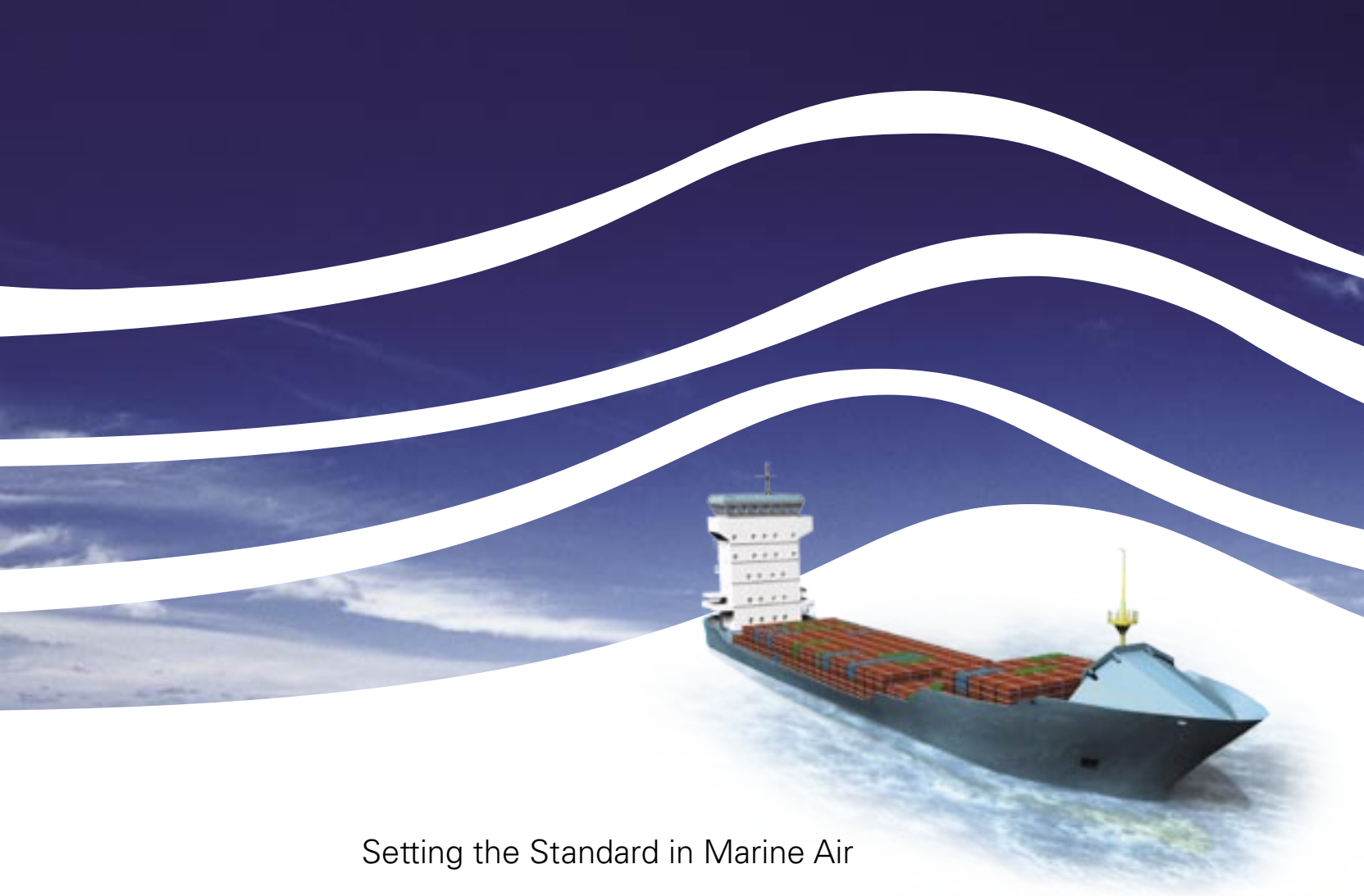



Marine Air Systems

Starting, Working & Instrument Air
LNG Systems



Setting the Standard in Marine Air





Total capability, total responsibility

At the heart of your operation, Atlas Copco delivers quality compressed air for superior operational capacity. Choose from our range of products to build a complete and integrated compressed air system tailored to your specific needs. All Atlas Copco products are engineered to work together seamlessly to ensure the highest reliability and energy efficiency. As a result, Atlas Copco can take full responsibility for your compressed air infrastructure with a guarantee of best-in-class quality. With a presence in over 150 countries, we can provide an unrivalled global service to maintain and improve your compressed air system performance.

Backed by a century of leading the compressor industry, Atlas Copco products stand for the best in quality and efficiency. Our goal is to be First in Mind—First in Choice™. That is why Atlas Copco's pursuit of innovation never ceases, driven by the dedication to meet and exceed your demands. Always working with you, we are committed to providing you the customized quality air solution that is the driving force behind your business.

***Atlas Copco:
Customized Quality Air Solutions through
Innovation, Interaction and Commitment.***

First in Mind—First in Choice™

Marine air systems



MARINE PERFORMANCE

Engineered to perform in the toughest onboard conditions, Atlas Copco marine air systems provide the reliability and efficiency your ship demands. From a wide range of standard, custom-built, and even LNG solutions Atlas Copco delivers the starting, working and instrument air that best meet your needs. Our marine air solutions minimize installation, maintenance and energy costs for any type or size ship. From compressors to dryers and filters, Atlas Copco can take full responsibility for your entire marine air system. Our commitment to quality does not end there. When you need assistance, we are already there. From Rotterdam to Singapore, Atlas Copco is based in all major industrial harbors across the globe. Dedicated Atlas Copco marine experts are on-call worldwide and 24/7 to provide you with immediate support.

CERTIFIED STARTING AIR

Atlas Copco delivers the air that gets your main engines and generator sets going, anytime, anywhere. Our starting air compressors are built for absolute reliability in the most demanding onboard conditions.

EFFICIENT WORKING AIR

A wide variety of onboard applications, from regular maintenance to bulk handling, are powered by air. Atlas Copco sets the standard in reliability and efficiency in working air with our oil-free ZR/ZT and oil-injected GA units. Our compressors integrate compressor and air treatment equipment into one compact unit, with or without canopy, to minimize installation costs.

OIL-FREE INSTRUMENT AIR

Only high quality air can ensure a consistently accurate performance of vital bridge instruments such as monitoring and engine steering systems. Atlas Copco offers 100% oil-free compressors for your instrument air systems. Our classified ZR/ZT oil-free units provide the quality air that will increase instrument performance with maximum cost savings.

LNG GAS SYSTEMS

With more than 30 years of experience in LNG applications, custom-built Atlas Copco gas and process compressor equipment is currently onboard over 50% of the world's LNG tankers.



*Atlas Copco marine air systems
come with official certification.*



Atlas Copco compressors are designed, manufactured and tested in accordance with ISO 9001, ISO 14001 and ISO 1217, Ed. 3, Annex C. Our VSD compressors comply with the EMC directive 89/336/EEC for electro-magnetic compatibility. This directive sets limits for high and low frequency emission to and from equipment. Compliance is independently verified through external audits of the design during the development phase.

Meeting marine industry needs

From the most extensive product range, Atlas Copco builds marine air systems to fit any ship. Atlas Copco marine air systems are engineered with the demands of the ocean in mind. Even in

the toughest conditions, they provide the reliability and efficiency that maximizes your ship's operation.



Turning to Atlas Copco for all your compressed air needs gives you the peace of mind of having best-in-class reliability and efficiency for your entire marine air system.

SAVING SPACE

Inside a ship, space is at a premium. Atlas Copco goes the extra mile to reduce the size of its marine air systems. Integration of components ensures the smallest possible footprint with maximum performance.

FLEXIBLE INSTALLATION & OPERATION

Our marine air systems are delivered plug-and-play for the easiest installation. For maximum flexibility, Atlas Copco offers both air and water (sea or fresh water) cooling. You can also choose from different voltages and frequencies. And with the floating frequencies option, our marine air systems operate smoothly on the differing voltages and frequencies of shore and onboard power. The ability to use shore power helps minimize costs, noise and environmental impact while your ship is docked.

CERTIFICATION

Atlas Copco marine air systems come certified by the leading official classification bodies such as LRS, BV, GL, RINA, ABS, NK, CCS, DNV and others.

ENDURING PERFORMANCE

Atlas Copco compressors are built to work in harsh onboard conditions. They perform in high ambient temperatures of up to 55°C/131°F, depending on the compressor type and notified body. Atlas Copco marine air systems also pass the 22.5° inclination test, ensuring normal operation in the roughest seas.



FD refrigerant-type air dryer



CD adsorption-type air dryer



BD heat reactivated adsorption-type air dryer



Piston compressor for starting air



OPTIMIZING EFFICIENCY

Energy-efficient compressors minimize generator load, thus reducing the required generator size and costs. And with some compressors running constantly, energy efficiency is your, and our, key concern. Reducing energy costs by 35% or more, Atlas Copco's pioneering VSD (Variable Speed Drive) technology makes major energy cost savings a reality. Soft start technology also limits starting torque to avoid stress on the generator system.

EASE OF OPERATION

Atlas Copco's R&D department engineers all products for maximum integration and seamless performance. For the easiest operation, Atlas Copco offers central control and monitoring of your marine air system with the Elektronikon® operating system.

SETTING THE LNG STANDARD

Building on our competence in the design and engineering of custom-built machines for the petrochemical and chemical industries, Atlas Copco can also rely on its expertise in air separation and cryogenic applications. Atlas Copco offers a wide selection of equipment tailored to the needs of the LNG industry, including loading/unloading Nitrogen.



ZR/ZT oil-free compressor for instrument air



GA 90 VSD and GA 160 oil-injected rotary screw compressors for working air



Total marine capability

Working with you from the initial design, Atlas Copco offers complete marine air systems built to your ship's specifications. No matter the size or type of your ship, or your compressed air requirements, Atlas Copco marine air systems deliver the starting,

working and instrument air you need. Separate operating systems are centrally controlled and monitored for the most straightforward operation.



FD refrigerant-type air dryer



CD adsorption-type air dryer



BD heat reactivated adsorption-type air dryer

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- 1 Starting air: Compact and ready-to-use, Atlas Copco's classified 30-bar starting air compressors provide an industry-leading reliability and safety.
 - No-belt arrangement
 - Direct drive
 - Corrosion-free

- 2 Instrument air: Atlas Copco classified oil-free units combine the highest quality air with the best efficiency.
 - 100% oil-free
 - No flow or pressure loss

- 3 Working air: Atlas Copco working air compressors are built for maximum efficiency.
 - VSD technology tunes the compressed air supply to the demand. Depending on the system pressure, the motor speed is adjusted up or down automatically ensuring no unnecessary power generation.
 - Compressor and air treatment equipment are integrated into one compact unit. Reduced leakage in the piping network and lowered system pressure ensure maximum energy savings.
 - High-capacity units offer air and water cooling for maximum operational flexibility and minimal operational costs.



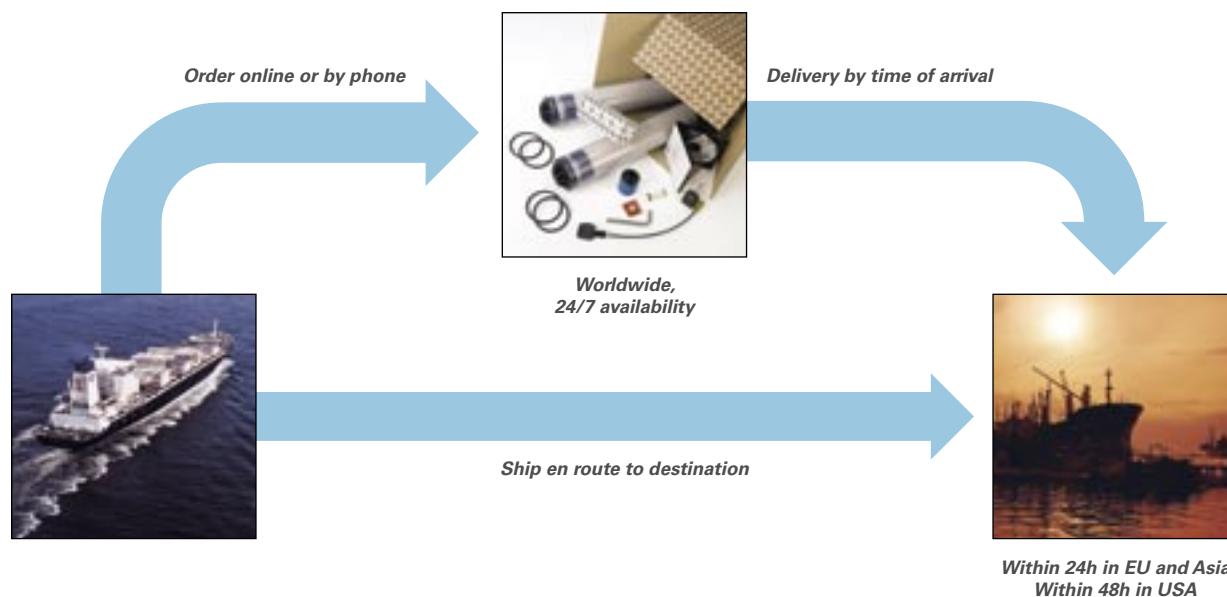
4 Compressed air equipment can be locally or remotely controlled and monitored through the unique Atlas Copco Elektronikon system.

5 Quality Air Solutions: Integrated or as stand-alone products, Atlas Copco products meet your specific air quality needs.

Peace of mind

Atlas Copco marine air systems not only perform reliably in all conditions, they are also straightforward to install, operate and maintain. When you do need assistance, dedicated Atlas Copco

marine experts are on-call 24/7 to provide you with immediate support. When planned maintenance is required your genuine Atlas Copco parts can be waiting for you in your next port of call.



When maintenance is needed, components such as air inlet filters, oil filters and oil separators are easily accessible.

AC CONNECT

To maximize customer service, Atlas Copco developed AC Connect, a dedicated order handling system through which your order is processed immediately. Spare parts are dispatched the same day and delivered to any location across the globe.

GENUINE PARTS KITS

Atlas Copco genuine parts deliver our well-known quality, durability, and low energy and oil consumption to ensure your marine air system continues to run smoothly. Atlas Copco's genuine spare parts come in practically packaged kits containing all the parts you need to keep your marine air system operating avoiding costly downtime.

ON-TIME DELIVERY

Atlas Copco guarantees short delivery lead times for its spare parts kits, but also for its machines and other compressed air equipment.



ONLINE MANUALS

Atlas Copco products are engineered for easy installation, operation and maintenance. When you do need help with any of these tasks, clear and easy-to-use instruction manuals and spare parts books are readily available on the Atlas Copco website. In your own language, of course.

GLOBAL NETWORK

The marine business is, by definition, a global one. That is why our customer centers are situated across all continents and in all time zones to make sure no time is wasted in getting you immediate support. Because our service representatives are on-call 24/7, a direct response is ensured. From Rotterdam to Singapore, dedicated marine experts are stationed in all harbors with industrial activity worldwide to make sure we are wherever you are going.



Your need, our drive

Behind Atlas Copco's reputation of best-in-class performance stand more than 26,000 employees committed to providing you the compressed air products that truly meet your needs. Building on a century of experience in the compressed air business, our expertise comes from being an industry leader.

Although we are in the business of air, we are passionate about what you do. Dedicated Atlas Copco marine experts are committed to providing you with qualified support based on an in-depth understanding of the marine industry's needs.

But what really sets Atlas Copco apart is our willingness to listen. From R&D for future products to the design of your individual compressed air products, Atlas Copco listens to its customers first. Armed with a good understanding of your situation, needs and problems, Atlas Copco gets to work building the air system that drives your business.





In order to be First in Mind—First in Choice™ for your quality compressed air needs, Atlas Copco delivers the products and services that help increase your business' efficiency and profitability.

Atlas Copco's pursuit of innovation never ceases, driven by your need for reliability and efficiency. Always working with you, we are committed to providing you the customized quality air solution that is the driving force behind your business.

Atlas Copco

Never use compressed air as breathing air without prior purification in accordance with local legislation and standards.

Visit our website: www.atlascopco.com