The Businesses and Product Quality of the Citizen Group

Based on Micro HumanTech, each subsidiary of the Group—which engages in a wide variety of craftsmanship—creatively works to build quality control systems suited to its operations.

Citizen Watch Co., Ltd.

As a general watchmaker, we leverage our global quality control system to create high value-added new products.

Hisao Yamagata
Manager of Product Engineering Section
Production Engineering Department
Watch Production Center

Citizen Watch is a general watchmaker that provides Citizen brand watch products to the global market—from luxury items to those at popular price points. Any brand symbolizes a promise of reliability we make to our customers. To fulfill this promise in all areas of the world, Citizen Watch is building a common global quality control system.

One element of these efforts is the Quality Meetings, held once every two months, at which concerned parties in Japan and overseas converge with the aim of correcting and preventing significant problems. Furthermore, all of our production bases are required to submit quality data every month and are subject to annual audits by specialist staff.

Based on this system, Citizen Watch works to advance the quality of its watches' movements and appearance parts. The movement is the heart of a watch, and the quality of our metal movements has earned praise from our customers. However, inexpensive (budget pleasing) disposable watches with plastic movements have become popular in recent years, underscoring the importance of enhanced production engineering capabilities that allow for high-precision, automatic assembly to accommodate both cost and quality needs. At the same time, watches are symbols of aesthetics and sensibility, so it is also important to raise the value of appearance parts through design abilities and the skill of our meisters, to create watches that appeal to the senses.

Steps being taken by Citizen Watch to meet these needs include a Watch School for refining employee skills and a Meister System to certify technicians who assemble luxury watches, as well as the Watch Production Center, newly opened in June 2007. The Watch Production Center integrates the functions necessary for launching new products—from metal and mold processing and circuit technology to movement and exterior parts prototyping and fabrication—and serves to further strengthen coordination with the Design and Sales departments, which are gaining in importance. In other words, the purpose of the Watch Production Center is to facilitate development and procurement, share the same goals at each production stage, and to resolve problems systematically on a company-wide basis, from the unique perspective of a general producer. We also intend to swiftly tackle recent quality issues, including the cultivation of employees with multiple skill sets and the resolution of the problem of logic short circuits in the IC portion of radio-controlled watches.

Citizen Watch will continue to share its passion for watches among all its employees and build brand trust by maintaining and elevating quality levels.

Citizen Electronics Co., Ltd.

We are enhancing "QCDE" under a business structure that rapidly responds directly to customers' quality needs.

Yoshihiro Gohta
Director
Senior General Manager of Applied Parts Division
in Charge of Quality Management Division,
1st and 3rd Electronic Devices Divisions

Citizen Electronics was established in 1970 to produce tuning-fork wristwatches that transfer the resonant vibration of tuning forks into the watch movement. However, shortly after its establishment, the company's existence was threatened as quartz watches were introduced. To overcome this challenge, Citizen Electronics moved into the development of electronic products, applying the technology it had cultivated in watch production. We started to grow as an electronic devices manufacturer and commenced mass production of chip-type LEDs first in the world in 1983. We are currently expanding our business fields, electronic devices such as chip-type LEDs, switches and sensors and application products such as backlights for LCD panels, key sheet modules and speakers, in step with growth in the market for mobile phones—where most of our products are used.

I think one reason we have earned such a high level of trust in the electronics market—which was an all-new field for us—is that we have pursued customer satisfaction by creating a system to respond to the quality demands of customers in Japan and overseas in a fast and direct manner. In recent years, the number of products for applications in vehicles, lighting and other new growth markets has increased and higher quality is being demanded, but our policy of delivering quality that exceeds customers demands remains unchanged. For example, quality standards that were formerly measured in parts per million (ppm) are now measured in parts per billion (ppb) in the automotive and lighting fields, and long-term reliability is being sought, requiring product life spans of tens of thousands of hours. To respond to these demands, Citizen Electronics has implemented upgraded failure mode and effects analysis (FMEA: a quality control procedure), in efforts to boost product quality at the design stage. We have also established accelerated test methods that enable us to ascertain product durability and reliability over the long term and verify performance and quality in a short time frame.

Moreover, we have channeled resources into compliance with the RoHS* Directive and other aspects of improving the "E" of product QCDE (Quality, Cost, Delivery and Environment)—in other words, the environmental quality of our products in terms of making sure they do not contain hazardous and prohibited substances. In line with these efforts, we have begun to implement a system of procuring only environmentally friendly materials from environmentally conscious suppliers. Looking ahead, our environmental quality assurance system is also being verified and evaluated through the environmental audits performed by our customers.

Parts for mobile phones

In our commitment to be an electronics parts solutions provider relied upon by our customers, we will enhance QCDE by prioritizing product quality in production and actively implementing measures to swiftly respond to market changes.

* RoHS Directive: A European Union directive restricting the use of six designated substances (lead, cadmium, mercury, hexavalent chromium, polybrominated biphenyls (PBB) and polybrominated diphenyl ether (PBDE)) in electronic and electrical equipment

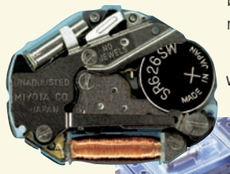
Citizen Miyota Co., Ltd.

We will continue pursuing quality creation from a customer-first perspective as we respond to diverse and demanding customer requirements.

Hideo Ogihara
Director
General Manager of Crystal Device Department

Based around its core micro-technology cultivated in watch assembly and commercialization, Citizen Miyota has diversified its business to include palm-sized and smaller miniature precision products, including the quartz oscillators used in electronics and IT devices, and a variety of electronic products. We are proud that our business approach of putting the customer first has been learned by handling a wide array of demanding customer requirements.

For example, production line management has a substantial impact on quality in Citizen Miyota's daily production of more than 500,000 movements for watches. We have therefore implemented statistical quality control techniques, including thorough management for the detection of statistical aberrations, which enables the early discovery of subtle signs that can lead to defects. All our business locations are ISO 9001 certified and undergo regular audits, as well as audits from customers covering individual businesses and products. Such audits turn up a number of areas requiring improvement. However, processes toward early discovery, as well as the handling and resolution of problems are part of Citizen Miyota's business expertise. We will continue in this way with the understanding that a level of quality control that satisfies our customers' audits is a prerequisite for beating our competitors.



Watch movement

Quartz devices

One of Citizen Miyota's businesses is the commercialization of Citizen Watch's low-end Q&Q brand priced at the popular level, entailing global delivery of more than one million finished products per month. In this business as well, we give top priority to quality in our coordination with Citizen Watch, based on a policy that considers high quality a means of differentiating low-price products from those of our competitors.

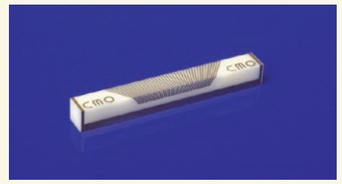
The excitement and sense of responsibility that goes with creating end products is a valuable experience difficult for companies engaged in product assembly and commercialization to attain, and we feel our many years in business have given us a keener awareness of and sense of responsibility for quality. I am pleased to say that Citizen Miyota's product lines currently hold the top global share in their respective markets. Without resting on our laurels, we remain committed to refining product quality through the participation of all employees, while learning from our customers, the market and our small daily mistakes.

Citizen Fine Tech Co., Ltd.

We continually strive to improve quality, based on our sense of responsibility and pride in creating "parts within parts" that utilize sub-micron precision processing technology.

Yasuteru Kakegawa
Director
General Manager
Quality Management Division
in Charge of R&D Division

Citizen Fine Tech got its start as a producer of jewels for use inside bearing jewels for watches and expanded its operations by taking advantage of precision processing technology at the sub-micron level. The company currently produces and sells liquid crystal application products and optics and ceramics products. Our products are employed in the lifestyles of many citizens as important components in products made by electronic device manufacturers. Recognizing this fact, Citizen Fine Tech considers quality improvement a significant management priority.



Submount

Our quality control system is based on ISO 9001 and employs unique innovations to accommodate the specialized requests of our customers. One example is our flagship quartz oscillator chips, which are important components that dramatically affect the properties of quartz oscillators used in mobile phones, digital cameras, personal computers and other electronic products. In prototyping for these important components, we begin by gaining an understanding of the backend processes carried out by customers and the performance they require from the end products. Then by more closely coordinating and sharing all manner of information with customers, we meet their demands through technical capabilities that enable micron-level cutting, grinding and polishing. Citizen Fine Tech also continually advances

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its expertise accumulated working at the production stage with over 150 million product units per month, as well as its quality control methods and other management techniques, passing them down from senior to junior employees.

In fiscal 2007, under the theme of striving for higher product quality and customer satisfaction, Citizen Fine Tech successfully worked to boost the quality built into its products and raise its level of service to customers. Still, there is no end to our pursuit of quality. We will continue to set quality goals every year and keep the PDCA cycle turning.

Citizen Systems Japan Co., Ltd.

We strive to create “attractive quality” that is both user-friendly and distinctive, based on a craftsmanship system that fully ensures reliability and safety.

Arata Kimoto
Director
General Manager of Engineering Division and Quality Assurance Department

Citizen Systems Japan provide products that support lifestyles and business operations, through its three core businesses consisting of digital blood pressure monitors, digital bathroom scales and other health care equipment; electronic dictionaries, calculators and other electronic products; and information equipment, focusing on office printers. In developing these products, we have implemented quality management based around the design review (DR) process.

The DR process is a mechanism for ensuring product reliability and safety by assessing and improving quality at each stage—from design to delivery—while advancing to the next process. Citizen Systems Japan incorporates this process into its approval system with five steps: transfer to prototyping, transfer to metal molding, transfer to preliminary mass production, transfer to mass production, and delivery approval. The system also includes product safety checklists with 68 items that must be cleared before delivery.

Looking ahead, it will be essential to improve the companywide structure and take steps to enhance quality for each product. For instance, in health care equipment Citizen Systems Japan ensures the accuracy of data through international management standards related to the equipment’s quality and safety, as well as risk management methods, and has established its own reliability standards, including those for removal of risks foreseen in a variety of usage environments, and safety evaluations of product construction and materials used. Citizen Systems Japan remains committed to creating products that make customers happy with quality they can trust, under the motto of “Leading Technology for Humanity.”

TW600 pedometers

Citizen Machinery Co., Ltd.

Using our No. 1 global share position in miniature precision CNC automatic lathe we are devoted to building trust relationships with customers, from the design stage to after-sales services.

Shigeo Yanagidaira
General Manager of Development Department

Citizen Machinery offers machine tools to process high-precision parts for industrial products in a broad range of areas, including precision, medical, automotive, home appliance, office automation, and communications . Machine tools are known as “mother machines,” because they are indispensable in craftsmanship, and even a momentary interruption in their operation would result in tremendous inconvenience for customers. In particular, Citizen Machinery’s miniature precision CNC automatic screw machines hold the top share position worldwide, and we see our obligation to maintain quality as commensurate with this global status.

Cincom K16

Based on this awareness, Citizen Machinery has obtained ISO 9001 certification and is working to provide stable levels of quality by standardizing design for major parts and increasing processing precision for each part. Such efforts have enabled us to ensure high precision in assembly processes without relying on special skills. On the other hand, to implement the philosophy that “quality is people,” Citizen Machinery incorporates various processes to encourage the handing down of meister skills.

The company’s quality responsibility does not end with the production and sale of machines. We can only say we have fulfilled our responsibilities when we succeed in the stable production of high-precision parts and our customers use the products we supply with safety and peace of mind. To achieve this, we have introduced safety standards that comply with the Electronic Commerce (EC) Directive, and—to combat illegal exporting—we have included as standard on all models a function that locks the machine when it is moved inappropriately. We have made creative improvements in consideration of all manner of risks customers face.

Moreover, to ensure that we can respond immediately in the event of a malfunction, we work to ensure accurate and speedy response by using the Internet to ascertain the operational status of machines, distribute support programs, and conduct repairs after preparing the required replacement parts.

We will continue to reach toward higher levels of quality under a consciousness of each of our employees working to protect and develop the Citizen brand, as we strive to carry out our obligations to customers in a wide range of industries.

Citizen Seimitsu Co., Ltd.

We leverage our veritable “department store” of diverse technologies to provide quality that exceeds customers’ expectations.

Misuo Horiuchi
Director
General Manager of Technology Center
in charge of Corporate Planning Department

Citizen Seimitsu got its start in the watches and clocks business and has developed multiple business lines in response to customer requests that we “create things that no one else can.” The company’s business content has now expanded to cover movements for wristwatches, automotive parts and glass substrates for compact hard disk drives. Its extensive array of unique technologies and its many product lines with top market shares worldwide have prompted Citizen Seimitsu’s customers to refer to the company as a “department store of technologies.”

In this way, our product quality has evolved as we have spread throughout the company the experiences and expertise we have gleaned in responding to the challenging demands of customers in the Citizen Group and others in a variety of industries. For example, to accommodate stringent quality standards regarding safety and environmental performance in our automotive parts business—where we currently produce ABS components and other products that contribute to safety and energy efficiency—we have obtained certification for ISO/TS 16949, in addition to ISO 9001. Citizen Seimitsu is also reinforcing its design management and process management functions to design forms that assure quality in the finished product, and is applying this expertise in other departments.

Instruction in an automatic lathe course

Furthermore, in 2003 we introduced a facility management system, which checks for aberrations in the quality of products coming off the production line, analyses cause-and-effect relationships with the equipment in case of abnormalities, and evolves the equipment to prevent recurrence. Recognizing the success of this system, Citizen Seimitsu implemented it in all the company’s business departments from 2005. We have also established a system for immediate investigation into the cause of urgent and special complaints lodged in the event of a serious quality problem, allowing Citizen Seimitsu’s officers and president to respond directly to the issue.

Underpinning such activities are steady efforts that include operational training under the theme of “consistently doing what you know you should,” and a development program for handing down and improving core skills, which includes courses on automatic lathe, metal molding, watch faces and printers. We are producing videos and other materials for our bases overseas to transmit these activities in like fashion at those sites.

Striving to have its customers rely upon and turn to it as their best partner, Citizen Seimitsu remains committed to provide quality exceeding customer expectations by bringing together core technologies while incorporating new quality control methods.

Citizen Sayama Co., Ltd.

We are leveraging our parent technologies in watch part processing to refine our high technical development and quality control capabilities in response to exacting demands in cutting-edge fields.

Hiroshi Oshima
General Manager of Environmental Quality Control Department

Citizen Sayama produces and sells a broad range of products, including wristwatch parts, geared motors used in the drives of automated teller machines, surveillance cameras, robots and other mechatronics products, and precision press molds and plastic forming machines Although most of our products are small and inconspicuous , we are advancing our high technical expertise, development capacity and quality control capabilities to respond to exacting demands in leading-edge fields, under the management principle of “small but leading technologies.”

Coreless motors

Concerning quality control, Citizen Sayama and the three companies of the Sayama Group—Citizen Yubari Co., Ltd., Comatech Co., Ltd., and Citizen Chiba Precision Co., Ltd.—have each obtained ISO 9001 certification.

In product development, based on our quality policy of earning customer satisfaction by providing quality products and services that exceed customer expectations, we build specifications and quality into our products from the design to development stages, while listening to customer input.

Citizen Sayama will continue developing new products and enhancing its quality control systems, while adhering to its proud role as a powerful player working behind the scenes to support state-of-the-art technologies.