

## PRACTICAL APPLICATIONS

# STEEL VS. PVC: LOCATING POTENTIAL FRICTION FAILURES



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Most all modern poultry houses have at least 1,000 linear feet of moving cable, rope and sometimes steel rod connecting sidewall, or ceiling, vents together in a single house. There is also another 1,000 feet for feed and 2,000 feet for drinkers. Add another 160-200 feet for tunnel inlet curtains, or doors, and an estimated 500 feet for a house with round radiant brooders. With all this necessary cabling, rope or steel rod connecting all this equipment together, it is very difficult to keep the cable, rod and rope from coming into contact with PVC water and electrical conduits.

Often, these cabling systems are installed in very close proximity to PVC water lines and electrical conduit lines, and this creates many opportunities for these two materials to collide, causing friction between the two. This friction can cause a producer major problems inside the poultry house. Now is the time to inspect every house for potential water or electrical malfunction due to steel-to-

PVC friction. For most producers, it is not a question of if this will cause a problem, but when, where and how bad it will affect the normal operation of the house.

It seems that nearly every producer or service technician we work with has a horror story to share involving a plumbing leak (potential flood) or electrical short (potential fire) that might have been prevented if there were some preventative inspections and maintenance conducted on the farm on a routine basis.

Below are some examples of steel-to-PVC problems we have recently found on farms. The goal of this article is to prevent as many water leaks and power failures as possible. A 30-minute dedicated inspection per house could save literally thousands of dollars in emergency cleanup, repairs, production losses and setbacks associated with these failures.

We like our chicken soup and grilled chicken in the kitchen and not in the poultry house!



*Photo 1: Can you spot the potential friction failure here? This is a picture of the continuous steel rod that connects the vent doors together. This steel rod is rubbing against a 3/4-inch SCH 40 PVC water supply line to the drinkers. It is just a matter of time before this rod rubs through the 90-degree coupling and line and causes a major leak in the middle of the house inside from the control room. This problem must be corrected immediately.*



*Photo 2: This is a similar picture showing the continuous steel rod rubbing directly into the 3/4-inch SCH 40 PVC water supply line in another house. Again, this is just a disaster waiting to happen and must be corrected ASAP.*



*Photo 3: Can you spot this potential friction failure? This is not an example of a moving steel rod, cable or rope. Gravity and friction play a leading role in how this scenario will play out. Regardless, it is just a matter of time before this metal vent shield rubs a hole into this PVC water line and causes major problems inside the poultry house. Again, the goal is to prevent the potential for any and all friction failures from causing problems.*

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