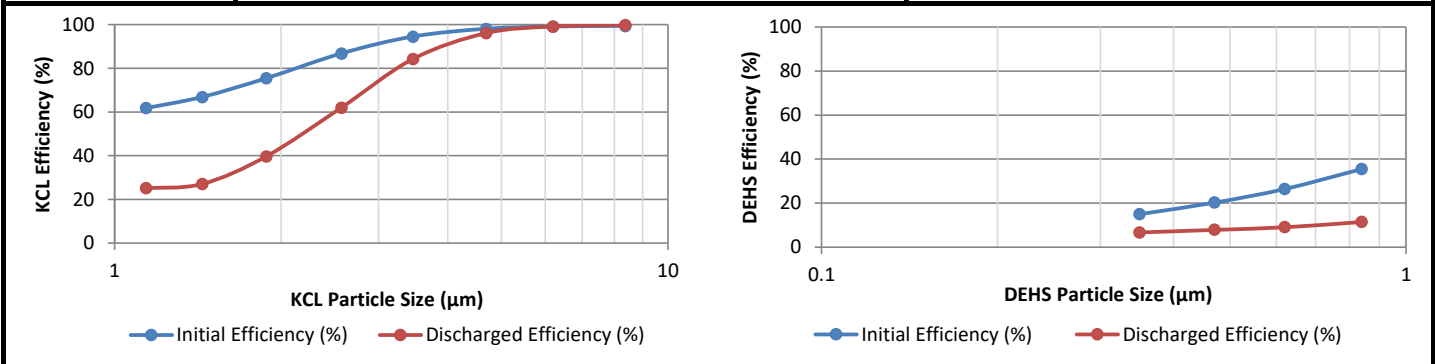


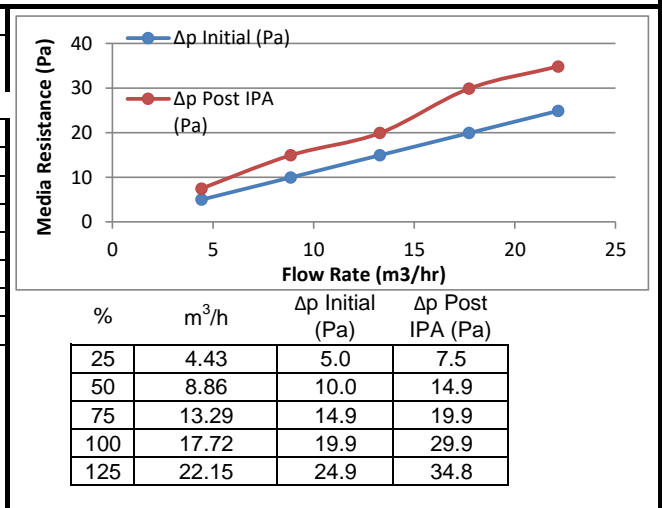
ISO 16890-2 /-4:2016 Air Filter Test Result Summary

Counter Information	Manufacturer <u>TSI, Inc.</u>	Test Conditions	Test Flow Rate <u>10.5 CFM / 17.84 m3/h</u>
	Model No. <u>3330</u>		Test Aerosol <u>Aerosolized KCl & DEHS</u>
	Serial No. <u>3330174305</u>	Temperature <u>73.0 Deg F / 22.8 Deg C</u>	Relative Humidity <u>36.0 %</u>
	IPA Discharge <input checked="" type="checkbox"/> Vapor Treated Method <input type="checkbox"/> IPA Dip Method	Barometer <u>29.58 in Hg / 100.17 kPa</u>	

Device Tested	Manufacturer <u>JP Air Tech</u>
	Model <u>JX180B</u>
	Dimensions <u>16" x 16"</u>
	Type of Media <u>Flat Sheet Media</u>
	Media Area <u>1.0 ft^2</u>
	Construction <u>N/A</u>
	Filter/Media Electrostatic Charge <u>N/A</u>
	Media Color <u>White</u>
	Media Adhesive <u>N/A</u>
Sample Procurement <u>JP Air Tech</u>	



KCL					
Range (µm)	Geo. Mean	Initial Efficiency (%)	Discharged Efficiency (%)	Upstream Number of Particles per Test	
				Pre	Post
1.0-1.3	1.14	62	25	33882	9336
1.3-1.6	1.44	67	27	19251	5314
1.6-2.0	1.88	75	40	43758	13770
2.0-3.0	2.57	87	62	25107	8926
3.0-4.0	3.46	95	84	12030	5277
4.0-5.5	4.69	98	96	5962	3138
5.5-7.0	6.20	99	99	1287	1014
7.0-10.0	8.37	99	100	762	852



DEHS					
Range (µm)	Geo. Mean	Initial Efficiency (%)	Discharged Efficiency (%)	Upstream Number of Particles per Test	
				Pre	Post
0.3-0.4	0.35	15	7	255181	185829
0.4-0.55	0.47	20	8	238664	175990
0.55-0.7	0.62	26	9	151802	118819
0.7-1.0	0.84	35	11	213820	173760

Reporting Data			
	ePM ₁	ePM _{2,5}	ePM ₁₀
Minimum	8%	19%	64%
Average	16%	29%	70%
Reported	N/A*	N/A*	75%

Requestor Information	Test Requestor <u>Cagri Tekman</u>	Phone: <u>+90 532 686 9259</u>
	Company Name <u>JP Air Tech</u>	Email: <u>ct@jpairtech.com</u>
	Company Address <u>Skifervej 2, 4990 Sakskobing, Denmark</u>	Requested Date: _____

ISO 16890-1										
Data Entry Table							Reporting Data			
DEHS								ePM ₁	ePM _{2.5}	ePM ₁₀
d_i	d_{i+1}	d_m	$\Delta \ln d_i$	E_i	$E_{D,i}$	$E_{A,i}$	Minimum	8%	19%	--
0.30	0.40	0.35	0.29	15.0%	6.7%	10.8%	Average	16%	29%	70%
0.40	0.55	0.47	0.32	20.2%	7.9%	14.0%	Reported	N/A*	N/A*	75%
0.55	0.70	0.62	0.24	26.4%	9.0%	17.7%	* Any Reporting value of N/A shows the minimum efficiency is below 50% for that ePM value			
0.70	1.00	0.84	0.36	35.5%	11.4%	23.5%				
KCL										
1.00	1.30	1.14	0.26	61.8%	25.2%	43.5%				
1.30	1.60	1.44	0.21	66.9%	27.0%	47.0%				
1.60	2.20	1.88	0.32	75.5%	39.7%	57.6%				
2.20	3.00	2.57	0.31	86.8%	62.0%	74.4%				
3.00	4.00	3.46	0.29	94.5%	84.3%	89.4%				
4.00	5.50	4.69	0.32	98.1%	96.1%	97.1%				
5.50	7.00	6.20	0.24	99.1%	99.2%	99.1%				
7.00	10.00	8.37	0.36	99.4%	99.8%	99.6%				
ePM ₁ Calculations										
d_i	d_{i+1}	d_m	$\Delta \ln d_i$	$E_{A,i}$	$q_{3\sigma}$	$q_{3\sigma} * \Delta \ln d_i$	$E_{D,i} * q_{3\sigma} * \Delta \ln d_i$	$E_{A,i} * q_{3\sigma} * \Delta \ln d_i$	E _{min} (PM ₁)	E(PM ₁)
0.30	0.40	0.35	0.29	10.8%	22.627%	0.065095	0.004343	0.007050	8%	16%
0.40	0.55	0.47	0.32	14.0%	19.891%	0.063343	0.004973	0.008890		
0.55	0.70	0.62	0.24	17.7%	15.837%	0.038193	0.003449	0.006767		
0.70	1.00	0.84	0.36	23.5%	11.522%	0.041097	0.004701	0.009640		
Sums:					0.207728	0.017465	0.032348			
ePM _{2.5} Calculations										
d_i	d_{i+1}	d_m	$\Delta \ln d_i$	$E_{A,i}$	$q_{3\sigma}$	$q_{3\sigma} * \Delta \ln d_i$	$E_{D,i} * q_{3\sigma} * \Delta \ln d_i$	$E_{A,i} * q_{3\sigma} * \Delta \ln d_i$	E _{min} (PM _{2.5})	E(PM _{2.5})
0.30	0.40	0.35	0.29	10.8%	22.627%	0.065095	0.004343	0.007050	19%	29%
0.40	0.55	0.47	0.32	14.0%	19.891%	0.063343	0.004973	0.008890		
0.55	0.70	0.62	0.24	17.7%	15.837%	0.038193	0.003449	0.006767		
0.70	1.00	0.84	0.36	23.5%	11.522%	0.041097	0.004701	0.009640		
1.00	1.30	1.14	0.26	43.5%	8.503%	0.022309	0.005622	0.009706		
1.30	1.60	1.44	0.21	47.0%	7.618%	0.015817	0.004277	0.007428		
1.60	2.20	1.88	0.32	57.6%	8.022%	0.025546	0.010140	0.014709		
2.20	3.00	2.57	0.31	74.4%	9.984%	0.030966	0.019205	0.023044		
Sums:					0.302366	0.056710	0.087235			
ePM ₁₀ Calculations										
d_i	d_{i+1}	d_m	$\Delta \ln d_i$	$E_{A,i}$	$q_{3\sigma}$	$q_{3\sigma} * \Delta \ln d_i$	$E_{D,i} * q_{3\sigma} * \Delta \ln d_i$	$E_{A,i} * q_{3\sigma} * \Delta \ln d_i$	E _{min} (PM ₁₀)	E(PM ₁₀)
0.30	0.40	0.35	0.29	10.8%	9.412%	0.027077	0.001806	0.002933	64%	70%
0.40	0.55	0.47	0.32	14.0%	8.395%	0.026733	0.002099	0.003752		
0.55	0.70	0.62	0.24	17.7%	7.432%	0.017924	0.001619	0.003176		
0.70	1.00	0.84	0.36	23.5%	7.014%	0.025016	0.002862	0.005868		
1.00	1.30	1.14	0.26	43.5%	7.628%	0.020013	0.005043	0.008707		
1.30	1.60	1.44	0.21	47.0%	8.833%	0.018340	0.004959	0.008613		
1.60	2.20	1.88	0.32	57.6%	10.804%	0.034406	0.013658	0.019811		
2.20	3.00	2.57	0.31	74.4%	13.726%	0.042573	0.026404	0.031682		
3.00	4.00	3.46	0.29	89.4%	16.708%	0.048067	0.040503	0.042972		
4.00	5.50	4.69	0.32	97.1%	19.542%	0.062233	0.059799	0.060420		
5.50	7.00	6.20	0.24	99.1%	21.671%	0.052261	0.051823	0.051815		
7.00	10.00	8.37	0.36	99.6%	23.143%	0.082545	0.082372	0.082207		
Sums:					0.457189	0.292946	0.321954			

