

Measuring level



Measuring level intended for assessing flatness and inclinations on floors. Can also be used on walls, columns and roofs.

Consists of:

Ruler, 2 m long with 20 mm high spacers

Measuring wedges 35 mm and 11 mm

Ruler, 250 mm

Weight: 7 kg

The 2 m long ruler can be divided into two lengths of 1 m each, to enable measuring in narrower areas.

The ruler has a water level that can be adjusted for horizontal or vertical measuring.

Rulers and wedges of anodised aluminium and spacers of galvanized steel.
Manufactured according to the demands of Hus-Ama 98 (Swedish regulations for floor measurements).



Quick and easy assembly!



Acceptable tolerances on floors, walls columns and roofs according to Hus-Ama's different chapters of tolerance tables, see below;

Walls of concrete according to table E/7;

	<i>Measured length m</i>	<i>Class 1 in mm.</i>	<i>Class 2 in mm.</i>	<i>Class 3 in mm.</i>
Curve	0,25	+ - 2	+ - 3	+ - 5
	1,0	+ - 3	+ - 5	+ - 8
	2,0	+ - 5	+ - 8	+ - 12
Inclination	1,8	+ - 3	+ - 5	+ - 8

Walls and columns of board according to table O/1;

	<i>Measured length m</i>	<i>Class 1 in mm.</i>	<i>Class 2 in mm.</i>	<i>Class 3 in mm.</i>
Curve	0,25	+ - 1,2	+ - 2	+ - 3
	1,0	+ - 2	+ - 3	+ - 5
	2,0	+ - 3	+ - 5	+ - 8
Inclination	1,8	+ - 3	+ - 5	+ - 8

Floors of concrete according to table E/11 and O/3 (RA78);

	<i>Measured length m</i>	<i>Class 1 in mm.</i>	<i>Class 2 in mm.</i>	<i>Class 3 in mm.</i>
Curve	0,25	+ - 0,8	+ - 1,2	+ - 2
	1,0	+ - 1,2	+ - 2	+ - 3
	2,0	+ - 2	+ - 3	+ - 5
Inclination	1,8	+ - 2	+ - 3	+ - 5

In general;

The tolerances for flatness and inclination on floors have been given in Hus-Ama's different classes for flatness in different lengths and for inclinations in optional measured lengths.

The following example: measuring a class 2 floor

Flatness;

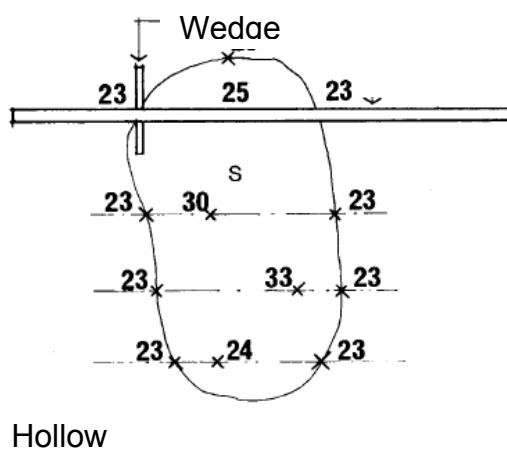
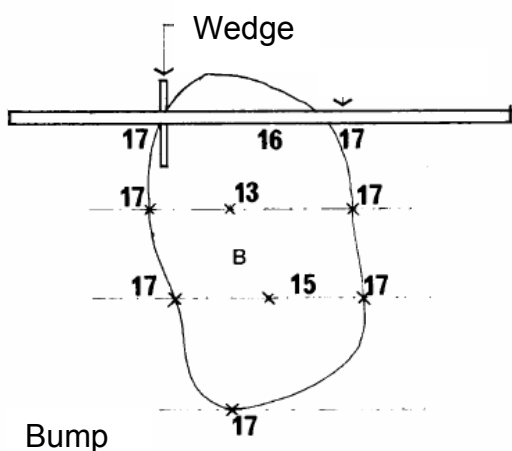
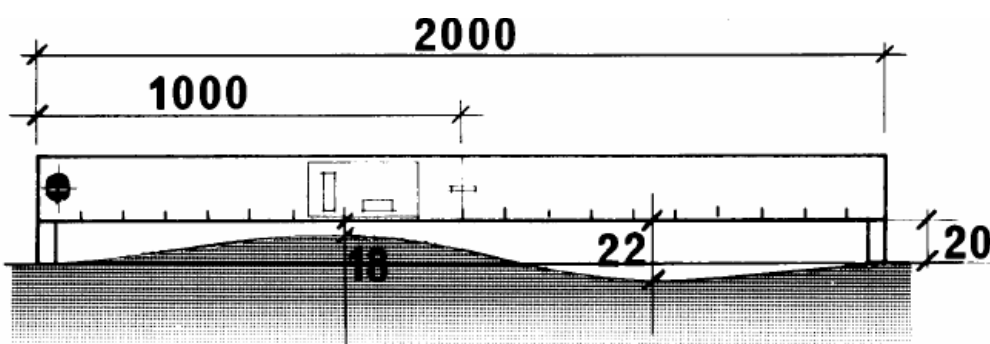
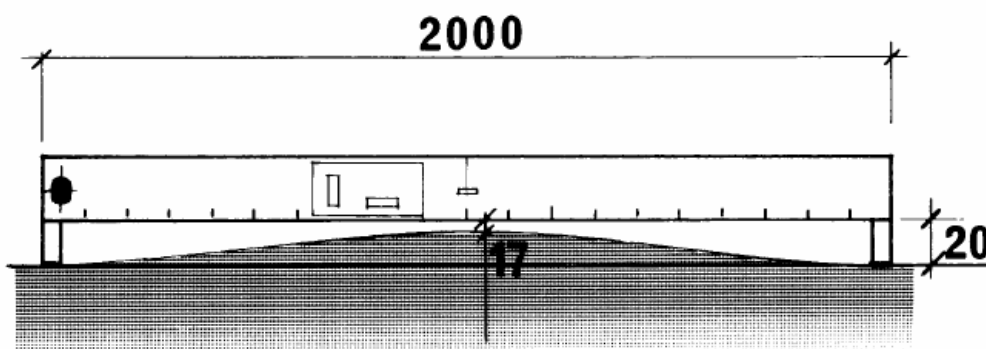
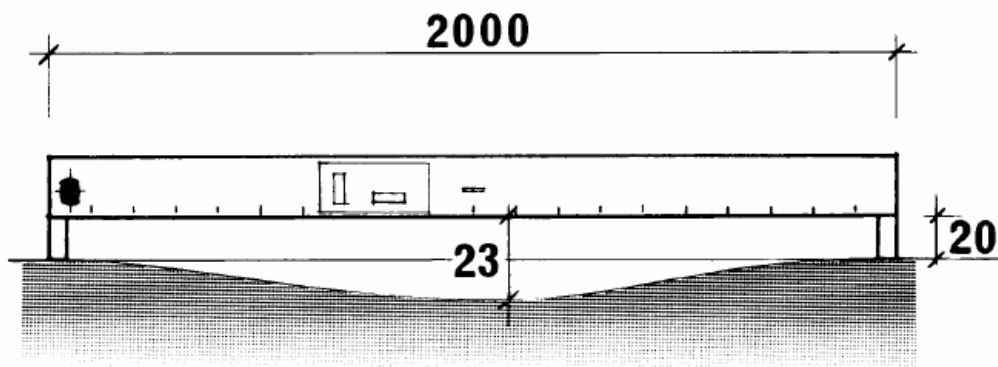
The instrument is fixed over a "bump" or a "hollow" to be checked. According to table E/11, class 2 floor, the curve is allowed to be ± 3 mm. With 20mm spacers the accepted distance from the floor to the lower edge of the instrument varies between 17 –23 mm. The tolerance is ± 3 mm, which means that the value can vary 6 mm on a 2 m width.

According to RA 78 the table has been extended with the measure 1,0 meter for class 2 floors, with the tolerance of $\pm 2,0$ mm, therefore the total variation will be 4 mm instead of 6 mm. For smaller hollows or bumps based on 0,25 m, the tolerance is only $\pm 1,2$ mm.

Inclination;

The instrument is placed with one of the spacers on the floor, and the opposite side is levelled with the water level to the right height. The difference between the floor and the instrument will be measured at 1,8 meters length, and the distance between the lower edge on the instrument and the floor, must be maximum 23 mm at class 2 floors. This allows 3 mm divergence. In the tolerance table the divergence has been approved at ± 3 mm. This means that the floor can lean 3 mm in both directions from a higher point.





The problem has been that it should be an easy way to measure the distance between the instrument and the floor. By using the wedge it is possible to measure 1/10 part of mm anywhere under the instrument.

The wedge leans 1 mm per cm and varies from 2-35 mm in height. When checking the floors flatness, the instrument is placed across the bump or hollow. The wedge is then placed under the instrument and the value can be assessed.

The spacers under the instrument are 20 mm. This means that if the wedge indicates 17 mm, the bump/hollow is 3 mm. When measuring the flatness, the measurements are made every 30-50 cm along the instrument

