



STEP BY STEP CHECKLIST

1. First check that the overall length of the liner is at least one foot longer than the overall pipe length being repaired. (With at least six inches of liner to be exposed at the liner head exit point).
2. **Before liner insertion:** Make sure to “test fit,” the white retainer or gray encasement end-sleeves into the poolside fitting and the opposite stock pipe at the pump side. They should easily fit into both ends with some looseness. The white retainer sleeves are interchangeable for both fitting and stock pipe ends. The gray encasement sleeves are not. The narrow gray sleeve is for the fitting-poolside while the larger diameter gray sleeve is for the cut stock pipe or pump side.
3. Cut to fit the length of the retainer or encasement sleeve with a hacksaw at the grooved markings, if needed, to make sure the liner is not squeezed or choked when installing (inserting) the sleeve when gluing into place. This will normally happen when there is an elbow within five inches of the stock pipe or fitting entry points.
4. Rough sand the I.D. of the ‘pool side’ fitting and the ‘pump side’ I.D. for cleanliness before liner insertion using the enclosed emery cloth.
5. **Liner Entry points:** General rules of entry:
Insert the liner into the existing pipe where the most restrictive elbows are located. Insert the liner where the smaller ID section of pipe is located if the existing pipe is made up of two different diameters. For Skimmer repair, enter the liner at the skimmer. For Main repair, enter from the pump side towards the pool bottom. For Pool wall return jet, enter where most elbows are located. Either fitting or pump side.
6. **Before liner insertion:** The “tag line” connected to the head of the liner is to be uncoiled without being twisted. Lube the tag line with the yellow wax lubricant starting at the liner head. Lubricate the liner with the soap lubricant starting at the head towards the tail.
7. Place the enclosed 2’x1. 5’ plastic drop cloth between the ground and the pipe so no debris will enter the pipe. Small stones may jam during insertion of the liner due to the small clearance between the liner and the existing pipe I.D.
8. Insert the tag line of the liner head through the existing pipe by either tying a pig directly to the tag line or the pig line connected to the tag line. You can also tie the tag line to your fish tape to pull through the existing pipe.
9. Always wear safety glasses when pressurizing and inserting the liner.
10. Before pressurizing the liner, make sure your compressor outlet pressure gauge is reading zero and the air assembly valve is closed. Slowly **pressurize the liner from 3 to 9 psi, normally 5psi**, using the compressor regulator valve located on your compressor. You want the liner to be flexible enough to pass through elbows but also have enough stiffness to push through the existing pipe. You may need to increase the pressure up to 09 psi for more affective liner stiffness the longer the liner length is inserted.

11. Make sure the compressor is always powered so there is no pressure loss during installation.
12. The tag line only helps guide the liner head around the pipe elbows. There are two liner heads installed. The internal pressurized bulkhead is located 2 & 1/2 inches back from the liner head. The tag line is anchored at the aft head and freely passes through the forward, exposed (white) liner head. You assist the liner around an elbow by using a pumping (caterpillar) action with slight tugs while always pushing at the tail end of the liner. DO NOT pull or tug the tag line by more than 15 pounds! Only slight tension or slight tugs during transit is necessary in the straight runs. Too much pulling tension on the line will 'choke' the liner from transiting through the fittings in the pipe.
13. Pushing the liner is the proper insertion method. Adjusting the liner pressure also assists in transporting the liner through the pipe if needed.
14. Make sure you have at least six inches of exposed liner at the exit point of the liner and four inches at the liner entry point at the liner tail section. When exiting, hold the 6" of liner head at the exit point before slowly releasing the liner air pressure. The liner will try to retract into the pipe while it seats itself during depressurizing.
15. Cut off both heads at the liner head, making a clean straight cut exposing 3 inches of liner exiting the pipe in order to screw the end sleeves to the liner.
16. Apply duct tape over the female threads located in the poolside fitting before applying epoxy.
17. Always seal, with epoxy, the fitting (pool) side first, lastly sealing the pump side.
18. Clean off any residual soap lubricant from the liner with the alcohol packets and the pipe before sealing with epoxy.
19. Add a slight amount of epoxy to 3" of the liner O.D. before screwing (counterclockwise) the **encasement (gray) sleeve over** the OD of the liner **OR** add a slight amount of epoxy over the **retainer sleeve (white)** male threads. Screw the sleeve all the way **into** the liner. Apply the rest of the epoxy over the total sleeve **and** exposed liner to seal the liner and sleeve inside of the existing pipe I.D.
20. By using the rubber expansion plug covered with wax paper, push the liner with attached encasement or retainer sleeve into the fitting so that the sleeve will bottom out at the end of the fitting. Tighten the plug to hold the liner and sleeve in place until the epoxy cures (45 min.). Push the sleeve and liner into the stock pipe at the pump side and tape over the pipe to hold the sleeve into place while curing.
21. **Warning Sticker:** Apply the warning sticker on the pump-side fitting. Take some clear tape and cover the warning label in order to waterproof the label.