Aiming for 120% product quality

"We have to aim for 120% product quality. If 99% of the products we make are perfect, that would seem like a pretty good record. However, the customers who become the owners of the remaining 1% will surely consider their products 100% defective. It is unacceptable that even one customer in a thousand–even one customer in ten thousand–should receive a defective product. That's why we have to aim for 120%." When founder Soichiro Honda said this he defined the company's fundamental approach to quality: what it means to strive to be a company society wants to exist. Determined to meet or exceed the expectations of customers, Honda is taking new initiatives to reach ever-higher product quality standards. That is who we are.

To strengthen customer trust by offering products founded in safety and offering a new level of outstanding quality, Honda has created a quality cycle that continuously enhances quality at every stage: design, development, production, sales and after-sales service.

Implementing the Global Honda Quality Standard (G-HQS)

As Honda's production and parts and materials sourcing expand globally, a shared global quality assurance standard is essential to ensuring that all Honda facilities continue to support 120% product quality.

To address this need, Honda established the Global Honda Quality Standard (G-HQS) in April 2005. Based on the ISO 9001*1 and ISO/TS 16949*2 standards under which Honda facilities in Japan and around the world have been or are to be certified, the G-HQS serves to communicate the considerable knowledge Honda has gathered in producing quality products and help prevent issues from recurring. It will continue to conform to ISO certification standards.

As of March 2011, 43 out of 46 Honda production facilities around the world have attained ISO certification, and the three remaining facilities—both new—are engaged in the certification process.

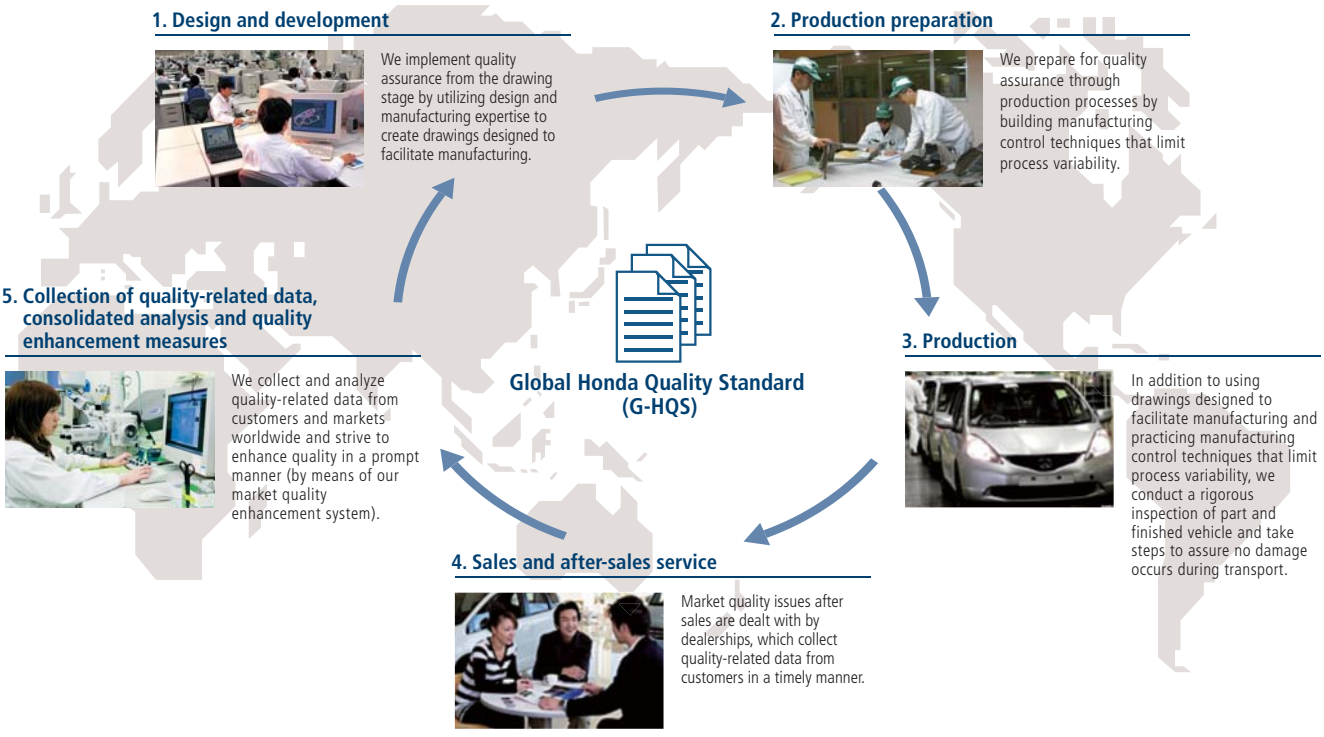
The G-HQS is designed to enhance the quality of Honda-brand products manufactured and sold worldwide. By ensuring that all facilities comply with these standards, we can better facilitate the interoperation of quality assurance systems at different worksites, contributing to quality assurance not only in production activities, but also in distribution and service.

*1 ISO 9001: An international quality control and quality assurance standard
*2 ISO/TS 16949: An international quality management system standard for the automotive industry

Honda's Quality Cycle

By applying design and development expertise to design and development, production preparations, and production (mass production) in order to allow the creation of drawings designed to facilitate manufacturing and develop manufacturing control techniques that limit process variability, we are able to deliver a new level of outstanding quality.

Honda's Quality Cycle



Activities for incomparable quality

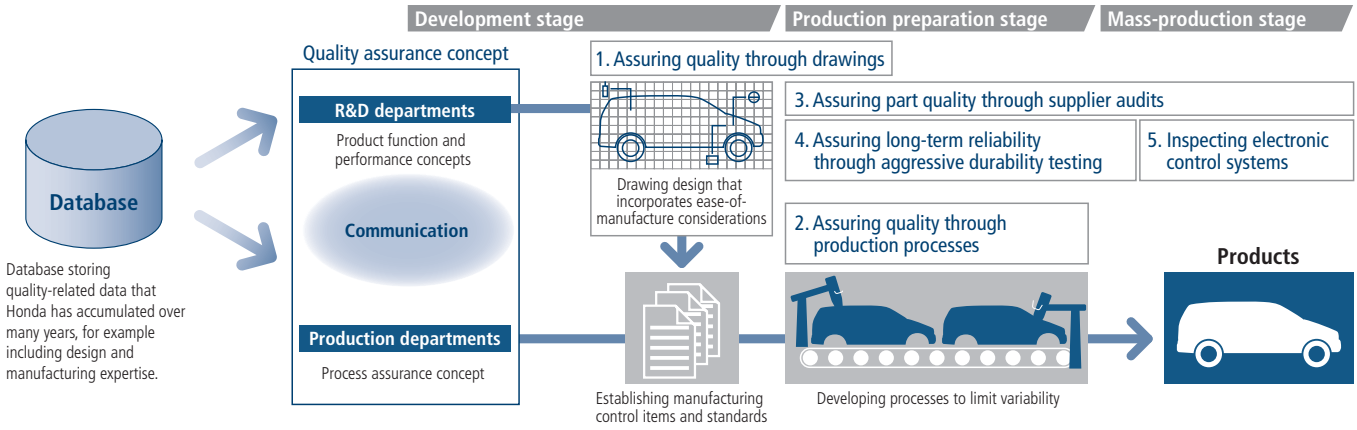
Aggressively ensuring quality in both design and manufacturing

Working in partnership with suppliers, Honda is involved in a companywide effort to deliver products with a new level of enhanced quality.

To ensure high quality, Honda conducts aggressive quality assurance activities from the dual perspectives of design and manufacturing. For example, drawings for objects being machined include finished dimensions. Even when the same worker uses the same materials, equipment, and procedures to produce an item to the dimensions specified on the relevant drawing as part of a given production process, there are inevitably small variations in the item's finished dimensions. To address this fact, R&D departments go beyond considerations of function and performance to design drawings to yield maximum ease of manufacture and limit process variability. For their part, production departments implement manufacturing control to keep variability within applicable standards based on drawings and to develop production processes so that all workers can continue to achieve a consistent level of quality.

In this way, we implement quality assurance from the dual perspectives of design and manufacturing in order to improve customer satisfaction.

Processes that create new levels of enhanced quality (automobiles)



1. Assuring quality through drawings

Honda's R&D departments create drawings for maximum ease of manufacture in order to limit process variability and prevent human error during the manufacturing process. These drawings serve as the basis of our quality assurance efforts.

Specifically, engineers utilize a database of measures and techniques for preventing past market quality issues and other information as they communicate closely with manufacturing departments during the initial development stage. Product function, performance, and quality assurance concepts are committed to writing and shared to coordinate efforts with production departments' process assurance activities and to coordinate quality assurance concepts.

2. Assuring quality through production processes

Honda's production departments establish manufacturing control items and standards for each part, process, and work task based on designers' intentions in order to prevent product quality issues. Engineers then use these manufacturing control items and standards to verify manufacturing variability as they work to prevent quality issues. Furthermore, Honda develops processes that limit variability by soliciting suggestions for enhancement from the sites where work is actually performed and determining manufacturing control methods for each process.

3. Assuring part quality through supplier audits

Assuring the quality of procured parts is an important element in delivering high-quality products.

Honda visits its suppliers' manufacturing facilities to conduct quality audits based on the "Three Reality Principle," which emphasizes "going to the actual place," "knowing the actual situation," and "being realistic."

These audit activities are conducted for both the production preparation and mass-production stages of supplier operations. Experts in the development and production of individual parts visit manufacturing facilities and conduct audits of suppliers' quality systems and their implementation.

Honda then works to improve part quality through activities that emphasize communication with suppliers, for example by sharing audit results and cooperating to discover measures for improving quality.

4. Assuring long-term reliability through aggressive durability testing

Honda subjects new and redesigned models to a rigorous regimen of long-distance durability testing before beginning mass production in order to verify that no quality issues exist.

We also disassemble vehicles used in the test drives one part at a time and verify that there are no quality issues through a process consisting of several thousand checks. By accumulating data on the issues discovered through these test drives and detailed inspections

as well as associated countermeasures, we are able to ensure a high level of quality and function reliability.

Verification of a durability test vehicle

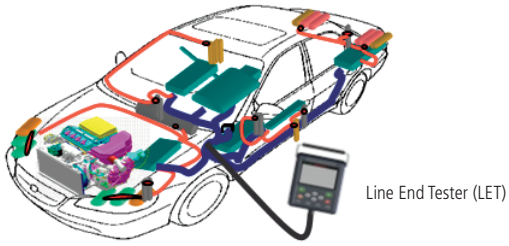
5. Using second-generation line end testers (LETs) to inspect electronic control systems

Use of electronic control systems in vehicles has grown dramatically in recent years as part of an effort to achieve more environmentally friendly designs and improve driver and passenger convenience and comfort, creating a need for efficient inspection methods to assure the quality of these components.

To this end, Honda has installed line end testers (LETs), an inspection and diagnostic system developed in-house, at production plants in Japan and overseas.

Although the LET was initially deployed to perform diagnostics of emissions purification systems and parts in order to comply with U.S. emissions regulations, Honda extended the capabilities of the second generation of the device to accommodate the recent evolution of electronic control systems, allowing its use in shipping quality inspections of all electronic control systems, from switches and instruments to air conditioner, audio, engine, and transmission operation. Thanks to these innovations, inspections that have traditionally depended on the human senses of smell, sight, and hearing can now be performed quantitatively by means of communications with electronic control components, dramatically increasing the precision and efficiency with which inspections can be conducted.

Honda is continuing to quantify shipping quality assurance for electronic control systems by working to implement further enhancements in the precision and efficiency of sensory inspections.



Overview of the LET system

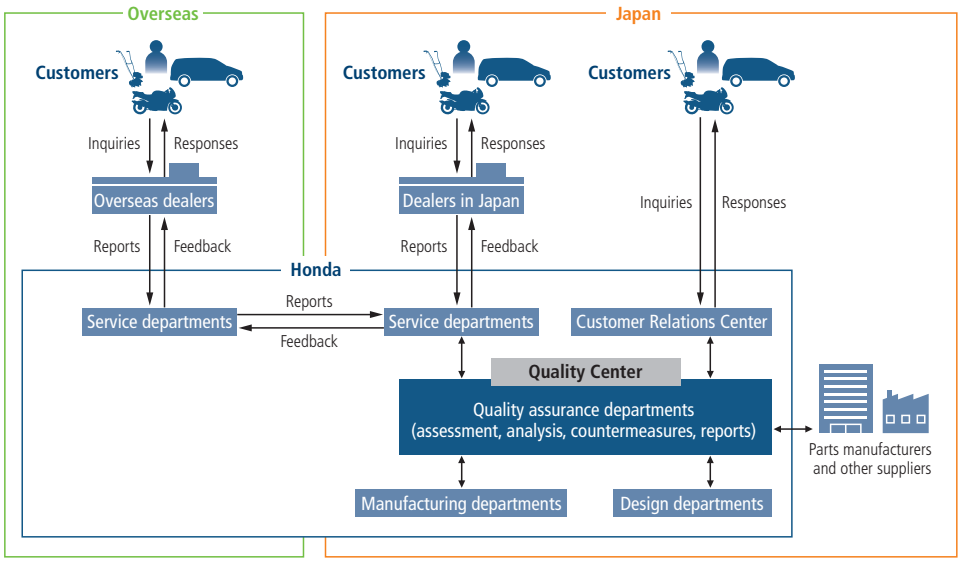
System to enhance market quality

Building a rapid market quality enhancement system around a Quality Center that centralizes customer feedback

We have established a Quality Center to bring together the various components of our organization concerned with market quality data, allowing us to enhance our worldwide ability to both prevent quality issues and quickly detect and resolve them when they occur. The facility gathers quality-related data from dealers in Japan and overseas through service departments and the Customer Relations Center. Measures and policies for preventing quality issues are then developed based on the issues identified from this data and provided as feedback to R&D and production departments responsible for operations including product design, manufacture, and part supplier relations.

When a quality issue does occur, we move quickly to resolve it, for example by working closely with R&D and production departments to investigate and address the cause, dealing with affected customers, and taking action to prevent a recurrence.

Market quality enhancement system

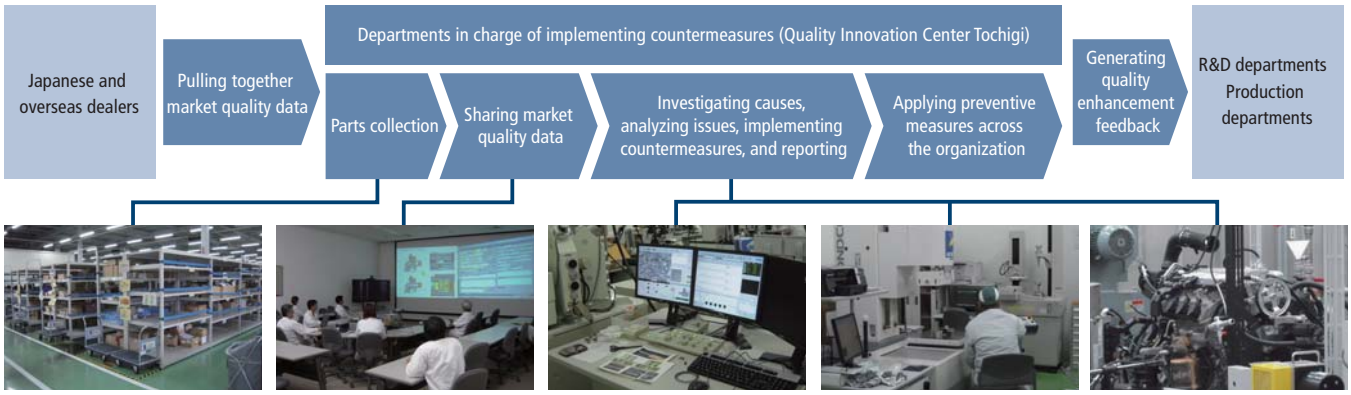


Operations at Quality Innovation Center Tochigi

Quality enhancement operations at Quality Innovation Center Tochigi consist of pulling together market quality data and sharing information about collected parts and market quality issues. Personnel analyze such parts, investigate causes, and develop countermeasures and improvements in a timely manner.

Specialized teams with extensive product knowledge are able to obtain detailed data using a range of analytical equipment. The operational process is configured to facilitate objective, appropriate decision-making based on gathered data.

Quality improvement operational process



Parts collection
Parts collected from the market are classified by category and managed to facilitate quick analysis.

Sharing market quality information
Service, R&D and analysis departments gather and share information from the market.

Analyzing materials
Issues caused by materials are analyzed using the latest scientific equipment, including composition analysis and X-ray diffraction analysis systems.

Measuring part precision
Parts' dimensional precision is verified using three-dimensional measurement and the latest roundness measurement equipment.

Testing engine functionality and performance
The functionality and performance of finished engines is verified on a bench.

Analyzing the brake noise
Brake noise is analyzed under conditions ranging from -30°C to room temperature.

Exhaust gas and mode driving verification
The compliance of exhaust gas components with emissions regulations and proper system operation during mode driving are verified.

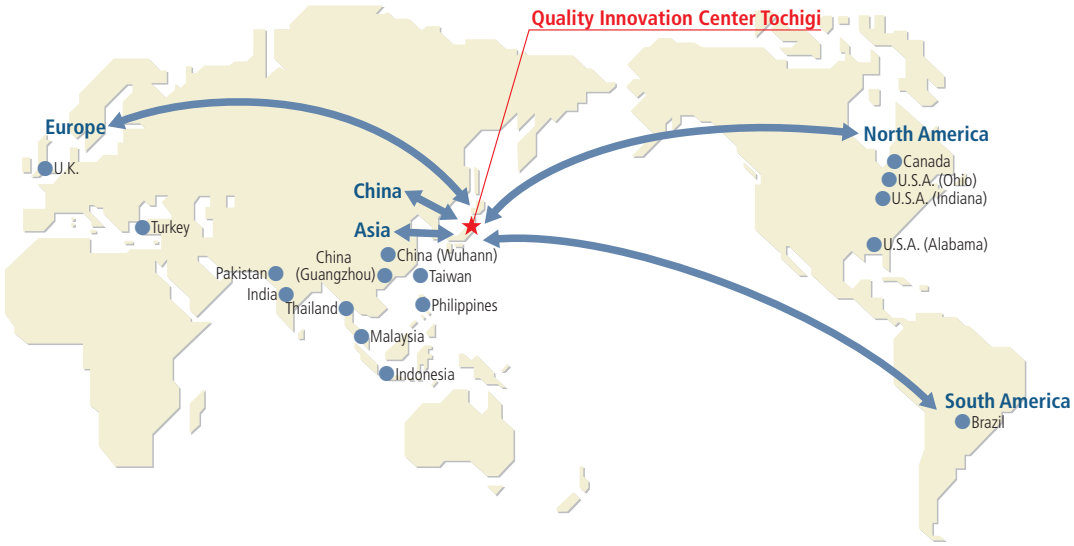
Vibration test o a bench
Issues are analyzed while reproducing actual vehicle vibrations on a bench.

Analysis in partnership with overseas entities

Overseas production plants play a central role in conducting the same type of quality enhancement activities as Quality Innovation Center Tochigi.

When plants encounter a particularly difficult market quality issue and request assistance, the Center investigates and analyzes the issue and then reports the results back to the overseas facility.

Working with automotive production plants



Handling quality issues

Recall system and other measures

When we determine that product issue requires action, we quickly report the issue to governmental authorities in accordance with individual countries' regulations and contact owners by means of direct mail from dealers or by telephone to provide information about how they can receive free repairs. Associated information is also provided on Honda's website and through the news media as necessary.

A Global Quality Committee is quickly convened in accordance with Honda global rules, and decisions concerning market measures are made by its chairperson in consultation with overseas members including experts from departments involved with quality issues who are capable of making objective decisions.

Compliance with Japan's Consumer Products Safety Law

The Consumer Products Safety Law was amended in May 2007 to more strongly protect consumers from defects that could be life-threatening or cause personal injury. The amendment brought into force new regulations governing the manufacture and sale of certain goods. It mandates the compilation and publication of information relating to accidents associated with products and other measures designed to protect the rights of consumers. It also compels manufacturers and importers of specified products to report any serious accidents to Japan's Ministry of Economy, Trade and Industry. As a manufacturer offering consumer goods for sale, Honda is, of course, in full compliance with this law, gathering information via our own systems, which were established to help ensure the safety of our customers, and submitting reports to the designated authorities in a timely and precise manner, as required.

Quality management education

Implementing quality management education

In Japan, Honda offers a training curriculum divided into four courses according to in-house qualifications and the extent of individual workers' quality control responsibilities in order to improve associates' quality assurance skills.

The Honda QC Basic Course (HBC), which was first offered 40 years ago, provides an example of how Honda is working to train its personnel to be leaders in improving quality, for example by opening the course to suppliers in addition to associates. Similar curricula for providing necessary training have been put in place at overseas production facilities.

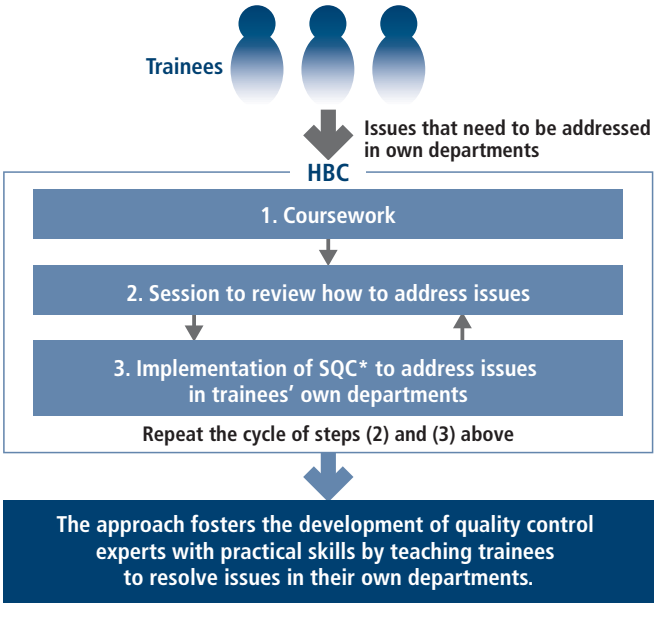
The following diagram indicates the objective, duration, and number of trainees for each FY2011 course:

Quality control education objectives and number of participating trainees

	Objective	Period	No. of FY2011 trainees
QC Junior (QCJ) Course	Students study how to put into practice the basic approach and methods (in the form of quality control techniques) for satisfying customers by manufacturing better products faster and more reasonable, and providing better service.	Total of 1 day	336 participants
QC Foreman (QCF) Course (Intermediate)	Students study how to put into practice the quality control techniques and approaches needed in quality assurance activities in manufacturing.	Total of 2 days	576 participants
QC Foreman (QCF) Course (Advanced)	Students study how to put into practice the expert techniques and approaches needed to work in quality-related operations.	Total of 3 days	253 participants
Honda QC Basic Course (HBC)	Students become quality control experts capable of resolving difficult problems and achieving tasks by studying the approaches and techniques of statistical quality control (SQC)	Total of 22 days	57 participants

*SQC: Statistical Quality Control is a general term to describe statistical concepts and scientific methods.

Honda Basic Course Flow



Overseas quality control training