can be customized; more details please contact us.

High-density adsorbent filling with vibration compaction to prevent channeling and ensure long service life

Reliable Adsorption: With a specific surface area of 350 m2/g, this high-efficiency adsorbent developedin collaboration with upstream suppliers has an excellent adsorption rate to ensure the stable dewpoint.

Durable Performance: Vacuum negative pressure filing, ensuring tightness and anti-pulverization forlonger service life.

Intelligent Energy Saving: Equipped with a PLC controller, it enables real-time monitoring and datastorage, integrating time, load and dew point control for high energy efficiency.

Patented Design: Patented zero loss blow heat dual cooler; after blast cooling, the adsorbent bed stayslow-temperature with no dew point drift.

Smart loT Integration: With loT functionality, it supports easy remote control, centralized management, intelligent analysis and prediction to optimize operation.

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Inlet Oil Content: ⩽0.01 mg/m³ (ISO 8573-1 Class 0 / Class 1)

MODEL	HANDLING CAPACITY	DIMENSIONS(mm)			AIR INLET/ OUTLET	HEATED POWER (kw)	BLOWER POWER (kw)	WEIGHT(KG)
	m³/min	LENGTH	WIDTH	HEIGHT				
SLTADG-14ONLA/W	14	1950	1340	2196	DN65	10	1.6	1250
SLTADG-180NLA/W	18	2100	1470	2203	DN65	10	1.6	1410
SLTADG-220NLA/W	22	2100	1490	2521	DN80	10	2.2	1650
SLTADG-300NLA/W	30	2200	1542	2541	DN80	12	3	1780
SLTADG-38ONLA/W	38	2300	1600	2622	DN100	17	4.3	2150
SLTADG-460NLA/W	46	2380	1680	2687	DN100	17	4.3	2650
SLTADG-550NLA/W	55	2440	1700	2806	DN125	17	4.3	3100
SLTADG-670NLA/W	67	2500	1780	2796	DN125	21	5.5	3460
SLTADG-75ONLA/W	75	2500	1850	2996	DN125	30	7.5	3650
SLTADG-850NLW	85	2600	2070	2934	DN150	30	7.5	4400
SLTADG-1000NLW	100	2950	2100	2994	DN150	34	8.5	5200
SLTADG-1200NLW	120	3100	2150	3034	DN150	40	12.5	6200
SLTADG-1500NLW	150	3400	2400	3350	DN200	50	12.5	7000
SLTADG-1800NLW	180	3700	2600	3350	DN200	64	20	10800
SLTADG-2000NLW	200	3900	2700	3400	DN200	64	20	11500
SLTADG-2500NLW	250	4500	3000	3600	DN250	85	18.5	14500
SLTADG-3000NLW	300	4600	3500	3700	DN250	110	25	17000
SLTADG-3500NLW	350	5500	4000	3900	DN300	125	25	19250
SLTADG-4000NLW	400	5500	4000	4300	DN300	144	30	22000
SLTADG-4500NLW	450	6000	4200	4400	DN300	160	30	24000
SLTADG-5000NLW	500	6100	4300	4600	DN350	175	30	26000

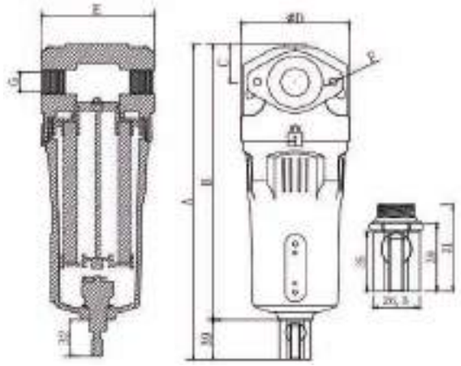
FILTER SERIES

Filter media primarily include: pleated filter media designed for capturing solid particles; encapsulated media suitable for use in humid environments; microporous activated carbon for removing oil vapors; and water separation cyclone separators that utilize centrifugal force to separate liquid water droplets. Condensation filters remove aerosols and particulate matter efficiently by aggregating tiny water droplets.

Ultra-clean precision filters provide users with high-quality compressed air filtration, which is specially usng,advanced spraying, food,electronics, petrochemical and other industries. By installing filters, compresswater, dust, etc.) can be effectively removed

1. Compressed air inlet
2. Compressed air outlet
3. Filter cartridges
4. Stainless steel diamond mesh design has a large airflow area and lowresistance
5. Aluminum alloy material high-strength and high hardness material, internaland exteral surge treatment
6. The water valve is equipped with a sealing ring, which does not require the useof adhesive tape and is easy and fast to install

SOLLANT GROUP



Product selection

Filter model	Flow rate		dimension						connection size		Type of filterelement
	Nm^3/min	CFM	A(mm)	B(mm)	C(mm)	⌀D(mm)	E(mm)	F(mm)	G	Pc	
SLT-005*	0.7	24.7	208	169	22	70	76.5	5	1/2" 1/4" 3/8"	1N/A	F-005*
SLT-010*	1.2	42.4	277	238	33	91.5	95	6.5	1/2"3/4" 1"	N/A	F-010*
SLT-020*	2.3	81.2	316	277	33	91.5	95	6.5	1/2" 3/4 1"	N/A	F-020*
SLT-030*	3.5	123.6	345	307	40	117.5	123.5	8.5	1-1/2" 1"	N/A	FJ-030*
SLT-050"	5.7	201.3	563	424	40	117.5	123.5	8.5	1-1/2"1"	N/A	F-050*
SLT-070*	7.8	275.5	563	424	40	117.5	123.5	8.5	1-1/2"1"	N/A	F-070*
SLT-110*	11.6	409.7	589	550	46.5	160	170	12	N/A	2"	F-110*
SLT-150*	15.5	547.4	589	550	46.5	160	170	12	N/A	2"	F-150*
SLT-200*	20.8	734.5	689	650	65	195	205	12	N/A	2-1/2"	FX-200*
SLT-250*	25.3	893.5	689	650	65	195	205	12.5	N/A	2-1/2"	FX-250*
SLT-300*	30.8	1087.7	844	805	65	195	205	12.5	N/A	3"	FJX-300*
SLT-400*	40.5	1430.2	867	828	78.5	195	210	12.5	N/A	4"	FJX-400*

ISO 8573-1 AIR QUALITY STANDARD

ISO 8573-1 (2010 edition) classifies air quality into seven levels (Levels 0–6), covering three primary pollutants: solid particles, water, and oil.

Class	Solid Particle Maximum number of particles per m2			Water Pressure Dew point(°c)	Oil (incl. Vapor mg/m³)
	0.1-0.5 Micron	0.5-0.1 Micron	1.0-5 Micron		
0	As specified by the equipment user or supplier and more stringent than class 1				
1	⩽ 20,000	⩽ 400	⩽ 10	⩽-70(-94F)	⩽0.01
2	⩽400,000	6⩽ 00	⩽ 100	⩽-40(-40F)	⩽0.1
3	Not Specified	⩽90,00	⩽1,000	⩽-20(-4F)	⩽1
4	Not Specified	Not Specified	S10,000	⩽+3(38F)	S5
5	Not Specified	Not Specified	S100,000	S+7(45F)	NA
6	Not Specified	Not Specified	Not Specified	⩽+10(50F)	NA

MICROBIAL CONTROL AND FOOD SAFETY

Microbial Growth Conditions
The survival and reproduction of microorganisms require humidity, nutrients, appropriate pH value, suitable gas composition, and temperature. Mesophilic bacteria thrive at temperatures between 25 and 40 °C, while thermophilic microorganisms can grow at temperatures ranging from 45 to 90 °C. Microorganisms generally require a relative humidity of over 75% to survive; when the relative humidity falls below 50%, they normally cannot reproduce.

Relationship between Pressure Dew Point (PDP) and Relative Humidity
In most cases, maintaining the relative humidity within the range of 10% to 20% is sufficient to effectively inhibit microbial growth. Adopting the relative humidity parameter in as an alternative to the traditional PDP temperature parameter helps develop solutions that comply with both hygiene and safety standards while also achieving energy efficiency.

Energy-efficient drying solutions
Selecting an appropriate dew point within existing drying technologies can achieve significant energy savings without compromising food safety. Dew point levels of 4, 3, or 2 are all acceptable, but these settings should be determined with caution based on professional expertise.

AIR QUALITY MONITORING

- Humidity measurement: includes affordable humidity indicators, the highest-precision but more expensive cold mirror technology, and capacitive dew point sensors suitable for continuous monitoring and energy-saving feedback systems.

- Oil content measurement: including sampling solutions suitable for up to Grade 2 purity (O-Box), cost-effective glass test tubes, a continuously monitorable inductively coupled plasma (ICP) detector (PID sensor), and gas chromatography – the only method capable of ensuring that sample purity meets the required standards.

- Particulate matter measurement: Laser-based optical counting is employed; accurate sample collection is crucial.

- AIRScan: Provides highly reliable analytical results, measures pollutant concentrations, and offers clear summaries and in-depth optimization solutions when issues are detected..