

L400R
Mega Series

Service carts for large and extra-large gas compartments

The L400 service carts for liquid gas storage have been developed to recover, evacuate, fill, purify and vent large to extra-large SF₆ gas compartments with high process reliability. 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. This series offers fully automated operation via a 10" touch screen with protective cover shielding from sunlight and dust. For data exchange additional USB and Ethernet connections are integrated. By using the hermetically gastight DILo couplings and connections, emission-free gas handling is guaranteed. The series also enables short gas recovery and evacuating times thanks to the existing DN20 / DN40 couplings and is available with a second DN20 and DN40 connecting coupling as an option. Thus, two functions can be carried out simultaneously. This makes it possible to evacuate air from one gas compartment and at the same time fill another gas compartment with SF₆ gas or to recover the gas from it. Thanks to the automated special functions the devices can be easily maintained without emissions.



Standard version

- B200R.. oilfree DILo compressor (40 m³/h [at 50/60 Hz], 50 bar)
- oilfree suction pump for recovery of SF₆ (35 m³/h [at 50 Hz]; 42 m³/h [at 60 Hz], final vacuum 1 mbar)
- vacuum pump for evacuation of air; delivery rate (configurable)
- evaporator (max. flow rate 200 kg/h)
- dry filter (water absorption capacity: 175 g at a dew point of -36°C)
- particle filter 1 µm
- operation and indication of the important process parameters via 10" touch screen with protective cover
- indication units in bar / mbar, kPa or psi / torr to be selected on the touch screen
- forklift slots
- crane eyelets
- fixing and steerable rollers (configurable)
- 5 m long storage connecting hose DN8 with DILo coupling tongue part DN20
- most common global cylinder connections
- digital weighing scales for SF₆ cylinders (with automatic switch-off function), 0 - 120 kg with tare function, accuracy ± 0.02 %
- wrenches for DILo couplings and filters
- paint: orange

Special features

- Gas type: SF₆
- Gas recovery: < 1 mbar
- Filling of gas: 0 - 10 bar
- Evacuation of air: < 1 mbar
- Maximum storage pressure: 50 bar
- Recommended gas quantity: < 600 kg
- Operation: automatic
- DILO couplings: DN20/DN40

Advantages & functions

- SF₆ gas recovery down to 1 mbar
- optional remote control via mobile devices
- reversing switch for correcting the direction of rotation
- 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
- stowage tray for tools and accessories
- the service carts can also be mounted onto a trailer

Technical data

Dimensions (W x H x D)	1,400 x 1,500 x 2,600 mm - Standard version
Weight	approx. 1,350 kg above mentioned version
Dimensions (W x H x D)	1,400 x 2,070 x 3,070 mm - Version: 300 l pressure vessel, with electronic weight indication, chassis with solid tyre wheels
Weight	2,000 kg above mentioned version
Ambient temperature	0 to +45 °C
Operating temperature	0 to +45 °C
Storage temperature	-20 to +60 °C
Protection class	IP54
Sound level	< 85 dB
Maximum delivery capacity compressor	71 m ³ /h at suction pressure with SF ₆ and a back pressure of 24 bar (50/60 Hz, with frequency converter)
Medium delivery capacity compressor	40 m ³ /h at suction pressure with SF ₆ and a back pressure of 50 bar (50/60 Hz)

Configuration

Remote control of service carts	
without WiFi or remote control	
WiFi connection Economy/Mega	K176R11 Serial equipment for L057 / L170 / L400 / L600 Wireless operation via mobile device like Smartphone, Tablet, iPad or Notebook. * ATTENTION: Mobile device is not included in the scope of supply!
Router set Cosy 4G EU	K176R22EU Remote control router set Ewon Cosy 131 for remote maintenance by DILO (VPN router), mobile service 4G technology, Europe and Asia 1.8 GHz * ATTENTION: SIM card is not included in the scope of supply!
Router set Cosy 4G NA	K176R22NA Remote control router set Ewon Cosy 131 for remote maintenance by DILO (VPN router), mobile service 4G technology, North America 1.7 GHz * ATTENTION: SIM-card is not included in the scope of supply!
Type/version	
R01 - 35m ³ /h suction pump	
R02 - 100m ³ /h suction pump	
Operating voltage range	
6-400SP-R002 / 208-240V / 60Hz	operating voltage (3-phase current) 208 - 240V / 60Hz
380-460V/50HZ, 380-480V/60Hz	operating voltage (3-phase current) 380 - 460V / 50Hz or 380 - 480V / 60Hz
208-240V / 50Hz	
200V / 50Hz or 60Hz	
600V / 60Hz	
6-400SP-R012 / 208-240V/60Hz	operating voltage (3-phase current) 208 - 240V / 60Hz
6-400SP-R011 / 380-460V / 50Hz	operating voltage (3-phase current) 380 - 460V / 50Hz
6-400SP-R013 / 380-480V / 60Hz	operating voltage (3-phase current) 380 - 480V / 60Hz
200V / 50Hz	
200V / 60Hz	
208-240V/50Hz	
600V/60Hz	
Vacuum pump	
without vacuum pump	
standard / 63m ³ /h, <1mbar	
standard / 63m ³ /h, <1mbar(S03)	
standard / 63m ³ /h, <1mbar(S05)	
6-400VP-R001 / 100m ³ /h, <1mbar	
6-400VP-R001/100m ³ /h,<1mbar/S3	
6-400VP-R001/100m ³ /h,<1mbar/S5	
6-400VP-R002 / 200m ³ /h, <1mbar	
6-400VP-R002/200m ³ /h,<1mbar/S5	
6-400VP-R004/60m ³ /h,0.0067mbar	Operating voltage: 6-400SP-R002
6-400VP-R004,60m ³ /h,0.0067mbar	Operating voltage: 600V/60Hz

6-400VP-R005,90m³/h,0,0067mbar	two-stage vacuum pump with exhaust filter, type RH0090, final vacuum 0.0067 mbar Nominal suction capacity at 50 Hz - 80 m³/h, at 60 Hz - 95 m³/h
6-400VP-R005,90m³/h-0,0067mbar	two-stage vacuum pump with exhaust filter, type RH0090, final vacuum 0.0067 mbar Nominal suction capacity at 50 Hz - 80 m³/h, at 60 Hz - 95 m³/h
Automatic control	
without automatic and parallel	without automatic switch off function (evacuation of air, filling of SF ₆ , recovery of SF ₆), without additional coupling (for evacuation of air and gas recovery or filling at the same time)
K141R11	with automatic switch off function (evacuation of air, filling of SF ₆ , recovery of SF ₆), without additional coupling (for evacuation of air and gas recovery or filling at the same time)
K177R61	without automatic switch off function (evacuation of air, filling of SF ₆ , recovery of SF ₆), with additional coupling (for evacuation of air and gas recovery or filling at the same time)
K141R11 + K177R61	with automatic switch off function (evacuation of air, filling of SF ₆ , recovery of SF ₆), with additional coupling (for evacuation of air and gas recovery or filling at the same time)
Device covering	
standard	without device covering
K029R27 tarpaulin	
sheet metal covering	
Integrateable features (pressure vessel, chassis and rollers)	
without rollers	
fixing and steerable rollers	
K088R17 - Chassis	with solid tired wheels
B177R01 - 300l, 50bar CE	300l/50bar pressure tank, CE marked with electronic weight indication and chassis with solid tired wheels
600l, 50bar CE, chassis	600l/50bar pressure tank, CE marked with electronic weight indication and chassis with solid tired wheels
300l, 50bar SQL, chassis	300l/50bar pressure tank, SQL marked with electronic weight indication and chassis with solid tired wheels
600l, 50bar SQL, chassis	600l/50bar pressure tank, SQL marked with electronic weight indication and chassis with solid tired wheels
Dew point control	
standard - without	dew point control for dry filter
K129R04 - dew point control	for dry filter
Additional equipment	
standard - without additional	dry filter and evaporator
K119R22 - second dry filter	
6-400VD-R001 - 2nd evaporator	
K119R22 + 6-400VD-R001	additional dry filter and additional evaporator

Optional accessories

6-1017-R050	5 m long rubber hose DN20 with DILO coupling tongue part DN20 on both ends
6-1017-R070	7 m long rubber hose DN20 with DILO-coupling tongue part DN20 on both ends
6-1017-R100	10 m long rubber hose DN20 with DILO coupling tongue part DN20 on both ends
6-1365-R050	5 m long wire braided hose DN20 with DILO coupling tongue part on both ends PN 64 bar
6-1365-R100	10 m long wire-braided hose DN20 with DILO coupling tongue part on both ends PN 64 bar
6-1076-R050	5 m long wire-braided hose DN40 with DILO-coupling tongue part DN40 on both ends PN16
6-1076-R100	10 m long wire-braided hose DN40 with DILO-coupling tongue part DN40 on both ends
6-1080-R050	5 m long wire-braided hose DN40 with DILO coupling tongue part DN40 on one end and DILO coupling tongue part DN20 on the other end
6-1080-R100	10 m long wire-braided hose DN40 with DILO coupling tongue part DN40 on one end and DILO coupling tongue part DN20 on the other end
6-1235-R001	DILO coupling tongue part DN40 with transition piece to 2 x DN20, 2 rubber hoses DN20 (10 m long) with DILO coupling tongue part DN2
6-1048-R521	Annual maintenance package for L400R01 with standard vacuum pump (63 m ³ /h) / (100 m ³)
6-1048-R522	Annual maintenance package for L400R01 with vacuum pump (200 m ³ /h)
6-1048-R525	Annual maintenance package for L400R01 with two-stage vacuum pump (RH0060)
6-1048-R526	Annual maintenance package for L400R01 with two-stage vacuum pump (RH0090)
6-1341-R111	Spare parts kit (valves and piston rings) for compressor
6-1101-R151	Spare parts kit (SF ₆ dry filter and particle filter)
6-1053-R004/1M	Electrical connecting cable 5x16 AWG5 (available lengths 5 - 30 m)
6-1053-R008/1M	Electrical connecting cable 5x35 AWG1 (available lengths 5 - 30 m)

Packaging

3-761-R141-C	Packing for L400R01 + L600
3-761-R142-C	Packing for L400R01 + L600 with chassis (as option)
3-761-R143-C	Packing for L400R01 + L600 with pressure tank

Note

For the 380 - 480 V voltage range the following cable is required: 6-1053-R004

For the 208 - 240 V voltage range the following cable is required: 6-1053-R008