



## Premier Workplace Solutions

Unit 1, 14 Stennett Road Ingleburn NSW 2565

### Customer Service:

Ph: 1300 764 477

Fax: 1300 764 488

Email: sales@pwsonline.com.au

## Flammable Liquid Storage Cabinet Installation and Maintenance Instructions

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### REQUIREMENTS

**Standards:** Our range of cabinets are designed and manufactured to conform to the Australian Standard AS1940-2004. Please refer to this Standard for further information on the Storage and Handling of Flammable Liquids Class 3 and Combustible Liquids.

**Cabinet Location:** The following requirements apply to the location of cabinets for flammable and combustible liquids:

- a. Cabinets shall be located so they do not impede escape in an emergency
- b. Cabinets having a capacity greater than 250L shall not be installed in residential or accommodation buildings, commercial buildings, hospitals, aged care buildings or school buildings.
- c. Cabinets having a capacity greater than 250L shall only be installed on floors that have direct access from street or ground level.
- d. Cabinets having a capacity greater than 250L shall not be placed nearer than 3 m to any wall that is common with another room, unless that wall is constructed of concrete or masonry to ceiling height or 3 m above the top of the cabinet (whichever is less) and 3 m to either side of the cabinet.
- e. The aggregate capacity of cabinets shall not be greater than-
- f. 850 L per 250 m<sup>2</sup> on a ground floor area; or
- g. 250 L per 250 m<sup>2</sup> on other floors.
- h. Each aggregate quantity given in item e shall be separated by at least 10 m.
- i. A storage cabinet may be used for outdoor storage, provided that adequate protection against weather, corrosion and traffic damage is provided.

**Storage in a cabinet:** The following operational requirements and recommendations apply;

- a. Persons shall be prevented from entering the cabinet.
- b. Drums shall not be stacked more than two high if they are greater than 60 L capacity.
- c. Only one drum of more than 60 L capacity should be kept in a horizontal (decanting) position at any time.
- d. Only packages, or those fitted with a tap, should be stored in the cabinet.
- e. Only chemicals of Class 3 Flammable Liquids and Combustible Liquids can be stored together within the cabinet.



**Ventilation provisions:** All Our Safety Cabinets are fitted with two vent bungs, which incorporate a flash arrester and a bung cap for each vent. In most instances vapours should be extracted from the lower opening, allowing fresh air to enter through the upper opening. Ventilation of the cabinet is not mandatory for fire safety purposes. If venting is not required, the vent caps should be kept tightly sealed.

Where ventilation is installed, it shall be designed so that vapours are prevented from escaping into any room. Any ventilation exhaust shall be to the outside atmosphere and in a location, which allows the safe dispersal of vapours and is away from any ignition sources.

For further information on ventilation please refer to section 4.5 of the Standards.

**Exclusion of ignition sources:** There shall be no ignition sources within the cabinet. Where flammable liquids are stored, ignition sources shall be excluded from the area outside the cabinet to a distance of 3 m measured laterally, and from floor level to a height of 1 m above any opening in the cabinet, including the door.

**Static electricity earthing point:** The cabinet is also fitted with a screw type connection point on the bottom left side of the cabinet. We recommend the cabinet be earthed to reduce the potential of Static Electricity discharge, which can be a source of ignition. Static Electricity may be generated when flammable liquids are transferred. The possibility of developing a static spark between containers and the cabinet can be eliminated by utilizing proper bonding and grounding methods. We offer a range of Bonding & Grounding Wire Assemblies.

**Fire Protection Requirements:** Each indoor storage cabinet having a capacity of 250 L or less, at least one powder-type extinguisher shall be provided. For indoor storage cabinets of more than 250 L capacity, an extra extinguisher or foam hose reel shall be provided. All extinguishers shall be located not less than 3 m or more than 10 m from the cabinet.

**Clean up materials and equipment:** In order to deal with leaks and spills, clean-up equipment, chemicals for neutralizing or decontaminating spills, and absorbent materials shall be kept at premises on which flammable or combustible liquids are kept or handled. Sufficient neutralizer should be available to treat the contents of the largest container kept. (Refer to section 9.4 of the Standard)

**Housekeeping within the cabinet:** The cabinet has a baked enamel finish, which is solvent resistant. However, solvents do attack paint, so all spills and leakages must be cleaned up immediately. Ensure all containers have lids tightly fitted to minimise vapour emission to reduce potential fire hazards and to provide a long service life for your cabinet.

**Packaging:** The cabinet is packaged on a disposable wooden skid for ease of handling and transporting by a forklift or similar equipment. The cabinet is encased with shrink-wrapping and protective packaging to further protect the cabinet from damage during transit. Remove all packaging and wooden skid before locating the cabinet to the desired location. Refer to location instructions as per above.



**Shelving:** Cabinets are supplied with heavy-duty galvanised steel shelving. The number of shelves supplied depends on the model of cabinet. Additional shelving can be ordered if required. The cabinets are designed to enable the shelves to be located in a variety of positions. The bottom shelf must be fitted to the lowest position to cover the sump area. No storage is permitted in the floor area.

### **CABINET OPERATION**

The cabinet should be positioned on an even level floor to ensure the cabinet doors operate freely. An uneven floor can cause a twisting of the cabinet and affect the closing of the doors.

**Single Door Cabinets:** These cabinets are fitted with a self-closing door, including an automatically activating latch and handle mechanism. This is a requirement of the Standards.

To open the door - Turn the handle 90 degrees anti clockwise upwards and pull the door open. The latch bar will recess into the door until the door is closed. Do not force the handle as this can damage the latching mechanism. Also do not attempt to open the door beyond designed limits.

Do not prop the door open whilst accessing the cabinet, as this will prevent the door from closing in an emergency.

To close the door - Simply release the door and allow it to close by itself. The door will gently close and the latch mechanism will automatically activate. There is no need to push or force the door closed. This can also cause damage to the closing mechanism.  
The handle can be locked if required with the key supplied.

**Double Door Cabinets:** These cabinets are fitted with sequential self-closing doors, which include an automatically activating latch and handle mechanism. This is a requirement of the Standards.

To open the doors - Turn the handle 90 degrees anti clockwise upwards and pull the right door open. The latch will recess into the door until the door is closed. Do not force the handle as this can damage the latching mechanism. Once the right hand door has been opened about half way the left hand door can then be opened. Do not force the left door open without opening the right door properly otherwise this can damage the sequential mechanism.

Do not prop the doors open whilst accessing the cabinet, as this will prevent the doors from closing in an emergency.



To close the doors - Simply release both doors and allow them to close by themselves. The doors will gently close, with the left door closing first, then, followed by the right door. The right door will be held partially opened by the

sequential mechanism, which is quite normal. Once both doors are closed, the latch mechanism will automatically activate. There is no need to push or force the doors closed. This can also cause damage to the closing mechanism.

Do not attempt to open the doors beyond designed limits as this can cause damage.

The handle can be locked if required with the key supplied.

**Adjustment to doors:** The door closing speed has been pre set during final assembly. From time to time the closing rate of the doors may change. This can be adjusted. Please refer to the decal located on the inside right door for instructions on adjusting closing speed.

**Maintenance of Cabinets:** The cabinet should be checked on a regular basis to ensure correct operation. Should the doors not operate correctly or damage to the cabinet be sustained, report this to an appropriate person for further attention. If this has occurred the cabinet may therefore not comply with Standards.

Also refer to **Housekeeping** within the cabinet as part of the maintenance procedure.

The cabinet performance may be adversely affected if it is not properly maintained or if any structural modifications are made.