

# APPLICATION CASE STUDY



DOC.NO. : AMTCS-11

**HOST ORGANISATION** : **ASSOCIATED PULP & PAPER MILLS LTD. BAVLA**

**INDUSTRY** : PULP & PAPER

**APPLICATION** : MAIN PAPER MACHINE

**PREVIOUS SYSTEM** :  
WARD LEONARD SYSTEM 250 KW AC MOTOR WAS MECHANICALLY COUPLED WITH 250KW DC GENERATOR WAS DRIVING 210 KW DC MOTOR DIRECTLY CONNECTED TO MAIN MACHINE SHAFT.

**PROBLEMS OBSERVED** :

1. Old technological Ward-Leonard system was inefficient & consuming excessive energy.
2. Frequent mechanical & electrical break down of the system results into production loss, energy loss.
3. GSM variation in paper & hence affects quality of paper due to poor speed regulation.

**PRESENT SYSTEM** :  
125 HP AC Drive is directly connected to 150 HP AC Induction motor & motor is driving main machine through pulley arrangement.

**MERITS OF NEW SYSTEM** :

- (1) Efficiency of the system improved by 30%
- (2) Reduces mechanical and electrical maintainance of the system.
- (3) Improvement in quality i.e.no GSM variation & hence production.
- (4) Smooth and precise speed control leads to accurate setting of meter/minute of paper.
- (5) Automation of system is possible.

**ECONOMIC ANALYSIS** :

The plant area is operational all times of the year and thus it's electricity consumption forms part of the base demand of the infirmary. In considering financial savings,the higher cost components of the electricity tarrif are therefore applicable.

Finally conversion of new system with replacement of old Ward-Leonard system leads improvement in efficiency approximately 30% & results into electrical energy savings of US \$ 9523.80 per year.

2171 West Park Court, Suite # G Stone Mountain, GA. 30087  
Phone: 770-469-5240 Fax:678-894-4043

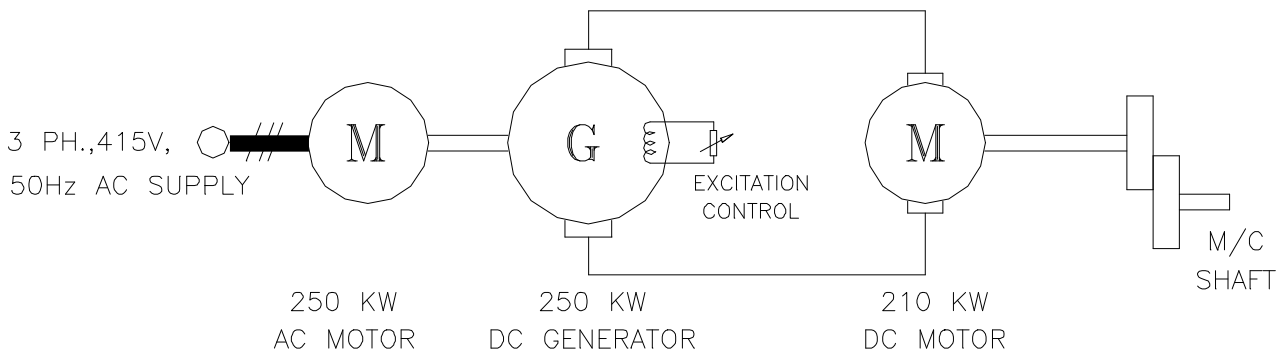
E-Mail : [info@amtechdrives.com](mailto:info@amtechdrives.com) Website: [www.amtechdrives.com](http://www.amtechdrives.com)

# APPLICATION CASE STUDY

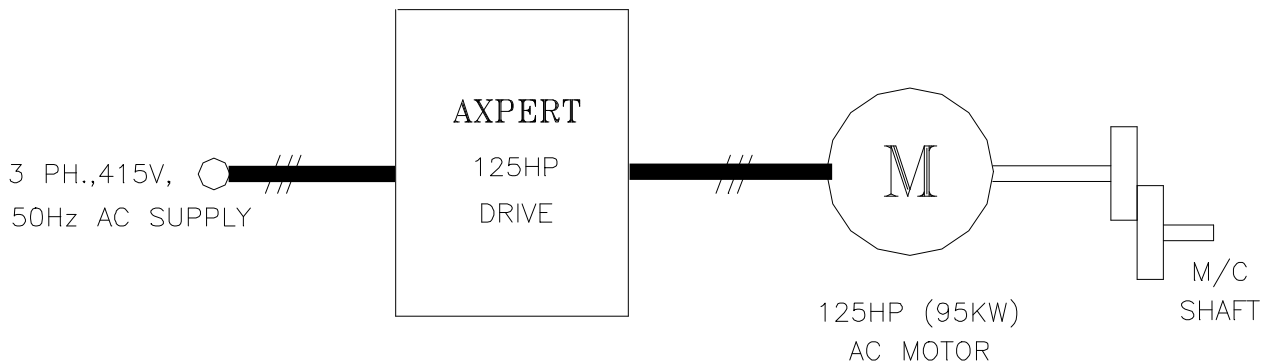


DOC.NO. : AMTCS-11

## PREVIOUS SYSTEM



## NEW SYSTEM



2171 West Park Court, Suite # G Stone Mountain, GA. 30087  
Phone: 770-469-5240 Fax: 678-894-4043

E-Mail : [info@amtechdrives.com](mailto:info@amtechdrives.com) Website: [www.amtechdrives.com](http://www.amtechdrives.com)