



CleanTech Water Filtration Has Arrived!

FilterBalls Service Bulletin #4

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Flow Regulator Instructions

A Flow Regulator can solve filtration problems encountered when FilterBalls are combined with high-powered pumps and large piping in small filter housings (rated 250LBS and smaller). Example: a 1.5 HP motor combined with 1.5" piping on a 100-pound filter housing may work with sand but not with FilterBalls. Here's why. A high-powered pump can be used to overcome resistance created by heavy sand. However, by contrast FilterBalls are 1% the weight of sand and the 1.5 HP motor is too powerful. FilterBalls provide the benefit of increased flow rate and faster filtration.



Using a high-powered pump with FilterBalls may increase flow rate exceeding the housing manufacturer's recommendation. In this case the filter media is ineffective, resulting in poor water quality.

FilterBalls operate effectively with less horsepower than sand delivering increased flow, reduced pressure, and faster filtration in your pool. Simply put, FilterBalls save money by using a smaller pump with shorter operating times.

A Flow Regulator may be your simplest solution when using FilterBalls in a small housing with a high HP motor. Always check the manufacturer's recommended flow rate to ensure your filter is set up properly and always use FilterBalls Minis™ in housings rated for 250 pounds of sand or less. The Flow Regulator is designed to keep the flow within manufacturers recommendations.

Here is an example illustrating the problem and Flow Regulator solution:

Example:

Hayward specification data sheet rates the SM1900 series housings as:
Effective Filtration area:

- 1.8 ft.2 / .017 m2

Manufacturers Design Flow Rate:

- (1-1/2" pipe): 45gpm / 170 LPM
- (1-1/4" pipe): 30gpm / 114 LPM
- (1" pipe): 20gpm / 76 LPM
- Max working Pressure: 50psi / 3.45 bar
- Required clearance (side): 18 inches / 460mm
- Required clearance (Above): 18 inches / 460mm
- Media Required: 175 LBS / 80kg

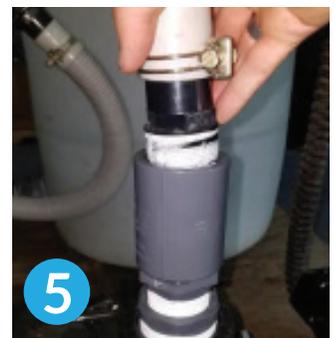
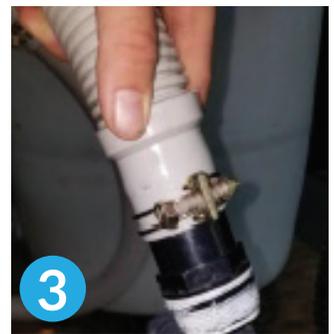
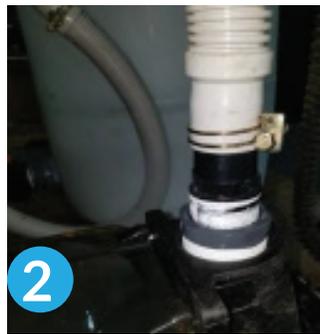


Flow Regulator Instructions *(continued)*

With sand installed and a 1 ½ HP pump the flow rate is typically in the range of 25 – 30gpm. With FilterBalls installed, the flow rate typically increased to 45 – 50gpm. A very simple solution is to change the diameter of the pipe using the Flow Regulator. This will decrease the flow to 38-40 gpm, staying within the manufacturers specifications. If you need to replace your pump, you can reduce the HP to ¾ - ½ HP and remove the Flow Regulator (if desired) and the system will also be in balance.

Flow Regulator Installation

- 1 Turn off power to the pump.
- 2 Remove the hose from on top of the pump.
- 3 Remove the hose from the control valve (if necessary).
- 4 Screw the flow regulator into the pump housing.
- 5 Replace the feed hose by screwing it into the top of the Flow Regulator and back into the Control Valve.
- 6 Follow start-up procedures according to manufacturer specifications.



For questions regarding installation or for technical support contact FilterBalls at 224.637.8900