

XAS 185 KDU T4F

Portable compressor



Standard Scope of Supply

The Atlas Copco **XAS 185 KDU T4F** is a single-stage oil-injected rotary screw type air compressor, powered by a liquid-cooled, four cylinder diesel engine.

The unit consists of an air end, diesel engine, cooling circuit, air/oil separation and control systems - all enclosed with an 1000 hour salt spray tested zinc rich primer steel canopy enclosure.

It is in a Utility Mounted enclosure designed for mounting on truck decks, 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

XAS 185 KDU T4F

single stage - 100 psi – Kubota engine

Standard Features

- 49Hp Engine with 185 CFM Free Air Delivery
- Low Fuel Shutdown
- Galvannealed enclosure
- Central point drains
- Block Heater
- Protective shutdown system

Benefits

- 185 CFM free air delivery @ 2.37Gal/hr (8.97L/hr)
- Direct drive compressor, no gearbox required which saves horsepower and fuel
- Reduces downtime on site when operator runs out of fuel as there is no longer a need to "re-prime" the fuel system
- Corrosion resistant
- All fluids and service points plumbed to edge of the machine for ease of maintenance while mounted on a truck
- Allows ease of use for the operator
- Prevents damage to the compressor

Technical Data

Compressor	Units	XAS 185 KDU T4F
Actual free air delivery ¹ (FAD)	cfm	185
Normal effective working pressure	Psi	100
Maximum unloading pressure	Psi	125
Minimum working pressure	Psi	58
Max. sound pressure level @ 23' (7m) at normal working speed & pressure ²	dB(a)	76
Compression Stages		1
Air Receiver Capacity	US Gal (L)	4.5 (17)
Compressor oil capacity	US Gal (L)	2.3 (8.7)
Approximate air outlet temperature	°F (°C)	200 (93)
Air Compressor outlets		1 x 1½" NPT
Max. ambient temperature (at sea level) ³	°F (°C)	120 (50)
Maximum altitude	ft (m)	TBA
Minimum starting temperature (without cold weather options)	°F (°C)	14 (-10)
Minimum starting temperature (with cold weather options)	°F (°C)	-13 (-25)

Engine	Kubota	V2403-CR-E4B
Emissions Regulation	US EPA	Tier 4 Final
US EPA Engine Family		EKBXL02.4END
Output at rated speed (2700 rpm) ⁴	HP	49
Number of cylinders		4
Aspiration		Naturally aspirated
Displacement	cu in (L)	147 (2.4)
Engine speed (Unloaded)	rpm	1600
Engine speed (Maximum loaded)	rpm	2700
Engine oil capacity	US Gal (L)	2.5 (9.5)
Engine coolant capacity	US Gal (L)	2.5 (9.5)
Fuel tank capacity	US Gal (L)	25 (95)
Fuel consumption at 0% load	Gal/Hr (L/Hr)	0.93(3.52)
Fuel consumption at 100% load	Gal/Hr (L/Hr)	2.37 (8.97)
Electrical System (Negative Ground)	V	12
Battery Capacity (Cold Cranking Amps)	A	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

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 XAS 185 KDU T4F compressor utilizes Atlas Copco's C111 which element is directly driven from the diesel engine with a fiber disc coupler. No gear box means less horse power required to produce the same volume of compressed air.

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. Separators are 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, sonic nozzle, automatic blow-down valve, and pressure regulator.

Air/Oil Separator Tank:

Certifications	ASME / CRN
MAWP	180psi @ 213°F

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 at the front of the machine for easy cleaning

The cooling system is suitably designed for continuous operation in ambient conditions up to 120°F, with canopy door closed.

Compressor Regulating System

The compressor regulating system consists of two stage air filter, air receiver/oil separator, compressor element, blow down valve, and pressure safety valve.

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

Discharge Outlets

Compressed air is available from 2 x ¾ valve shipped loose.

Engine

Kubota V2403

Kubota V2403 Tier 4 Final, naturally aspirated, four-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 Tier 4 Final compliance. The US EPA engine family is "EKBXL02.4END". The engine utilizes a Diesel Particulate Filter (DOC) with active regeneration to help meet Tier 4 Final emissions. All functionality of the engine and exhaust after treatment are controlled automatically on the XC2003 controller.

Engine output at rated speed, in accordance to SAE Standard, is 49hp at 2700 rpm, as limited by the engine ECU.

The engine has the capability to start the compressor to 14°F (-10°C) with standard glow-plug aid. Cold start options are available for up to (TBA).

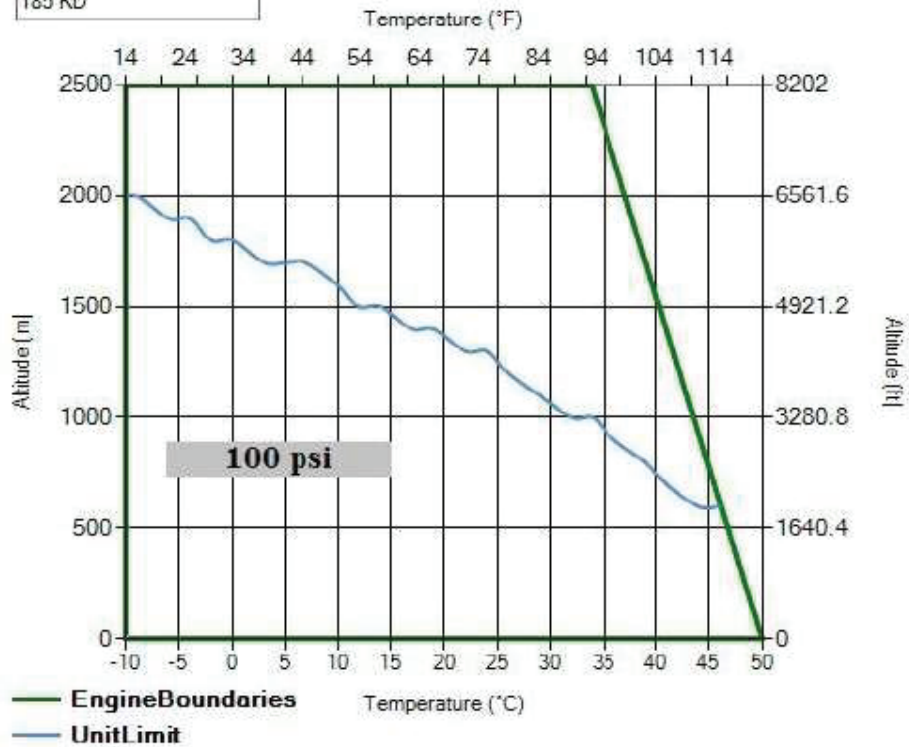
The 25 Gal (5L) fuel tank is sufficiently sized to operate the unit for minimum of 8 hours at full-load condition.

ALTITUDE UNIT PERFORMANCE CURVE

Maximum allowable working pressure as a function of altitude and ambient temperature

Unit Name:

185 KD



Graph represents working conditions, for starting conditions pls contact your Atlas Copco contact

Electrical System

The **XAS 185 KDU T4F** is equipped with a 12 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 an operating pressure gauge, and fully diagnostic ECU controller with large 3.5" display. The intuitive Atlas Copco XC2003 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).

XC2003 Controller Functionality:

- Displayed while running
 - Hours
 - Fuel level
 - RPM
 - Outlet pressure
- Compressor measurements displayed
 - Running hours
 - Fuel level
 - Clock
 - Battery voltage
 - Running hours
 - Regulating pressure
 - Emergency stop count
 - Average fuel consumption
 - Minor and major service counters in hours and days
- Warnings and Shutdowns
 - High temperature engine coolant
 - High temperature compressor oil
 - Engine oil pressure
 - Low fuel level
 - High DPF soot level
- Settings
 - Manual regeneration of DPF
 - Reset service timers
 - Diagnostics for engine ECU
 - Language settings
 - Unit of measure changes
- Operational Buttons
 - Start and stop of the unit
 - View measurements, settings and alarms
 - Multi position cursor to navigate menus
- Engine measurements displayed
 - Current fuel rate
 - Engine coolant temperature
 - Engine oil pressure
 - DPF Soot level
 - Engine RPM
- Alarms
 - View current & historical alarms present
 - History of last 20 alarms and events with time and date stamps
 - DM1 & DM2: View current engine codes (SPN/FMI)



Bodywork

The compressor comes standard with 1000 hour salt spray tested zinc rich primer steel canopy with powder coat paint finish providing excellent corrosion protection. The canopy is sound attenuated to meet the most current legal noise requirements. Side access doors offer easy service access to all components from both sides of the machine.

Factory Options Available

- Air Filter Safety Cartridge
- O.S.H.A. Valve 3/4"
- Synthetic Oil
- Outlet Flange 90 Degree – ship loose

Manufacturing & Environmental Standards

The **XAS 185 KDU 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 **XAS 185 KDU 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, Kubota Engine Manual, 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

Kubota Engine: Two (2) years / 2,000 hours of operation (whichever occurs first) & Major Component Warranty (MCW) for three (3) years / 3,000 hours (whichever occurs first) warranty from Kubota Engine America. Unit must be registered directly with Kubota upon receipt to be eligible for warranty. Failure to register warranty upon initial startup may cause warranty claim delays or rejection of claim by Kubota.

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.

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