

Appendix 1

ISO 16890-1:2016 - Air Filter Test Results				Testing Organization:	
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GENERAL					
Report no.: 7P03107A-rev1		Date of tests: 2017-05-16 - 2017-05-23		Date of report: 2017-11-15	
Supervisor: CM			Device obtained (when and how obtained):		
Test(s) requested by: Scandcenter AB			The device was sent and obtained on 2017-05-11		
DEVICE TESTED					
Model: 592x592x635 F7/10 T-G Eco		Manufacturer: Scandcenter AB		Construction: Pocket filter, 10 Pockets	
Article number: 7106001TGE		Type of medium: Glass		Net effective filtering area: 8.2 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	
				Test report to ISO 16890-3	
				Test report to ISO 16890-4	
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RESULTS					
Initial pressure differential: 65 Pa		Initial grav. arrestance: 99 %		ePM _{1, min} 56 %	ePM _{2.5, min} 67 %
Final test pressure differential: 300 Pa		Test dust capacity: 1640 g		ePM ₁ 56 %	ePM _{2.5} 67 %
				ePM ₁₀ 89 %	ISO rating ISO ePM₁ 55 %
Remarks:					
<p>The top graph plots Fractional efficiency (%) on the y-axis (0.0 to 100.0) 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 upward trend, starting around 45% at 0.3 µm and reaching nearly 100% at 10 µm.</p> <p>The bottom 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 series: Pressure differential as a function of air flow rate (clean filter) (ISO 16890-2) as a blue line with diamonds, Pressure differential as a function of test dust captured (ISO 16890-3) as a red line with squares, and Grav. arrestance as a function of test dust captured (ISO 16890-3) as a green line with triangles. The clean filter pressure differential increases from ~30 Pa to ~100 Pa. The dust-captured pressure differential increases from ~60 Pa to ~300 Pa. Grav. arrestance remains constant at ~99%.</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.					