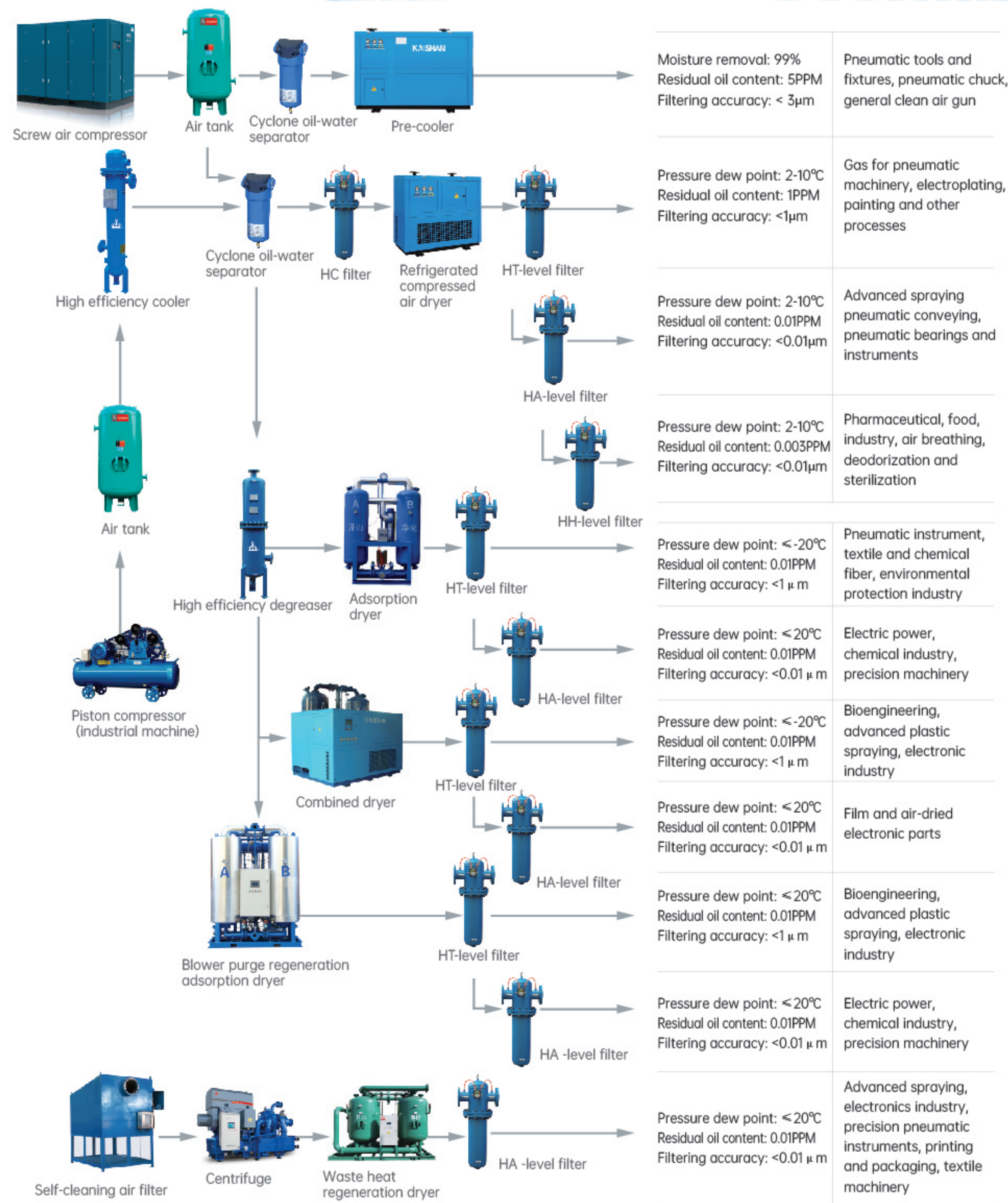


## Configuration of Compressed Air Drying and Purification System



# KAISHAN

## Air Compressor Post-treatment Equipment

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Note: The data and technical parameters in the sample are subject to change without prior notice. Please contact Kaishan Purify Equipment in time and subject to the final data confirmed by Kaishan Purify Equipment.  
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Zhejiang Kaishan Purify Equipment Co.,Ltd.



# KAISHAN PURIFY EQUIPMENT

Zhejiang Kaishan Purify Equipment Co., Ltd., a wholly-owned subsidiary of Zhejiang Kaishan Compressor Co., Ltd., is dedicated to developing compressed air purification and energy-saving equipment based on the strong manufacturing base of Kaishan Group and its worldwide distribution network.

Zhejiang Kaishan Purify Equipment Co., Ltd. is specialized in R&D and manufacturing oxygen generator, nitrogen generator, refrigerated compressed air dryer, adsorption dryer, combined air dryer, filter, compressed air precooling unit, oil-water separator, high-efficiency degreaser, high-efficiency air cooler, self-cleaning air filter and compressed heat regeneration adsorption dryer. According to the needs of customers, we can provide air-cooled, water-cooled, high-temperature, instrument, single-chip microcomputer, programmable, variable frequency, high pressure, explosion-proof, environmental protection and other forms and characteristics of air compressor post-treatment equipment. The products are widely used in electric power, electronics, metallurgy, machinery, automobile manufacturing, petroleum, chemical industry, textile, chemical fiber, papermaking, rubber, instrument, food, air separation, cigarette, medicine, biology, daily chemical and other industries. Besides, our products are sold all over the country, as well as to the United States, Canada, Russia, Mexico, East Asia, the Middle East, Australia and Africa.

With first-class international advanced production equipment, strong design, development and production capacity, perfect quality assurance system, we have been constantly accumulating and summarizing our life experience and absorbing advanced technology from home and abroad in the air compression industry to ensure the high performance and reliability of the products.

Kaishan Purify Equipment will wholeheartedly provide the best service to our customers with our high quality products, highest efficiency and sincere attitude.



## Blower Purge Regeneration Adsorption Dryer

### Product Description

The blower purge regeneration adsorption dryer belongs to the heating regeneration dryer. As far as its working principle is concerned, the blower is used to extract the ambient air, and the desiccant of the adsorption tower is regenerated after heating, thus avoiding the gas consumption loss of the micro-heat regeneration adsorption dryer in the heating stage. The compressed air enters the fixed adsorption bed of the adsorber, and the water in the air is adsorbed in the holes of the adsorbent by using the porous surface of the adsorbent to selectively adsorb certain components, so as to achieve the purpose of drying the air. When the adsorbent works for a certain period of time, the adsorption reaches a saturated balance, and it is necessary to regenerate the adsorbent with hot air to restore the adsorption capacity of the adsorbent. The adsorption, regeneration and recycling of the adsorbent ensures the safe and reliable long-term operation of the blower purge regeneration adsorption dryer.

### Working Condition and Technical Data

Inlet pressure	0.6-1.0Mpa	
Inlet oil content	0.1ppm	
Air inlet temperature	≤45℃	
Cooling water pressure	0.2-0.4Mpa	
Design atmospheric dew point	-40℃ (optional -60℃)	
Cooling water temperature	<32℃	
Purge air consumption	≤2% (with air consumption) or 0 (zero air consumption)	
Air handling capacity	20-300 Nm <sup>3</sup> /min	
cycle of operation	20-50 Nm <sup>3</sup> /min	4h
	60-100 Nm <sup>3</sup> /min	6h
	100 Nm <sup>3</sup> /min以上	8h



### Working Principle

The technological process of the blower purge regeneration adsorption dryer is that compressed air from compressor system passes through pre-precision filter (oil removal) to preliminarily remove trace oil, liquid water and other media entrained in the gas, and then enters the local system. First, the compressed air enters one of the adsorbers through air inlet valve for adsorption and drying to remove water, and then goes to post-precision filter through air outlet valve to filter out a very small amount of adsorbent dust possibly carried out by the adsorber, so as to obtain dry air and leave the system for subsequent processes. Meanwhile, another adsorber enters the regeneration state, and the regeneration process is mainly composed of heating and blowing cold. During the heating period, the regeneration gas source is ambient air, and its flow path is pressurized by a blower, and then enters an electric heater through a gas one-way valve to heat the air to 190℃. Then, the heated regeneration gas enters the adsorber through a regeneration gas inlet valve to heat and desorb the saturated adsorbent, and the water desorbed from the heated adsorbent is taken out of the system by the regeneration gas, and the adsorbent is regenerated to regain its adsorption capacity. After the regeneration gas comes out of the adsorber, it passes through the regeneration gas outlet valve and the vent muffler to eliminate noise and exhaust the atmosphere. When the regenerative heating is over, dry air should be used to cool the adsorption bed before the adsorber is switched, so as to obtain a stable dew point. During the cooling period, the regeneration gas source is also ambient air, and PLC is informed to control automatic switching. Its flow path is that the effluent from the blower is cooled by aftercooling, and then depressurized to a very low regeneration pressure through the purge air cut-off valve, purge air control valve and restriction orifice plate, and then enters the adsorber to blow the adsorption bed.

## Blower Purge Regeneration Adsorption Dryer

### Model Specifications and Performance Parameters (With Air Consumption)

Model	Air handling capacity (Nm <sup>3</sup> /min)	Length (mm)	Width (mm)	High (mm)	Inlet/outlet flange dimensions	Net weight (KG)	Adsorbent weight (KG)	Heater power (KW)	Blower power (KW)
KSAD-20GXF	22	1835	1180	2410	DN65	1350	500	12	4
KSAD-25GXF	26	1835	1180	2710	DN80	1500	625	15	5.5
KSAD-30GXF	32	2200	1205	2830	DN80	1680	750	18	7.5
KSAD-40GXF	43.5	2400	1320	2850	DN100	2250	1000	22	7.5
KSAD-50GXF	53	2400	1450	2850	DN100	2800	1250	27	7.5
KSAD-60GXF	67	2400	1800	2850	DN125	3850	1500	36	9
KSAD-70GXF	78	2400	1800	2850	DN125	4150	1750	42	12.5
KSAD-80GXF	90	2750	1900	2900	DN125	4450	2000	42	12.5
KSAD-100GXF	110	2900	2050	3050	DN150	5850	2500	54	15
KSAD-120GXF	130	3200	2050	3050	DN150	6550	3000	72	15
KSAD-150GXF	160	3600	2100	3050	DN200	7700	3750	84	15
KSAD-200GXF	210	4200	2100	3100	DN200	9700	5000	96	25

### Model Specifications and Performance Parameters (Zero Air Consumption)

Model	Air handling capacity (Nm <sup>3</sup> /min)	Length (mm)	Width (mm)	High (mm)	Inlet/outlet flange dimensions	Net weight (KG)	Adsorbent weight (KG)	Cooling water circulation (Nm <sup>3</sup> /h)	Heater power (KW)	Blower power (KW)
KSAD-20GXF-L	22	1835	1350	2410	DN65	1570	500	3.3	12	4
KSAD-25GXF-L	26	1835	1350	2710	DN80	1720	625	5.3	15	5.5
KSAD-30GXF-L	32	2200	1400	2830	DN80	1910	750	5.3	18	7.5
KSAD-40GXF-L	43.5	2400	1320	2850	DN100	2510	1000	6	22	7.5
KSAD-50GXF-L	53	2400	1450	2850	DN100	3120	1250	8	27	7.5
KSAD-60GXF-L	67	2400	1800	2850	DN125	4250	1500	9.3	36	9
KSAD-70GXF-L	78	2400	1800	2850	DN125	4750	1750	12	42	12.5
KSAD-80GXF-L	90	2750	1900	2900	DN125	5050	2000	12	42	12.5
KSAD-100GXF-L	110	2900	2050	3050	DN150	6500	2500	16	54	15
KSAD-120GXF-L	130	3200	2050	3050	DN150	7350	3000	18	72	15
KSAD-150GXF-L	160	3600	2100	3050	DN200	7600	3750	24	84	15
KSAD-200GXF-L	210	4200	2100	3100	DN200	1070	5000	30	96	25