

3D EM
SECURITY
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Industrial & Commercial Applications.



Tagit EM security technology has been successfully harnessed and proven in a variety of high value commercial asset security, and process control applications. The following examples illustrate some of the many ways in which it is possible to exploit the power of Tagit technology in commerce and industry.

INDUSTRIAL ASSET CONTROL

In the manufacture of many high volume products such as domestic appliances and automobiles, automated production is frequently supported by, and synchronised with, human operatives whose timely work is dependent upon the 'localised retention' of key tooling elements such as setting blocks, jigs and gauges. These key tooling assets are commonly held in a central store location and issued to production work areas, in a controlled and timely manner, to support the efficient manufacture of different product models.

In this type of application the issue is not one of preventing intentional theft – but rather that of preventing the innocent loss of key assets which then cause expensive downtime and lost production, when they are misplaced. Small items are often a major problem in this respect, especially those that can absentmindedly disappear into a worker's pocket and be forgotten at the end of a work shift.

For this type of requirement Tagit EM security gates, connected to suitably loud alarm sounders and used in conjunction with high performance EM tags, are able to provide a powerful practical means of ensuring such vital tooling remains available for use in its designated location.

COMMERCIAL ASSET SECURITY

There are many organisations and businesses who deal with confidential material or sensitive personal data in a physical, hard copy format. Architects, lawyers and research laboratories are typical examples of organisations that need to exercise great care in ensuring the secure retention of hard copies of records, which are being accessed and used on a daily basis.

All manner of folders, files and physical records can be securely protected and retained within a designated 'controlled area' - with exits securely protected by Tagit EM security gates.

PRODUCTION PROCESS CONTROL

Because of the high levels of detection achieved when using Tagit detection systems and EM tags, it is possible to use EM tags to permanently mark (and subsequently identify) important events that occur during the continuous production of many different kinds of products.

For example: in the continuous extrusion of polymeric pipes and tubes, EM marker tags can be successfully inserted into the process to permanently identify where changes in polymer batch, quality or specification have occurred. Importantly, the flow line production process can continue without hold ups, thus maximising process stability and productivity. At a later (off-line) stage in the production process, Tagit detection systems then quickly locate the marker tags, allowing the product finishing and packing operations to proceed with minimum wastage and maximum efficiency.

Our Tagit manufacturing control technology is particularly useful where joints or splices are periodically involved in an otherwise continuous production process. Typically such discontinuities need to be very carefully identified, tracked and ultimately removed from the product before it reaches the customer.

In other applications, Tagit EM tag technology is used to permanently mark and record the duration of periods of production where one or more of the critical process control parameters (e.g. temperature, pressure, velocity etc) becomes temporarily out of limits. Again, in this case the 'affected product' can be accurately identified at a subsequent off-line production stage, where it can be assessed for quality.

Our Tagit process technology is of most value where very high (government, military, aviation etc.) product specifications and associated quality standards are required by the end user. Where the 'costs and commercial implications' of sending defective product to a customer are of a high order, Tagit technology provides a gratifyingly effective and reliable solution. The beauty of our technology is that it is really effective in marking process events, changes, or defects that become buried by subsequent process operations, and are therefore hidden within the product.

Amazingly, the power of the Tagit tag detection system is such that it is effective in tracking important production process events that are subsequently covered by multiple layers of thick extrusion coating or sleeving. Even products that involve metal wire reinforcement and braiding -such as wire reinforced polymer hosepipe - can be effectively monitored and controlled.