



## Fume Control Technology



# MECHON

Enhanced Environments



**Client:**

**Linatex Limited**

**Technology:**

**Fume Control System**

MECHON were commissioned to provide protection for employees against the harmful effects of volatile organic compounds used during the assembly process. Compounds include adhesives, solvents, and cleaning agents.

Various limitations were placed on MECHON: effectiveness of fume control, noise levels, impedance of workflow, and visual aesthetics.

Rear extract hoods were installed on two workbenches, each eleven meters long. The hoods were of similar design concept to that of fume cupboards, with rear extraction plenum and top and side baffles. Clear acrylic sheeting was used on all baffles to maintain light levels and allow unrestricted views for employees.

The system airflow rate was calculated to attain a capture velocity of 0.35m/s across the opening of the hoods, resulting in complete fume capture towards the rear of the hoods.

A combination of using a low speed fan in an acoustic enclosure, splitter silencers on the fan inlet, and insulated ductwork on the fan outlet, ensured noise levels remained below 70dB(A).

*Shaping Your Environment*