

Portables line

# ICON LSE

Electric



CONTACT US

CERTIFICATION: CE UNI EN ISO 9001:2015





## Technical data

Type of gas	Breathing air EN 12021 - Nitrox 40% max O2 - Helium - Nitrogen
Intake pressure	Atmospheric max 300 mbar
Nominal pressure	230 bar / 330 bar
Filling pressure	230 bar / 330 bar
Max working pressure	330 bar
Permissible ambient temperature range	-10° C ÷ +40° C
Permissible altitude	0 ÷ 2.000 m SLM
Max permissible tilt	6°
Design	Basic
Operating voltage, standard	400 V; 50 Hz
Other operating voltage	230 V, 50 Hz / 440 V, 60 Hz / 230 V, 60 Hz
Oil	Synthetic Coltri Oil ST 755
Oil change interval	Every year / 1.000 h
Frame	Steel 1,5 mm thickness - colour RAL 9005 - Powder coating painting - scratch proof

## Compressor

	50 EM	100 EM	100 ET
<b>Charging rate</b> <small>Measured during 10 liters cylinder filling from 0-200 bar tolerance +/- 5% at + 20 ° C ambient temperature.</small>	50 l/min	100 l/min	100 l/min
<b>Purification System</b>	Eco-filter		
<b>Cooling air flow, min.</b>	792 m³/h	990 m³/h	990 m³/h
<b>Weight</b> <small>Standard model. Weight and dimensions may vary depending on accessories.</small>	30 kg 66 lb	38 kg 83.7 lb	38 kg 83.7 lb
<b>Dimensions (W x D x H)</b>	61 x 40 x 39 cm - 24 x 15.7 x 15.3 in		

## Motor

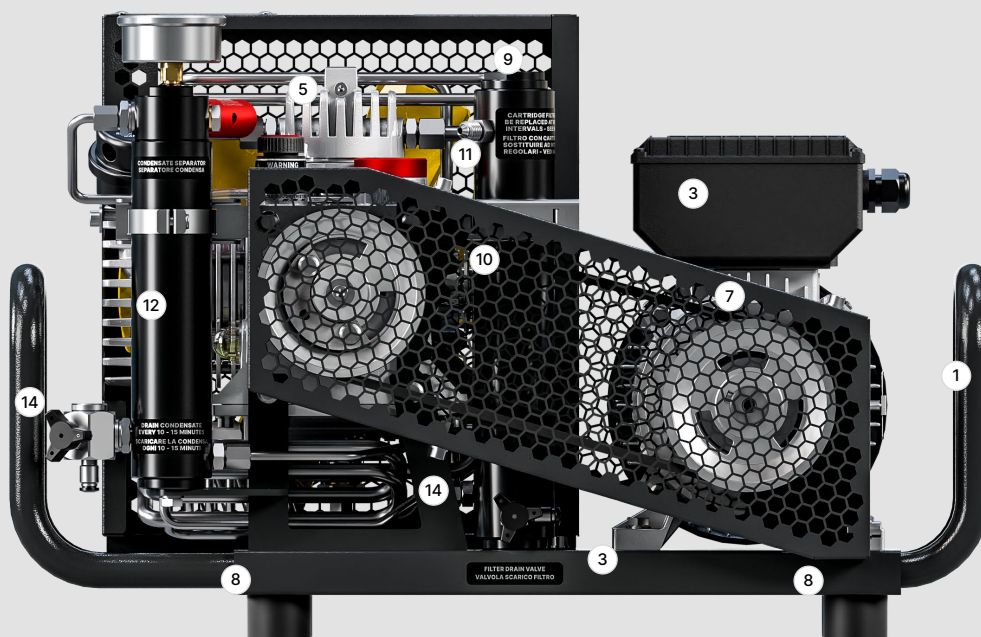
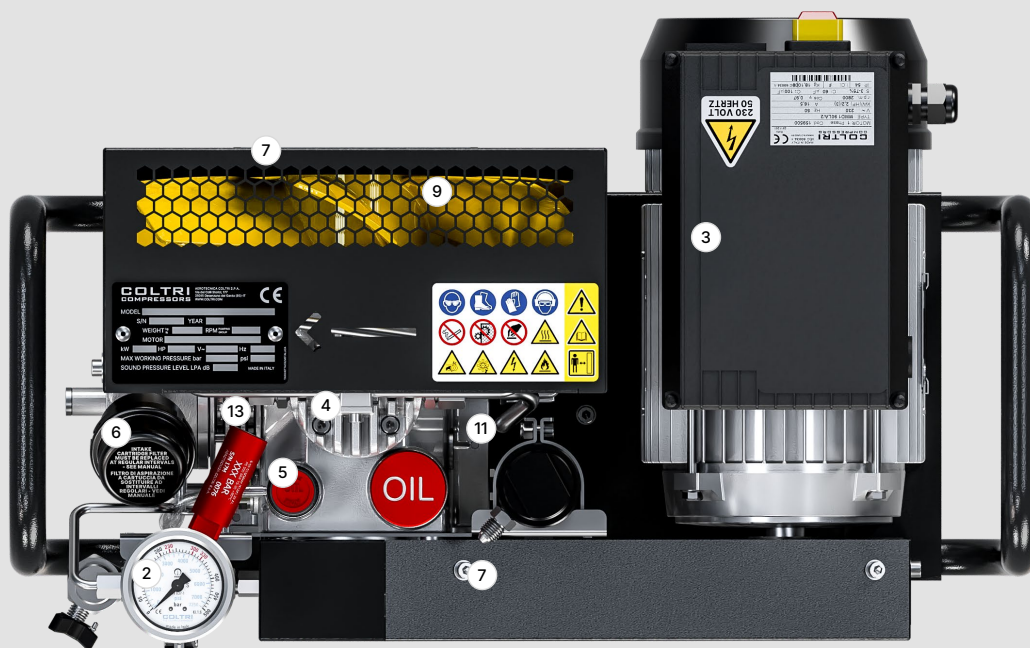
	50 EM	100 EM	100 ET
<b>Power</b>	1,1 kW, 1.4 Hp	2,2 kW, 3 Hp	3 kW, 4 Hp
<b>Type</b>	Single-phase electric motor		Three-phase el. motor
<b>Operating voltage/frequency</b> <small>Different voltage / frequency available on request.</small>	230 V, 50 Hz	230 V, 50 Hz	400 V, 50 Hz
<b>Rated current</b>	14 A		6,7 A
<b>Speed (RPM)</b>	2.800		
<b>Protection class</b>	IP54 (TEFC)		

# Dimensions

Width 61 cm (24")  
 Depth 37 cm (14.5")  
 Height 39 cm (15.3")

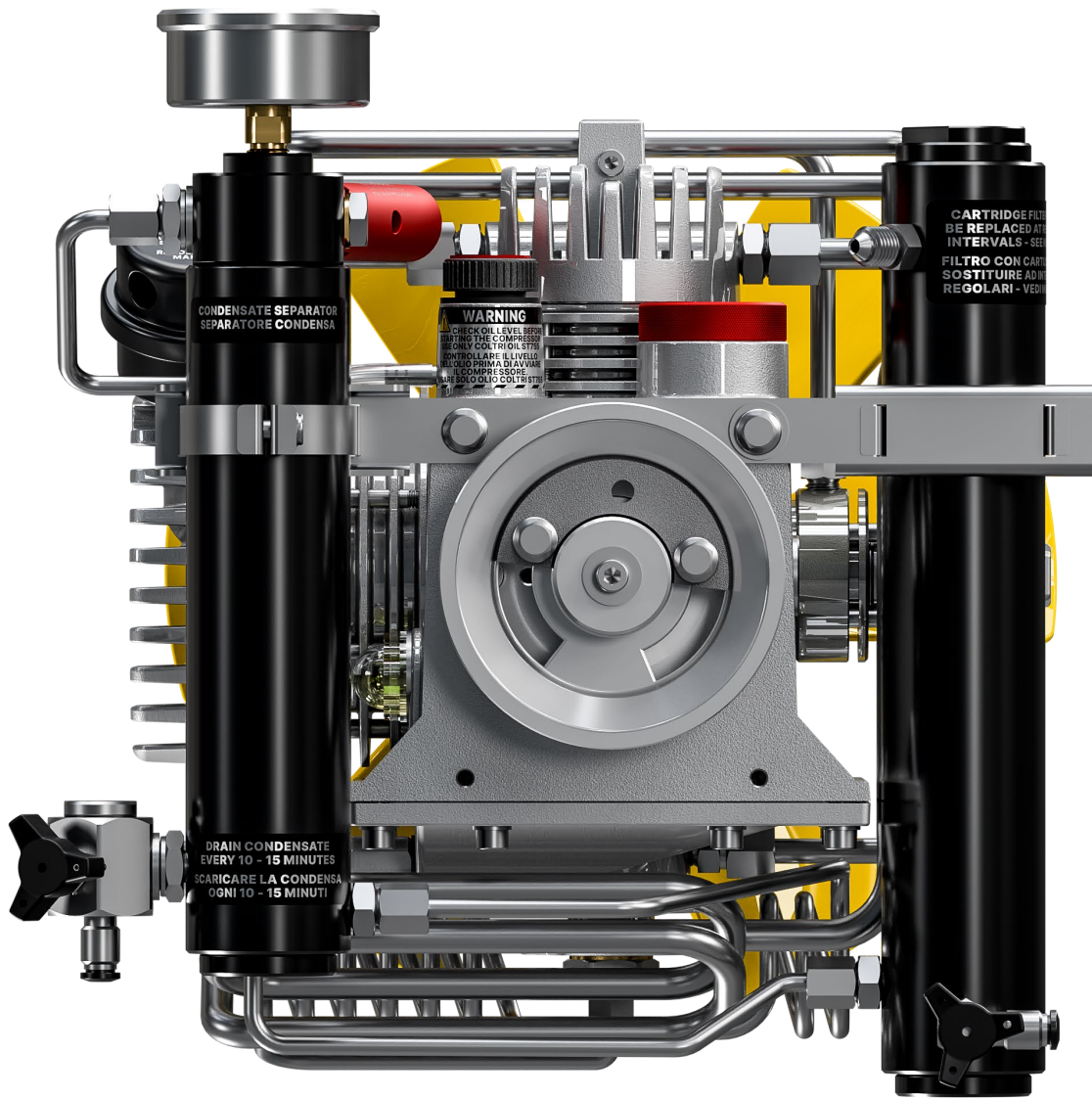
# Dry weight

**ICON LSE 50 EM**  
 39,5 kg (87 lb)  
**ICON LSE 100 EM**  
 39,5 kg (87 lb)  
**ICON LSE 100 ET**  
 39 kg (85 lb)

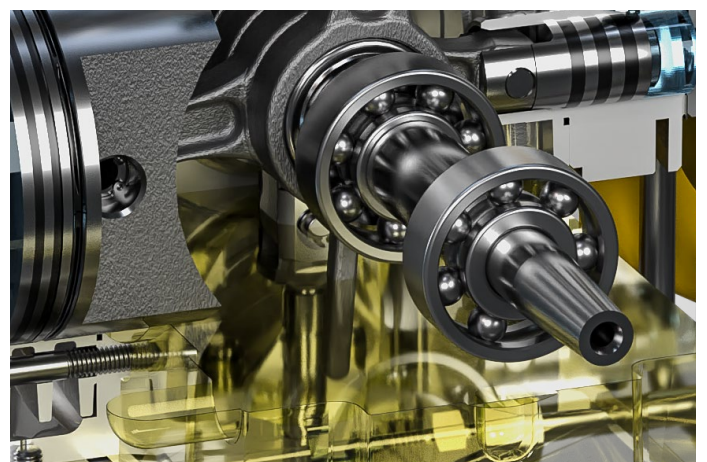


# Machine parts

- |                  |                          |                         |
|------------------|--------------------------|-------------------------|
| 1 Frame          | 6 Intake air filter      | 11 Purification system  |
| 2 Pressure gauge | 7 Safety mesh            | 12 Condensate separator |
| 3 Electric motor | 8 Anti-vibration devices | 13 Safety valve         |
| 4 Pumping unit   | 9 Cooling fan            | 14 Condensate discharge |
| 5 Oil filler cap | 10 Belt                  |                         |



**1.**  
 Splash lubrication  
 with conrod pin  
 immersed in oil



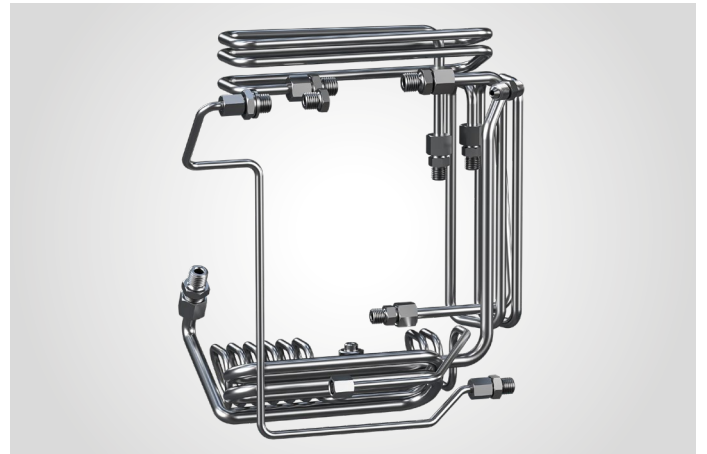
## 2.

Suction filter:  
10  $\mu$  micron



## 3.

Pipes, fittings and nuts  
in stainless steel



## 4.

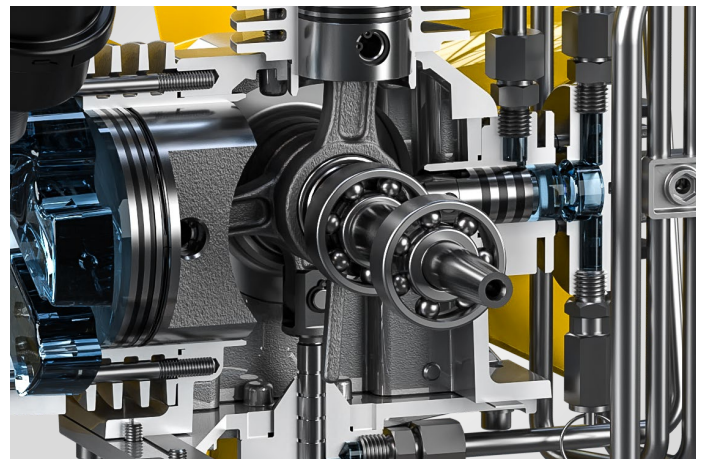
Aluminium crankcase  
machined on horizontal  
CNC machine to ensure  
maximum precision



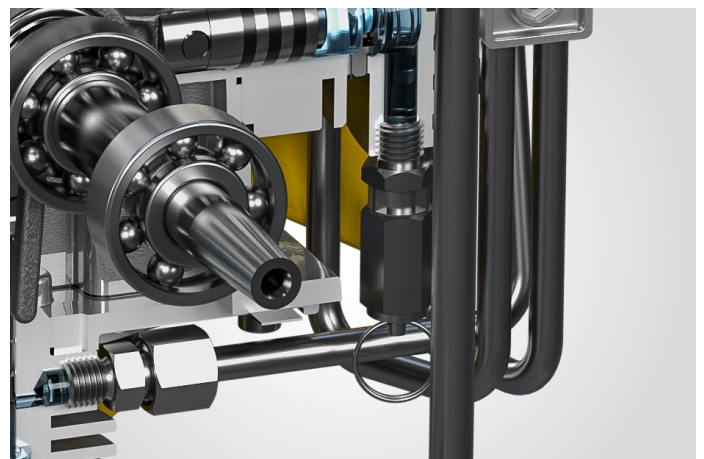
**5.**  
 Forged aluminum  
 connecting rods



**6.**  
 Forged steel crankshaft  
 with hardened rings



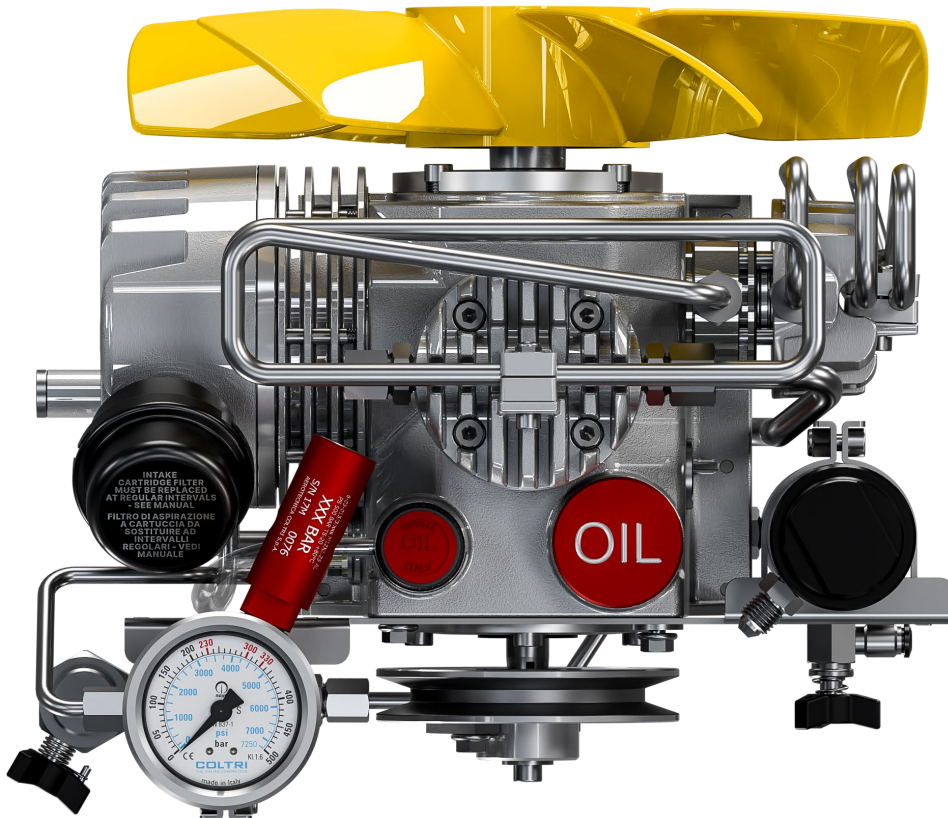
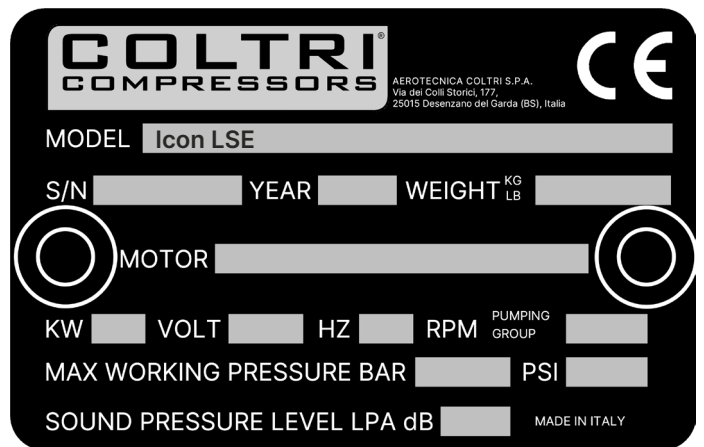
**7.**  
 Safety valve  
 on the third stage



## 8. Final safety valve PED certified



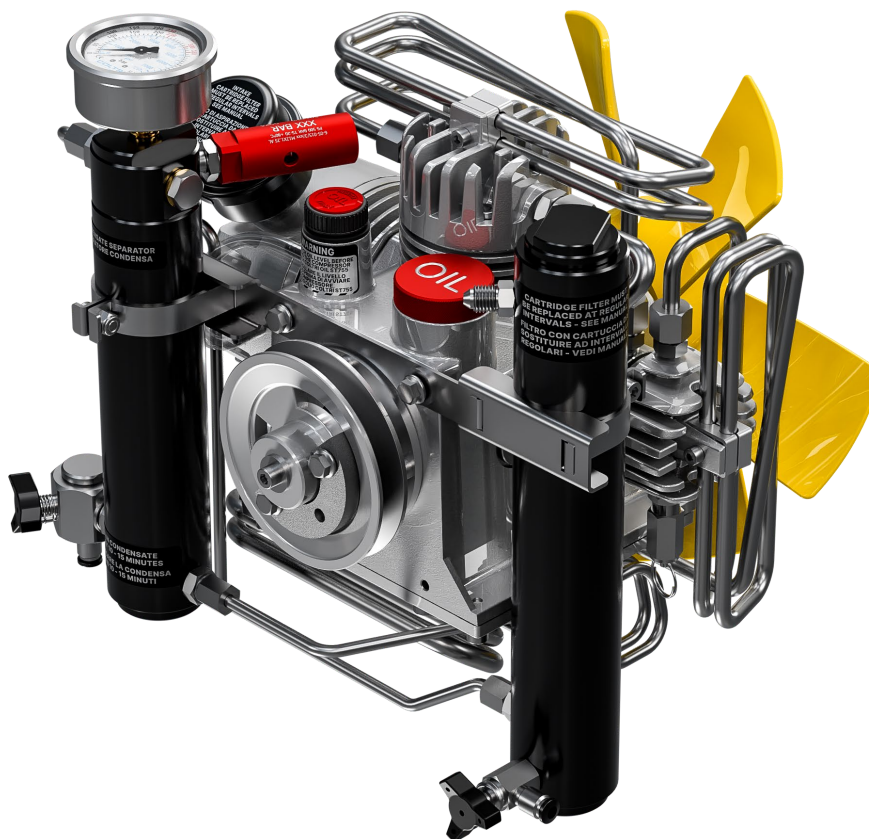
## 9. Identification label





# Compressor block GP 100 (ex MCH 6)

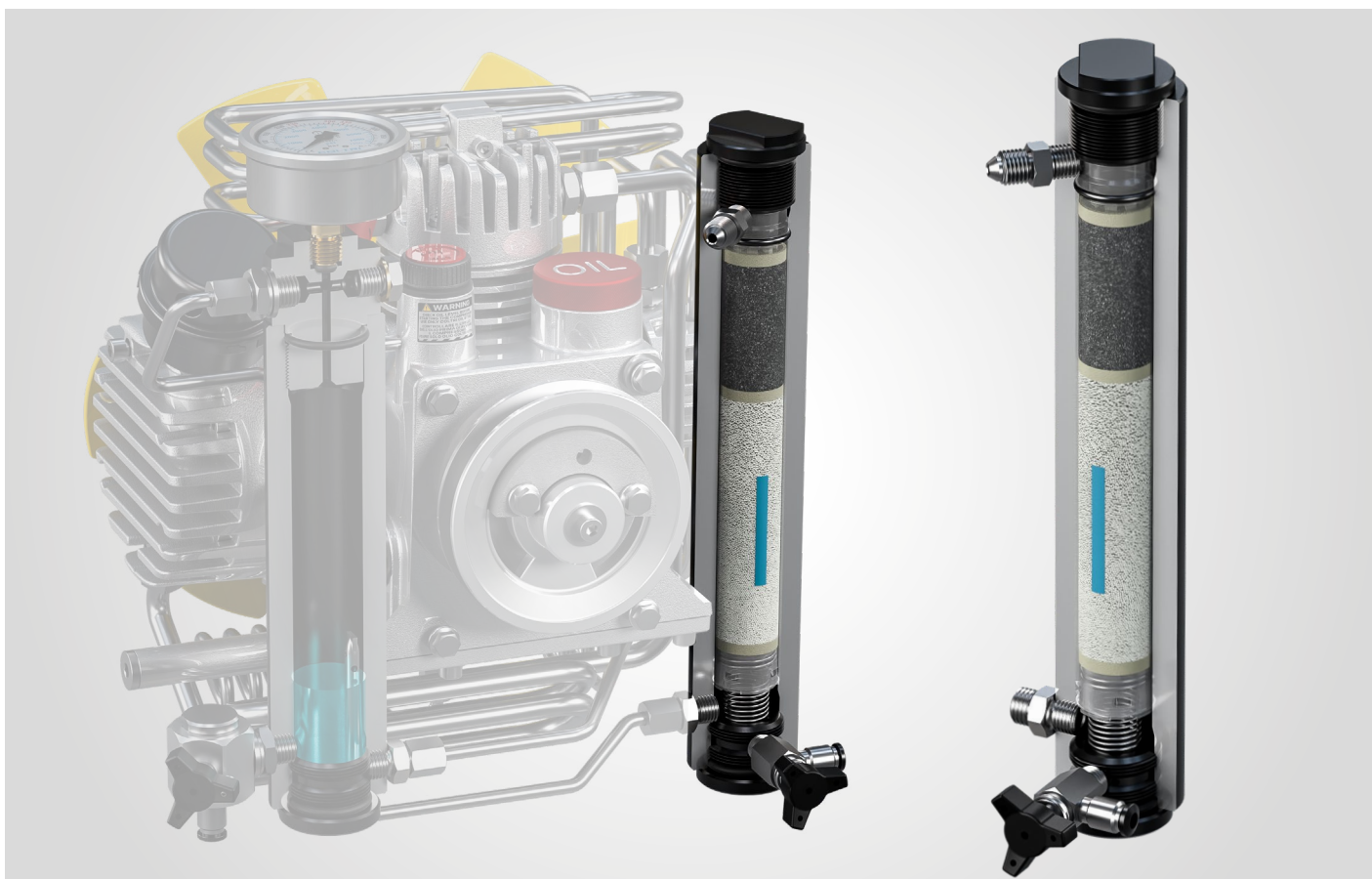
	50 EM	100 EM	100 ET
<b>Charging rate</b>			
Measured during 10 liters cylinder filling from 0-200 bar tolerance +/- 5% at + 20 ° C ambient temperature.	50 l/min	100 l/min	100 l/min
<b>Speed RPM</b>		2.250	
<b>Number of stages</b>		4	
<b>Number of cylinders</b>		4	
<b>Cylinder bore 1st stage</b>		78 mm	
<b>Cylinder bore 2nd stage</b>		38 mm	
<b>Cylinder bore 3rd stage</b>		19 mm	
<b>Cylinder bore 4th stage</b>		9,7 mm	
<b>Stroke</b>		13,5 mm	
<b>Direction of rotation (from flywheel side)</b>		Right - clockwise	
<b>Drive type</b>		V-belt A type	
<b>Intermediate pressure 1st stage</b>		~ 4,5 bar	
<b>Intermediate pressure 2nd stage</b>		~ 16 bar	
<b>Intermediate pressure 3rd stage</b>		~ 75 bar	
<b>Amount of oil</b>		600 cc/ml	
<b>Intake pressure</b>		1,3 bar <sub>a</sub> – 300 millibar	



# Standard equipment

## Purification system ECO-FILTER

ECO-FILTER disposable cartridge



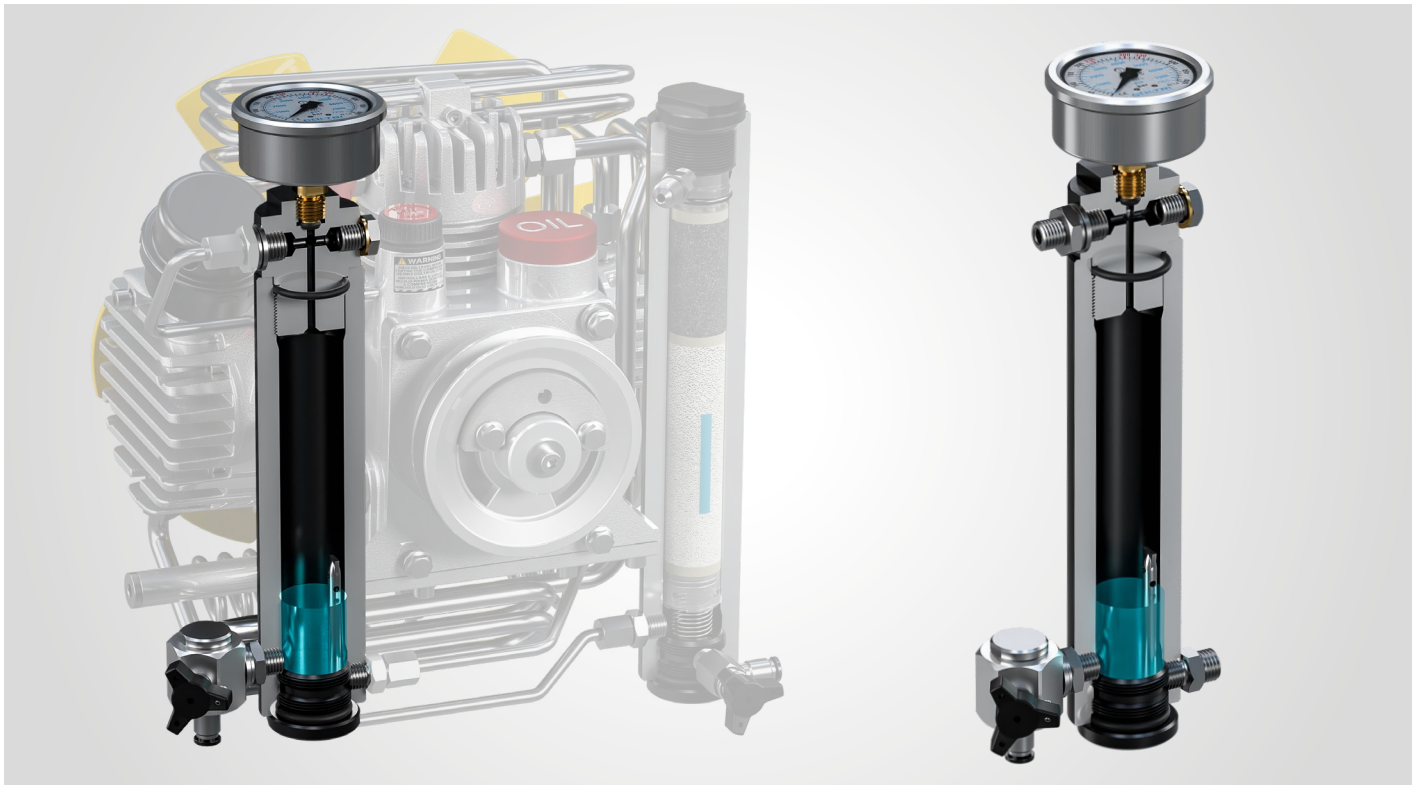
Purification system	Eco-Filter
Operating pressure (Standard)	230 bar / 300 bar
Operating pressure max. (PS)	360 bar
Processable air capacity (air inlet temperature in the filter 20° C at 300 bar) <sup>1</sup>	210 m <sup>3</sup>

<sup>1</sup> When using a filter cartridge without HOPCALITE CO CATALYST.

When using a cartridge with CO-removal, the processable air capacity is reduced by ca. 20%.

# Separator system

- Final separator for removal of oil/water condensate
- Final safety valve, mounted on the separator housing



Contamination	Maximum content as per DIN EN 12021:2014	Air quality*
H <sub>2</sub> O	25 mg/m <sup>3</sup>	≤ 10 mg/m <sup>3</sup>
CO	5 ppm(v)	≤ 4
CO <sub>2</sub>	500 ppm(v)	≤ 500
Oil	0,5 mg/m <sup>3</sup>	≤ 0,5 mg/m <sup>3</sup>

\* Measured at our facility using ASCO HORA 160 ANALYZER.

1 Only with special filter cartridge with HOPCALITE CO CATALYST. and up to a maximum concentration of 25 ppm CO in intake air.  
The compressed clean breathing air then contains a maximum of 5 ppm CO.

2 The level of CO<sub>2</sub> in the intake air must not exceed the maximum level of CO<sub>2</sub> as per EN 12021:2014

3 Reported values exceed ISO 8573-1 standards.

## Filling connections

1 filling connection to choose from: DIN 232 bar - INT and DIN 300 bar.



Filling connection DIN 232 bar  
**COD. 6-05-024**

Filling connection INT  
**COD. 6-05-025**

**Filling device** DIN 232 bar

**Nominal pressure (PN)** 250 bar

**Valve design** Filling valve with cylinder connector G 5/8" according to EN 144-2 and 477 PN232




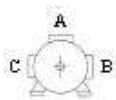
Filling connection DIN 300 bar  
**COD. 6-05-024/300**

**Filling device** DIN 300 bar


**Nominal pressure (PN)** 330 bar

**Valve design** Filling valve with integrated ventilation, with cylinder connector G 5/8" according to EN 144-2 and 477 PN232


# Data sheet single-phase electric motor 1,1 kW

		<b>SPECIFICA TECNICA MOTORE EL.</b> <i>Electric motor technical data sheet</i>		<b>Potenza/ Power (kW)</b>	<b>Poli/ Poles</b>
				<b>1,1</b>	<b>4</b>
		<small>Data</small> 16/05/2018	<small>Rev.</small> 0		
No	Descrizione/Description	Dati/Data		U.d.m.	
1	<b>Codice Soga / ref.code</b>	168195			
2	<b>Modello / Motor type</b>	MMD1 90SB/4			
3	<b>Descrizione / Description</b>	Single-phase motor with starting capacitor 1,1kW 4 Poles 115V 60Hz			
4	<b>Carcassa motore / Framesize</b>	90S			
5	<b>Poli / Poles</b>	4			
6	<b>Forma di costruzione / Mounting type</b>	IM B3			
7	<b>Potenza nominale / Rated output</b>	1,1			[kW]
8	<b>Fattore di servizio / Service factor</b>	1.0			
9	<b>Tipo di servizio / Duty type</b>	S1			
10	<b>Tensione / Rated voltage</b>	115			[V]
11	<b>Frequenza / Rated frequency</b>	60			[Hz]
12	<b>Corrente nominale / Rated current</b>	14,5			[A]
13	<b>Velocità nominale / Rated speed</b>	1680			[min <sup>-1</sup> ]
14	<b>Fattore di potenza / Power factor</b>	0,97			
15	<b>Coppia nominale motore/ Rated motor torque</b>	8,4			[Nm]
17	<b>Corrente avviamento / Corrente nominale</b> <i>Starting current / Rated current</i>	4,1		Isp/In	
18	<b>Coppia avviamento / Coppia nominale</b> <i>Starting torque/Rated torque</i>	2,5		Msp/Mn	
19	<b>Classe d'isolamento / Insulation class</b>	F			
20	<b>Grado di protezione / Enclosure</b>	IP54			
21	<b>Posizione scatola morsettiera</b> (motore con piedini) <i>Terminal box position</i> (motor with feet)			A	
22	<b>Terminali potenza / Power leads terminal</b>	M5			
23	<b>Peso / Weight</b>	13,9		[kg]	
24	<b>Cuscinetti /bearings</b>	Drive end	6205-2Z		
		Non drive end	6205-2Z		
<b>Note/remarks:</b> Motore con condensatore permanente 120µF e disgiuntore elettromeccanico e condensatore di spunto 315-400µF. Il motore è anche provvisto di interruttore. <i>Motor with 120µF permanent capacitor and centrifugal switch plus 315-400µF starting capacitor. The motor is also provided with switch.</i>					


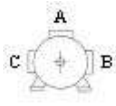
# Data sheet single-phase electric motor 2,2 kW 220 V 50 Hz

		SPECIFICA TECNICA MOTORE EL. <i>Electric motor technical data sheet</i>		Potenza/ Power (kW)	Poli/ Poles
				2,2	2
		Data		24/06/2015	Rev. 0
<b>No</b>	<b>Descrizione/Description</b>	<b>Dati/Data</b>		<b>U.d.m.</b>	
1	Codice Soga / ref. code	159500			
2	Modello / Motor type	MMD1 90LA/2			
3	Descrizione / Description	Single-phase motor with starting capacitor 2,2kW 2 Poles 230V 50Hz			
4	Carcassa motore / Framesize	90L			
5	Poli / Poles	2			
6	Forma di costruzione / Mounting type	IM B3			
7	Potenza nominale / Rated output	2,2			[kW]
8	Fattore di servizio / Service factor	1,0			
9	Tipo di servizio / Duty type	S1			
10	Tensione / Rated voltage	230			[V]
11	Frequenza / Rated frequency	50			[Hz]
12	Corrente nominale / Rated current	16,5			[A]
13	Velocità nominale / Rated speed	2800			[min <sup>-1</sup> ]
14	Fattore di potenza / Power factor	0,97			
15	Coppia nominale motore/ Rated motor torque	7,5			[Nm]
17	Corrente avviamento / Corrente nominale Starting current / Rated current	4,0			Isp/In
18	Coppia avviamento / Coppia nominale Starting torque/Rated torque	2,1			Msp/Mn
19	Classe d'isolamento / Insulation class	F			
20	Grado di protezione / Enclosure	IP54			
21	Posizione scatola morsetti (motore con piedini) Terminal box position (motor with feet)	A			
22	Terminali potenza / Power leads terminal	CAVO CON PRESA SCHUKO/ CABLE WITH SCHUKO PLUG			
23	Peso / Weight	18			[kg]
24	Cuscinetti /bearings	Drive end	6205		
		Non drive end	6205		
<b>Note/remarks:</b> Motore con condensatore permanente 60µF e disgiuntore elettromeccanico e condensatore di spunto 100µF. Il motore è anche provvisto di interruttore a pulsanti rosso-verde con protezione termica e contatore analogico. Motor with 60µF permanent capacitor and centrifugal switch plus 100µF starting capacitor. The motor is also provided with switch (red-green push-buttons), thermal protectors and analogic hour meter. Targa con logo Coltri Compressors.					

# Data sheet single-phase electric motor 2,2 kW 220 V 60 Hz

		SPECIFICA TECNICA MOTORE EL. <i>Electric motor technical data sheet</i>		Potenza/ Power (kW)	Poli/ Poles
				2,2	2
		Data		24/06/2015	Rev. 0
<b>No</b>	<b>Descrizione/Description</b>	<b>Dati/Data</b>		<b>U.d.m.</b>	
1	Codice Soga / ref. code	125384			
2	Modello / Motor type	MMD1 90LA/2			
3	Descrizione / Description	Single-phase motor with starting capacitor 2,2kW 2 Poles 220V 60Hz			
4	Carcassa motore / Framesize	90L			
5	Poli / Poles	2			
6	Forma di costruzione / Mounting type	IM B3			
7	Potenza nominale / Rated output	2,2			[kW]
8	Fattore di servizio / Service factor	1,0			
9	Tipo di servizio / Duty type	S3-75%			
10	Tensione / Rated voltage	220			[V]
11	Frequenza / Rated frequency	60			[Hz]
12	Corrente nominale / Rated current	16,5			[A]
13	Velocità nominale / Rated speed	3400			[min <sup>-1</sup> ]
14	Fattore di potenza / Power factor	0,94			
15	Coppia nominale motore/ Rated motor torque	6,2			[Nm]
17	Corrente avviamento / Corrente nominale Starting current / Rated current	3,6			Isp/In
18	Coppia avviamento / Coppia nominale Starting torque/Rated torque	1,1			Msp/Mn
19	Classe d'isolamento / Insulation class	F			
20	Grado di protezione / Enclosure	IP54			
21	Posizione scatola morsetti (motore con piedini) Terminal box position (motor with feet)	A			
22	Terminali potenza / Power leads terminal	CAVO CON PRESA SCHUKO/ CABLE WITH SCHUKO PLUG			
23	Peso / Weight	18			[kg]
24	Cuscinetti /bearings	Drive end	6205		
		Non drive end	6205		
<b>Note/remarks:</b> Motore con condensatore permanente 60µF e disgiuntore elettromeccanico e condensatore di spunto 100µF. Il motore è anche provvisto di interruttore. Motor with 60µF permanent capacitor and centrifugal switch plus 100µF starting capacitor. The motor is also provided with switch. Targa con logo Coltri Compressors.					

## Data sheet three-phase electric motor 3 kW

		<b>SPECIFICA TECNICA MOTORE EL.</b> <i>Electric motor technical data sheet</i>			Potenza/ Power (kW)	Poli/ Poles
					<b>3</b>	<b>2</b>
					Data 24/06/2015	Rev. 0
No	Descrizione/Description	Dati/Data			U.d.m.	
1	<b>Codice Soga / ref.code</b>	124268				
2	<b>Modello / Motor type</b>	MT1 90LC/2				
3	<b>Descrizione / Description</b>	Three-phase asynchronous motor 3kW 2 Poles 230V 50Hz				
4	<b>Carcassa motore / Framesize</b>	90L				
5	<b>Poli / Poles</b>	2				
6	<b>Forma di costruzione / Mounting type</b>	IM B3				
7	<b>Potenza nominale / Rated output</b>	3	3	3,6	[kW]	
8	<b>Fattore di servizio / Service factor</b>	1.0				
9	<b>Tipo di servizio / Duty type</b>	S3-75%				
10	<b>Tensione / Rated voltage</b>	Δ 230	Δ 230	Δ 255-280	[V]	
11	<b>Frequenza / Rated frequency</b>	50	60	60	[Hz]	
12	<b>Corrente nominale / Rated current</b>	13,3	13,3	13,3	[A]	
13	<b>Velocità nominale / Rated speed</b>	2840	3410	3410	[min <sup>-1</sup> ]	
14	<b>Fattore di potenza / Power factor</b>	0,84	0,84	0,84		
15	<b>Coppia nominale motore/ Rated motor torque</b>	10	8,4	10	[Nm]	
17	<b>Corrente avviamento / Corrente nominale</b> <i>Starting current / Rated current</i>	7,4			Isp/In	
18	<b>Coppia avviamento / Coppia nominale</b> <i>Starting torque/Rated torque</i>	3,5			Msp/Mn	
19	<b>Classe d'isolamento / Insulation class</b>	F				
20	<b>Grado di protezione / Enclosure</b>	IP54				
21	<b>Posizione scatola morsettiera (motore con piedini)</b> <i>Terminal box position (motor with feet)</i>				A	
22	<b>Terminali potenza / Power leads terminal</b>	CAVO / CABLE				
23	<b>Peso / Weight</b>	18			[kg]	
24	<b>Cuscinetti /bearings</b>	Drive end	6205			
		Non drive end	6205			
<b>Note/remarks:</b> MOTORE PROVVISORIO DI INTERRUTTORE MAGNETOTERMICO 3P REGOLABILE 10-16A CON BOBINA DI MINIMA TENSIONE 220-240V MOTOR PROVIDED WITH 3P CIRCUIT BREAKER (10-16A ADJUSTABLE) WITH MINIMUM VOLTAGE COIL (220-240V) Targa con logo Coltri Compressors.						

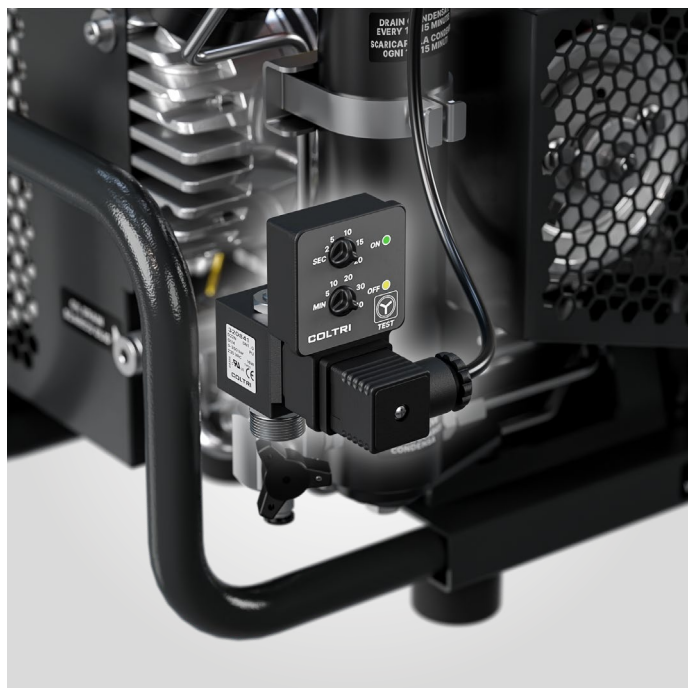
# Optional

## Automatic condensate drain with timer

The automatic condensate drain removes water from the intermediate separator and the final separator automatically during operation (every 7 minutes).

Consists of:

- 1 x timer
- 1 x solenoid valve



**COD. SC000522**



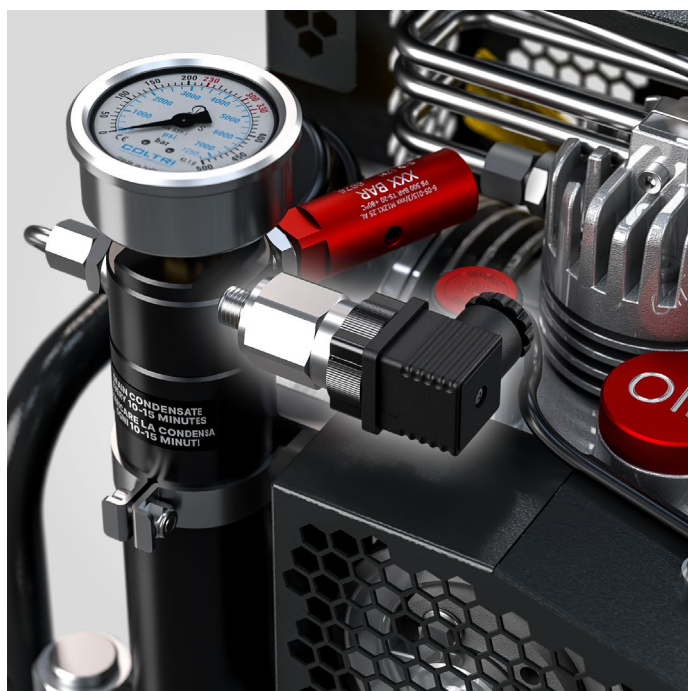
**ASSEMBLY INSTRUCTIONS**

## Autostop

Compressor automatically shuts off when it reaches final pressure.

Composed of:

- 1 x Pressure switch
- 230 bar - COD. SC000521/232 (Safety valve 250 bar)
- 300 bar - COD. SC000521/300 (Safety valve 330 bar)



**COD. SC000521/232 - SC000521/300**












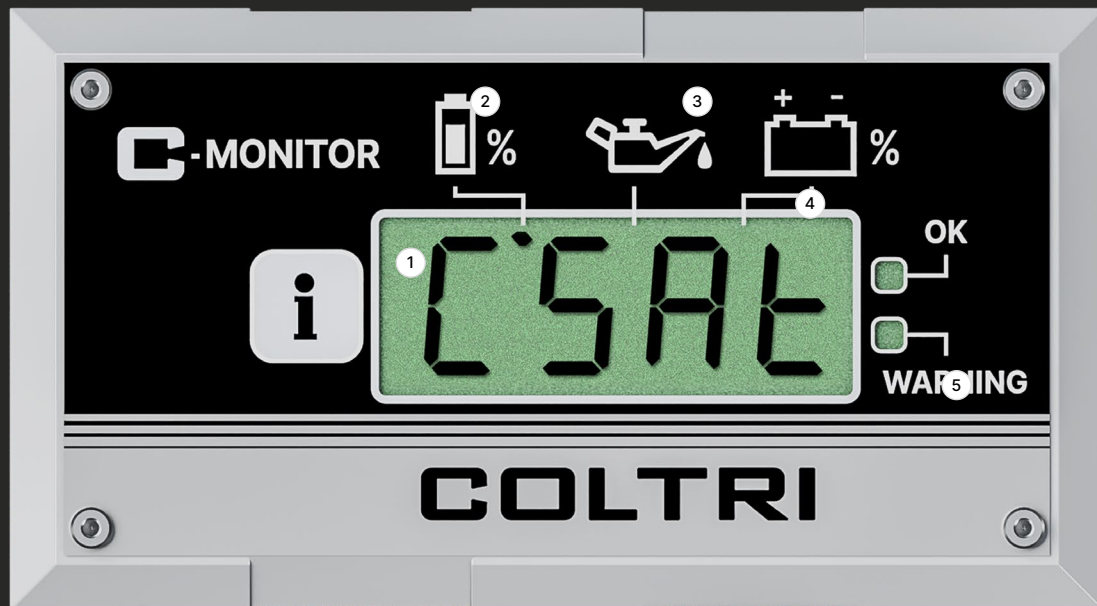
**ASSEMBLY INSTRUCTIONS**








## C - Monitor

Final filter monitoring system, oil change and technical interface.

The interface consists of an LCD display, a button  and two indicators (, ). The decimal points next to the digits are indicator lights to indicate alarms or warnings in progress. Each dot is associated with an explanatory icon (, , ). The icon  indicates an alarm condition while the symbol  indicates normal operation. Press the button  to scroll through the different functions of the menu. When pressed, the function is displayed the function and after two 2 seconds the related data.



COD. SC001200

- |   |  |   |
|---|--|---|
|  Display              |  Service indication   |  Operation indicator |
|  Cartridge saturation |  Battery charge level |   |

## Remote suction hose kit

1/2" adapter.

Hose length 3 meters.

Tube diameter 20 mm.



COD. HC010302

## Suction filter cartridge



COD. SC000345

## Pressure maintaining valve

Mandatory use of DRV filling connection



COD. 6-05-015-VMP-R

## Filling connections optional

### DRV DIN 232 bar



COD. DRV232

### DRV DIN 300 bar



COD. DRV300

### DRV DIN 232 bar with gauge



COD. DRV232/MANOM

### DRV DIN 300 bar with gauge



COD. DRV300/MANOM

### Adapter DIN 232/INT



COD. RE100350

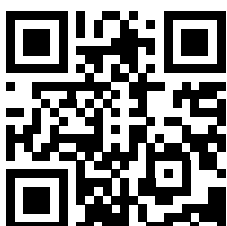
# Aerotecnica Coltri S.p.A.

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DT-TDS-ICONLSE-23-V1



[coltri.com](http://coltri.com)



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THE ITALIAN COMPRESSOR