



# FIRE DEPARTMENT COMPRESSORS

High pressure breathing air compressors

# Quality is the standard!

Our range of firefighting compressors is designed to ensure a constant supply of safe and reliable breathing air. We are committed to providing versatile solutions for your diverse operational needs. Coltri compressors are available with electric or gasoline power options to adapt to the multiple power sources present in different applications.

At Coltri, we take pride in supporting firefighters by providing high-quality and reliable breathing air compressors, as well as explosion-proof fill enclousres, with modular solutions that allow for customization to meet specific space and application requirements.



### A profoundly Italian company, Coltri began building high-pressure scuba diving compressors in 1963.

The company soon expanded into other fields, including firefighting compressors and industrial gas compressors. Today we are once again looking in a new direction.

Ongoing advances in design and manufacture are at the very core of our identity: more than fifty years of continuous development have enabled us to engineer equipment that now sets the benchmark for the industry worldwide. Our commitment to research and development has enabled us to shift from consuming the latest technology to becoming key players ourselves in advancing technology in the industry. We use all the latest tools, such as robots and digitally controlled machining centers, to manufacture increasingly reliable, efficient and durable products.

Every component in our pump units was designed and engineered in Coltri's workshops and is the result of careful research and extensive testing. We assemble all our compressors in their entirety within our company according to rigorous quality standards. Exceptionally high-precision machinery, such as ZEISS® tools, play a key role in dimensional metrology. This enables us to determine the geometric characteristics of our components and accurately gauge how they will perform when used in more complex units. Our focus and constant growth, steered by standards of excellence, have earned us internationally recognized certifications of quality that reflect our dedication and commitment.

We like to think of ourselves as facilitators. We build our machines to make it simpler to take on challenges, overcome limits and imagine new possibilities. Whether it's for a hobby, an industrial application or an emergency response service, Coltri Compressors is there to raise the bar higher, to help you reach uncharted territory.



**Discover our construction quality.** Scan the QR code to watch the video.

# MARK III SILENT TPS





### No Compromise

**The Mark III Silent TPS (Tropical Plus Superdry)** has an intuitive control panel and operates at 72 dB. This machine is ideal for departments in hot and poorly ventilated environments. Designed with an improved cooling and dual filtration system to create Grade E air, this machine cleans 106,000 cubic feet of breathing air. The compressor comes standard with an auto stop for safety and an auto condensate to drain away harmful moisture. Coltri machines don't rely on splash lubrication, they come standard with an oil pump for lubrication. The power supply is 7.5 to 10 hp and either a single or three phase electric motor.

# SUPER SILENT TPS



### Absolute Silence

**The Super Silent TPS (Tropical Plus Superdry)** is a vertical machine and operates at 65 dB. This machine is ideal for demanding use and humid environments. Designed with the same cooling and dual filtration system as the Mark III TPS, this machine also cleans 106,000 cubic feet of breathing air. The compressor comes standard with an intuitive control panel, an auto stop for safety and an auto condensate to drain away harmful moisture. Coltri machines don't rely on splash lubrication, they come standard with an oil pump for lubrication. The power supply is 7.5 to 10 hp and a three phase electric motor.

### **Technical data**

| Type of gas                 | Breathing air EN 12021 - Nitrox 40% max O2 - Helium - Nitrogen |  |
|-----------------------------|--|--|
| Intake pressure             | Atmospheric max 300 bar  |  |
| Nominal pressure            | 250 bar / 330 bar / 360 bar                                    |  |
| Filling pressure            | 232 bar / 300 bar / 330 bar                                    |  |
| Maximum working pressure    | 232 bar / 420 bar  |  |
| Operating voltage, standard | 230 V, 60 Hz   |  |
| Other operating voltage     | 230 V, 50 Hz / 440 V, 60 Hz / 230 V, 60 Hz                     |  |
| Oil change interval         | 1 year / 1.000 h   |  |

### Compressor

| -   | 315 ET                                 |
|---|--|
| Charging rate   | 315 l/min                              |
| Measured during 10 liters cylinder filling from 0-200 bar | 18.9 m³/h                              |
| tolerance +/- 5% at + 20 ° C ambient temperature.         | 11.1 cfm                               |
| Purification system                                       | Hyperfilter x 2                        |
| Cooling air flow, min.                                    | 2.180 m³/h                             |
| Weight*   | 222 kg - 489 lb                        |
| Dimensions (W x D x H)*                                   | 90 × 93 × 132 cm - 35.4 × 36.6 × 52 in |
|   |  |

\* Standard model. Weight and dimensions may vary depending on accessories.

### Motor

|  | 315 ET               |  |  |
|--|----------------------|--|--|
| Power  | 5,5 kW - 7.5 Hp      |  |  |
| Туре   | Three-phase electric |  |  |
| Operating voltage/frequency<br>Different voltage / frequency available on request. | 230 V, 60 Hz         |  |  |
| Rated current  | 29,7 A               |  |  |
| Speed (RPM)  | 3.510                |  |  |
| Protection class   | IP55                 |  |  |
|  |                      |  |  |

### HYPERFILTER purification system

| Purification system   |  |  |  |
|---|--|--|--|
| Operating pressure (Standard)   |  |  |  |
| Maximum operating pressure (PS)   |  |  |  |
| Filtered gas volume<br>When using a filter cartridge of the type shown in the figure. |  |  |  |

| Hyperfilter x 2             |
|-----------------------------|
| 250 bar / 330 bar / 360 bar |
| 420 bar                     |
| 3.050 m <sup>3</sup>        |



### **Standard equipments**



Interstage pressure gauges



Double hyperfilter filtration PED



Thermostat



Phase controller



Digital pressure switch



Oil level



Oil pump

### Optional

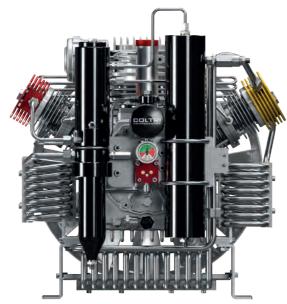
Remote filling panel single pressure with lever valve stainless steel

Remote filling panel double pressure with lever valve stainless steel

SAM Multigas analyzer

CO SafeGuard

## **Pumping unit**





### **Compressor block**

|  | 270 EM                              | 315 ET                             | 345 ET                             |  |  |
|--|-------------------------------------|------------------------------------|------------------------------------|--|--|
| Intake pressure  | Atmospheric max 300 bar             |                                    |                                    |  |  |
| <b>Charging rate</b><br>Measured during 10 liters cylinder filling from 0-200 bar<br>tolerance +/- 5% at + 20 ° C ambient temperature. | 270 l/min<br>16.2 m³/h<br>9.5 cfm   | 315 l/min<br>18.9 m³/h<br>11.1 cfm | 345 l/min<br>20.7 m³/h<br>14.2 cfm |  |  |
| Speed (RPM)  | 1.6                                 | 600                                | 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 15 mm                         |                                    |                                    |  |  |
| Stroke   | 40 mm 50 mm                         |                                    |                                    |  |  |
| Direction of rotation (from flywheel side)   | Clockwise (right)                   |                                    |                                    |  |  |
| Drive type   | V-belt A type                       |                                    |                                    |  |  |
| Intermediate pressure 1st stage  | ~ 6 bar                             |                                    |                                    |  |  |
| Intermediate pressure 2nd stage  | ~ 45 bar                            |                                    |                                    |  |  |
| Amount of oil  |                                     | 1,8 liters                         |                                    |  |  |
| Max intake pressure  | 1,3 bar <sub>a</sub> – 300 millibar |                                    |                                    |  |  |

#### **Fire Department**

### **OPEN** Electric



### **Top Performance**

Equipped with Coltri's most powerful 4-stage pumping group and dual filtration system, the OPEN HD is designed to meets the needs of professionals requiring large filling capacities in hot and poorly ventilated environments. The pumping group is exposed for better ventilation and still operates at 72 dB. Designed with the same cooling and dual filtration system as the TPS machines, this machine also cleans 106,000 cubic feet of breathing air. The compressor comes standard with an intuitive control panel, an auto stop for safety and an auto condensate to drain away harmful moisture. Coltri machines don't rely on splash lubrication, they come standard with an oil pump for lubrication. The power supply is 10 to 20 hp with either a single or three phase electric motor.

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### SILENT

### **Electric**



### Silent Performance

Also equipped with Coltri's most powerful 4-stage pumping group and dual filtration system, the SILENT HD is fully enclosed and operates below 70 dB. Designed with the same cooling and dual filtration system as the TPS machines, this machine also cleans 106,000 cubic feet of breathing air. The compressor comes standard with an intuitive control panel, an auto stop for safety and an auto condensate to drain away harmful moisture. Coltri machines don't rely on splash lubrication, they come standard with an oil pump for lubrication. The power supply is 10 to 20 hp with either a single or three phase electric motor.

### **Technical data**

| Type of gas             | Breathing air EN 12021 - Nitrox 40% max $O_2$ - Helium - Nitrogen |  |
|-------------------------|---|--|
| Intake pressure         | Atmospheric max 300 millibar                                      |  |
| Nominal pressure        | 250 bar / 330 bar / 360 bar                                       |  |
| Filling pressure        | 232 bar / 300 bar / 330 bar                                       |  |
| Max working pressure    | 420 bar   |  |
| Operating voltage       | 400 V, 50 Hz  |  |
| Other operating voltage | 230 V, 50 Hz / 230 V, 60 Hz / 440 V, 60 Hz                        |  |
| Oil change interval     | 1 anno / 1.000 h  |  |

### Compressor

| •  | 400 EM                           | 450 ET                           | 550 ET                           | 650 ET                         | 750 ET                           |
|--|----------------------------------|----------------------------------|----------------------------------|--------------------------------|----------------------------------|
| <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 | 450 l/min<br>27 m³/h<br>15,9 cfm | 550 l/min<br>33 m³/h<br>19,4 cfm | 650 l/min<br>39 m³/h<br>23 cfm | 750 l/min<br>45 m³/h<br>26,5 cfm |
| Purification System  |                                  |                                  | Hyperfilter x 2                  |                                |                                  |
| Cooling air flow   | 4.050                            | ) m³/h                           | 4.82                             | ) m³/h                         | 5.590 m³/h                       |
| Weight <sup>1</sup>  | 356 kg                           | - 784 lb                         | 361 kg - 796 lb                  | 365 kg - 804 lb                | 373 kg - 943 lb                  |
| Dimensions (W x D x H) <sup>1</sup>  |                                  | 90,5 × 102,5                     | × 153,5 cm - 35.6 ×              | 40.4 × 60.5 in                 | 1                                |

1 Standard model. Dimensions may vary depending on accessories.

### **Electric motor**

|  | 400 EM           | 450 ET         | 550 ET         | 650 ET        | 750 ET        |
|--|------------------|----------------|----------------|---------------|---------------|
| Power  | 7,5 kW - 10 hp   | 7,5 kW - 10 hp | 9 kW - 12.5 hp | 11 kW - 15 hp | 15 kW - 20 hp |
| Туре   | Single-phase el. |                | Three-pha      | se electric   |               |
| Operating voltage/frequency<br>Different voltage / frequency available on request. | 230 V, 60 Hz     |                | 400 V,         | , 50 Hz       |               |
| Rated current  | 41,3 A           | 15 A           | 18,8 A         | 23 A          | 31 A          |
| Speed (RPM)  | 3.525            | 2.870          | 2.880          | 2.910         | 2.920         |
| Protection class   |                  |                | IP55           |               |               |

### HYPERFILTER purification system

| Purification system   |
|---|
| Operating pressure (Standard)   |
| Maximum operating pressure (PS)   |
| Filtered gas volume<br>When using a filter cartridge of the type shown in the figure. |

| Hyperfilter x 2             |
|-----------------------------|
| 250 bar / 330 bar / 360 bar |
| 420 bar                     |
| 3.050 m <sup>3</sup>        |



### **Standard equipments**



Interstage pressure gauges



Double hyperfilter filtration PED



Thermostat



Phase controller



Digital pressure switch



Oil level



Oil pump

### Optional

| SAM Multigas analyzer   |
|---|
| Tornado Refrigerator - Dryer  |
| Touch screen  |
| Remote filling panel single pressure with lever valve stainless steel |
| Remote filling panel double pressure with lever valve stainless steel |
| Filling hose  |
| CO SafeGuard  |
| Presec. filter control system   |

## **Pumping unit**





### **Compressor block**

| •  | 400 EM                              | 450 ET                           | 550 ET                           | 650 ET                         | 750 ET                           |  |
|--|-------------------------------------|----------------------------------|----------------------------------|--------------------------------|----------------------------------|--|
| Intake pressure  | Atmospheric max 300 bar             |                                  |                                  |                                |                                  |  |
| <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    | 450 l/min<br>27 m³/h<br>15,9 cfm | 550 l/min<br>33 m³/h<br>19,4 cfm | 650 l/min<br>39 m³/h<br>23 cfm | 750 l/mir<br>45 m³/h<br>26,5 cfm |  |
| Speed (RPM)  | 1.0                                 | 1.050 1                          |                                  | 250                            | 1.420                            |  |
| Number of stages   | 4                                   |                                  |                                  |                                |                                  |  |
| Number of cylinders  | 4                                   |                                  |                                  |                                |                                  |  |
| Cylinder bore 1st stage  | 120 mm 130 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 <sub>a</sub> – 300 millibar |                                  |                                  |                                |                                  |  |
|  |                                     |                                  |                                  |                                |                                  |  |

## CO SAFEGUARD MONITOR



**CO Safeguard** is a fully digital instrument with a visible and audible alarm if carbon monoxide is present over the preset limits. It is based on a state-of-theart carbon monoxide electrochemical sensor with long term stability and virtually calibration-free. It is possible to replace and calibrate the carbon monoxide sensor without any factory assistance. The instrument is able to read 5 ppm (parts per million), in compliance with the NFPA standards.

## SAM (SYSTEM ANALYSIS MULTIGAS)



System Analysis Multigas (SAM) is a measurement instrument connected to a large number of sensors.

The instrument is able to read 5 ppm (parts per million), in compliance with the NFPA standards. Its application includes continuous ambient gas monitoring. Standard configuration include:

- Oxygen
- Carbon Dioxide
- Carbon Monoxide
- Humidity

## NFPA FILL ENCLOSURE



**NFPA Fill Enclosure** are distinguished by the number of cylinders they contain, net weight and accessories supplied. All models are equipped with fill hose and fittings for charging, cylinder housing and pressure gauge.

### **Technical data**

|                        | ARMOR SSX2            | ARMOR SSX3 | ARMOR SSX4 |  |  |
|------------------------|-----------------------|------------|------------|--|--|
| Dimensions (W x D x H) | 36,8 × 51,3 × 68,3 in |            |            |  |  |
| Weight (net)           | 983 lbs               |            |            |  |  |

Bulk or Cascade controls with SCBA Regulator & Fill Valve

"Graphic Technology" Control Panels Group Components Logically by Function and Air Flow Direction.

UL® Certified Two SCBA Containment Design Fill Station, Subjected to Un-Announced Periodic Inspections and Meet NFPA 1901 2016 Edition Rupture Containment Requirements.

Performance-Proven "AirLock" Access Door Design and Balanced Cylinder Fill Enclosure Forward Tilt Rotation Enhances Operator Comfort.



Integrated System is Designed for Against-the-Wall Installation and Accommodates up to Four (4) Air Storage Cylinders at the Rear of Unit.

Unique, Tilt-foward Fill Station Control Panel for Unfettered Maintenance

Scratch Resistant, Powder Coated, Seamless Appliance Cabinet

## MARK III SILENT TPS SYSTEM

#### **Breathing Air System**

The system includes the compressor, CO monitor, an NFPA two position fill enclosure, control panel and four ISO 6000 PSI cascade bottles.

#### Compressor

The Mark III Silent TPS cabinet represents excellence in soundproofing at only 72 dB, an easy-to-use control panel and an electrical switchboard UL 508A compliant.

On/Off button
Emergency shut-off
Dual Hyperfiltration

Digital display:

- Operating hours
- Filling pressure
- Oil pressure Alert
- High heat shut-off
- Condensate
- Operating Hours (tamper resistant)

The heart of the machine is Coltri's is the GP 315 TPS, 3-stage compressor, intercoolers, and oil pump with an auto-stop and auto-condensate feature and filling capacities of up to 13.4 cfm at 6000 psi.

### **Armour SSX2 Fill Containment**



- 2-Cylinder Position with Air Lock door
- Isolated Storage Bank or One Circuit
- Fill regulator
- NFPA 1901 Certification
- 4 ISO 6000 PSI cascade bottles

### **CO SafeGuard Monitor**



**CO SafeGuard** is a fully digital instrument with a visible and audible alarm if carbon monoxide is present over the preset limits. It is based on a state-of-theart carbon monoxide electrochemical sensor with long term stability and virtually calibration-free. It is possible to replace and calibrate the carbon monoxide sensor without any factory assistance. The instrument is able to read 5 ppm (parts per million), in compliance with the NFPA standards.



COLTR

## SUPER SILENT TPS SYSTEM

#### **Breathing Air System**

The system includes the compressor, CO monitor, an NFPA two position fill enclosure, control panel and four ISO 6000 PSI cascade bottles.

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Dual Hyperfiltration

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### OPEN SYSTEM

### **Breathing Air System**

The system includes the compressor, multigas CO monitor, an NFPA two position fill enclosure, control panel and four 6000 PSI cascade bottles.

#### Compressor

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On/Off button
Emergency shut-off
Dual Hyperfiltration

Digital display:

- Operating hours
- Filling pressure
- Oil pressure Alert
- High heat shut-off
- Condensate
- Operating Hours (tamper resistant)

The heart of the machine is Coltri's most powerful GP 650, 4-stage compressor, intercoolers, and oil pump with an auto-stop and auto-condensate feature for intensive use and large filling capacities up to of 27 cfm at 6000 psi.

### SAM System Analysis System Monitor

SAM Multigas is based on a state-of-the-art of

**SAM Multigas** is based on a state-of-the-art carbon monoxide electrochemical sensor. It is a fully digital measurement instrument with visible and audible alarms if carbon monoxide, carbon dioxide or moisture are present over the pre-set ppm limit and will shut down the machine.

**Armour SSX2 Fill Containment** 

- 2-Cylinder Position with Air Lock door
- Isolated Storage Bank or One Circuit
- Fill regulator
- NFPA 1901 Certification
- 4 ISO 6000 PSI cascade bottles



#### Fire USA Catalogue

### SILENT SYSTEM

#### **Breathing Air System**

The system includes the compressor, multigas CO monitor, an NFPA two position fill enclosure, control panel and four 6000 PSI cascade bottles.

#### Compressor

The SILENTHD cabinet represents excellence in soundproofing operating at below 70 dB and an easy-to-use control panel, an electrical switchboard UL 508A compliant.

On/Off button
Emergency shut-off
Dual Hyperfiltration

Digital display:

- Operating hours
- Filling pressure
- Oil pressure Alert
- High heat shut-off
- Condensate
- Operating Hours (tamper resistant)

The heart of the machine is Coltri's most powerful GP 650, 4-stage compressor, intercoolers, and oil pump with an autostop and auto-condensate feature for intensive use and large filling capacities up to of 27 cfm at 6000 psi.



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### **Application fields**



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