

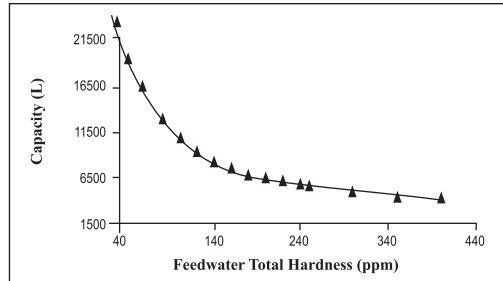
Softening Resin

As the softening resin exchanges safe ions for calcium and magnesium. The resin will eventually be exhausted and require replacement.

Note : Commandomatic recommends maximum flow rate of 10ℓ / min.

Note : It is advisable in areas where water quality is poor, to install a sediment filter before the media filter.

Feedwater Total Hardness Vs Cartridge Capacity



Cartridge capacity may vary dependant on water analysis

Waterco Orifice plate

As the Waterco media cartridges are designed for a maximum flow rate, Waterco highly advises the installation of Waterco Orifice Plates for carbon and ion exchange applications to ensure optimum performance. For more information please consult Waterco.

Other Products

Commandomatic Automated Domestic Water Softeners and Filters Commandomatic Industrial Automated Filtration Plants Waterco Multi Media Fibreglass Vessels Waterco Hydrostorm, Supatuf and Aquastream Centrifugal Pumps.

WATERCO

water, the liquid of life

Trimline Cartridge Filter

Trimline Bag Filter

Installation and Operating Manual

WATERCO
water, the liquid of life
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Trimline Cartridge Filter / Trimline Bag Filter

Description

The Trimline Cartridge Filter (*TCF*) and Trimline Bag Filter (*TBF*) series has been designed for residential, commercial and light industrial applications. Both TCF and TBF series provide compact and economical filtration.

Trimline Cartridge Filter

- * Pleated Polyester Cartridges
- * Media Cartridges

Trimline Bag Filter

- * Polypropylene filter bags
- * Pleated Polyester Cartridges

Housing specifications

Max. Pressure	TCF 600kPa (87psi) TBF 600kPa (87psi).
Max. Temperature	40°C (100°F)
Material	Polypropylene
Seals	Buna-n
Flow rates	Max. flow rates Vs Pressure drop is determined by cartridge/ beg selection. Please contact Waterco.

Water Filtration

TCF - sediment cartridge

Liquid enters the housing through the bottom inlet port and flows through the pleated cartridge from the exterior to the interior. Particulates are retained on the outer surface of the pleated cartridge and clean liquid exits the housing at the base.

TCF - media cartridge

Liquid enters the housing through the bottom inlet port and through the top of the media cartridge. The liquid then makes its way through the entire bed of the media till it reaches bottom outlet.

TBF - filter bag

Liquid enters the housing through the top port and flows through the bag from the interior to the exterior. Particulates are retained on the inner surface of the bag and clean liquid exits the housing at the base.

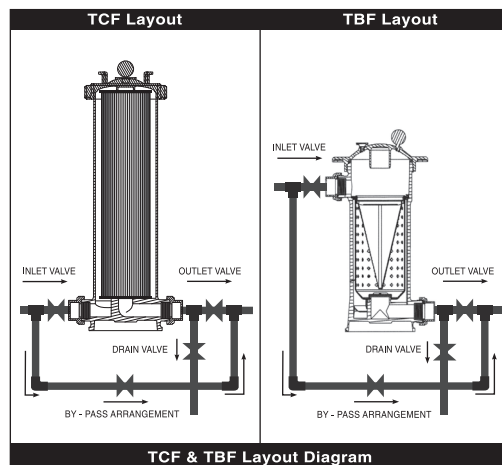
Note : A sediment filter removes dirt, debris and suspended solids, it does not sanitise the water.

Positioning

- * The filter unit should sit on level concrete surface or a precast concrete slab of suitable strength.
- * The filter unit should be located near a drain, to minimise piping for waste.
- * Position the filter away from direct sunlight.

Positioning

- * Be sure to comply with the local plumbing codes. The filter may be plumbed into a drinking water system and would, therefore be subject to whichever local regulations may apply.
- * Be sure that all provisions for wastewater disposal meet local, state or national codes. Do not discharge water where it will cause flooding or damage.
- * Take special care with the waste line. If there is not an adequate air gap between the waste pipe outlet and the drain into which it discharges, a siphon may develop that will draw some of the drain waste back into the water filter. This may result in undesirable "cross connection" between a safe and an unsafe water supply.
- * If the incoming water pressure is higher than the maximum pressure rating, a pressure regulating valve (PRV) needs to be incorporated upstream to the filter inlet. The PRV should be at least 20mm (3/4" dia.).



Piping

- * To minimise pressure loss through the filter, all incoming connecting pipe work should be 40mm (1 1/2" dia.) PVC Class E.
- * For best efficiency, use the fewest possible fittings. This prevents a restriction in the water flow.
- * A by-pass piping arrangement should be incorporated, which allows the entire filter unit to be easily isolated for servicing and maintenance, while ensuring continuous water supply.
- * Filter connections are provided with an O-rings seal. To avoid damage to the O-rings, use only a silicone base lubricant on the O-rings.
- * Keep piping tight and free of leaks.

Filter Element Changes

- 1) Turn off and lock out the pump, (if installed). If a By-Pass Valve is fitted, the pump is not required to be turned off.
- 2) Close the Inlet and Outlet Valve (not supplied with the unit). Open By-Pass Valve, if fitted.
- 3) Open the Air Relief Valve on the lid to release all air pressure from inside the tank and system.
- 4) Open the Drain Valve to empty the water in the filter.
- 5) Once the filter is drained close the Drain Valve.
- 6) Remove the lid manually by turning counter clockwise.
- 7) Remove filter bag/ cartridge, insert new filter bag/ cartridge.
- 8) When assembling the lid, check the O-ring for cracks or tears. Replace if necessary.
- 9) Thread the lid and tighten the pipe joints at various ports. Hand tighten only.
- 10) Start the pump (if installed) and slowly open the Inlet Valve, fill the housing until water flows from the Air Relief Valve (on lid). If by-pass is fitted, close the By-Pass Valve and slowly open the Inlet Valve, fill the housing until water flows from the Air Relief Valve.
- 11) Close Air Relief Valve.
- 12) Open the Outlet Valve.

Waterco Orifice plate

Rinsing Instructions

- 1) Turn off and lock out the pump (if installed) and close the Inlet Valve.
- 2) Close the Outlet Valve, Drain Valve and By-Pass Valve (if fitted). Open the Air Relief Valve mounted on top of the lid.
- 3) Open the Inlet Valve and turn on pump (if installed) to allow water to flow through the unit and to waste. Close the Air Relief Valve as soon as air is totally expelled and water flows from the Air Relief Valve.
- 4) Check if the media is adequately rinsed by looking at the waste water flowing past the air gap and to the drain.
- 5) Once the waste water appears clear, close the Drain Valve and open the Outlet Valve.

Conditions for Bag/ Cartridge Replacement

As filtration proceeds, the void areas in the medium become filled with debris filtered from the water. The pressure will start to rise and the flow of water will start diminishing. The filter will eventually become so clogged with debris that it will be necessary to either clean or dispose of the filter medium.

Bag/ Cartridge replacement is determined by the following conditions :-

- * The pressure drop increases.
- * The flow rate decreases until it is insufficient to meet the demand.
- * The removal efficiency decreases to the point where the effluent quality deteriorates and is no longer acceptable.

Conditions for Carbon and Softening Resin Replacement

Water Usage

To estimate the life of a filter media or resin requires information on feed water quality and the volume of water. For a residential application, water usage can be determined by the water meter or for a residential application, or by the following calculation :-

A safe assumption can be made that each person will use approximately **125 litres** of water per day. An automatic washing machine and/ or dishwasher each count as an additional user.

For Example :

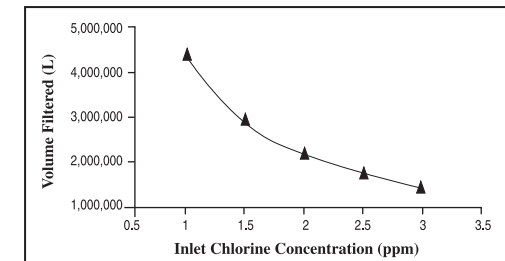
A family of five with a dishwasher and washing machine will use approximately 7 x 125 litres of water per day - total 875 litres. 875 litres per day x 7 day = 6,125 litres per week.

For feed water quality determination either contact the local water authority or a feed water analysis is required.

Carbon

As activated carbon adsorbs taste/ odour and chlorine and some organic material. The carbon will eventually be exhausted and require replacement.

Chlorine Concentration Vs Cartridge Capacity



Cartridge capacity may vary dependant on water analysis.

Note : Commandomatic recommends maximum flow rate of 30ℓ / min.