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Steel Rolling Technology Handbook (2nd Revised Edition)

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About the Book

The steel industry has had a long history of development, yet, despite all the time that has passed, it still demonstrates all the signs of longevity. The steel industry is expanding worldwide. The economic modernization processes in these countries are driving the sharp rise in demand for steel. Rolling is a metal forming process in which metal stock is passed through a pair of rolls. Rolling is classified according to the temperature of the metal rolled.
Being a core sector, steel industry reflects the overall economic growth of an economy in the long term. Also, steel demand, being derived from other sectors like automobiles, consumer durables and infrastructure, its fortune is dependent on the growth of these user industries. Steel consumption is forecast to grow annually by about 5%–6%.

This handbook describes different classes of steel making processes, welding processes and plant & machinery suppliers with their photographs. Techniques of steelmaking have undergone vast changes in scale and new processes have been developed to meet the demands of speed, quantity and quality. There are various hot mills involved in the production of steel plate mill, hot strip mill, bar and rod mills etc. This handbook deliberated on the fundamental of mechanical working and its theory in a very simpler way. In addition it describes statistical methods of quality control, total quality management, quality assurance & raw material which are used in making of steel.

The major contents of the handbook are fusion welding processes, grinding and abrasive processes, width change by rolling and pressing, metallurgical defects in cast slabs and hot rolled products, primary steel-making processes, optimization and control of width change process, fundamentals of metal casting, steel making technology, basic principles of width change, plate mills, hot strip mills, quality assurance, testing and inspection, bar and rod mills.

It will be a standard reference book for professionals, entrepreneurs, those studying and researching in this important area and others interested in the field of steel rolling.

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