

# SF<sub>6</sub> handling equipment

## For filling, cleaning and recovery of SF<sub>6</sub> gas

### Models GPU-B-2000 and GPU-B-3000

WIKA data sheet SP 63.15

#### Applications

Filling, cleaning, recovery, evacuation and venting of SF<sub>6</sub> gas-filled switchgear/equipment and linear accelerators.

#### Special features

- Oil-less compressor and vacuum compressor
- Option for on-site gas filtration to the desired humidity
- Digital filling control to prevent gas cylinders from freezing.
- Low maintenance effort
- Highest filling accuracy



GPU-B-2000 with 300-litre tank

#### Description

##### The right instrument for each application – the GPU platform

The handling equipment of the GPU platform enable the complete process from initial filling to treatment to be carried out safely and intuitively.

##### High standards and quality – model series B

Like the entire model series, the fully automated basic model offers high-performance components and an optimum gas flow. The products have a USB port and an Ethernet port for remote maintenance. The 10" IntelliTouch touchscreen promises a comfortable and intuitive handling.

All models of the GPU platform are available with a filter process that allows the SF<sub>6</sub> gas to be brought to a lower humidity value directly on-site. Optionally, the GPU can be equipped with a model GDHT-20 transmitter for gas humidity, which enables filtering to a target humidity value.

The SF<sub>6</sub> handling equipment is an efficient and reliable solution that exceeds the current IEC standards for handling SF<sub>6</sub> gas. Low downtimes through long maintenance intervals of more than 2,000 hours or two years make them an extremely durable product that is always ready for use. Intuitive service processes enable, for example, quick and easy replacement of filter elements, pressure reduction to transport pressure or pressure relief of the high-pressure connections.

# Specifications

Basic information		
<b>Models</b>		
GPU-B-2000	SF <sub>6</sub> handling equipment in fully automated basic version	
GPU-S-2000	SF <sub>6</sub> handling equipment with additional SIL 2 safety control	
GPU-B-3000	SF <sub>6</sub> handling equipment at the highest performance level	
GPU-S-3000	SF <sub>6</sub> handling equipment with additional SIL 2 safety control and the highest performance level	
<b>Digital display</b>		
Type of display	10" colour LCD touchscreen	
<b>Connections</b>		
Gas-insulated switchgear (GIS)	1 x valve DN 20	Pressure range: 0 ... 10 bar abs. [0 ... 145 psi abs.]
Gas cylinder	2 x valve DN 20	Pressure range: 0 ... 50 bar abs. [0 ... 725 psi abs.]
Atmosphere	1 x valve DN 20	Pressure range: 0 ... 1.2 bar abs. [0 ... 17 psi abs.]
<b>Operating voltage</b>	<ul style="list-style-type: none"> <li>■ AC 400 V, 3-phase, 50/60 Hz ±10 %</li> <li>■ AC 240 V, 3-phase, 50/60 Hz ±10 %</li> <li>■ AC 208 V, 3-phase, 50/60 Hz ±10 %</li> </ul>	
<b>Filter element</b>	<ul style="list-style-type: none"> <li>■ Molecular sieve</li> <li>■ Aluminium oxide</li> <li>■ Particle filter: 1 µm</li> <li>■ Max. water absorption: 75 g [2.65 oz] or 2 x 75 g [2.65 oz]</li> </ul>	
<b>Integrated tank, storage capacity</b>	<ul style="list-style-type: none"> <li>■ Without tank</li> <li>■ 300 litres</li> <li>■ 600 litres</li> <li>■ Stowage for 6 gas cylinders</li> <li>■ Stowage for 10 gas cylinders</li> </ul>	
<b>Integrated gas cylinder scales</b>	Without scales	-
	Without scales with pull-out, fixed to the GPU	Measuring range 0 ... 120 kg [0 ... 264.56 lb] Accuracy: ±50 g [±1.76 oz]
	Mobile scales	Measuring range 0 ... 136 kg [0 ... 299.83 lb] Accuracy: ±68 g [±2.4 oz]
<b>Extension of function</b>	<ul style="list-style-type: none"> <li>■ Humidity sensor to measure the humidity content and filtering to a target humidity value</li> <li>■ Additional process connection for the simultaneous evacuation of air from gas compartments.</li> <li>■ Evaporator</li> </ul>	
<b>Tyres</b>	<ul style="list-style-type: none"> <li>■ Solid rubber, Ø 200 mm [7.874 in], with rollover protection</li> <li>■ Chassis with solig rubber wheels, 406 x 103 mm [15.98 x 4.05 in]</li> </ul>	
<b>Ingress protection</b>	IP42	
<b>Weight</b>		
Without tank	Approx. 800 kg [1,764 lb]	
Without tank and wheels	Approx. 800 kg [1,764 lb]	
With empty 300-litre tank	Approx. 1,250 kg [2,756 lb]	
With empty 600-litre tank	Approx. 1,300 kg [2,867 lb]	
With empty stowage for 6 gas cylinders	Approx. 1,050 kg [2,315 lb]	
With empty stowage for 10 gas cylinders	Approx. 1,175 kg [2,591 lb]	

Operating conditions	
Operating temperature	0 ... 40 °C [32 ... 104 °F]
Storage temperature range	-20 ... +60 °C [-4 ... +140 °F]
Humidity	< 95 % relative humidity (non-condensing)


Oil-less compressor (SF <sub>6</sub> gas)	
Output pressure	Gas flow rate
50 bar abs.	■ 6 m <sup>3</sup> /h at 50 Hz
	■ 7.3 m <sup>3</sup> /h at 60 Hz
	■ 10.2 m <sup>3</sup> /h at 50 Hz
	■ 12.3 m <sup>3</sup> /h at 60 Hz
	■ 15 m <sup>3</sup> /h at 50 Hz
	■ 18.5 m <sup>3</sup> /h at 60 Hz

Oil-less vacuum compressor (SF <sub>6</sub> gas)	
Final vacuum	Gas flow rate
< 5 mbar abs.	■ 4.8 m <sup>3</sup> /h at 50 Hz
	■ 5.8 m <sup>3</sup> /h at 60 Hz
< 1 mbar abs.	10 m <sup>3</sup> /h at 50/60 Hz
	■ 18 m <sup>3</sup> /h at 50 Hz
	■ 21 m <sup>3</sup> /h at 60 Hz
	■ 35 m <sup>3</sup> /h at 50 Hz
	■ 43 m <sup>3</sup> /h at 60 Hz

Vacuum pump (air) <sup>1)</sup>	
Final vacuum	Gas flow rate
< 0.1 mbar abs.	■ 40 m <sup>3</sup> /h at 50 Hz
	■ 48 m <sup>3</sup> /h at 60 Hz
	■ 63 m <sup>3</sup> /h at 50 Hz
	■ 76 m <sup>3</sup> /h at 60 Hz
	■ 100 m <sup>3</sup> /h at 50 Hz
	■ 120 m <sup>3</sup> /h at 60 Hz

1) Oil-less on request

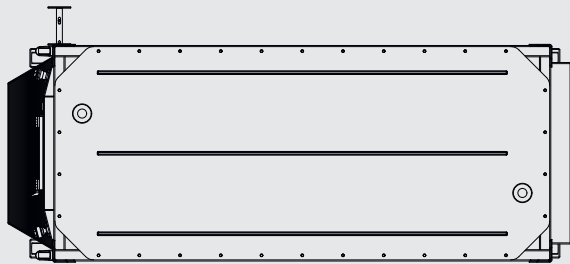
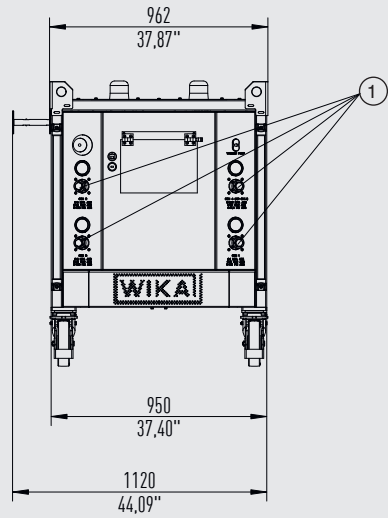
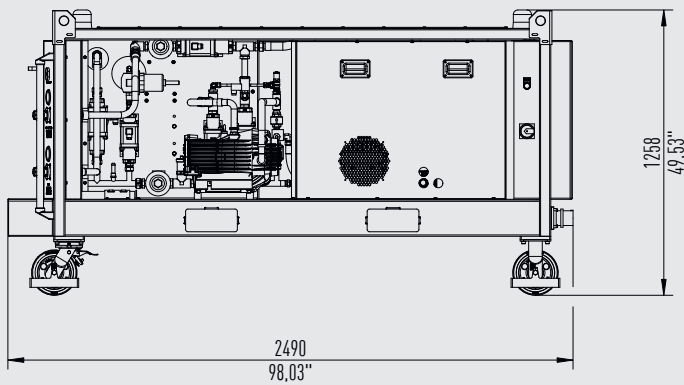
## Approvals

Logo	Description	Country
	<b>EU declaration of conformity</b>	European Union
	EMC Directive	
	Machinery Directive	
	RoHS directive	

→ For approvals and certificates, see website

# Dimensions in mm [in]

## Version without tank

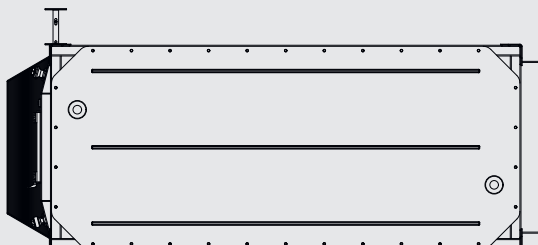
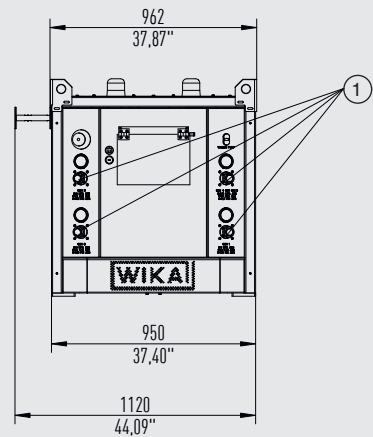
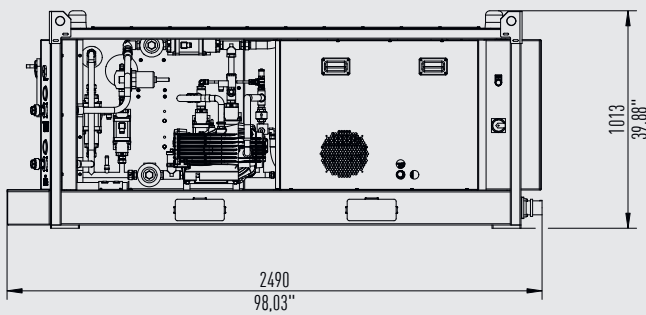


① Connection DN 20

Tare weight: approx. 800 kg [1,764 lb]

14658361.00

## Version without tank and wheels

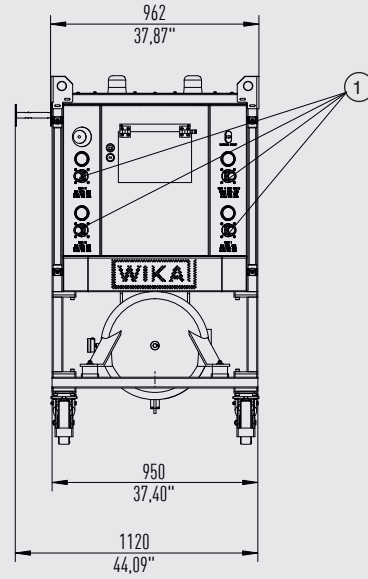
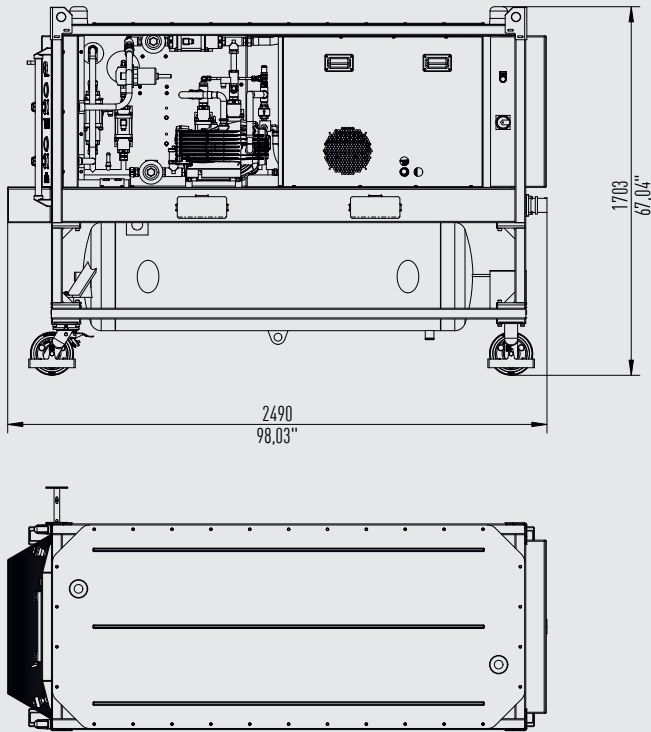


① Connection DN 20

Tare weight: approx. 800 kg [1,764 lb]

14658536.00

Version with 300-litre tank

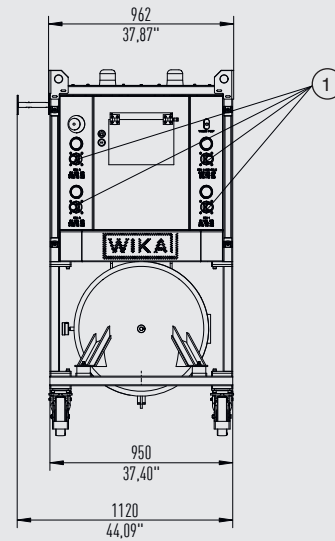
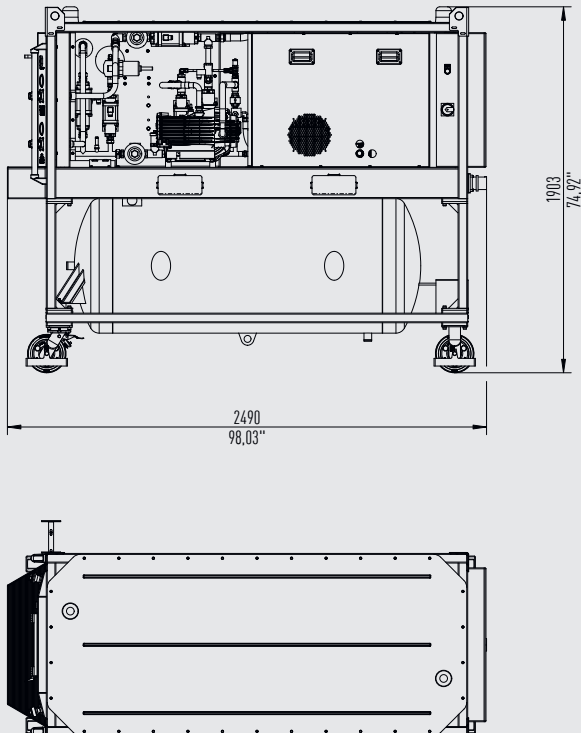


① Connection DN 20

Tare weight: approx. 1,250 kg [2,756 lb]

14658250.00

Version with 600-litre tank

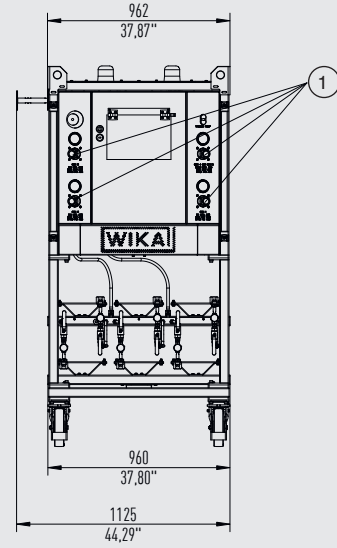
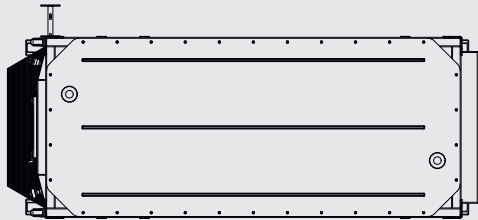
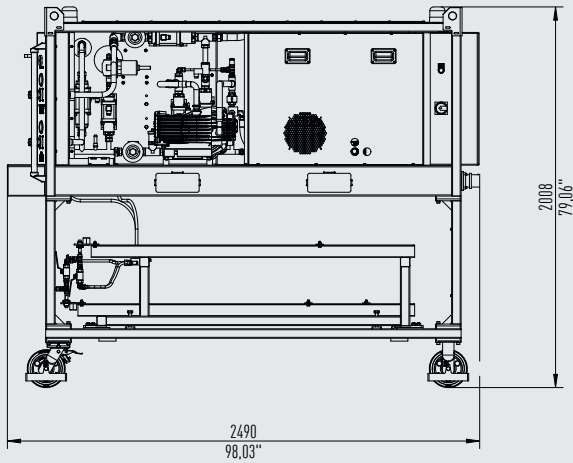


① Connection DN 20

Tare weight: approx. 1,300 kg [2,867 lb]

14658331.00

Version with storage for 6 gas cylinders

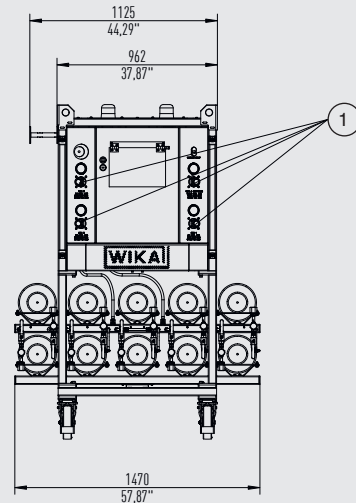
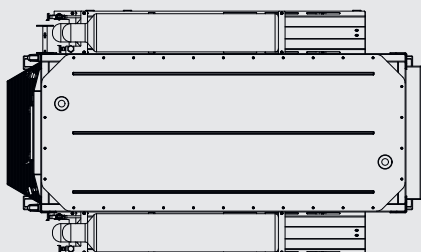
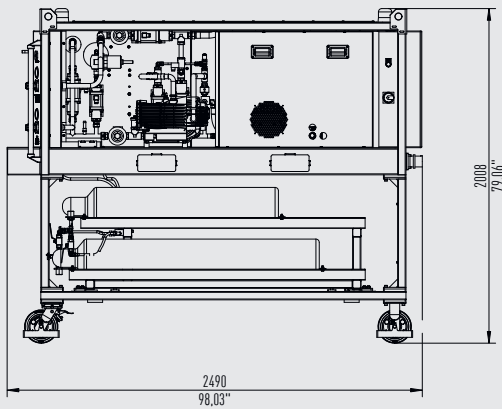


① Connection DN 20

Tare weight: approx. 1,050 kg [2,315 lb]

14658503.00

Version with storage for 10 gas cylinders



① Connection DN 20

Tare weight: approx. 1,175 kg [2,591 lb]

14658527.00

## Accessories and spare parts

Hoses		Order number	
Nominal width	Length	Stainless steel	Rubber
DN 8	3 m [9.84 ft]	14294449	On request
	5 m [16.40 ft]	14330878	On request
	10 m [32.81 ft]	14335098	On request
	15 m [49.20 ft]	14307929	On request
DN 20	3 m [9.84 ft]	14290070	On request
	5 m [16.40 ft]	14307900	On request
	10 m [32.81 ft]	14327574	On request
	15 m [49.20 ft]	14307926	On request

Adapter	Order number
DN 8 (male) to DN 20 (female), brass	14096583
DN 8 (female) to DN 20 (male), brass	14284870

Spare parts and service kits	Order number
Oil for vacuum pump, 1 litre	On request
GPU-x-x000 filter set	14418175
Service kit for compressor (SF <sub>6</sub> gas)	On request (serial number of the equipment is required)
Service kit for vacuum compressor (SF <sub>6</sub> gas)	On request (serial number of the equipment is required)
Service kit for vacuum pump (air)	On request (serial number of the equipment is required)
GPU-x-x000 Tarpaulin	14182499 (only for version with 300-litre tank)
Trailer	On request

### Ordering information

Model / Oil-less vacuum compressor (SF<sub>6</sub> gas) / Vacuum pump (air) / Integrated tank, storage capacity / Accessories

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