

Vapour Barriers to achieve clearances between LPG Exchange Cylinders and ignition sources

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Responsibility for the Location of LP gas cylinders

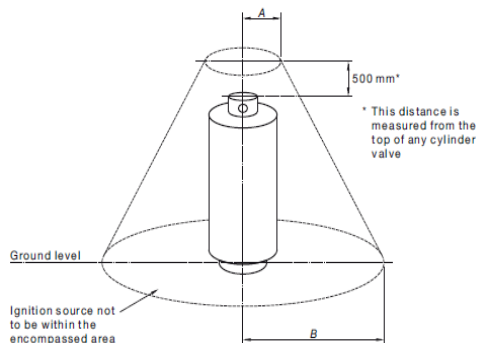
The location of LPG cylinders is the responsibility gas contractors for exchange cylinders or LP gas suppliers for in situ-fill tanks. In situ cylinders and tanks must be within the line of site of refilling tankers for filling purposes. Exclusion zones apply around LP gas cylinders to ignition sources to ensure that potential gas leakage cannot ignite and burn.

Ignition sources include naked flames, electrical equipment not intrinsically safe or hot surfaces above the ignition temperature of the gas.

There are occasions where electrical equipment is unwittingly installed by third parties within exclusion zones for LPG exchange or in-situ cylinders. Where a gas supplier or licensed gas fitting contractor identifies this the owner may be asked to have the situation rectified.

The preferred action is to relocate all offending equipment out of the hazardous exclusion zone.

The minimum clearances to ignition sources are set by the AS/NZS 5601.1:2022



Radius	Exchange cylinder mm	In-situ fill cylinder mm
A	500	1500
B	1500	3500

This may involve relocating the ignition source or in some cases the gas cylinders, but it may not always be possible due to site based physical constraints.

In these situations, it may be possible to install a physical **vapour barrier** to maintain the appropriate distance between LP gas cylinders and the ignition source.

Vapour barriers must be permanent and made of a non-combustible partition that extends from the ground and wall out and upwards sufficiently to ensure that the most direct air path exceeds the required lineal length.

The size of a vapour barrier may vary from job to job depending on the height and location of the ignition source with respect to the LP gas cylinders and their relative physical size.

The following guide enables the determination of a vapour barrier size for individual site conditions.

1. Check with the Split Cycle A/C compressor manufacturer to ensure that the installation of a vapour barrier will not restrict air flows and thereby reduce its safety/efficiency.
2. Measure and cut a piece of string to the appropriate length depending on the height and size of the ignition source. Figure 1 shows an external condenser compressor unit too close to exchange LP gas cylinders.
3. Tape the string ends to the nearest front sides of both the LP gas cylinders and A/C compressor. (Figure 1)
4. Gently pull the string outwards, horizontally away from the wall at the midpoint between the gas wall box and A/C compressor unit and measure back to the wall from the string line to give you the width of the vapour barrier. (See C in Figure 1)
5. Now gently pull the string upwards, vertically at the midpoint above the gas wall box and A/C compressor and measure from the string line down to the ground to give you the height of the vapour barrier. (See D in Figure 1)

Note; the vapour barrier must be firmly secured in place, non-combustible and manufactured to be a close fit to the floor and rear wall.

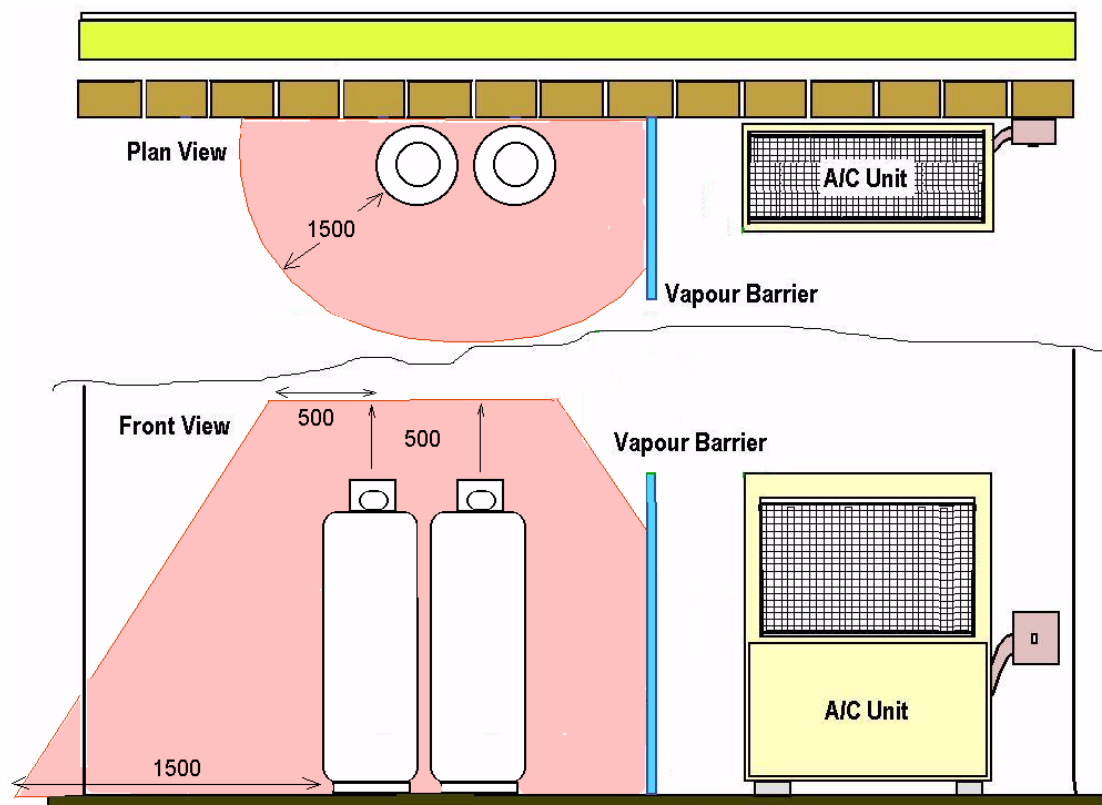


Figure 1

Contact the Office of the Technical Regulator for more information

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