

Paper Outlining Conversion of (6) 1000hp DC Fan Pump Motors to AC by Steve Pittman

Abstract - This paper summarizes a project to replace six aging 1000hp DC (direct current) drives and motors powering dual-shafted fan pumps on a large tissue machine. The drives and motors were failing at an unacceptable rate which created the financial justification for the replacement. Throughout this project, key decisions were made which determined how successful the new installation would be. The most important of these key initial decisions was to replace the failing DC motors with AC (alternating current) motors. Once the project was complete, the realized benefits were stunning and far exceeded the project's initial simple goal of reliable drives and motors. Additional unexpected benefits included significant energy savings, significant power factor improvement, a much simpler hardware and software infrastructure, and a cooler basement.

This paper will discuss:

- the driving reason to replace the DC drives.
- [the justification for replacing the DC motors with AC.](#)
- why the motor hp decreased from 1000hp to 700hp.
- the decision-making process and project progression.
- the benefits and outcomes of the completed project