Technical Data Sheet

COLTRI COMPRESSORS

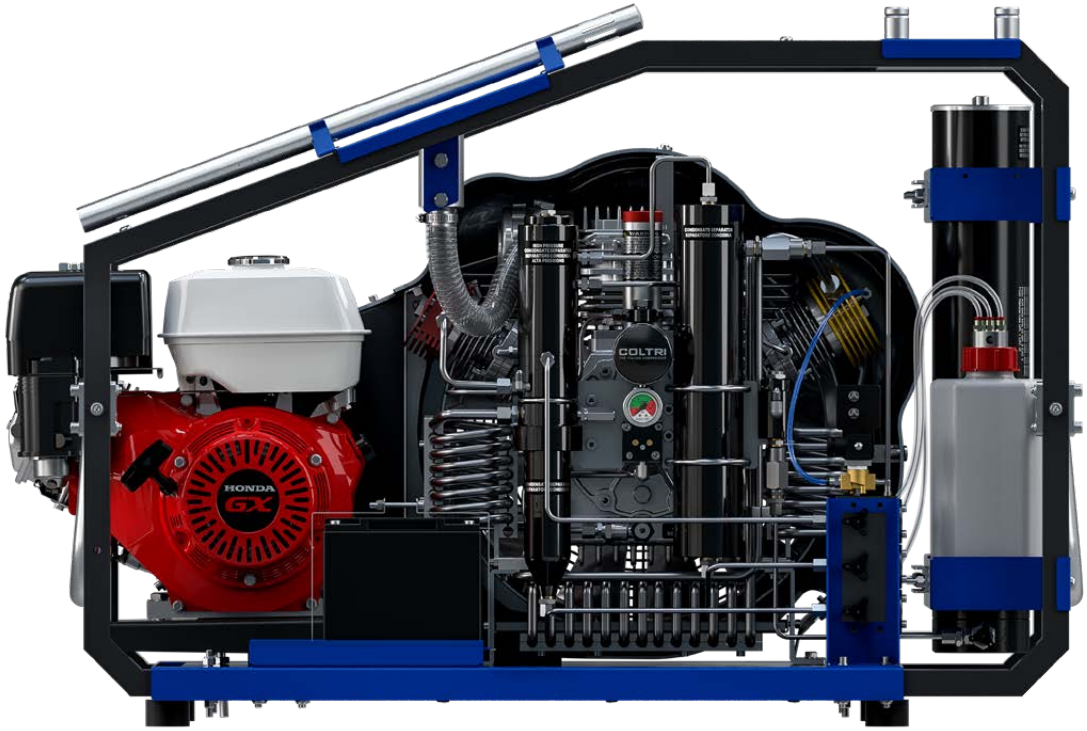
PRIME LINE

ERGO 270 TPS SH

PETROL

Less is more

ERGO TPS is the best solution for those who want a compact breathing air compressor without compromising on high performance. Equipped with four different TPS (Tropical Plus Superdry) pumping units, ERGO TPS is powered by electric motors or engines (Honda for the petrol version, Kohler for the diesel compressors). It has a panel with a monitoring system complete with pressure gauges, autostop with adjustable electronic pressure switch, automatic condensate drain and rotation direction control. It also has two connections for high pressure hoses and an improved filtering system with two Hyperfilters. The remote charging panel is available as an option.



Technical data

Type of gas	Breathing air EN 12021 - Nitrox 40% max O_2 - Helium - Nitrogen
Intake pressure	Atmospheric max 300 bar
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	15°
Design	Open
Oil	Olio sintetico Coltri ST 755
Oil change interval	1 year / 1.000 h
Frame	Steel - Colour RAL 5002 - Powder coating painting - Scratch proof

Compressor

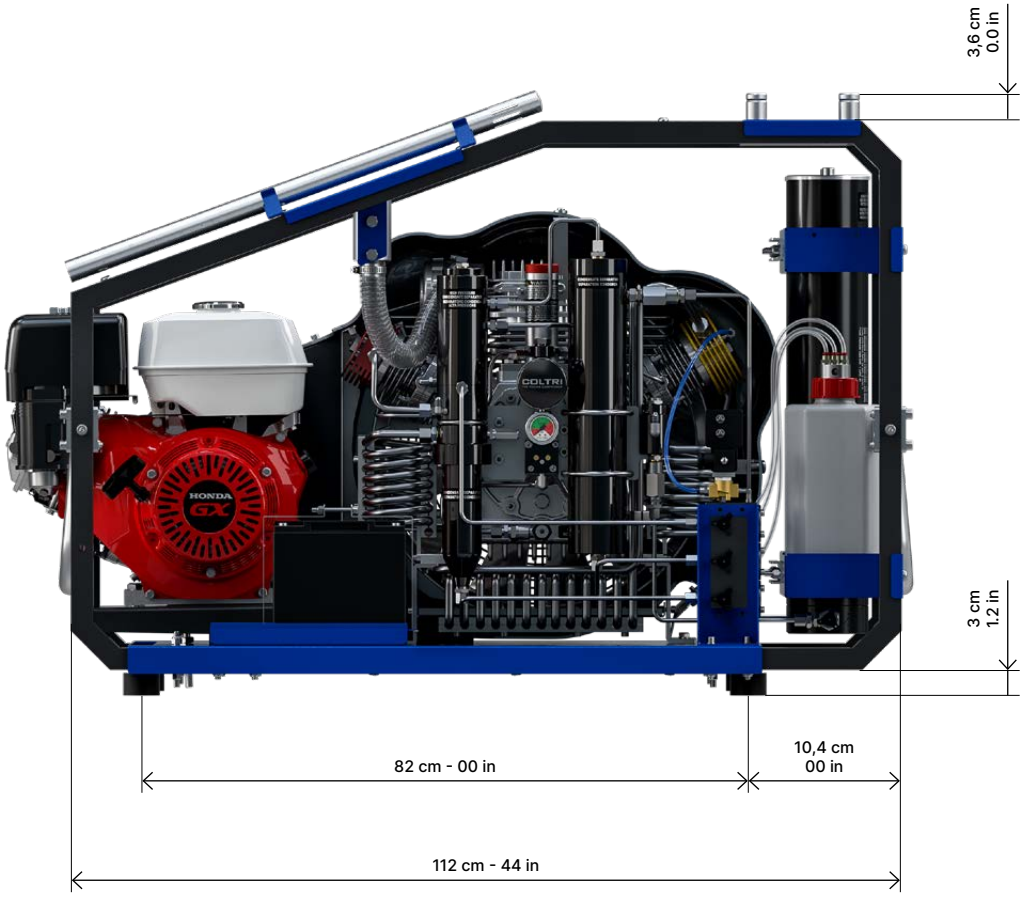
	270 TPS SH
Charging rate Measured during 10 liters cylinder filling from 0-200 bar tolerance +/- 5% at + 20 ° C ambient temperature.	270 l/min 16,2 m^3/h 9.5 cfm
Purification System	Hyperfilter x 2
Cooling air flow	1.440 m^3/h
Weight[1]	164 kg - 362 lb
Dimensions (W x D x H)[1]	112 × 63 × 77 cm - 44.1 × 24.8 × 30.3 in
Noise	LpA 72 dB

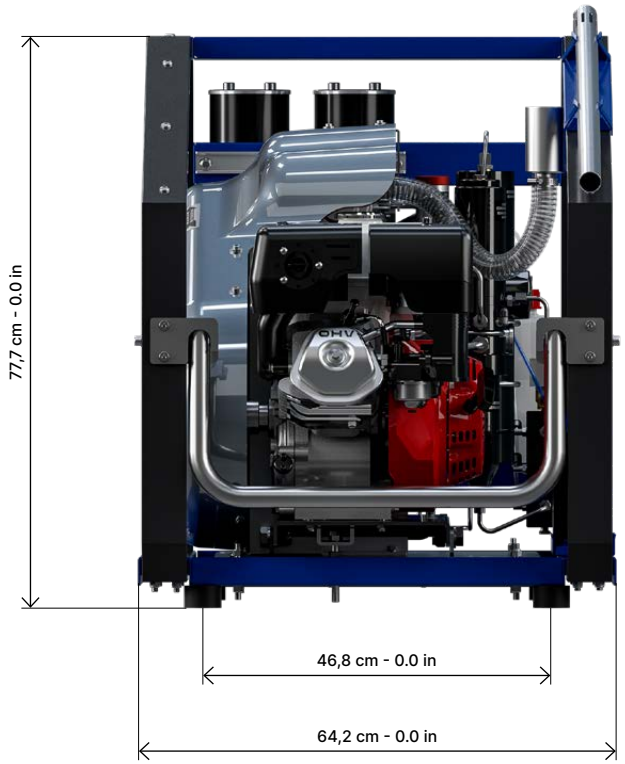
1 Modello standard. Le dimensioni possono variare a seconda degli accessori.

Motor

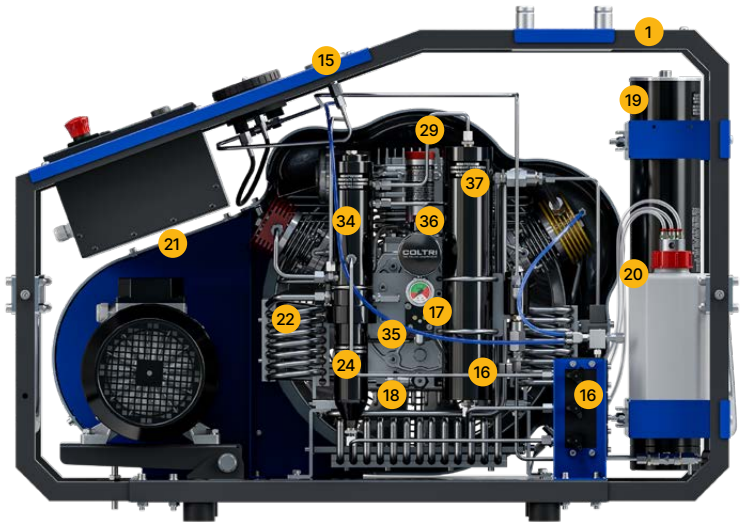
	270 TPS SH
Power	9 kW - 12 Hp
Type	Honda GX 390
Speed (RPM)	3.600

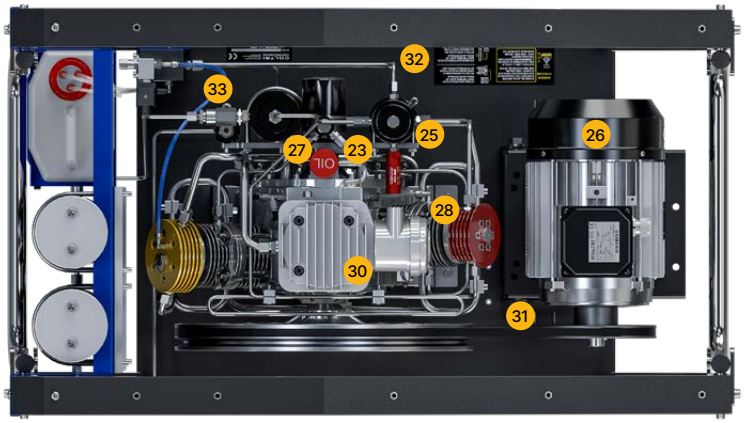
Dimensions


3,6 cm
0.0 in
3 cm
1.2 in
82 cm - 00 in
10,4 cm
00 in
112 cm - 44 in


77,7 cm - 0.0 in
46,8 cm - 0.0 in
64,2 cm - 0.0 in

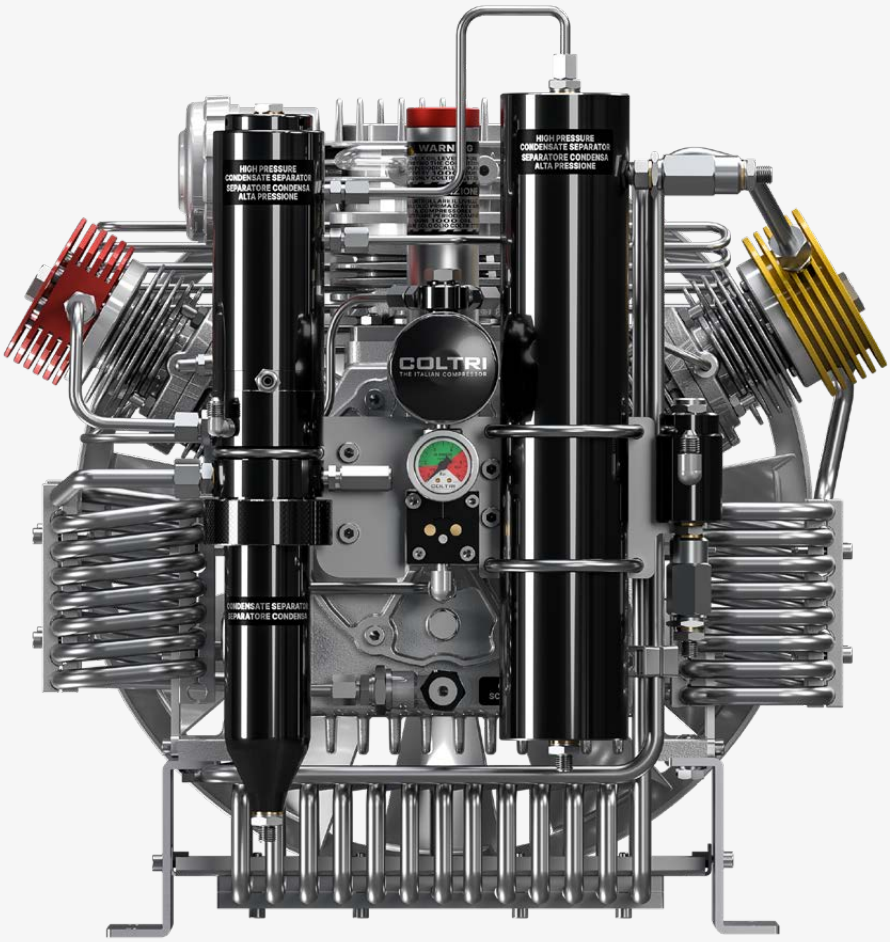
Components





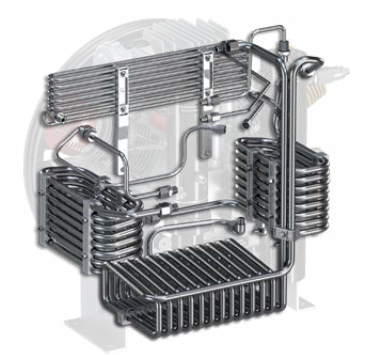
1. Frame
2. Control panel
3. ON pushbutton
4. Stop pushbutton
5. Condensate discharge pushbutton
6. Oil level warning light
7. Direction of rotation indicator light
8. Hour counter
9. Cabinet interior / cooling air temperature
10. Emergency pushbutton
11. Automatic shut off pressure switch
12. 3rd stage pressure gauge
13. 2nd stage pressure gauge
14. 1st stage pressure gauge
15. Refill hoses connection
16. Condensate discharge valves
17. Oil level
18. Oil discharge valves
19. Purification system
20. Condensate collection can
21. Electric motor
22. Pumping unit
23. Intake air filter
24. LP condensate separator
25. 1st stage
26. 2nd stage
27. 3rd stage
28. Monoblock crankcase
29. Oil filler plug
30. Safety valve
31. Pressure maintenance valve
32. Cooling fan
33. Belt
34. HP condensate separator
35. Oil pump
36. Oil filter
37. HP High Efficiency condensate separator

Compressor block

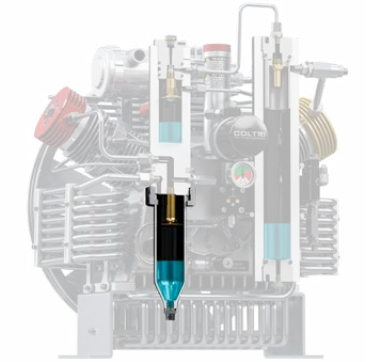


Forced lubrification with low pressure gear pump

Suction filter:
10 µ micron



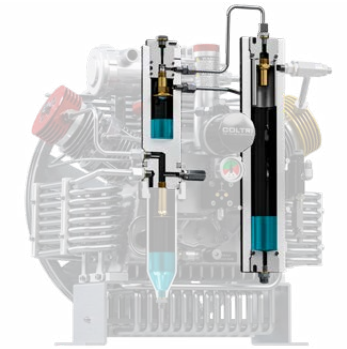
Pipes, fitting and nuts in stainless steel AISI 316



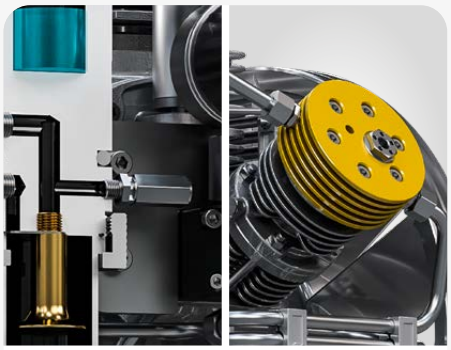
Intermediate condensate separator after the second stage

Synthetic Oil Coltri ST 755 with special formulation for HP compressors

Discover more on Coltri Oil ST 755



High pressure final condensate separator double effect

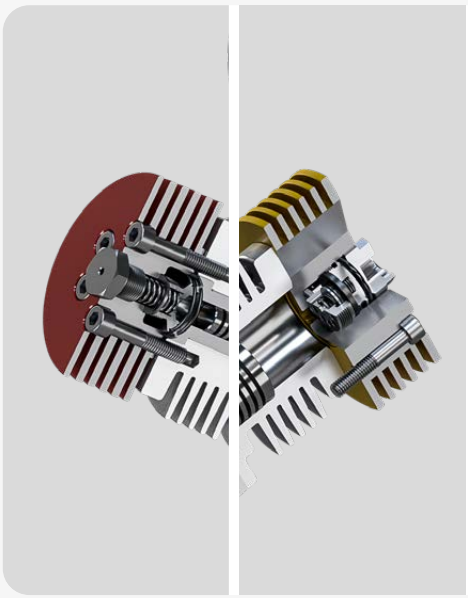


Safety valves after each stage of compression

Die-cast aluminium cylinders with barrel coating in nicasil

Forged aluminum connecting rods

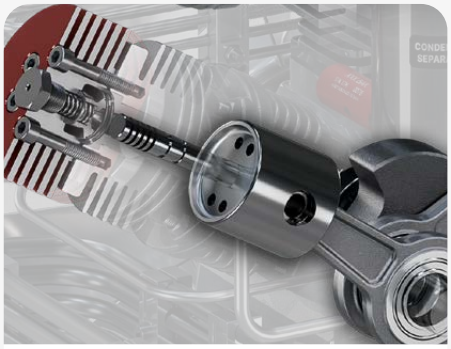
Forged steel crankshaft



Stainless steel second and third stage valves

Roller Bearings for intensive work

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

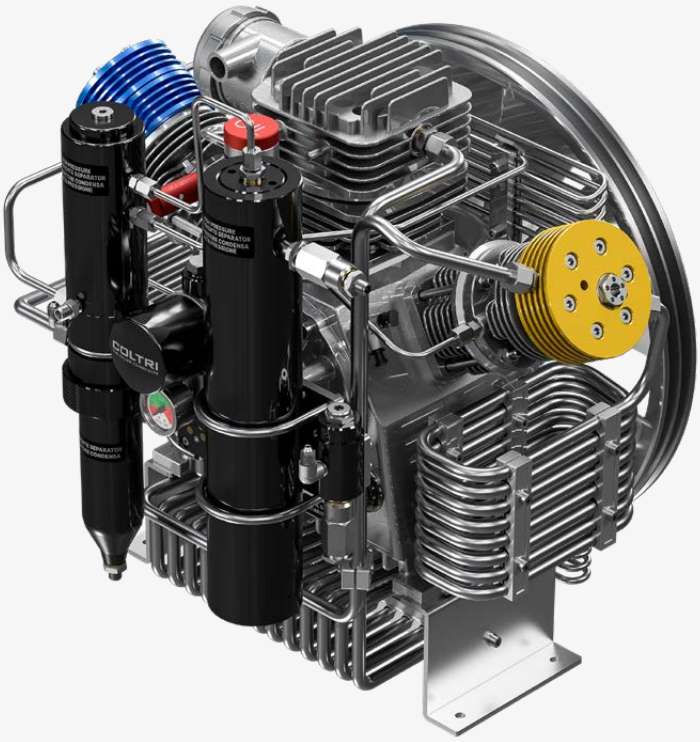


Second and third stage with pushing pistons to eliminate lateral forces on the pistons

CE certification

Technical data Compressor block

	270 TPS SH
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)	1.385
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 Hyperfilter

DOUBLE HYPERFILTER regenerable or disposable cartridge

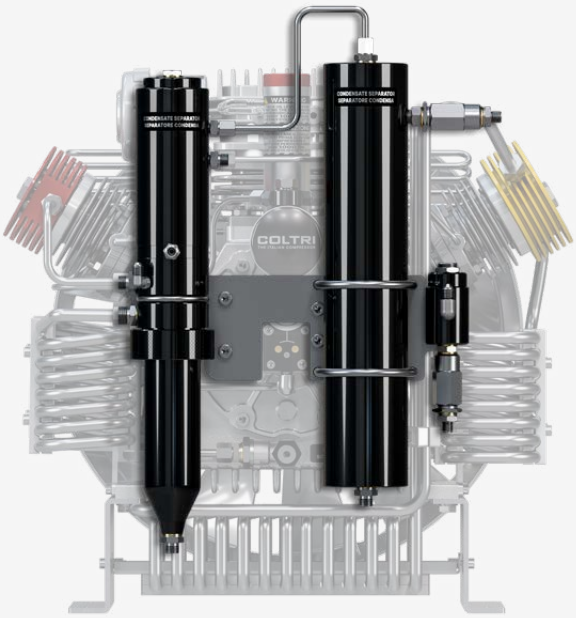
1. Hyperfilter body
2. Upper cap
3. O-Ring
4. Cartridge spring
5. Hyperfilter cartridge
6. Fitting
7. Lower cap
8. Stainless hook
9. Upper cap
10. Felt disc
11. Network Disc

Purification system	**Hyperfilter x 2**
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]	3.050 m^3

1 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

- Interstage separator after 2nd stage, forged and anodized aluminum
- Double final separator for removal of oil/water condensate
- Final safety valve, mounted on the separator housing
- Pressure maintenance valve / non-return valve



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 and DRV DIN 300 bar.

Filling connection DRV DIN 232 bar

COD. DRV232

Filling connection DRV DIN 300 bar

COD. DRV300

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

Filling hose

1200 mm stainless steel fittings - max working pressure 420 bar

Electric starter

Digital hour meter

COD. 13-04-0210

Optional

Presec. Sistema di controllo del filtro

Includes:
Filter cap with sensor + control unit + cartridge.
To be installed with the Hyperfilter filter system filter system on the compressor.

If you choose the Presec system, you cannot also install the the SAM Multigas Analysis System.

The Presec system is connected through a probe with the first filter cartridge and detects its saturation status transmitting to the indicator the relevant switching signals according to the status. If the filter cartridge is exhausted, the compressor is switched off and cannot be started until the cartridge is replaced. The presec system displays 4 levels of cartridge saturation through 3 relays connected to 3 leds:

Stable green light (a):
- The system is operational; OK cartridge

Yellow light button (b):
- Pre-alarm; cartridge is running low and must be replaced soon.

Red light button (c):
- Alarm; remove cartridge, replace immediately.

Red light button (c):
- Alarm; filter cartridge is missing or filter system is interrupted; compressor shuts down and cannot be turned back on without inserting a new cartridge or discovering the source of the alarm.

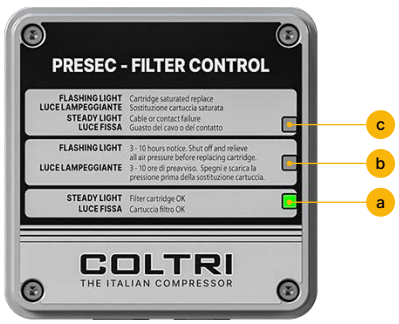
While the yellow light is pulsing (b), the steady green light (a) will still be on because the filter cartridge will not be fully saturated. If no LED lights up, it means that the PRESEC lacks power or that the electrical system is faulty.

PRESEC SENSOR

COD. SC000550

Filter saturation values

Light	Humidity (mg/m³)
Green	15 - 20
Yellow	20 - 25
Red	> 25



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

Remote charging panels with lever

COD. SC000327/N

Single pressure

- 4 Lever taps
- 1 Gauge
- 4 HP hoses 1.20 m - 3.9 ft DIN 232 bar or DIN 300 bar or INT/YOKE
- 1 HP hose 3 m - 9.8 ft from compressor

COD. SC000331/N

Double pressure

- 4 Lever taps
- 2 Gauges
- 1 Pressure regulator
- 2 HP hoses 1.20 m - 3.9 ft DIN 232 bar or INT/YOKE
- 2 HP hoses 1.20 m - 3.9 ft DIN 300 bar
- 1 HP hose 3 m - 9.8 ft from compressor

Filling connection 232 bar for lever tap with safety pin

COD. SC000936

Filling connection 300 bar for lever tap with safety pin

COD. SC000937

Filling connection INT/ YOKE for lever tap with safety pin

COD. SC000935

Remote charging panels

COD. SC000325/N

Single pressure Charging panel

- 4 DRV DIN 232 bar or DRV DIN 300 bar
- 1 Gauge
- 4 HP hoses 1.20 m - 3.9 ft
- 1 HP hose 3 m - 9.8 ft from compressor

COD. SC000329/N

Double pressure Charging panel

- 2 DRV DIN 232 bar
- 2 DRV DIN 300 bar
- 2 Gauges
- 1 Pressure regulator
- 4 HP hoses 1.20 m - 3.9 ft
- 1 HP hose 3 m - 9.8 ft from compressor

Filling connection DRV DIN 232 bar

COD. DRV232

Filling connection DRV DIN 300 bar

COD. DRV300