

XRVS 1000 CD8 T4F

Portable compressor



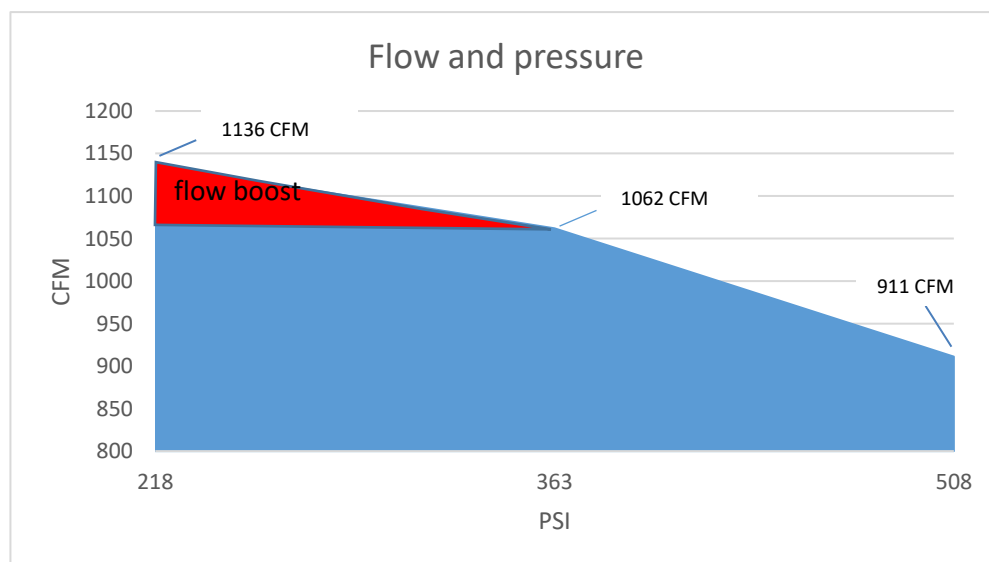
Standard Scope of Supply

The Atlas Copco **XRVS 1000 CD8 T4F** is a two-stage, oil-injected, rotary screw type air compressor, powered by a liquid-cooled, six-cylinder turbocharged diesel engine.

The unit consists of low & high pressure air ends, diesel engine with exhaust treatment, cooling circuit, air/oil separation and control systems - all enclosed within a sound dampened steel enclosure.

A range of undercarriage formats, factory and locally installed options are available.

Special attention has been given to the overall product quality, user friendliness, ease of serviceability, and economical operation to ensure best in class cost of ownership.



Available Models

XRVS 1000 CD8 T4F

two stage – 365-508 psi – Caterpillar engine

Features

- AirXpert 2.0
- Atlas Copco XC4004 controller
- Compact and Easy to Move
- New High Pressure Vessel Design
- External fuel filling with quick connect couplings
- Aftercooler, water separator

Benefits

- The new AirXpert 2.0 is the next generation of the old AirXpert system bringing more reliability and ruggedness to the system.
- It is CANBUS technology which enables to reduce electronic connectors and cables improving operational efficiency by reducing the risk of failures
- Fully variable with programmable pressures ranging from 218 to 508 psi, as well as programmable flow. Allows for optimization of your application and superior repeatability
- Allows operator to have more control on the operation.
- More intuitive in nature , easy to use & navigate
- The new controller gives much faster response to the change in parameters
- Optional "Mirror Panel" available to remotely monitor your compressors.
- The most compact, versatile, high-pressure air compressor on the market in its class
- Standard features such as central lifting, fork pockets, and tandem trailer undercarriage allows for easy maneuverability
- Two sight glasses to check oil level. Easy to service: All connectors and hoses are on the side of vessel enabling easy service for Oil Separator change and eliminating potential risk of incorrect installation of connectors
- Setup for large jobs to extend the running time
- Provides cool, dry air for more sensitive applications

Technical Data

Compressor

XRVS 1000 CD8 T4F

Normal effective working pressure (pre-set 200 psig and 150 psig)	Psi	218	365	508
Actual free air delivery ¹ (FAD) at pre-set pressure setting	Cfm	1136	1062	911
Maximum effective receiver pressure (compressor unloaded)	Psi		508	
Minimum working pressure	Psi		218	
Max. sound pressure level @ 23' (7m) at normal working speed & pressure ²	dB(a)		76	
Compression Stages			2	
Air Receiver Capacity	US Gal (L)		37,8 (143)	
Compressor oil capacity	US Gal (L)		21,5 (81.4)	
Approximate air outlet temperature (without / with aftercooler)	°F (°C)		194 (90) / 86 (30)	
Air Compressor outlets			1 x 2" NPT	
Max. ambient temperature (at sea level) ³	°F (°C)		122 (50)	
Maximum altitude	Ft (m)		10000 (3048)	
Minimum starting temperature (without cold weather options)	°F (°C)		14 (-10)	
Minimum starting temperature (with cold weather options)	°F (°C)		-4 (-20)	

Engine	Caterpillar		C-13	
Emissions Regulation	US EPA Tier		T4F	
US EPA Engine Family			FCPXL15.2HTF	
Output at rated speed (2400 rpm)	HP		475	
Number of cylinders			6	
Aspiration			Turbocharged	
Displacement	cu in (L)		763 (12.5)	
Engine speed (Unloaded)	Rpm	1400	1400	1400
Engine speed (Maximum loaded)	Rpm	TBD	1900	1650
Engine oil capacity	US Gal (L)		7.0 (26.4)	
Engine oil required			Low Ash Oil per API CJ-4, ACEA C9	
Engine coolant capacity	US Gal (L)		22.4 (84.7)	
Fuel tank capacity	US Gal (L)		236 (893)	
Fuel consumption at 0% load	Gal/Hr (L/Hr)	TBD	4.23 (16.0)	4.23 (16.0)
Fuel consumption at 100% load	Gal/Hr (L/Hr)	TBD	22.0 (83.3)	20.3 (76.8)
DEF tank capacity	US Gal (L)	TBD	9.1 (34.4)	9.1 (34.4)
DEF consumption at 100% load	Gal/Hr (L/Hr)	TBD	0.62 (2.3)	0.62 (2.3)
Battery Capacity (Cold Cranking Amps ⁴)	A		2 each 1100	

¹ According to ISO 1217 ed.3 1996 annex D

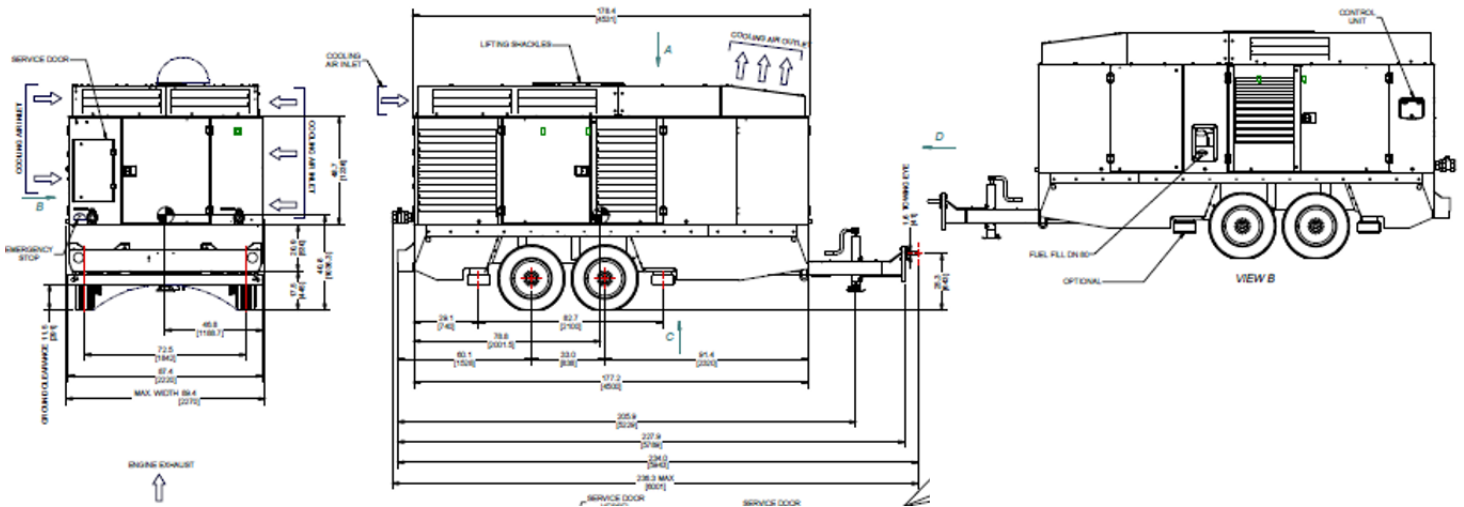
² Measured in accordance with ISO 2151 under free field conditions @ 7m distance

³ Consult Atlas Copco for proper de-rating instructions for operation beyond ambient limitations

⁴ According to DIN 72311

Dimensions

Tandem Axle Trailer Mounted



Weight (Wet - Ready-to-operate)

XRVS 1000 CD8 T4F

Trailer mounted

lb (Kg)

17540 (7956)

Dimensions

XRVS 1000 CD8 T4F

Trailer mounted

Inches (mm)

L x W x H

235 x 88 x 101 (5969 x 2235 x 2565)

Principle Data

Compressor Element

The quality of a compressor can be measured through the reliability, efficiency and durability of the compressor elements used. Through decades of expertise in the design of compressor elements, Atlas Copco remains a world leader in designing the most efficient and reliable compressors on the market. With air-end efficiency, maintenance intervals are extended and fuel consumption is reduced.

The XRVS 1000 CD8 T4F compressor utilizes Atlas Copco’s C-series low pressure element and J-series high pressure element, driven from the diesel engine through a gear box with a fibre disc coupler.

The compressor system comes with Atlas Copco PAR Oil SXtreme synthetic compressor oil. The oil cooler comes equipped with a standard thermostatic by-pass valve for superior cold weather lubrication.

Air/Oil Separator

Air and oil separation is achieved through a centrifugal oil separator combined with a filter element. Separators are available in ASME/CRN approved versions and are 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.

Air/Oil Separator Tank:

Volume	37.8 US Gal / 143 L
Certifications	ASME / CRN
MAWP	581 psi @ 266 °F

Cooling System

The cooling system consists of integrated side-by-side aluminum oil cooler with axial fan to ensure optimum cooling. The cooling system is suitably designed for continuous operation in ambient conditions up to 122°F, with canopy door closed for the XRVS 1000 CD8 T4F.

Regulating System



AirXpert 2.0

Atlas Copco's new *AirXpert 2.0* system replaces the previous generation DrillAirXpert "fly-by-wire" system. The new generation utilizes a Brushless DC motor to control the butterfly inlet valve. All of the motors functionality is controlled by the XC4004 controller and transmitted over CAN cables, which greatly increase the reliability of the system. The controller measures ambient pressure/temperature, compressor inlet pressure, and vessel pressure/temperature and then controls the engine speed, air inlet valve, an air blow off valve to maintain the desired operating parameters.

By utilizing an electronic system you gain the following benefits;

- Automatic 3% efficiency gain without having to use compressed air from the air end for pneumatic controls, resulting in better fuel efficiency.
- No pneumatic regulating lines to worry about in cold ambient conditions. No concern over condensate freezing in control lines.
- Ability to control the operating pressure (like a typical compressor) or to control the flow (where the machine will change the operating pressure to maintain a preset flow output). Precise control of the desired pressure or flow, with available preset points for quick changing of parameters.



Direct Flow Control

The ability to control the flow of an air compressor is a relatively new concept. When you have an application where you want to limit the volume of air, or where your application is most efficient you can set the SCFM requirement and the compressor will modulate working pressure automatically to provide the flow set.

Flow Control feature is used to meet the design pressure of the DTH hammer. Eg. If you drill with 508 psi compressor and hammer designed for 363 psi. You can set the flow needed by hammer to reach 363 psi, this way you never exceed design working pressure of the hammer, but keeping it high gradually increasing compressor pressure, when back pressure grows. Flow Control benefits in maintaining the good speed of drilling while increasing the life of the drilling accessories by having optimum annular velocity



Dynamic Flow Boost®

With the Xc4004 controller the pressure set point is dialed in on the controller and it automatically adjusts the output capacity (see chart above) to maximize the engine power and efficiency. For an example; if you require 435 psi then machine will use all the engine power available to put out 986 CFM.



Variable minimum pressure valve

Atlas Copco XPR extends the working pressure range. It is based on patented technology and lets you set working pressure as low as 218 psi. So the XRVS 1000 can have a pressure band from 218-508 psi, making the unit most versatile and suited for varied application. With Dynamic Flow Boost ON, the compressor gives the maximum flow at any given pressure.

Discharge Outlets

Compressed air is available from 2 x 2" NPT outlet valve. One standard air and the other aftercooled air.

Engine

Caterpillar C-13 Final Tier 4

Caterpillar C-13 T4F turbo charged six-cylinder, liquid-cooled diesel engine provides ample power to operate the compressor continuously at full-load.

Meets all US EPA and Environment Canada exhaust legislations with Final Tier 4 compliance.

The US EPA engine family is “FCPXL15.2HTF” and rated at 475hp at 1900 rpm, in accordance to SAE Standard for the XRVS 1000 CD8 T4F.

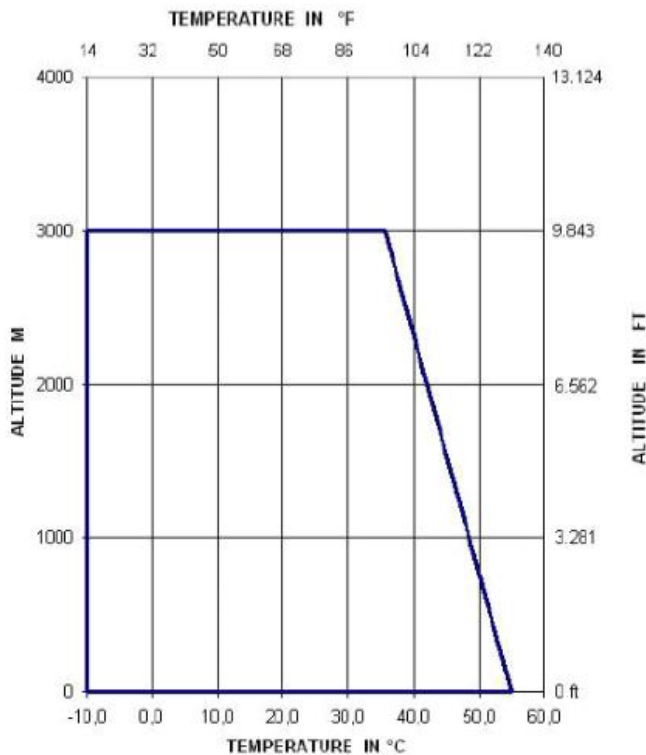
Engine starting capacity at 14°F (-10°C) without the addition of cold start options. Cold start options are available up to -4°F (-20°C).

The 236 Gal (893 L) fuel tank enables operation for over 8 hours at full load and comes standard with a low fuel shutdown at 5%.

ALTITUDE UNIT PERFORMANCE CURVE

Max. achievable working pressure in relation to altitude and ambient temperature.

Graph represents working conditions, for starting conditions please contact your Atlas Copco contact.



Emissions Treatment

Caterpillar C-13 T4F engine after treatment consists of a Continuous Emissions Monitoring (CEM), Diesel Oxidization Catalyst (DOC), Diesel Particulate Filter (DPF) and Selective Catalytic Reduction (SCR). The SCR utilizes the temperature of the exhaust to passively regenerate during normal use.

Electrical System

The **XRVS 1000 CD8 T4F** is equipped with a 24 Volt negative ground electrical starting system.

Instrumentation

The instrument control panel is located on the back, of the compressor canopy with easy access.

Standard instrument package includes a fully diagnostic ECU controller with large 7" screen. 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 a number of safety warnings and shut downs on various parameters (listed below).

Xc4004 Controller Functionality:

- Main Screen 1
 - Vessel Pressure
 - Fuel & DEF Level
 - Running Hours
 - RPM
 - Air Flow CFM (AirXpert models only)
- Main Screen 2
 - Vessel Pressure
 - Fuel & DEF Level
 - Running Hours
 - RPM
 - Air Flow CFM (AirXpert models only)
 - Element Temp
 - Regulating Pressure
 - Battery Voltage
- Measurements
 - Fuel Consumption
 - Engine Coolant Temperature
 - Compressor Element Temperature
 - Vessel Pressure
 - Air Discharge Pressure
 - Inlet Pressure
 - Ambient Temperature
 - Aftercooler Air Temperature
 - E-Stop count
 - Oil Stop Valve Pressure
 - Engine Load
 - Engine Oil Pressure
 - Engine Boost Pressure
 - DPF Soot Load
 - Fuel Temperature
 - Battery Voltage
 - Regulatory Pressure
 - Loaded/Unloaded Hours
 - Successful/Unsuccessful Starts
 - Service Timers (2 resettable)
- General Settings
 - Engine Diagnostics
 - Auto Start/Load/Stop
 - 30 Languages
 - Units of Measure
 - Auto diagnostic function for the engine
- Alarms
 - Structured alarms can be added to alert in advance to take proactive action
 - Active Alarms
 - Event Log History
 - Alarm Log History



- Histogram: The new Xc4004 gives enables Performance monitoring system by creating onboard histograms of major parameters like FAD, Engine Load, Highest element temperature, Vessel Pressure, Engine RPM , Fuel Rate etc...



Bodywork

The compressor comes standard with metal canopy that has a 2 layer protective coating (Primer base and Powder Coated top layer) providing excellent corrosion protection. The canopy is sound attenuated to meet the most current legal noise requirements. Large service doors offer easy service access to all components from all sides of the machine.

Undercarriage & Frame

The **XRVS 1000 CD8 T4F** compressor is available with two undercarriage alternatives, providing utmost flexibility in installation or towing requirements.

- Tandem dual axle trailer setup with:
 - DOT approved light package
 - Adjustable height pintle hitch (3" lunette)
 - Two (2) each 10,000 lbs torsional axles
 - 17.5" Rims w/ 215/75R 17.5 Tires
 - Electric trailer brakes as standard (with 7 pin flat blade connector), Electrical brakes optional
 - 10,000 lbs (lift), 12,000 lbs (static) rated jack leg stand, with pad stand

Factory Options Available

- Electric Brakes Tandem axle undercarriage or Support Mounted (skid)
- Aftercooler and Water Separator
- Cold Weather Package – 0W40 engine oil, thermostat controlled ether injection
- Special color canopy

Manufacturing & Environmental Standards

The **XRVS 1000 CD8 T4F** is manufactured following stringent ISO 9001 regulations, and a fully implemented Environmental Management System fulfilling ISO 14001 requirements.

Attention has been given to ensure minimum negative impact to the environment.

The **XRVS 1000 CD8 T4F** meets all current EPA and Environment Canada exhaust and noise emission directives.

Supplied Documentation

The unit is delivered with documentation regarding:

- Hard copies of the Atlas Copco Operators Safety and Instruction Manual, Caterpillar Engine Manual and Parts book, as well as electronic copies, available upon request.
- Warranty Registration card for Caterpillar Engine and Atlas Copco Compressor (Units must be registered upon receipt).
- Test certificate for air delivery pressure and capacity, acc. ISO 1217 (Upon request only).
- Certificate for air/oil separator vessel and safety valve approval, ASME (Upon request only).

Warranty Coverage

Caterpillar Engine: Caterpillar Diesel engines are warranted to be free from defects with regard to materials and workmanship for the period of twelve (12) months from the date of initial start-up without limitation in running hours or for the period of thirty six (36) months from the date of initial start-up prior to the accumulation of 4000 running hours.

Atlas Copco Compressor: Warrantied to be free from defects with regard to material and workmanship for the period of eighteen (18) months from date of shipment from the factory, or twelve (12) months from date of initial start-up, whichever occurs first, without limitation of running hours.

Air compressor element assemblies used in Atlas Copco portable air compressors, is warranted to be free from defects with regard to materials and workmanship for the period of thirty (30) months from date of shipment from the factory, or twenty four (24) months from date of initial start up, whichever occurs first, without limitation of running hours. Atlas Copco service kits including parts and oils (PAR Oil's) must be used to maintain warranty. Failure to register warranty upon initial start-up may cause warranty claim delays or rejection of claims.

PRODUCT: Portable Compressors	EXTENDED WARRANTY PERIOD*: 24 months from date of end of initial standard warranty term. For the compressor's air system **, the warranty period is an additional 96 months from the end of the 24 month extended warranty term. For the engine, see Footnote 1 below.
<p>* Requirements for Extended Warranty;</p> <ul style="list-style-type: none"> · Service maintenance must be completed according to published intervals while utilizing genuine Atlas Copco/Chicago Pneumatic/American Pneumatic Tool parts and lubricants. Record of such maintenance must be entered onto Machines Online for the specific serial number and include all required information including date service performed, service interval performed, and part numbers used. · Oil sample (engine or compressor) to be taken at any time of failure and available upon request <ul style="list-style-type: none"> · Oil sample kit part number 9753300442 available for purchase · Unit must be available for onsite inspection by a representative of Power Technique North America if required · Unit must be available for transport to a Power Technique North America service center location if required · Failed components must be retained and available for return and inspection if required 	
<p>** Air end system component exclusions: Electrical components (i.e. Sensors, wiring), Perishable items (i.e. Rubber, plastics), Wear and air regulation items (i.e. Check valves, couplings)</p>	
<p>Note: End users are authorized to complete the required preventative maintenance utilizing genuine parts and lubricants purchased from an authorized dealer. Service maintenance recorded into Machines Online are to be completed by the authorized dealer where products purchased or another authorized dealer after providing proof of purchase for genuine parts and fluids utilized..</p>	
<p>Note: Equipment/machinery/components/Accessories/parts/items sold by SELLER but not manufactured by SELLER or an affiliate (including but not limited to a Product's engine, alternator, tires, battery, carrier, electrical equipment, and hydraulic transmission, if applicable) are not warranted by SELLER and shall carry whatever warranty (if any) which the manufacturer has conveyed to SELLER to the extent it can be passed on to the purchaser.</p>	