

Appendix 1

ISO 16890-1:2016 - Air Filter Test Results					Testing Organization:	
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GENERAL						
Report no.: O100222-155811B		Date of tests: 2021-06-04 - 2021-06-15		Date of report: 2021-06-16		
Supervisor: CM				Device obtained (when and how obtained):		
Test(s) requested by: Scandcenter AB				The device was sent and obtained on 2021-06-01		
DEVICE TESTED						
Model: 592x592x635/10 T-G ePM1		Manufacturer: Scandcenter AB		Construction: Pocket filter, 10 Pockets		
Article number: 7106001TGE	Type of medium: Glass	Net effective filtering area: 7.9 m ²		Filter dimensions (width x height x depth) 592x592x635 mm		
TEST DATA AND ATTACHED TEST REPORTS						
Test air flow rate: 0.944 m ³ /s	Test aerosol: KCl (1-10 µm) DEHS (0.3-1 µm)	Test report to ISO 16890-2		Report no.	O100222-155811B Appendix 2	
		Test report to ISO 16890-3		Report no.	O100222-155811B Appendix 3	
		Test report to ISO 16890-4		Report no.	O100222-155811B Appendix 4	
RESULTS						
Initial pressure differential: 73 Pa		Initial grav. arresstance: >99 %		ePM _{1, min} 62 %	ePM _{2.5, min} 72 %	ePM _{10, min} 91 %
Final test pressure differential: 300 Pa		Test dust capacity: 1278 g		ePM ₁ 61 %	ePM _{2.5} 72 %	ePM ₁₀ 91 %
						ISO rating ISO ePM₁ 60 %
Remarks:						
<p>The first graph plots Fractional efficiency (%) on the y-axis (0 to 100) against Particle size (µm) on the x-axis (0.1 to 10.0). It shows three data series: Initial fractional efficiency E_i (ISO 16890-2) as a blue line with diamonds, Conditioned fractional efficiency E_{D,i} (ISO 16890-4) as a red line with squares, and Average fractional efficiency E_{A,i} (ISO 16890-1) as a green line with triangles. All series show an increasing trend in efficiency as particle size increases, starting around 50% at 0.3 µm and reaching nearly 100% at 10 µm.</p> <p>The second graph has two y-axes: Pressure differential, 1.2 kg/m³ (Pa) on the left (0 to 400) and Arrestance (%) on the right (0 to 100). The x-axis is Air flow rate (m³/s) from 0.0 to 1.4. It shows three data series: Pressure differential as a function of the air flow rate (clean filter) (ISO 16890-2) as a blue line with diamonds, Pressure differential as a function of the test dust captured (ISO 16890-3) as a red line with squares, and Grav. arresstance as a function of the test dust captured (ISO 16890-3) as a green line with triangles. The grav. arresstance remains constant at approximately 99% across the flow rate range. The pressure differentials increase with flow rate, with the clean filter reaching about 100 Pa and the dust-captured filter reaching about 300 Pa at 1.2 m³/s.</p>						
NOTE: The results of this test relate only to the test device in the condition stated herein. The performance results cannot by themselves be quantitatively applied to predict filtration performance in all "real life" environments.						