

#### Service carts for large and extra large gas compartments

#### L170R

#### SF<sub>6</sub> gas service carts

DILO is proud to introduce the re-engineered L170 service cart, designed to make  $SF_{\epsilon}$  gas recovery, evacuation, and filling faster, easier, and quieter than ever before. Decades of research and development have resulted in the most efficient gas cart on the market, able to recover a 1,000l and 5 bar pa gas compartment down to 1 mbar in 38 minutes\*. Operation is simple and seamless with a 10" touch panel and an intuitive user navigation available in several languages.

Mobile operation capabilities allow the L170 to be conveniently controlled via smart devices. Direct Connect hardware comes standard on the L170, allowing DILO technicians to access your device remotely to quickly and effectively diagnose problems and assist with operation issues.

Emission-free gas handling is the standard for all DILO service carts, so you never have to worry about leaks. When using the hermetically gastight couplings and connecting systems, emissions will not occur!

The included DN20 and DN40 couplings make for short recovery and evacuating times and the optional K177R14 allows for two operating functions to be carried out simultaneously. This makes it possible to evacuate air from one gas compartment while filling or recovering another gas compartment with  $SF_{\epsilon}$  gas.





- 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</p>
- Automatic control via 10" touch screen
- Reversing switch to correct the direction of rotation
- Digital weighing scales for SF<sub>6</sub> cylinders
- Reduction to transport pressure as integrated special function
- All versions are available with integrated tanks, CE marked or optionally with SQL and ASME approval

<sup>\*</sup>when using DN40 in accordance with the specifications in the DILO time calculator app at https://us.dilo.com/sf6-gas/dilo-sfsub6subapps/ and with TÜV SÜD confirmed performance data





For liquid storage

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A swivelling control panel enables ergonomic working.



Operation, indication of the important process parameters and illustration of the selected gas flow on the touch panel. Indication units (e.g. bar/mbar/kg) can be selected directly on the panel.



Lockable drawer for storing tools, adapters and hoses.



With TÜV SÜD confirmed performance data



Additional DN20 connecting coupling for evacuation and filling/recovery at the same time (Option K177R14)



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#### Technical data:

Dimensions: 92.5 in. L x 43 in. W x 53 in. H (Length 2,350 mm, Width 1,100 mm, Height 1,350 mm)	
Weight: 2,310 lbs. (1,048 kg)	
Protection class IP54	
Sound level < 78 dB(A)	

#### Operating voltage for service carts (3-phase current ranges to be selected):

208 - 240 V / 60 Hz	Standard
380 - 440 V / 50 Hz	6-170SP-R012
380 - 480 V / 60 Hz	6-170SP-R013

#### Special operating voltage (at an extra charge) for service carts (3-phase current ranges to be selected):

200 V / 50 Hz	6-170SP-R016
200 V / 60 Hz	6-170SP-R017
210 - 240 V / 50 Hz	6-170SP-R018
600 V / 60 Hz	6-170SP-R019

#### Standard equipment:

B110R11 oilfree DILO compressor;	dolivory rato	/10 m3/h [a-	+ EU H2J.	15 m3/h [	2+ 60 H2]	at modium cuction	nroccuro with CE
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Oilfree suction pump for recovery of  $SF_6$  gas (35 m³/h [at 50 Hz]; 42 m³/h [at 60 Hz], final vacuum < 1 mbar)

Vacuum pump for evacuation of air (63 m³/h [at 50 Hz]; 76m³//h [at 60 Hz], final vacuum < 1 mbar)

Evaporator for SF<sub>6</sub> gas filling (max. flow rate 200 kg/h)

Dry filter (water absorption capacity: 175 g at a dew point of -32.8°F /-36°C)

Particle filter 1 µm

DILO couplings DN20 and DN40 (connected in parallel)

Operation and indication of the important process parameters via 10" touch panel with protective cover

Pressure and vacuum units individually adjustable

Vacuum indication 0 - 100 mbar, resolution 0.1 mbar

5 m long storage connecting hose DN8, with coupling tongue part DN20

Fork lift provisions

Crane eyelets

Fixing and steerable rollers

Lockable drawer for storing tools, adapters and hoses

Wrenches for DILO couplings and filters

Paint: powder-coated in anthracite-orange

K176R22/11 Direct Connect Router with WiFi access- allows remote access of device for troubleshooting, remote operation, or software updates

3-033-R002 Leak Pointer- cordless device can detect SF<sub>6</sub> leaks in seven different sensitivity levels with a response rate of one second

6-1365-R050 (5m service hose) with 3-1121-R003 (DN20 quick coupling) attached



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## Mounted onto a pressure tank / storage



L170R01 with 300 I pressure tank

## Optional additional equipment (mounted) at an extra charge (ASME available upon request):

	Storage capacity	Length	Width	Height	Net weight	Article no.:
300 I / 50 bar pressure tank in accordance with 2014/68/EU regulations and CE marked with electronic weight indication and chassis with solid tired wheels	617 lbs 280 kg	103 in. 2,625 mm	47 in. 1,185 mm	77 in. 1,960 mm	64 in. 1,660 kg	B172R11L170
600 I / 50 bar pressure tank in accordance with 2014/68/EU regulations and CE marked with electronic weight indication and chassis with solid tired wheels	1,279 lbs. 580 kg	103 in. 2,625 mm	47 in. 1,185 mm	82.5 in. 2,095 mm	77 in. 1,960 kg	B172R12L170
4-cylinder storage rack- DOT/ISO approved cylinders with electronic weight indication	460 lbs. 209 kg	102.5 in. 6,604 mm	59.5 in. 1511 mm	20.25 in. 514 mm	825 lbs. 374 kg	C-400-L170
10-cylinder storage rack- vertical cylinder rack with DOT/ISO approved cylinders	1,150 lbs. 521 kg	102.5 in. 2,603 mm	60.5 in. 1,536 mm	31.5 in 800 mm	1,900 lbs. 861 kg	C-1000-L170
6-cylinder storage pack- vertical cylinder rack with DOT/ISO approved cylinders	690 lbs. 313 kg	30 in. 762 mm	21 in. 534 mm	81.6 in. 2,073 mm	1,036 lbs. 471 kg	C-600-PACK
16-cylinder storage pack- vertical cylinder rack with DOT-ISO approved cylinders	1,760 lbs. 798 kg	42 in. 1,067 mm	42 in. 1,067 mm	81.5 in. 2,070 mm	2,260 lbs. 1,202 kg	C-1600-PACK



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Can be mounted onto a trailer with the following accessories:



Dual-axle trailer shown with optional 35kW diesel genset

## Standard Equipment:

- DOT Approved
- All aluminum walk-in enclosure
- LED lighting
- Torflex axels
- Electric brakes
- 3" Pintle eye, w/adjustable height

- Breakaway switch
- Spare tire
- 3/16" steel deck
- Split rear door
- 30" side service door
- Rear stabilizing jacks

## Description:

Single axle trailer, 10' x 6' x 7' 7,000 lb. GVW	T-106-70
Dimensions : length 168" L x 86" W x 102" H (4.27 x 2.18 x 2.59 m) / Additional weight: 1,750 lbs. (794 kg)	
Dual axle trailer, 14' x 8' x 7.5' 14,000 GVW	T-81475-140
Overall trailer dimensions: 18' L x 102" W x 113" H (5.49 x 2.59 x 2.87 m) / Additional weight: 2,750 lbs. (1,2477 kg)	
Dual axle trailer, 18" x 8' x 7.5' 14,000 GVW	T-81875-140
Overall trailer dimensions: 22' L x 102" W x 113" H (6.71 x 2.59 x 2.87 m) / Additional weight: 2,650 lbs. (1,202 kg)	
Includes compartment for generator	

## Options:

Pre-filter unit for trailer mount	Z104R07
Trailer deluxe package- Interior lights, 120 V receptacles, hose hangers	T-DP
Trailer external lighting package- 4x recessed LED lights w/ switches	T-EL
Trailer grounding package	T-GP
Trailer vacuum pump heater package- wall mounted next to vacuum pump	T-HP
Single phase operation- for trailer mount only	T-MA-2
13 Kw Diesel Genset- tier 4 generator (2 year, 2,000 hour warranty)	T-MEC- 13D0-T4F
100' power cable reel*	T-CR-220 V
*Mounted to trailer floor. Not suitable for trailer mount with 20 bottle rack system.	







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## Optional additional equipment at an extra charge for all L170R $\_$ service carts:

Vacuum pump, (100 $m^3/h$ [at 50 Hz], 120 $m^3/h$ [at 60 Hz], final vacuum < 1 mbar	6-170VP-R001
Vacuum pump, (200 $m^3/h$ [at 50 Hz], 240 $m^3/h$ [at 60 Hz], final vacuum < 1 mbar	6-170VP-R002
Two-stage vacuum pump with exhaust filter, final vacuum 0.0067 mbar, nominal suction capacity (55 m³/h [at 50 Hz], 65 m³/h [at 60 Hz])	6-170VP-R008
Two-stage vacuum pump with exhaust filter, final vacuum 0.0067 mbar, nominal suction capacity (80 m³/h [at 50 Hz], 95 m³/h [at 60 Hz])	6-170VP-R009
High-precision vacuum display, vacuum sensor 10 <sup>-5</sup> mbar for gas compartment A	K207R04
High-precision vacuum display, vacuum sensor 10 <sup>-5</sup> mbar for gas compartment B (for additional DN20 coupling)	K207R05
Automatic control and switch-off of the individual functions with variably adjustable final values (evacuation, filling, SF <sub>6</sub> recovery)	K141R11
SF <sub>6</sub> dew point indication downstream from dry filter	K129R08
Tarpaulin	6-170KA-R002
Chassis with solid tired wheels Ø 400 mm	6-170FG-R003
SF <sub>6</sub> gas warning unit	K203R01
Additional DN20 coupling for simultaneous evacuation and recovery or filling	K177R14
Increase of the maximum gas compartment filling pressure of pa 10 bar to pa 15 bar	K205R02
Recovery of storage tank down to 1 mbar	K204R03
Relief of fixing and steerable rollers for transport	K223R057
Digital weighing scales for $SF_6$ cylinders, 0-120 kg with tare function, accuracy $\pm$ 20 g	K091R69

# Optional additional equipment at an extra charge for all L170R\_ service carts:

5 m long DN20 rubber hose with DN20 coupling tongue part on both ends	6-1017-R050
10 m long DN20 rubber hose with DN20 coupling tongue part on both ends	6-1017-R100
5 m long DN20 wire braided hose with DN20 coupling tongue part on both ends PN 64 bar	6-1365-R050
10 m long DN20 wire braided hose with DN20 coupling tongue part on both ends PN 64 bar	6-1365-R100
5 m long DN40 wire braided hose with DN40 coupling tongue part on both ends	6-1076-R050
10 m long DN40 wire braided hose with DN40 coupling tongue part on both ends	6-1076-R100
5 m long DN40 wire braided hose with DN40 coupling tongue part on one end and DN20 coupling tongue part on the other end	6-1080-R050
10 m long DN40 wire braided hose with DN40 coupling tongue part on one end and DN20 coupling tongue part on the other end	6-1080-R100
DN40/DN20 manifold: 4 port with 1x DN40 to 3x DN20 with ball valves	3-718-R006
DN20 Adapter Kit for joining storage hoses to common SF <sub>6</sub> connection types	Adapter Kit DN20 V2
DN20 manifold: 4 port with 4x DN20 ball valves abd 4x DN20 male couplings	3-718-R036
Storage manifolds: 4 or 6 port with DN20 & DN8 male couplings, covering caps, DN8 storage, and rugged case	D-240-R002/ D-260-R002
DN20 manifold with case: 4 port with 4x DN20 male couplings , covering caos, and rugged case	D-220-R002
DN40 coupling tongue part with transition piece to 2 x DN20, 2 DN20 rubber hoses 10 m long, DN20 coupling tongue part	6-1235-R001
Electrical connecting cable 5 x 10 AWG 7 for 380 - 600 V (available lengths 5 - 30 m)	6-1053-R005
Electrical connecting cable 5 x 16 AWG 5 for 200 - 240 V (available lengths 5 - 30 m)	6-1053-R004



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## Service option for L170R\_:

Annual maintenance service:	D-910-R100
-Replace all filters and vacum pump oil	
-Perform a comprehensive inspection at the beginning and end of service	
-Hands-on operational training during visit	
-Additional services upon request	

#### Spare parts kits for L170R\_:

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Annual maintenance kit for L170R01 with standard vacuum pump (63 m³/h) / 6-170VP-R001 (100 m³/h)	6-1048-R501
Annual maintenance kit for L170R01 with 6-170VP-R002 (200 m³/h) vacuum pump	6-1048-R502
Annual maintenance kit for L170R01 with 2-stage 6-170VP-R008 (55 m³/h) vacuum pump	6-1048-R505
Annual maintenance kit for L170R01 with 2-stage 6-170VP-R009 (80 m³/h) vacuum pump	6-1048-R506
Spare parts kit for compressor	6-1091-R111
Spare filter kit (for SF <sub>6</sub> dry and particle filter)	6-1101-R131