

# **Crash Barrier ProTec 100**

*Minimum mounting length as T3/W2=137m*



## **Mounting**

### **1. Manpower and equipment**

- 1 site supervisor + vehicle
- 1 crane + driver
- 1 7.5 ton truck + driver with forklift trailer (KLB elements, spare material and forklift)
- 2 – 3 site fitters
- Lighting for working at night

### **2. Auxiliary items**

- 1 pair load attachment devices
- Installation tools, cordless impact screwdriver with accessories
- Spacers for transport



### **3. Crash barrier material**

- KLB elements 250 m after dip and 250 m before end piece
- Dilatation elements every 500 m, depending on mounting date and construction period.
- Reflectors, screws and cordless screwdrivers
- Transitions to respective lane changer
- Connection or dip lane changer, poss. ProTec 120 to barrier
- 2 x start/end piece ProTec 100 (installation during mounting interruption)
- 1 additional base for safety
- Container for installation screws

### **4. Transport of ProTec 100**

- 17 lengths in prefabricated lengths of 12 m are loaded on each truck, offset in one layer
- 2 transport boards 40 mm thick are needed for each truck on the side where there is no stand.
- The installation direction must be clarified in advance, before stipulating the loading direction, with the base to the front or rear.
- Load secured with 5 chains

## Conversion ProTec 100

### 1. Manpower and equipment

- 1 site supervisor + vehicle
- 1 crane + driver
- 1 7.5 ton truck + driver with forklift trailer (KLB elements, spare material and forklift)
- 2 – 3 site fitters
- Lighting for working at night

### 2. Auxiliary items

- 1 pair load attachment devices
- Installation tools, cordless impact screwdriver with accessories
- Spacers for transport

### 3. Crash barrier material

- Container for installation screws
- Reflectors, screws and cordless screwdrivers
- Transitions to respective lane changer
- Connection or dip lane changer, poss. transition Protec100/120 ProTec 120 to barrier
- 1 x start/end piece ProTec 100 (installation during mounting interruption)
- A middle stand is needed for the first dip.
- 1 middle stand as a spare
- 2 mounting aids

### 4. Transport of ProTec 100

- 17 lengths in prefabricated lengths of 12 m are loaded on each truck in one layer
- 2 transport boards 40 mm thick are needed for each truck on the side where there is no stand.
- The installation direction must be clarified in advance, before stipulating the loading direction, with the base to the front or rear.
- Load secured with 5 chains

## Dismantling ProTec 100

### 1. Manpower and equipment

- 1 site supervisor + vehicle
- 1 crane + driver
- 1 7.5 ton truck + driver with forklift trailer (KLB elements, spare material and forklift)
  
- 2 – 3 site fitters
- Lighting for working at night

### 2. Auxiliary items

- 1 pair load attachment devices
- Various installation tools, wrench SW24, impact screwdriver with accessories, compressor or voltage converter.
- Spacers for transport

### 3. Crash barrier material

- Container for installation screws
- Reflectors, screws

### 4. Transport of ProTec 100

- 17 lengths in prefabricated lengths of 12 m are loaded on each truck in one layer
- 2 transport boards 40 mm thick are needed for each truck on the side where there is no stand.
- The installation direction must be clarified in advance, before stipulating the loading direction, with the base to the front or rear.
- Load secured with 5 chains
- Screw the 2x M16x45 in again and tighten.

## Storage **ProTec 100**

### 1. Manpower and equipment

- 1 crane + driver
- 2 – 3 site fitters
- Lighting for working at night

### 2. Auxiliary items

- 1 pair load attachment devices
- 2 spacers (to protect the reflectors)

### 2. Storage plan

- Wooden boards are also used during storage, approx. 250cm x 4cm
- The first layer consists of boards.
- Stacking height maximum 6 layers.
- The stack may only be accessed from the head end with a leaning ladder.
- The boards are under the base of the 12m element.



## **ProTect 100 assembly instructions**

Together with the middle elements, assembly requires a middle stand, a dip, hex semi-round head screws M16x45, hex nuts M16 and washers.

The necessary tools consist of a crane including lifting gear, open-end wrench SW24 and an impact screwdriver with insert socket size 24.

First place a ProTec 100 stand on the ground. Using the crane, position the dip on the one side in the guide of the middle stand. Position a middle element on the other side of the middle stand.

Screw the dip and the middle element together using 4 hex semi-round head screws M16x45, 4 washers and 4 nuts, complying with screw connection quality 8.8.

Then place the next middle element on the protruding square tube of the middle element that has already been fitted. Screw the two middle elements together using 2 M16x45 screws as described above. Repeat until the required length is achieved.