

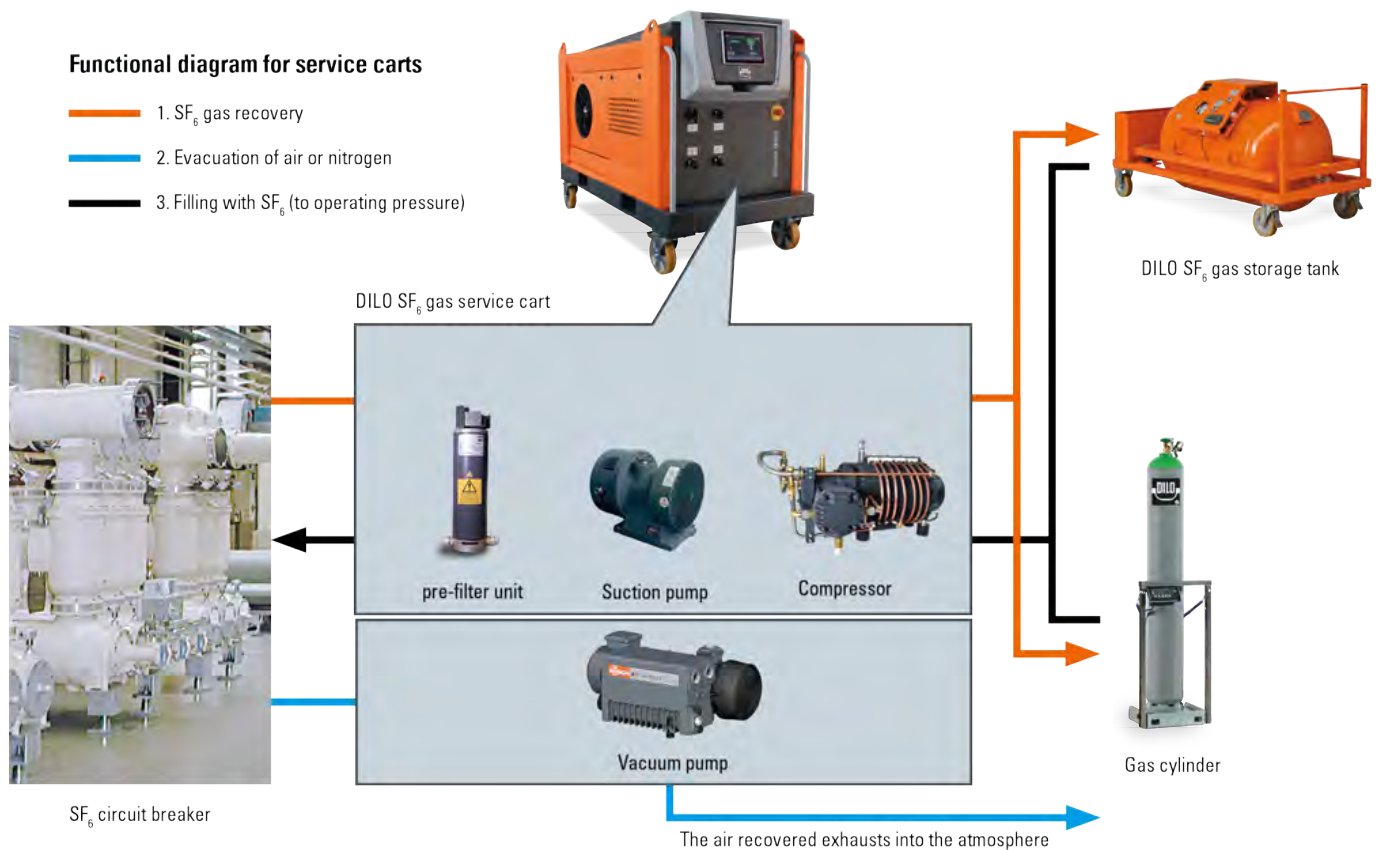


## DILO CONCEPT FOR THE RE-USE OF SF<sub>6</sub> - GAS

### THE MOST IMPORTANT FUNCTIONS

DILO service carts allow easy and efficient SF<sub>6</sub> gas handling on SF<sub>6</sub> filled switchgear and equipment with the following functions:

- » **Recovery of SF<sub>6</sub> gas**  
The gas is recovered from the gas compartment of the switchgear down to the desired final vacuum (mostly 1 mbar).
- » **Purification and drying**  
When recovering and filling gas compartments the gas is automatically led in the service cart through dry and particles filters which retain decomposition products, moisture and solid particles effectively. For the reuse of SF<sub>6</sub> gas the limit values in accordance with IEC 60480 are to be observed.
- » **Gas storage**  
When recovering SF<sub>6</sub> from the circuit breaker the gas is stored in gaseous or liquid form by means of a compressor which compresses the gas.
- » **Evacuation of air or nitrogen**  
Before filling with SF<sub>6</sub> gas the gas compartments must be evacuated in order to avoid mixing with air. Therefore it is evacuated to < 1 mbar with an integrated vacuum pump.
- » **Filling the gas compartments with SF<sub>6</sub>**  
The purified gas is returned into the gas compartment with overpressure or by means of a compressor to the desired operating pressure. The SF<sub>6</sub> stored in liquid form is converted into gaseous form via the evaporator installed in the maintenance device.



## SF<sub>6</sub> - SERVICE AND MEASURING DEVICES

### The Mini Series

The Mini series is only recommended for the treatment of small gas quantities

#### Mini Series B143R11

- For the liquid and gaseous storage
- Portable as individual component
- With transport case
- With touch panel



Mini Series B143R11



Vacuum Compressor unit



Compressor Unit



Vacuum Pump Unit



Pre-Filter Unit

### Economy and Mega Series



#### Mega Series L057

- Devices for liquid SF<sub>6</sub> storage (storage pressure up to max.50 bar)
- SF<sub>6</sub> gas recovery down to < 1 mbar
- Automatic control via 10" capacitive touch panel
- Oil-free DILO compressor delivery rate 6.5 m<sup>3</sup>/h
- Oil-free suction pump for recovery of SF<sub>6</sub> gas 15 m<sup>3</sup>/h
- Vacuum pump for evacuation of air 40 m<sup>3</sup>/h

#### Mega Series L170

- Devices for liquid SF<sub>6</sub> storage (storage pressure up to max. 50 bar).
- SF<sub>6</sub> gas recovery down to < 1 mbar
- Automatic control via 10" capacitive touch panel
- Oil-free DILO compressor delivery rate 19 m<sup>3</sup>/h
- Oil-free suction pump for recovery of SF<sub>6</sub> gas 35 m<sup>3</sup>/h
- Vacuum pump for evacuation of air 63 m<sup>3</sup>/h





## SF<sub>6</sub> - SERVICE AND MEASURING DEVICES



### SF<sub>6</sub> gas refilling and evacuating device

- 16 m<sup>3</sup>/h vacuum pump for air
- Couplings DN8 and DN20
- Gauge 0 – 1,200 mbar
- Pressure reducer 0 – 10 bar
- Electronic weighing device 0 – 150 kg as an option

### MIRROR Analyser

- For measurement of SF<sub>6</sub> volume percentage and moisture in gas-insulated switchgear.
- Measuring range: -50 °C up to +20 °C
- Input pressure: Pe 0.2 bar – 35 bar
- Internal storage vessel with gas recovery system
- USB interface

### Density Monitor Testing Device

- Automatic test process
- Easy handling and menu navigation via capacitive colour touch panel (7")
- Storage of 50 density monitor types with their corresponding switching points

### SF<sub>6</sub> Multi-Analyser with/without gas return system

Allow to determine the three most important parameters for reuse of SF<sub>6</sub> gas with only one measurement:

- SF<sub>6</sub> concentration (%)
- Moisture concentration
- SO<sub>2</sub> concentration (ppm<sub>v</sub>), Option: HF concentration (ppm<sub>v</sub>)

### SF<sub>6</sub> gas leak detector

Measuring principle: ion-vacuum principle

- For quick detection of gas leakages
- Sensitivity: 3g SF<sub>6</sub>/year

