

## Quick Guide 1: Air Ductwork Systems

The following Quick Guide summarises the acceptable dust accumulation levels for various types of systems as tested using the Preferred Vacuum Test (P.V.T) method and defined and explained throughout this document. For details of the P.V.T method and procedure please refer to the B&ES TR/19; (2013) 'Internal Cleanliness of Ventilation Systems' Appendix E.

System Quality Class	Typical Example	Acceptable Dust/Contamination Levels										Inspection and Testing Intervals (Months)				
		Newly Installed		Existing Ductwork						Post Clean Verification		AHU	Filters <sup>o</sup>	Wet Areas <sup>*</sup>	Ducts	Terminals
		Acceptable Dust Accumulation Levels – Supply, Re-Circulation or Secondary Air Ductwork	Acceptable Dust Accumulation Levels – Extract Ductwork	Acceptable Contamination Levels – Supply Ductwork		Acceptable Contamination Levels – Re-Circulation or Secondary Air Ductwork		Acceptable Contamination Levels – Extract Ductwork <sup>+</sup>		Acceptable Dust Accumulation Levels – Supply, Re-Circulation or Secondary Air Ductwork	Acceptable Dust Accumulation Levels – Extract Ductwork					
D.T.T $\pm$	P.V.T	D.T.T $\pm$	P.V.T	D.T.T $\pm$	P.V.T	D.T.T $\pm$	P.V.T	D.T.T $\pm$	P.V.T							
Low	Rooms with only intermittent occupancy e.g. storage rooms	<0.9g/m <sup>2</sup>	<1.8g/m <sup>2</sup>	90 $\mu$ m	<4.5g/m <sup>2</sup>	120 $\mu$ m	<6.0g/m <sup>2</sup>	180 $\mu$ m	<9.0g/m <sup>2</sup>	<0.3g/m <sup>2</sup>	<0.3g/m <sup>2</sup>	24	12	6	48	48
Medium	Offices, hotels, restaurants, schools, theatres, residential homes, shopping areas, exhibition buildings, sport buildings, general areas in hospitals, general working areas in industries	<0.6g/m <sup>2</sup>	<1.8g/m <sup>2</sup>	60 $\mu$ m	<3.0g/m <sup>2</sup>	90 $\mu$ m	<4.5g/m <sup>2</sup>	180 $\mu$ m	<9.0g/m <sup>2</sup>	<0.3g/m <sup>2</sup>	<0.3g/m <sup>2</sup>	12	12	6	24 <sup>#</sup>	24 <sup>#</sup>
High	Laboratories, treatment areas in hospitals, high quality offices	<0.3g/m <sup>2</sup>	<0.9g/m <sup>2</sup>	12 $\mu$ m	<0.6g/m <sup>2</sup>	60 $\mu$ m	<3.0g/m <sup>2</sup>	180 $\mu$ m	<9.0g/m <sup>2</sup>	<0.3g/m <sup>2</sup>	<0.3g/m <sup>2</sup>	12	6	6	12	12

\* Wet areas of the ventilation systems comprise humidification, cooling coils, condensate trays and other ancillary or associated items of plant containing these elements

+ Extract systems should be cleaned when airflow through the system reduces by 15% or more. If such measurement is not practical, then the gravimetric dust level measurement above may be used

<sup>o</sup> Filters should be inspected and maintained according to the manufacturers recommendations with these intervals as the minimum

<sup>#</sup> For compliance with HTM03 this frequency should be increased to 24 monthly

$\pm$  D.T.T levels have been aligned with the British Standard to accommodate various system quality classes