



Flyer 4004

## Bar Code ID Solutions for OCTG Pipe



**Typical 27 bar OC™ bar code on pipe OD—  
approx. 18"W x 1.25"H (457mmW x 32mmH)**



**Typical redundant 2D bar codes on pipe OD—each approx. 1.25" square (32mm square)**

InfoSight offers 2 basic solutions for OD bar code identification of pipes—OptiCode® ("OC") bar codes, and 2D bar codes (also called Datamatrix bar codes or ECC200 bar codes). Each code type has distinct features / advantages / disadvantages when compared to the other code type, to be discussed further.

The proper solution for a given application depends many factors, including ease of readability, survivability, size and type of data to be encoded into the bar code, and whether the bar code is intended for in-plant tracking only, or for post-shipment tracking.

Either code type is typically stencil-marked onto the ambient temperature pipe OD using dot-matrix drop-on-demand ("DOD") marking technology. Marking can be performed on a linearly-moving pipe in a v-roller conveyor, or on a stationary pipe using an overhead traveling marking carriage.

**InfoSight strongly recommends the OC code as the superior pipe identification code.**

ADVANTAGES of OC codes:

1. The OC code can sustain a large amount of damage and remain readable.
2. The OC code is an all-numeric code. It is used as a pure PIN or Piece Identification Number.

ADVANTAGES of 2D codes:

1. 2D codes can encode alphanumeric characters in a small area (but damage easily).

**OC bar code vs. 2D bar code examples follow:**

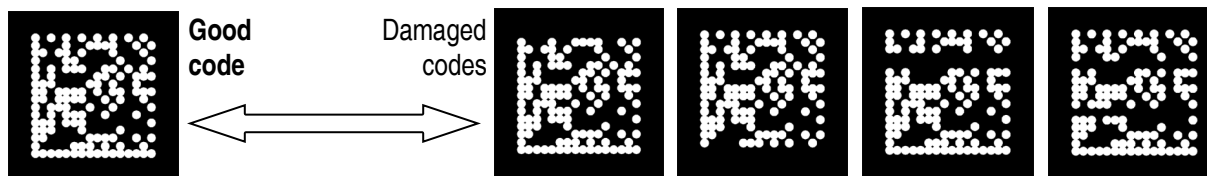


The OC code can sustain partial bar damage, linear damage through the entire length of the code, and spiral damage and remain readable. This significantly damaged code is STILL readable.

Note how InfoSight STRETCH™ technology “fills-in” the damaged bars. As long as a portion of each damaged bar remains, it can be restored so the bar code can be read.

Actual bar code appearance before STRETCH is applied by the OptiCode Smart Camera.

View video here <http://bit.ly/250IA7Z>



For 2D codes — loss of a top (Timing) row, bottom (Border) row, or ANY two (2) Data Rows - rows 2 thru 15 - renders a 2D Data Matrix code completely unreadable

**Recommendations**

- Upfront testing is recommended for any bar code automatic identification installation
- It may be necessary to adjust mill process geometry for bar code survival success (for example, adjusting code position relative to end-of-pipe, or moving of spin rolls or skids, so bar code is not damaged during mill processing)
- Adequate non-glare illumination is required at bar code reading stations
- The bar code should be located at a known +/- offset from the leading (indexed) end of pipe at all reading stations.
- The bar code must be “visible” to the bar code reading system to be read. Pipe should be end-indexed within tolerance at all reading stations. Pipe spinning / rolling can be used, or multi-camera installations can be utilized to capture the bar code when radial position is not known.