

Essential Skills and Apprenticeship

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Essential Skills for Success as a Steamfitter-Pipefitter

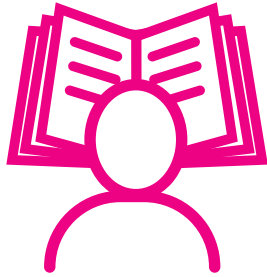
Steamfitter-Pipefitters use Essential Skills to complete trade-related tasks. Use this fact sheet to:

- learn how Essential Skills are used on the job;
- find out the skills you need to succeed in your trade; and
- help prepare yourself for your career.



Steamfitter-Pipefitter

Reading



- Read minutes of project meetings or memos.
- Read equipment warranties to understand what kind of situations can make them invalid.
- Read manufacturers' manuals and instructions for technical information on equipment and fittings.
- Read, interpret and refer to multiple professional codes such as the Construction Security Code or High Pressure Welding Code to verify that processes meet industry requirements while ensuring safety for workers.

Document Use



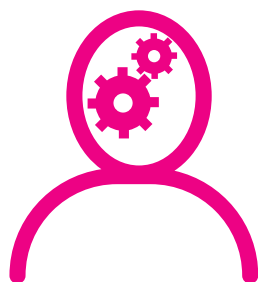
- Read work schedules for projects to plan work and coordinate with other tradespeople.
- Refer to equipment catalogues to locate parts.
- Scan workplace signs, labels and symbols to identify hazardous products.
- Consult the Pipefitters' Handbook for information on measurement, type of materials, pipe sizing and mathematical formulas for calculations required.
- Refer to and read tables in high-pressure vessel manuals to confirm the required temperatures, pressure and expansion.
- Interpret and take measurements from three-dimensional (3D) mechanical drawings to identify how to install equipment, review specifications and extract information to make calculations.
- Interpret schematic diagrams, 3D drawings and architectural plans to understand the routing of piping through conduits and to identify possible interferences.

Working with Others



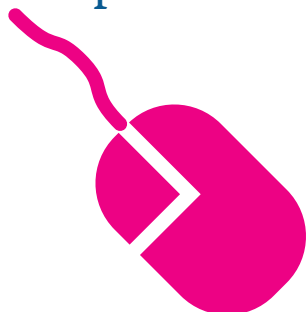
- Interact with supervisors, colleagues and other tradespeople to coordinate tasks or to make requests.

Thinking



- Identify the tools required to move large pieces of equipment in small spaces.
- Decide how to organize tasks most efficiently.
- Decide how to configure pipes when only flowcharts are available and there are no diagrams.
- Determine how to correct errors such as a pipe that has been incorrectly measured.
- Determine how to coordinate jobs with other tradespeople working on the same project.
- Decide how to relocate piping when there is interference with another system.
- Identify reasons for pipe failure and determine the proper course of action to repair the situation.

Computer Use



- Use a spreadsheet to keep track of materials.
- Use computer-assisted design software to input measurements taken on the job site to generate drawings.
- Use the Internet to look up material information or order materials online.

Continuous Learning



- Participate in workplace training and refresher courses for safety procedures.
- Keep up-to-date with the regulatory requirements and the various codes that are periodically revised.
- Keep up-to-date with technological advances to be able to select the most appropriate equipment and materials to perform proper installations.

**For more information on Essential Skills
and related resources, visit**

hrsdc.gc.ca/essentialskills

**For more information on the Interprovincial
Standards Red Seal Program, visit**

www.red-seal.ca

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