

Cascade Filters

Cascade Filters are high-rate mechanical filters designed to extract organic debris and particulates from either rooftop or surface rainwater. They are installed underground and include a telescopic accessway that is adjusted to match the incoming pipe invert. Rainwater enters through the top port, cascades over and through a curved horizontal, multi-layer filter element, and exits through the bottom port on the same side. Debris that cannot pass through the filter element is washed through the bottom port that is opposite the inlet.

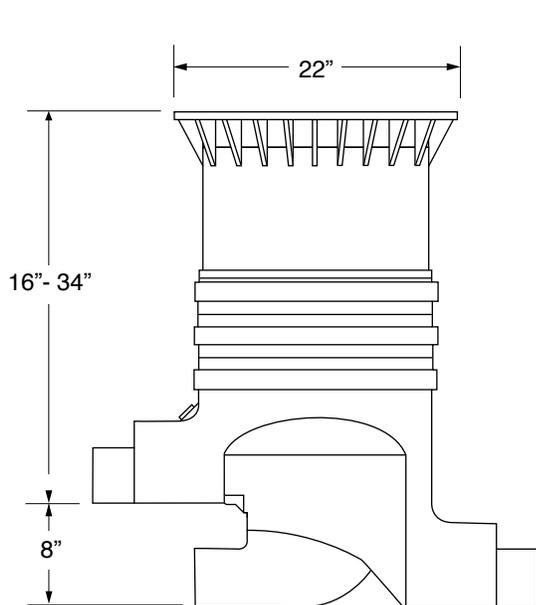
Two models are available: the *Cascade-150* for roofs up to 5,000 square feet, and the *Cascade-200* for roofs up to 16,000 square feet. The maximum roof area per filter should be reduced 50% for seasonally dry climates with intense rainfall.

Cascade filters can provide 95%+ recovery efficiency. They are mostly self-cleaning and require only occasional manual cleaning. An optional internal sprayhead is available to further reduce maintenance in regions with high levels of dust or plant pollen.

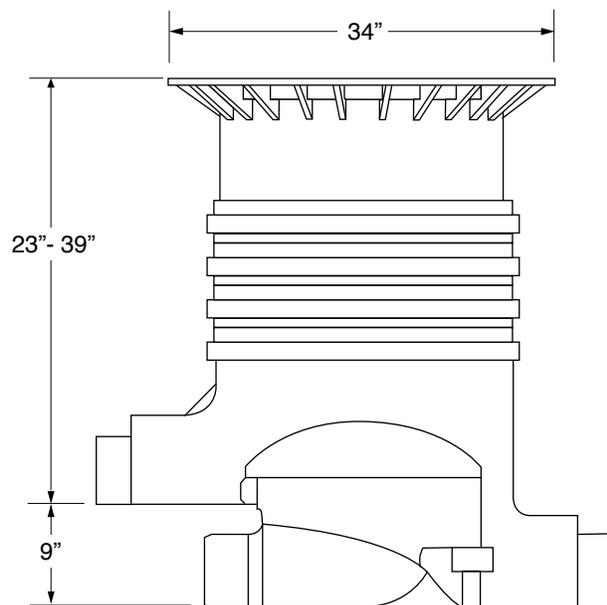


PHYSICAL CHARACTERISTICS

Model	Inlet	Outlet	Overflow	Diameter	Invert in	Invert out	Max Area
Cascade-150	4" or 6"	4"	4" or 6"	22"	16" - 34"	24" - 42"	5000 ft ²
Cascade-200	6" or 8"	6"	6" or 8"	34"	23" - 39"	32" - 48"	16000 ft ²



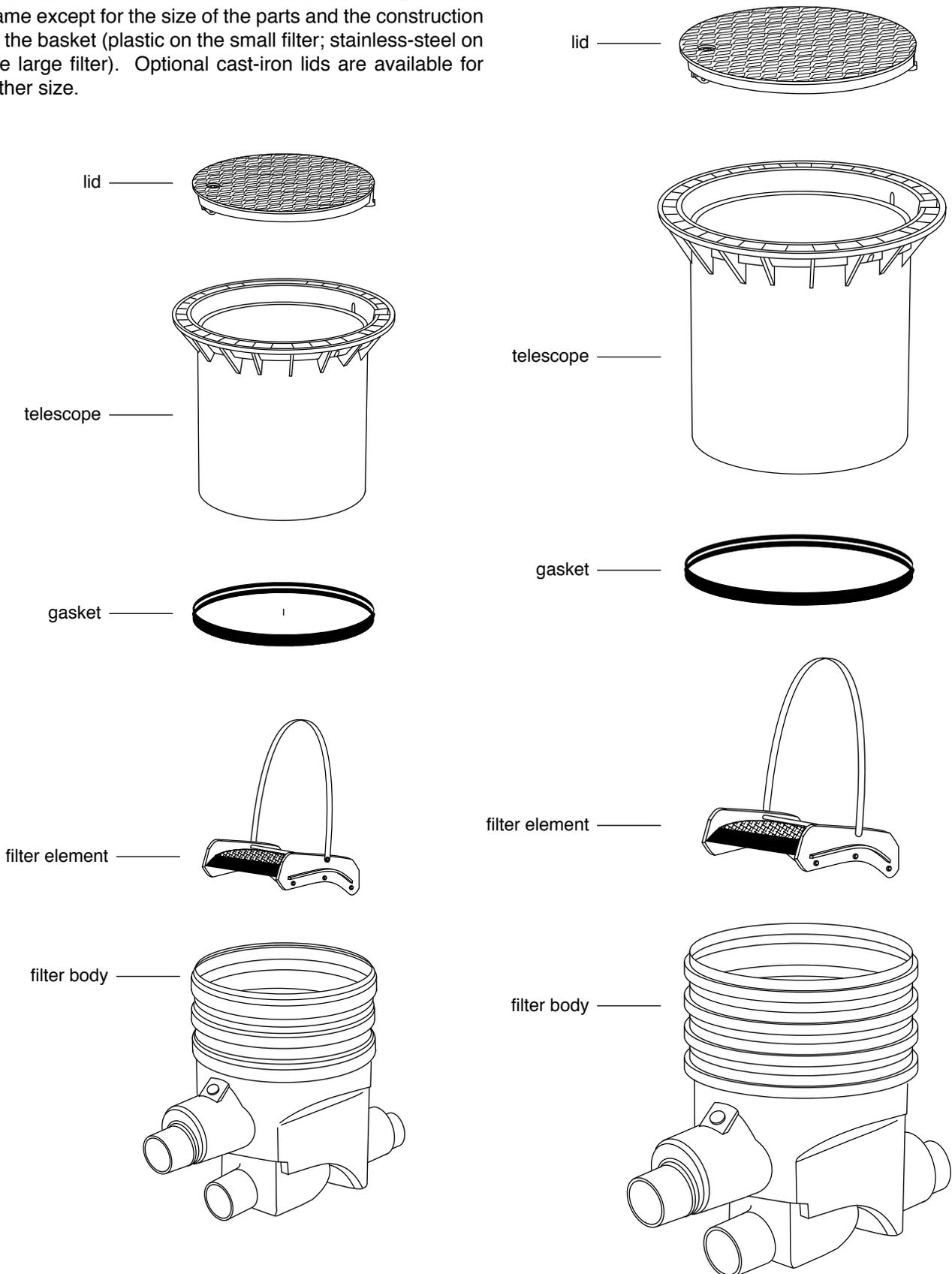
Cascade-150



Cascade-200

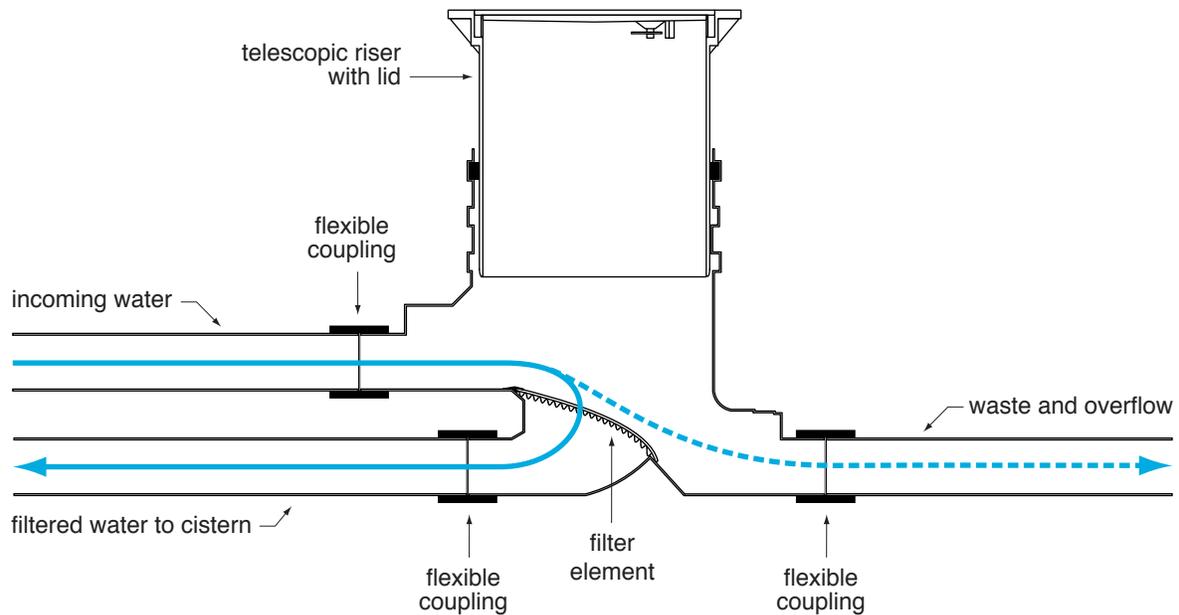
COMPONENTS

Construction of the Cascade-150 and Cascade-200 is the same except for the size of the parts and the construction of the basket (plastic on the small filter; stainless-steel on the large filter). Optional cast-iron lids are available for either size.



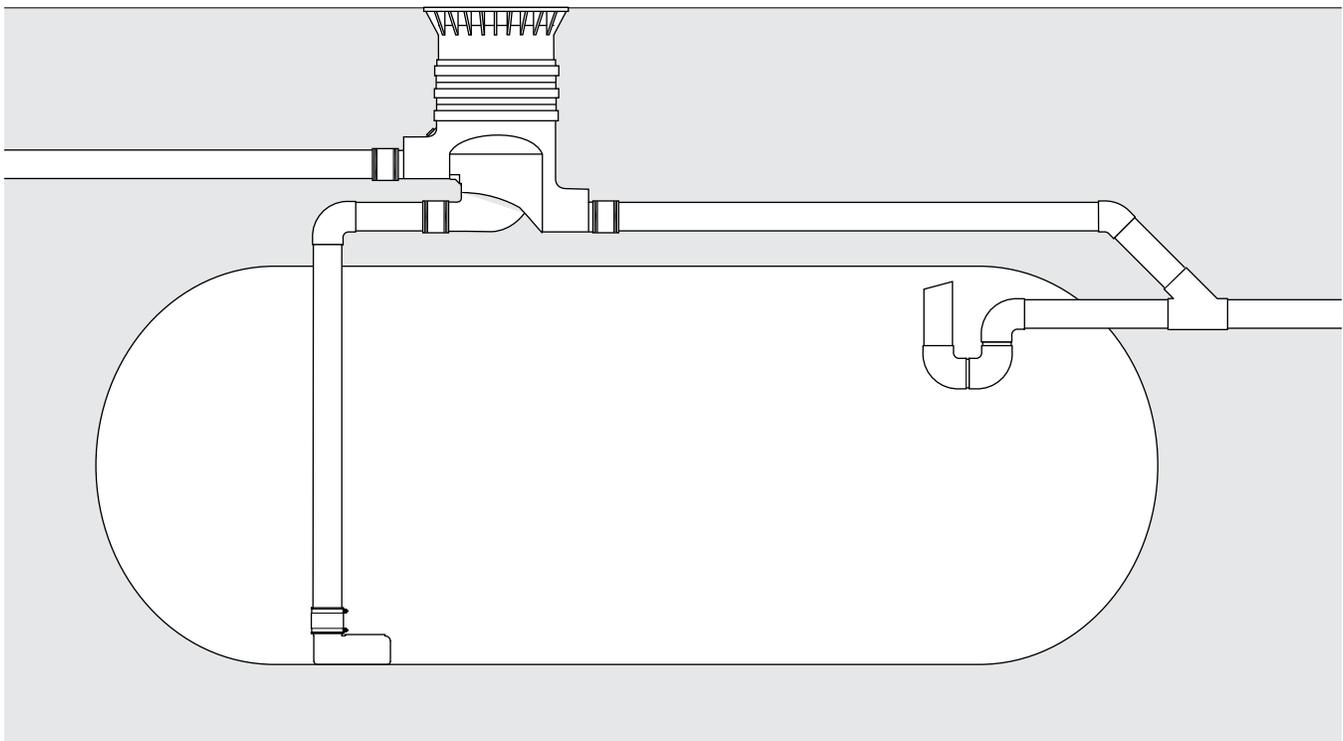
OPERATION

Water from the roof enters through the top port, flows through the filter element, and exits through the port below. Debris is washed off of the filter element and out the other bottom port. If the filter is clogged or the cistern cannot handle the hydraulic flow, unfiltered water overflows through the same bottom port.

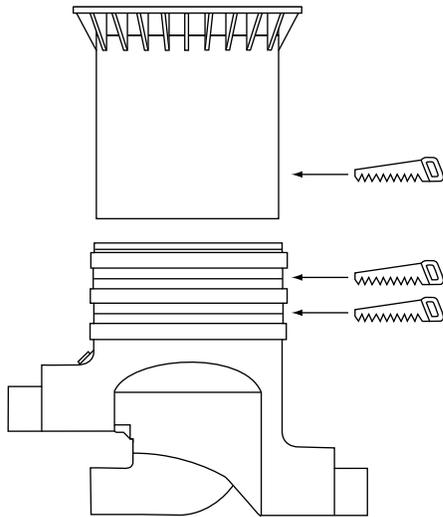


INSTALLATION

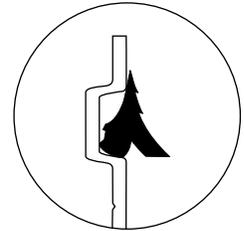
In the example below, filtered water flows from a Cascade Filter into an underground storage tank. The waste and overflow pipe from the filter merges with the overflow pipe from the tank.



ASSEMBLY

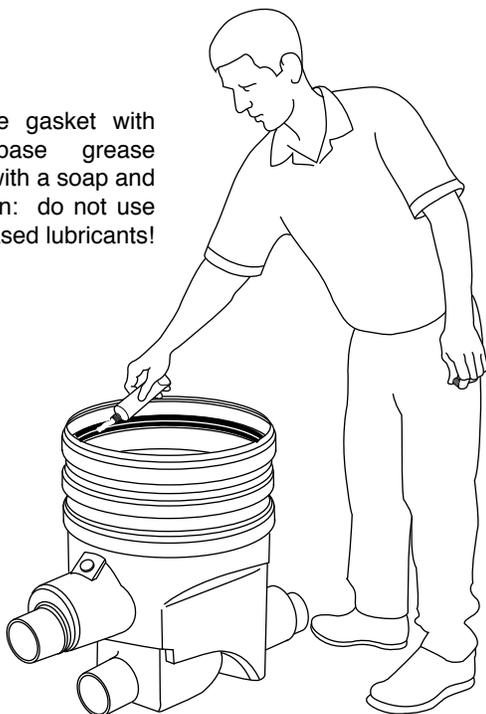


For shallow burial, cut the filter body at one of the small grooves between the ribs. For very shallow burial, also cut the telescopic extension.



Insert the gasket into the top interior channel as shown.

Lubricate the gasket with the water-base grease provided or with a soap and water solution: do not use petroleum based lubricants!



Press the telescope firmly into place to obtain the correct depth.

