

3D Printed Diagnostics

Plaster Pour-up Standard Work Instructions (SWI)

Process: 3D Printed Diagnostics – Plaster Pour-Up

Purpose: To create a finished plaster mold from a 3D printed diagnostic that meets conventional diagnostic quality and geometry requirements.

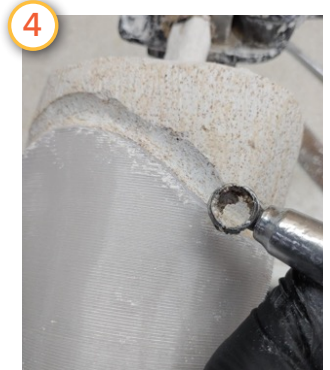
Scope: Applies to all 3D printed diagnostic plaster pour-ups, including anatomical and Shuttlelock/Lanyard configurations.

Tools and Supplies Required

- Tape
- Cast Saw
- Small Scarpas Knife (Part # 220461)
- Pick
- Surform Half-Round Blade (Part # ST21299)
- Durite Sand Screen – 120 grit (Part # 03SPSNT950)
- Plaster
- Sandbox or approved pour-up area

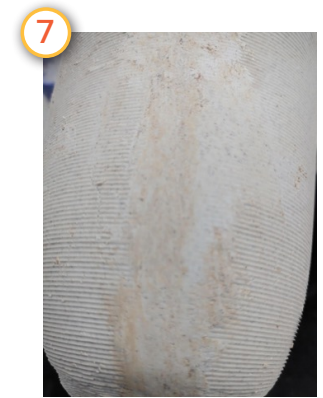
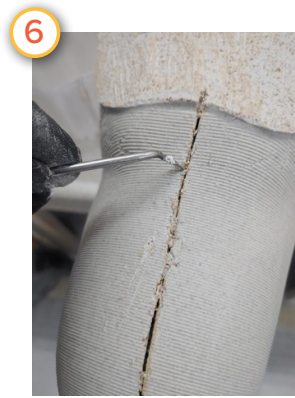
Work Instructions

1. Tape/Seal the proximal section of the 3D printed diagnostic the same way as a conventional diagnostic.
2. If needed, place the appropriate pour-up dummy into the distal end of the 3D printed diagnostic (**Shuttle Lock:** APC/Bulldog/IN, **Lanyard Locks:** KISS/Bulldog).
3. Place the taped 3D printed diagnostic into a sandbox or approved pour-up area.
4. Use a scarpas to dig out the area proximal to the trimline on the plaster mold.
5. Using a cast saw, make a relief cut in the plaster mold. Two relief cuts on opposite sides may be required depending on shape.

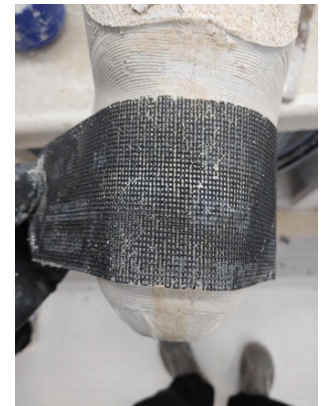


6. Clean the cut line using a pick to remove any remaining plastic debris.

7. Fill and smooth the cut line(s) with plaster.

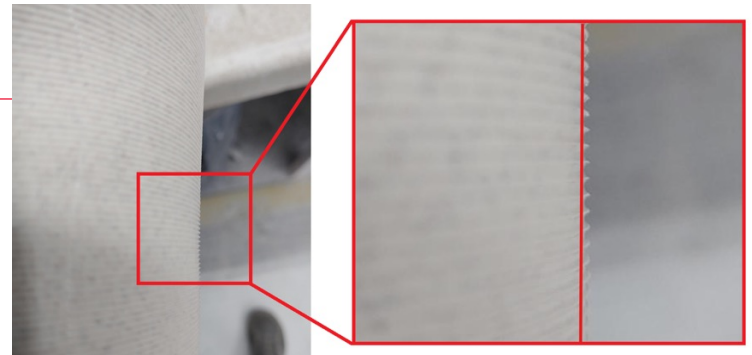


8. Smooth the entire mold using a wet Durite sand screen (120 grit), focusing on curved areas (posterior shelf on Transtibial and IT seat on Transfemoral).



NOTE

The ridges on the plaster model are from the plaster filling the gaps between the 3D printed socket's layer lines. You do not need to add plaster to smooth the model.



9. For anatomical models only: Round the distal end to remove the flat spot. Do not reduce mold length. Use a Surform half-round rasp followed by wet 120-grit Durite sand screen.

10. Final Result (for an anatomical Transtibial Model):

