

The background is a dark blue gradient with technical diagrams. On the left, there are several circular gauges with scales and arrows. One large gauge has a scale from 140 to 260 in increments of 10. Other smaller gauges and dashed lines with arrows are scattered across the background, suggesting a complex engineering or scientific theme.

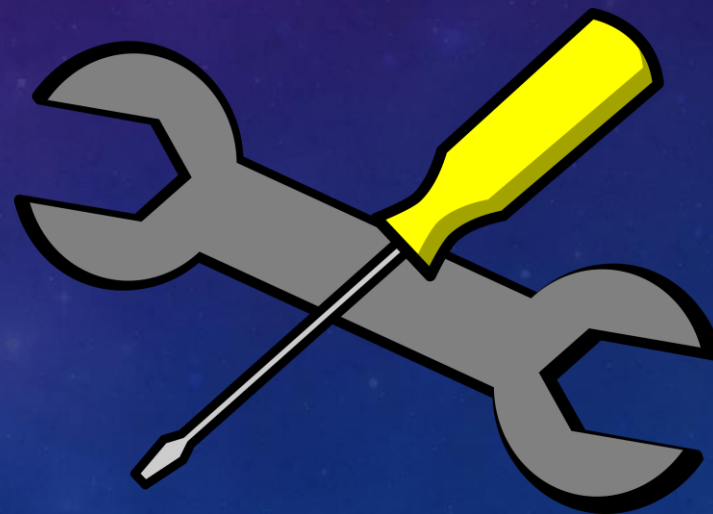
THE BIG CHILL REFRIGERATION SCHOOL

BY
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THE FIVE YEAR RULE

- There is a rule in the HVAC/R industry for neophytes. It will take you about five years to get comfortable working in this industry. It will be difficult when you first start and frustrating. You must be patient with yourself and **DO NOT GIVE UP**. Try to find a large company once you get your license that can absorb your mistakes until you become proficient. Try to find an experienced tech/s that you can call when you are confused. Having someone who can walk you through when you are confused will be vital. Rest assured that the tribulation you go through will be worth it. Your time in the field will go by fast. So don't think five years is far away when driving around in your truck running service calls you will be there before you know it. The income and connections you make in the field as your knowledge grows will make you glad you took the step to learn this It is gratifying.

TOOLS OF THE TRADE



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MULTIMETER

Used to test an electrical circuit. Also used to test components.



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AMPERAGE CLAMP

Used to test motors or components that draw an amperage to make sure it works correctly. A clamp installed around a wire, and the amperage read. You can purchase an amperage clamp and multimeter in one.



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RECOMMENDED BOOKS

- Refrigeration & Air Conditioning Technology 5th Edition by Whitman, Johnson, Tomczyk
- Electricity for Refrigeration, Heating, and Air Conditioning by Russell E. Smith
- Everything Electrical How to Test circuits Like A Pro by Vincent Keler

REFRIGERANT GAUGES

Used to check the pressure of a refrigeration system. Also used to remove or add refrigerant or perform a test..



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VACUUM PUMP

Used to pull a vacuum on a system. Pulls moisture and air out of the sealed system to prevent restrictions. Also can be used to test a system for a leak.



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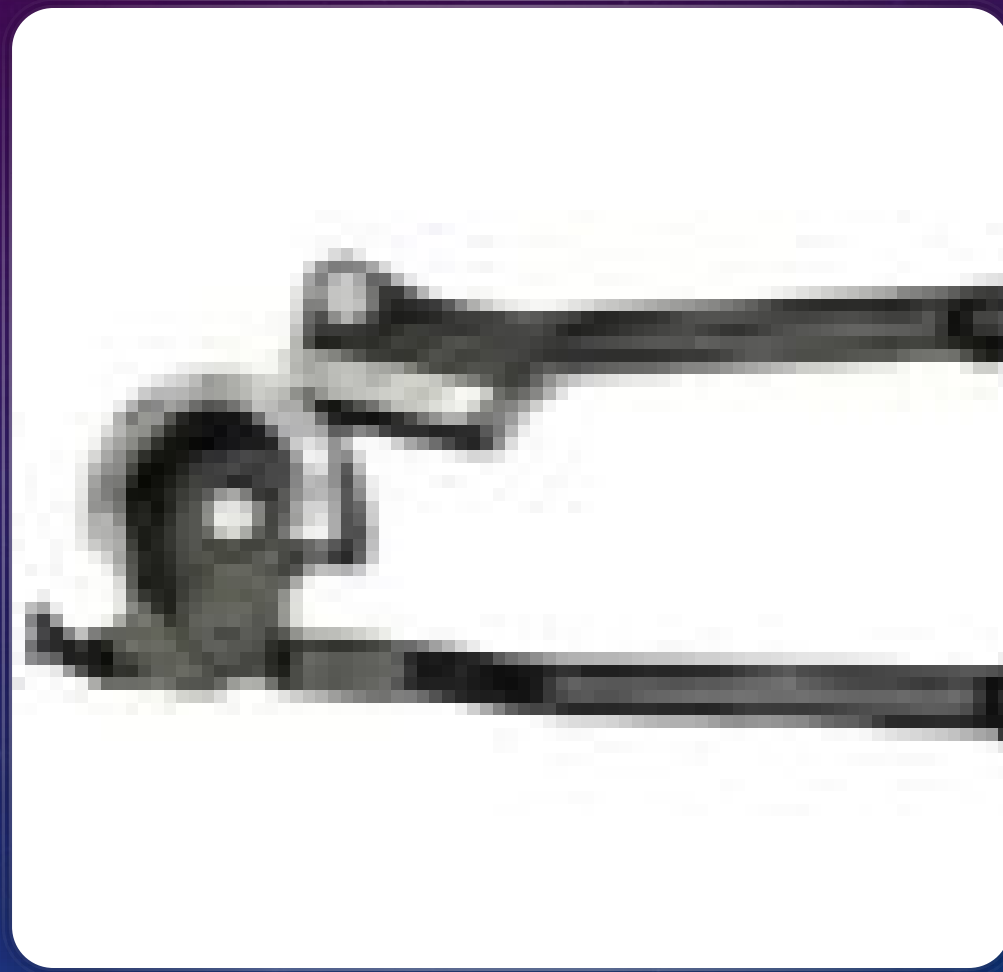
RECOVERY PUMP

Used to remove refrigerant from a system. The Freon gets pumped into a cylinder.



TUBE BENDER

Used to bend copper pipe. Must have.



FLARE AND SWAG KIT

Used to fit copper pipe together. There will be times when the ends will need to be expanded to make a joint.



REFRIGERANT CHARGING SCALE

The refrigerant gets weighed into the system. It is also used to keep track of Freon usage for EPA purposes.



TUBING CUTTER

Name speaks for itself.



RECOVERY CYLINDER

Used to capture refrigerant once removed from the system.



TUBE CLAMP

Excellent tool. Used to read the temperature of the copper pipe. This tool can help you know if the system is picking up the heat or rejecting it.



HEAT GUN

- Used to defrost an iced up evaporator. Also used in the field during the replacement of door gaskets. Usually, a door gasket is very warped out of the box. So this gun is used to take wrinkles and bubbles out of the rubber so that the door can close & seal properly.
- Take care not to set the heat gun to high when replacing gaskets it can melt the rubber then you have to order it again. Ouch! No fun.



OXYGEN/ACETYLENE TORCH

- Used to heat copper pipe to fix leaks or apply alloy on joints during the replacement of components in the refrigeration system. A mixture of two gases oxygen and acetylene are used to create a flame hot enough to melt alloy onto the pipe but not hot enough to melt the tube.
- Brazing is one of the hardest things to learn. Be patient with yourself. They are to get the pipe cherry red then the flat stick alloy can be applied it should melt on the pipe like hot butter.

