

JOHANNESBURG TECHNICAL AND VOCATIONAL COLLEGE



OCCUPATIONAL QUALIFICATION: PIPE FITTER SAQA ID 99255, Credits 581, NQF Level 04

Career Overview: What do I do for a living?

The <u>Pipe Fitter</u> is responsible for assembling, laying out, installing, and maintaining pipe systems on steam, fluid, or gas systems. The pipe systems may include but are not limited to pipe, flanges, supports, valves, gauges, hangars, and angles.

Pipe Fitters may work on all parts of the construction or maintenance site including in buildings, outside, and inside structures, i.e. tanks or boilers. The work may also include working in underground (excavations) areas and at heights.

What is the minimum entry level?

Grade 9, Matric (Grade 12) NQF Level 1 with Communication and Mathematical Literacy

Recognition of Prior Learning (RPL):

RPL for access to the external integrated summative assessment: Accredited providers and approved workplaces must apply the internal assessment criteria specified in the related curriculum document to establish and confirm prior learning. A statement of result or certified work experience record must then be issued by the accredited provider or workplace to confirm prior learning.

What Does a Pipe Fitter Do?

- Read and understand single-line drawings, double-line drawings, isometrics, shop fabrication drawings, and mechanical schematics.
- Select the size and type of pipe, and related materials and equipment such as support, hangers, and hydraulic cylinders, according to specifications.
- Assemble and install piping systems such as ductile iron, PVC, steel, copper, stainless steel pipe, and black iron.
- Cuts pipe, using saws, pipe cutter, grinder, cutting torch, and pipe-cutting machine. Hoist loads using slings, chains, shackles, hooks, cables, and other rigging equipment.
- Threads pipe using pipe-threading machine. Connects pipes using threaded, welded, soldered, brazed, fused, or cemented joints, and hand tools.
- Secures pipes to structure with brackets, clamps, and hangers, using hand tools and power tools.
 - Install and maintain hydraulic and pneumatic components on machines and equipment, such as pumps and cylinders using hand tools.
 - Install and maintain compressors, pumps, meters, pneumatic and hydraulic controls, and piping, using hand tools and power tools, and following specifications and blueprints.
 - Test piping systems for leaks by increasing pressure in pipes and observing gauges attached to pipes for indication of leaks.
 - May weld pipe supports to structural steel members.
 - May operate machinery to lift parts and materials.

What can I become?

Pipe fitters

Where can I work?

Qualified pipe fitters are likely to be employed by major industries such as marine, petrochemical, power generation, food and beverage, steel manufacturing, etc. What is the duration of the course?

The Duration is 3 years

How Much is the tuition fees?

Registration fees: R1000 Deposit fess: R5000 (Includes Course Materials, PPE, Student Card, Assessment fees, Certification fees) Monthly Instalment Fees: R 3000