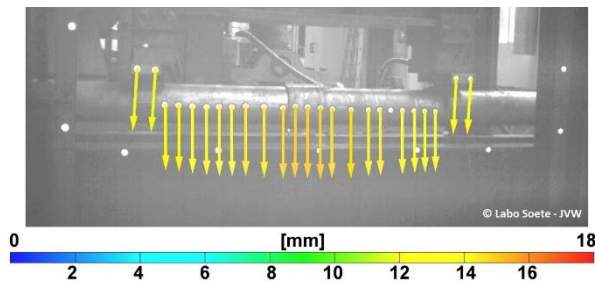


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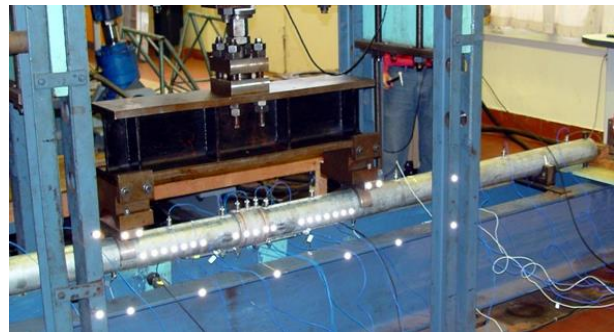
## FOUR-POINT BENDING FATIGUE

For fatigue testing pipes from 100 to 250 mm outer diameter (4 to 10 inch) a four-point bending fatigue test setup is present at Laboratory Soete. The specimen length can be up to 5m, and test can be performed at a frequency of maximum 2 Hz.

During the test, fatigue crack propagation can be measured by gauging the thread opening, or monitoring the specimen's bending deflection using the 3D dynamic optical displacement measurement system..



*Figure 1: Bending deflection as obtained by a 3D dynamic optical displacement measurement system*



*Figure 2: four-point bending fatigue test rig with a 4.5" API Line Pipe threaded connection.*