



## Standard Scope of Supply

The Chicago Pneumatic **CPS 110** is a single-stage, oil-injected, rotary screw type air compressor, powered by a liquid-cooled, three-cylinder turbocharged Kubota diesel engine.

The unit hosts the new generation C67 Screw element in its air end combined with a Kubota made diesel engine model D902, complying with Tier 4 Final emission standard.

An undercarriage with fixed towbar and pintle eye is available as standard, combined with Department of Transportation approved road lighting.

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.

## Features

- Compact, fuel-efficient engine
- Designed with environmental protection in mind
- Compact, sound attenuated, corrosion resistant enclosure
- Redrock™ hood and 3-layer painting of metal parts

## Benefits

- Saves up to 12% of fuel on typical applications in this range.
- The unit comes with a Spillage Free frame as Standard with 110% fluid containment and Tier 4 Final emission compliant engine, this makes the compressor suitable for use in all areas in North American.
- For OND compliance the unit is enclosed in a sound attenuated Zincor steel enclosure. Compact and maneuverable, saving valuable space on your job site, and during transportation, less than 1200 lb.
- High residual value and low repair costs.

## Main data

| Model  |                   | CPS 110      |
|--|-------------------|--------------|
| Minimum effective receiver pressure                      | psi(g)            | 29           |
| Maximum effective receiver pressure (Unloaded)           | psi(g)            | 128          |
| Normal effective working pressure                        | psi(g)            | 100          |
| Actual free air delivery                                 | cfm               | 110          |
| Fuel consumption   |                   |              |
| at 100% FAD (full load)                                  | US gal/hr         | 1.46         |
| at 75% FAD   | US gal/hr         | 1.20         |
| at 50% FAD   | US gal/hr         | 0.86         |
| at 25% FAD   | US gal/hr         | 0.62         |
| Specific fuel consumption at 100% FAD                    | g/m <sup>3</sup>  | 29.8         |
| Maximum typical oil content of compressed air            | mg/m <sup>3</sup> | 5            |
| Max. sound pressure level (Lp @ ISO 2151)                | dB(A)             | 71           |
| Max. sound power level (Lw @ 2000/14/EC)                 | dB(A)             | 99           |
| Compressed air temperature at outlet valve               | °F (°C)           | 185 (85)     |
| Max. ambient temperature at sea level                    | °F (°C)           | 109 (43)     |
| Min. starting temperature with cold weather equipment    | °F (°C)           | -4 (-20)     |
| Min. starting temperature without cold weather equipment | °F (°C)           | 14 (-10)     |
| <b>Engine</b>  |                   | Kubota       |
| Type   |                   | D902         |
| Emission stage   |                   | Tier 4 Final |
| Coolant  |                   | GENCool      |
| Number of cylinders                                      |                   | 3            |
| Bore   | mm                | 72           |
| Stroke   | mm                | 73.6         |
| Swept volume   | l                 | 0.898        |
| Engine power at normal shaft speed @ ISO 9249G           | hp                | 24.8         |
| Full Load  | rpm               | 3600         |
| Unload   | rpm               | 2200         |
| Capacity of oil sump: - Initial fill                     | US gal (l)        | 0.97 (3.67)  |
| Capacity of oil sump: - Refill (max)                     | US gal (l)        | 1.00 (3.79)  |
| Capacity of cooling system                               | US gal (l)        | 1.19 (4.50)  |
| Capacity of compressor oil system                        | US gal (l)        | 1.98 (7.50)  |
| Net capacity of air receiver                             | US gal (l)        | 2.64 (10.00) |
| Air volume at inlet grating (approx.)                    | cfm               | 1970         |
| Capacity of standard fuel tanks                          | US gal (l)        | 7.52 (28.50) |
| Safety valve - minimum opening pressure                  | psi(g)            | 143.5        |

## 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 CPS 110 compressor utilizes a C67 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. The 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 coolers 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 coolers.

The cooling system is suitably designed for continuous operation in ambient conditions up to 109°F (43°C) depending on the model, with canopy doors closed.

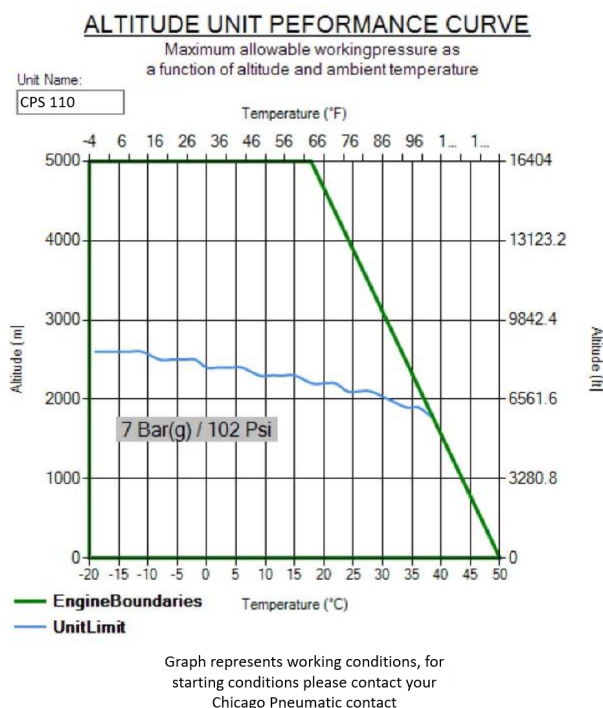
### Engine

#### Kubota

A Kubota D902, turbocharged, three-cylinder, liquid-cooled diesel engine provides ample power to operate the compressor continuously at full load.

Cold start options are available for temperatures down to -4°F (-20°C).

The 7.5 Gal (28.5 l) fuel tank is sufficiently sized to allow full shift autonomy (8 hours).



### Electrical System

The CPS 110 is equipped with a 12 Volt negative ground electrical starting system.

### Instrumentation

The instrument control panel is located at the rear of the compressor canopy with easy access.

The standard instrument package includes an operating pressure gauge, a starter switch, a running hour counter, and 2 warning lamps.

The starter switch has an integrated lockout mechanism to prevent starter motor damage.

## Bodywork

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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.

## Undercarriage

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The **CPS 110** compressors is available with an undercarriage alternative, providing utmost flexibility in installation or towing requirements.

- Single axle trailer setup with:
  - Undercarriage with DoT road homologation and Fixed towbar
  - 115/80R 13 Wheels for trailer use
  - Heavy Duty torsion axle
  - Jack stand
  - Single point lifting structure
  - Pintle eye

## Options

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The following option is available:

- Cold weather package (thermostatic bypass valve and synthetic oil).

## Supplied Documentation

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The unit is delivered with documentation regarding:

- Hard copies of the Chicago Pneumatic Operators Safety and Instruction Manual, Chicago Pneumatic Parts Book, Kubota Engine Manual and Parts book, as well as electronic copies available on request.
- Warranty Registration card for engine and Chicago Pneumatic Compressor (Units must be registered upon receipt).
- Certificate for air/oil separator vessel and safety valve approval.

## Warranty Coverage

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Please refer to product presentation for warranty info

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