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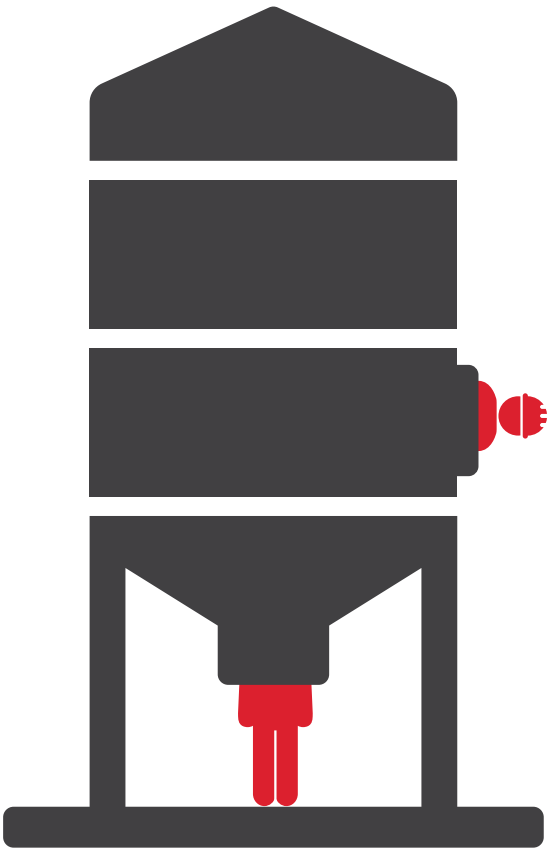
FOUR RISKS TO BE AWARE OF BEFORE ENTERING A CONFINED SPACE

Few workplaces are more dangerous than confined spaces, which is why being fully aware of the hazards that you may encounter inside is vital. Remember: every confined space is unique and so are its dangers so there is no such thing as a one-size-fits-all risk assessment. There are, however, four main risk categories that most confined spaces have in common. Being aware of these is a must.

RISK 1: RESTRICTIVE AND ENCLOSED LAYOUT

Confined spaces are primarily not designed or intended for continuous human activity. They generally have limited entrance/exit and, once inside, it is often difficult to move around. The obvious danger here is that you might struggle to quickly escape in case of an emergency. A restrictive layout might also complicate emergency rescue from outside. This is why fatalities often occur when would-be rescuers, who have not received appropriate training, precipitously enter a confined space to come to a colleague's rescue.

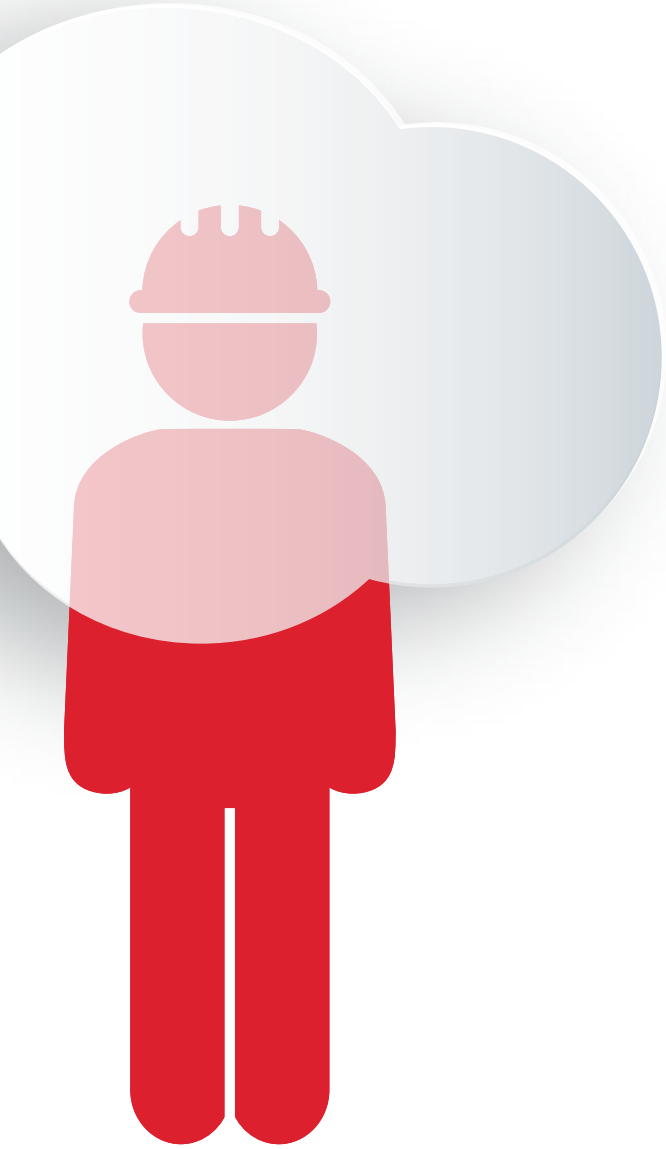
Additionally, the enclosed nature of confined spaces, which limits airflow, means that natural ventilation alone will often not be enough to maintain sufficient oxygen levels.



RISK 2: UNPREDICTABILITY

When you are working in a confined space, circumstances can change very quickly, leading to risks that you may have not envisaged from the start. For example, activities such as welding can lower oxygen concentrations to a dangerous level while chemical cleaning may fill the air with toxic substances. Conditions may also become life threatening due to external factors. For example, a sewer may flood as a result of heavy rain, putting workers at risk of drowning.

This high level of unpredictability is the reason why a thorough risk assessment is so important and must be taken very seriously each and every time it is performed.



RISK 3: TOXIC AND EXPLOSIVE ATMOSPHERE

The enclosed nature of confined spaces makes the presence of any toxic fumes, reduced oxygen levels or combustible gases particularly dangerous.

Some gases or vapours can be immediately deadly even after a brief exposure. For example, as soon as hydrogen sulphide (H2S) reaches a concentration of 1000 ppm (parts per million) – the equivalent of 0.1 percent of a confined space's atmosphere – it can kill a worker.

Another reason why any contaminants can be especially dangerous in a confined space is that, even if they are not life-threatening, they may make you dizzy or unconscious, hindering your ability to escape or call for help.

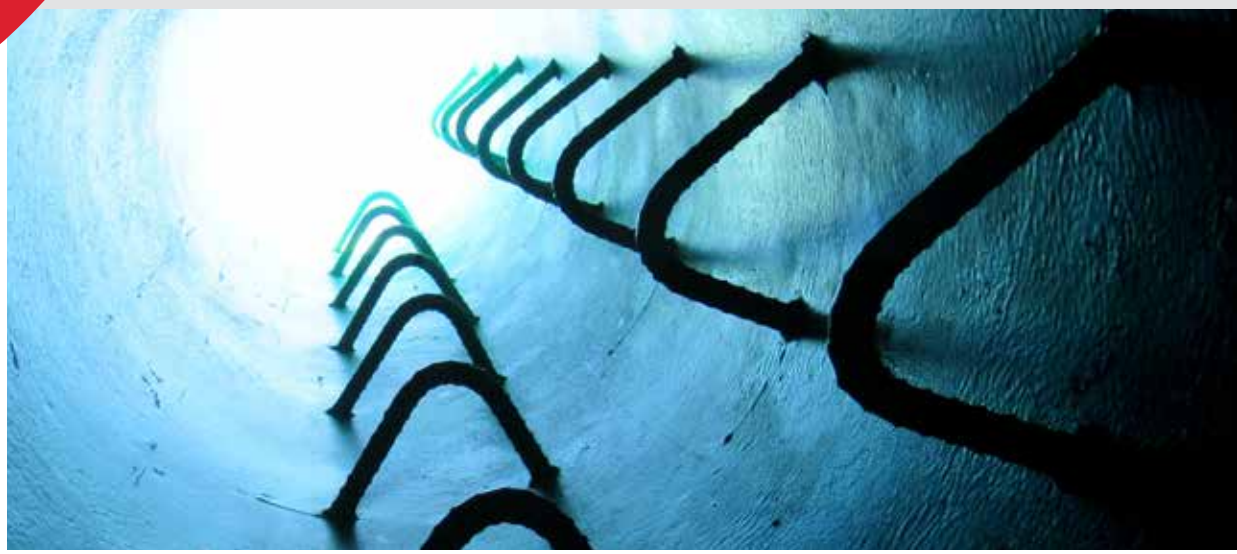
Lack of oxygen, or asphyxia, is another silent killer that you should always be aware of. Low oxygen levels cannot be detected by sight or smell, which is why testing the air is paramount.

Too much oxygen can also be extremely dangerous as it greatly increases the risk of fire or explosion, which are often caused by gases or vapours igniting. Remember that two or more chemicals can also react with each other and become explosive.

RISK 4: FALLS FROM HEIGHT

They may not be the first risks to spring to mind, but falls pose a major threat to workers in confined spaces. They often occur when workers lose their grip (e.g. when climbing a wet or greasy ladder) or balance when access structures are unstable (e.g. a worn-out ladder).

Another important reason why falls occur in confined spaces is that workers might underestimate the severity of the risk. As they tend to operate at relatively low heights – which might not seem particularly daunting – confined space workers may be tempted to cut corners and neglect some of the necessary safety measures. The truth is that falling from a height as low as 4 metres would mean hitting the ground in less than one second and suffering life-changing or even fatal injuries.



For more information on assessing the risks associated with confined space download our 'Whitepaper – Understanding the risks of working in confined spaces' here.

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