

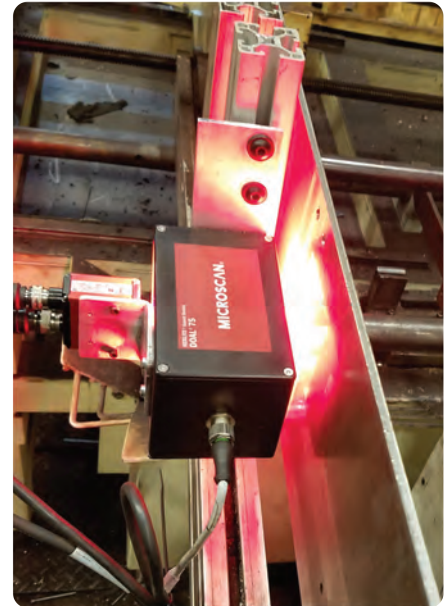
## Reading 2D DPM Barcodes

**Challenge:** Read 2D barcodes that are marked directly onto steel steering rod columns.

**Solution:** Microscan ID-40, DOAL lighting, and custom housing.

**Story:** A manufacturer of steering column rods was accidentally sending the wrong product to their customers. They challenged the engineers at EMP to develop a solution to prevent this from occurring.

Each steering column is marked with a 2D barcode to identify the part number. This 2D barcode is directly marked onto the steel rod, making the barcode extremely difficult to read. EMP tested the Microscan ID-40 image-based reader with DOAL (Diffuse On-Axis Light) lighting was tested by EMP and found it to be a great solution for this difficult barcode application.



The first ID-40 was placed in the original manufacturing line to ensure that the correct columns were being run. A second reader was then placed on the re-straightening line. If any of the steering columns fail the straightening test, they are sent over to the re-straightening line. The end customer needed to also ensure that this line was running the correct product.

The re-straightening line is located in a rough environment with many hazards present. After a few months of running, it became apparent that some type of protection was going to be needed for the reader in this location. EMP designed a protective housing that prevented the reader from getting crushed, while at the same time still allowing the operators to view the reader.

The manufacturer is extremely happy with the final solution that was provided by EMP. They can now ensure that each customer is receiving the correct product.

If you have a difficult to read 2D barcode, don't hesitate to reach out to the team at EMP Technical Group to evaluate your application today!