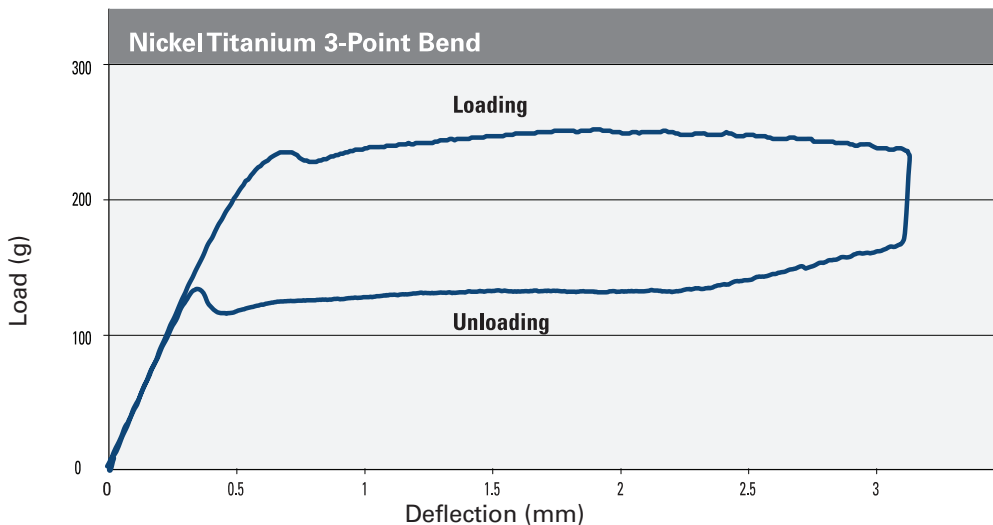
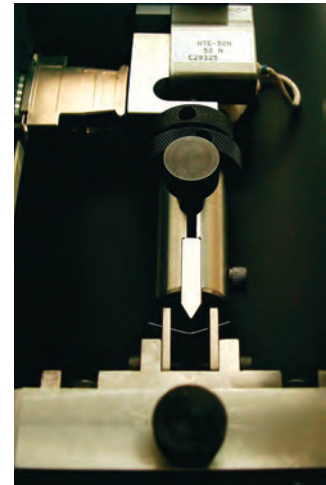


# 3-Point Bend Test

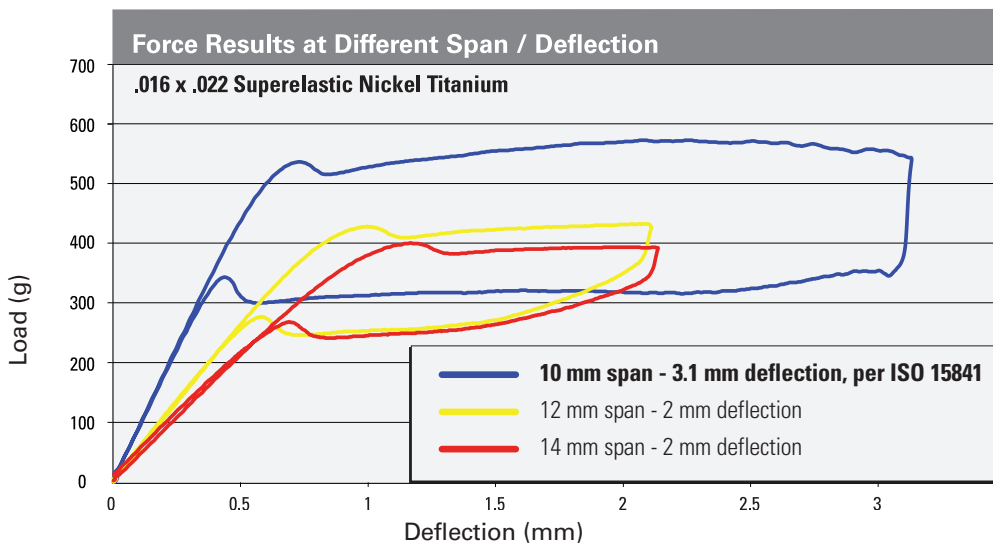
## Testing Ensures High Quality

During our three-point bend test, a load cell is brought into contact with a segment of wire and deflected in accordance with the Orthodontic Wire Standard ISO 15841. Measurements are taken of the loading (ligating) and unloading (tooth-moving) forces at prescribed intervals. The resulting graph reflects these forces, as well as the permanent deformation value for the particular wire.



Representative Three-Point Bend Test graph of loading and unloading forces for a Nickel Titanium wire. The upper line being the ligating (loading) forces and lower line representing the tooth-moving (unloading) forces. The near horizontal tooth-moving force line is indicative of the low, consistent forces produced by NiTi wires during treatment. The permanent deformation point, or return point of permanent set, is near zero for Nickel Titanium wires.

### Be sure to compare data based on the same variables!



Different spans or deflection produce different results.

Don't be fooled by lower loads or decreased hysteresis due to testing of increased spans!

Ultimate Wireforms performs 3-Point Bend Tests using a 10mm span to a 3.1mm deflection, in accordance with ISO 15841:2006.