# Quality Assurance and Product Safety

The ULVAC Group is engaging in initiatives worldwide to meet customer expectations for high-level, safe ULVAC quality through assurance activities centered on Front Loading.\*1

#### **ULVAC Group Quality Policy**

- "Product quality assurance strengthens our customers' confidence in UIVAC
- The ULVAC group is committed to promote ULVAC quality through front-loading in all business processes including de velopment, sales, production and service and through offering products and services which include needs from all parts of the world
- Each employee within the ULVAC group strives to ensure that their personal efforts contribute to the creation of value necessary to maintain the customer as an everlasting partner.

#### Global Integrated Certification for ISO 9001 and ISO 14001

As of the end of December 2017, 38 ULVAC Group companies had completed integrated certification for the 2015 versions of ISO guality and environmental management systems. We have aligned guality policies groupwide and put in place a framework for addressing quality issues and deploying improvements globally.

#### **Quality Management System**



Under this system, the Group will further promote Front Loading, operation of integrated Group regulations, coordination of internal auditing, and common qualification schemes (qualified quality inspectors and safety assessors<sup>\*2</sup>) and work to further improve quality through groupwide quality system operation.

#### **Quality Improvement through Front Loading**

The Group promotes quality creation by implementing Front Loading in all business processes. At ULVAC, the term Front Loading refers to activities to ensure that nonconformities do not occur in the subsequent processes. Front Loading involves identifying all risks and considering countermeasures before starting

work by performing technical reviews, simulations, verification, and other tasks before receipt of orders. In fiscal 2017, Front Loading again contributed substantially to preventing nonconformities, improving quality, and increasing profits.

Year-on-year comparison of costs related to nonconformity after delivery (non-consolidated)



#### **Product Safety Activities**

To deliver safe and secure ULVAC brand products to markets around the world, gualified safety assessors play a leading role in product safety assessments and continuously engage in activities to verify the reguired safety and guality at the drawing release and product shipment phases. In recent years, we have conducted group training and personnel exchanges at various locations, in addition to periodic exchanges of information, for the purpose of constructing independent verification systems at the overseas production bases in step with expansion of production in the Asia region. In addition, foreign national qualified safety assessors belonging to overseas production bases have begun to actively contribute to product esafety. We intend to continue to promote integrated Group product safety activities and link them to increases in customer satisfaction.

Number of qualified safety assessors in the ULVAC Group (Persons) 60



\*1 "Front Loading" ordinarily refers to arranging or planning so that a large portion of work occurs in the initial phase. At ULVAC, it is an activity to create quality by identifying issues as soon as possible.

\*2 Safety Assessor (SA) Qualification is a qualification scheme based on third-party certification of machine safety knowledge and competence under international safety standards.

## Procurement

communication with suppliers, values cooperative frameworks, and engages in initiatives to build relationships of trust.

#### **Procurement Policy**

To conduct procurement activities in keeping with the Basic Corporate Philosophy and Management Policies, ULVAC has established, observes, and promotes the Basic Procurement Policy.



We also communicate our requirements for suppliers with respect to the environment, human rights, labor, compliance and other procurement-related matters to fulfill our social responsibilities not only within the Group but also throughout the supply chain.

→ For details, please see:

https://www.ulvac.co.jp/company/purchase/purchase2/

#### **Supply Chain Management**

### Supply Chain Management (SCM) Innovation at ULVAC

In the current era of globalized production, accuracy of information on lead times, cost, and required specifications for materials and parts procurement is crucially important. If we do not introduce the right quantities of materials into production processes at the right times, goods will pile up in the supply chain, inconveniencing suppliers. To avoid this, we must further develop procurement mechanisms that utilize IT and data.

Much of the production in the equipment businesses, which account for the majority of ULVAC's sales, is made-to-order production of unique products to meet individual customer needs, and in principle we do not hold inventory. We consider parts or materials piling up anywhere in the supply chain to be inventory and aim for total optimization of the supply chain by using indices to prevent inventory accumulation and visualizing inventory.

### Suppliers are important partners that support MONODZUKURI. The ULVAC Group promotes

#### **Global Production Bases Capable of Responding** to the Shift to Larger Products and Mass Production

To respond to a shift to mass production of semiconductor production equipment for logic and a shift to larger equipment, such as FPD production equipment for G10.5 and OLED, our Japanese production bases in the Kyushu and Tohoku regions and overseas bases in China, South Korea, and Taiwan are continuing activities to build supply chains in their vicinity of the same level and quality as that of the ULVAC head office. In this way, by having the production bases take the lead in implementing local and optimal procurement, we aim to utilize the advantage of customer proximity in order to engage in global production at appropriate locations that flexibly responds to market conditions.

#### **Communication with Suppliers**

ULVAC holds supplier meetings three times a year to communicate production plans from the divisions in a timely manner and operations briefing meetings once a year as a forum for ULVAC management to directly explain to suppliers the business environment and prospects. To share policies and deepen relationships of trust with our suppliers, we take care to meticulously respond to their needs. For instance, we provide information for each business segment that incorporates delivery dates for procurement items based on the status of trade inquiries.