SCREW COMPRESSORS
AERZEN AIR ENDS VMX

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

AERZEN

THE PEACE OF MIND THAT COMES WITH THE RIGHT DECISION:
PREMIUM AIR ENDS WITH OIL INJECTION FROM AERZEN.

Powerful, efficient and designed for continuous operation: oil-injected VMX premium air ends from AERZEN have a proven track record of reliability in tough situations – regardless of local conditions. They can be used for both stationary and mobile air compressors, for temperatures ranging from -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 the right performance level for each application.
AERZEN VMX screw compressors offer a great deal of flexibility when it comes to configuring tailor-made solutions for our clients. With a total of 10 models to choose from, they can handle intake volumes from 70 to 3,180 m^3/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 should you require even greater flexibility – as in the case ofprimary pressure operation – we can customise the stages for you. It is also worth noting that all VMX screw compressors can operate either by electric or internal combustion drives, and are designed for frequency inverter operation.

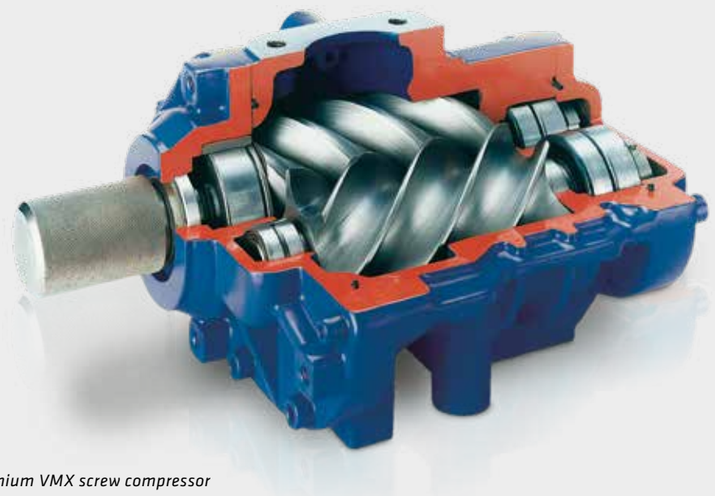
High efficiency, high quality and 20,000 hours of maintenance-free operation – what to expect from the VMX.
Screw compressors from AERZEN stand for first-class workmanship and high-quality industrial materials. They also stand for extraordinary durability. Each of the above is a decisive factor when 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 is not a single intake or exhaust valve that requires 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.

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

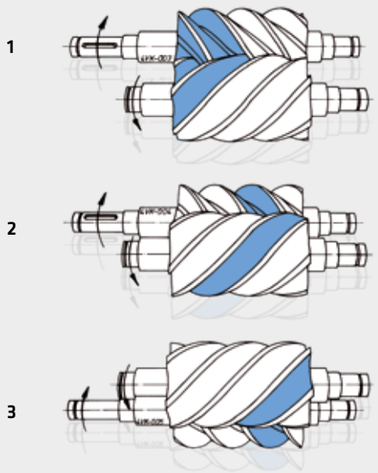
Reliable delivery – easy installation.
The premium VMX air end stages are delivered as complete components – quickly, securely, reliably, and globally. Their compact design and light weight make them easy to install in the compressors. No special foundation is required, as all rotating elements are dynamically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

Cutting-edge technology and know-how for (practically) all your applications.
Behind AERZEN VMX screw compressors stand over 70 years of experience in the development of high-quality compressor technology, and more than 145 years in blower production. AERZEN is considered one of the world's leading manufacturers of compressors. Drawing on expertise gained from thousands of successful projects carried out in every temperature zone on earth, today our focus rests on developing increasingly efficient and client-specific applications. For customers, this means the security of knowing that AERZEN VMX screw compressors will always be the best solution for their requirements.

Always there for you - the world over.
At AERZEN, long service life and low maintenance costs are product hallmarks. Should you need our direct assistance, we are there for you. At our 50 subsidiaries around the world, 2,500 experiences employees are working hard to shape the future of compression technology. That's what we mean by reliability.



Premium VMX screw compressor



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, discharge commences

VMX screw compressors from AERZEN.
Premium quality with numerous advantages.

- First-class industry quality from AERZEN
- Wide performance range for a broad 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 requiring maintenance
- Low-vibration, low-noise operation
- Compact size and light 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 nozzle (located on top of the housing) to the discharge nozzle (located at the bottom of the housing), the air is compressed into increasingly smaller chambers then discharged through the pressure pipe. During compression, oil is injected into the compressor's operational chambers. Oil works to lubricate the bearings and rotors, seal the clearances between each of the rotors as well as between the rotors and the cylinder, purge compression heat and dampen noise. The oil is removed from the airstream in an oil separator, where it is cooled down. Lubrication of the bearings and rotors occurs via specially designed injection holes and is discharge pressure-dependent, eliminating the need for a separate oil pump. Regulation of the injection volume is 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_1 (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

* Volume flow (corresponds to the delivery volume flow measured according to ISO 1217 and converted to the reference suction conditions according to the (informative) Annex F of ISO 1217 [inlet pressure = 1.0 bar / inlet temperature = 20°C, RH = 0%])

** Compressor shaft power

Subject to technical modifications and changes

Aerzener Maschinenfabrik GmbH
Reherweg 28 – 31855 Aerzen / Germany
Phone: +49 5154 81 0 – Fax: +49 5154 81 9191
info@aerzen.com – www.aerzen.com

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EXPECT PERFORMANCE

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