

## ID Fans in cement plant Broceni, Latvia

Investor: CEMEX, Mexico

Client: Rockwell Automation, Canada

Country: Latvia

Date: 1.Q. 2009

Contractor: SPEL Ltd.

Subject of contract:



Commissioning of Medium Voltage Variable Frequency Drives (VFDs) and MV starters including by-pass driving fans in new "dry- process" cement plant in Broceni. Total of 5pcs. of MV VFD Rockwell Automation (Allen-Bradley) PowerFlex 7000 and input/output sections 1519AT, 1512M, 1512DM with rated power of:

600kW, 6,3kV, air cooled: Clay dryer ID (induction draft) fan

1000kW, 6,3KV, air cooled: Clinker cooler ID fan

2,5MW, 6,3kV, liquid cooled: Main bag house ID fan

3,8MW, 6,3kV, liquid cooled: Pre-heater ID fan

4,5MW, 6,3kV, liquid cooled: Raw mill ID fan

ID fans in cement plant are used for transport material by air among the technology.



*Figure: Main view to cement plant: Pre-heater and raw silo (on right), Main bag house, Central Control Room and clinker cooler area (middle), clinker storage (on left),*



Figure: Clay and limestone storage. Clay dryer area (in front). Figure on right: clinker storage, cement (final) mill and expedition area (on back)



Figure: Clinker cooler: MV VFD for ID fan, air cooled, 1000kW, 6,3kV; technology –clinker cooler (underlying)



*Figure: Raw mill: MV VFD for ID fan, liquid cooled, 4,5MW, 6,3kV; input/output and bypass section cabinets (figure on right)*



*Figure: Main bag house: MV VFD for ID fan, liquid cooled, 2,5MW, 6,3kV (left figure); technology (from left): raw silo, main bag house and exhaust pipe, raw mill ID fan and piping.*



*Figure: Pre-heater: Pre-heater tower (four stages) and view to rotary kiln (left figure); Pre-heater ID fan, 3,8MW (right figure) and MV VFD for ID fan ( figure bellow).*



*Figure: Night view to cement plant in Broceni*