

Screw Compressor Series 2C

Oil-free compressed air within a pressure range of 4 to 11.5 bar (g)
Volume flows of 166 m³/h to 9,300 m³/h



AERZEN
EXPECT PERFORMANCE

Specialists in customising and project management.

AERZEN is one of the world's leading application specialists in the handling and compression of gases with energy-efficient and resource-conserving products and production processes.

In 1868 we brought Europe's first positive displacement blower to the market. Since then, we have steadily developed into a global player. There is a reason why we have remained a family-owned company. Reliability, expertise, service, efficiency – these advantages continue to secure our success in the market today. We have made it our goal to redefine quality for YOU. Experience AERZEN and its history. We appreciate your interest in our company – Expect performance!

Special solutions from AERZEN: always one idea ahead

AERZEN is one of the world's oldest and most important manufacturers of positive displacement blowers, rotary lobe compressors, screw compressors and turbo blowers. The company stands out thanks to its outstanding innovativeness and is one of the market leaders in many areas of application. More than 2,400 experienced employees work intensely at our some 50 subsidiaries throughout the world to ensure that technical progress in compressor and blower technology continues to develop. Their technical expertise and continuous communication with customers provide a solid foundation for the intelligent and successful products from AERZEN – solutions that continue to set new standards for energy efficiency, performance and quality, and that reliably fulfil the constantly changing legal requirements.

Everything from a single source: the end of complicated

You're in good hands with us when it comes to providing project management for fast and smooth implementation of compressed air stations as well as their commissioning. But you can also count on us to handle every aspect of plant operation connected with after-sales service and compliance with guaranteed characteristics. We are especially good at meeting your specific requirements: and that not only applies to compressor engineering, but also to the independent selection of optimal components from leading suppliers. Uncompromising customer-orientation in every area of the company is one of the fundamental keys to our success. At the same time, we adapt our customer orientation and product development to regional market requirements and fields of application, with the goal of gaining accurate knowledge about our customers.

We have to understand how you work, identify your needs and figure out what you expect from us as application specialists.

The AERZEN product portfolio supports all of the usual standards and many more besides. Irrespective of the requirements for blower and compressor systems, we combine standard and custom products to form integrated solutions. Using a modular approach, we combine basic elements and individual components to form a balanced overall system that meets the specifications. And every element has its own, established place. As a result, we can react both flexibly and reliably to each individual order. Because we know that innovation involves far more than just optimised products.

We have an holistic understanding of our customers' requirements. At times we operate in familiar territory, while at other times we set innovative ideas in motion – depending on what is required. Our customers value this flexibility and professional expertise.



Know-how and engineering from a single source



Thanks to oil-free technology, highly versatile for sensitive areas of application.

AERZEN oil-free, compressing screw compressors are used in a variety of highly demanding areas of application, namely those in which the quality of the conveyed medium can significantly influence the production process and the finished product. These applications are encountered in chemical/petrochemical process engineering, electronics and semiconductor manufacturing, the food and beverage industry, the textile industry, the medical industry and many other areas.

Oil-free operation is vital for many processes, and for especially sensitive areas it is a must in terms of safety, reliability and availability. Accidental contamination can cause considerable risks, plant downtime, production losses and hence high costs. The innovative compressed air technology developed at AERZEN is absolutely oil-free according to ISO 8573-1, Class 0. We can therefore guarantee you 100 percent product purity. The possible consequences of a contaminated medium include not only contamination of the end product, but also contamination of the system as a whole and hence a total breakdown

in production. All series are designed in accordance with the AERZEN safety standard: no oil can get into the rotor chamber and, therefore, the transport routes. But oil-free also means lower costs, because there is no need for complex filter technology and no need to prepare oil-based condensates. As a result, it is possible to avoid additional maintenance work and energy losses caused by pressure drops in filters. Oil-free operation saves resources, energy and thus helps to protect the environment.



Textile industry

For applications such as yarn and fabric production, dyeing, weaving, coiling and spinning, the textile industry requires oil-free process air that protects production facilities from damage and ensures that the final products are of high quality.



Food and beverages

To preserve the quality, odour and grade of the end product, production processes in the food and beverage industry have to rule out the possibility of oil contamination. This includes processes such as fermentation, the transport of powders and other substances, and the cleaning, filling, cooling, sealing and packaging of foods. As any risks may result in substantial costs due to production losses, the main goal here is to protect the end product.



Chemical and petrochemical industry

Chemical plants require an uninterrupted supply of compressed air for smooth, continuous operation, and oil-free compressors ensure that everything runs smoothly. The service life of the assemblies is an important aspect when the plants are used continuously.



Oil and gas industry

Heat, electricity and petrol are the products in this branch. At the same time, the control, instrument and puffer air has to be 100% oil-free. Pneumatic applications in the oil and gas industry are challenging and require the highest level of safety.



Electrical and semiconductor industry

For process requirements in this industry, the compressed air must be dry and oil-free. Downtime due to contaminated systems or entire product batches must be avoided at all costs. It goes without saying that compressed air has to be reliable and readily available.



Medical and pharmaceutical technology

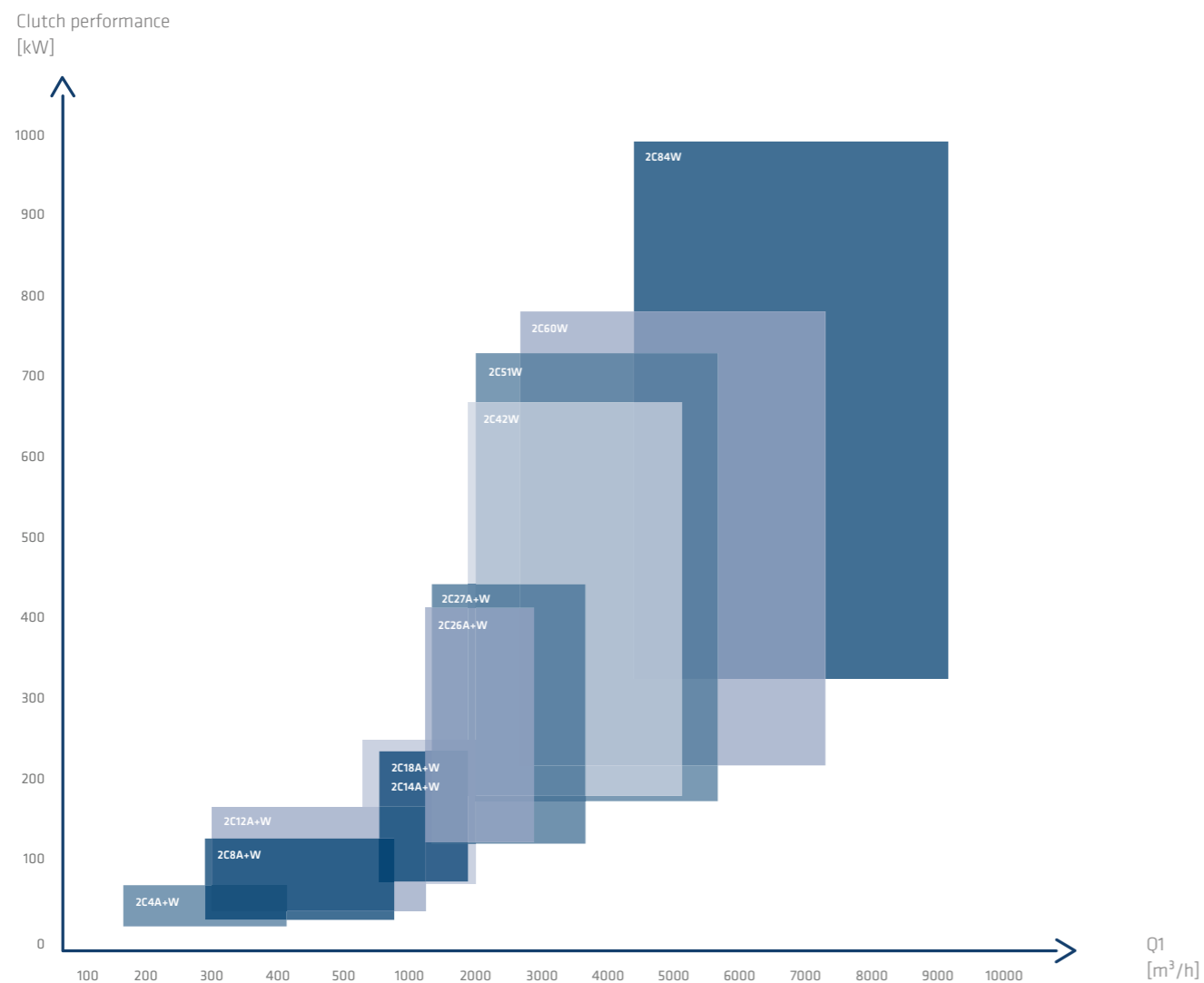
In the sensitive areas of medical and pharmaceutical technology, a number of applications have to be equipped with completely reliable and exceptionally clean, purified medical process air. An uninterrupted supply of compressed air must be guaranteed in every situation.

Continuously adjustable

Two series, one goal

AERZEN finds the right compressor solution for your application. The seamless overlap between performance ranges gives you maximum flexibility in volume sizes and optimal machine utilisation.

With two series featuring a water or air-cooled design and an individual performance capacity and size, AERZEN offers you maximal plant performance. Because it has a higher power requirement, the two-stage screw compressor offers energy advantages; thanks to the overlap areas, there is no need to switch to the next size. This ensures optimal use of space and a faster return on investment. The water-cooled design makes heat recovery possible, for an even better energy balance.



Overlap area for series types



Solutions tailored to your requirements.

Individual configuration

Optimised design ensures high operational reliability and high efficiency

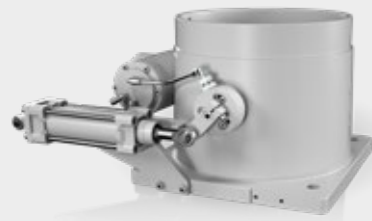
The water-cooled 2C series is characterised by reliable performance thanks to proven AERZEN engineering and the compact design. Because the design is optimised in relation to the operating point, the screw compressors achieve a high level of efficiency thanks to low pressure losses.



Further modifications:

- Sealing gas connections for safe conveying of e.g. argon, nitrogen etc.
- Documentation according to customer requirements e. g. (KKS)
- Heat recovery
- Acoustic hoods (outdoor installation, maritime climate, hood heating for winter operation, lowest noise level up to 70dB (A), earthquake-proof)
- Vibration monitoring

Water-cooled assembly

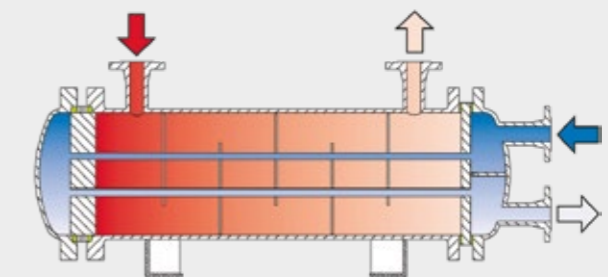


Relief valve

- Central, adjustable throttle valve and relief valve
- Optimised control range for no-load and partial-load operation

Motors

- Manufacturer-independent
- Low- and medium-voltage motors
- Special drives



Cooling system

- High plant availability thanks to an efficient cooling system
- Tailored to the operating point and operating conditions
- Low pressure losses
- Versatile application
- Design in alternative materials



Discharge silencer

- Absorbent-free
- Low pressure losses
- Versatile application

Individual configuration

That's how we customise your compressed air unit to optimum effect

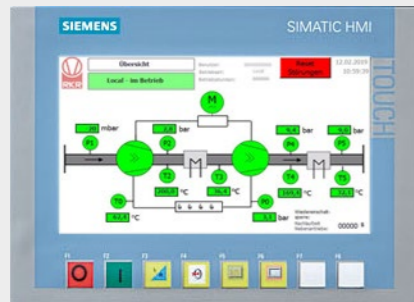
The air-cooled air compressors of AERZEN's 2C series achieve an outstanding level of efficiency thanks to customised machine control. Perfectly designed in relation to the operating point, our compressors are versatile in use. Another advantage is that they are easy to maintain and the assemblies are easy to access.



Further modifications:

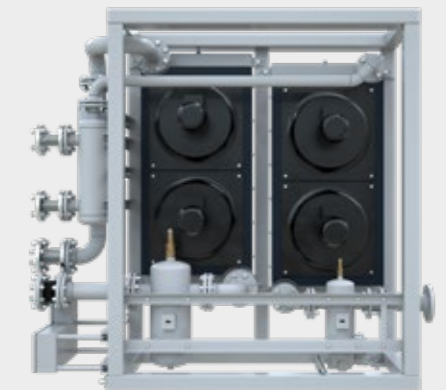
- Documentation according to customer requirements e. g. (KKS)
- Heat recovery
- Vibration monitoring
- Acoustic hoods (outdoor installation, maritime climate, hood heating for winter operation, lowest noise level up to 70dB (A), earthquake-proof)

Air-cooled assembly



Control system

- Customised control system
- Broad control range via variable-speed operation on the frequency converter
- Manufacturer-independent

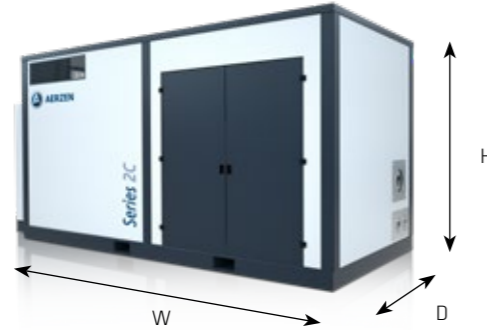


Cooling system

- High plant availability thanks to an efficient cooling system
- Tailored to the operating point and operating conditions
- Cooling temperature is adjustable
- Simple maintenance thanks to assembly design (plug and produce)
- Broad application and temperature range thanks to large cooling surfaces

Tailored to your needs

Dimensions and weights



Overview of dimensions					
Screw compressor	Maximal pressure increase* ¹	Intake volumes** for		Design* ²	Dimension* ³ H x D x W [mm]
		Δp_{max} [bar g]	V_1 [m ³ /min]		
2C4	10.5		2.8 - 7.1	166 - 425	A W 2,200 x 2,000 x 3,600 2,200 x 1,700 x 3,100
2C8	11.5		4.9 - 14.5	292 - 870	A W 2,300 x 2,100 x 4,900 2,200 x 1,800 x 3,400
2C12	10.5		5.0 - 20.0	300 - 1,200	A W 2,200 x 2,100 x 5,200 2,200 x 1,900 x 3,600
2C14	11.5		11.8 - 29.7	710 - 1,780	A W 2,480 x 2,200 x 5,900 2,430 x 1,950 x 3,980
2C18	10.5		10.8 - 33.3	650 - 2,000	A W 2,300 x 2,200 x 5,900 2,300 x 2,100 x 4,100
2C26	11.5		20.0 - 49.2	1,200 - 2,950	A W 3,000 x 2,550 x 7,100 2,800 x 2,200 x 4,300
2C27	10.5		20.8 - 60.8	1,250 - 3,650	A W 2,900 x 2,400 x 5,900 2,800 x 2,300 x 4,800
2C42	10.5		31.2 - 83.8	1,875 - 5,030	W 2,900 x 2,300 x 4,300
2C51	10.5		33.3 - 95.0	2,000 - 5,700	W 3,000 x 2,500 x 6,000
2C60	10.5		43.3 - 121.7	2,600 - 7,300	W 3,300 x 2,800 x 6,400
2C84	10.5		73.3 - 155.0	4,400 - 9,300	W 3,800 x 3,000 x 6,800

** 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%])

*1 Conditions: p abs. = 1,013 mbar; 20°C

*2 Explanation: A = air-cooled/W = water-cooled

*3 Dimensions and design subject to change without notice



Compressed air for special requirements.

Anything but ordinary

The service world of **AERZEN**

The best service is the one you don't need. But every technology involves wear and tear. Our machines are designed to do their job efficiently for as long as possible. If necessary, for decades. The goal of AERZEN Services is to extend service life and availability – simple added value for your investment!



With your OEM's best recommendations

We have been manufacturing quality products for over 150 years. At the same time, we have also developed a corresponding service world. With bespoke offers for every phase of your machine's lifespan. With OEM original parts, reliable logistics and excellent service at its core. And with decentralised service centres in your vicinity, which guarantee fast provision of spare parts and competent service - worldwide.

AERZEN on-site service

Our service teams work where our machines are. All over the world. Onshore or offshore. Often under extreme conditions. How do we do it? With short distances. AERZEN has a dense network of service centres and decentralised parts warehouses around the globe. More than 200 well-trained service technicians can come to your aid from these locations. Any time and anywhere you need us.



Contact worldwide

2,500 employees work for AERZEN. On every continent. With six sales offices in Germany alone, we're there for you. And with 50 subsidiaries in over 100 countries around the world. So we're never far away – should you ever need us.

Contact us:
www.aerzen.com
www.rkr.de

Service-Infoline

Our German Service Centre is available for customers and operators. We are happy to help you. We look forward to your call:
+49 700 49318551

Customer Net

Where you can learn more about the company and the leading compressor technologies from Aerzen? It's simple: In our Customer Net on our website, where we have stored everything that is worth knowing for you:

www.aerzen.com



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Find your local contact

www.aerzen.com/worldwide

AERZEN Compression is the key to success

AERZEN was founded in 1864 as Aezener Maschinenfabrik. In 1868, we built Europe's first positive displacement blower. The first turbo blowers followed in 1911, the first screw compressors in 1943, and in 2010 the world's first rotary lobe compressor package. Innovations made by AERZEN keep driving forward the development of compressor technology. Today, AERZEN is among the world's longest established and most significant manufacturers of positive displacement blowers, rotary lobe compressors, screw compressors and turbo blowers.

AERZEN is among the undisputed market leaders in many areas of application. At our 50 subsidiaries around the world, more than 2,500 experienced employees are working hard to shape the future of compressor technology. Their technological expertise, our international network of experts, and the constant feedback we get from our customers provide the basis for our success. AERZEN products and services set the standard in terms of reliability, value and efficiency. Challenge us.



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Find your local contact

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