

Chemelean™ Model 55C

Installation and Operating Instructions

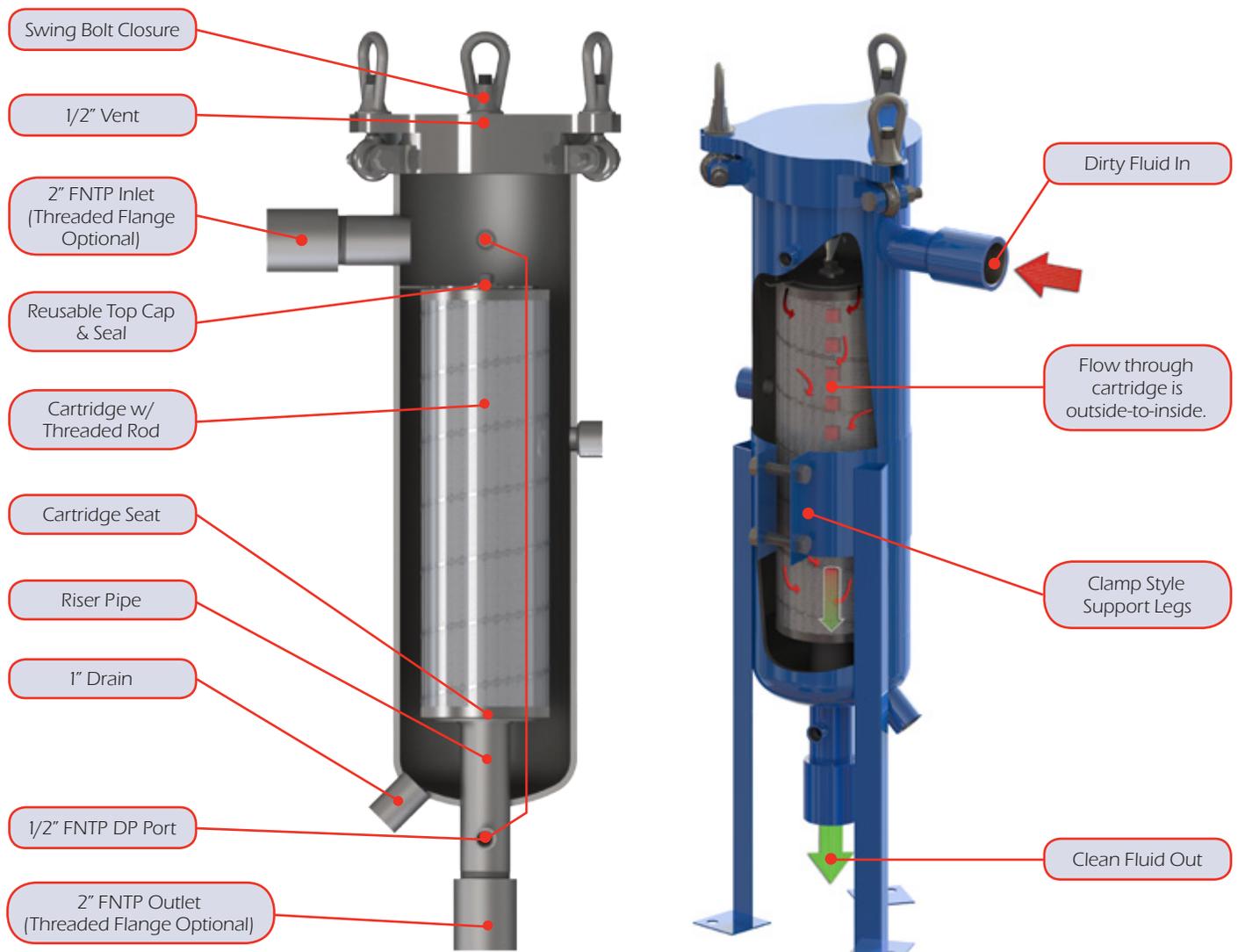
GENERAL DATA

The PECOFacet Chemelean™ Model 55C filter housing is designed for particulate removal from a liquid stream. The initial charge of cartridges will be shipped separately outside the housing and will need to be installed prior to startup.

Installation and operation should be undertaken in accordance with all plant safety procedures and standard operating procedures of the end user by authorized personnel only. If any difficulties are experienced during installation or in operation, consult PECOFacet® direct at (940) 325-2575 or your authorized, local PECOFacet® representative/distributor for assistance.

The Chemelean™ can be installed in either a vertical or horizontal configuration. Depending on the configuration requested the housing will require a clamp style support stand for the vertical configuration or a clamp style set of saddles for the horizontal configuration. The housing is fitted with 2" inlet/outlet FNPT couplings. Flanges are an option and are sold separately as an adder upon request.

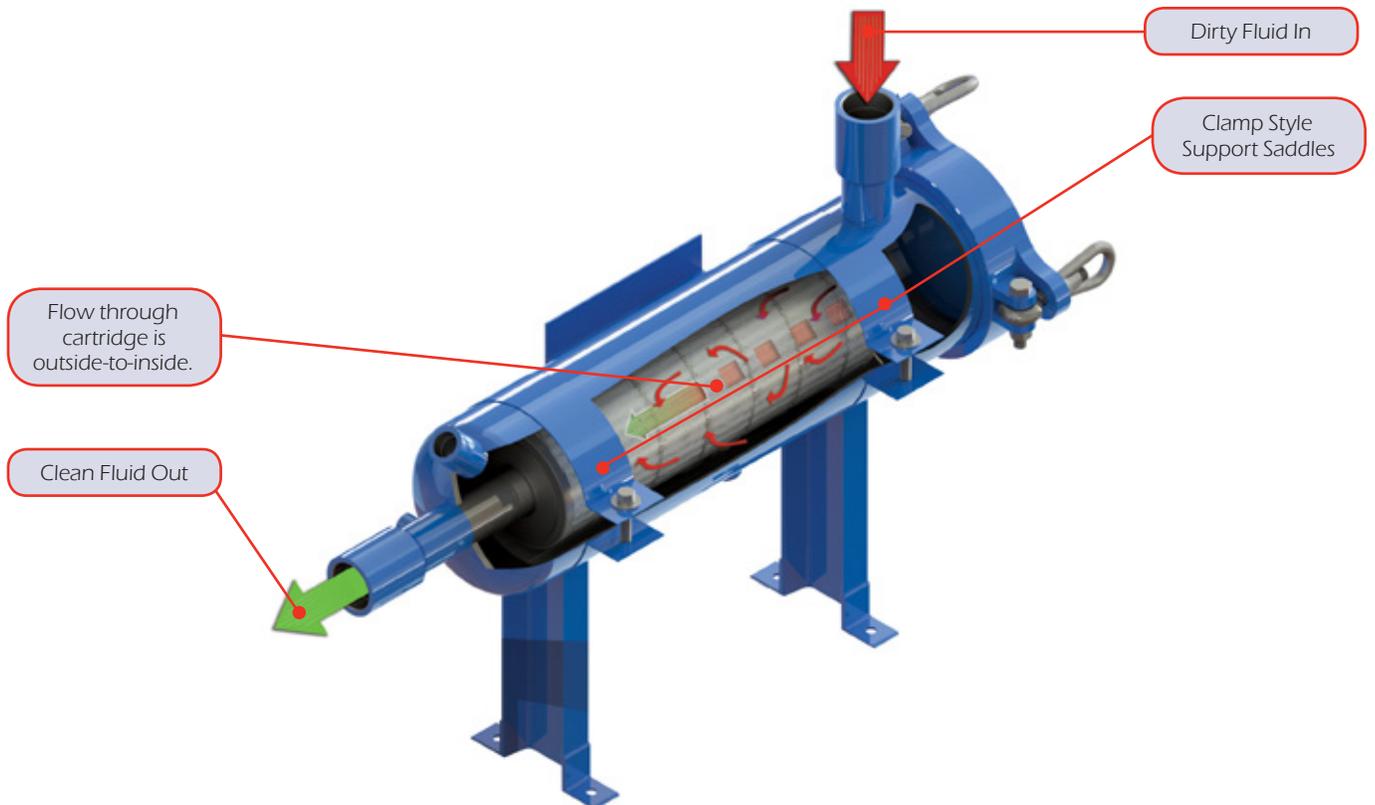
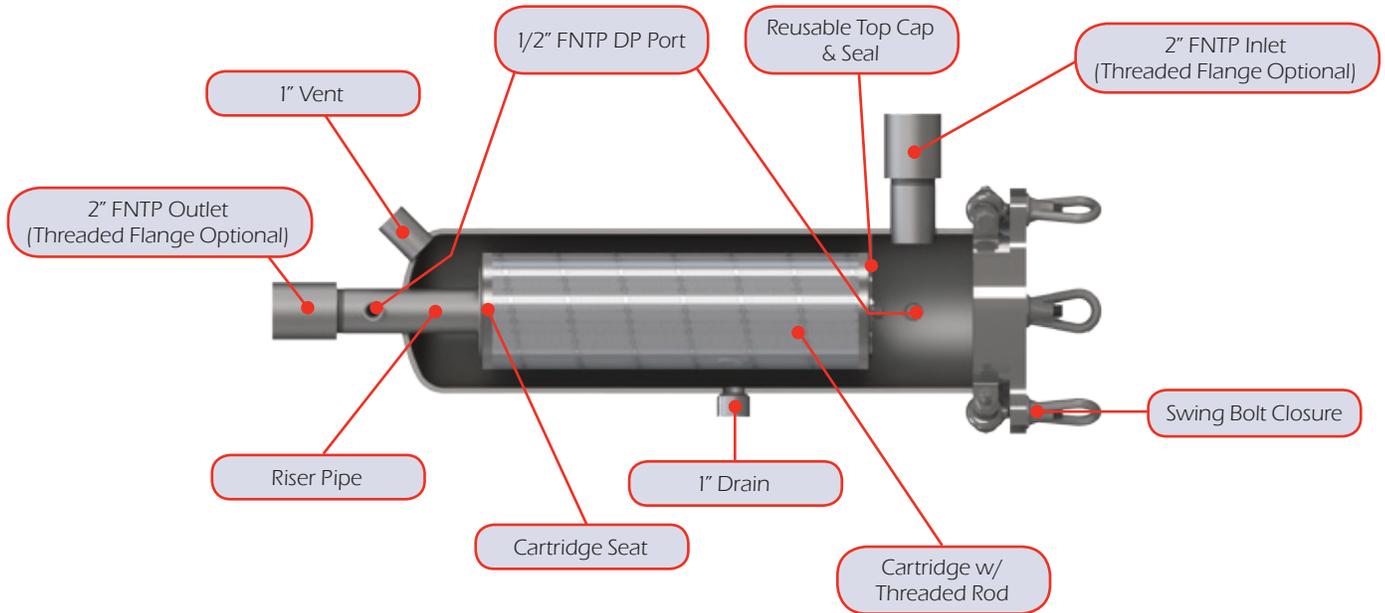
GENERAL ARRANGEMENT / FLOW – VERTICAL CONFIGURATION



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GENERAL ARRANGEMENT / FLOW – HORIZONTAL CONFIGURATION



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A. INSTALLATION INSTRUCTIONS

1. Position the filter housing on a flat surface and ensure adequate space so that the cartridge may be removed and replaced through the closure.
2. Use the threaded 2" FNPT fitting or threaded flange to connect the filter housing inlet and outlet piping. Check the filter housing drawing to identify the location of each. It is recommended that the filter housing be installed with by-pass and block valves to permit continued operation during cartridge changes.
3. Open the filter housing closure and inspect the inside of the housing. Verify the internals have not been damaged and that the o-ring for the closure is in place.
4. Install the cartridge onto the threaded rod and ensure the cartridge flat gasket is mated to the cartridge seat and the threaded rod is centered in the cartridge. Install the top seal cap over the cartridge with the gaskets and locknut properly tightened (12–14 ft/lbs torque).
5. Close the filter housing closure. Ensure the closure o-ring is seated in the o-ring groove and center the closure to the filter housing. Tighten the eye-bolts on the closure to 30 ft/lbs torque (60 ft/lbs max).
6. Prior to filling the filter housing with the process fluid, verify that the operating pressure and temperature are within the design limits of the filter housing. The design conditions can be found on the filter housing nameplate.



7. Review all operating company safety procedures for filter operation.
8. Follow all operating company safety and lockout/tag-out procedures.
9. Slowly fill the filter housing with the process fluid by partially opening the inlet block valve. While filling, use the vent valve to release displaced gas. Displaced gas may be hazardous depending on the liquid so take proper care when venting.
10. The filter housing is full once the process fluid comes out of the vent valve. Close the vent valve and carefully check the filter housing for leaks.
11. Fully open the inlet block valve once the leak check is completed.
12. Open the filter housing outlet block valve slowly to allow flow through the filter housing.
13. Slowly open the vent valve to check for trapped gas once again. If gas continues to build up in the top of the filter housing, an automatic vent valve should be installed.

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B. OPERATING INSTRUCTIONS

1. After normal operating pressure has been reached, monitor the differential pressure reading across the inlet and outlet on a regular basis until it reaches 35 psid. Spent cartridges should be replaced at or before 35 psid. Pressure gauges are an optional feature supplied by the manufacturer. If the differential pressure builds up quickly, check the vent valve for additional trapped gas and vent as needed.
2. The pressure drop should never exceed 50 psid or the cartridge may collapse and cause bypass.
3. Change out spent cartridges with new, original PECOFacet replacements according to the instructions below.
4. Filter housings should be opened and inspected at least once per year, regardless of differential pressure, to confirm the integrity of the cartridge to the sealing surfaces.

C. CHANGING CARTRIDGES

1. Review all operating company safety procedures prior to cartridge change-out operations.
2. Follow all operating company safety and lockout/tag-out procedures.
3. Stop all process flow to the filter housing by closing the inlet block valve first, followed by the outlet block valve.
4. Bleed off pressure by opening the filter housing drain valve, followed by the top vent valve. **ENSURE THAT THE FILTER HOUSING PRESSURE IS AT ATMOSPHERIC PRESSURE PRIOR TO PROCEEDING.**
5. Drain the filter housing completely before opening the eye-bolts on the closure. Care must be taken as the process fluid may be hazardous due to its contents, pH or temperature. **UNDER NO CIRCUMSTANCES IS THE CARTRIDGE TO BE REMOVED UNTIL THE PROCESS FLUID IS DRAINED FROM THE FILTER HOUSING.**
6. Open the filter housing closure and remove the spent cartridge.
7. Inspect and clean the filter housing as needed.
8. Install the new cartridge. Ensure the cartridge is sealed on the cartridge seat at the bottom and the threaded rod is centered in the cartridge.
9. Insert the top seal cap and install the washer and nut on the threaded rod. Tighten the nut to 12-14 ft/lbs torque.
10. Inspect the closure o-ring for cracks or wear and replace as needed. **INSTALLATION OF A NEW CLOSURE O-RING AT EACH CARTRIDGE CHANGE IS HIGHLY RECOMMENDED.**
11. Fit the closure on the housing and center. Tighten the eye-bolts to 30 ft/lbs torque. Do not exceed 60 ft/lbs on the eye-bolts.
12. Slowly fill the housing with the process fluid by partially opening the inlet block valve. While filling, use the vent valve to release displaced gas. Displaced gas may be hazardous depending on the fluid.
13. The housing is full once the process fluid comes out of the vent valve. Close the vent valve and carefully check the unit for leaks.
14. Fully open the inlet block valve once the leak check is completed.
15. Open the housing outlet block valve slowly to allow flow through the housing.
16. Slowly open the vent valve to check for trapped gas once again. If gas continues to build up in the top of the housing, an automatic vent valve should be installed.

D. SUMMARY DATA

Recommended Cartridge Change-Out Differential Pressure.....	35 psid
Maximum Cartridge Differential Pressure at Collapse.....	50 psid
Cartridge Sealing Torque to Seal Cap	12-14 ft/lbs Maximum
Closure Eye-Bolts Sealing Torque	30 ft/lbs Recommended. Do Not Exceed 60 ft/lbs