

Product Reference
V21 Sd T4F APP
Portable Compressor



Standard Scope of Supply

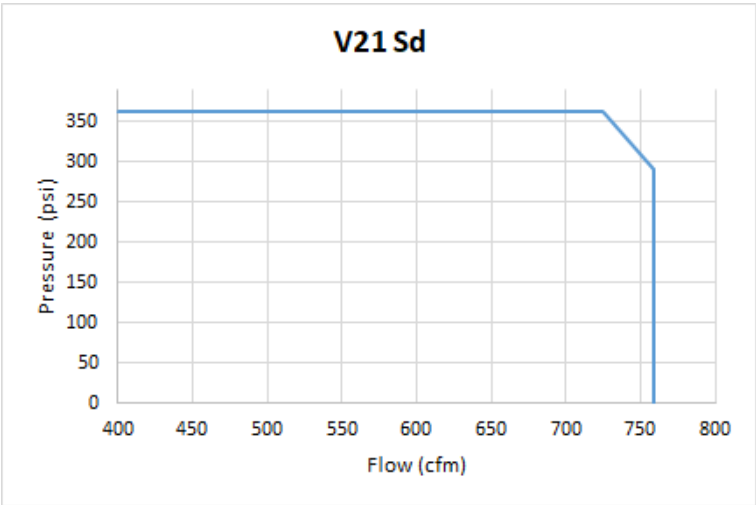
The Atlas Copco **V21** is a silenced, two-stage, oil-injected screw type air compressor, powered by a liquid-cooled, five-cylinder Scania diesel engine.

The unit hosts the new generation C190 Screw element in its air end combined with a Scania made diesel engine model DC09, a cooling circuit, air/oil separation and control systems, mounted on support beams and supported by rubber buffers in a spillage-free frame.

An undercarriage with fixed towbar, brakes and pintle eye is available as option.

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.

Pressures and flow



Main data

Model	V21				
		758	758	731	725
Actual free air delivery (FAD)	cfm	758	758	731	725
Normal effective working pressure	psi	232	290	350	362
Minimum effective receiver pressure	psi	232			
Maximum effective receiver pressure (Unloaded)	psi	392			
Fuel consumption					
at 100% FAD (full load)	US Gal/h	13.70			
at 75% FAD	US Gal/h	10.12			
at 50% FAD	US Gal/h	8.56			
at 25% FAD	US Gal/h	6.97			
Maximum typical oil content of compressed air	ppm	3			
Max. sound power level (Lw @ 2000/14/EC)	dB(A)	100			
Compressed air temperature at outlet valve without aftercooler	°C (°F)	105 (221)			
Max. ambient temperature at sea level with aftercooler	°C (°F)	45 (113)			
Min. starting temperature with cold weather equipment	°C (°F)	-25 (-13)			
Min. starting temperature without cold weather equipment	°C (°F)	-10 (-14)			
Number of compression stages		2			
Engine		Scania DC09			
Emission stage	US EPA	Tier 4 Final			
Coolant		Liquid			
Number of cylinders		5			
Displacement	cu in (L)	567.5 (9.3)			
Engine power at normal shaft speed @ SAE J1995	HP	311			
Full Load	rpm	1800			
Unload	rpm	1300			
Capacity of oil sump: - Initial fill	US Gal (L)	9.51 (36)			
Capacity of cooling system	US Gal (L)	19.28 (73)			
Capacity of compressor oil system	US Gal (L)	20.61 (78)			
Net capacity of air receiver	US Gal (L)	42.00 (159)			
Capacity of standard fuel tanks	US Gal (L)	158.50 (600)			
Safety valve - minimum opening pressure	psi	422			
Dimensions support mounted (LxWxH)	in	157.5 x 82.7 x 86.6			
Dimensions trailer (LxWxH)	in	Data Not Available			
Dry weight	lb (kg)	12,963 (5880)			
Wet weight	lb (kg)	14,400 (6532)			

Features

Benefits

- Compact, sound attenuated, corrosion resistant enclosure
- Battery Cut off switch
- 3-layer painting
- For OND compliance the unit is enclosed in a sound attenuated Zincor steel enclosure. The large U-Flex canopy doors allows superior access and makes maintenance easy. Compact and maneuverable, saving valuable space on your job site, and during transportation
- Prevents damage to the engine by cutting of the power from the batteries
- High residual value

Dimensions

See dimension drawing

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 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 **V21** compressor utilizes an Atlas Copco C90 element and is driven from 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. Vessel is ASME/CRN approved and stamped accordingly.

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

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 (122°F) and 45°C (113°F) with AC, with canopy doors closed.

Compressor Regulating System

The compressor is provided with a continuous pneumatic regulating system and a blow-off valve which is integrated in the unloader assembly. The air receiver pressure is maintained between the preselected working pressure and the corresponding unloading pressure.

Economic power consumption is assured by the fully automatic 100% step-less speed regulator that adapts engine speed to air demand.

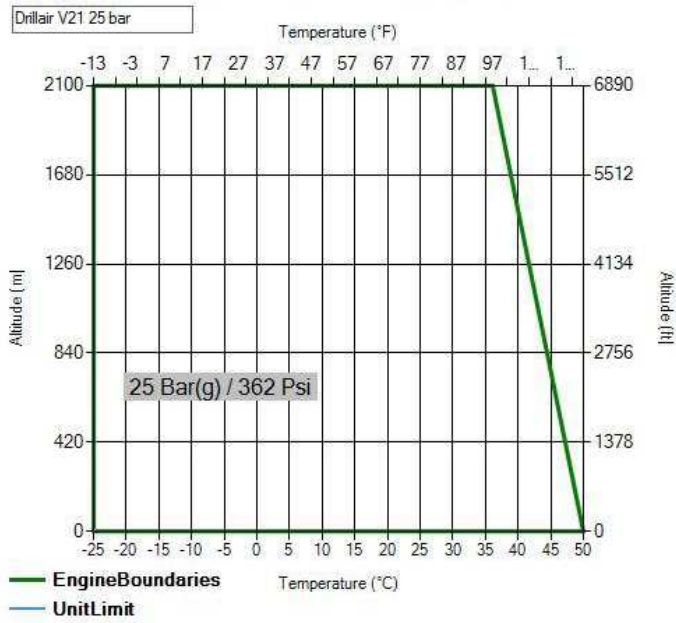
Engine

Scania

Scania DC09, turbocharged, five-cylinder, liquid-cooled diesel engine provides ample power to operate the compressor continuously at full-load.

Cold start options are available for up to -25°C (-13°F).

The 600 L (158.50 US Gal) fuel tank is sufficiently sized to allow full shift autonomy (8h).



Electrical System

The **V21** is equipped with a 24 Volt negative ground electrical starting system.

Instrumentation – XC4004

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

Standard instrument package includes a fully diagnostic ECU controller with large 7" antiglare 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 (N/A on V21)
 - 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



Bodywork

The compressor's frame comes standard with ASTM A653 Zincor steel platework with powder coat paint finish providing excellent corrosion protection. The canopy is sound attenuated to meet the most current legal noise requirements. Wide canopy doors offer easy service access to all components from both sides of the machine.

Undercarriage

The **V21** compressor is available with an undercarriage alternative, providing utmost flexibility in installation or towing requirements.

- Tandem axle trailer setup with:
 - Mechanical brakes
 - Adjustable jack stand
 - Max. towing speed 55 mph

Supplied Documentation

The unit is delivered with documentation regarding:

- Hard copies of the Atlas Copco Operators Safety and Instruction Manual, Atlas Copco Parts Book, Scania 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, CE (Upon request only).

Warranty Coverage

Please refer to product presentation for warranty info

Extended Warranty Programs are available; please contact your local sales representative for more info.