

Working in confined spaces

The risks of confined spaces can often be difficult to see. The environment may have been used by others in the past without any problems but a change in circumstances may quickly make the situation risky. A confined space is a space that is difficult to get in and out of at the same time as there is a risk of injury or death due to suffocation, fire, explosion or poisoning for example.

Confined spaces

Examples of spaces that can be classified as confined spaces are tanks, wells, process vessels, sewage, gas or fluid pipes, air shaft, elevator pits, culverts, basement premises, drum dryers, concrete mixers, aggregate bins, installation spaces in/



Drum dryer at asphalt plant.



Elevator pit on construction site.



Manhole for water and sewer works.

Organisation and planning

Anyone carrying out work in a confined space must be medically fit (not claustrophobic, epileptic, have heart problems or the like), have the right knowledge and previous experience of similar work. Both those who are carrying out the work and the management must have undergone an extended safety review before the work begins. Work in confined spaces must never be performed alone.

Prior to working in confined spaces, risk assessment and work preparation must always be carried out and documented in writing. Notify the Bas-U/Construction Work Environment Coordinator well in advance of the work so that they can participate in the planning. If Skanska is not Bas-U, Skanska's production management shall also be involved in the preparatory work.

In the planning and work preparation for work in a confined space, it is important to consider:

- How access to the area is restricted for unauthorised entry.
- That the oxygen level and possible presence of chemical products and hazardous substances is checked before access and how it can be checked during the work. Alarm equipment for continuous measurement may be needed.
- Possible ventilation or other protective measures to create risk-free air quality.
- How to conduct rescues and who does what in the event of an accident. Rescue exercises must be carried out before a new type of work begins and at least annually for recurrent tasks.
- That rescue equipment is in place.
- What skills are required for those involved in the work.
- That the right tools and machines are used for the task.

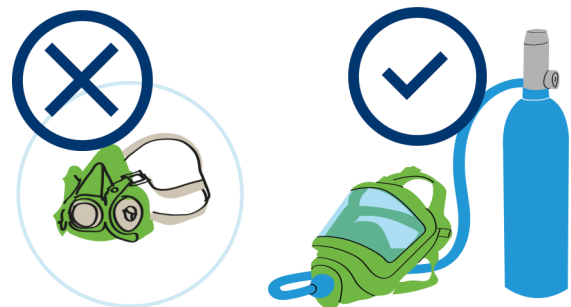
An on-the-spot check needs to be made that preparations in accordance with work planning have been carried out before starting work. As an employer, you must issue a written work permit. The work permit must be signed by those who are to carry out the work, as proof that they have received and will follow the instructions. The work permit must be approved by Skanska's Production Manager and Bas-U/Coordinator. A work permit form can be obtained from Skanska's production management.

Safe execution

In connection with work in a confined space, there must always be people available who have practised rescue and can help evacuation in an emergency. If there is a risk of a hazardous atmosphere while there is difficulty in entering and exiting the space, a person must be appointed to monitor the work and air quality. The monitor shall be in a safe position during work and have clear communication channels with the person or persons performing the work, and be able to assist those in need in a safe and timely manner.

It is essential to think of the following when evacuating from a confined space:

- Never enter a confined space if someone inside has become unconscious or appears to be dazed.
- First check with the aid of a gas detector that there is no oxygen deficiency or dangerous gases in the space. Wear protective equipment if necessary.
- Alert a colleague and/or emergency services before starting evacuation work. The work may entail risks for the evacuator.



A half mask with gas filter does not help in an oxygen-deficient environment or against CO, CO₂! Only breathing apparatus with an air supply will do!