Axicon’s verifiers have been designed to be robust, light weight, and portable, with no moving parts, so that they can provide consistently accurate results. Regular user calibration ensures that they are measuring the reflectance of the barcodes in accordance with the relevant ISO/IEC standards, but they should still be serviced every year by Axicon to check that all the optical components are perfectly clean and in focus, and that the illumination provided by the LEDs is consistent.

Returning a verifier to Axicon for its annual VCAS (verifier conformance and alignment service) is sometimes difficult for users. This may be because international shipping costs are very high, or that they simply do not want to be without a verifier for even a short time.

Axicon has developed an IQ/OQ/PQ test protocol kit to meet the requirements of users who want to be able to rigorously check their equipment on-site. Many companies, especially those in the pharmaceutical and medical device sector, will be familiar with Installation Qualification (IQ), Operational Qualification (OQ), and Performance Qualification (PQ) testing. These are tests designed to check that the relevant equipment has been installed correctly, that the equipment operates correctly, and then works correctly as intended.
IQ/OQ/PQ test protocols

The IQ/OQ/PQ Kit is available for Axicon verifiers, and is available in two forms, one for linear barcode verifiers, and one for the 2D barcode verifiers.

Each kit comprises a set of precision-made, NIST-traceable reference test cards and a protocol document. (NIST is the USA’s National Institute of Standards and Technology.) When the user has carried out the tests they can be sure the verifier is working as intended, and it can be re-certified as being compliant.

Each of the cards is printed with a precisely engineered symbol of known size and characteristics, and these are used in turn to check particular aspects of the verifier’s operation.

Once the test has been completed satisfactorily, the user can self-certify that their particular verifier is compliant with the relevant ISO/IEC standards. For linear barcodes, these are ISO/IEC 15426-1 and ISO/IEC 15416, while for 2D verifiers they are ISO/IEC 15426-2 and ISO/IEC 15415. (Any verifier that can assess both linear and 2D symbols must comply with all four standards.)

If the verifier does not meet the requirements of the PQ tests, it must be returned to Axicon for servicing and factory configuration.