

## FOREWORD

It has become evident, with the growth in the knowledge of mechanics, that the tubular shape possesses distinct advantages over other shapes. Pound for pound welded steel tubing is stronger in many applications than other steel sections. It is pleasing to the eye, can be readily fabricated, and is widely available. This Handbook has been prepared for engineers, designers, and manufacturers who have used tubing, and also for those who contemplate its use. Readily accessible data are included to aid them in the selection of the proper tube for their application. Obviously it is not possible to cover all contingencies, and further information is available from any member of the Steel Tube Institute.

The data in this book apply to Electric Resistance Welded (ERW) carbon and alloy mechanical steel tubing, whether used in the as-welded condition or after further processing. Unlike pipe, mechanical tubing is not intended for the transmission of fluids, except in fluid power applications, and is produced to exact rather than nominal OD or wall dimensions, and to exacting tolerances.

Mechanical steel tubing is distinguished from steel pressure tubing by its use or application. Pressure tubing is used to contain or convey fluids under pressure and generally at other than ambient temperatures. Mechanical tubing is used in a multitude of applications not involving fluids. These include applications where strength, appearance, machinability and fabricability, resistance to torsion, and maximum strength to weight ratio are required.

It is hoped that readers will come to recognize why welded mechanical steel tubing enjoys universal acceptance, and will become aware of some of its many applications. The data will cover mechanical tubing only. Literature on carbon steel pressure tubing and structural tubing is also available from the Steel Tube Institute office or from its individual member companies.

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The data contained in this Handbook reflect the general state of the art in the production of welded tubing. This material is not intended to be all inclusive, nor to be a substitute for any specific arrangements between suppliers and users of welded tubing. The data shown for properties, test procedures, tolerances, sizes and other characteristics of tubing reflect those in general use but are for reference and guidance only. Most of these data appear in public specifications and are duly referenced. Different or additional specifications and characteristics are or may be available from various tubing sources. The user of welded tubing should consult with a tubing source concerning this particular requirements.

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