

CASE STUDY

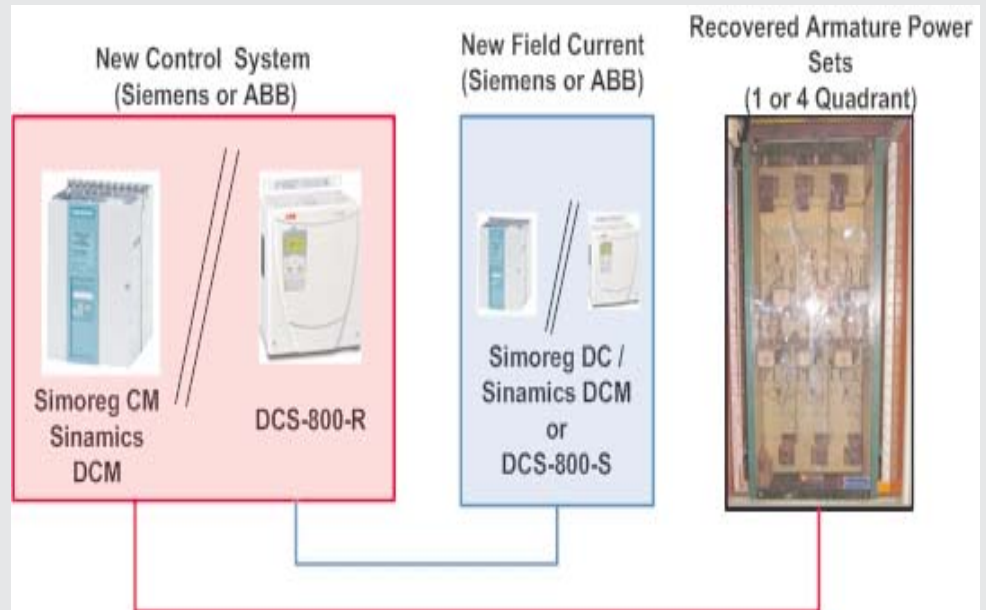
DC Equipment Upgrading



6 pulse converter system



12 pulse converter system



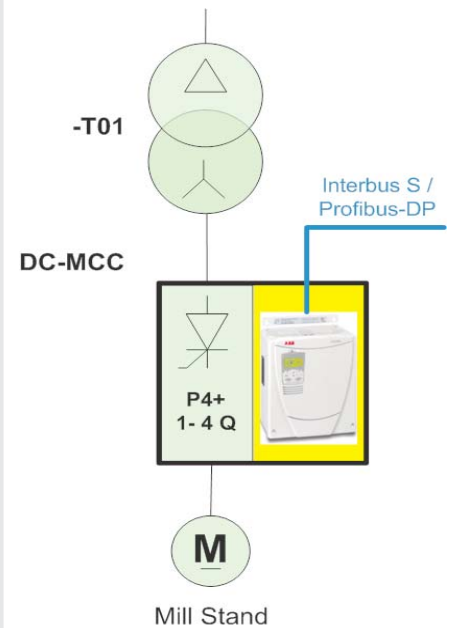
Older DC drives that formerly were state-of-the-art equipment, nowadays are more prone to fault and not properly meet with the expected technical requirements in terms of torque precision and speed. Moreover, the difficulty to obtain spare parts for repairing damaged parts or manufacturing spare units becomes more and more problematic. It is our aim, as reliable partner in the industry domain to offer you a different set of solutions to upgrade the existing equipment. By means of modular design equipment, commercially accessible everywhere, we can provide either a retrofit or a revamp of your existing DC equipment with a reduced investments and machine stoppage.

Ingeteam's solution proposal is a new retrofit control system for existing C30 and MOTOCON-DC or in general any old fashion DC drive, for latest generation control sets (ABB or SIEMENS).

Drive Solutions

Advantages of Retrofitting DC Equipment

- Minimum stoppage time, not affecting production.
- Recovery of existing equipment, for example:
 - » Power transformer
 - » DC-MCC enclosures
 - » Armature power sets
 - » Power and control cables
- Recovery of existing and remaining TEAM's control equipment:
 - » Sisteam M as PLC as well as Operator MT as HMI system (depending upon the Customer's will)
- The new control equipment will be prepared for future revamping of PLC, and HMI systems.



Reference List

Year	Installation	Customer	Country
2007	New digital control for 12 stand drives, Bar Mill	Siderurgia Balboa	Spain
2008	Digital control for main thyristor drive of Duo Mill, 12 pulses configuration, Blooming Mill	Gerdau Azkoitia	Spain
2008	Drives revamping for Tail-end braking units, Bar Mill	Corrugados Getafe	Spain
2008	Digital control for Mill stands 11 & 12, Bar Mill	Nervacero	Spain
2009	Digital control for Mill stands nr 6, Bar Mill	Nervacero	Spain
2009	Line drives revamping of entry section n°2 Pickling line	AM Avilés	Spain
2010	Line drives revamping of exit section n°2 Pickling line	AM Avilés	Spain
2011	Drives revamping for first intermediate section & T3 shear Bar Mill	AM Costa Rica	Costa Rica