

Introduction

In the middle of year 2009 Hitachi, Ltd., awarded Ingeteam Industry, S.A. the contract to carry out the modernization of the DC Drive converters in the continuous pickling line coupled with tandem cold mill (CPL/TCM) that ERDEMIR has in its plant in Eregli (Turkey).

The scope of supply includes 4x DC Drive converters of 6600A for Mill Stand 1 & 2 of Tandem Cold Mill. The replaced Hitachi DC Drives converters from Stand 1 & 2 will be used as spare parts for Stands 3 & 4.

Commissioning of the installation will take place in the summer of year 2011.

DC Drive converters have been specially designed to minimize cabling works and consequently to reduce commissioning and shutdown period. The new drive concept features power control and excitation units in the same drive cubicle arrangement.

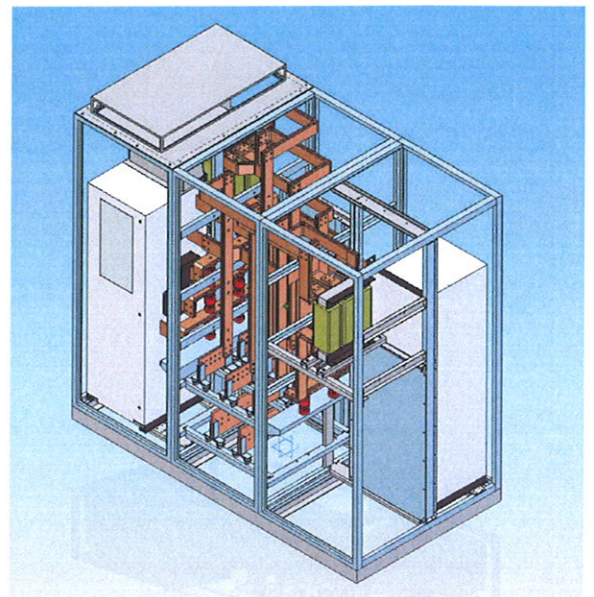
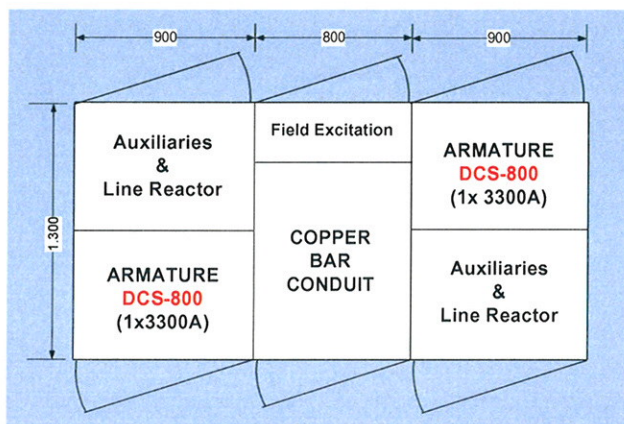
Scope of Supply

The following equipments and services are included:

- Complete HW and SW Drive's engineering coordination.
- Main Drives (Power & Control) at 800Vac
 - Stand 1 Roll Top (1x 6600A 4Q Hard Parallel)
 - Stand 1 Roll Bottom (1x 6600A 4Q Hard Parallel)
 - Stand 2 Roll Top (1x 6600A 4Q Hard Parallel)
 - Stand 2 Roll Bottom (1x 6600A 4Q Hard Parallel)
- Spare parts for 2 years operation.
- Training.
- Auxiliary Drives (Power & Control) at 400Vac
 - BRU 1 Roll 1 (1x 680A 4Q)
 - BRU 1 Roll 2 (1x 680A 4Q)
 - Intern. Looper (1x 680A 4Q)
 - BRU 2 Roll 1 (1x 1200A 4Q)
 - BRU 2 Roll 2 (1x 680A 4Q)
 - Tension Leveller (1x 3300A 4Q)
 - Rotary Shear (1x 1200A 4Q)
- Electrical erection supervision.
- Commissioning and Optimization

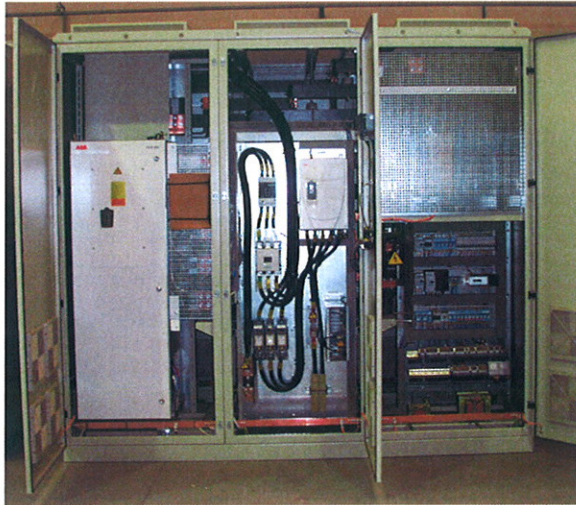
Outline Diagram / Hard Parallel Arrangement

Plant view

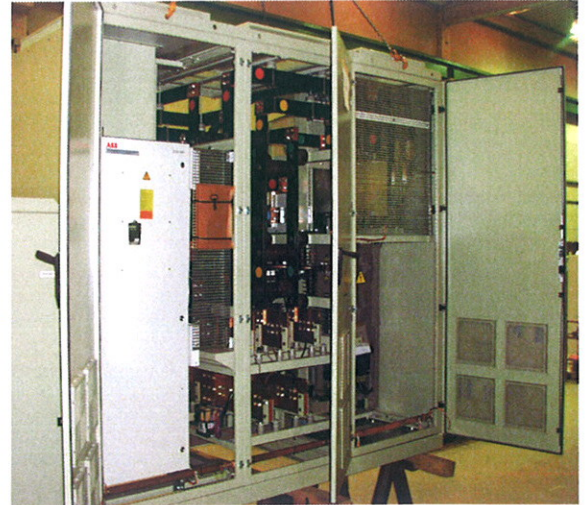


Hard Parallel Configuration Equipment Overview (2x 3300A)

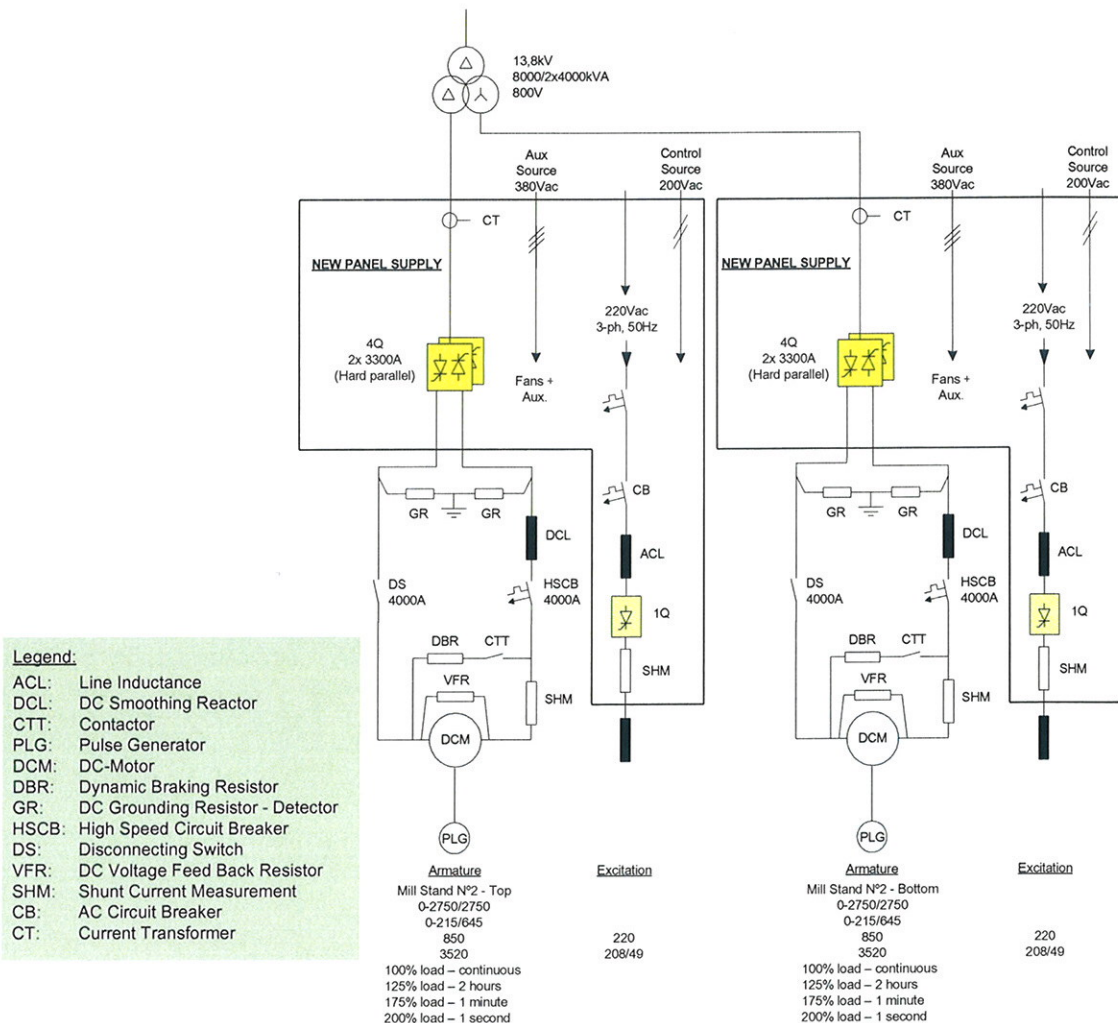
Rear side



Front side



Main Drive Diagram (Top/Bottom Rolls N°1 Stand)



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