OPERATING AND MAINTENANCE MANUAL

CONTAINER 8 ', 10', 16 ', 20', 24 '

MANUFACTURER:

MODULAR SYSTEM Sp. z o.o.

Ogorzelice, ul. Bielska 19.

Note:

The manufacturer reserves the right to make changes in relation to this instructions.
If you have questions or concerns during the use of the product, please contact the Company directly. It is forbidden to introduce any changes in the product during the use without the knowledge and consent of the manufacturer.

PREPARATION DATE: NOVEMBER 2021

The main objective of Modular System Sp. z o.o. is the satisfaction of the customer, who always gladly returns to our company and our products. All of the following instructions must be adhered to in order for the containers we manufacture to maintain their excellent condition and have an optimum service life. This is also one of the warranty conditions.

1. Safety regulations

1.1 Before using the container, please read the safety rules, manufacturer's recommendations and operating instructions.

1.2 Special care must be taken when transporting, installing and servicing the container. General health and safety provisions must be observed during the above mentioned activities.

1.3 The container must be operated in accordance with general health and safety provisions as well as fire protection regulations.

1.4 Assembly of the container should be carried out by a person who is familiar with the following instructions and recommendations.

1.5 Service repairs to the electrical system should be carried out by a qualified person with appropriate electrical qualifications.

1.6 Before performing any service on the electrical system, disconnect the main external power supply to the container.

1.7 Service repairs to the hydraulic system should be carried out by a person qualified in hydraulic installation.

1.8 Do not turn on (off) electrical appliances with wet hands.

1.9 Protect the external main power cable from damage, do not use the cable (do not pull on the cable) when moving or positioning the container.

1.10 Do not use the container for purposes other than those specified in the operating manual.

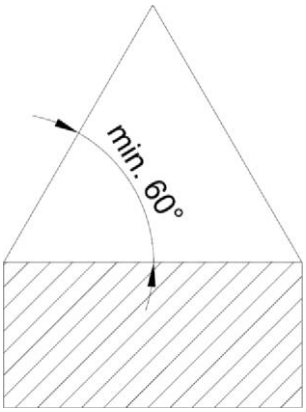
2. Container transport

2.1 The container is designed for road or rail transport using a chassis adapted to this type of cargo (also open trucks) - land transport.

2.2 All moving parts must be fixed securely before moving the container. The wall, floor and roof elements must be properly sealed. Containers are secured to conventional trucks using fixing straps. The straps should be fixed so that they do not touch the outer roof sheathing and are positioned on the supporting elements of the structure. Plastic washers are recommended at the point of contact between the strap and the container frame. The outer layer of paint on the container may become damaged at the side walls of the vehicle and at the side wall fixing posts.

2.3 The container is loaded and unloaded using a crane or HDS with the appropriate lifting capacity.

2.4 The length of the crane rope must be selected based on the distance between the container corners. The angle formed by the rope arms and the roof of the container must not be less than 60^{o}. It is very important that all 4 rope branches are of equal length! The edge of the roof plate may be damaged if the rope is pulled out or if it is lifted on unsuitable chains.



2.4 The crane rope can only be hooked into the upper corners of the container via the oval side holes! It is not permissible to move containers with additional loads not specified by the manufacturer! In no case is it permissible to attach the rope hooks to the horizontal plate of the top corner itself, it may result in bending.

2.5 The containers can also be moved with the use of forklifts. The forks of the forklift should extend across the full width of the container so that both longitudinal floor beams are supported on the forks.

2.6 After removing the containers from the vehicle, an acceptance report should be drawn up. Any missing or damaged items should be entered in the report. If possible, photographs shall be attached to the record.

3. Setting

3.1 Containers should be placed on a levelled base with sufficient bearing capacity (reinforced and hardened if necessary), taking into account the following conditions:

a) The minimum size of a single support should be 20x20cm and its height min 10cm.
b) For a container up to 5 m long, support at the corners of the container, i.e. at 4 points.
c) For a container of 5.5 - 8 m in length - support at the corner points of the container and in the middle of the longer walls, i.e. at 6 points.
d) For a container of 8.5 - 10 m in length - support at the corner points of the container and at the points of division into three longer walls, i.e. at 8 points.
e) For a container of 10.5 - 12 m in length - support at the corner points of the container and at the points of division into four of its longer walls, i.e. at 10 points.

3.1 The concrete base in the form of cast-in-place foundations must be prepared before the container is erected, at least 7 days beforehand in summer and 10 days beforehand in winter, so that the concrete has sufficient strength.

3.2 The base of the container can be formed by ready-made concrete blocks, concrete slabs, etc. and concrete footings.

3.3 The base of the container should correspond to the local soil conditions. At the customer's request, Modular System Sp. z o.o. provides a diagram showing the relevant support points of the container.

3.4 The support points of the container should be level with a tolerance of +/- 1 mm. Failure to level the support points can result in doors and windows closing inadequately and in cracks forming in the joints between the plasterboard, if present.

3.5 In the case the container is not placed on a concrete surface after transportation, it should be placed on a similarly stable, level surface that should prevent deformation or possible damage to the containers.

3.6 Containers should not be placed directly on the ground.

4. Manufacturer's recommendations for the operation of the container (set of containers)

4.1 Characteristics of permissible loads

a) Containers with MB20 frame (roof beam with gutter, 130x180mm columns) floor load

- ground floor - maximum load 2.0 kN/m2^2 (200 kg/m^2)
- 1st floor - maximum load 2.0 kN/m^2 (200 kg/m^2)

b) Containers with MB20SR frame (roof beam without a gutter, columns 130x180mm) floor load

- ground floor - maximum load 2.0 kN/m2^2 (200 kg/m^2)
- 1st floor - maximum load 2.0 kN/m^2 (200 kg/m^2)

c) Containers with MB20SH frame (roof beam without a gutter, columns 150x180mm) payload of the floor

- ground floor - maximum load 2.0 kN/m2^2 (200 kg/m^2)
- 1st floor - maximum load 1.5 kN/m^2 (150 kg/m^2)

d) flat roof load

- maximum allowable standard snow load sk=1.6 kN/m^2
- permissible payload on the roof - 1.0 kN/m^2 (100 kg/m^2)

e) wind load - basic wind speed used in the calculation - 26 m/s.

If there is a snow cover on the roof that is over 10 cm thick, the roof should be cleared of snow. In the event of very strong wind speeds exceeding 26 m/s, it is necessary to additionally protect the containers individually (lashings, bolted connections, supports, etc.), especially if they have been arranged in the form of a two- or three-storey building.

5. Ventilation

5.1 A distance of at least 100 mm must be maintained between the base of the container and the ground in order to create a ventilation gap that prevents moisture from the soil or, in the event of heavy rainfall, run-off water from entering the container floor insulation.

5.2 When the containers are in use, they must be kept at a suitable temperature and ventilated regularly so that the internal humidity does not exceed a relative level of 60 %. A value higher than this may damage the laminated chipboard inside. In the case of sanitary containers, particular care must be taken to clean up water as quickly as possible if it arises as a result of using the container. In the event that the water has not appeared as a result of normal use but as a result of some defect, this should be reported immediately to the supplier and action taken to minimise the effect of the defect.

6. Drainage

6.1 In the case of containers with a rainwater drainage system, it is necessary to ensure free drainage of rainwater from the roof brought under the container through internal drainage pipes, and the surrounding surface must be levelled in such a way that water does not flow under the container or rainwater must be discharged directly into the rainwater drainage system.

7. Connections of utilities

7.1 Power supply connections/earthing

7.1.1 Before the commencement of use, and after its connection to the target power source, the buyer / renter (operator) should perform the following inspections, activities to which they are bound by the provisions of legal standards:
- measurements related to protection against electric shock
- inspection before the commissioning
- other obligations as per fire protection regulations and health and safety rules.

In the case of container adaptation, all statutory mandatory technical safety checks are the responsibility of the renter / buyer (operator). The tests and measurements should be performed by them before entering the container.

7.1.2 The earthing of the container should be performed in accordance with applicable regulations. The grounding screws should be attached in the places designated by the manufacturer. The earthing points must always be protected against corrosion.

The earthing of containers should be carried out by a suitably qualified person (pin earthing or shunt earthing) who will take the measurements required by law (earthing resistance measurement - up to 10 Q). In the case of combining containers into sets, each case must be considered individually. Use coils and LgY50mm^2 cable for earthing in accordance with current standards and regulations.

7.1.3 The connection of the containers to the mains electricity supply may only be carried out by a qualified person with electrical authorisation. The containers can be connected in series depending on the load, but not more than 4 containers. Further connections from the last container are prohibited.

7.1.4 Operating conditions for electrical equipment:
- electrical equipment must be operated in accordance with its intended use and with the manufacturer's instructions (operating manual).

7.1.5 To avoid accidents, the safety regulations for electrical equipment must be followed.

7.1.6 If an electric water storage heater is installed in the container, the unit must be filled with water before connecting to the mains.

7.1.7 It is forbidden for unauthorised persons to unscrew lamps and installed electrical equipment or to place flammable materials in their vicinity.

7.1.8 Repairs may only be carried out by a qualified person with the appropriate electrical licence with prior authorisation from Modular System.

7.1.9 The installed electrical equipment and apparatus must be protected against mechanical damage and against the effects of harmful agents (e.g. thermal radiation, chemical substances, etc.).

7.1.10 An inspection report must be drawn up before the electrical system is put into operation, or after any modification or extension. The systematic check of the electrical system must be repeated at intervals compliant with current regulations.

7.1.11 If a container or container building is out of service for an extended period of time it is advisable to disconnect the electrical equipment from the power supply.

7.1.12 If any fault is found in the installation, steps should be taken immediately to repair it.

7.1.13 Electrical equipment should be protected against contact with water and excessive moisture.

7.1.14 Covering the openings of electric heaters (if any), drying clothes on it or heating liquids is strictly prohibited. Keep a minimum safety distance between the radiator and furniture, other equipment, and observe other general safety regulations of the manufacturer.

7.2 Water and sewage system

7.2.1 The connection of the containers to the water supply and sewage system may only be carried out by

a person qualified in sanitary installation.

7.2.2 Check the operation of the pressure reduction valve and the cleanliness of the filters.

7.2.3 Once the system has been connected - in order to avoid damage caused by temperatures below zero - ensure that the external connections are thermally insulated. During the use of containers, the internal temperature of min. + 5°C, and if the container is unused, all pipes, fittings, traps, flushing equipment and appliances connected to the hydraulic system must be emptied of water before the onset of frost.

7.2.4 Before any change is made to the plumbing in a sanitary container in use, all pipes, tanks and heating equipment must be drained of water.

7.2.5 It is recommended to keep the fittings clean at all times and to check that they are properly fixed. It is forbidden to flush hygienic products such as sanitary towels, wet wipes, nappies, tampons, cotton balls and granular materials such as sand, earth, coffee, food leftovers, etc. down the toilet bowls and sinks as these may cause installation clogging.

7.2.6 In order to prevent possible damage due to overheating of the hot water system, the thermostat and the safety valve of the storage water heater as well as its correct functioning must be regularly checked.

7.3 Air conditioning installation

7.3.1 If an air conditioner is installed in the container, it must be serviced regularly in accordance with the manufacturer's instructions.

7.3.2 Works related to the assembly and disassembly of air conditioning may only be performed by appropriately qualified and authorised persons.

7.3.3 The air conditioner should not be installed directly above the electric heater and other electrical devices - in the event of its failure, condensate may leak.

8. Maintenance

8.1 Regularly clean the roof, drainpipe and rainwater drainage. Clogging of the sewer, freezing of the drainpipe may result in the ingress of water into the container.

8.2 A damaged outer roof metal sheet must be repaired immediately to prevent water from entering the container.

8.3 Avoid putting too much snow load on the container roof in order to maintain the appropriate load-bearing capacity of the steel frame (maks. 128kg / m^2, which corresponds to standard snow zones with a characteristic snow load of up to sk=1.6 kN/m^2).

8.4 After each transport and placement of the container, the container should be levelled to ensure proper opening and closing of saches and door leaves. If necessary, adjust them.

8.5 In the event of damage to the external paint coatings, they must be repaired immediately.

8.6 In the event of cracking, aging or damage to the sealing around windows, doors and ventilation, the damaged connection should be re-filled with an elastic sealing substance with appropriate parameters and properties.

8.7 Cleaning of the external and internal surfaces of the container should be performed with generally available cleaning agents. Acidic, alkaline cleaners cannot be used for cleaning galvanized, chrome-plated surfaces. It is forbidden to wash the containers with pressurised water.

5. Final comments

Modular System Sp. z o.o. shall not be held liable and excludes any warranty for damage resulting from incorrect assembly, storage and use of the containers. The buyer is obliged to comply with the legal regulations regarding the storage, assembly and use of containers.

MODULAR SYSTEM Sp. z o.o.
Ogorzelice, 2021