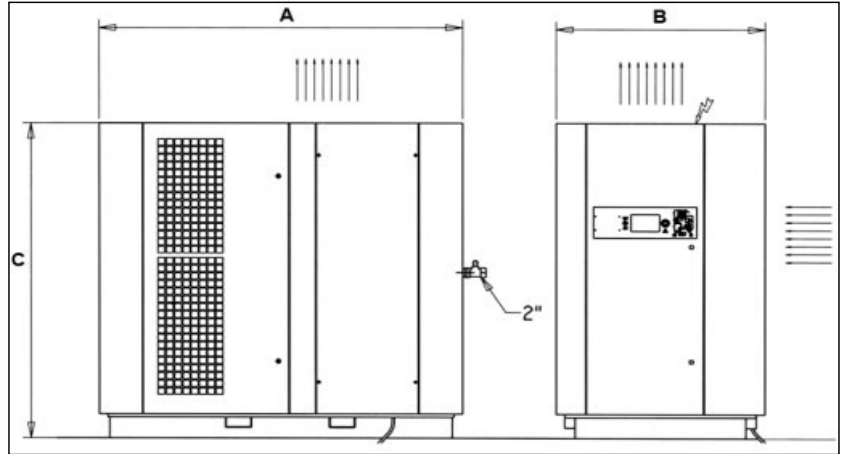


## Specification Sheet



**Model:** MCI 5010      **Code:** BBB-MC05010      **Cat. Ref:** BE02

### Compressor Package

<b>Model:</b>	MCI 5010
<b>Make:</b>	Fini
<b>Country of origin:</b>	Italy
<b>Free Air Delivery (lit/min / cfm @ 1000kPa):</b>	5200 / 184
<b>Rated Working Pressure (kPa):</b>	1000
<b>Load / Unload (kPa)</b>	Adjustable
<b>Operation:</b>	Continuous / Stop Start
<b>Noise level (PNEUROP PN8NTC2.2) (dB(A)):</b>	73
<b>Air cooled Aftercooler:</b>	Included
<b>Final air discharge temp above ambient (°C):</b>	10
<b>Max. Ambient temperature (°C):</b>	50
<b>Min. Ambient temperature (°C):</b>	5
<b>Automatic Star Delta Starter:</b>	Included
<b>Max. Oil content in the air at discharge (mg/m³):</b>	4
<b>Drive:</b>	Poly-vee
<b>Air End model:</b>	IKD 100S
<b>Number of stages:</b>	1
<b>Total Heat removed (kJ/h):</b>	126540
<b>Fan flow rate (m³/h):</b>	5000
<b>Discharge air temp. shutdown (°C):</b>	110
<b>Discharge air temp. warning (°C):</b>	105
<b>Qty oil fill (lt):</b>	15
<b>Qty oil for topping-up (lt):</b>	4.5
<b>Air outlet connection (bsp):</b>	1 1/4"

### Dimensions

<b>Dimensions (L.W.H. mm) (No Packing):</b>	1530 x 840 x 1440
<b>Mass (kg) (No Packing):</b>	635
<b>Approx Dimensions (L.W.H. mm) (Packaged):</b>	1550 x 860 x 1460
<b>Approx Mass (kg) (Packaged):</b>	650

### Electric Motor

<b>Type:</b>	TEFC
<b>Power (kW):</b>	37
<b>Power (HP):</b>	50
<b>Voltage / Hz / Ph:</b>	400 / 50 / 3
<b>Full load amps:</b>	76
<b>Motor Protection:</b>	IP54
<b>Motor Insulation class:</b>	F
<b>Max. Start-up per hour (n°):</b>	10
<b>Motor Speed:</b>	2 - Pole
<b>Breaker Size:</b>	125 Amps Curve D
<b>Cable Size (under 15m) (mm²):</b>	25

### Key Dimensions (mm)

<b>A</b>	1530
<b>B</b>	840
<b>C</b>	1440

### Key Parts - Description

Key Parts - Description	Code
<b>Air Filter (Outer):</b>	CTB-017083000
<b>Air Filter (Inner):</b>	CTB-017083000-I
<b>Oil Filter:</b>	CTB-04846000
<b>Oil 5lt:</b>	KBA-ROTENERGY-005L

## POSITIONING THE COMPRESSOR

Ensure that the pre-selected room, as well as satisfying all safety standards in force in the country of use, is in compliance with the following standards:

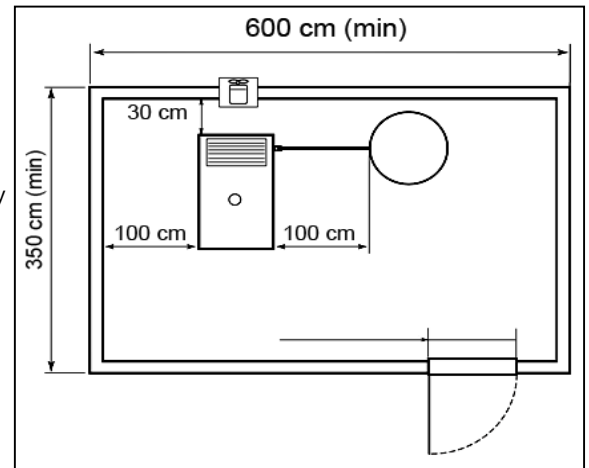
- **low percentage of dust air,**
- **air circulation and dimensions of the room sufficient to prevent, with the compressor functioning, that the environmental temperature exceeds 45 °C.** If it is not possible to respect these conditions one or more suction devices must be installed to convey the hot air. It is advised that they are installed as high as possible.

The dimensions of the spaces are indicative, but it is advised to respect them the most faithfully possible.

A small well or container must also be present for collection of the condensate that forms inside the tank.

Once the machine has been positioned in stable and definite manner, assemble the supplied line tap and flexible pipe, ensuring tightness using the Teflon strip.

Connect the compressor to the mains air distribution without placing the non-return valve between the tank and the mains distribution so as not to cause reading errors of the line pressure.



## OPERATION

### WORKING CYCLE

- **During commissioning,** the motor starts powered by the "star" connection. In this phase the compressor starts up slowly, the electrovalve(1) is open, the suction adjuster (2) is closed.
- **The compressor** remains in these conditions for about 4 seconds.
- **When this time has passed,** the motor is fed by "triangle". The electrovalve (1) receives current and closes allowing the opening of the suction adjuster (2), which sucks atmospheric air through the air filter (3).
- **In this phase** the compressor functions in normal working conditions and starts to compress air inside

working conditions and starts to compress air inside

- **The compressed air** cannot escape through the minimum pressure valve (5) which is adjusted at 3.5 - 4.5 bar.

- **The compressed air** compresses the oil inside the tank (4) and forces it to flow towards the thermostatic valve (6). If the oil temperature is lower 80 °C, the oil sent directly to the screw compressor. If the oil temperature exceeds 80 °C, the thermostatic valve closes the passage and the oil, by means of the oil delivery pipe (7) goes to the radiator (8).

The cooled oil returns to the screw compressor through the oil return pipe (9).

- **Transiting through the oil filter (10)** the oil reaches the compressor, through the connection pipe (11), and mixing with the aspired air creates an air/oil mix that guarantees tightness and lubrication of moving parts.

- **The air/oil mixture** returns to the tank (4), where the air undergoes centrifugal pre-separation from the oil, by means of the deoiler filter (12).

- **Therefore,** only air exits from the tank (4), which through the piping (13) reaches the radiator (8) and through the line tap goes to the distribution network.

- **The minimum pressure valve (5)** acts as a non-return valve.

- **The compressor** sends the compressed air to the external air tank.

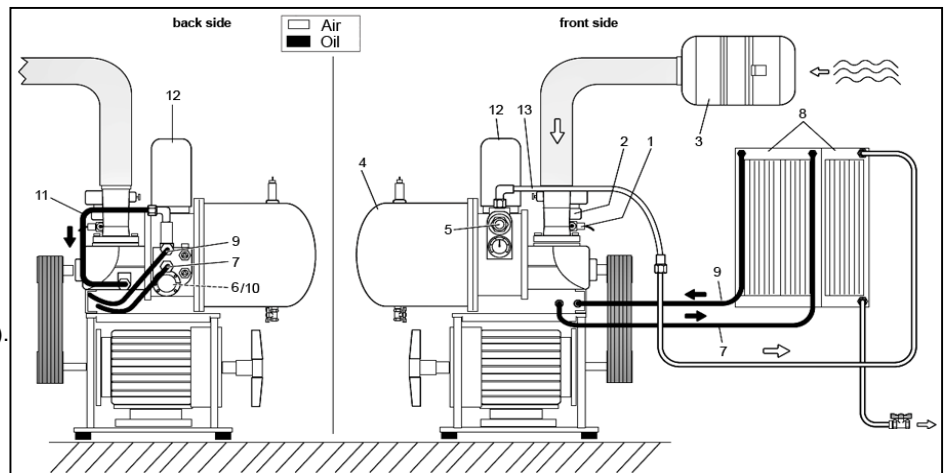
- **The internal pressure** of the tank rises to the maximum calibration value.

- **On reaching the maximum set level,** the pressure sensor sends a signal that starts the timer and removes current from the electrovalve (1).

- **The adjuster (2)** closes and the compressor stops compressing and enters empty run.

- **The timer** continues to count up to the set value. On reaching this value, if there has been no pressure variation, it commands shutdown of the electric motor. If the pressure has descended to the minimum set value (start P), before the timer has finished counting, the electrovalve (1) receives current and closes, the adjuster (2) opens and the compressor re-starts normal loading; the timer is zeroed.

- **This cycle** is automatically repeated.



## START-UP

Before starting the machine up for the first time:

- check that the power supply voltage and frequency correspond to those indicated on the plate (V/Hz);
- check that electrical connections with cables that have an adequate section;
- check that the master switch (on the wall) has suitable fuses;
- remove the rear panel and check:
  - 1) that the oil level is above minimum, if necessary, only top-up with RotEnergy. (see maintenance chapter under "top-up oil")
  - 2) that belt tension is correct: check that the length of the spring corresponds to the data stated in the table. If necessary consult the maintenance chapter under "belt tensioning".
- turn the screw manually for 2 or 3 revs.
- open the line tap completely.