



Standard Scope of Supply

X-Air⁺ 1200-40 is part of our premium DrillAir range, lowering the total cost of ownership of the product for our customers by bringing improved productivity & optimized fuel efficiency. The compressor is fully connected, coming standard with our FleetLink functionality.

The unit is equipped with an Atlas Copco patented, in-house developed screw element, Scania engine, Xc4004 controller, AirXpert 2.0, OilXpert and XPR as standard, for maximum versatility & efficiency.

Reliability of a compressor is paramount and serves as the base of all the premium functions. X-Air⁺ 1200-40 is optimally designed and comprehensively tested to guarantee reliability and peace of mind.

Features

- Atlas Copco in house screw element
- AirXpert 2.0
- ECO mode
- New concept vessel
- Service interval
- FleetLink
- Oiltronix
- XPR

Benefits

- The screw element is the heart of compressor. It is essential for compressor efficiency and reliability. Atlas Copco in-house engineered, developed and manufactured element offers the best performance.
- The AirXpert 2.0 regulation system increases reliability. This patented compressor management system brings some unique features like flowboost, for faster flushing, stem refill and shorter time to finish the drill job.
- Fuel consumption is a significant investment during operation. ECO mode reduces the fuel consumption in unloading state.
- The new vessel design comes without any components at the vessel top. This makes the vessel maintenance easier, faster, while minimizing the possibility of damage during maintenance.
- Long service interval helps to reduce the maintenance frequency, cost, and increases the up time of compressor.
- FleetLink is an intelligent telematics system designed to remotely monitor and manage your fleet, whether it's just one unit or an entire group. Everything you need to know and do is at your fingertips 24/7, including the system's smart recommendations and tools for proactive fleet management.
- Oiltronix smart electronics increases the lifetime of critical components, regulates the oil temperature, keeps condensate level in check, prolongs the lifetime of compressor oil and ultimately, protects the screw element against wear and tear.
- XPR technology extends the working pressure range downwards to 15 bar. This pressure setting helps to prevent soil cavitation during overburden drilling, as well as enabling the same compressor to be used for geothermal and foundation drilling.

Technical Data

Model			Unit	X-Air ⁺ 1200-40
Reference conditions				
Absolute inlet pressure			bar	1
Relative air humidity			%	0
Air inlet temperature			°C	20
Normal effective receiver pressure			bar	40
Limitations				
Minimum effective receiver pressure			bar	14.4
Maximum effective receiver pressure (unloaded)			bar	45.5
Maximum ambient temperature at sea level (without aftercooler)			°C	47
Maximum ambient temperature at sea level with cold start equipment)			°C	45
Minimum starting temperature (without cold start equipment)			°C	-10
Minimum starting temperature with cold start equipment			°C	-25
Altitude capability			m	4000
Performance data				
Engine shaft speed ¹⁾ , compressor 100% loaded			r/min	1550
Engine shaft speed, compressor unloaded			r/min	1100
Free air delivery ²⁾				
– at pressure setting 15 bar	without aftercooler	m³/min	39.00	
		cfm	1377.28	
	with aftercooler	m³/min	38.40	
		cfm	1356.09	
– at pressure setting 22 bar	without aftercooler	m³/min	39.00	
		cfm	1377.28	
	with aftercooler	m³/min	38.40	
		cfm	1356.09	
– at pressure setting 35 bar	without aftercooler	m³/min	33.90	
		cfm	1197.17	
	with aftercooler	m³/min	33.30	
		cfm	1175.98	
– at pressure setting 40 bar	without aftercooler	m³/min	31.80	
		cfm	1123.01	
	with aftercooler	m³/min	31.20	
		cfm	1101.82	
Fuel consumption				
– at 100% FAD (full load)	at pressure setting 15 bar	kg/h	63.5	
	at pressure setting 22 bar	kg/h	69	
	at pressure setting 35 bar	kg/h	82.6	
	at pressure setting 40 bar	kg/h	78.6	
– at 75% FAD	at pressure setting 15 bar	kg/h	44.2	
	at pressure setting 22 bar	kg/h	49	
	at pressure setting 35 bar	kg/h	59.9	
	at pressure setting 40 bar	kg/h	57	
– at 50% FAD	at pressure setting 15 bar	kg/h	34.2	
	at pressure setting 22 bar	kg/h	38.8	
	at pressure setting 35 bar	kg/h	48.2	
	at pressure setting 40 bar	kg/h	45.9	
– at 25% FAD	at pressure setting 15 bar	kg/h	25.3	
	at pressure setting 22 bar	kg/h	29.7	
	at pressure setting 35 bar	kg/h	38.8	
	at pressure setting 40 bar	kg/h	36.9	
– at unload	at pressure setting 15 bar	kg/h	19.3	
	at pressure setting 22 bar	kg/h	23.49	
	at pressure setting 35 bar	kg/h	34.8	
	at pressure setting 40 bar	kg/h	33.1	
Specific fuel consumption at 100% FAD at pressure setting 25 bar			g/m³	41.2

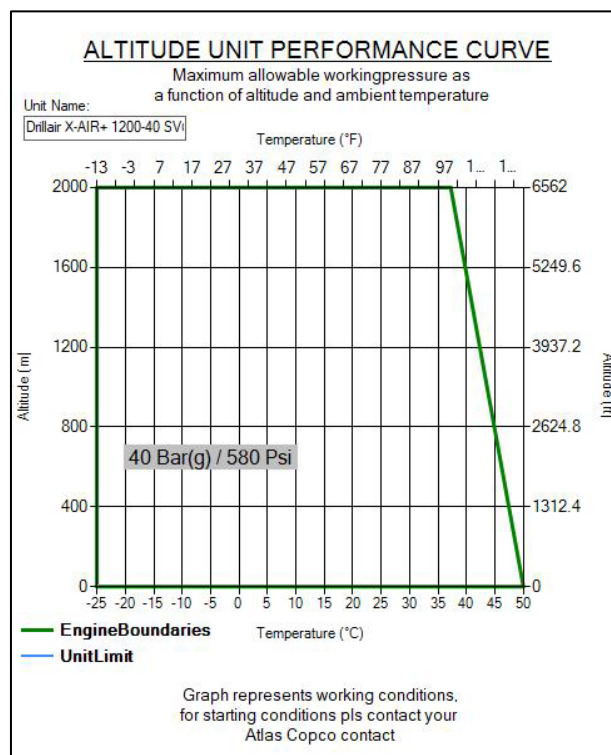
Maximum typical oil content of compressed air	mg/m ³	5
Noise level		
o Maximum sound pressure level at 10m (Lp @ ISO 2151)	dB(A)	79
o Maximum sound pressure level at 7m (Lp @ ISO 2151)	dB(A)	82
o Maximum sound power level (Lw @ 2000/14/EC)	dB(A)	107

Performance data	Unit	X-Air ⁺ 1200-40
Number of compression stages		2
Engine		
Make		Scania
Engine emission		StV
Type		DC16
Coolant		Parcool EG
Number of cylinders		8
Bore	mm	130
Stroke	mm	156
Swept volume	l	16.4
Engine power at normal shaft speed @ ISO 9249G	kW	450
Capacity of oil sump	l	48
Capacity of cooling system	l	82

Unit		
Net capacity of air receiver	l	159
Capacity of fuel tanks	l	1150
Air volume at inlet grating (approx.): ³⁾	m ³ /s	13.4

- 1) At reference conditions, if applicable, and at normal shaft speed unless otherwise stated
- 2) Data: Free air delivery, measured according: ISO 1217 ed.3 1996 annex D, Tolerance: +/- 5% 25l/s < FAD < 250l/s; +/- 4% 250l/s < FAD
The international standard ISO 1217 corresponds to following national standards:
- British BSI 1571 Part 1
- German DIN 1945 Part 1
- Swedish SS-ISO 1217
- American ANSI PTC9
- 3) Air required for engine and compressor cooling, combustion and for compression

Altitude Unit Performance Curve



Principle Data

Compressor Element

Atlas Copco has decades of expertise in designing & manufacturing compressor elements. The compressor excels in durability, shorter maintenance intervals & improved fuel efficiency.

The X-Air⁺ 1200-40 utilizes an Atlas Copco C90 + J34 element and is driven by the diesel engine. Inlet air is filtered through a heavy-duty, two-stage air filter.

Air/Oil Separator

Air and oil separation is achieved through a centrifugal oil separator combined with a filter element. The vessel is ASME/CE approved and stamped accordingly.

Designed for a higher maximum working pressure, the separator is equipped with a sealed high-pressure safety relief valve, minimum pressure valve, automatic blow-down valve, and pressure regulator.

Cooling System

The cooling system consists of integrated side-by-side aluminum oil cooler with axial fan to ensure optimum cooling. The fan is protected by a guard for operator safety. There is an access port for easy cleaning of coolers.

The cooling system is suitably designed for continuous operation in ambient conditions up to 50°C, with canopy doors closed.

Compressor Regulating System

The compressor is provided with the AirXpert 2.0 regulating system.

The AirXpert 2.0 variable regulating system gives full control of compressor pressure and flow.

It controls vessel pressure and outlet flow by measuring air pressure and air temperature at several points and steering the air inlet valve, engine speed and blow-off valve corresponding the values measured.

Engine

Scania Diesel Engine

The compressor is driven by a liquid-cooled, six-cylinder Scania DC16 diesel engines. The engine's power is transmitted to the compressor element through a heavy-duty coupling.

Electrical System

The X-Air⁺ 1200-40 is equipped with a 24-volt negative ground electrical system.

Instrumentation - Xc4004

The Xc4004 controller is located on the front of the compressor canopy.

The intuitive Atlas Copco Xc4004 controller is easy to operate with all functions conveniently at your fingertips. The controller also manages the engine ECU operating system, and several safety warnings and shutdowns on various parameters (listed below).



Xc4004 Controller Functionality:

- Main screen
 - Vessel Pressure
 - Fuel level
 - Running Hours
 - RPM
 - Air Flow CFM
- General Settings
 - DPF Stationary Regeneration
 - Engine Diagnostics
 - Auto Start/Load/Stop
 - Languages
 - Units of Measure

- Measurements
 - Fuel Consumption
 - Engine Coolant Temperature
 - Compressor Element Temperature
 - Vessel Pressure
 - Engine Load
 - Engine Oil Pressure
 - DPF Soot Load
 - Fuel Temperature
 - Battery Voltage
 - Regulatory Pressure
 - Loaded/Unloaded Hours
 - Successful/Unsuccessful Starts
 - Service Timers (2)
- Operational Controls
 - Preset flow or operating pressure
- Alarm
 - Active Alarms
 - Event Log History
 - Alarm Log History
- Service
 - Data trending
 - Project Backup

Mounting options

The X-Air⁺ 1200-40 standard unit is delivered mounted on supports. Following mounting options are available for customers to choose from:

- Undercarriage
- Skid-mounted

Manufacturing & Environmental Standards

The X-Air⁺ 1200-40 is manufactured following stringent ISO 9001 regulations, and by a fully implemented Environmental Management System fulfilling ISO 14001 requirements. Attention has been paid to ensure minimum negative impact to the environment.

Safety Devices

The standard unit comes equipped with safety devices for the compressor and the engine. The unit will be completely turned off should:

- Coolant level reach below required limit.
- Vessel pressure exceed safe limit.
- Vessel pressure sensor circuit.
- Element temperature exceed safe limit.
- Element temperature sensor circuit.
- Engine protection caused shutdown.

Warranty Coverage

- Please refer to product presentation for warranty info.
- Extended Warranty Programs are available; please contact your local sales representative for more information.

Supplied Documents

The unit is delivered with documentation regarding:

- Hard copies of the Atlas Copco Operators Safety and Instruction Manual and Parts Book as well as electronic copies are available on request. Electronic copies of the Scania Engine Manual and Parts book are also available on request.
- Warranty registration card for engine and Atlas Copco Compressor (units must be registered upon receipt).
- Certificate for air/oil separator vessel and safety valve approval (upon request only).

* **Note:** Due to continuous improvements in the products, the technical specifications are subject to change without prior notice.