

## Instructions for installing Hammerglass noise barriers

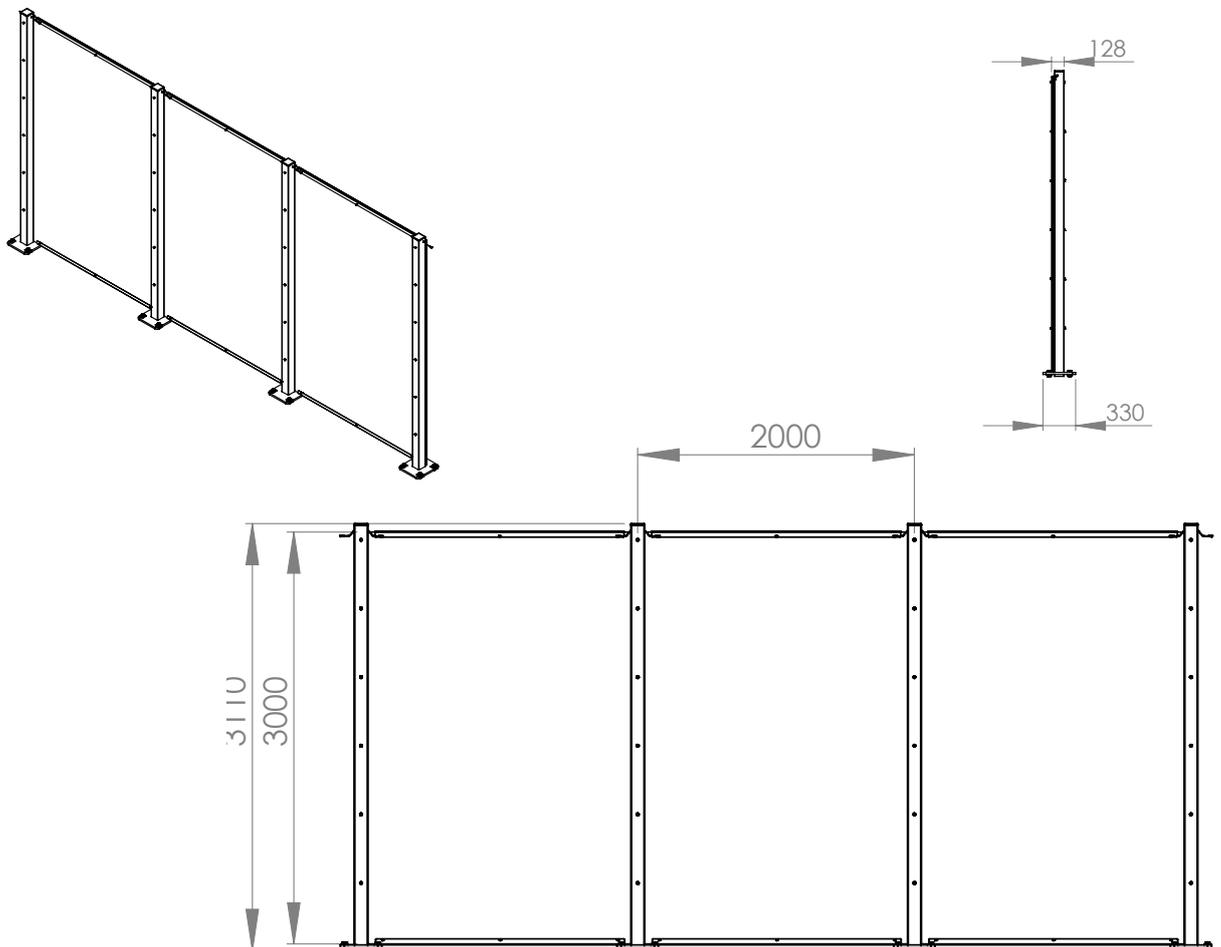
### Description of the system

The Hammerglass noise barrier is a complete system that can be installed in bolt and pin groups. Intended installation; in ground, on bridge or on wall, longside roads and railways.

The Hammerglass sheets are installed by clamping them in a VKR-pillar by a strong clamping profile. A U-profile is installed along the top and bottom of the sheet. The lower U-profile can be disregarded when installing the sheets at least 200 millimeters (mm) in the ground. If the sheet is installed in the ground. The sheets have been beveled so that they can continue past the foot-plating.

The Hammerglass sheets consist of 12 mm thick, chemical resistant, hard-coated polycarbonate. The material has a resistance against UV –rays of 99,96%

The sheets are installed in vertical, 100x6 mm VKR profiles with a c/c of 2000 mm and a maximal height of 3000 mm. The clamping profile consists of an 8 mm thick steel plate in the same height and width of the pillar. It is fastened in the VKR pillar with M8 bolts. The foot-plate is adjusted in accordance to requirements of space and the bolt and nut set in use.



## List of parts

VKR 100 mm pillar in height according to order confirmation with

Footplate in according to confirmed specifications

Clamping profile 100x8 mm

Pillar VKR 100 with foot-plate, height according to order

Hammerglass sheets, thickness and size in accordance to order confirmation

U-profile for top of sheet, U-profile for base(if needed)

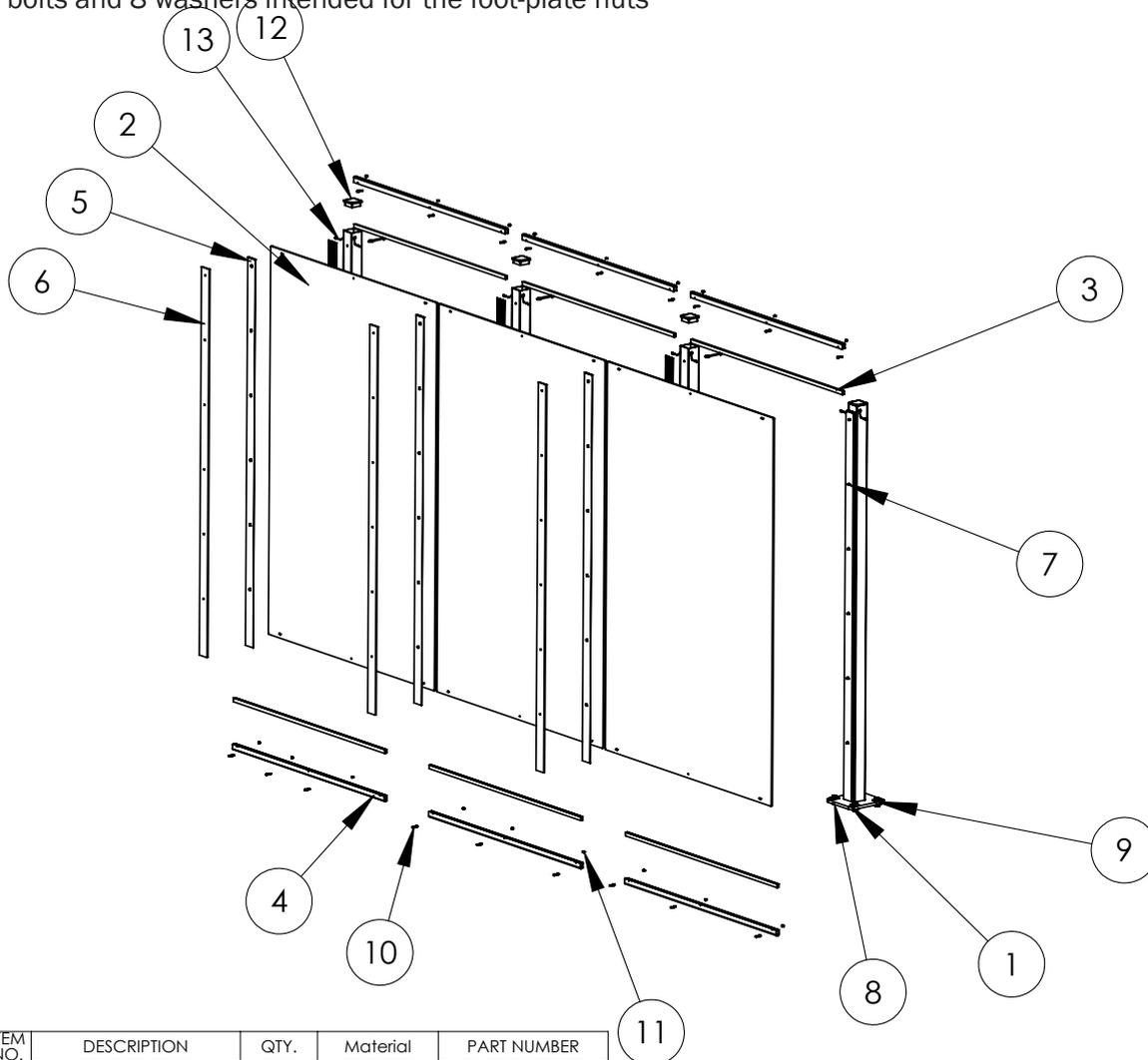
U-rubber, EPDM for sheet/profile in accordance to order

M8 bolts and Norlock -washer for the installing of clamping profiles, 3-4 bolts per pillar.

M6 bolts and safety nuts for U-profile, 3 pieces per U-profile

Heads for pillars

8 bolts and 8 washers intended for the foot-plate nuts



ITEM NO.	DESCRIPTION	QTY.	Material	PART NUMBER
1	pole 100x100x6 L=3100	4	galvanized steel	stolpe_mark2_CE
2	screen 12mm	3	HmG recycled 2000x3000	ruta bro-2
3	EPDM 17x28 t=2,5 L=1800	6	EPDM	kuntze 512.0127 tätlist
4	u-profile 26,5x44 t=4 L=1800	6	galvanized steel	topprofil rev4
5	EPDM 90X3000 t=3	8	EPDM	packning_CE
6	clamping plate 90x3000 t=10	4	galvanized steel	bricka_CE
7	M6S 10x140	24	steel FZV	0931_8_10140-mattssons
8	M6M-M20	32	steel FZB	Nut-M6M-steel-M20-fzb-Butfab
9	washer M20	36	galvanized steel	FB 22x50x5 rev1
10	M6S 6x35	18	stainless steel A4	0931_8_6_35-mattssons
11	M6 nyloc	18	stainless steel A4	6924_8_6-mattssons
12	lock 100x100x1-4	4	PE	AB 505003-100100 lock för 100x100x1-4
13	security wire CC350mm 7x19tr 3mm	4	A4 with transp. pvc	Wire_CE

## Instructions for instalment in ground foundation

Screw the lower adjusting nuts to approx. 50 mm above foundation. If possible, use an adjustment plate and a mason's level as depicted in the picture. This will help in adjusting the nuts into right height and angle.



Install washers and place pillar

on top of the washers. The clamping profile side has to be faced towards the road/rail.

Place washers and screw the top nuts without tightening too much. Adjust pillar so that the correct c/c can be matched in addition to the correct depth. Place pillar so that it is in a plumb line in all directions. Tighten the top nuts. When the sheet is fully installed, you have to drift-adjust the nuts and the threads should be driven with a punch tool.

Remove the protective foil from the sheet in such a manner that it detaches approx. 10 cm around the whole sheet, on both sides. Fasten the loosened foil with adhesive tape. The protective foil should stay on the sheets as long as possible, if possible to the day of handing over the noise barrier to end customer.

Fasten U-profiles on the sheet, The EPDM rubber should go all the way on top and bottom (if applicable) of the sheet. The rubber has to have the same length as the steel profile. The nut should be on the spectator side of the sheet.

Lift sheet towards pillar, use a crane with suction-cups. Be careful so that the sheets are not damaged during installation work. Fasten clamping profiles on both sides with M8 bolts and Norlock washers. Remember to leave enough of space in one of the profiles so that the next sheet can be placed. Adjust the sheet in such a manner that it goes in approx. 30-35 mm in both pillars. The base of the sheet should rest against the foot-plate.



When placing the next sheet, you can fasten and tighten the first clamping profile. Do not tighten too much, in order for the sheets to be allowed to move due to temperature variations.

If the project is ordered with security wire, it has to be pulled through the hole at the top of the pillar.



Place the plastic top on the pillar. You can adjust the screen when finishing the project so that final and correct height can be achieved.

Fill with filling stone or with asphalt.



## Instructions for instalment in bridge

Follow the same basic procedures mentioned in "instructions for instalment in ground foundation".

Note however that the fastening of the pillar is not on top of, but at the side of foundation or concrete element. The VKR pillar is to be installed on the outside of bridge constructions. The pillar is fastened in element/foundation with two fastening clamps, the distance, width and construct-model of the clamps are determined during order confirmation in accordance to bearing loads specified in project documentation.

Prior to instalment of the pillars, the bridge must have pre-installed bolt group. The dimension and number of bolts as well as the method of mounting, will be described in the project documentation

The noise barrier system for bridges can be either installed inside the ground, following the procedures of the ground instalment methods or it can be installed as a separate, system alongside a bridges brim. The mounting procedure will in large follow that of instalment in ground foundation.

