

# ANRITSU INDUSTRIAL SOLUTIONS EXCLUSIVE DUAL WAVE TECHNOLOGY EXPLAINED

Metal detection accuracy is based on maximizing detection levels via the selection of the proper coil frequency to the signal associated with the product. Product interference from moisture, ingredients, temperature, packaging material and other environmental conditions all play a role in selecting the proper frequency.

## STAGE 1: MULTI-FREQUENCY TECHNOLOGY

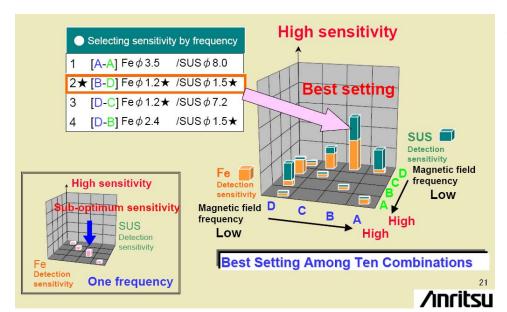
The Anritsu Metal Detection technology includes 4 frequencies designed into the system as standard. This provides flexibility at the installation site and provides maximum detection settings from one product to the other.

### STAGE 2: EXCLUSIVE DUAL WAVE (duw) METAL DETECTION TECHNOLOGY

Detection of metal is also affected by the type of material being detected. Stainless steel metal is more difficult to detect than aluminum or ferrous metals. This variance can be reduced if the proper frequency is chosen for the type of metal and the type of product inspected. Yet one frequency may improve stainless detection and degrade ferrous detection. In Japan, this problem was previously solved by using two metal detection systems in sequence with one maximized for ferrous metals and one for stainless metals. Today, Anritsu provides a single unit solution that automatically determines the best frequencies to maximize both the stainless and ferrous metals simultaneously with one metal detection head.

# **RESULTS: IMPROVE DETECTION ON STAINLESS**

Because stainless steel is the most challenging metal to detect with a single wave solution, Dual Wave (duw) Technology from Anritsu often detects stainless metals 1.0mm to 1.5mm smaller on products that are 'reactive' or 'wet' in nature. This is a significant benefit for meat and cheese production lines.



### **Explanation:**

The chart to the left shows the difference between a single frequency technology and DUAL WAVE TECHNOLOGY from Anritsu. Generally, lower frequencies improve stainless detection and higher frequencies improve ferrous steel detection. Using both frequencies simultaneously maximizes detection of both.

