

Clamp and Stake Force Co-Axial Reference Loadcell

Customer:

UK based automotive company

Loadcell:

F317-Z3372

Inner 20000lbf Outer 7500lbf

Generic Type:

High performance fatigue rated cylindrical loadcell

Special Features:

Co-axial measurement



It is becoming increasingly popular for production tool force measurement systems to undergo an in situ verification of their functionality using a custom reference loadcell which can be used without the prolonged downtime associated with formal calibration procedures. A reference loadcell was required for an automated pressed steel oil filter assembly machine. The loadcell needed to measure clamp and stake force on the same axis in the form of a dummy production unit.

The solution was to design a system with two loadcells working independently from each other but occupying the same space. The inner cylindrical loadcell measured forces of up to 20000 lbf and the outer 7500 lbf. The inner loadcell was encased within oil filled nylon bearing rings to reduce hysteresis. Cabling for the inner loadcell was routed internally through the outer to produce a single cable exit. This allowed the customer to verify the machine's internal loadcells without the necessary downtime for removing the internal loadcells for calibration at a remote calibration facility. The custom reference loadcell is calibrated once a year by Novatech at a time convenient to the customer.

F312-Z3372 CO-AXIAL LOADCELL
SIZE Ø44 x 90mm

