1. Hayward guarantees its products against defective material and workmanship only. Hayward assumes no responsibility for damage or injuries resulting from improper installation, misapplication, or abuse of any product.

2. Hayward assumes no responsibility for damage or injury resulting from chemical incompatibility between its products and the process fluids to which they are subjected. Compatibility charts provided in Hayward literature are based on ambient temperatures of 70F and are for reference only. Customer should always test to determine application suitability.

3. Consult Hayward literature to determine operating pressure and temperature limitations before installing any Hayward product. Note that the maximum recommended fluid velocity through any Hayward product is eight feet per second. Higher flow rates can result in possible damage due to the water hammer effect. Also note that maximum operating pressure is dependent upon material selection as well as operating temperature.

4. Hayward products are designed primarily for use with non-compressible liquids. They should NEVER be used or tested with compressible fluids such as compressed air or nitrogen.

5. Systems should always be depressurized and drained prior to installing or maintaining Hayward products.

6. Temperature effect on piping systems should always be considered when the systems are initially designed. Piping systems must be designed and supported to prevent excess mechanical loading on Hayward equipment due to system misalignment, weight, shock, vibration, and the effects of thermal expansion and contraction.

7. Because PVC and CPVC plastic products become brittle below 40F, Hayward recommends caution in their installation and use below this temperature.

8. Published operating torque requirements are based upon testing of new valves using clean water at 70F. Valve torque is affected by many factors including fluid chemistry, viscosity, flow rate, and temperature. These should be considered when sizing electric or pneumatic actuators.

9. Due to differential thermal expansion rates between metal and plastic, transmittal of pipe vibration, and pipe loading forces DIRECT INSTALLATION OF METAL PIPE INTO PLASTIC CONNECTIONS IS NOT RECOMMENDED. Wherever installation of metal valves into metal piping systems is necessary, it is recommended that at least 10 pipe diameter in length of plastic pipe be installed upstream and downstream of the plastic valve to compensate for the factors mentioned above.

**INSTALLATION:**

**INSPECTION:**

Upon receipt of the filter vessel, inspect it for damage that might have occurred during transit. Report any damage to the carrier immediately.

**LOCATION AND SUPPORT:**

The Hayward filter vessel should be installed not less than 24” down stream of a Hayward strainer. The filter vessel must be bolted to the floor to insure proper piping installation. A integral flange on the base of the g filter vessel will accept 3/4” studs.

**PIPING INSTALLATION:**

**WARNING:** METAL PIPING SHOULD INCLUDE A MINIMUM OF 20” OF PLASTIC PIPE UPSTREAM AND DOWNSTREAM OF THE FILTER VESSEL.

For installation in metal piping systems it is recommended that the Hayward flanged version CFLT4202F or CFLT4201F be installed. Plastic piping is still required.

From the Hayward strainer, a 2” line is required to the inlet of the filter vessel. Connect 2” line to a valve and then to the upper 2” NPTF (inlet) of the filter vessel.

A 2” line must be piped from the filter vessel 2” NPTF bottom port (outlet) to a determined suction source (system pump suction). A 2” valve such as a Hayward Diaphragm or Butterfly valve is required on this outlet line.

It is recommended that a 2” drain valve be installed on the unused bottom 2” NPT port.

The vent fitting must be installed on the top of the unit. DO NOT FORGET THE O-RING. A 3/8” ID tube should be attached over the barb and secured with a hose clamp on the vent fitting. This hose will be used to direct the flow from the vent fitting. The top of the vent fitting is normally plugged. This plug can be removed and replaced with a pressure gauge that measures inlet pressure to the bag filter. It is recommended that a gauge guard be installed between the filter vent and the gauge.

**THREADED CONNECTION:**

Threaded end connections are manufactured to ASTM specifications D2464-88, F437-88 and ANSI B2.1. Wrap threads of pipe with Teflon tape of 3 to 3-1/2 mil thickness. The tape should be wrapped in a clockwise direction starting at the first or second full thread. Overlap each wrap by, 1/2 the width of the tape. The wrap should be applied with sufficient tension to allow the threads of a single wrapped area to show through without cutting the tape. The wrap should continue for the full effective length of the thread. Pipe sizes 2” and greater will not benefit with more than a second wrap, due to the greater thread depth. To provide a leak proof joint, the pipe should be threaded into the end connection “hand tight”. Using a strap wrench only. (Never use a stillson type wrench) tighten the joint an additional 1/2 to 1-1/2 turns past hand tight. Tightening beyond this point may induce excessive stress that could cause failure.

**FLANGED CONNECTION:**

Flange bolts should be tight enough to slightly compress the gasket and make a good seal, without distorting or putting excessive stress on the flanges. Suitable washers should be used between the bolt head and flange and the nut and flange. Bolts should be tightened in alternating sequence.

**RECOMMENDED FLANGE BOLT TORQUE** USE WELL LUBRICATED METAL BOLTS AND NUTS. USE SOFT RUBBER GASKETS

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**USE THE FOLLOWING INFORMATION PRIOR TO INSTALLING AND USING HAYWARD VALVES, STRAINERS, FILTERS, AND OTHER ASSOCIATED PRODUCTS.**

**FAILURE TO FOLLOW THESE INSTRUCTIONS MAY RESULT IN SERIOUS INJURY.**

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OPERATION:
The Hayward polypropylene filter vessel is designed as an integral part of the Hayward filtration system. Installed downstream of the Hayward strainer, the Hayward filter concentrates the solids, and provides convenient, economical removal of the solids from the process with very low liquid loss.

Large solids are separated from the liquid with the Hayward strainer while smaller solids are accumulated in the cartridge filter. The cartridge filter concentrates the solids in disposable cartridges, while clean liquid is piped back to the process.

SYSTEM STARTUP
- Follow the procedure below for replacing the cartridge and for initial cartridge installation.
- Before installing the initial cartridge, the plate stop must be installed in the filter vessel. This plate rests on the stops molded in the filter vessel.

WARNING: REMOVE PRESSURE FROM VESSEL BEFORE OPENING OR VENTING. THE PIPING SYSTEM SHOULD BE PURGED OF AIR BEFORE FULL PRESSURE IS APPLIED.

1. Close the valve on the inlet and outlet of the cartridge filter.
2. Open the vent located on the top of the cartridge filter.
3. Slowly, partially open the valve on the inlet of the cartridge filter.
4. Carefully vent all the air from the cartridge filter. Close the vent when liquid begins to discharge.
5. Fully open the inlet valve.
6. Fully open the outlet valve.

The system is now in operation. When the cartridge become “loaded” with solids it must be replaced. A Hayward pressure differential gauge should be installed on the filter because when the differential pressure reaches 15 PSIG it indicates that the cartridge requires changing.

NEVER DISASSEMBLE THE CARTRIDGE FILTER WHILE THERE IS FLUID IN IT. DRAIN ALL PROCESS FLUID BEFORE REMOVING THE COVER.

TO CHANGE THE CARTRIDGE:
1. Close the inlet valve.
2. Close the outlet valve.
3. Open the drain on the cartridge filter.
4. Slowly open vent to fully drain the cartridge filter.
5. Remove cartridge filter cover.
6. Remove the cartridge.
7. Install the new cartridge, cartridge connector if required and the cover.
8. Repeat steps 3-6 under start-up.

SPECIFICATIONS
MAXIMUM WORKING PRESSURE 150 PSIG @ 70°F
INLET/OUTLET/DRAIN 2" NPT
MAXIMUM FLOW 100 GPM WITHOUT CARTRIDGE
VENT 3/8" Male tube fitting
SEALS VITON; EPDM OPTIONAL

INSTALLATION OF CFXKITV
1. Install O-ring (About 2.75 ID) in center groove in Bottom Cartridge Connector CRV335
2. Install Bottom Cartridge Connector through Plate CRV334. Install O-ring (About 2.5 ID) in groove at the end of the Connector.
3. Place large O-ring in groove around plate. Install the e into the body, until the plate seats. The cartridge connector MUST be pointed toward the top of the vessel. Utilize a plastic pipe or a wood stud to seat plate to dimension shown.
4. Install Flow diffuser in top of body.