

## DM(V)-SAT Series Integrated Screw Compressor With Air Dryer

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Professional Air Compressor Solution Provider



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Specifications are subject to change without notice due to improvement in performance. Anything needed please contact us.

Stability | Energy Saving | Efficiency | Silence

Energy Saving Enhances Value, Ingenuity Creates the Future!

# Dream Compressor

Create the first brand of energy- saving silent air compressor



*Stability  
Engery Saving*



## About US

For more than a decade, Dream ( Shanghai) Compressor Co., Ltd has been striving to become one of the leading manufacturers of compressed air solutions in China.

The dream is located in Xingta industrial zone, Shanghai Jinshan district with 25,000 square meter factory coverage, is specialized in designing, manufacturing and sales of air compressors and air treat-ment systems with an annual capacity of 10, 000 units. Through years of efforts, its products have won wide recognition and acclaim from the domestic and oversea markets for high performance and reliability, durability and customer care.

The company fully complies with international standards in its production and management and has acquired ( Quality Assurance) certificates of ISO9001, CE Certificate for European Market, UL & ASME

certificate for United States market and Class O certificate from TUV for our oil-free screw compressors.as well as a variety of other certificates in terms of environmental protection, safety, and electrical engineering.

- Our product lines covering the following areas:
- Oil-injected rotary screw compressors (Fixed speed and variable speed; high, normal and low pres-sure)
- Portable screw air compressors (Diesel-powered and electric motor powered)
- Oil-free air compressors ( dry type, water-lubricated type)
- High-pressure piston air compressors (Oil-injected and oil-free)
- Air treatment equipment (Air dryers, air filters and air storage tank)

## Certificates



Dream Compressor has always been a leader in the field of compressor technology, and its products include fixed screw air compressors, mobile screw compressors, piston air compressors, air dryers, precision filters, etc., which are widely used in various industries , Dream oil-free full range of products have gained the German Rhine class 0 certification. Dream company has become the premier supplier of screw compressors and piston machines with its rich experience and continuous innovation technology. After efforts, Dream has been successfully accepted by the mainland market with a good reputation.



Covering 17 product series, 500+ products for customers to select, one-stop air compressor solution provider for various industries.



## DM-SAT Series Integrated Screw Air Compressor

### 01 High-efficiency refrigerated air dryer with air compressor

The heat exchanger uses a plate-changing structure, the size is lower, the heat exchange efficiency is higher, and the water removal effect is better.

### 02 The precision after treatment filter

Can be equipped with multi-stage filter according to different air quality requirements; the layout is centralized and it is convenient and quick to replace the filter.

### 03 High-quality electronic drain valve

The drain frequency and drain time can be adjusted according to needs. The brass valve body is corrosion-resistant and has a long service life.

### 04 High-efficiency, low-noise screw compressor

Low-noise screw compressor can be equipped with belt type and oil-cooled permanent magnet type according to the needs, matching different pressure sections of 5.5-22KW, which can meet the needs of different industries.

### 05 High-quality galvanized pipe

The pipe is bent and formed once. The inner surface is clean and smooth with low pressure loss. It is durable and does not need to be replaced throughout the life of the machine.

### 06 Equipped with a large-volume air storage tank

It can obviously eliminate the pressure fluctuation of the pipeline; the overall center of gravity of the machine is low, and there is a forklift hole for easy movement.





## DM-A series belt screw air compressor

### 01 Durable, efficient and stable air end

1. The design idea of "large rotor, large bearing, low speed" is adopted to reduce noise and vibration, and increase the life and stability of the host ;
2. The tooth surface is processed by a rotor grinding machine to create a high-precision rotor, which is the first guarantee for the high efficiency and stability of the host ;
3. Adopt a new type of 5:6 asymmetric rotor tooth shape, high-precision three-coordinate measuring machine for comprehensive measurement, increase the air flow of 5%-10%.



### 02 High efficiency motor

1. Special motor for air compressor, imported brand 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 the requirements of full life use under various working conditions.



### 03 Stable and low-noise belt drive

1. Adopt German OPT toothed belt, good synchronization and low noise ;
2. High power transmission efficiency, wear resistance and longer service life than standard belts ;
3. Reliable structure design and convenient belt adjustment.



### 04 Low noise cooling fan

1. IP44 cooling fan, Class F insulation, inner rotor fan has higher wind pressure, more air volume, and better cooling effect ;
2. The fan blade is preferred, with low noise.



### 05 Stable and reliable electronic control system

1. The control system has the high alarm function of voltage detection, three-phase unbalance detection, over pressure, over temperature, overload, and over-limit, real-time protection of the unit, the unit automatically monitors the operating conditions, automatically loads and unloads, sleeps, restarts And other functions, no need for special care ;
2. The standard Internet of Things system allows you to see the operation of your machine on your mobile phone ;
3. Intelligent control system, which can be set in Chinese/English bilingual, can realize multiple joint control ;
4. Use high-quality electrical components, and the contactor uses imported brands ;
5. Emergency stop function, there is a push-type emergency stop switch in a prominent position of the unit, which can be immediately stopped in an emergency.



### 06 High-quality filters

1. The filtering area of the air filter exceeds 150% of the normal requirement, the inlet pressure loss is low, and the energy efficiency is good ;
2. The oil filter adopts an enlarged oil filter design scheme of imported glass fiber material. The rated processing capacity of the oil filter is  $\geq 1.3$  times the circulating oil volume, which has high filtration accuracy and good durability ;
3. The oil core of imported glass fiber material has good filtering effect and low pressure loss of the oil core ;
4. The design of the three filter position is reasonable, the maintenance is convenient, and the downtime is reduced.



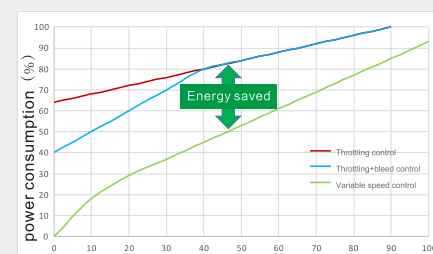
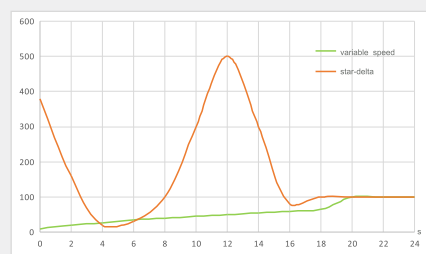
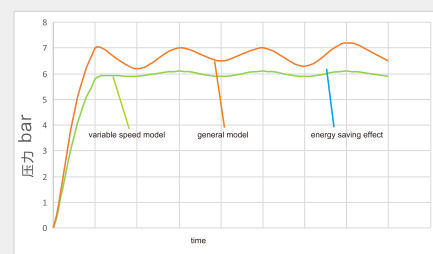
### 07 Special valve group

1. Special intake valve for screw compressor, easy to start, with automatic adjustment function, low flow rate, low pressure loss, lower energy consumption, low intake noise ;
2. Reliable minimum pressure bounce back valve, low pressure loss, precise control, ultra-fast bounce back, to ensure that the user's air does not return.



## Overall energy saving

Compared with power fixed speed air compressor, variable speed air compressor has practical significance in energy saving.



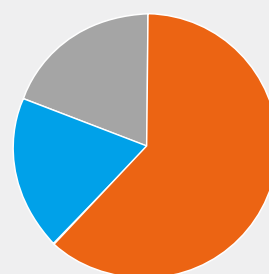
1.The pressure control of variable speed air compressor is precise. It can quickly respond to pressure changes, adjust the speed of the permanent magnet motor, control the pressure fluctuation range within  $\pm 0.1\text{bar}$ , stabilize the pressure of the pipe network, provide the necessary air volume with the most reasonable power, and reduce excess energy loss.

2.Variable speed air compressor adopts the method of frequency conversion start up, eliminating the peak current of star-delta start up and starting smoothly. Reduce the starting power, reduce the impact on the power grid and equipment, and can reduce the equipment operation noise.

3.Variable speed control is more excellent than ordinary throttle control. The adjustment range of the flow rate is larger, and with the high-efficiency permanent magnet motor, the energy saving effect is more significant at a low percentage flow rate.

4. Most of the cost in the life cycle of the air compressor is generated by the electricity it consumes. The power consumption of the compressor is closely related to the on-site air planning. The variable speed air compressor can not only ensure smooth production, but also save considerable electricity costs and achieve a win-win situation for the enterprise.

Cost of regular air compressor



Energy consumption Maintenance cost Purchase cost

Cost of variable speed air compressor



Energy consumption Maintenance cost Purchase cost Energy saved

## Application



Nowadays, laser cutting is widely used in various industries. The laser cutting machine must use protective during processing. Air is of course a simple and economical protective gas source. The function of the air compressor is to combine part of the compressed air with high-purity oxygen and high-purity nitrogen. provide a cutting head, part of which is used as a power source to supply the T-type clamping cylinder. Then use parts to purge the light path system. It is divided into three methods, which are used as cutting gas, cylinder power source, and light path positive pressure dust removal air to maintain the normal operation of the laser cutting machine. Therefore, the air compressor is essential for every laser cutting machine. It is also very important for cutting machines.

The compressor can also be used in the coating and spraying industry. The air compressor provides compressed air for the spraying equipment. Compressed air is the main power source of the air spraying system. The airflow of the compressed air is used to form paint mist through the nozzle and act on the surface of the object to achieve high-quality spraying effects.





## Customer Service And Support

▲ As an air compressor manufacturer, we are steadily moving towards service providers and creating value for customers, make our customers successful.

● Ensure the safe and stable operation of customer equipment and solve user's problems promptly. ● Training customer operation personnel and service personnel. ● Feedback information. ● Track corrective actions. ● Aircompressor Failure Report and Repair Process.

Response Time: We promise to get back to you within 24 hours.

Service Hotline: whatsapp/skype/wechat:+86 13482161490.



## Cases



A building materials technology company, with a registered capital of 100 million yuan, purchased the DM-5SAT machine from Dream. Used for gas supply in machining centers, mainly producing prefabricated panels, lightweight partition walls, pre-supported stairs, etc.

A Precision Machinery Co., Ltd. purchased the Dream DMV-15SAT model. The main body of this project is "the use of gas on the laser cutting machine". During the on-site communication, it was learned that the energy saving effect of the air compressor selected by our company was higher than that of a certain brand Air compressor 25%, fast cutting speed, smooth and flat cut, no burrs, high processing accuracy, good repeatability, a certain brand of equipment does not match the theme of this project, and high energy consumption. The plan given by our sales engineer has been approved by the buyer after multiple rounds of discussions. In the stage of equipment linkage debugging, our company dispatched professional service personnel to assist on-site linkage debugging and trial operation. Demon's excellent products and good service have been highly praised by users.



# Intelligent Control Technology-smart Cloud Technology

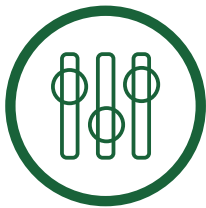
## Three major functions and values of cloud intelligent control



### Digital Station

Intelligent control: Reduce operation and maintenance costs by 10-30%

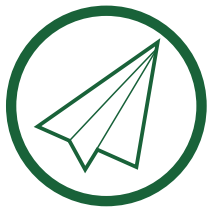
- 3D virtual air compressor station
- Dynamic data monitoring
- Workshop diagnosis report
- Online fault warning
- Maintenance cycle reminder



### Intelligent control

Intelligent tuning: reduce labor hours by 250%

- Automatic control of air compressor
- AI algorithm autonomous tuning
- Device priority dynamic decision
- Intelligent control of auxiliary equipment



### Energy saving of the whole station

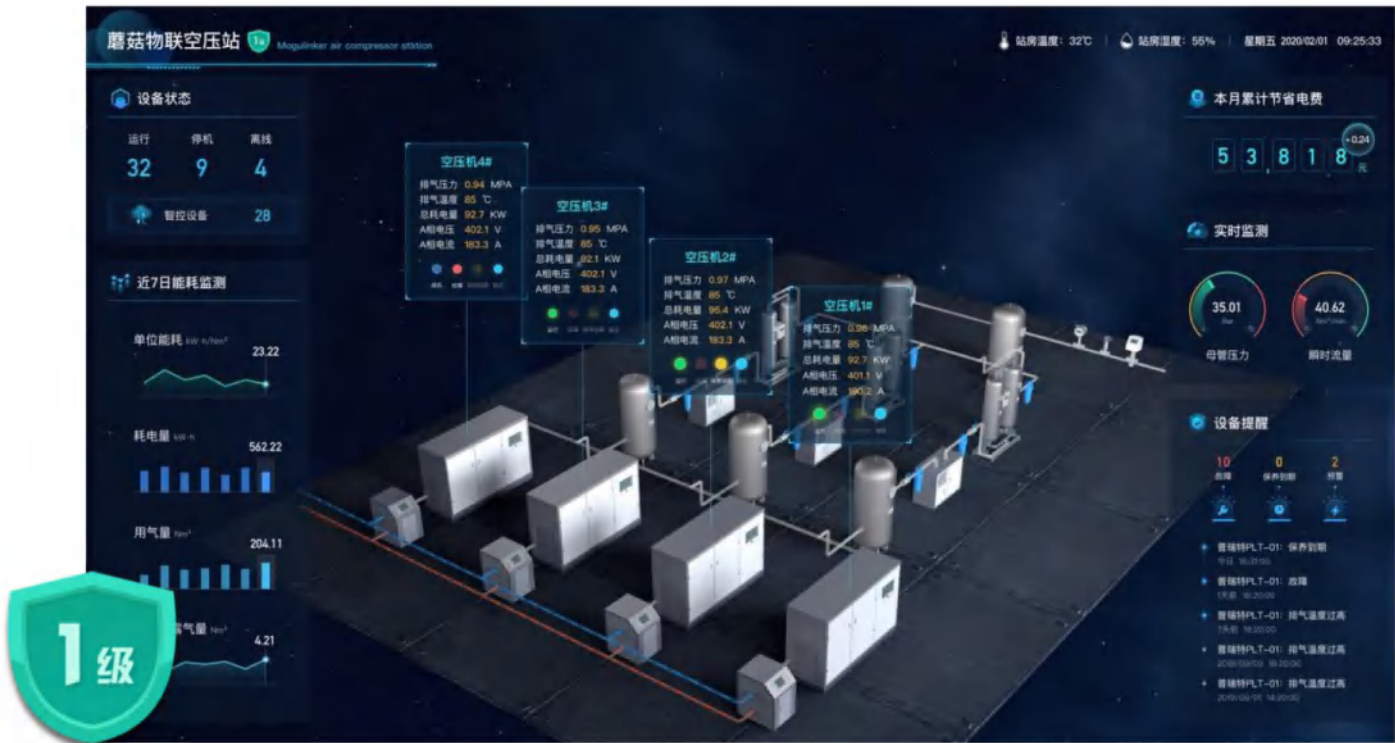
Energy saving of the whole station: save 5-30% of power consumption in the workshop

- Edge computing technology
- Narrowband constant pressure technology
- Multi-parameter and multi-constraint control algorithm
- Big data visualization technology

## Digital station value

Total station monitoring and control (computer side)

1. Air compressor, refrigerated air dryer, adsorption air dryer, water pump, fan, waste heat recovery machine, flow meter, electric meter, etc.



## Specifications Belt Drive Screw Air Compressor

DM-A系列皮带螺杆压缩机 DM-A series belt screw air compressor	排气压力 Working pressure		排气量 Capacity		功率 Power		噪音 Noise	空气出口管径 Air outlet pipe diameter	机组净重 Net weight	外形尺寸(mm) Dimensions(mm)		
	bar	psig	(m³/min)	cfm	kW	hp				长 Length	宽 Width	高 Height
DM-5A	8	116	0.8	28.3	5.5	7.5	60±3	G3/4"	185	700	690	933
	10	145	0.7	24.7	5.5	7.5	60±3	G3/4"	185	700	690	933
	13	189	0.5	17.7	5.5	7.5	60±3	G3/4"	185	700	690	933
	16	232	/	/	5.5	7.5	60±3	G3/4"	185	700	690	933
DM-7A	8	116	1.2	42.4	7.5	10	60±3	G3/4"	205	700	690	933
	10	145	1.0	37.1	7.5	10	60±3	G3/4"	205	700	690	933
	13	189	0.8	28.3	7.5	10	60±3	G3/4"	205	700	690	933
	16	232	0.5	17.7	7.5	10	60±3	G3/4"	205	700	690	933
DM-11A	8	116	1.7	60.0	11	15	62±3	G3/4"	225	700	690	933
	10	145	1.5	53.0	11	15	62±3	G3/4"	225	700	690	933
	13	189	1.2	42.4	11	15	62±3	G3/4"	225	700	690	933
	16	232	0.9	31.8	11	15	62±3	G3/4"	225	700	690	933
DM-15A	8	116	2.4	84.8	15	20	62±3	G11/4"	260	880	820	1153
	10	145	2.1	74.2	15	20	62±3	G11/4"	260	880	820	1153
	13	189	1.7	60.0	15	20	62±3	G11/4"	260	880	820	1153
	16	232	1.4	49.4	15	20	62±3	G11/4"	260	880	820	1153
DM-18A	8	116	2.9	102.4	18.5	25	64±3	G11/4"	335	880	820	1153
	10	145	2.6	91.8	18.5	25	64±3	G11/4"	335	880	820	1153
	13	189	2.2	77.7	18.5	25	64±3	G11/4"	335	880	820	1153
	16	232	1.9	67.1	18.5	25	64±3	G11/4"	335	880	820	1153
DM-22A	8	116	3.7	130.7	22	30	64±3	G11/4"	355	880	820	1153
	10	145	3.1	109.5	22	30	64±3	G11/4"	355	880	820	1153
	13	189	2.8	98.9	22	30	64±3	G11/4"	355	880	820	1153
	16	232	2.3	81.2	22	30	64±3	G11/4"	355	880	820	1153
DM-30A	8	116	5.1	180.1	30	40	64±3	G11/4"	700	1105	980	1350
	10	145	4.5	158.9	30	40	64±3	G11/4"	700	1105	980	1350
	13	189	3.9	137.7	30	40	64±3	G11/4"	700	1105	980	1350
	16	232	3.2	113.0	30	40	64±3	G11/4"	700	1105	980	1350
DM-37A	8	116	6.1	215.4	37	50	64±3	G11/4"	700	1105	980	1350
	10	145	5.1	180.1	37	50	64±3	G11/4"	700	1105	980	1350
	13	189	4.3	151.9	37	50	64±3	G11/4"	700	1105	980	1350
	16	232	3.8	134.2	37	50	64±3	G11/4"	700	1105	980	1350



Specifications  
SAT Series Fixed Speed Screw Air Compressor

DM-SAT系列全性能一体空压机	排气压力 Working pressure		排气量 Capacity		功率 Power		噪音 Noise	空气出口管径 Air outlet pipe diameter	机组净重 Net weight	外形尺寸(mm) Dimensions(mm)		
	bar	psig	( m3/min)	cfm	kW	hp				长 Length	宽 Width	高 Height
DM-5SAT	8	116	0.8	28.3	5.5	7.5	60±3	G1"	425	1780	800	1540
	10	145	0.7	24.7	5.5	7.5	60±3	G1"	425	1780	800	1540
	13	189	0.5	17.7	5.5	7.5	60±3	G1"	425	1780	800	1540
	16	232	/	/	5.5	7.5	60±3	G1"	425	1780	800	1540
DM-7SAT	8	116	1.2	42.4	7.5	10	60±3	G1"	445	1780	800	1540
	10	145	1.1	38.8	7.5	10	60±3	G1"	445	1780	800	1540
	13	189	0.8	28.3	7.5	10	60±3	G1"	445	1780	800	1540
	16	232	0.5	17.7	7.5	10	60±3	G1"	445	1780	800	1540
DM-11SAT	8	116	1.7	60.0	11	15	62±3	G1"	465	1780	800	1540
	10	145	1.5	53.0	11	15	62±3	G1"	465	1780	800	1540
	13	189	1.2	42.4	11	15	62±3	G1"	465	1780	800	1540
	16	232	0.9	31.8	11	15	62±3	G1"	465	1780	800	1540
DM-15SAT	8	116	2.4	84.8	15	20	62±3	G1"	570	1780	880	1760
	10	145	2.1	74.2	15	20	62±3	G1"	570	1780	880	1760
	13	189	1.7	60.0	15	20	62±3	G1"	570	1780	880	1760
	16	232	1.4	49.4	15	20	62±3	G1"	570	1780	880	1760
DM-18SAT	8	116	2.9	102.4	18.5	25	64±3	G1"	690	1780	880	1760
	10	145	2.6	91.8	18.5	25	64±3	G1"	690	1780	880	1760
	13	189	2.2	77.7	18.5	25	64±3	G1"	690	1780	880	1760
	16	232	1.9	67.1	18.5	25	64±3	G1"	690	1780	880	1760
DM-22SAT	8	116	3.7	130.7	22	30	64±3	G1"	690	1780	880	1760
	10	145	3.1	109.5	22	30	64±3	G1 1/2"	690	1780	880	1760
	13	189	2.8	98.9	22	30	64±3	G1 1/2"	690	1780	880	1760
	16	232	2.3	81.2	22	30	64±3	G1"	690	1780	880	1760

Remarks: 16bar laser cutting special machine DM-15SAT unified configuration is 420L tank, high pressure air dryer, four-stage filters (including differential pressure gauge, electronic drain).  
Dream compressor product parameter table follows:  
1.The displacement value is the gas volume flow under the following conditions (temperature 32℃, atmospheric pressure 101.325KPa).  
2.The exhaust pressure is the pressure value after the check valve.

Specifications  
SAT Series Variable Speed Screw Air Compressor

DM-SAT系列全性能一体空压机	排气压力 Working pressure		排气量 Capacity		功率 Power		噪音 Noise	空气出口管径 Air outlet pipe diameter	机组净重 Net weight	外形尺寸(mm) Dimensions(mm)		
	bar	psig	( m3/min)	cfm	kW	hp				长 Length	宽 Width	高 Height
DMV-7SAT	8	116	0.2-1.2	7-42	7.5	10	60±3	G1"	475	1780	800	1540
	10	145	0.2-1.1	7-39	7.5	10	60±3	G1"	475	1780	800	1540
	13	189	0.2-0.8	7-28	7.5	10	60±3	G1"	475	1780	800	1540
	16	232	0.1-0.5	4-18	7.5	10	60±3	G1"	475	1780	800	1540
DMV-11SAT	8	116	0.4-1.9	14-67	11	15	60±3	G1"	495	1780	800	1540
	10	145	0.3-1.6	11-57	11	15	60±3	G1"	495	1780	800	1540
	13	189	0.3-1.2	11-42	11	15	60±3	G1"	495	1780	800	1540
	16	232	0.2-0.9	7-32	11	15	60±3	G1"	495	1780	800	1540
DMV-15SAT	8	116	0.5-2.4	18-85	15	20	60±3	G1"	600	1780	880	1760
	10	145	0.4-2.2	14-78	15	20	60±3	G1"	600	1780	880	1760
	13	189	0.4-1.8	14-64	15	20	60±3	G1"	600	1780	880	1760
	16	232	0.3-1.6	11-57	15	20	60±3	G1"	600	1780	880	1760
DMV-22SAT	8	116	0.8-3.8	28-134	22	30	60±3	G1"/G1 1/2"	730	1780	880	1760
	10	145	0.7-3.2	25-113	22	30	60±3	G1"/G1 1/2"	730	1780	880	1760
	13	189	0.5-2.9	18-102	22	30	60±3	G1"/G1 1/2"	730	1780	880	1760
	16	232	0.5-2.4	18-85	22	30	60±3	G1"/G1 1/2"	730	1780	880	1760

3.The noise value is the value in the room without echo, the test tolerance; 3dB (A).  
4.Please consult our company for use in harsh working conditions such as high temperature, high humidity, high cold, and high dust.  
5.Overall dimensions and weight of the whole machine are subject to change without notice.  
6.Please do not use compressed air directly in medical equipment for human inhalation.