



Tray Type Activated Carbon Filter

Features:

Larger granular activated carbon filled filter frame, for different chemicals, can choose a different filter types (media type), to achieve the best treatment effect. Designed to place the filter box is similar to the housing of air filters, except its with a series of orbit into the frame in the vertical V-arranged.

It is also structure included a 2 inches deep W-Pre Disposable Pleated Filter to provide some protection from contamination.

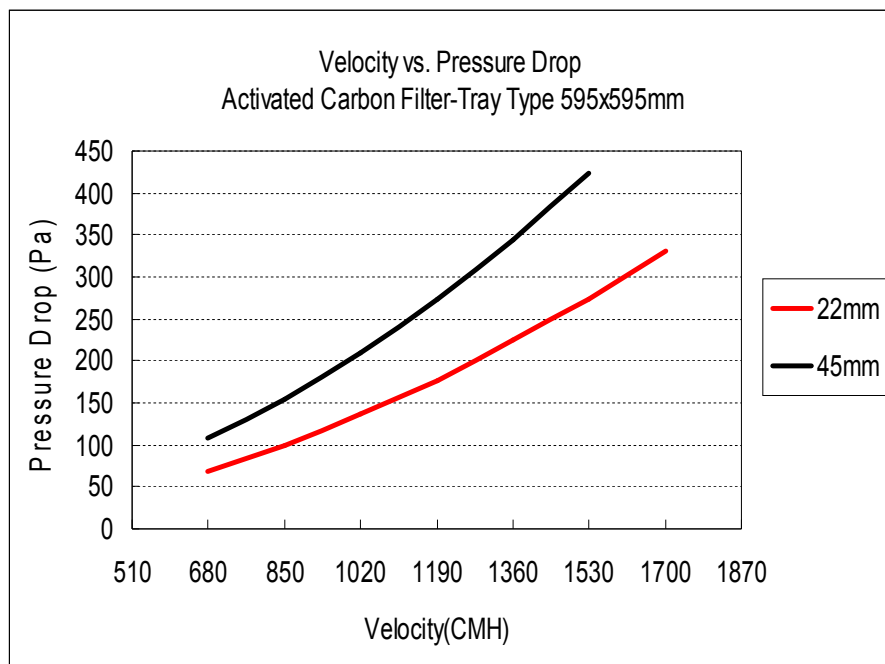
Such filters because of high levels of adsorbent, particle size large, require a longer residence time in order to take full advantage of adsorbent, adsorption capacity, but pressure loss (pressure drop) is also larger, so more suitable for high concentration low wind speed sites

Media:

Media Type	Media Description
MM-1000	Composed of Activated Aluminum (Al_2O_3) and potassium permanganate ($KMnO_4$). The activated aluminum will absorb moisture and odor. For example, $H_2S + KMnO_4 + H_2O \rightarrow K_2SO_4 + KOH + MnO_2 + H_2O$. K_2SO_4 , KOH and MnO_2 are solids and exist in pallet.
MM-3000	MM-3000 consists of activated carbon, physical adsorption removes the gas molecules. Activated Carbon is used for removing most of contaminants and with higher affinity to specific gases.
MM-7000	Composed of activated carbon and phosphoric acid. To enhance the efficiency of removing basic molecular contaminants. After adsorb, the contaminant will be neutralized due to chemical reaction.
MM-9000	Composed of activate carbon and potassium hydroxide. To enhance the efficiency of removing acid molecules contaminants. After adsorb, the contaminant will be neutralized due to chemical reaction.

Tray:
 Standard tray is in Cold Rolled Steel Painted Black finish; Galvanized Steel, Stainless Steel or Epoxy Coated tray is also available for option.

Performance Parameter	Carbon Slurry Coated Type Activated Carbon Filter	Tray Type Activated Carbon Filter	Honey-Comb Type Activated Carbon Filter	Carbon Loaded Web Type Activated Carbon Filter
Low Pressure Drop	+	+ or -	+ or -	+
Weight of Activated Carbon	-	++	++	+++
Optimal Activated Carbon Size	+	-	+	++++
Overall Adsorption Efficiency	---	+	+	+++
Low Dust	+	--	-	++
Pleated Ability	+	N/A	N/A	++++
Easy of Replacement	+	--	+	+



Activated Carbon Filter Performance Data - Tray Type

Nominal Size (W*H*D) (inch)	Actual Size (W*H*D) (mm)	Rated Capacity (CMH)	Initial Resistance (Pa)	Remove Efficiency (%)
12*24*1	289*595*22	170	62	Depending on field condition
24*24*1	595*595*22	340		
12*24*2	289*595*45	170	75	
24*24*2	595*595*45	340		

*Special Sizes are available upon request.

Material and Service Conditions

Gas Type	Media			
	MM-1000	MM-3000	MM-7000	MM-9000
	Activated Carbon	6% Potassium Permanganate + Aluminum Oxide	10% Phosphoric Acid + Activated Carbon	5-10% Potassium Hydroxide + Activated Carbon
VOC	8	2		6
Ozone	10	2		10
Nitrogen Dioxide	6	4		9
Nitric Acid	6	6		9
Acid / Corrosive (HCl, HF, Chlorine)	0	0		8
Base / Corrosive (Ammonia, Amines)	0	0	9	0
Odor / Corrosive Gas (H ₂ S)	1	8	2	10
Odor / Corrosive Gas (SO ₂)	7	8	2	9
Odor / Corrosive Gas (Organic Sulfur)	5	8		9

Type	Description			
Media	MM-1000	MM-3000	MM-7000	MM-9000
Components	Activated Carbon	6% Potassium Permanganate + Aluminum Oxide	10% Phosphoric Acid + Activated Carbon	5~10% Potassium Hydroxide + Activated Carbon
Moisture Content(%)	15	2	15	15
Crushing Test (%)	32	-	-	-
Hardness (%)	-	95	95	95
Particle Size (mm)	3.5	3	4	3
Surface Area(m ² /g)	250	1000	1000	1000
Particle Type	Spherical Particles	Particles	Particles	Particles
Density (lb/ft ³)	50	30	50	35
Volume (min)	0.1g (H ₂ S/CC)	-	0.05g (NH ₃ /CC)	0.15g (H ₂ S/CC)
Carbon Tetrachloride (%)	-	60	60	60
Frame Material	Cold rolled steel painted black	Metal Frame	Epoxy Coated	



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