

case history

Market: Chemicals Industry

CUSTOMER

The Ireco, Inc. plant in Carthage, MO, manufactures explosives.

PROBLEM

In the early 1990's, Ireco was in the process of building new chemical storage tanks at the Carthage facility. "We needed something that could stand up to ammonium nitrate, which is very corrosive," says Frank Womack, Instrument Engineer at the Carthage plant. "We had another plant in Suscon, Pennsylvania, that was using Kistler-Morse, so we looked into using them."

APPLICATION

The facility installed Kistler-Morse Load Disc and Load Stand transducers beneath the legs of eight stainless steel tanks, each measuring 12-feet tall by 8-feet in diameter. The tanks hold a variety of chemical liquids, including ammonium nitrate, oils and waxes.

Kistler-Morse's sealed, stainless steel construction and armoring for entry cables provided ample protection for use in the highly corrosive environment. "We had some problems originally because some of the equipment wasn't properly sized," Womack says, "But we worked with Kistler-Morse to make adaptations, and since then it's worked fine."

BENEFIT

Womack says the plant is getting "extremely accurate readings from the Load Stands" used to monitor weights of liquid ingredients pumped into a mixing vessel. The Load Stands send weight measurements to an Allen Bradley programmable logic controller (PLC) via 4-20 mA outputs. The PLC regulates the batching of six liquids sent into the 95,000-lb. capacity mixing vessel. Ingredient batch sizes range from 4,700 lbs to 68,000 lbs.

CONCLUSION

The stainless steel electronic weighing equipment is standing up to the rigors of a highly corrosive environment. "We've got this one load cells that behaves kind of funny," Womack says, "It might fluctuate or drift a little bit every now and then. However, the equipment does the job. It's reliable and gives us good measurements."