

JOBBOX®

FLS

FLAMMABLE LIQUID STORAGE



SOURCEBOOK

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EXCEPTIONAL FEATURES

MAKE COMPLIANCE EASIER



All JOBBOX Safety Cabinets comply with OSHA, NFPA specifications and are independently tested and listed by Underwriters Laboratories [UL].



WARRANTY INFORMATION

JOBBOX® Products Limited Warranties

This product warranty is made by Apex Tool Group, LLC (ATG) to only the original purchaser and it is valid as indicated in the table below from date of purchase, upon presentation of the original sales receipt at the time the warranty claim is made. ATG warrants its product to be free from defects in materials and workmanship at the time of the sale. This warranty does not cover damage caused by accident or unreasonable or unintended use of the product. Modification, disassembly and/or reassembly of the product will invalidate this warranty. Damage to the contents of the box or other consequential damages of whatever kind are hereby excluded from this warranty. Use only parts or accessories supplied by Apex Tool Group, LLC. Parts or accessories from other manufacturers or suppliers could alter the function and safety of the product(s) and void this warranty.

Safety Cabinets	5 Years
Safety Cans	5 Years

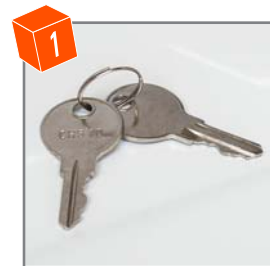
JOBBOX cannot offer specific recommendations on chemical compatibility. Your chemical supplier, MSDS sheets, or other expert sources should be consulted. JOBBOX makes no guarantee of results and assumes no obligation or liability in connection with the use of these products and their application relative to their chemical compatibility. It is the end user's sole responsibility to determine the nature of the materials to be contained and to select the proper product suitable for a particular application. Furthermore, it is the end user's responsibility to insure that the product selected is suitable for its intended use. JOBBOX makes no warranty, expressed or implied of merchantability or fitness for purpose, and assumes no liability in connection with any product made or sold by JOBBOX with regard to its use of chemical compatibility.

- 1 Industry Leading Fire Resistance
- 2 Revolutionary EZ Level™ Bolster System
- 3 Hi-Viz Safety Information Label System
- 4 Bright White Interior
- 5 Spill Guidance Shelving
- 6 Heavy-Duty Self-Closing Door System Available
- 7 Legendary JOBBOX Toughness, Staked Hinges, Powder Coat Paint, Extra Thick Doors

SET UP INSTRUCTIONS



UNPACKING



Retrieve keys [2] from inside cabinet.



Retrieve leveling feet [4] from inside cabinet.



Retrieve Fusible Link Kit from inside cabinet. (Self-closing models only)



Remove the shipping protection pads from all shelves.



WARNING

Proper setup and maintenance is essential for the correct function of any flammable material storage cabinet. Incomplete or incorrect setup may reduce a cabinet's resistance to fire. Read the Setup Instructions contained in this manual fully before placing and installing the cabinet.



PLACEMENT



Place cabinet away from open flame or other sources of ignition.



Place cabinet in an adequately ventilated area.



Place cabinet on a surface that will allow the cabinet to be leveled.



Make sure cabinet and cabinet doors do not block stairways, hallways, exits, or other egress areas.

NOTICE

JOBBOX cabinets are forklift capable from only the front or back. Do not lift from sides by running forks through bolsters at bottom of cabinet as damage to the leveling components may occur.



WARNING

Properly leveling a Heavy Duty **JOBBOX** Safety Cabinet is a 2 person operation.



1 Place a forklift or pallet jack squarely underneath the cabinet and lift approximately 4-5".

LEVELING

Flammable liquid storage cabinets must be adequately leveled in order to assure proper operation of doors and leak-proof sump. Inadequate leveling may reduce a cabinet's resistance to fire. The **JOBBOX EZ Level™** bolster makes leveling quicker and easier than any other safety cabinet on the market, so please ensure your cabinet is level before use.

WARNING

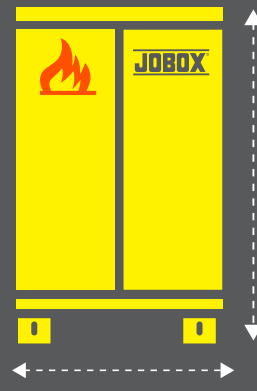
Someone should always maintain positive control of the forklift or pallet jack throughout the entire leveling operation.



As a standard safety measure in addition to always maintaining positive control of the forklift / pallet jack, place appropriate materials underneath the cabinet to fully support the cabinet weight in the event of a forklift / pallet jack failure. Insert a leveling foot into the threaded hole in the bottom of a bolster. Using a 1/4" socket or nutdriver, engage the top of the leveling foot through the top of the bolster and turn until leveling foot is fully retracted.

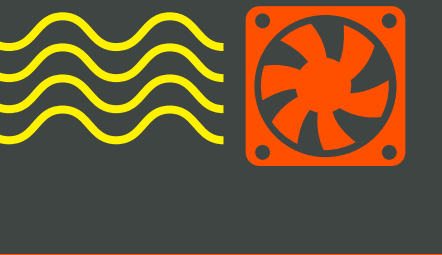
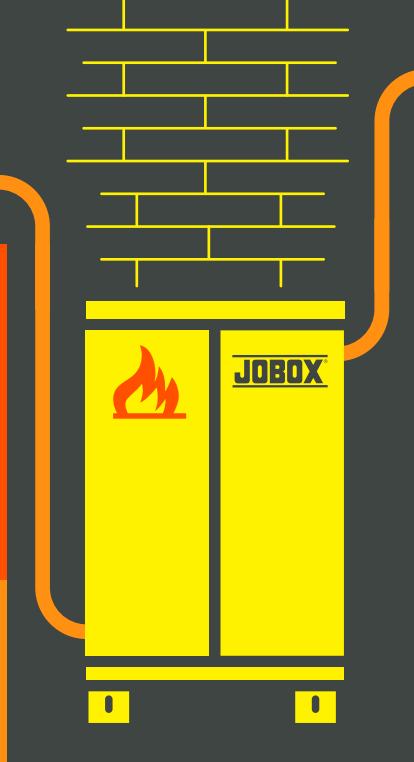
Remove additional safety support materials and lower the cabinet slowly onto the floor.

Using a bubble level, access each leveling foot through the top of the bolster and adjust with a 1/4" socket or nut driver until the cabinet is fully level (front / back and left / right).



VENTING

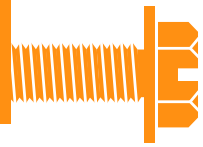
Cabinet venting requirements vary depending on the application. Always check with your local Fire Marshal or Inspector, EHS Representative, MSDS, and Industrial Hygienist to determine if your cabinet should be ventilated.



If cabinet is not being vented, keep bungs secured in place.

Cabinets should not be vented and bungs should remain securely in place unless venting is required to comply with local health and safety codes. If cabinets must be vented, be sure the venting system is designed and constructed to sufficiently maintain the heat and fire-resistant integrity of the cabinet. NFPA articles 30 and 91 contain valuable guidance regarding the design of venting that will have minimal effect on fire resistance of cabinets in situations where venting is required.

GROUNDING



If you plan to ever dispense liquid from inside the cabinet, grounding is **MANDATORY**. For bonding/grounding to be effective, a metal-to-metal connection must be established with a true earth ground. It is always good practice to ground your cabinet.



Remove the grounding screw from the cabinet with a nut driver or socket.



Ensure the connection area between the grounding wire and connection point is clean, secure, dry, and free of rust and paint.



Place grounding wire connection point securely around the grounding fastener and tighten into slot on cabinet wall.



Ensure a full, metal-to-metal connection is established between the grounding fastener, grounding wire, and cabinet wall.

FUSIBLE LINK INSTALLATION

(SELF-CLOSE MODELS ONLY)

Fusible links are designed and third party tested to ensure that they will release at **165° Fahrenheit** in the event of a fire.



Remove plastic plugs from door bevel.



Using provided self-tapping, metal screws (B); attach the anchor plate (D) and D-ring (C) to bevel of the door by fastening screws into the pre-drilled holes. The straight length of the D-ring should sit and rotate freely under the raised portion of the anchor plate. **[as pictured]**



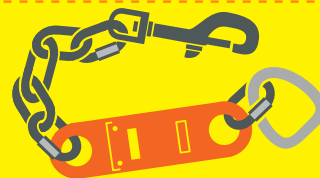
Attach anchor plate (D) and pre-assembled chain / fusible link assembly (A) onto the side of the cabinet using self-tapping, metal screws (B). The straight length of the D-ring attached to the fusible link assembly should sit and rotate freely under the raised portion of the anchor plate.



While holding the door open, insert the spring clip into the door mounted D-ring to hold doors open. Operate spring clip as necessary to hold door open.

Repeat steps 1-4 for the other door.

2 fusible link / chain assemblies (Includes fusible link, chain, d-ring connector, and spring clip)



Each self-closing cabinet includes 1 fusible link kit.

8 attachment screws

2 d-ring connectors

4 anchor plates



Always wear safety glasses when operating tools.

WARNING

SHELF ADJUSTMENT

Shelves come pre-installed from the factory. If you wish to change the factory spacing, shelves may be adjusted up or down in 8 or 10-inch increments depending on the size of cabinet.



Lift the shelf up out of the brackets on the side walls.



Tilt the shelf at an angle and insert one end of the shelf into the desired side wall brackets.



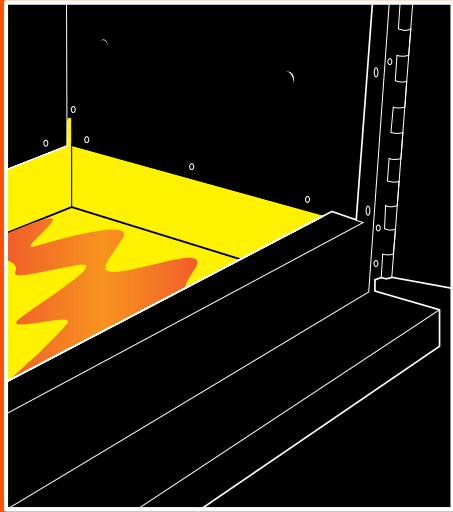
Lower the shelf into the brackets on the opposite side wall, making sure that the shelf is level. If needed, utilize a rubber mallet to hit lightly around the edges to ensure the shelf seats securely in all four brackets.

NOTICE

In order for the Spill Guide Shelving to effectively channel spilled liquids into the leak-proof sump, it is critical that you confirm shelves are installed in the correct support notches if you adjust the shelves.

MAINTENANCE

The leak-proof sump is designed for emergency containment of spilled liquids only. **Do not allow spilled liquids to remain in the sump for extended periods.**



- Frequently and routinely inspect the leak-proof sump for spilled liquids.
- Immediately remove any materials collected in the sump using approved procedures and equipment.
- Wipe away residual material on a regular basis to avoid fume buildup. Dispose of used rags in approved disposal containers.

GUIDE TO FLAMMABLE LIQUID STORAGE



Fire and explosion are the primary hazards created by the storage of flammable liquids. The danger of these hazards can be minimized if users are familiar with the basics of flammable liquids and adhere to safe practices for handling flammable liquids as specified by the Occupational Safety and Health Administration (OSHA), the National Fire Protection Association (NFPA), Underwriters Laboratories Inc., and other regulatory and standards organizations. This guide is designed to provide a basic understanding of the conditions required for combustion of flammable liquids and the proper procedures for minimizing these conditions.

NOTE: Although there is a technical difference between "FLAMMABLE" and "COMBUSTIBLE," we will use the term "FLAMMABLE" in this booklet to refer to any liquid that will burn under certain conditions.

THE FIRE TRIANGLE

Fire, or combustion, is the release of energy in the form of light and noticeable heat from a rapid chemical reaction. It needs three components to exist: a fuel of combustible material, oxygen, and sufficient heat. Together, these components are known as the Fire Triangle.



THE IS LIKE A 3-LEGGED STOOL

Remove one of the legs and the stool will fall over. Generally, fires can be extinguished or prevented by removing one of the three components ... either the fuel, the oxygen, or the heat.



FUEL

Solids, liquids, and vapors can all serve as fuel for fire or combustion. These may include, but are not limited to metals such as magnesium, wood, paper, oil, solvents, natural gas, and propane.



OXYGEN

Normal air contains more than enough oxygen to support fire.



HEAT

With sufficient heat, any flammable material will burn.



When storing flammable liquids, the **liquid** itself is the **fuel**, so **we can't remove that**. We need to control one or both of the other two components.



The **air** we breathe contains around **21% oxygen**, more than enough to support fire. In fact, a flame can exist in air with as little as **15% oxygen** content and just **3%** is enough for smoldering combustion to take place. Also, air permeates even the tightest seals, so removing enough oxygen to prevent fire isn't a realistic option.



That leaves **heat**. If we can control the amount of heat that reaches a flammable liquid, we can **reduce the danger of fire** or explosion. That's what makes safety cabinets and cans different: They help control the amount of heat that reaches flammable liquids. In order to be compliant with **OSHA regulations**, safety cabinets must withstand a standardized 10-minute fire test without the internal temperature exceeding 325°F. Standard cabinets and enclosures can't pass this test, **but safety cabinets can**.

BUYING TIME

The benefit of storing flammable liquids in safety cans and cabinets is, in the event of a fire, they buy you time.



Time for you to exit the building. Time for firefighters to control or extinguish the fire. Maybe time to prevent an explosion. Seconds count in every industrial fire situation, and safety cabinets and cans can make the difference between **LIFE AND DEATH.**

FIRE PREVENTION



There are many ways to reduce the chance of fire, but it helps to first know how fire works. Simply put, **fire is rapid oxidation** ... when oxygen chemically combines with the elements of a burning substance. Oxidation may start slowly, but can quickly accelerate if enough heat is applied. Solvent- or paint-soaked rags, for instance, can spontaneously combust if stowed in a confined space if there is sufficient oxygen and heat cannot be dissipated rapidly.

To best understand how to prevent situations where flammable liquids may present fire danger, it's helpful to know some **BASIC DEFINITIONS:**

The temperature of a liquid for which, at an atmospheric pressure of 14.7 pounds per square inch absolute (psia), the atmosphere can no longer hold the liquid in the liquid state and bubbles begin to form. Atmospheric pressure is a major factor in the boiling point of liquids.

BOILING POINT



The measure of a liquid's tendency to evaporate. The higher the vapor pressure, the more volatile the liquid, and the more readily it gives off vapors. Flammable liquids with higher vapor pressures present a greater risk of fire.

VAPOR PRESSURE



The lowest temperature at which a flammable liquid gives off vapor in sufficient concentration to form an ignitable mixture with air near the surface of the liquid.

FLASH POINT



FIRE PREVENTION



FIRE CLASSIFICATIONS

Fires are classified according to the nature of the combustibles involved:



BASIC DEFINITIONS:



FIRE POINT

The lowest temperature at which a flammable liquid will continue to burn in a normal atmosphere after it has been ignited by a spark or flame.



AUTO-IGNITION POINT

[also called the self-ignition point or spontaneous ignition point]: The lowest temperature to which a flammable liquid must be heated to exude vapors that will spontaneously ignite in a normal atmosphere without the presence of a flame or spark.



FLAMMABLE RANGE

[also called explosive range]: The concentration, expressed as a percentage range, of any flammable liquid atomized or vaporized in a normal atmosphere, at which explosion will occur in the presence of a spark or flame. Concentrations below or above this percentage range will not ignite.

CLASS ALPHA

Ordinary combustibles such as wood, cloth, paper, and upholstery



CLASS BRAVO

Flammable liquids such as gasoline, jet fuels, and lubricating oils



CLASS CHARLIE

Energized electrical equipment



CLASS DELTA

Combustible metals such as magnesium, titanium, and sodium



A



B



C



D



OTHER DEFINITIONS

(FROM OSHA 29 CFR 1910.106) (A)(19)(I-IV)

FLAMMABLE LIQUID



Means any liquid having a flashpoint at or below 199.4F (93C). Flammable Liquids are divided into four categories: **Category 1, Category 2, Category 3, Category 4** liquids.

CATEGORY 1 Liquids having flashpoints below 73.4F (23C) and having a boiling point at or below 95F (35C).

CATEGORY 2 Liquids having flashpoints below 73.4F (23C) and having a boiling point above 95F (35C).

CATEGORY 3 Liquids having flashpoints at or above 73.4F (23C) and at or below 140F (60C). When a Category 3 liquid with a flashpoint at or above 100F (37.8C) is heated for use to within 30F (16.7C) of its flashpoint, it shall be handled in accordance with the requirements for a Category 3 Liquid with a flashpoint below 100F (37.8C).

CATEGORY 4 Liquids having flashpoints above 140F (60C) and at or below 199.4F (93C). When a Category 4 flammable liquid is heated for use to within 30F (16.7C) of its flashpoint, it shall be handled in accordance with the requirements for a Category 3 liquid with a flashpoint at or above 100F (37.8C).



FLAMMABLE LIQUIDS

STORAGE CHECKLIST



Frequent inspection is an extremely important aspect of safe flammable liquid handling and storage. Establish a regularly scheduled visual inspection of every safety cabinet in your facility to verify compliance with all applicable regulations. Do not become complacent. A little preventative work can go far in preventing a fire hazard.

Periodically verify the following items for each cabinet in your facility and correct immediately if not in compliance: ▼



Ensure the immediate area where the cabinet is located is clear of debris and away from running machinery or any activity involving heat. The floor or decking beneath the cabinet should be solid and stable.



Ensure Material Safety Data Sheet (MSDS), whether paper or electronic, for the liquid being stored is close by and readily accessible.



Ensure shelves are clean and sit fully in the side wall brackets.



Using a standard bubble level, verify that the cabinet is level.



Verify that the cabinet sump is clean and empty. If liquid or debris is found, ensure it is removed immediately using approved procedures and properly disposed of.



For self-closing cabinets, verify that fusible link assemblies for all doors are properly installed and that only OEM (from the original manufacturer) fusible links are used.



Ensure cabinet is the appropriate color for the liquid being stored:



Flammables



Paints
Inks
Other Combustibles



Pesticides
Insecticides

NOTICE OSHA 29 CFR 1910.106 (d)(3)(i) / OSHA 29 CFR 1910.106 (e)(2)(ii)(b)

Ensure cabinet capacity is adequate for peak storage needs. Not more than 60 gallons of Category 1, 2, or 3 flammable liquids, nor more than 120 gallons of Category 4 flammable liquids may be stored in a storage cabinet.

The quantity of liquid that may be located outside of an inside storage room or storage cabinet in a building or in any one fire area of a building shall not exceed: (1) 25 gallons of Category 1 flammable liquids in containers; (2) 120 gallons of Category 2, 3, or 4 flammable liquids in containers; (3) 660 gallons of Category 2, 3, or 4 flammable liquids in a single portable tank.



Ensure contents of cabinet are organized so all contents are visible and identifiable without moving items out of the way. Verify that all containers in the cabinet are properly closed and sealed.



Verify that there is no debris accumulation underneath the cabinet.



Ensure cabinet is properly grounded to facility grounding grid or earth source if applicable. Grounding is mandatory if liquids are ever transferred from inside the cabinet.



Verify that cabinet is properly vented if required. If cabinet venting is not required, ensure cabinet is in a well-ventilated area and that venting caps are tightly closed.



Verify that cabinet is locked and that only properly trained and authorized personnel have access.

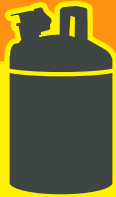


SAFETY CANS



Safety cans differ from standard "gas cans" in that they provide a safer means of storing and transferring flammable liquids. All feature spring-loaded, gasketed lids that seal automatically, flame arrestors that prevent flame from entering the can and igniting its contents via the spout, and special heavy-duty construction for superior durability and resistance to corrosion. They are available in two types: **Type I** and **Type II**. They come in different colors to designate the specific kinds of flammable liquids they contain.

TYPE I CANS



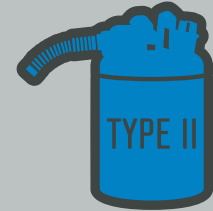
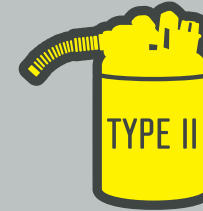
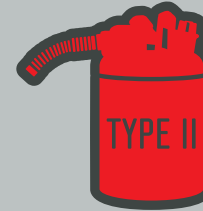
Type I cans have a single opening. They are recommended for pouring into containers with large receiver openings, but can be used to pour into containers with small openings if used with an approved funnel to prevent spills.

TYPE II CANS



Type II cans have two openings; one for filling and one for pouring. The pouring opening has a flexible nozzle to totally enclose and contain flammable vapor and can be used without a funnel to pour into containers with small receiver openings.

Both **Type I** and **Type II** cans are available in several colors to distinguish the type of flammable liquid they contain:



Red: Gasoline (Flammable)

Yellow: Diesel (Combustible)

Blue: Kerosene (Combustible)

TRANSFERRING FLAMMABLE LIQUIDS



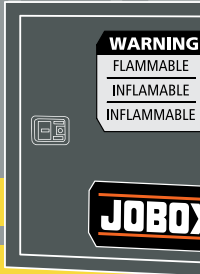
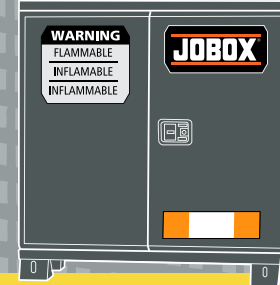
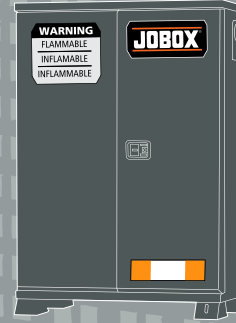
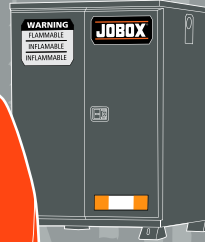
WARNING

Whenever transferring flammable liquids, the can must be properly grounded to the facility grounding grid or earth source AND be properly bonded to the receiving container.

FLAMMABLE LIQUID STORAGE AND TRANSFER SAFETY RESOURCES

Always consult your local Fire Marshall or Environmental Health and Safety Officer to determine which state and local regulations are applicable to your specific situation. You should also contact your insurance company to see if there are additional regulations required by your policy.

The following regulatory organizations and agencies provide detailed specifications and requirements regarding the storage and transfer of flammable liquids. Become familiar with all applicable regulations and guidelines by visiting their websites and subscribing to their publica-



NFPA National Fire Protection Association | [website:www.nfpa.org](http://www.nfpa.org)

DOT Department of Transportation | [website:www.dot.gov](http://www.dot.gov)

CARB California Air Resources Board | [website:www.arb.ca.gov](http://www.arb.ca.gov)

ANSI American National Standards Institute | [website:www.ansi.org](http://www.ansi.org)

ASTM American Society for Testing and Materials | [website:www.astm.org](http://www.astm.org)

EPA US Environmental Protection Agency | [website:www.epa.gov](http://www.epa.gov)

JOBBOX Safety JOBBOX Safety Official Website | [website:www.safety.jobox.com](http://www.safety.jobox.com)

UL Global Independent Safety Science Company | [website:www.UL.com](http://www.UL.com)

FM Global Commercial and Industrial Property Insurance | [website:www.fmglobal.com](http://www.fmglobal.com)

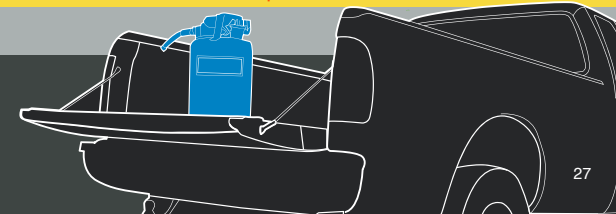
International Code Council | [website:www.iccsafe.org](http://www.iccsafe.org)

NFC of Canada National Fire Code of Canada | [website:www.nationalcodes.nrc.gc.ca](http://www.nationalcodes.nrc.gc.ca)

OSHA Occupational Safety & Health Administration | [website:www.osha.gov](http://www.osha.gov)

NIOSH The National Institute for Occupational Safety and Health | [website:www.cdc.gov/niosh/](http://www.cdc.gov/niosh/)

Compliance to flammable liquid storage and transfer safety regulations requires a dedicated and continued effort. The result is a safer workplace and possibly the saving of a life.



JOBBOX[®]

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USA ★



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