

# Atlas Copco Portable Air compressors

**X(A,R)(M,T,H,V)S 296-546**

296 - 545 l/s, 17.8 - 32.7 m<sup>3</sup>/min, 628 - 1155 cu.ft/min at 7 - 25 bar(e), 102 - 365 psig



***Team-up for Total Solutions***

  
جهان کمپرسور  
Jahan Compressor

  
Atlas Copco

# Built to work hard

Atlas Copco is the global leader in supplying portable air compressors to the market, due to a long history of product innovation in compressed air technology. The latest series builds on that know-how giving as a result, a heavy-duty series of compressors that are built to work, and work hard.



Built to run and run, it is a machine that is 'above all else' absolutely reliable. We are only too well aware of the negative impact of unplanned downtime, both in terms of lost income, and lost orders and lost time.

Built for extremes, it has been designed to function in difficult and extraordinary conditions. Hot, cold, humid or dusty, the whole range has been engineered to withstand the pressures of arduous terrain and all types of climatic conditions.



Built to last, it lives for tough wear and tear. The high quality build, along with the high specification features make it the ideal workhorse for the big jobs.

Built for economy, from low-loads all the way up to full-load, the new FuelXpert™ delivers best-in-class fuel efficiencies. With fuel prices climbing everywhere, we appreciate how improved fuel consumption numbers can save you in running costs.

# The heart of the compressor

The advanced compressor element is the driving force. Only Atlas Copco delivers both high performance, and long life reliability – without extreme maintenance costs.

The screw system is precision engineering at its best. The perfect synchronisation of the screws makes Atlas Copco compressors get a maximum of pressure in the process, and so deliver more air with less energy.



The tolerance margins for such heavy engineering are extraordinary. Of course the original shape is important, as is the cooling mechanism, and how the injection of oil is pushed into the chamber, but it still comes down to manufacturing know-how and not accepting second best.

Every year, large sums of money are invested to maintain leadership in screw technology, to see how we can improve efficiency still further, and how we can deliver tomorrow's technology today.

## Average 10% better fuel consumption



The new and completely unique fuel saving system – called FuelXpert™ - is an electronic control module that regulates engine speed and the air inlet to optimise fuel consumption depending on the working conditions, and the output required. Essentially the perfect combination of speed and air inlet is used to deliver the desired output of pressure – but using the lowest amount of fuel possible.

Atlas Copco has always had the lowest fuel consumption when it comes to running at full load, now that superiority is transferred to running speeds that are less than full load.

In conventional systems – based on pneumatic controls – the inlet and engine speeds were controlled independently. The new electronic system now measures and monitors both to provide the optimal output. An added benefit of this is easier starting in colder weather conditions, as the system can now start with a closed inlet valve, and open when air is required.

# Faster and more accurate analysis

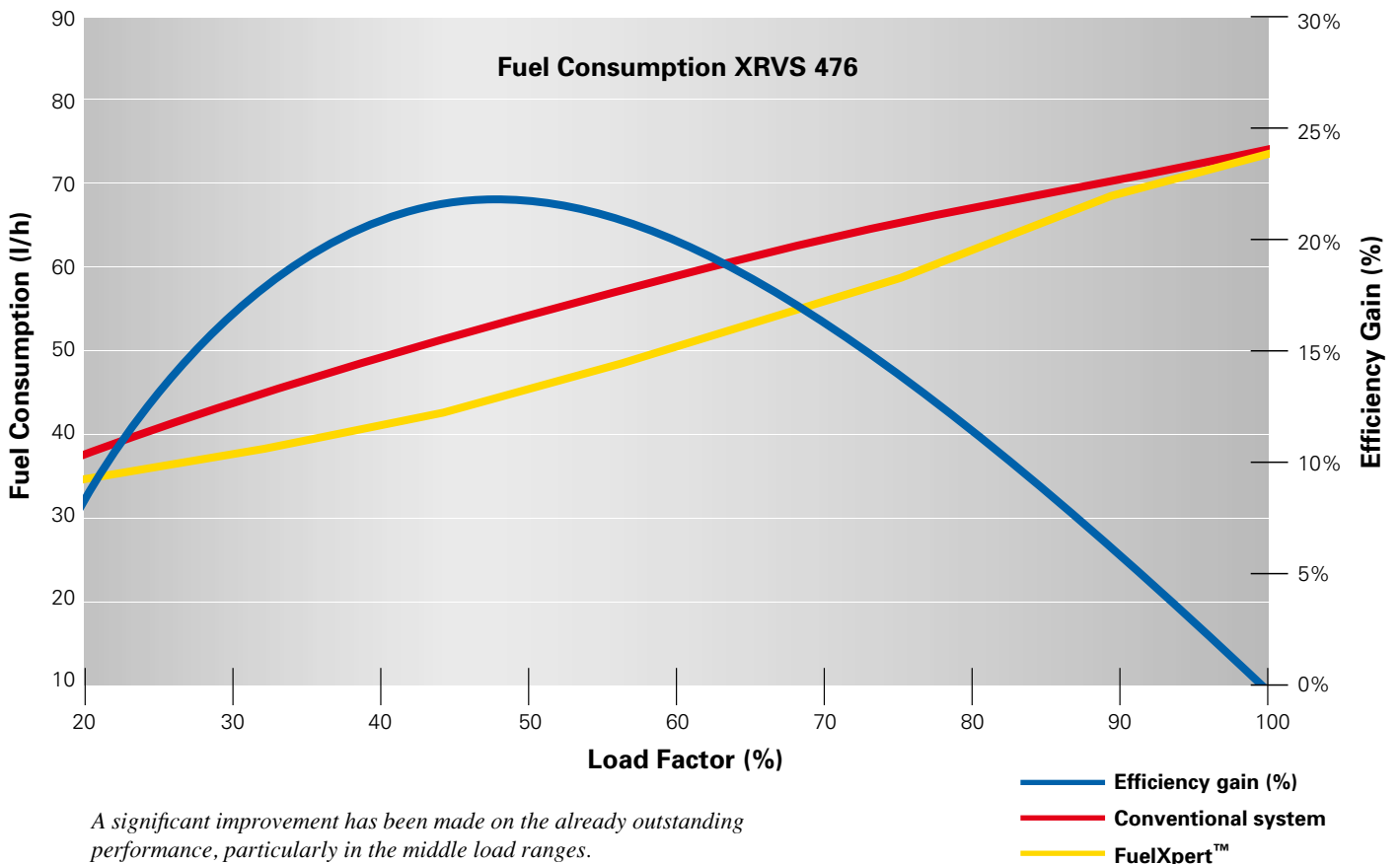
*The electronic control panel can deliver over 200 information messages, so you'll know exactly what's going on inside your Atlas Copco compressor, and where servicing is required.*



The control system guarantees less downtime when service is required. It is fully electronic, and fully transparent. No 'black box', but fully integrated, it controls the engine, the compressor and the oil system and provides full diagnostics in an easy to read manner. Already running on Atlas Copco machines for the last 4 years – with over 15 million hours of running time – it has proved its worth and its reliability.

The control panel is your eyes and ears inside the machine. And as preventive maintenance always costs less than after the fact maintenance, it warns you in plenty of time just what needs to be done, and when. Some might see these 'warning messages' as unnecessary, we see them as a helping hand to maintaining peak performance, and best fuel consumption in the long run. We know that a well cared for machine not only lasts longer, but costs less too.

## than our best competitors



# Extreme conditions, extremely well handled

The compressor series works outstandingly in all conditions. It should be no surprise to learn that Atlas Copco machines have a large market share in all countries where extreme heat and cold temperatures are experienced.

Over the years, we have understood what harsh conditions you operate under and adapted the machines in consequence.



Sandblasting is a business we know well. Atlas Copco has a long experience delivering quality air with excellent oil separation in a basic machine and additional water or oil vapour separation in the aftercooler versions.

An optimum mix between cooling air flow, size of coolers and cooler types contribute to good working in warm climates and avoid fast overheating in dusty environments.



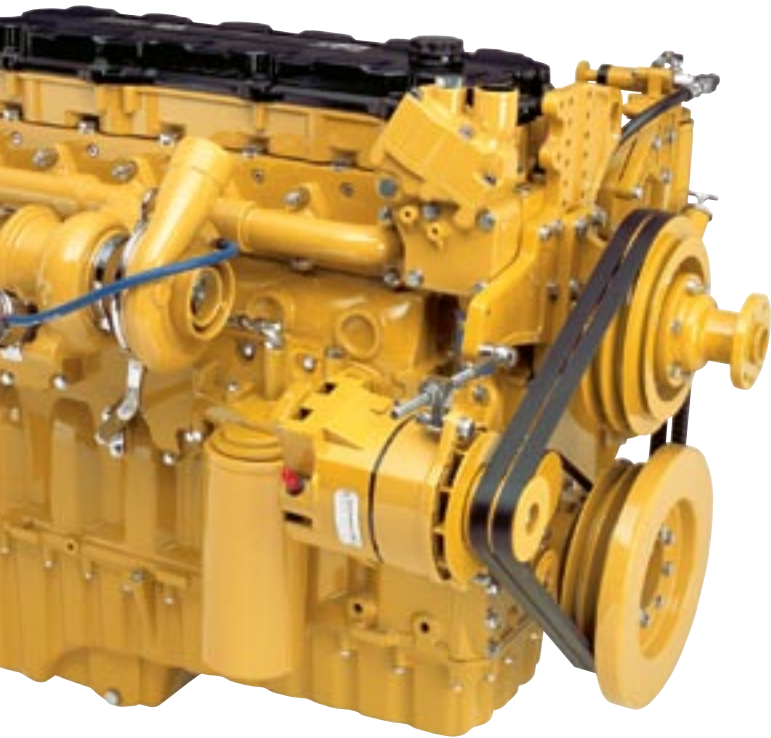
Well appreciated are the truck mounted versions.

With tanks with up to 1550 l available when running in conditions where fuel availability is problematic.



Standard working conditions for all our compressor machines is  $-10^{\circ}\text{C}$  to  $+50^{\circ}\text{C}$ . For colder climates, down to  $-25^{\circ}\text{C}$ , different options are available for example, there's a pre-heater for the engine, and the regulating valve has been designed to operate once the engine is up and running.





# The motor muscle

Caterpillar, with many years of experience in the construction industry, has been designated the unique engine platform for the entire series. Not only do they understand the need for reliability, but also they know first-hand the conditions that the machines have to operate under.

This new partnership now gives access to a wider and more comprehensive after sales service, and this all over the world.

The engines themselves – from 186 kW to 328 kW of output – are clean running, and all models meet the toughest environmental requirements, while being frugal on fuel. Each new Caterpillar engine now works with ACERT technology to reduce emissions. It starts by taking in cool, clean air and then integrates a number of processes:

- advanced electronic control
- multiple injection fuel delivery
- more efficient air management

## Oiltronix™

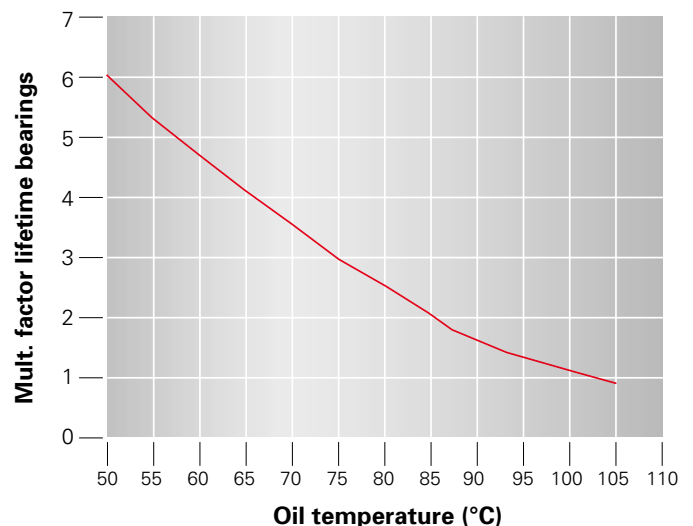
Atlas Copco has always been aware that compressors are extremely sensitive for condensation in compressed air. We know for example that just 1% of water in the oil reduces the lifetime of the bearings by 40%.

The new electronic control system, known as Oiltronix™ – electronically controlled oil temperature system – works to control compressor oil temperature to extend the lifetime of air-ends, compressor components, oil and oil-separator. Additionally – and not insignificantly - it also prevents overheating, and increases safety.

Additional sensors have been placed to measure ambient temperature and relative humidity – on top of the different pressures, different temperatures, and engine speed. Electronic will calculate and define what the optimal oil temperature should be, with the outcome being to position a 3-way valve determining the most optimal oil temperature.

Intelligently controlling the oil temperature at the correct level also allows running the machine at a lower oil temperature, and so easily doubles the lifetime of the airend.

### Bearing Lifetime



*A unique and brilliant solution that monitors and regulates the oil injection temperature, thereby increasing component life considerably.*





The compressor controls can be handled remotely if required, thereby allowing the compressor to work at some distance from the actual drilling application. It's easy-to-use in all kinds of applications and it saves fuel with an additional no-load function.

*Caterpillar ACERT engines have already been working in 50.000 on-highway applications, and running for more than 1 million hours.*



## Options

**XA versions**  
7-14 bar/102-200 psi

**XR versions**  
17-25 bar/250-365 psi

<b>Performance - Take highest performance of your machine</b>		
FuelXpert™	○	○
Oiltronix™	—	○
PAR OIL M	●	—
PAR OIL S	○	●
PAR OIL S 68	○	○
Additional fuel filters	○	○
<b>Environment friendly - Because we care</b>		
Noise reduction below OND2006	▲/○	▲/○
TIER III compliant engines	●	●
Spillage free frame	▲/○	▲/○
<b>Safety &amp; security - Play it safe</b>		
ABS braking system	○	○
External fuel tanks	●	●
Battery switch	●	●
External fuel connections	○	○
<b>Easy handling - For your application</b>		
Wagon undercarriage	○	○
Tandem	○	○
Skid	○	○
Truckmounted version	○	○
Forkliftslots	○	○
Lifting eye	●	●
Wagon Towbar level device	○	○
Road signalisation	○	○
<b>Refinery equipment - Working in chemical plants</b>		
Spark arrestor	○	○
Inlet shut down valve	○	○
<b>Cold weather options - Working up to -25°C</b>		
Easystart & operation to -10°C	●	●
Easystart & operation to -25°C	○	○
Engine preheater for long engine life at -25°C	○	○
<b>Air quality - For clean and waterfree air</b>		
Aftercooler + waterseparator	○	○
PD filter	○	○
QD filter	○	○
Reheater	○	○
<b>To save time</b>		
Central draining system	●	●
Refueling pump 50l/min	○	○
Fuel tank up to 1550 l on truck mounted version	○	○
Wireless Remote Control	○	○
Digital display with diagnosis	●	●
<b>Outlet connections</b>		
Additional manifolds	○	○
Additional sensors in outlet	○	○
Pressure reducer	—	○
G-thread connection	●	●
NPT-thread connection	○	○

Standard: ●    Standard in EC version: ▲    Option: ○    Not available: —

# Technical data

Type		XAS 446	XAMS 406	XAMS 496	XAMS 546	XATS 376	XATS 456
Normal effective working pressure	bar(e)	7	8.6	8.6	8.6	10.3	10.3
	psig	102	125	125	125	150	150
Actual free air delivery according to ISO1217 ed.3 1996 annex D	l/s	445	408	495	545	375	448
	cfm	943	865	1049	1155	795	950
	m <sup>3</sup> /min	26.7	24.5	29.7	32.7	22.5	26.9
Number of compressor stages		1	1	1	1	1	1
Cooling system		oil	oil	oil	oil	oil	oil
Oil capacity	l	60	60	90	90	60	90
	US gal	15.9	15.9	23.8	23.8	15.9	23.8
Content air receiver / oil separator	l	91.0	91.0	164.0	164.0	91.0	164.0
	US gal	24.0	24.0	43.3	43.3	24.0	43.3
Content fuel tank (Wagon)	l	398	398	576	796	398	576
	US gal	105.2	105.2	152.2	210.3	105.2	152.2
Content fuel tank (Tandem)	l	538	538	538	708	538	538
	US gal	142.1	142.1	142.1	187.1	142.1	142.1
Air outlet valve		1 x 2"	1 x 2"	1 x 2 1/2"	1 x 2 1/2"	1 x 2"	1 x 2 1/2"

Engine Caterpillar		XAS 446	XAMS 406	XAMS 496	XAMS 546	XATS 376	XATS 456
Make and Type		C 6,6 acert T3	C 6,6 acert T3	C 9 acert T3	C 13 acert T3	C 6,6 acert T3	C 9 acert T3
Number of cylinders		6	6	6	6	6	6
Output	kW	186	186	224	328	186	224
	HP	249	249	300	440	249	300
Swept volume	l	6.6	6.6	8.81	12.50	6.6	8.81
	cu.in	402.7	402.7	537.6	762.8	402.7	537.6
Engine speed ( nominal )	RPM	1800	1800	1800	1600	1800	1800
Engine speed ( unloaded )	RPM	1300	1300	1300	1200	1300	1300
Capacity oil system	l	23	23	32	34	23	32
	US gal	6.1	6.1	8.5	9.0	6.1	8.5
Capacity cooling system	l	37	37	54	60	37	54
	US gal	9.8	9.8	14.3	15.9	9.8	14.3

Unit dimensions		XAS 446	XAMS 406	XAMS 496	XAMS 546	XATS 376	XATS 456
Overall length (tandem)	m	5.64	5.64	5.64	5.64	5.64	5.64
	inch	222.05	222.05	222.05	222.05	222.05	222.05
Overall length (wagon, towbar raised)	m	4.91	4.91	4.91	4.91	4.91	4.91
	inch	193.23	193.23	193.23	193.23	193.23	193.23
Overall width	m	2.1	2.1	2.1	2.1	2.1	2.1
	inch	82.68	82.68	82.68	82.68	82.68	82.68
Overall height	m	2.46	2.46	2.46	2.46	2.46	2.46
	inch	97.05	97.05	97.05	97.05	97.05	97.05

Weigths & Noise emmissions EURO range ( ** )		XAS 446	XAMS 406	XAMS 496	XAMS 546	XATS 376	XATS 456
Wagon trailer (*)	kg	5020	5020	5500	6200	5020	5500
	lb	11064	11064	12122	13665	11064	12122
Tandem trailer (*)	kg	5950	5950	6665	6650	5950	6665
	lb	13114	13114	14690	14657	13114	14690
Sound Power Level ( LWA )	dB(A)	99	99	100	100	99	100

Weigths & Noise emmissions NON-EURO range		XAS 446	XAMS 406	XAMS 496	XAMS 546	XATS 376	XATS 456
Wagon trailer (*)	kg	4620	4620	5100	5800	4620	5100
	lb	10182	10182	11240	12783	10182	11240
Tandem trailer (*)	kg	5550	5550	5875	6250	5550	5875
	lb	12232	12232	12949	13775	12232	12949
Sound Pressure Level ( LPA )	dB(A)	71	71	72	72	71	72

(\*) - Weight - ready to operate - (with oil , fuel , coolant)

(\*\*) - CE compliant according to European Machine Directives

XAHS 336	XAHS 426	XAHS 536	XAVS 296	XAVS 396	XRS 396	XRHS 366	XRHS 506	XRVS 336	XRVS 476
12	12	12	14	14	17	20	20	25	25
175	175	175	200	200	250	290	290	365	365
330	425	531	296	391	392	365	508	330	461
700	901	1126	628	829	831	774	1077	700	977
19.8	25.5	31.9	17.8	23.5	23.5	21.9	30.5	19.8	27.7
1	1	1	1	1	2	2	2	2	2
oil	oil	oil	oil	oil	oil	oil	oil	oil	oil
60	60	90	60	60	75	75	75	75	75
15.9	15.9	23.8	15.9	15.9	19.8	19.8	19.8	19.8	19.8
91.0	91.0	164.0	91.0	91.0	143	143	143	143	143
24.0	24.0	43.3	24.0	24.0	37.8	37.8	37.8	37.8	37.8
398	576	796	398	576	576	576	796	576	796
105.2	152.2	210.3	105.2	152.2	152.2	152.2	210.3	152.2	210.3
538	538	708	538	538	538	538	708	538	708
142.1	142.1	187.1	142.1	142.1	142.1	142.1	187.1	142.1	187.1
1 x 2"	1 x 2 1/2"	1 x 2 1/2"	1 x 2"	1 x 2 1/2"	1 x 2"	1 x 2"	1 x 2"	1 x 2"	1 x 2"

XAHS 336	XAHS 426	XAHS 536	XAVS 296	XAVS 396	XRS 396	XRHS 366	XRHS 506	XRVS 336	XRVS 476
C 6,6 acert T3	C 9 acert T3	C 13 acert T3	C 6,6 acert T3	C 9 acert T3	C 9 acert T3	C 9 acert T3	C 13 acert T3	C 9 acert T3	C 13 acert T3
6	6	6	6	6	6	6	6	6	6
186	224	328	186	224	224	224	328	224	328
249	300	440	249	300	300	300	440	300	440
6.6	8.81	12.50	6.6	8.81	8.81	8.81	12.50	8.81	12.50
402.7	537.6	762.8	402.7	537.6	537.6	537.6	762.8	537.6	762.8
1800	1800	1600	1800	1800	1800	1800	1600	1800	1600
1300	1300	1200	1300	1300	1300	1300	1200	1300	1200
23	32	34	23	32	32	32	34	32	34
6.1	8.5	9.0	6.1	8.5	8.5	8.5	9.0	8.5	9.0
37	54	60	37	54	54	54	60	54	60
9.8	14.3	15.9	9.8	14.3	14.3	14.3	15.9	14.3	15.9

XAHS 336	XAHS 426	XAHS 536	XAVS 296	XAVS 396	XRS 396	XRHS 366	XRHS 506	XRVS 336	XRVS 476
5.64	5.64	5.64	5.64	5.64	5.64	5.64	5.64	5.64	5.64
222.05	222.05	222.05	222.05	222.05	222.05	222.05	222.05	222.05	222.05
4.91	4.91	4.91	4.91	4.91	4.91	4.91	4.91	4.91	4.91
193.23	193.23	193.23	193.23	193.23	193.23	193.23	193.23	193.23	193.23
2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
82.68	82.68	82.68	82.68	82.68	82.68	82.68	82.68	82.68	82.68
2.46	2.46	2.46	2.46	2.46	2.46	2.46	2.46	2.46	2.46
97.05	97.05	97.05	97.05	97.05	97.05	97.05	97.05	97.05	97.05

XAHS 336	XAHS 426	XAHS 536	XAVS 296	XAVS 396	XRS 396	XRHS 366	XRHS 506	XRVS 336	XRVS 476
5020	5400	6200	5020	5400	5450	5450	6100	5450	6100
11064	11902	13665	11064	11902	12012	12012	13444	12012	13444
5950	6565	6650	5950	6565	6615	6615	6550	6615	6550
13114	14469	14657	13114	14469	14579	14579	14436	14579	14436
99	100	100	99	100	100	100	100	100	100

XAHS 336	XAHS 426	XAHS 536	XAVS 296	XAVS 396	XRS 396	XRHS 366	XRHS 506	XRVS 336	XRVS 476
4620	5000	5800	4620	5000	5050	5050	5700	5050	5700
10182	11020	12783	10182	11020	11130	11130	12563	11130	12563
5550	5775	6250	5550	5775	5825	5825	6150	5825	6150
12232	12728	13775	12232	12728	12838	12838	13555	12838	13555
71	72	72	71	72	72	72	72	72	72

# Protect your investment... ...and for your peace of mind

Atlas Copco carefully monitors the maintenance needs of all its compressors. Service intervals are carefully assessed to ensure optimum performance is maintained and operating costs reduced. Proper maintenance will ensure your compressor runs as efficiently and economically as possible.

A lack of maintenance can result in expensive down-time with a subsequent loss of production or poor performance. Avoid risks and protect the asset value of your compressor by choosing one of the unique service options provided by Atlas Copco.

Our service options are flexible. Depending on your requirements, we can supply service kits or spare parts for in-house maintenance or factory service and maintenance packages tailored to user demands.

## Genuine Parts

Atlas Copco makes no compromise on the quality of replacement parts: only genuine parts provide the longevity and reliability you demand. Selected high quality Atlas Copco compressor and engine oils are also available. These meet the stringent quality specifications required to enable your unit run smoothly, shift after shift.

## Service agreements

For complete peace of mind, Atlas Copco has a range of service agreements to suit your needs. Maintenance budgets are clear and simple, with prices fixed in advance. Operational costs come down and efficiency goes up. You choose the service options and the time period to suit your needs.

## Commitment

Atlas Copco employs two thousand factory trained service technicians in over 150 countries worldwide. Should a problem ever occur, access to their expertise is only a telephone call away. With years of experience and ongoing investment, we are the only major compressor manufacturer providing a full 2 year factory supported warranty.

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



[www.atlascopco.com](http://www.atlascopco.com)



## The vital touch

Atlas Copco believes in conducting business in a manner that preserves the environment for future generations. So even as legislation for environmental protection get tougher each and every year, Atlas Copco has met and often surpassed those benchmarks.

All our products are not only designed with the environment in mind, but the way they are manufactured is as important. As a company, we take our engagements seriously, and to this end have obtained and maintained the ISO 14001 certification.

The environment – today and for future generations – is a top priority for our company, and while we can't influence and change what our competitors do, we can at least set the standard by which they will be judged by our customers.

