Errata
to
ANSI B32.5-1977

The Errata correction listed below applies to ANSI B32.5-1977 (R 1994), Preferred Metric Sizes for Tubular Metal Products Other Than Pipe.

Page	Location	Change
2	Table 2	Under first column, change fourth entry from 0.01 to 0.10

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THE AMERICAN SOCIETY OF MECHANICAL ENGINEERS
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AMERICAN NATIONAL STANDARD

Preferred Metric Sizes for Tubular Metal Products Other Than Pipe

ANSI B32.5 - 1977

REAFFIRMED 1994

FOR CURRENT COMMITTEE PERSONNEL
PLEASE SEE ASME MANUAL AS-11

REAFFIRMED 1988

FOR CURRENT COMMITTEE PERSONNEL
PLEASE SEE ASME MANUAL AS-11

SECRETARIAT

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FOREWORD

The U.S. Department of Commerce in its July 1971 report to Congress titled "A Metric America—A Decision Whose Time Has Come" recommended that the United States should change to the metric system through a coordinated national program. This action along with subsequent increased metric activity in industry resulted in a number of requests from producers and users that the B32 Committee develop preferred series of metric sizes for the various forms of wrought mill metal products.

On January 17, 1977 Subcommittees 1 and 2 were formed to establish preferred metric sizes of solid flat and round metal products respectively. Subsequently Subcommittee 2 had its scope enlarged to include solid square and hexagon products. Subcommittee 4 was formed on October 24, 1973 to consider tubular products. Pipe products were excluded as they are under the jurisdiction of ANSI B36 Committee. These Committees are composed of representatives of the major metal trade associations and user groups.

After several meetings, consensus agreement was reached by Subcommittee 4 on the preferred metric sizes for tubular metal products. Several considerations guided the Subcommittee: ISO preferred number sizes, sizes actually used in metric countries, and the need for rounded metric equivalents of high activity inch sizes.

The Subcommittee agreed to provide two sequentially numbered companion standards, one specifying metric sizes designated ANSI B32.5 and one specifying metric equivalents of inch sizes designated ANSI B32.6.

The proposals received Standards Committee B32 approval on March 30, 1977 and was approved as an American National Standard on September 7, 1977.

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AMERICAN NATIONAL STANDARDS COMMITTEE B32
Standardization of Metal and Metal Alloy Wrought Mill Product Nominal Sizes

(The following is the roster of the committee at the time of the approval of the standard)

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AMERICAN NATIONAL STANDARD

PREFERRED METRIC SIZES FOR TUBULAR METAL PRODUCTS OTHER THAN PIPE

1. SCOPE

This Standard establishes preferred series of metric outside diameters, distances across flats, wall thicknesses and lengths for tubular metal products other than pipe.

A companion standard, ANSI B32.6, establishes preferred metric equivalents for the most commonly used inch sizes.

2. GENERAL

This Standard provides an orderly series of metric sizes for tubular metal products. The series was developed to provide a reasonable selection of metal tube outside diameters from 0.12 to 320 mm and distances across flats from 10 to 400 mm. In the case of wall thickness, the series provides a reasonable selection from 0.050 to 60 mm.

Tubular products are generally ordered by specifying outside dimension and wall thickness. They may also be ordered by specifying inside dimension and wall thickness or outside and inside dimensions.

Sufficient coverage, in logical steps, is presented in the Tables to serve most of the general requirements of industry for metric tubular metal products.

The Standard also provides an orderly series of lengths for tubular metal products other than coil.

It is recognized that for some applications, particularly large volume requirements for specific end uses, that precise engineering requirements dictate a need for sizes other than those presented in this Standard. This Standard is in no way meant to preclude the use of such sizes. However, for applications where requirements permit some latitude, the preferred sizes given in this Standard should facilitate interchangeability of metals in design, reduce inventories and increase the availability from warehouse stock.

All the sizes included in this Standard are not necessarily produced in all metals and grades. Producers or distributors must be consulted to determine availability of a particular size for a given metal product.

3. BASIS OF TABLES

Most of the preferred sizes are derived from the R10 series of preferred numbers (ANSI Z17.1). A few sizes are derived from the R20 and R40 series.

Some deviation from the preferred series occurs as a result of rounding and as a result of demonstrated or anticipated need for sizes other than those which follow the above preferred series.

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Table 1 Preferrred Outside Diameters For Tubular Metal Products Other Than Pipe (in millimeters)

0.12	14	75
0.16	15	80
0.20	16	85
0.25	18	90
0.30	19	95
0.40	20	100
0.50	22	110
0.60	25	120
0.80	28	130
1.0	30	140
1.2	32	150
1.6	35	160
2.0	38	170
2.5	40	180
3.0	42	190
4.0	45	200
5.0	50	220
6.0	54	250
8.0	55	280
10	60	300
12	65	320
	70	

Table 2 Preferred Wall Thicknesses for Tubular Metal Products Other Than Pipe (in millimeters)

0.050	1.4	10
0.060	1.5	11
0.080	1.6	12
0.01	1.8	14
0.12	2.0	16
0.16	2.2	18
0.20	2.5	20
0.25	2.8	22
0.30	3.0	25
0.40	3.5	28
0.50	4.0	30
0.60	4.5	32
0.70	5.0	35
0.80	5.5	38
0.90	6.0	40
1.0	7.0	42
1.1	8.0	45
1.2	9.0	50
		60

Note: The preferred range of wall thicknesses for square and rectangular tubular products is normally from 0.30 to 20 millimeters.

Table 3 Preferred Distances Across Flats for Square and Rectangular Tubular Metal Products (in millimeters)

10	80
12	90
16	100
20	120
25	140
30	160
35	180
40	200
45	250
50	300
60	350
70	400

Table 4 Preferred Lengths for Tubular Metal Products Other Than Pipe (in millimeters)

1 000
2 000
2 500
3 000
3 500
4 000
4 500
5 000
6 000
8 000
10 000
12 000
14 000
16 000
18 000

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