

## Variable Frequency Drive Emergency Service

Location: Rome, Georgia  
Technology: Siemens 6SE70 Master Drive  
Purchaser: Brugg Wire Rope  
Purchase Value: > \$20,000

REFERENCE

### Project Description

Brugg manufactures steel wire rope for use in elevators. They operate several wire twisting machines. These machines twist smaller wires together to make larger cables. One of these machines utilizes three Siemens 6SE70 Master Drives, configured with a Common DC bus. The largest of the three drives was a 200kW drive and provided the rectifier for the Common DC bus.

After a long weekend outage the plant maintenance personnel came in early to begin to bring the equipment on line before the production personnel arrived to begin their shifts. As they began to bring this machine on-line, a fault occurred and fuses were cleared. They troubleshot the problem to the Main drive rectifier and called INP for assistance. INP disassembled the drive, identified the failed components and determined that the lead time on the replacement parts would be several weeks. A plug-in replacement drive was no longer available from the manufacturer, but the next generation drive, Sinamics S120 was available on the shelf. The customer was not to wait for the old drive to be repaired, and asked INP to purchase the new Sinamics drive and perform the upgrade. INP performed the engineering, installed and commissioned the drive, reprogrammed the PLC to account for the differences in the communications structure/protocol and returned the machine to production in a matter of days rather than weeks.

In the weeks following this service INP completed the repair of the 6SE70 drive for Brugg so they have a spare drive in the event of a future drive failure.

### INP Services

Drives engineering  
Control system programming  
Drive Installation  
Commissioning  
Documentation