# Axicon auto id

## PRINTED BARCODE SYMBOL QUALITY CONTROL

It is essential that barcodes are produced accurately and correctly in order for them to be scannable.  This is applicable to both the creation and the printing of the barcode.

## BARCODE CREATION
To maintain barcode quality when creating barcodes
· Make sure you adhere to the relevant symbology specifications (obtainable from EAN/UCC)
· Ensure that the bureau service/software you are using is reputable and accurate
· Check the symbology type, size and height are correct for your industry/customer
· Check that the magnification factor is able to be produced accurately on your Imagesetter

## BARCODE PRINTING
To maintain quality when printing barcodes:
· Match ink/ribbon to media to ensure quality
· Print head speeds and temperatures may need to be reduced
· Printing Picket Fence format is generally preferable
· Keep enough bar/space contrast when altering colours

## BARCODE VERIFICATION
Barcode verification equipment should be used to check the quality of the final printed barcode symbol.  Barcodes of substandard quality may be rejected by the customer; and in some cases fines imposed on the suppliers.
The General EAN/UCC Specifications (01/2001) state that verification should be undertaken at all relevant stages of production, especially:
> 1) After initial printing
> 2) In the final package configuration , after the application of sealing tape, straps, shrink-wrap material, which may interfere with the scanability of the item.

### CEN/ANSI/ISO Standards
Verification standards have been set up by the American National Standards Institute (ANSI) and the European Committee for Normalization (CEN), and more recently adopted by the International Standards Organisation (ISO).  Verifiers conforming to these standards are known as CEN/ANSI/ISO grade verifiers. This system uses a grading system of 4-0 (or A-D and F).
The following table shows the minimum quality specification allowable for each retail symbologies.

| Symbology | Min Quality Specification (Grade/Aperture/Illumination Wavelenght) |
|---|---|
| EAN13 | 1.5/06/670 |
| EAN8 | 1.5/06/670 |
| UPC-A | 1.5/06/670 |
| UPC-E | 1.5/06/670 |
| ITF14 | 1.5/10/670* |
| UCC/EAN128 | 1.5/10/670 |

*  For ITF-14 symbols with an X-dimension greater than 0.635mm(0.025"), the minimum quality specification is 0.5/20/670
*Source: General EAN/UCC Specifications, January 2001*