



Celanesse Compression Fixture

Grasse Zur Composite Testing, Berlin

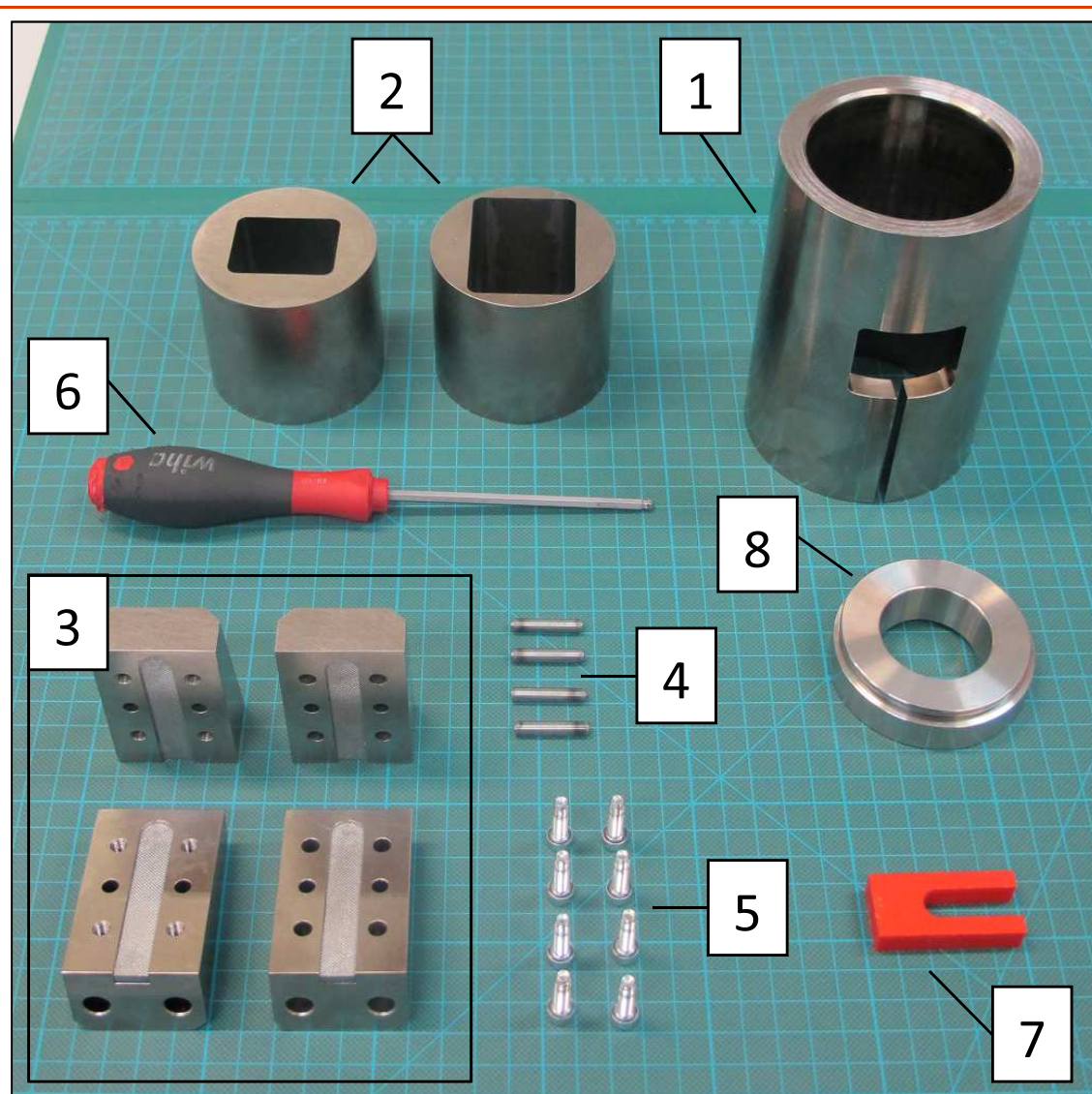
2016

Mounting sequence description of the celanese compression fixture

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COMPONENTS

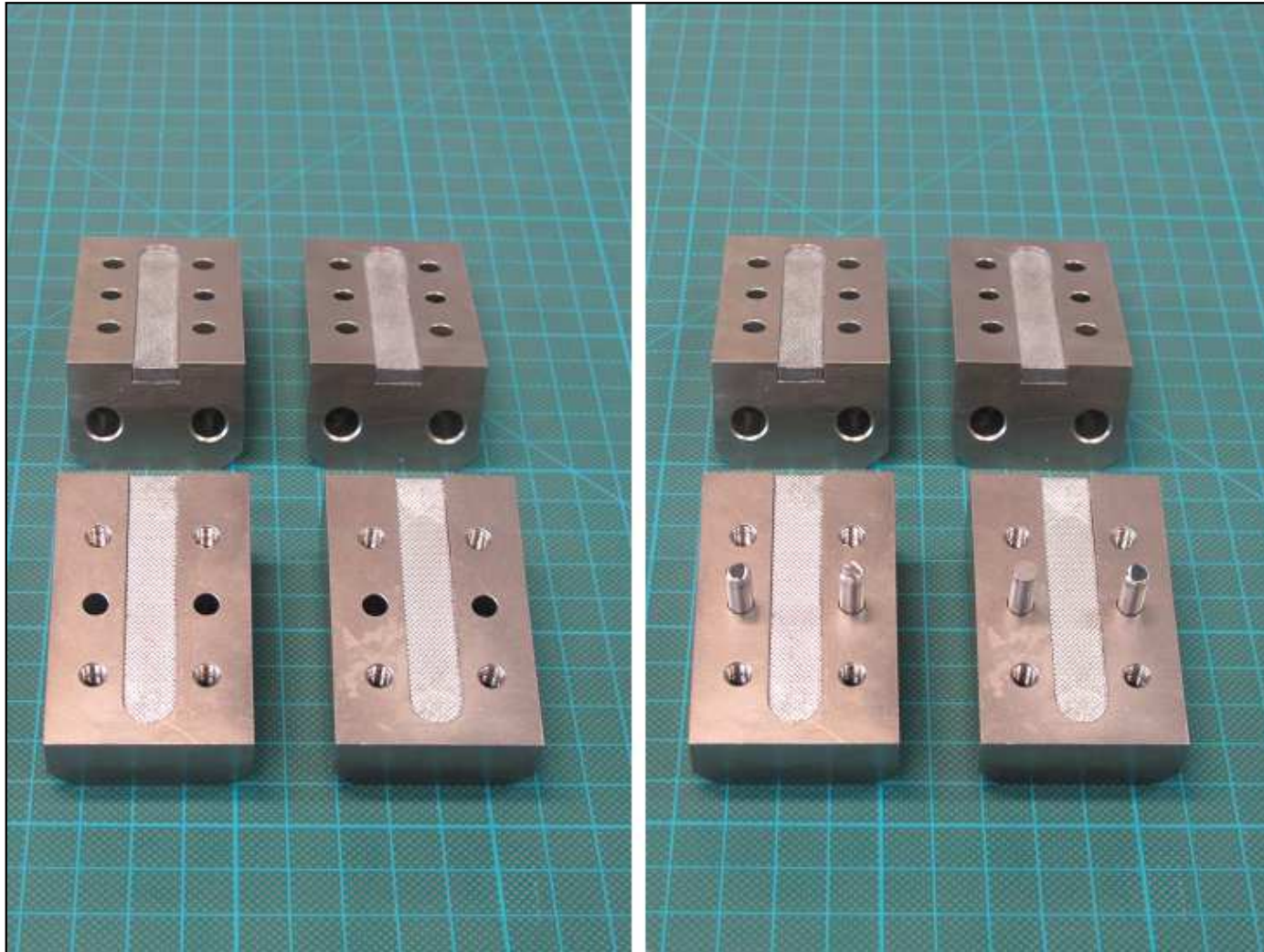


- 1 – Alignment sleeve
- 2 – Tapered sleeves
- 3 – Clamping wedges
- 4 – Alignment pins
- 5 – Mounting cap screws
- 6 – Allen wrench
- 7 – Spacer
- 8 – Angular contact spherical plain bearing

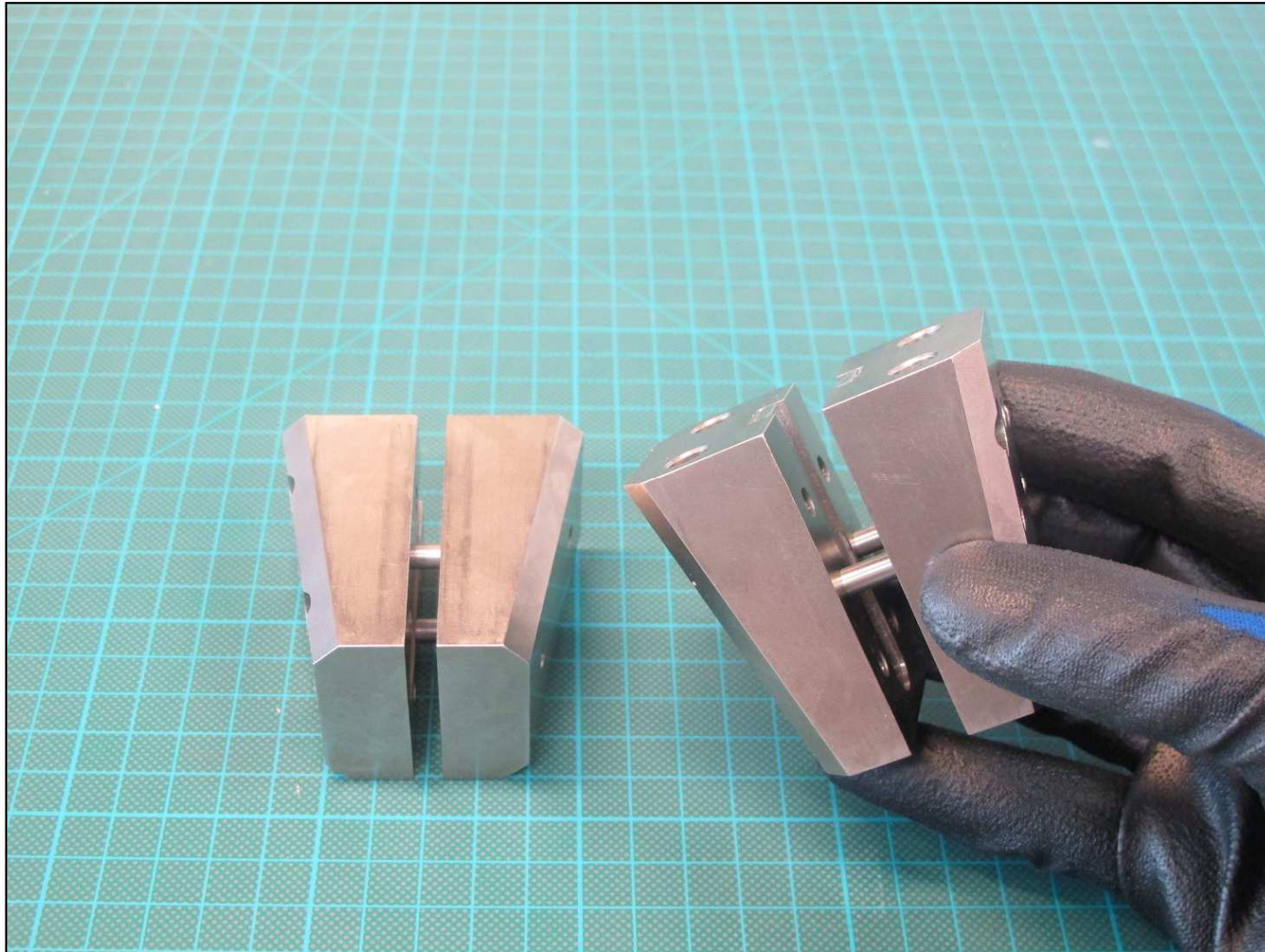
1. The upper and lower side of the fixture must be compressed using a robust plate or flat surface firmly attached to the test machine.



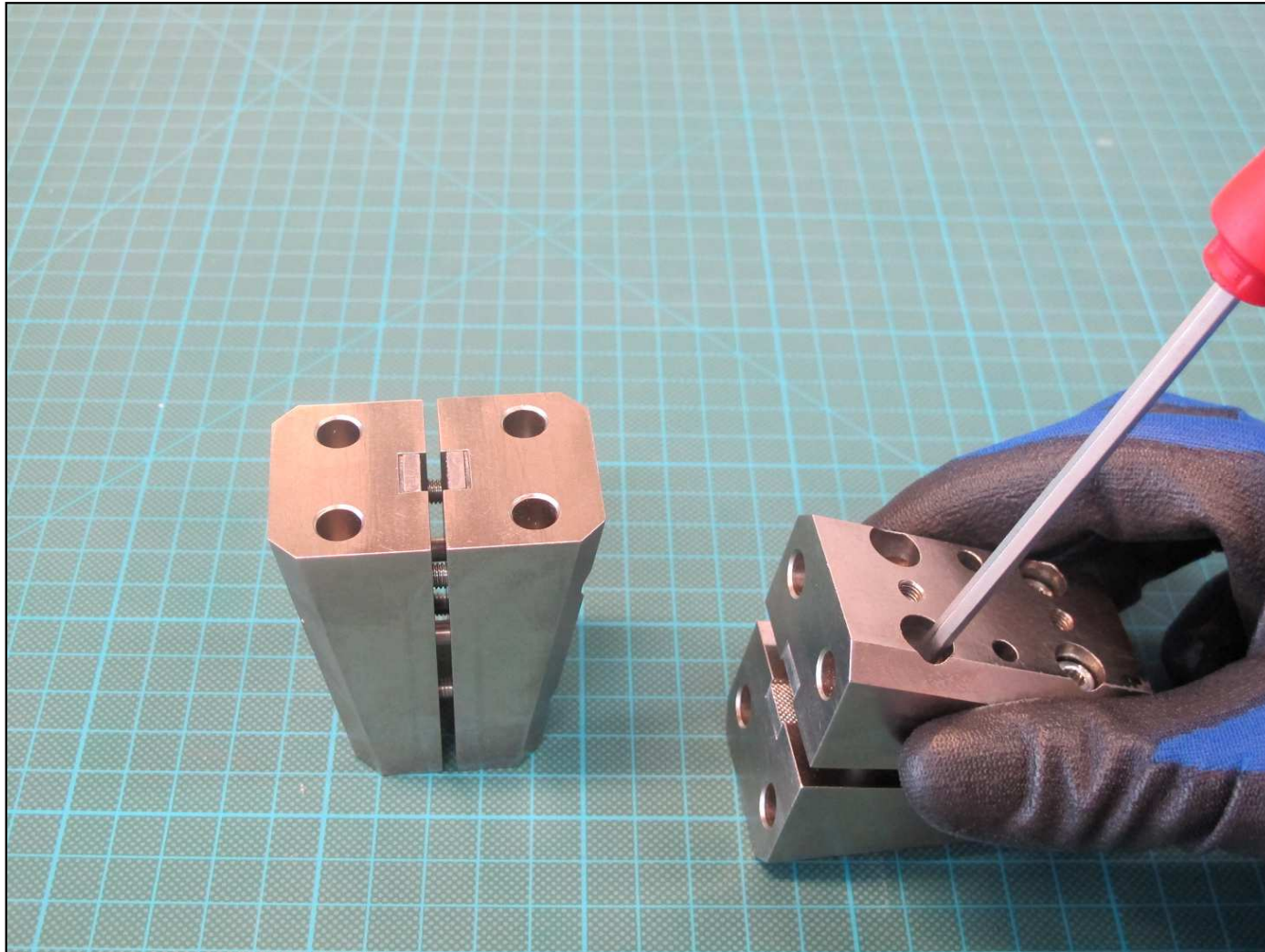
2. Completely insert the alignment pins into one side of the clamping wedges.



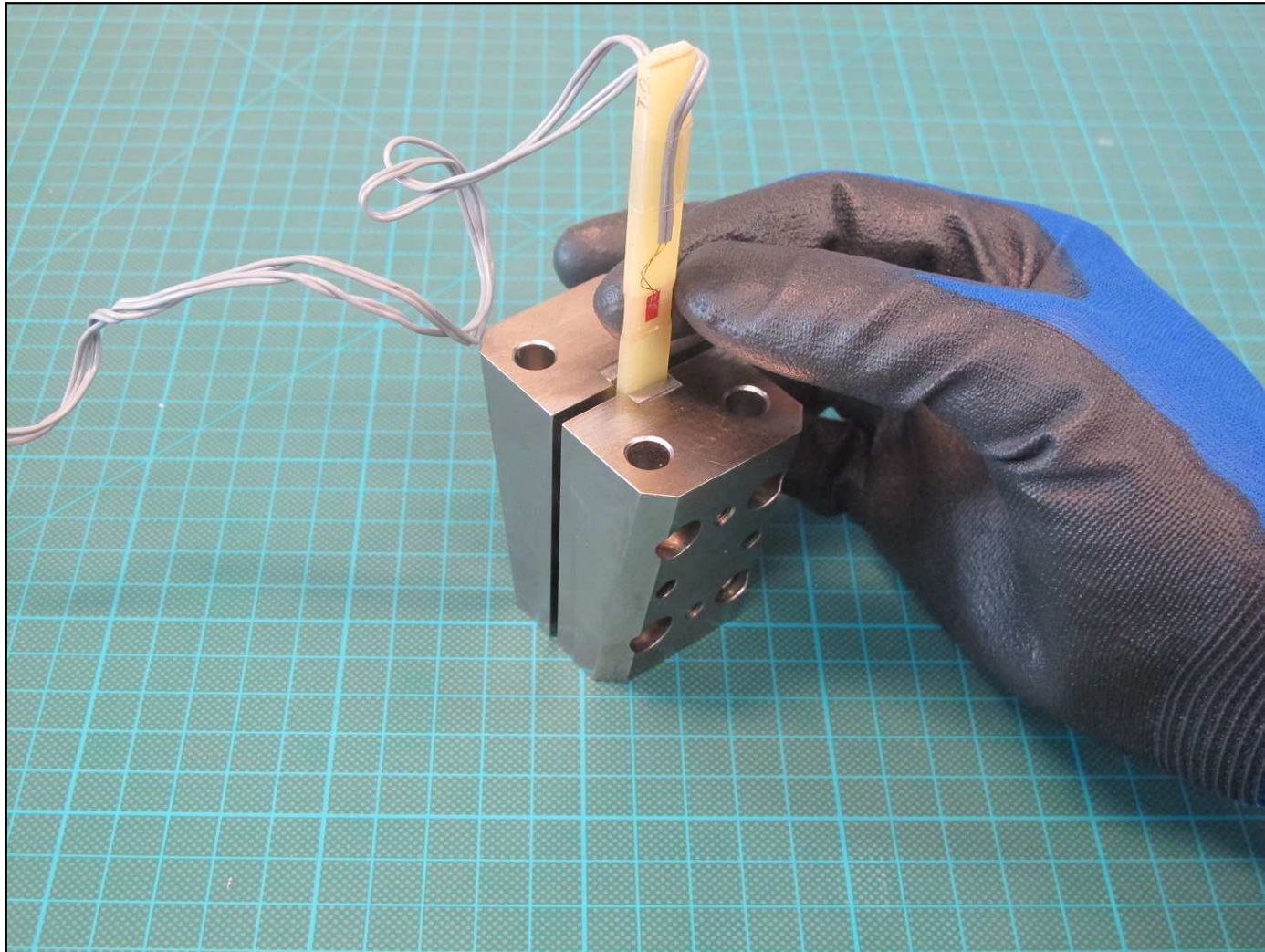
3. Partially insert the alignment pins into the second side of the clamping wedges.



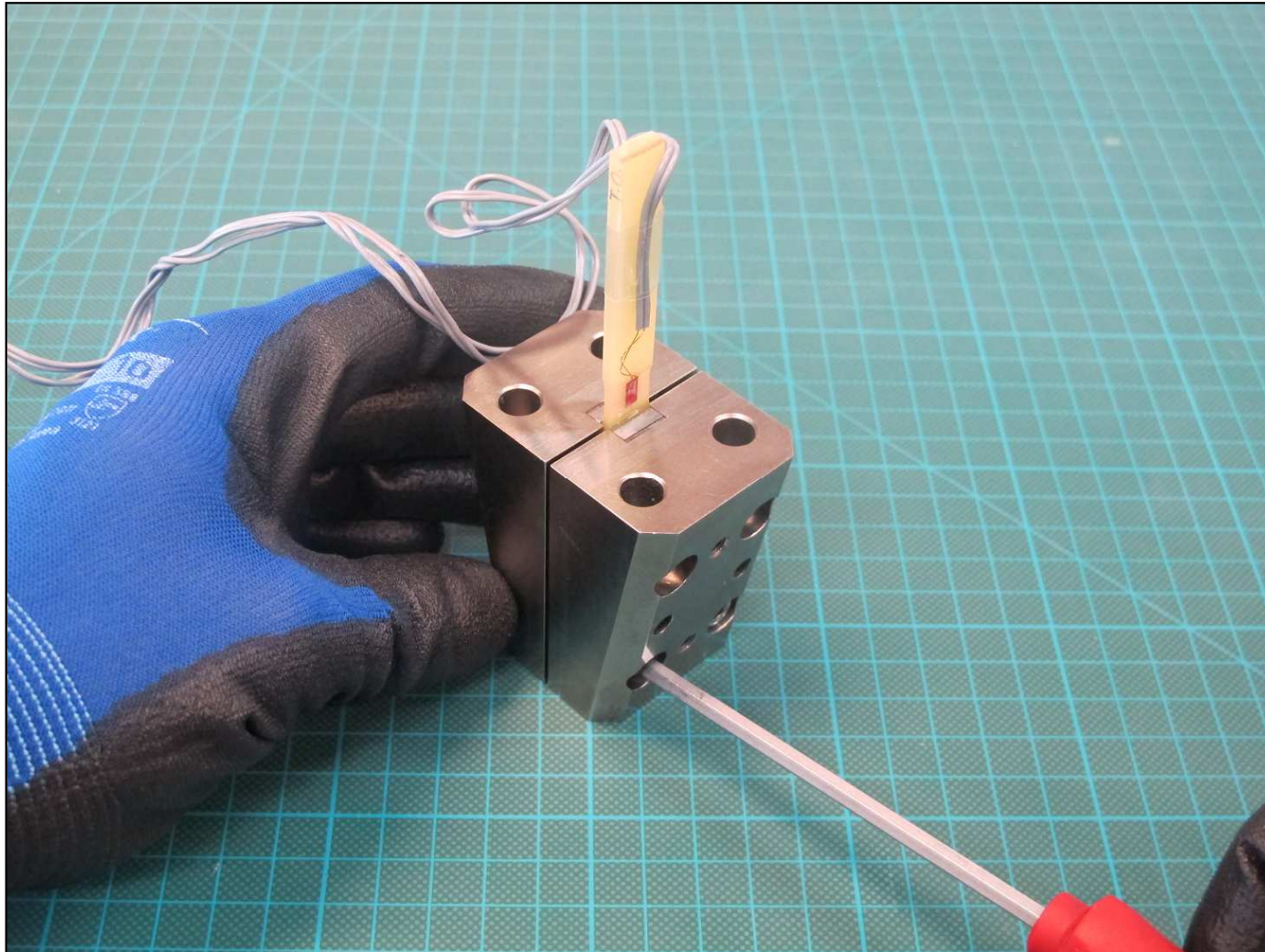
4. Assemble the clamping wedges with the mounting cap screws leaving enough space to slide in the test specimen.



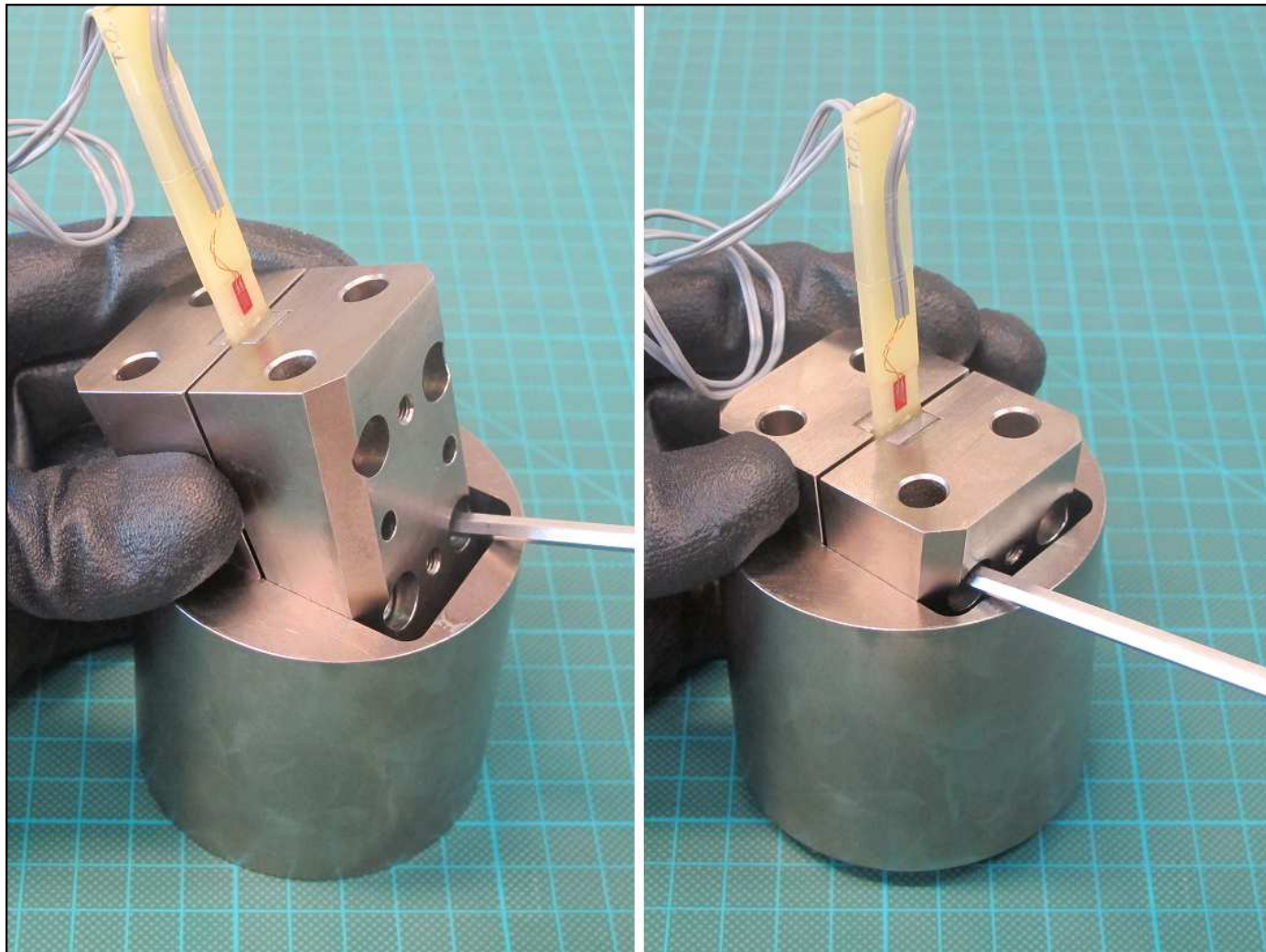
5. Slide in the test specimen between the clamping wedges.



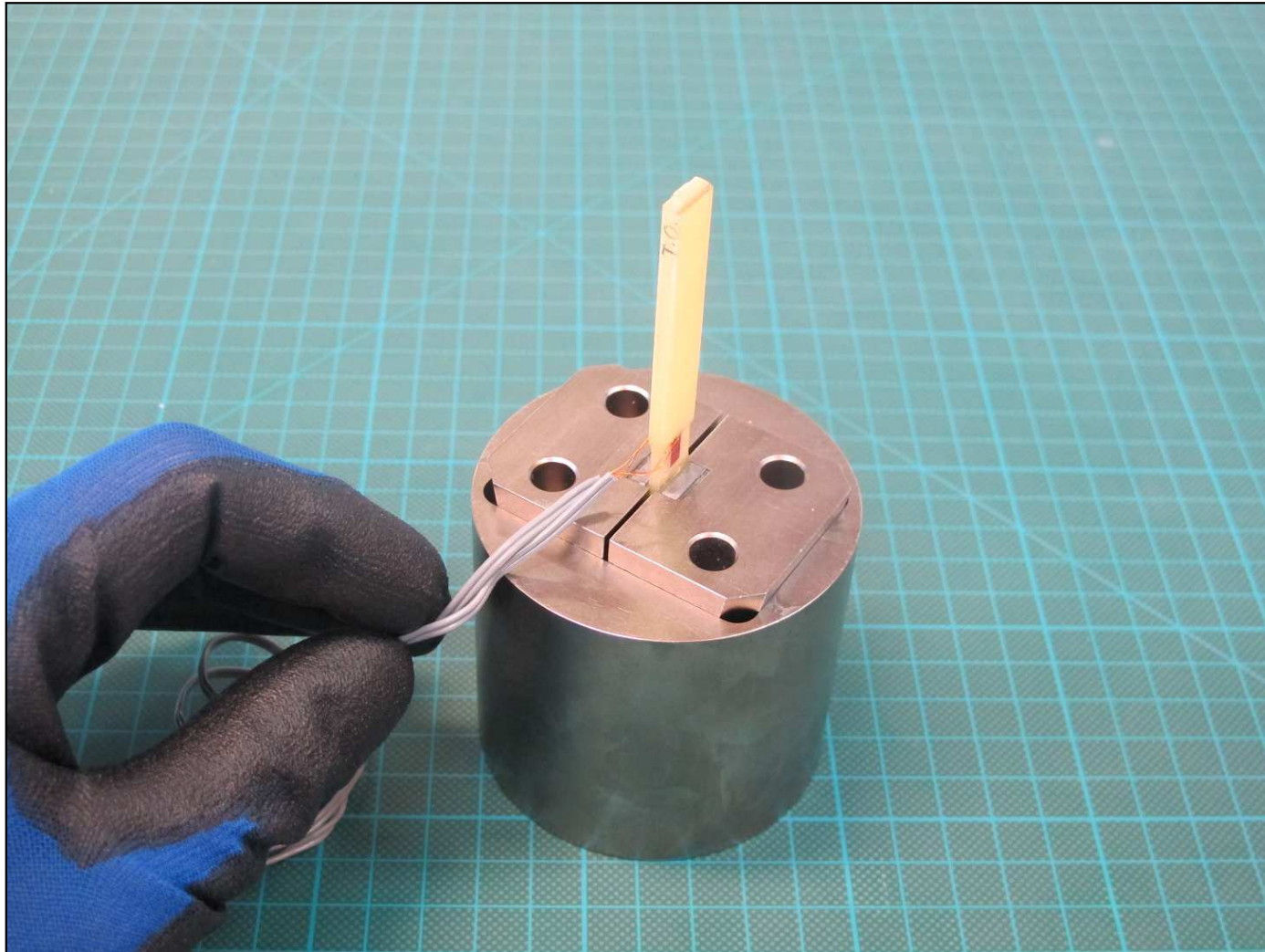
6. Slightly clamp the test specimen by tightening the mounting cap screws.



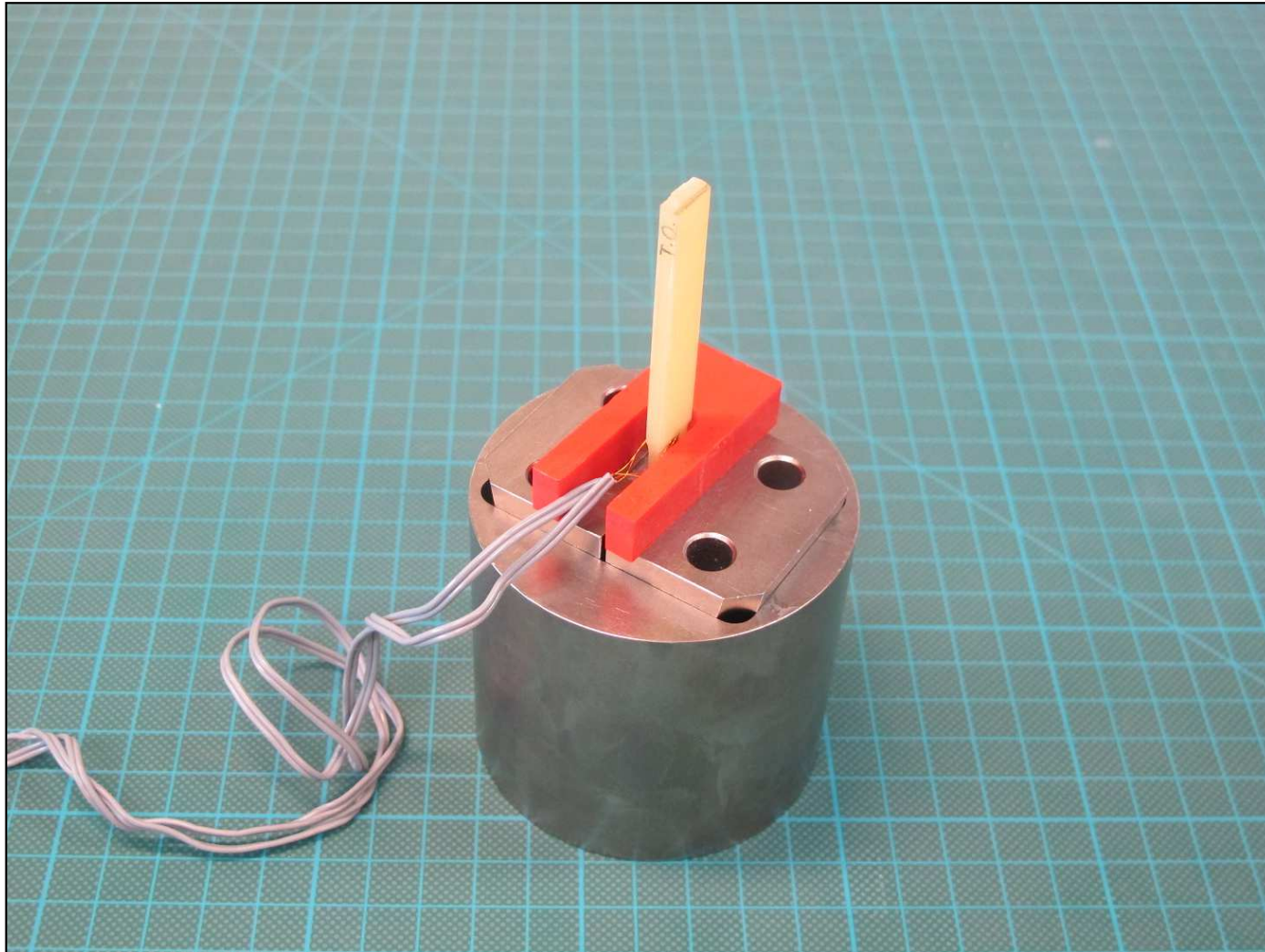
7. Completely clamp the test specimen by firmly tightening the mounting cap screws while inserting and ensuring the free movement of the clamping wedges into the tapered sleeve.



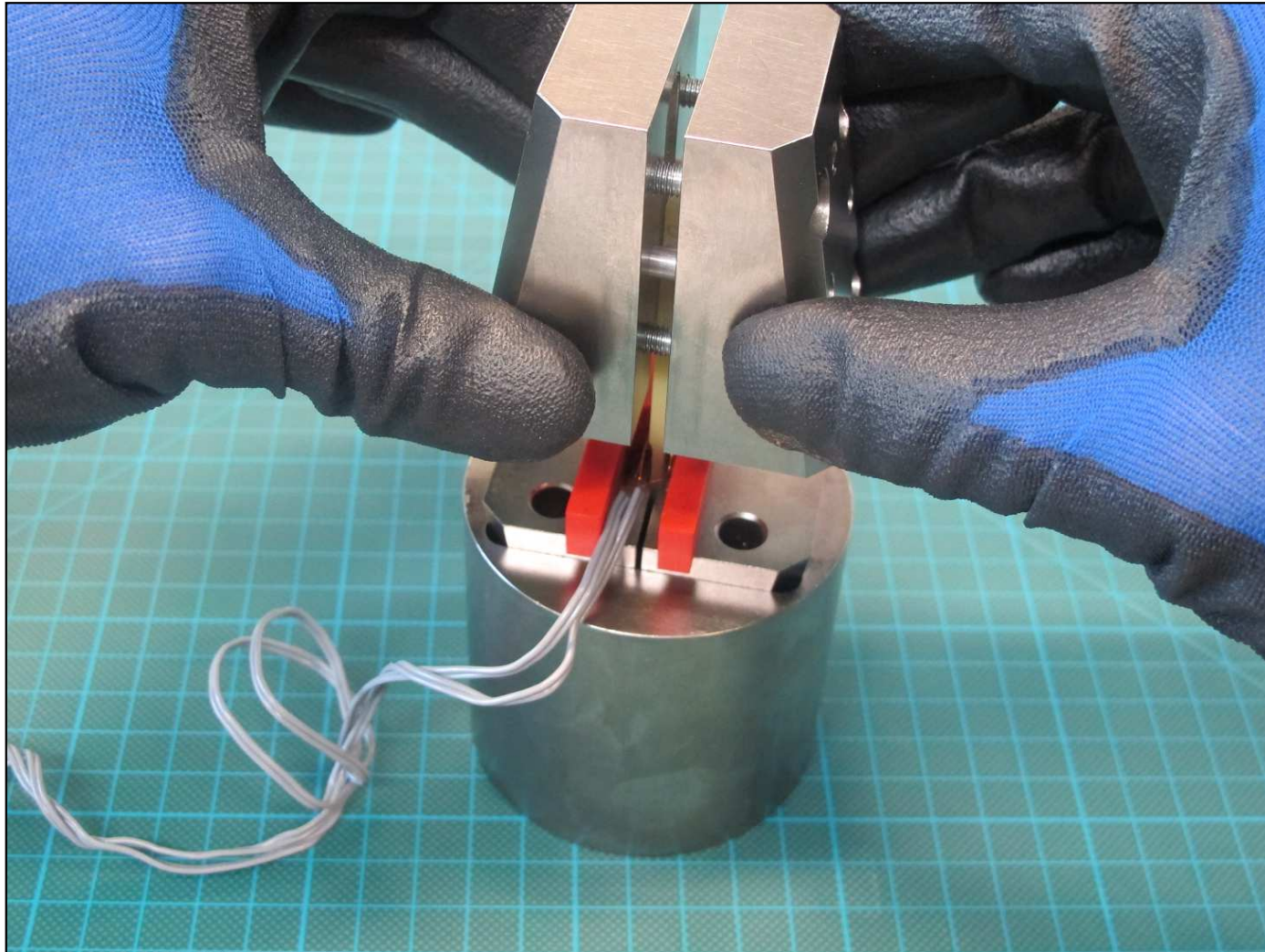
8. Once the test specimen is clamped, insert the clamping wedges into the tapered sleeve until complete contact and ensure the correct disposition of the strain gauges cables before clamping the second half of the test specimen.



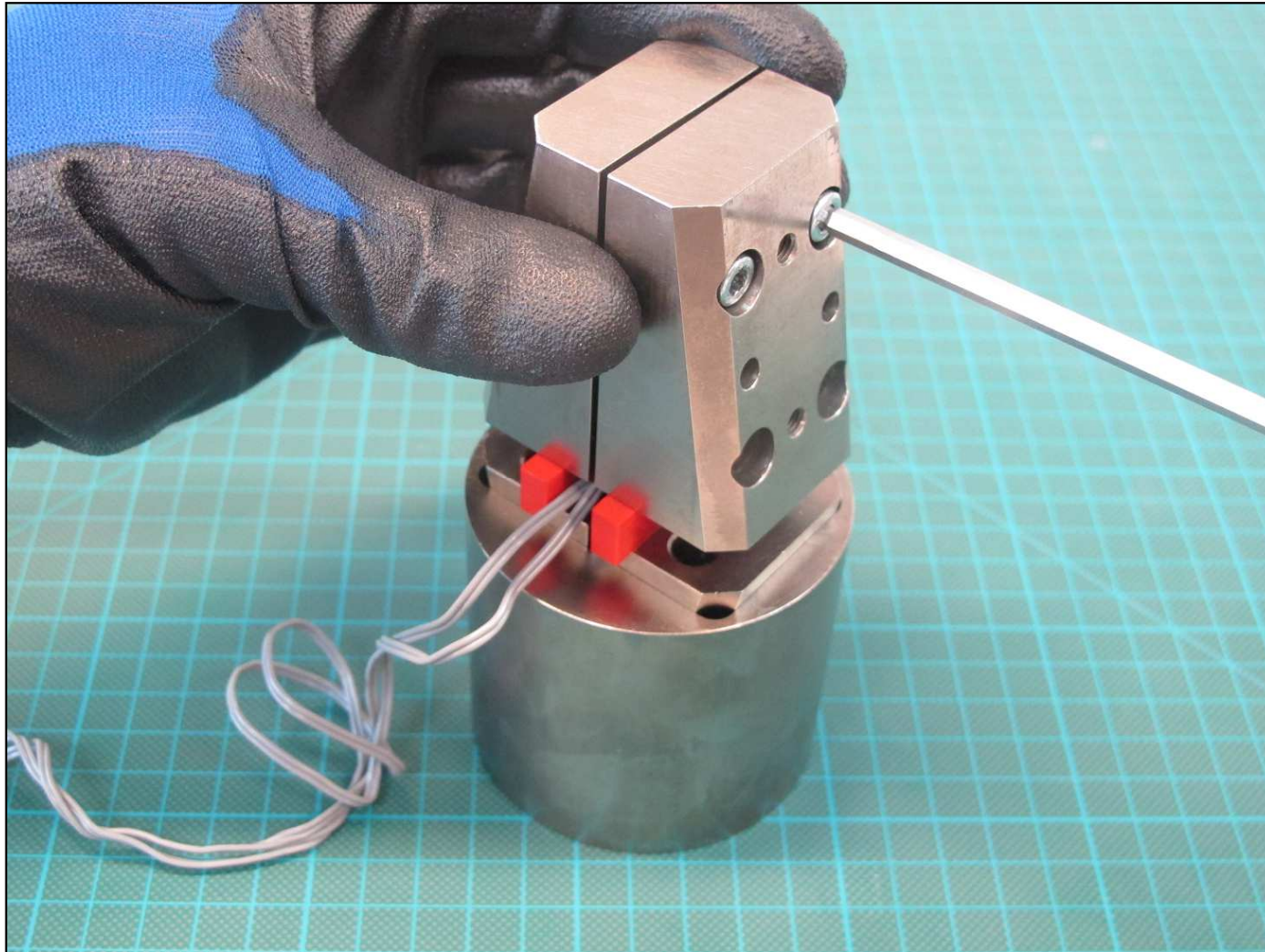
9. Place the spacer on top of the clamping wedges. If vertical alignment pins are used, they should be placed into the clamping wedges at this stage.



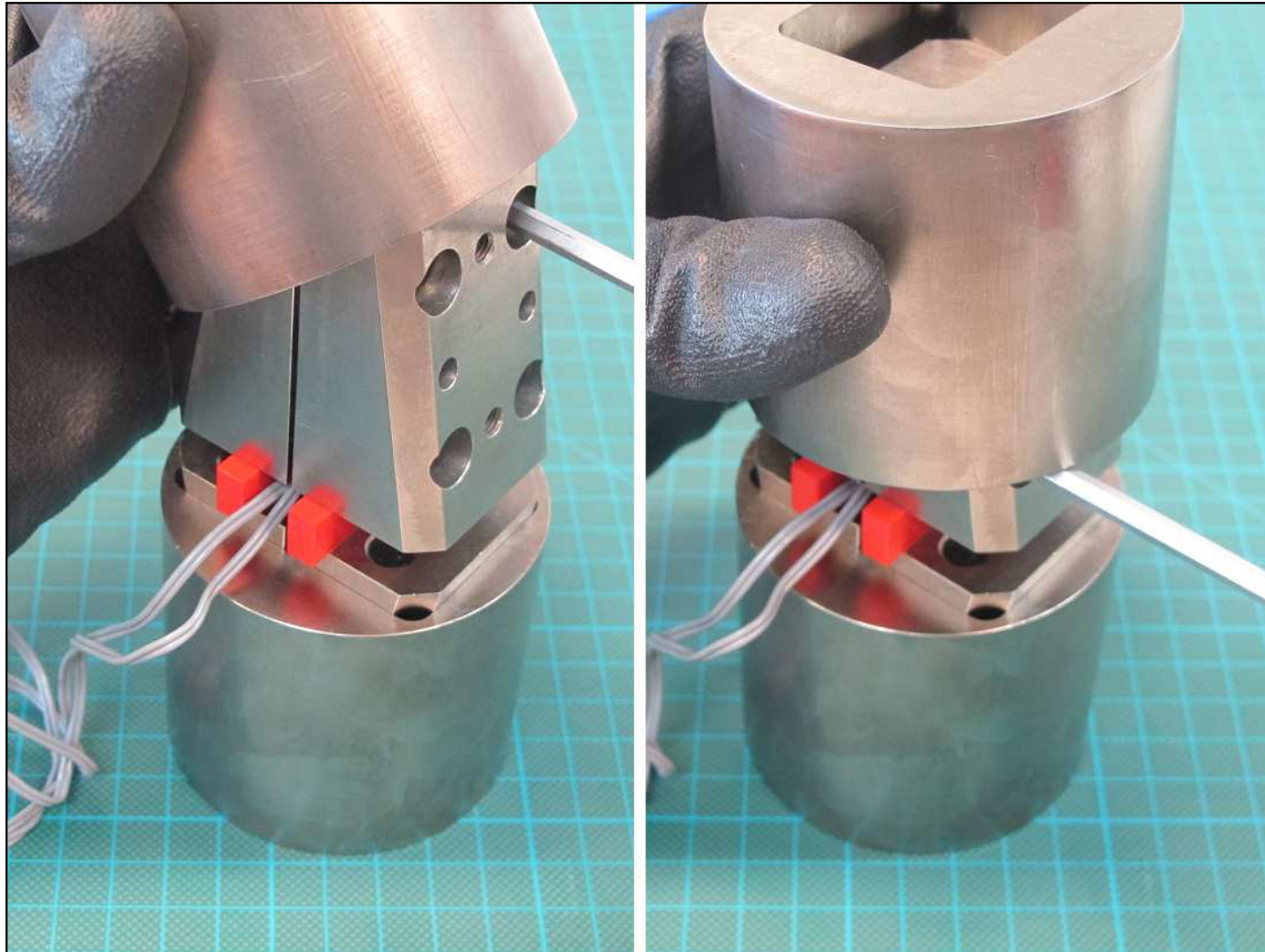
10. Slide the two other clamping wedges over the test specimen until contact is made with the spacer.



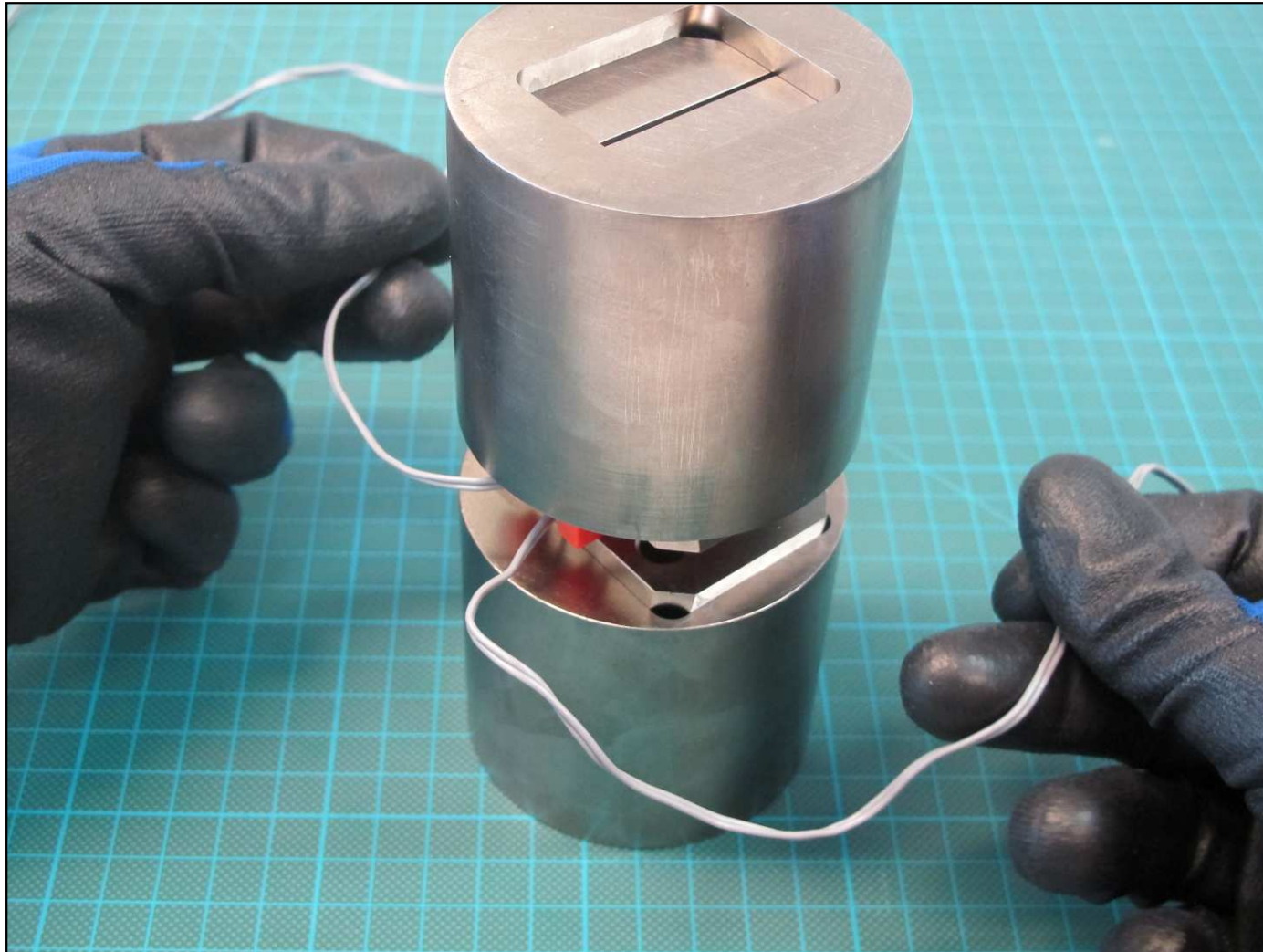
11. Slightly clamp the test specimen by tightening the mounting cap screws.



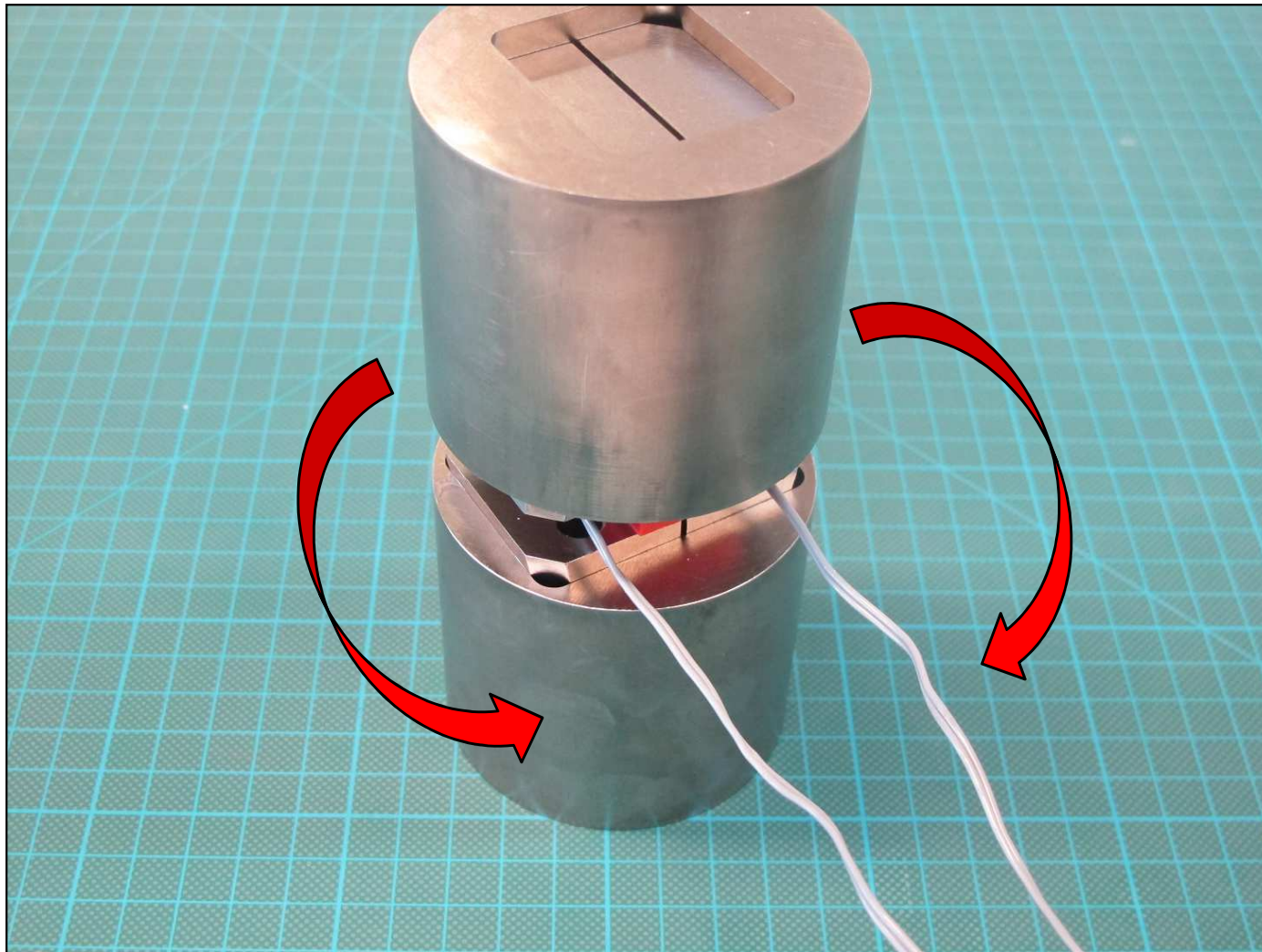
12. Completely clamp the test specimen by firmly tightening the mounting cap screws while inserting and ensuring the free movement of the tapered sleeve over the clamping wedges.



13. Once the test specimen is totally clamped, slide the upper tapered sleeve over the clamping wedges until complete contact.



14. Place the cables of the strain gauges around the spacer, changing their orientation by 180 ° in order to be able to remove the spacer later on.



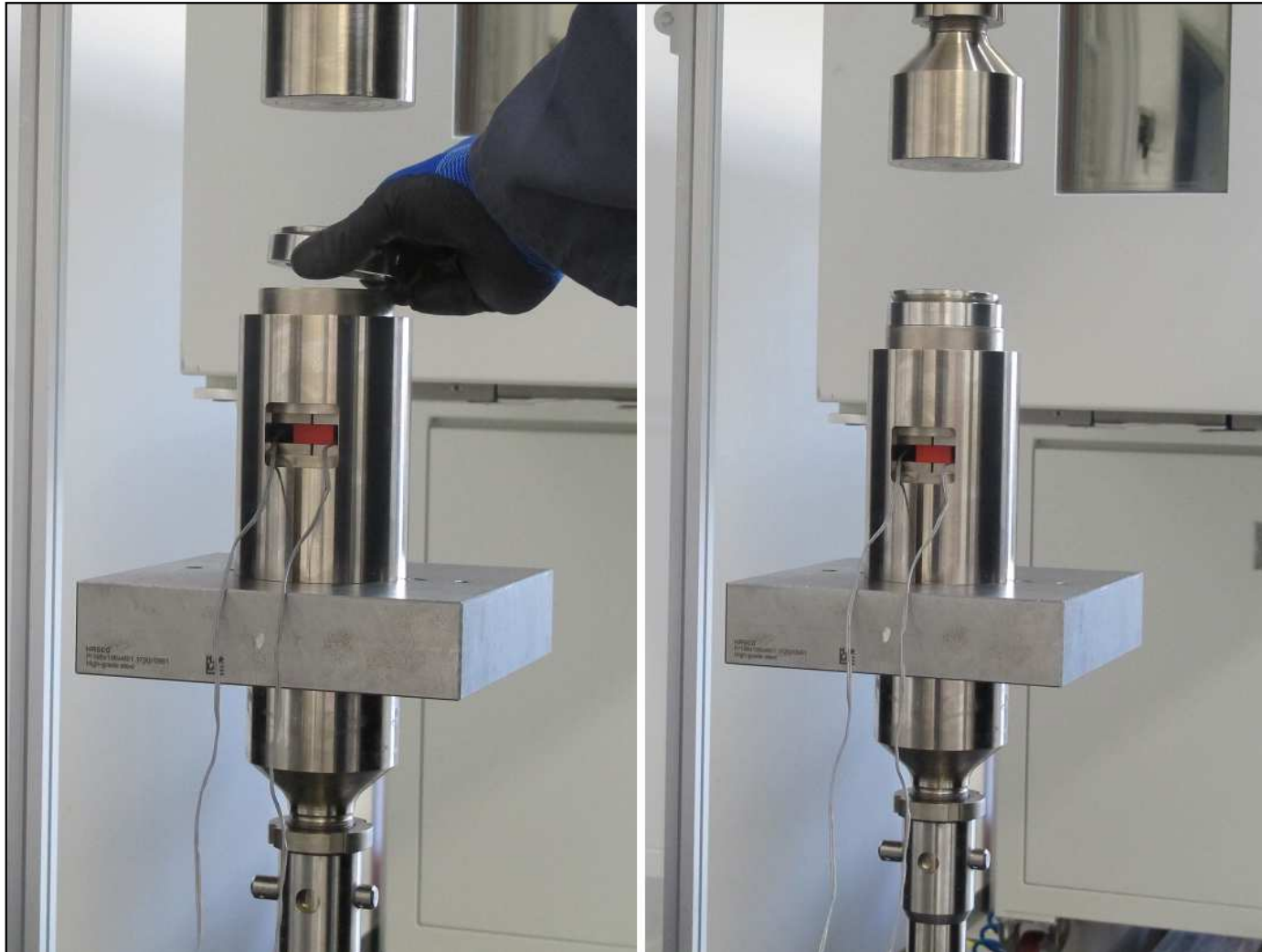
15. Slide the alignment sleeve over the whole assembly. Carefully lead the strain gauge cables through the groove of the alignment sleeve for a complete slip.



16. Place the assembly on the lower plate or flat surface of the test machine.



17. Place and centre the angular contact spherical plain bearing on top of the assembly. It is suggested to zero the value of the load cell at this point.



18. Move down the movable machine crosshead until the upper plate or flat surface makes slight contact with the assembly.



19. Connect the strain gauges to the strain gauge reading unit and remove the spacer.



20. The mounting sequence is complete and the experimental test can start.



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