

Waterplus™ Filtration Solutions – GAC Filters

Waterplus Pre-Engineered Filtration Systems are rugged, dependable water treatment solutions designed for the rigors of the industrial and municipal markets.

Combining industry leading filtration knowledge with the correct application of Granular Activated Carbon (GAC) media, Waterplus has created efficient and durable systems that are designed for dechlorination or for the removal of organic material. After being produced from high quality coal, the media has a fine porous structure which undergoes a high-temperature steam activation process for developing a high surface area.



Product Features

- Reduced installation costs for these pre-engineered, skid mounted pressure vessels that are pre-piped and pre-wired for economical installations.
- Suitable for removing a wide variety of unwanted contaminants in water.
- Unique straightforward design allows each vessel to operate via a single three-way valve eliminating the need for a dedicated backwash pump.
- Large amount of surface area of the media allows for efficient operation with economical quantities.
- Hard and durable media provides for a long media life with high adsorption capacity.
- Standard stainless steel distribution hub and laterals.
- Dual 11" x 15" clam style man-ways for ease of access and long life.
- Standard design has 100 psig non-code pressure vessels.

GAC Model Specifications						
Model Number	(Tank Qty) and Size	Total Surface Area (ft ²)	Flow Range (gpm)			Backwash Rate 10.0 gpm/ft ²
			1.50 gpm/ft ²	3.00 gpm/ft ²	6.00 gpm/ft ²	
GAC024060	(3) 24x60	9.42	14.13	28.26	56.52	94.2
GAC024060	(4) 24x60	12.57	18.86	37.71	75.42	125.7
GAC030060	(3) 30x60	14.73	22.10	44.19	88.38	147.3
GAC030060	(4) 30x60	19.63	29.45	58.89	117.78	196.3
GAC036060	(3) 36x60	21.21	31.82	63.63	127.26	212.1
GAC036060	(4) 36x60	28.27	42.41	84.81	169.62	282.7
GAC042060	(3) 42x60	28.86	43.29	86.58	173.16	288.6
GAC042060	(4) 42x60	38.48	57.72	115.44	230.88	384.8
GAC048060	(3) 48x60	37.70	56.55	113.1	226.2	377.0
GAC048060	(4) 48x60	50.26	75.39	150.78	301.56	502.6
GAC054060	(3) 54x60	47.71	71.57	143.13	286.26	477.1
GAC054060	(4) 54x60	63.62	95.43	190.86	381.72	636.2



GAC

Introduction

GAC is a granular media used for removing many organic and inorganic contaminants from water via adsorption. The large amount of surface area on each granule of carbon allows for these molecules to be removed with sufficient contact time. GAC can be effectively used by itself or placed in a process with other treatment devices, depending on the specific needs of each application.

Application

GAC is commonly used as a means of pretreatment before a reverse osmosis unit. In this scenario, the GAC media will remove chlorine and other organics from the water that may attack or foul the reverse osmosis membranes and compromise performance. Other applications include the removal of foul odors and tastes from drinking water and the removal of pesticides and other toxins. Systems may be designed using either vertical or horizontal pressure filters, as well as gravity filters.

Physical Properties

Composition: Acid washed, typically bitumen coal based

Bulk Density: 22-24 lb/ft³ (1.41 kg/L)

Mesh Sizes: 12x40

Iodine Number (mg/g): 1000 minimum

Molasses Number: 300 typical

Hardness Number: 90 typical

Uniformity Coefficient: Less than 1.60

Packaging: 2 ft³ bags, 1m³ supersacks

Operation

pH: 6 – 7 typical

Bed Depth: 24”- 48” depending on application

Freeboard: 40% of bed depth (min)

Typical Treatment Loading Rate: 1.5-6 gpm/ft² depending on application

Backwash Rate: 9-10 gpm/ft², 5 minutes, temperature dependent

