

Confined spaces in craft breweries

A confined space is an enclosed or partially enclosed area that is big enough for a worker to enter even partially. It's not designed for human occupancy and has a limited or restricted entrance or exit.

Examples include:

- Grain bins and silos
- Process tanks for raw materials and cleaning chemicals
- Mash tuns, lauter tuns, kettles, and whirlpools
- Grain-dust collectors

Confined space hazards



Toxic gases

Such as carbon dioxide in fermentation tanks



Lack of oxygen

Oxygen displaced when purging with nitrogen



Falls

Slipping inside tanks



Temperature extremes

In tanks with heating systems



Collapse of solids

Engulfment in grain silos



Drowning

Falling into liquid-filled tanks

From 2008 to 2018, **11 workers** died in confined space incidents in B.C.



Two B.C. workers died in a fermentation tank. One worker lost consciousness and fell into the tank after opening it and inhaling carbon dioxide gas. A fellow worker died trying to rescue him.

You are entering a confined space when your breathing zone is inside it. This includes putting your head inside the space.



Do

- Use a gas monitor when opening any confined space that may contain a toxic gas.
- Use a mirror or camera on an extension pole to look inside a confined space.
- Only enter a confined space if you have:
 - Permission from your supervisor.
 - The proper training and equipment.



Don't

- Don't enter spaces that have warning signs or labels.
- Don't put your head near an opening into a confined space that might contain a toxic gas.
- Don't try to rescue others without proper training and equipment.

All confined space hazard assessments and written entry procedures must be prepared by a qualified person with training and experience to recognize, evaluate, and control confined space hazards.