



C4-Z1004R211CE

Mixing unit for the production of gas mixtures with C4-FN

The mixing unit has been specially developed for the handling of gas mixtures based on C4-FN and their specific requirements. A total of four gas components can be mixed. The gas mixture is circulated by the compressor to generate a homogenous mixture. Using the integrated compressor, the generated gas mixture can be filled directly into gas compartments up to 20 bar. For this purpose, the mixing unit is equipped with a low pressure outlet DN20 (M48x2).

The gas mixture is filled into cylinders with up to 93 bar via the high-pressure outlet.

The mixing unit can also be used to recover gaseous mixtures up to max. 24 bar from a gas compartment or storage vessel. The gas compartment or storage vessel connected to the suction side can be recovered down to 1 mbar.

Modern control technology in conjunction with a user-friendly interface in several languages make device operation simple and convenient. Operation via mobile devices such as smartphones, tablets or laptops is available as an option. The external cover of the machine protects the integrated components. This machine offers fully automated operation via a 10" touch screen. For data exchange different interfaces are available. Thanks to the automated special functions the machine can be easily maintained without emissions.

If necessary, e.g. when changing the mixing ratio, the mixing vessel can be recovered down to a final vacuum of 1 mbar. With this machine the insulating fluids C4-FN can be completely fed into the mixing process and no gas loss occurs (cylinder pressure 50 mbar).

Detailed description available on request

Adjustable gas components (standard limits):

- C4-FN (0-15 %)
- Carbon dioxide CO₂ (0-100 %)
- Oxygen O₂ (0-15 %)
- Nitrogen N₂ (0-100 %)



The actual product may differ slightly from the image.

Standard version

- oilfree B280R80 compressor (5.7 m³/h [at 50 Hz]; 6.8 m³/h [at 60 Hz]) 100 bar
- vacuum compressor 3.3 m³/h (at 50 Hz) and 3.9 m³/h (at 60 Hz), final vacuum 3 mbar
- oilfree suction pump (15 m³/h [at 50 Hz]; 18 m³/h [at 60 Hz]), final vacuum 1 mbar
- particle filter 1 µm
- operation and indication of important process parameters via 10" touch screen
- indication units in bar / mbar, kPa or psi / torr to be selected on the touch screen
- fork lift slots
- fixing and steerable rollers
- connecting hoses for all gas mixtures with pressure reducer
 - C4-FN: with ball valve DN8 (connection 1.030-14NGO-RH-EXT)
 - Oxygen (O₂): with pressure reducer (connection DIN477 no. 9 - G3/4")
 - Carbon dioxide (CO₂): with pressure reducer (connection DIN477 Nr. 6 - W21.8 x1/14")
 - Nitrogen (N₂): with pressure reducer (connection W24.32x1/14")
- space for placing C4-FN cylinder with cylinder scales
- space for placing N₂, O₂, CO₂ cylinder
- mixing vessel 100 l/ 16 bar
- digital weighing scales for mixing vessel, accuracy ± 0.02 % i. e. ± 2 g gas proportion per mixing cycle
- wrenches for DILO couplings and filters
- paint: anthracite-green

Special features

- Gas type: C4-FN
- Gas recovery: < 1 mbar
- Filling of gas: 0 - 20 bar
- Maximum storage pressure: 93 bar
- Operation: automatic
- DILO couplings: DN8/DN20

Advantages & functions

- integrated special functions for easy maintenance and safe transport
- all versions are available with pressure vessels (integratable features) with CE marking or optionally with SQL or ASME approval

Technical data

Dimensions (W x H x D)	1,000 x 2,000 x 1,800 mm
Weight	930 kg
Operating voltage	208 - 240 V / 380 - 440 V other voltage ranges on request
Frequency	50 / 60 Hz
Ambient temperature	0 to +40 °C (0 to 15 °C dependant on mixing ratio)
Operating temperature	0 to +40 °C indoor use (in the range of 0 to 15 °C dependant on desired mixing ratio)
Storage temperature	-10 to +50 °C (non-condensing humidity)
Protection class	IP54
Sound level	< 80 dB

Optional accessories

C4-6-1024-R050 C	Wire-braided hose, 5 m long, coupling tongue part DN20 (C4-VK/F-02/20 C , M48x2) on both ends, PN 40 bar
C4-6-1069-R050 C	5 m long wire braided hose DN20 with protective metal sheathing with coupling tongue part on both ends DN20 (M48x2) - C4-FN
K091R67	Electronic bottle scales (Comfort)
C4-6-1402-R020	Storage tank connection hose with 2m metal bellows hose with safety cable first side DN8 coupling M28x1.5 second side ball valve DN8 with handwheel and cylinder connection W21.8x1/14" PN150
6-1053-R003/1M	Electrical connecting cable 5x6 AWG9 (available lengths 5 - 30 m)
6-1053-R004/1M	Electrical connecting cable 5x16 AWG5 (available lengths 5 - 30 m)

Note

For the 380 - 480 V voltage range the following cable is required: 6-1053-R003

For the 200 - 240 V voltage range the following cable is required: 6-1053-R004