

# SHOP SAFETY MANUAL



**A GUIDE FOR MAINTAINING A SAFE WORK ENVIRONMENT**



**MIDWEST  
GLASS**  
FABRICATORS

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# General Shop Safety Rules

1. Safety equipment is required when in any shop area, whether working or not! This includes safety jacket, steel toed boots or shoes, eye protection, and gloves. When operating a crane or scissor lift, a hard hat is required.
2. Shorts are not permitted in the shop area. No one wearing shorts will be allowed to enter any shop area.
3. Do not operate equipment unless you are properly trained and understand it. If you have any questions regarding the use of equipment, ask your supervisor.
4. In case of injury, no matter how slight, report it to the shop supervisor.
5. If chemicals get in the eye(s), wash eye(s) for 15 minutes in an open flow of water before proceeding for medical treatment.
6. Machines must be shut off when cleaning, repairing, or oiling. Lockout/tagout must be used for any machine maintenance where starting the machine would be dangerous to a person working on the machine.
7. Do not wear ties, loose clothing, jewelry, etc. Long hair must be tied back or covered to keep it away from moving machinery. Hand protection in the form of suitable gloves must be used for handling hot objects, glass, or sharp-edged items.
8. Do not work in the shop if too tired to safely perform your duties.
9. Never indulge in horseplay in the shop areas.
10. All machines must be operated with all required guards and shields in place.
11. Practice cleanliness and orderliness in the shop areas.
12. Keep the floor around machines clean, dry, and free from trip hazards. Do not allow dirt, glass shards, glass dust or debris to accumulate.
13. Before starting a machine, always check it for correct setup and always check to see if machine is clear by operating it manually, if possible.
14. An employee shall not consume alcohol while on duty, or consume drugs while on duty, except pursuant to a lawful prescription issued to the employee. An employee may not report to duty or be on duty with a prohibited level of alcohol or drugs present in the employee's bodily fluids.
15. Check the power cords and plugs on portable tools for damage or fray before using them.
16. Always store oily rags and hazardous chemicals in an approved metal container. Ask your supervisor where hazardous chemicals are stored.

## Safety Equipment

- A.) Eye Protection - Approved ANSI Z87.1 eye protection is required on the shop floor at all times. No exceptions! Eye protection will be provided for you.
- B.) Safety Jacket - A Kevlar jacket will be provided to protect your arms and torso from cuts. This must be worn with sleeves down at all times in the shop.
- C.) Gloves - Glass handling gloves will be provided. You are expected to wear these whenever you are touching glass.
- D.) Steel Toed Boots - Acceptable footwear inside the shop includes steel toed boots or shoes. These will not be provided for you.



Example of proper use of PPE

## Handling Glass

When handling glass, place one hand on the top and one hand on the bottom of the glass. If necessary, pick up and rotate so that your hands are positioned correctly. Always carry glass vertically. Do not ever hold glass over your head.

If glass starts to break, drop it and step away. Do not try to save a piece of glass that is falling.



Proper way to hold glass by yourself

When lifting glass with a partner, be sure you use opposite arms on the top and bottom. If your partner is using their left hand to hold the bottom of the glass, use your right hand to hold the bottom. This way, if you have to drop the piece of glass you can both easily step out of the way.

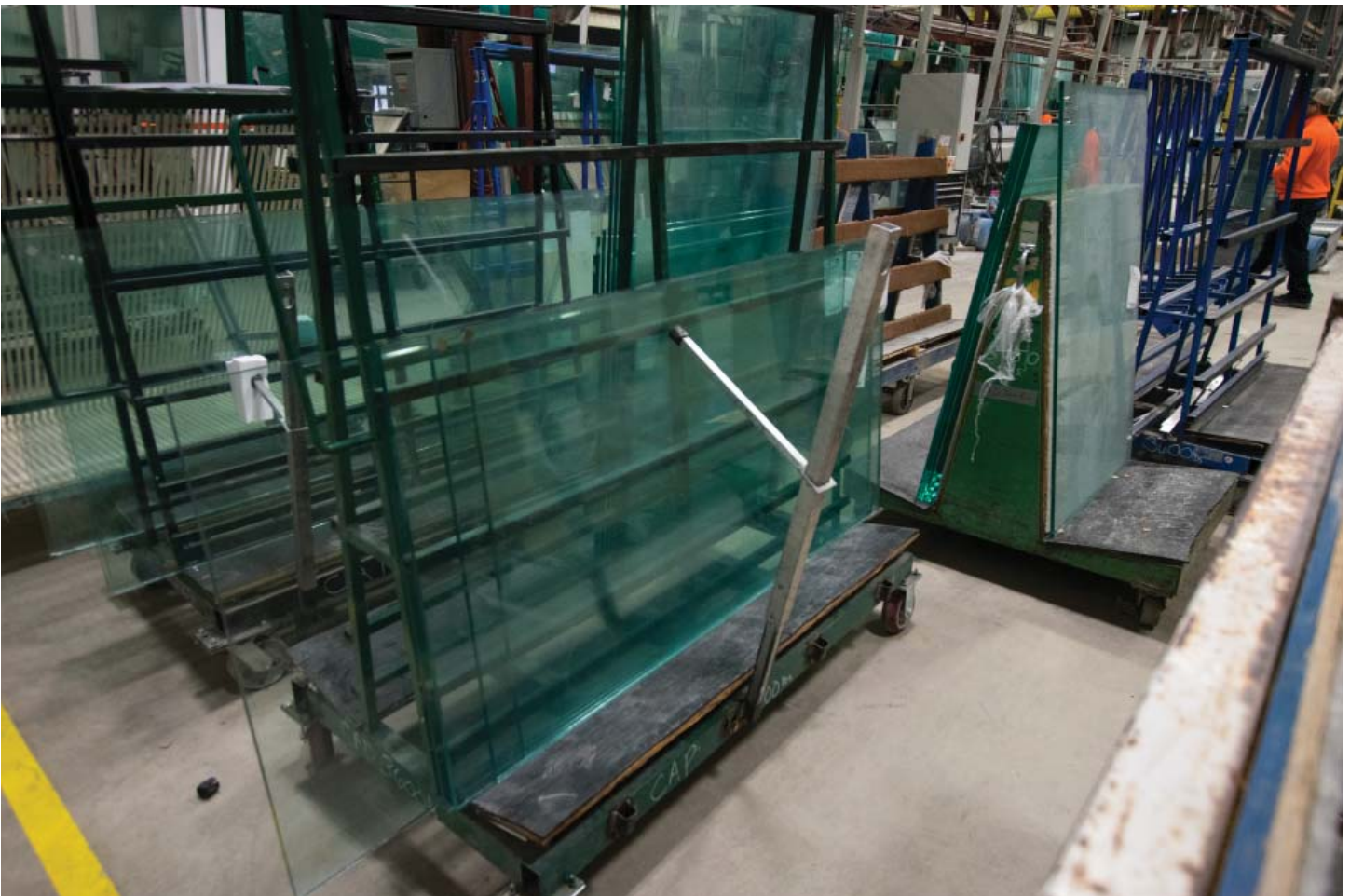


Proper way to hold glass with two people

## Staking Carts

Stakes are typically used on carts when glass is stored on them, or when moving a cart with glass on it. Some carts do not use stakes. In these instances, hold the glass against the back of the cart with your hand when moving the cart. Make sure the cart is out of the way of high traffic areas, so minimal movement of the cart is necessary.

To properly stake down a cart, insert the stake in the mount on the cart, pull the lock washer to the top of the stake, push the arm out so it leans against the glass, drop the washer so that it sits against the arm, and pull outward on the top of the stake so that it wedges against the glass.



Properly staked cart

## Stacking Glass

When trying to reach a piece of glass that has other glass stacked on top of it, always use another cart to stack the glass on. Do not ever lean glass onto yourself or another person. If someone asks you to do this, politely decline and tell your supervisor. If a supervisor tells you to do this, say “No,” and tell their supervisor. **DO NOT EVER LEAN GLASS ON YOURSELF FOR ANY REASON.**

Leaning glass on yourself or another person will cause injury. It becomes heavier than a person can handle before they are aware of it. The glass will fall and cause injury.



A cart used to stack glass on when trying to reach glass in the back of a stack

## Crane Operation

In order to operate a crane with cups, hold the cups flat and centered against the glass. Pull the switch to initiate suction. Once the gauge is in the green, you can safely lift the glass with the crane. Always use a hard hat when operating an overhead crane.



Suction cups for lifting glass

When operating a crane, always be sure the gauge is in the green before lifting the glass.



Suction cup gauge

**Suction Cups Failure:** If you hear the vacuum motor stop working, stop what you are doing and walk away immediately. Do not try to save the glass from falling.



# Forklift Operation

Only operate a forklift if you are licensed to do so. Always wear a seatbelt. Do not attempt to lift something that is beyond the recommended weight posted on a forklift. Always travel at a safe speed. Safe speed is determined by the size and weight of what is being carried. Heavier objects must be moved more slowly. Always travel slowly in confined spaces. Do not travel with a load high in the air. 1' to 2' is recommended. When operating a forklift you are responsible for the following:

- Know the recommended load limit of the forklift and never exceed it.
- Know how to assess the weight of the load to be lifted.
- Do a visual and operational check of the forklift at the start of the shift.
- Check for adequate overhead clearance before raising the load.
- Operate the equipment smoothly when stopping, starting, lifting and tilting.
- Know the blind spots of the lift truck with and without a load.
- Keep pedestrians away from a forklift in operation.
- Stop when anyone crosses the route being travelled. Lower the load to the floor, and wait until clear.
- Operate only as fast as conditions safely permit.
- Wear gloves when moving or shifting loads.
- Wear fully laced safety boots to give impact protection when moving loads or skids and to provide ankle support when mounting and dismounting lift truck.
- Remain alert and prepare for the unexpected.
- Note anything that affects the normal operation of the forklift and tell the supervisor immediately.
- Keep hands, arms, head, feet and legs inside the confines of a moving forklift.
- Stay in the truck in case of overturn.
- Report any collisions, damage or near-miss incidents to a supervisor immediately.
- Do not allow anyone to ride on either the forklift or the load as you travel.



Proper travel height with load

# Machine Safety

There are many different machines in the shop. You will be expected to know the individual safety procedures in place for the machine you are working with. Your safety is more important than the machine or glass. Do not do anything to compromise your personal safety or the safety of others while operating a machine. The following is a list of rules that apply to all machines.

- Do not attempt to save or adjust a piece of glass once it is in a machine.
- Always use lockout tagout when cleaning or maintaining a machine.
- Do not put your hands, arms, or legs in any operating machine.
- Do not leave a running machine alone for any reason.
- Make a note of all emergency stop locations. Do not hesitate to hit the emergency stop when necessary. Discuss with your supervisor when the appropriate time to use an emergency stop is.
- Make sure you are aware of any machine specific Personal Protection Equipment, eg. Hard Hat for overhead crane operation.
- Make sure all machines are clean and clear of debris before starting.
- If a machine appears to be operating abnormally, shut it down and inform your supervisor immediately. Do not continue to run a machine that may be broken.
- Do not block emergency stops.



Emergency stops



## Walking/Working Surfaces

Walking surfaces are any floor areas where people regularly stand or walk. These areas must be clear of obstacles and debris. Do not store glass on carts on any walking surface.



Shop floor aisle - Walking surface

Working surfaces include shop tables, cart floors, cutting tables, etc. These areas must be cleaned every day to be sure there aren't glass particles that can damage glass products. Damage to glass can lead to breakage that can be dangerous. In the event that a piece of glass breaks on a working surface, you must clean it thoroughly before continuing work.



Cart - Working surface



Table - Working surface