

### 17 The air exchange of foundry workers' clothing

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The design of comfortable but safe workwear for use in the iron foundry industry still remains a problem. Seven garments were constructed which included design differences: overall, belted trousers and jacket, braced trousers and jacket: and fabric differences in terms of material, cotton and wool, air permeability, weight of fabric and flame proofing finish.

The garments were tested using a trace gas technique. Standing and five work routines were used to assess the garments and rank them in terms of air exchange rates.

Differences were found in air exchange rates which could be related to design, fabric permeability and the work routine.