



# Assistant Thermite Welder

## Education and Training

While there is no specific training to become a thermite welder, there are prerequisites and training to become a welder in general.

Completion of high school in addition to completion of a three-year apprenticeship program, or, a combination of over three years of work experience in the trade and some college or industry courses. Interprovincial trade certification (Red Seal) is also available to qualified welders. Red Seal trade certification for welders allows for employment across Canada.

Once employed by a railway, in-house and on-the-job training is provided to become an Assistant Thermite Welder.

## Nature of Work

Working outdoors in all weather conditions to ensure the proper installation and maintenance of tracks, these highly skilled Assistant Thermite Welders are an asset to railroad companies.

Thermite welding used in the rail industry is a specialized field whereby two adjacent rail ends are joined together by a solid weld. Thermite synthesis is a chemical procedure that combines aluminum and a metal oxide at a very high temperature. Particular attention to safety is thus required.

In the rail industry, this type of welding is generally used for seasonal track maintenance, and performed by a welding production gang. The gang consists of a supervisor, foreman, and several crews; each crew being made up of a welder, assistant welder, and several thermite machine operators.

## Earnings

Low:	\$40,000
Average:	\$45,000
High:	\$50,000

## Main Duties

The assistant thermite welder is primarily responsible for assisting the welder, and carrying out tasks as directed by the supervisor or foreman. In general, the assistant welder is required to perform a wide variety of tasks in both the welding processes (preparing, assembling, checking, cleaning up, etc...), and in the related track work tasks that require the handling and use of specialized tools.

Set up weld, get everything ready that the welder needs, lining the weld, material load on track needed to perform weld.

## Typical Employer

Railways

Note: thermite welding is not exclusive to the railways. Such welders are also required in other industries, ship building for example.

## Additional Information

Human Resources and Skills Development Canada  
<http://www23.hrdc-drhc.gc.ca/2001/e/groups/7265.shtml>  
 SAIT

[www.sait.ca/pages/cometosait/academic/diplomas/awet.shtml](http://www.sait.ca/pages/cometosait/academic/diplomas/awet.shtml)

Teamsters Canada Rail Conference

[www.teamstersrail.ca](http://www.teamstersrail.ca)

## Essential Characteristics

- Physical strength
- Attention to detail
- Manual dexterity

