

CONSTRUCTION
SECTOR COUNCIL



CONSEIL SECTORIEL
DE LA CONSTRUCTION



Boilermaking



**A big idea
for a career that fits.**



Do you enjoy:

- working with tools, equipment and machinery
- building things
- working both outdoors and indoors
- working with people
- travelling

Are you:

- fit
- patient
- well co-ordinated
- precise





You could be a boilermaker

Boilermakers make huge steel containers such as oil tanks, vats used in breweries and boilers used in heating plants or for generating electricity.

They:

- work from blueprints
- cut and shape thick steel plates
- hoist pieces into place
- fit them together and tack them
- weld the pieces, and
- install valves, pipes, gauges etc., to finish the container





What's so interesting about the job?

- working with big equipment on big projects
- working outdoors and indoors
- travelling and living in different places
- cyclical work with free time
- learning the trade while you work and earn money
- good wages and long-term prospects





What are the wages like?

Boilermakers work about 38 weeks a year.
Certified boilermakers earn between \$25 and \$30 an hour.

Certified boilermakers' earnings average

- \$32,000 to \$50,000 a year without overtime
- \$45,000 to \$70,000 with overtime

Apprentices' earnings average

- \$16,000 in the 1st year
- up to \$35,000 in the 4th





Anticipated demand

Demand for boilermakers will increase:

- Over the next 5 years about 30% of today's boilermakers will retire.
- Canada is in a construction phase in oil, gas, electric generation, etc.
- New technology, materials, construction methods demand boilermakers with new skills.





Where the jobs are

Boilermakers work in:

- construction
- metal fabrication
- petroleum and coal products
- electric power generation
- iron and steel manufacturing





What the jobs are like

The boilermaker's work is cyclical:

- Shorter cycles involve annual repair and maintenance. This activity peaks twice a year—April to June and September to October.
- Longer cycles operate over years or decades. This activity is driven by new construction investment (petroleum and power generation are in an expansion phase).





Mega-projects underway

Some of Canada's largest building and rebuilding projects are in:

- oil sands
- nuclear energy
- petroleum refineries





How do you become a boilermaker?

Apprenticeship programs provide the best education:

- combine on-the-job and in-school training
- let you learn while you earn

Programs vary across provinces and territories.
In general, they include:

- 3 years of on-the-job training, and
- 24 weeks of in-school apprenticeship training

Programs consist of 4 six-week training periods:

- entry level before working
- first level after initial on-the-job training
- second level after about 2 years
- third level after about 3 years





Interprovincial “Red Seal” Certification

Certification from one province is not always accepted by others.

Red Seal Certification allows boilermakers to work across Canada.





Training

Boilermakers are trained to:

- read blueprints
- develop layouts and plan work
- lay out, cut and shape metal sections
- weld
- construct steam drums, air ducts, fans and other equipment
- use rigging and hoisting equipment





Key skills

Essential skills:

- document use
- numeracy
- oral communication

Boilermakers must have knowledge of the following trade-related skills:

- construction and business documents
- measuring, cutting, welding, hoisting
- how to prepare, fasten and coat steel and other materials
- cutting, grinding, shaping and welding equipment
- metallurgical testing
- rigging and hoisting equipment, and
- safety and environmental tools





Advancement

Boilermakers can advance from work crew team members into supervisory roles. They can also become safety inspectors or teach the trade, either in schools or to apprentices on the job.

Crew roles:

- Rigging
- Fitting
- Welding

Supervisory roles:

- Site Supervisor
- General Foreman
- Foreman





Why people love this job

Boilermakers will tell you there's no life like it:

- pride in shaping metals into a finished product
- earn while you learn
- solid long-term prospects
- travel
- opportunity to meet people
- free time for other interests





The last word

“I loved the idea that you could learn from others
right on the job, get paid while you learned,
and see the country while you were doing it.”

— *Aaron Shaer, Winnipeg*