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Airflow Fields in Line-Type Cleanroom

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Synopsis :

Experiments and numerical simulations were conducted to improve the airflow fields in a line-type cleanroom. The outlet airflow from the air supply unit was first studied. The outlet airflow pattern was greatly improved in terms of uniformity by fitting flow

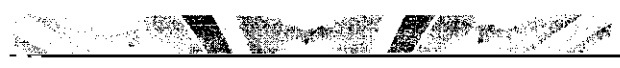
# Airflow Fields in Line-Type Cleanroom\*

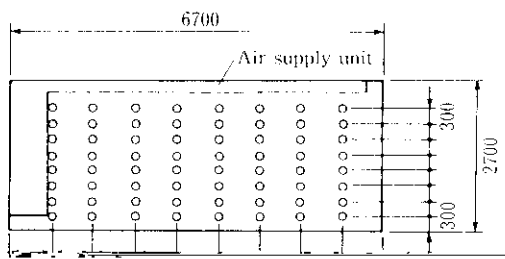
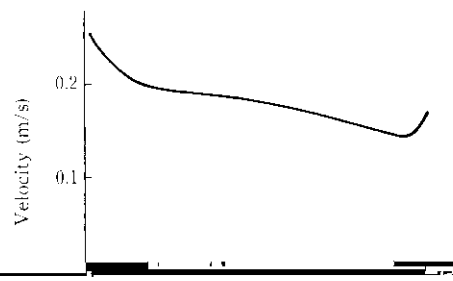
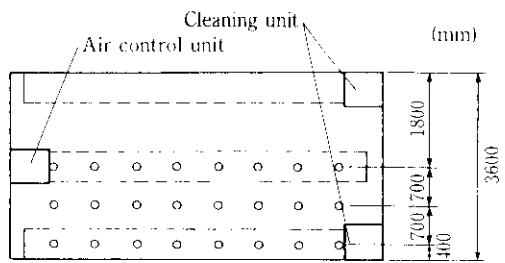


## *Synopsis:*

*Experiments and numerical simulations were conducted to improve the airflow fields in a line-type cleanroom. The outlet airflow from the air supply unit was first studied. The outlet airflow pattern was greatly improved in terms of*

flow fields, and thus developed a line-type cleanroom of high efficiency. This report describes an outline airflow





Distance from inlet (m)  
 Fig. 3 Air velocity under the air supply unit (simulation)



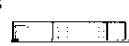
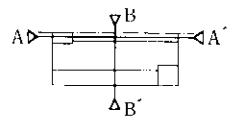
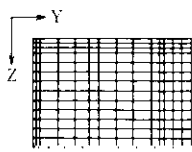
airflow fields of the line-type cleanroom are similar to

#### 4.1 Experiment

##### 4.1.1 Experimental method

As the first step, the line-type cleanroom shown in

those of the unidirectional flow cleanroom. While the airflow pattern shows an effect of the airflow velocity component in the longitudinal direction of the duct, which is blown out of the supply unit, the airflow nat-



airflow velocity was reduced because it was far from the exhaust inlet. Consequently, the position of the

10<sup>6</sup> Particle diameter  $\geq 0.5\mu\text{m}$