

<b>Område:</b> Transportemballage	<b>Dok-ID (Version):</b> I-3016 (ver 2)	<b>Senast ändrad av:</b> Urban Petersson	<b>Senast ändrad:</b> 2023-10-16
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# Manual for Transport Cradle **Hydro SE Cradle**

Formerly called "Vetlanda cradle", "Sapa cradle", "Red cradle", etc.

# 1 Introduction

This manual applies to Hydro SE Cradle, Returnable Transport Asset intended for Hydro aluminium profiles, and addresses customers and other stakeholders who handle our cradles.

These cradles are property of Hydro Extrusion Sweden AB and they may only be used for the transport of Hydro's profiles.

Hydro's profiles can be delivered and handled in specially designed transport cradles, called Hydro SE cradles, formerly called "Vetlanda cradle", "Sapa cradle", "Red cradle", etc. We strive to use these to the greatest extent possible based on a sustainability perspective as these can be reused several times. Hydro ensures the functionality and safety of the cradles through checks and inspections according to a special routine.

It is not permitted to use Hydro SE cradles outside the Nordic countries (Sweden, Norway, Denmark and Finland). Separate agreement, according to cradle agreement, may exist for larger direct flows with large volumes of profiles.

It is also not permitted to use Hydro SE cradles for onward deliveries to third parties without this having been specially agreed with Hydro.

This manual regulates the use and safety regulations for handling these transport cradles.

## 2 Cradle types and accessories



### 2.1 Cradle types

Hydro SE cradle is available in three different sizes. Normally, only "Hydro SE cradle 4 m" is used within the framework of cradle agreement. Separate agreement is required for the other cradles, as they are more bulky in return transport and handling.

Item no	Designation	Length	Frame height*	Frame width**	Tara	Max load
K04	Hydro SE cradle 4 m	4 000 mm	400 mm	800 mm	77 kg	800 kg
K06	Hydro SE cradle 6 m	6 000 mm	400 mm	800 mm	92 kg	800 kg
K10	Hydro SE cradle 10 m	10 000 mm	400 mm	800 mm	199 kg	800 kg

\* inclusive lifting ears 486 mm, \*\* inclusive lifting ears 840 mm

### 2.2 Accessories

When packing we use returnable protections to protect the profiles during transport.

#### 2.2.1 Foam protection

To protect sensitive profile surfaces, blue U-profiles made of foam "foam protection" are used, see picture below.



Foam protection can be used several times and therefore we ask you to return these to Hydro. They should be packed in a separate pallet and collar, alternatively in a carton box or sack and returned together with return of empty cradles.

#### 2.2.2 Spacer

To protect profiles packed in so-called volume packs, we use spacers between each layer.



These can be used several times and must be returned in a pallet and collar to us together with the return of empty cradles.

### 2.2.3 Sub supports

Hydro uses supports when packing certain slender profiles. These must be returned packed in as few empty cradles as possible and secured by straps.

## 3 Check of defects and damages at arrival

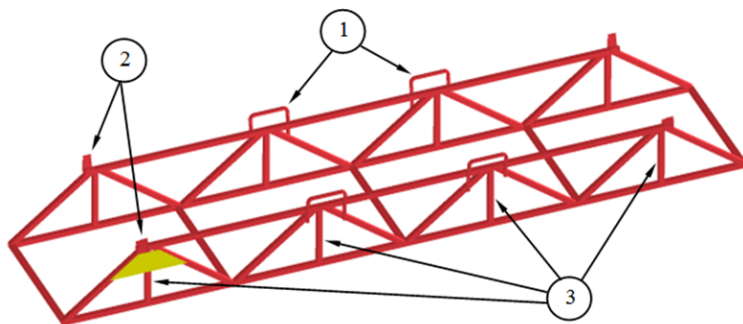
When receiving the cradles has to be checked from damages or other defects. Although Hydro checks and inspects the cradles and do not send damaged or defect cradles to our receivers some damages may occur during loading, transport, unloading or in any handling of the cradles om its way to receiver.

If any damage or defect is recorded at receiving it must be reported as a claim immediately and latest within 48 hours after receiving by mail to

[RTIM.logistics.se@hydro.com](mailto:RTIM.logistics.se@hydro.com)

### 3.1 Cradle inspection/control

The following must be checked before the cradles is approved for further handling.



#### 3.1.1 Lifting ears

Lifting ears (1) should not be missing, folded or otherwise deformed.

#### 3.1.2 Guide pins

All guide pins (2) at both ends of the cradle must be in place. They should not be curved so that their function deteriorates.

#### 3.1.3 Vertical bars

Vertical bars (3) must be located under each lifting ear or guide pin. These must be whole and straight without damage.

#### 3.1.4 Welding's

All welds must be intact.

### 3.1.5 Form errors

The cradle should not have defects/damages that make it unstable during handling and stacking or otherwise impact its function. Form errors mean that the cradle is longitudinally curved, twisted, or has curved tubes so that the cradle becomes uneven. The cradle should not have strong rust attacks or cracking which affect the strength of, for example, weld joints.

### 3.2 Claim

If any damage or defect is recorded at receiving it must be reported as a claim immediately and latest within 48 hours after receiving by mail to [RTIM.logistics.se@hydro.com](mailto:RTIM.logistics.se@hydro.com)

Take pictures and mark the cradle with yellow chalk or yellow tape where the damage or defect are located. Avoid using the cradle stacked. Handle the cradle separately. Return the defect cradle in next return to Hydro.

## 4 Handling rules

The following rules must be observed regarding the handling of individual or stacked empty or loaded cradles.

### 4.1 Dimensions and weights

All cradles are approved for

Maximum load per cradle 800 kg

Maximal stacking weight

Max load on bottom cradle 3 500 kg

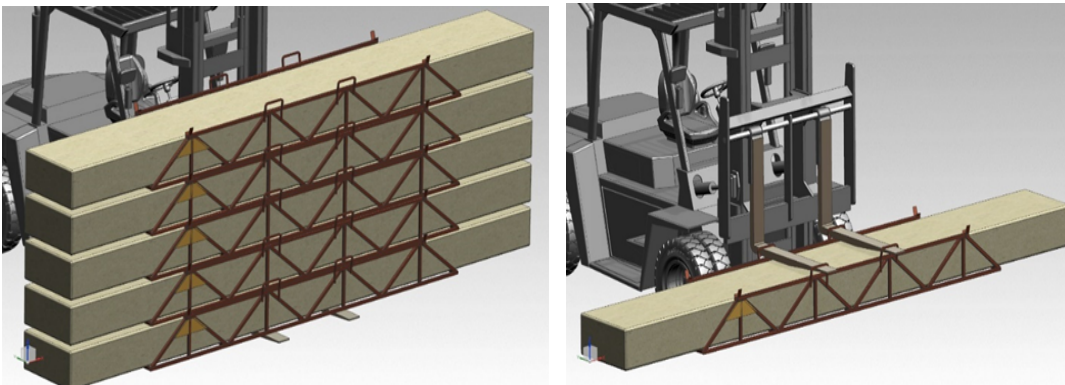
Max load per stack 4 385 kg

Loading width 3 stacks 2 440 mm

The stacks are placed in a scissor position with the middle stack offset 200 mm to the rear

### 4.2 Unloading and lifting

Loaded cradle may only be lifted in the ears, overlays or in the subframe and then directly under the reinforcements.



Suitable lifting points

Cradle or cradle stack may only be moved or towed over the floor with a forklift truck or similar if a slide rail is used.

It is important to use suitable load pushers when laterally moving the load on a flat surface. Pressure on the cradle should be applied to the middle of the lower part so that the force is evenly distributed. The load handler should be about 2 meters wide.

Consider the safety distances when handling cradles. Personnel must never be under a hanging load. Incorrect use can result in the risk of injury.

Hydro will load maximum 4 350 kg per stack.

To unload an entire stack, an equipment that can handle this weight is therefore required with a shifted center of gravity of 2000 mm from the rear edge of the fork. Hydro uses wheel loaders or forklifts for loading and unloading.

Otherwise, the cradles must be detached one by one in the ears or in the frame of the cradle. To unload the goods as above, at least a counterweight truck with 2,400 mm long forks with a lifting capacity of 900 kg 2,000 mm from the rear edge of the forks is required.

### 4.3 Stacking of loaded cradles

#### 4.3.1 Allowed stacking heights and maximum weight on the bottom basket for loaded cradles

Maximum load on the bottom cradle in a stack may never be over 3 500 kg.

When using Hydro SE Cradle K04

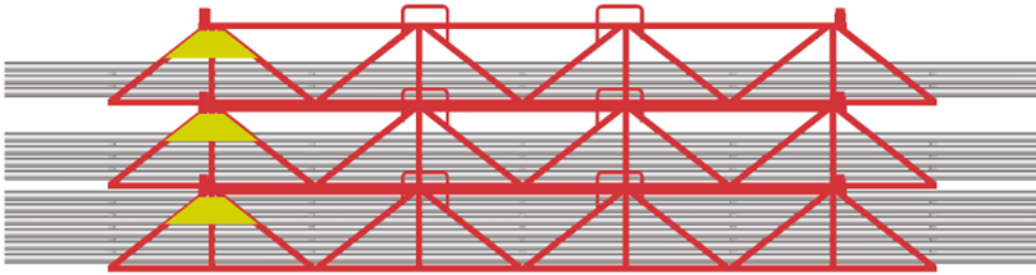
Number of cradles in stack	Comments
6 heigh	Floor stacking
6 heigh	Transport by trailer - Maximum load on the bottom cradle 3 500 kg Total height per stack – 2 486 mm
5 heigh	Normal transport by trailer to customer - Maximum load on the bottom cradle 3 500 kg Total height per stack – 2 086 mm

#### 4.3.2 Allowed stacking heights for empty cradles.

Number of cradles in stack	Comments
11 in height	Return freight by trailer – Folded together
8 in height	Maximum stack of empty cradles – total height 3 290 mm
6 in height	On the floor inside. Return freight by trailer. Transport by forklift truck inside or outside.

#### 4.3.3 Placement of the basket in the stack

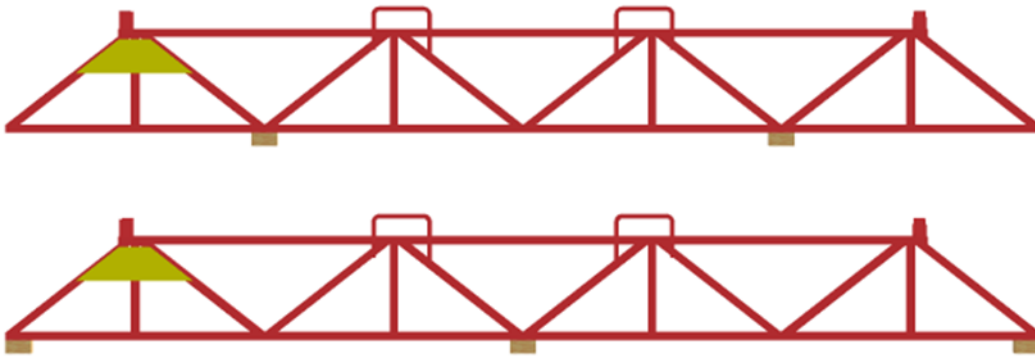
To obtain a stable stack, cradles with high weight, long profiles and / or profiles with heavy deflection outside the cradle should be placed in the bottom of the stack. Cradles with lower weight are stacked on top. This is especially important when loading for transport and extremely important for long distance transport.



#### 4.3.4 Cradles stacked on distance blocks.

Wooden blocks may only be laid between the floor and the cradle. They should not be used as shims inside a stack.

If you place a cradle stack on wooden blocks / pallets to enable truck lift of whole stack, the bases should be placed according to one of the alternatives below.



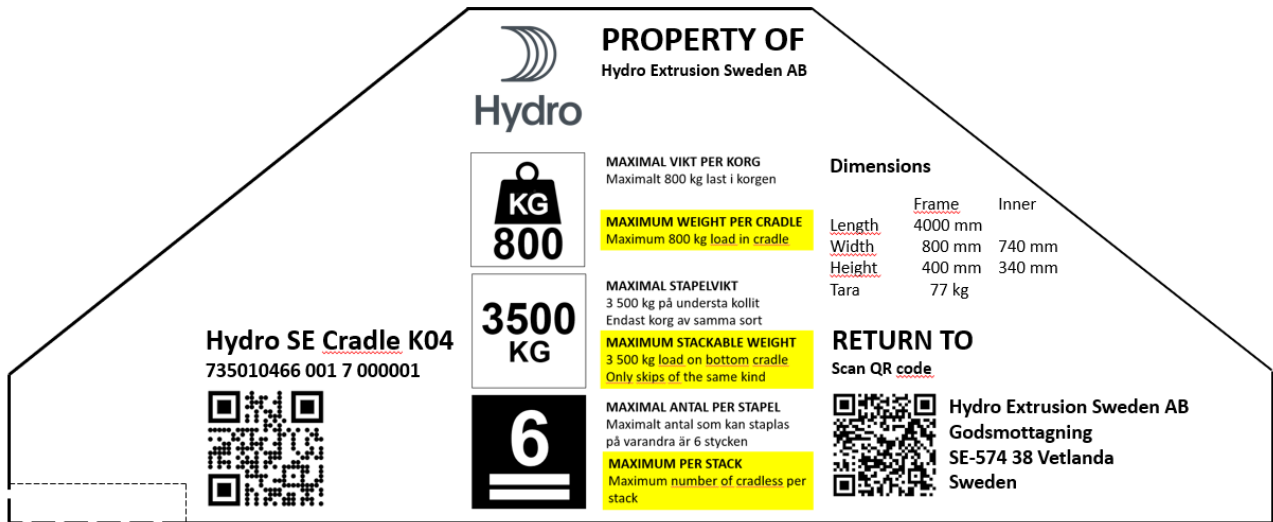
## 4.4 Warning sign

### 4.4.1 Existing Warning sign



#### 4.4.2 New Warning sign

Nya korgar som anskaffas kommer förses med ny skylt, individmärkning och text på etikett



We clarify the maximum load per cradle (800 kg), the maximum load of the bottom cradle per stack (3500 kg) and the maximum number of cradles in a stack (6 pcs.)

The cradles will also be provided with an individual number, return address and information on dimensions and weight.



## 5 Returning empty cradles and foam profiles

### 5.1 Preparation for return

Empty cradles that are returned must be whole and clean

Tape, shipping labels, foam protection, etc. must be removed from the basket before returning to Hydro.

Foam protection must be removed and returned in a separate pallet, cardboard box or plastic bag in connection with return.

Note that the warning sign must not be covered.

Deviation from this may result in the cradle being rejected or a special fee being charged.

Empty cradles should be stacked on return to Hydro according to two options:

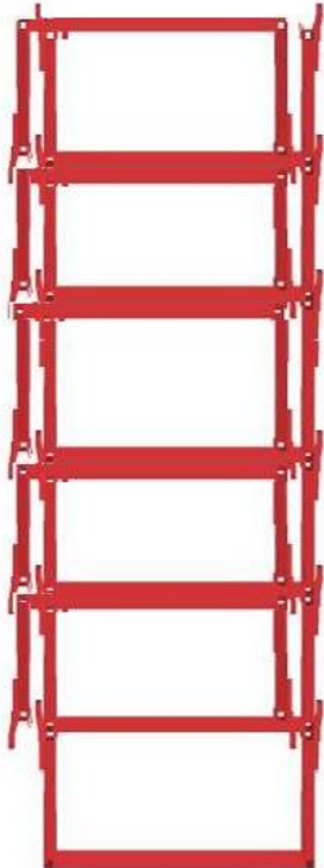
- Option 1 – stacked cradles, maximum 6 height per stack, minimum 1 stack (6 pcs)
- Option 2 – folded cradles, 11 height per stack, minimum 2 stacks (22 pcs)

The cradles are to be strapped stack by stack.

#### Option 1 – Stacked cradles



#### Option 2 – Folded cradles



### 5.2 Return address.

Return of empty cradles, foam protection and spacers must be made to

**Hydro Extrusion Sweden AB**  
**Godsmottagning**  
**Aluminiumvägen**  
**SE-574 38 Vetlanda**

### 5.2.1 Optional return address

By separate agreement, returns can be made to a different return address than above. This must then be agreed in the cradle agreement.

Hydro Extrusion Sweden AB  
Godsmottagning  
Myrkärrsvägen 1  
SE-612 31 Finspång

## 6 Document history

Datum	Version	Ändring	Vem
2023-10-16	2	Updated document	Urban Petersson