



The center alignment fixture allows the load cell and grip assembly to be aligned quickly and precisely. The fixture allows both concentric and angular misalignment to be adjusted, while the loadstring is still preloaded. The fixture is mounted on the back of the load cell using a drawbar. The eight screws on the fixture allow the relative positions of the upper and lower rings within the housing to be independently adjusted

### 1. Structure

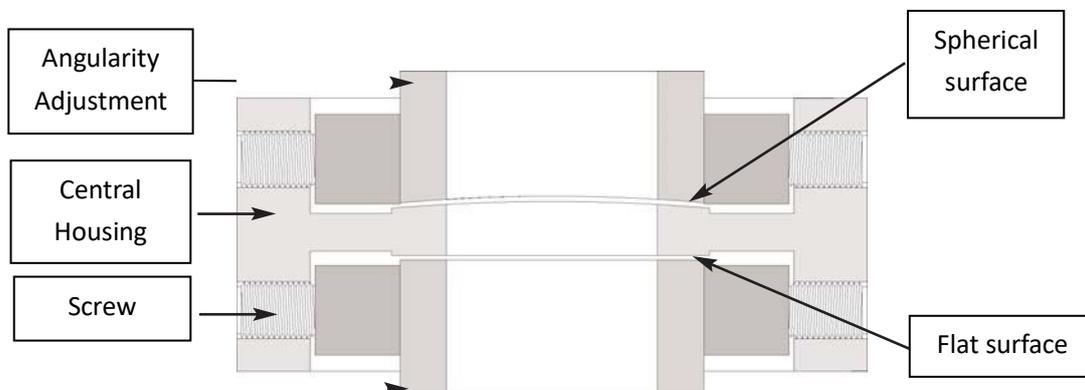


Figure 1 structure

## 2. Working principal

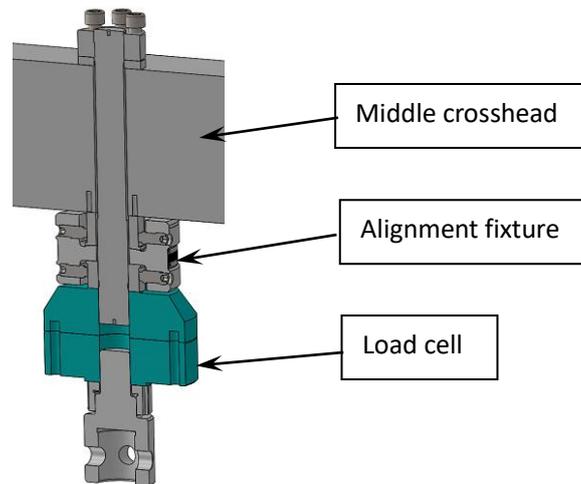


Figure 2 alignment fixture assembly

The alignment fixture can only be used on single-space electromechanical universal testing machine. If working with alignment inspecting system, concentricity and angularity adjustment under load can be quickly completed.

When the strain-gauged alignment cell is installed in the grips, any misalignment in the load string will cause the alignment cell to bend. The electronics supplies each of the strain-gauges with a stable reference voltage. Each strain gauge output is fed back to a data acquisition unit and made available to the aligning software as a real time strain signal. The aligning software combines the strain signals using calculations as specified in standards such as ASTM E 1012 and presents misalignment information both numerically and graphically on screen. The information on the software screen updates the strain readings constantly, allowing adjustments with the optional alignment fixture to be made and read immediately. After completion of the adjustments, a report is generated.