

Chemical Reaction-Mixing Torque Transducer

Industry: Industrial Automation

Summary

Customer Challenge

An end product is made by mixing various raw materials together in a mixing tank. To ensure product quality and safety, it's important that the ingredients are mixed properly without under or over-mixing. To do this, the density and viscosity of the mixture must be continuously analyzed during the mixing process.

Interface Solution

Mount the mixing motor to the 5330 Hollow Flange Style Reaction Torque Sensor to measure mixing torque.

Results

Customer is able to determine ideal density and viscosity based on torque measurements in order to monitor the ingredient mixing and maintain product quality and safety.

Materials

- 5330 Hollow Flange Style Reaction Torque Sensor
- 920i Programmable Weight Indicator and Controller

How It Works

1. The 5330 Hollow Flange Style Reaction Torque Sensor is mounted to the adapter plate between the mixing motor and the tank lid.
2. The motor shaft passes through the hollow sensor and mobilizes the mixer shaft and blades.
3. The sensor measures the torque and feeds information back to the 920i Programmable Weight Indicator and Controller.
4. Mixing speed and duration is controlled.

