



PLUMBING SERVICE 101

Module 3 of 6

Finding and Developing Great Plumbing Techs

Service technicians are the foundation of today's HVACR and Plumbing companies. Finding the right one is a difficult and challenging process. Not only must candidates be qualified, but they must also fit within the working environment already in place. This module discusses the required skill sets, recruiting sources and training needed to find and develop great service techs.



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Finding and Developing Great Plumbing Techs

Learning Objectives

At the end of this webinar, you will be able to:

1. List the three skill sets required of plumbing service candidates.
2. Identify recruiting sources for finding quality service plumbers.
3. Determine the pros and cons of recruiting from non-union sources.
4. Examine the ideal training curriculum for newly hired plumbers.
5. Incorporate leadership actions that will maintain the culture of service and make the plumbing work environment more enjoyable and respected.
6. Identify plumbing safety and training resources available through MCAA, MSCA and the UA.

HELP WANTED

Great job opening for person willing to get filthy, work insane hours and deal with agitated customers. Must be adaptable enough to get the job done under often trying circumstances. Physical fitness and mechanical inclination a must. Need to possess expertise in tiling, carpet, drywall, electrical, carpentry, concrete and asphalt. Excellent customer service skills a necessity.

INTRODUCTION

Anyone posting an ad like that would surely find few candidates applying for the job. Yet the characteristics described above are typical of what it takes to succeed in the world of plumbing services. While a plumbing occupation does offer an excellent career path for dedicated professionals, for those businesses looking to grow through the addition of plumbing services, attracting and retaining qualified people capable of providing those services can present real challenges.

The U.S. Bureau of Labor Statistics, which compiles annual information on a wide range of jobs and industries, projects the demand for plumbers, pipefitters, and steamfitters to grow 12 percent from 2014 to 2024, faster than the average for all occupations. Two factors will drive demand for these workers: (1) New construction will require new plumbing systems. (2) Existing buildings will need updating and continual maintenance.

While companies in other fields have met staffing shortages with technology, robotics and even outsourcing to other countries, most plumbing services will continue to require on-site support that must be handled by a qualified professional. Just as doctors are always going to be needed to repair and maintain our bodies in good health, plumbers will always be needed to ensure that our plumbing systems work safely and effectively.

The good news is that the demand for quality plumbing services is high and will continue into the foreseeable future. The not-so-good news is that in the world today, there is a shortage of trained plumbing professionals available to meet the demand for quality services.

THE PLUMBER'S SKILL SET

When adding plumbing services to your business, it is apparent that finding and recruiting qualified technicians will be one of the most important concerns necessary for success. There are two types of plumbers to consider: project plumbers and service plumbers. Service plumbers handle service calls, preventative maintenance, troubleshooting, jetting, backflow certification and repair. On the other hand, project plumbers handle anything beyond service calls, such as equipment change outs, retrofits, site utility repairs, and specialty work in medical facilities. No matter which type of plumber is being hired, it is essential from the beginning to identify the required skill sets needed to perform that role.

A highly-qualified plumber needs to possess three different skill sets. At the foundation are the **technical** requirements and abilities needed to do the job, which includes base line plumbing knowledge, equipment operation and safe practices. Due to the nature of the work environment and direct customer interface commonly involved, plumbers must also possess good **interpersonal and customer service** skills. This is especially true for service plumbers. Because project plumbers mostly communicate with sales, project managers and/or office staff, their customer service skills are not required to be as refined as service plumbers.



However, both types still must be self-starters and self-motivators. Plumbers are empowered to solve the customer's problems in the most cost-effective, efficient way that does not compromise quality or safety. This often requires creativity along with good problem solving and **self-management** skills, and the ability to operate on their own initiative.

TECHNICAL REQUIREMENTS

The technical requirements for a service plumber are extensive. Depending on the skill set, the knowledge required may be acquired from on-the-job training along with more structured classroom learning leading to formal certifications, such as medical gas or backflow testing certification. Areas in which plumbing expertise is desirable and which can lead to licensure include the following:

- Plumbing fixture repair and maintenance
- Plumbing piping system repair and maintenance
- Natural gas piping, including sizing, exhaust and flue pipe sizing
- Understanding gas pressures and the use of a dual stage manometer
- Understanding sizing and capacities of gas regulators
- Plumbing codes and regulations

By adding to their expertise, any of the following will enhance their skill set and make them more well-rounded plumbers and therefore, more valuable assets to any service organization.

- Electrical, controls, and low voltage concepts
- Specialized training on various equipment such as A.O. Smith, State, Bradford White and PVI for commercial and residential trouble shooting, maintenance and repair
- Training on commercial domestic hot water boiler systems such as Lochinvar, Laars, and A. O. Smith Burkay Genesis including installation, piping, troubleshooting, maintenance and repair
- Going beyond testing by understanding exactly what the operation of a backflow assembly is and specifically how it works
- Advanced electrical device troubleshooting, i.e. pump panels, pumps, VFD's
- Domestic water booster pump troubleshooting, maintenance and repair
- Commercial sewage ejector systems; panel, pump, and float knowledge, troubleshooting and repair
- Design, troubleshooting, repair and maintenance of solar systems, rainwater harvesting systems, water treatment systems

It is also important that service plumbers be skilled with training in the **operation and care of machinery or equipment** considered “tools of the trade” that are used on-the-job, such as the following:

- | | |
|---------------------|------------------------------|
| • Jetting equipment | • Forklifts |
| • Drain machines | • Manlifts |
| • Sewer snakes | • Sewer cameras and locators |
| • Backflow testing | • Pipe threaders |

Safety practices can never be overlooked as part of the skill set and any training curriculum. The importance and implications for a plumber in considering the health, safety and well-being of the customers and end-users is paramount.

First aid, CPR and fall protection are part of safety training taught to all trades. In addition, plumbers are often exposed to hazardous environments, containing noxious gasses, hazardous chemicals and even blood borne pathogens or other life-threatening chemicals. Not to be overlooked are the times when plumbers must work in confined spaces, such as tanks, pits, manholes, tunnels or pipelines. Training in all these areas, including personal protective equipment and clothing (i.e. hats, eye protection, gloves and shoes), is required to maintain a safe working environment for the technicians and those around them.

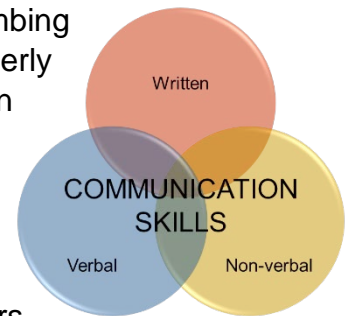
A complete list of MSCA/MCAA safety resources for plumbing service training is provided in the Appendix on page 13 at the end of this workbook.

INTERPERSONAL SKILLS

It would seem that the technical skills of a plumber would be enough to guarantee a good employee. However, another skill set that deserves a close examination is the interpersonal skills of the future hire. More than anything, the effective employee needs to have a good **customer service attitude** and have the ability to **communicate** effectively while taking care of the client's needs. That means being friendly, approachable, and customer-oriented. The ability to build a relationship with the customer goes a long way in ensuring positive outcomes and future business success.

Plumbing issues are often disruptive and urgent in nature, making them major sources of frustration to most customers. Usually the need for a plumber is immediate and with customer patience already exhausted, this can lead to difficult situations for the plumber to handle. These situations mean that good listening and communication skills are essential to reassure the client about the work to be done and to soothe frazzled nerves. The plumber who can go above and beyond to exceed the customers' expectations with technical competency and good interpersonal skills is one that is truly valued.

Written communication skills are also important. It would be nice if our employees' writing skills were just as strong as their technical skills. However, with today's limited educational focus on writing ability, that is often not the case. Solving the paperwork dilemma is a problem facing almost every company offering plumbing and mechanical services. Spelling, penmanship and how to properly write up an invoice or work ticket are all important communication skills. What do you do with someone who has good technical skills, but falls short when it comes to accurately completing needed paperwork?



The move to a paperless work environment in many cases makes it easier to compensate for poor writing skills, but plumbers still need to be able to write legibly. In many work environments, transitioning to tablet PCs and software has helped with poor spelling (spell check) and bad penmanship (typing) issues. Some systems and devices even allow the plumber to record or deliver their notes verbally for electronic transcription instead of typing them.



Today's smart phones and tablets can handle and automate a portion of many office functions, including dispatch communication, recording time, filling out tickets and documentation. If those assist tools fail and written communication is still not adequate, managers can always use the carrot of "paperwork accuracy" as a measurable KPI (key performance indicator) that can help motivate and reward technicians for better performance with written documentation.

SELF-MANAGEMENT SKILLS

One of the greatest challenges faced by many employees is self-management or the ability to prioritize and complete tasks to achieve a specific outcome within a particular time frame with little oversight. Plumbers often face the additional pressure of having to patiently troubleshoot seemingly impossible problems that are sometimes hidden or do not readily present themselves.

Using good judgment and demonstrating critical thinking are essential parts of self-management. The ability to work through issues without giving up cannot be overlooked. When dealing with customers, plumbers need to show the highest levels of integrity by explaining exactly what's needed to fix the problem and not overselling the customer with a speculative fix or an additional unneeded service.

RECRUITING PLUMBERS

The pool of qualified plumbing candidates is quite small, creating a recruiting challenge for most companies. Many service plumbers have come from commercial and residential construction with varied skills gained predominantly through on-the-job training.

Companies whose primary business is plumbing typically recruit from a variety of available sources with non-union competitors and residential and commercial construction being the most viable options. In fact, one plumbing company found that almost 98% of their new employees came from a non-union company with the other two percent switching from construction.

“Don’t hire from a candidate pool of one.”



Because the available pool of qualified plumbing candidates is relatively small, it may take some creativity to find potential new hires. Paying referral bonuses to existing employees who recommend and/or bring people on board is one way of attracting new plumbers. Reaching out to vendors or suppliers to see if they will allow “now hiring” flyers at their counters is another

strategy for obtaining candidates. Brainstorm ideas with existing employees. Their creativity may surprise you.

So as a predominately unionized workplace, what are the “pros” and “cons” of hiring the non-union plumber?

Pros of Recruiting from Non-Union Shops

- These plumbers usually do not receive many benefits besides wages, such as health care or pension, so additional benefits may prove very enticing. Most have worked very hard for much less compensation in the non-union world.
- They are generally more loyal employees because they don't have a network of other union workers at other companies to compete for their skills. Once they are on board and become acclimated, they usually stay.
- Residential plumbers tend to have excellent customer service skills.
- Many have experience working on commission and get tired of the selling aspect and pressure.
- Sometimes you find a gem.

Cons of Recruiting from Non-Union Shops

- Normally they haven't gone through a formal apprenticeship training program so they may be lacking some skills which they otherwise would have learned during their apprenticeship, particularly safety programs such as OSHA 10 and OSHA 30 and confined spaces training.
- Many are skeptical of being union as they may not understand what it means or the full range of benefits and opportunities they will receive.
- They often lack experience with the requisite skill set needed for large building and facilities plumbing services as they have primarily worked in the residential/light commercial field.
- The biggest issue is if they come from a commission-based arrangement. They may have developed a "used car salesperson" mentality to upsell the customer with high pressure or unethical methods. To combat this, it is useful to have a zero-tolerance policy that technicians will be immediately let go if they try to sell the customer any product or service they don't need.

Training Opportunities

The United Association provides numerous resources for training and developing individuals who are new to the plumbing industry. For additional information on any of these programs, contact your local UA training coordinator.

- **Plumbing Service Courses held at the UA Instructor Training Program (2017)**

Methods in Teaching Plumbing Service Maintenance and Repair: This course is intended to assist UA instructors in their development and presentation of classroom instruction of the UA Plumbing Service Maintenance and Repair curriculum. The course will also concentrate on hands-on skills training utilizing Plumbing Service Mobile Classroom Training Modules and appropriate tools and equipment. The course emphasizes the customer service and communication skills needed in the plumbing service industry. The course will include material referencing plumbing service troubleshooting, repair, installation, sales, business operations, vehicles, and equipment and company policies.

Methods in Teaching Plumbing Service and Customer Service: This course is intended to assist UA instructors in their development and presentation of classroom instruction of the UA plumbing service customer care curriculum. Throughout the training, participants will identify new opportunities with up-to-date plumbing fixtures, products, tools, equipment, safety and green technology in the plumbing industry. This course will address the importance of customer communications, social styles, salesmanship, marketing, and will include the cost of doing business.

- **UA Service Tech Accelerated Program**

The objective of this program is to provide an enhanced multi-platform for UA instructors from UA locals that have traditionally focused on work within the plumbing industry who are pursuing an instructional tract to offer residential HVACR and Plumbing Service curriculum to their local members. Instructors are required to take 42 hours of instruction in each of the following courses:

- HVACR Basic Electricity
- Teaching HVACR Service Apprenticeship Curriculum
- Safe Handling of Refrigerants and the CFC Exam
- UA Service Tech Accelerated Residential HVACR Troubleshooting

HIRING CRITERIA

All too often in their quest to find a qualified plumber, hiring managers will compromise their standards and hire an individual who is “almost” acceptable. Yet it’s important to remember that “no hire is always better than a poor hire” because a poor hire can hurt your reputation, cost you good customers and demoralize other employees. When hiring a new plumber, make sure they have critical customer service skills, present well, have a well written resume, and understand and subscribe to the company’s core values. Try to ask questions that will give some indication that the candidate’s service orientation and values are a good fit with those of your company.

“Don’t sell a candidate on your company until you are sold on the candidate.”

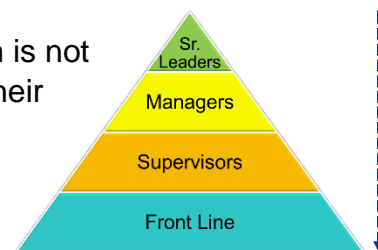


It is difficult to do any kind of personality testing prior to hiring so an alternative may be to have the new hire ride to jobs with the service manager or other lead technicians during the probationary period. This allows management and the service team time to evaluate his or her skills in the field and assess the individual’s personality to see if it’s a good fit with the company’s culture when working with the other associates.

CREATING AND MAINTAINING A CULTURE OF SERVICE

A great culture of service comes from customers seeing the entire team work together as one, in order to provide outstanding customer service for each client. Leadership in the plumbing industry is very hands-on. You must build leaders who are prepared to throw on the mud boots, jump in, and teach as well as help the technician in a very hands-on way.

Service leadership starts at the top. If the entire office team is not focused on supporting field personnel and trying to make their efforts easier in satisfying the customer, we will lose them. Here are some leadership actions that will ensure a continuing culture of service:



- Explain – don't just implement – any new rules, processes or procedures. Sharing the reasoning behind the change usually helps with the implementation and getting everyone on board.
- Service managers and leaders must be qualified to ask the right leading questions to help the plumber figure out the problems.
- Hold weekly technician meetings to discuss any issues that have arisen in the field and also share praise coming from customers. This is a good opportunity to reinforce a safety issue or two.
- To keep the focus on service to the customers and to the other people in the organization, ritualize the company's core values with the entire service team during all training and company meetings.
- Encourage the plumbers to interact with each other when it comes to problem-solving.
- Constantly reinforce with all employees that the customer is the most important person to the organization. Nobody gets paid if the customer is not happy.
- Be honest, open, and fair.
- Put little informational pieces about customer service in the pay check and offer examples of great customer service.

PUTTING THE FUN IN PLUMBING

Just like HVACR technicians, plumbers have a dangerous job with long demanding hours in a not-so-inviting environment. This can create a high stress situation. Support by leadership or office personnel can help reduce stress and increase focus on the task the plumber is performing. Leadership can create a work climate that is inviting, respectful, and fun.



- Begin by hiring people who love plumbing. Plumbing may be hard work, but it is a valuable service requiring specialized skills to resolve difficult problems and leave appreciative customers highly satisfied. You can only have fun at work if you enjoy your job.

- Encourage plumbers to share their stories and experiences during service meetings so others can gain an appreciation for what they do.
- Point out quality service success by all members of the service team so that the new plumbers can see what success looks like.
- Employees have more fun when they feel appreciated. Recognize those that go above and beyond.
- Set up little competitions that will not only break up the boredom, but will drive the behavior that needs reinforcing.
- Occasionally provide a “free” lunch or breakfast for all service team members just to let them know how much they are appreciated.

SUMMARY

For any business, finding and keeping quality employees is an essential activity that is critical to success. This is especially true for the HVACR provider who is expanding into plumbing services where they do not yet have an established presence and reputation to help draw quality talent from an already limited pool of candidates. It is important to maintain high standards and use a systematic approach with good hiring practices to make sure your company can identify and recruit the skilled employees needed. The skilled professionals you find through this process will help you build a highly skilled and motivated team that can exceed plumbing customer expectations and ensure your success in this new market area.

APPENDIX

MSCA/MCAA Safety Resources for Plumbing Service Training

To access any of these publications, go to: <https://www.mcaa.org/initiatives/safety-health-initiative/direct-links-mcaa-msca-safety-resources/>

Asbestos Awareness – [Video](#) | [Pocket Guide](#) | [Documentation Sheet](#) | [Test](#) | [Answer Key](#)
Bloodborne Pathogens – [Video](#) | [Pocket Guide](#) | [Documentation Sheet](#) | [Test](#) | [Answer Key](#) | [Model Program](#)
Confined Spaces General Industry – [Video](#) | [Pocket Guide](#) | [Documentation Sheet](#) | [Test](#) | [Answer Key](#) | [Model Program](#)
Eye Injury Prevention – [Video](#) | [Pocket Guide](#) | [Documentation Sheet](#) | [Test](#) | [Answer Key](#)
Fall Prevention and Protection – [Video](#) | [Pocket Guide](#) | [Documentation Sheet](#) | [Test](#) | [Answer Key](#) | [Model Program](#)
Fire Safety – [Video](#) | [Pocket Guide](#) | [Documentation Sheet](#) | [Test](#) | [Answer Key](#)
Hazard Communication (GHS) – [Video](#) | [Pocket Guide](#) | [Documentation Sheet](#) | [Test](#) | [Answer Key](#) | [Model Program](#) | [GHS Pictogram Poster](#) | [Bulletin](#)
Hazard Recognition (Part 1) – [Video](#) | [Pocket Guide](#) | [Documentation Sheet](#) | [Test](#) | [Answer Key](#)
Hazard Recognition (Part 2) – [Video](#) | [Pocket Guide](#) | [Documentation Sheet](#) | [Test](#) | [Answer Key](#)
Hexavalent Chromium – [Video](#) | [Pocket Guide](#) | [Documentation Sheet](#) | [Test](#) | [Answer Key](#) | [Model Program](#) | [Bulletin](#)
Ladder Safety – [Video](#) | [Pocket Guide](#) | [Documentation Sheet](#) | [Test](#) | [Answer Key](#)
Line Breaking Safety – [Video](#) | [Pocket Guide](#) | [Documentation Sheet](#) | [Test](#) | [Answer Key](#)
Lockout/Tagout – [Video](#) | [Pocket Guide](#) | [Documentation Sheet](#) | [Test](#) | [Answer Key](#) | [Model Program](#)
Respiratory Protection – [Video](#) | [Pocket Guide](#) | [Documentation Sheet](#) | [Test](#) | [Answer Key](#) | [Model Program](#)
Safety Orientation for Plumbers – [Video](#) | [Pocket Guide](#) | [Documentation Sheet](#) | [Test](#) | [Answer Key](#)
Scaffold Safety – [Video](#) | [Pocket Guide](#) | [Documentation Sheet](#) | [Test](#) | [Answer Key](#)
Service Safety – [Video](#) | [Pocket Guide](#) | [Documentation Sheet](#) | [Test](#) | [Answer Key](#)
Welding and Cutting Safety – [Video](#) | [Pocket Guide](#) | [Documentation Sheet](#) | [Test](#) | [Answer Key](#)
Welding – Electric Arc Welding Safety – [Video](#) | [Pocket Guide](#) | [Documentation Sheet](#) | [Test](#) | [Answer Key](#)
Workplace Distractions – [Video](#) | [Pocket Guide](#) | [Documentation Sheet](#) | [Test](#) | [Answer Key](#) | [Distracted Driving Reduction and Prevention Guide](#) | [Bulletin on Distracted Driving](#)

Safety Bulletins

[Distracted Driving](#)

[Employer Payment for Personal Protective Equipment \(OSHA Rule\)](#)

[Hazard Communication \(GHS\) \(OSHA Rule\)](#)

[Hexavalent Chromium \(OSHA Rule\)](#)

[Recordkeeping \(OSHA Rule\)](#)

[OSHA's Revised Walking-Working Surfaces Provision for Low-Slope Roofs](#)

Safety Guides

[Distracted Driving Prevention](#)

[Hazardous Materials Transportation Guide for Service](#)

[Job Hazard Analysis](#)

[Pressure Testing](#)

[Recordkeeping](#)

[Safety Training](#)

[Safety Planning](#)

Safety Manuals

[Safety Manual – Service](#)

Model Safety Programs

[Bloodborne Pathogens](#)

[Confined Spaces \(General Industry\)](#)

[Excavation Safety](#)

[Fall Protection](#)

[Hazard Communication \(GHS\)](#)

[Hearing Conservation](#)

[Hexavalent Chromium Compliance](#)

[Job Safety Analysis](#)

[Lead](#)

[Lockout/Tagout](#)

[Mold Prevention](#)

[Respiratory Protection](#)

Toolbox Safety Talks & Tailgate Safety Talks

[Plumbers](#)

[Service Volume I](#)

[Service Volume II](#)