Instructions for Operation and Maintenance of Containers

Container Handling

1. Containers are designed for transport on a flat loading area that is 2.5 m wide, which enables support of the load-bearing floor structure in the area during the transport.

2. Before loading, all freely loaded parts and components transported inside the container must be secured along with the containers. All holes in the walls, floor and roof must be firmly closed.

3. A properly dimensioned crane shall be used for unloading containers and their seating.

4. The length of the suspension ropes is selected according to the distance of the suspension point. The angle the suspension ropes form shall not be more than 60°. The suspension ropes must be equally long or longer than the distance between two suspension points (maximum distance between the suspension points je 9 m). See figures below.



Construction Site Preparation

1. Containers are placed onto reinforced horizontal concrete surface such as concrete footings or a concrete base as designed by IMECON Containers, a.s.

2. The base must be ready for at least one week (in summer season) or 10 days (in winter season) before placement of the containers for the concrete to be sufficiently mature.

3. The base for container assemblies must be designed in accordance with local foundation dimensions proposed by a designer responsible. IMECON Containers, a.s. provides a design of foundation ground plan which only deals with a ground plan layout of container supports and possible placement of engineering networks.

4. The foundation must be made in plane tolerance within ± 5 mm. Before the container placement, the foundation needs to be levelled and unevenness must be compensated by supplied washers within ± 1 mm. The unevenness of the foundation construction or imprecise foundation levelling may result in intersection of the container construction. This may result in doors and windows which do not close properly, which leads to their leakage. In terms of plasterboard/fermacell tiles, excessive cracks between the panels may occur.

5. Unless the containers are placed on a concrete foundation immediately after the transport, the containers need to be placed on a perfectly flatreplacement deck without protruding objects prevent the containers from deformation or any other damage of the load-bearing construction.

6. Containers must be placed accordingly to prevent water from nearby roofs or another source of water from coming in.





Ventilation of Containers and Assemblies

1. Minimum distance of 200-300 mm must be maintained between the bottom part of the container and the terrain to create ventilated space. Water vapours will thus be prevented from penetration of the containers and subsequent condensation in them.

2. In order to ensure proper ventilation, the gap of 200-300 mm must not be covered around the container perimeter. However, to prevent animals from entering the space below the containers, it is possible to provide the gap with perforated metal sheets or metal mesh.

See figures 2 and 3

Container Drainage

Proper drainage of rainwater from the container roof and gradient setting of the terrain must be ensured to prevent water leakage under the containers. The water accumulated under the containers would increase humidity in the space under the containers and would subsequently increase the risk of water vapour condensation inside the containers.

Connection of the Containers to Engineering Networks

Connection of the containers to engineering networks and earthing is up to the customer.

Part 1

Electrical energy, earthing and lightning protection:

1. Container earthing must be performed in accordance with the applicable regulations. Only the earthing screws in bottom corners of the container are used for earthing. The place of the earthing conductor connection must be protected against corrosion.

2. Incidental earthing conductors such as metal water pipeline, steel structures in the ground and others may also be used. A gas pipeline or pipeline for other flammable or explosive substances must be used under no circumstances.

3. Containers are not supplied with lightning protection.

4. Connection of the containers to the power lines must be performed by an authorized person. Electrical energy power supply must be sufficiently dimensioned for the installed power and must be in compliance with safety and technical requirements. Its protection must not exceed the nominal value of the switching station or the devices installed. It is necessary to pay attention to uniformly distributed loading in individual stages of the installation. 5. Connection of electrical devices must be in compliance with applicable standards on safety against electric shocks.

6. Outdoor socket of 400 V / 32 A are only designed to connect the containers to the electricity power grid or mutual interconnection of containers and must not be used for a different purpose. If it is necessary to connect other machines and devices (cement mixers, saws, etc.), separate sockets with adequate fuse protection must be installed.

7. If heaters are installed in the containers, they need to be filled with water before their connection to the electricity power grid in order to prevent the heaters from burning.

8. Electrical sockets must be used to fit the intended purpose of usage e.g. for heating convectors, microwave ovens, etc. The power consumption of the socket circuits must not exceed nominal current of individual sockets or line.

9. In terms of lamps, it is necessary to ensure sufficient air circulation and heat dissipation. It is necessary to observe maximum input performance. The construction of lamps shall not be interfered with and no flammable substances must be placed near the lamps.

10. Repairs and interventions in wiring may only be performed by a qualified and appropriately trained specialist after an agreement with the Supplier. People serving electrical devices in the container must be provided with a proper training.

11. Mechanical damage to the wiring during operation must be prevented and the line must be secured against heat, chemicals and other influence which could harm the insulation.

12. Electrical inspection followed by a report shall be performed before putting the device into service, after every change or extension. Regular electrical inspections of the containers are performed within a time frame prescribed by the regulations. Besides that, the electrical inspection is performed after moving a container to a different place or when it has not been used for more than two months.

13. If a container or a container assembly is out of use for longer time, it is necessary to disconnect the electrical devices from the source. Before putting the device into operation again, the inspection of the electrical device needs to be performed to ensure its further reliable operation, check the equipment and the function from the connection place to the devices including earthing conductors.

14. In case of any defects, it is necessary to carry out measures to remove or repair them.

15. Electrical installation is performed according to external influences specified in the Protocol Determining External Influences provided by the manufacturer. Other influences may be specified by the operator based on the container usage.

16. Electrical devices and appliances must not be splashed with water.

Part 2

Water supply and waste:

1. Connection of the sanitary container to water and waste water pipeline must be performed only by an authorized person.

2. After the connection, it is very important to insulate outdoor water and waste water pipeline in order to avoid freezing in winter. If the container is used in winter as well, the container interior must reach a temperature of minimum + 5°C. Unless the container is used during a winter season, it is necessary to drain all water from the pipeline as well as fittings before the winter begins in order to prevent frost damage. At the supply stage, IMECON Containers, a.s. shall be notified about the fact that the container will be out of order during winter.

3. In case a sanitary container which is already in use shall be manipulated, all water must be drained from all heaters and containers to avoid their damage caused by overloading.

4. The furnishings must be kept clean and checked for their firm fitting. Rough dirt (sand, soil, rags, paper, etc.) which could block the waste water pipeline must not be flushed in the toilets and washbasins.

5. Installation of water and waste water pipeline must be checked regularly, the pipeline must not be overloaded by depositing different objects.

6. Thermostats and safety valves of heaters i.e. correct function of water heating to prevent overheating and further possible damage to the heater must be regularly checked. A check of reducing valves and filter cleanness must be performed.

Part 3

Hot water heating:

1. Connection of the container to hot water heating pipeline must be performed by an authorized person.

2. It is necessary to maintain the temperature in the container with a hot water heating pipeline at the minimum of $+5^{\circ}$ C to prevent the water in the heating system from freezing. If the container is manipulated subsequently, the water must be drained out of the heating system to avoid possible damage caused by overloading.

Part 4

Natural gas:

Connection of the container to natural gas supply must be performed by an authorized person in compliance with all safety and technical regulations.

Container Maintenance

Container cleaning

1. Cleaning of outer and inner surface of the container is performed by means of conventional non-aggressive detergents. Stainless steel parts are cleaned by non-aggressive chlorine-free detergents. Only the necessary amount of water is allowed to be used.

2. It is forbidden to use pressurized water for cleaning. IMECON Containers, a.s. supplies clean containers; however, it cannot be ensured that the containers supplied would not become dirty during the delivery (especially during winter).

3. It is necessary to keep the sanitary containers dry and clean, e.g. mop the floor regularly and clean the drain traps. The floor must be mopped at least once an hour and drain traps cleaned once a day in very frequently used sanitary containers, especially showers).

4. Maintenance of water pipeline installations:

- closing and reopening of all shut-off fittings must be performed once every 6 months to avoid lime scale. (If this is not performed regularly there is a danger of lever tear-off or incompleteclosing of the shut-off fitting and subsequent water leakage).

- if the dirt filter has been installed, it is necessary to clean the filter based on the rate of clogging. Otherwise pressure decrease in the system may occur.

- regular checks of the water pipeline system and furnishings are needed. It is necessary to check if there is no water leakage to prevent useless damage to the property.

5. Service maintenance is required for air-conditioning units and is performed once a year in case of seasonal usage (for cooling purposes only) and twice a year in case of all-year usage (heating and cooling). The maintenance service is performed by a specialized company which shall report the maintenance in a service log submitted in case of claiming a refund.

Container Ventilation

1. Intensive short-term ventilation is required in places without a ventilator at least three times a day. This ventilation is done by opening windows and doors to reach the required air humidity in the containers. Relative air humidity ranging between 45-50% is required to be kept in the containers. See fig. 3.

2. Required air humidity is maintained by setting the hydrostat at 50% of relative humidity in places with a ventilator and humidity sensor. It is forbidden to switch off the ventilators before the required air temperature is reached.

3. The temperature inside the container must be kept within the range between 19-23°C(20°C preferably). The container must not be overheated.





General Terms and Conditions

1. The roof, rain gutters and drains must be cleaned regularly. Clogging the rain gutters with dirt may result in water entering the container. See fig. 4. Damaged protective coating of the rain gutter must be repaired immediately to prevent corrosion spread.

2. Roofs of the containers need to be kept, if possible, without thick layers of snow and ice to avoid exceeding the designed roof load and structural deflection.

3. A malfunction of doors, windows or blinds may occur after the transfer and seating of the containers and therefore, they need to be adjusted. They need to be checked and adjusted regularly if necessary.
4. Door hinges and window and door mechanism shall be coated by WD40 oil and window drainage shall be cleaned at least twice a year.

5. All mechanical damage of the outer shell of the container must be repaired immediately (cleaned, degreased and coated) to avoid corrosion. If the sealant crack on the window sill or drip cap occurs, it is necessary to cover the crack with a flexible sealant (PU).

6. A regular inspection and, where appropriate, a repair of leaking old joints of water supply and functionality of sanitary equipment and fittings must be performed. An inspection and, if necessary, jointing of wall tiles and floor tiles need to be performed.

7. All electrical appliances must be used in compliance with instructions provided by their manufacturers.
8. Regarding thermal appliances, it is not allowed to cover exhaust and ventilation holes of heaters, dry clothes on them or use them to heat liquid substances. Minimum distance of 500 mm in the direction of beam radiation and 100 mm in other directions from furniture must be observed in case of electric direct-heating convectors. In general, safety instructions recommended by the manufacturer must be observed.

9. It is necessary to check if the connections, device covers and terminal blocks are not mechanically damaged. Regular cleaning while observing all safety regulations is a part of the electrical appliance maintenance.

10. It is necessary to check the function of a residual-current device by switching it off and on. The check must be performed once every 6 months. It shall be done twice in a row. (There is a test button in the residual-current device for these purposes).

11. The warranty period applied to sources of light (bulbs, tubes) is 6 months.