OPERATING INSTRUCTIONS FOR CONTAINER SYSTEMS

5', 8', 10', 16', 20', 24' CONTAINERS

MANUFACTURER:

MODULAR SYSTEM Sp. z o.o.

Ogorzelice, ul. Bielska 19.

DEVELOPMENT DATE: September 2023.

The main objective of Modular System Sp. z o.o. is the satisfaction of the customer, who will always be happy to return to our company and our products. In order to ensure that the containers we manufacture remain in perfect condition and have an optimum service life, all of the following recommendations must be followed. This is also one of the conditions for retaining warranty rights.

1. Safety regulations

1.1 Before transporting, assembling and using the container, please familiarise yourself with these instructions, the conditions of transport, delivery and foundation of containers manufactured by Modular System Sp. z o.o. and the General Terms and Conditions of Warranty. Modular System Sp. z o. o. shall not be held liable and excludes any warranty benefits for damage resulting from incorrect assembly, storage, transport and operation of the containers contrary to the documents mentioned in the previous sentence.

1.2 Special care must be taken when working on the transport, installation and servicing of 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 these *instructions* and *with the conditions of transport, delivery and foundation of containers manufactured by Modular System z o.o.*

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 Do not start the container's electrical system before connecting and checking that the earthing connection is correct.

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

1.9 Electrical equipment must not be switched on or off with wet or damp hands or otherwise exposed to water.

1.10 Protect the external main power cable from damage, do not use the cable to manoeuvre or position the container and do not pull on it.

1.11 The container must not be used for any purpose other than that for which it was intended.

2. Container transport

2.1 The transport of the containers shall be carried out in accordance with the *Conditions for transport, delivery and foundation of containers manufactured by Modular System Sp. z o.o .* The container is suitable for transport by road or rail provided that a chassis suitable for this type of load is used - in particular as regards the permissible external dimensions, shape and permissible weight of the load to be transported (including wide open cars for land transport).

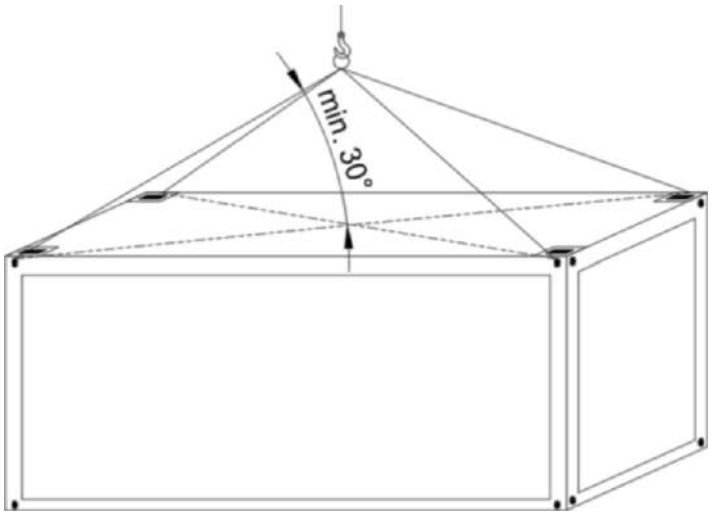
2.2 Before transporting the container, all moving parts must be securely fastened. Doors and windows must be adequately protected during transport, in particular by closing them in such a way that they cannot be opened during transport. The securing of containers on lorries should be done with lashing straps to prevent the containers from moving during transport.

The straps should be fixed in such a way that they do not touch the outer sheathing of the roof and walls, but are located only on the load-bearing elements of the structure. Shims (e.g. plastic) must be used at the point of contact between the strip and the container frame to separate the strip from the frame. The outer layer of paint on the container may be damaged during loading, transport and unloading at the side walls of the vehicle and at the side wall fixing posts - this does not constitute a defect in the container.

2.3 Before the container is transported, it is imperative that the water system and water heaters as well as the siphons of sinks, toilet bowls, shower trays etc. are completely emptied.

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

2.5 Each time a container is lifted, the permissible working load of the slings used must be checked against the angle of the slings in relation to the roof. **It is very important that all 4 rope branches are of equal length**. If the rope is pulled out or lifted on mismatched chains, roof components can be damaged.



Minimum angle between the sling and the roof of the container.

2.6 **The crane rope can only be hooked into the upper corners of the container by the oval side openings. It is not permissible to carry containers loaded with additional cargo not provided for by the manufacturer.** Under no circumstances is it permissible to attach the rope hooks directly to the horizontal plate of the top corner itself, as this may result in bending in particular.

2.7 Each time a container is lifted by crane, the following must be used

2.8 ropes/chains/hooks of adequate load capacity and length according to the instructions of the manufacturer of these items.

2.9 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.

2.10 Once the containers have been unloaded from the vehicle, an acceptance report should be drawn up. Any missing or damaged items should be entered in the report. If there is an opportunity to do so, photographs of the container taken after it has been unloaded from the vehicle should be included in the protocol.

2.11 If the container is transported with dismantled wall sections (without wall panels), the interior of the container must be protected from the weather.

3. Setting

3.1 Containers must be placed on level ground with adequate bearing capacity for the weight of the containers (reinforced and hardened if necessary), taking into account the following conditions:

a) the minimum dimension of a single support should be 20x20cm, the height in accordance with the requirements specified in section 5 of this manual ("Ventilation"),

b) for a container up to 5 m in length - 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 at half of the longer walls, i.e. at 6 points,

d) for a container of lengths of 8.5 - 10m, support at the corner points of the container and at the points where the container is divided into three equal parts of the longer walls, i.e. at 8 points,

e) for a container of 10.5 - 12m in length, support at the corner points of the container and at the points where the longer walls are divided into four equal parts, i.e. at 10 points.

3.2 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.

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

3.4 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.

3.5 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.

3.6 If the container is not placed on a concrete surface after transportation, it must be placed on a similarly stable, level and hardened surface to prevent deformation or possible damage to the containers.

3.7 Containers should not be placed directly on the ground.

3.8 Containers must be sited and stored in such a way that a space of at least 10 cm is maintained under the bottom edge of the frame and the base of the container to ensure adequate ventilation of the underfloor space. Failure to do so can lead to excessive moisture accumulation in the floor layers.

3.9 Ensure that the containers are properly levelled at all times after foundation and during storage, in accordance with section 3.5 of this Manual.

3.10 Each time the container is installed on site and the installation is disconnected and reconnected, this must be done at least once a year:

a) check the correctness of the foundation points or foundations for the container,

b) check the correctness of the container's foundation,

c) carry out the required electrical installation tests,

d) check the connections and functionality of electrical appliances, including the heater,

e) check the air conditioners for leaks and function, and document these actions under penalty of losing warranty rights.

3.11 Once the container has been set up on site, the following steps in particular must be carried out before the container can be used and documented under pain of forfeiting warranty

rights:

a) external and internal inspection of the technical condition of the container,
b) checking the external condition of the steel structure and the external plating of the roof and walls of the container and possibly repairing any mechanical damage to the paint coating, plating and walls,
c) checking the technical and functional condition of the floor covering,
d) checking the permeability of the rainwater drainage system,
e) connection of the container to an external protective circuit or earth,
f) the connection of the external power supply to the main container or group of products (containers), maintaining the principle that a maximum of five products (containers) may be connected in parallel from a single external power source by means of external sockets and plugs, located in the upper gable frame of the products (containers),
g) successively switching on the "S" type protection in the electrical switchboard,
h) checking the continuity of the protective conductor of the electrical system,
i) electrical installation measurements,
j) checking the correct opening and closing of doors and windows, the functioning of the door lock,
k) checking the correctness and functionality of window blinds,
l) checking the operation of the electric heater,
m) cleaning and washing the inside of the container, equipment and appliances,
n) performing other specialised activities according to separate instructions, if required.

4. Manufacturer's recommendations for operation and storage 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 roof loading – 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 15 cm thick, the roof should be cleared of snow. In addition, snow must be removed from the side floor beams (the edge of the wall panel/beam junction). 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 minimum distance of 10 cm must be maintained between the base of the container and the ground in accordance with point 3.8 of these instructions.

5.2 During use, the containers must be maintained at an appropriate internal temperature, i.e. a minimum of +5°C, and they must be systematically ventilated 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, water must be removed immediately if it arises as a result of the use of the container. If the water has not appeared as a result of normal use, but as a result of a fault, this must be reported immediately to the manufacturer and measures taken to minimise the effects of the fault.

5.3 Refrain from covering openings or vents.

6. Drainage

6.1 In the case of containers with a rainwater drainage system,:

a) ensure that rainwater from the roof can freely drain away under the container via internal drainpipes, and the surrounding area should be levelled so that the water does not run under the container

or

b) discharge rainwater directly into the rainwater system.

c) prepare and implement the supports in such a way as to allow water to drain from the corner of the lower container through an opening in the lower container plate.

6.2 The tightness and permeability of the rainwater drainage system should be systematically checked and faults rectified and drains cleared immediately. Particular attention in this regard should be paid in the event of sudden or prolonged rainfall and thawing in winter.

7. Connections of utilities

7.1 Power supply connections/earthing

7.1.1 The following checks and actions required by legal standards must be carried out before the container is used and after it is connected to the target power supply:

- all electrical consumers (appliances) must be disconnected before start-up,
- ensure that containers are correctly earthed and, when containers are combined into sets, the earthing of adjacent modules is properly carried out,
- measurements in connection with protection against electric shock must be carried out
- inspect the technical condition of the container and its components and equipment.
- carry out any other actions required by fire and health and safety regulations.

In the case of container adaptations, all mandatory technical safety checks prescribed by law are the responsibility of the tenant/buyer/user (operator) of the container. Before moving into the container, the legally required tests and measurements must be carried out in-house.

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 the containers should be carried out by a qualified person (pin earthing or shunt earthing) who will take the measurements required by law (earthing resistance measurement - less than 10 Ω). In the case of combining containers into sets, each case must be considered individually. For earthing, cooperage and LgY50mm^2 cable must be used in accordance with current standards and regulations.

7.1.3 Only a qualified person with an electrical licence may connect the containers to the mains. The containers can be connected in series depending on the load, but no more than 4 residential/office containers. In the case of sanitary containers, a maximum of 2 containers can be combined. Further connections from the last container are prohibited. Do not use the container's internal installations to power other equipment outside the container.

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 (in particular the operating instructions and guarantee).

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

7.1.6 If an electric storage water heater is installed in the container, the appliance - before being connected to the mains - must be filled with water.

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

7.1.8 Repairs to the electrical system may only be carried out by a qualified person with the appropriate electrical licence.

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 occurs in the electrical system, steps must be taken immediately to rectify it.

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

7.1.14 It is forbidden to cover the openings of electric heaters (if any). Drying clothes or heating liquids on electric heaters is strictly prohibited. To reduce the risk of fire, textiles, curtains or other flammable materials should be located at a distance of not less than 1 m from the air outlet of the electric heater while furniture and other equipment should be located at a distance of min. 50 cm from the wall on which the electric heater is mounted and min. 25 cm from the side of the heater. The distance of the electric heater from the shower, bathtub, etc. should be min. 60 cm. Other general safety regulations of the manufacturer of radiators and other appliances must be observed.

7.1.15 Disconnect the main external power supply to the container before servicing any electrical system.

7.2 **Water and sewage system**

7.2.1 The connection of the containers to the water supply and sewerage system may only be

carried out by a person qualified in sanitary installation.

7.2.2 Flushing of the water connection is required before connecting the water. Failure to do so may result in sand particles and other contaminants entering the installation and clogging it.

7.2.3 Once the water has been connected, special attention should be paid to the pressure in the system, and a leak test of the system is essential (as a result of transport, the system may leak), in which case the leak must be repaired before the container can continue to be used. The pressure in the container installation should be no more than 0.5 MPA (5 bar).

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

7.2.5 Once the installation has been connected - in order to avoid damage caused by sub-zero temperatures - the thermal insulation of the external connections must be provided. When the containers are in use, an internal temperature of at least + 5°C must be maintained, and if the container is not in use, all pipes, fittings, traps, cisterns and appliances connected to the plumbing system must be completely drained of water before the onset of frost.

7.2.6 It is forbidden to start the heaters while they are not filled with water, as this risks burning the heaters. When filling the water system, to bleed the heaters, make sure that the heater supply valves are open and that the basin mixer valve furthest from the boiler is open in the hot water position.

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

7.2.8 It is recommended to keep the fittings clean at all times and to check that they are properly fixed. The flushing of hygienic products such as sanitary pads, wet wipes, nappies, tampons, cotton wools, paper towels, etc. and granular substances, i.e. sand, earth, coffee, food leftovers, etc., is prohibited in toilet bowls and sinks, as well as the throwing of any other waste into them, as such action may cause clogging of the installations.

7.2.9 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 must be systematically checked, as well as the correct functioning of the water heater - according to the information contained in the instructions and warranty of the appliance manufacturer.

7.2.10 When making an external water connection to containers, if a common pipe is run to more than one container, the cross-section (increase) of the pipe must be selected accordingly to avoid drops in installation performance.

7.3 Air conditioning installation

7.3.1 If an air conditioner is installed in the container, it should be serviced regularly, in accordance with the operating instructions and the manufacturer's warranty for the unit.

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 mounted directly above an electric radiator and other electrical appliances - in particular, condensate leakage may occur if it fails.

7.4 Equipment

7.4.1 It is forbidden to extend beyond the necessity of the tape or cord activating the roller blind or window blind. Pulling the tape or cord all the way out of the retractor will permanently damage the retractor spring and immobilise the blind or roller shutter.

8. Maintenance - user action

8.1 Service repairs and inspections of the container, its installations and accessories should only be carried out by persons with the appropriate qualifications and authorisations required by separate regulations.

8.2 Regularly clean the roof, drainpipe and rainwater drainage. A clogged channel or frozen gutter can result in water entering the container in particular.

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

8.4 It is necessary to avoid loading the roof of the container with large amounts of snow in order to maintain the adequate load capacity of the steel frame (on the roof max. 128kg/m2, which corresponds to the standard snow zone with a characteristic snow load of up to sk=1.6 kN/m2).

8.5 After each transport and foundation of the container, the container must be properly levelled to ensure that the window and door sashes can be opened and closed properly. Adjust window and door sashes as necessary.

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

8.7 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.

8.8 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. Washing containers with pressurised water is prohibited. Wash the external and internal surfaces of the segments with water with a natural alkaline reaction (pH 7 to 8), do not use organic compounds, esters, alcohol, aromatic mixtures, glyco-ether.

8.9 Ensure regular maintenance and cleaning of sanitary fittings (cisterns, urinals, shower cubicles, washbasins, etc.).

8.10 Floor covering - clean footwear thoroughly before entering the container. Protect the floor covering from scratches and dirt. Care for the floor covering in accordance with section 8.8 of this manual. Any type of mechanical damage is not covered by the guarantee. When cleaning the floor covering, remove sand, dust and remaining loose dirt with a soft-bristled broom, if necessary - scrub the surface of the carpet with a slow-speed machine; use clean water or water with a neutral detergent, wash the surface with clean water and allow to dry.

8.11 It is imperative that a Wema grille is installed in front of the external door or entrance to the container, in order to have the opportunity to clean footwear from small stones, mud and other debris that may damage the container floor covering. The fact that a Wema grille has been installed in front of the entrance must be recorded in the container's Service Book under penalty of forfeiture of the Guarantee.

8.12 For cleaning and maintenance of the container, maintenance of the moving parts of the doors and windows should be carried out at least once a year using technical petroleum jelly. When cleaning windows, use cleaning agents designed for this purpose and which do not contain solvents. Check the patency of the drainage channels after each wash.

8.13 Cleaners (cloths, sponges, rags) - only smooth cleaners that do not contain sharp elements that can scratch the smooth surface of walls, windows, doors and floors are recommended for washing.

8.14 When cleaning and maintaining the container, it is forbidden to scrape the surfaces of the

profiles and windows; to use hot steam; to use acid or strong alkaloids; to use sharp, scratching substances that may cause damage to the surface of the components; to use organic compounds, esters, alcohols, aromatic mixtures, glyco-ether; to use powdered cleaning agents.

9. Concluding remarks

9.1 Modular System Sp. z o. o. assumes no liability and excludes any warranty benefits for damage caused by improper assembly, storage, transport and operation of the containers.

9.2 Carrying out any kind of modification or modernisation that is not in accordance with the principles of technical knowledge, or that impairs or affects the container, its quality, durability or the functioning of its elements, is forbidden on pain of forfeiture of rights under the guarantee, in particular modifications that do not comply with health and safety and fire regulations and that pose a direct threat to human health or life, as well as when they are contrary to the provisions of the Act of 7 July 1994. Building Law. (Journal of Laws of 2010 No.243, item 1623 as amended).

9.3 The Buyer shall be obliged to comply with the provisions of the *General Guarantee Terms and Conditions of the product manufactured by Modular System sp. z o.o., the Terms and Conditions of Transport, Delivery and Foundation of the containers manufactured by Modular System sp. z o.o*. and this *Operating and Operating Manual of the container systems*, as well as with the general legal regulations concerning storage, assembly, transport and use of the containers.

The container is intended to be used as a temporary structure in accordance with Article 3(5) of the Construction Law of 7 July 1994. (Journal of Laws 2010, No. 243, item 1623, as amended), for temporary human occupancy or by individual agreement for specialised products.

Note:

1. The manufacturer reserves the right to make changes to this manual.
2. Should any questions or concerns arise during container operation, please contact Modular System Sp. z o.o. directly.

MODULAR SYSTEM Sp. z o.o.
Ogorzelice, 2023