

Atlas Copco Marine Air System



RELIABLE
IN THE TOUGHEST
CONDITIONS

Atlas Copco

Atlas Copco, a century leader in compressor technology

MARINE AIR SYSTEM™

Atlas Copco, founded in 1873, is a global industrial group headquartered in Stockholm, Sweden. Today the company employs close to 26,000 people and manufactures products in 13 countries on five continents.

Atlas Copco companies develop and manufacture electric and pneumatic tools, compressed air equipment, construction and mining equipment, assembly systems, and offer related service and equipment rental. The products are sold and rented under different brands through a worldwide sales and service network reaching 150 countries, half of which are served by wholly or partly owned sales companies.

The Group operates through a number of divisions within four business areas; Compressor Technique, Construction and Mining Technique, Industrial Technique, and Rental Service.

The continued success of Atlas Copco, and its position as the global industry leader, is built on their philosophy to be and remain “first in mind and first in choice”. This should be achieved through customer interaction and commitment and with innovative products - not for the sake of technology, but for the sake of our customer's productivity and peace-of-mind. A solid position, which is maintained and driven by continuous research and development in compressor technology and in fields related to environmental care and energy savings. All major operations are ISO 9001 and ISO 14001 certified for a consistent overall quality concept and for an Environmental Management System forming an integral part of each business process.



► A two-stages WK5 compressor from 1915.
Vertical compressors were made in order to save floor space and reduce weight.

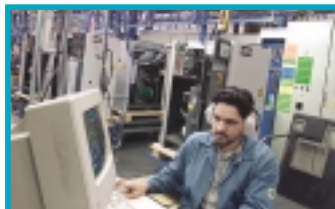
Atlas Copco Airpower, the centre of the Compressor Technique Business area



The Compressor Technique business area develops, manufactures, markets and distributes industrial oil-free and oil-injected air compressors, portable air compressors, gas and process-compressors, turbo expanders, electrical generators, air treatment equipment e.g. compressed air dryers, coolers, filters, and air management systems. Within Compressor Technique also lies the basic development of technology and in-house production of the Atlas Copco compression elements and other core components. Further, the business area offers specialty rental of “air and power”.

3

- *Compressor Technique's main manufactory is located at Wilrijk, Belgium. Other manufacturing units are in France, Italy, Brazil, India, China and the Netherlands.*



Atlas Copco's compressors, providing you with economical and constantly high quality compressed air

Resulting from over 100 years of attention to individual customers requirements and over 40 years experience with compressor technology, Atlas Copco are able to offer you an unrivalled range of Screw, Tooth, Scroll, centrifugal and piston air compression technologies best suited to your specific application requirements.

The Marine Air System range of air compressors gives you all of this experience and knowledge in a class leading package, something that you would expect from a company that has such history in providing high quality, cost effective solution to our individual customer requirements.

Quality compressed air is a prerequisite for the continuity and quality of many processes.

Meeting your demand through unrivalled knowledge and experience of your application.





Complete compressed air equipment for marine applications

Atlas Copco is specialised in complete 'turnkey' units; ready-to-start machines to comply with customer wishes. Starting air, service and working air compressors, dryers and air receivers can be supplied inclusive of piping, cabling and frames.

Moreover, all safety precautions have been installed before use, e.g. temperature and oil level switches, as well as by-pass systems. In this way Atlas Copco offers you following advantages:

- installation time is reduced
- installation errors or misunderstandings can be prevented
- settings and adjustments have been made and checked beforehand.

The complete marine compressed air equipment range have been certified by classification institutes such as:

- Lloyds Register of Shipping
- Bureau Veritas
- DET Norske Veritas
- Germanischer Lloyds
- Registro Italiano Navale
- American Bureau of Shipping.



ISO 14001

Atlas Copco's Environmental Management System forms an integral part of each business process.



ISO 9001

A consistent quality earned us the industry's leadership and the customer's trust.

► Quality comes first - and last.

Atlas Copco compressors define the current state-of-the-art in quality. Designed and manufactured in accordance with ISO 9001 and ISO 14001 certification, these models also conform to rigorous ISO 1217, Ed.3, Annex C-1996 acceptance test code - your guarantee of dependability and a long service life.

Marine Air System: The complete quality answer to every compressed air need

When you invest in a compressor, you demand quality; you insist on reliability.

You require a compressor unit that's economical to run and easy to operate and maintain.

All these qualities are designed-in Atlas Copco's GA Marine Air System series.

Guaranteed quality: peace of mind

Each compressor leaving our factory is tested according the ISO 1217, Ed. 3, Annex C-1996 testcodes: ensuring total quality, reliability and performance.

Every unit is pre-inspected before delivery, and filled with oil. All you have to do is plug it in, connect to the air net, and start up.

Cut maintenance, cut costs

There are few moving parts in these compressors. The result: less wear, less maintenance, hence less costs. Routine service intervals are extended, and - when maintenance is required - the air inlet filter, the spin-on/off type oil filter and the oil separator are all easily accessible.

These compressors need minimum supervision and are easy to operate.

Full Feature Integrated Dryer: safeguard your air equipment and safe space

To eliminate the moisture problem in the compressed air, the GA Full Feature variant incorporates a compact and effective refrigerant dryer, resulting in remaining relative humidity lower than 40 % in the the compressed air. You don't need extra space to install a dryer because it is integrated in the compressor canopy.

► A complete range offers you real choice.

You have the choice of capacities between 8 and 253 l/s with 7.5, 10 or 13 bar maximum working pressure.



Marine Air System: reliability, efficiency and integrated features



1. Integrated refrigerant

The Full Feature version includes as standard an integrated refrigerant dryer for minimum installation cost and floorspace requirement.

2. Integrated air filters

The Full Feature version can be upgraded with optional air filters for clean air according to ISO 8573-1 class 1 or 2.

3. Motor

High efficiency, totally enclosed fan-cooled (TEFC), IP55, class F electrical motor for continuous trouble-free operation. Permanent alignment to the compressor element.

4. Coolers

Compact coolers dimensioned to ensure ideal running temperatures under all conditions - easy to clean.

5. Element

Atlas Copco's patented screw element for optimal energy efficiency and outstanding reliability.

6. Drive arrangement

Direct or gear drive for optimal energy efficiency and minimal maintenance.

Flexible coupling for reduction of starting torque.

7. Fan

Low speed radial fan providing a high cooling air flow at extremely low noise levels.

8. Oil-separator

Multi-stage oil separator yields a 2 ppm oil-carry over for minimum contamination and maintenance.

9. Air inlet filter

Heavy-duty, multi-stage inlet filter with particle removal down to 1 micron. Large element surface for long life time and minimal pressure drop.

10. Elektronik

Automatic electronic control and monitoring of the compressor optimizes the operation for efficiency and reliability.

11. Integrated oil-water separator

The fully automatic optional oil-water separator separates the oil-water flow without the use of costly activated carbon. Condensate quality with less than 10 ppm residual oil content.

12. Antivibration dampers

Special Marine Specification antivibration parts supporting the compressor element & drive motor.



Starting air to rely on

Atlas Copco offers you an unique skid mounted compressor range for marine propulsion applications, based on its well proven L-piston high pressure design.

Built-in reliability

Many proven design features are incorporated, including V-design and lightweight materials for low vibration and optimal heat dissipation, to provide a long lifetime of operation.

Low wear properties

Cylinder walls are made of "alusil" an alloy of aluminium and silicon that creates a cylinder wall with low wear properties and a graphite coated lightweight piston with the same expansion coefficient as the cylinder.

Minimum maintenance

Oil change and valve condition check is only required once a year or every 2 000 operating hours.

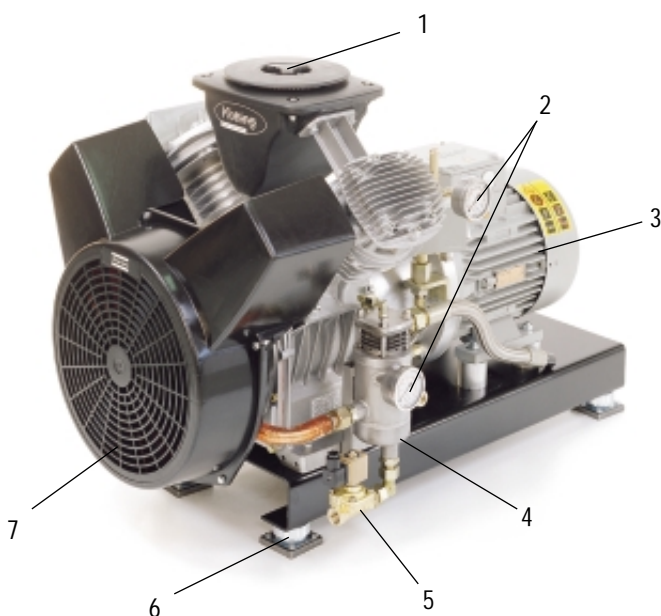
Preventive maintenance kits enhance reliable operation, long life and efficient service.

Unique valve system

A flexi-disc valve system with non-corroding flexible inlet and outlet valve plates of high quality stainless steel increase performance and valve life.

A sound investment

The unique design, the economical operation, the outstanding reliability and minimum maintenance all add up to a sound investment.



1. Air inlet with dry-type replaceable filter element for easy maintenance.
2. Glycerine filled pressure gauges.
3. IP 55 Electric motor or diesel engine directly flanged to compressor, for minimal power loss and maintenance; saves energy. Special marine execution with prestressed bearings.
4. High pressure water separator.
5. Solenoid valve. 1/2" Bore for pressure relief and moisture separation.
6. Special vibration dampers for marine purposes.
7. High volume fan specially designed for excellent cooling.

Protect your installation and production process

Moisture can harm products and processes

Today's production and manufacturing processes demand clean and dry compressed air. Therefore water and water vapour, lubricants, rust and dirt must be removed. Failure to remove them will lead to product spoilage, production downtime and higher operational costs. Refrigeration and adsorption type compressed air dryers are the most common and appropriate solution to remove water and water vapour. Refrigeration dryers can provide pressure dew points as low as 2 °C but when lower pressure dew points (-40 °C to -70 °C) are required an adsorption dryer will be needed.

Atlas Copco filters, the perfect match for high quality air

Contaminants like oil and dirt particles affect the quality of the compressed air.

The best answer to this is a perfectly matched filter system which prevents this contamination.

Such a system, exactly tailored to the increased demands on the purity of compressed air has been developed by Atlas Copco to supply you with just the right type of filters for top quality compressed air according to your individual requirements.

Keep your compressed air costs down

The range of Atlas Copco filters, provide clean air from 9 to 3,500 l/s.

Atlas Copco's filters are designed to combine maximum contaminant removal efficiency with minimum pressure drop, resulting in a low energy consumption in your compressed air system.

Keep in mind, a pressure drop of just 0.3 bar (4 psi) will cost you a required power increase of approximately 2 %.



Aftermarket commitment




When you buy compressor equipment from Atlas Copco, you won't just receive machines. You also get the full backing of a company that's in the forefront of the compressed air business. We put as much care into service support as we do into the development, design, manufacturing and testing of our products. This support is available to you, wherever you operate, through our


global network of sales companies and distributors.


We can advise you on which compressor, and which options, best suit your specific requirements.


We can help you in recommending best installation procedures. And we give you 100 % backing in preventive maintenance and service.



 **Aftermarket commitment** means that Atlas Copco is best placed to provide the levels of after-sales care that you require

 **Global capability** with local presence means that we can respond rapidly to any situation anywhere in the world.

 **Service competence** ensures that our highly trained engineers are able to offer the best possible support and assistance in operating your equipment with the most modern diagnostic tools available.

 **World class logistics** ensures that we can deliver our range of guaranteed quality spare parts in a timely manner.

Technical data

Compressor type	60 Hz				50 Hz				Noise level**	Motor power		Dimensions (mm)		
	Maximum working pressure		Capacity FAD*		Maximum working pressure		Capacity FAD*			50 Hz (60 Hz)		Height	Width	Length
	bar(e)	psig	cfm	m³/h	bar(e)	psig	cfm	m³/h		kW	hp			
LT 22-30 KE	30	435	6.6	11.2	30	435	5.3	9.0	81	3.0 (3.6)	4 (4.8)	625 mm	530 mm	820 mm
LT 40-30 KE	30	435	11.7	19.9	30	435	9.3	15.8	81	4.0 (4.6)	5.5 (6.6)	625 mm	530 mm	820 mm
LT 55-30 KE	30	435	17.0	28.9	30	435	13.8	23.5	84	5.5 (6.5)	7.5 (8.8)	700 mm	600 mm	980 mm
LT 75-30 KE	n.a.	n.a.	n.a.	n.a.	30	435	18.0	30.6	83	7.5 (-)	10 (-)	700 mm	600 mm	1015 mm
LT 930 KE	30	435	23.5	39.9	30	435	19.7	33.5	88	11 (12.6)	15 (18)	950 mm	680 mm	1250 mm
LT 1230 KE	30	435	41.8	71.0	30	435	36.0	61.2	88	15 (17.3)	20 (24.6)	950 mm	680 mm	1250 mm
GA5	7,4	107	31,8	54	7,5	109	31,6	53,6	60	5,5	7,5	1212	595	976
	9,1	132	26,7	45,4	8,5	123	28,4	48,2						
	10,8	157	22,7	38,5	10	145	24,4	41,4						
	12,5	181	19,1	32,4	13	189	18,4	31,3						
GA7	7,4	107	43,9	74,5	7,5	109	44,5	75,6	61	7,5	10	1212	595	976
	9,1	132	38,6	65,5	8,5	123	41,3	70,2						
	10,8	157	33,1	56,2	10	145	36	61,2						
	12,5	181	28,8	49	13	189	28,6	48,6						
GA11C	7,4	107	61,2	104	7,5	109	60,4	102,6	62	11	15			
	9,1	132	55,3	94	8,5	123	56,2	95,4						
	10,8	157	50,4	85,7	10	145	52,3	88,9						
	12,5	181	44,9	76,3	13	189	43,2	73,4						
GA 11	7,4	107	68,7	116,6	7,5	109	68	115,6	63	11	15			
	9,1	132	61,2	104	8,5	123	64	108,7						
	10,8	157	52,8	89,6	10	145	53,8	91,4						
	12,5	181	43,4	73,8	13	189	42,4	72						
GA15	7,4	107	94,5	160,6	7,5	109	94,5	160,6	64	15	20			
	9,1	132	86,5	146,9	8,5	123	86,5	146,9						
	10,8	157	77,6	131,8	10	145	78	132,5						
	12,5	181	67,4	110,9	13	189	64,4	109,4						
GA18	7,4	107	114,2	194	7,5	109	115,1	195,5	66	18	25	1400	650	1225
	9,1	132	105,5	179,3	8,5	123	110,6	188						
	10,8	157	94,9	161,3	10	145	95,6	162,4						
	12,5	181	84,1	142,9	13	189	81,6	138,6						
GA22	7,4	107	133,7	227,2	7,5	109	133,1	226,1	67	22	30			
	9,1	132	124,6	211,7	8,5	123	128	217,4						
	10,8	157	112,7	191,5	10	145	114,2	194						
	12,5	181	103,4	175,7	13	189	99,6	169,2						
GA30C	7,4	107	164,4	279,4	7,5	109	160	271,8	69	30	40			
	9,1	132	153,2	260,3	8,5	123	159,3	270,7						
	10,8	157	144,9	246,2	10	145	149	253,1						
	12,5	181	135,4	230	13	189	130,3	221,4						
GA 30	7,4	107	93	335	7,5	109	93	335	65	30	40			
	9,1	132	85	306	8	116	89	321						
	10,8	157	72	259	10	145	78	281						
	12,5	181	66	238	13	189	64	231						
GA37	7,4	107	117	421	7,5	109	115	414	66	37	50	1670	1030	1730
	9,1	132	104	375	8	116	110	396						
	10,8	157	93	335	10	145	98	353						
	12,5	181	83	299	13	189	78	281						
GA45	7,4	107	140	504	7,5	109	134	483	67	45	60			
	9,1	132	126	454	8	116	122	439						
	10,8	157	114	411	10	145	120	432						
	12,5	181	101	364	13	189	100	360						
GA55	7,4	107	173	623	7,5	109	172	620	67	55	75	1950	1030	2050
	9,1	132	153	551	8	116	166	598						
	10,8	157	n/a	n/a	10	145	145	522						
	12,5	181	n/a	n/a	13	189	n/a	n/a						
GA75	7,4	107	233	839	7,5	109	236	850	69	75	100			
	9,1	132	209	753	8	116	224	807						
	10,8	157	190	684	10	145	197	710						
	12,5	181	172	620	13	189	169	609						

* Free air delivery measured according to ISO 1217; Ed 3, Annex C-1996

Reference conditions:

- absolute inlet pressure 1 bar (14.5 psi)
- intake air and coolant temperature 20 °C (68 °F)

** measured at 1 metre distance according to Pneurop/Cagi PN8NTC2 test code (tolerance $\pm 2\%$).



What sets Atlas Copco apart as a company is our conviction that we can only excel in what we do, if we provide the best possible know-how and technology to really help our customers produce, grow and succeed.

There is a unique way of achieving that - we simply call it the Atlas Copco way. It builds on **interaction**, on long-term relationships and involvement in the customers' process, needs and objectives. It means having the flexibility to adapt to the diverse demands of the people we cater for.

It's the **commitment** to our customers' business that drives our effort towards increasing their productivity through better solutions. It starts with fully supporting existing products and continuously doing things better, but it goes much further, creating advances in technology through **innovation**. Not for the sake of technology, but for the sake of our customer's bottom line and peace-of-mind.

That is how Atlas Copco will strive to remain the first choice, to succeed in attracting new business and to maintain our position as the industry leader.

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

Atlas Copco