服务客户、让客户满意，是德玛戈永恒的追求！

Customer service, customer satisfaction, is the eternal pursuit of Demrgo!

德玛戈（上海）节能科技有限公司

Demargo (Shanghai) Energy Saving Technology Co., Ltd.

本型录文字，参数规格及咨询仅供参考。产品以实物为准，内容亦会随时更新。
Specifications are subject to change without notice due to improvement in performance.

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Demargo

Compressed air purification system

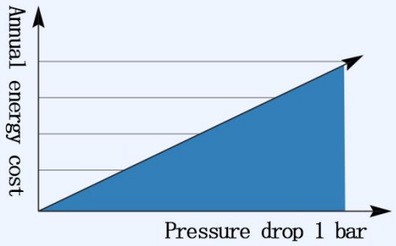
Overall solution provider

High-quality compressed air purification dryer

DUAL-CORE Des icc ant Air Dryers







▶ Energy efficiency

The highest cost of using an adsorption dryer is due to the consumption of a large amount of drying regeneration air in the drying machine's regeneration cycle. Typically, about 18% of the rated flow of compressed air is needed for desorption regeneration. However, with the latest structure and performance, the adsorption dryer has effectively the regeneration gas consumption to within 3%; at the same time, the equipment pressure drop has been reduced to within 0.2bar.

▶ Pressure loss cost

The generated result needs to be in English. The following is the text you need to adjust the tone: Once the pressure drop of the adsorption dryer high, it is necessary to set a higher discharge pressure for the compressor, which undoubtedly greatly increases the production cost. For example, for a 7 bar network, reducing bar of pressure loss can reduce the energy consumption by nearly 7% and the air leakage by 25%. -Record holding in the design seeks to minimize the pressure drop the dryer, so the pressure drop of the ST series, MT series, MX series is all below 0.2 bar.

▶ Your safe production - guarded by us

Dry and clean compressed air is the basic requirement for a variety of industrial applications. However, the production of compressed air must achieve good reliability, energy efficiency, and-effectiveness. -Record holding- The newly developed "dual-core" and traditional modular adsorption dryers, in collaboration with the German TINNER technology team, can protect your system and process. Its rigorous design ensures the reliability of your production's continuous operation, and its large-capacity design can output stable, clean, and dry air full load conditions or even short-term overload.

compressed air applications





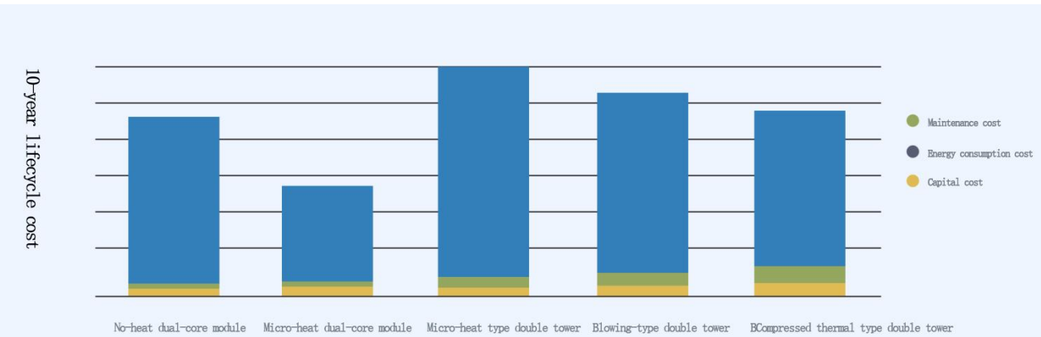




Compressed air is a safe, reliable power source widely used in modern industry. According to statistics, about 90% of manufacturing use compressed air in different stages of production. The generation of compressed air all uses the atmosphere as the air source, but the air contains a large amount of dust, water, and unburned hydrocarbons and bacteria. In addition, the lubrication system of the air compressor (including some oil-free compressors) will also produce wear particles oil and other pollutants. At the same time, the rust in the compressed air pipeline will also pollute the compressed air. All these dust, oil, and water,., mixed together, form a highly harmful corrosive substance, which can easily lead to pipeline corrosion, premature failure of pneumatic equipment, product deterioration, and other undesirable consequences.When choosing compressed air purification equipment, factors such as air quality, investment cost, and after-sales service should be considered. These are the foundation for you to carry out your with confidence. Today's production process has increasingly high requirements for the quality of compressed air. The stability of production and the excellence of product quality depend on clean compressed air. Lan is your best partner to make the right choice. Its purification products cover processing flow rates from 0.1m*/min to 84m'/min, and complete service system of pre-sale, in-sale, and after-sale will ensure you get the best solution.

▶ life cycle cost

The generated result needs to be in English. The following is the text you need to adjust the tone: The selection of an adsorption dryer cannot only consider initial purchase cost, but should also consider the dew point requirement and the energy consumption cost required for the operation of the dryer, which is largely determined by the regeneration method of dryer. The following is a diagram comparing the life cycle costs of five different types of adsorption dryers with a capacity of 38.36 m*/min (1354 cím).



ISO8573-1 Air quality grade

Grade	solid particles um	water ℃	oil ppm
1	0.1	-70	0.01
2	1	-40	0.1
3	5	-20	1
4	15	3	5
5	40	7	> 5
6	-	10	-

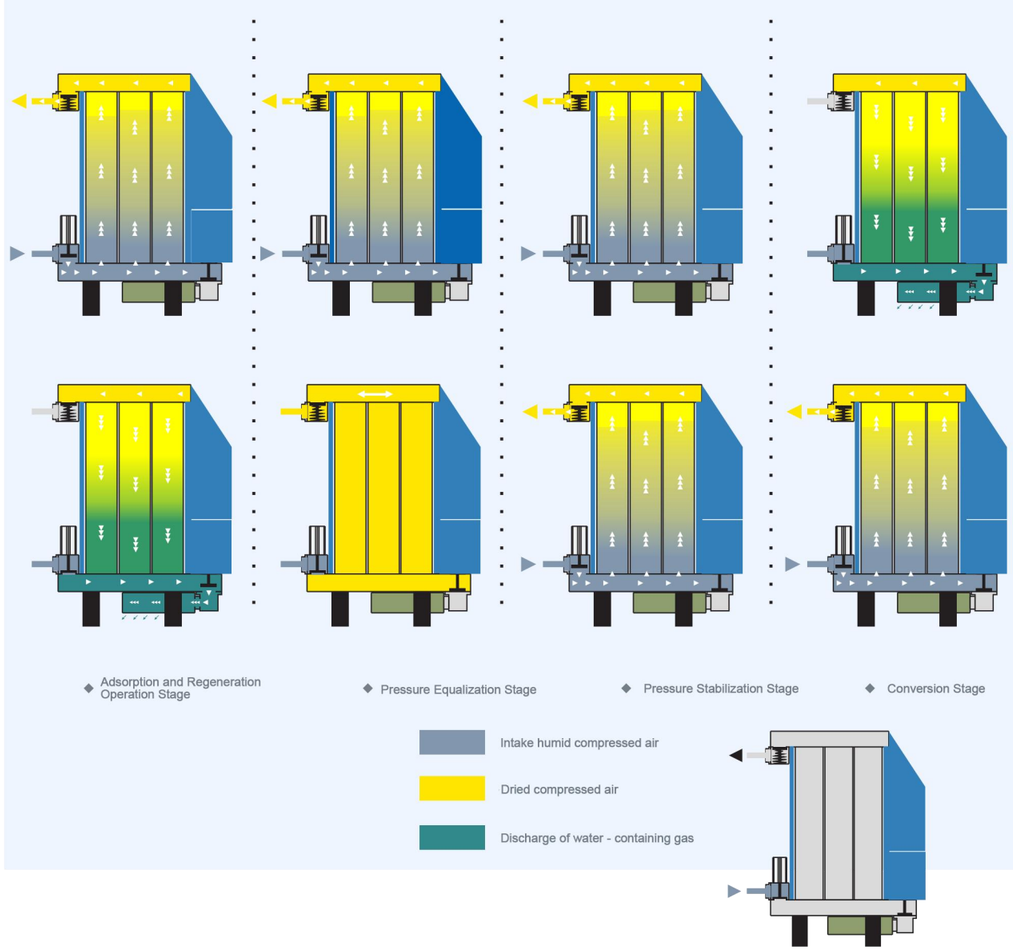
Relationship Table between Atmospheric Dew Point and Moisture Content

Comparison Table

Dew Point (℃)	Moisture Content (g/m³)	Dew Point (℃)	Moisture Content (g/m³)	Dew Point (℃)	Moisture Content (g/m³)	Dew Point (℃)	Moisture Content (g/m³)	Dew Point (℃)	Moisture Content (g/m³)
64	153.8	39	48.7	14	12.1	-11	2.19	-36	0.260
63	147.3	38	46.3	13	11.4	-12	2.03	-37	0.236
62	141.2	37	44.0	12	10.7	-13	1.88	-38	0.214
61	135.3	36	41.8	11	10.0	-14	1.74	-39	0.194
60	130.3	35	39.6	10	9.3	-15	1.61	-40	0.176
59	124.7	34	37.6	9	8.8	-16	1.48	-41	0.159
58	119.4	33	35.7	8	8.3	-17	1.37	-42	0.144
57	114.2	32	33.8	7	7.8	-18	1.26	-43	0.130
56	109.2	31	32.1	6	7.3	-19	1.17	-44	0.117
55	104.4	30	30.4	5	6.8	-20	1.07	-45	0.106
54	99.8	29	28.8	4	6.4	-21	0.99	-46	0.095
53	95.4	28	27.2	3	5.9	-22	0.91	-47	0.085
52	91.1	27	25.8	2	5.6	-23	0.84	-48	0.077
51	87.0	26	24.4	1	5.2	-24	0.77	-49	0.069
50	83.1	25	23.1	0	4.8	-25	0.70	-50	0.062
49	79.3	24	21.8	-1	4.5	-26	0.65	-51.1	0.054
48	75.6	23	20.6	-2	4.2	-27	0.59	-53.9	0.040
47	72.3	22	19.4	-3	3.9	-28	0.54	-56.7	0.029
46	68.7	21	18.3	-4	3.7	-29	0.50	-59.4	0.021
45	65.5	20	17.3	-5	3.4	-30	0.45	-62.2	0.014
44	62.4	19	16.3	-6	3.2	-31	0.41	-65.0	0.011
43	59.4	18	15.4	-7	2.9	-32	0.38	-67.8	0.008
42	56.6	17	14.5	-8	2.7	-33	0.34	-70.6	0.005
41	53.8	16	13.6	-9	2.5	-34	0.31	-73.3	0.003
40	51.2	15	12.8	-10	2.4	-35	0.29	--	--

Working Principle of Adsorption Dryer

- The adsorption dryer for compressed air uses adsorbents (molecular sieves or aluminum oxide) to adsorb the moisture in compressed air through a cycle of adsorption and regeneration, thus drying the compressed air. Meanwhile, it desorbs its own moisture through the dried gas, discharges the moisture into the atmosphere, and regenerates itself.
- The Lianggong series of adsorption dryers includes the dual - core MX series. The equipment features stable operation, low failure rate, and an aesthetic appearance. It can effectively dry compressed air to a pressure dew point of - 40°C to - 70°C while reducing energy consumption.



Working Timing Diagram of the Dryer

Time	0	5		6	11		12	
Working Group A	Adsorption Stage				Blow - off and Regeneration	Pressure Equalization	Pressure Stabilization	Adsorption Stage
Working Group B	Blow - off and Regeneration		Pressure Equalization	Pressure Stabilization	Adsorption Stage			Blow - off and Regeneration

MX Series module adsorption dryer

-40℃ pressure dewpoint



1

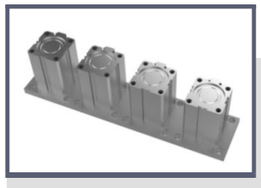
High-intelligent central control system

- Adopt the world-renowned brand PLC,
- more stable operation; 7-inch high-
- definition touch screen display, clearer; High-end man-machine interface design, more intelligent exploration.

2

Regenerative gas adjustment

- The regeneration gas consumption can be
- quickly adjusted according to the intake volume and drying requirements, and the gas volume loss is reduced by bidirectional control of the regeneration gas flow

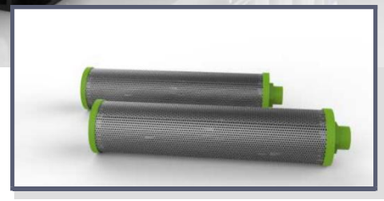


3

Independent exhaust valve

- Single-cylinder independent control, large air
- volume The pressure relief discharge rate is
- increased by more than 65% compared with the traditional one, and the waterorption rate is greatly improved.

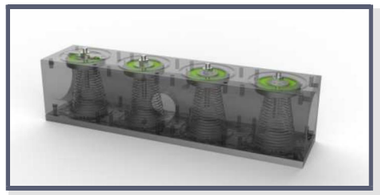




4

Efficient emission silencing system

- Built-in imported sound insulation cotton,
- lower noise; Extra large exhaust cross-section, smoother airflow discharge.



9

New one-way exhaust cavity design

- Tower spring retracts, low
- pressure loss, double rod bidirectional, no leakage.

8

Pressurized manifold

- Collective boost Built-in
- heating. Higher heat exchange efficiency (optional)



7

New "module" design

- Independent visualized core body,
- no leakage Large capacity,
- adsorption more efficient Independent replacement of dry effect continues

6

Intake control components

- Long-axis cylinder, more stable
- operation; Substrate fixing, more
- convenient maintenance; Larger
- intake through hole size design, low
- pressure loss; New PU material seal lower failure rate.

5

Balance shunt cavity

- Scientific size design,
- balanced flow Dual-slot sealing, safer

Drying advantage

Split - body Control

- Adopt split - body cylinders for independent control of air intake and exhaust, effectively ensuring that there is no air leakage or cross - flow between the intake and exhaust.
- Independent cylinders ensure that the individual operation of each cylinder is not interfered with, making the operation more stable and precise.
- Easy maintenance. The sealing gasket and cylinder can be replaced without disassembling large - scale valve body components, which greatly shortens the maintenance time and ensures maintenance accuracy.

Precise Distribution

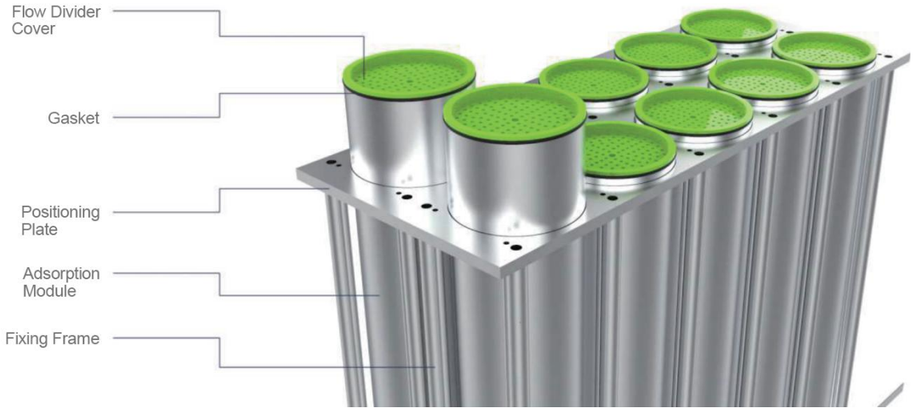
- The upper and lower diversion chambers designed through scientific calculation and simulation can achieve precise air flow distribution. The upper and lower flow - dividing cover structure of the inner core can balance the air flow and fully improve the drying efficiency of the desiccant.

Efficient Control

- Use a 7 - inch integrated control system with a user - friendly human - machine interface, which is convenient and quick to operate. Equipment information is clearly presented, and the control system is more stable.

Independent Module

The independent module structure design allows the airflow to pass through the desiccant layer smoothly, avoiding the powderization of theiccant and the tunnel effect that can lead to poor drying performance and damage to the pneumatic equipment. The moisture absorption capacity can remain at -40°C pressure d point for an extended period. The scientific arrangement of the independent modules and the high-precision mating of the guide cavity ensure that the airflow is unobstructed, significantly pressure drops and substantially lowering energy consumption compared to traditional twin-tower desiccant dryers.



- Now the module can be directly replaced (filled by the Demago factory), fast and reliable, after the replacement, the dryer can reach the drying pe
- Module design, absolutely sealed without leakage (traditional equipment often has a slight leakage, which has a huge impact on the drying effect and later maintenance)

Combination method



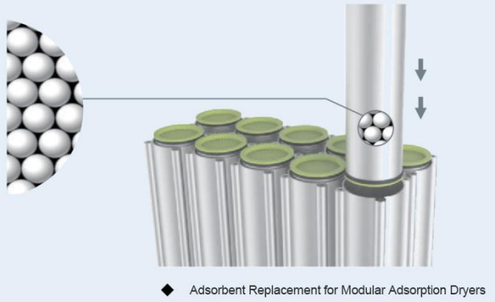
◆ 单台20m³/min处理量　◆ 40m³/min处理量　◆ 80m³/min处理量

Adsorbent Replacement



◆ Twin - Tower Adsorbent Replacement

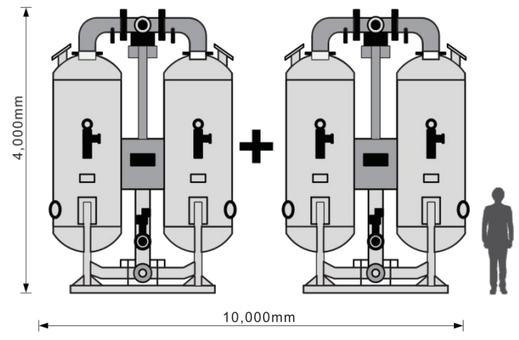
Difficulties: High construction difficulty, a huge amount of adsorbent filling, a long construction period, difficulty in compacting the adsorbent layer after filling (resulting in a decrease in drying performance), environmental pollution, etc.



◆ Adsorbent Replacement for Modular Adsorption Dryers

Advantages: No on - site adsorbent filling is required (directly replace the inner core, and the drying performance after replacement is the same as that of a new machine). It is convenient and quick to replace, has a short construction period, and causes no pollution, etc.

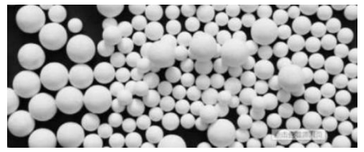
Configuration plan





Example conditions: total flow 200m³/min; pressure 7 bar: temperature 35℃. Scheme one: select double tower adsorption dryer, configured with 2 units of 200m³/min processing capacity, one in use (200m³/min) and as a standby (200m³/min). Scheme two: select a modular dual-core adsorption dryer, configured with 7 units of L/3462 (single unit processing capacity 34.62m³/min). 6 in use (208m³/min) and1 as a standby (34.62m³/min).

Absolute reliability, industrial strong



1 High quality adsorbant

- Unique adsorption agent canister packaging
- method: The bottom layer has waterproof function,
- which can protect the upper layer from high load operation. The standard pressure d point is -40℃. The dryer has an additional 15% filling volume than the traditional modular machine, ensuring stable performance.

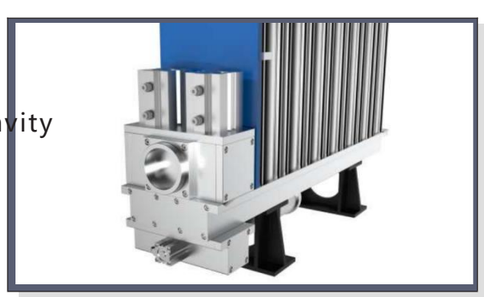


2 Stainless steel cylinder valve

- High-performance stainless steel
- cylinder is used for a longer service life; imported sealing material is used for more stable operation.

3 Balance shunt cavity

- Scientific size design, balanced flow Dual-slot sealing, safer







4 High-end human-machine control

control and detection system

- 7 in
- disp

Tower spring retracts, low pressure loss, double rod bidirectional, no leakage. operation more convenient detection of all parameters, safe and reliable



5 Supercharged confluence cavity

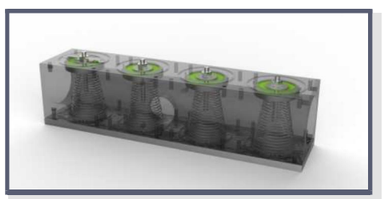
- Collective boost Built-in
- heating. Higher heat exchange efficiency (optional)

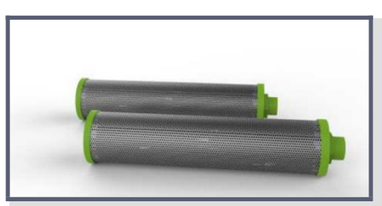
6 Regenerative gas adjustment

- According to the gas intake and drying demand, the regas consumption can be quickly adjusted to reduce the airflow distribution of the subdivided pipeline, and the regeneration gas consumption distribution is more uniform

7 New one-way exhaust cavity design

- Tower spring retracts,
- low pressure loss, double rod bidirectional, no leakage





8 Efficient emission silencing system

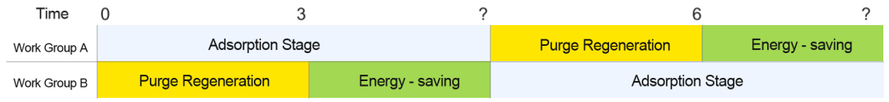
- Built-in imported sound insulation
- cotton, lower noise; Extra large exhaust cross-section, smoother airflow discharge.

Energy - saving Control System

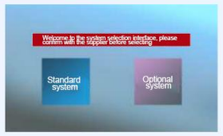
DDS-Dew point manager

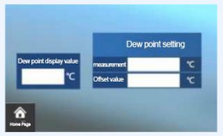
- Dew - point energy - saving control is an optional system for modular adsorption dryers to save regeneration gas consumption. It is composed of hardware (dew - point probe) and software (dew - point energy - saving control software).
- Users input the required dew - point value on the touch interface. The system adjusts the length of the regeneration cycle. While meeting the dew - point requirements, it reduces the regeneration gas consumption ratio to the greatest extent.

DDS working timing diagram









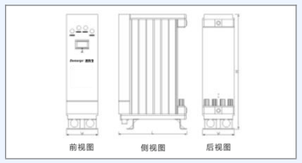


更多功能特性和选配项

选配项	ST-series	MT-series	MX-series
最大承受压力10bar			
最大承受压力13bar	■	■	■
-20℃压力露点	▬	●	●
-40℃压力露点	■	■	■
-70℃压力露点	●	●	●
在线露点仪	■	■	■
台达一体机控制	■	■	■
西门子控制系统	■	■	■
远程监控系统	●	●	●
零气耗组合排水阀	■	■	■

■ Standard configuration ● Optional ▬ Not applicab

外形尺寸



标准工况: 进气压力 7.0bar;
进气温度 T≤35℃;
压力范围: 4.5bar≤P＜10.0bar;
温度范围: 2℃≤T≤45℃;

技术参数: 干燥压力露点≤-40℃ / -40°F;
无热型再生气耗 ≤6%；微热型再生气耗 ≤3% ;
压力（干）降≤0.015MPa ； 排放噪音 ≤ 75db(A) (平均)。

Drying machine processing quantity correction factor

Temperature correction coefficient（T）

Intake temperature ℃	25	30	35	40	45	50
Temperature correction factor (T)	1.0	1.0	1.0	0.9	0.8	0.67

Pressure correction factor (P)

Inlet pressure(bar)	4	5	6	7	8	9	10	11	12	13
Pressure correction coefficient (P)	0.58	0.72	0.87	1.0	1.0	1.03	1.1	1.16	1.2	1.3

Drying machine processing capacity calculation reference

1. Determine the maximum inlet air temperature of the compressed air and select the corresponding correction coefficient (T).
2. Determine the minimum inlet air pressure of the air compressor and select the corresponding correction coefficient (P).
3. The calculation method is as follows:
   The minimum treatment capacity of the dryer to be matched = Compressed air flow / (T * P)
   Substitute the relevant data into the above formula and select the dryer model whose treatment capacity is greater than or equal to the "treatment capacity to be matched".

Dew point correction factor (D)

Dew point requirement (℃td)	-40	-70
Dew point correction factor (D)	1.0	0.6

Technical Especifications



MX Series Heatless Dryers

Model	Treatment Capacity (@7bar,35℃)			Dimensions			Interface Size	Weight
	m³/min	m³/h	cfm	Length(L/mm)	Width(W/mm)	Height(H/mm)	Inches (G)	KG
MXW0696	6.96	417.60	245.69	740	260	1750	G1-1/2	178
MXW0875	8.75	525.00	308.88	865	260	1750	G1-1/2	216
MXW1063	10.63	637.80	375.24	990	260	1750	G2	254
MXW1276	12.76	765.60	450.43	1115	260	1750	G2	272
MXW1428	14.28	856.80	504.08	1240	260	1750	G2	310
MXW1796	17.96	1077.60	633.99	1490	260	1750	G2-1/2	386
MXW2088	20.88	1252.80	737.06	1615	260	1750	G2-1/2	462
MXW2465	24.65	1479.00	870.15	1130	520	1750	G2-1/2	560
MXW2853	28.53	1711.80	1007.11	1255	520	1750	G3	636
MXW3462	34.62	2077.20	1222.09	1380	520	1750	G3	714
MXW3836	38.36	2301.60	1354.11	1505	520	1750	G3	792
MXW4258	42.58	2554.80	1503.07	1630	520	1750	DN100	870
MXW4680	46.8	2808	1652	1755	520	1750	DN100	948
MXW5100	51.00	3060	1800.3	1880	520	1750	DN100	1026
MXW5650	56.50	3390	1994.45	1530	1340	1910	DN100	1258
MXW6580	65.80	3948	2322.74	1655	1340	1910	DN125	1398
MXW7350	73.50	4410	2594.55	1780	1340	1910	DN125	1528
MXW8300	83.00	4980	2929.9	1905	1340	1910	DN125	1678

MX Series Heat - Assisted Dryers

Model	Treatment Capacity (@7bar,35℃)			Dimensions			Heating power	Interface Size	Weight
	m³/min	m³/h	cfm	Length(L/mm)	Width (W/mm)	Height(H/mm)	KW	Inches (G)	KG
MXD0696	6.96	417.60	245.69	740	260	1750	0.8	G1-1/2	178
MXD0875	8.75	525.00	308.88	865	260	1750	1.0	G1-1/2	216
MXD1063	10.63	637.80	375.24	990	260	1750	1.0	G2	254
MXD1276	12.76	765.60	450.43	1115	260	1750	1.2	G2	272
MXD1428	14.28	856.80	504.08	1240	260	1750	1.4	G2	310
MXD1796	17.96	1077.60	633.99	1490	260	1750	1.6	G2	386
MXD2088	20.88	1252.80	737.06	1615	260	1750	2.0	G2-1/2	462
MXD2465	24.65	1479.00	870.15	1130	520	1750	2.4	G2-1/2	560
MXD2853	28.53	1711.80	1007.11	1255	520	1750	2.8	G3	636
MXD3462	34.62	2077.20	1222.09	1380	520	1750	3.2	G3	714
MXD3836	38.36	2301.60	1354.11	1505	520	1750	3.6	G3	792
MXD4258	42.58	2554.80	1503.07	1630	520	1750	4.0	DN100	870
MXD4680	46.8	2808	1652	1755	520	1750	4.4	DN100	948
MXD5100	51.00	3060	1800.3	1880	520	1750	4.8	DN100	1026
MXD5650	56.50	3390	1994.45	1530	1340	1910	5.6	DN100	1258
MXD6580	65.80	3948	2322.74	1655	1340	1910	6.4	DN125	1398
MXD7350	73.50	4410	2594.55	1780	1340	1910	7.2	DN125	1528
MXD8300	83.00	4980	2929.9	1905	1340	1910	8.0	DN125	1678

Small dryer:, terminal production good helper

- ST/MT series desiccant dryers are a type of micro-adsorption dryer with small volume, flexible installation, and mobility, featuring efficient adsorption performance. They are ideal for precision instruments, terminal production equipment, and laboratories that require high-purity, low-flow compressed air.

Performance and advantages

- ST series dryers can effectively reduce losses caused by equipment failure and downtime. The ST series dryers have a small size and are easy to install. They can be moved according to the position of the gas consumption point. The ST series dryers can reduce the emission noise to below 75DB(A).
- ST series dryers adopt an integrated electrical control design with a convenient interface operation.
- The ST series dryers have two installation methods: ground and wall hanging. The body of the series dryers is made of full molybdenum alloy material, which is corrosion-resistant and will not cause secondary pollution of the gas. The integrated adsorption system design the ST series dryers allows for easy replacement of the adsorbent and ensures stable and qualified drying performance.
- The ST series dryer can be stable to-40℃ 1-70℃ pressure dew point (grade 1 and grade 2 for compressed air in ISO 8573-1:2001).



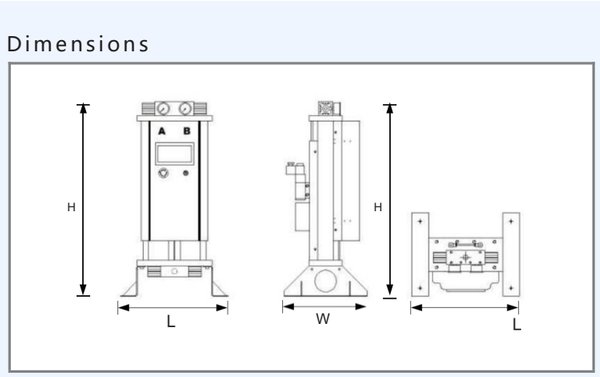
Inlet; outlet quick plug interface Easy to install. The module: high-performance molecular sieve adsorbent is filled inside. Quick to replace.Control system: fully electronic controller, safe, stable, long-lasting. Silencer: threaded connection port, extremely low noise, exhaust valve group: integrated exhaust port,, pressure display, dew point detection and many other components.



ST/MT Series

模组吸附式干燥机

Technical Especifications



Standard working conditions: Intake pressure 7.0 bar; Intake temperature T ≤ 35°C; Pressure range: 4.5 ≤ P < 10,0 bar; 16 bar can be custom-made Temperature range: 2°C ≤ T ≤ 45°C Technical parameters: Dry pressure dew point ≤ -40°C/-40°F; Non-heat type regeneration gas consumption ≤ 6% pressure (dry pressure drop ≤ 0.015 MPa: Emission noise ≤ 75 dB(A) (average).

Small-size adsorption dryer

Type	处理量 (@7bar,35℃)			Dimensions			Interface size	Weight
	m³/min	m³/h	cfm	长 (L/mm)	宽 (W/mm)	高 (H/mm)	寸 (G)	KG
st050	0. 50	30.0	1 7.65	388	300	920	G1/2	34
ST080	0. 80	48.0	28.24	388	300	1110	G1/2	40
ST1 00	1. 00	60.0	35.3	388	300	1280	G1/2	46
ST1 50	1. 50	90.0	52.95	388	300	1480	G1/2	54
MT156	1. 56	93.6	55.07	590	300	1150	G1	72
MT246	2.46	147.6	86.84	600	300	1310	G1	85
MT426	4 26	255 6	1 50.38	720	300	1310	G1	125