

Minimum requirements for the operation of equipment and systems with highly compressed, liquefied gases or gases dissolved under pressure

1 Compressed-gas containers (bottles)

- 1.1 Only liquefied gas systems may be used that comply with the recognised rules of technology as well as the guidelines for the use of liquefied gas (e.g. according to BGV D 34) and carry the CE symbol.
- 1.2 Liquefied gas systems must be set up in such a way that they are not accessible to the general public. Unauthorised persons must not have access to the controls and mounted parts.
- 1.3 Fundamentally, gas equipment must always be connected to suitable pipelines. Hose lines according to 1.4 may also be used for portable liquefied gas systems. Pipelines that can withstand the chemical, thermal and mechanical stresses are considered suitable for use.
- 1.4 In the case of pipelines and hose lines up to a maximum of 40 cm, a safety device to counter a non-permissibly high pressure increase is required.
For hose lines longer than 40 cm, a safety device to counter non-permissibly high pressure increases as well as providing hose rupture protection is required.
- 1.5 If hose damage is to be expected when installing hose lines on floors in working areas, "hoses for handling special mechanical stress" must be used here.
- 1.6 Liquefied gas bottles must be set up upright and in a stable position, and secured against falling over.
- 1.7 Bottles with a filling weight of more than 14 kg may only be set up outdoors and only in approved, non-flammable, lockable bottle cabinets (with a ventilation opening in the floor and ceiling areas) or fitted with protective hoods.
- 1.8 A maximum of two connected 14 kg liquid gas bottles, which are secured against falling over, may be placed at any one time in utilisation units (regardless of whether the liquid gas bottles are full, partially empty or empty).
- 1.9 If more than two gas bottles are required, these must be set up outside the utilisation unit in approved, labelled, non-combustible, lockable and ventilated gas bottle cabinets. The cabinets must be kept securely locked.
- 1.10 Gas bottle cabinets are to be connected using fixed piping.
- 1.11 A maximum of 8 liquefied gas bottles may be connected for simultaneous gas supply. For events taking place on the Münsterplatz, the maximum number of bottles allowed is reduced to 6 liquefied gas bottles.
- 1.12 Storage bottles are generally not to be kept in halls/tents, at the stand or in rooms below ground level.
- 1.13 The use of liquefied gas bottles in meeting places and temporary structures is only permitted for short-term demonstration purposes which has been registered with the citizens' services office of the city of Ulm

and the fire protection authorities (fire prevention and hazard protection department). The gas bottles are to be closed immediately after the demonstration and removed from the meeting place. Continuous operation is not permitted.

- 1.14 For emptying connected liquefied gas bottles, a sufficiently large protective area (2 m indoors, 1 m outdoors) must be maintained in which there is no gully, sources of ignition, open flames or combustible substances.
- 1.15 Liquefied gas bottles are not permitted on stands (e.g. for preparing meals) in exhibition halls.
- 1.16 Welding demonstrations may only be carried out by competent specialist personnel whereby the equipment is placed under constant supervision. The operator is responsible for ensuring that the appropriate facilities, arrangements and measures for accident and fire prevention are in place. It must be ensured that exhibition visitors are not endangered, for example, by naked flames or flying sparks.

2 Tank supply of liquefied gas installations

- 2.1 Liquefied gas tanks are not permitted.
- 2.2 If more gas bottles are required than is specified under 1.11, an exception can be granted on request.

For this purpose, an informal written application must be submitted to the citizens' services office of the city of Ulm and a copy sent to the city of Ulm fire brigade (fire prevention and hazard protection department). A site plan, planned tank size as well as the planned installation site must be attached to the application. The application must be received at least 8 weeks before the start of the event.

3 Operation

- 3.1 Before commissioning, the liquefied gas system must be checked by an expert to ensure that it is in perfect working condition according to German regulations BGG 935 or BGG 937. The test certificate must be kept at the place of operation and presented to the authorities upon request.
- 3.2 Bottles may not be changed during the permitted operating hours.
- 3.3 After every change of gas bottle, the screwed connection must be checked for leaks using leak detection spray.
- 3.4 Gas bottles and consumption installations may only be used in accordance with the operating instructions provided by the manufacturers.
- 3.5 Gas-heated lanterns are generally not permitted on the event area.
- 3.6 Gas equipment may only be operated by persons who are familiar with the operation of liquefied gas installations and who have been instructed about the minimum requirements for the use of liquefied gas, and who can be expected to perform their tasks in a reliable manner.

- 3.7 In the case of large bottle installations, a pressure regulator complete with a safety shut-off device and leakage gas safety relief valve must always be used in order to protect against a non-permissibly high pressure increase.
- 3.8 At the end of the operating hours, the main shut-off valves must be closed.
- 3.9 In the event of any leakage, the shut-off fittings on containers and bottles must be closed immediately, all sources of ignition are to be removed and all possibilities of ignition excluded.
- 3.10 Icing on pipelines and shut-off devices is to be removed in such a way that no dangerous heating or ignition can occur.
- 3.11 A distance of at least 70 cm for heaters and at least 30 cm for gas stoves without a radiation protection plate must be maintained between sources of heat radiation and the gas bottles.
4. Required fire extinguishers when using gas
- 4.1 In facilities where cooking, grilling, heating and warming devices are used, fire extinguishers according to DIN EN 3 of Fire Classes A, B, C with an extinguishing capacity of at least 6 kg must be kept ready to hand.
- 4.2 When using deep fat fryers or similar, a fire extinguisher according to DIN EN 3 of Fire Class F with at least 6 litres of extinguishing agent is also required.

Note:

In addition to the points mentioned above, when using pressurized gas containers, the respective current version of the following regulations and rules, among others, must be observed when installing or operating pressure containers or pressurized gas containers (excerpt): Ordinance on Industrial Safety and Health, Technical Rules for Pressure Vessels (TRB), in particular TRB 600, 610, 700, 801 Appendix No. 25; Technical Rules for Compressed Gases (TRG), in particular TRG 280; Technical Rules for Liquefied Gas (TRF 1996); Transportation of Hazardous Goods by Road (GGVS); Accident Prevention Regulations (GUV 9.7 or BGV D 34).