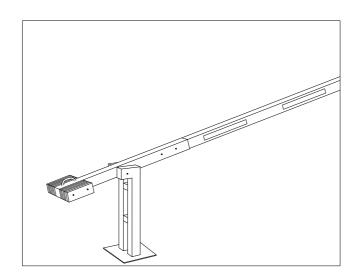


Installation and operating instructions



Manual barriers

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1. Technical Data

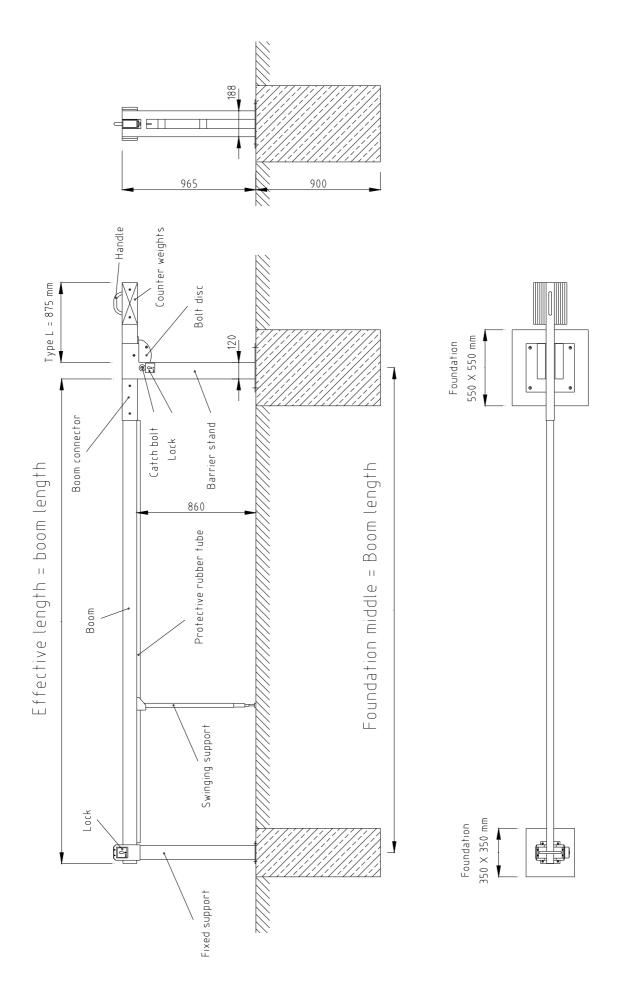
Type L – Boom connector 1,300 mm

Product	EH 25 L	EH 30 L	EH 35 L	EH 40 L	EH 45 L	EH 50 L	EH 55 L	EH 60 L	EH 65 L	EH 70 L	EH 75 L
Effective boom length (mm)	2,500	3,000	3,500	4,000	4,500	5,000	5,500	6,000	6,500	7,000	7,500
Number of counter weights without swinging support	0	2	2	2	4	6	12	14	16	18	20
Number of counter weights with swinging support	2	4	4	4	6	8	14	16	18	20	22
Total weight (kg) without swinging support	45	54	55	56	64	73	102	110	119	127	136
Total weight (kg) with swinging support	54	62	63	64	73	81	110	119	127	136	145

ATTENTION!

For a boom length of more than 5.000mm a stabilisation rope is absolutely necessary! The additional number of counter weights is already taken into consideration in the above table.

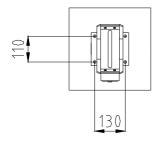
2. Installation Dimensions



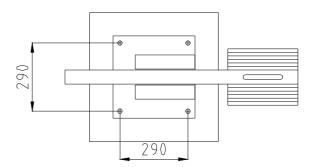
3.1. Installation

a) The foundation has to be frost-free with a horizontal surface of 550mm x 550mm for the barrier stand and 350mm x 350mm for the fixed support (optional).

Foundation fixed support 350 x 350 mm

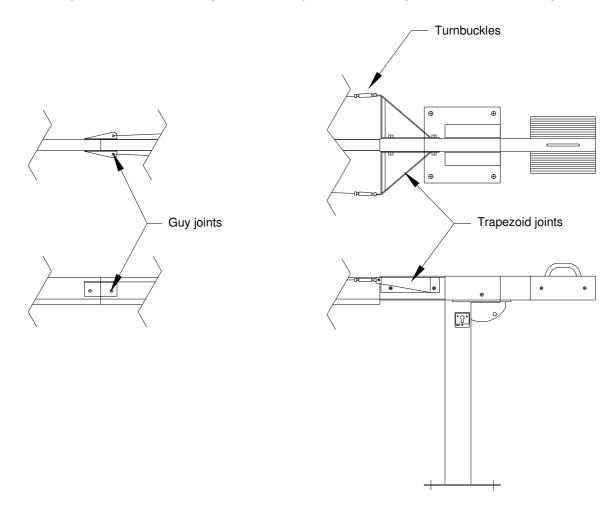


Fondation for barrier stand 550 x 550 mm

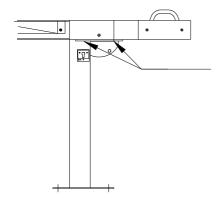


- b) Use either bolts to cast into the foundation or after the foundation is hardened, drill holes for heavy duty dowels. Please make sure the drilling holes for the fixed support are aligned correctly (130 mm/110 mm).
- c) Secure the barrier stand and the fixed support (optional) on the foundation.
- d) Disengage and close the barrier. Please engage the barrier in this position.
- e) Connect the boom (cut the boom length if required). Please note that a stabilisation rope is necessary for a boom length of 5,000mm and longer (see 3.2).
- f) Fasten the counter weights onto the boom connector. For the quantity of weights please see table under paragraph 2.
- g) Open and close the barrier a few times. Make sure it blocks correctly in the end positions.

3.2. Installing the stabilisation rope (necessary for boom length 5,000mm and longer)



- a) Mount the trapezoid joints at the boom connector left and right with the screws of the barrier boom. Make sure the alignment is correct (see right side of drawing).
- b) Screw the guy joints together with the boom extension onto the barrier boom. Make sure the alignment is correct (see left side of drawing).
- c) Mount the stabilisation ropes (1x left, 1x right) as follows:
 - 1. Connect one end of the wire rope (with dead-eye) to the guy joint, the other end to the turnbuckle.
 - 2. The turnbuckle has to be mounted to the trapezoid joint.
- d) Using the turnbuckles tighten both ropes evenly.



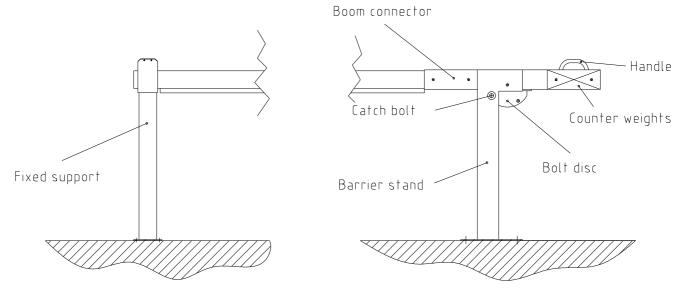
ATTENTION!

The connection screws of the bolt disc represent a vandalism protection (predetermined braking point). They prevent greater damage to the mechanical parts in case the boom is forced open by pushing.

The connection screws should be replaced with equivalent screws only (DIN $912 - M6 \times 25 - 8.8$).

4. Operation

4.1. Standard-Barrier



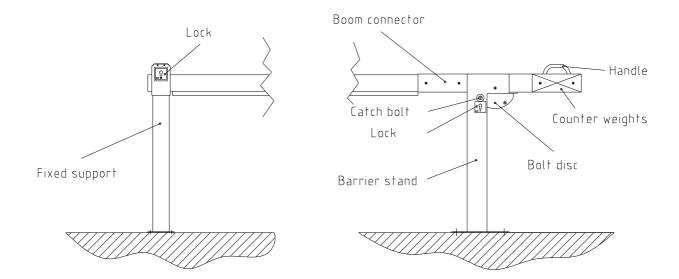
Opening:

- 1. Pull the catch-bolt out of the bolt-disc.
- 2. Push the boom connector down using the handle. Move the barrier boom into a vertical position, until the catch-bolt engages into the bolt disc again.

Closing:

- 1. Pull the catch-bolt out of the bolt-disc.
- 2. Pull the boom connector up using the handle. Move the barrier boom into a horizontal position, until the catch-bolt engages into the bolt disc again.

4.2. Barrier with cylinder lock or fire emergency release at the barrier stand or at the fixed support



Opening:

- 1. Unlock, depending on the version, the cylinder lock or the fire emergency release at the barrier stand or at the fixed support.
- 2. When using locks at the fixed support, first pull the lockage bolt out of the fork of the support.
- 3. Pull the catch-bolt out of the bolt-disc.
- 4. Push the boom connector down using the handle. Move the barrier boom into a vertical position, until the catch-bolt engages into the bolt disc again.
- 5. Lock the cylinder lock or the fire emergency release at the barrier stand.

 When using locks at the fixed support, return the lockage bolt into the fork of the support and lock it again with the cylinder lock or with the fire emergency release.

Closing:

- 1. Unlock, depending on the version, the cylinder lock or he fire emergency release at the barrier stand or at the fixed support.
- 2. When using locks at the fixed support, first pull the lockage bolt out of the fork of the support.
- 3. Pull the catch-bolt out of the bolt-disc.
- 4. Pull the boom connector up using the handle. Move the barrier boom into a horizontal position, until the catch-bolt engages into the bolt disc again.
- 5. Lock the cylinder lock or the fire emergency release at the barrier stand.

 When using locks at the fixed support, return the lockage bolt into the fork of the support and lock it again with the cylinder lock or with the fire emergency release.

5. General notes of safety

These operating instructions must be available on site at all times. It should be read thoroughly by all persons who use, or service the appliances. Improper usage or servicing or ignoring the operating instructions can be a source of danger for persons, or result in material damage. If the meaning of any part of these instructions isn't clear, then please contact ELKA Torantriebe GmbH u. Co. Betriebs KG before you use the appliance.

This applies to all setup procedures, fault finding, disposal of material, care and servicing of the appliance.

The accident prevention regulations and applicable technical regulations (e.g. safety or electrical) and environment protection regulations of the country in which the appliance is used also apply.

All repairs on the appliances must be carried out by qualified persons. ELKA Torantriebe GmbH u. Co. Betriebs KG accepts no liability for damage which is caused by using the appliance for purposes other than those for which it is built.

ELKA Torantriebe GmbH u. Co. Betriebs KG cannot recognise every possible source of danger in advance. If the appliance is used other than in the recommended manner, the user must ascertain that no danger for himself or others will result from this use. He should also ascertain that the planned use will have no detrimental effect on the appliance itself. The appliance should only be used when all safety equipment is available and in working order. All faults which could be a source of danger to the user or to third persons must be eliminated immediately. All warning and safety notices on the appliances must be kept legible.

All electrical periphery equipment which is connected to the appliance must have a CE Mark, which ensures that it conforms to the relevant EEC regulations. Neither mechanical nor electrical alterations to the appliance, without explicit agreement of the manufacturer, are allowed. All alterations or extensions to the appliance must be carried out with parts which ELKA Torantriebe GmbH u. Co. Betriebs KG have defined as suitable for such alterations, and be carried out by qualified personnel.

Any contravention of these conditions revokes the manufacturer's guarantee and also the CE Mark and the user is alone responsible for the consequences.

Our service department is available to answer all queries about these conditions and, of course, about our appliances.

The operation of the system within CEN countries must also be conformant with the European safety-relevant directives and standards.

We reserve the right to make technical improvements without prior notice.