

XRVS 1550

Portable compressor



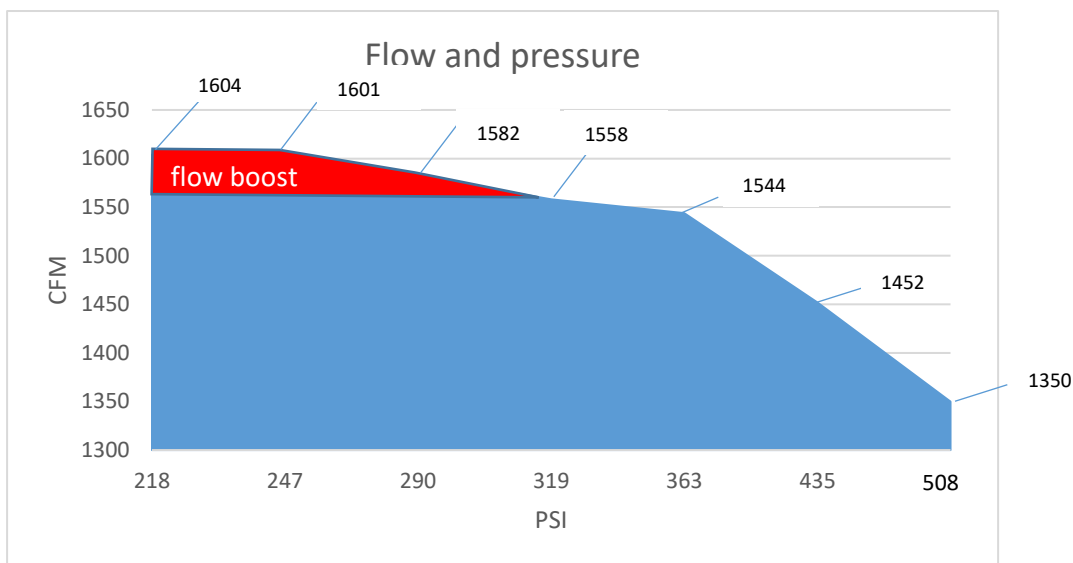
Standard Scope of Supply

The Atlas Copco **XRVS 1550** is a two-stage, oil-injected, rotary screw type air compressor, powered by a liquid-cooled, six-cylinder twin-turbocharged diesel engine.

The unit consists of one low pressure and one high-pressure air end, diesel engine, cooling circuit, air/oil separation and control systems - all enclosed within a sound dampened powder coated 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 1550 CD8 T4F

two stage – 218 to 581 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	Units	XRVS 1550 CD8 T4F				
Actual free air delivery ¹ (FAD)	Cfm	1606	1582	1544	1452	1350
Normal effective working pressure	Psi	218	290	363	435	506
Maximum unloading pressure	Psi	581				
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)	42 (160)				
Compressor oil capacity	US Gal (L)	22 (83.3)				
Approximate air outlet temperature	°F (°C)	220 (104)				
Approximate air outlet temperature through aftercooler	°F (°C)	Rise over ambient 52 (30)				
Air Compressor outlets		2" NPT				
Max. ambient temperature (at sea level) ³	°F (°C)	122 (50)				
Maximum altitude	ft (m)	9850 (3000)				
Minimum starting temperature (with cold weather options)	°F (°C)	-13 (-25)				

Engine	Caterpillar	C18 TT				
Emissions Regulation	US EPA	Tier 4 Final				
US EPA Engine Family		KCPXL18.1HXF				
Output at rated speed (1785 rpm) ⁴	Bhp	755				
Number of cylinders		6				
Aspiration		Twin Turbocharged				
Displacement	cu in (L)	1104.5 (18.1)				
Engine speed (Unloaded)	Rpm	1300				
Engine speed (Maximum loaded ⁵)	Rpm	1765	1750	1700	1600	1500
Engine oil capacity	US Gal (L)	14.25 (53.9)				
Engine coolant capacity	US Gal (L)	24 (90.8)				
DEF tank capacity		No DEF required				
DEF consumption		No DEF required				
Fuel tank capacity (tandem)	US Gal (L)	240 (908)				
Fuel consumption at 0% FAD	Gal/Hr (L/Hr)	6.77 (25.6)				
Fuel consumption at 100% FAD	Gal/Hr (L/Hr)	TBD	TBD	30.5 (115.5)	30.5 (115.5)	29.5 (111.5)
Electrical System (Negative Ground)	V	24				
Battery Capacity (Cold Cranking Amps ⁶)	A	2 @ 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

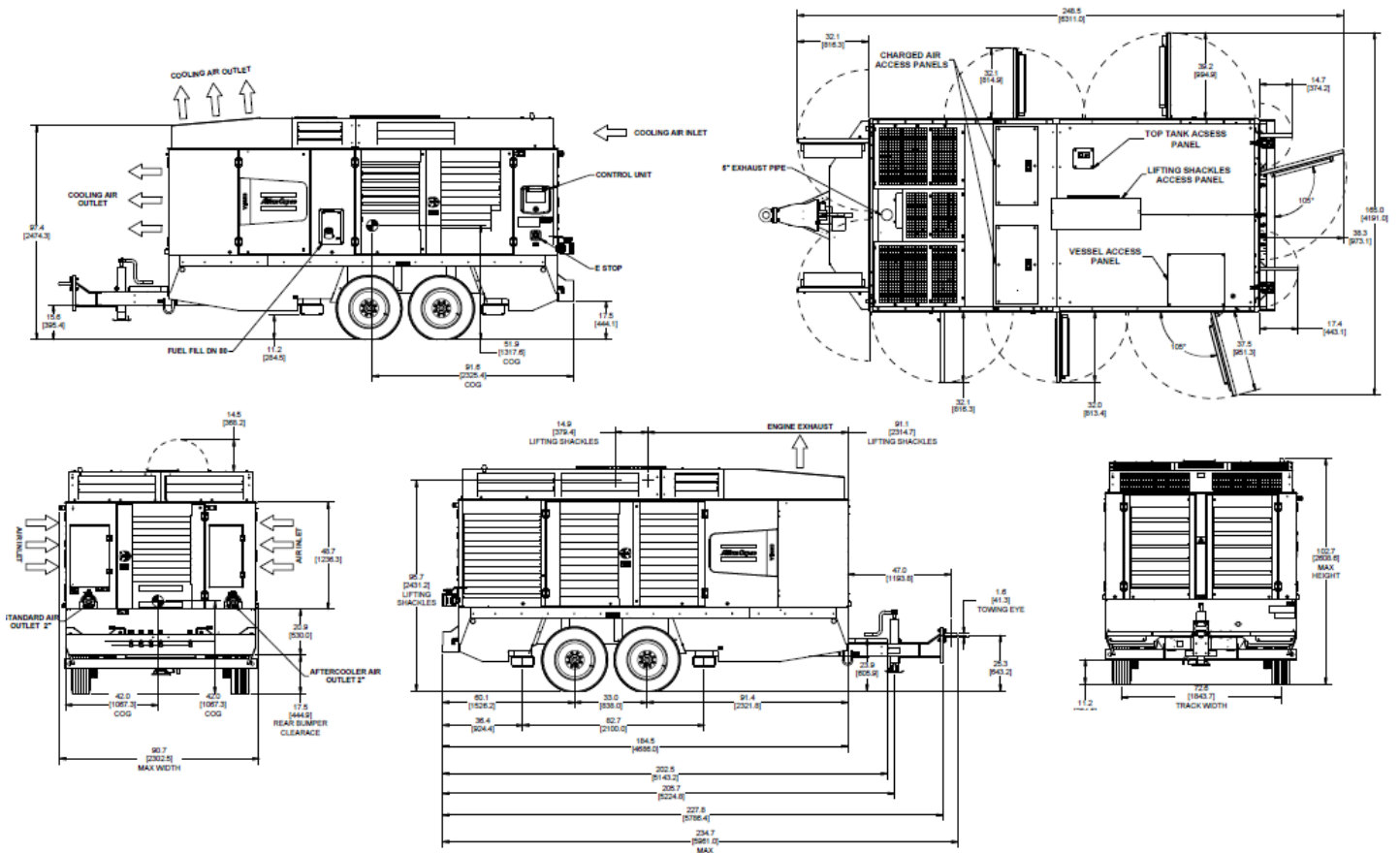
⁴ Horsepower limited by Engine ECU

⁵ Maximum RPM is without Floowboost activated

⁶ According to DIN 72311

Dimensions

Trailer mounted



Weight (Wet - Ready-to-operate)

		XRVS 1550 CD8 T4F
Tandem Trailer	lb (Kg)	19,225 (8,721)

Dimensions

		XRVS 1550 CD8 T4F
Tandem Trailer	L x W x H	235 x 90.7 x 102.7

Principle Data

Compressor Element

The quality of a compressor can be measured through the reliability, efficiency and durability of the compressor element used. Through decades of expertise in the design of compressor elements, the result is the production of the most efficient and reliable compressors in the market. When the screw element is efficient, durability excels, maintenance intervals decrease and fuel consumption goes down.

The DrillAir XRVS 1550 CD compressor utilizes a combination of Atlas Copco C190 and J34 element and are driven from the Caterpillar diesel engine. Inlet air is filtered through a heavy duty air filter.

Air/Oil Separator

Air and oil separation is achieved through a centrifugal oil separator combined with a filter element. Separators are ASME/CRN/AS1210 approved versions and are stamped accordingly.

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

Air/Oil Separator Tank:

Volume	42 US Gal / 159L
Certifications	ASME / CRN / AS1210
MAWP	581psi @ 266°F

Cooling System

The cooling system consists of the integrated side-by-side aluminum oil cooler with an axial fan to ensure optimum cooling. The fan is protected by a guard for operator safety. There are additional access ports at the front and side of the machine that have been added over the previous generation to offer easier cleaning. The engines charge air cooling system is controlled by a bank of electric fans.

The cooling system is suitably designed for continuous operation in ambient conditions up to TBD°F, with canopy door closed.

Discharge Outlets

Compressed air is available from a 2" NPT outlets fitted with high-pressure ball valves. One outlet is for standard air and the other runs through the integrated Aftercooler and water separator.

Engine

Caterpillar C18 ACERT

Caterpillar C18 Tier 4 Final, twin turbocharged, six-cylinder, liquid-cooled diesel engine provides ample power to operate the compressor continuously at full load.

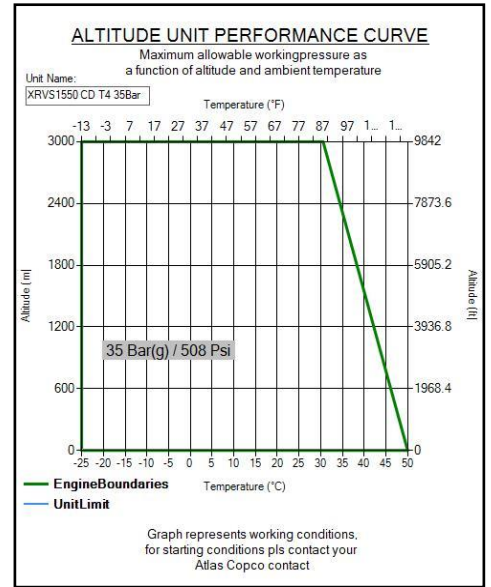
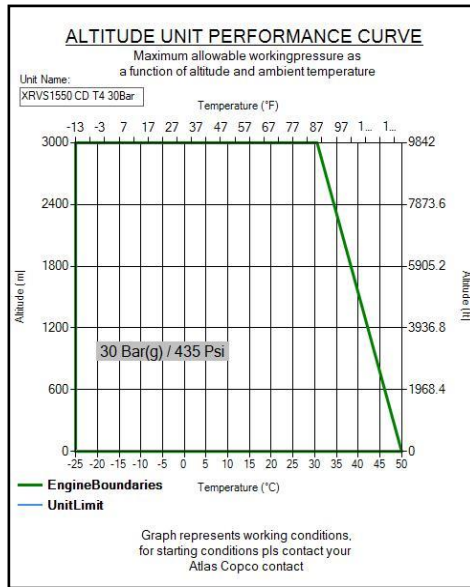
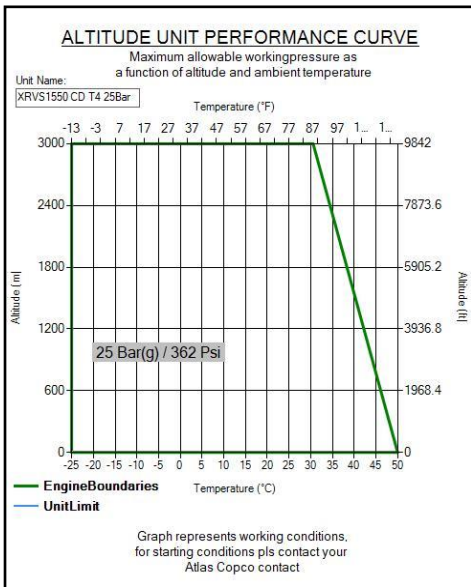
Meets US EPA and Environment Canada Tier 4 Final exhaust legislations. The US EPA engine family is "KCPXL18.1HXF".

Engine output at rated speed, in accordance to SAE Standard, is 755 Bhp at 1800 rpm, as limited by the engine ECU.

The engine has the capability to start the compressor to -13°F (-25°C) with standard 1500 W block heater and standard CAT ether start.

The 240 Gal (909L) fuel tank is sufficiently sized to operate the unit for a minimum of 7.75 hours at the full load condition. External fuel connections with a 3 way valve are standard on the unit.

Altitude performance curve on next page.



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 1450 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 XRVS 1550 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.

Electrical System

The XRVS 1550 CD 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 (no DEF on XRVS 1550)
 - Running Hours
 - RPM
 - Air Flow CFM (AirXpert models only)
- Main Screen 2
 - Vessel Pressure
 - Fuel & DEF Level (no DEF on XRVS1550)
 - 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 (N/A on XRVS1550)
 - 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 ASTM A1008 steel canopy with powder coat paint finish providing excellent corrosion protection, which is tested to 480 hour salt spray test. Large doors offer easy service access to all components from both sides of the machine.

Undercarriage

The **XRVS 1550 CD T4F** compressor is available with a tandem undercarriage, providing utmost flexibility in installation or towing requirements.

- Tandem axle trailer setup with:
 - US DOT/Federal MVSS 49CFR571 approved light package and 6 way trailer plug
 - Adjustable height pintle hitch (3" lunette)
 - 17.5" Rims w/ 215/75R17.5 Tires for trailer use
 - Electric trailer brakes standard
 - Heavy Duty torsion axle rated at 10,000 lbs
 - Safety chains
 - Screw jack leveling
 - Single point lifting structure

Factory Options Available

- Cold weather package
- Refinery package

Manufacturing & Environmental Standards

The **XRVS 1550 CD T4F** is manufactured following stringent ISO 9001 regulations, and by a fully implemented Environmental Management System fulfilling ISO 14001 requirements.

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

The **XRVS 1550 CD T4F** meets all current US EPA, CARB 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, Atlas Copco Parts Book, Kubota Engine Manual and Parts book, as well as electronic copies 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, ASME/CRN (Upon request only).

Warranty Coverage

XRVS 1550 – Product Reference

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 startup without limitation in running hours or for the period of thirty six (36) months from the date of initial startup 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 startup, whichever occurs first, without limitation of running hours. Atlas Copco service kits including parts and oils (PAR Oil's) must be used to maintain the warranty. Failure to register warranty upon initial start-up may cause warranty claim delays or rejection of claims.

Extended Warranty: The compressor will qualify for an extended warranty period up to thirty (36) months from date of purchase on the machine and one hundred and twenty (120) months on the air end. Please see details below on the extended warranty.

PRODUCT: Portable Compressors	EXTENDED WARRANTY PERIOD*: 24 months from date of the end of the initial standard warranty term. For the compressor's air system **, the warranty period is an additional 96 months from the end of the 24 months 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 · The unit must be available for onsite inspection by a representative of Power Technique North America if required · The 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>	