

Portable vacuum pump For preparing the filling of SF₆ gas compartments Model GVP-10

Applications

Evacuation of air or nitrogen for preparing the filling of SF₆ gas compartments

Special features

- Suction capacity up to 10 m³/h
- Final pressure ≤ 0.02 mbar abs. achievable
- Low weight and compact design
- Built-in oil back flow prevention and oil mist return
- Precision vacuum measuring instrument (optional)



Portable vacuum pump, model GVP-10

Description

Portable service equipment series

The model GVP-10 vacuum pump is a module of the portable service equipment series.

Modules of the instrument series:

- Portable vacuum pump, model GVP-10
- Portable SF₆ filter unit, model GPF-10
- Portable SF₆ vacuum compressor, model GVC-10
- Portable SF₆ transfer unit, model GTU-10
- Portable SF₆ gas cylinder scale, model GWS-10

High suction capacity

The GVP-10 is used to prepare the filling of SF₆ gas compartments. A low final pressure following evacuation guarantees low percentages of humidity and air in the SF₆ gas compartment. This creates ideal conditions for a long-term high-quality SF₆ filling. Thus the operational safety of the plants is ensured.

High-quality pump

The GVP-10 operates on the oil-lubricated rotary vane principle. During pump standstill, a non-return valve prevents oil from the pump from entering the SF₆ gas compartment. The oil mist occurring during long-time operation condenses at the outlet and is led back into the pump.

User-friendly

The product design combines easy operation with high suction capacity. The GVP-10 is a lightweight and can be transported and stored in a space-saving manner.

The vacuum pump can be securely separated from the gas compartment by means of the fitted ball cock. For determining the residual pressure, a digital precision vacuum measuring instrument can be used (see accessories). The inlet is designed with an DN 8 valve for the connection of hoses.

Specifications

Principle of operation

Rotary vane pump

Suction capacity

9.0 m³/h (5.3 cfm) (50 Hz)
10.8 m³/h (6.4 cfm) (60 Hz)

Inlet pressure

≤ atmospheric pressure

Final pressure at inlet

≤ 2 x 10⁻² mbar abs. (15 microns)
At 20 °C (68 °F) and gas ballast valve closed.

Connections

1 inlet with self-sealing DN 8 valve

Filling capacity oil

0.5 litres

Motor specifications

Power: 0.37 kW
Speed: 2,800 rpm (50 Hz), 3,300 rpm (60 Hz)

Power supply

Selectable versions	
Standard	AC 230 V, 50/60 Hz, ±10 %
Option	AC 115 V, 60 Hz, ±10 %

Permissible ambient temperature

Storage: 0 ... 70 °C (32 ... 158 °F)
Operation: 5 ... 40 °C (41 ... 104 °F)

Permissible humidity

≤ 90 % r. h. (non-condensing)

Ingress protection

IP 20 (per EN 60529)

Dimensions

L x W x H: 360 x 220 x 415 mm / 14.2 x 8.7 x 16.4"

Weight

approx. 13 kg (28.7 lb)

CE conformity

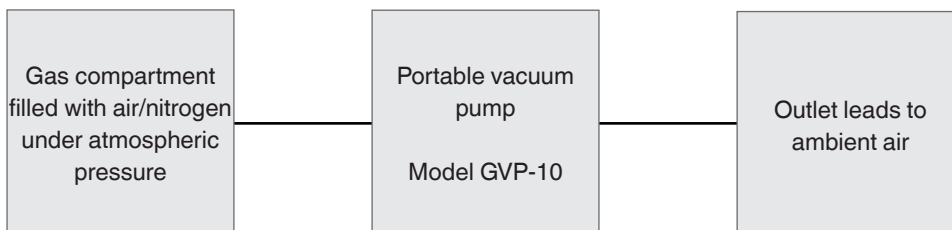
EMC directive

2004/108/EC, EN 61326 emission (group 1, class B) and interference immunity (industrial application)

Machinery directive

2006/42/EC

Schematic system structure



Accessories

Designation	Order no.
Digital precision vacuum measuring instrument	14117031
Measuring range: 0 ... 24 mbar	
Selectable units: mbar, Pascal, Mikron, Torr, mTorr, psi, inHg	
Connecting hose with self-closing valves, DN 8	
Stainless steel, length 3 m (9.8 ft)	14064922
Stainless steel, length 6 m (19.7 ft)	14064923
Stainless steel, length 12 m (39.4 ft)	14064924
Rubber, length 3 m (9.8 ft)	14064928
Rubber, length 6 m (19.7 ft)	14064929
Rubber, length 12 m (39.4 ft)	14064931
Connections to SF₆ gas compartments	
DN 6 / DN 8	on request
DN 7 / DN 8	on request
DN 12 / DN 8	on request
Stainless steel, DN 20 / DN 8	14067160
Stäubli® / DN 8	on request
Magrini® / DN 8	on request
Asea® / DN 8	on request
Malmkvist® / DN 8	on request
Siemens® / DN 8	on request
Consumables	
Vacuum oil, 0.5 L	14116914
Oil drain screw with sealing ring	14115220
Gas ballast valve	14115225
Sealing set	14115229
Pump mechanism (complete)	14115227