

FOREWORD

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The collapse of the bubble economy and the sharp “high yen” recession that followed shook all sectors of Japanese industry to their foundations and called into question the survival of many companies. Moreover, a number of forces, including the hollowing of Japan’s industrial base as a result of the collapse of the existing price structure and relocation of industry overseas, correction of the disparity between exports and imports, and instability of the financial system, are now pushing the Japanese economy toward structural reform. Export-oriented industries such as autos and electrical appliances, which are the major customers for sheet steel, are promoting particularly severe cost-reduction programs to ensure survival, and similar efforts are being made in the steel industry. Restructuring is underway on all fronts with the aim of rebuilding competitiveness to a level compatible with international price parity, and steelmakers are pushing ahead with appropriate measures.

The past several years have seen a number of important changes. For example, current trends are not limited simply to low-cost sheet, but also include the optimization of quality levels, unification of product lines, study of cost minimization in the entire process of steel sheet processing, and other joint efforts by steel producers and customers in research, operational development, and improvement activities which envision integrated reductions in total cost.

Kawasaki Steel has responded to these trends by emphasizing *continuation*, *automation*, and *simplification* as main thrusts of technical development, with the aim of achieving a higher degree of manufacturing process simplification, lead time reduction, and uniformity and accuracy in quality than in the past, and leads other companies in its active promotion of all-continuous casting of material for sheet steel products, introduction of continuous cold rolling mills to all cold rolling plants, and adoption of continuous annealing to realize a “batchless” production process. In what can be called a compilation of these efforts, the company completed the construction of a revolutionary new hot rolling mill at its Chiba Works in May 1995. This plant, which is currently enjoying a smooth startup, is the fruition of Kawasaki Steel’s determination to develop and realize in a practical facility the world’s first endless hot strip rolling technology.

On the other hand, Kawasaki Steel is developing new products and realizing higher levels of product quality which contribute to cost reductions at customers’ processing lines. Examples of new products which has been developed to the practical level include new hot-rolled and cold-rolled high-tensile steel sheets with improved formability, which contribute to auto weight reduction; self-lubricating steel sheets with excellent electric conductivity, which can be welded and eliminate the need for degreasing and quick-drying press oil; steel sheets for can, which enable high-speed can-making; and direct-on enameling sheets with excellent deep drawability. These and other new products have won a consistently favorable reputation among users.

In the future, we will carefully examine profitability in the expectation of an increasingly difficult economic environment. Research and development and the development of operational process technology which ensure that we can deliver to our customers products with international competi-

tiveness will be urgently required. On the other hand, it will also be necessary to bring out the attractive features of steel sheet and to devote efforts to the creation of new demand in the field of sheet construction materials such as the steel framed house and others.

This special issue presents some of the technologies developed and implemented as part of Kawasaki Steel's recent activities to strengthen its international competitiveness, as discussed above. In the future, we will strive to expand our activities in unison with our customers, and from this viewpoint, we welcome suggestions and comments for the further development of the field of steel sheet.