

TST #162-A

Wire Sawing Safety

Wire sawing, like all the other methods of sawing or drilling, requires attention to safe operation. All equipment used should be inspected before use to ensure it is in proper operating condition, focusing especially on bearings and pulleys. In addition, wire saw operators should do the following tasks:

1. Conduct a safety meeting with all wire saw operators and jobsite personnel prior to operating a wire saw.
2. Rope off or barricade the work area with safety tape that reads "DANGER DO NOT ENTER".
3. Place safety cages over wire whenever possible to prevent possible injury to personnel should the wire break. Safety cages are usually made of steel and placed close of the wire in order to stop the momentum and whipping action of the wire.
4. Personnel should never approach the wire until it has come to a complete stop.
5. Utilize means to communicate when the cutting object is not in clear view of everyone involved in the cutting operation. For example, when cutting a door opening there should always be a trained person on the back side of the wall to ensure the area stays clear at all times.
6. Prevent anyone from standing in the direct line of the wire during cutting operations.
7. Twisting the wire prior to crimping the two ends of the wire is vital in order to ensure even wire wear and to prevent flat sided wear of the diamonds. The wire will always be twisted counter-clockwise with 1-2 turns per meter to ensure proper rotation of the wire when sawing.
8. When joining two ends of the diamond cable, it is the wire saw operator's responsibility to insure that the wire is cleanly cut. The rubber or plastic has to be completely removed from the steel cable and crimps secured on the diamond cable, properly utilizing manual or hydraulic crimpers to apply maximum pressure to the crimp as suggested by the wire manufacturer.
9. Use an approved engine exhaust scrubber when operating gasoline- or diesel-driven wire saws in a large indoor area.
10. When leaving a wire saw unattended, always make sure the saw cannot be restarted. Use proper lock out, tag out methods (see TST#170).

Material in this Toolbox Safety Tip was taken from the CSDA Safety Handbook. Call the CSDA office for more information about this handbook or the CSDA Safety Manual.

Wire Sawing Safety Quiz

The following statements should be answered with "True" or "False." Answers below.

1. It is safe to approach the wire to reposition the water as long as the speed of the wire is reduced.
2. The work area should always be barricaded with safety tape.
3. The free length of wire should always be guarded to protect all personnel in the work area.
4. Cutting and cleaning the wire properly is not important prior to crimping the wire.
5. Twisting the wire the proper amount of times and always in the counter-clockwise direction is vital.

Employee Name: _____

Signature: _____ **Date:** _____

Answers:

1. False
2. True
3. True
4. True
5. True