



Customer Focused Quality Assurance & Quality Control

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Introduction

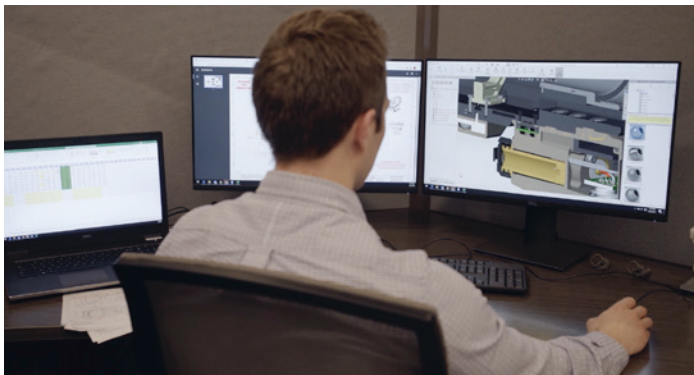
Quality and product consistency are critical for a company that manufactures customer crucial components. Wilcox Industries views Quality Assurance (QA) as a vital part of how we do business, and essential to meeting our customers' requirements and enhancing their operational success.

Wilcox is an ISO 9001:2015 certified facility. Through the years we have used this standard to keep us focused to ensure that we deliver a reliable product to our customers. At Wilcox, quality is built into all our manufacturing processes, starting with our design, integrated throughout our manufacturing and assembly processes, and checked thoroughly, before delivery.

Our quality process and evaluation do not end with the delivery of our product. Determining customer satisfaction is a key metric when reviewing our design process, combined with our continuous improvement efforts which feed essential information to our design team.

Design

Wilcox specializes in Night Vision Mounting Systems, Combat Systems for small arms and Life Support Systems. Wilcox designs all these products using a "Stage-Gate" system. During the design process, a "stage" is established to ensure specific criteria is established for each design and is verified during our formal "gate" review. Our Quality Assurance team at Wilcox acts as the customer representative for these reviews and ensures that contract requirements are met throughout the entire design process.

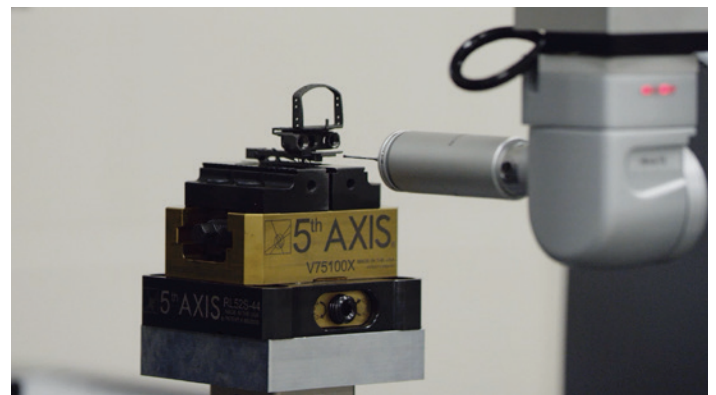


Approved designs are translated into a technical data package (TDP) using a computer aided design (CAD) system and entered into the formal drawing system. At Wilcox, revision control is maintained through a formal Engineering Change Request (ECR) and Engineering Change Order (ECO) processes for all drawings. As the customers' in-house representative, Quality Assurance is a required signatory in the ECR/ECO (drawing change) process to ensure changes remain consistent with the customers' requirements.



Operations - Manufacturing

When a drawing is released for manufacturing, it is often first translated into a machine program. Nearly all machines at Wilcox are computerized numerical controlled (CNC) machines. This high degree of automation allows Wilcox to produce very light weight, detailed parts with a high degree of precision and repeatability. Even so, QA always checks the first piece from each machine set up to ensure the details of tool selection and machine off-sets are correct and the parts meet the drawing requirements - a hard copy of which "travels" with the parts as they proceed through the manufacturing processes.



The tools used to conduct this "first piece" include the use of a coordinate measuring machine (CMM). These measurement tools are incredibly precise and are used to measure the parts to very tight tolerances with high accuracy. All of this is done to ensure the parts meet the drawings that were created by Wilcox and approved by the customer.

Parts received from vendors go through the same process as parts made in-house; with added checks made by our vendors. All vendors used by Wilcox go through a qualification process by QA and independent certifying bodies to produce the parts to our drawings.

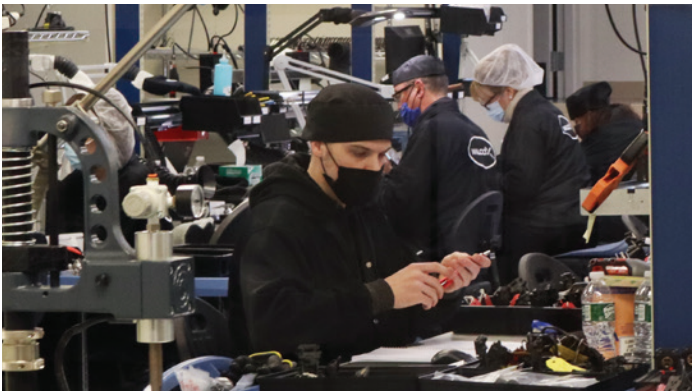
Operations - Assembly

Piece parts from manufacturing and our vendors are assembled into a finished product through a cellular assembly system. These cells consist of a specific set of workstations. The workstations are designed to ensure repeatability resulting in a consistently built product.

These actions are defined by a set of controlled work instructions located at each station. The work instructions themselves are presented at each workstation on an electronic tablet for easy access by our assembly team. Wilcox's cellular configuration incorporates multiple quality stations where the products are checked to ensure it meets the drawing package requirements.

Quality Assurance – Process and Final Inspection

Our Quality Assurance department is responsible for in-process checks for both manufacturing and assembly groups as well as the final check of the product to ensure it meets the drawing requirement. Our Quality Assurance performs tooling calibration checks to ensure that our tools meet the standards in accordance with our engineering and quality specifications. Any rejected tools, parts or assemblies are segregated in a controlled MRB room for disposition by the Wilcox's material review board which consists of quality, engineering, and materials team.



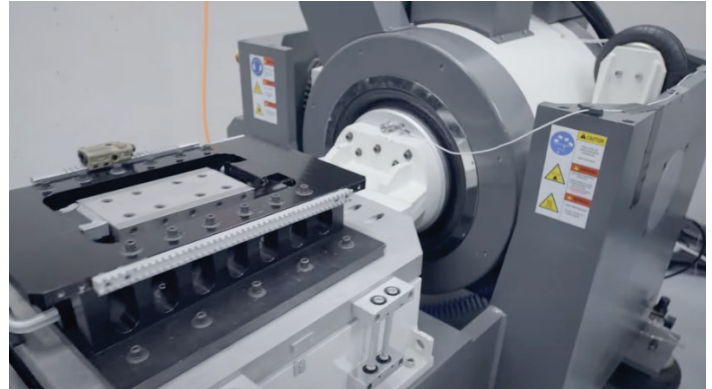
Quality Assurance – Customer Requirements

Customer testing requirements often require Wilcox to meet government MIL-STD-810 and / or customer defined tests. These tests are conducted to ensure that the product, as it was made to the drawing package, meets the user needs. Tests include the use of in- house equipment purchased to meet these requirements:

- Drop Test
- Salt Fog Test
- Temperature Testing
- Humidity Testing
- Pull / Compression Testing
- Coating Thickness Testing
- Shock (Rounds Fired) Testing
- Immersion Testing
- Repetition Testing
- Customer Tactile Feel Testing
- Live fire testing including on-site 25m and 100m range

In addition to the in-house testing, Wilcox contracts and manages outside testing facilities for any other testing required. For example:

- Sand and Dust Testing
- Electromagnetic Interference (EMI) Testing
- Vibration Testing
- Shock (Impulse or Impact) Testing
- Sun Load (Affect on Battery Performance) Testing
- Burn Testing
- Or any other required tests as required by contract.



Operational Testing

Wilcox recognizes and stands committed to employing a cadre of veterans that are empowered to provide the voice of the customer to ensure our products are meeting the demanding needs of operators. These valued Wilcox employees aid in Operation Testing of the products to validate that the systems are solving customer pain points and can survive the rigors that operational use puts equipment through.

Conclusion

Wilcox Industries maintains a formal quality system that is certified by a third- party auditor to the ISO 9001-2015 international standard. Internal “spot check” audits of our ISO system take place throughout the year by Wilcox quality staff. And independent audits are conducted annually, with a copy of the certificate available on the Wilcox Industries web site.

Wilcox understands that our customers put their lives on the line, and that the success of their team's mission depends on the performance of the products we deliver. Our quality philosophy is summed up in a single one-line phrase: “Our Customer's Life Depends on It”.



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QUALITY & TESTING**
A Closer Look a Wilcox's Quality Process

