



**PRODUCT CATEGORY:**

LOAD CELLS + PRESSURE SENSORS + STRESS METERS

## Pile Tip Load Cells

RST Instruments Pile Tip Load Cells are custom manufactured to suit site specific requirements. Cells can be any shape to suit different pile types and operate on principles similar to total earth pressure cells. The cell is comprised of two steel or stainless steel plates welded together around their periphery and the space between them filled with an incompressible fluid. This cell is typically divided into 1-4 independent sections, each connected to a pressure transducer (pneumatic, strain gauge, or vibrating wire). Each of these pressure transducers then react to the change in fluid pressure in each section. Total load on the pile tip is then simply the sum of the loads in each section.

Pressure transducers are mounted in a stainless steel compression fitting and are in direct contact with the liquid filled cell. Alternatively, hydraulic tubes are connected to the cell and run up the length of the pile for connection to transducers. Leads come up through the hollow center of the pile to a predetermined access port above ground surface where readings can be taken.

### > APPLICATIONS

Measurement of load at the tips of driven piles, cast-in place piles, and drilled shafts.

### > FEATURES

\* For more details on the benefits and limitations on the transducers listed below, please contact RST to determine which transducer type will be best suited for your application.

#### PNEUMATIC TRANSDUCER

Able to withstand large dynamic driving stresses associated with pile driving.

Mechanically simple and reliable.

#### STRAIN GAUGE TRANSDUCER

High speed data logging capability.

#### VIBRATING WIRE TRANSDUCER

Water resistant.

Can be data logged.

### > BENEFITS

- ✓ **High Accuracy**
- ✓ **High Reliability**
- ✓ **Custom Options**
- ✓ **Increase Safety**

### ORDERING INFO

Due to the custom nature of Pile Tip Load Cells, please contact RST to discuss your requirements.

### OPTIONAL EQUIPMENT

Readout units
Pile tell tales
Strain gauges for measuring stress distribution
Data loggers
Load cells
Sister bars