

## **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-SPARROWS POINT – INTEGRATED WORKS – SPARROWS 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

**ALCAN ROLLED PRODUCTS - INTEGRATED STRIP MILL - ROGERSTONE, UK**

66-inch cold mill  
No.1 foil mill

**LOGAN ALUMINUM – INTEGRATED STRIP MILL – RUSSELLVILLE, KY, USA**

CM2 single stand cold mill  
CM3 3-stand cold mill

**ALCOA - INTEGRATED ALUMINUM STRIP MILL - DAVENPORT, IOWA, USA**

No.3 cold mill

**PECHINEY ROLLED PRODUCTS – RAVENSWOOD WV – USA**

112-inch 5-stand tandem hot mill  
130-inch, single stand cold mill  
511 line tension leveller  
575 line tension leveller

**PECHINEY RHENALU - ALUMINIUM PLANT - RUGLES, FRANCE**

Single stand cold mill

**PECHINEY RHENALU - ALUMINIUM PLANT - NEUF BRISACH, FRANCE**

L8 3-stand tandem cold mill  
L10 single stand cold mill  
L12 single stand cold mill  
PT1 tension leveller  
PT2 tension leveller

**PECHINEY RHENALU – ALUMINIUM PLANT – ISSOIRE, FRANCE**

LG24 tension leveller

**IMPHY SA - IMPHY - FRANCE**

Sundwig 20-roll mill

**ALCAN DEUTSCHLAND - GOETTINGEN - GERMANY**

AQ single stand cold mill

**ALCAN DEUTSCHLAND - NACHTERSTEDT - GERMANY**

CVC 6-high single stand cold mill  
4-h single stand cold mill

**ALCAN ALLUMINIO – PIEVE – MILAN, ITALY**

SMS single stand cold mill

**ALCAN ALUMINIO DO BRASIL – PINDAMONHANGABA - BRAIL**

CM2 single stand cold mill

**NOVELIS KOREA – YEONGJU – KOREA**

Tension leveller TL1

**GULF ALUMINIUM ROLLING COMPANY – KINGDOM OF BAHRAIN**

Tension leveller TL2

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.