Technical Data Sheet

COLTRI COMPRESSORS

EFFICIENT LINE

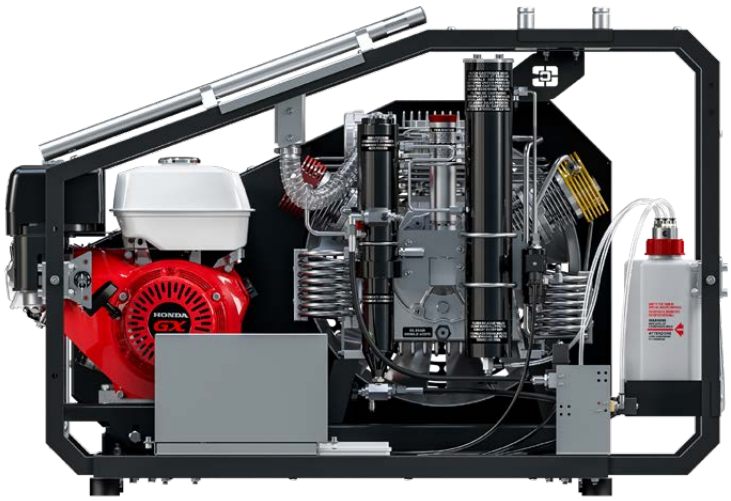
ERGO 270 SH FA

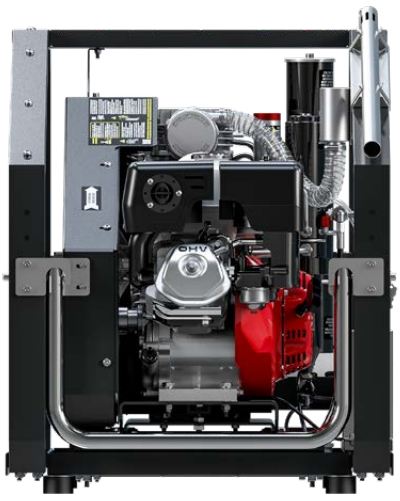
PETROL

Contact

Maximum efficiency in motion

Practical and lightweight, **ERGO 270 SH FA** combines robustness and great operational efficiency. Equipped by a powerful pumping unit, powered by Honda petrol motor. It is equipped by autostop with fixed pressure switch, automatic condensate drain and electric start with battery. There are two connections for high pressure hoses (from 232 to 330 bar) and a Maxifilter filter system. The C-Monitor, the digital hour meter and the remote charging panels are avaible as optional.





Technical data

Type of gas	Breathing air EN 12021 - Nitrox 40% max O_2 - Helium - Nitrogen
Intake pressure	Atmospheric max 300 mbar
Nominal pressure	250 bar / 330 bar / 360 bar
Working pressure	232 bar / 300 bar / 330 bar
Max working pressure	420 bar
Permissible ambient temperature range	-10° C ÷ +40° C
Permissible altitude	0 ÷ 1.500 m SLM
Max permissible tilt	6°
Design	Fully protective cage
Oil	Synthetic Coltri Oil ST 755
Oil change interval	1 year / 1.000 h
Frame	Steel - Colour Black RAL 9005 - Powder coating painting - Scratch proof

Compressor

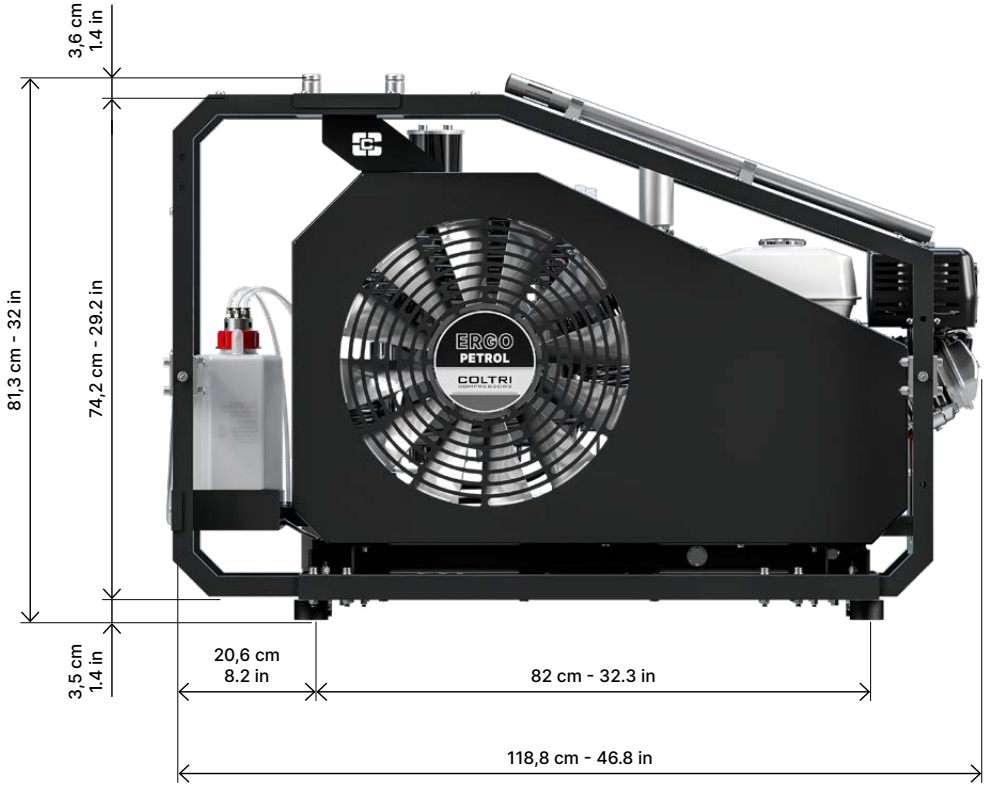
	270 SH FA
Charging rate Measured during 10 liters cylinder filling from 0-200 bar tolerance +/- 5% at + 20 ° C ambient temperature.	270 l/min 16.2 m^3/h 9.5 cfm
Purification System	Maxifilter
Cooling air flow	1.440 m^3/h
Weight[1]	121 kg - 266.8 lb
Dimensions (W x D x H)[1]	118,8 × 64,2 × 81,3 cm - 46.8 × 25.3 × 32 in

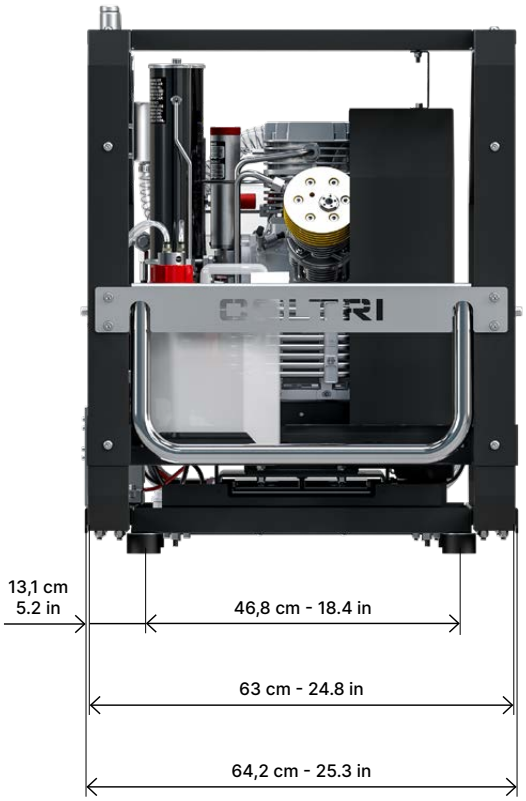
1 Standard model. Dimensions and weight may vary depending on accessories.

Motor

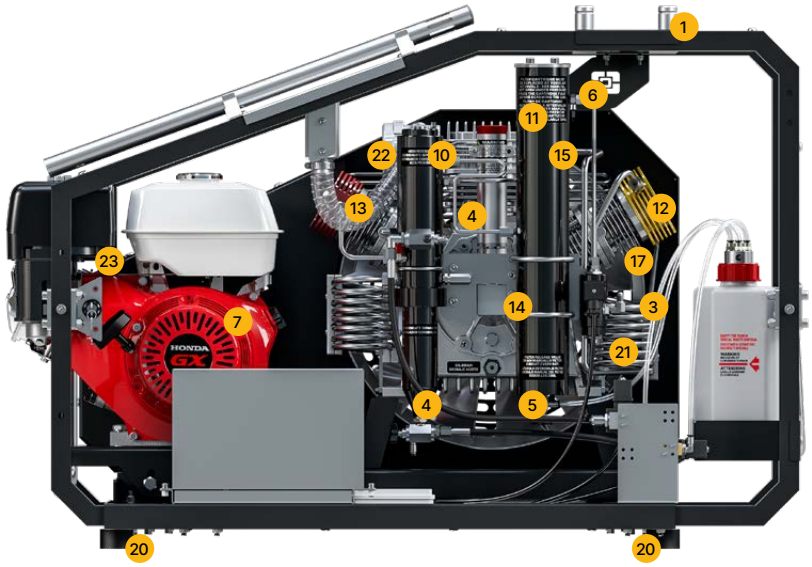
	270 SH FA
Power	6,6 kW - 9 Hp
Type	Petrol HONDA GX 270 FA
Speed (RPM)	3.600

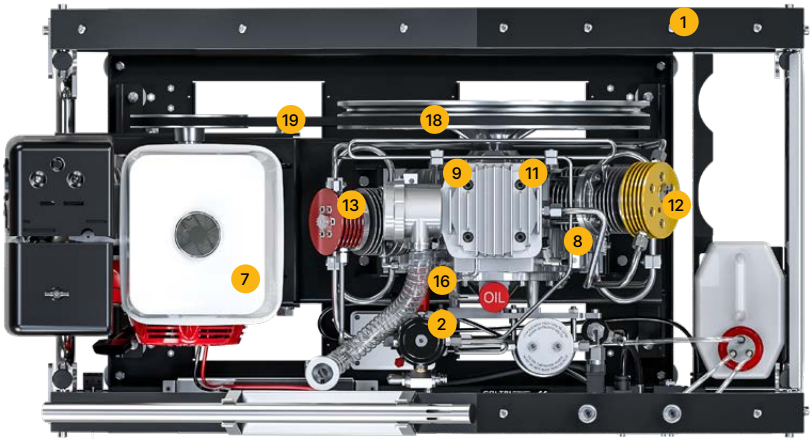
Dimensions


3,6 cm
1.4 in
81,3 cm - 32 in
74,2 cm - 29.2 in
ERGO
PETROL
COLTRI
3,5 cm
1.4 in
20,6 cm
8.2 in
82 cm - 32.3 in
118,8 cm - 46.8 in


13,1 cm
5.2 in
46,8 cm - 18.4 in
63 cm - 24.8 in
64,2 cm - 25.3 in

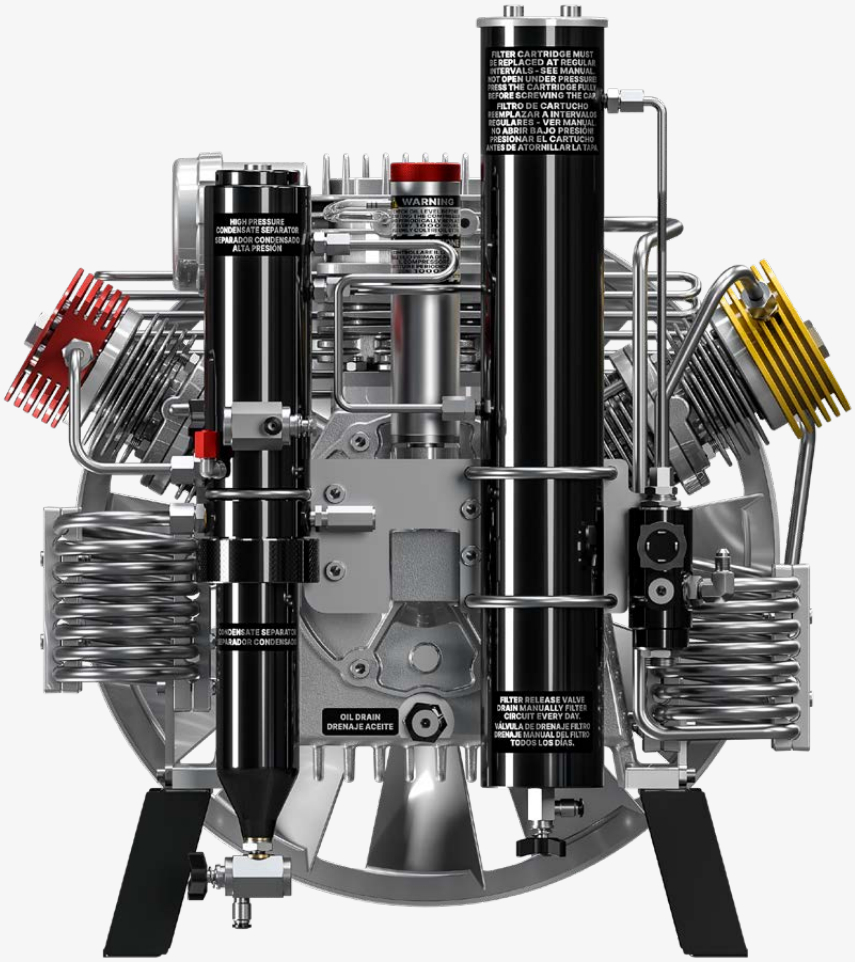
Components





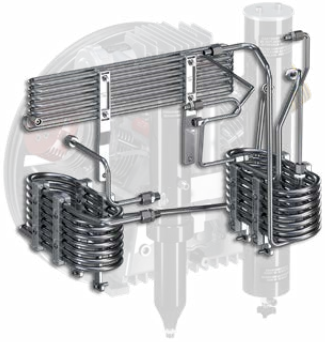
1. Frame
2. Pressure gauge
3. Refill hoses connection
4. Automatic condensate drain
5. Oil discharge valves
6. Purifier filter
7. Internal combustion engine
8. Compressor
9. Intake air filter
10. Condensate separator
11. 1st stage
12. 2nd stage
13. 3rd stage
14. Monoblock crankcase
15. Oil filler plug
16. Safety valve
17. Pressure maintenance valve
18. Cooling fan
19. Belt
20. Anti-vibration device
21. Oil level
22. Automatic shutoff with pressure switch
23. Electric starter with battery

Pumping unit MCH 16

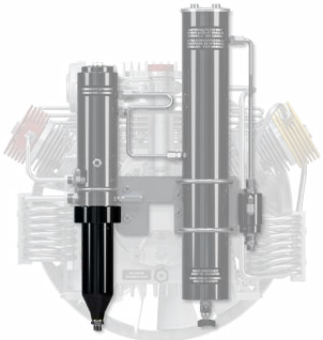


Splash lubrification with conrod pin immersed in oil

Suction filter:
10 µm



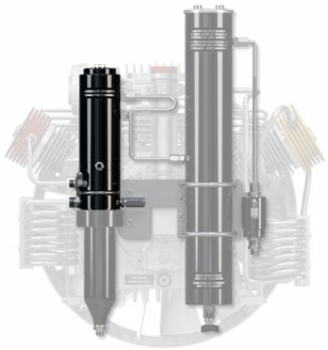
Pipes, fitting and nuts in stainless steel AISI 316



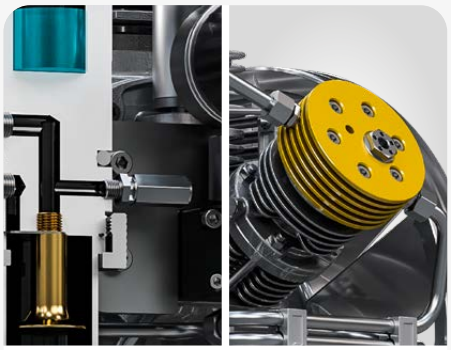
Intermediate condensate separator after the second stage

Synthetic Oil Coltri ST 755 with special formulation for HP compressors

Discover more on Coltri Oil ST 755



High pressure final condensate separator

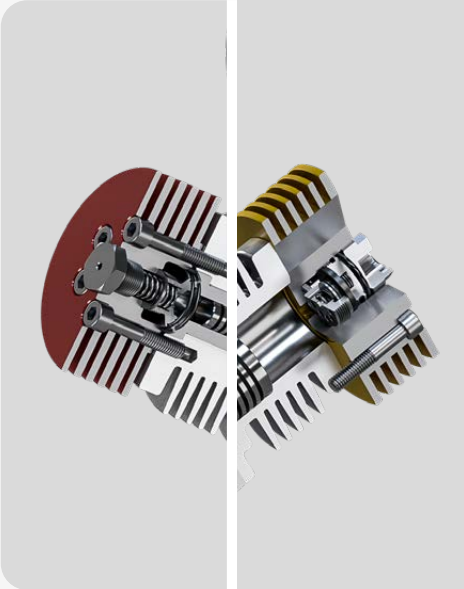


Safety valves after each stage of compression

Die-cast aluminium cylinders with barrel coating in nicasil

Forged aluminum connecting rods

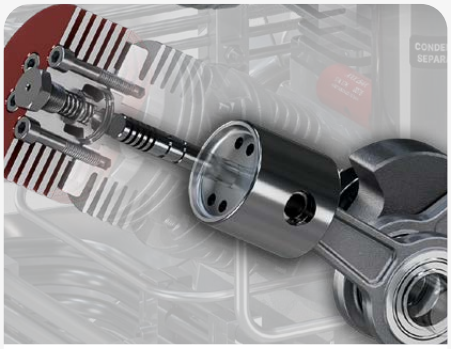
Forged steel crankshaft



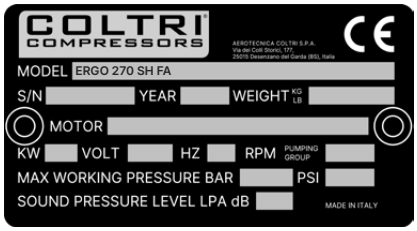
Stainless steel second and third stage valves

Roller Bearings for intensive work load

Third stage in tempered steel with 5 piston rings in special cast iron



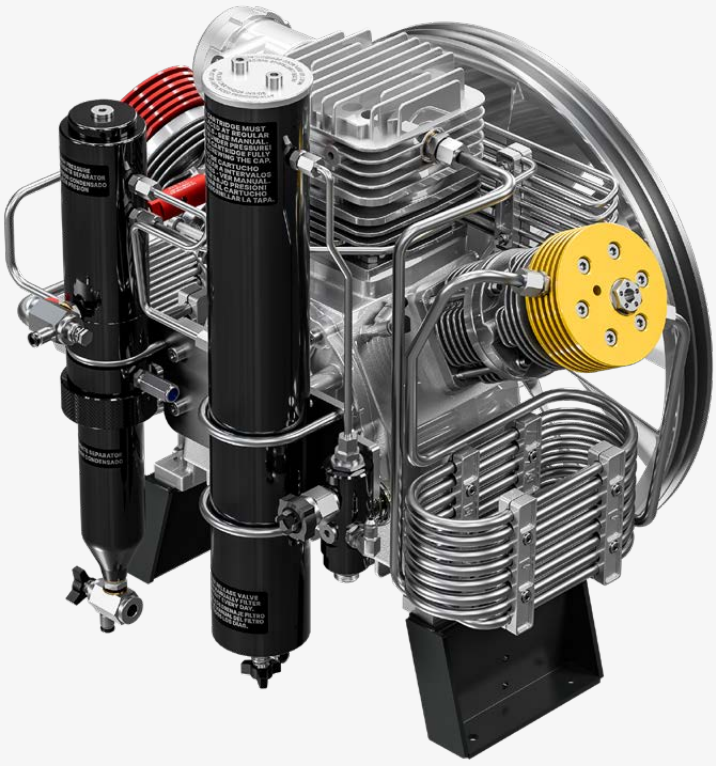
Second and third stage with pushing pistons to eliminate lateral forces on the pistons



CE certification

Technical data pumping unit MCH 16

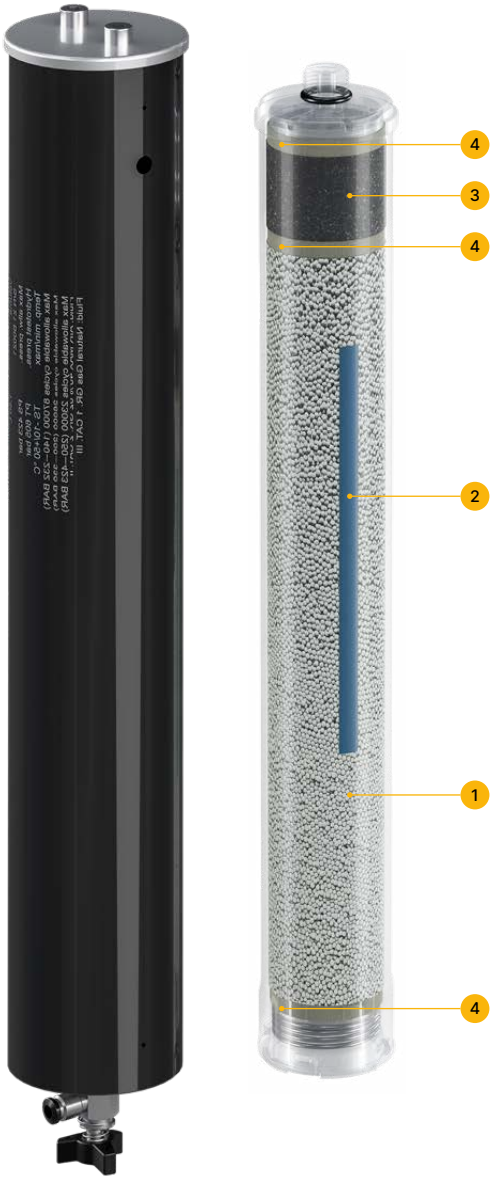
	270 SH FA
Charging rate Measured during 10 liters cylinder filling from 0-200 bar tolerance +/- 5% at + 20 ° C ambient temperature.	270 l/min 16.2 m^3/h 9.5 cfm
Speed (RPM)	1.240
Number of stages	3
Number of cylinders	3
Cylinder bore 1st stage	95 mm
Cylinder bore 2nd stage	38 mm
Cylinder bore 3rd stage	14 mm
Stroke	40 mm
Direction of rotation (from flywheel side)	Counter clockwise (left)
Drive type	V-belt A type
Intermediate pressure 1st stage	~ 6 bar
Intermediate pressure 2nd stage	~ 45 bar
Oil sump capacity	1,8 liters
Max intake pressure	1,3 bar_a – 300 millibar



Standard equipment

Purification system Maxifilter

MAXIFILTER polypropylene cartridge repackable or disposable



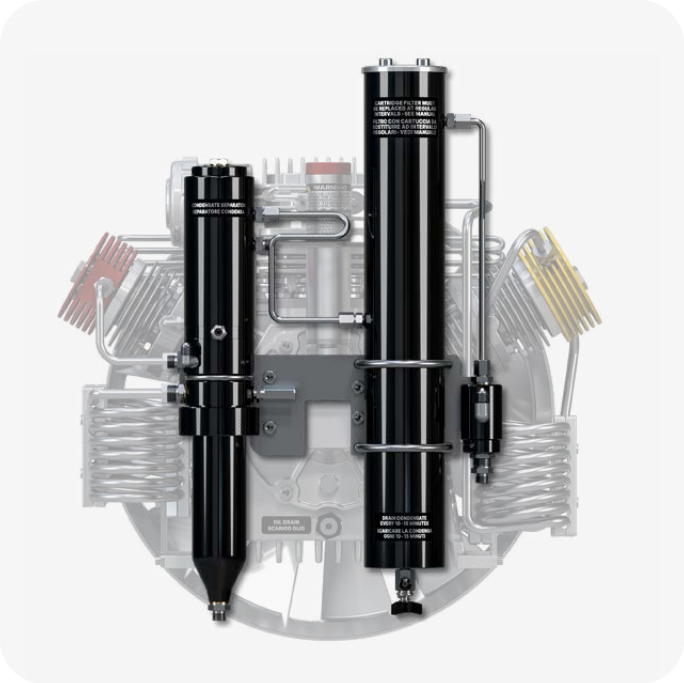
1. Moisture saturation indicator stripe
2. Molecular sieve
3. Activated carbon
4. Felt disc

Purification system	Maxifilter
Operating pressure (Standard)	250 bar / 330 bar / 360 bar
Operating pressure max. (PS)	420 bar
Processable air capacity (air inlet temperature in the filter 20° C at 300 bar)[1]	890 m^3

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

Separator system

- Interstage separator after 2nd stage ,stainless steel AISI 316.
- Final separator for the removal of oil/water condensate.
- Final safety valve, fitted to separator housing.
- Pressure maintaining/non return valve, fitted to filter bracket.



Contamination	Maximum content as per DIN EN 12021:2014	Air quality*
H_2O	25 mg/m³	≤ 10 mg/m³
CO	5 ppm(v)	≤ 4
CO_2	500 ppm(v)	≤ 500
Oil	0,5 mg/m³	≤ 0,5 mg/m³

* 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 CO2 in the intake air must not exceed the maximum level of CO2 as per EN 12021:2014
3 Reported values exceed ISO 8573-1 standards.

Filling connection

2 Filling connection to choose from: DRV DIN 232 bar with gauge and DRV DIN 300 bar with gauge.

DVR DIN 232 bar with gauge

COD. DRV232/MANOM

DVR DIN 300 bar with gauge

COD. DRV300/MANOM

DRV INT/YOKE 232 bar

COD. DRVINT

Filling device	DRV DIN 232	DRV DIN 300
Nominal pressure (PN)	250 bar	330 bar
Technical Specifications	Filling valve with integrated ventilation, with connection for G 5/8" cylinders to EN 144-2 and 477 PN232	Filling valve with integrated ventilation, with cylinder connector G 5/8" according to EN 144-2 and 477 PN300

Electric starter with battery

Standard equipment on ERGO 270 SH FA.

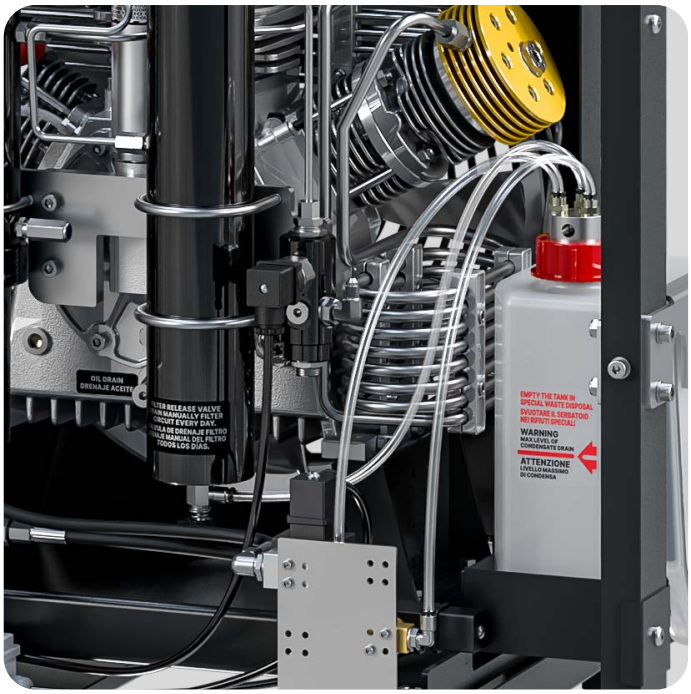
Automatic shutoff with pressure switch

Standard equipment on ERGO 270 SH FA

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)

Automatic condensate drain



Standard equipment on ERGO 270 SH FA.

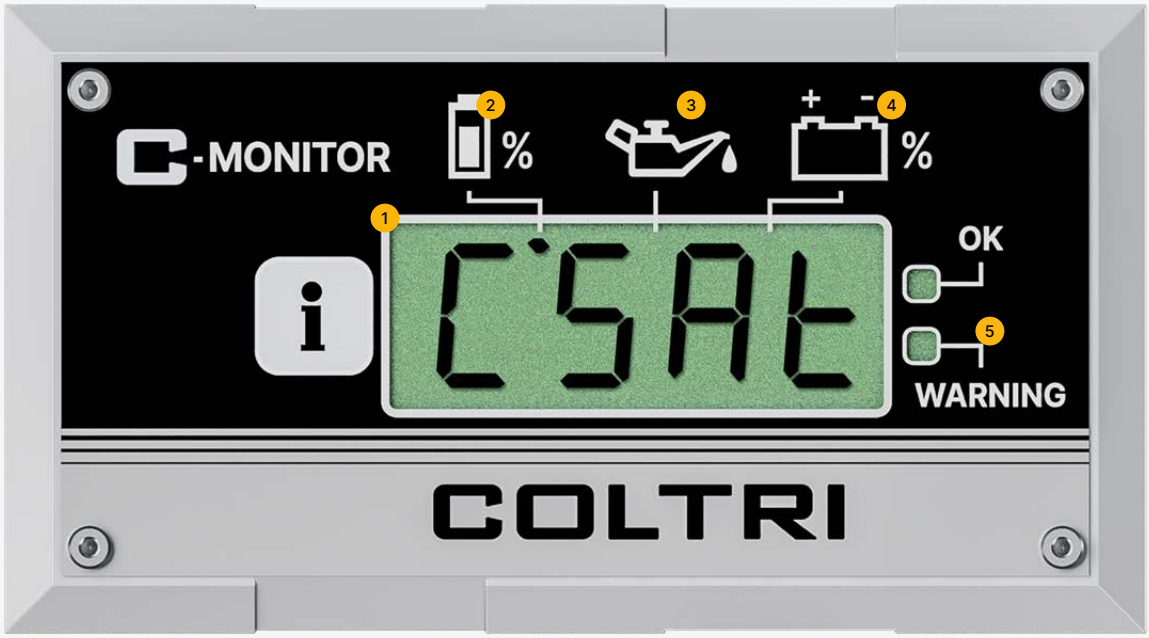
The automatic condensate drain removes water from the intermediate separator and the final separator automatically during operation (every 7 minutes).

Optional

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

1. Display
2. Cartridge saturation
3. Service indication
4. Battery charge level
5. Operation indicator

Digital hour meter

COD. 13-04-0210

Filling connection optional

DVR DIN 232 bar with gauge

COD. DRV232/MANOM

DVR DIN 300 bar with gauge

COD. DRV300/MANOM

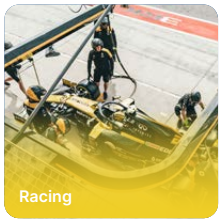
Adapter DIN 232/INT

COD. RE100350

Hoses

Width	COD.
1,5 m / 4.9 ft	SC000461-1500-AIR
2,0 m / 6.5 ft	SC000461-2000-AIR
3,0 m / 9.8 ft	SC000461-3000-AIR
4,0 m / 13.1 ft	SC000461-4000-AIR
5,0 m / 16.4 ft	SC000461-5000-AIR
8,0 m / 26.2 ft	SC000461-8000-AIR
10,0 m / 32.8 ft	SC000461-10000-AIR

Application fields



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DT-TDS-ERGO270SHFA-25-V3

QUALITY SYSTEM CERTIFICATION DNV ISO 9001

ENVIRONMENTAL SYSTEM CERTIFICATION DNV ISO 14001

SAFETY SYSTEM CERTIFICATION DNV ISO 45001

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