BaseEdge PRO 0,01 WORLD CUP PRECISION

PRECISION AT THE BASE EDGE



ORIGINAL OPERATING MANUAL

Measuring device for determining the base edge angle of skis and snowboards

1. Introduction & Intended Use

Thank you for choosing the BaseEdge Pro 0.01°. This compact precision measuring device was developed by MBAS Maschinenbau for the accurate inspection of the base edge angle of skis and snowboards.

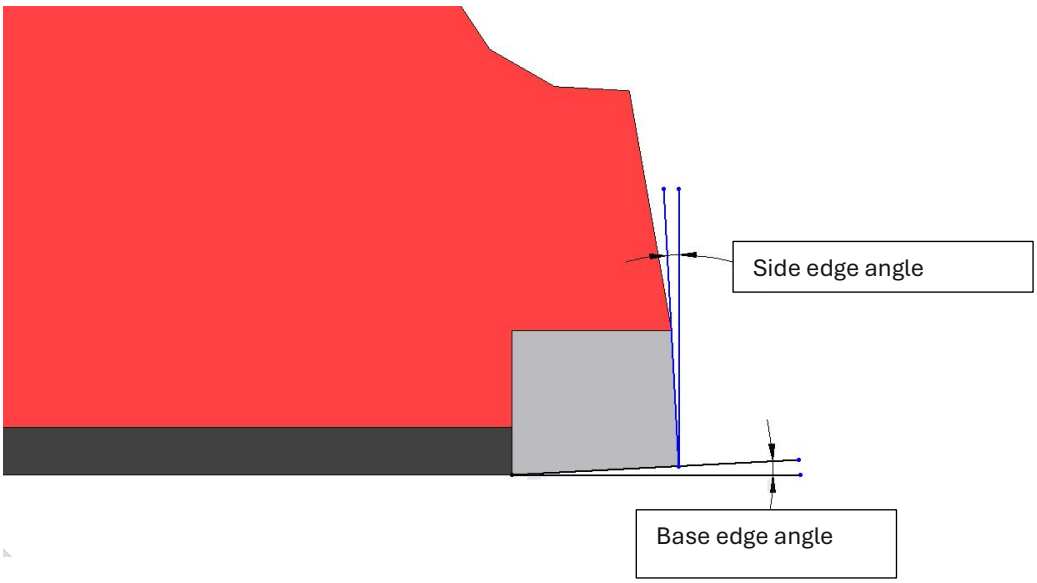
The BaseEdge Pro combines a digital indicator, precision straightedge and LED backlight in one device. The base edge angle can be determined with a resolution of 0.01°. The design is based on a measuring distance of 57.3 mm: at this distance, a height change of 1.00 mm corresponds geometrically to approximately 1.00° within the small-angle range relevant to skis.

IMPORTANT Read these instructions completely before first use. The device is intended exclusively for checking the base edge angle in ski and snowboard servicing. It is not a grinding or machining tool.

Unauthorized modifications, improper use or excessive mechanical stress may impair measuring accuracy. Keep the measuring surfaces, precision straightedge and measuring tip clean.

2. Why the Base Edge Is Crucial

As long as the ski lies flat on the snow, contact is determined mainly by the base. As the ski is edged, the steel edge reaches the snow. The point at which the edge begins to grip is largely determined by the base edge angle.



A small base edge angle allows the ski to grip earlier and more directly. A larger base edge angle requires a greater edging angle before the edge becomes effective. Therefore, the side edge angle alone—for example 86°, 87° or 88°—does not indicate when a ski will begin to grip.

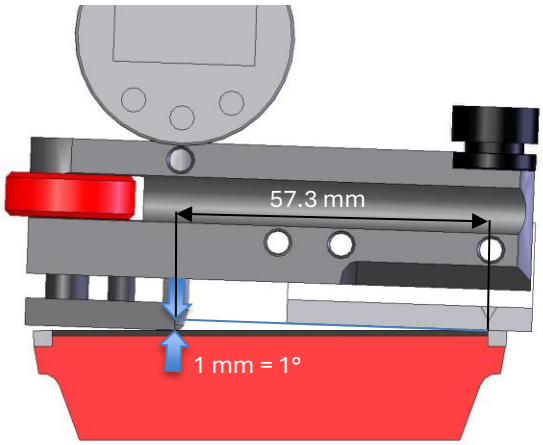
BEFORE MEASURING The ski base must be flat. If it is concave or convex, the measurement may be distorted and the handling characteristics may also be affected. First check the base with a precision straightedge or another straight reference edge.

3. Device Overview



No.	Component
1	Digital indicator / battery compartment
2	ZERO button
3	ON/OFF button
4	mm/inch button
5	Digital indicator / display
6	Knurled nut for height adjustment of the support
7	Adjustable support
8	Measuring tip
9	Precision straightedge
10	Precision straightedge mark
11	LED holder fastening screw
12	LED holder
13	LED lamp

4. Measuring Principle



The mark on the precision straightedge is positioned exactly at the transition between the ski base and the steel edge. The design distance from this mark to the center of the measuring tip is 57.3 mm. The digital indicator must therefore be set to millimeters (mm). Within the intended measuring range, the displayed value in millimeters corresponds to the base edge angle in degrees.

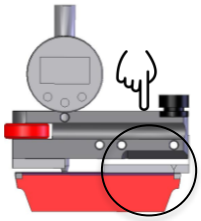
5. Preparation

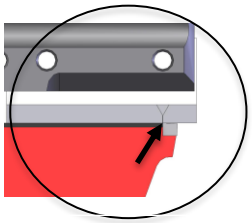
1	**Prepare the ski** Clean the ski base and steel edge. Remove wax residue, dirt and burrs from the measuring area.
2	**Check flatness** Use a precision straightedge or straight reference edge to check whether the ski base is flat. If the base is clearly concave or convex, have it professionally stone-ground flat first.
3	**Switch on the digital indicator** Press ON/OFF and use the mm/inch button to select mm.
4	**Activate the LED** Turn the modified side approximately half a turn counter-clockwise and remove the plastic safety tab from the LED light. Then, turn the side clockwise until the LED lights up. Align the LED holder so that the light shines beneath the straightedge during measurement.

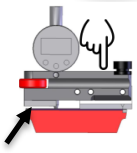
NOTE After measuring, reinsert the plastic tab to conserve the LED batteries.

6. Calibration / Zeroing

1	**Position the device** Place the BaseEdge Pro across the ski, at a 90° angle to the ski's longitudinal direction, on the base that has been checked for flatness.
2	**Position the mark** Position the mark on the precision straightedge exactly between the ski base and the base edge/steel edge. Apply light pressure to the BaseEdge Pro above the precision straightedge.
3	**Raise the support** Turn the support upward using the knurled nut clockwise until only the precision straightedge rests cleanly and firmly on the ski base. Make sure the BaseEdge Pro does not tilt.
4	**Zero the device** Press ZERO to set the digital indicator to 0.00. The device is now referenced for this measuring position.







7. Measuring Procedure

1	**Align the backlight** Adjust the LED so that the light gap between the precision straightedge and the base edge is clearly visible.
2	**Raise the measuring device** Slowly turn the knurled nut counterclockwise. This raises the BaseEdge Pro on the digital-indicator side.
3	**Observe the light gap** Adjust only until the light gap disappears completely and the precision straightedge rests firmly on the base edge.
4	**Read the value** Read the value on the digital indicator in mm. Example: display 0.65 mm = base edge angle 0.65°.
5	**Check at several points** For a meaningful inspection, measure at several points along the ski and compare the values.

MEASURING RULE Always apply pressure as evenly as possible.

8. Understanding the Measurements

The base edge angle influences how early and directly a ski responds when edged. The appropriate setup depends on skiing ability, discipline, ski, preparation and personal preference.

Measured value	Effect / interpretation
small angle 0°–0.5°	early, direct grip; very precise setup required
larger angle	later grip; ski is easier to skid and turn
strongly differing values	may indicate uneven preparation, burrs, or base/edge problems

In ski racing, very small base edge angles may be used depending on the discipline, skier and preparation. Larger angles are generally selected for recreational skiers. The key is a reproducible setup suited to the skier.

9. Typical Sources of Error

- The ski base is not flat (concave or convex).
- The mark on the precision straightedge is not positioned exactly at the transition between the ski base and steel edge.
- The digital indicator is set to inches instead of mm.
- The precision straightedge or measuring surface is dirty or damaged.
- The ski base protrudes beyond the base edge; the precision straightedge does not contact the steel edge correctly.

If the ski base protrudes beyond the base edge or yields under pressure, the cause should be professionally corrected before measuring the angle.

10. Care & Storage

- After use, clean the precision straightedge, contact surfaces and measuring tip with a soft, dry cloth.
- Store the device dry and protected in its case.
- Protect the digital indicator and precision straightedge from impacts.
- Do not use aggressive cleaning agents or abrasives.
- For extended storage, remove the battery from the digital indicator. Before reinserting it, inspect the battery and immediately remove any leaking battery.

11. Technical Data

Feature	Specification
Product	BaseEdge Pro 0,01°
Weight	210g
Permissible temperature	0-40C°
Relative humidity	<80%
Application	Measurement of the base edge angle of skis and snowboards
Digital indicator resolution	0,01 mm
Angle resolution	0,01°
Measuring principle	57.3 mm reference distance; value displayed in mm corresponds to the angle value in degrees
Digital indicator	digital, unit mm/inch
Optical inspection	Precision straightedge with LED backlight
Digital indicator battery	1x CR2032 lithium battery

12. Safety and Warning Instructions

WARNING – BUTTON CELLS / BATTERIES

- The product contains button cells: 1 x CR2032 in the digital dial indicator and 3 x LR41 in the LED light.
- Keep batteries and button cells out of the reach of children.
- Button cells that are swallowed or inserted into the body can cause severe internal injuries. Seek medical attention immediately if this is suspected.
- Do not recharge non-rechargeable batteries.
- Do not short-circuit, open, disassemble, deform, throw into a fire, or expose batteries to excessive heat.
- Use only the specified type of battery and ensure correct polarity during insertion.
- Do not touch damaged or leaking batteries with bare hands.
- Remove batteries from the device if it is not to be used for an extended period, provided this can be done without causing damage.

CAUTION – PRECISION MEASURING INSTRUMENT

- Do not drop the device or subject it to impacts or excessive mechanical stress.
- •The measuring tip and straight edge are precision components. Do not use them as a lever, scraper, or machining tool.
- Keep the device dry and do not immerse it in water or other liquids.
- Use only for the described measuring purpose.

13. Disposal

Used batteries and button cells must not be disposed of with household waste. They must be collected separately and handed in at a suitable collection or take-back point. Removable batteries must be removed before the device is disposed of—provided this can be done safely—and disposed of separately.
Electrical and electronic components of the product must be disposed of separately from unsorted municipal waste (residual waste) in accordance with local disposal regulations. The crossed-out wheeled bin symbol indicates the requirement for separate collection.



12. Manufacturer

MBAS MECHANICAL ENGINEERING

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BASEEDGE PRO 0.01° Measure precisely. Understand the base edge. Tune your ski with purpose.