## **FOREWORD**

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This special issue on stainless steel follows an earlier issue published in 1985, the year which marked the beginning of the *en-daka*, or appreciation of the yen. In the intervening years, the hyper-appreciation of the Japanese currency has caused serious deterioration in the export environment, while new plant construction in the country has created an overcapacity situation. With distribution now also becoming a problem, a variety of difficulties face the stainless steel maker. Nevertheless, we at Kawasaki Steel Corporation continue to regard it is as one of our key lines, as evidenced by our vigorous efforts to improve our production and distribution systems and achieve further cost reductions.

Kawasaki Steel has already realized a sweeping revolution in its stainless steel production process. To describe only part of the changes involved, the company has consolidated the cold rolling line constructed at Nishinomiya Works in 1963 and the cold line at Chiba Works put into operation in 1991. In April 1994, Nishinomiya Works became part of an integrated organization under Chiba Works, completing a system of integrated production control and quality control from steelmaking through cold rolling.

Where the steelmaking process is concerned, a refining method called smelting reduction was established at Chiba's No. 1 Steelmaking Shop in 1987 using the company's own technologies for semi-reduced pellet. More recently, in July of this year, No. 4 Steelmaking Shop went on stream at Chiba's West Plant using a new refining method involving the direct reduction of chromium ore. The West Plant is also expecting to break ground with a new thermomechanical treatment which is not possible with conventional mills, using a new hot strip mill scheduled to begin operation in May 1995.

To ensure the maximum benefit from this equipment, we are actively developing new products and applications. Products already developed and put into practical use include high-purity ferritic stainless steels for construction applications and use in hot water heaters (for example, R434LN2, R30-2), and products for automotive applications such as exhaust system mufflers (R436 LT), exhaust manifolds (R429 EX), and catalytic converter honeycombs (R20-5 USR). An economical functional stainless steel, high workability type 304, is processed on Chiba's carbon steel line. In addition to these existing products, high-workability type 430 and high-corrosion resistance, high-workability ferritic stainless based on innovative concepts which assume the use of the new hot strip mill mentioned above will quickly round out an attractive product line answering customers' needs for products which combine high quality and low price.

Turning to the question of demand, total growth is likely to be small domestically. But, by using tie-ups to develop new applications and products for the steels mentioned above, we believe that it will be possible to create a number of interesting new markets, especially in construction materials, automotive applications, and household electricals. Overseas, we are

expecting to see striking growth in demand in China and Southeast Asia.

Finally, we at Kawasaki Steel will take full advantage of our innovative steelmaking technologies and new hot strip mill, will strive to make our new totally integrated production system slimmer, simpler, and speedier, and as always, will continue to make every possible effort to completely satisfy our customers. We look forward to serving you.