# Operation and Maintenance Manual

# EURO LATTICE BOX

Prepared by the
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## 1. Application.

The –lattice box is used for transporting, storing and keeping formwork components such as locks, pins, tigers etc. in warehouses and on building sites. The lattice box components are made of certified steel. The entire structure is protected by hot-dip galvanisation in accordance with EN ISO 1461, which guarantees long-lasting use under natural conditions.

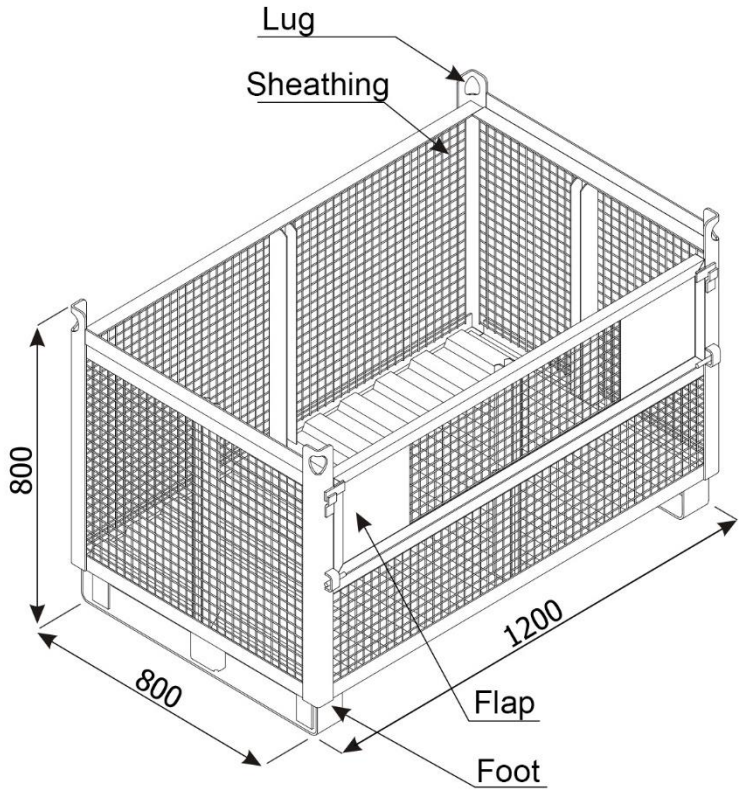


Fig.1 Lattice box

## 2. Use of the lattice box (Fig. 2 and 3)

The lattice box consists of several parts (Fig.1). The base consists of two feet for placing it on a flat surface or other lattice box at the place of use or storage. Its next component is a hinged side flap for easier access to the workpieces stored inside the lattice box. The next component is the upper brackets for stacking the lattice boxes together with the four lugs for transport by means of slings with a load capacity of min. 1300 [kg] (e.g. four-link chain sling: ZL 6-8 IV VW KHSW 1100 by Mipromet). The bottom of the lattice box is filled with profiled sheet metal. The entire structure is closed with a restrained mesh. The lattice box has an unladen weight of 74 [kg] and a lifting capacity of 1200 [kg].

The lattice box can be stacked on top of each other. In the storage yard, six lattice boxe may be stacked on top of each other (Fig. 3). In this case the final stacking weight of 6400 [kg] and the stacking height of 4.5 [m] should not be exceeded, even when unloaded. On site, the stack size should not exceed three lattice boxes. Then the final mass should be a maximum of 3600 [kg] and the height of the stack 2.25 [m].

Before using the lattice boxes, the condition of the components and its ability to function must be checked. Particular attention should be paid to weld seams, lugs and slings when transported by crane. If abnormalities are found in the form of damage or plastic deformation of the lugs, then they must not be used to move the lattice box!

Lifting lattice boxes – brief comments:

1. Only technically sound lattice boxes may be lifted or moved.
2. Loading should be carried out with a crane or forklift truck with the appropriate load capacity.
3. Use only slings with gripping elements or the forks of a forklift truck to lift the baskets.
4. Angle between slings max. 80° (Fig. 2).
5. When lifting, only use certified load hooks.
6. Ensure that when lifting (transporting) the lattice boxes no people are in the vicinity.
7. Do not expose lattice boxes to any mechanical impact.

Lattice boxes – brief comments:

1. Only technically sound lattice boxes may be transported and stacked.
2. Spacious, level areas should be chosen for basket storage.
3. Lattice boxes with heavier loads at the bottom of the "stack".
4. Place a maximum of 3 lattice boxeson top of each other on the site! (Fig. 3)
5. A maximum of six lattice boxes can be placed one on top of the other - only on a flat, concrete, storage surface (Fig. 3).
6. A stack that has more than 2% deviation from vertical must be dismantled immediately.
7. Position the load in the lattice box so that it does not fall out during transporting or lifting.

The lattice boxes are permanently protected with an anti-corrosive zinc coating, which guarantees their long service life. Correct storage and use of the lattice boxes enables their useful life to be extended.

Storage – brief comments:

1. Do not use substances that can damage or corrode steel or the zinc coating.
2. If necessary, lattice boxes should be struck through impact-absorbing materials: rubbers, elastomers, wood.
3. Avoid impacts with transport equipment: cranes, trolleys, forklifts.
4. Avoid any mechanical impact.

Proper transport of the lattice boxes over longer distances (wheeled transport on public roads), together with proper loading and unloading, also makes it possible to extend their useful life.

The following recommendations should therefore be observed:

1. The structure is suitable for transport by standard forklift and handling by crane.
2. Choose a wide enough path for the crane or forklift.
3. Lift the load with a crane only for short distances.
4. Stack lattice boxes on trucks according to transport requirements (maximum vehicle height is 4.0 [m]).
5. When transporting on public roads, the lattice box must be properly secured to prevent movement on the loading surface of the vehicle.
6. Items transported in a lattice box on public roads should be protected against falling out by placing a durable protective tarpaulin over the lattice box.

Destruction and damage to the lattice box.

Despite proper use, it is possible that one of the lattice boxes may break. Such a structure must not then be used as a product for its intended purpose. The item must be visibly and durably marked with an inscription such as "REJECT" or "DEFECTIVE" and stored in a special place or storage area.

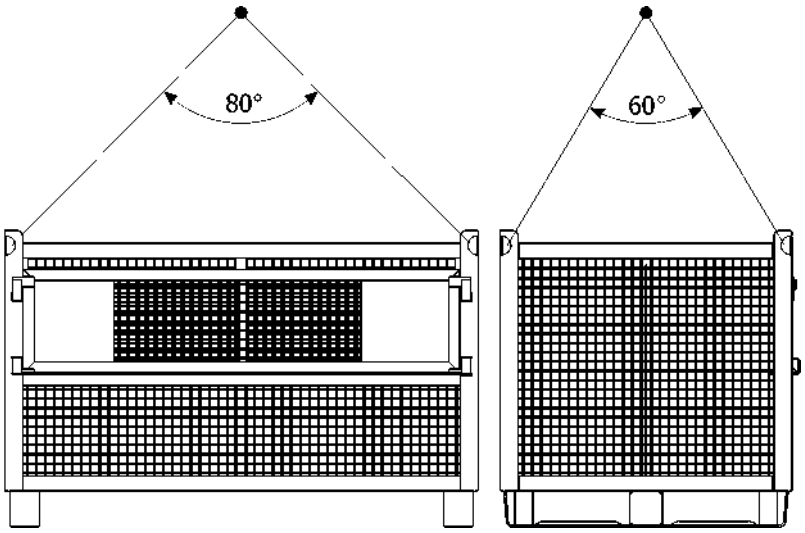


Fig. 2 Lifting the baskets using slings

Inspection of lattice box components.

After each use of the lattice box by crane or forklift and after it has been filled and emptied with the items in question, its suitability for further use must be assessed. The entire lattice box must be visually inspected, with particular emphasis on the following components:

1. Lugs must not be mechanically damaged or corroded - visual inspection.
2. Welds: must not be cracked or substantially corroded – visual inspection.
3. The feet of the lattice box must be free of mechanical deformation so that a pile stacked with several lattice boxes is stable - visual inspection.

4. The mesh sheathing must be complete and firmly attached to the structure of the lattice box so that it is not possible for the item stored in it to fall out of the lattice box.

5. The bottom of the profiled sheet basket should be complete and firmly attached to the lattice box structure so that it is not possible for the item stored in the lattice box to fall out.

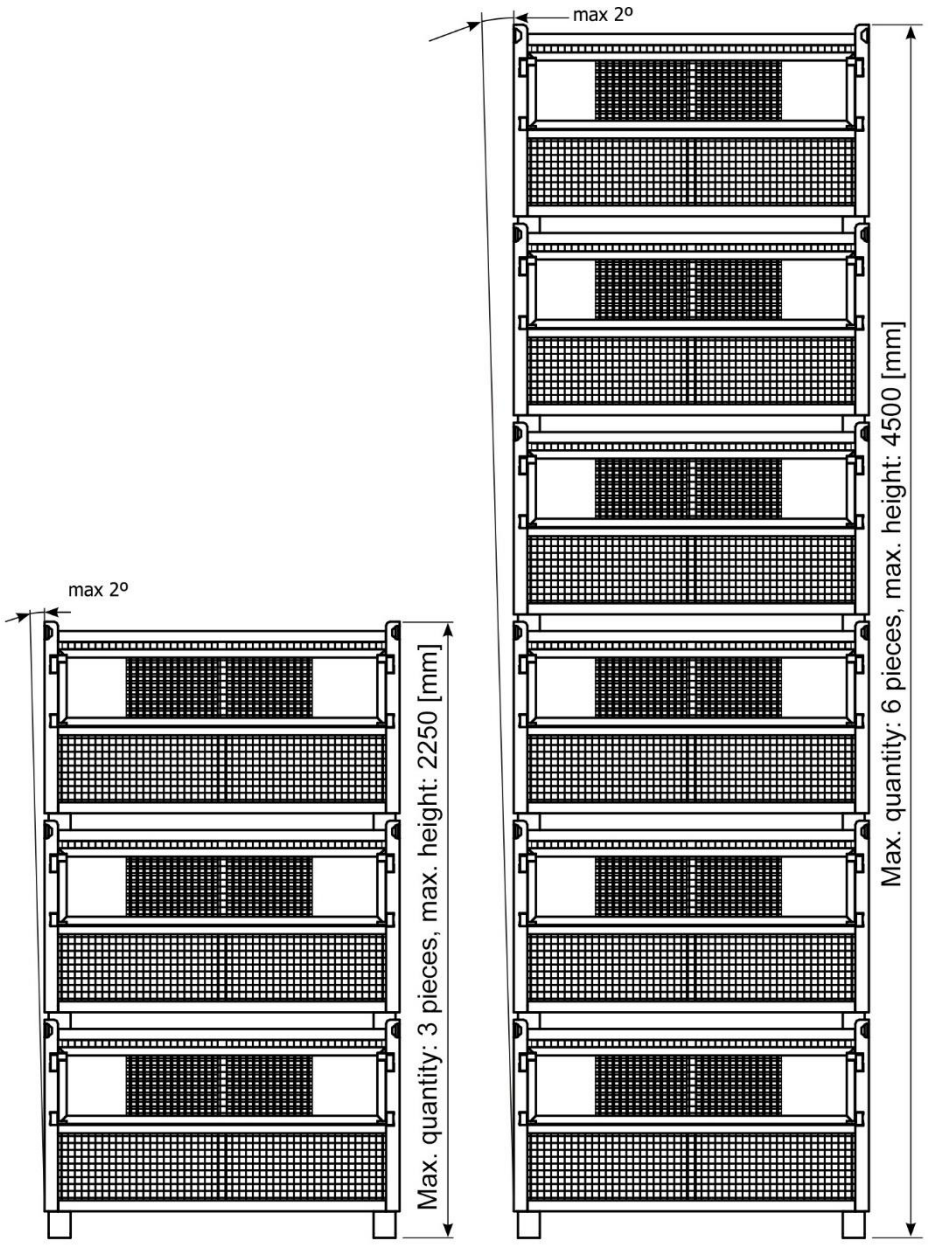


Fig. 3 Storage of Lattice box

**Risk and hazard analysis**

The prevention of risks and the reduction of occupational hazards associated with the assembly, use, dismantling, storage and transport of lattice box should be addressed through the following measures resulting from legislation implementing EU directives and including:

- ensuring that equipment is inspected in accordance with the requirements of the decision of the Minister of Economy of 30 October 2002 on the minimum safety and health requirements for the use of machinery and technical equipment by employees at work and recording the results,
- undertaking tasks relating to the technical adaptation of the technical equipment in use to the requirements of the aforementioned legislation,
- ensuring that machinery and other technical equipment supplied (purchased, leased, rented, transferred free of charge, etc.) has declarations of conformity, operation and maintenance manuals (OMMs) in Polish,
- drawing up health and safety plans at construction sites, taking into account the specific features of the building and the conditions of the construction work (e.g. when carrying out excavation work taking into account existing installations, e.g. electrical, gas, water pipes), including planning the simultaneous carrying out of construction work and industrial production and carrying out construction work in accordance with this plan agreed with the relevant departments.
- development of and compliance with health and safety instructions and procedures,
- defining and observing the division of competences in the field of health and safety of persons in charge of workers carrying out construction work (this refers to supervision by supervisors - from the foreman to the site manager and supervisor),
- ensuring that the works on the site are properly organised, taking into account the provision of: access to workplaces (roads, walkways, tunnels, canopies, walkways, ladders and scaffolding), storage of materials and waste (including their disposal), cordoning off and marking of dangerous areas, order and cleanliness, protection against access by unauthorised persons, proper lighting, limiting the impact of environmental conditions),
- using the machinery and other equipment as intended or suitably adapted to the construction work to be carried out,
- ensuring that adequate training is provided and that information is made available, in particular on accidents which have occurred, existing risks, preventive measures to ensure that the work is carried out safely, on health and safety procedures, as well as the protective equipment used,
- ensure appropriate collective protection measures in accordance with the scope of the work to be carried out by employees on the construction site and on the building site. This chapter has been prepared in accordance with the materials of the Central Institute for Labour Protection - National Research Institute.

Table: Examples of risks, hazards and impacts when using the lattice box.

| Risks | Risks | Impact | Counteracting |
|---|---|---|---|
| Use of the lattice box | Mechanical impact | Injury | Maintaining distance while performing business activities. Use of protective clothing |
| Carrying out quality checks | Mechanical impact | Injury | Use of protective clothing. Proper performance of work activities |

## 3. Additional information

FW System reserves the right to amend and improve products as required. This publication describes the state of the product at the time of issue and may differ from later versions of the product.

FW System makes no guarantees or warranties, including contractual warranties or any warranties arising from applicable law, against the improper use of the lattice box specified in this publication.

FW System is also not liable for damage caused to the user or third parties by the improper use of the lattice box referred to in this publication.