

Serious injuries can occur if table saw operators are inexperienced, improperly trained or the blade is not properly guarded. According to estimates made by the U.S. Consumer Product Safety Commission (CPSC), more than 50,000 power saw injuries occur in the United States each year. Table saw injuries can be prevented by using properly guarded saws, following manufacturers' recommended safety practices and wearing appropriate personal protective equipment.

Point Of Operation Hazard

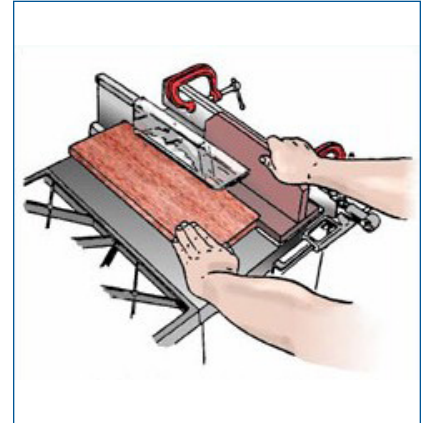
Table saw injuries can occur if an operator's hands slip while feeding the stock into the saw, if the operator holds his or her hands too close to the blades while cutting or when the operator is removing scrap or finished pieces of stock from the table. Some operators escape with only minor cuts, but many others have lost fingers and even hands in accidents with unguarded table saw blades.

All portions of the saw blade above the table should be enclosed with a self-adjusting guard, as shown in the picture to the left. The guard should adjust to the thickness of the material being cut and remain in contact with the material at all times. It can also be beneficial to hinge the guard to the table to facilitate changing worn blades. Push sticks should be provided to all operators for pushing stock past the blade. Hands should never be placed near the point of operation.

Injuries can also occur if operators come into contact with the blade under the table or with the power transmission apparatus (belts, pulleys, sprockets, etc.). To reduce this risk, employers should completely enclose the power transmission apparatus and the portion of the saw blade under the table.

Kickbacks

Kickbacks occur when the blade catches the stock and throws it back toward the operator. While kickbacks are more common when ripping (cutting with the grain of the wood), they



can also occur when crosscutting (cutting across the grain of the wood). Kickbacks can occur if:

- The blade height is not correct
- The blade is not properly maintained
- Anti-kickback fingers are not used
- Poor quality, twisted or warped lumber is cut

The following safeguards should be provided whenever table saws are used for ripping:

- A spreader designed to prevent material from squeezing the saw blade or being thrown back on the operator
- Anti-kickback fingers located so they oppose the thrust or tendency of the saw to pick up the material or to throw it back toward the operator

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Additional safety measures to be considered when using table saws are:

- Use the proper blade for the cutting action; do not use a crosscut blade for ripping and vice versa
- Operate the saw at the speed recommended by the manufacturer
- Stand to the side of the saw blade to avoid injury, should kickback occur
- Avoid crosscutting long boards on table saws, as considerable hand pressure is required close to the saw blade (putting the hand close to the point of operation); long boards can also create a safety hazard to other employees who may be walking in the area
- Use a filler piece between the fence and the saw blade when necessary, such as when only a small clearance exists on the fence side
- Properly support all pieces of stock, including the cut and uncut ends, scrap and finished product

Flying Particles

While not directly related to machine safeguarding, some of the most common hazards associated with table saws are flying wood chips, splinters, sawdust and even broken saw teeth being thrown toward the operator. To reduce the hazards of flying particles:

- Inspect saw blades regularly and remove all broken and/or dull blades from service
- Always wear eye and face protection, such as safety glasses, goggles and face shields when operating table saws or other woodworking equipment

In addition, floors should remain clear of all scrap wood pieces, sawdust, shavings, etc., because they can cause slip and fall accidents, as well as create fire hazards.

Training

Even if a new employee has previous experience using table saws, it is always a good idea to review your company's table saw safety policies with him or her. What was acceptable practice in the employee's previous position may be quite different from the rules at your facility. All training should be documented, with the names of trainer and employee and date of training. This documentation should be retained.

For Additional Information

Occupational Safety & Health Administration:

www.osha.gov

- Machine Guarding eTool
- Machine Safeguarding Checklist

EMC Insurance Companies: www.emcins.com

- Tech Sheets – Lockout/Tagout Program