# TECHNICAL DESCRIPTION

for

# SANITARY CABIN
# (PU - type)

**In General:**

The following description refers to the specification and design of new, standard cabins.

Our cabins match the ISO-norm dimensions and have therefore many advantages of that system. They consist of a solid frame construction.

**Dimensions (mm) and weights (kg):**

| Type | external | | | internal | | | |
|---|---|---|---|---|---|---|---|
| | length | width | height | length | width | height | weight |
| 10' Sanitary cabin | 2,989 | 2,435 | 2,591 | 2,815 | 2,260 | 2,340 | 1,490 |
| 16' Sanitary cabin | 4,885 | 2,435 | 2,591 | 4,710 | 2,260 | 2,340 | 2,055 |
| 20' Sanitary cabin | 6,055 | 2,435 | 2,591 | 5,880 | 2,260 | 2,340 | 2,490 |
| 30' Sanitary cabin | 9,120 | 2,435 | 2,591 | 8,945 | 2,260 | 2,340 | 3,515 |

**1.) FLOOR:**

- frame construction:
  - made from cold rolled, welded steel profiles, 3 mm thick
  - 4 corner casts, welded
  - 2 fork lift pockets - distance 2,050 mm
    (alternatively 1,650 mm)
    (inside clearance of forklift-pockets: 352 x 85 mm)
  - steel cross members with omega profiles, thickness = 2.5 mm
    In the area of the water heater double amount of cross members.
- insulation:
  - 60 mm mineral wool slabs (density 16 - 24 kg/m³)
    flammability class A - non combustible
    smoke density class Q1 - low smoke emission
    both in accordance with ÖNORM B 3800
- subfloor:
  - 0.63 mm thick, galvanised steel sheets
- floor:
  - cement bound chipboard, thickness 22 mm
    resistant against water, mildew and fungal attack
  - vinyl knob floor cover, 1,3 mm thick
    flammability class B1 - hardly combustible
    smoke density class Q1 - low smoke emission
    welded seams
    pulled up 100 mm on the side walls

**2.) ROOF:**

- frame construction:
  - cold rolled, welded steel profiles, 3 mm thick
  - 4 corner casts, welded
  - wooden cross members l x w = 100 x 40 mm
- roof cover:
  - 0.63 mm thick, galvanised steel sheet
    double folded joint along the whole cabin length
- insulation:
  100 mm mineral wool slabs (density 16 - 24 kg/m³)
  flammability class A - non combustible
  smoke density class Q1 - low smoke emission
  both according to ÖNORM B 3800
- ceiling:
  - 0.63 mm steel sheet RAL 9010 white
    on 12.5 mm plasterboard
- CEE connectors:
  recessed in frame on short end side

**3.) CORNER POSTS:**

- cold rolled steel profiles, 4 mm thick
  steel quality S275JR+AR (St 44)
  bolted to roof and floor frame

**4.) WALL PANELS:**

- with integrated enforcements in different versions
- wall thickness 60 mm
- flammability class B2

- panel types:
  - full panel
  - door panel
  - sanitary window panel
- external cladding:
  - corrugated, galvanised and coated steel sheet; 0.63 mm thick
    colour: blue, white, grey (similar to RAL 5010/9010/7035)
- insulation:
  - 60 mm polyurethane (PU), (density 35 - 40 kg/m³)
- internal cladding:
  - galvanised steel sheet; 0.5 mm thick
    colour: white

**5.) PARTITION WALLS:**

- wall thickness 60 mm

- panel types:
  - full panel
  - door panel
- frame:
  wooden frame, thickness 60 mm
- double-sided cladding:
  galvanised steel sheet, thickness 0,6 mm
  colour: white

**6.) DOORS:**

- external door:
  - right or left hand hinged
  - door blade with galvanised steel sheets on both sides,
    40 mm insulation
  - steel frame with triangular wraparound sealing

- dimensions:

| nominal dimensions | internal clearance |
|---|---|
| 875 x 2,000 mm | 811 x 1,968 mm |

- internal door (optional):
  - right or left hand hinged
  - door blade with galvanised and coated steel sheets on both sides
  - steel frame with triangular wraparound sealing
  - dimensions:

| nominal dimensions | internal clearance |
|---|---|
| 625 x 2,000 mm | 561 x 1,968 mm |
| 875 x 2,000 mm | 811 x 1,968 mm |

**7.) WINDOWS:**

- uPVC-windows with insulated, obscured glazing
- colour: white
- window dimensions: 652 x 714 mm

ATTENTION: The built-in insulation glass is only suitable for use at altitudes up to 1,100 m above sea level; above 1,100 m pressure compensation must be undertaken.

**8.) ELECTRICAL INSTALLATION:**

construction: dampproof concealed cabling

- technical data:
  - recessed CEE external plug and socket connections
  - voltage 230/400 V
  - 50/60 Hz, 3/5 poles, 32 A
  - circuit diagram provided inside the consumer box
  - consumer box, surface type, damp proof, single or twin row
  - circuit breaker for boiler
  - residual current operated device 40 A/0.03 A — 2/4 poles
  - circuit breaker 10 A (light) — 2 poles
  - circuit breaker 13 A (heater) — 2 poles
  - circuit breaker 13 A (sockets) — 2 poles
  - circuit breaker 16 A (boiler) — 3 poles
  - damp proof power sockets
  - damp proof light switches
  - 2 twin batten fluorescent light tubes with plastic cover 1 x 36 W

- earthing: Earthing conductor of galvanised flat steel and clamp. The protective earthing installation on site must be carried out by the buyer/hirer.

- safety advice: The cabins can be linked electrically at the external CEE plugs and sockets. For the decision how many units to connect electrically the expected constant current in the link circuits has to be considered. The commissioning has to be carried out by an approved electrician.

Accompanying instructions for assembly, commissioning, use and servicing of the electrical installation can be found in the distribution box and must be observed!

## 9.) WATER INSTALLATIONS:

- water supply: supply with ¾‘‘ or 1‘‘ pipe through the cabin wall

- internal: PVC piping

- warm water supply: with electric boiler
size depending on cabin type (80 or 300 litres.)
ATTENTION:
The boiler with 80/300 litre capacity are designed for a max. working pressure of 6 bar. Higher water pressure will be reduced by a pressure reduction valve!

- waste water: The waste water is collected in PVC-pipes DN 50 or DN 100 (external diameter 50 or 110 mm) and discharged through the cabin wall.
The buyer/hirer must feed the waste water into an authorised sewage network or sewage tank.

## 10.) HEATING AND AIRCONDITION:

Individual heating by frost heaters, thermostatically controlled electric convector and/or fan heaters with safety switch for overheating.
Mechanical air circulation via extract fans! Regular ventilation of the rooms must be provided - a relative humidity of 70 % should not be exceeded!

## 11.) INSULATION:

| | | |
|---|---|---|
| - floor: | thickness = 60 mm | U= 0.54 W/m² K |
| - roof: | thickness = 100 mm | U= 0.37 W/m² K |
| - external wall: | thickness = 60 mm polyurethane | U= 0.375 W/m² K |
| - sanitary window: | thickness = 4/16/4 mm | U= 2.10 W/m² K |

## 12.) LOAD BEARING CAPACITY:

**floor load:** -ground floor: max. load capacity 2.0 kN/m² (200 kg/m²)
-top floors: max. load capacity 1.5 kN/m² (150 kg/m²)

**snow load:** max. load capacity 1.0 kN/m² (100 kg/m²)

**wind load:** 25 m/s (90 km/h)

In case of strong winds an additional anchoring of the cabins is required (bracings, boltings, supports etc.).

**13.)**
**CONSTRUCTION/ASSEMBLY/ STATICS:**

General:
Each individual cabin must be placed on foundations provided on site (e.g. wood, concrete) with at least 4 points of support for 10' cabins, 6 points of support for 16' and 20' cabins (appendix 3) and 8 no. points for 30' cabins (appendix 4). The dimensions of the foundation has to be adapted to local circumstances, norms and frost line, under consideration of the local soil condition and maximum possible loads.
The levelness of the foundation is a precondition for a smooth assembly and the failure-free standing of the entire construction. During set up or placement of the cabin (constructions), maximum permitted loads and regional conditions (e.g. snow loads) must be taken into account.

Possible combinations of several cabins:
Individual cabins can be selectively configured next to, behind, or on top of each other, while bearing in mind the structural indications and the max. permitted loads. For one-level (ground level) constructions, the cabins may be placed arbitrarily and without restriction regarding quantity. For two- and three-storey buildings, the combination possibilities presented in appendix 1 (10', 16' and 20' cabins) and appendix 2 (30' cabins) must be followed.
All statements are limited to cabins with max. external height of 2.8 m.

In case the cabins are linked in other combinations than presented in appendix 1, we can give no statement about the max. permitted wind load. We categorically recommend keeping a distance from such a practice or to carry out additional anchoring (bolting, supports etc.) with the approval of authorised experts.

Containex denies any warranty for damages, which may result from placement contrary to the principles. Liability for consequential damages is excluded on principle.

**14.) HANDLING:**

- with fork lift
- with crane: angle between rope and horizontal line at least 60°
Due to construction and design, handling with spreader is not allowed.

**15.) QUALITY SUPERVISION:** Germanischer Lloyd „Type test"

**16.) PAINT:** Physically drying lacquer, high weather and ageing resistance. Resistant against chemicals (industrial atmosphere), lasting elasticity, for ferrous and non-ferrous metal surfaces.

- floor frame: 70 µm PVC primer (corrosion protection)

-roof: topcoat in RAL colour

| | |
|---|---|
| - wall panels with surface coating: | 25 µm paint thickness for standard RAL colours (RAL 5010/9010/7035) |
| - frame: | 30 - 60 µm PVC primer<br>30 - 40 µm PVC topcoat |
| | We do not give any warranty for production caused colour deviations. |

The buyer is responsible to ensure that magisterial and legal requirements concerning storage, assembly and use of the cabins are met.

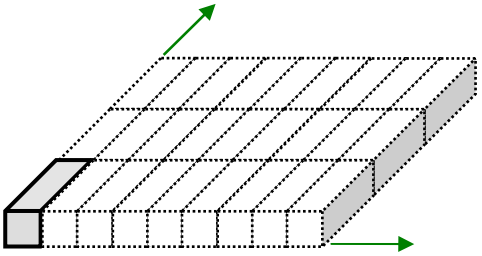
Subject to technical alterations.

Appendix 1

## Matrix of possible cabin combinations for 10', 16', 20' cabins

**Number of cabins (SxLxH): Short side (S) x Long side (L) x Height (H)**

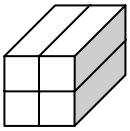
**1- storey**



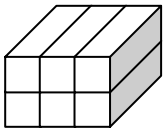
The cabins can be linked at will or positioned individually **without restriction to the size of rooms.**

**2- storey**

**Single line (Quantity of long sides = 1)**



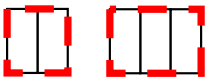
2x1x2



3x1x2

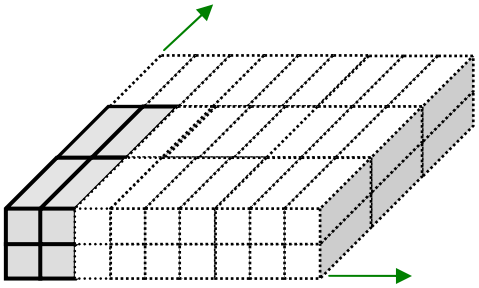
The illustrated two-storey buildings can be linked at will or positioned individually.
**The bracing outer walls must not be removed (maximum room size therefore 3x1 cabins).**

**Position of the required bracing outer walls**
(bracing outer walls shown with broken lines)



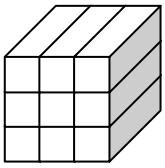
2x1 3x1

**Multiple rows (quantity of long sides ≥ 2)**

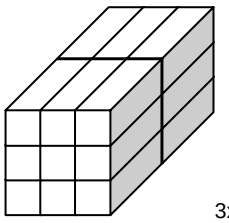


From a minimum size of 2x2x2 cabins an extension of the building in all directions is possible, without restriction to the size of rooms.

**3- storey**



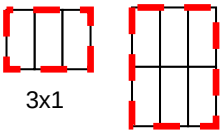
3x1x3



3x2x3

The illustrated three-storey buildings can be linked at will or positioned individually.
**The bracing outer walls must not be removed (maximum room size therefore 3x2 cabins).**

**Position of the required bracing outer walls**
(bracing outer walls shown with broken lines)



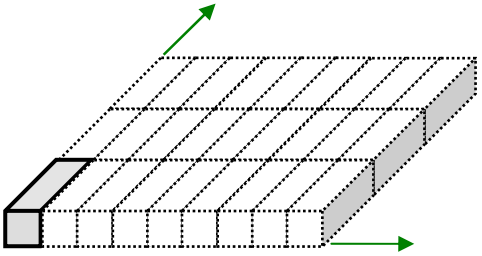
3x1 max.3x2

Appendix 2

## Matrix of possible cabin combinations for 30’ cabins

**Number of cabins (SxLxH): Short side (S) x Long side (L) x Height (H)**

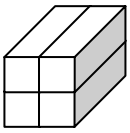
### 1- storey



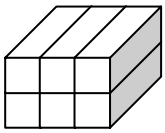
The cabins can be linked at will or positioned individually **without restriction to the site of rooms.**

### 2- storey

**Single line (Quantity of long sides = 1)**



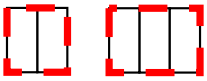
2x1x2



3x1x2

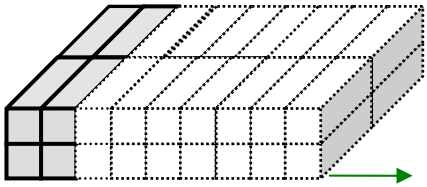
The illustrated two-storey buildings can be linked at will or positioned individually.
**The bracing outer walls must not be removed (maximum room size therefore 3x1 cabins).**

**Position of the required bracing outer walls**
(bracing outer walls shown with broken lines)

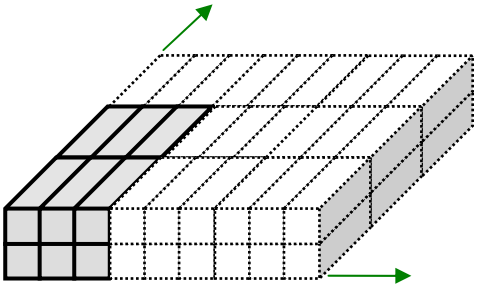


2x1 3x1

**Multiple rows (quantity of long sides ≥ 2)**

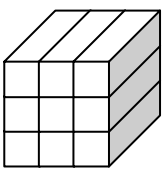


From a minimum size of 2x2x2 cabins an extension of the building in the longitudinal direction only is possible without restriction to the size of rooms.

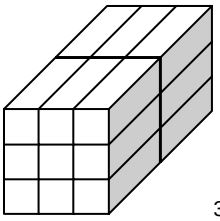


From a minimum size of 3x2x2 cabins an extension of the building in all directions is possible without restriction to the size of rooms.

### 3- storey



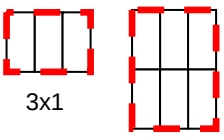
3x1x3



3x2x3

The illustrated three-storey buildings can be linked at will or positioned individually.
**The bracing outer walls must not be removed (maximum room size therefore 3x2 cabins).**

**Position of the required bracing outer walls**
(bracing outer walls shown with broken lines)



3x1 max.3x2

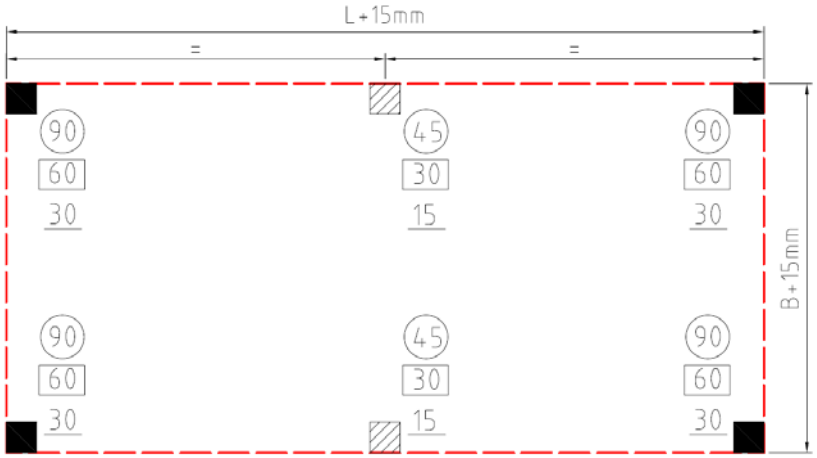
Appendix 3

**Standard Foundation plan for 10', 16' und 20' cabin**

Each individual cabin must be placed on foundations provided on site with at least 4 points of support for 10' cabins, 6 points of support for 16' or 20' cabins The smallest foundation size is 20 x 20 cm, but dimensions of the foundation has to be adapted to local circumstances, norms and frost line, under consideration of the local soil condition and the maximum possible loads. These measures have to be undertaken by the buyer/hirer.

**Cabin length (l); Cabin with (b)**

**Example: Single cabin**




LEGEND:

Foundation points for 10', 16' und 20' cabin

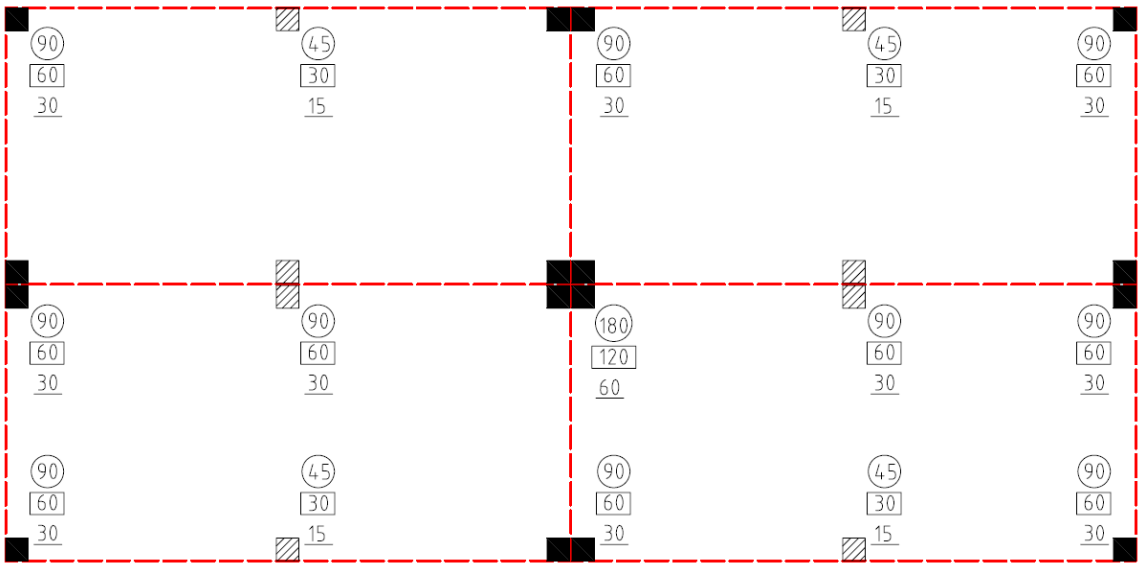
Foundation points for 16' and 20' cabin

Foundation loads for groundfloor: —
Foundation loads for one storey building: □
Foundation loads for two storey building: ○

All foundation loads in kN

**Example: combination with 4 no. cabins**

With a cabin combination a higher load for he inner foundation must be considered.



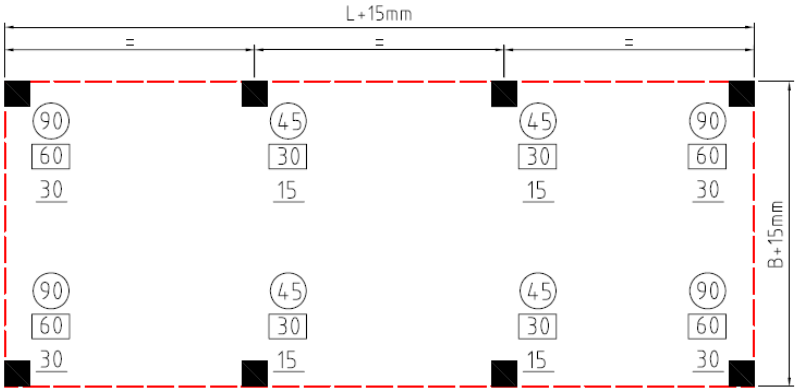
Appendix 4

**Standard Foundation plan for 30’ cabin**

Each individual cabin must be placed on foundations provided on site with at least 8 points of support for 30’ cabins. The smallest foundation size is 20 x 20 cm, but dimensions of the foundation has to be adapted to local circumstances, norms and frost line, under consideration of the local soil condition and the maximum possible loads. These measures have to be undertaken by the buyer/hirer.

**Cabin length (l); Cabin width (b)**

**Example: single cabin**




Foundation loads for groundfloor: —
Foundation loads for one storey building: □
Foundation loads for two storey building: ○

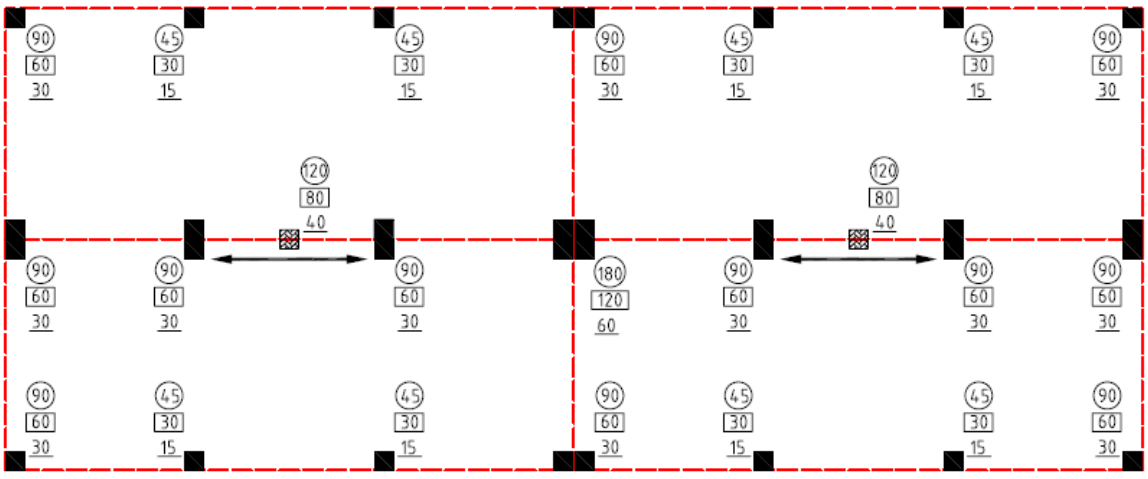
All foundation loads in kN

■ Foundation points for 30’ cabin

**Example: combination with 4 no. cabins**

With a cabin combination a higher load for he inner foundation must be considered.

The support post must be used by an open long side. The support post may be positioned anywhere between the additional foundations.




▨ Additional foundation point for support post (only necessary with open long sides)