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AC drain line repair

I thought the air conditioning drain was plugged. I was wrong. I fix my fix, and invent microwork.



My house has two 3-ton AC units. One of them started overflowing the drain and filling the metal emergency drain pan. It leaked out under the eave of the house, which was a tear-up all by itself. I thought I had a roof leak. Once I knew it was the AC drain overflowing, I was relieved. I had learned how to hook up a shop vac to the line and clear it out. I did that, and it still overflowed into the tin pan.

I flushed the line with gallons of vinegar and bleach. Still overflowing. So I started cutting the AC drain line, figuring it had to have some horrible plug. Above you can see where I broke into a bedroom closet to get access to the drain lines. The real problem is that the AC air handler had gone way out of level, and the internal pan was putting the water back to the overflow instead of front to the main drain.

I ended up cutting the drain in several places, until I was right at the unit. Still no drainage. That is when I realized the AC air handler unit in the attic had settled and was not letting the water reach the drain inside the unit itself.

I wrote the AC installer, and asked if he could just replace the whole line and "level" the unit. He wrote that he was too busy this week, and the unit was supposed to be un-level, tilted to the drain. I will have to write him and explain that that I should have said I needed him to "un-level" the air handler, since it was past level and tilted the wrong way from when he installed it.

He said the old Trane units had copper coils and an internal drain pan where you could install the units level. The cheapo third-world aluminum coils in modern units needed the unit tilted to the drain so this very problem does not happen. I gave up on professionals and decided to just mess with this myself.

I invent micro-work

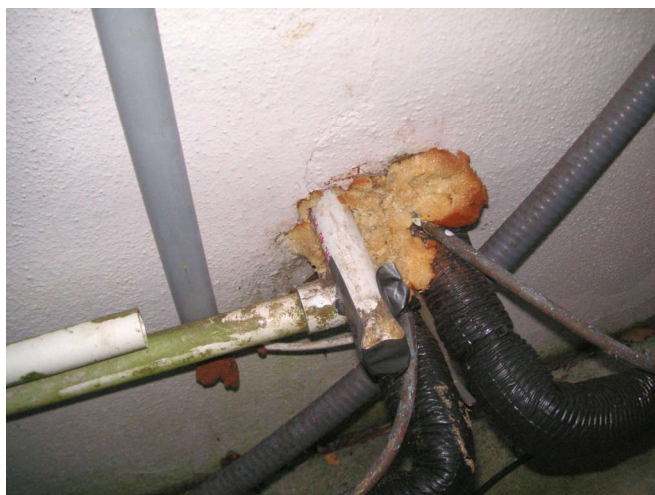


Rather than wait weeks for a pro, or spend days fixing things right, I invented a new form of project management I call "microwork". My big problem was the cut line in the attic. So even though I had bought 50 feet of PVC, I just went upstairs and glued in one coupling. Voila, the day's job is done, I can make breakfast.

OK, so I did a little more than just glue one fitting, but my attitude was that if that was all I got done today, so be it. The day before I had bought 50 feet of PVC pipe and dozens of couplings. So I figure today's microwork will be fixing the line, but not leveling the unit, it was getting hot in the attic by now.



I already owned the PVC cutter that works fine for this 3/4-inch schedule-40 PVC pipe. I made sure to buy way more couplings, and 90- and 45-degree fittings than I would need. It is easy to take them back to Home Depot.



Here is the outside cut I did when I was looking for the plug in the line. I have pulled the cut pipe out but not removed it yet. When I did, I could not get the new pipe pushed back inside, something completely impossible. Absolutely completely totally impossible to have happen.



Inside the house, you can see a tin angle that was catching the pipe edge to keep it going in.



Purple primer is not needed on this, but I used it anyway. I bought new cement the day before.



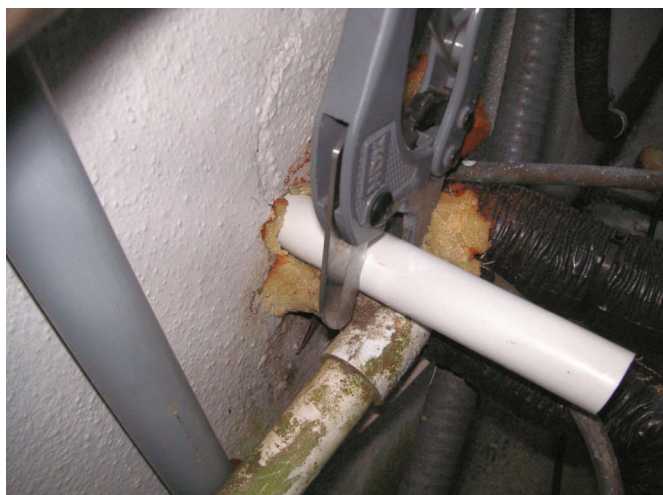
This is what I cut out inside the house looking for the plug. It was slimy but not blocked.



The pipe goes in a bit high, but better than too low, it will drain for sure.



I cut piece of pipe and get the two fittings ready. Better than replacing the whole line.



Glued up inside, I can cut the pipe to length outside. The second unit's drain is underneath.



I decided to return the new PVC I bought, so I cleaned this old pipe up rather than replace it.



I have a 50-foot 2-inch shop vac hose that is way handy. The vac is downstairs in the garage.



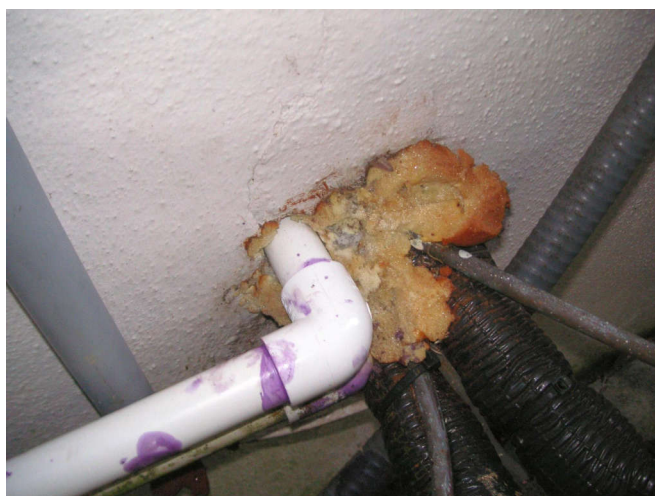
I repair the cut out elbow and make sure the old pipe outlet is where I want.



A lot of water came out of the overflow pan. Now I know I can go another day without water leaking down the eaves of the house.



Back in the attic, the overflow pan already has water in it after just one day.



The outside needs to be re-sealed.



I had bought this stuff at Home Depot the day before.



The foam penetrated much better than expected. I should have cut all the old stuff out, but remember, this is microwork.



You loop the nozzle and then cut it next time.



I bought fresh PVC primer and cement, so now I can throw out the old stuff I had sitting for a few years.



After the microwork was done, I checked the mail, and saw a palmetto bug in the box. This should kill it.

OK, so today's microwork was way more than just gluing in one 3/4-inch PVC pipe coupling. Plus, my AC unit is still over-flowing. But I feel good with this micro-accomplishment. I hope to have the emotional energy tomorrow to level up (or should I say un-level) the AC air handler so the water goes in the pipe, not the pan. After that, the next microwork will be to make an adapter so I can connect a hose to the AC line up in the attic, and flush out these slimy lines really well, something I guess I will have to do every year.