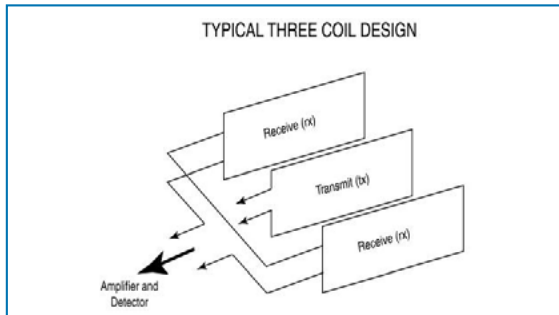


## Top Ten Metal Detector FAQs

### 1. What Is A Metal Detector & How Does It Work?

A metal detector is an electronic device for detecting the presence of unwanted metal. It is made up of a transmitter and receiver antenna. The electronics evaluate signal changes and indicate if the changes are caused by metal.



### 2. Why Do I Need A Metal Detector?

There are two reasons. The first is protection of your expensive processing equipment. The second is to ensure the integrity of your product. Metal can damage your equipment and your reputation if its found in your product.

### 3. Where Should I Put The Metal Detector?

If you are trying to protect equipment, then it should be placed as close to the infeed section as possible; while still allowing ample space to stop before metal can enter. If you want to protect your final product, then it should be located as close to the end of the production line as possible — after the product has been packed.

### 4. How Do I Choose A Metal Detector?

Make sure that the metal detector is appropriate for your unique application, the aperture size is appropriate for the various products that will be tested and that the detector is in the right location.

### 5. What Is Product Effect?

Factors that influence the signals picked up by the metal detector. Moisture, fat, acidity, temperature, salinity, orientation and mass are all factors.

### 6. What Is Sensitivity?

The minimum diameter sphere that can be consistently detected at the center of the metal detector opening. There are two kinds of sensitivity: "maximum" or "in-product". Maximum is the best sensitivity possible under ideal conditions. In-product is the sensitivity obtained when actually inspecting the product.

### 7. What Factors Influence Sensitivity?

Product effect, size, shape, type and orientation of metal contaminants, the size of the opening of the metal detector; as well as the environment of operation that the metal detector occupies.

### 8. What Are The Different Types of Metals?

Ferrous, non-ferrous, and stainless steel. Ferrous metals are magnetic metals like steel and iron. These are the easiest to detect. Non-ferrous metals are copper, aluminum, brass and bronze. And finally, stainless steel metals such as: 302, 304 and 316 are the hardest to detect. Generally, a piece of nonmagnetic stainless steel must be 1.5 times larger, than a ferrous metal, in order to be detected by a metal detector.

### 9. What Should I Do If Metal Is Found?

It should be collected and examined in order to trace the metal back to its source. If an automatic reject device (removes contaminants automatically) is not feasible, then the product needs to be removed from the line and manually inspected.

### 10. How Do HACCP Rules Relate To Detection?

The main purpose of the HACCP initiative is to develop a procedure that identifies possible locations in your production line where product contamination can occur and to create a method of inspecting those locations on a regular basis to prevent contamination. Documentation of these inspections is a major feature of any HACCP plan. Modern metal detectors have a record keeping ability to provide a history of contamination incidents



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