

## SKILLS

A plumber has to be someone happy working with their hands. A good plumber will be agile and fit and not mind getting their hands dirty. You won't be sprayed with water from a pipe every day but it's not uncommon. Working in cramped and sometimes risky conditions is quite likely, so a plumber needs to feel confident that they can manage any sort of environment. Fitting under a sink needs to feel as comfortable and natural as fitting into bed.

**Here are some vital skills needed if you want to be a good plumber:**

- Reading, drawings, and figures to understand the layout of water supply, waste, and venting systems.
- Planning and performing calculations for specific and unique projects.
- Thorough knowledge of plumbing regulation/codes and safety rules.
- Providing time and cost estimates of the work to be performed (both labour and materials).
- Communicating effectively and confidently with consumer, colleagues, subcontractors, and management.
- Working with your hands
- Using hand and power tools, as well as machines, to measure, cut, bend and thread pipes.
- Installing, repairing and maintaining domestic, commercial, and industrial plumbing fixtures and systems.
- Being able to work in confined spaces or at certain heights.
- Being able to test pipes for leakages using water as well as air pressure gauges.

## HOW TO BECOME A PLUMBER

Most of plumbing training would take place within the workplace or on the job under the supervision/mentorship/guidance of a qualified plumber. A high percentage (70 to 80%) of your time as a learner plumber will be spent in the work place "practicing" or "applying" the knowledge that you have gained in the classroom or simulated practical environment i.e. the training school.

For this reason as a learner plumber you will need experience and therefore will need to be employed by a plumbing company to complete your qualification.

To become registered as a licensed plumber you must complete a National Certificate in Plumbing. You can work toward the National Certificate in Plumbing while doing an apprenticeship

### APPRENTICESHIP (LEARNERSHIP)

An apprenticeship is a means by which an individual (apprentice) learns a plumbing skill/trade on the job, under the direction of a qualified plumber. To become an apprentice, you must find an employer who is willing to hire and train you. Although some learners may enter apprenticeships directly, many start out as helpers.

A plumbing apprenticeship is usually between 3 to 4 years and each, apprentices must have at least 1,300 to 1,800 hours of on-the-job training and a minimum of 330 hours of classroom based training.

Apprentices learn safety, the plumbing codes and regulations, and how to read building plans. They also study estimation, costing and plumbing physics and calculations. They become familiar with different types of piping systems and plumbing tasks.

Upon completing your apprenticeship you will be required to do a final trade test before receiving your qualification.

### NOTE TO PARENT AND LEARNERS

As we mentioned before to achieve a trade qualification one would need to be employed (see How to become a plumber). Today plumbing employers are currently reluctant or cautious to take on employees let alone investing in them or become contractual liable for their training. This is not uncommon in the industry however this now becomes a chicken and egg situation.

In this instance as an "unemployed" person/learner you are able to do your classroom and simulated training before finding employment. This would then allow one to become more attractive to a prospective plumbing employer. In this way you are showing commitment and a prospective employer would possibly see that because of the investment in yourself as an individual they may feel more at ease or committed to invest in your child. If and when a prospective employer eventually agrees to a formal training process you will be recognised for your prior learning (commonly referred to as RPL) and be credited for your prior learning and it would not mean that you would have to start from scratch.

### CAUTIONARY:

Make sure that the training school that you are applying to is accredited and do not accept the training schools word that they are. Ask for evidence and references or contact the Plumbing Industry Registration Board (PIRB) or Institute of Plumbing of South Africa (IOPSA).

### FOR FURTHER INFORMATION:

Institute of Plumbing of South Africa

Tel: 011 454 0025

Email: [info@iopsa.org](mailto:info@iopsa.org)

Web address: [www.iopsa.org](http://www.iopsa.org)

Plumbing Industry Registration Board

Tel: 012 660 3842

Email: [info@pirb.co.za](mailto:info@pirb.co.za)

Web address: [www.pirb.co.za](http://www.pirb.co.za)



# plumbing AS A CAREER

**'GUARDIANS OF THE NATIONS HEALTH'**





## PLUMBING AS A CAREER

Did you know that according to 11 000 physicians and members of the public polled by the British Medical Journal, the number-one 'greatest medical break through' since 1800's is not antibiotics, DNA, the heart transplant or vaccines but sanitation. Furthermore did you know, next to oxygen, water is the most essential element to human life; the body usually cannot survive longer than several days without water (a maximum of 1 week).

Plumbers are extremely important people in society. It's a fact of life that wherever people settle, they will always need water and sanitation (drainage). Good plumbing is not only vital to public health, but is also an integral part of modern day life - how many of us could do without the luxury of a hot bath or a toilet? Without the competent plumber disease would be rife, sanitation non-existent and clean, fresh drinking water from a tap only a dream.

The plumber who enjoys their work and becomes an expert and professional in their community, helps to keep that community healthy and makes a vital contribution to the welfare of their fellow South Africans.

In an ever more competitive and frustrating job market, one will always find work in the service starting as an apprentice. It is assumed that obtaining a degree is the be all and end all and if you don't possess one you will be stuck in a dead end job with no prospects and little pay. What a lot of today's younger generation fail to realize is that the service industry is alive and well, full of superb opportunities to find careers that are interesting, challenging, and well-paid.

## JOB PROSPECTS

Job opportunities for a plumber are expected to be good as some employers continue to report difficulty finding qualified experience plumbers. In addition, many experience and qualified plumbers are expected to retire over the next 5-10 years, which will result in more job openings and opportunities.



## OPPORTUNITIES

There are many plumbing opportunities available in a wide variety of business sectors. It's a mostly male dominated sector of work but, over the last few years, a number of female plumbing companies have been thriving. Plumbers can be found operating within large construction companies, on new builds, as government contractors and in national plumbing companies.

Today's plumber will reduce the effects of climate change more than any other trade or industry in the world and a career in plumbing will not only be challenging but also rewarding, both financially and in terms of job satisfaction and one thing you can be sure of is that you will always be in demand. If you decide to follow this path you will realise that a career in plumbing is a skilled and ultimately fulfilling vocation.

## WHAT DOES A PLUMBER DO?

Plumbing is a skilled occupation and an important one as plumbers install and repair water, drainage, and heating systems in homes, businesses, and factories. They install and repair large water lines, such as those that supply water to buildings, and smaller ones, including ones that supply water to refrigerators. Plumbers also install plumbing fixtures such as baths, showers, sinks, and toilets and appliances such as dishwashers and water heating systems such as solar and heatpumps. The plumber also fixes plumbing problems. For example, when a pipe is blocked or leaking, plumbers remove the blockage or replace the pipe.

Experience plumbers on construction jobs may be involved with developing the building plans that show where all the pipes and fixtures will go. Their input helps ensure that a structure's plumbing meets the building codes, stays within budget, and works well with the location of other features, such as electrical wires, air conditioning etc.

## LICENSES AND REGISTRATION

Plumbers must register with the Plumbing Industry Registration Board and be licensed against the respective category of work so as to be able to perform work and issue the Plumbing Certificates of Compliance. Obtaining a registration and licensing may require a test, experience, or both.

## WORK ENVIRONMENT AND SCHEDULES

Plumbers often must lift heavy materials, climb ladders, and work in tight spaces. Some plumbers travel to a variety of work sites every day and may have to work outdoors, even in bad weather.

Most plumbers, usually work regular business hours, but may be required to work evenings and weekends. They are often on call to handle emergencies, and overtime may be required on construction sites to meet completion deadlines.

## HOW MUCH CAN I EARN AS A PLUMBER?

Plumbers are among the highest paid trade occupations and a plumber's wage varies depending on their experience, qualifications and type of employer.

Apprentice/trainee plumbers may start on the minimum training wage. Their wages increase as they progress through their apprenticeship and gaining of skills.

Qualified and Licensed plumbers starting out usually earn between R96 000 and R145 000 a year after a few years experience, may earn between R180 000 and R240 000. However an employer would generally base a plumber's wage on his performance or output. So a plumber who does not loaf on his job but puts all his ability and enthusiasm into his work is the one who would earn the best income.

As a qualified and licensed plumber you are able to open and run your own plumbing business. Plumbers who run their own business and employ several tradesmen to work with him, are potentially able to earn a larger income.

## EDUCATIONAL REQUIREMENTS

A minimum secondary education of grade 10 is recommended, however grade 12 is highly recommended and preferred. Useful subjects should include English, Maths, Science, Technical drawing and Technical subjects.

