



RST INSTRUMENTS LTD.

Manual 3D Crack Meter

Installation Manual

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3D Crack Meter Installation Manual

Although all efforts have been made to ensure the accuracy and completeness of the information contained in this document, RST Instruments reserves the right to change the information at any time and assumes no liability for its accuracy.

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1 MATERIALS LIST

To follow is a typical list of the materials shipped for successfully installing a standard 3D Crack Meter:

1. (2) Groutable Mounting Plates
2. Reference Plate Assembly
3. Reference Bar Assembly
4. (2) 6mm x 50mmL Flat c'sunk hex head screws
5. (2) 6mm x 12mmL Flat c'sunk hex head screws
6. Dial Depth Gage

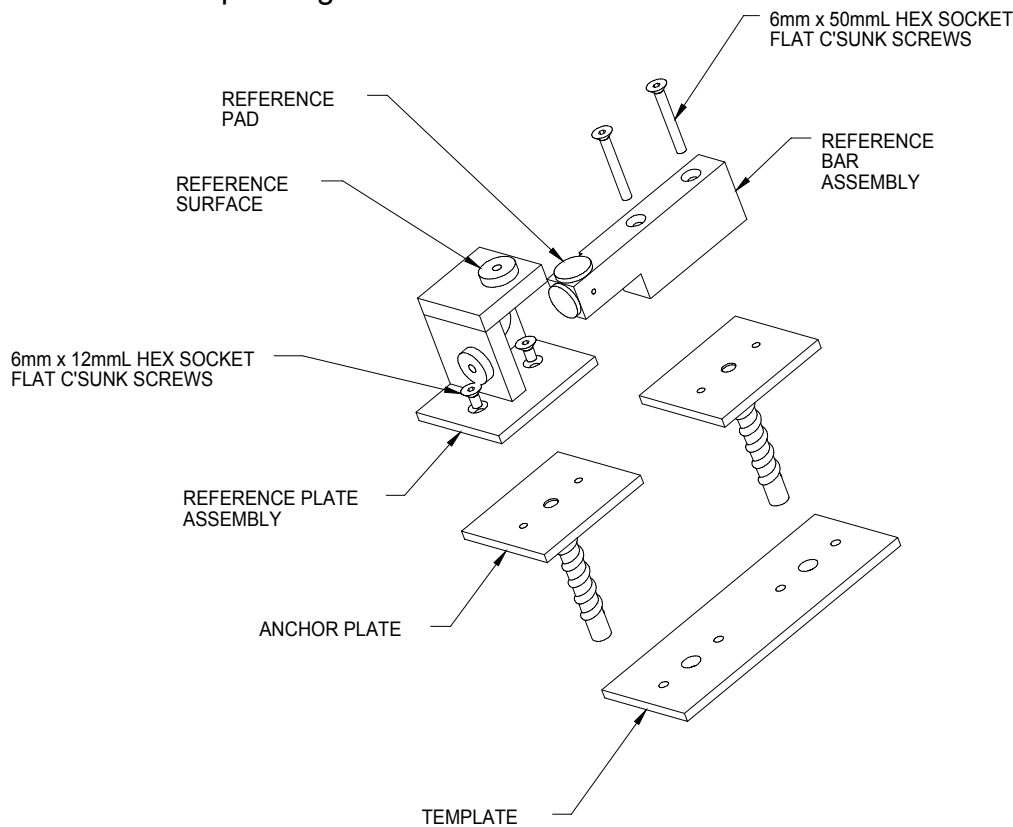


Figure 1: 3D Crack Meter Parts

2 INSTALLATION TOOLS

The following tools will be needed to successfully install the 3D Crack Meter:

1. 4mm Allen Key

3 INSTALLATION PROCEDURE

1. Drill anchor holes for grouting Anchor Plates on either side of the crack to be monitored at 4-3/8" (110mm) apart

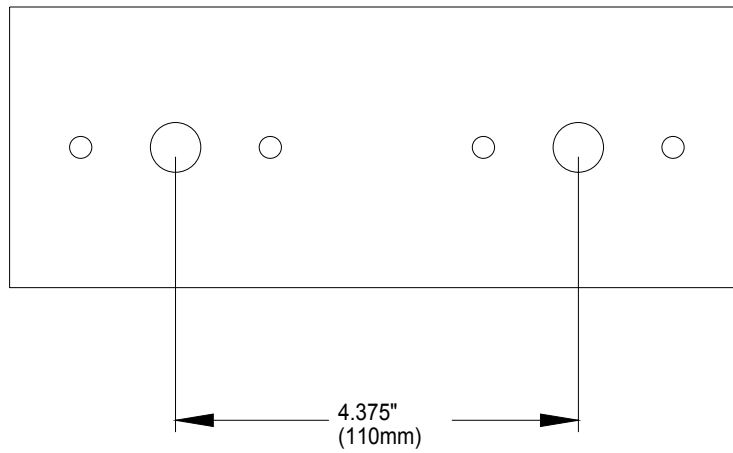


Figure 2: Anchor Hole Placement

2. Apply grease to the (4) 6mm x 12mmL hex head bolts

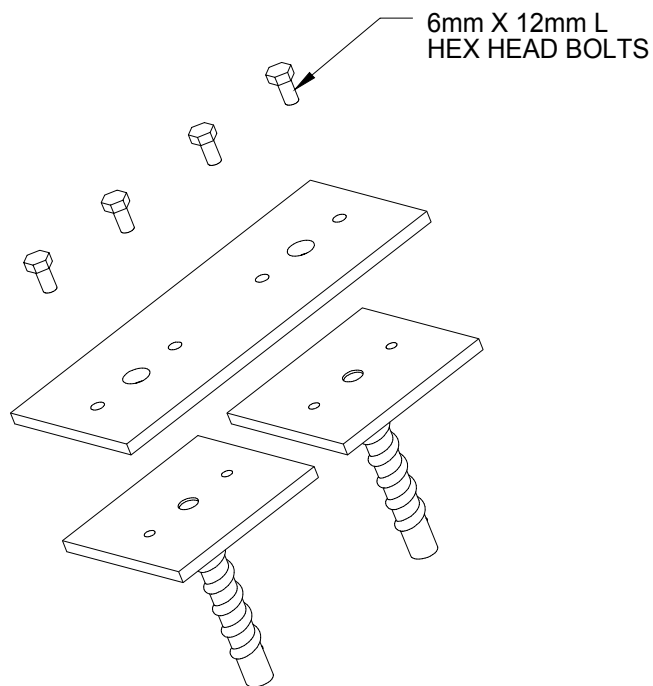


Figure 3: Bolt Anchor Plates to Template

3. Bolt the Anchor Plates to the Template

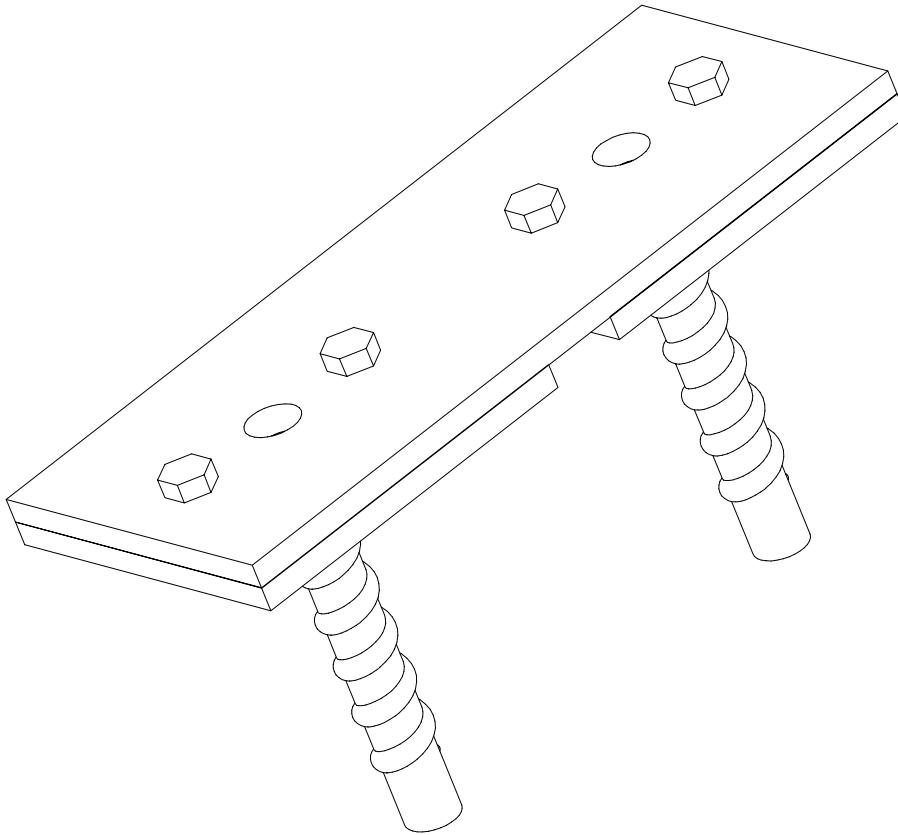


Figure 4: Anchor Assembly

4. Fill the anchor holes with grout
5. Push the Anchor Assembly into the anchor holes, level, and then secure into place
6. Allow the grout to set
7. Remove the hex bolts and the template
8. Bolt the Reference Plate Assembly onto one Anchor Plate (refer to Figure 1)
9. Bolt the Reference Bar Assembly onto the other Anchor Plate (refer to Figure 1)
10. Take initial readings with the Depth Micrometer.

4 TAKING READINGS WITH A DEPTH MICROMETER

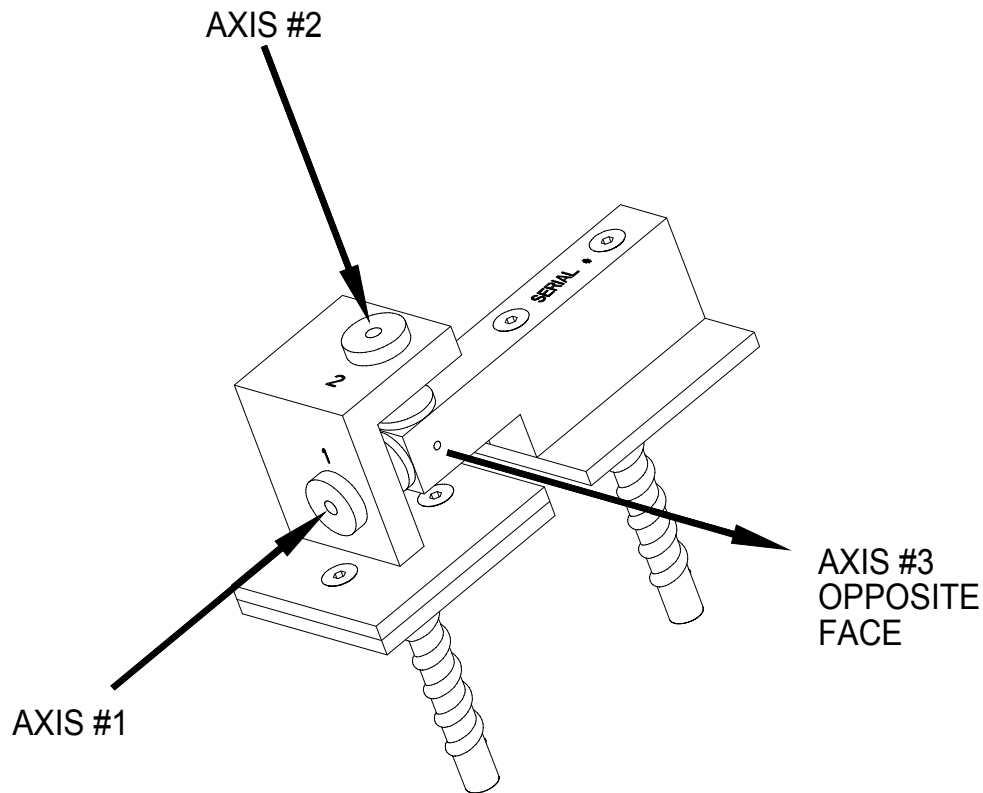


Figure 5: Axis Orientation

1. Record the Serial Number of the 3D Crack Meter
2. Take out the Dial Depth Gage
3. Attach the appropriate Extension Rod
4. Record the Axis number and then insert the Dial Depth Gage into the Axis Reference Surface guide hole and butt the Micrometer Base flat against the Axis Reference Surface (refer to Figure 1). **Make sure the end of the Extension Rod reaches the Reference Pad.**
5. Record the reading
6. Repeat steps 4-5 for each Axis