

Filtration Media Sizing & Compatibility Guide

This guide helps you select the correct filter media based on your water treatment plant (WTP) design, flow rate, and contaminants. Using the right size and type of media can significantly improve efficiency, reduce pressure drop, and extend filter life.

1. Common Filter Media and Applications

Media Type	Common Size (mm)	Application
Silica Sand	0.6–1.2 mm	Basic filtration, turbidity removal
Anthracite	0.8–1.6 mm	Pre-filtration, multi-media filters
Garnet	0.3–0.6 mm	Support layer in dual/multi-media filters
Activated Carbon	0.6–1.2 mm	Chlorine, odor, organic removal
Zeolite (Clinoptilolite)	0.5–1.0 mm	Ammonia and fine solids removal
Manganese Dioxide	0.4–0.6 mm	Iron, manganese, H ₂ S removal
Calcite	0.5–1.0 mm	pH correction in acidic water

2. Recommended Media Layering for Multimedia Filters

Top to Bottom:

- Anthracite (0.8–1.6 mm)
- Silica Sand (0.6–1.2 mm)
- Garnet (0.3–0.6 mm)
- Gravel Support (2–6 mm)

3. Sizing & Compatibility Tips

- ☒ Always confirm Uniformity Coefficient (UC < 1.7 for ideal filtration)
- ☒ Match media size to nozzle spacing and filter design
- ☒ Consider water chemistry - e.g., acidic water needs Calcite
- ☒ Backwash velocity and expansion must match media specs
- ☒ Don't mix different densities without expert guidance

For custom media recommendations, sizing consultation, or product samples, contact Starke Filter Media today.