**Mobile Hydraulic Mechanic (MHM):**

Fabricates, assembles, services, maintains, and tests hydraulic equipment. The basic understanding of hydraulic symbols, and is skilled in using hand tools, power tools, micrometers, and testing equipment.  **Read hydraulic symbols and circuit diagrams**

Summary:

* Introduction to hydraulic symbols and circuit diagrams
* Use dial calipers and micrometers
* Know various tube fittings and select the proper replacement
* Make up tube assemblies
* Know how to prevent and repair system leaks
* Perform contamination control
* Add fluid to system with filter cart
* Know how, when, and where to take fluid samples
* Aid in system flushing and commissioning
* Use “Target Cleanliness Chart” for each system
* Check condition of hydraulic filters
* Check systems for water
* Make up a crimped hose assembly
* Replace a hose assembly
* Inspect hose applications for twist and minimum bend radius
* Service and charge accumulators
* Assist technicians in start-up and commissioning
* Promote safe working conditions with pressurized systems

**Industrial Hydraulic Mechanic (IHM):**

Fabricates, assembles, services, maintains, and tests hydraulic equipment. More in-depth understanding of hydraulic symbols, reads system schematics, **understands electrical principles** and an understanding of how to size hydraulic components and systems.

Summary:

* More in-depth understanding of hydraulic symbols and circuit diagrams
* Know various tube fittings and select the proper replacement
* Know how to prevent and repair system leaks
* Perform contamination control
  + Add fluid to system with filter cart
  + Aid in system flushing and commissioning
  + Know how, when, and where to take fluid samples
  + Use "Target Cleanliness Chart" for each system
  + Check condition of hydraulic filters
  + Check systems for water
* Make up a crimped hose assembly
  + Replace a hose assembly
  + Inspect hose applications for twist and minimum bend radius
* Service and charge accumulators
* Assist technicians in start-up and commissioning
* Promote safe working conditions with pressurized systems
* Learn how to calculate: pump and hose size, cylinders, motors, basic system design
* Requires basic math skills will be using calculators

**Pneumatic Mechanic (PM):**

Fabricates, assembles, services, maintains, and tests industrial pneumatic equipment. The mechanic understands pneumatic symbols, reads system schematics, and understands electrical principles. The mechanic is skilled in using hand tools, power tools, micrometers, calipers, and test equipment. All Mechanic certifications require a three (3)-hour written and a three (3)-hour job performance (hands- on) test. If you’re interested in testing for the PM certification, you must register for the test by submitting a test application. (If you have taken the hands on performance test you only need the written test)

Summary:

* Provides field repairs
  + Fix inoperable machinery at the work site
  + Change hoses and hard plumbing that failed
  + Change-out cylinders, motors, control valves, seals, and gauges
* Perform major repairs under clean conditions and bench tests repairs
* Replace faulty components
* Aid in system flushing and commissioning
* Service the air supply system and make necessary adjustments
* Provide “leak-free” plumbing
* Service air preparation equipment to eliminate contaminates
* Make up hose assemblies
* Promote compressed air safety
* Be able to calculate and size, compressors, cylinders, lines and valves
* Basic math skills required