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### ‘BONAR FLOORS HAS A GREEN MACHINE’

In accordance with its energy conservation policy, BONAR FLOORS LTD of Ripley Derbyshire has recently completed a refurbishment and upgrading package on its Kuster printing & laminating line. The company produces high-grade floor coverings found in many top class public buildings. The engineering & production teams are constantly active in improving efficiency & reducing energy costs.

The drying section of the Kuster line included a Bruckner steam heated dryer, which was supplied from a central boiler plant. The object of the exercise was to reduce the amount of utilised steam by converting the dryer to direct gas firing. This involved installing an individual fully modulating gas burner on each re-circulation duct, complete with digital P.I.D temperature controller.

The insulation to the machine was improved by replacing the complete roof section with new high specification panels. The work was carried out by, ADVANCED COMBUSTION ENGINEERING LTD of Haslingden Lancashire, who have over 25 years experience in converting & upgrading many different types of stenters & dryers. Similar type projects have demonstrated a reduction in energy by as much as 50%. Because of their experience with complete in house manufacturing & installation capabilities, meant the installation could be co-ordinated with an annual shut down period, thus minimising the amount of down time which the plant would face. The complete installation was finished within the two week shut down. The newly installed industrial burner controls are fitted into the existing control panel allowing for each zone of the machine to be controlled & monitored with data logging facilities for quality control requirements.

Upgrading the existing machine has ensured an improvement in production, a reduction in energy cost & will ensure the current plant will be utilised for at least a further 5 years.

The Kuster line is the second production line to be converted from steam heating to direct gas firing. The same type of highly efficient burners & temperature controllers were used on the COBBLE DRYER for the tile production line. The VJ range of ACE Burners are included on the energy technology list as required by the CARBON TRUST for the ECA approval.

The boiler plant decentralisation programme is reaching a point where one of the two main boilers can be used in a stand by mode & alternated, rather than having two boilers running.



**ADVANCED COMBUSTION ENGINEERING LTD**