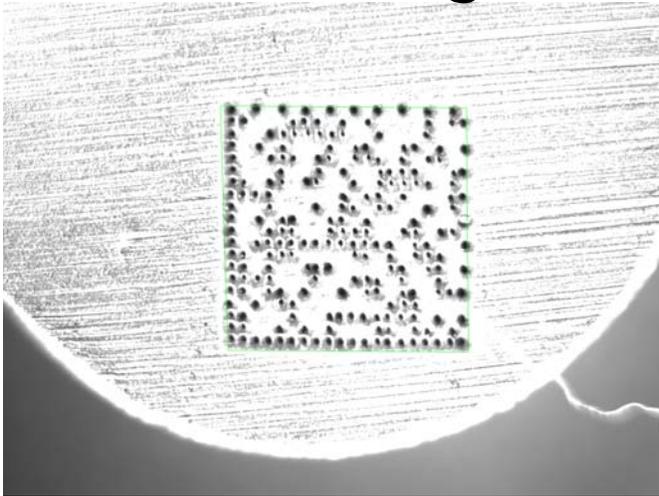


## 2D Bar Coding



This is a typical manufacturing problem.

The product has to be marked immediately the material is available for complete traceability throughout manufacture.

Unfortunately the manufacturing process can involve removal of material, CNC turning, grinding, and even shot blasting.

So sometimes it is necessary to “over mark” the code to ensure its durability. Then it can be **impossible to read** that code and retrieve the ID it contains.

**It is only with the use of specialist lighting and targeted software will you solve this problem.**

The incidence of fake, expired, adulterated, mislabelled or otherwise unauthorized products reaching the market place is on the increase. Industry itself is also at major risk. Today, it loses sales revenue to counterfeiters and product diverters. If this activity gets out of control and major tragedies happen, which it can, the resulting product recalls, brand damage and when stock price falls this will cause major financial impact at a time when company profits are already under extreme pressure.

Within the pharmaceutical industry the use and application is driven by **Traceability** and the fight against **counterfeiting**. Also the need to record/read expiry/use by dates at the point of sale or distribution, and where the product is **subject to a quality driven recall program**

When you source your inline monitoring, verification and control, your inline readers and your SCADA software from an experienced specialist solution provider such as MVT, you can be assured of a robust and reliable long term traceability solution.

## Benefits-

- *Data Matrix can carry 25 to 100 times more information than typical bar code: 3116 numeric, 2335 alphanumeric characters or 1556 bytes of binary information.*
- *6 error correction schemes to allow recovery from symbol damage.*
- *Round dots or square cells from almost any type of print device: Inkjet, Etch, Dot Matrix, Pin Stamp, Thermal Transfer, Pad Print, Laser Print, And Web Press*

## Reading and Communication — MVRC

MVT covers all four key elements with a variety of products, systems, and provides support for the creation of applications.

### 1) Marking-

Marking a product is normally done very early on in the production process so that all following steps can be controlled using the product identity.

Marks are often applied to parts with a method called *Direct Part Marking (DPM)*.

### 2) Verification-

By using verification systems, the readability of marks is guaranteed throughout the entire production process regardless of any possible contamination or when using different read devices. Also the marking can still be read after the production process, throughout the life span of the product.

For example, the SIMATIC HawkEye 1500 series provides the capability to monitor marks in real-time with its DPM verification options. The Measuring code quality results in cost reductions due to marking cycle time optimization, with the prevention of plant downtimes and the prevention of additional handling effort. The Vision Sensor VS130-2 is outfitted with a function that can measure code quality according to the AIM standard.

**3) Reading-** In order to ensure user friendliness and secure functioning, the readers must exhibit great flexibility regarding design, interfaces, etc. Only then is it possible to satisfy the needs of many different industrial sectors.

**4) Communication-**The communication between reading device and process control is performed by a host of possible standard interfaces, for example by PROFIBUS, PROFINET, Ethernet, RS232 and by expandable digital inputs and outputs. These interfaces handle the secure transmission of the trigger signal and also the fast and reliable transmission of the reading results.

If you would like further details or you have any questions then please call-

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