On the Special Issue "Production Technology"

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Once a product has been designed, developed and transferred to the production line, the scope for cost reduction is only 5 to 15%. This means that most of the product is decided in the design and development stage, as has been shown in the literature as well as through specific examples in our company.

The objective of manufacturing on-site is to produce maximum value for minimum cost in terms of the four elements of manufacturing, namely man power, material, equipment and energy. In this special issue, I would like to emphasize that the production engineers are those most closely involved with this work. The mission of production engineers is to achieve the optimum mix of these four elements in order to construct an efficient, balanced production line. At the same time, the cost of ensuring environmental safety must be controlled in a different way when evaluating a project in terms of investment cost.

Production engineers must understand the functions of a product in detail, and know how that product is used. They must also understand the underlying technology used in the production, knowing how the product is made and how it could be made. In other words, products can be greatly improved by utilizing existing production technologies.

The underlying technology and management technology are inseparable. For example, while the management technology may be based on ISO 9001 and ISO 9002 certification, the production engineering know-how built up over the years must be used to satisfy those standards while improving the functions and quality of the product.

Production engineers must be fully involved in product design and cost issues from the outset of product design and development. Production engineers can come up with revolutionary, practical ideas by monitoring production engineering trends worldwide, reviewing existing technologies, and evaluating the new technologies. They must also utilize their own pool of knowledge and experience, and work hard to overcome the problems that arise.

I have always believed that production engineers must be firmly based in reality, looking at real products, facts and real sites without saying "it ought to be like this" Upon the publication of this second edition of the Sanyo Denki Technical Report, I once again ask our production engineers to carefully analyze the needs of our customers and then to design and develop high quality products that satisfy those needs. Detailed discussions of real needs will help strengthen our products.

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