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INSTALLATION Instructions

OPEN-END SERIES COALESCER CARTRIDGES

1. Turn off the pump. Close inlet and outlet valves to the filter.
2. Open the air eliminator or manual air vent valve and drain the vessel through the bottom drain. Also drain a few gallons out of the inlet compartment "dirty" drain.
3. Loosen the bolts and swing the cover back.
4. Remove the spider (if installed) and then remove the old cartridges from the vessel.
5. Cut the new cartridges' protective poly-bags at both ends.
6. Holding the new cartridge with the poly-bag still protecting the cartridge, place it over the tie rod. (The poly-bag protects the cartridge from being disarmed by handling.) Make sure the cartridge seats against the mounting adapter. **DO NOT TOUCH THE OUTER SOCK.**
7. Remove the poly-bag SLOWLY from the cartridge after it is properly seated.
8. If open-end cartridges are stacked, insert a center spacer over the tie rod and seat it on the cartridge just installed. Install next cartridge over the spacer as per step 6. Be sure cartridge is properly seated.
9. Place the end seal plate over the rod and seat onto top of cartridge.
10. Place the rubber gasket, flat washer, lock washer, and nut on the rod and tighten down hand tight. (Use the new rubber gasket in the plastic bag supplied with the cartridge.)
11. Torque the nut to 5 ft-lbs. of torque (or until the rubber gasket starts to spread and curl up). Repeat steps 5-11 until all cartridges are installed.
12. If supplied, install the spider plate over the ends of the cartridges. Before tightening bolts ensure proper spacing between the cartridges. Cartridges should not touch each other or the vessel wall. The ends of the cartridges can be shifted within the spider plates holes as follows:

Cartridge Length	Shift Within the Spider Hole
Greater than 33"	Full movement within the spider hole
30"	Less than 5/8" (16 mm)
28"	Less than 9/16" (14 mm)
24"	Less than 1/2" (12 mm)
22"	Less than 1/2" (12 mm)
20"	Less than 3/8" (10 mm)
18"	Less than 3/8" (10 mm)
16"	Less than 1/4" (8 mm)
14"	Less than 1/4" (6 mm)
11"	Less than 1/4" (5 mm)
9"	Less than 3/16" (5 mm)

(cont'd on back)

13. Adjust the spider clip nuts, so the spider lies flat on the ends of the cartridges. When the cartridges are properly spaced, tighten the spider nuts to 5 ft-lbs.
14. Making sure no poly-bags remain in the vessel, replace cover and tighten securely.
15. Close the bottom drain valve.
16. Open the inlet valve slightly. Keep the outlet valve closed.
17. Allow the filter to fill SLOWLY with the fuel until the air eliminator closes. If a manual air vent is on the unit, allow to fill SLOWLY until fuel comes out of vent valve, then close the vent valve.
18. When vessel is full, open the inlet valve fully, then slowly open the outlet valve.
19. While the unit is operating, check the pressure drop across the elements. There should be some indication of a positive pressure, normally 1-5 psid. This insures that all seals have been properly made during the installation.

OPERATING PROCEDURES

Velcon Recommended Cartridge Changeout

(Also refer to your company guidelines)

Filter Cartridges: 1 year or 15 psid, whichever occurs first