

ROCKY MOUNT RADIATOR and A/C, INC.

RADIATOR REPAIR COURSE CURRICULUM

This course is designed to be a one- week, hands-on course. Each student will have his own repair station, fully equipped with tools and supplies. During the day each student will perform all facets of the course under the direction of a full time instructor with 25 years of field experience. At the conclusion of the course our students should have advanced knowledge of the different heat exchanger types, various repair and cleaning techniques, have a working knowledge of equipment types and usage, have a broader understanding of metallurgy, shop safety and chemicals in the workplace, and have all the training needed to be well on their way to being a certified radiator repairman. A Diploma of Certification will be presented upon completion of this course.

- I. Metallurgy
 - Heat exchangers (radiators) come in all shapes and sizes and utilize
 - Many different materials and metals
 - Each metal requires different cleaning and repair techniques
 - Each metal has a different heat tolerance
- II. Shop Safety
 - Radiator shops use heat and chemicals which, if not used correctly,
 - Can present hazards to everyone
 - Chemicals explained, along with procedures to prevent injury
 - The use of gloves, safety glasses, aprons, proper labeling, ventilation
- III. Shop equipment
 - Many different types of lifting, cleaning, and test equipment
 - Equipment usage and maintenance demonstrated and trained
- IV. Cleaning techniques
 - Brass/Copper/Steel/Alloys
 - Aluminum
- V. Soldering/Light brazing
 - Students will be taught how to solder and braze with various torches
- VI. Dis-Assembly/Re-assembly/Re-coring
 - Solder together units
 - Bolt-on units
 - Crimp on units
- VII. Repairing Heat exchangers
 - Oil coolers, air coolers, marine applications
 - Bundle coolers, misc. applications
- VIII. Plastic tank radiator (PTR) repair and service
 - Cleaning, repairing
 - Epoxy repair/aluminum brazing
- IX. Shop Management
 - How to measure heat exchangers
 - Running an efficient shop
 - Pricing