

# Multi-Media Depth Filter Design Parameters

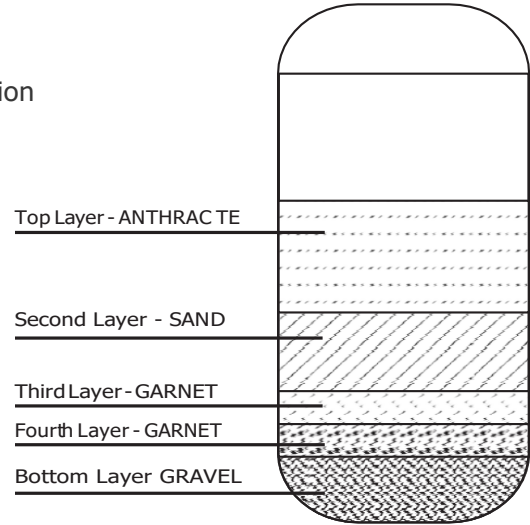
Design parameters of a typical multi-media depth filter are as follows:

- Bed Depth** 30 - 48 inches – 5 Layers
- Bottom Layer** Gravel 1/4" x 1/8", Larger tanks have a combination (support bed) of 1/2" x 1/4" and 1/4" x 1/8" Gravel
- Fourth Layer** #8-12 Garnet
- Third Layer** #30 - 40 Garnet
- Second Layer** Filter Sand – .45 - .55
- Top Layer** Anthracite .8 to .9 mm

- Backwash Rate** 13-18 gpm/sq. ft.
- Service Flow Rate** 12 gpm/sq. ft. or higher, depending upon local conditions

A support bed is mandatory and a specially designed distributor to handle high backwash rates.

An effluent water quality will be in the 10-20 micron range.



## MULTI-MEDIA FILTER LOADING TABLE

Tank Diameter, Inches	10"	12"	13"	14"	16"	18"	21"	24"	30"	36"	42"	48"
Tank Height, Inches	44"/54"	48"	54"	65"	65"	65"	62"	72"	72"	72"	72"	72"
Bottom Layer												
Gravel, 1/2" x 1/4"	—	—	—	—	—	—	—	100	150	200	500	700
Gravel, 1/4" x 1/8"	12.5	20	25	30	50	60	80	100	100	150	200	300
Fourth Layer												
Garnet, #8-12	20	250	25	35	50	65	85	100	200	250	350	450
Third Layer												
Garnet, #30-40	25	35	50	70	90	115	150	200	300	450	650	800
Second Layer												
Filter Sand	35	50	50	80	100	130	175	200	350	550	700	900
Top Layer Anthracite												
	25	40	50	65	90	100	150	200	300	450	600	800
	12.5	20	25	30	45	50	75	100	150	225	300	400

### Media in Pounds

Gravel .....	100 lbs/cu. ft. – 50 lbs./bag	Sand .45 - .55 .....	100 lbs/cu. ft. – 50 lbs./bag
Garnet #8-12 .....	140 lbs/cu. ft. – 50 lbs./bag	Anthracite .....	50 lbs/cu. ft. – 50 lbs./bag
Garnet #30-40 .....	130 lbs/cu. ft. – 50 lbs./bag		



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