



Fume Control Technology



Heat Recovery Technology



MECHON

Enhanced Environments



Client: ACO Technologies plc

Technology: Fume Control & Heat Recovery

MECHON were commissioned to resolve the clients ongoing issues relating to overexposure of employees to the harmful effects of styrene vapours, and non-compliance with the PPC Regulations 2000.

Standard fume extraction methods were deemed as insufficient, as the process entailed personnel to move product from the production lines to adjacent storage areas; cleaning the product during handling.

A combination of local exhaust hoods and downward air draft air systems were employed to overcome all fume control issues. The downward draft system created a clean air breathing zone throughout the product handling area. Local exhaust hoods were fitted on the production lines, extracting fume-laden air at source and all of the contaminated air from the supply air systems.

Large amounts of waste heat would have been lost to atmosphere through the LEV systems. MECHON were able to recover this energy using thermal wheel technology, transferring the captured energy to the supply air system. Using this method of air-air heat recovery, MECHON were able to recovery warm air at an efficiency of 72%, equating to 440kW of heating.

A combination of oil-fired heaters and evaporative cooling technology was utilised to provide additional temperature control on the supply air systems.

Shaping Your Environment