

## Chain Link Razor Wire

Objective: By mastering this lesson, you will be able to install razor wire.

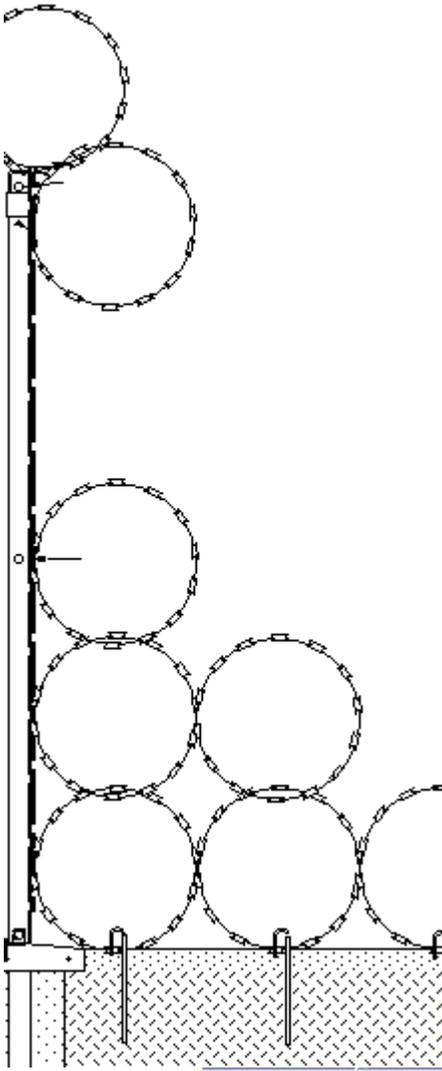
Equipment: 2ea. come-a-longs, pliers, bolt cutters, chop saw or hand saw, wire rake for the appropriate height wire, speed wrench with ½” socket, barb wire dog, T-bar, and hammer.

### Key Questions:

1. How do I install razor wire?
2. What are the most common safety obstacles to overcome when installing these accessories?

*How do I install razor wire?* Razor wire is designed to create considerable personal injury. For that reason, you should be properly in-field trained on both its installation and safety. Some facts to help you get started:

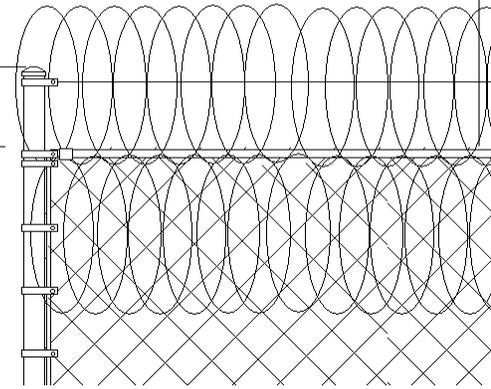
1. Razor wire is a generic term for barbed tape. There are several forms of razor wire. The most common is known as concertina wire. Concertina wire uses a stainless steel tape wrapped around a core wire. Each complete coil is clipped to the adjoining coil. When stretched, this creates a spring-like effect.
2. Actually, the edge of the barb is not very sharp. It is the needle like point on both ends that creates the dangerous effect. This is important to know when handling the materials. It won't be the edge of the barb but the point that sticks you.
3. Personal safety equipment is required to handle the materials. Safety glasses and a pair of thick forearm high leather gloves. No loose clothing and long sleeves.
4. To prevent injury, use a slow fluid like motion to grab the materials. With your eyes fixed to your hands and arms, carefully navigate your hands to the materials. When reaching inside of the coils, carefully and slowly navigate your arms in and out of the coil.
5. People most often get injured when pulling their arm out of the materials because they have taken their eyes off of the situation and hurriedly move to get clear. With eyes focused, move slow and consciously to navigate yourself out of the material.
6. The second most common injury is a result of not firmly grasping the materials, allowing the barbed tape to slid in the palm of your hand and the barb to slide into the side of your hand. Ouch! At all times, grasp the materials firmly in-between the barbs. Do not let the material slide in your hand and do not let it go. Chances are if you let it go, it will spring back and injury you and others. Hold on!



7. The third most common injury is too many people trying to work the materials at once. When fixing snags, attaching to the fence or adjoining roll, no one should be attempting to stretch or adjust the materials.

Before you get started stretching the materials, you should have the specifications for installation. These should include:

1. Material placement. The materials may be installed on the ground, on top of an adjoining role, a pyramid, against the fence and on top of the fence. Each installation poses it own unique challenges.
2. Coil spacing. How far apart are the coils to be spaced? This can be determined by measuring from one clip to an adjoining clip. Specifications generally require 12" spacing with a + 2" variance to this spacing so consistency is important.
3. Attachments. How often and what type. Generally concertina wire is attached every foot to the fence and every four feet to an adjoining role. Concertina wire is



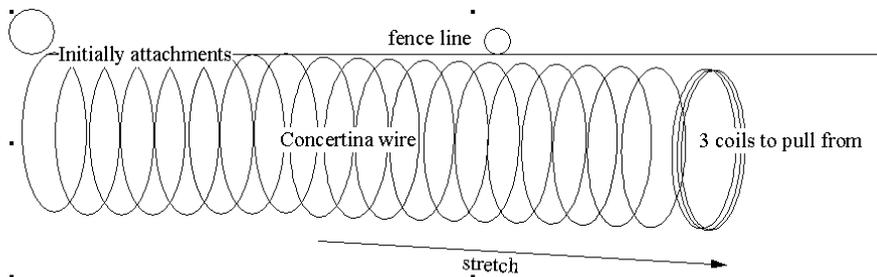
attached with hog rings or stainless steel rebar ties. The rebar ties are used to reduce vibrations but take considerably longer to install.

Once you know the location and attachment of the materials, you may begin to install.

1. Layout your coils along the fence line. You will need to know how much deployment per coil. This is determined on the coil spacing and number coils per role. Make sure though that you do not locate the coils where these can be easily tripped over or backed into.
2. With the coil on its side, remove the wire ties and discard.
3. Firmly hold the coil and place along the fence line where you are to begin the stretch. If you do



- not firmly hold the coil, it will spring loose.
4. Allow approximately six coils to naturally spring free from the spool closest to the starting point. Carefully attach these to the fence or barbwire at about 6" centers.
  5. If not fence or barbwire, use ground stakes.
  6. Now that the spool is anchored, grab three coils on the other end of the spool. With all three firmly in your grasp, spread these apart from the spool about one foot, creating hand hold to stretch the materials.
  7. With the three spools firmly in your grasp, begin to stretch the wire along the fence line. Keep some distance from the fence and concertina wire to avoid snags.
  8. While pulling the materials along the fence line, gently shake it to break free any snags between coils. It is not uncommon that one barb gets entangled with another. These can be separated by firmly grasping the



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two coils and pulling the barbs apart and away. However, make sure that no one else is moving the materials while you correct this snag.

9. As you pull the concertina wire along the fence line, another installer should be assuring the coil spacing is consistent by lifting and pulling the materials.
10. Once the concertina wire is in place, hog ring the ribbon to the chain link fabric. You may have to twist the coil to get the ribbon to line up with the chain link weave. Do not attempt to force the coil into the weave with your hog ring pliers. This is a sure way to endure an injury when your pliers slip. Do not attempt to hog ring over a barb.

*What are the most common safety obstacles to overcome when installing these accessories?*

Cuts. Almost all these accessories involve applying tension or resistance on materials, thus if the material is allowed to become loose it will spring back to its original state. This means loose ends with sharp barbs are flying uncontrollable through the air. Make sure you have eye protection and gloves on at all times. Make sure you are in control of the installation and keep others out of harm's way.