ROLLING MILL VIBRATION ANALYSIS PROJECTS
(1987-2008) – including tension levellers

CORUS - PORT TALBOT INTEGRATED WORKS - UK
5-stand tandem continuous cold mill
No.1A temper mill
No.3 temper mill
Hot strip mill, finishing stands
Hot strip mill, reversing rougher
Link Mill tension leveller

CORUS - LLANWERN INTEGRATED WORKS - UK
5-stand tandem continuous cold mill
No.1 temper mill
No.2 temper mill
Sheet mill
Hot strip mill, finishing stands

CORUS - SHOTTON FINISHING WORKS - UK
5-stand tandem mill
No.3 temper mill
No.4 temper mill
No.2 tension leveller

CORUS TINPLATE - TROSTRE WORKS - UK
5-stand tandem mill
No.1 temper mill
No.4 tension leveller
No.5 tension leveller

CORUS TINPLATE - EBBW VALE WORKS - UK
No.2 (2-stand) temper mill

AVESTA POLARIT – SHEFFIELD - UK
Nos 4 and 5 Z-Mills

BETHLEHEM STEEL - BURNS HARBOR PLANT – INDIANA, USA
Temper mill
5-stand tandem mill
Duo mill

ISG-WEIRTON – INTEGRATED WORKS – WEIRTON, WEST VIRGINIA, USA
No.9 5-stand tandem cold mill

ISG-SPARRROWS POINT – INTEGRATED WORKS – SPARRROWS POINT, MARYLAND, USA
5-stand tandem cold mill

N.V. SIDMAR - INTEGRATED WORKS – GHENT, BELGIUM
80-inch temper mill

BAOSTEEL – INTEGRATED WORKS – SHANGHAI, CHINA
SMS single stand temper mill

USINOR PACKAGING – TINPLATE WORKS – NANTES, FRANCE
2-stand DR mill
In most cases, projects were commissioned to investigate strip-marking problems. The investigations have usually involved monitoring and analysis of the vibration occurring during rolling, inspection of the strip, and in many cases, modal analysis of the roll stack and mill structure has been carried out to identify resonant frequencies and chatter modes. In most cases, solutions have been found which involve changes in operating strategy, use of stability charts, use of monitoring systems, replacement of gearboxes, replacement of damaged work-roll chock bearings and correction of roll grinder chatter problems. Names of contacts can be supplied, if required.