



# M.R. Snyder Company

Industrial Drive and Control Systems

## Success Story #7 – Paper Machine Rebuild

### Customer Situation:

- Customer's largest paper machine in the world
- Extended downtime and lost production due to drives
- Sixteen coordinated drives, 4,200 connected horsepower
- Existing machine to be updated with new drives & controls due to obsolete drives and minimal support
- Replace drives into existing e-house during shutdown
- Reuse DC motors for reduced downtime and cost savings
- Limited annual budget may prevent total retrofit
- Minimum down time required for change over

### Solution:

- With our assistance, customer procures a four year lease on the entire project through Siemens Financial, thus allowing the entire retrofit at one time while meeting annual budget
- Provide new Siemens digital DC drives on Profibus network
- Supply eleven new operator stations with Siemens HMI's
- Recipes provided to set up machine
- Siemens PLC controls machine interlocks and drive coordination
- Siemens WinCC SCADA system provides historian and trending and Ethernet connectivity to the plant network
- Drive and PLC installation pre-engineered for e-house installation for reduced down time.
- Entire system thoroughly tested before shipment to ensure a near plug and play startup

### Results:

- Two days for installation of drives PLC, HMI's and network
- Five days from power up to full production



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- Only one shutdown in the next thirty days to change a maximum motor speed for increased line speed
- Customer expected two weeks of downtime and multiple shutdown's in the following weeks
- New torque sharing scheme in the press section allows the operators to start up without manual adjustments, eliminating an average of 45 minutes per startup
- Machine now runs faster than ever possible with greater reliability, setting new production records

MR Snyder services required:

- Coordinated drive system design
- Control system design
- HMI Programming
- SCADA system
- E-house retrofit design and assembly
- PLC Programming
- Startup services
- Training

