

Foundation Drilling Rig Torque Transducer

Industry: Infrastructure

Summary

Customer Challenge

Foundation drilling rigs are machines used in construction projects, specifically to drill deep holes or shafts into the ground. They create foundations to support and stabilize structures by anchoring them into the earth. Torque must be monitored and tested on the drill bit to ensure its functionality, but also for safety—especially in tough ground conditions.

Interface Solution

Interface's suggests attaching a TS11 Flange Style Reaction Torque Transducer customized for rugged environments in between the auger and the shaft of the foundation drilling rig. When connected to the WTS-AM-1E Wireless Strain Bridge Transmitter Module, torque results are wirelessly transmitted to the customer's computer using the WTS-BS-6 Wireless Telemetry Dongle Base Station with supplied Log100 software. Results can also be transmitted to the WTS-BS-1-HS Wireless Handheld Display for Single Transmitters.

Results

Interface's TS11 Flange Style Reaction Torque Transducer that was customized for rugged environments, successfully measured the torque of the foundation drilling rig, ensuring it is functioning properly.

Materials

- TS11 Flange Style Reaction Torque Transducer
- WTS-AM-1E Wireless Strain Bridge Transmitter Module with supplied Log100 software
- WTS-BS-6 Wireless Telemetry Dongle Base Station
- WTS-BS-1-HS Wireless Handheld Display for Single Transmitters
- Foundation Drilling Rig
- Customer's PC or laptop

How It Works

1. The TS11 Flange Style Reaction Torque Transducer is installed in between the auger and the shaft of the foundation drilling rig.
2. As the foundation drilling rig begins to drill holes in the ground, the TS11 captures the data and relays it to the WTS-AM-1E Wireless Strain Bridge Transmitter Module.
3. The results are wirelessly transmitted to the WTS-BS-6 Wireless Telemetry Dongle Base Station attached to the customer's computer. Results are displayed, logged, and graphed with supplied Log100 software.
4. Results may also be sent to the WTS-BS-1-HS Wireless Handheld Display for Single Transmitters.

