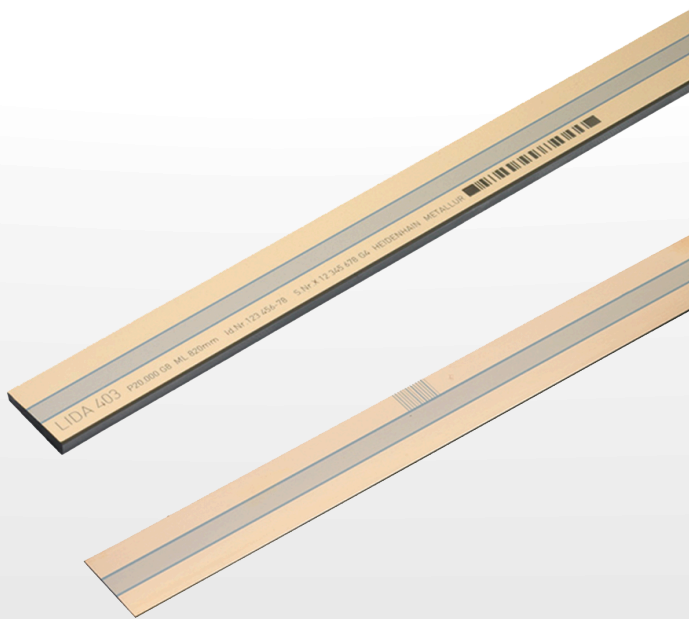




HEIDENHAIN



Linear Scales and Scale Tapes for LIDA, LIC, LIF, LIP

Disassembly Instructions

Exposed Linear Encoders

English (en)
01/2024

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1 Basic information

This chapter contains information about the product and these Disassembly Instructions.

1.1 Applicability of the documentation

These Disassembly Instructions are valid for linear scales and scale tapes of the LIDA, LIC, LIF and LIP series.

► Before using the documentation, check whether the documentation and encoder model match

The encoder designation is printed on the ID label.

1.2 Target group for the Disassembly Instructions

These Disassembly Instructions must be read and observed by every person who performs any of the following tasks:

- Disassembly

1.3 Notes on reading this document

⚠ WARNING

Fatal accidents, personal injury or property damage caused by non-compliance with the documentation!

Failure to comply with the documentation may result in fatal accidents, personal injury or property damage.

- ▶ Read the documentation carefully from beginning to end
- ▶ Keep the documentation for future reference

i In the following, linear scales and scale tapes will be referred to as **measuring standard**.

The following table lists the various parts of the documentation in their order of reading priority.

Documentation	Description
Addendum	An Addendum supplements or supersedes the corresponding contents of the Operating Instructions and, if applicable, of the Mounting Instructions. If an Addendum is included in the shipment, it has the highest reading priority. All other documentation content retains its validity.
Operating Instructions	The Operating Instructions contain all of the information and safety instructions for the proper and intended operation of the device. The Operating Instructions (English language version) are included in delivery and can also be downloaded in other languages from www.heidenhain.com/documentation . The Operating Instructions must be read prior to commissioning the product. The Operating Instructions have the second highest reading priority.
Mounting Instructions	The Mounting Instructions contain all the information and safety precautions needed for the proper mounting and installation of a product. The Mounting Instructions are not included in delivery and must be downloaded from www.heidenhain.com/documentation . The Mounting Instructions have the third highest reading priority.
Disassembly Instructions	The Disassembly Instructions contain all the information and safety precautions for the proper removal of a product. The Disassembly Instructions are not included in delivery and must be downloaded from www.heidenhain.com/documentation . The Disassembly Instructions have the fourth highest reading priority.

1.4 Symbols and fonts used for marking text

In these instructions the following symbols and fonts are used for marking text:

Format	Meaning
▶ ...	Identifies an action and the result of this action
> ...	Example: ▶ Tilt the shipping brace to remove it (c) > The shipping brace has been removed now
■ ...	Identifies an item of a list
■ ...	Example: ■ Solid contaminants: class 3 ■ Max. pressure dew point: class 4
Bold	Identifies elements in figures and illustrations, such as positions, dimensions and worksteps Example: S marks the beginning of the measuring length (ML) .

1.5 Notes in this documentation

Safety precautions

Precautionary statements warn of hazards in handling the device and provide information on their prevention. Precautionary statements are classified by hazard severity and divided into the following groups:

DANGER

Danger indicates hazards for persons. If you do not follow the avoidance instructions, the hazard **will result in death or severe injury**.

WARNING

Warning indicates hazards for persons. If you do not follow the avoidance instructions, the hazard **could result in death or serious injury**.

CAUTION

Caution indicates hazards for persons. If you do not follow the avoidance instructions, the hazard **could result in minor or moderate injury**.

NOTICE

Notice indicates danger to material or data. If you do not follow the avoidance instructions, the hazard **could result in property damage**.

Informational notes

Informational notes ensure reliable and efficient operation of the device. Informational notes are divided into the following groups:



The information symbol indicates a **tip**.

A tip provides important additional or supplementary information.



The book symbol indicates a **cross reference**.

A cross reference leads to external documentation, for example: further documentation from HEIDENHAIN or another supplier.

2 Safety

This chapter provides important safety information needed for the proper disassembly of the product.

2.1 Personnel qualification

The disassembly must be conducted by a qualified specialist under compliance with local safety regulations.

2.2 General safety precautions

WARNING

Fatal accidents, personal injury, or property damage when engaging or disengaging live connecting elements

Engaging or disengaging connecting elements while the system is under power may result in fatal accidents, personal injury, or property damage.

- ▶ Do not engage or disengage any connecting elements while the product is under power.

CAUTION

Risk of injury due to sharp-edged aids

If you use sharp-edged aids, you may cut yourself. Sharp-edged aids are implements like strip steel or safety knives, for example.

- ▶ Wear protective gloves and safety goggles

CAUTION

Danger of burns due to hot parts

Use of a hot-air gun or a heating plate causes some parts of the devices and the treated components to become very hot. These hot parts may cause burns to the skin. They can also lead to the ignition of solvents.

- ▶ Wear protective gloves and safety goggles
- ▶ Do not touch hot parts of the hot-air gun or heating plate and prevent them from coming into contact with solvents
- ▶ Do not touch hot components and surfaces, and prevent them from coming into contact with solvents
- ▶ Place the hot-air gun in a safe place to cool after use or let the heating plate cool down

CAUTION

Danger of chemical burns and poisoning due to solvents

Coming into contact with solvents or inhaling the vapors of solvents can cause chemical burns to the skin or eyes.

- ▶ Wear protective gloves and safety goggles
- ▶ Wear respiratory protection
- ▶ Keep the workplace well ventilated
- ▶ Follow the safety data sheets of the solvents used

NOTICE**Damage to the measuring standard due to mechanical load**

Excessive stress on the measuring standard may lead to breakage of the scale or deformation of the scale tape. The deformed measuring standard can lead to signal failure or signal impairments.

- ▶ Do not bend or deform the measuring standard excessively
- ▶ Pull the strip steel from one side to the other; always pull in the same direction
- ▶ Apply only a light pulling force in the longitudinal direction
- ▶ Never pull the strip steel away from the mounting surface

NOTICE**Material damage caused by solvents**

Use of solvents can cause damage to the measuring standard and the mounting surface.

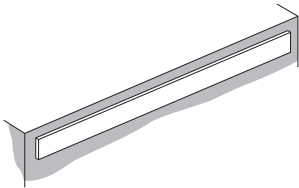
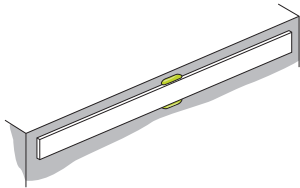
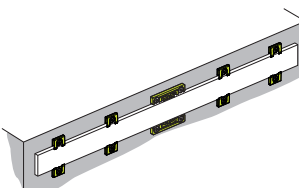
- ▶ Check the solvent resistance of the scale, scale tape and mounting surface

3 Disassembly

This chapter describes the different variants of disassembly of the measuring standard.

3.1 Disassembly variants

Depending on the mounting type of the measuring standard and the quality of the mounting surface, there are various ways of disassembly.

Adhesive film	Adhesive film and fixed-point bond	Fixing clamps and fixed-point elements
		
Page 11	Page 15	Page 24

3.2 Variant: Measuring standard with adhesive film

The disassembly variant in this chapter refers to measuring standards that are secured with adhesive film.

⚠ CAUTION

Risk of injury due to sharp-edged aids

If you use sharp-edged aids, you may cut yourself. Sharp-edged aids are implements like strip steel or safety knives, for example.

- ▶ Wear protective gloves and safety goggles

⚠ CAUTION

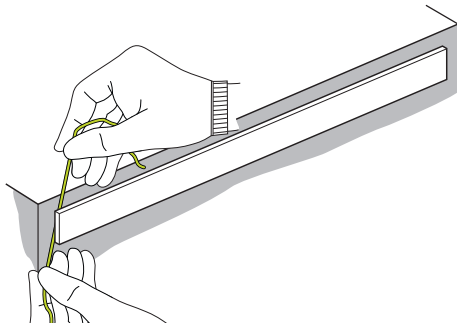
Danger of chemical burns and poisoning due to solvents

Coming into contact with solvents or inhaling the vapors of solvents can cause chemical burns to the skin or eyes.

- ▶ Wear protective gloves and safety goggles
- ▶ Wear respiratory protection
- ▶ Keep the workplace well ventilated
- ▶ Follow the safety data sheets of the solvents used

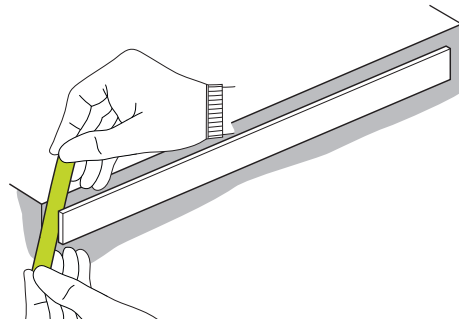
Choose the disassembly variant based on the type of mounting surface:

Sensitive surface



Page 12

Sturdy surface



Page 13

3.2.1 Disassembly with sensitive surfaces

Materials and tools

For this task, the following materials and tools are needed:

Included in delivery

To be provided separately

- Hot-air gun with temperature control
- Cotton thread or plastic thread (e.g., dental floss)
- Solvent (e.g., isopropyl alcohol)
- Cleaning cloths: soft, lint-free, silicone-free, free from parting agents

Detaching measuring standard secured with adhesive film

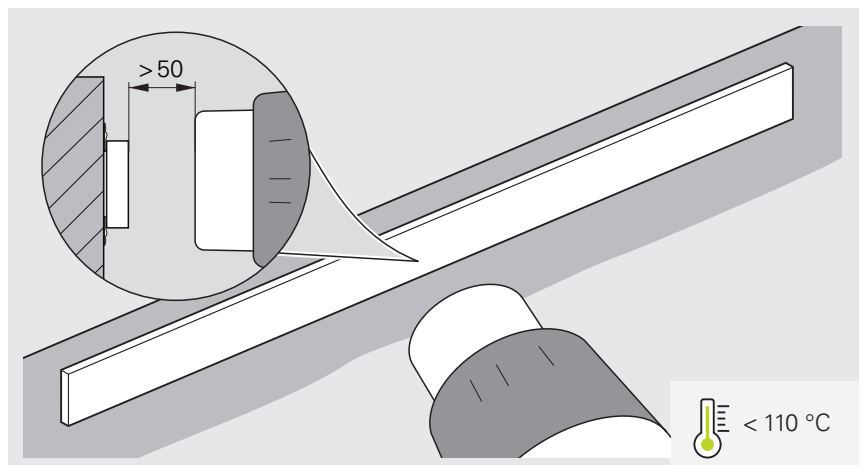
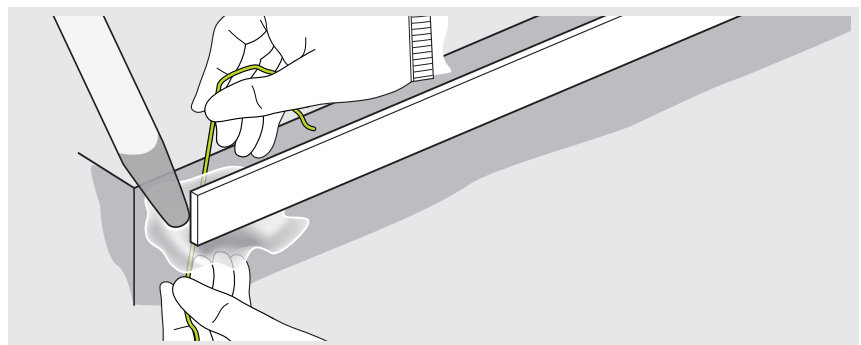
To soak the adhesive film:

- ▶ Apply solvent to the sides of the measuring standard until the gap between the measuring standard and the mounting surface is completely filled.

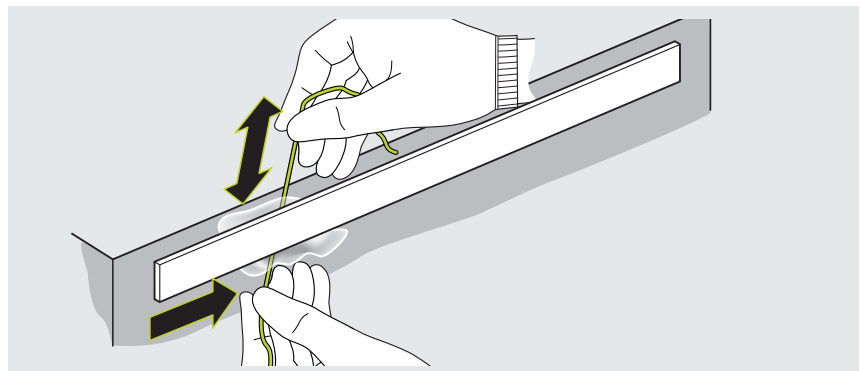


If you cannot use solvents, heating also helps to loosen the measuring standard.

- ▶ Use a hot-air gun to heat the measuring standard evenly to a core temperature of 80 °C
- ▶ Keep a distance of 50 mm between the hot-air gun and the surface of the measuring standard
- ▶ Pay attention to the measuring standard's maximum temperature of 110 °C
- ▶ Keep the core temperature constant throughout the detachment process



- ▶ Pull the thread through the bottom of the measuring standard and the mounting surface in a sawing motion



- > The measuring standard is separated from the mounting surface.

3.2.2 Disassembly with sensitive surfaces

Materials and tools

For this task, the following materials and tools are needed:

Included in delivery

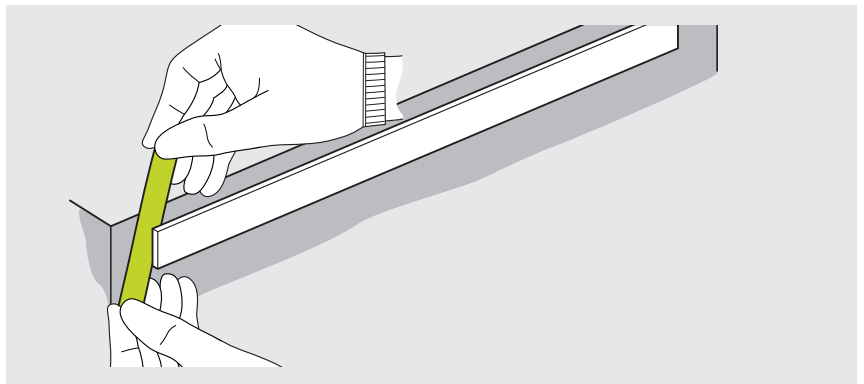
To be provided separately

- Strip steel or metal foil with a thickness of 0.04 mm. 0.06 mm
- Solvent (e.g., isopropyl alcohol)
- Cleaning cloths: soft, lint-free, silicone-free, free from parting agents

Detaching measuring standard secured with adhesive film

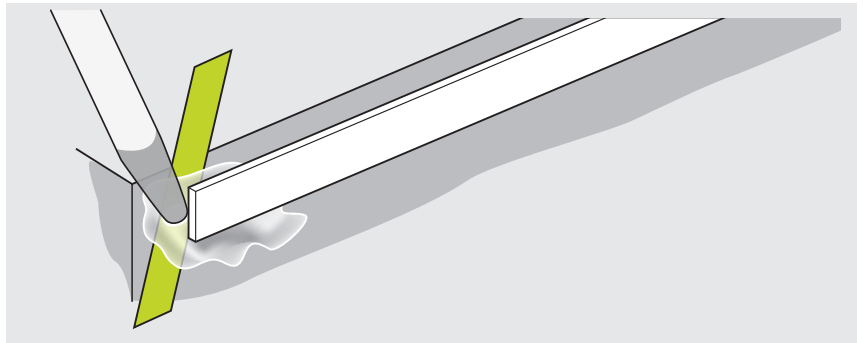
To lift the measuring standard:

- ▶ At a corner at the beginning of the measuring standard, insert the strip steel between the bottom of the measuring standard and the mounting surface at a slight angle to the longitudinal direction



To soak the adhesive film:

- ▶ Apply solvent to the sides of the measuring standard until the gap between the measuring standard and the mounting surface is completely filled.



NOTICE

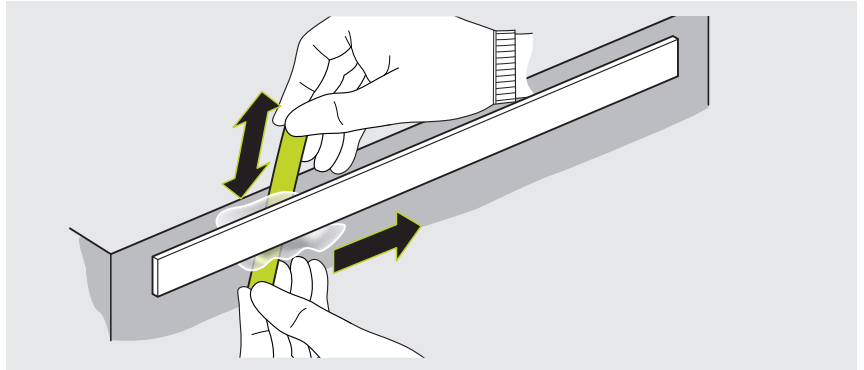
Damage to the measuring standard due to mechanical load

Excessive stress on the measuring standard may lead to breakage of the scale or deformation of the scale tape. The deformed measuring standard can lead to signal failure or signal impairments.

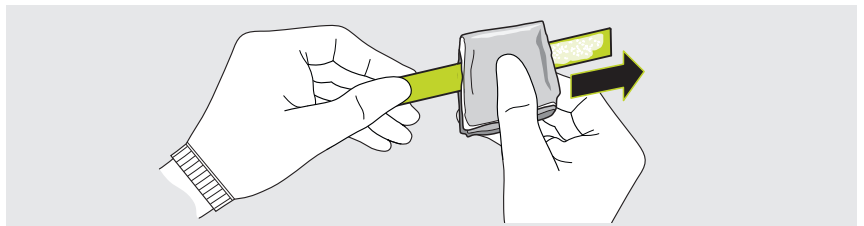
- ▶ Do not bend or deform the measuring standard excessively
- ▶ Pull the strip steel from one side to the other; always pull in the same direction
- ▶ Apply only a light pulling force in the longitudinal direction
- ▶ Never pull the strip steel away from the mounting surface

To cut through the adhesive film:

- ▶ Pull the strip steel through in a sawing motion from one side to the other below the measuring standard



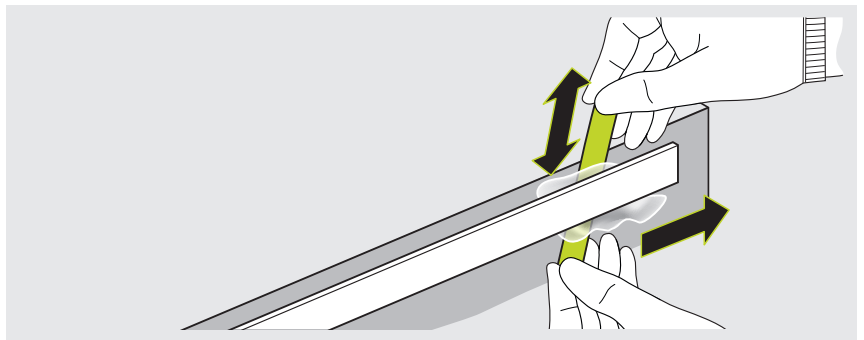
- ▶ Wipe the strip steel clean with a cloth soaked in solvent



Note that residues of adhesive deposit on the strip steel.

- ▶ Clean the strip steel every time you have pulled it through

- ▶ Apply some more solvent to the measuring standard
- ▶ Carefully reinsert the strip steel
- ▶ Continue detaching the adhesive bond as described above



- ▶ The measuring standard is separated from the mounting surface.

3.3 Variant: Measuring standard with adhesive film and fixed-point bond

The disassembly variant in this chapter refers to measuring standards that are secured with adhesive film and fixed-point bond.

CAUTION

Risk of injury due to sharp-edged aids

If you use sharp-edged aids, you may cut yourself. Sharp-edged aids are implements like strip steel or safety knives, for example.

- ▶ Wear protective gloves and safety goggles

CAUTION

Danger of burns due to hot parts

Use of a hot-air gun or a heating plate causes some parts of the devices and the treated components to become very hot. These hot parts may cause burns to the skin. They can also lead to the ignition of solvents.

- ▶ Wear protective gloves and safety goggles
- ▶ Do not touch hot parts of the hot-air gun or heating plate and prevent them from coming into contact with solvents
- ▶ Do not touch hot components and surfaces, and prevent them from coming into contact with solvents
- ▶ Place the hot-air gun in a safe place to cool after use or let the heating plate cool down

CAUTION

Danger of chemical burns and poisoning due to solvents

Coming into contact with solvents or inhaling the vapors of solvents can cause chemical burns to the skin or eyes.

- ▶ Wear protective gloves and safety goggles
- ▶ Wear respiratory protection
- ▶ Keep the workplace well ventilated
- ▶ Follow the safety data sheets of the solvents used

NOTICE

Material damage due to hot surfaces

Excessive surface temperatures can damage or destroy the measuring standard.

- ▶ Avoid surface temperatures >110 °C
- ▶ Avoid spot-heating
- ▶ Keep the nozzle of the hot-air gun at least 50 mm away from the surface of the measuring standard
- ▶ Make sure the hot-air gun is set to an appropriate temperature
- ▶ Keep in mind the heat dissipation of the mounting surface

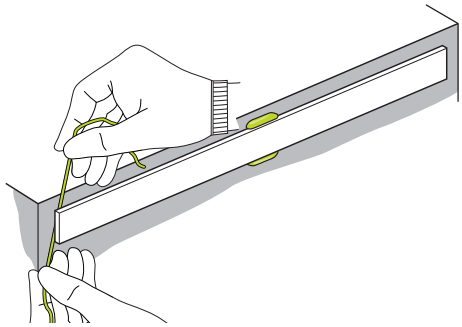
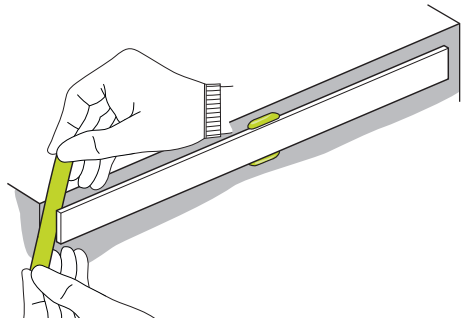
NOTICE

Material damage due to insufficient clearance

The measuring standard can break or deform if you detach the adhesive film closer than about 50 mm to a fixed-point bond.

- ▶ Always keep a distance of at least 50 mm to fixed-point bonds

Choose the disassembly variant based on the type of mounting surface:

Sensitive surface	Sturdy surface
	
Page 16	Page 19

3.3.1 Disassembly with sensitive surfaces

Materials and tools

For this task, the following materials and tools are needed:

Included in delivery

To be provided separately

- Hot-air gun with temperature control
- Safety knife with thin blade or craft knife
- Strip steel or metal foil with a thickness of 0.04 mm. 0.06 mm
- Solvent (e.g., isopropyl alcohol)
- Cleaning cloths: soft, lint-free, silicone-free, free from parting agents

Detaching measuring standard secured with adhesive film and fixed-point bond

To remove the protruding portion of the fixed-point bond:

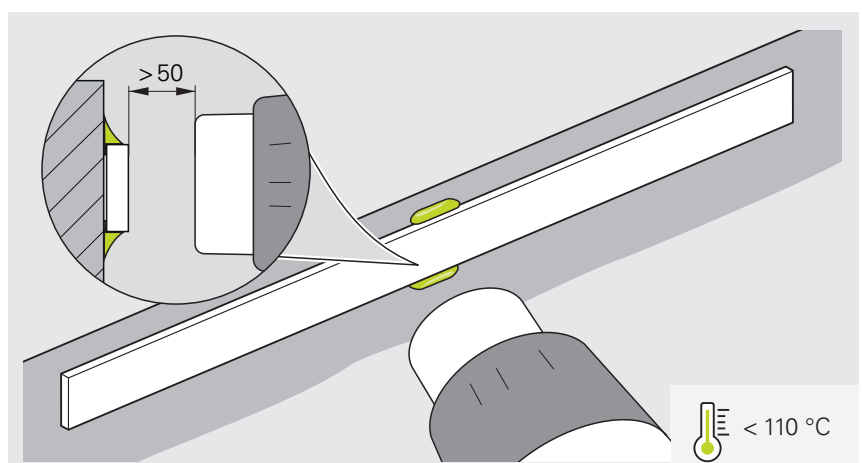
- ▶ Heat the fixed-point bond to the softening point of the adhesive used or to a maximum of 110 °C



For the softening point of the adhesive used, please refer to the Technical Data Sheet for the adhesive.

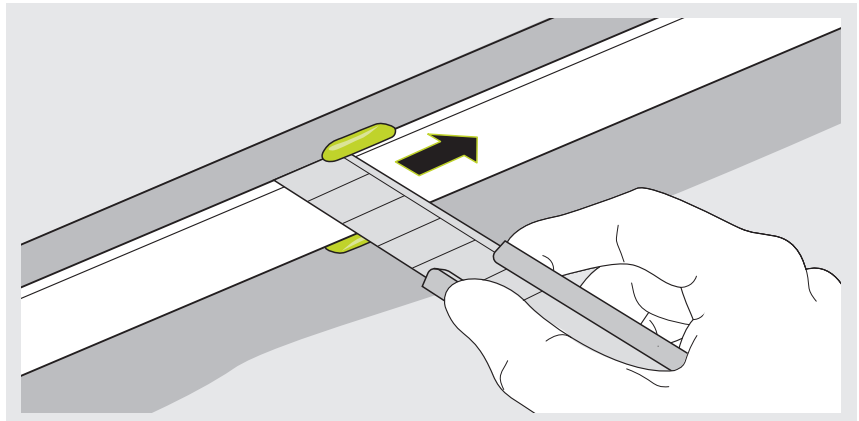


The time required to heat the adhesive to the softening point will vary depending on the material of the mounting surface and its heat dissipation.



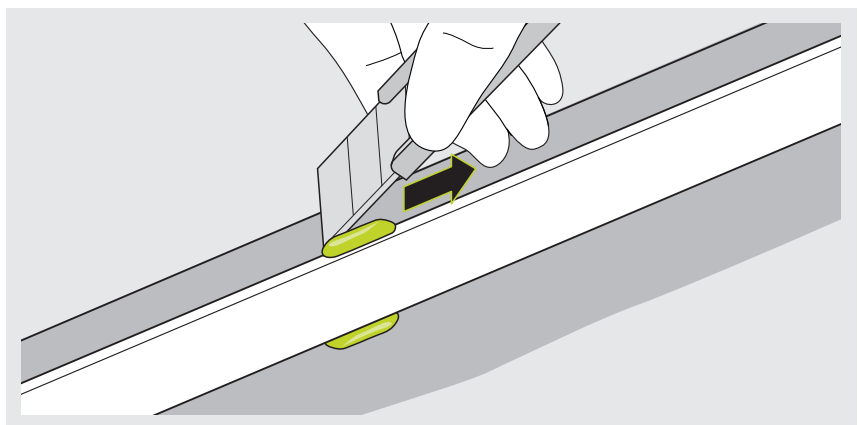
When the softening point of the adhesive is reached:

- ▶ With a blade, cut into the adhesive layer along the side of the measuring standard



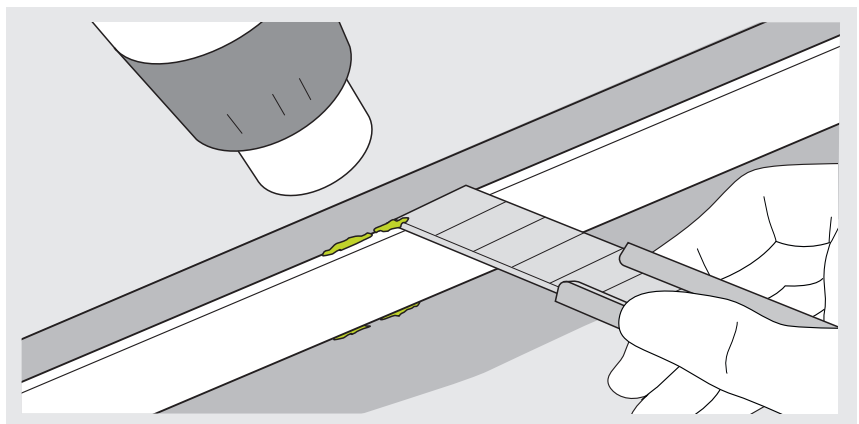
To detach the adhesive bead:

- ▶ Hold a safety knife flat and slide it across the mounting surface



To remove adhesive residues:

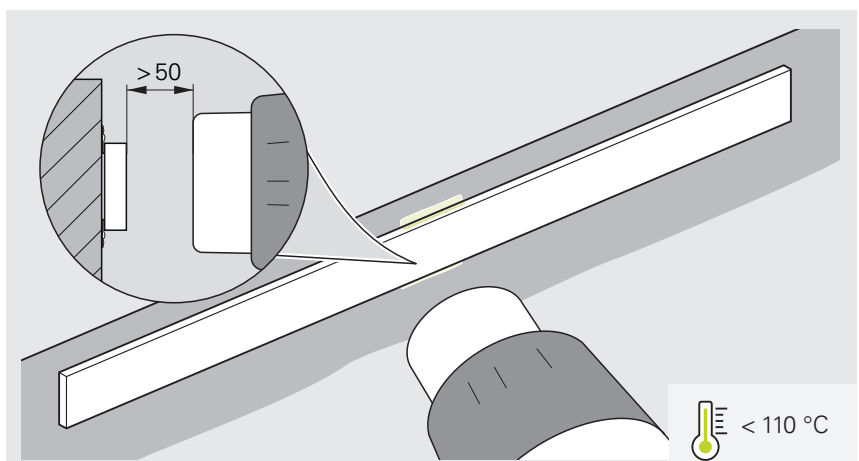
- ▶ Use a safety knife to remove adhesive residues



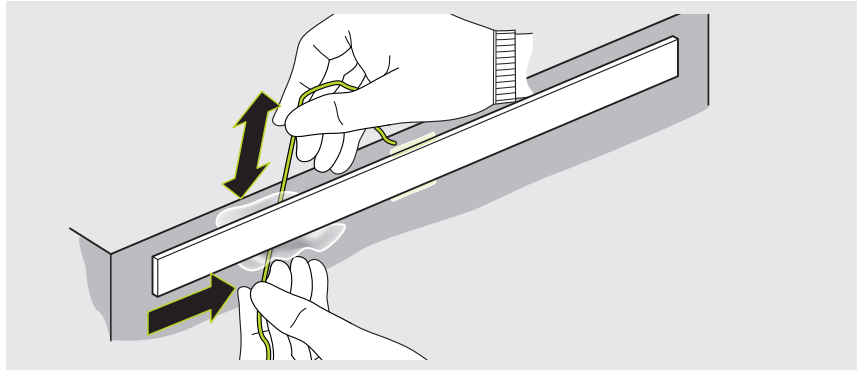
i Maintain the temperature throughout the detachment process. Ideally, have a second person operate the hot-air gun.

i If you cannot use solvents, heating also helps to loosen the measuring standard.

- ▶ Use a hot-air gun to heat the measuring standard evenly to a core temperature of 80 °C
- ▶ Keep a distance of 50 mm between the hot-air gun and the surface of the measuring standard
- ▶ Pay attention to the measuring standard's maximum temperature of 110 °C
- ▶ Keep the core temperature constant throughout the detachment process



- ▶ Pull the thread through the bottom of the measuring standard and the mounting surface in a sawing motion



NOTICE

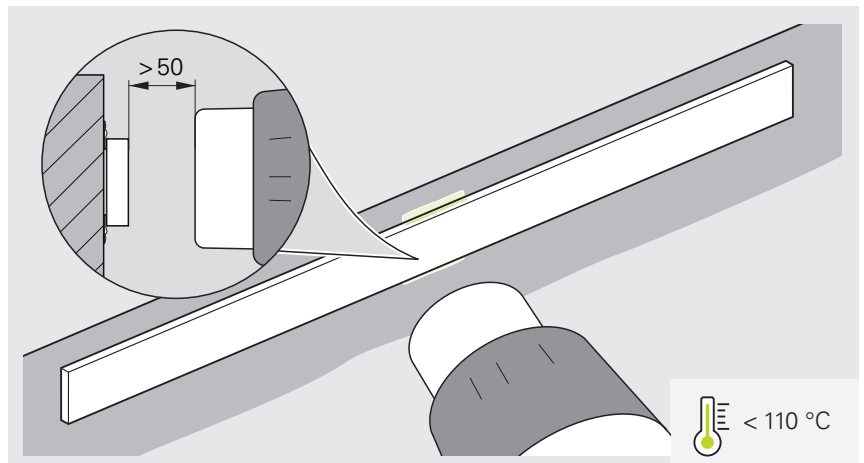
Damage to the measuring standard caused by strip steel

You need to use strip steel to be able to loosen the fixed-point bond. Strip steel can damage the mounting surface.

- ▶ Check the durability of the mounting surface

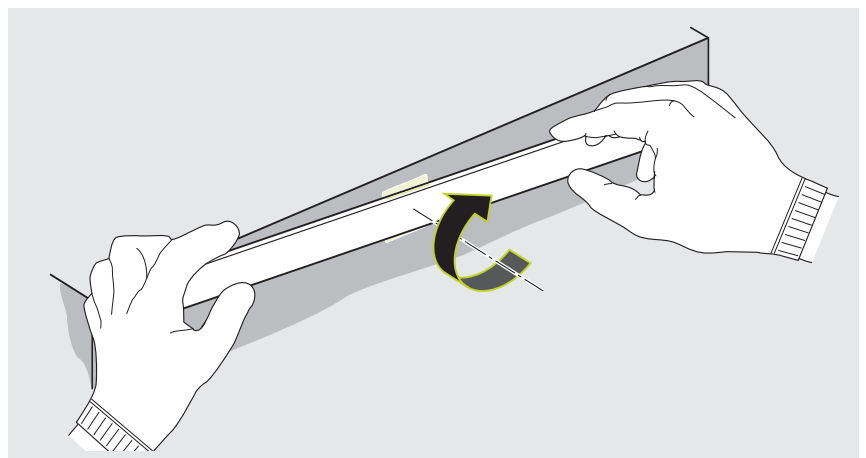
To loosen the remaining fixed-point bond and the remaining adhesive film by using the hot-air gun:

- ▶ Heat the fixed-point bond and adhesive film
- ▶ Keep a distance of 50 mm between the hot-air gun and the surface of the measuring standard
- ▶ Pay attention to the measuring standard's maximum temperature of 110 °C
- ▶ Use heated strip steel to cut through the fixed-point bond



To detach the adhesive bond:

- ▶ Carefully rotate the scale about the fixed point as the centerline
- ▶ Maintain the temperature throughout the detachment process
- ▶ Ensure an even application of force
- ▶ Do not apply force to the ends of the scale



i Scales with a length of > 0.7 m might fall off the mounting surface and get damaged during disassembly.

- ▶ With two persons, evenly apply pressure to the scale to distribute the force uniformly along the entire length of the scale

or

- ▶ Use a fixture to prevent the scale from falling down

- > The measuring standard is separated from the mounting surface.

3.3.2 Disassembly with sensitive surfaces

Materials and tools

For this task, the following materials and tools are needed:

Included in delivery

To be provided separately

- Hot-air gun with temperature control
- Pliers
- Safety knife with thin blade or craft knife
- Strip steel or metal foil with a thickness of 0.04 mm. 0.06 mm
- Solvent (e.g., isopropyl alcohol)
- Cleaning cloths: soft, lint-free, silicone-free, free from parting agents

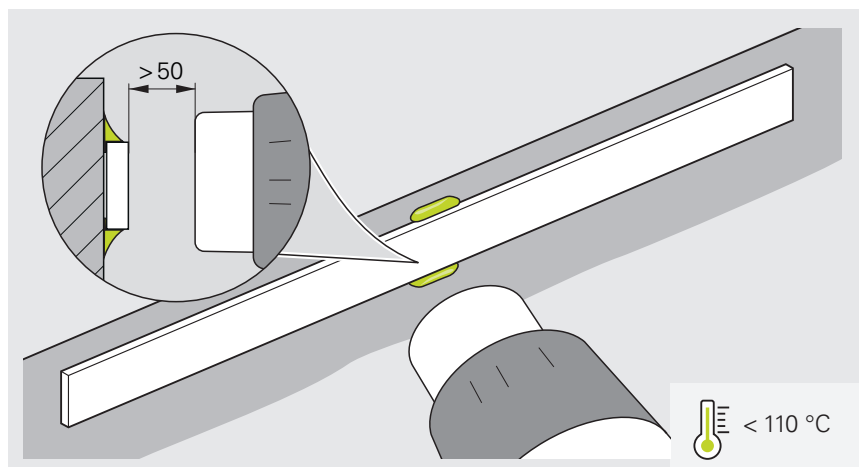
Detaching measuring standard secured with adhesive film and fixed-point bond

To remove the protruding portion of the fixed-point bond:

- ▶ Heat the fixed-point bond to the softening point of the adhesive used or to a maximum of 110 °C

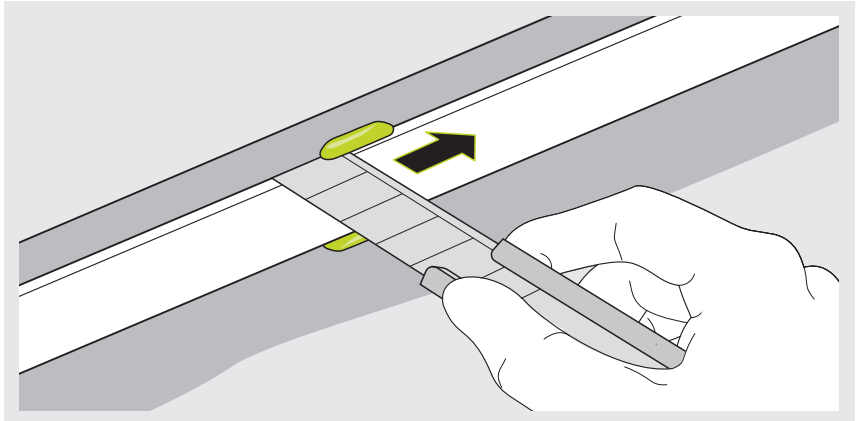
i For the softening point of the adhesive used, please refer to the Technical Data Sheet for the adhesive.

i The time required to heat the adhesive to the softening point will vary depending on the material of the mounting surface and its heat dissipation.



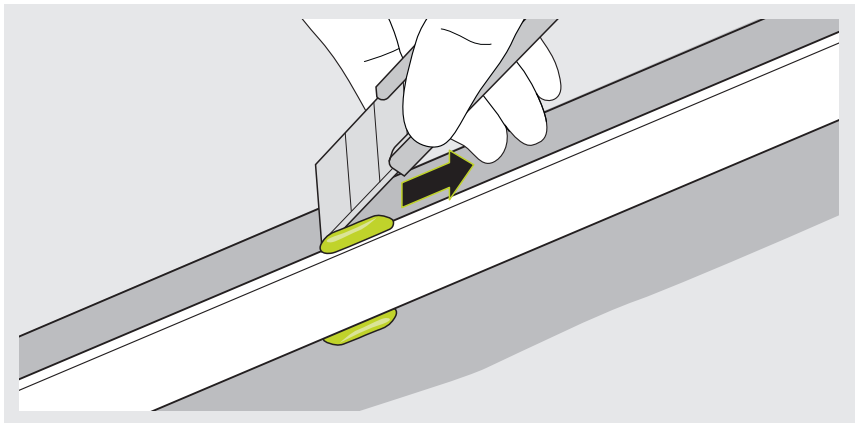
When the softening point of the adhesive is reached:

- ▶ With a blade, cut into the adhesive layer along the side of the measuring standard



To detach the adhesive bead:

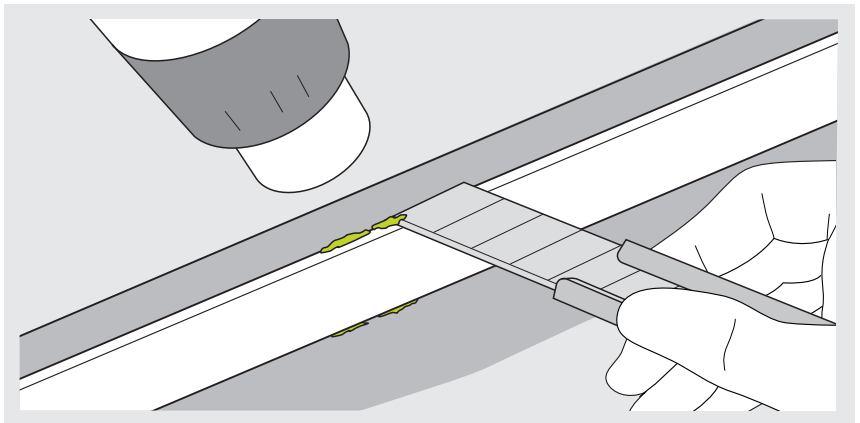
- ▶ Hold a safety knife flat and slide it across the mounting surface



To remove adhesive residues:

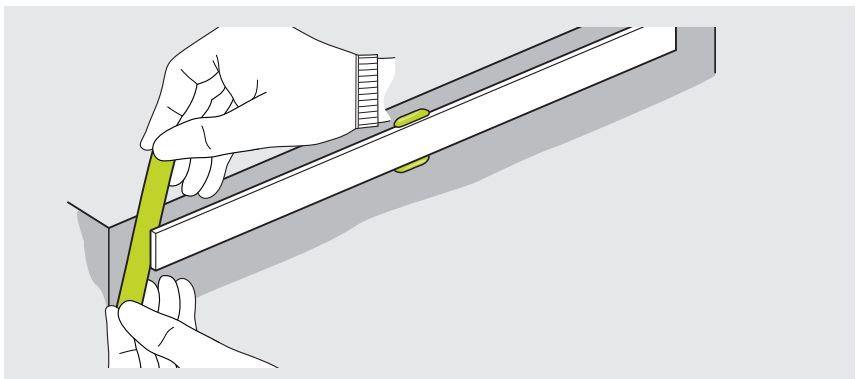
- ▶ Use a safety knife to remove adhesive residues

i Maintain the temperature throughout the detachment process. Ideally, have a second person operate the hot-air gun.



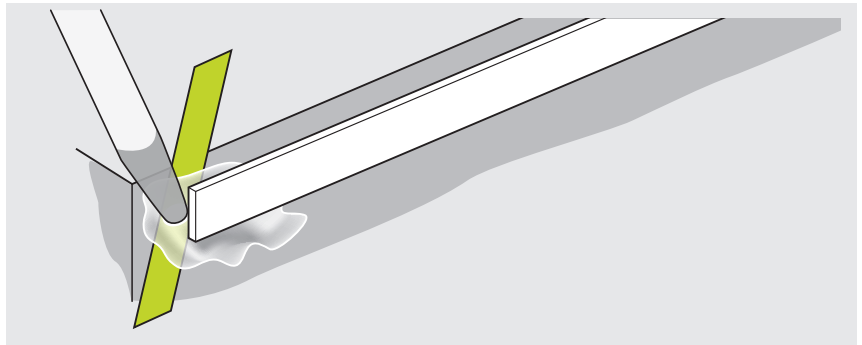
To detach the adhesive film:

- ▶ At a corner at the beginning of the measuring standard, insert the strip steel between the bottom of the measuring standard and the mounting surface



To soak the adhesive film:

- ▶ Apply solvent to the sides of the measuring standard until the gap between the measuring standard and the mounting surface is completely filled.



NOTICE

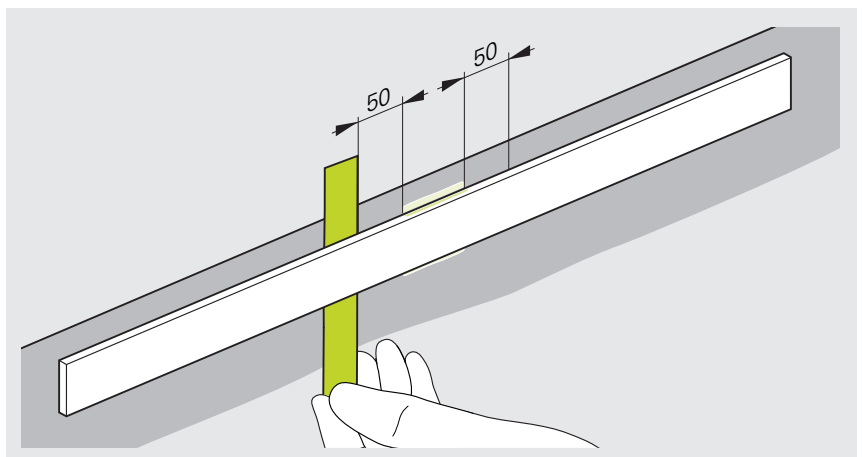
Damage to the measuring standard due to mechanical load

Excessive stress on the measuring standard may lead to breakage of the scale or deformation of the scale tape. The deformed measuring standard can lead to signal failure or signal impairments.

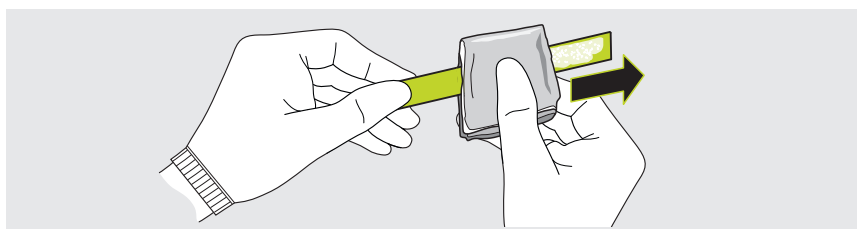
- ▶ Do not bend or deform the measuring standard excessively
- ▶ Pull the strip steel from one side to the other; always pull in the same direction
- ▶ Apply only a light pulling force in the longitudinal direction
- ▶ Never pull the strip steel away from the mounting surface

To cut through the adhesive film until it is no closer than 50 mm from the fixed-point bond:

- ▶ Pull the strip steel through in a sawing motion from one side to the other below the measuring standard



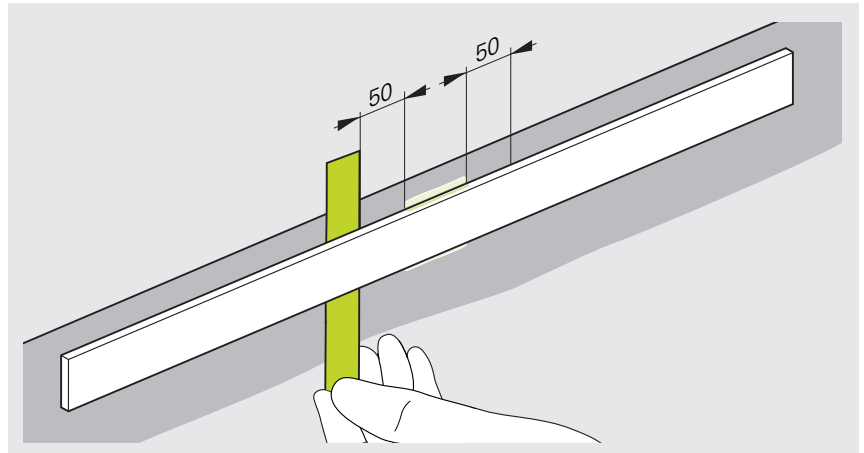
- ▶ Wipe the strip steel clean with a cloth soaked in solvent



Note that residues of adhesive deposit on the strip steel.

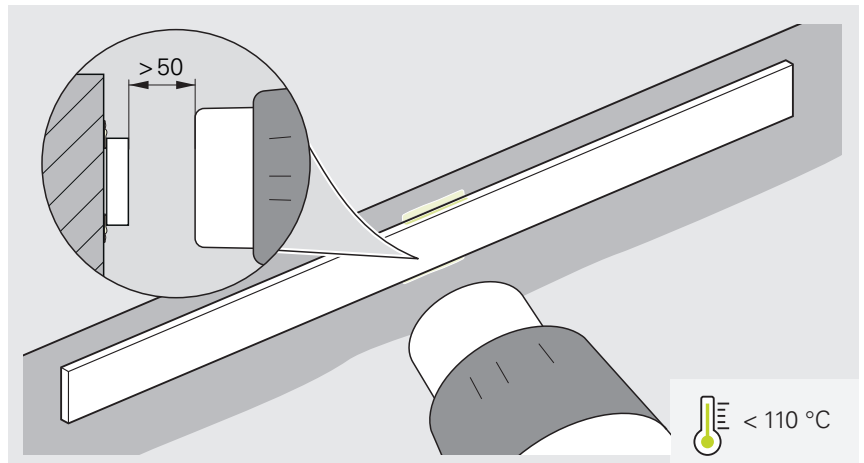
- ▶ Clean the strip steel every time you have pulled it through

- ▶ Apply some more solvent to the measuring standard
- ▶ Carefully reinsert the strip steel
- ▶ Continue detaching the adhesive bond until 50 mm from the fixed-point bond
- ▶ Let the solvents evaporate



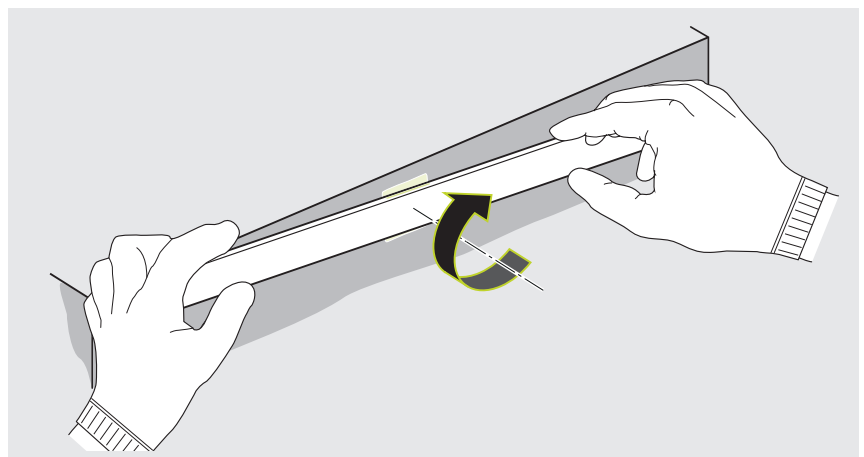
To loosen the remaining fixed-point bond and the remaining adhesive film by using the hot-air gun:

- ▶ Heat the fixed-point bond and adhesive film
- ▶ Keep a distance of 50 mm between the hot-air gun and the surface of the measuring standard
- ▶ Pay attention to the measuring standard's maximum temperature of 110 °C
- ▶ Use heated strip steel to cut through the fixed-point bond



To detach the adhesive bond:

- ▶ Carefully rotate the scale about the fixed point as the centerline
- ▶ Maintain the temperature throughout the detachment process
- ▶ Ensure an even application of force
- ▶ Do not apply force to the ends of the scale



i Scales with a length of > 0.7 m might fall off the mounting surface and get damaged during disassembly.

- ▶ With two persons, evenly apply pressure to the scale to distribute the force uniformly along the entire length of the scale

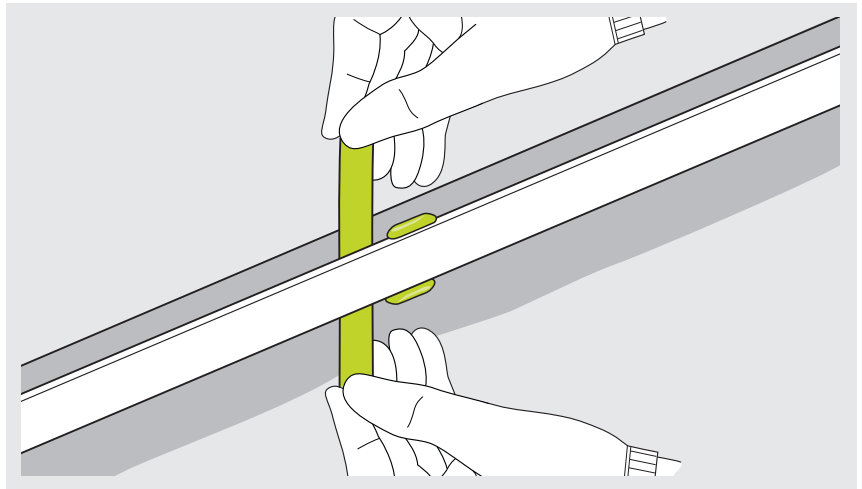
or

- ▶ Use a fixture to prevent the scale from falling down

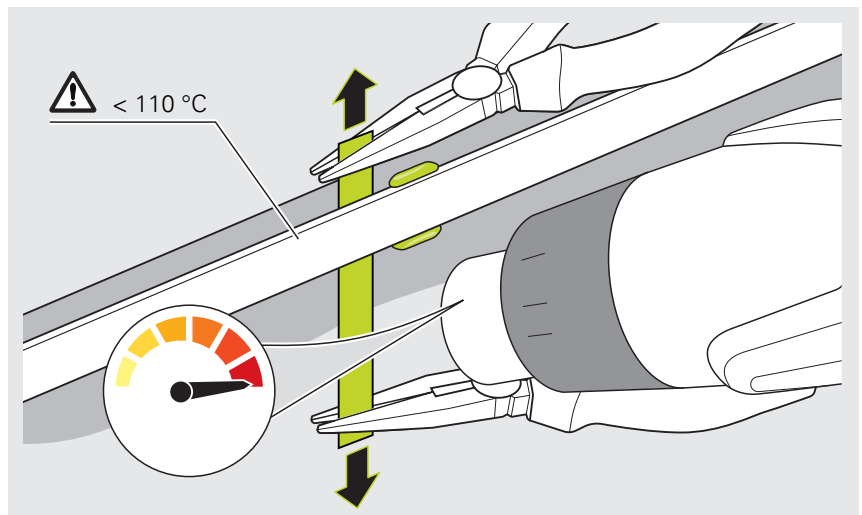
- > The measuring standard is separated from the mounting surface.

Detaching linear scales > 1 m

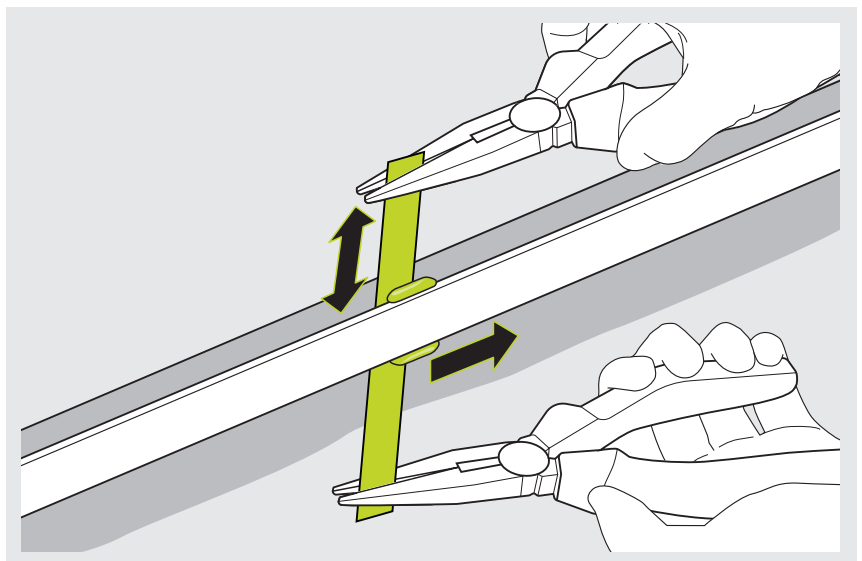
- ▶ Slide the strip steel under the scale until you reach the remaining adhesive bond



- ▶ Use pliers to hold the strip steel and keep it taut
- ▶ Set the hot-air gun to maximum heating temperature
- ▶ Heat the strip steel using the hot-air gun
- ▶ Keep a distance of 50 mm between the hot-air gun and the surface of the scale
- ▶ Pay attention to the scale's maximum temperature of 110 °C



- ▶ Pull the strip steel through the fixed-point bond in a slow sawing motion
- ▶ Reheat the strip steel between the individual passes



- > The measuring standard is separated from the mounting surface.

3.4 Variant: Measuring standard with fixing clamps and fixed-point elements

The disassembly variant in this chapter refers to measuring standards that are secured with fixing clamps and glued fixed-point elements.

CAUTION

Risk of injury due to sharp-edged aids

If you use sharp-edged aids, you may cut yourself. Sharp-edged aids are implements like strip steel or safety knives, for example.

- ▶ Wear protective gloves and safety goggles

CAUTION

Risk of injury due to fragile carrier material of the measuring standard

There is a risk of injury from splinters and sharp edges of the carrier material.

- ▶ Wear protective gloves and safety goggles
- ▶ Do not bend or deform the measuring standard excessively

CAUTION

Danger of burns due to hot parts

Use of a hot-air gun or a heating plate causes some parts of the devices and the treated components to become very hot. These hot parts may cause burns to the skin. They can also lead to the ignition of solvents.

- ▶ Wear protective gloves and safety goggles
- ▶ Do not touch hot parts of the hot-air gun or heating plate and prevent them from coming into contact with solvents
- ▶ Do not touch hot components and surfaces, and prevent them from coming into contact with solvents
- ▶ Place the hot-air gun in a safe place to cool after use or let the heating plate cool down

CAUTION

Danger of chemical burns and poisoning due to solvents

Coming into contact with solvents or inhaling the vapors of solvents can cause chemical burns to the skin or eyes.

- ▶ Wear protective gloves and safety goggles
- ▶ Wear respiratory protection
- ▶ Keep the workplace well ventilated
- ▶ Follow the safety data sheets of the solvents used

NOTICE

Material damage due to hot surfaces

Excessive surface temperatures can damage or destroy the measuring standard.

- ▶ Avoid surface temperatures >110 °C
- ▶ Avoid spot-heating
- ▶ Keep the nozzle of the hot-air gun at least 50 mm away from the surface of the measuring standard
- ▶ Make sure the hot-air gun is set to an appropriate temperature
- ▶ Keep in mind the heat dissipation of the mounting surface

Materials and tools

For this task, the following materials and tools are needed:

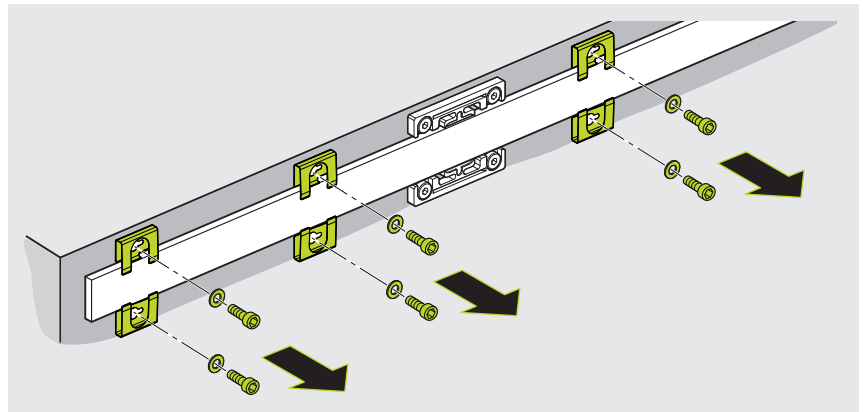
Included in delivery**To be provided separately**

- 2.5 mm Allen key
- Hot-air gun with temperature control or heating plate with temperature control
- Pliers
- Safety knife with thin blade or craft knife
- Solvent (e.g., isopropyl alcohol)
- Cleaning cloths: soft, lint-free, silicone-free, free from parting agents

Detaching measuring standard secured with fixing clamps and fixed-point elements

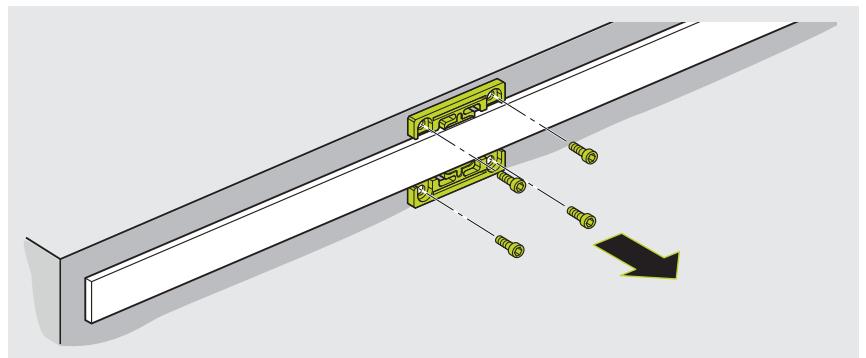
To detach the fixing clamps:

- ▶ Remove the screws from the fixing clamp
- ▶ Remove fixing clamps

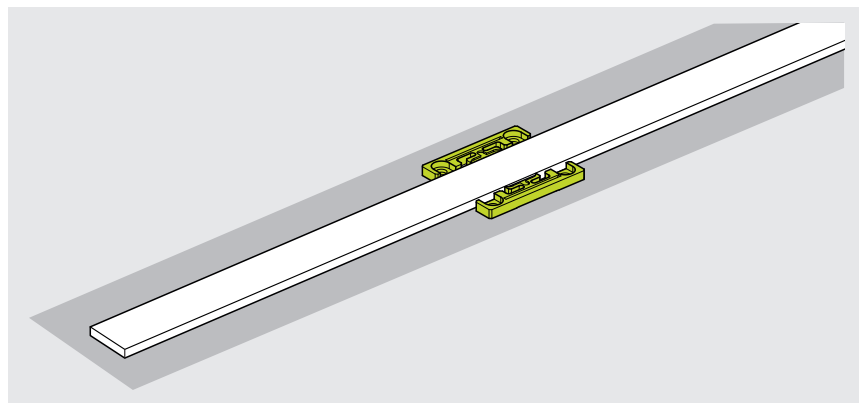


To detach the fixed-point elements:

- ▶ Remove the screws from the fixed-point elements
- ▶ Remove the measuring standard from the mounting surface



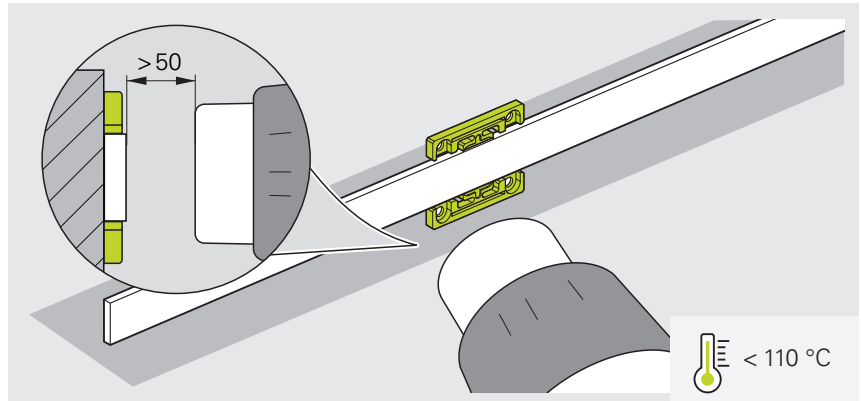
- ▶ Place the measuring standard on a clean and heat-proof surface



- ▶ Using a hot-air gun, heat the fixed-point elements to the softening point of the adhesive used or to a maximum of 110 °C

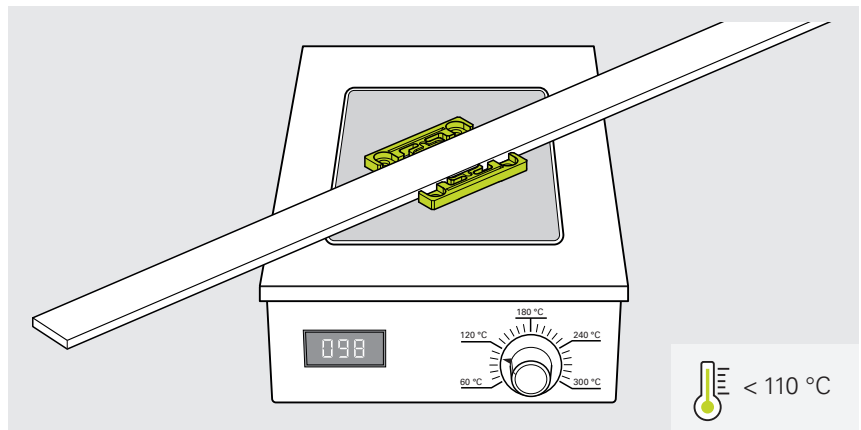


For the softening point of the adhesive used, please refer to the Technical Data Sheet for the adhesive.



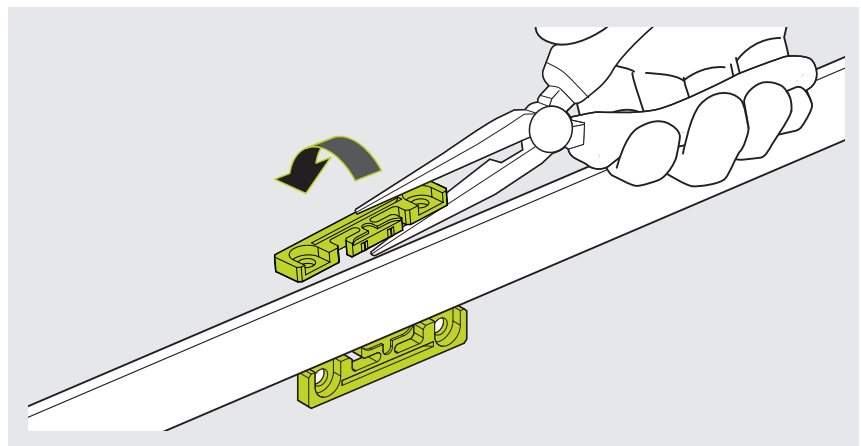
Alternative:

- ▶ Using heating plate, heat the fixed-point elements to the softening point of the adhesive used or to a maximum of 110 °C



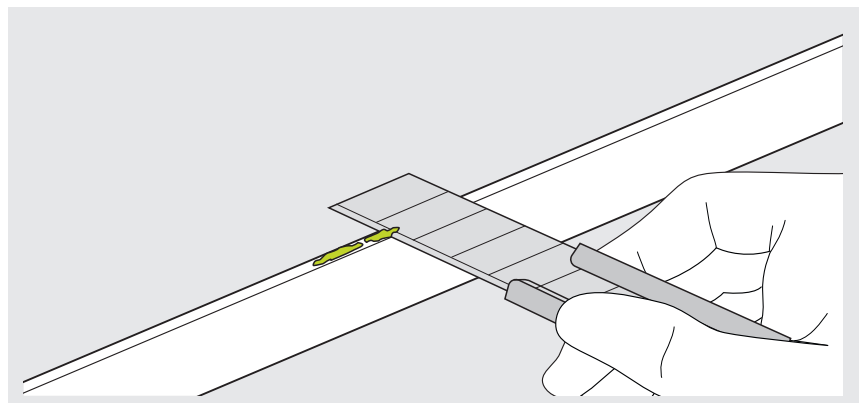
When the softening point of the adhesive is reached:

- ▶ Using pliers, remove the fixed-point elements from the graduation side by folding them backwards

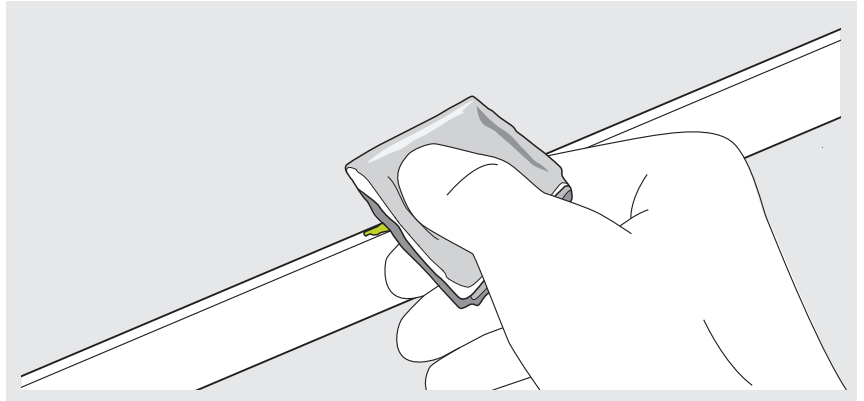


Remove adhesive residue from the measuring standard:

- ▶ Heat the fixed-point bond
- ▶ Use a safety knife to remove adhesive residues
- ▶ Let the measuring standard cool down



- ▶ Soak a cloth with solvent
- ▶ Wipe adhesive residues off with a cloth soaked in solvent



- > The measuring standard is separated from the mounting surface.

4 Cleaning

This chapter describes how you can clean the mounting surface and the measuring standard after disassembly.

4.1 Notes about cleaning

CAUTION

Risk of injury due to sharp-edged aids

If you use sharp-edged aids, you may cut yourself. Sharp-edged aids are implements like strip steel or safety knives, for example.

- ▶ Wear protective gloves and safety goggles

CAUTION

Danger of chemical burns and poisoning due to solvents

Coming into contact with solvents or inhaling the vapors of solvents can cause chemical burns to the skin or eyes.

- ▶ Wear protective gloves and safety goggles
- ▶ Wear respiratory protection
- ▶ Keep the workplace well ventilated
- ▶ Follow the safety data sheets of the solvents used

NOTICE

Material damage caused by solvents

Use of solvents can cause damage to the measuring standard and the mounting surface.

- ▶ Check the solvent resistance of the scale, scale tape and mounting surface

NOTICE

Property damage due to inappropriate tools

Using inappropriate tools for mounting or removal of the encoder may cause damage to the encoder.

- ▶ Do not use hammers
- ▶ Do not use pointed or sharp-edged tools



Ensure that gloves, cleaning cloths and solvents are free from parting agents.

4.2 Materials and tools

For this task, the following materials and tools are needed:

Included in delivery

To be provided separately

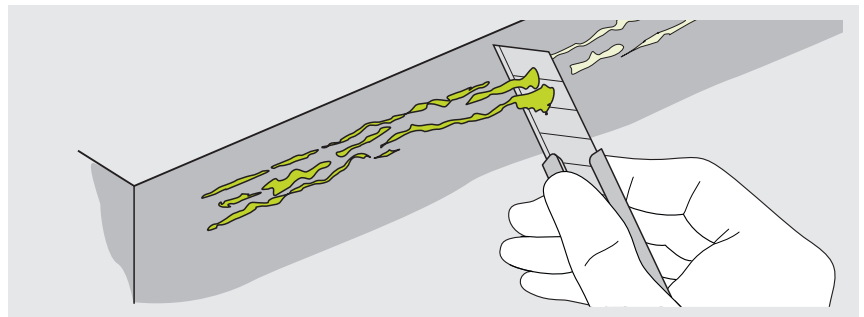
- Safety knife with thin blade or plastic scraper
- Soft cloths or sheets of paper
- Solvent (e.g., isopropyl alcohol)
- Cleaning cloths: soft, lint-free, silicone-free, free from parting agents
- Whetstone or similar

4.3 Cleaning the mounting surface

After you remove the measuring standard, stubborn residues of the adhesive tape and fixed-point bond will be left behind on the mounting surface.

To remove these residues:

- ▶ Loosen the residues of the fixed-point bond and adhesive tape with solvent
- ▶ Remove the loosened residues of the adhesive and adhesive film with a safety knife

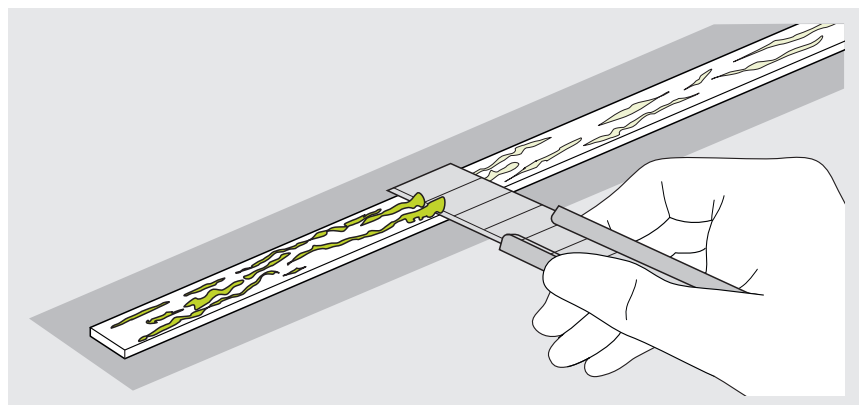


4.4 Cleaning the measuring standard

- ▶ Place the removed measuring standard face down on a flat, clean surface

i To avoid damage to the measuring standard, HEIDENHAIN recommends placing it on soft cloths. As an alternative, you can also use sheets of paper.

- ▶ Use a safety knife to remove the residues of the adhesive tape and fixed-point bond



4.5 Removing remaining contamination

i Please note that condensation on the components needs to air before you attach new adhesive tapes or adhesives.

- ▶ Let the components air
- ▶ If necessary, dry the components and mounting surface

i Avoid residues of solvent or lints from the cleaning cloths.

i Note that the mounting surface, as well as the surface of the measuring standard must be clean and free of paint, dust or grease.

To remove any remaining contamination from the mounting surface and measuring standard:

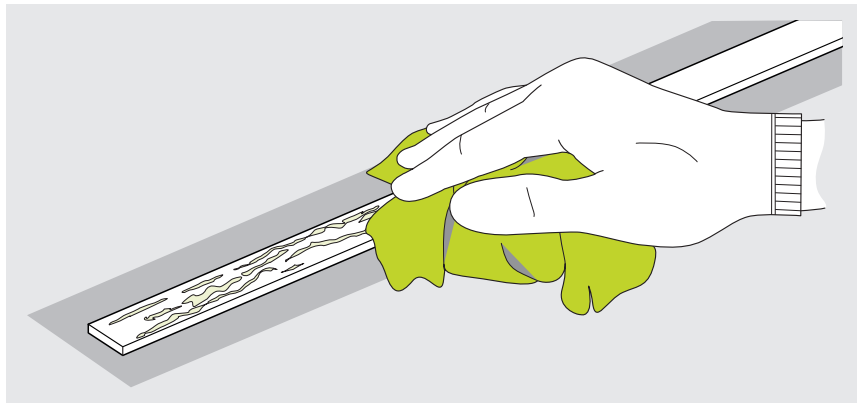
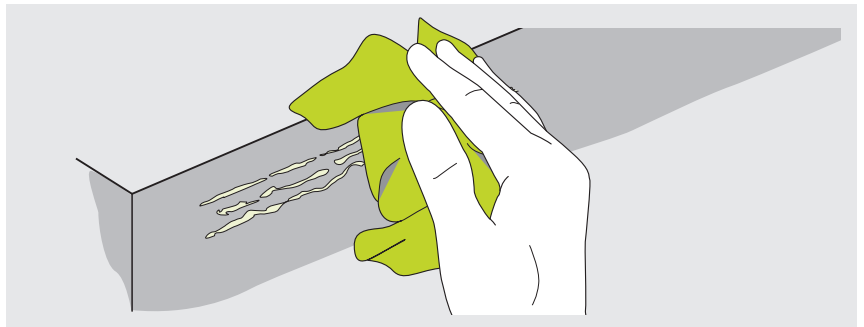
- ▶ Soak cloths in solvent

i With solvents such as acetone, ethanol or methyl ethyl ketone, you can achieve excellent results.

- ▶ Wipe the mounting surface and measuring standard with soaked cloths

i The cloths take up loosened residues of the adhesive tape and fixed-point bond. If you then wipe the cloths over the mounting surface or measuring standard again, you will get smears.

- ▶ Change the cloth after one or two wipes, and use a new cloth and fresh solvent



4.6 Final steps

Check the cleaned mounting surface. If you detect small damage such as scratches, you need to rework the mounting surface before a measuring standard is mounted again with adhesive.

- ▶ Remove any burrs with a whetstone or similar

i If burrs were removed mechanically, these spots must be cleaned and dried again.

5 Disposal

This chapter contains information and environmental protection specifications for the disposal of the device.



NOTICE

Incorrect disposal of the device!

Incorrect disposal of the device can cause environmental damage.

- ▶ Do not dispose of electrical waste and electronic components in domestic waste
- ▶ Forward the device to recycling in accordance with the applicable local disposal regulations

- ▶ If you have any questions about the disposal of the device, please contact a HEIDENHAIN service agency

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