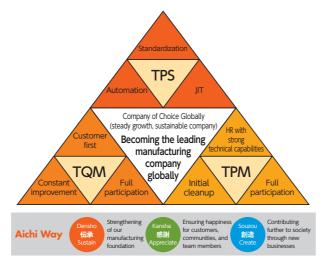
Sustainability Initiatives ♦ Value Creation Story ♦ Value Creation Story ♦ Value Creation Story ♦ Sustainability Initiatives ♦ Corporate Data

# **Quality and Production**

#### Basic approach —

Aichi Steel has always focused on the manufacturing capabilities of integrated forging with steel making processes, which cover everything from material design to production of steel, forged products, and electronic components. We have continued to provide our customers with highly functional and high-quality materials and parts with high strength, durability, and machinability, which are indispensable in the automotive and other industries. This stable supply of high-quality, low-cost products has been supported by the implementation of quality management and the evolution of manufacturing capabilities through the Toyota Production System (TPS), Total Quality Management (TQM), and Total Productive Maintenance (TPM). Using this as a foundation, we are working to build production systems that are resilient to changes as we face increasing uncertainty, including geopolitical risks and sharp price fluctuations.



#### TPS activities

Aichi Steel is striving to improve its lean manufacturing capabilities by promoting cost reduction through thorough elimination of waste based on the two pillars of TPS: just in time and automation. The in-house companies systematically address improvement themes for cost reduction identified from the perspective of TPS, and their results are shared companywide through a TPS convention held at the end of the fiscal year.

We have established a TPS trainee system to implement TPS, where we focus on human resource development. We train personnel selected as TPS



1st TPS Convention

promotion leaders through classroom lectures as well as practical learning, including case studies, in order to effectively apply TPS methods in the workplace. Also, to facilitate the smooth introduction of TPS to our production sites, we are promoting the acquisition of TPS methods appropriate to the role of each employee by providing a wider range of level-based training. With these two activities, cost reduction and human resource development, we are building flexible production systems that are resilient to change.

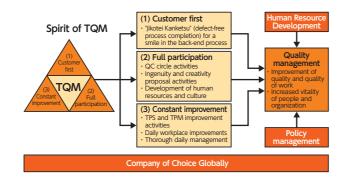
#### Improvement themes

Topics	Composition
Labor-saving	Improvement of single-person productivity per day, consolidation of equipment
Shortening of lead time	Reduction of production quantity, streamlining of production
Enhancement of production potential	Reduction of downtime, improvement of specific consumption
Reduction of man-hours	Reduction of downtime, shortening of MCT*

<sup>\*</sup>Time required to machine and assemble a single part (Machine Cycle Time)

#### TQM activities

Implementation of quality management based on TQM Based on the fundamental TQM principles of "customer first," "full participation," and "constant improvement," the Aichi Steel Group is engaged in TQM activities to implement quality management. This is done by "improving the quality of products and work" and "increasing the vitality of people and the organization."



#### QC circle activities with full participation ——

Aichi Steel is working to establish and expand our QC circle activities as a means of improving operations in workplaces. We are working to develop human resources and revitalize our organization through consistent team efforts to identify problems, clarify issues, and formulate and implement countermeasures. In FY2023, 167 circles conducted activities, and 14 cases received external awards. For ingenuity and creativity proposal activities by individuals\*, we set a target of at least one proposal per month, and all eligible employees achieved the target throughout the



The 53rd QC Circle General Manager's Award Tokai Branch Competition contestants



Winners of the 2023 Creativity and Ingenuity Award

year. As a result of these efforts, in FY2023 we received three awards from the Minister of Education, Culture, Sports, Science and Technology.

\*Activities to encourage and evaluate employees' suggestions on how to improve the efficiency and quality of daily operations. Rewards are given based on the size of the effect, the number of proposals per year, and other factors in order to increase employees' motivation.

#### To consistently meet quality requirements –

The automotive industry is undergoing a once-in-a-century transformation, and its quality requirements are also changing. We are always trying to maintain and strengthen our competitiveness by delivering the level of quality that is required. One of our efforts in this regard is to nurture expert personnel who have the ability to utilize technologies such as IoT, big data, and AI. Utilizing the Toyota Group Machine Learning Practice Dojo venue, we enhance the learning effect by using specific improvement themes as the subject matter, such as "automation of rear shaft visual inspection," and verifying the process from improvement to measurement of results in a practical setting.

### TPM activities

We are committed to TPM activities to ensure efficient production of high-quality products. Based on the three key concepts of "full participation," "initial cleanup," and "HR with strong technical capabilities," we aim to transform people's behavior and on-site facilities to achieve zero breakdowns and zero defects by analyzing, addressing, and improving production facilities before breakdowns occur.

With operator self-maintenance as the most important activity, we have set quantitative targets for activities such as three zeros in equipment failure, quality defects, and

occupational accidents, and productivity improvement through the reduction of production losses.

In FY2023, we have achieved steady results, with 268 employees having acquired level 1 (top grade) self-maintenance personnel certification (acquisition rate: 20.5%) and a 31.5% reduction in total facility failures (compared to FY2021.) To further promote and strengthen our TPM activities, we will work on improving quality and maintaining an efficient production system, such as by using DX for data analysis and visualization.

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## Fostering an awareness and culture of quality

The out-of-tolerance steel length problem identified in FY2023 prompted all management and employees to go back to our founding principles and launch activities to ensure that quality problems are never repeated.



Dialogue meeting

Details Catego Human Management and employees share and Dialogue meetings resource Activity to prevent people from forgetting development Quality restart day (awareness Informing all employees of the circumstances of th Special exhibitions reform) outbreak and lessons learned from the problem Discussions in each workplace on what Workplace group should be done to prevent recurrence Opportunity for everyone to reaffirm and Fostering a Revision of Aichi earn the essence of compliance and ou workplace responsibilities as a company Action Guidelines culture Reaffirming our corporate philosophy and values for the entire company to work ogether to perform well and improve qualit Strengthening and enforcing compliance Strengthening Improving availability and convenience, Whistle-blowing expanding external consultation services. organization conducting public awareness activitie

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