



SHEET METAL and PLASTICS TECHNOLOGY

PROGRAM DESCRIPTION: A program that qualifies students for entry into the field of sheet metal as advanced apprentices. They will develop skills in fabricating air conditioning ducts, architectural metal work, welding and fabricating plastics, and pattern development. Program includes lecture and laboratory experience.

- **DEGREE OFFERED:** Certificate of Achievement
- **RECOMMENDED PREPARATION:** Pre-Algebra, applied mathematics, basic geometry, English and blueprint reading
- **COST:** Tools, Instruments, and Books - \$300, scholarships from the Hawaii Joint Apprenticeship Committee are available for qualified applicants.
- **TECHNICAL STANDARDS:** Can be found at <http://tech.honolulu.hawaii.edu/smp>

THE OCCUPATION

DESCRIPTION: Sheet metal workers assemble, install, and repair products or equipment made of sheet metal. After selecting and marking the metal according to blueprints, they cut, shape, and connect the pieces using various tools and machines. They make and install ducts for air conditioning, heating, and ventilation duct systems. They also make kitchen equipment, outdoor signs, roofs, and siding. Some specialize in fabrication, installation, or maintenance.

SKILLS AND APTITUDES NEEDED: Above average ability to visualize two- and three-dimensional objects; good eye-hand coordination and ability to work with hands and fingers; good physical health; mechanical and numerical aptitude; ability to work in high places; ability to do work that meets set standards.

WORK SETTING: Both indoors and outdoors. May work in shops doing layout and making parts or at construction sites assembling and installing parts and systems.

PHYSICAL DEMANDS AND HAZARDS: Work may be physically demanding and involve bending, climbing, stooping, heavy lifting, and working in cramped positions. Sites may be noisy, dusty, and filled with fumes from welding. Must use care to avoid back injuries and cuts and burns from materials. Must also use care while working in high places and with fiberglass, sharp metal objects, and machinery.

EMPLOYERS: Contractors who specialize in sheet metal and in heating, refrigeration and air conditioning equipment, shipyards, manufacturing firms, federal government, and the military.

CAREER LADDER: ENTRY LEVEL: Apprentice; Helper. **ADVANCEMENT:** Supervisor; Construction Superintendent; Cost Estimator; Contractor.

EMPLOYMENT OPPORTUNITIES: Balance to slight surplus of experienced workers. Outlook depends on the economy, the level of construction activity, and replacement needs. Locally and nationally, faster than average employment growth is expected through the year 2014. However, because construction activity is sensitive to economic conditions, the number of jobs may vary from year to year.

WAGES: Journey worker wages for sheet metal workers in construction are around \$32-\$33 an hour. Apprentices earn around \$14-\$15 an hour. Federal journey workers earn around \$22-\$23 an hour. Federal apprentices earn around \$15 an hour.