

Nanxiang Air Compressors

A Vintage Supplier of Compressed Air System Solutions Since 1985

Professional ■ Intelligent ■ Energy Saving ■ Innovation

Smart Power Saving

Low-energy Operation



Oil-Injected PM VSD Screw Air Compressor



Integrated Air Solutions for Industrial Performance

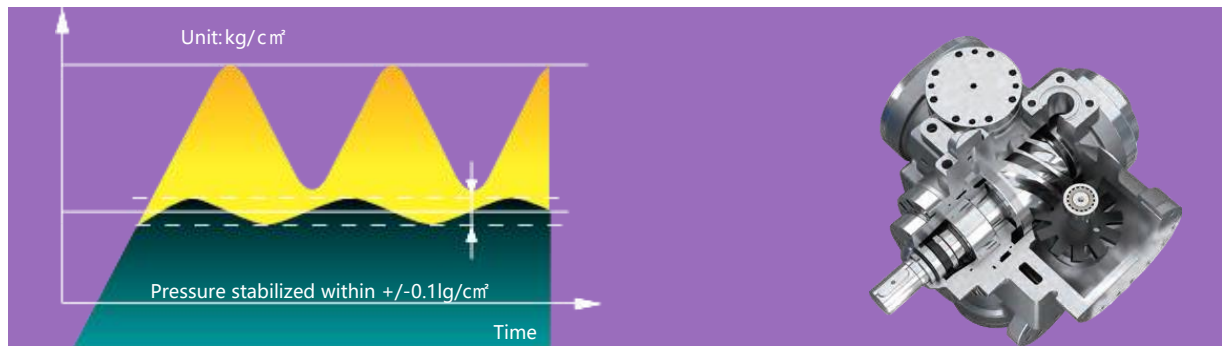
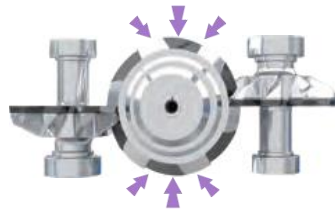
Single Screw Air End — A More Reasonable & Reliable High-Pressure Section

Proprietary Sealing Component Design

Serving as the third and highest-pressure stage of the medium-pressure air compressor, it operates at internal pressures well beyond those of conventional machines. A purpose-designed high-pressure sealing system prevents leakage, delivering dependable, worry-free performance in continuous high-pressure service.

Single-Screw High-Pressure Section — Uniquely Advantageous

- Fully balanced compression with no radial unbalanced forces.
- No leakage triangle, offering higher volumetric efficiency than twin-screw compressors.
- Minimal pulsation and vibration, much more environmentally friendly than reciprocating compressors.
- High pressure, high efficiency, and high economic performance.
- Professionally designed by EternalComp to ensure reliable operation.



Atmospheric-Pressure Section — High-Efficiency Two-Stage Compression Air End

- The two compression stages are precision-gear driven, enabling each stage's rotor to achieve optimal tip speed and thereby delivering improved compressor energy efficiency.
- A mist of cooling oil is injected between the first and second stages for intermediate cooling. The optimized flow path ensures minimal pressure loss as the compressed air passes through, significantly enhancing efficiency.
- The entire series comes standard with permanent-magnet variable-frequency motors. Combined with vector control, the system precisely adjusts speed in response to changes in air demand, delivering higher efficiency and significant energy savings.
- The atmospheric stage produces first-stage compressed air at 6 bar. After oil-air separation and cooling, it passes through a standard external refrigerated dryer before entering the high-pressure compression stage. Compression in this stage is closer to ideal isothermal compression, resulting in higher compression efficiency.



High-Pressure End — Reliable Single-Screw Air End

- No leakage triangle, volumetric efficiency exceeding 90%, higher overall efficiency, and a single-stage compression ratio of up to 30 at atmospheric pressure.
- The meshing pair offers better dynamic balance, extending the service life of bearings and other components while reducing overall vibration and noise.
- The star wheels are made of special rare materials with superior mechanical properties, and precision machining reduces vibration and wear.
- The high-precision manufacturing of the single-screw compressor housing in the high-pressure stage enables it to withstand pressures of up to 70 bar.
- The permanent-magnet variable-frequency motor, combined with vector control technology, precisely regulates speed and compression ratio, achieving a pressure regulation range of 2.0–5.0 MPa.

Technical Advantages of Medium and High Pressure Screw Air Compressors



Reliable

The star rotor adopts continuous carbon fiber composite material, offering excellent mechanical properties, corrosion resistance and wear resistance with higher stiffness. The main unit housing strictly follows the API 619 standard, made of high-strength one-piece cast housing with pressure bearing capacity up to 100 bar, ensuring precise meshing of screw and star rotor. The high-pressure stage is equipped with an independent small air filter bypass protection to prevent rotor seizure during startup



Quiet

Independently designed main unit with noise reduction technology; gear precision reaches AGMA Class 13 for low vibration. The soundproof enclosure is lined with thickened sound-absorbing cotton, and automotive-grade sealing strips are added at door panel edges; independent air inlet channel and electrical control box structure effectively isolate noise. Customized "Kangshi" silencer reduces high-frequency pipeline noise.



Leak-Free

Anti-oil-mist pressure release device ensures stable oil tank pressure and prevents oil mist from polluting the machine room. Stainless steel pipes with argon arc welding ensure excellent airtightness and corrosion resistance; three-way separation of oil, gas and water circuits allows easy maintenance. High-precision pressure sensors and unloading valves adjust internal pressure in real time to protect seals.



Energy-Efficient

Permanent magnet variable frequency motor/fan eliminates excess pressure and no-load operation, improving efficiency by 10–25%. The main frequency converter achieves constant pressure output, improving efficiency by 5–10%. Three-to-four-stage compression reasonably distributes pressure, improving efficiency by 10–15%. Inter-stage cooling approaches isothermal compression, improving efficiency by 8%.

Medium-Pressure Screw Air Compressor VS Medium-Pressure Piston Air Compressor

A Runs more smoothly

No reciprocating impact; minimal vibration and low noise.

B Superior Energy Efficiency

More energy-efficient than piston-type machines, resulting in lower long-term operating costs.

C Easier to maintain

Fewer wear-and-tear parts, significantly lower failure rate.

D More continuous gas supply

Suitable for 24-hour continuous high-pressure operation.

E Longer lifespan

Higher overall system reliability and a better return on investment.

F Smarter Operation

Remote Monitoring, Fault Alerts, Troubleshooting, Maintenance Schedule Reminders.



Medium-Pressure Oil-Injected PM VSD Screw Air Compressor

V= VSD

Model	FAD (m3/min)	Rated Pressure (MPa)	Motor Power (kw)	Dimension (mm)	Weight (kg)	Noise db(A)	Cooling Mode	Outlet size (mm)
NXME-037V	3.5	2.0~3.0 3.5~4.0	35 37	2325x1500x1800	1550	60	Air Cooling	DN25
NXME-045V	4.5	2.0~3.0 3.5~4.0	40 45	2325x1500x1800	1650	62	Air Cooling	DN25
NXME-055V	6	2.0~3.0 3.5~4.0	50 55	2325x1500x1800	1800	65	Air Cooling	DN25
NXME-075V	8.5	2.0~3.0 3.5~4.0	70 75	2325x1500x1800	1950	69	Air Cooling	DN25
NXME-090V	10.5	2.0~3.0 3.5~4.0	85 90	2650x1700x2040	2650	70	Air Cooling	DN40
NXME-110V	12	2.0~3.0 3.5~4.0	100 110	2650x1700x2040	2760	71	Air Cooling	DN40
NXME-130V	14	2.0~3.0 3.5~4.0	120 130	3170x1950x2105	3250	72	Air Cooling	DN40
NXME-150V	16	2.0~3.0 3.5~4.0	140 150	3500x2050x2360	3850	73	Air Cooling	DN50
NXME-165V	18	2.0~3.0 3.5~4.0	155 165	3500x2050x2360	4250	75	Air Cooling	DN50
NXME-185V	20	2.0~3.0 3.5~4.0	175 185	3500x2050x2360	4750	60	Air-Cooled/ Water-Cooled	DN50
NXME-200V	23	2.0~3.0 3.5~4.0	190 200	3500x2050x2360	4950	62	Air-Cooled/ Water-Cooled	DN50
NXME-220V	25	2.0~3.0 3.5~4.0	200 220	3500x2050x2360	5050	65	Air-Cooled/ Water-Cooled	DN50
NXME-250V	28	2.0~3.0 3.5~4.0	220 250	4450x2100x2150	5450	69	Air-Cooled/ Water-Cooled	DN80
NXME-270V	30	2.0~3.0 3.5~4.0	250 270	4750x2100x2250	6200	70	Air-Cooled/ Water-Cooled	DN80
NXME-315V	35	2.0~3.0 3.5~4.0	300 315	4750x2100x2250	6650	71	Air-Cooled/ Water-Cooled	DN80
NXME-355V	40	2.0~3.0 3.5~4.0	340 355	4950x2200x2250	6980	72	Air-Cooled/ Water-Cooled	DN100
NXME-405V	45	2.0~3.0 3.5~4.0	380 405	5100x2300x2350	7050	73	Air-Cooled/ Water-Cooled	DN100
NXME-450V	50	2.0~3.0 3.5~4.0	420 450	5100x2300x2350	7250	75	Air-Cooled/ Water-Cooled	DN100

The above technical parameters are for reference only. If there is any modification, please consult us!

OIL-FREE AIR COMPRESSOR

Water-lubricated Oil-Free Screw Compressors



- 01** Smoother Operation:
Water film damping reduces vibration, with noise as low as 60–75 dB, ideal for clean workshops.
- 02** Better Energy Efficiency:
Continuous water heat absorption minimizes temperature rise, saving 15% on electricity.
- 03** Simpler Maintenance:
Only water filter and air filter needed; no oil filter, oil, or oil-gas separator required.
- 04** Greener with No Waste Oil:
Zero lubricating oil and zero waste oil disposal, meeting GMP environmental requirements.
- 05** Longer Service Life:
Low-temperature and low-wear operation doubles the main unit lifespan.
- 06** Simpler and More Reliable System:
No inter-stage cooling, resulting in lower failure rates and greater stability.

Medium-Pressure Oil-Free Water-Lubricated PM VSD Screw Air Compressor

100% Oil-Free — Water Replaces Oil, Eliminating Oil Contamination at the Source

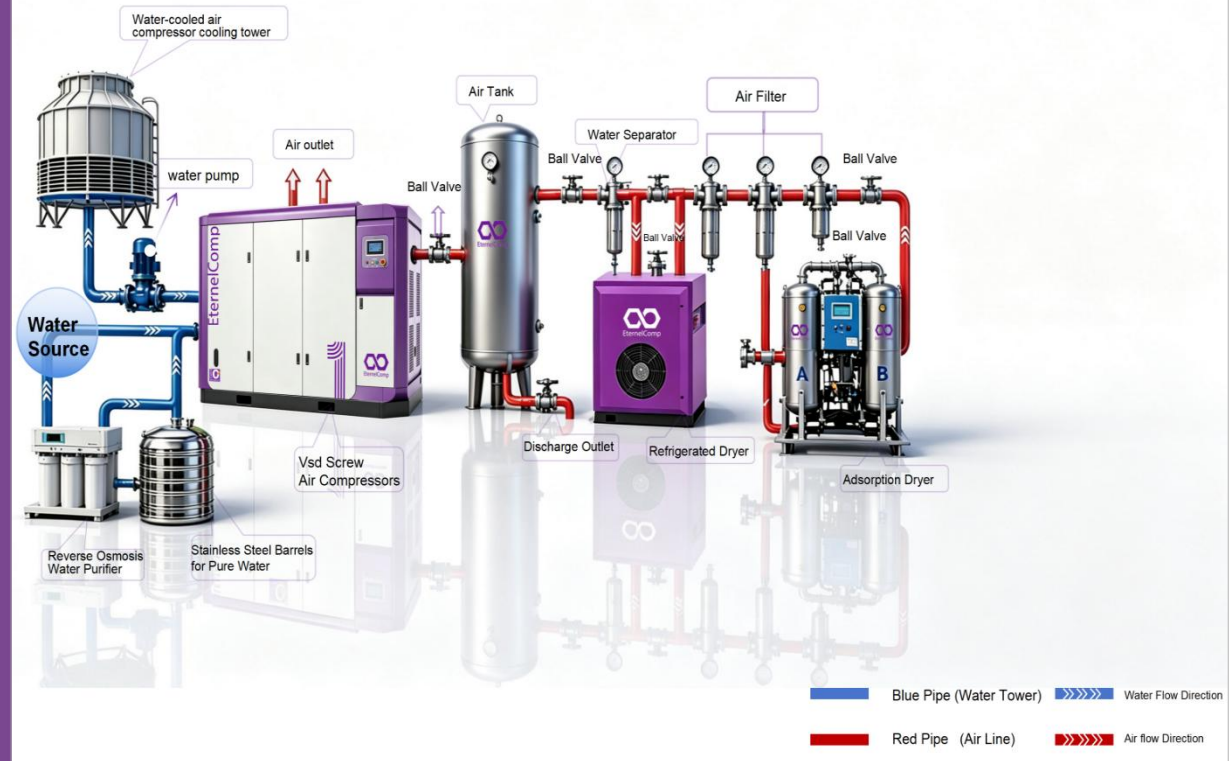


- Water serves a triple function: cooling, lubrication, and sealing. Superior Energy Efficiency—Up to 15% Power Savings.
- The screw, star wheel, and bearings are all water-lubricated, water-cooled, and water-sealed.
- This fundamentally eliminates environmental pollution caused by lubricating oil and delivers 100% oil-free compressed air.



Balancing Efficiency and Longevity

- Exhaust temperature $\leq 55^{\circ}\text{C}$, approaching ideal isothermal compression.
- High thermal efficiency, low specific power, and minimal internal leakage.
- Components operate at low temperatures over the long term, ensuring a long service life.



A Breakthrough in Oil-Free Water-Lubricated Technology



Key Customer Benefits

Zero Contamination Risk: Eliminates oil leaks, ensuring 100% ISO Class 0 certified oil-free air for sensitive environments.

Simplified & Eco-Friendly Maintenance: Bypasses complex oil-gas separation systems, eliminating synthetic oil replacements and hazardous waste disposal costs.

Simplified Maintenance & Minimal Downtime

Unlike traditional oil-free piston compressors—which require frequent replacement of lubricants, piston rings, packings, valves, and filters—our oil-free water-lubricated compressor only requires replacing the air filter and water filter element. This streamlined design dramatically reduces consumables costs and minimizes planned maintenance downtime, ensuring continuous productivity.



EternalComp

V= VSD

Medium-Pressure Oil-Free Water-Lubricated PM VSD Screw Air Compressor

Model	Rated Pressure (MPa)	FAD (m3/min)	Motor Power (kw)	Dimension (mm)	Weight (kg)	Outlet size mm	Noise db(A)±2	Lwbrating Water Quantity L	Cooling Water T/H
NXMY-055V	2	6.5	55	2750x1450x1650	2250	DN32	65	135	11
	3	5.5							
	4	4.5							
NXMY-075V	2	8.6	75	2750x1450x1650	2350	DN32	68	184	15
	3	7.6							
	4	6.5							
NXMY-090V	2	10.5	90	3200x1500x1700	3500	DN40	70	221	18
	3	9.5							
	4	8.2							
NXMY-110V	2	14.5	110	3200x1500x1700	4200	DN50	75	270	22
	3	12.5							
	4	11							
NXMY-132V	2	17.6	132	3200x1500x1700	4650	DN50	75	324	27
	3	14.5							
	4	13.3							
NXMY-160V	2	21.5	160	3500x2050x2360	5100	DN65	78	393	33
	3	17.5							
	4	14.5							
NXMY-185V	2	24.5	185	3500x2050x2360	5600	DN65	78	454	38
	3	20							
	4	17							
NXMY-200V	2	27	200	3500x2050x2360	6050	DN65	78	491	41
	3	21.6							
	4	18							
NXMY-220V	2	29.2	220	3500x2050x2360	6325	DN65	80	540	45
	3	23.8							
	4	22							
NXMY-250V	2	33.5	280	4300x1950x1980	6800	DN80	80	614	51
	3	28.5							
	4	24							
NXMY-280V	2	37.2	250	4900x2050x2100	6980	DN100	82	688	57
	3	30.5							
	4	28.7							
NXMY-315V	2	42.8	315	4900x2050x2100	7100	DN100	85	774	65
	3	35.6							
	4	32							
NXMY-355V	2	48.5	355	4900x2050x2100	7250	DN125	85	872	73
	3	40.6							
	4	35.5							
NXMY-400V	2	54.5	400	5100x2150x2100	7500	DN125	85	982	82
	3	46.5							
	4	40							
NXMY-450V	2	60.5	450	5100x2150x2100	7600	DN125	85	1105	92
	3	52.6							
	4	45							

The above technical parameters are for reference only. If there is any modification, please consult us!

Structure Defines Efficiency — Your Smart Choice

Pharmaceutical Manufacturing



Automatic start-stop function, automatic adjustment of air outtp, fault self-protection function, remote monitoring and control

Food Industry



Oil-free, water-free, impurity-free, vibration-free, and quiet

Solar Industry



Screw two-stage compression system driven by an efficient permanent magnet synchronous motor, ensuring exhaust volume remains constant and never declines



MY Series — Engineered For Superior Efficiency And Energy Savings In Medium & High-Pressure Applications

Pipeline And Pressure Vessel Pressure Testing



Oil-free, water-free, impurity-free, vibration-free, and silent

PET Bottle Blowing



Two-stage compression system with efficient permanent magnet synchronous motor drive, ensuring consistent exhaust volume without decline

Drilling Engineering



Two-stage compression system driven by an efficient permanent magnet synchronous motor, ensuring that exhaust volume remains constant and never declines

Chemical Industry, Petroleum



Designed for a service life of up to 25 years, with 24-hour, 53-6day uninterrupted operation, and a 5000-hour extended maintenance cycle.