TUPORY 特普瑞

Nanjing TUPORY Power Technology Co., Ltd.

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Provide medium and high pressure oil-free compressors

THE BEST SOLUTION OF THE SYSTEM

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01

COMPANY PROFILE

Nanjing TUPORY Power Technology Co., Ltd. has a high-quality and experienced technical team, mastering the core technology of compressor design and manufacturing, and can continuously develop more efficient, more energy-saving and more reliable compressors. At present, the company focuses on the PET industry. In particular, the L-type oil-free water-cooled air compressor specially designed for the industry can truly operate continuously for 24 hours without interruption, providing the best solution of the medium and high pressure oil-free compressor system for food and beverage such as mineral water, juice, edible oil, milk and the pharmaceutical industry.

Product improvements from valves to piston rings, from cylinders to cooling methods, from whole machine control to ease of maintenance have overcome the shortcomings of previous generations of products, which had many minor faults and poor reliability. In particular, with the motor power unchanged, the gas volume of the improved model has been greatly increased by more than 20%. In the spirit of win-win cooperation, TUPORY will strive to provide partners with standard or specially customized, reliable, medium and high pressure oil-free compressor.

PET
The company focuses on the PET industry

24
Can operate continuously for 24 hours without interruption

6
the sixth-generation product

20%+
The air volume of the model has increased significantly by more than 20%

02 THE WHOLE MACHINE REALIZES DYNAMIC BALANCE

The ingenious dynamic balance design has broken through the traditional concept of the balance design of the L-type compressor, making the whole machine operate more smoothly and without the need for a special foundation.

Perfectly integrated with the variable frequency and PLC intelligent systems, making the L-type oil-free compressor more energy-efficient.

- From starting, no-load, loading to stopping, the variable frequency and PLC technology are used to make each working cycle almost not waste electric energy; in addition, with the application of the half-load function, the energy conservation of the whole process from 25% to 100% of the rated air volume is achieved.
- The L-type oil-free compression with full-function variable frequency PLC intelligent control, compared with the traditional model with star-delta starting, saves 20% to 50% of the electric energy (more if the no-load time is long).

03 QUALITY INSPECTION

48+ hour

Each machine has undergone ASME nozzle flow testing for no less than 48 hours.

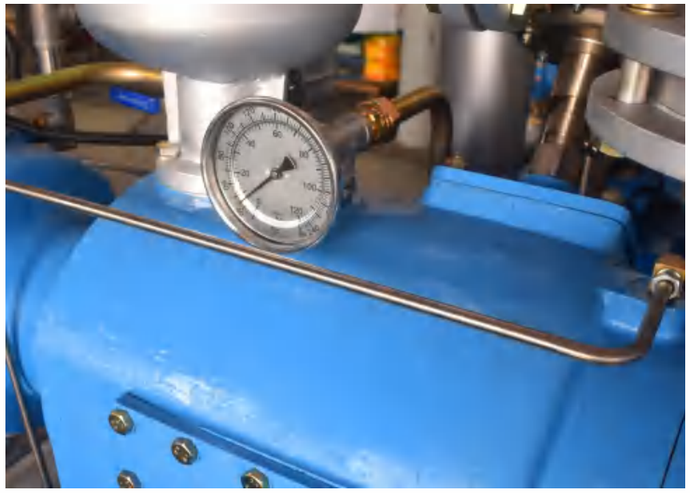
GB3853/T standard

To ensure that each product fully complies with the national standard GB3853/T standard

04 UNIQUE ADVANTAGES OF L-TYPE OIL-FREE MACHINE

There are balance chambers at the second and third levels, and they are connected to the first level. The most direct benefit of such a design lies in that: both the second and third levels have back pressure, which reduces the absolute working pressure of the second and third levels, especially the service life of the third-level ring is significantly improved. At the same time, the high-pressure third-level packing is omitted, and the problem that the high-pressure packing is prone to damage is eradicated, and there is no such vulnerable part.

The first level is designed as a vertical free fall, The advantage lies in that the heaviest first-level piston assembly completely has no problem of side wear, and the service life of the first-level piston ring exceeds 12,000 hours; because the downward stroke is a free fall, the power consumption of half of the piston stroke is reduced, and the first-level power consumption accounts for 58-62% of the total power consumption, making the specific power of the L-type oil-free compressor in a leading position.



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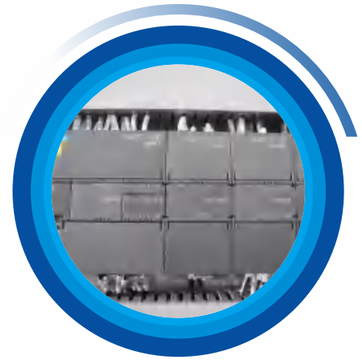
05 PLC INTELLIGENT CONTROL SYSTEM

The PLC intelligent control system has functions such as local, remote, and communication. It controls the temperature and pressure of each level of the machine, as well as the temperature and pressure of the cooling water and lubricating oil. Various functions such as fault alarm and shutdown are set. The system can not only ensure the safety of the machine operation, but also prompt timely maintenance to ensure the reliable and efficient operation of the compressor system.



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01 INTEGRATED MULTI-IMPEDANCE MUFFLER

The patented six-level noise reduction principle has been adopted, which greatly reduces the noise of the oil-free compressor.

02 NON-CONTACT HIGH PRESSURE PISTON RING

The piston ring of the high-pressure stage is prone to wear due to the high working pressure, which is a common problem of oil-free compressors. TUPORY's unique non-contact design with a patented invention completely changes the requirements for the ring body material, breaks the monopoly of the piston ring material technology in Europe and America, and makes the service life of the high-pressure stage ring almost the same as that of the low-pressure stage.

03 THE DESIGN AND APPLICATION OF THE GAS VALVES AT ALL LEVELS OF THE EXTRA-LARGE PASSAGE

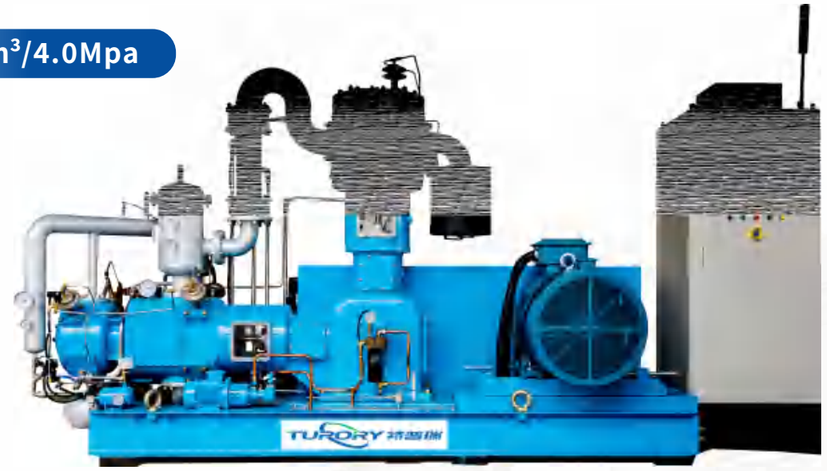
TUPORY team overcame the confinement of the traditional oil-free compressor valve design, and the unique design used an extra-large channel valve. Without increasing the external dimension of the valve, the effective flow cross-section of each valve almost doubled; in this way, while at least maintaining the original effective flow cross-section, the number of valves was reduced. That is, it changed from 14 per unit to 8 per unit. While greatly reducing the cost, it also reduced the clearance volume and improved the efficiency of the compressor.

0 TECHNICAL PARAMETERS

6-8m³/4.0Mpa

MODEL	DISPLACEMENT m3/min	DDISCHARGE PRESSURE Mpa	MOTOR POWER kw	ROTATIONAL SPEED r.p.m	DIMENSION (L*W*H) mm	WEIGHT kg
TPR-6/40	6	4.0	75	500	4200*1500*2300	2500
TPR-8/40	8	4.0	90	580	4200*1500*2300	2800
TPR-10/40	10	4.0	110	500	4900*1810*2400	5000
TPR-12/40	12	4.0	132	580	4900*1810*2400	5500
TPR-16/40	16	4.0	160	390	5450*2200*2780	7400
TPR-18/40	18	4.0	185	420	5450*2200*2780	7600
TPR-20/40	20	4.0	200	470	5450*2200*2780	7800
TPR-22/40	22	4.0	220	360	5750*2250*2980	8000
TPR-25/40	25	4.0	250	370	5750*2250*2980	8500
TPR-28/40	28	4.0	285	420	5750*2250*2980	8800
TPR-30/40	30	4.0	315	420	5750*2250*2980	9000

10-12m³/4.0Mpa



16-20m³/4.0Mpa

22-32m³/4.0Mpa