

VIK-SVV 2 Parapet

H2 W1 Parapet

Installation manual



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Innhold

1. Important	3
2. Description	3
3. Level of performance	3
4. List of components	3
5. General dimensions, placement, heights and anchor bolts	3
6. Installing the VIK-SVV 2 parapet.....	4
6.1 Installing the post.....	4
6.2 Installing the handrail.....	4
6.3 Connecting the handrails	4
6.4 Installing the front elements (w-shaped backside beam and A-profile beam).....	4
6.5 Horizontal panel	4
6.6 Bolts/fasteners	5
7. Maintenance	5
7.1 Cleaning	5
8. Marking	5
9. Drawing	6

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1. Important

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

2. Description

The VIK-SVV 2 is a steel bridge restraint system that is designed to enhance safety on the bridges. The system has successfully been tested according to classes H2 described in EN 1317-2. The system is based on tube formed profiles with post distance of 2 meters.

3. Level of performance

According to EN-1317

Post distance	Containment level	Working width [W]	Dynamic deflection	Impact severity level
2 m	H2	0,6m/W1	0,4 m	B

4. List of components

For list of components, see drw. no. SVV2-010

5. General dimensions, placement, heights and anchor bolts

For instruction about anchor bolts, dimensions and placement, please see Statens Vegvesen handbook 268.

Recommended anchor bolts: M24 8.8 / M24 A4 80

6. Installing the VIK-SVV 2 parapet

6.1 Installing the post

The posts should be installed with a nut and washer on both sides of the base plate on each anchor bolt, see drw. no. SVV2-010. The height and alignment of the installed parapet can then be adjusted by altering the heights of these nuts.

6.2 Installing the handrail

The handrails have predrilled holes for connection to the top plate on the posts. The M20x40 bolts are used to connect the handrail to the post. See drw. no. SVV2-020, detail 1.

6.3 Connecting the handrails

The handrails are connected to each other by using the handrail connecting bar, placed on the underside of the handrail. The connection bar is locked in place by the M20x60 bolts, see drw. no. SVV-020, detail 2.

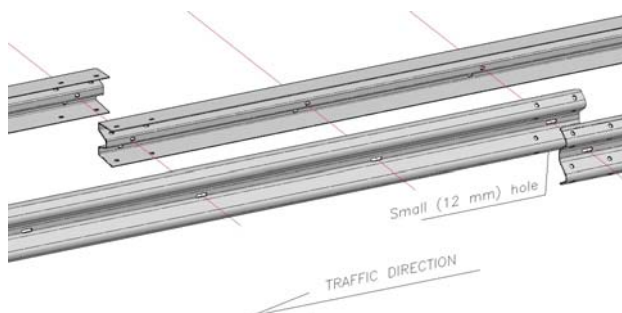
6.4 Installing the front elements (w-shaped backside beam and A-profile beam)

The front elements including the three following elements:

1. Energy absorption box: This box is connected to the posts with M16x40 bolts, see drw. no. SVV2-010, section B:B
2. W-shaped backside beam: The beam is connected to the energy absorption box with M16x40 bolts, see drw. no. SVV2-010, section B:B. The beams are connected to each other with M16x25 bolts, see drw. no. SVV2-010, section B:B
3. A-profile beam: The beams are connected to the W-shaped backside beam with M16x40 bolts, see drw. no. SVV2-010, sections B:B. Distance between bolts, 1 meters.

Note: When connecting the profiles:

- A-profile: the wide end of the profile is placed outside the narrow end of the following barrier→
 - W-shaped backside beam: the narrow end of the profile is placed outside the wide end of the following beam→
- in the direction of traffic. See drawing below.



6.5 Horizontal panel

This panel is placed between the posts. The panel is fixed to the post with an angle of steel and M16 bolts, see drw. no. SVV2-020, detail 3.

6.6 Bolts/fasteners

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

7. Maintenance

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

The parapet should be inspected regularly and if displaced or damage, it should be adjusted and repaired.

All damage profiles should be replaced with new when repaired.

7.1 Cleaning

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

8. 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.

9. Drawing

The drawing illustrates the VIK-SV2 system components and their assembly. It includes a side view with callouts for various parts (1-31) and alternative panel options. Two cross-sections, A-A and B-B, show the internal structure and dimensions (1200mm width, 600mm height). A detailed parts list table is provided below the drawing.

Pos	Ant.	Art. nr.	Materialtype	Kapl.	Vekt	Anm
22		62081	Utbløking HUP 100x100 fribakskine	1,9		
(21)		62381	Endeavsl. SVV2 høgre føtpl. Ø28	57		
(21)		62380	Endeavsl. SVV2 høgre føtpl. Ø24	57		
(21)		62383	Endeavsl. SVV2 venstre føtpl. Ø28	57		
(21)		62382	Endeavsl. SVV2 venstre føtpl. Ø24	57		
(20)		62301	Rektrv. stole SVV føtpl. Ø28	31,9		
20		62300	Rektrv. stole SVV føtpl. Ø24	31,9		
Pos	Ant.	Art. nr.	Materialtype	Kapl.	Vekt	Anm
19		62363	Sprossepanel SVV lavt for kantdr.	35,6		
18		62360	Sprossepanel SVV høyt for kantdr.	48,1		
17		62352	Panel brytelett SVV flikantdr.	23,3		
(16)		62387	Endeavsl. SVV2 kantdr. venstre føtpl. Ø28	51,3		
(16)		62386	Endeavsl. SVV2 kantdr. venstre føtpl. Ø24	51,3		
(16)		62385	Endeavsl. SVV2 kantdr. høgre føtpl. Ø28	51,3		
(16)		62384	Endeavsl. SVV2 kantdr. høgre føtpl. Ø24	51,3		
15		60807	Festeskrue M16x50 Vz. kpl.	0,2		
14		62400	Skruer 4kt. M16x40. Vz. kpl.	0,2		
13		62335	Brakett for SVV1/SV2	0,7		
12		62350	Panel SVV KFU06x04x3, L= 1940	6,4		
11		60640	Sk. skruer M16x25 kpl.	0,1		
10		60981	Skive M16 115x40x5	0,2		
9		60806	Festeskrue M16x40 kpl.	0,1		
8		62420	Skruer 4kt. M20x60. Vz. kpl.	0,3		
(7)		60005	Skimme 310 L= 2,0 m	26,2		
7		60000	Skimme L= 4,0 m	49,3		
6		62543	Bakskinne L= 2,0 m	33,8		
(6)		62542	Bakskinne L= 4,0 m	65,1		
5		62419	Skruer 4kt. M20x40. Vz. kpl.	0,2		
4		62225	Skjøtelask for håndlist SVV2	13,7		
(3,1)		62221	Håndlist Ende KFU 140x60x6, L=4980	18,5		
(3,1)		62223	Håndlist Ende KFU 140x60x6, L=2980	18,5		
(3)		62219	Håndlist KFU 140x60x6, L=1980	18,5		
(3)		62222	Håndlist KFU 140x60x6, L=3980	37,5		
3		62220	Håndlist KFU 140x60x6 L=5980	56,0		
(2)		62307	Stolpe for kantdrager m/foip. hull Ø28	27,9		
2		62306	Stolpe for kantdrager m/foip. hull Ø24	27,9		
(1)		62086	Boltegruppe 140x140, M20x40, A4	8,0		
1		62074	Boltegruppe 140x140, M20x40, A4	3,2		
Pos	Ant.	Art. nr.	Materialtype	Kapl.	Vekt	Anm
Dato			konstr./tegn.	Målestokk		
13.05.2013			JHS	A3		
Beregning			Godkjent			
KØRESTERKT BRUKERKVERK TYPE SV2						
Systemtegning						
Henviing: Teknisk manual						
Revisjon						
SVV2-010						
A						

Detailj 1 tegn. nr. SW2-010

Detailj 2 tegn. nr. SW2-010

Detailj 3 tegn. nr. SW2-010

Detailj 4 tegn. nr. SW2-010

Detailj 5 tegn. nr. SW2-010

Detailj 6 tegn. nr. SW2-010

Detailj 7 tegn. nr. SW2-010

(20)	Rekkv. stole SVV foppl. Ø28	31,9				
20	Rekkv. stolpe SVV foppl. Ø24	31,9				
19	Sprossepanel SVV lavt for kandr.	35,6				
18	Sprossepanel SVV høyt for kandr.	48,1				
17	Panel brøynett SVV fkanindr.	23,3				
15	Festeak M16x50 Vz. kpl.	0,2				
14	Skrue 4kt. M16x40 Vz. kpl.	0,2				
13	Brakett for SVV/SV2	0,7				
12	Panel SVV KFUS60x40x3, L=1940	6,4				
11	Sk. skruer M16x25 kpl.	0,1				
10	60981 Skive M16 115x40x5	0,2				
9	60806 Festeak M16x40 kpl.	0,1				
8	62420 Skruer 4kt. M20x60 Vz. kpl.	0,3				
5	62419 Skruer 4kt. M20x40 Vz. kpl.	0,2				
4	62225 Skjirelask for håndlist SV2	13,7				
3	Håndlist KFU 140x60x6, L=5980	56,0				
2	62206 Stolpe for kandrager m/foppl. hull Ø24	27,9				
Pos	Antl.	Art. nr.	Materialtype	Kapl.	Vekt	Anm.
Dato 13. mai. 2013 Konstr./Tegnet JHS Utgitt A3						
Beregning Sjødøkt						
KJØRESTERKT BRUEREKVERK TYPE						
SV2						
Detaljer 1-7						
Henviing:						
Forming:						
Revisjon:						