

HEAVY DUTY LINE

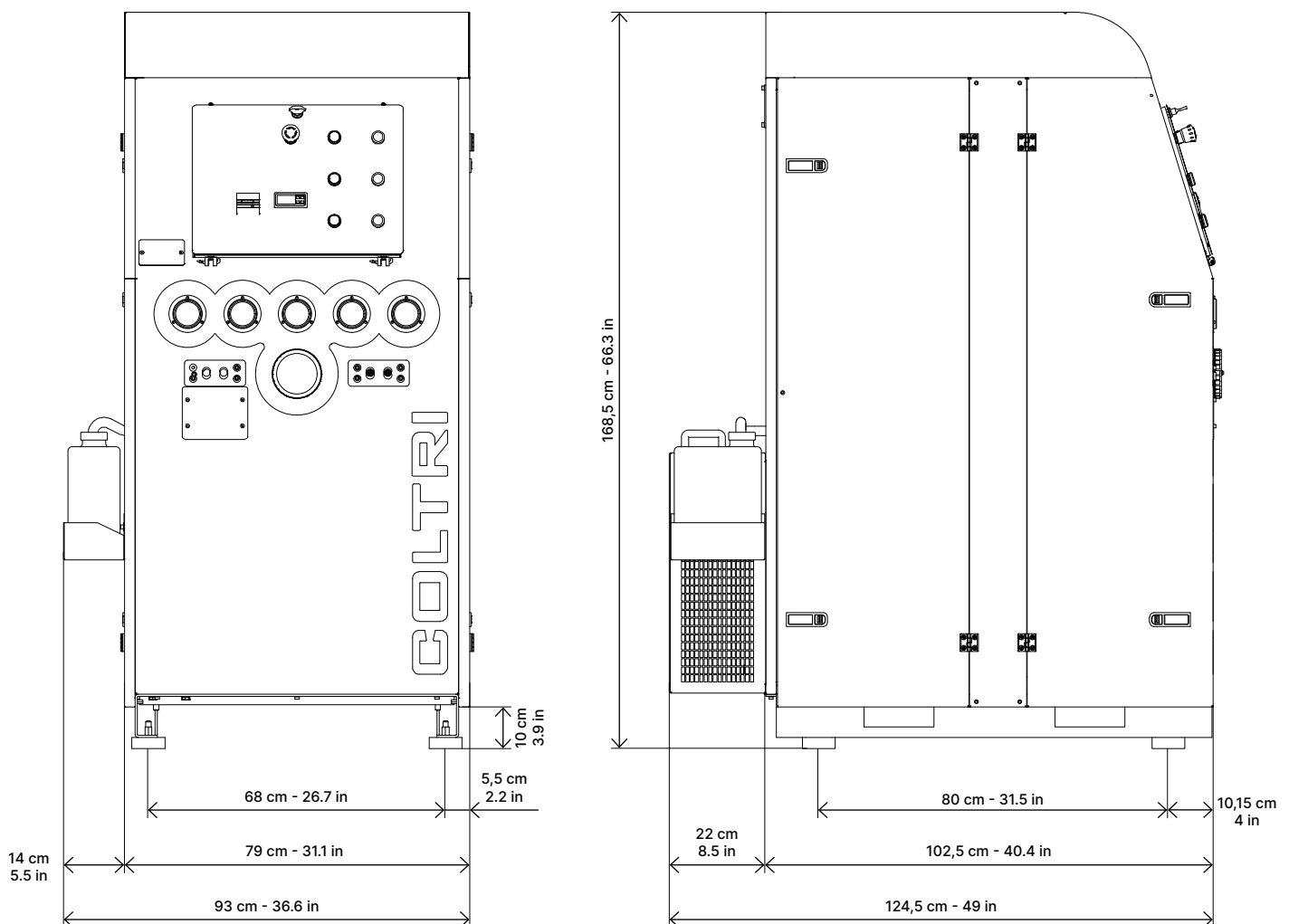
# SILENT 400 EM



Contact

# What you don't feel is his greatest performance

The **SILENT 400 EM FIRE USA** model reaches new heights in terms of soundproofing, falling below the 70 dB operating threshold. Built to meet the demands of intensive use when large refill capacities are required, it has 4 front filling connections with high pressure hoses and an intuitive control panel. It also has an electric motor and powerful pumping units. For longer filter life, we recommend the Tornado high pressure dryer. Available option: Presec system for filter saturation control or the SAM system for multigas analysis and remote charging panel.



## Technical data

|                                       |                                                                            |
|---------------------------------------|----------------------------------------------------------------------------|
| Type of gas                           | Breathing air EN 12021                                                     |
| Intake pressure                       | Atmospheric / max 300 millibar                                             |
| Working pressure                      | 232 bar / 300 bar / 330 bar                                                |
| Max working pressure                  | 300 bar                                                                    |
| Permissible ambient temperature range | -10° C ÷ +40° C                                                            |
| Permissible altitude                  | 0 ÷ 1.500 m SLM                                                            |
| Max permissible tilt                  | 15°                                                                        |
| Oil                                   | Synthetic Coltri Oil ST 755                                                |
| Oil change interval                   | 1 anno / 1.000 h                                                           |
| Frame                                 | Steel - Colour Black RAL 9005 -<br>Powder coating painting - Scratch proof |

## Compressor

|                                                                                                                                        |                                             |
|----------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------|
|                                                                                                                                        | <b>400 EM</b>                               |
| <b>Charging rate</b><br>Measured during 10 liters cylinder filling from 0-200 bar<br>tolerance +/- 5% at + 20 ° C ambient temperature. | 400 l/min<br>24 m³/h<br>14,1 cfm            |
| Purification System                                                                                                                    | Hyperfilter x 2                             |
| Cooling air flow                                                                                                                       | 4.050 m³/h                                  |
| Weight¹                                                                                                                                | 446 kg - 983 lb                             |
| Dimensions (W x D x H)¹                                                                                                                | 93 × 124,5 × 168,5 cm - 36.6 × 49 × 66.3 in |

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

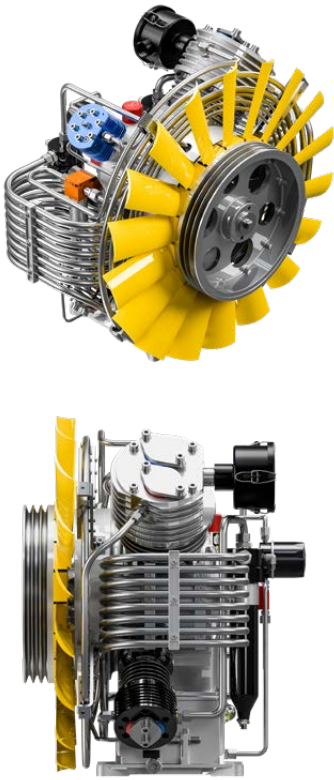
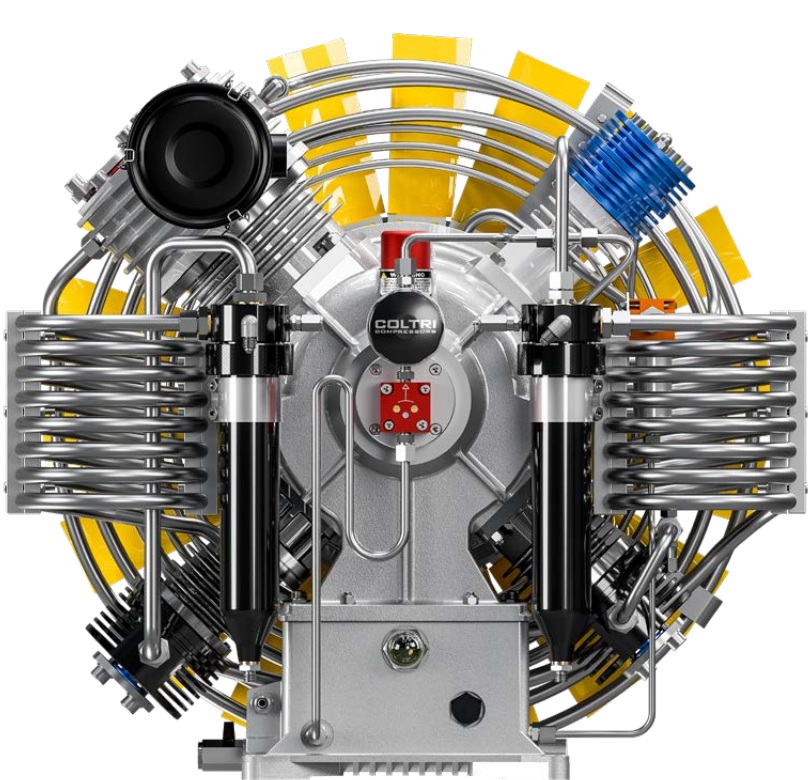
## Electric motor

|                                                                                           |                       |
|-------------------------------------------------------------------------------------------|-----------------------|
|                                                                                           | <b>400 EM</b>         |
| Type                                                                                      | Single-phase electric |
| Power                                                                                     | 7,5 kW - 10 Hp        |
| <b>Operating voltage/frequency</b><br>Different voltage / frequency available on request. | 230 V,<br>60 Hz       |
| Rated current                                                                             | 41,3 A                |
| Speed (RPM)                                                                               | 3.525                 |
| Protection class                                                                          | IP55                  |

The IP55 protection class, compliant with IEC 60034-5, guarantees protection against dust deposits and water jets from any direction.

Technical data pumping unit MCH 22

|                                                                                                             | 400 EM                                       |
|-------------------------------------------------------------------------------------------------------------|----------------------------------------------|
| Charging rate                                                                                               | 400 l/min                                    |
| Measured during 10 liters cylinder filling from 0-200 bar tolerance +/- 5% at + 20 ° C ambient temperature. | 24 m3/h                                      |
|                                                                                                             | 14,1 cfm                                     |
| Speed (RPM)                                                                                                 | 1.050                                        |
| Number of stages                                                                                            | 4                                            |
| Number of cylinders                                                                                         | 4                                            |
| Cylinder bore 1st stage                                                                                     | 120 mm                                       |
| Cylinder bore 2nd stage                                                                                     | 60 mm                                        |
| Cylinder bore 3rd stage                                                                                     | 32 mm                                        |
| Cylinder bore 4th stage                                                                                     | 15 mm                                        |
| Stroke                                                                                                      | 50 mm                                        |
| Direction of rotation (from flywheel side)                                                                  | Counter clockwise (left)                     |
| Drive type                                                                                                  | V-belt A type                                |
| Intermediate pressure 1st stage                                                                             | ~ 3,2 bar                                    |
| Intermediate pressure 2nd stage                                                                             | ~ 16 bar                                     |
| Oil sump capacity                                                                                           | 4 liters                                     |
| Max intake pressure                                                                                         | 1,3 bar (absolute) / 300 millibar - 4,35 psi |

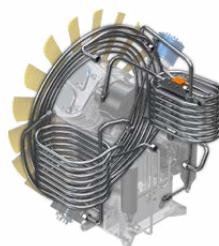




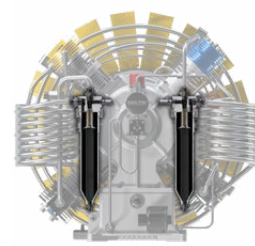
Forced lubrication with low pressure gear pump



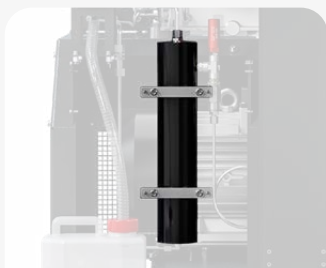
Suction filter: 10 µm



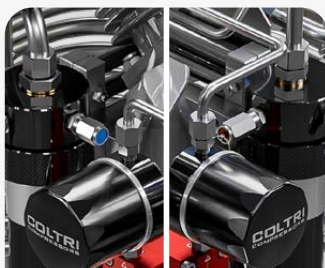
Pipes, fitting and nuts in stainless steel AISI 316



Interstage condensate separators



High pressure final condensate separator double effect



Safety valves after each stage of compression



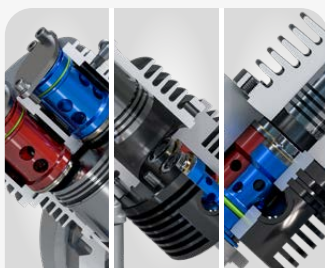
Special cast iron cylinders with low roughness lapping



Aluminum connecting rods



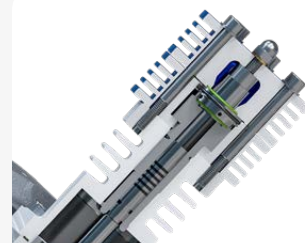
Forged steel crankshaft



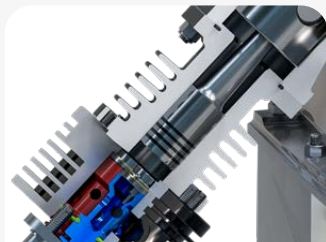
High-flow first, second and third stage valves



Roller Bearings for intensive work



Fourth stage in tempered steel with 6 piston rings in special cast iron



Second, third and fourth stages with pushing pistons to eliminate lateral forces on the pistons



CE certification

# Standard equipment

## Purification system Hyperfilter

DOUBLE HYPERFILTER regenerable or disposable cartridge

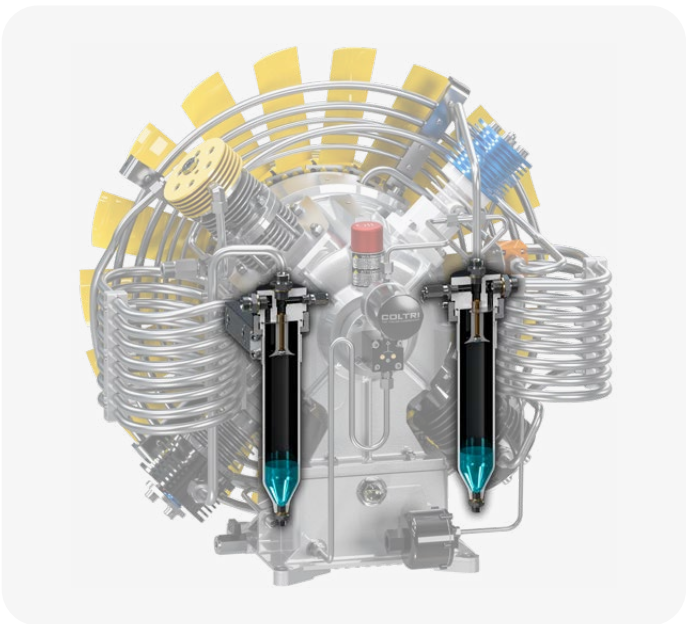


| Purification system                                                                          | Hyperfilter x 2             |
|----------------------------------------------------------------------------------------------|-----------------------------|
| Operating pressure (Standard)                                                                | 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) <sup>1</sup> | 3.050 m <sup>3</sup>        |

<sup>1</sup> When using a filter cartridge without HOPCALITE CO CATALYST.  
If a cartridge with CO removal is used, the process air capacity is reduced by about 20%.

## Condensate separation 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 <sub>2</sub> O | 25 mg/m                                  | ≤ 10 mg/m    |
| CO               | 5 ppm(v)                                 | ≤ 4          |
| CO <sub>2</sub>  | 500 ppm(v)                               | ≤ 500        |
| Oil              | 0,5 mg/m                                 | ≤ 0,5 mg/m   |

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

- 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.
- 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.
- Reported values exceed standards:
  - ISO 8573-1 class 3 for particles
  - ISO 8573-1 class 1 for humidity
  - ISO 8573-1 class 1 for oil



**Compressor control and automatic condensate drain system**



**Electronic pressure switch**



**Interstage pressure gauges**



**Soundproof frame**



**Filling connection**

4 Filling connection to choose from: DRV DIN 232 bar, INT/YOKE DRV 232 bar and DRV DIN 300 bar.



**Filling hose**



**High pressure rear outlet**

## Optional



**Presec. Filter control system**



**CO SafeGuard**



**Tornado refrigerator - Dryer**

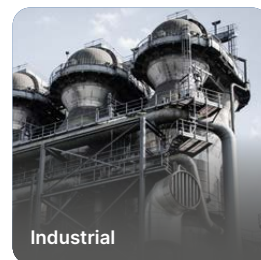
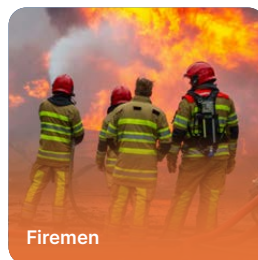
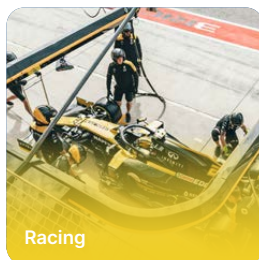
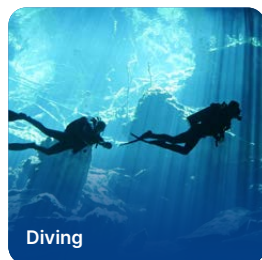


**7" Touch Screen Panel**



**Multi-Gas Analysis System (SAM)**

# Application fields



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