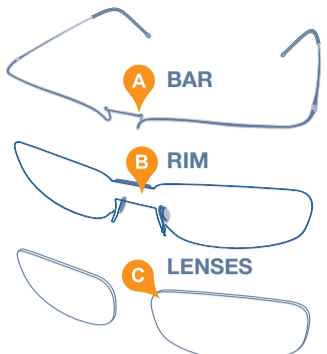


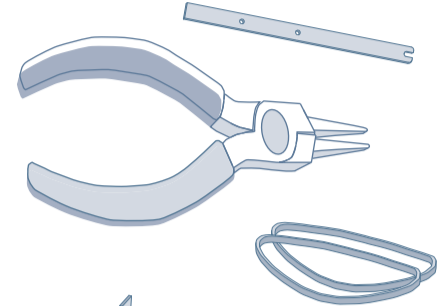
LENS MOUNTING INSTRUCTIONS



ARQUO OPTICAL FRAME

- A** Browbar bridge with elastic front docking system
- B** Rim's upper bridge with locking tooth. Square rim profile with 0.6 mm thickness
- C** Lenses with wire retention groove

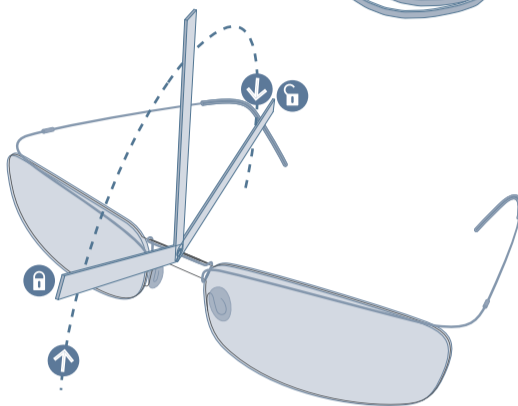
Lens mounting can be carried out with a lever or with simple pliers.



LEVER

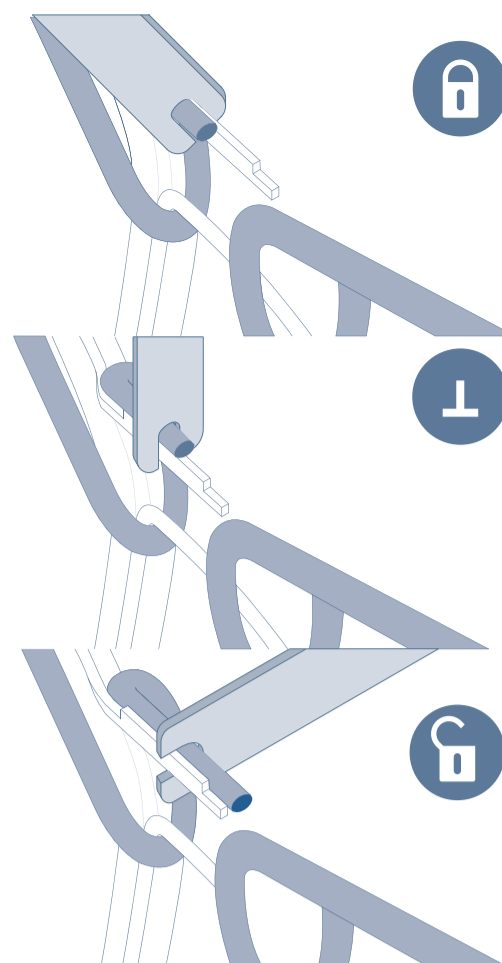
The Lever is a tool to facilitate lens mounting (to lock / unlock the lens holding rim). Pliers with marrow tips can be used instead of the Lever.

Two rubber bands (or adhesive tape) can be used to keep together the lenses and lens holding rim.



To unlock the lenses it is necessary to free the rim from the browbar by sliding the rim tooth from the back to the front of the browbar bridge. Conversely to lock the lenses it is necessary to insert them in the rim and to slide the rim tooth from the front to the back of the browbar bridge. All this can be done with pliers or with the Lever.

UNLOCK THE LENSES

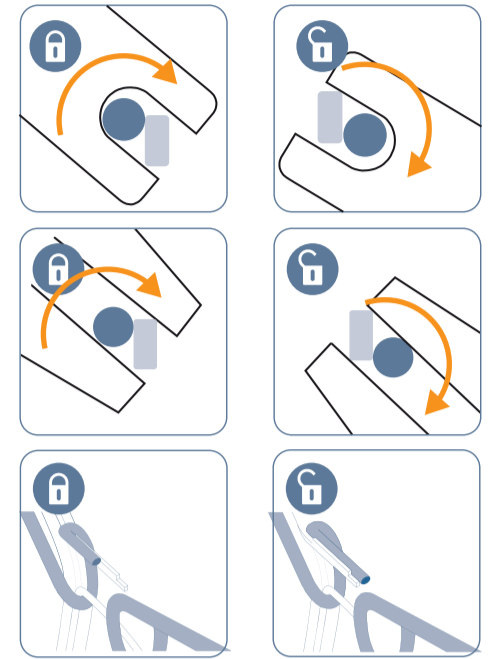


POSITION THE LEVER

Position the lever at the center of the bar bridge, hooking the two upper bridges together. The lever must be inserted keeping it slightly tilted forward as shown in the position ① of the drawing.

ROTATE TO UNLOCK THE FRAME

From the bridge's hooking position - blocked position ① - rotate the tool backwards. Once the point of maximum tension - vertical tool position ② - has been overcome the rim will unlock ③.



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LENS MOUNTING



ASSEMBLE RIM AND LENSES

It is possible to assemble the frame by using tiny rubber bands to hold the lenses correctly coupled to the rim. Rubber bands allow an easy handling of the lens-front set, they can be used whenever it is deemed usefully. Insert the lenses into the rim/ inside the lenses into the channel. Lock the rim on the lenses with the rubber bands.



INSERT THE RIM INTO THE BAR

Insert the rim + lenses set inside the bar's fold. To avoid the risk of damaging the lenses, during final locking (maximum tension point), check that the rim is perfectly inserted in the groove before the frame is locked.



ALIGNE THE BRIDGES

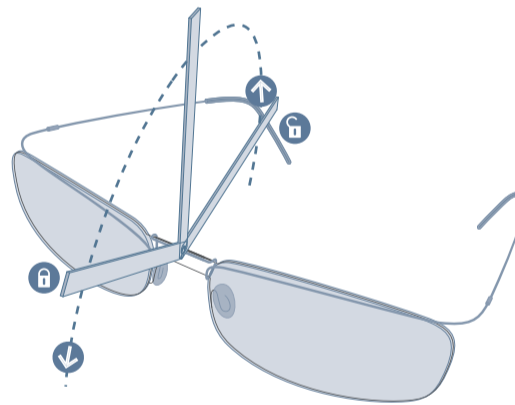
Align the two bridges, so that the rim's bridge is in the front of the bar's bridge.

LOCK THE FRAME

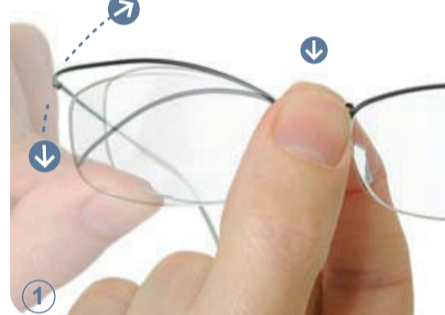
With one hand hold them together and aligned end in contact, hook the bridges together with by inserting the Lever from the back of the frame. (unlock position ①)

Now the rim can be locked on the bar: turn the Lever from the back (unlocked position ①) to the front (lock position ②).

The bar and the rim thus form a stable and elastic frame.



FRAME ADJUSTEMENT



GRIP POINT

Hold firmly the bar on the bridge between thumb and index. The Arquo steel structure is highly elastic around a stable point that is fixed by adjusting the frame.

It is possible to change the geometry and setting new points of stability of the structure by imposing axial deformations beyond the elastic limit (yield point, plasticity phase of the material).

Proceed in the following order by setting:

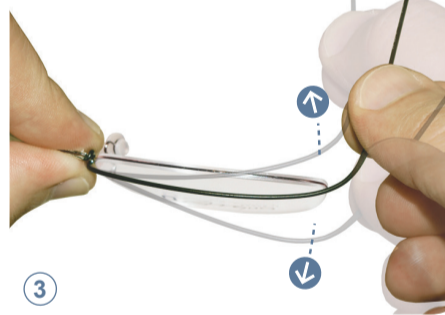
1.ALIGNMENT BAR AND FRONT

Front view
Align the front bar to the lens.



2.PANTOSCOPIC ANGLE

Side view
Fix the plane of the lens. Maintain it, adjusting the tilt of the temple with reference to the support point (ear) by means of large movements that exceed the elastic limit. The lateral grip point must be on the end piece of the bar, not on the temple.



3.CLOSURE

View from above
Align the bar to the lens so that once wore the bar is parallel to the lens and the frame at rest show the bar closed slightly above the outside of the lens (for a residual elastic fit around the head of the wearer).

LENS CLEANING

To clean the lenses with a cloth hold the frame on the frame bridges (grip point position) . Avoid torsion movement on the lenses.

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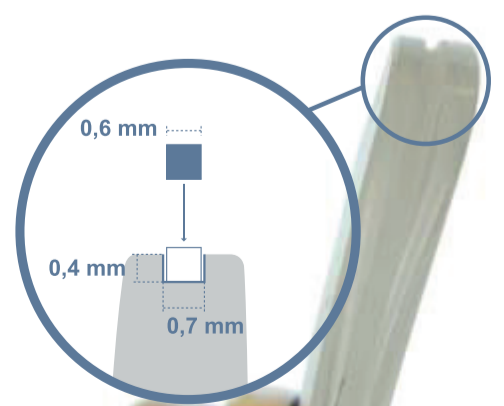
LENS CUTTING AND SIZING

The exact coupling of the lenses, the rim and the top bar create a robust and elastic Arquo frame structure. Correct lens mounting and sizing is an essential step in optimizing performance, stability and strength of this structure. For this reason, the lenses and the lens grooves should be cut with maximum accuracy within the admitted tolerances.

Please read the following lens cutting instructions carefully before fitting optical lenses on an the Arquo frame.

It is recommended to cut the lenses with machines in correct adjustment status according to the manufacturer calibration instruction, therefore able to reproduce a lens channel and a lens pattern with there specific precision (in the order of hundredth of a millimetre). The perfect adjustment of the machine can be checked by using the Arquo former with master available on request. The supplied Arquo former are dimensioned for cutting standard lenses Base 4. Presentation lens are also Base 4.

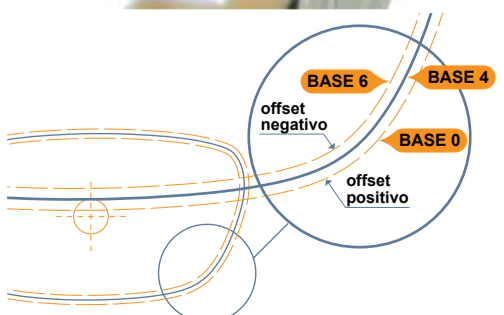
In all situation different from this standard case the correct lens will be obtained by setting on the machine the cut correction parameters necessary to correct the dimension of the lens and/or of the groove. By following this suggestions the mounting technician will be able to usefully exploit his experience for obtaining optimal and fast lens cuts and minimizing the corrections and trials typical of an approach to lens cutting based on successive approximations.



GROOVING THE LENS CHANNEL

To assemble the lenses into the rim make a groove having a width of 0,7 mm (measured on the bottom) and a depth of 0,4 mm is needed. The groove should be square-shaped and preferably placed at the lens centre or aligned to the outer border. All lens materials except glass may be used. The recommended minimum edge thickness of the cut lenses is 1,8 mm in order to leave a safe minimum thickness on the border of the channel (1,5 mm also possible with precision cut resilient materials).

To keep invariant the length of the channel it is necessary to enact some compensations by changing the dimension of the lens in the opposite direction to the curve variation, adjusting the lens cutting parameters in order to obtain a positive radial offset (increase the lens dimension to compensate a lower curvature) or negative (to decrease it) in the opposite case.



CHANNEL'S CURVATURE COMPENSATION



The grooving of a nominal channel (0,4 x 0,7) with spherical curvature different from the standard (Base 4) on a lens obtained from an exact copy of the shape of the supplied former will bring variations on the length of the channel with respect to the standard lens, increasing with the increase of the curvature and decreasing in the opposite case. Those variations may overcome the maximum compensation range allowed by the elastic forks. It is therefore needed to change the cutting parameters in order to keep the channel length optimal (unchanged).

Average sufficient compensations are:
- offset - 0,10 mm, for an increased curvature from B4 to B6
- offset ± 0,00 for B4 (no correction necessary)
- offset + 0,10 mm, for an decreased curvature from B4 to B0

CORRECT TENSION CHECK

Correct lens cutting and mounting will induce a slight opening of the elastic fork (compensation fork) positioned on the pad arms. No opening or too much opening of the elastics fork indicates a wrong lens cut and mounting. The fork allow the possibility to cut lenses with ±1mm difference from the optimal/ standard lens perimeter, meaning a ± 0,15 mm radial error (offset).

TENSION INCREASE

If the lenses are small, in order to have a correct mounting tension it is possible to intervene in two ways after having disassembled the lenses:
- by inserting a silicone ring in the groove to make it less deep.
- by tightening the compensation forks until they are completely closed.

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