

Product Reference Sheet
CPS 1150 - 360



Standard Scope of Supply

The Chicago Pneumatic CPS 1150 - 360 is two-stage, oil-injected, rotary screw type air compressors powered by a liquid-cooled, six-cylinder turbocharged Scania diesel engine.

The unit hosts the new generation C190 + J34 screw element in its air end, combined with a DPF-free Scania diesel engine model DC13, complying with the T4F emission standard. Along with DOC and SCR in the exhaust treatment system, cooling circuit, air/oil separation and control systems. The unit is mounted on a DOT undercarriage with a fixed towbar, electric breakers, and pintle eye and the engine is supported by rubber buffers.

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

Features

- Designed with environmental protection in mind
- Compact, sound attenuated
- Chicago Pneumatic Xc4004 Compressor Controller, that includes a switch to ease operation of dual pressure mechanical regulating valves
- Equipped with Oiltronix, an electronic controlled oil temperature system
- Cold Weather
- Forklift pockets & central lifting point
- Low Fuel Shutdown
- Heavy Duty Tandem Dual Axle Trailer with 17.5" wheels
- Telematics ready
- External fuel tank connection

Benefits

- DPF-free, Scania T4F engine boasting 493 HP
- At a weight of 16,000 lbs, the lightest in its category, this unit is easily towable by a 3/4 truck.
- Versatility of the Xc4004 controller gives you the flexibility to tune your machine to a wider range of applications
- The compressor matches the air flow with desired operating pressure to maximize output keeping the engine as fuel efficient as possible. In turn it will increase utilization rate and ROI as it is adaptable to many more applications than a standard machine.
- Extends the lifetime of air-ends, compressor components, oil, and the oil-separator. Also reduces the average oil temperature, prevents overheating, and increases safety.
- Features required for reliable cold weather operation including synthetic compressor oil and diesel-powered block heater
- Easy and safe maneuver on site
- Reduces downtime on site when operator runs out of fuel as there is no longer a need to "re-prime" the fuel system
- Well balanced for safer towing or moving around site and on highways
- Plug and play wiring harness for easy telematics installation
- Allows longer autonomy with use of an external fuel tank
- Does not require an external fuel pump
- Comes with external quick connects that prevents fuel leaks when maneuvering and disconnecting the hoses

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Main data

Model		CPS 1150 - 360
Minimum effective receiver pressure	PSI	220
Maximum effective receiver pressure (Unloaded)	PSI	360
Maximum working pressure	PSI	360
Actual free air delivery		-
at pressure setting 250 psi	CFM	1160
	l/s	-
at pressure setting 300 PSI	CFM	1120
at pressure setting 360 PSI	CFM	1070
		-
Fuel consumption at pressure setting P1		
at 100% FAD (full load)	kg/h	63.6
at 75% FAD	kg/h	52.9
at 50% FAD	kg/h	41
at 25% FAD	kg/h	29.2
At 0% FAD (unload)	kg/h	24.1
Specific fuel consumption at 100% FAD	g/m ³	35.1
Maximum typical oil content of compressed air	mg/m ³	5
Max. sound pressure level (Lw @ 2000/14/EC)	dB(A)	107
Compressed air temp. at outlet valve standard (ambient+)	°C (°F)	105 (221)
Compressed air temp. at outlet valve with aftercooler (ambient+)	°C (°F)	60 (140)
Max. ambient temperature (standard)	°C (°F)	47 (116.6)
Max. ambient temperature with aftercooler	°C (°F)	45 (113)
Min. starting temperature with cold weather equipment	°C (°F)	-25 (-13)
Number of compression stages		2

Engine	Scania	DC13
Emissions Regulation	US EPA Tier	T4F
Output at rated speed (2100 rpm)	HP	493
Number of cylinders		6
Aspiration		Turbocharged
Displacement	(l)	13
Engine speed (Unloaded)	rpm	1300
Engine speed (Maximum loaded)	rpm	2100
Engine oil capacity	US gal (l)	11.9 (45)
Engine oil required		Low Ash Oil per API CJ-4, ACEA C9
Engine coolant capacity	US gal (l)	19.2 (73)
Fuel tank capacity	US gal (l)	174 (660)
DEF tank capacity	US gal (l)	18.5 (70)
Battery Capacity (Cold Cranking Amps ⁵)	A	24V, 2 each 1400

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 Chicago Pneumatic for proper de-rating instructions for operation beyond ambient limitations
4. According to DIN 72311

Principal 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 CPS 1150 - 360 compressors utilize a C190 + J34 element that is driven by the diesel engine. Inlet air is filtered through a heavy-duty two-stage air filter.

Air/Oil Separator

Air-oil separation is achieved through a centrifugal oil separator combined with a filter element.

The vessel is CE-approved as standard. It is also optionally available in the following approvals: ASME/CRN/MOM/AS1210.

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 an 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 is an access port for easy cleaning of the coolers.

The cooling system is suitably designed for continuous operation in ambient conditions up to 45°C (113°F) with the aftercooler, with canopy doors closed.

Compressor Regulating System

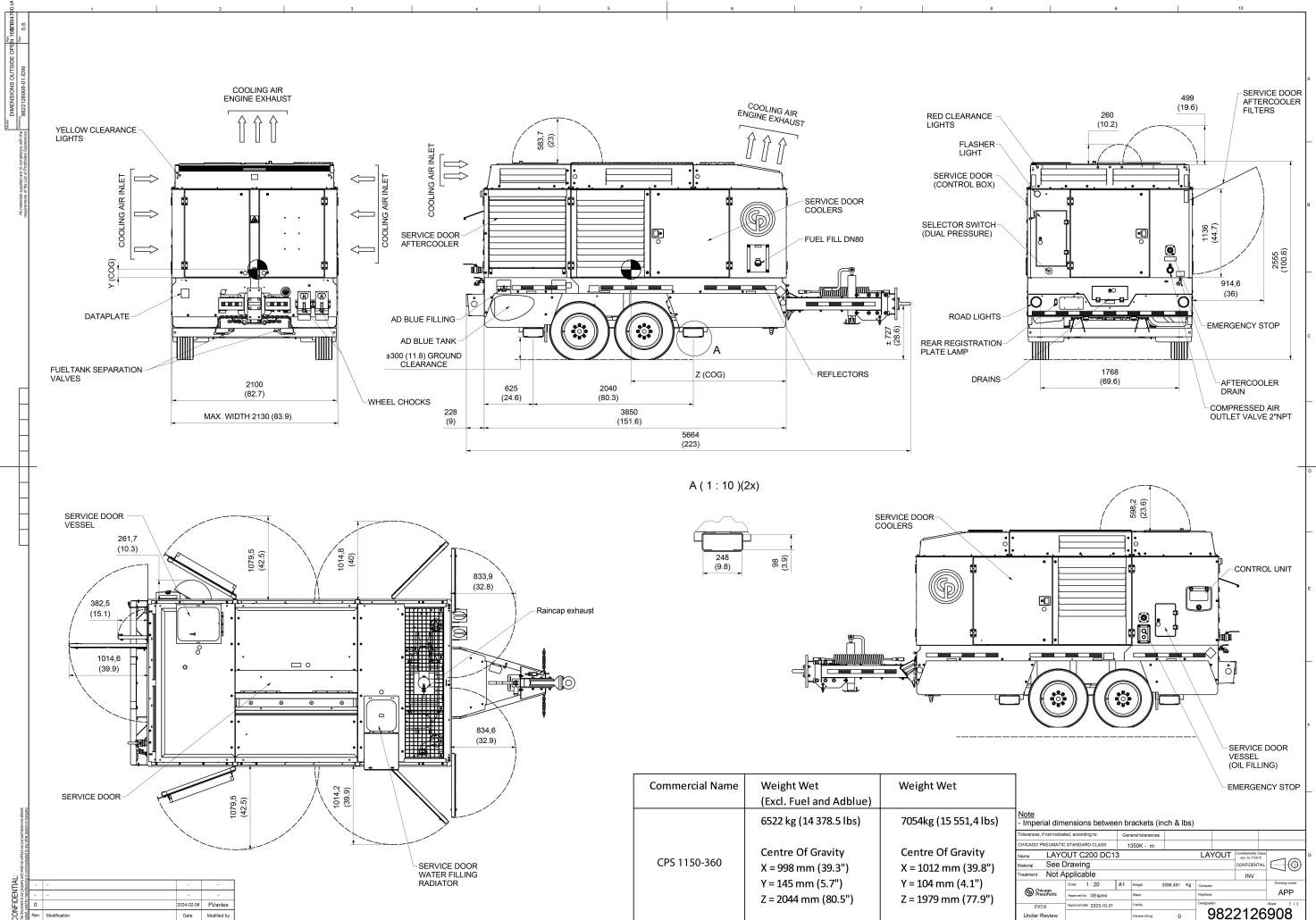
The compressor is provided with an inlet valve assembly and a blow-off system which are controlled via instructions sent from the advanced XC4004 controller. The user interface to the XC4004 controller is the main Compressor Control Module (CCM).

The butterfly valve in the inlet valve assembly allows an open, closed or angular setpoint. The system allows for a pre-set point for pressure or flow. These are easily set in the CCM.

A toggle switch is part of the system to allow for the preset of two working points of pressure and flow. Fuel savings are integrated into the regulating system, which controls the engine speed in relation to air demand. This variable regulating system has a 'Dynamic Flowboost' function that gives extra air at lower pressures.

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

Dimensional Drawing



Commercial Name	Weight Wet (Excl. Fuel and Adblue)	Weight Wet
CPS 1150-360	6522 kg (14 378.5 lbs) Centre Of Gravity X = 998 mm (39.3") Y = 145 mm (5.7") Z = 2044 mm (80.5")	7054kg (15 551.4 lbs) Centre Of Gravity X = 1012 mm (39.8") Y = 104 mm (4.1") Z = 1979 mm (77.9")

Note - Imperial dimensions between brackets (inch & lbs)

Drawn by	Checked by	Author	Drawn	Rev	Issue
See Drawing					
Approved by	Approved by	Approved by	Approved by	Approved by	Approved by

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Electrical System

The CPS 1150-360 is equipped with a 24 Volt negative ground electrical starting system.

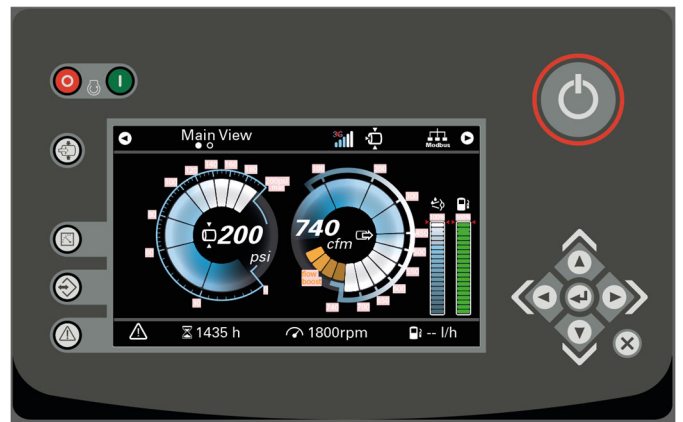
Instrumentation

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

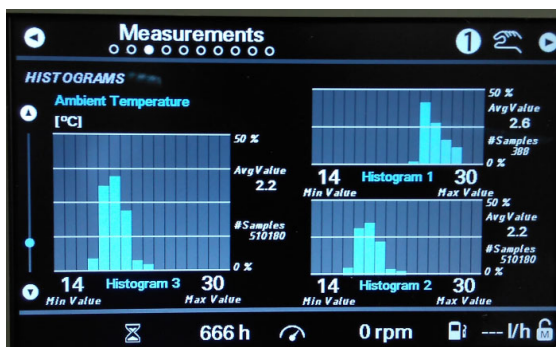
Standard instrument package includes a diagnostic ECU controller with large 7" screen. The intuitive Chicago Pneumatic Xc4004 controller is easy to operate with all functions conveniently at your fingertips. The controller also manages the engine ECU operating system, and a number of safety warnings and shutdowns on various parameters (listed below).

Xc4004 Controller Functionality:

- Main Screen 1
 - Vessel Pressure
 - Fuel & DEF Level
 - Running Hours
 - RPM
- Main Screen 2
 - Vessel Pressure
 - Fuel & DEF Level
 - Running Hours
 - RPM
 - 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
 - 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...



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Bodywork

The compressor comes standard with 2 layers Primer and Powder coating metal canopy 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.

Safety Devices

The compressor controls are set up to protect the engine/compressor by shutting off the engine in the event of high engine coolant temperature, Low engine oil temperature, high compressor air discharge temperature or low fuel level.

The starter motor is also protected against overloading from operating for an excessive period or when the engine is running.

Undercarriage

The CPS 1150-360 is available with an undercarriage alternative, providing utmost flexibility in installation or towing requirements.

- Tandem axle trailer setup with: DOT trailer

CPS 1150-360 DOT trailer C

General	Frame Structural:
<ul style="list-style-type: none">▪ GVWR: 16000 lb▪ GAWR: 9610 lb▪ Rated Payload: 1700 lb less 1450 Fuel Weight▪ Overall Dimension (L x W x H): 233 in x 83 in x 100 in▪ Est. Empty Weight: 14300 lb▪ Adjustable Hitch heights: 21-30▪ Tongue Jack: 10000 lbs capacity, Top wind with drop foot▪ Hitch: 3 inch Eye▪ Safety Chains: (2) 3/8 in Grade 43 chain with slip hook & safety latch	<ul style="list-style-type: none">▪ A Frame Drawbar:<ul style="list-style-type: none">• Material: Steel Tube 3 x 6 in x 1/4• Grade: ASTM A500 Grade B▪ Undercarriage Assy:<ul style="list-style-type: none">• Material: Angle 3/8 x 3 x 4• Grade: ASTM A36▪ Rear Light Crossmember:<ul style="list-style-type: none">• Material: 7 gauge. Steel• Grade ASTM A1011
Running Gear:	Finish:
<ul style="list-style-type: none">▪ Axles: 2 X 8000 lb Torflex▪ Brakes: 12 X 2 Electric▪ Tires:<ul style="list-style-type: none">• Size: STR 215/75R17.5 LRH• Ply: Load Range H 65 psi▪ Type: High Speed Trailer▪ Wheels:<ul style="list-style-type: none">• Size: 17.5 X 6.75 HC• Bolt Circle: 8 on 6.5• Type: Standard	<ul style="list-style-type: none">▪ Preparation: Iron phosphate conversion treatment, Chromium-free post treatment▪ Primer: Epoxy Ester High Solids Primer▪ Paint: Polyurethane Two Component High Solids Enamel (when applicable)▪ Paint Color: PPG AUE-300 AU3M95053 (MGS), Jet Black RAL9005 (Low-Gloss)
	Electrical:
	<ul style="list-style-type: none">▪ Lighting & Reflectors: LED To Federal DOT Requirements▪ Wire Harness: Type GPT Jacketed harness system with color coded wires and molded plugs▪ Connection: 7-Way Connection Plug

Manufacturing & Environmental Standards

The CPS 1150-360 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 CPS 1150-360 meets all current EPA and Environment Canada exhaust and noise emission directives.

Supplied Documentation

The unit is delivered with following documentation:

- Hard copies of the Chicago Pneumatic Operators Safety and Instruction Manual, as well as electronic copies, available upon request.
- Warranty Registration card for Scania Engine (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

Please refer to product presentation for warranty info.

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

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