

# Tunnel Boring Machine Torque Transducers

Industry: Infrastructure

## Summary

### Customer Challenge

A tunnel boring machine, or TBM, is used to excavate tunnels whether for transportation, utilities, or mining. TBM's are designed to cut through rock and soil with a rotating cutter head. The torque of the cutting wheel needs to be monitored and tested to ensure it is working properly during excavation operations.

### Interface Solution

Interface's T2 Ultra Precision Shaft Style Rotary Torque Transducers are attached to the cutter drives of the cutting wheel used to cut through material. When connected to the BX8-AS BlueDAQ Series Data Acquisition System, the customer can monitor the torque of the cutting wheel mechanism of the TBM when connected to the customer's computer with supplied BlueDAQ software.

### Results

Interface's T2 Ultra Precision Shaft Style Rotary Torque Transducers successfully monitored the amount of torque exerted during the boring process.

## Materials

- T2 Ultra Precision Shaft Style Rotary Torque Transducers
- BX8-AS BlueDAQ Series Data Acquisition System with Industrial Enclosure
- Supplied BlueDAQ software
- Customer PC

## How It Works

1. T2 Ultra Precision Shaft Style Rotary Torque Transducers are attached to the cutter drives of the cutting wheel face of the tunnel boring machine.
2. The tunnel boring machine cuts through rock and material.
3. When connected to a computer, the BX8-AS BlueDAQ Series Data Acquisition System can monitor and display the results of the torque of the cutting wheel mechanism.

