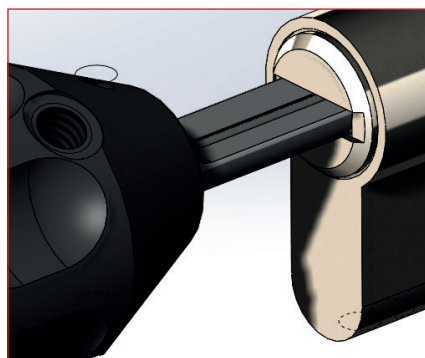
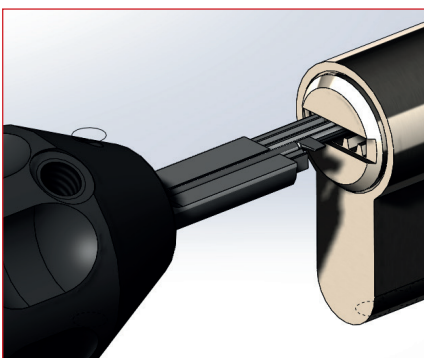
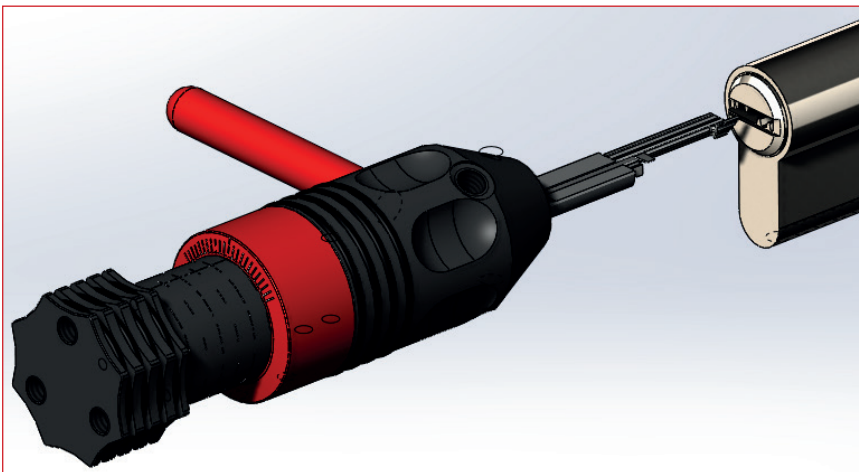


## Instruction manual ARES Opening System

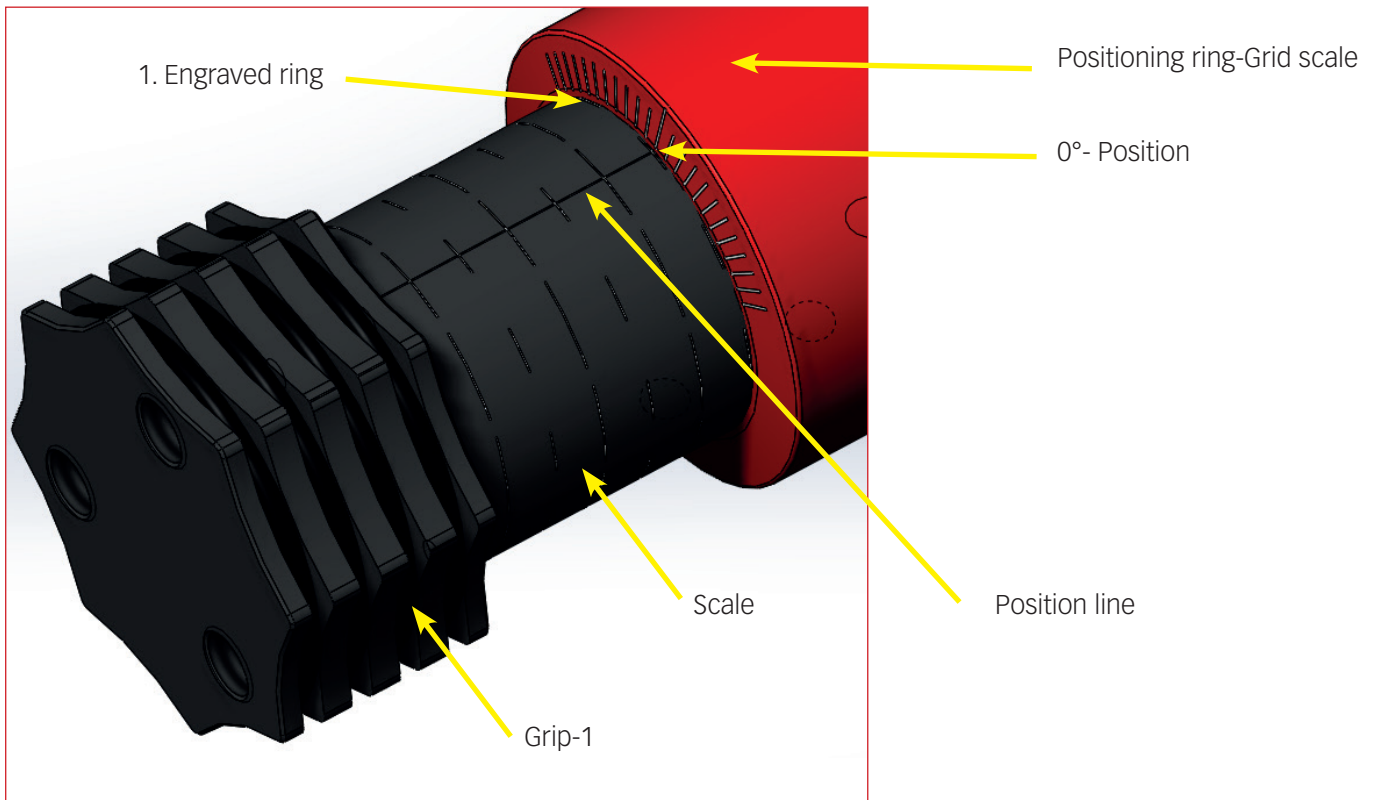
With the Multipick ARES Opening System, you have the possibility to build different opening tools for dimple and disc detainer cylinders. A variety of types of locks can be covered by a simple conversion of the basic module. In our assembly instructions for the dimple opener and disc detainer opener, we have described the steps that need to be taken to assemble the tool. These instructions are primarily concerned in handling the ARES.

### Follow the steps below to open dimple locks:

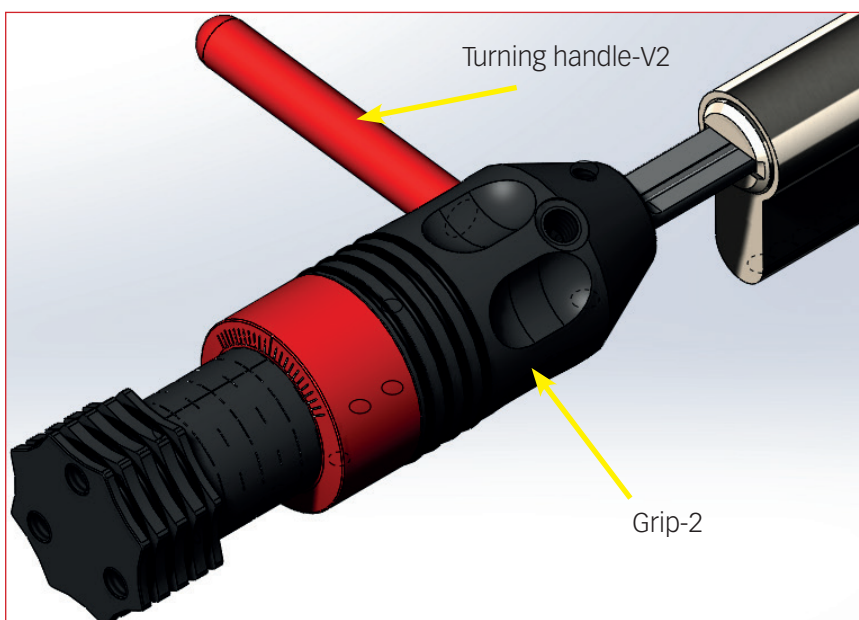
1. The tool is prepared for the corresponding cylinder type. For this, the required key profile, the corresponding pick and the matching scale are mounted. A corresponding table can be found in the case and on our website. The selection of the key profile is determined by the information you have concerning the cylinder or you can try to determine the appropriate key profile by „experimenting“ with different key profiles. If it turns out that the right profile is not available, it will not be possible to open the lock with the tool.
2. Once all the necessary components have been mounted, the key profile with the pick can be inserted into the lock to be unlocked. Make sure that the pick is aligned horizontally to the key profile, if possible, in order to ensure that the key profile with the pick can be inserted all the way in. In some instances it may be necessary to turn the pick slightly.



**3.** The next step is to position the pick on the first pin. In order to do this, move the Grip-1 with the corresponding scale in such a way that the first engraved ring is visible on the scale. The flag of the pick should now be on the first pin position. Make sure that the 0° position corresponds to the position line on the scale. The position 0° is the position in which the flag does not push the pin down, or only slightly. If this is not the case, the position of the Positioning ring-Grid scale can be corrected. To do this, the retaining screw is loosened and the ring can be turned to the position of 0°.

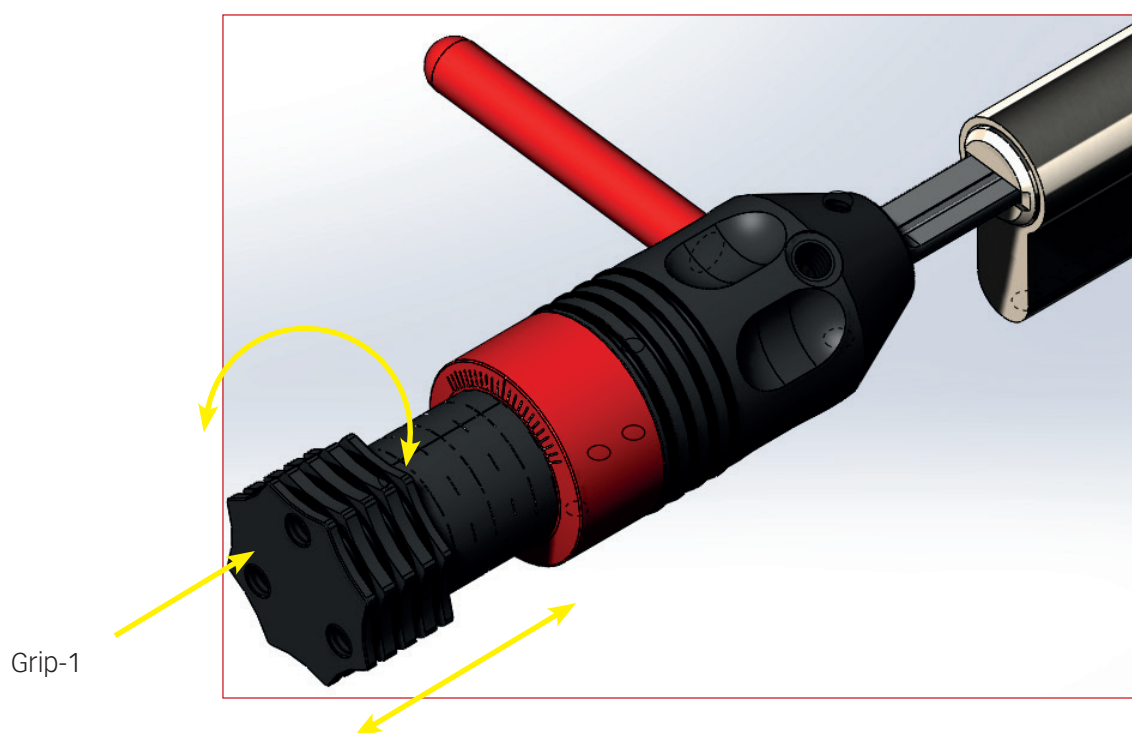


**4.** Once the tool is positioned in the cylinder, a slight pre-tension is then applied by turning the Grip-2. This pre-tension is maintained throughout the process of picking and is raised or reduced as required. For this purpose it is helpful to mount the Turning handle-V2 as an aid. This allows better and more precise control of the tensioning process.



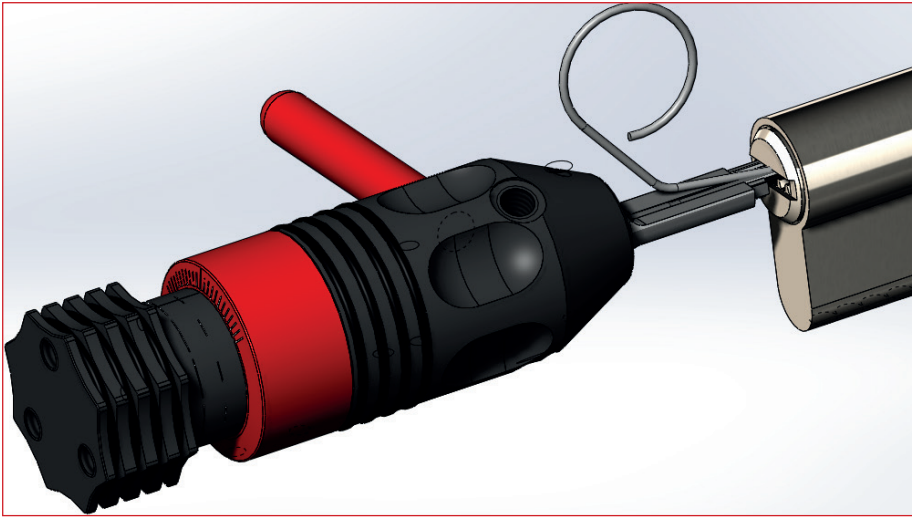
**5.** If the tool is now prepared and a pre-tension is present, the setting of the individual pins can begin. To do this, turn the Grip-1 in the corresponding direction until the pin is set. The direction of rotation depends on the mounting position, configuration and type of cylinder. By sliding the Grip-1 back and forth, the position of the pin is changed. Here, the scale serves as a position indicator for the next pin. When changing positions, ensure that the pick is in the 0° position. Otherwise, it can happen that the flag collides with a pin that has not been set or gets stuck. As a general rule, the pins have to be set in a certain order. When a pin binds, it must also be set in order for the next pin to bind again. If the core turns a few degrees during the opening process, this indicates a spool pin or a false set. In order to set them, you must allow the counter-rotation to occur while the flag is exerting pressure on the pin. Tip: Never completely release the tension from Grip-2 when setting a spool pin, but allow the counter-rotation induced by the flag (or spool pin) to slowly and controllably rotate the core back until the pin is set.

**Tip:** Never completely release the tension from Grip-2 when setting a spool pin, but allow the counter-rotation induced by the flag (or spool pin) to slowly and controllably rotate the core back until the pin is set.



**Note:**

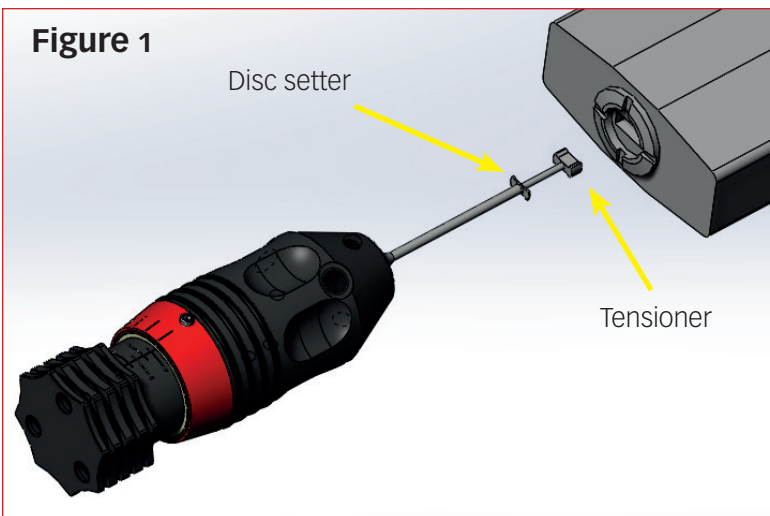
It can happen that the „flag“ gets caught in the keyway when moving the pick or snags on a pin. This should only happen if the flag is turned too far or between the pins. First try to release it with careful movements of the pick. If this does not work, please **do not try to pull the pick out with force**. This may cause the flag to bend or even snap off. Use the „wire“ included in the scope of delivery to free the „flag“. To do this, pull out the key profile as far as it will reach. Then push the wire above the pick into the keyway, in order to push the pins downwards. Now, carefully moving the pick, pull this out.



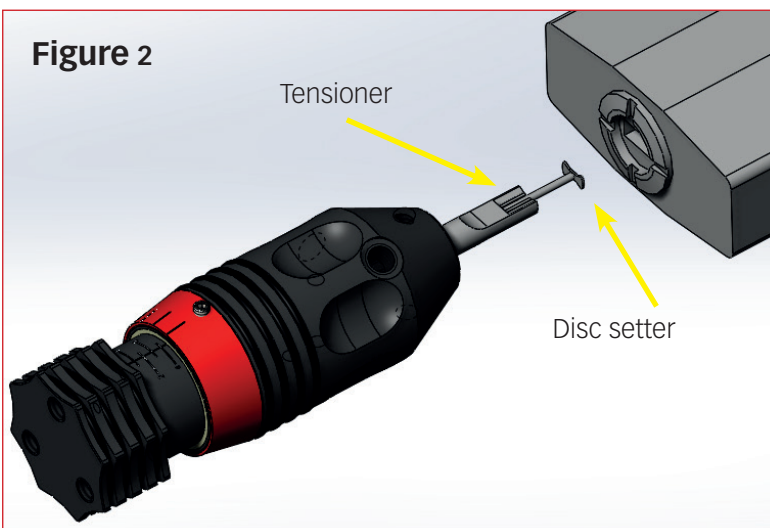
### Proceed the following to open disc detainer locks:

1. The tool is prepared for the corresponding lock type. For this, the required key profile, the corresponding pick and the matching scale are mounted. A corresponding table can be found in the case and on our website. The selection of the key profile is made on the basis of the information you have on the cylinder lock or you can examine the profile of the cylinder and try out a tool that fits.
2. Once all the necessary components have been mounted, the tensioner with the disc setter can be inserted into the lock which is to be unlocked. Here, a distinction is made between two tensioning methods. Figure-1 shows the assembly of the tensioner for the cylinder. Figure-2 shows the variation for front tensioning.

**Figure 1**

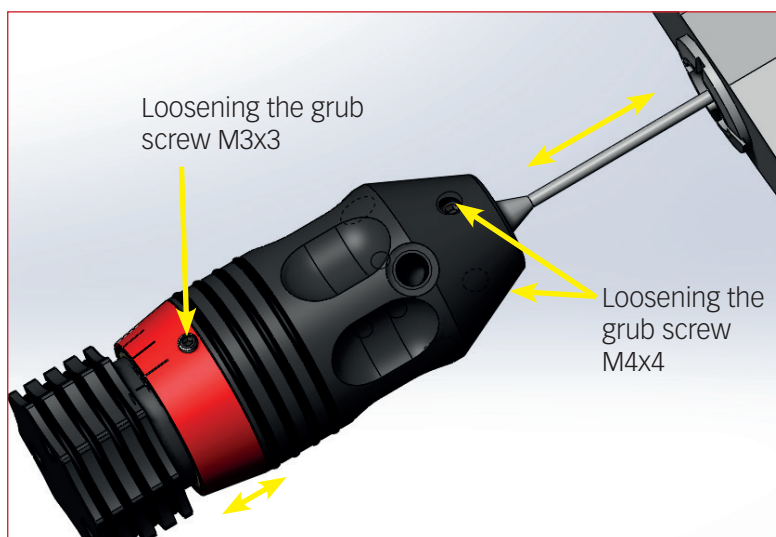
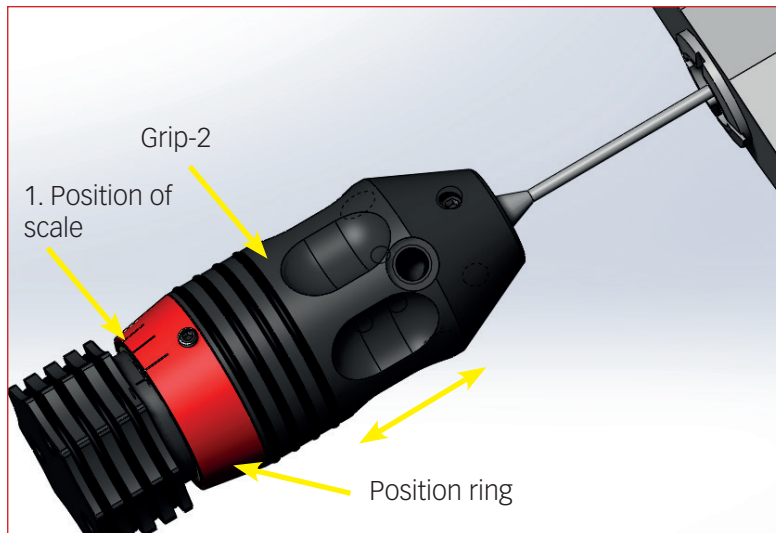


**Figure 2**

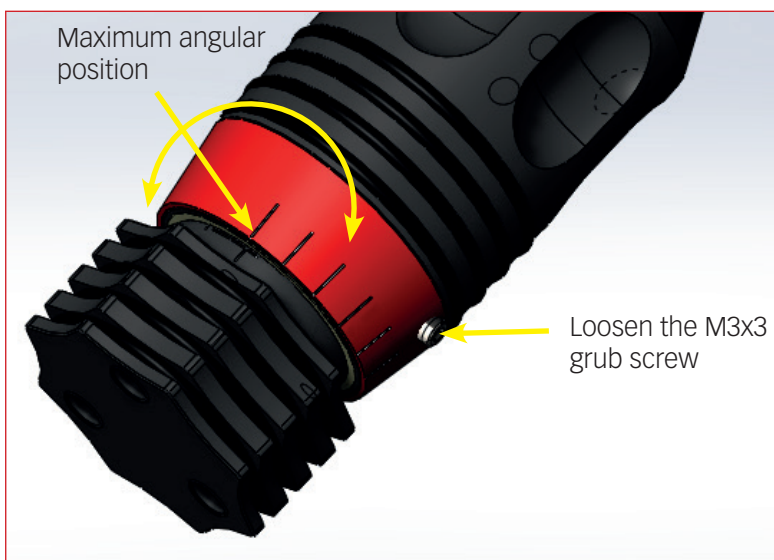
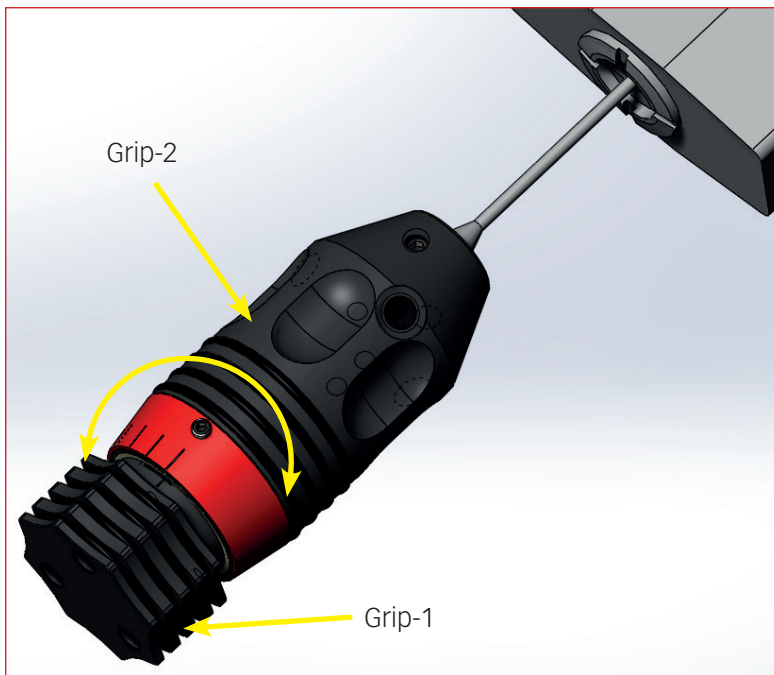




**3.** To commence setting the individual discs, the tensioner in the Assenbly-T2 is inserted into the cylinder as far as it goes. After that, the disc setter can be moved to the first position of the discs. In order to do this, the Grip-2 is pulled back until the first position of scale is reached. Now the disc setter should be in the position of the first disc. If this is not the case, move again Grip-2 to find the correct position. Afterwards, the position of the scale can be corrected by releasing the positioning ring and / or the disc setter.



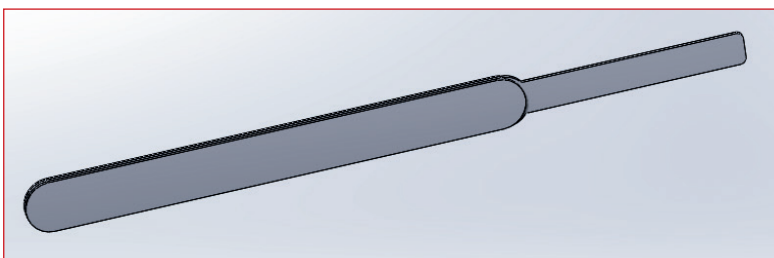
**4.** Once these settings have been made, the setting of the individual discs can begin. Here, the tensioner is pre-tensioned with Grip-1. Now try to bring the disc into the opening position by turning the disc setter in Grip-2. In order to get a good starting position the disc setter is turned until the first disc is blocked. Then, by loosening the grub screw, the positioning ring can be moved to its maximum angular position.



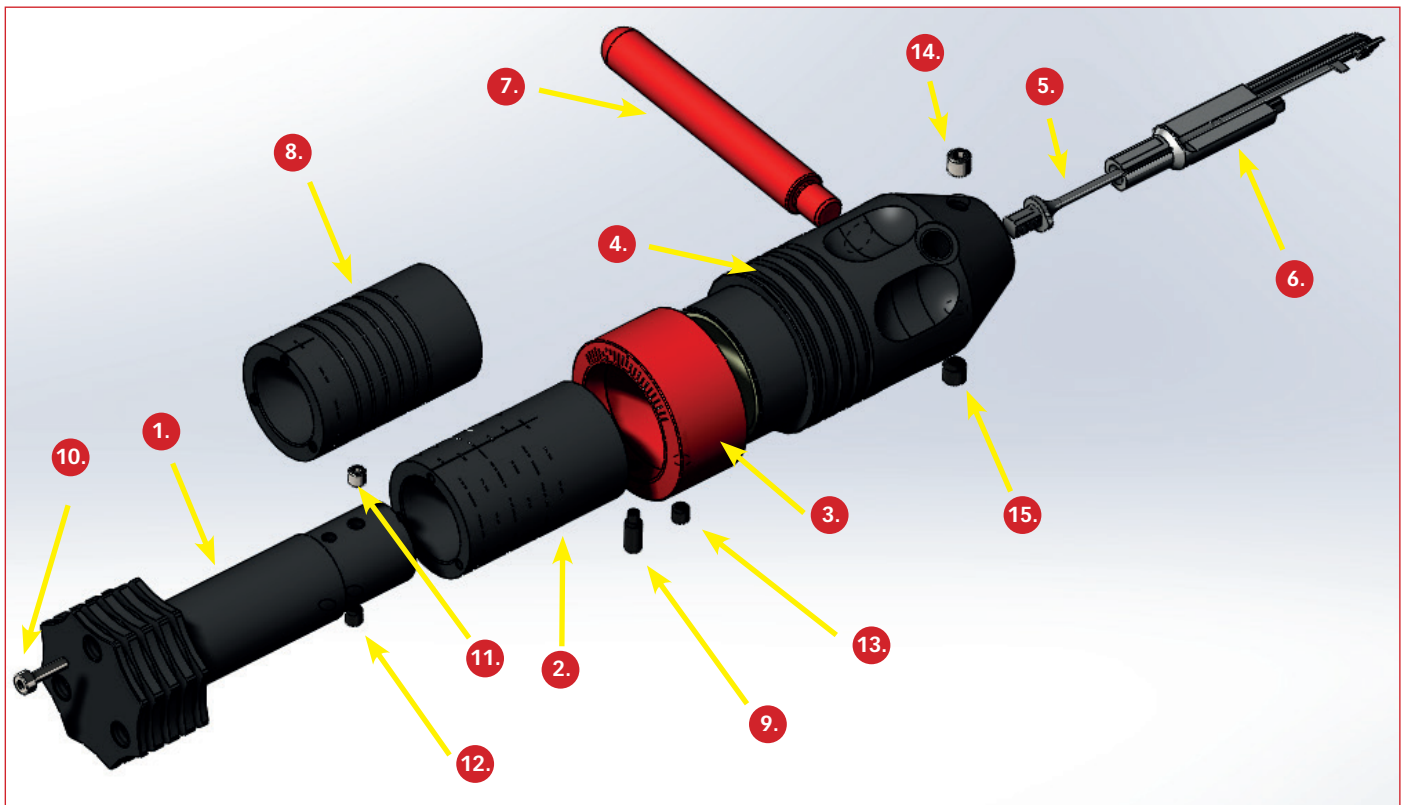
Once the ring has been positioned in this way, the range for setting the discs is limited to approx. 90°. The next step would be to try to set each disc individually. For this, the disc is brought into the right position by turning the Grip-2. To set another disc, shift the Grip-2 to the next position on the scale and start positioning the disc by turning the Grip-2 again.

**Note:**

With the Disc Turning Tool D03 included in the scope of delivery, all discs in the lock can be positioned in the opening direction before starting the unlocking procedure. For this, the tool is inserted into the keyway and turned clockwise as far as it will go. This procedure is not mandatory, but allows for easier picking against the tension load.



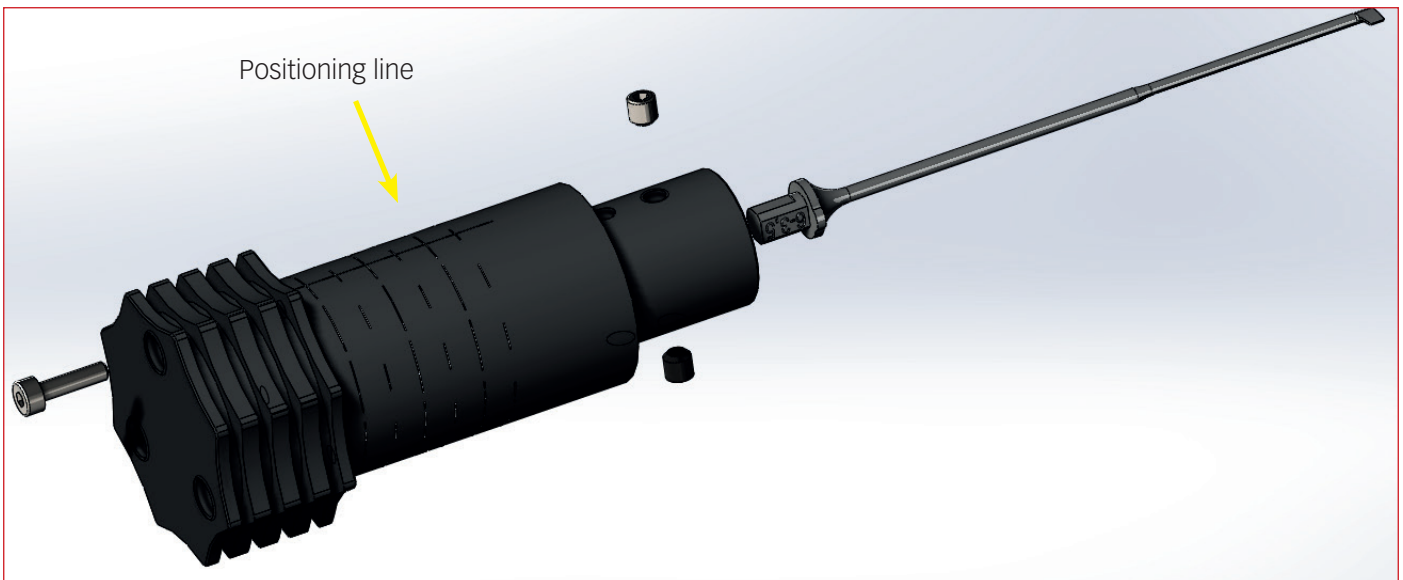
## Assembly instructions for Dimple Opener



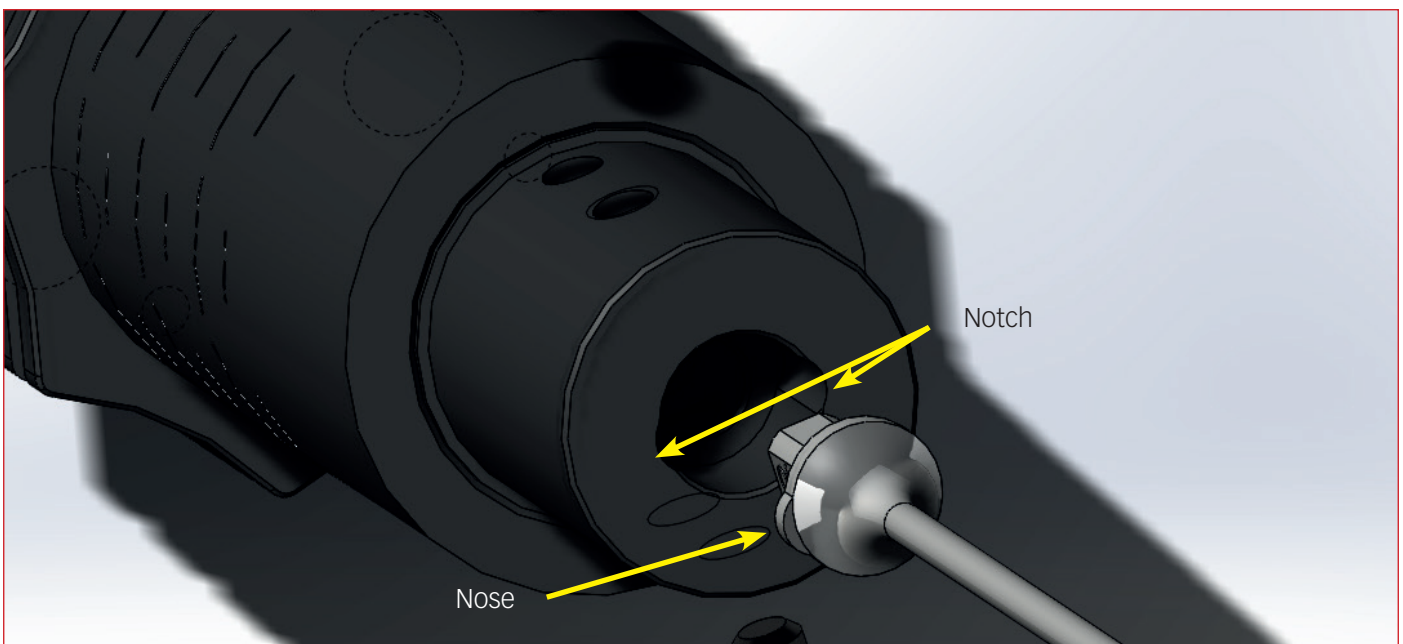
1. Grip-1
2. Scale
3. Positioning ring-Grid scale
4. Grip-2
5. SDB-Pick
6. Key profile
7. Grip-V2-Turning aid
8. Grid scale
9. M3 grub screw spring thrust (hex socket 1.5mm)
10. Screw M2x8mm for mounting Scale (hex socket 1.5mm)
11. Grub screw M3x3 for mounting the SDB-pick (hex socket 1.5mm)
12. Grub screw M3x3 for mounting the SDB-pick (hex socket 1.5mm)
13. Grub screw M3x3 for mounting the Positioning ring-Grid scale (hex socket 1.5mm)
14. Grub screw M4x4 for mounting the Key profile (hex socket 1.5mm)
15. Grub screw M4x4 for mounting the Key profile (hex socket 1.5mm)

### First assembly step

First, the scale / grid scale is to be mounted with the corresponding SDB pick. There are currently four options for each of the scales. The desired scale is mounted by sliding it over the Grip-1 and aligning it with the engraved positioning line pointing upwards to the mounting hole. Afterwards, it is fixed with the M2x8 screw.



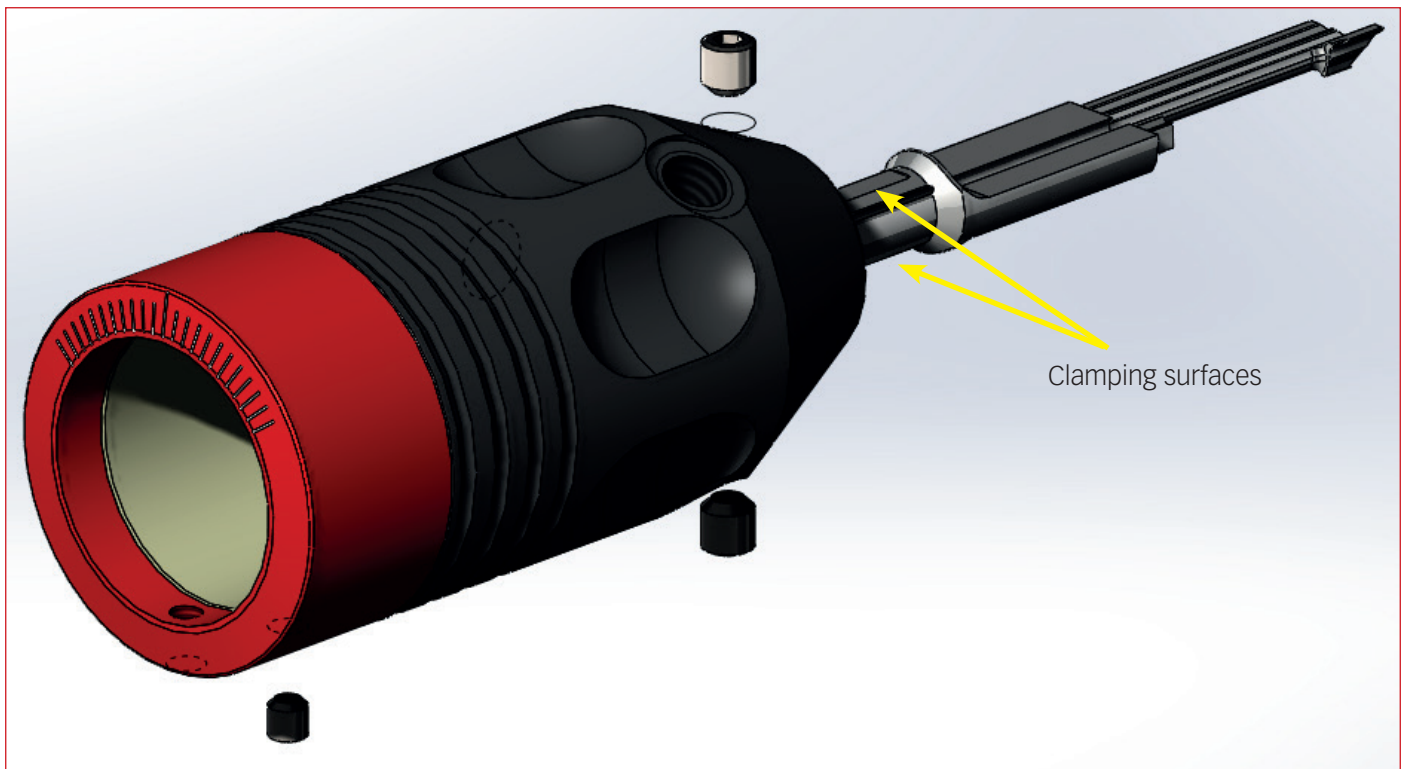
Now insert the desired SDB pick into Grip-1. Slide the pick in as far as it will go and secure it with the two M3x3 set screws. When inserting the pick, make sure that it is not twisted. For this there is a „lug” on the pick and two notches in Grip-1. Depending on the combination selected between the SDB pick and the key profile, the pick can be inserted with a 180° turn. When tightening the grub screws, ensure that they are tightened alternately. If tightened only on one side, the pick may be slightly „crooked” making it more difficult to guide.



## Second assembly step

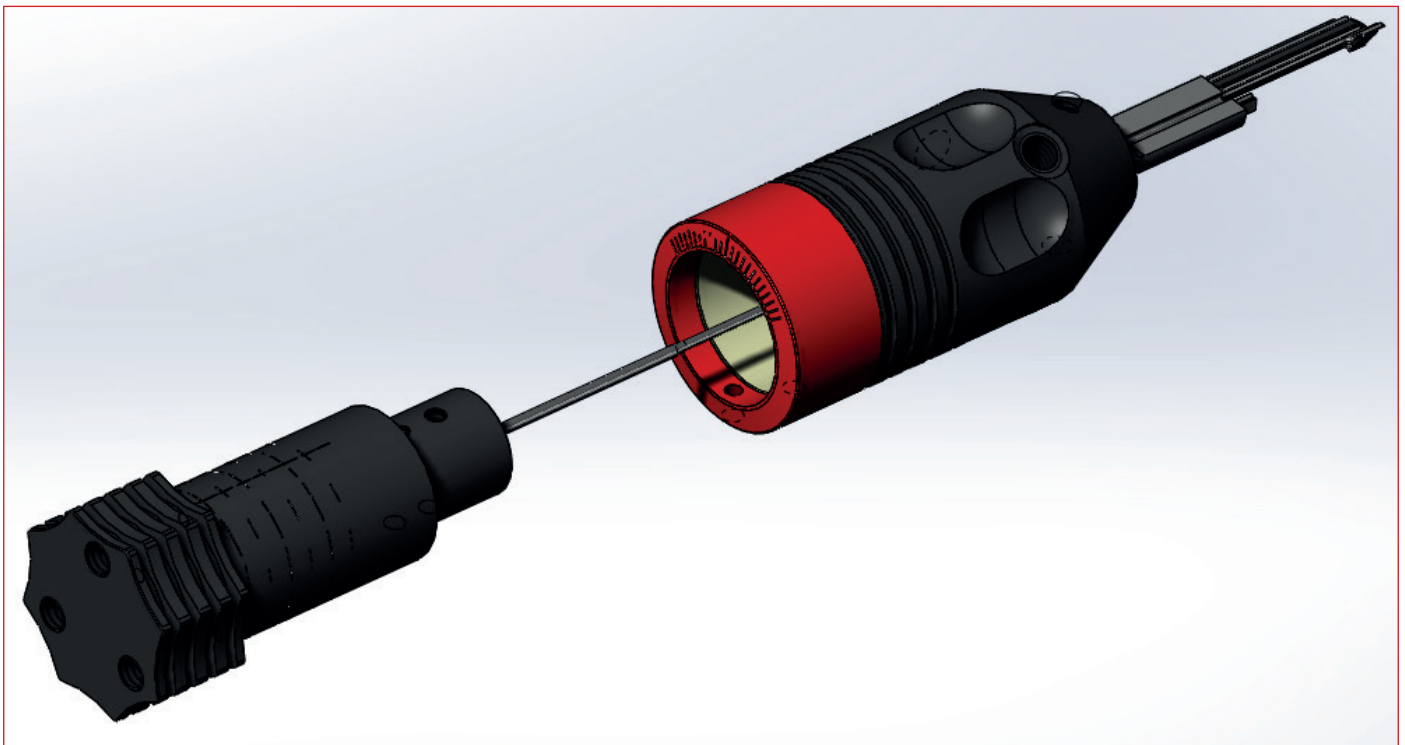
Next, the opposite piece with corresponding key profile is mounted. To do this, fix the Positioning ring-Grid scale to the Grip-2 with the M3x3 grub screw. Furthermore, the required key profile is inserted into the front hole of Grip-2 and aligned in such a way that the profile fits the lock and the clamping surfaces matches the holes. Finally, the key profile is fixed with the two Grub screws M4x4. Again, make sure that these are tightened alternately.





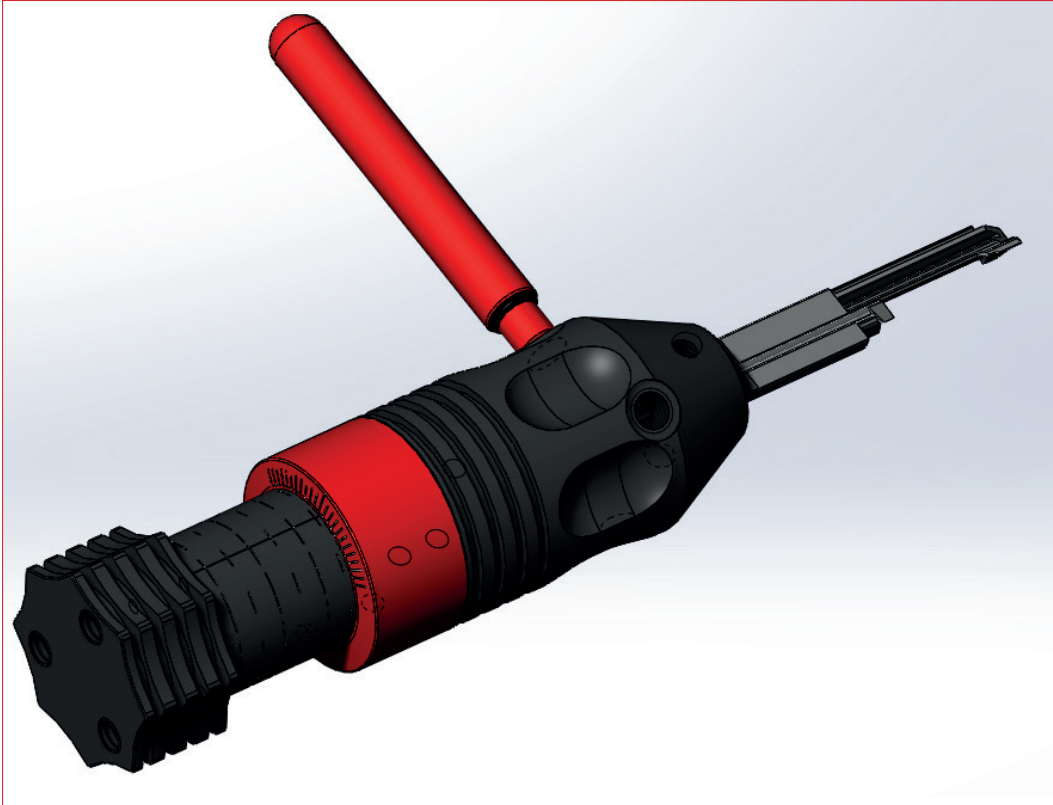
### Third assembly step

Now the next step is to put the two units together. To do this, the assembled Grip-1 is pushed into the assembled Grip-2. When doing this, make sure that the SDB pick is inserted in the correct position through the key profile. Now the tool is ready for use.

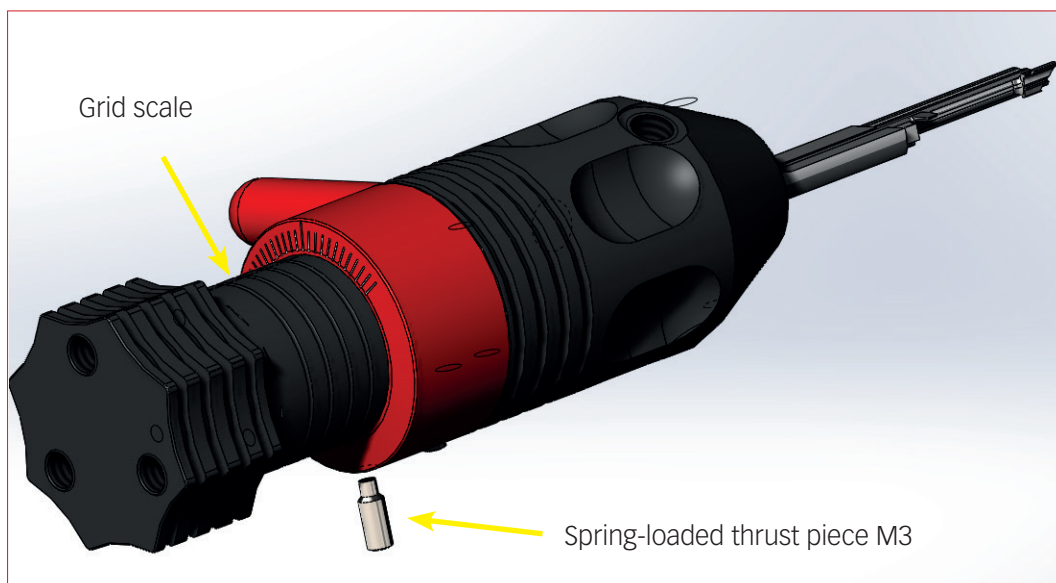


### Optional assembly

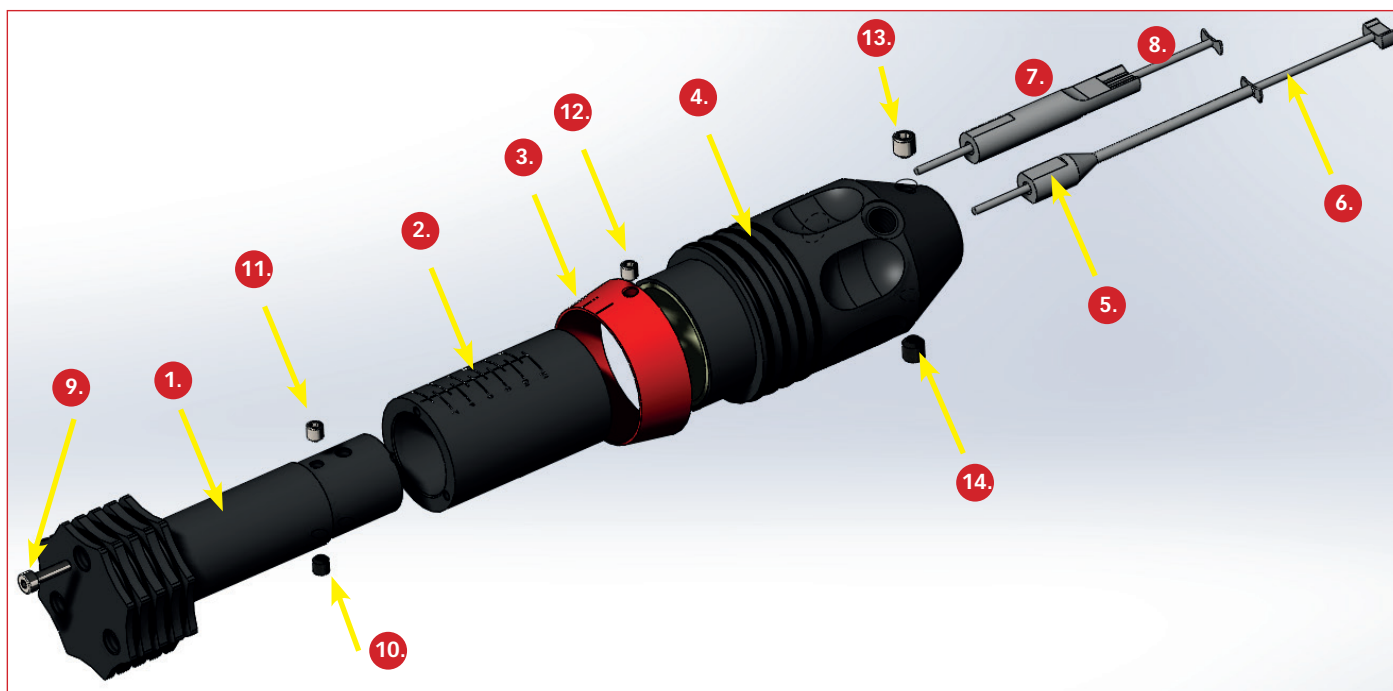
Alternatively, the tool can be fitted with one or two additional handles. In order to do this, the Turning handle-V2 is screwed into the Grip-2. Two turning handles are included in the scope of delivery. In general, it is enough to attach one handle. The handle gives you a better feel for the tension you need to apply as well as a good control of the tool.



Another option is to replace the scale with a grid scale. Here, as the first assembly step, a grid scale is mounted in place of the scale. This is not included in the scope of delivery and can be purchased in our shop. Furthermore, the Spring-loaded thrust piece M3 is required for this assembly (included in the scope of delivery). The thrust piece is screwed into the additional hole on the Positioning ring-Grid scale. Here, the user can decide how firm the resting effect should be by screwing it in. Through this conversion, the pin positioning is pre-determined in the thrust axis. This allows the user to concentrate on the rotary axis and the pick in order to set the pin. The slight disadvantage of this is that the freedom in the thrust axis is lost. This can become problematic in some cases. In this case, a scale without a grid is beneficial.



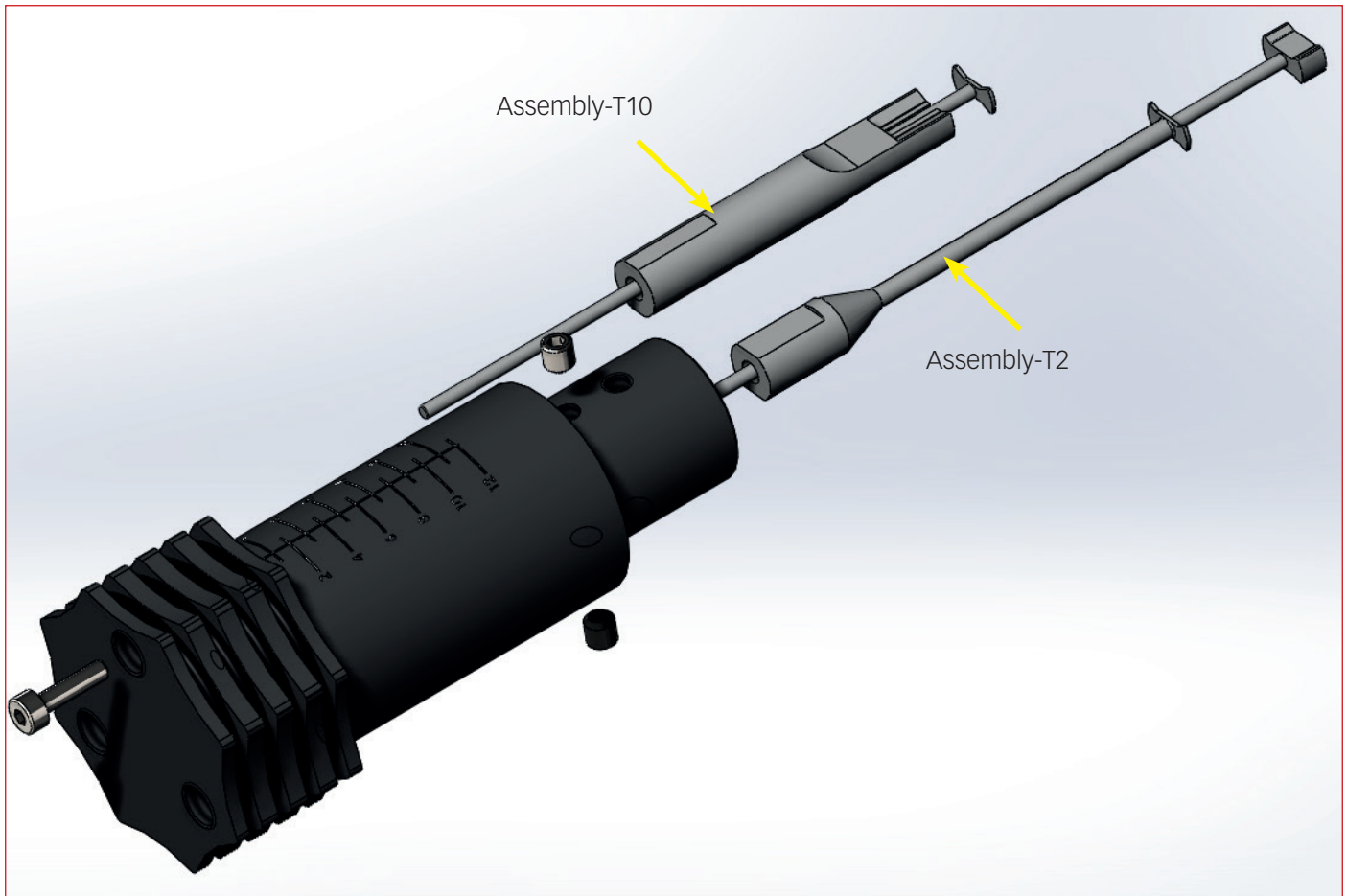
## Assembly instructions for Disc Detainer Opener



1. Grip-1
2. Scale
3. Positioning ring
4. Grip-2
5. Disc setter-T2
6. Tensioner-Disc setter-T2
7. Tensioner-Disc setter-T10
8. Disc setter-T10
9. M2x8mm screw for mounting the Scale (hex socket 1.5mm).
10. Grub screw M3x3 for mounting the Tensioner-Disc setter-T2 or Disc setter-T10 (hex socket 1.5mm)
11. Grub screw M3x3 for mounting the Tensioner-Disc setter-T2 or Disc setter-T10 (hex socket 1.5mm)
12. Grub screw M3x3 for mounting the Positioning ring (hex socket 1.5mm)
13. Grub screw M4x4 for mounting the Disc setter-T2 or Tensioner-disc setter-T10 (hex socket 2,0mm)
14. Grub screw M4x4 for mounting the Disc setter-T2 or the Tensioner-disc setter-T10 (hex socket 2,0mm)

### First assembly step

First, the scale is mounted with the appropriate setting and tensioning tool. Currently, there are two different choices of scales. The SO2-2.0 (included in the scope of delivery) or the SO1-1.6 (available in our shop). The setting and tensioning tools for T2 and T10 are included in the scope of delivery. With disc detainer locks it is possible (depending on the model) to apply the tension either in the front or inside the cylinder. The Assembly-T2 is intended for tensioning in the inner area and T10 in the front.



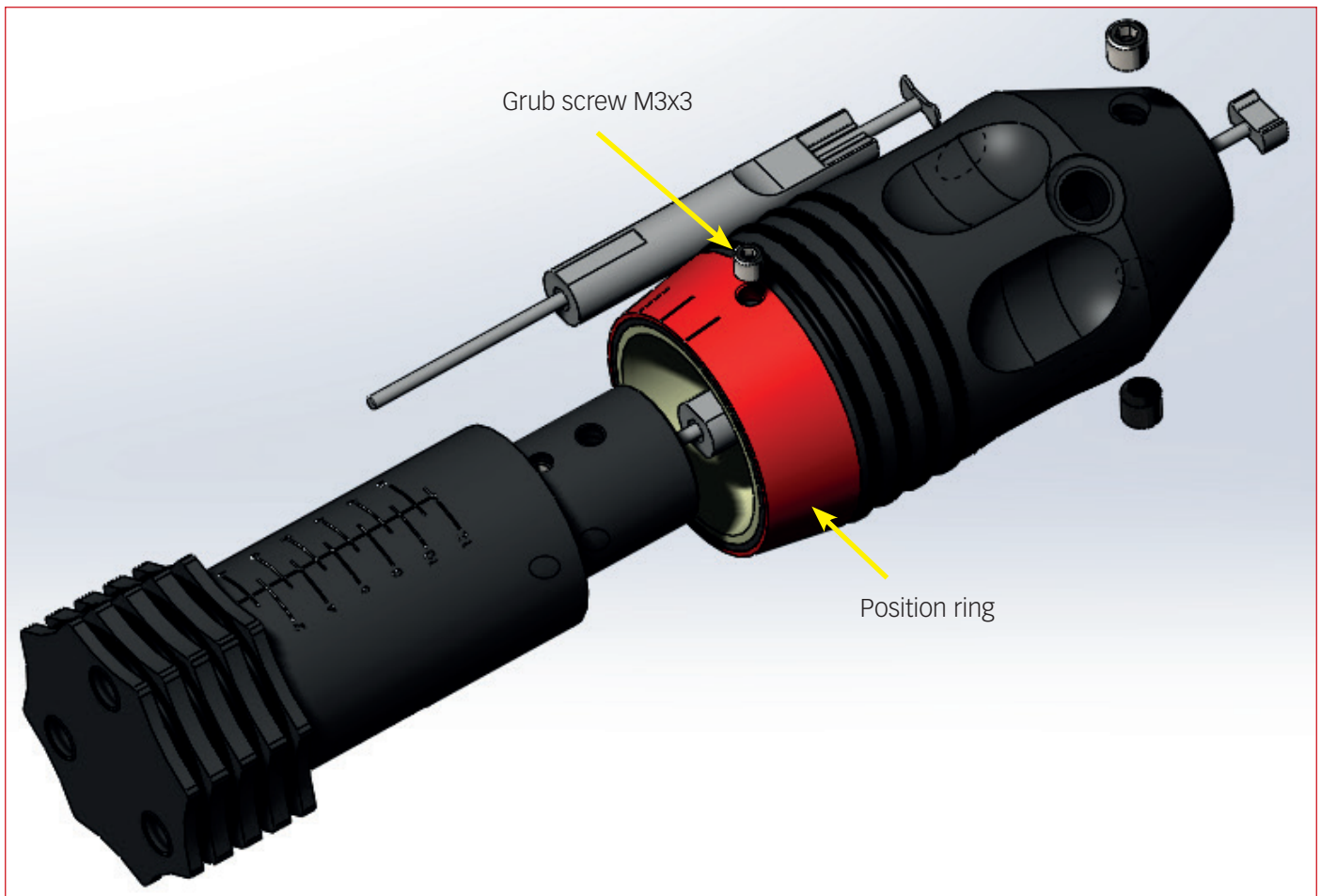
For mounting, the desired scale is slid over the Grip-1 and aligned with the engraved scale pointing upwards to the mounting hole. Afterwards, it is fixed with the M2x8 screw.

Now insert the desired Assembly-T2 or T10 into the Grip-1. Here, the stem has to be pushed in as far as it will go and secured with the two M3x3 grub screws. Please make sure that the holes at the back (as shown) are used. The front holes are used for mounting the dimple picks. When tightening the screws, make sure that they are tightened alternately. If tightened only on one side, the tensioner or disc setter (depending on the assembly) may be slightly „crooked“ making it more difficult to guide.

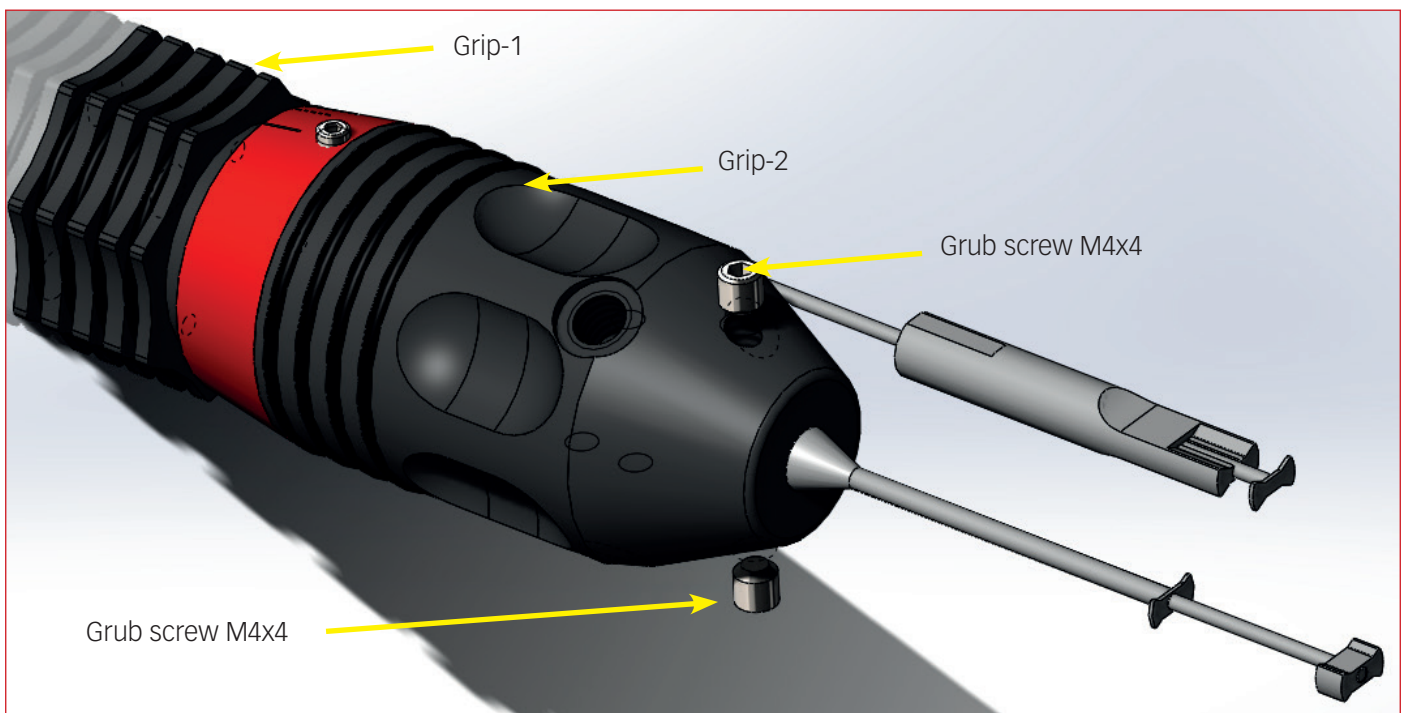
### **Second assembly step**

Now, this unit is inserted into the Grip-2. For this, first the Position ring on Grip-2 has to be fixed with the Grub screw M3x3.



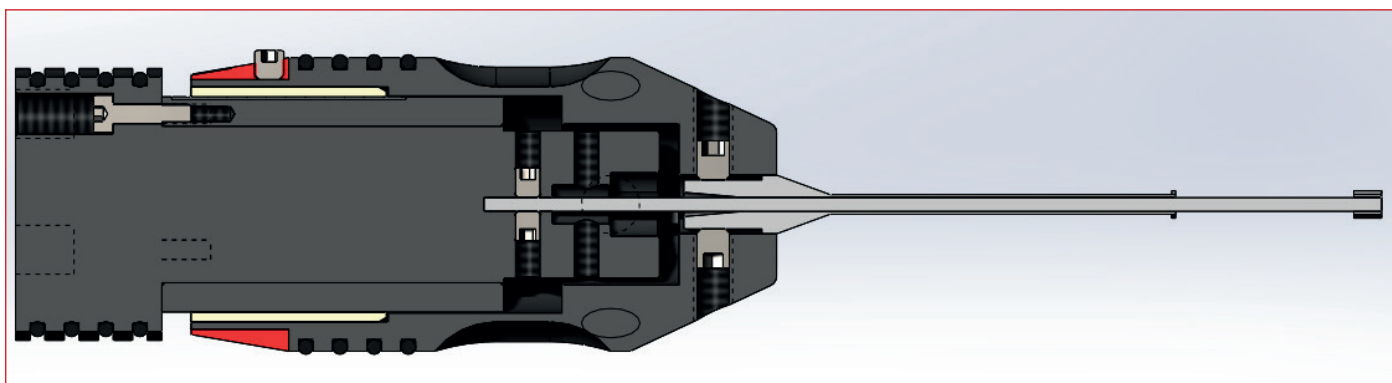


When inserting the Grip-1 unit, it has to be inserted in such a way that the tool (tensioner with disc setter) emerges at the front hole of the Grip-2 unit. Afterwards, the T2 or T10 assembly can be fixed using the Grub screws M4x4. Again, make sure that the screws are tightened alternately.



For the positioning of the Disc Setter-T2, the starting point of the bevel on the part serves as the first orientation. Up to this point, the Disc Setter-T2 should be slid in and then fixed with the Grub screws M4x4. Make sure that the clamping surfaces on the Disc Setter-T2 are aligned with the grub screw holes. Mounting the Assembly-T10 is similar. Here, the Grip-1 is slid until it reaches the end of Grip-2. Afterwards, the Tensioner-T10 can be pulled back until it reaches the stop and secured.

The sectional illustration shows how the individual components are fixed. During future use, it may be necessary to adjust the Positioning ring or the Disc setter-T2 or Tensioner-T10. To do this, simply loosen the screws and make the necessary adjustments.



**Always the right tool at hand.**

This is just the beginning, look forward to many more possibilities for opening cylinders and locks.

The Multipick ARES Opening System is also manufactured exclusively by hand here in Bonn. We attach great value to domestic production and our high standards, which we claim and implement for all our tools. It is not for nothing that we say Made in Germany, Made in Bonn.

Here you will find numerous individual components and accessories for the Multipick Ares opening system.

<https://bit.ly/3H8ed9x>

