

# **SPECIFICATION**

## **PORTABLE SCBA BREATHING AIR FILLING STATION COMPRESSOR**

### **1. SCOPE**

This specification defines the minimum requirements for a purpose-designed, Mobile High Pressure Compressor Unit for Compressing Air and Breathing Air as defined in SANS 10019:19 and EN12021. This specification highlights the minimum statutory requirements for this purpose designed compressor which is to be used in diving, firefighting, and confined space rescue.

14	High pressure compressor 200/300 bar switch over device hour counter electric drive; oil/water separators after 2nd and 3rd stage; safety valves after each stage; din filling adaptors with 2meter high pressure hoses; breathing air purification in accordance to EN12021 and SANS 10019:2021.
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### **2. STANDARDS / CERTIFICATION**

The manufacturer must certify that the product proposed in its bid meet or exceed all requirements of SANS 10019:2021(EN12021). All the required documents must be included on delivery.

A current Certificate of Compliance from a recognised third-party testing laboratory shall be supplied with tender bid to fulfil this requirement. The options listed below are in terms of preference.

### **3 OPTION 1**

The MARINER 320 Compressors

The MARINER Series was designed for high charging rates in mobile applications and is ideal for both private and commercial filling station operations.

The MARINER is supplied with a corrosion-resistant crash frame for integrating system accessories.

The MARINER 320 model and upwards also include the innovative P 31 Purification System.

The sophisticated purification technology of the Purification System reliably prevents users from inhaling air impurities and provides effective protection from icing up.

Professional quality, tailored to every application: delivering charging rates of 320 l/min, the MARINER 320 is among the world's most powerful compressors! Its ultra-rugged compressor block and corrosion-resistant components make it ideal for use in even the most challenging climates.

### **Technical data**

200 – 320 l/min  
225 - 330 bar (MARINER 320)  
Diesel engine  
8.8KW  
138KG  
130L x 65W x 70H (CM)

#### **4. OPTION 2**

TPS breathable air compressors

Compactness, performance, robustness, and transportability are the main features of the TPS breathable air compressors. Equipped with four different pumping units (MCH 23), all in TPS (Tropical Plus Superdry) version and powered by three-phase electric motors or diesel. The compressors have a monitoring system panel including pressure gauges, autostop with adjustable pressure switch, automatic condensate drain and a phase control for rotation direction. The models of this series have two connections for high pressure hoses (from 232 to 330 bar) and an improved filtering system with two Hyperfilters.

### **Technical data**

MCH 23 DIESEL  
Recharging capacity-320 l/m - 19,20 m<sup>3</sup>/h - 11.30 CFM FAD

MCH 23 DIESEL  
Recharging time to full- 6 min. 15 sec.

Operating pressure  
232 - 300 - 330 bar

Net weight  
MCH 23 DIESEL  
164 kg - 362 Lbs

Noise level  
MCH 23 DIESEL  
95,6 db.

#### **5. OPTION 3**

### **400 B MC Series breathable air compressors**

The new MC Series has been created for dive centres, ships, boats and places with limited space. These are suitable for continuous operation and guarantee low maintenance costs due to long service intervals. Comes ready to start. A super lightweight aluminium frame enables mobile applications, combined with very high filling capacity.

### **Technical data**

400 B MC  
Type: Air cooled piston compressor

Capacity [litre/min] / [Nm<sup>3</sup>/h] / [cfm]: 400 / 24 / 14  
 Max. Pressure [bar]: 350  
 RPM [1/min]: 1700  
 No of cylinders / No of stages: 3 / 3  
 Prime mover type: Vanguard - 4 stroke drive motor  
 Drive power [kW]: 13.4  
 Cooling air requirement [m<sup>3</sup>/h]: 4020  
 Lubrication type: Oil pump + Splash oil  
 Oil capacity [litre]: approx. 1.8  
 Oil pressure [bar]: 2.5  
 Operating temperature [°C]: +5° C to +45° C  
 Filter capacity [m<sup>3</sup> at +20°C] 1): 750 m<sup>3</sup> @+20° C  
 Dimensions W x D x H [mm]: 1410 x 410 x 826  
 Weight [kg]: 171  
 Noise level (measured at 1 m) [dB(A)]: 95  
 1) In accordance with EN 12021

## 6 SPECIFICATIONS:

- » 4 stroke drive motor.
- » Powder coated lightweight aluminium frame in RAL 9006
- » Hour counter
- » Automatic condensate drain incl. collecting tank.
- » 2 x high pressure filling hose c/w filling valve 2 m – 6.5 ft length
- » Pressure maintaining and non-return valve.
- Operating pressure: 232 – 330 bar
- » All pistons c/w steel piston rings
- » Low pressure oil pump
- » Oil filter with bypass
- » Oil- / Water separators after 2nd and 3rd stage.
- » Safety valves after each stage
- » 3 x concentric suction/pressure valves
- » Filling pressure to your choice (200 or 300 bar)
- » Connections to your choice  
(DIN 200 bar or 300 bar, CGA 200 bar or 300 bar and INT)
- » Switch Over Device 200 / 300bar
- » Breathing air purification in accordance to EN 12021
- » 1.7 l filter system (Filter capacity 750 m<sup>3</sup> at +20°C)
- » Automatic stop at final pressure
- » Oil– and interstage pressure gauges
- » Oil pressure monitoring c/w auto shut down.
- » Wheel set
- » Air Cooler Connection Kit
- » Puracon filter monitoring or Double Hyperfilter Filter System (PED certified)

## 7. LABELING REQUIREMENTS

Labels shall be permanently and integrally printed on materials that meet all the requirements for labels of EN 12021. The element shall be clearly labelled to fully identify the material content.

The labelling on each element shall contain manufacturing information, which shall include, at a minimum, a lot number, manufacturing date, model number, country of origin & manufacturer.

## 7. PICTOGRAPH OF THE OPTIONS.



TPS breathable air compressors (Option 2)



. Mariner 320 (Option 1)



400 B MC: Compressors (Option 3)

This specification is intended to give the minimum requirements for suppliers to comply with in relation to the legal requirements but not lesser than this specification.