

SCREW COMPRESSORS

AERZEN AIR ENDS VMX

Premium air ends with oil injection from AERZEN for stationary and mobile air compressors



AERZEN

RELYING ON THE SAFETY OF A GOOD DECISION: THE PREMIUM AIR ENDS WITH OIL INJECTION FROM AERZEN.

Powerful, efficient and designed for continuous operation: the oil-injected VMX Premium air ends from AERZEN have a proven track record for reliability in tough situations – regardless of local conditions. They can be used for both stationary and mobile air compressors and for temperatures between -10 and +45 °C. And with 10 power levels, they are sure to become your first choice when it comes to configuring high-quality air compressors.

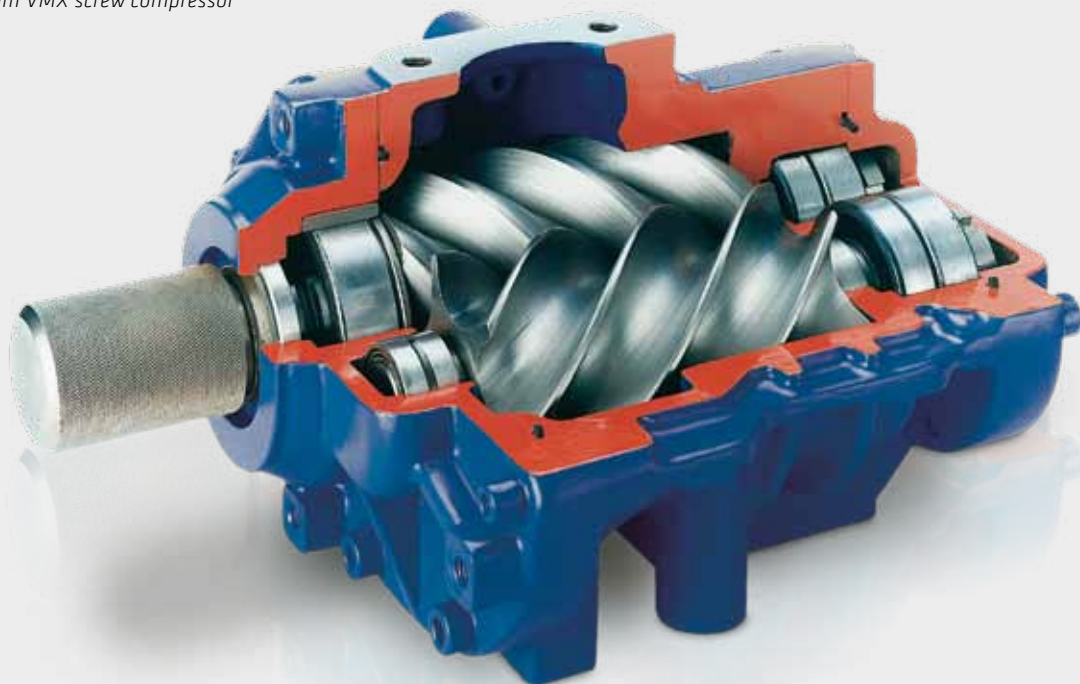
Flexibility means having the right performance level for each application.

The VMX screw compressors offer a great deal of flexibility when it comes to configuration tailor-made solutions for our clients. There are a total of 10 models to choose from, with intake volumes from 70 to 3,180 m³/h and drive speeds of between 1,200 and 7,500 rpm. They are designed to handle positive pressures of up to 13 bar, and can reach down to 0.1 bar in the negative pressure range. And if you need even more flexibility – like for primary pressure operation – we can customize the stages for you. By the way: all VMX screw compressors can operate with either electric or internal combustion drives and are designed for frequency inverter operation.

High efficiency, high quality and 20,000 hours of maintenance-free operation – that's what you get with the VMX.

Screw compressors from AERZEN mean first-class workmanship and high-quality industrial materials. They also stand for extraordinary durability. Decisive factors when it comes to operating, maintenance and life-cycle costs. The rotors in the VMX air ends are practically contact-free for optimal efficiency, wear parts are kept to a minimum and there aren't any intake/exhaust valves at all that would need maintenance. This means ideal maintenance conditions and a very long service life: you can hold off on that general inspection for a good 20,000 OH.

Premium VMX screw compressor



The premium VMX screw compressors operate in a reliable pressure range of between 4 and 13 bar. If required, we can also customize them for higher pressure ranges or for primary pressure operation.



Reliable delivery – easy installation.

The Premium VMX air end stages are delivered as complete components – quickly, securely, reliably, globally. Their compact design and low weight make them easy to install in the compressors. No special foundation is required since all rotating elements are dynamically balanced. Another sign of AERZEN quality.

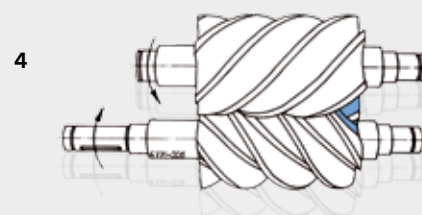
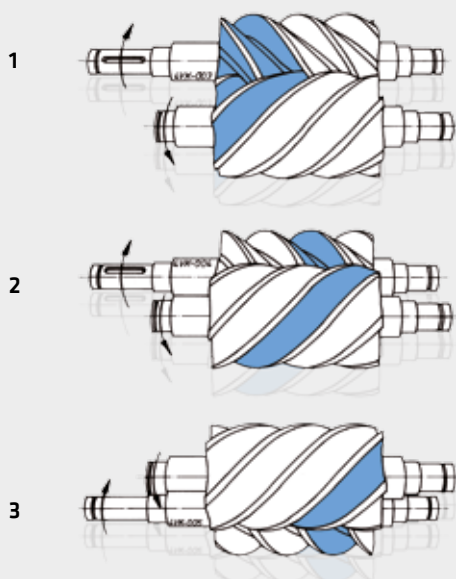
Cutting-edge technology and the know-how for (almost) all your applications.

Behind the VMX screw compressors are over 70 years of experience in the development of high-quality compressor technology and more than 145 years in blower production. AERZEN is counted among the world's leading compressor manufacturers. The expertise that we

have gathered from thousands of successful projects in all the Earth's temperature zones is focused on the development of every more efficient and client-specific applications. For you as compressor manufacturers this means the security of knowing that the AERZEN VMX screw compressors will always be the solution that best fits your requirements.

Always there for you – the world over.

Long service life and low maintenance costs are hallmarks of our products. If you should need our direct assistance, we are there for you. With over 2000 employees world-wide in more than 43 affiliates and representatives in more than 100 countries on all continents. That's what we mean by reliability.



1 Intake

Air enters through the intake orifice into the open suction-side rotor grooves

2/3 Compression

As the rotors continue to rotate, the intake orifice closes, oil is injected, the volume diminishes and the pressure rises

4 Discharge

Compression is completed, final pressure reached, and discharge commences

The VMX screw compressors from Aerzen.

Premium quality with many advantages.

- First-class industry quality from Aerzen
- Wide performance range for a wide variety of applications
- Configurable for higher pressure ranges or admission pressure operation
- Optimal efficiency through proper lubrication, cooling and rotor/housing sealing
- High level of operational safety
- Low operating and maintenance costs
- Contact-free rotors, no timing gears
- Very few wear parts
- No intake/exhaust valves that need maintenance
- Low-vibration, low-noise operation
- Compact size and low weight for easy installation
- No special foundation necessary
- All stages designed for frequency inverter operation
- Global sales and service network

How it works

The VMX screw compressors are twin-shaft rotary piston machines that function on the principle of positive displacement combined with internal compression. During conveyance from the suction port (located on top of the housing) to the discharge port (located at the bottom of the housing), the air is compressed in ever-diminishing spaces and discharged into the discharge nozzle. During compression, oil is injected into the compressor's operational chambers. The oil has the following function: lubricating the bearings and rotors, sealing the clearances between each of the rotors and between the rotors and the cylinder, purging compression heat and damping noise. The oil is removed from the airstream in an oil separator and cooled down. The bearings and rotors are lubricated via specially designed injection holes and is final pressure-dependent – eliminating the need for a separate oil pump. Regulation of the injection volume need to be temperature-dependent, meaning that final compression temperature will be about 85 °C.

Performance data: Intake pressure p1 = 1 bar, intake temperature t1 = 20 °C

Model	Q _v (m ³ /min) min - max	* P (kW) min - max	Drive type		
			Belt	Direct	Gears
VMX 22 R	1,15 - 3,5	15 - 22	x		
VMX 37 D	1,15 - 5,5	15 - 37		x	
VMX 45 RD	2,5 - 6,8	15 - 45	x	x	
VMX 75 RD	4,5 - 11,0	30 - 75	x	x	
VMX 110 RD	7,5 - 17,5	55 - 110	x	x	
VMX 160 RD	11,5 - 28,3	75 - 160	x	x	
VMX 160 G	11,5 - 28,3	75 - 160			x
VMX 250 R	18,0 - 42,0	132 - 250	x		
VMX 250 D	18,0 - 53,0	132 - 355		x	
VMX 250 G	18,0 - 53,0	132 - 355			x

* Compressor shaft power

Subject to technical modifications - and technological changes

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