

VIK-EP

A-profile barrier with C-posts, N2/W2 | H1/W3 Installation manual



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1. Important

Proper installation and repair is essential to ensure the systems maximum performance.

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2. Description

The Vik-EP is a steel road restraint system that is designed to enhance safety on the roads.

The system has successfully been tested according to class H1 described in EN 1317-2.

The system is based on steel C-posts with post distance of 4 meters and a longitudinal A-profile.

In a collision, the system is designed in such a way that the A-profile will break away from the post and lead the vehicle back on the road.

The bolts are an important part of the systems function and this manual should be read carefully before installation is started.

3. Level of performance

According to EN-1317

Post distance	Containment level	Working width [W]	Dynamic deflection	Impact severity level	Vehicle intrusion	Resistance to snow removal
4 m (H1-CC4)	H1	1,0 m/[W3]	0,9 m	A	VI5	Class 3
4 m (L1-CC4)	L1	1,0 m/[W3]	0,9 m	A	VI5	Class 3
4 m (N2-CC4)	N2	0,8 m/[W2]	0,7 m	A	-	Class 3

4. Installing

4.1 Soil and placement

The soil where the barrier is placed should be of sufficient quality to ensure the guardrails function.

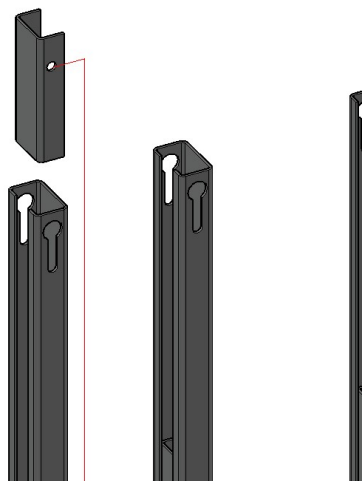
The posts should bend and not break up true the soil or be pulled up when the barrier is hit.

4.2 Installing the posts

The posts should be installed with a distance of 4 meters.

The holes for the posts should normally be pre-drilled or pre-rammed before installing the post. They should be drilled to the correct level or deeper, to ensure that there is no need to ram the posts after they are placed.

After alignment and height adjustment, parts of the hole around the post should be filled with gravel to lock the post in the correct position. When the hole around the post shall be filled, please secure the post stiffener, so the correct position is maintained.

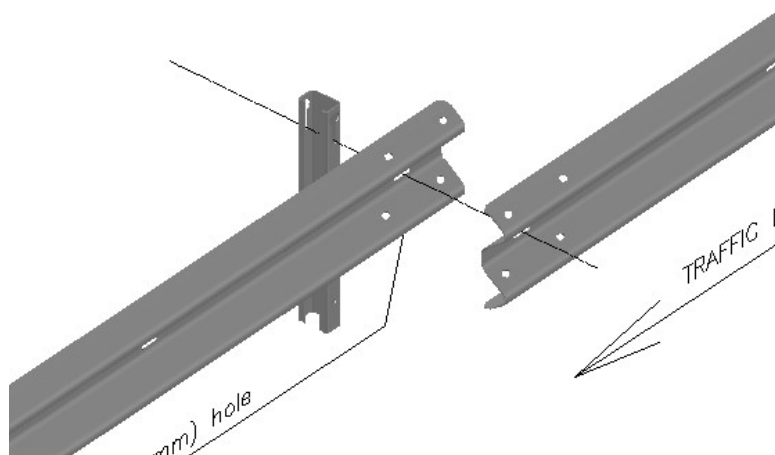


Secure the post stiffener in correct position when filling around the post with gravel.

4.3 Installing the profiles

The guardrail profiles have one wide and one narrow end, the narrow end is marked with a small (8mm) hole.

When connecting the profiles, the wide end of the profile is placed outside the narrow end of the following barrier, in the direction of traffic.



4.4 After installation

When the guardrail is installed and adjusted, the holes around the post should be fully refilled.

5. Maintenance

There are no general inspections intervals for this guardrail itself. Inspections intervals have to be determined based on local factors such as volume of traffic, risk of damage, climate etc.

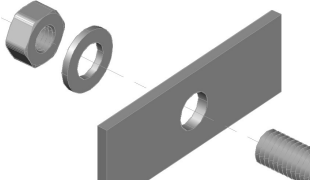
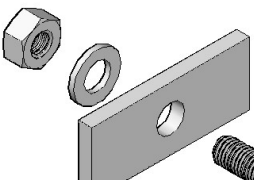
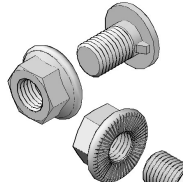
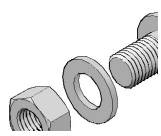
The guard rail should be inspected regularly and if displaced or damaged, it should be adjusted and repaired.

All damaged profiles should be replaced with new when repaired.

5.1 Cleaning

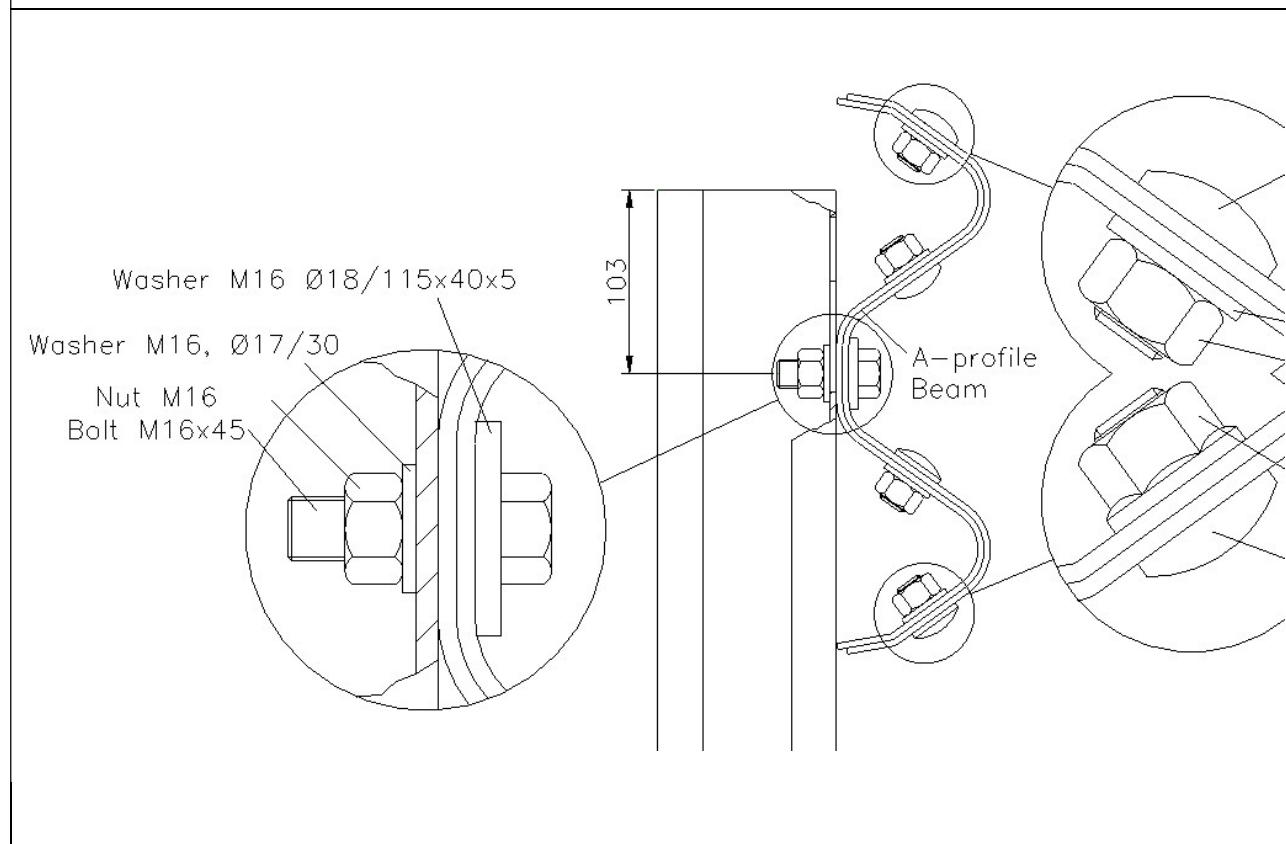
Cleaning can be done with water and any type of Ph neutral detergent.

6. Bolts and fasteners

Art. no.	Description	Amount	Illustration
Fastening bolt M16x45 mm 8.8 (hot dip galvanized)			 Tightening torque: Tighten down firmly
	933316045 Bolt M16x45, DIN933, 8.8	1	
	60643 Nut M16, DIN934, 8.8	1	
	60642 Washer M16, DIN125, 17/30/3	1	
	60981 Washer M16, 18/115x40x5, S235	1	
Fastening bolt M16x40 mm 8.8 (HDG) (for the down leading)			 Tightening torque: Tighten down firmly
	933316040 Bolt M16x40, DIN933, 8.8	1	
	60642 Washer M16, 17/30/3 DIN125	1	
	60643 Nut M16, DIN934, 8.8	1	
	60990 Washer M16, 18/115x40x8, S235	1	
Connecting bolt M16x27 mm 4.6 (hot dip galvanized)			 Tightening torque: Tighten down firmly
	Bolt M16x27, 4.6	1	
	692316000 Flange nut M 16	1	
Connecting bolt M16x27 mm 4.6 (hot dip galvanized) (an alternative to art. no. 60639)			 Tightening torque: Tighten down firmly
	60641 Bolt M16x27, 4.6	1	
	60643 Nut M16, DIN934, 8.8	1	
	60642 Washer M16, 17/30/3 DIN125	1	

Placement of bolts, nuts and washers

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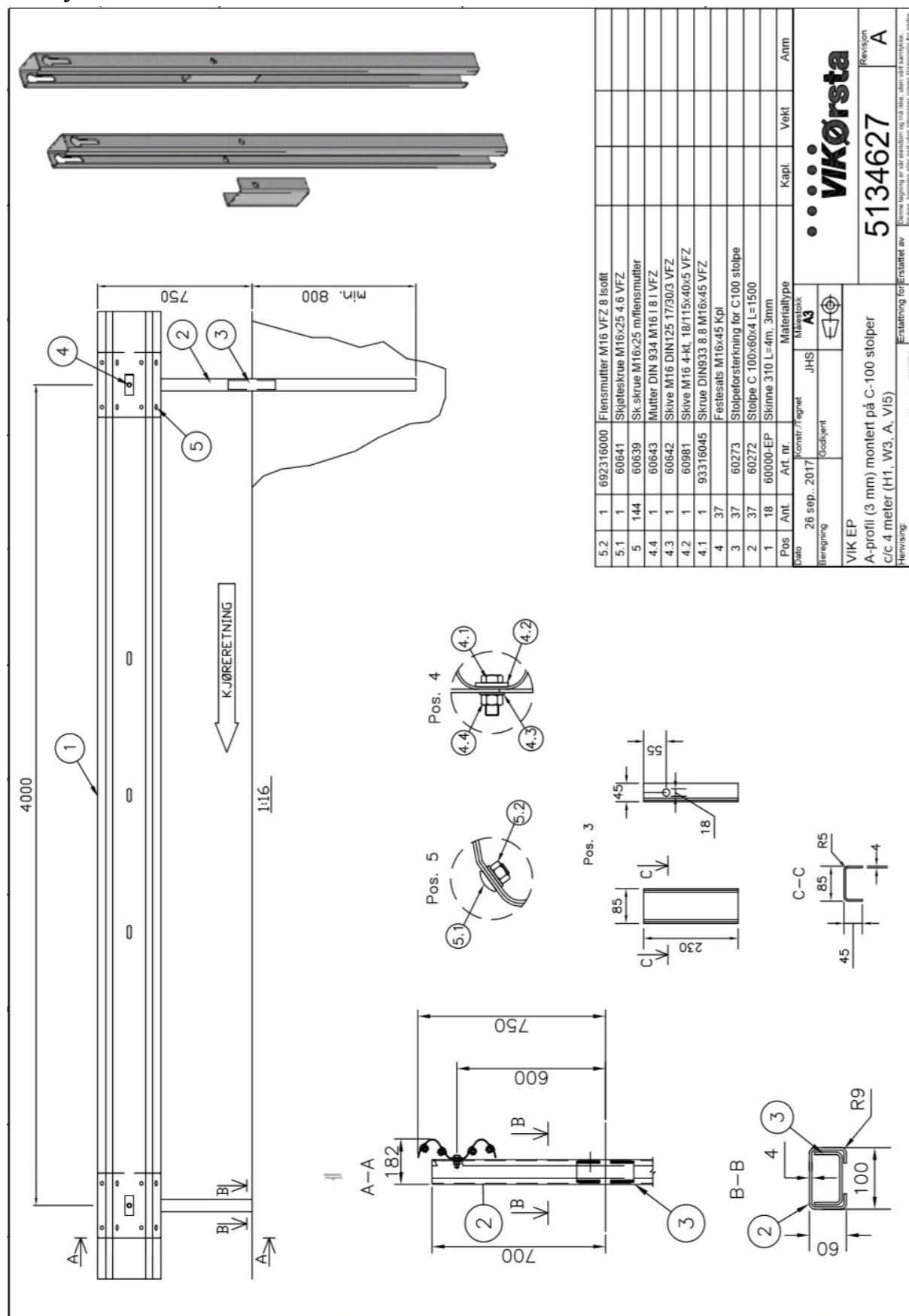
Note: Please check that all bolts/fasteners are placed correct and all bolts-washer-nuts-connections are normally/proper fastened/tighten.

7. Marking

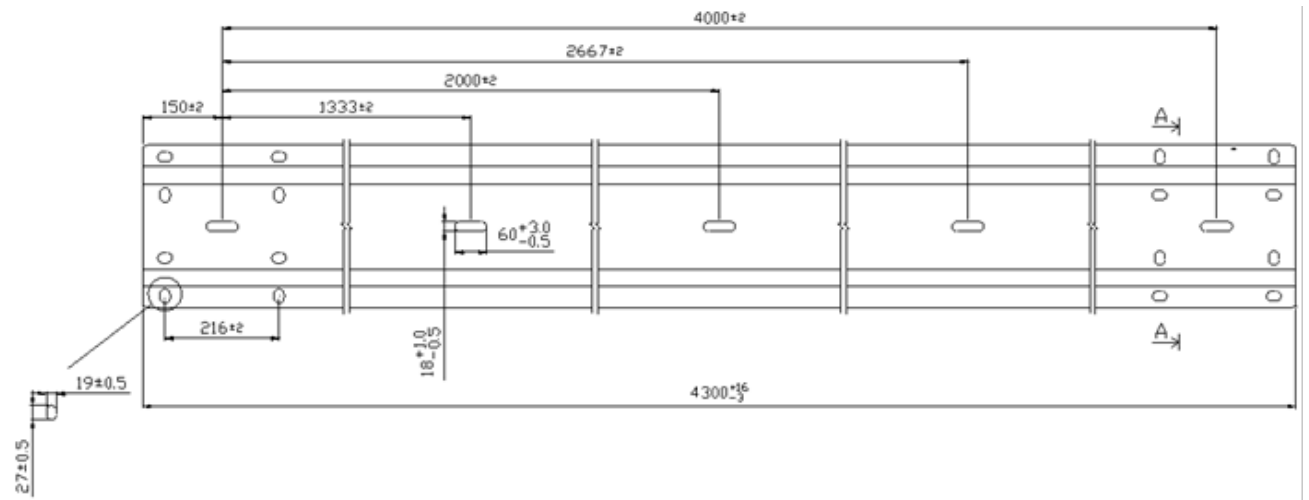
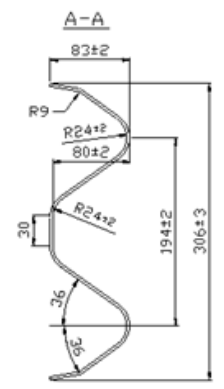
If everything is done and installed according to this installation manual, the guardrail can be marked with the CE-mark. This mark shall be placed at the end (the starting end) of the installed guardrail.

8. Drawings

8.1 Layout

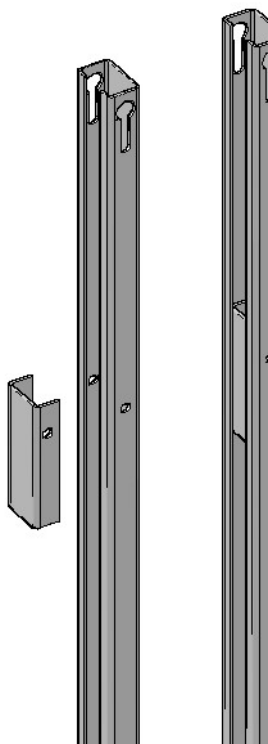


8.2 Beam, type A-profile

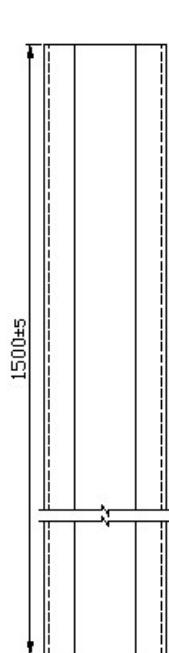


Beam, A-profile, art. no. 60000-EP, thickness 3 mm, ($R_{eH} \geq 310\text{MPa}/R_m \geq 440\text{MPa}$)

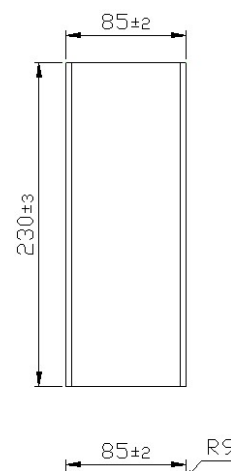
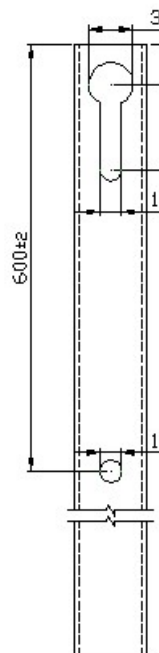
8.3 Post and post stiffener



Post and post stiffener



Post, C100x60x25x4 mm, length 1500 mm.
Grade: S355JR



Post stiffener, C230x45x4 mm.
Grade: S235JR