

# DR(V)–Z Medium Pressure Screw Air Compressor

### CONTACTUS



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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.



Energy Saving Enhances Value, Ingenuity Creates the Future!

### Dream Compressor

Create the first brand of energy-saving silent air compressor







### **About US**

For more than a decade, Dream (Shanghai) Compressor Co., Ltd has been striving to become one certificate from TUV for our oil-free screw of the leading manufacturers of compressed air compressors.as well as a variety of other certificates in 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 sure) 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 injected and oil-free) acquired (Quality Assurance) certificates of ISO9001, CE Certificate for European Market, UL & ASME and air storage tank)

certificate for United States market and Class O terms of environmental protection, safety, and electrical

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

### 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.





### DR(V)-Z Product Advantages And Details

#### 01) Advanced medium voltage two-stage main host

- 1. Two-stage integrated design, the use of oil mist spray cooling between stages reduces the temperature of the air, and the compression process approaches the most energy-saving isothermal compression. In principle, the two-stage compression saves 5%-8% energy than the single compression;
- 2. It is suitable for the matching of the compression ratio of the medium pressure, the leakage in the host is small, and the volumetric efficiency is high;
- 3. The bearing adopts imported heavy-duty bearings to make the rotor more powerful; the two-stage rotors are driven by helical gears, so that each rotor has the best linear speed;
- 4. The third–generation asymmetric rotor technology, the tooth surface is processed by the German KAPP rotor grinder, creating a high-precision rotor, which is the first guarantee of the main engine's efficiency and stability.





#### High-efficiency permanent magnet synchronous motor

- 1. IP54 protection level, more stable and reliable than IP23 in harsh environments;
- 2. Low temperature rise design, higher efficiency, extending the service life of the motor;
- 3. Use ceramic-plated bearings to completely eliminate the impact of shaft current on the bearings;
- 4. It is made of rare-earth permanent magnet materials, with large torque during starting and running, and small current during starting and running;
- 5. Reasonable magnetic field design, magnetic density distribution, energy-saving motor has a wider working frequency range and low operating noise:
- 6. Cooperate with the operation of the frequency converter to realize the frequency conversion soft start, avoid the strong mechanical impact of the machine and equipment when the motor is started at full voltage, which is beneficial to protect the mechanical equipment, reduce equipment maintenance, and improve the reliability of the equipment.





#### 03 > Special valve group

- 1. Intake valve: It adopts a special medium-pressure normally-closed butterfly valve, which has a non-return function, stable operation, high accuracy of air volume control, noise reduction design, low cavitation noise, and long service life:
- 2. Minimum pressure maintenance valve: special valve for medium pressure, high pressure resistance, high temperature resistance, accurate opening pressure, ensuring stable pressure in the barrel, ultra-fast seat return, strong sealing, ensuring no backflow of air, low pressure loss, and high efficiency;
- 3. Temperature control valve: The unit is equipped with a mixed-flow temperature control valve to ensure that the unit is more convenient to start in a low temperature environment, and the oil supply of the unit is guaranteed at all times; the unit is in the best performance state by controlling the oil supply temperature of the host
- 4. Oil shut-off valve: a special normally closed valve for medium pressure, controlled by the head exhaust pressure. When starting, the valve opens quickly to ensure that the compressor is lubricated and warmed up as soon as possible; when stopping, the valve can prevent oil from spraying from the intake end.

The air filter takes in the air independently and directly inhales the ambient cold air, which is not affected by the temperature inside the chassis, thus achieving better energy efficiency.



Canopy is noise reduction design, according to the noise theory calculation, internal with a special flame retardant silencing cotton, reduce the unit noise, to provide a quieter environment

#### Advanced and reliable electronic control system

- 1. The large-size color LCD touch screen has a good human-machine communication interface, and the touch screen has functions of preventing accidental touch and sleep;
- 2. Adopt double frequency conversion system, more energy saving, perfect match of frequency converter and motor, low frequency and large torque, can output 180% rated torque;
- 3. In view of the characteristics of medium voltage, a special program is developed, with multiple pressure sensors and multiple temperature sensors, which can comprehensively detect the operating status of the unit, and automatically control the machine status without special supervision;
- 4. Configure the Internet of Things, you can view the unit operating status on your mobile phone;
- 5. Independent air duct design, suitable for various working

#### Silent centrifugal fan

- 1. Adopt centrifugal fan, brand-new separated radial cooling fan design, with special cooler, cooling effect is better and more energy saving;
- 2. Compared with axial fans, centrifugal fans have higher wind pressure and lower noise;
- 3. Using frequency conversion fan control, the oil temperature is constant, and the service life of the lubricant is
- 4. Due to the high wind pressure, the cooler and filter are less likely to be blocked.

#### High-quality three filters

- 1. The filtration area of the air filter exceeds 150% of the normal requirement, with low intake pressure loss and good energy efficiency;
- 2. The oil filter adopts a full-flow built-in pressure-bearing oil filter suitable for medium pressure conditions. The oil filter's rated processing capacity is ≥ 1.5 times the circulating oil capacity. Imported filter materials and large margin design are selected, with high filtering accuracy and good durability:
- 3. The oil is divided into special customized oil, which is designed and developed for medium pressure working conditions. It has a wide applicable pressure range, good separation effect and low operating pressure loss; imported glass fiber material is selected:
- 4. The layout design of the three filter is reasonable, the maintenance is convenient, and the downtime is reduced.

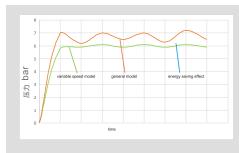
#### High-quality and efficient coupling

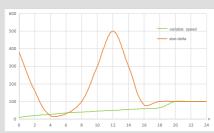
- 1. The coupling is a torsion elastic coupling with a failure protection function, which can effectively prevent and reduce the vibration and impact generated during operation;
- 2. The elastic body is only subjected to pressure and can withstand greater loads. The drum-shaped teeth of the elastic body can avoid stress concentration.

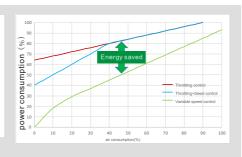


### Overall energy saving

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





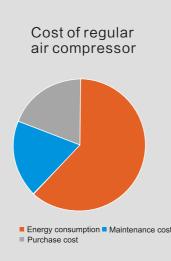


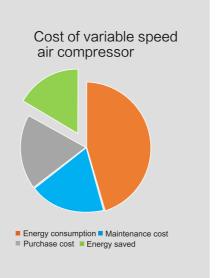
1.The pressure control of variable speed air compressor is precise. It can quickly respond to pressure changes, adjust the speed of the permanent magnet motor, control the pressure fluctuation range within ±0.1bar, stabilize the pressure of the pipe network, provide the necessary air volume with the 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.





### Product application scenarios





Mining equipment: used for high-pressure blasting mining, driving various pneumatic machinery.

Packing machine: The air compressor is used for the pneumatic packing machine. After the air is compressed, the piston of the cylinder is pressed down, and the vibrator is driven to move quickly, so that the overlapping part of the packing belt produces a hot melt effect.

#### Cases





An oil field borders the Bohai Sea in the east, the Jizhong Plain in the west, Shandong in the southeast, and the junction of Tianjin and Tang in the north, across 25 districts, cities and counties in the three provinces and cities of Tianjin, Hebei and Shandong. Exploration and development construction began in January 1964, with a total exploration and development area of 18,716 square kilometers. The oilfield headquarters is located in the national "Eleventh Five-Year" key development and opening construction area-Tianjin Binhai New District, 190 kilometers away from Beijing, 40 kilometers away from Tianjin New Port, and 70 kilometers away from Tianjin International Airport. The geographical position is superior, the sea, land and air transportation are developed, and the communication is convenient. It is an important part of the Bohai Rim Economic Circle. The purchase of DR-45Z from Dream Company is mainly used for pipe purge gas supply.

### **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.



## 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
- $\bullet$  Al algorithm autonomous tuning
- Device priority dynamic decisionIntelligent control of auxiliary equipment



### Energy saving of the whole station

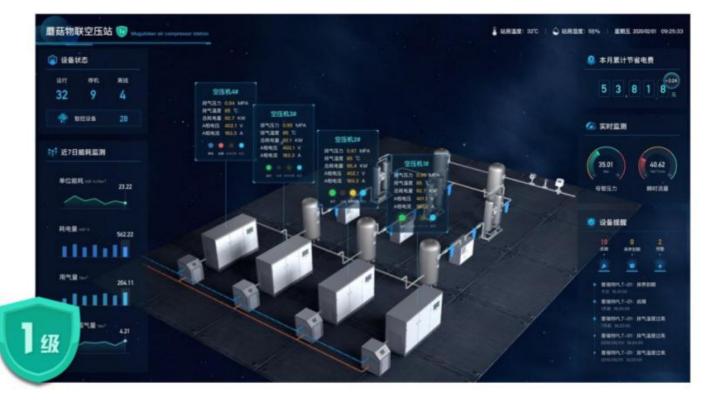
Energy saving of the whole station:save 5–30% of power consumption inthe workshop

- Edge computing technology
- Narrowband constant pressure technology
- Multi-parameter and multiconstraint 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 Medium Pressure Direct-Drive Screw Compressor

DR(V)−Z 系列 中压直联螺杆压缩机 DR(V)−Z medium pressure	排气压力 Working pressure		排气量 Capacity		功率 Power		噪音 Noise	空气出 口管径 Air outlet	机组净重 Net weight	外形尺寸(mm) Dimensions(mm)		
direct-connected screw compressor	bar	psig	( m3/min)	cfm	kW	hp	dB	pipe diameter	kg	长 Length	宽 Width	高 Height
	20	291	1.73	61.09	18	25	65±3	G3/4"	868	1600	1100	1150
DR-18Z	25	364	1.73	61.09	18	25	65±3	G3/4"	868	1600	1100	1150
	30	437	1.73	61.09	18	25	65±3	G3/4"	868	1600	1100	1150
	20	291	2.10	74.16	22	30	65±3	G3/4"	900	1600	1100	1150
DR-22Z	25	364	2.10	74.16	22	30	65±3	G3/4"	900	1600	1100	1150
DIV-ZZZ	30	437	2.10	74.16	22	30	65±3	G3/4"	900	1600	1100	1150
	35	510	1.60	56.50	22	30	65±3	G3/4"	900	1600	1100	1150
	40	583	1.60	56.50	22	30	65±3	G3/4"	900	1600	1100	1150
	20	291	3.30	116.54	37	50	65±3	G3/4"	1340	1800	1350	1500
	35 40	364	3.30	116.54	37	50	65±3	G3/4"	1340	1800	1350	1500
DR-37Z	30	437	3.30	116.54	37	50	65±3	G3/4"	1340	1800	1350	1500
	35	510	3.00	105.94	37	50	65±3	G3/4"	1340	1800	1350	1500
	40	583	3.00	105.94	37	50	65±3	G3/4"	1340	1800	1350	1500
DR-55Z	20	291	5.88	207.59	55	75	67±3	DN32	2100	2400	1580	1700
	25	364	5.72	201.88	75	100	68±3	DN32	2300	2400	1580	1700
DR-75Z	30	437	5.71	201.52	75	100	68±3	DN32	2300	2400	1580	1700
	35	510	5.71	201.52	75	100	68±3	DN32	2300	2400	1580	1700
	40	583	5.70	201.17	75	100	68±3	DN32	2300	2400	1580	1700
DR-90Z	20	291	11.97	422.66	90	120	70±3	DN32	2800	2400	1580	1700
	20	291	13.69	483.30	110	150	72±3	DN40	3000	2700	1680	1900
DR-110Z	25	364	11.80	416.60	110	150	72±3	DN40	3000	2700	1680	1900
	30	437	10.28	363.10	110	150	72±3	DN40	3000	2700	1680	1900
	20	291	16.31	576.04	132	175	74±3	DN50	3200	2700	1680	1900
DD 4007	25	364	13.47	475.81	132	175	74±3	DN50	3200	2700	1680	1900
DR-132Z	35	510	10.21	360.60	132	175	74±3	DN50	3200	2700	1680	1900
	40	583	10.13	357.75	132	175	74±3	DN50	3200	2700	1680	1900
DD 4007	20	291	20.00	706.22	160	215	75±3	DN50	3600	3000	1830	2000
DR-160Z	25	364	16.07	567.47	160	215	75±3	DN50	3600	3000	1830	2000
DD 4057	20	291	23.48	829.28	185	250	76±3	DN50	3800	3000	1830	2000
DR-185Z	25	364	18.45	651.65	185	250	76±3	DN50	3800	3000	1830	2000
	20	291	25.33	894.55	200	270	76±3	DN50	4800	3000	1830	2000
DR-200Z	25	364	23.28	822.14	200	270	76±3	DN50	4800	3000	1830	2000
	30	437	21.00	741.53	200	270	76±3	DN50	4800	3000	1830	2000
	20	291	30.21	1066.82	220	300	78±3	DN65	5000	3300	1930	2250
DR-220ZW	25	364	25.08	885.63	220	300	78±3	DN65	5000	3300	1930	2250
	30	437	22.82	805.74	220	300	78±3	DN65	5000	3300	1930	2250
DR-250ZW	25	364	28.80	1016.99	250	350	78±3	DN65	5500	3300	1930	2250
	30	437	27.21	960.89	250	350	78±3	DN65	5500	3300	1930	2250
DD 0007	25	364	29.91	1056.12	280	375	80±3	DN65	5800	3300	1930	2250
DR-280ZW	30	437	29.60	1045.42	280	375	80±3	DN65	5800	3300	1930	2250

Dream Compressor Specifications follow the principle of the followings:

#### Specifications Medium Pressure Permanent Magnet Variable Frequency Screw Compressor

DR(V)-Z 系列 永磁变频螺杆式压缩机 DR(V)-Z medium pressure	排气压力 Working pressure		排气量 Capacity		功率 Power		噪音 Noise	空气出 口管径 Air outlet	机组净重 Net weight	外形尺寸(mm) Dimensions(mm)		
oermanent magnet variable equency screw compressor	bar	psig	( m3/min)	cfm	kW	hp	dB	pipe diameter	kg	长 Length	宽 Width	高 Height
DRV-75Z	20	291	4.2-7.04	147-246.4	75	100	67±3	DN32	2400	2400	1580	1700
	25	364	3.8-6.35	133-222.25	75	100	67±3	DN32	2400	2400	1580	1700
	30	437	3.365-6.08	117.775-212.8	75	100	67±3	DN32	2400	2400	1580	1700
	35	510	3.4-5.71	119-199.85	75	100	67±3	DN32	2400	2400	1580	1700
	40	583	3.2-5.36	112-187.6	75	100	67±3	DN32	2400	2400	1580	1700
DRV-90Z	20	291	7.2-11.97	252-418.95	90	120	68±3	DN32	2800	2400	1580	1700
	25	364	4.12-6.86	144.2-240.1	90	120	68±3	DN32	2800	2400	1580	1700
	30	437	4.1-6.85	143.5-239.75	90	120	68±3	DN32	2800	2400	1580	1700
	35	510	4.1-6.83	143.5-239.05	90	120	68±3	DN32	2800	2400	1580	1700
	40	583	4.1-6.82	143.5-238.7	90	120	68±3	DN32	2800	2400	1580	1700
DRV-110Z	20	291	8.6-14.36	301-502.6	110	150	70±3	DN40	3100	2700	1680	1900
	25	364	7.54-12.57	263.9-439.95	110	150	70±3	DN40	3100	2700	1680	1900
	30	437	6.17-10.28	215.95-359.8	110	150	70±3	DN40	3100	2700	1680	1900
DRV-132Z	20	291	9.8-16.42	343-574.7	132	175	72±3	DN40	3300	2700	1680	1900
	25	364	8.9-14.83	311.5-519.05	132	175	72±3	DN40	3300	2700	1680	1900
	30	437	7.4-12.35	259-432.25	132	175	72±3	DN40	3300	2700	1680	1900
	35	510	6.6-11.11	231-388.85	132	175	72±3	DN40	3300	2700	1680	1900
	40	583	6.1-10.23	213.5-358.05	132	175	72±3	DN40	3300	2700	1680	1900
DRV-160Z	20	291	11.8–19.72	413-690.2	160	215	74±3	DN50	3800	3000	1830	2000
	25	364	9.7-16.17	339.5-565.95	160	215	74±3	DN50	3800	3000	1830	2000
	40	583	7.3-12.17	255.5-425.95	160	215	74±3	DN40	3700	2700	1680	1900
DRV-185Z	20	291	14.1-23.48	493.5-821.8	185	250	76±3	DN50	4000	3000	1830	2000
	25	364	11.71-19.52	409.85-683.2	185	250	76±3	DN50	4000	3000	1830	2000
DRV-200Z	20	291	14.37-23.95	502.95-838.25	200	270	76±3	DN50	4200	3000	1830	2000
	25	364	13.9-23.28	486.5-814.8	200	270	76±3	DN50	4200	3000	1830	2000
DRV-220ZW	20	291	17.8-29.72	623-1040.2	220	300	78±3	DN65	5000	3300	1930	2250
	25	364	16-26.74	560-935.9	220	300	78±3	DN65	5000	3300	1930	2250
	30	437	13.6-23.3	476-815.5	220	300	78±3	DN65	5000	3300	1930	2250
DRV-250ZW	20	291	19.4-32.45	679-1135.75	250	350	78±3	DN65	5700	3300	1930	2250
	25	364	17.7–29.5	619.5-1032.5	250	350	78±3	DN65	5700	3300	1930	2250
	30	437	16.8-28	588-980	250	350	78±3	DN65	5700	3300	1930	2250
DRV-280ZW	20	291	21.3-35.5	745.5-1242.5	280	375	80±3	DN65	6000	3300	1930	2250
	25	364	19–31.73	665-1110.55	280	375	80±3	DN65	6000	3300	1930	2250
	30	437	18.9–31.5	661.5-1102.5	280	375	80±3	DN65	6000	3300	1930	2250

<sup>4.</sup>Please consult our company for use in harsh working conditions such as with high temperature, extreme humidity, extreme cold and dust,etc.

<sup>1.</sup> The value of the capacity is the air volume flow under the following conditions (temperature: 32°C, atmospheric pressure: 101.325KPa).

<sup>2.</sup> The exhaust pressure is the value after the check valve.

<sup>3.</sup> The noise value is the value in the room without echo, the test tolerance: 3dB(A).

<sup>5.</sup> Dimensions and weight of the whole machine are subject to change without notice.

<sup>6.</sup> Piease do not use compressed air directly in medical equipment for human inhalation.