

2016-09-16  
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Title:  
Assembly instructions SAFENCE cable barriers

## Safety aspects

Consider safety aspects when working on and adjacent to the road. Installation of SAFENCE wire rope safety fence should only be executed by trained contractor using appropriate protective equipment.

Perform risk assessments of each operation and immediately stop ongoing work if hazard emerges, contact Blue Systems AB to find an appropriate method of proceeding.

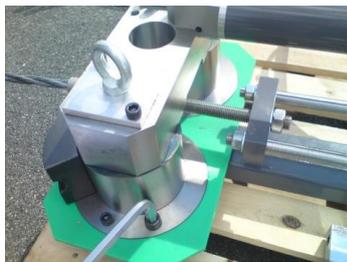
## Installation of SAFENCE wire rope safety fence

Post positions are measured and marked according to current SRB construction drawing. When installed, the wire rope safety fence is to follow the road's geometrical shape with no sudden deviations in horizontal or vertical direction.

Anchors, prefabricated or cast on site, are mounted at each end of planned fence section. Anchors are to be aligned with wire rope safety fence, be placed at ground level, horizontally at the side of the road and follow the slope of the road longitudinally. Backfilling around end anchors are to be done with gravel, which is vibrated.

When applicable, install post footings. Concrete footings are to be mounted in compacted material with top at ground level. Install posts.

Wire rope is placed and assembly details are installed according to current SRB construction drawing. Placing of steel rope starts by swaging steel rope to end fittings (Picture 1 & Picture 2) which is then connected to the first anchor.



Picture 1. End fitting mounted in press.

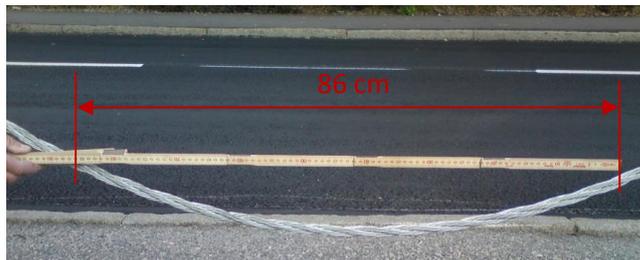


Picture 2. Swaging commence at inspection hole with wire fully visible.

Placing of wire rope progress according to one of these descriptions:

- A. Wire rope is strained by hand power from anchor to first tensioning unit (rigging screw and two wire fittings). The first rigging screw is mounted in the middle of two wire fence posts at ~150 meters from end anchor. The procedure is repeated with tensioning units at every ~300 meters and again at ~150 meters from end anchor. Finally the steel rope is attached to the second end anchor with a wire fitting.
- B. Wire rope is rolled out over the whole fence section and strained by hand power from anchor to anchor where a second wire fitting is mounted. Determine between which posts tensioning units are to be mounted, this should be ~150 meters from each anchor and with ~300 meters between each tensioning unit. Commence at the position of first tensioning unit, pull as much wire as

possible by hand from each direction. Cut a gap of 86 cm across wire slack as illustrated by Picture 3. Attach fitting to newly cut wire ends and connect by rigging screw (Picture 4). Repeat this procedure over the whole fence section.



Picture 3. Cut an 86 cm wide gap to fit tensioning unit.



Picture 4. Install tensioning unit in cut gap.

Strain the system using a hydraulic traction device (Picture 5). Begin midsection and work alternately towards both end anchors, contractor is responsible for straining wire rope according to current SRB construction drawing tensioning table.



Picture 5. Hydraulic traction device mounted to tensioning unit. Fasten nuts to lock the unit in position.

A successful installation is finished off with a visual inspection of the fence section to correct any deviations from the SRB construction drawing.

Tensioning tables for SAFENCE cable barriers *									
Table T1		Table T2		Table T3		(Pressure [bar] conversion refers to SAFENCE hydraulic tools only)			
T [°C]	T [°F]	T [°C]	T [°F]	T [°C]	T [°F]	Force [lbf]	Force [kp]	Force [kN]	Pressure [bar]
				-30	-22	9 050	4 100	40,2	450
				-20	-4	8 400	3 800	37,3	420
		-30	-22	-10	14	7 700	3 500	34,3	390
-40	-40	-20	-4	0	32	7 050	3 200	31,4	350
-30	-22	-10	14	10	50	6 400	2 900	28,4	320
-20	-4	0	32	20	68	5 750	2 600	25,5	290
-10	14	10	50	30	86	5 050	2 300	22,6	250
0	32	20	68	40	104	4 400	2 000	19,6	220
10	50	30	86	50	122	3 750	1 700	16,7	190
20	68	40	104			3 100	1 400	13,7	150
30	86	50	122			2 400	1 100	10,8	120
40	104					1 750	800	7,8	90

\*Consult tensioning table on SRB construction drawing