Silhouette®

MOUNTING – DISASSEMBLY - INCLINATION
of
RIMLESS DRILLED FRAMES

Content VH 48

Key:

One arrow = use some pressure

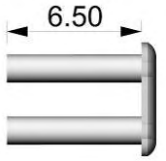
Two arrows = fix by hand

Circle = inclinate at this point

Tip for „Wrap-around"-lenses and strongly curved lenses

1. Glazing Possibilities

1.1. For all drilled frames in general



- Max. lens thickness at the drill hole = 6,5 mm due to length of the BLS
- RX-range to approx. +/- 10 dpt, depending on lens shape and lens material

1.2. Special Execution „Wrap-around"-Frames

- Max. lens thickness at the drill hole = 6,5 mm due to length of the BLS
- Recommended RX-range from +2 dpt to -4 dpt inc. 2 dpt cylinder limit because of the resulting lens thickness
- IMPORTANT for „Wrap-around"-orders:
  - Order an 8-base-front curve!
  - Convert customer prescription based on higher lens angle of more than 10°
  - Use the wrap around calculator on http://b2b.silhouette.com for this purpose

username	atcalculator1	atcalculator2	atcalculator3	atcalculator4	atcalculator5
passwort	english	french	italian	spanish	german

  - According to Username and Password you will have the calculator in a preset language
  - In case of any questions please contact your local customer service team!

2. Mounting Box and Tools

P0027 Universal-Mounting box
(P 0027 00 0000 2010)

P0023 Mounting pliers
for horizontal drill holes
incl. sideparts for
wide frame parts
(P 00023 00 0000 0000)

Optionally available – not included

P0026 Mounting pliers
for vertical drill holes
incl. sideparts for
wide frame parts
(P 0026 00 0000 0000)

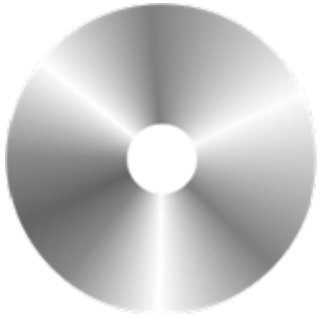
Optionally available – not included

P0004 Disassembly pliers
(P 0004 00 0000 0000)

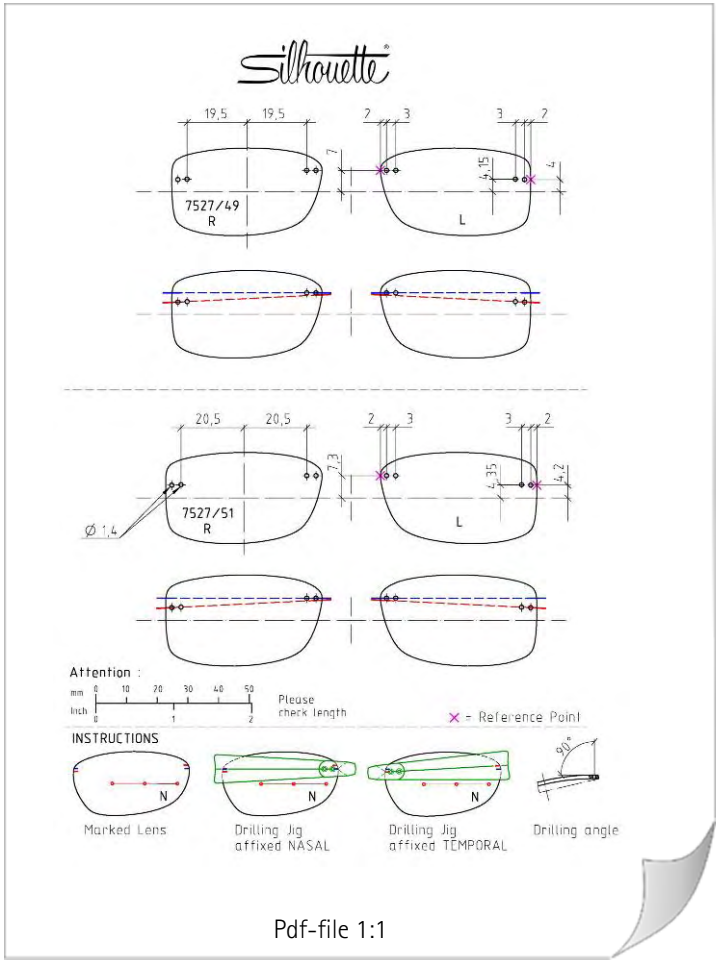
Optionally available – not included

3. MOUNTING OF RIMLESS DRILLED FRAMES

3.1. Download Drilling Coordinates and Print in Colour



Drilling coordinates on the enclosed CD or from customer service upon request!



1:1-print

IMPORTANT
no page scaling!

3.2. Cutting and Drilling

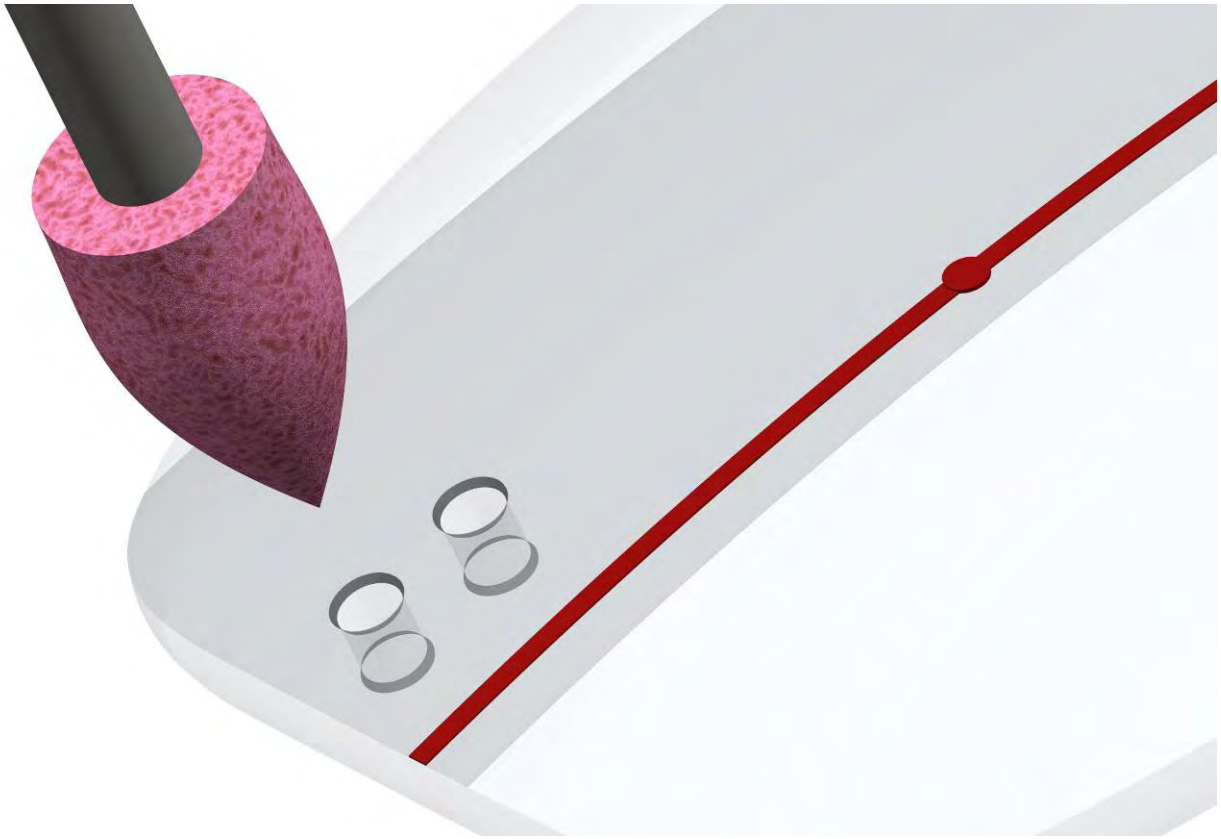
- Measure lenses in the focimeter. Mark the central axis with a waterproof pen.

WRAP AROUND TIP

For strongly curved front surfaces („Wrap-Around" and strong plus lenses) the enclosed 8-base axis lineal AC 344 is useful

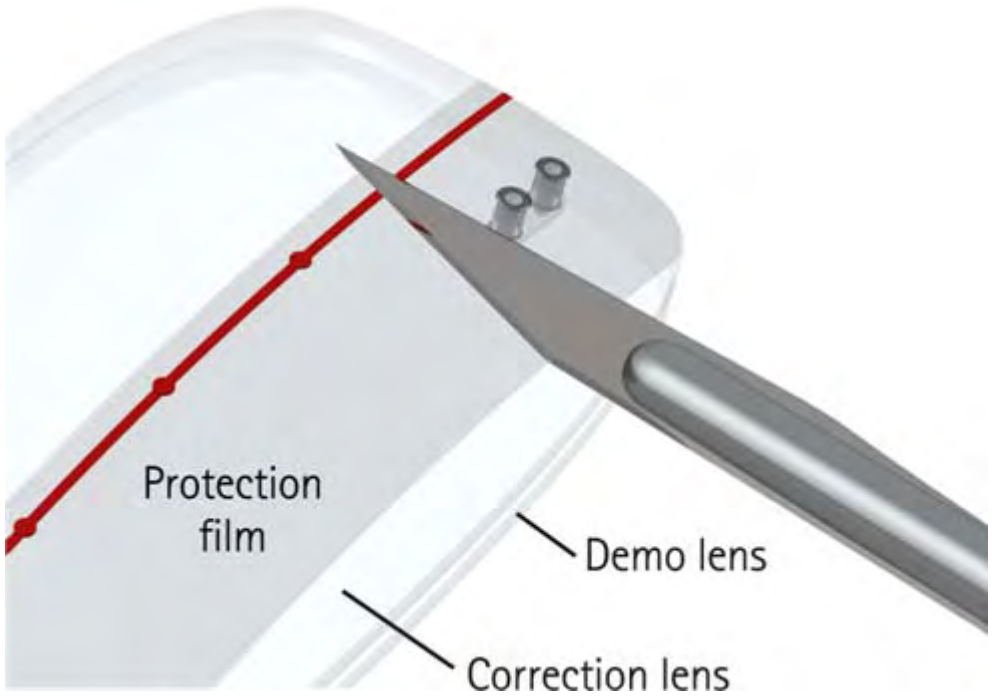
- Cut the lenses using a flat edge at a 1:1 scale
- Polish edges as desired
- Afterwards **drill**
  a) automatically with lens-cutting and drilling or
  b) manually

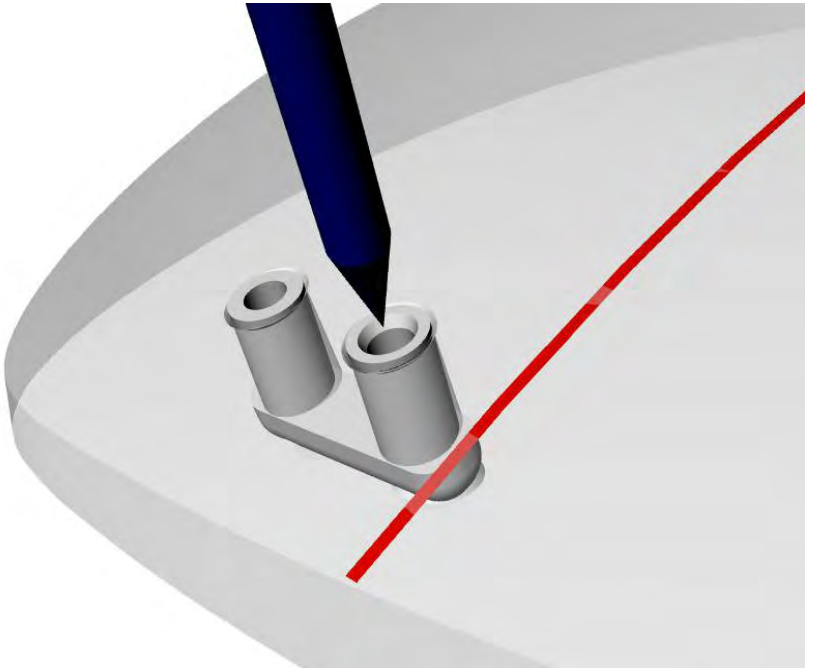
3.3. Deburring



Fix protective film to the lens front.
Deburr drilling holes carefully on both sides.

3.4. Press in Plastic Sleeves – Cut to Length - Expand

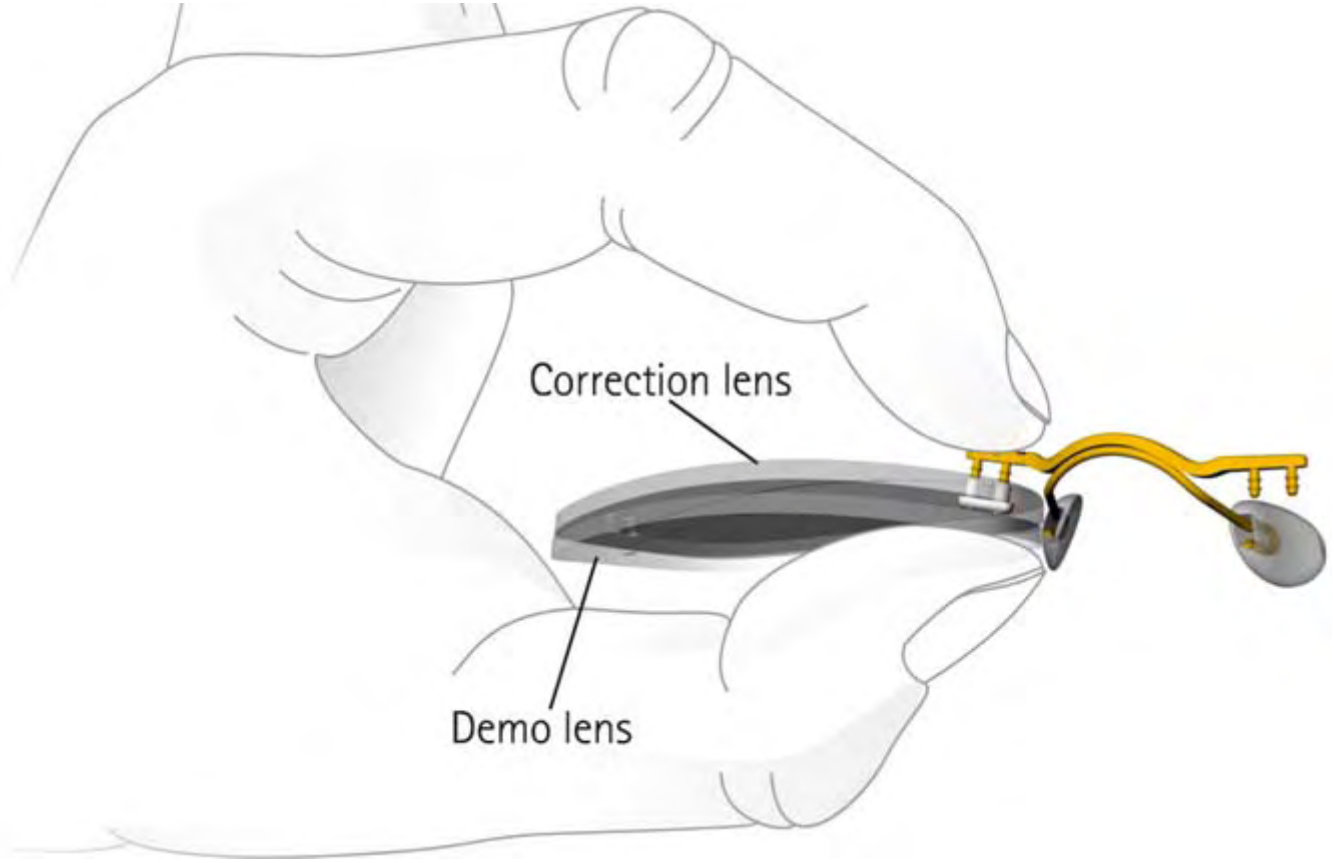




1. Insert plastic sleeves (BLS) into drilled holes to the point of stopping using a demo lens. Only after this cut to the length at the front, depending on the lens thickness. Place the blade parallel to the lens.

2. Expand the open end of the BLS with a conical pin, to make it easier to press in the frame parts.

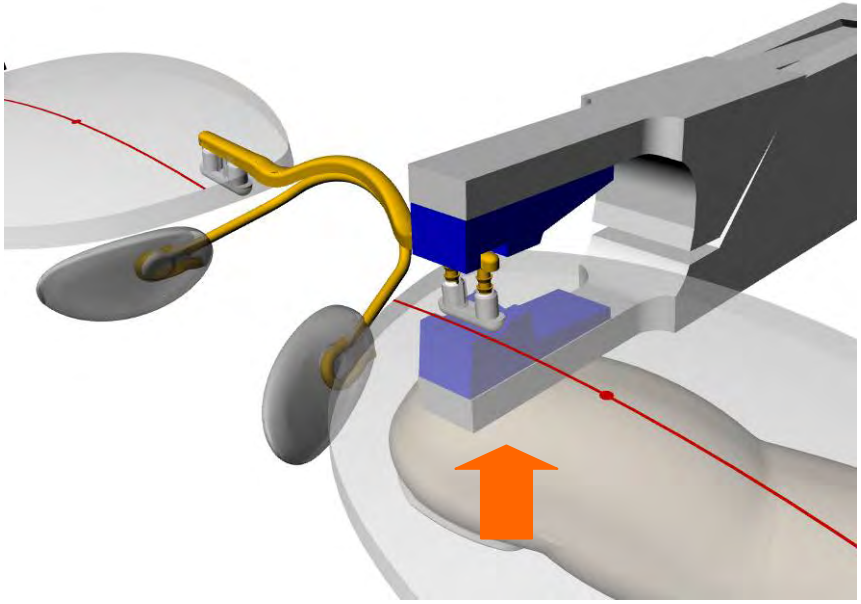
3.5. Press in the Frame Parts



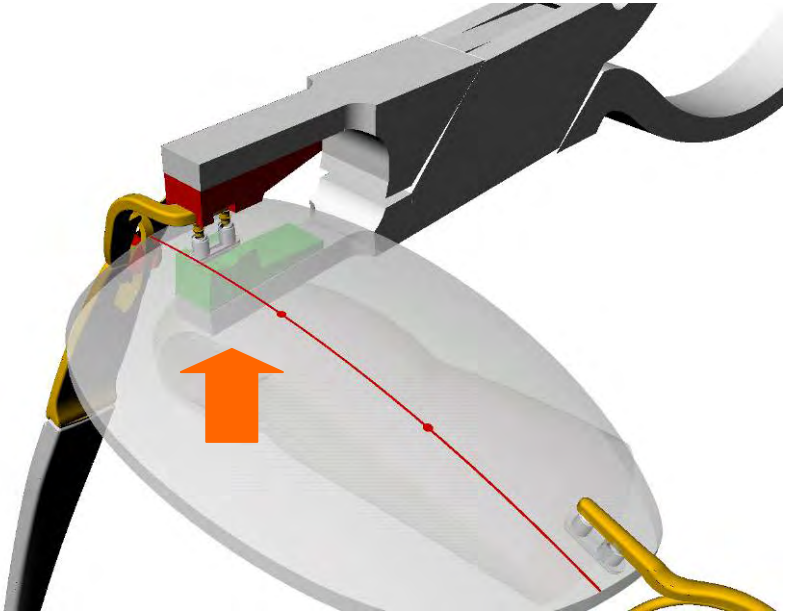
Remove protective film and marks. The lens must be clean!
Press in the frame parts by hand.
Use some counter-pressure at the top of the BLS with a demo lens.

3.6. Fix Frame Parts

❶ Horizontal drill holes:
Mounting pliers P0023



❷ Vertical drill holes:
Mounting pliers P0026



Always place the moveable sideparts at the top of the BLS.
Use some counter-pressure at the top of the BLS with the sideparts of the pliers. Close pliers only after this and press in the frame parts in one go – be carefull.

TIP: Change the sideparts of the pliers according to the width of the frame parts.

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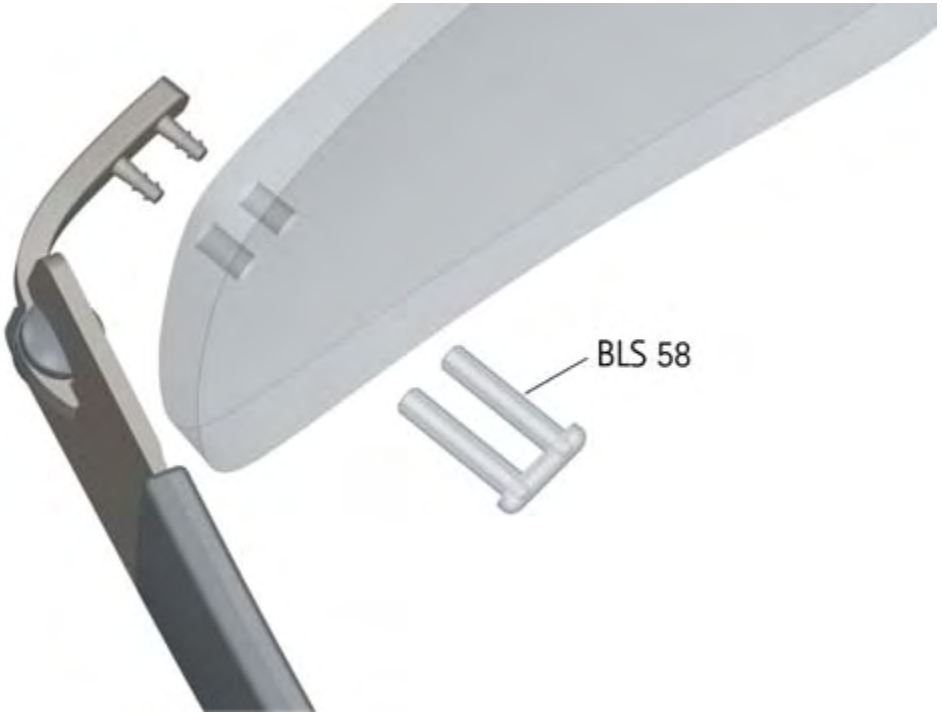
4. IMPROVED DURABILITY
by
GLAZING
with
PLASTIC SLEEVES BLS 58

4. Comfortable Glazing and Optimum Durability with BLS 58

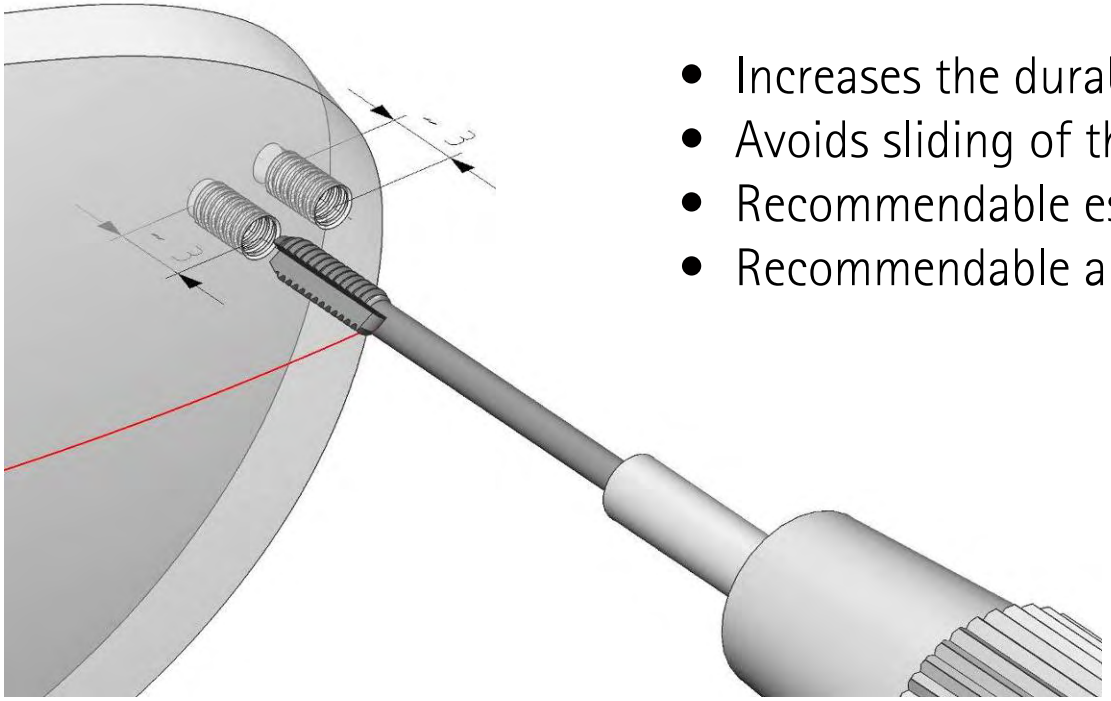


We recommend to glaze principally all metal frames with the harder plastic sleeves BLS 58, especially all models with stiffer temples. Due to the material characteristics and the different construction these sleeves can absorb considerably more tension. This means that the lens fixation holds multiplicatively better.

For a comfortable and easier glazing we also have optimised the geometry of the rivet pins of all frame parts in accordance to this.

5. IMPROVED DURABILITY
by
GLAZING
with
THREAD CUTTING

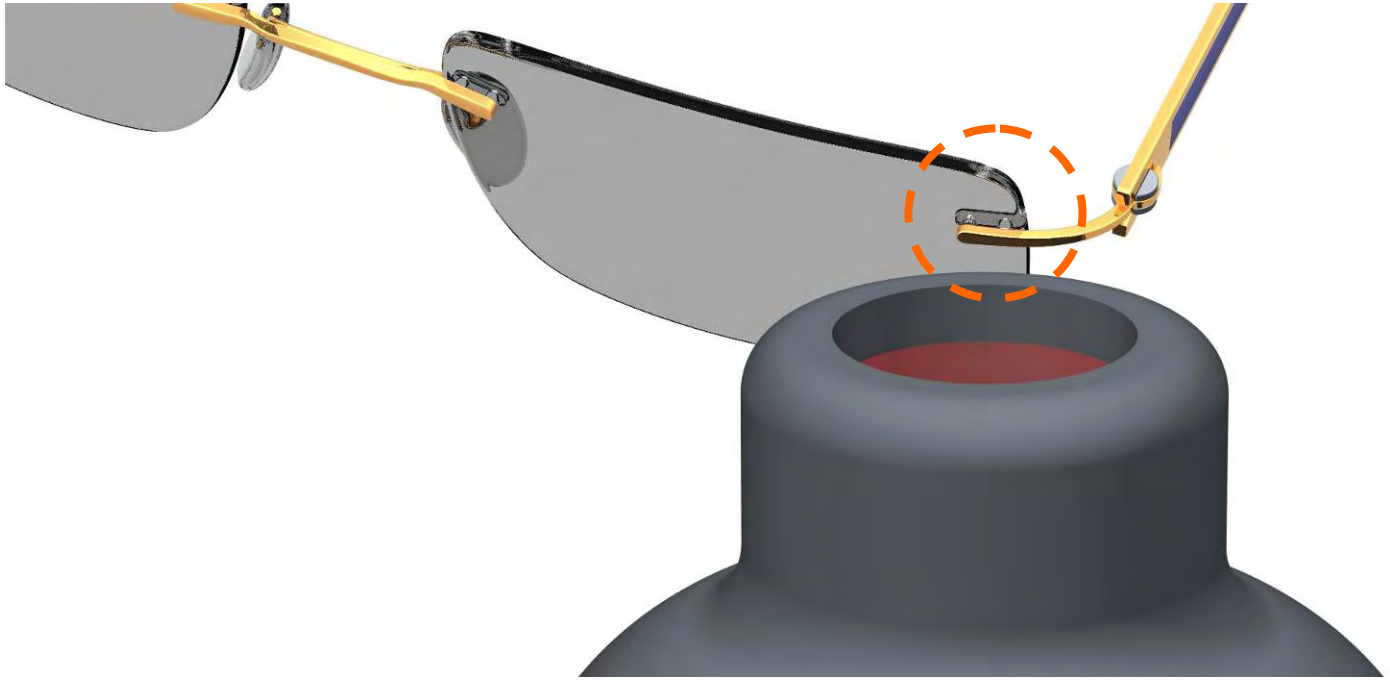
5.1. Glazing with Thread Cutting



- Increases the durability of the lens fixation by 30 %
- Avoids sliding of the BLS in the drill hole
- Recommendable especially for stiffer temples
- Recommendable also for thin lens edges

1. Effect drilling as usual
2. Use tread cutting tap from mounting box P0027
3. Cut tap M 1,6 from the front by hand
4. Depth of drill approx. 3 mm / 0.11811 inches
5. Continue **glazing as usual**!

5.2. Disassembly of Frame Parts with Thread Cutting

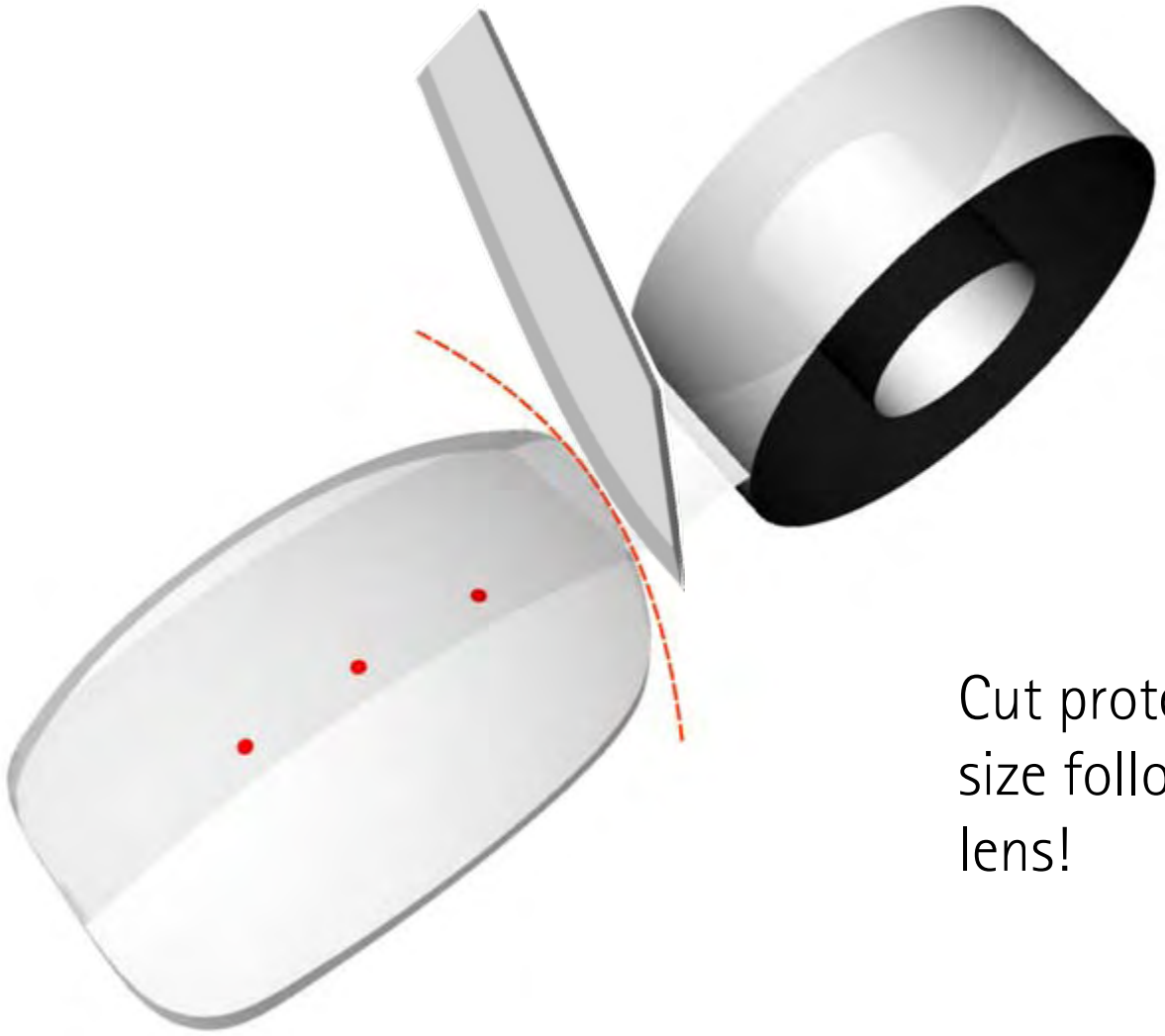


1. BLS digs into thread pitches
2. Heat, brought from the front to the frame part, unwinds the fixation sleeve and makes it easier to loosen it. Temperature: 60 – 70° C / 140 – 158° F.
3. ATTENTION: DO NOT overheat the prescription lens.
4. Disassembly of the lens should be only by traction at the frame sidepart

6. DRILLING BY HAND
with
DRILLING PATTERN

6. Manual Drilling Method

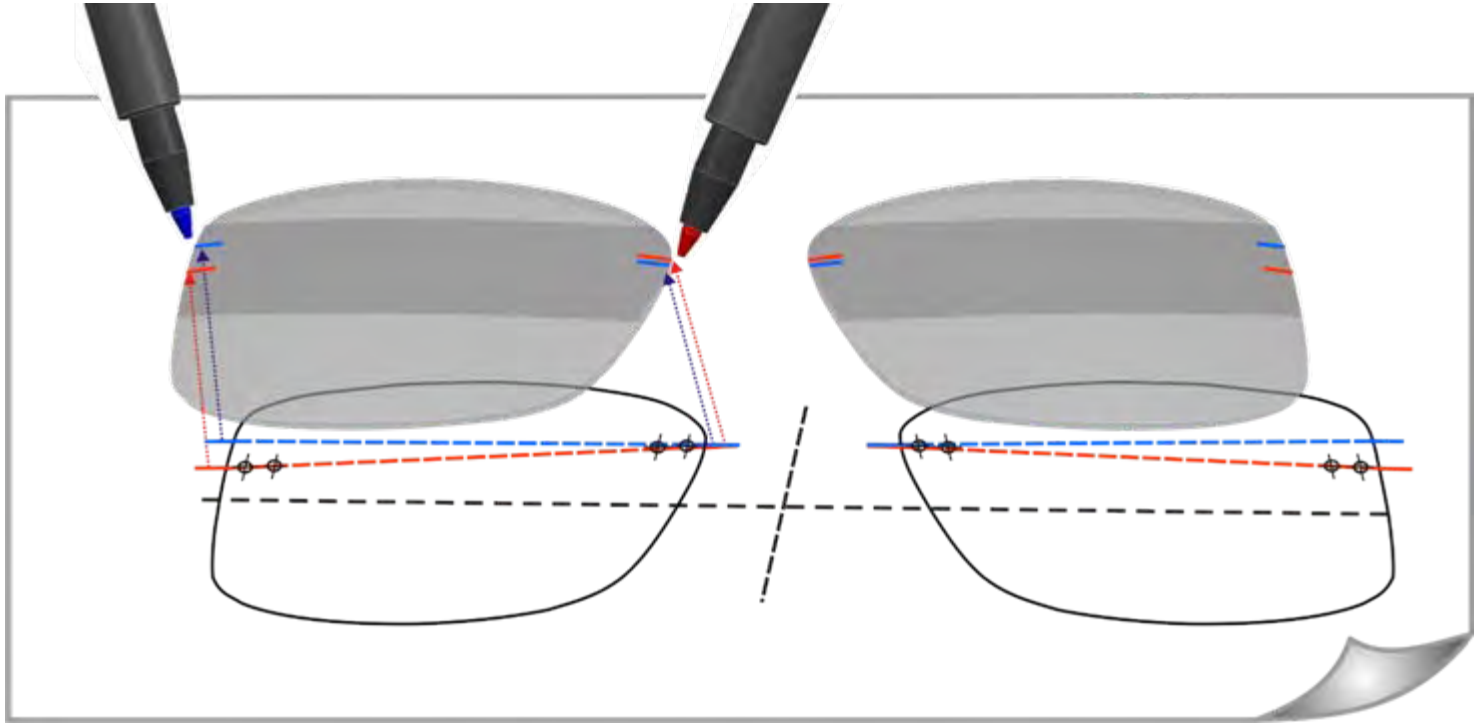
6.1. Fix protective film to the front of the lens



Cut protective film exactly to size following the edge of the lens!

6. Manual Drilling Method

6.2. Convert drilling positions to the prescription lens in colour



Place the cut lens on the drawing of the drilling coordinates. Convert drilling position and auxiliary marks from the lens edge to the lens front.

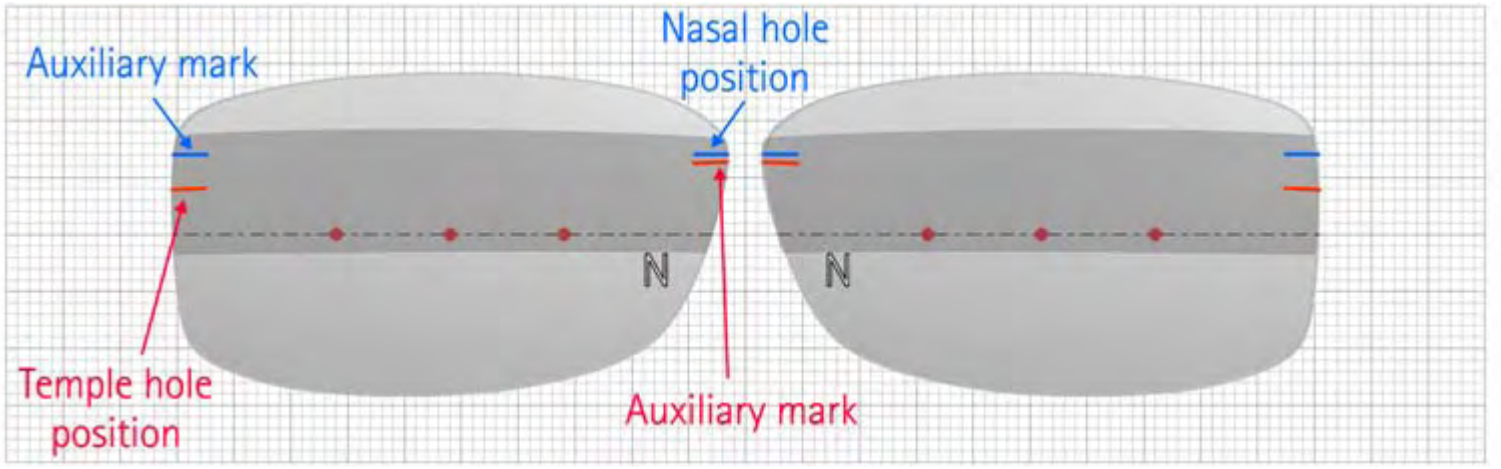
Use different coloured pens for marking the bridge and temples. Connect puncutal marks according to colour (nasal = blue / temporal = red).

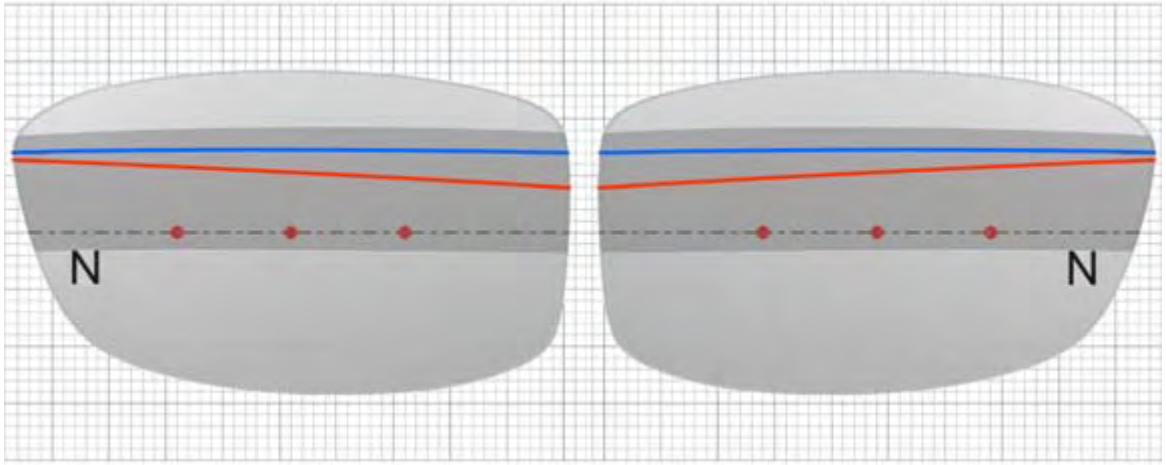
WRAP AROUND TIP

Use the 8-base axis lineal for " Wrap-Around" and strong plus lenses!

6. Manual Drilling Method

6.3. Control marks

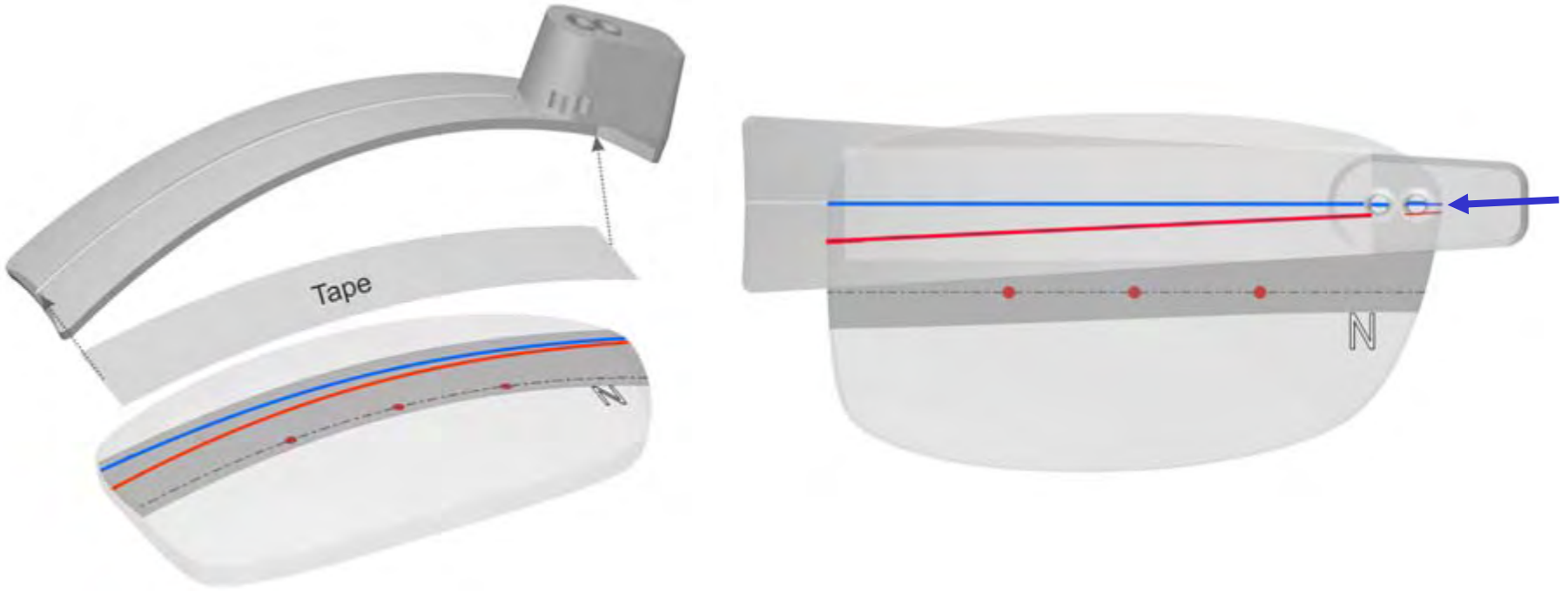




Marks must be on the same level on both lenses.
A chequered pad is helpful for this purpose.

6. Manual Drilling Method with Drilling Pattern

6.4. Nasal Drilling for Bridge

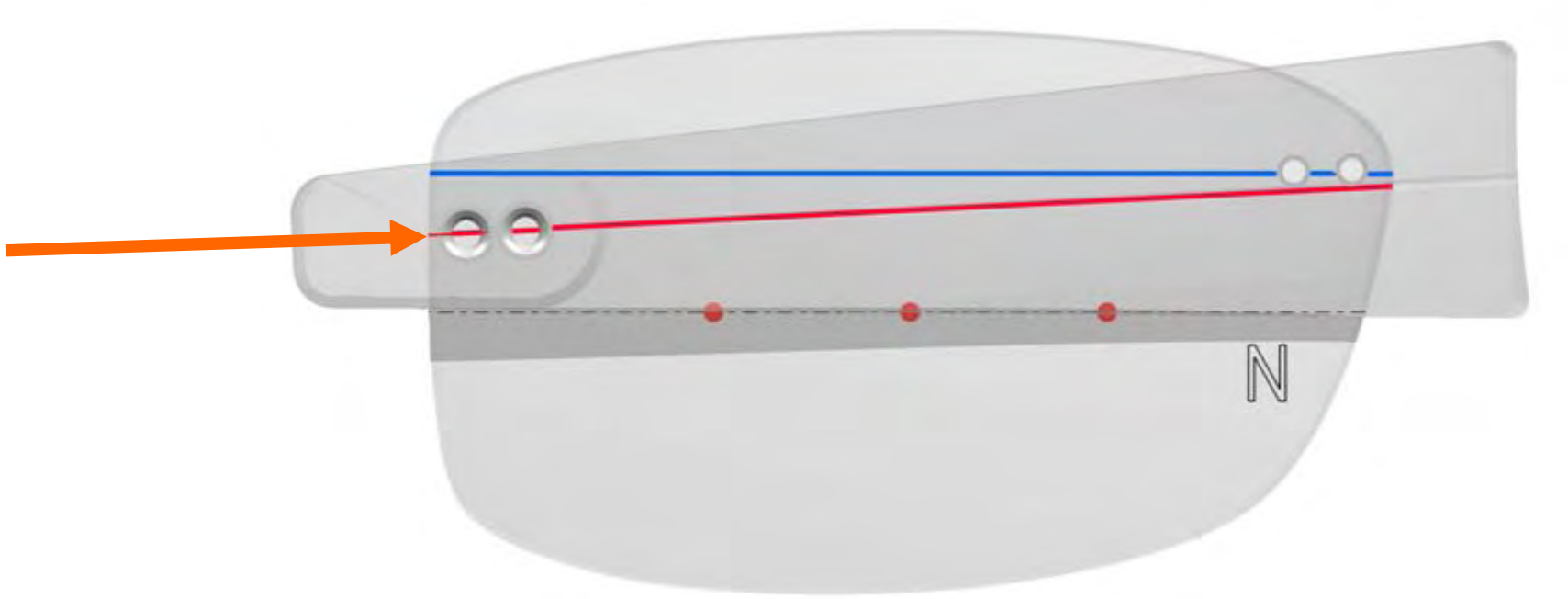


1. Fix the drilling pattern to the front of the lens with a double sided adhesive tape.
   To do this place the adhesive tape up to the central peak of the drilling pattern.

2. Place the central peak of the drilling pattern at the nasal blue mark.
   Align the central line of the drilling pattern at the blue auxiliary mark.

6. Manual Drilling Method with Drilling Pattern

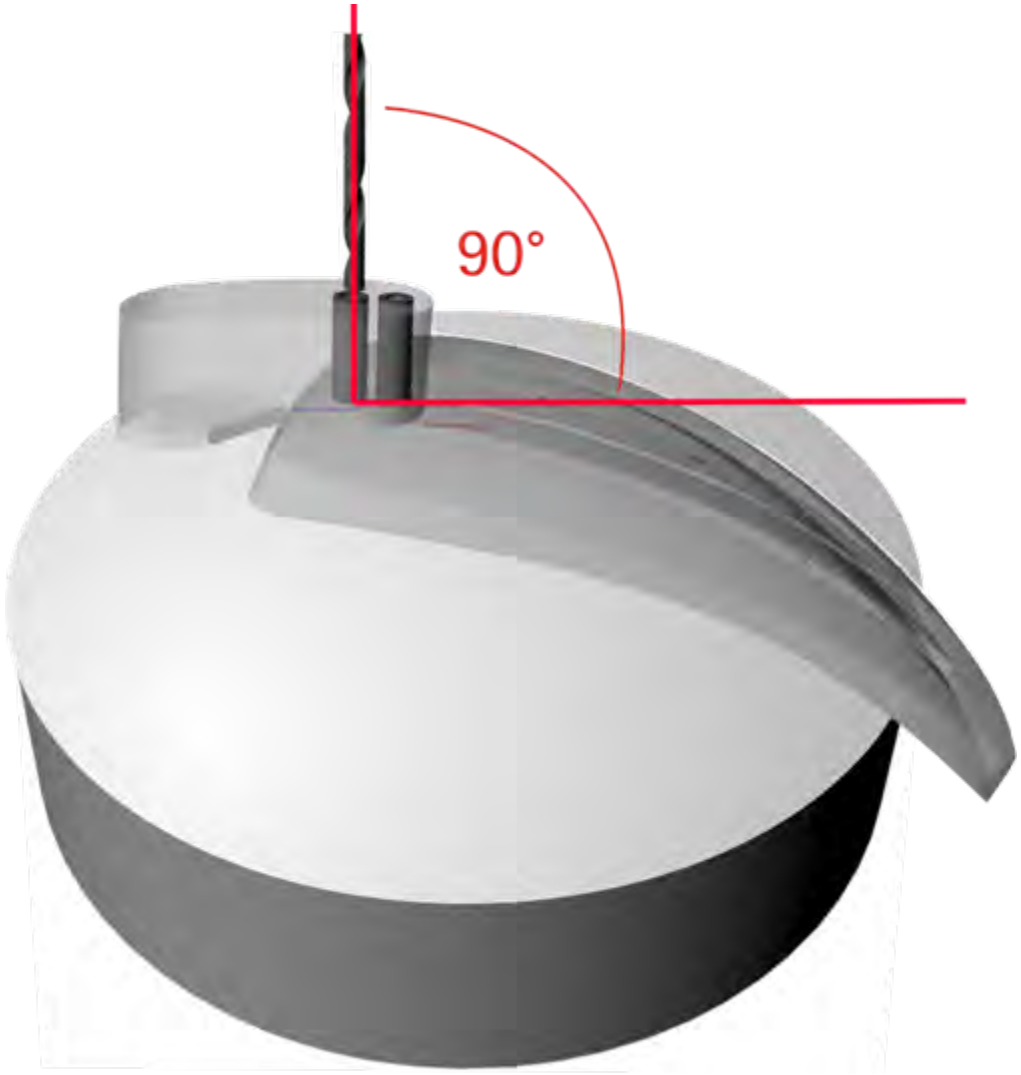
6.5. Temporal Drilling for Sideparts



Place the central peak of the drilling template at the temporal red mark.
Align the central line of the drilling template at the red auxiliary mark.

6. Manual Drilling Method with Drilling Template

6.6. Drilling

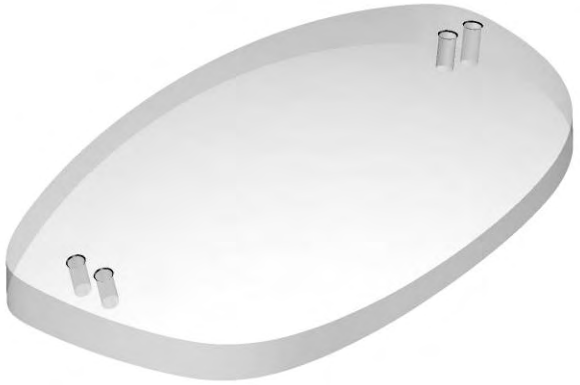


Place prescription lens on a curved drilling pad. Drill holes 90° to the lens front.

ATTENTION: Select the correct drilling diameter according to the frame type!

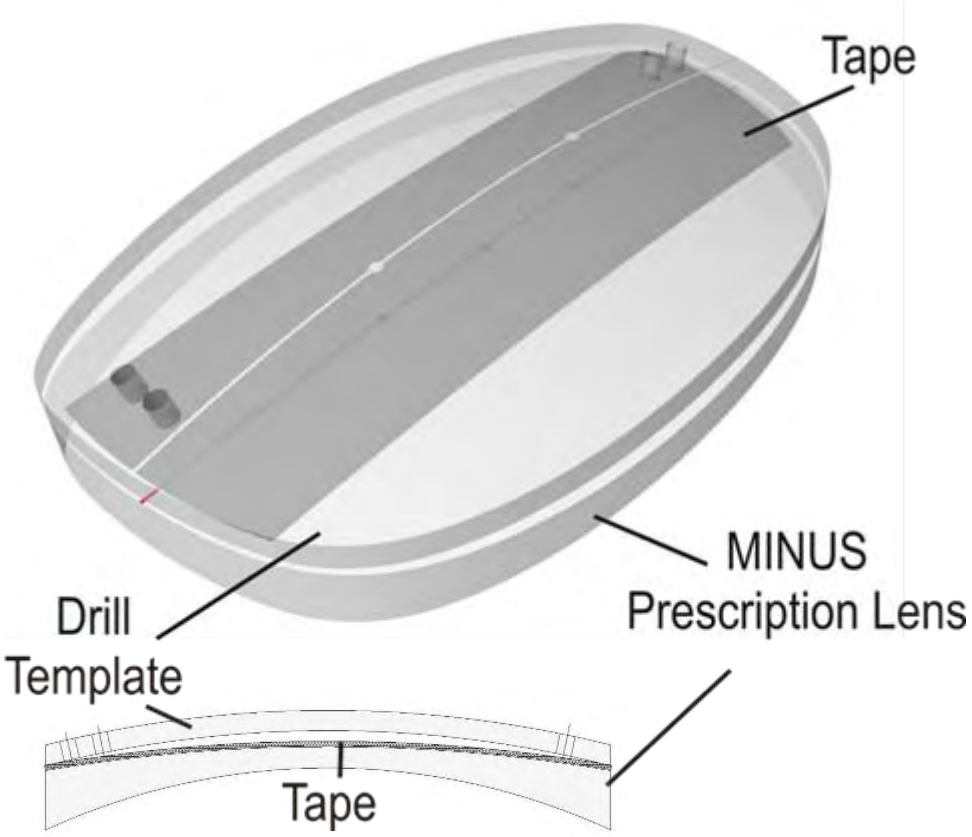
NOTE: Drill holes that are too large reduce the durability.

7. MANUAL DRILLING METHOD
with
DRILLING TEMPLATE



7. Manual Drilling Method with Drilling Pattern

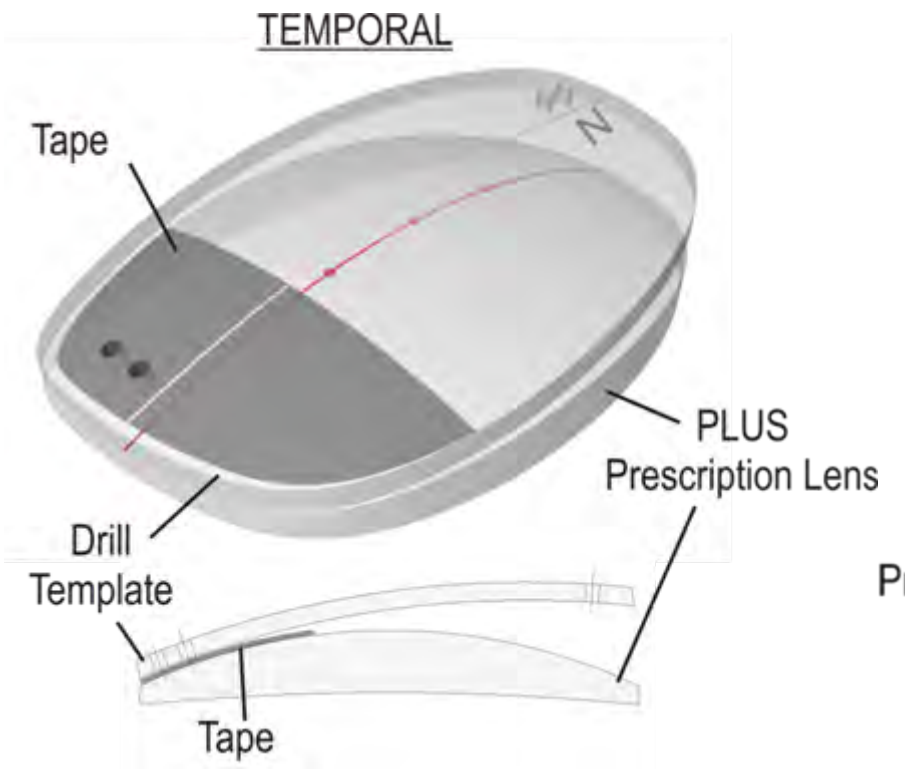
7.1. Fix Drilling Pattern „MINUS-Lenses“

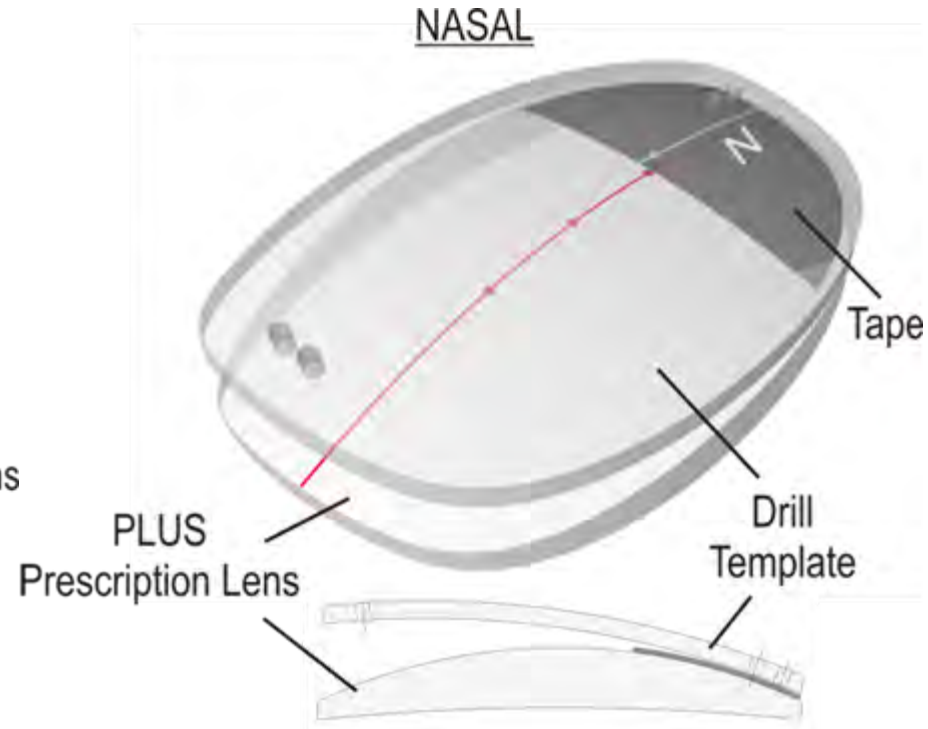


Use enclosed demo lens as drilling pattern. Fix drilling pattern to the prescription lens with double sided adhesive tape exactly to the contour and parallel to the axis. Fix the adhesive tape horizontally!

7. Manual Drilling Method with Drilling Pattern

7.2. Fix Drilling Pattern „PLUS-Lenses“

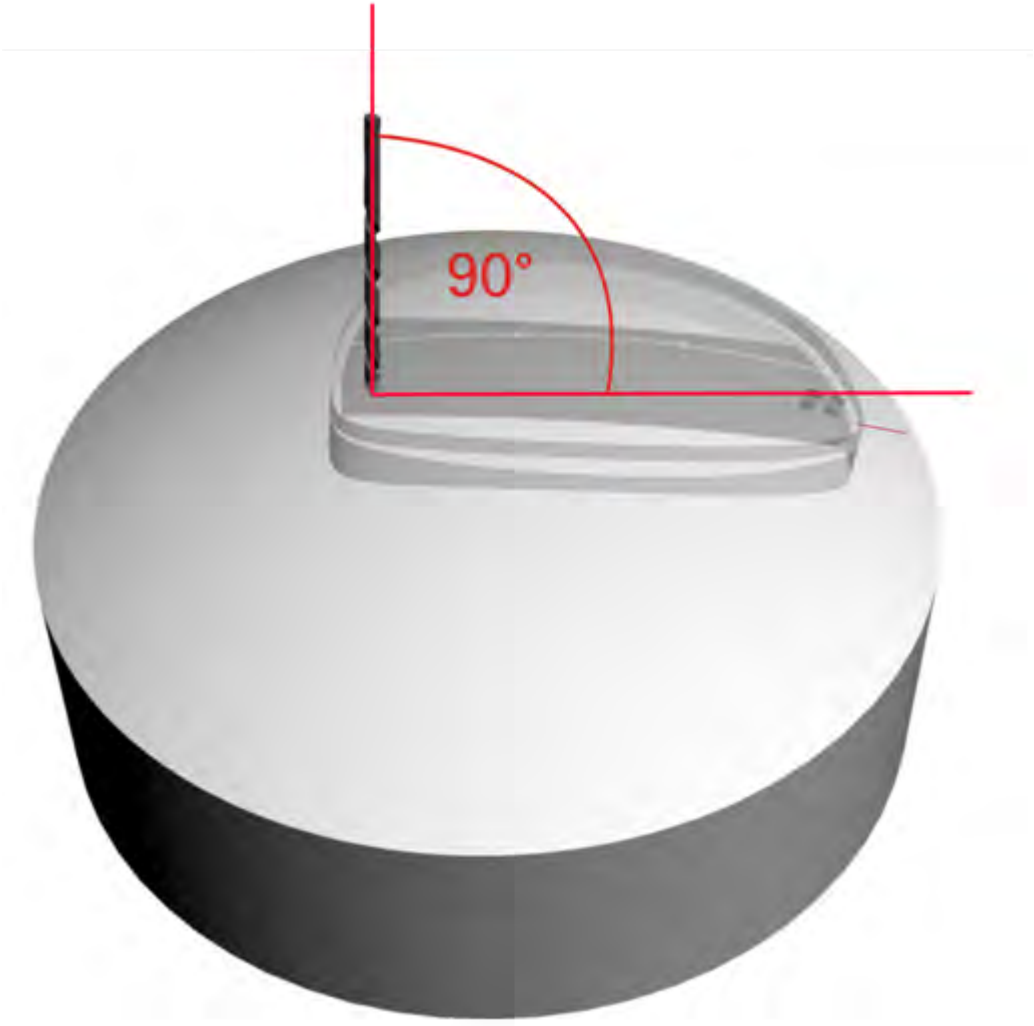




Use enclosed demo lens as drilling pattern. Fix drilling pattern on the optical lens with double sided adhesive tape exactly to the contour and parallel to the axis.

7. Manual Drilling Method with Drilling Pattern

7.3. Drilling



Place prescription lens on a curved drilling pad. Drill holes 90° to the lens front.

ATTENTION: Select correct drilling diameter according to frame type!

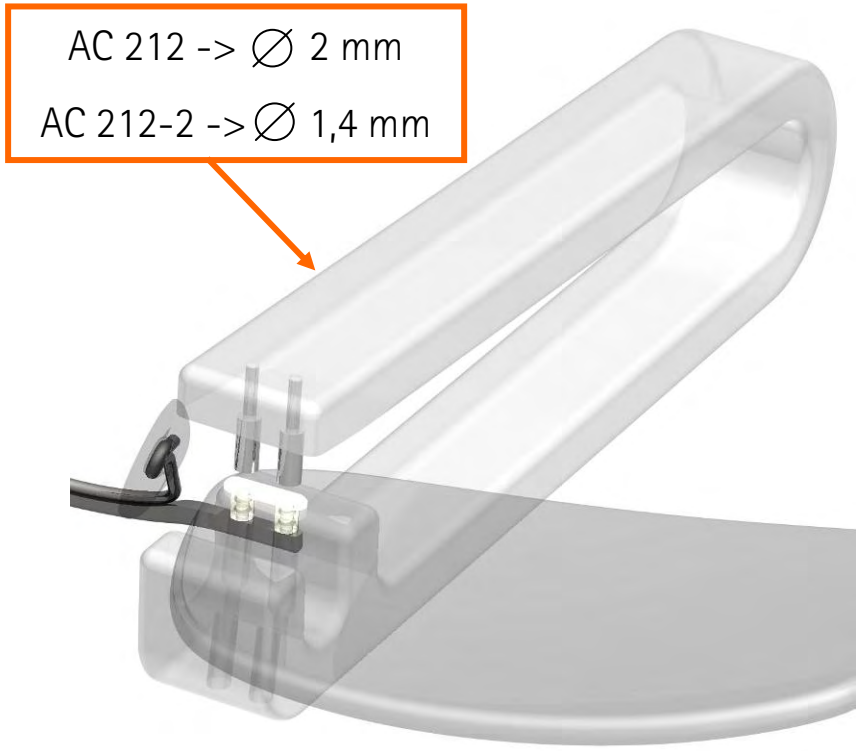
Afterwards deburr the holes.

NOTE: Drill holes that are too large reduce the durability.

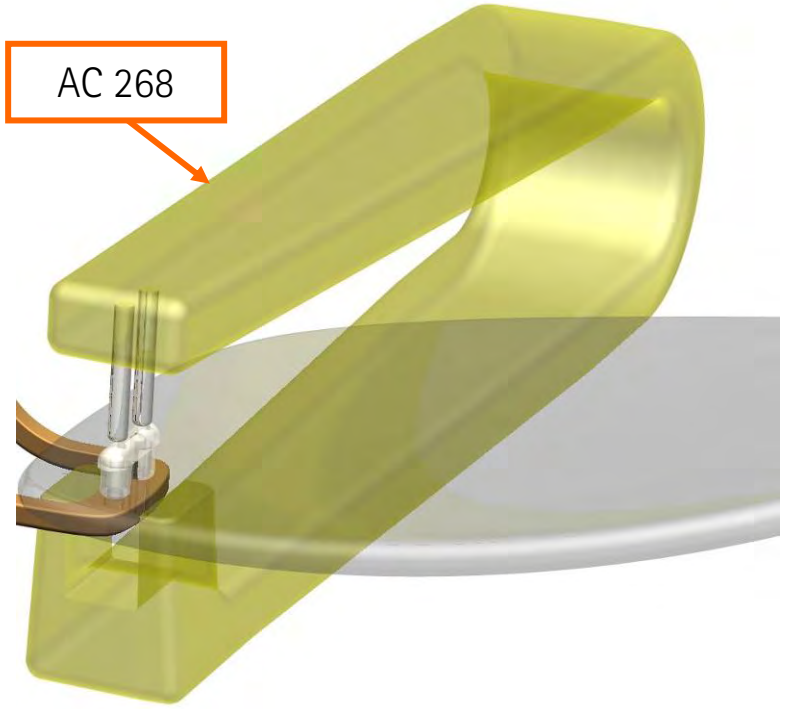
8. DISASSEMBLY of LENSES

8.1. Disassembly of Demo Lenses

❶ Horizontal Drill Holes

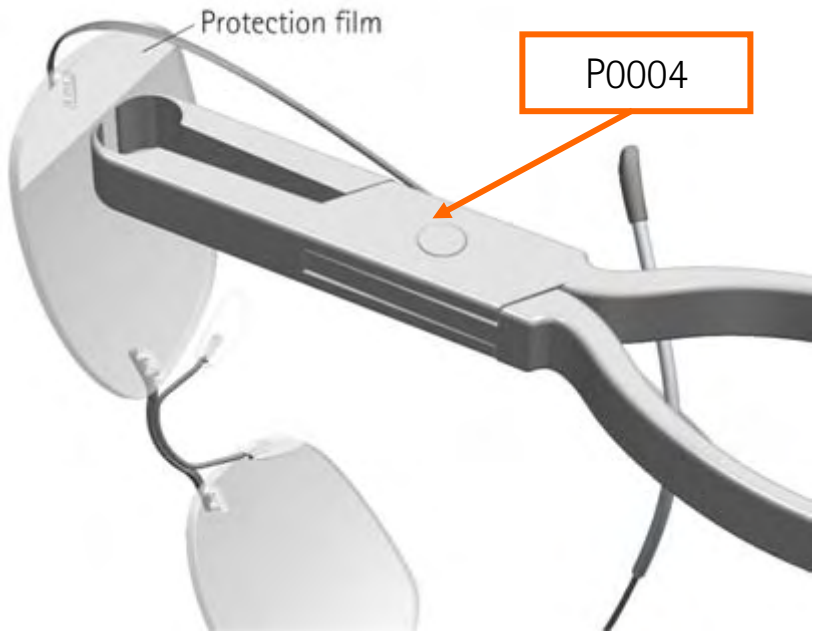


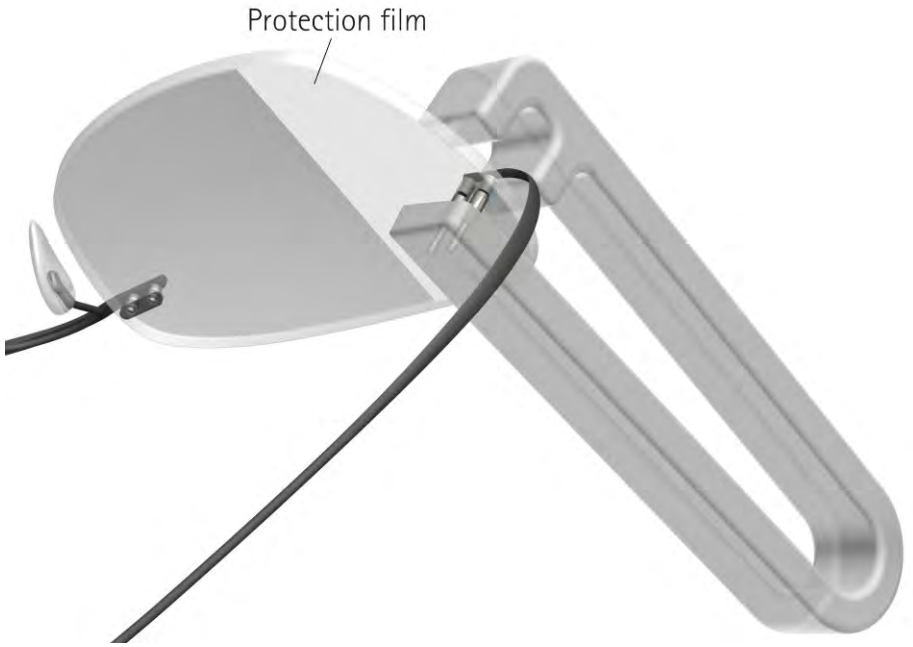
❷ Vertical Drill Holes



Use disassembly tool meant for this purpose.
Place metal pins of the tool at the head of the lens fixation sleeves and press out the frame parts.

8.2. Disassembly of Prescription Lenses





1. Carefully fix protective film around the lens fixation sleeves
2. Cut off the head of the plastic sleeves with the disassembly pliers P0004

1. Press out the frame parts from the drill hole with the disassembly tool.

   NOTE: AC 212-2 for 1,4 mm-drill hole resp. AC 212 for 2,0 mm-drill hole, AC 268 für vertical drill hole

2. <u>Carefully</u> remove remains of plastic from the fixation pins.

   NOTE: Fixation pins, barbed hooks, surfaces must NOT be damaged! Cuttings and grooves can cause breakages!

9. INSTRUCTIONS
for the
ADJUSTING of FRAMES

9. For Adjusting please always consider the Following

Lens fixation

must be fixed!

Hinge elements

must be relieved

of pressure, bending forces and leverage!

Temple-ends and end-pieces must be

striped out in a large swing !

Do not bend!

Key:

One arrow = use pressure

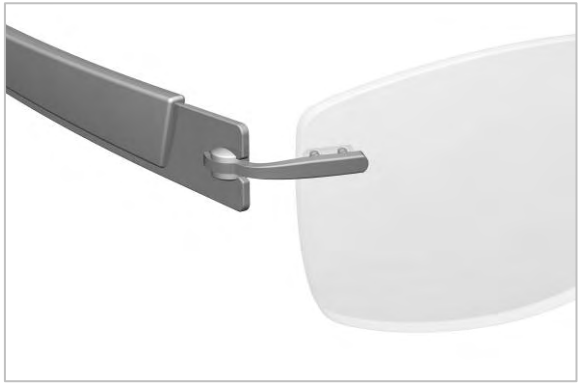
Two arrows = fix by hand

Circle = inclinate here

10. TEMPLE DISASSEMBLY
TEMPLE ASSEMBLY
INCLINATION

SNAP-Hinge

PLUG-WAVE-Hinge



Hinge-LESS

10.1. SNAP-Hinge

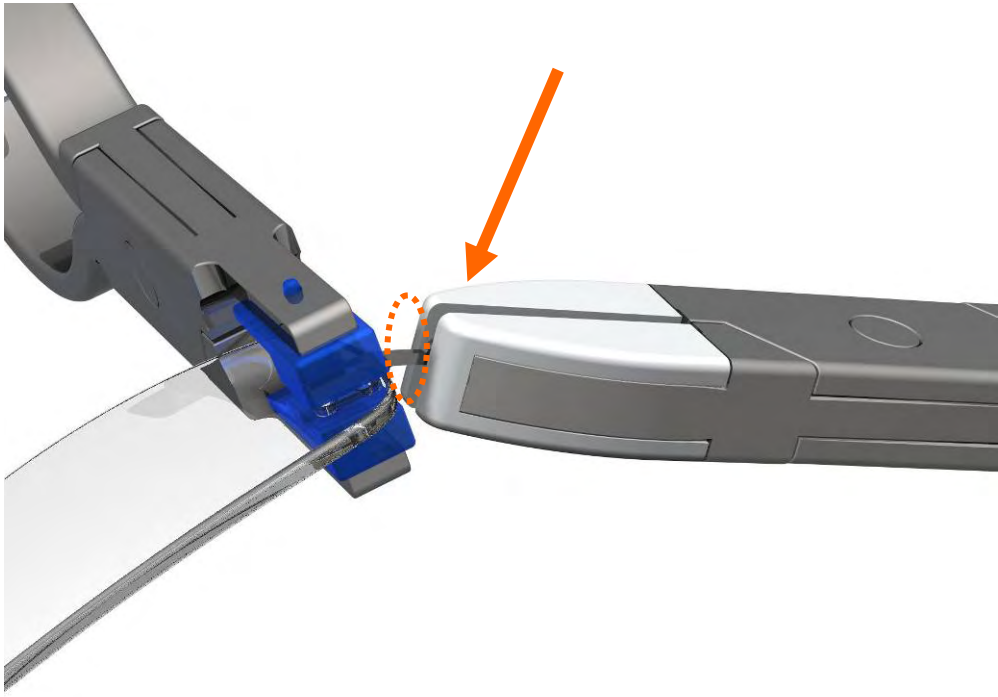
10.1.1. Temple Disassembly

1. Place disassembly tool AC 336 to the stopping point where the trim and temple meet. Select necessary diameter, depending on distance between temple and lens. Close temple and press it through behind the rounded part.

Examples: Contrasti, Enviso, Intarsia, Mystero, Softtouch, SPX-Motion, Titan Edge, Titan Design, Titan X, Zenlight

10.1. SNAP-Hinge

10.1.2. Inclination

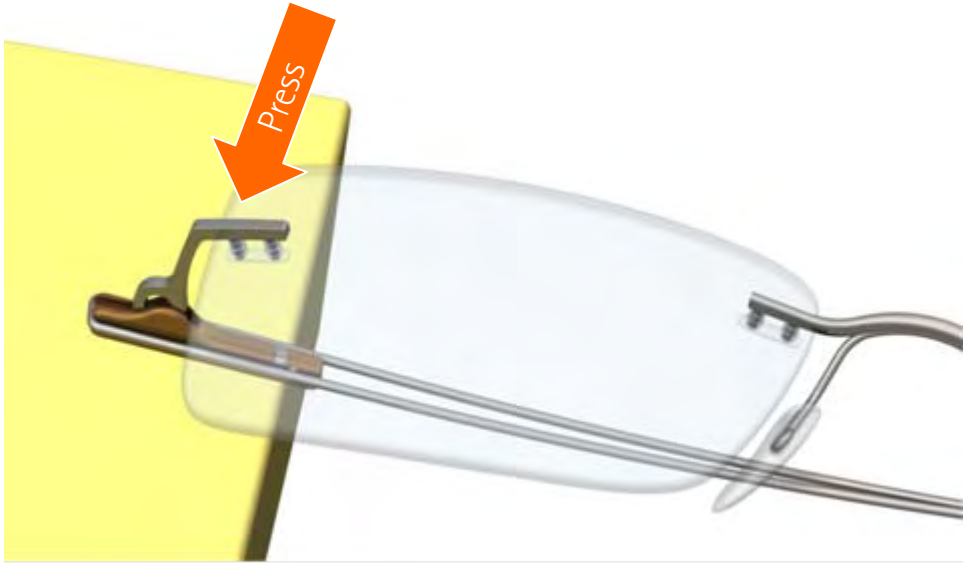


1. Disassemble the temple
2. Fix the lens fixation with the pliers P0023
3. TIP: Cover prescription lens on both sides with protective film
4. Adjust inclination and opening angle of temple with flat pliers.
5. Enclose the loop **completely** with the pliers' sideparts!

Examples: Contrasti, Embrace, Enviso, Intarsia, Mystero, Softtouch, SPX-Motion, Titan Edge, Titan Design, Titan X, Zenlight

10.1. SNAP-Hinge

10.1.3. Temple Assembly



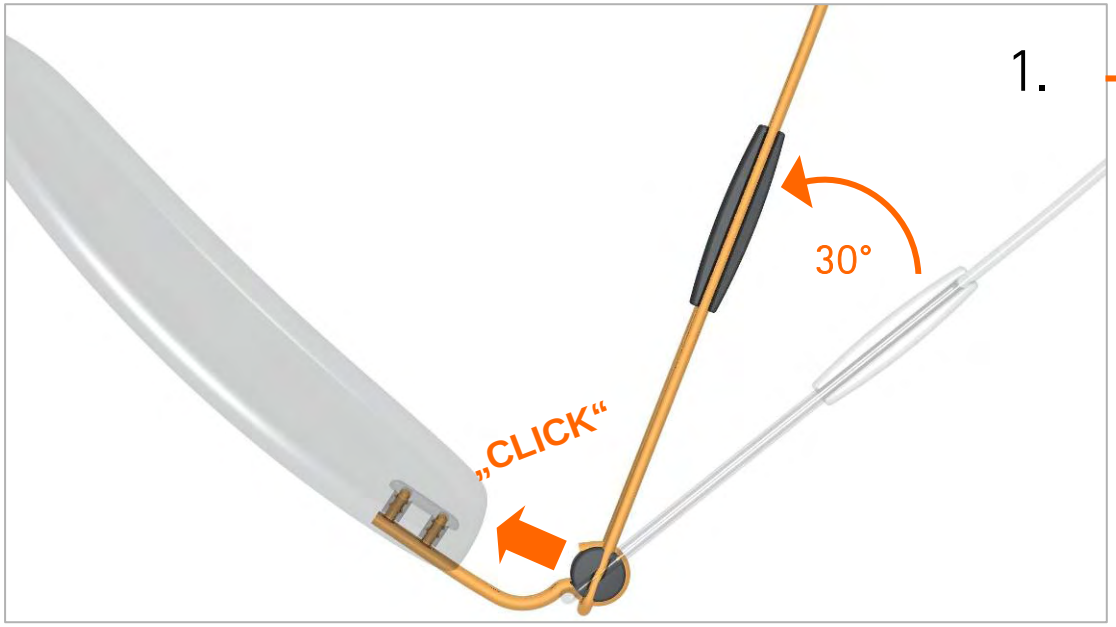
1. Put temple on a safe edge of a table.
   NOTE: The pressure may affect the edge of a table, but not the lens fixation or a decoration part of the temple!

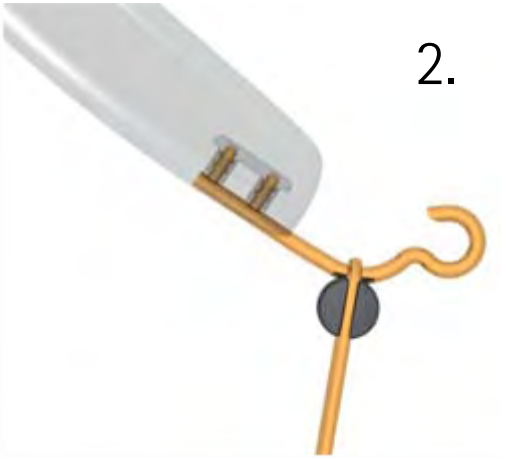
2. Place the sidepart exactly at the opening of the plastic temple and press it in.

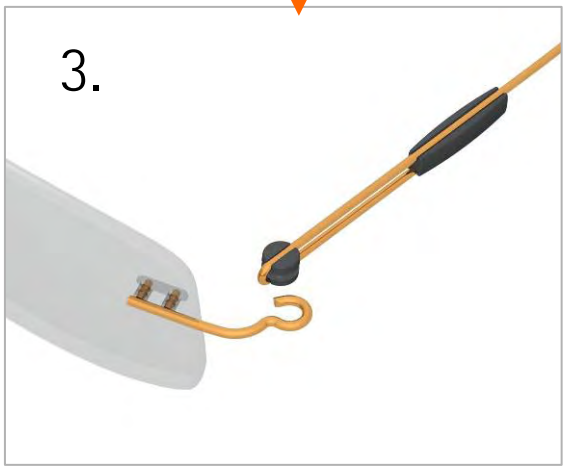
Examples: Contrasti, Enviso, Intarsia, Mystero, Softtouch, SPX-Motion, Titan Edge, Titan Design, Zenlight

10.2. SNAP-HingeTNG

10.2.1. Temple Disassembly





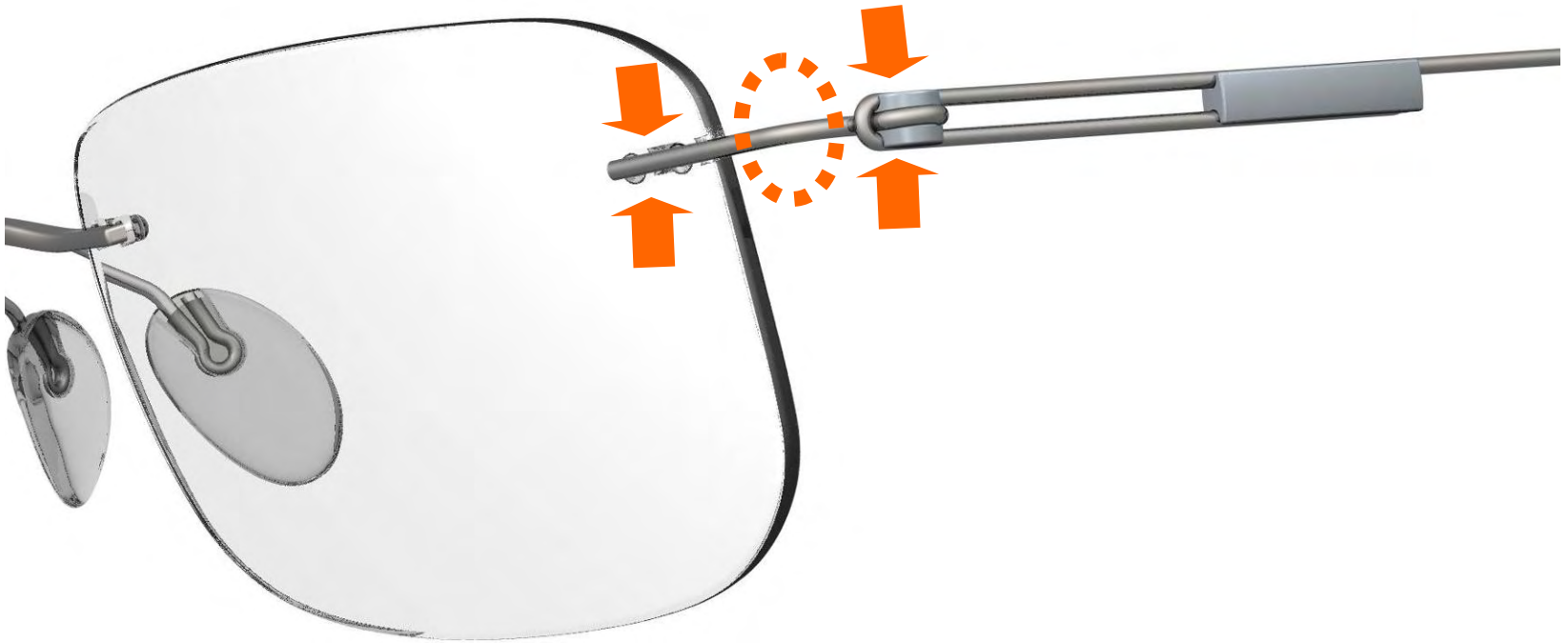


1. Bend temple. Press out the joint.
2. Temple becomes unfastened with a click.
3. Turn around 180° and thread out the temple.

Examples: TNG, Titan Metallic, TNG III

10.2. SNAP-Hinge TNG

10.2.2. Inclination

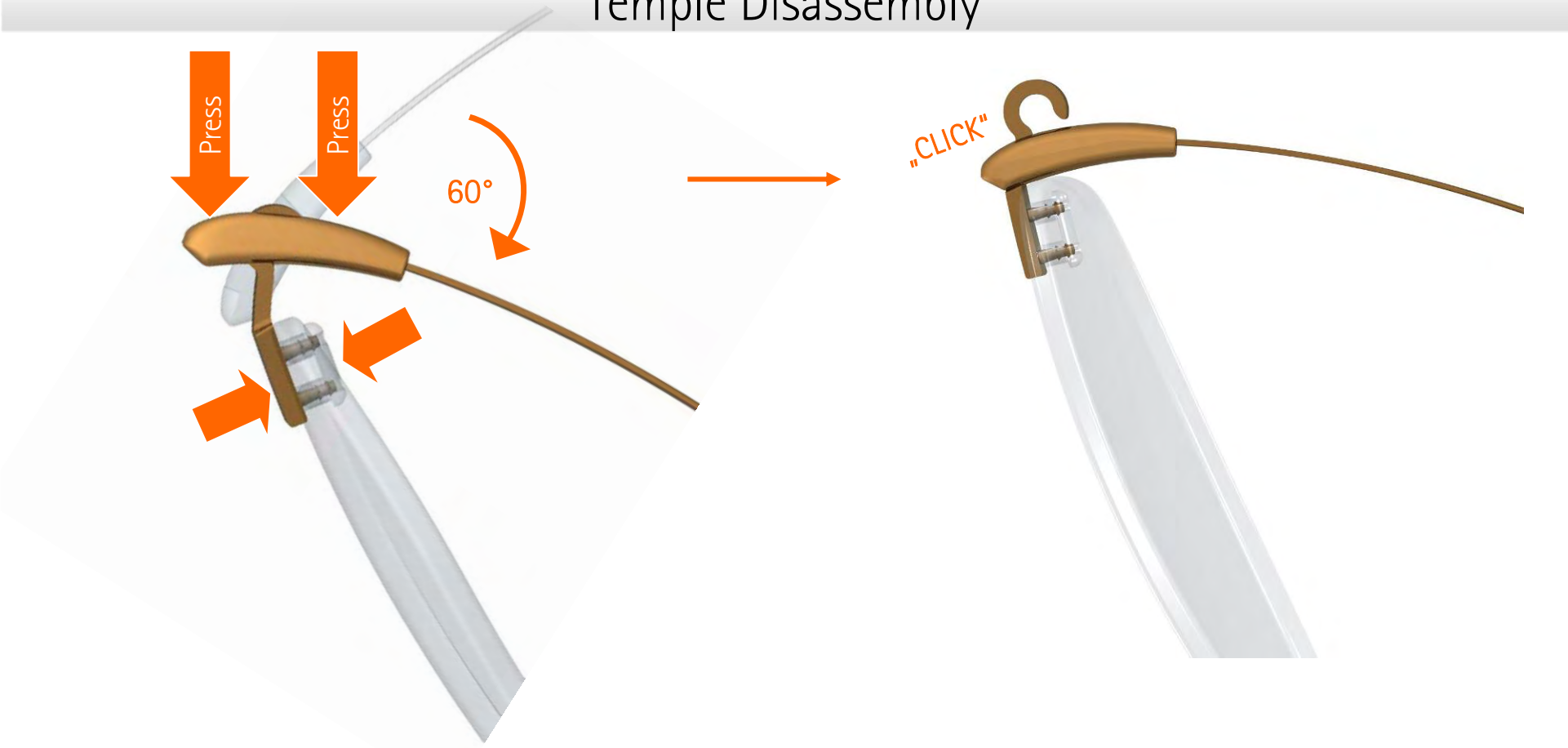


1. Fix lens fixation: Hold the titanium sidepart **very firmly** at the lens fixation.
2. Hold titanium temple with BLS-hinge very firmly and inclinate it in the desired direction.

Examples: TNG, Titan Metallic, TNG III

10.3. SNAP-Hinge TitanX

Temple Disassembly

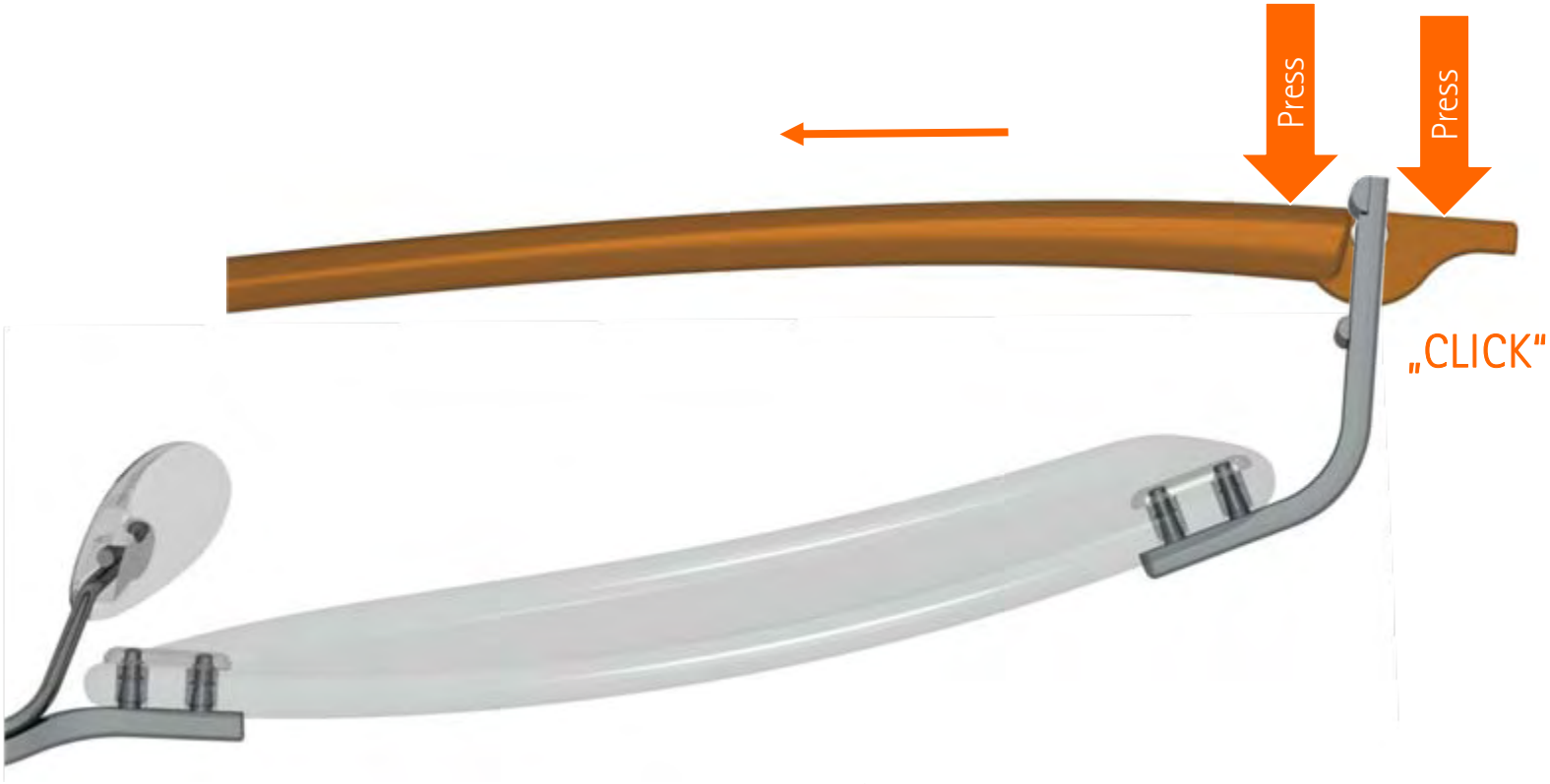


Bend temple approx. 60°. Pressure may only affect the plastic parts (not the temple!) in the direction of the opening of the hinge loop. Temple becomes unfastened with a click. Turn temple around 180° and pull it out.

Examples: Titan X, Titan Translucent

10.4. SNAP-Hinge Colorama

10.4.1. Temple Disassembly



Close temple. Use pressure beside the hinge.
Temple becomes unfastened with a click.
Extract temple from the sidepart.

Example: Colorama

10.4. SNAP-Hinge Colorama

10.4.2. Inclination

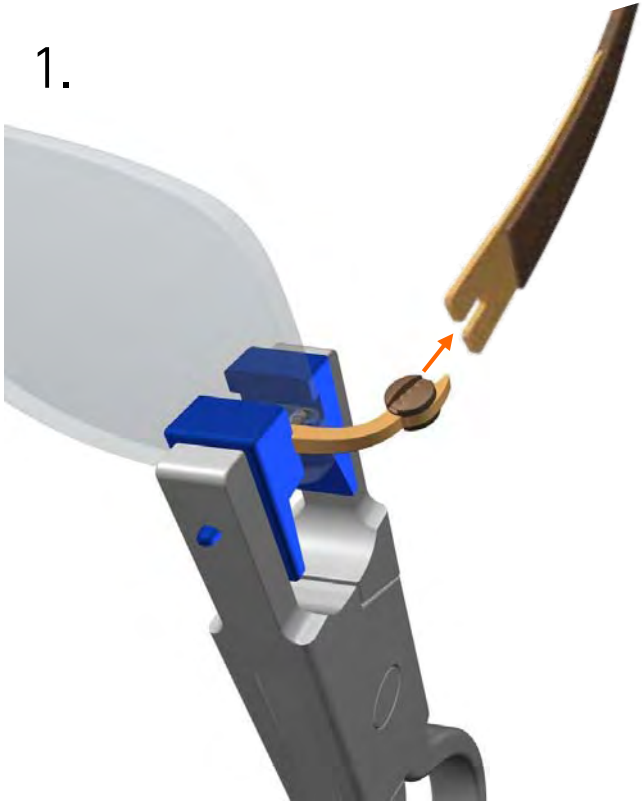
Hold sideparts **very firmly** in the area of the lens fixation with the universal mounting pliers. Inclinate sideparts with flat pliers.

NOTE: Only twist metal parts – never the plastic temple!

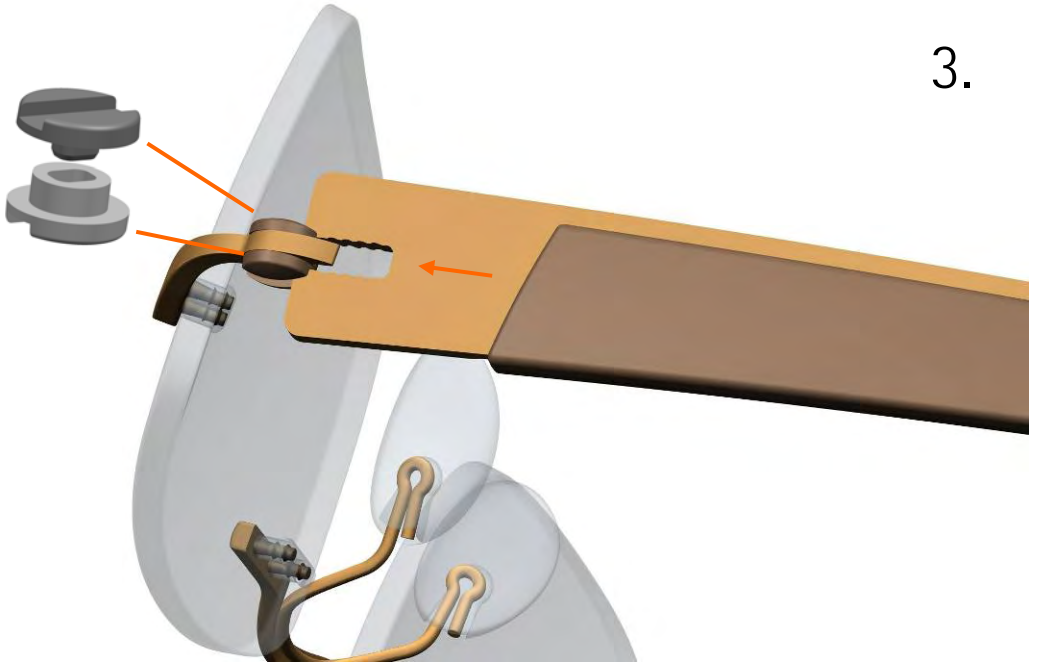
Example: Colorama

10.5. PLUG-WAVE-Hinge
Temple disassembly and -assembly

1.



2.



3.

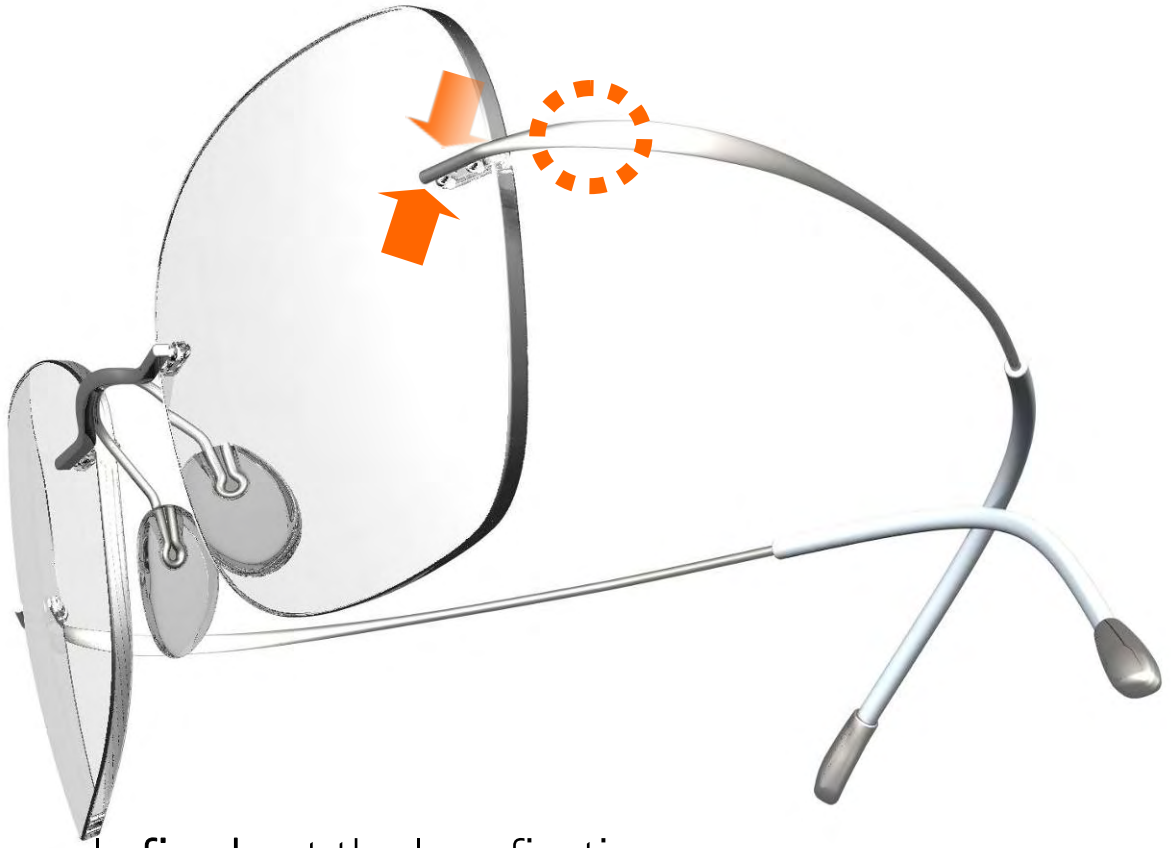
1. Secure lens fixation with universal mounting pliers.Bend temple a bit. Extract temple from the BLX-hinge totally straight. NOTE: Pulling forces must only be applied in one direction – backwards!

2. Attach oval hole and oval tap of the BLS positively on both sides of the loop.

3. For the assembly place the temple exactly at the slot of the BLS-hinge and snap it in carefully, to the stop.

Example: Metal Twist

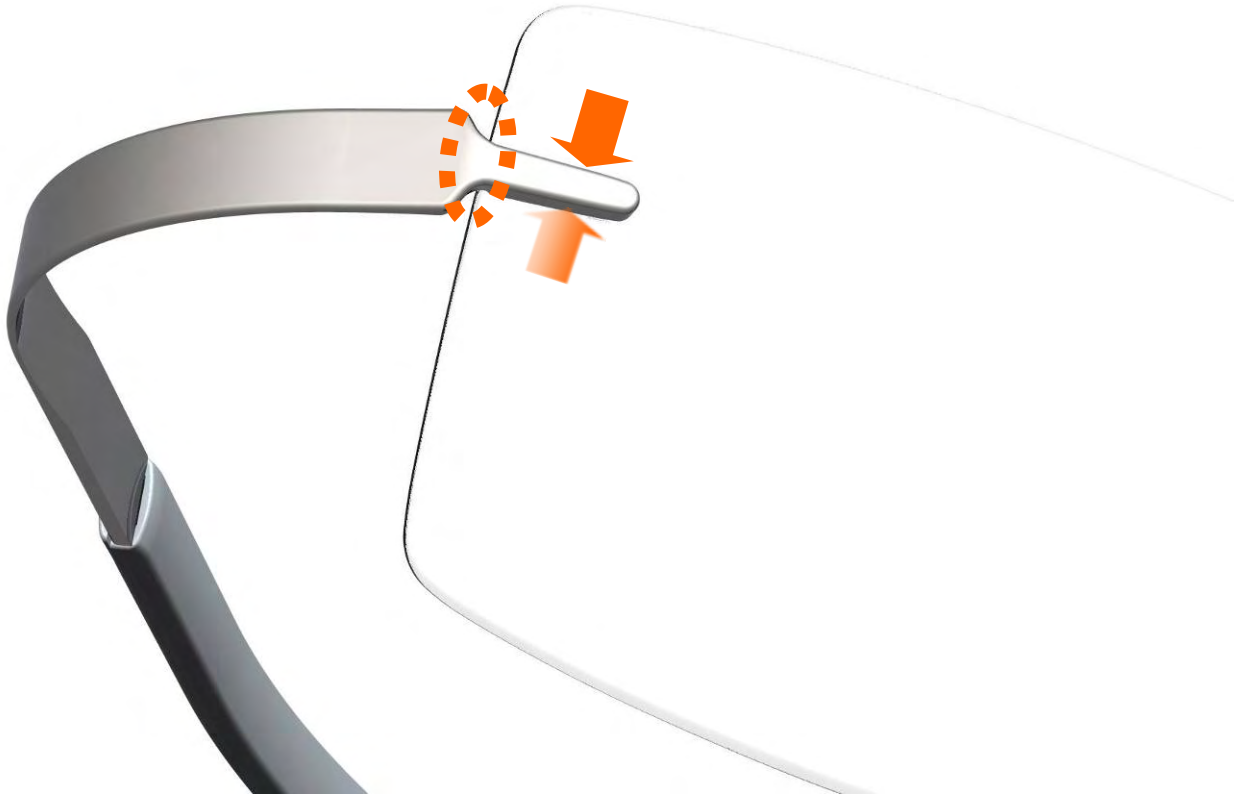
10.6. Hinge-LESS
10.6.1. Inclination Titan Minimal Art



1. **Hold** the titanium temple **firmly** at the lens fixation.
2. Inclinate at the beginning of the flat stamped part of the titanium temple, i.e. not immediately beside the lens fixation and not in the area of the round profile of the temple. ATTENTION: **Do not bend the temple!!**

Example: Titan Minimal Art - The MUST Collection

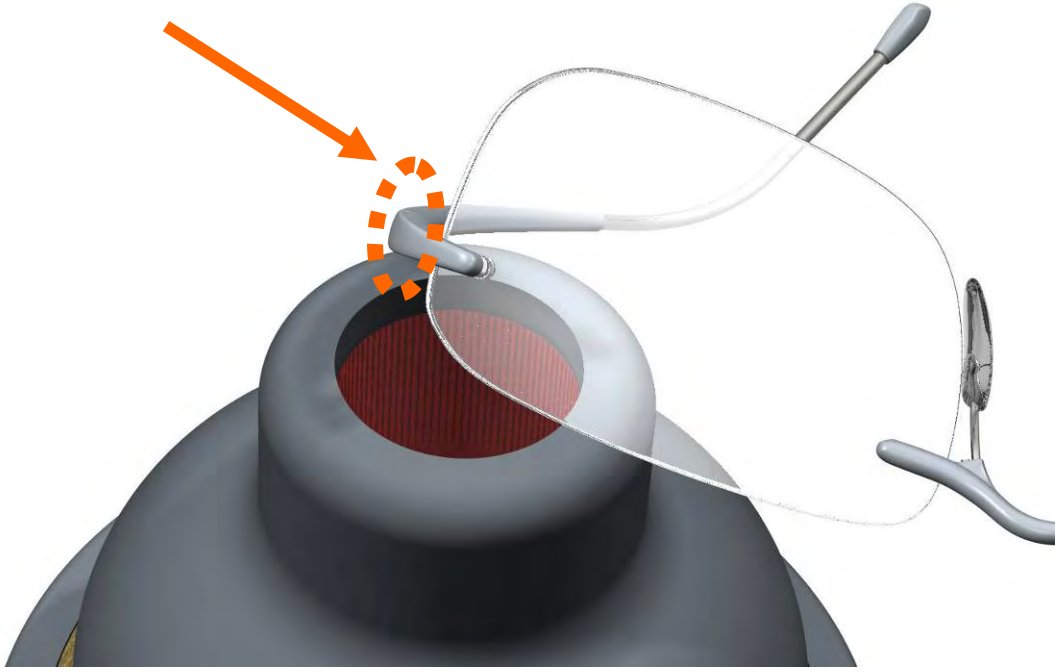
10.6. Hinge-LESS
10.6.2. Inclination Dimension



Hold the sidepart **very firmly** in the area of the lens fixation.
Inclinate carefully in the marked area.
TIP: Make first adjustments with demo lenses!

Example: Dimension

10.6. Hinge-LESS
10.6.3. Inclination SPX-Sidepart



1. Warm temple carefully over an air heater with a small cone, only a few seconds, until you feel the material tension sink at approx. 80° Celsius/ 176° Fahrenheit.
2. ATTENTION: Do **NOT** overheat the plastic part nor the prescription lens!
3. As soon as the material is softened, adjust the inclination and curve the temple.
4. Hold the position, until the plastic has cooled down.

Examples: Minimal X, Titan Colours, SPX-Motion

11. Mounting Box Contents (P 0027)

12. Spareparts for the Mounting Box (P 0027)

Contents / Spareparts

Description | Sparepart Article Number:

Drilling pattern SH transparent (AC 159) | P 0001 11 0159 0000

Disassembly tool TMA transparent (AC 212-2) | P 0000 11 0212 2000

Drilling pattern MX blue (AC 211) | P 0000 11 0211 0100

Disassembly tool MX blue (AC 212) | P 0000 11 0212 0100

Drillin

AC 336 - Rundholz als Demontagehilfe

Disassembly tool wave green (AC 268) | P 0000 11 0268 0100

Sideparts Uni blue (AC 244) | P 0000 11 0244 0000
Sideparts Uni yellow (AC 255) | P 0000 11 0255 0100
Sideparts wave green (AC 265) | P 0000 11 0265 0100

Sideparts red (AC 329) / P 0000 11 0329 0100

neues Foto mit Kartonkern

Adhesive tape | P 0000 99 0014 0004

8B-Achslineal hinzufügen

Not included:
Pliers for drilled frames | P 0023 00 0000 0000

for horizontal drill holes

Not included:
Pliers for drilled frames ~~with wave bar~~ | P 0026 00 0000 0000

for vertical drill holes

Deburring tool (1 pc.) | P 0000 99 0009 0020

Twist drill 1,4 1211 HSS (1 pc.) | P 0000 99 0009 0001

Twist drill 2,0 1211 HSS (1 pc.) | P 0000 99 0009 0005

Tap 1,6 (1 pc.) / P 0000 99 0009 0007

BLS 40 (soft) | P 0000 22 0040 0002
Spare part: 100 pcs. Content in box: 12 pcs.

BLS 58 (hard) | P 0000 22 0058 0101
Spare part: 100 pcs. Content in box: 6 pcs.

BLS 63 (soft) | P 0000 22 0063 0100
Spare part: 100 pcs. Content in box: 12 pcs.

VH 48-1 / glazing instructions incl. CD (1 pc.) | P 0000 26 2801 0148

Seite hinzufügen mit Milimeter-Papier ev. mit Titel in 5 Sprachen

S:\iFolder\Ausstattung\Montageboxen\P0027_Montagebox\Stueckliste_P0027_2009-07.xls

13. Chequered Pad to Control the Drilling Marks