

**News by UNITHERM-CEMCON Firingsystems GmbH  
Recent Kiln Burner Installations & New Orders**

**LAFARGE / Beocin Cement** (Serbia) has installed a new low NO<sub>x</sub> M.A.S.® kiln burner for petcoke and anthracite, natural gas, and solid secondary fuels (future) on a 4000 tpd kiln in autumn 2003. The supplied 100 MW burner by UNITHERM-CEMCON is successfully in operation with either 100% petcoke or 100% anthracite. The burner was commissioned on the satellite cooler kiln, working with petcoke at about 600°C secondary air temperature. After the revamping of the entire kiln, the burner is now in operation with anthracite with a higher secondary air temperature of the new installed grate cooler. UNITHERM-CEMCON has additionally supplied 3 new calciner burners and 2 next-generation Hot Gas Generators (30MW) which are now under commissioning for petcoke or anthracite firing without ash separator. In fact the complete cement factory is now equipped with firing equipment from UNITHERM-CEMCON.



MAS/5/KO.EG.SO.X Burner for LAFARGE Beocin  
in operation with 100% petcoke or 100% anthracite



MAS/6/KO.SO.X Burner for HOLCIM Koromacno  
in low NO<sub>x</sub> technology for 5 different fuels

**HOLCIM / Koromacno Cement** (Croatia) has installed a new modern low NO<sub>x</sub> multichannel M.A.S. ® kiln burner with a capacity of 78 MW at their 1800 tpd kiln line. The burner is in operation with 5 different fuels as: coal, animal meal, plastics, heavy fuel oil and waste oil. The prior 3-channel burner with two air fans was replaced due to the insufficient performance as well as the limited use of alternative fuels. The new M.A.S. burner is successful in operation since spring 2004.

**HEIDELBERG CEMENT / Hungary -Vaz** has replaced their old 3 channel burner by a new multichannel Low NO<sub>x</sub> M.A.S. ® kiln burner for the 3500 tpd kiln. The client is fully satisfied with the performance of the new burner by UNITHERM-CEMCON which is designed for 5 different fuels and executed with a divisible jacked tube for easier service on the burner refractory. The supplied equipment includes 2 new calciner burners, and a modern combustion control system for fuel oil, gas and waste oil.

**ADO CIMENTO / Antalya / Turkey** has placed the order to UNITHERM-CEMCON to supply a combined coal/oil - M.A.S. ® Kiln Burner with a capacity of 90 MW and two combined coal/oil calciner burners (each 45 MW) for the new kiln line of 3300 TPD which is now under construction. The scope of supply has included the heavy fuel oil preparation system (high pressure pump and preheater station) and burner valve trains which can be used for waste oil as well. The start-up is scheduled for spring 2005.

**HOLCIM / Laeگردorf / Germany** has awarded UNITHERM-CEMCON for the supply of a new low NO<sub>x</sub> multichannel M.A.S. ® kiln burner. The burner (95MW) will be commissioned in spring 2005 at the 4300 tpd kiln line. Beside the main fuels coal/petoke and heavy fuel oil the burner is designed for the use of solid and liquid secondary fuels. Because of severe wear problems with the existing main burner, UNITHERM-CEMCON has installed an innovative protection system at the new burner. The front of the burner jacket tube of the new M.A.S. burner is protected by ceramic bricks to extend the lifetime of the lining.



MAS multifuel kiln burner covered with ceramic bricks on the jacket tube to enlarge the lifetime of the heat insulation.



**CEMEX / Mexico / Monterrey** has placed the order to UNITHERM-CEMCON for two combined low NO<sub>x</sub> M.A.S. ® burners (81 MW). One burner will be installed at a planetary cooler kiln with (1600 tpd) and one burner for a kiln with grate cooler and preheater (3000 tpd). Both burners will work with petcoke as main fuel and heavy fuel oil or gas. The commissioning for both burners is scheduled in autumn 2004.

## **M.A.S. burner technology for petcoke operation**

**SOLNHOFER Portland Cement / Germany** signed a contract for a new low NOx M.A.S. ® multichannel burner with a capacity of 64 MW for 5 different fuels. The burner will be installed in spring 2005 at the 1500 tpd kiln to replace the existing low NOx burner, which was in operation only for 4 years. The burner by UNITHERM-CEMCON is designed with two channels in the center for solid secondary fuels, as well as coal, heavy oil, and waste oil.

**DYCKERHOFF / Sukhoj Log / Belarus** has selected UNITHERM-CEMCON as supplier for a new M.A.S. ® swirlgas burner with a performance of 150 MW. This brand new technology for gas burners requires only 4% primary air and a primary air pressure of only 80 mbar to save energy. The flame shape adjustment and flame control is designed for a full automatic operation from the PLC. This burner will be installed in Oct.-Nov. 2004.

**KRASNOSELSK Cement / Belarus** puts 2 new M.A.S. ® burners (each 100MW) for oil and gas in operation. Due to the state of the art burner design the customer is able to save 3,5-5% of natural gas consumption (!) for each of the 1500 tpd kilns. Of course the customer is very satisfied with the performance of the new burners which were installed in May 2004.

**QUIMICA DEL REY / Torreon / Mexico** has placed the order for a supply of a new combined M.A.S. ® kiln burner for the 1000 tpd dolomite kiln. The 45 MW burner is designed for petcoke, heavy oil and natural gas. This new burner supply is a part of the fuel conversion project to petcoke firing.

**CEMEX / Pertigalete / Venezuela** signed a contract for a modern M.A.S. ® kiln burner at their 3200 tpd cement plant in Pertigalete. The burner with a capacity of 130 MW will be designed for the use of natural gas, solid and liquid secondary fuels. The installation is scheduled for spring 2005.



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