BUSINESS REPRESENTATIVE NAME CARD

SILVERSTONE INDUSTRIAL

AIR TREATMENT AUXILIARY EQUIPMENT

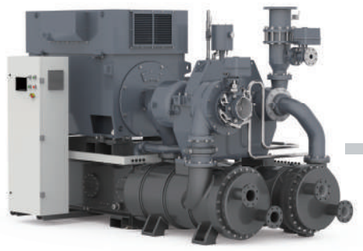
E-mail: contact@sind.ltd
Web: www.sind.ltd

HIGH ENERGY-EFFICIENCY
AIR COMPRESSOR MANUFACTURER

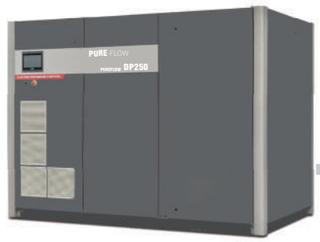
CHILLDRY | DRYTECH | PUREPART

SILVERSTONE INDUSTRIAL

COMPRESSED AIR PURIFICATION FLOW CHART



Centrifugal Air Compressor



Oil Free Screw/Scroll Air Compressor

Oil Lubricated Screw Air Compressor

Air/Water Separator

Filter Grade V/A (Optional)

Air Reservoir Tank

Refrigerated Air Dryer

Consumables

Filter Grade V

Filter Grade A

Filter Grade B

Filter Grade A/B

Adsorptive Dryer

Filter Grade AC

Filter Grade AD

Filter Grade B

Adsorptive Dryer

Filter Grade B/AC

1 Architecture
Cleaning
Sand Blasting
Stamping

2 Metalwork
Pressure Forming
Pneumatic Machinery
Parts Drying

3 Precision Machinery
Electronic Industry
Packing
Printing

4 Spraying
Electronics
Textile

5 Medicine
Bioengineering
Chemical Industry

6 Lithium Battery
Pharmacy
Food

Configuration Refers To ISO80753/GB13277.1-2017 Compressed Air Contaminants & Purity Classes

CATALOGUE

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DESICCANT AIR DRYER 11~16

LINE AIR FILTER 17~20

ABOUT SIND

Silverstone Industrial, a family-owned industrial alliance, has roots in United Compressor Systems (UCS) and has formed strategic partnerships with AirThink and AST to deliver innovative solutions in industrial air compressor technology.

UCS, Founded in 2002, UCS specialises in developing and manufacturing high-efficiency industrial compressors under the United OSD and United Compressor Systems brands. Since 2013, a strategic partnership with Japan's HITACHI Group has enhanced UCS's capabilities in design, production, and quality control, leading to the launch of innovative and energy-saving products such as two-stage screw compressors and oil-free compressors.

AirThink, a high-tech enterprise headquartered in the same industrial park as UCS in Jiading, Shanghai, offers a comprehensive range of services for compressed air systems, including intelligent equipment R&D, customisation, and air compressor station lifecycle management. With a strong focus on energy efficiency and safe production, Air-Think serves a diverse range of industries across China through its network of over ten subsidiaries.

AST, co-located with AirThink's manufacturing base in Wuxi, focuses on the R&D, manufacturing, and sales of reliable and efficient centrifugal compressors. These products cater to industries such as steel, petrochemical, and automotive, providing high-quality services on a global scale.

The industrial alliance has earned a broad reputation and ranks among the top five in manufacturing output in China's air compressor industry. The alliance offers a comprehensive product series, including stationary and mobile-type screw/scroll compressors, centrifugal compressors, and innovative compressor solutions, to industrial users. By leveraging robust product and technical service support, Silverstone Industrial targets the international market, providing customers with cost-effective air compressor products and compressed air station solutions.

AirThink Joint Production Plant
(Intelligent Skid / Container Air Station)

AST Production Plant
(Centrifugal Compressor)

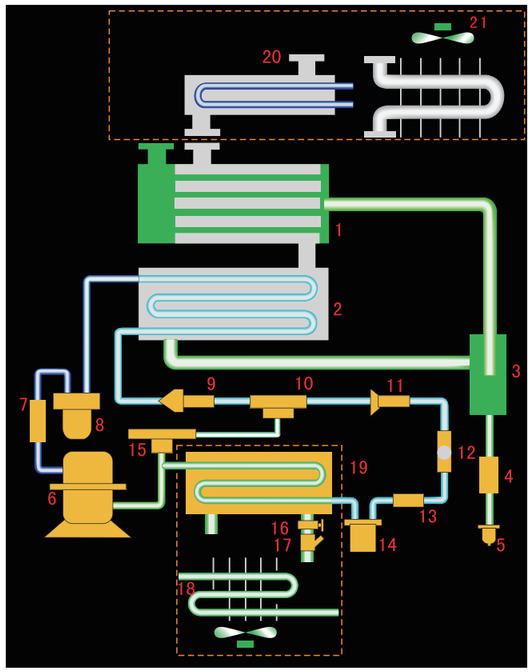
UCS & Hitachi Joint Production Plant
(Screw & Scroll Compressor)

REFRIGERATED AIR DRYER

SILVERSTONE INDUSTRIAL

REFRIGERATED AIR DRYER

WORKING PRINCIPLE DIAGRAM



1.Pre-cooler
2.Evaporator
3.Air-water Separator
4.Drain Wall Filter
5.Automatic Drainer
6.Refrigerant Compressor
7.Suction Filter
8.Air-water Separator
9.Water Separator Head
10.Air-water Mixer
11.Thermostatic Expansion Valve
12.Mirror
13.Dry Filter
14.Accumulator
15.Hot Air By-pass Valve
16.Water Adjust Valve
17.Water Filter
18.Condenser(Air cooled)
19.Condenser (Water cooled)
20.Pre-cooler (Water cooled)
21.Pre-cooler (Air cooled)

Based on the principle of refrigerated air dryer, chilldry series refrigerated air dryers cool the compressed air to a certain dew point by the cooling device and separates out the water. it separates the air and water, then make the water out through the automatic water drain valve to ensure the dew point of the air.

INTRODAUCTION

Plate heat exchanger is a new type of high efficiency heat exchanger that has a corrugated shape by a series of metal piece, it will make heat exchange by through the plate. Compared with the conventional shell and tube type heat exchanger, the heat transfer coefficient is much higher under the same rate of the flow resistance and pump power consumption under the same rate.

TECHNICAL UPGRADE

- Ambient temperature :⩽ 40°C
- Max. Pressure: 16bar
- Inlet temperature: ⩽ 55°C or ⩽ 80°C
- Dew point : 2-5°C
- Refrigerant: R407c, R134a
- Air loss: <0.2bar

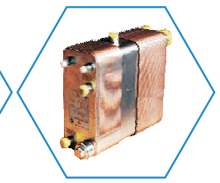
Attention
The installation site No-dust, No-oil. Site formation, 80cm far away from wall. According to the design of non-standard customized products.

Refrigerant R134a,R407c

Electronic drain

Refrigeration compressor

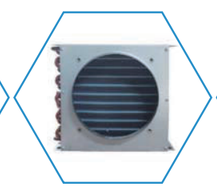
Pressure controller



Triad plate heat exchanger

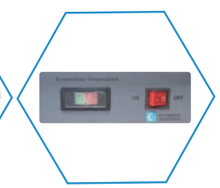
Hot gas bypass valve

Pre cooler



Efficient finned tube condenser

Dry filter

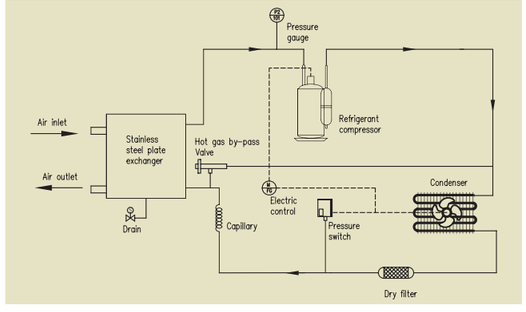


Button

REFRIGERATED AIR DRYER

TECHNICAL UPGRADE

1 Compact structure, small size, good heat exchange effect, saving internal space less pressure loss, reduce pump.
2 Power, improve the utilization rate of small volume and easy installation Modular combination to improve the production.
3 Efficiency of energy saving and environmental protection energy saving 20%
4 Air quality is high, the Aluminum Alloy accessories do not rust, gas is not contaminated.



COMPONENTS

- Plate heat exchanger

- Control panel

Standard

- Drain

Standard

Option

SMALL REFRIGERATED DRYER (0.7-11.5) m^3/min

INTRODUCTION

Chill-CD Inlet temperature<45°C
Chill-CDT Inlet temperature<80°C

WORKING CONDITIONS

Maximum inlet temperature	45℃/80℃
Maximum ambient temperature	40℃
Maximum working pressure	13bar
Dew point	2-10℃
Refrigerant	R410a / R407c / R134a
Voltages	220V/1PH/50Hz

- Special voltages
- NPT connection

REFRIGERATED AIR DRYER

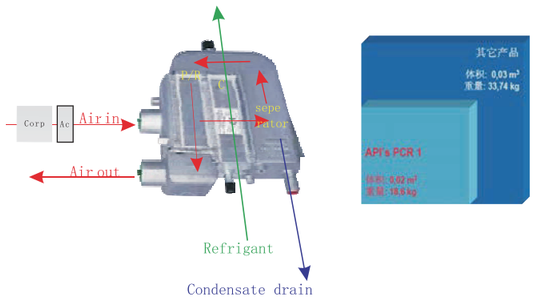
INTRODUCTION

Chill series are energy saving and environment friendly type refrigerated air dryer. It adapts plate heat exchanger, mixes the pre-cooled regenerator,evaporator,gas-water separator into one.It improves 20% heat exchange efficiency compared to other exchangers,then to reach 2-10℃ dew point with less consumption.

WATER COOLED PLATE HEAT EXCHANGER REFRIGERATED AIR DRYER

INTRODUCTION

Plate heat exchanger is a new type of high-efficiency heat exchanger which is assembled layer upon layer by a series of corrugated sheet metal. Thin rectangular channels are formed in between the sheets, heat is exchanged through sheet. Compared to the traditional shell-tube heat exchanger, it's heat transfer coefficient is more higher under the same flow resistance and pumping power consumption. Currently, world-famous brands of dryers all adopt plate heat exchanger instead of shell tube type.



FEATURES

- Compact structure, adopts plate exchanger
- Low pressure drop<0.2bar
- Easy to installation
- Energy saving, saves 20% of energy compared to traditional shell tube type
- Quality aluminum fitting, adopts aluminum fitting, no rust, no air pollution

SPECIFICATION

- Chill-CD inlet temperature≤ 45°C
- Chill-CDT inlet temperature≤80°C
- Ambient temperature ≤ 40°C
- Dew point 2°C ~ 10°C
- Refrigerant: R407c
- Site: No dust, no oil. 80cm far away from the wall.

(MAXIMUM INLET TEMPERATURE 45°C)

Model	m^3/min	Power (kW)
ChillDry CD-5F	0.7	0.45
ChillDry CD-10F	1.6	0.47
ChillDry CD-20F	2.6	0.85
ChillDry CD-30F	3.8	1.04
ChillDry CD-50F	6	1.65
ChillDry CD-60F	7	1.65
ChillDry CD-75F	8.5	1.67
ChillDry CDF-11	11	2.64
ChillDry CDF-13	13	3
ChillDry CDF-17	17	3.21
ChillDry CDF-22	22	3.95
ChillDry CDW-27	27	4.86
ChillDry CDW-32	32	6.33
ChillDry CDW-42	42	7.11
ChillDry CDW-55	55	8.08
ChillDry CDW-65	65	9.1
ChillDry CDW-85	85	10.86
ChillDry CDW-110	110	16.16
ChillDry CDW-130	130	18.83
ChillDry CDW-150	150	25.58

(MAXIMUM INLET TEMPERATURE 80°C)

Model	m^3/min	Power (kW)
ChillDry CD-10FT	1.6	0.53
ChillDry CD-20FT	2.6	0.95
ChillDry CD-30FT	3.8	1.16
ChillDry CD-50FT	6	1.65
ChillDry CD-60FT	7	1.65
ChillDry CD-75FT	8.5	1.8
ChillDry CDF-11T	11	2.75
ChillDry CDF-13T	13	3.15
ChillDry CDF-17T	17	3.4
ChillDry CDF-22T	22	4.14
ChillDry CDW-27T	27	5.11
ChillDry CDW-32T	32	6.89
ChillDry CDW-42T	42	7.71
ChillDry CDW-55T	55	8.68
ChillDry CDW-65T	65	9.86
ChillDry CDW-85T	85	11.62
ChillDry CDW-110T	110	17.16
ChillDry CDW-130T	130	19.98
ChillDry CDW-150T	150	27.08

DESICCANT AIR DRYER

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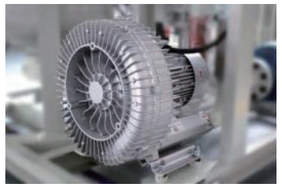
DESICCANT AIR DRYER

ELECTRICAL HEATER

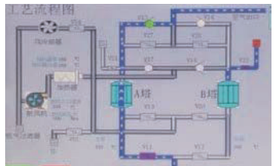
Stainless steel material, simple structure

High mechanical strength, high efficiency and long service life.



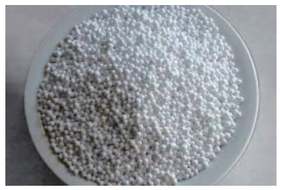
AIR BLOWER

High mechanical efficiency, low noise, stable and reliable operation



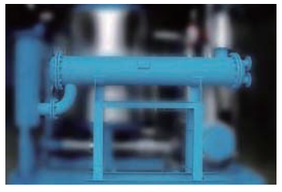
PLC PROGRAM CONTROLLER

With LCD touch screen display working process and easy for user to check and set the parameter.
The PLC program can auto switch the valve with alarm, Interlocking function, effectively monitor the operation process of the equipment, ensure reliable operation, convenient operation and maintenance.



ACTIVATED ALUMINA

Good adsorption capacity, high water resistance, easy regeneration for system



AFTER-COOLER

Use the high efficiency red copper tube elements, with high heat exchanger coefficient, and high heat transfer effect, meet the requirement working on different state

AIR WATER SEPARATOR

Adopt the principle of inertia separation and gravity, special air water filtering net to intercept spray, with low pressure drop, high water removal capacity.

PNEUMATIC VALVE

Pneumatic butterfly valve — Big rotational torque

Response quickly — Long service life

With nice seal performance, the seal parts use PTEE material
With the feedback switch for the valve signal.

DRYTECH DT SERIES HEATLESS DESICCANT AIR DRYER

DESCRIPTION

Heatless dryer adopts pressure swing adsorption technology--the desiccant with different adsorption effect under the different working pressure. The desiccant adsorbs the moisture under the working pressure, and desorption under the atmospheric pressure. The system with two tanks for the periodic auto switching, one tank on adsorption, the other one on regeneration, simple structure and easy to maintenance.

HEATLESS DESICCANT AIR DRYER (AIR LOSS 15~18%)

Model	DryTech DT-1.6	DryTech DT-2.6	DryTech DT-3.8	DryTech DT-6	DryTech DT-7	DryTech DT-8.5	DryTech DT-11
m^3/min	1.6	2.6	3.8	6	7	8.5	11

Model	DryTech DT-13	DryTech DT-17	DryTech DT-22	DryTech DT-27	DryTech DT-32	DryTech DT-42	DryTech DT-55
m^3/min	13	17	22	27	32	42	55

Model	DryTech DT-65	DryTech DT-85	DryTech DT-110	DryTech DT-130	DryTech DT-160	DryTech DT-190	DryTech DT-210
m^3/min	65	85	110	130	160	190	210

DESICCANT AIR DRYER

STANDARD CONDITION

- Working pressure 7-10bar
- Inlet temperature ≤45°C
- Ambient temperature ≤45°C
- Dew-point ≤-40°C
- Air loss ≤14.5%
- Inlet oil content ≤0.1ppm(w)
- Voltage 220V/1PH/50Hz
- Desiccant Activated alumina
- Switch time 5-10min

OPTION

- -70°C dew-point
- Remote, communication
- Dew-point meter
- PLC controller
- Different inlet/out connection
- Higher protect grade IP65
- High pressure
- Anti-explosion
- Different dimensions suit for container shipment
- SS pressure vessel
- ASME VESSEL
- Special painting

HEATED DESICCANT AIR DRYER (AIR LOSS 15~18%)

Model	DryTech DT-0.7H	DryTech DT-1.6H	DryTech DT-2.6H	DryTech DT-3.8H	DryTech DT-7H	DryTech DT-8.5H	DryTech DT-11H
m^3/min	0.7	1.6	2.6	3.8	7	8.5	11
Power (kW)	0.9	0.9	1.5	1.5	2.4	2.4	3

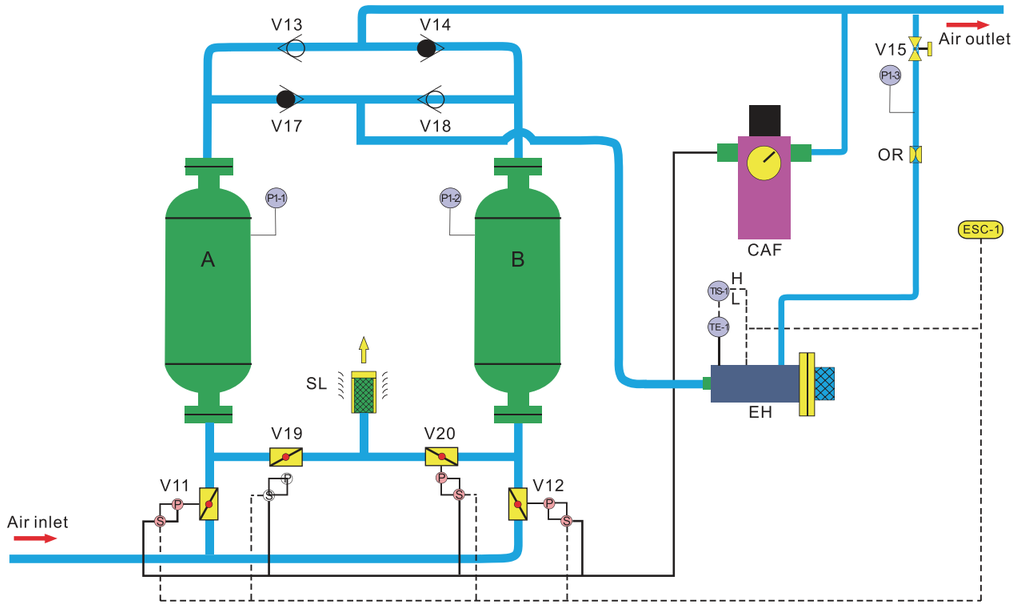
Model	DryTech DT-13H	DryTech DT-17H	DryTech DT-22H	DryTech DT-27H	DryTech DT-32H	DryTech DT-42H	DryTech DT-55H
m^3/min	13	17	22	27	32	42	55
Power (kW)	6	6	6	9	12	12	18

Model	DryTech DT-65H	DryTech DT-85H	DryTech DT-110H	DryTech DT-130H	DryTech DT-160H	DryTech DT-190H	DryTech DT-210H
m^3/min	65	85	110	130	160	190	210
Power (kW)	18	27	36	36	54	54	54

DRYTECH DT-H SERIES HEATED DESICCANT AIR DRYER

DESCRIPTION

Heated desiccant air dryer with heater on system compare to heatless dryer. The desiccant adsorbs the moisture under the working pressure, uses the heating compressed air on regeneration process. In that way, can save air loss than heatless type dryer.



- Heating component
- Control system
- Check valve
- Activated alumina




- Solenoid valve T
- Pneumatic T valve
- Pneumatic butterfly valve



LINE AIR FILTER

SILVERSTONE INDUSTRIAL

LINE AIR FILTER

LINE AIR FILTER TABLE

- CLASS C MAIN PIPE DUST FILTER 5MICRON 3PPM
- CLASS T MAIN PIPE OIL/WATER FILTER 1MICRON 1PPM
- CLASS A HIGH EFFICIENT OIL FILTER 0.01MICRON 0.01PPM
- CLASS F SUPER HIGH EFFICIENT OIL FILTER0.01MICRON 0.001MICRON
- CLASS H ACTIVATED CARBON MICRO OIL MOISTURE FILTER 0.01MICRON 0.003PPM

- **ELECTRICAL DRAINER**
- **INSIDE DRAINER**
- **AUTO-DRAIER**
- **DIFFERENT PRESSURE IDICATOR**




CLASS-600-17500 LINE AIR FILTER


Model	m^3/min	Interface	LxW(mm)	Element QTY	Weight (kg)
Purepart PF-370	370	DN300	1668×958	20	479
Purepart PF-430	430		1625×996	24	529
Purepart PF-550	550	DN350	1778×1114	30	658
Purepart PF-630	630	DN400	1930×1200	35	756

AIR FILTER RAMETERS

Model	m^3/min	Interface	LxW(mm)	Element QTY	Weight (kg)
Purepart PF-1.6	1.6	RC1"	260x107	1	1.4
Purepart PF-2.6	2.6		305x107		1.6
Purepart PF-3.8	3.8		365x107		2.0
Purepart PF-7	7	RC112"	555x135	1	3.5
Purepart PF-8.5	8.5		635x135		4.0
Purepart PF-11	11	Rp2"	594×120	1	11
Purepart PF-13	13		594×140		13
Purepart PF-17	17	DN65	910×320	1	50
Purepart PF-22	22		1053×320		53
Purepart PF-27	27	DN80	1210×320	1	56
Purepart PF-32	32		1095×460	2	80
Purepart PF-42	42	DN100	1225×460	2	94
Purepart PF-55	55		1130×515	3	121
Purepart PF-65	65	DN125	1273×565	4	153
Purepart PF-85	85		1320×657	5	193
Purepart PF-110	110	DN150	1320×657	6	200
Purepart PF-130	130		1340×706	7	227
Purepart PF-160	160	DN200	1450×746	9	237
Purepart PF-210	210			11	239
Purepart PF-260	260	DN250	1395×802	14	298
Purepart PF-310	310		1535×902	17	406

AFTER SERVICE

'BE OF SERVICE' ATTITUDE

- LEARN CUSTOMER'S NEEDS
- CAREFULLY DIAGNOSE FAULTS
- TROUBLESHOOTING BY HEART