

PRIME LINE

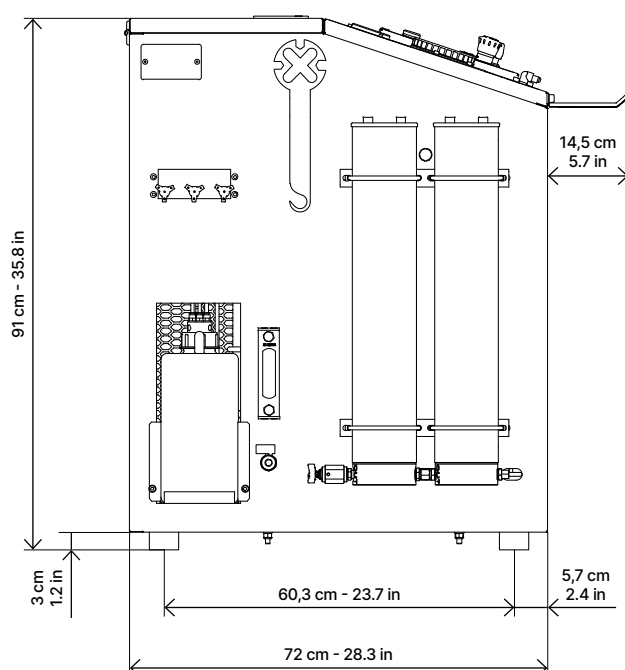
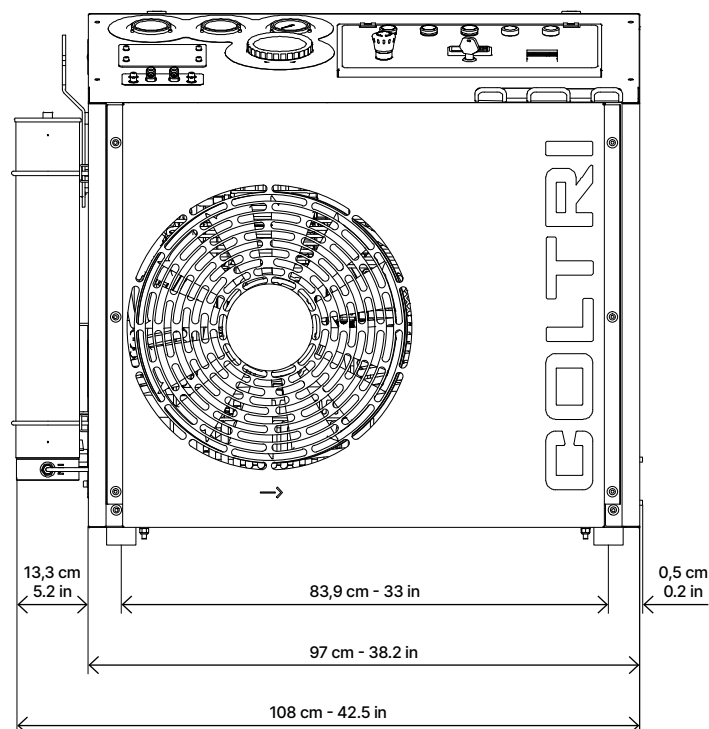
MARK III SILENT TPS



Contact

No compromise

The **MARK III SILENT TPS** range is ideal for intensive use in hot, poorly ventilated environments or in tropical countries. Designed with an improved cooling system and a filtering system with two Hyperfilters, these compressors are powered by an electric motor and equipped with four different pumping units, all in TPS (Tropical Plus Superdry) version. They are available with function monitoring systems and electrical panel for automatic compressor shutdown.



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	232 bar (Single-phase electric) / 420 bar (Three-phase electric)
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 year / 1.000 h
Frame	Steel - Colour Black RAL 9005 - Powder coating painting - Scratch proof

Compressor

	210 EM	235 ET	270 EM	315 ET	345 ET
Charging rate Measured during 10 liters cylinder filling from 0-200 bar tolerance +/- 5% at + 20 ° C ambient temperature.	210 l/min 12.6 m³/h 7.4 cfm	235 l/min 14.1 m³/h 8.3 cfm	270 l/min 12.6 m³/h 7.4 cfm	315 l/min 18.9 m³/h 11.1 cfm	345 l/min 20.7 m³/h 12.2 cfm
Purification System	Hyperfilter x 2				
Cooling air flow	1.240 m³/h	1.960 m³/h	2.400 m³/h		1.960 m³/h
Weight¹	181 kg - 299 lb		191 kg - 421 lb		
Dimensions (W x D x H)¹	112 × 73 × 91 cm - 44.1 × 28.7 × 35.8 in				

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

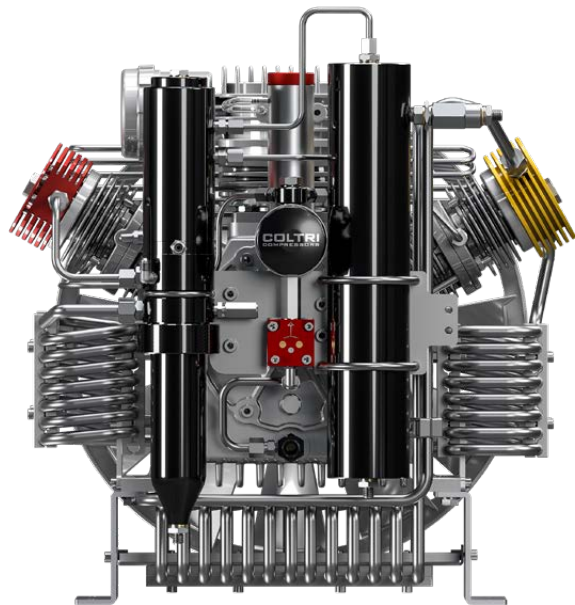
Electric motor

	210 EM	235 ET	270 EM	315 ET	345 ET
Type	Single-phase electric	Three-phase electric	Single-phase electric	Three-phase electric	
Power	4 kW - 5.5 Hp	4 kW - 5.5 Hp	5,5 kW - 7.5 Hp	5,5 kW - 7.5 Hp	7,5 kW - 10 Hp
Operating voltage/frequency Different voltage / frequency available on request.	230 V, 60 Hz	400 V, 50 Hz 440 V, 60 Hz	230 V, 60 Hz	400 V, 50 Hz 440 V, 60 Hz	400 V, 50 Hz 440 V, 60 Hz
Rated current	25,2 A	9,7 A	29,7 A	12,6 A	16,8 A
Speed (RPM)	2.800	2.840 3.410	3.510	2.850 3.420	2.850 3.420
Protection class	IP55				

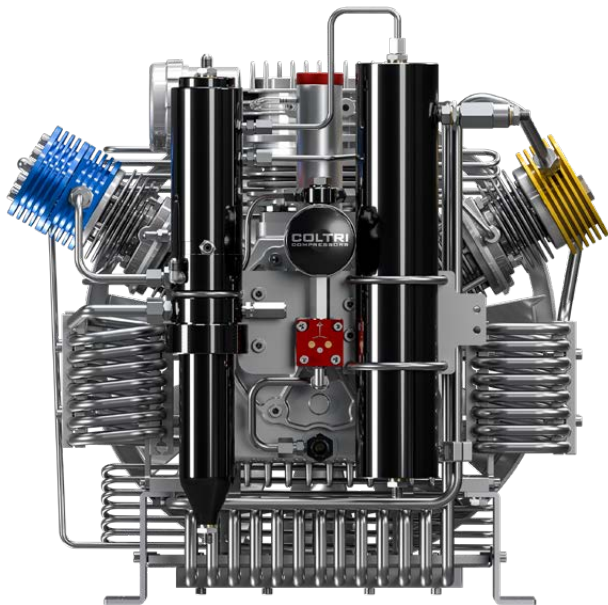
The IP55 protection class, compliant with IEC 60034-5, guarantees protection against dust deposits and water jets from any direction.

Technical data pumping unit MCH 16/21 TPS

	210 EM	235 ET	270 EM	315 ET	345 ET
Charging rate Measured during 10 liters cylinder filling from 0-200 bar tolerance +/- 5% at + 20 ° C ambient temperature.	210 l/min 12.6 m³/h 7.4 cfm	235 l/min 14.1 m³/h 8.3 cfm	270 l/min 12.6 m³/h 7.4 cfm	315 l/min 18.9 m³/h 11.1 cfm	345 l/min 20.7 m³/h 12.2 cfm
Speed (RPM)	1.040	1.270	1.400	1.600	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)	Counter clockwise (left)				
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 (absolute) / 300 millibar - 4,35 psi				



MCH 16 TPS



MCH 21 TPS



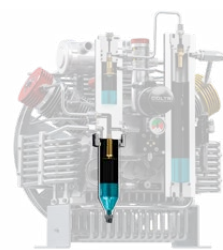
Forced lubrication with low pressure gear pump



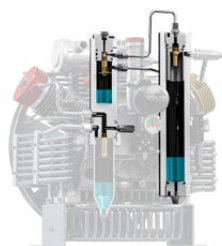
Suction filter: 10 µm



Pipes, fitting and nuts in stainless steel AISI 316



Intermediate condensate separator after the second stage



High pressure final condensate separator double effect



Safety valves after each stage of compression



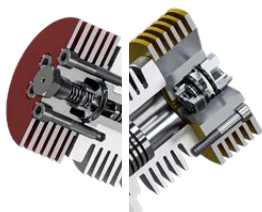
Die-cast aluminium cylinders with barrel coating in nicasil



Forged aluminum connecting rods



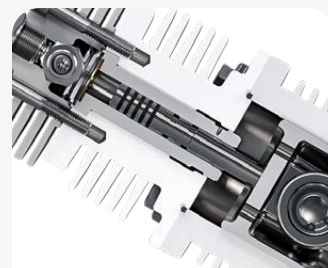
Forged steel crankshaft



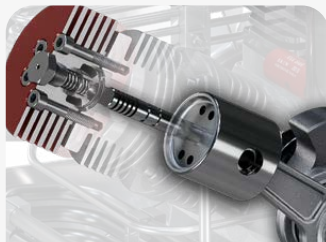
Stainless steel second and third stage valves



Roller Bearings for intensive work 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

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) ¹	3.050 m ³

¹ 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 ₂ O	25 mg/m	≤ 10 mg/m
CO	5 ppm(v)	≤ 4
CO ₂	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 CO₂ in the intake air must not exceed the maximum level of CO₂ 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



Filling connection

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



Electronic pressure switch



Interstage pressure gauges



Compressor control and automatic condensate drain system



Filling hose



Soundproof frame

Optional



Presec. Filter control system



C-Monitor

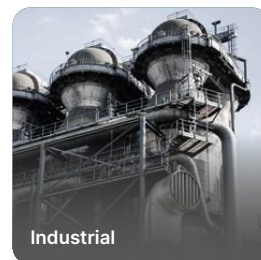
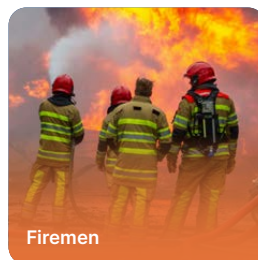
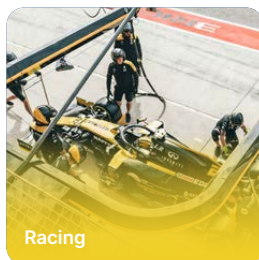
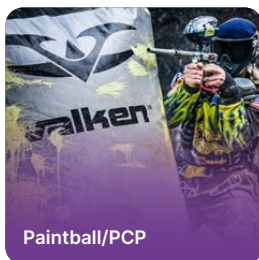
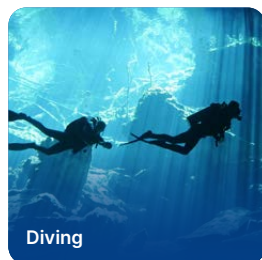


Multi-Gas Analysis System (SAM)



CO SafeGuard

Application fields



Aerotecnica Coltri S.p.A.

Via dei Colli Storici, 177
25015 Desenzano del Garda - Brescia - Italy

Tel. +39 030 9910301
+39 030 9910297

info@coltri.com



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