

REDETERMINATION ON REMAND  
CIRCULAR WELDED NON-ALLOY STEEL PIPE FROM MEXICO:  
SCOPE DETERMINATION - GLAVAK

In the Matter of: Final Scope Ruling - Antidumping Order on Circular Welded Non-Alloy Steel  
Pipe From Mexico,

Secretariat File No. USA-Mex-98-1904-05 (NAFTA Panel Decision, November 19, 2002)

Summary

\_\_\_\_\_ In accordance with the Panel's remand instructions in the above-referenced case, we have examined the methodology employed by the Department of Commerce ("the Department") to determine whether 'mechanical tubing' produced by Galvak to ASTM A-787 specifications is within the scope of the order. After addressing the questions posed by the NAFTA panel, and using the analysis recommended by the panel, we determine that mechanical tubing is not within the scope of the order. However, we also determine that some tubing produced by Galvak to ASTM A-787 may be within the scope of the Order. Specifically, tubing which conforms to the dimensions and characteristics of ASTM A-53 and fence tubing is included within the scope of the Order. The Department requests that the panel allow for further comment by the parties with regard to this decision.

Background

On September 24, 1991, members of the U.S. industry filed a petition for the imposition of antidumping duties on circular welded non-alloy steel pipe from Mexico. After affirmative

determinations by both the Department and the International Trade Commission (“the ITC”), the Department published an antidumping duty order (“the Order”) on November 2, 1992 (*Certain Circular Welded Non-Alloy Steel Pipe from Brazil, the Republic of Korea, Mexico, and Venezuela*, 57 FR 49453. See also *Certain Circular Welded Non-Alloy Steel Pipes and Tubes from Brazil, the Republic of Korea, Mexico, Romania, Taiwan, and Venezuela*, Inv. Nos. 731-532 through 537 (Final), USITC Pub. 2564 (Oct. 1992)(“ITC Final”) ).

On June 7, 1993, the Department initiated a scope inquiry regarding API 5L line pipe and pipe dual-certified for use as standard pipe or API 5L line pipe. On March 21, 1996, the Department issued a final scope determination stating that line pipe of a kind for oil or gas pipelines (i.e. which could reasonably be construed as intended for use as line pipe) was outside of the scope of the order (*Negative Final Determination of the Scope Inquiry on Certain Circular Welded Non-Alloy Steel Pipe from Brazil, the Republic of Korea, Mexico, and Venezuela*, 61 FR 11608).

On June 16, 1998, Galvak applied to the Department for a ruling on whether pipe and tube manufactured to the ASTM A-787 industry standard was outside of the scope of the order. As the pipe is known as ‘mechanical tubing,’ Galvak suggested in its request that the Department could issue a ruling without resorting to a full scope inquiry.

On July 8, 1998, the U.S. producers (“petitioners”) filed comments in response to this request. In their comments, petitioners argued that the merchandise in question was within the scope of the order as the intended use stated by Galvak was for a standard pipe application which was specifically mentioned in the scope. Galvak responded to petitioners’ comments on July 14, 1998.

Based on the submissions, and having examined the petition, the initial investigation, and previous determinations and scope rulings, the Department initiated a scope inquiry on July 22, 1998. On August 11, 1998, Galvak and petitioners filed comments and arguments supporting their positions. Parties submitted rebuttal comments on August 28, 1998.

On November 19, 1998, the Department issued its scope ruling (See Memorandum from Richard Weible to Joseph A Spetrini, *Final Scope Ruling - Antidumping Duty Order on Certain Circular Welded Non-Alloy Steel Pipe from Mexico; Galvak, S.A. de C.V.*). Based upon all the facts on the record, and after careful analysis, the Department concluded that Galvak's pipe and tube manufactured to meet ASTM A-787 standards is not excluded from the scope of the order. In reaching the conclusion, the Department first concluded that the language of the order was not dispositive of the issue of whether mechanical tubing manufactured to meet the ASTM A-787 standard is outside of the scope of the order. The Department decided that it was, therefore, necessary to conduct its analysis based on the Diversified Products criteria in accordance with 19 C.F.R. § 351.225(k)(2).

On December 23, 1998, the petitioners filed a request for panel review under Rules 33 and 34 of the NAFTA Article 1904 Panel Rules.

In accordance with the provisions of Rule 39 of the NAFTA Article 1904 Panel Rules, Galvak filed a complaint on January 21, 1999, alleging various errors of fact and/or law. Under Rule 57 of the NAFTA Article 1904 Panel Rules, Galvak filed its brief on April 26, 1999, petitioners and the Department filed briefs on July 26, 1999, and Galvak filed rebuttal briefs on August 10, 1999.

A public hearing was held on June 7, 2002, in Washington, D.C., at which oral arguments

were presented by the parties.

### Analysis and Redetermination

The NAFTA panel, in finding that the Department failed to take into account the exclusionary nature of the pertinent language in the Order regarding mechanical tubing, remanded the Department's decision on the scope clarification request by Galvak with two requests. The first is to "re-evaluate whether the Order applies to Galvak's mechanical tubing, giving appropriate weight to the fact that the language of the Order on its face excludes all mechanical tubing." The second requires that the Department explain "if necessary, why the line pipe determination's conclusion that the exclusionary clause is based on industry classification and not actual end use should not be employed in the instant scope determination."

The Order in question in this proceeding presents a number of problems, and the Department has worked diligently to examine all of the facts and to take into account the instructions of the panel. Subsequent to the panel's determination and remand, the Department solicited comments from all of the parties involved. In addition, Department officials met with representatives of both sides to elaborate on the comments previously submitted. The Department believes that the Order in question presents somewhat unique issues with regard to scope, and how the Department should determine what is and is not included within the scope of the Order. As a result, our current determination is based on the best information that we have at this time. We encourage the panel to provide parties an opportunity to comment on this remand prior to making its final decision. We hope that the presentation of the facts, including the difficulties involved, will encourage the panel to solicit comments.

The problems begin with the nature of the product. To begin, it is worth noting that the scope of any antidumping duty order may not be immediately clear as to all of the merchandise which is covered by the order. While the written description of the merchandise intended to be covered by an order is the starting point of any scope, other items are used to clarify those products for which the written description is intended to cover. One such item is the HTS number. However, the HTS system is not perfect for the purposes of an antidumping duty order. Sometimes, the written description of merchandise covered by an order can be classified under more than one HTS number. At other times, the written description of merchandise covered under an order results in it being classified under an HTS number which also includes merchandise not covered by the order. It is the responsibility of the Department to examine all of the facts involving merchandise in question, including all of the language in a scope, to determine if a product is covered or not.

The instant scope attempts to define and clarify, beyond a simple physical description, what merchandise is and is not covered by the Order. An examination of the basic physical characteristics of the merchandise makes this clear. The merchandise in question is steel pipe, formed into a circular shape and welded. This physical description alone covers many types of steel pipe, not all of which are intended to be covered by this Order. Thus, the scope has qualifiers to the basic physical description. For example, the pipe under this Order may not be greater than 16 inches in outside diameter and there are other qualifiers such as merchandise having a variety of wall thicknesses, surface finishes, and end finishes. See *Certain Circular Welded Non-Alloy Steel Pipe from Brazil, the Republic of Korea, Mexico, and Venezuela*, 57 FR 49453 (November 2, 1992).

Since the basic physical description of the merchandise alone is insufficient to define what merchandise is and is not intended to be covered by the Order, other clarifying language was added both prior to the initiation of the investigation and subsequent to the ITC's affirmative final determination. The scope states, for example, that the merchandise intended to be covered is "generally known as standard pipes and tubes and are intended for the low pressure conveyance of water, steam, natural gas, air, and other liquid and gases in plumbing and heating systems, air conditioning units, automatic sprinkler systems, and other related uses, and generally meet ASTM A-53 specifications. Standard pipe may also be used for light load-bearing applications, such as for fence tubing, and as structural pipe tubing used for farming and support members for reconstruction or load-bearing purposes in the construction, shipbuilding, trucking, farm equipment, and related industries. Unfinished conduit pipe is also included in these orders."

Thus, the scope of the Order clearly utilizes descriptions of intended uses of pipe and tube in its definition of merchandise to be covered by the Order. In this respect, the scope of the Order is unique in comparison to other orders because the specifications generally denote an intended use. Were this language sufficient in and of itself, there would be no further need for any other clarifying language in the scope. However, this is not the case. The next paragraph states that "all carbon steel pipes and tubes within the physical description outlined above are included within the scope of this order, except line pipe, oil country tubular goods, boiler tubing, mechanical tubing, pipe and tube hollows for redraws, finished scaffolding, and finished conduit. Standard pipe that is dual or triple certified/stenciled that enters the United States as line pipe of a kind used for oil and gas pipelines is also not included in this order." Thus, the scope appears

to exclude certain types of pipe and tube according to industry classification.

Galvak, in its original brief to the Department subsequent to the initiation of the scope inquiry, attempted to formulate the premise that these industry classifications have no relation to the intended use of the merchandise. *See* Letter to the Department, August 11, 1998. If a product can be classified under a particular industry classification, this governs whether merchandise is or is not covered by the Order. Were this true in all cases, the scope of any order could simply be written without the descriptions of intended uses which are to be covered by an order. For most scopes, this is true. However, the unique nature of the Order in question dictates that the Department examine other criteria.

In fact, circular welded non-alloy steel pipe is unique in that the various industry classifications are reflections of various intended uses of the product, as are the standards established by the various industry certifying organizations (ASTM, API, *etc.*). As previously stated, the basic physical description of both subject and non-subject merchandise in this Order is the same. It is the intended use of the merchandise that governs its classification into various industry categories. As the ITC stated (ITC Final at I-7), there are six separate “end-use categories” under which pipe meeting the basic physical description can be classified. These are standard pipe, line pipe, structural pipe and tubing, mechanical tubing, pressure tubes, and oil country tubular goods. Clearly, the intended use of the pipe plays a part in determining whether or not it is subject to the order.

As previously stated, in a perfect world it would be easy to define the differences between each industry classification, and there would be no overlap between them. This is not the case here. The ITC stated, and Galvak has agreed, that there is indeed overlap in use between the

various industry classifications (See ITC Final at 16 and see Letter to the Department, Rebuttal Brief, August 28, 1998). Therefore, given that there are specific intended uses listed as being covered by the order, and since the various industry classifications are based upon sometimes overlapping intended end uses, it was not unreasonable for the Department, in its original determination, to examine other criteria to determine if merchandise is covered by the scope of the Order, regardless of its industry classification. Of course, the industry classification may, in and of itself, be sufficient to determine whether merchandise is excluded from this, or any other, order. The Department must examine each classification to determine if such an exclusion is truly merited.

This approach is consistent with that taken by the Department in its line pipe scope determination. As the Department stated in that determination, “line pipe” is tied to a particular HTS number (*Negative Final Determination of the Scope Inquiry on Certain Circular Welded Non-Alloy Steel Pipe from Brazil, the Republic of Korea, Mexico, and Venezuela*, 61 FR 11608). Specifically, line pipe is classified under HTS subheading 7306.10.10. However, the ‘intended use’ of pipe has a significant bearing on whether it is classified under that heading. As the Department’s scope ruling stated, line pipe *of a type used for oil or gas pipelines* is not included in the order. However, it should be obvious that pipe otherwise meeting the line pipe specification, but not of a type used for oil or gas pipelines, is not included in the exemption. Such pipe would not be classified under HTS 7306.10.10, and would not be excluded from the Order. Thus, intended and/or expected use (or, chief or principal use, as stated in the determination) plays a significant part in both the HTS and industry classification of line pipe, and whether it is included in the order for standard pipe.

Galvak, in its August 11, 1998 submission, at pages 13-14, references a separate scope decision by the Department which also involves line pipe and also supports the contention that a combination of intended use, physical characteristics, and HTS classification are considered when determining whether merchandise should be classified as line pipe and thus excluded from the Order. In the Department's *Final Affirmative Scope Ruling - Antidumping Duty Order on Circular Welded Non-Alloy Steel Pipe from Mexico (A-201-805); Cierra Pipe, Inc.* (July 17, 1998), ("Cierra"), the Department determined that certain pipe which had many of the physical characteristics of line pipe nevertheless was properly classified as standard pipe and subject to the order. The relevant text is as follows:

"In reaching its final determination for the *1996 Scope Clarification*, the Department found that the language of the petitions underlying the orders at issue did not address line (and dual certified) pipe. 61 FR 11608 at 11609 (citing scope description at page 4 of Antidumping Petition, September 24, 1991). In addition, the Department noted that the final scope language adopted by the Department excludes line (and dual certified) pipe. 61 FR 11608 at 11610. In the *1996 Scope Clarification*, the Department indicated that any pipe entered under the Harmonized Tariff Schedule ("HTS") item heading for line pipe, HTS item 7306.10.10, would be line pipe excluded from the scope. In the *1996 Scope Clarification*, the Department discussed the significance of the Tariff classification of merchandise for purposes of the line pipe exclusion as well as the exclusion for pipe certified as both line and standard pipe, strongly suggesting that the inclusion or exclusion of line pipe is tied to the HTS category."

"In addition to placing substantial weight on the issue of the HTS classification, the Department's 1996 determination emphasized the significance of the physical characteristics of a product in question for purposes of determining whether it is covered by the scope. As indicated by the Department, the scope language specifically excludes certain types of pipe that fit the physical description -- including line pipe, oil country tubular goods, pipe and tube hollows for redraws, finished scaffolding, and finished conduit -- based upon the classification of the merchandise. *1996 Scope Clarification*, 61 FR 11608 at 11611."

"Cierra bases much of its case on the argument that the physical characteristics of

the pipe, and not the end use, are the primary factors for determining whether its pipe is within the scope of the order. Cierra believes that, since the pipe in question was originally manufactured to API specifications for line pipe, and still meets certain tests for API line pipe, it qualifies as line pipe and is outside of the scope. In fact, as the *1996 Scope Clarification* makes clear, the Department used two factors when determining the scope of the original investigation. Both physical characteristics *and the classification of merchandise as it passed through U.S. Customs* were the determining factors. (61 FR at 11611)(emphasis added). Thus, pipe which “enters the U.S. as line pipe” is not subject to the standard pipe order if it is classified as ‘line pipe of a kind used for oil and gas pipelines’.”

“The March 1996 scope ruling strongly suggests that the exception for line pipe occurs only when it is classified under HTS item number 7306.10.10 (i.e. has a chief, or principal, use as pipe of a kind for oil or gas pipelines). It is important to note that Cierra itself has indicated that Customs has determined that Cierra’s limited service pipe is not classifiable under HTS item number 7306.10.10, which is the classification covering line pipe of a kind use for oil or gas pipelines.”

“Because Cierra’s limited service pipe entered under HTS item 7306.30, it does not fall within the *1996 Scope Clarification*, declaring merchandise entered under HTS item number 7306.10.10 as within the exclusion for line pipe. However, neither the plain language of the scope, prior ITC determinations, nor the *1996 Scope Clarification* definitively states whether merchandise not entered under HTS item 7306.10.10 can fall within the exclusion for line pipe.”

See Cierra at pages 6-7.

The Department turned to the *Diversified* criteria to clarify whether the merchandise in question was subject to the order. Examining the physical characteristics and ultimate use, as well as channels of trade, the Department concluded that the merchandise in question was included in the order. *Cierra* at pages 8 - 12. Thus, both the *1996 Scope Determination*, as well as the *Cierra Scope Determination*, indicate that the Department must consider a combination of factors, such as physical characteristics, intended or principal use, and HTS classification, in determining whether merchandise is covered by the order.

The Department's decision with regard to Galvak's request was consistent with its decisions in both the *1996 Scope Determination*, as well as the *Cierra Scope Determination*, in that the Department examined a combination of physical characteristics, intended or principal uses, and HTS classifications, in reaching its determination. However, an important difference is that mechanical tubing does not have its own separate HTS item number classifications. In fact, both standard and mechanical pipes and tube are classified under many of the same HTS numbers. Thus, consideration of physical characteristics and intended uses, as well as industry classification, was important to the Department's original determination.

Returning to the scope of the present order, and in keeping with the directives of the panel, the Department is faced with what appears to be plain language that 'mechanical tubing' is excluded from the order. However, other portions of the scope clearly indicate that certain pipes and tube, which are intended to be used in certain standard pipe applications, are included within the scope of the order. The basic physical descriptions and characteristics of certain mechanical tubing and standard pipe, as listed on the scope, are indistinguishable. Faced solely with the scope of the order, it is possible that 'mechanical tubing' could be used in an application which is intended to be covered by the order as described by the language in the first paragraph. This possible contradiction means that the Department must examine other documents and proceedings in order to determine if this exclusion is comprehensive or if there is an exception to the order's exclusionary language, and to determine exactly what is excluded.

In examining the *1996 Scope Determination*, it is clear that the exclusion for line pipe is based, to some extent, on intended and/or expected or principal use. This methodology was affirmed by the *Cierra Scope Determination*. Unlike line pipe, which is classified under its own

HTS item number, both mechanical tubing and standard pipe can be classified under many of the same HTS item numbers. It is, therefore, appropriate to examine the history of the original investigation and of the ITC's determination in this case.

### ITC Determination

In the original scope of the investigation, the language indicating covered and excluded merchandise was different. As stated in the ITC report, the first paragraph of the scope included the following sentence: "These pipes and tubes are generally known as standard pipe, though they may also be called structural or mechanical tubing in certain applications." In addition, the exclusion language in the second paragraph had a more narrow definition of mechanical tubing that was excluded. The language stated that 'cold-drawn or cold-rolled' mechanical tubing was excluded from the order. ITC Final at 6, 7. Thus, in the original scope of the investigation, mechanical tubing used 'in certain applications' was clearly included, while only 'cold-drawn or cold-rolled' mechanical tubing was specifically excluded. The change in the language for the final scope of the Order is substantial as it concerns mechanical tubing. The change raises two issues. First, was the ITC's change of the scope language intended to eliminate all mechanical tubing from the possibility of being considered as covered by the Order? Second, what is the precise definition of mechanical tubing?

In its final report, the ITC states that

"most products subject to these investigations are included in the category of products known in the industry as 'standard' pipes and tubes; they are intended for the low-pressure conveyance of water, steam, natural gas, air, and other liquids and gases in plumbing and heating systems, air-conditioning units, automatic sprinkler systems, and other related uses. . . . Subject products may also be used for light load-bearing

applications, such as for fence tubing. In addition, the products subject to these investigations include mechanical and structural pipes and tubes that are used in standard pipe applications as well as all carbon pipes and tubes meeting the above physical specifications except line pipe, OCTG, boiler tubing, cold-drawn or cold-rolled mechanical tubing, pipe and tube hollows for redraws, finished scaffolding, and finished rigid conduit.”

ITC Final at I-8. It is thus evident that some type of mechanical tubing, namely that used in standard pipe applications, was subject to the investigation.

At the request of petitioners, the ITC’s determination found that certain types of mechanical tubing were separate like products from standard and structural pipes and tubes. ITC Final at 15-17. Note 49 indicates that “the majority of domestically-produced mechanical tubing is either cold-drawn or cold-rolled. No party has argued that these types of mechanical tubing, which are not included in the scope of the investigation, should be included in a like product consisting of mechanical tubing.” Thus, when it discussed mechanical tubing in its like product analysis, the ITC specifically excluded these cold-rolled and cold-drawn mechanical tubes. The ITC goes on to note in its analysis that “standard and structural pipe and mechanical tubing generally are not interchangeable, except in certain limited structural applications.” Note 52 of the report states that the differences between mechanical and standard pipes and tubes was based upon mechanical tubings’s distinct characteristics and uses, such as automotive applications, exercise equipment, and furniture frames, among others. ITC Final at 16. Therefore, except for a narrow overlap of applications, the ITC separated the two products based upon intended use and product characteristics.

The ITC notes that standard pipe is generally produced to an industry specification, while mechanical tubing is produced to customer specifications which are non-standard. Thus, it is

apparent that most (if not all) types of mechanical tubing are excluded from the Order. The basis for this is either production process (cold-rolled or cold-drawn) or intended use and non-standard product characteristics which are different from those of standard pipe.

The remaining question is the definition of mechanical tubing. As the NAFTA panel stated, “the Department may interpret the term “mechanical tubing” - which is not expressly defined in the Order - but must do so starting from the proposition that “mechanical tubing” is generally excluded from the Order.” See NAFTA Panel Decision, November 19, 2002, at 18. The Department believes that an examination of the record in the ITC proceeding provides the answer. In Petitioners’ post-hearing response to the Commission’s questions, the petitioners stated:

“Hot-rolled mechanical tubing and standard pipe (1) have differing physical characteristics, (2) have different uses, (3) are not interchangeable, (4) are sold through different channels of distribution, (5) are perceived by customers and producers as separate products in different markets, and (6) are generally produced in different manufacturing facilities.”

“The only thing that mechanical tubing and standard pipe have in common is the fact that both products are circular in cross-section and are produced on ERW or CW mills from hot-rolled non-alloy steel skelp. In fact, all circular welded non-alloy steel pipes and tubes, including boiler tubing, pressure tubing, line pipe, and oil country tubular goods, share these characteristics. Yet the Commission has consistently found these other tubular products not to be like products to standard pipe and has differentiated among all of these products despite these few common characteristics. Obviously, these few common characteristics are not significant in determining the definition of the various welded pipe industries.”

**“A. Standard Pipe and Mechanical Tubing Have Different Physical Characteristics and Uses**

Standard pipe and hot-rolled mechanical tubing have different physical characteristics. Hot-rolled mechanical tubing covers a variety of essentially custom designed and engineered products. Yield strengths, tensile strengths, bendability, wall thickness and diameters are individually designed to meet the customer’s specific need. Tolerances for

differences in physical characteristics are generally tight. Mechanical tubing is produced using a very wide variety of steel grades in order to achieve the particular physical qualities desired by the customer. Because mechanical tubing is further manufactured by the customer or used on other further manufactured merchandise, it must be produced to exact specifications. Often this requires special finishing by the pipe mill, such as scoring or cross-hatching the finish.”

“Standard pipe, in contrast, is a commodity product produced to general industry wide specifications for a wide variety of end-uses. It is produced using standard grades of steel to common wall thicknesses and diameters. It is not generally produced to be used in the further manufacture of other products requiring close tolerances.”

**“B. Standard Pipe and Mechanical Tubing are not Interchangeable.**

Standard pipe and hot-rolled mechanical tubing are not interchangeable products. As noted, mechanical tubing is custom engineered to fit a particular use designated by the customer. A general purpose standard pipe, or for that matter another mechanical tubing product, would not meet the specification. There are some industry guidelines for mechanical tubing, such as ASTM-A-513, but these guidelines provide a wide degree of size, characteristic and chemistry options, unlike the A-53 standard pipe specification, for example, which provides specific characteristics. The mechanical tubing specifications generally serve as a starting point for a particular customer’s order, whereas the standard pipe specifications are a statement of what the end product should be like.”

See Petitioners’ Post-hearing Response to Commission’s Questions, Investigation Nos. 731-TA-531 through 537 (Final), September 24, 1992, at 14-16. Significantly, the ITC substantially adopted this definition of mechanical tubing in its report. ITC Final at 16.

Thus, it is clear that mechanical tubing, as defined by the ITC as a like product, is tubing produced to customer specifications which are different than the general industry-wide specifications used for standard pipe. Given the evidence on the record, the Department believes it is clear that pipe and tubing produced to the standard pipe specifications and not otherwise claimed to fall into an excluded category (such as line pipe), cannot be considered mechanical tubing. The record indicates that standard pipe and mechanical tubing are different products, as

explained below. Mechanical tubing is custom designed to meet a customer's specific needs, and manufactured to non-standard specifications. While it is possible that such mechanical tubing *could* be used in certain limited standard pipe applications, its custom design and non-standard specifications are what set it apart from standard pipe. These differences are driven by the intended uses of the product, which in turn drive the industry classification of that product.

Naturally, any tubing which is manufactured to a standard pipe specification (*i.e.* ASTM-A-53) is not mechanical tubing. As the ITC noted, the industry guidelines for mechanical tubing provide a wide degree of options with respect to size and other characteristics. See ITC Final at 16, Note 51. Thus, it is possible that certain pipe manufactured to ASTM A-53 or A-500 standards could also be classified under ASTM A-787, a mechanical tubing standard. However, unlike line pipe that is dual-stenciled, the Order does not foresee pipe which could be dual-stenciled as A-53 and A-787 to be both standard and mechanical tubing. On the contrary, the ITC's determination indicates a clear separation between standard pipe and mechanical tubing. Thus, the Department determines that mechanical tubing can be manufactured to ASTM A-787 standards, whose specifications and physical characteristics generally will not be recognized as standard pipe. However, if the material is manufactured to standard pipe specifications, and has standard pipe characteristics such as a standard pipe diameter, wall thickness, *etc.*, regardless of whether it is stenciled as ASTM-A-787 or dual-stenciled, the material is standard pipe.

This finding is consistent with the line pipe determination. As with that determination, the Department has considered intended use as one of the criteria for its decision. However, the actual decision is based upon industry classification and standards. The Department believes that mechanical tubing can be separated from standard pipe by its physical characteristics (*i.e.*

standard diameters, wall thicknesses, *etc.*), in that those tubes which are not made to standard pipe physical specifications are mechanical tubing. While this division is not based upon HTS number, its basis is in the ASTM standards for standard and structural pipe, and thus can be quantified.

Based on our review, the Department determines that mechanical tubing, as defined above, is not within the scope of the Order. However, based upon the evidence on the record, the Department cannot determine whether Galvak's galvanized pipe, manufactured to ASTM A-787 specifications, is in fact mechanical tubing or standard pipe. We are enclosing the specifications for standard pipe which cannot be considered mechanical tubing. If Galvak's merchandise is manufactured to these standards, it is in-scope merchandise and covered by this Order.

If the Panel affirms this redetermination, we will publish a notice in the Federal Register.

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Joseph A. Spetrini  
Acting Assistant Secretary  
for Import Administration

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(Date)

**A 53/A 53M**

**TABLE X2.2 Dimensions, Weights, and Test Pressures for Plain End Pipe**

NPS Designator	DN Designator	Outside Diameter, in. [mm]	Nominal Wall Thickness, in. [mm]	Nominal Weight [Mass] per Unit Length, Plain End, lb/ft [kg/m]	Weight Class	Schedule No.	Test Pressure, <sup>A</sup> psi [kPa]	
							Grade A	Grade B
1/8	6	0.405 [10.3]	0.068 [1.73]	0.24 [0.37]	STD	40	700 [4800]	700 [4800]
			0.095 [2.41]	0.31 [0.47]	XS	80	850 [5900]	850 [5900]
1/4	8	0.540 [13.7]	0.088 [2.24]	0.43 [0.63]	STD	40	700 [4800]	700 [4800]
			0.119 [3.02]	0.54 [0.80]	XS	80	850 [5900]	850 [5900]
3/8	10	0.675 [17.1]	0.091 [2.31]	0.57 [0.84]	STD	40	700 [4800]	700 [4800]
			0.126 [3.20]	0.74 [1.10]	XS	80	850 [5900]	850 [5900]
1/2	15	0.840 [21.3]	0.109 [2.77]	0.85 [1.27]	STD	40	700 [4800]	700 [4800]
			0.147 [3.73]	1.09 [1.62]	XS	80	850 [5900]	850 [5900]
			0.188 [4.78]	1.31 [1.95]	...	160	900 [6200]	900 [6200]
			0.294 [7.47]	1.72 [2.55]	XXS	...	1000 [6900]	1000 [6900]
3/4	20	1.050 [26.7]	0.113 [2.87]	1.13 [1.69]	STD	40	700 [4800]	700 [4800]
			0.154 [3.91]	1.48 [2.20]	XS	80	850 [5900]	850 [5900]
			0.219 [5.56]	1.95 [2.90]	...	160	950 [6500]	950 [6500]
			0.308 [7.82]	2.44 [3.64]	XXS	...	1000 [6900]	1000 [6900]
1	25	1.315 [33.4]	0.133 [3.38]	1.68 [2.50]	STD	40	700 [4800]	700 [4800]
			0.179 [4.55]	2.17 [3.24]	XS	80	850 [5900]	850 [5900]
			0.250 [6.35]	2.85 [4.24]	...	160	950 [6500]	950 [6500]
			0.358 [9.09]	3.66 [5.45]	XXS	...	1000 [6900]	1000 [6900]
1 1/4	32	1.660 [42.2]	0.140 [3.56]	2.27 [3.39]	STD	40	1200 [8300]	1300 [9000]
			0.191 [4.85]	3.00 [4.47]	XS	80	1800 [12 400]	1900 [13 100]
			0.250 [6.35]	3.77 [5.61]	...	160	1900 [13 100]	2000 [13 800]
			0.382 [9.70]	5.22 [7.77]	XXS	...	2200 [15 200]	2300 [15 900]
1 1/2	40	1.900 [48.3]	0.145 [3.68]	2.72 [4.05]	STD	40	1200 [8300]	1300 [9000]
			0.200 [5.08]	3.63 [5.41]	XS	80	1800 [12 400]	1900 [13 100]
			0.281 [7.14]	4.86 [7.25]	...	160	1950 [13 400]	2050 [14 100]
			0.400 [10.16]	6.41 [9.56]	XXS	...	2200 [15 200]	2300 [15 900]
2	50	2.375 [60.3]	0.154 [3.91]	3.66 [5.44]	STD	40	2300 [15 900]	2500 [17 200]
			0.218 [5.54]	5.03 [7.48]	XS	80	2500 [17 200]	2500 [17 200]
			0.344 [8.74]	7.47 [11.11]	...	160	2500 [17 200]	2500 [17 200]
			0.436 [11.07]	9.04 [13.44]	XXS	...	2500 [17 200]	2500 [17 200]
2 1/2	65	2.875 [73.0]	0.203 [5.16]	5.80 [8.63]	STD	40	2500 [17 200]	2500 [17 200]
			0.276 [7.01]	7.67 [11.41]	XS	80	2500 [17 200]	2500 [17 200]
			0.375 [9.52]	10.02 [14.90]	...	160	2500 [17 200]	2500 [17 200]
			0.552 [14.02]	13.71 [20.39]	XXS	...	2500 [17 200]	2500 [17 200]
3	80	3.500 [88.9]	0.125 [3.18]	4.51 [6.72]	...	...	1290 [8900]	1500 [10000]
			0.156 [3.96]	5.58 [8.29]	...	...	1600 [11 000]	1870 [12 900]
			0.188 [4.78]	6.66 [9.92]	...	...	1930 [13 330]	2260 [15 600]
			0.216 [5.49]	7.58 [11.29]	STD	40	2220 [15 300]	2500 [17 200]
			0.250 [6.35]	8.69 [12.93]	...	...	2500 [17 200]	2500 [17 200]
			0.281 [7.14]	9.67 [14.40]	...	...	2500 [17 200]	2500 [17 200]
			0.300 [7.62]	10.26 [15.27]	XS	80	2500 [17 200]	2500 [17 200]
			0.438 [11.13]	14.34 [21.35]	...	160	2500 [17 200]	2500 [17 200]
			0.600 [15.24]	18.60 [27.68]	XXS	...	2500 [17 200]	2500 [17 200]
			3 1/2	90	4.000 [101.6]	0.125 [3.18]	5.18 [7.72]	...
0.156 [3.96]	6.41 [9.53]	...				...	1400 [6700]	1640 [11 300]
0.188 [4.78]	7.66 [11.41]	...				...	1690 [11 700]	1970 [13 600]
0.226 [5.74]	9.12 [13.57]	STD				40	2030 [14 000]	2370 [16 300]
0.250 [6.35]	10.02 [14.92]	...				...	2250 [15 500]	2500 [17 200]
0.281 [7.14]	11.17 [16.63]	...				...	2500 [17 200]	2500 [17 200]
0.318 [8.08]	12.52 [18.63]	XS				80	2800 [19 300]	2800 [19 300]
4	100	4.500 [114.3]				0.125 [3.18]	5.85 [8.71]	...
			0.156 [3.96]	7.24 [10.78]	...	...	1250 [8600]	1460 [10 100]
			0.188 [4.78]	8.67 [12.91]	...	...	1500 [10 300]	1750 [12 100]
			0.219 [5.56]	10.02 [14.91]	...	...	1750 [12 100]	2040 [14 100]
			0.237 [6.02]	10.80 [16.07]	STD	40	1900 [13 100]	2210 [15 200]
			0.250 [6.35]	11.36 [16.90]	...	...	2000 [13 800]	2330 [16 100]
			0.281 [7.14]	12.67 [18.87]	...	...	2250 [15 100]	2620 [18 100]
			0.312 [7.92]	13.97 [20.78]	...	...	2500 [17 200]	2800 [19 300]

**A 53/A 53M**

**TABLE X2.2** *Continued*

NPS Designator	DN Designator	Outside Diameter, in. [mm]	Nominal Wall Thickness, in. [mm]	Nominal Weight [Mass] per Unit Length, Plain End, lb/ft [kg/m]	Weight Class	Schedule No.	Test Pressure, <sup>A</sup> psi [kPa]	
							Grade A	Grade B
			0.337 [8.56]	15.00 [22.32]	XS	80	2700 [18 600]	2800 [19 300]
			0.438 [11.13]	19.02 [28.32]	...	120	2800 [19 300]	2800 [19 300]
			0.531 [13.49]	22.53 [33.54]	...	160	2800 [19 300]	2800 [19 300]
			0.674 [17.12]	27.57 [41.03]	XXS	...	2800 [19 300]	2800 [19 300]
5	125	5.563 [141.3]	0.156 [3.96]	9.02 [13.41]	...	...	1010 [7000]	1180 [8100]
			0.188 [4.78]	10.80 [16.09]	...	...	1220 [8400]	1420 [9800]
			0.219 [5.56]	12.51 [18.61]	...	...	1420 [9800]	1650 [11 400]
			0.258 [6.55]	14.63 [21.77]	STD	40	1670 [11 500]	1950 [13 400]
			0.281 [7.14]	15.87 [23.62]	...	...	1820 [12 500]	2120 [14 600]
			0.312 [7.92]	17.51 [26.05]	...	...	2020 [13 900]	2360 [16 300]
			0.344 [8.74]	19.19 [28.57]	...	...	2230 [15 400]	2600 [17 900]
			0.375 [9.52]	20.80 [30.94]	XS	80	2430 [16 800]	2800 [19 300]
			0.500 [12.70]	27.06 [40.28]	...	120	2800 [19 300]	2800 [19 300]
			0.625 [15.88]	32.99 [49.11]	...	160	2800 [19 300]	2800 [19 300]
			0.750 [19.05]	38.59 [57.43]	XXS	...	2800 [19 300]	2800 [19 300]
			6	150	6.625 [168.3]	0.188 [4.78]	12.94 [19.27]	...
0.219 [5.56]	15.00 [22.31]	...				...	1190 [8200]	1390 [9600]
0.250 [6.35]	17.04 [25.36]	...				...	1360 [9400]	1580 [10 900]
0.280 [7.11]	18.99 [28.26]	STD				40	1520 [10 500]	1780 [12 300]
0.312 [7.92]	21.06 [31.32]	...				...	1700 [11 700]	1980 [13 700]
0.344 [8.74]	23.10 [34.39]	...				...	1870 [12 900]	2180 [15 000]
0.375 [9.52]	25.05 [37.28]	...				...	2040 [14 100]	2380 [16 400]
0.432 [10.97]	28.60 [42.56]	XS				80	2350 [16 200]	2740 [18 900]
0.562 [14.27]	36.43 [54.20]	...				120	2800 [19 300]	2800 [19 300]
0.719 [18.26]	45.39 [67.56]	...				160	2800 [19 300]	2800 [19 300]
0.864 [21.95]	53.21 [79.22]	XXS				...	2800 [19 300]	2800 [19 300]
8	200	8.625 [219.1]				0.188 [4.78]	16.96 [25.26]	...
			0.203 [5.16]	18.28 [27.22]	...	...	850 [5900]	1000 [6900]
			0.219 [5.56]	19.68 [29.28]	...	...	910 [6300]	1070 [7400]
			0.250 [6.35]	22.38 [33.31]	...	20	1040 [7200]	1220 [8400]
			0.277 [7.04]	24.72 [36.31]	...	30	1160 [7800]	1350 [9300]
			0.312 [7.92]	27.73 [41.24]	...	...	1300 [9000]	1520 [10 500]
			0.322 [8.18]	28.58 [42.55]	STD	40	1340 [9200]	1570 [10 800]
			0.344 [8.74]	30.45 [45.34]	...	...	1440 [9900]	1680 [11 600]
			0.375 [9.52]	33.07 [49.20]	...	...	1570 [10 800]	1830 [12 600]
			0.406 [10.31]	35.67 [53.08]	...	60	1700 [11 700]	2000 [13 800]
			0.438 [11.13]	38.33 [57.08]	...	...	1830 [12 600]	2130 [14 700]
			0.500 [12.70]	43.43 [64.64]	XS	80	2090 [14 400]	2430 [16 800]
			0.594 [15.09]	51.00 [75.92]	...	100	2500 [17 200]	2800 [19 300]
			0.719 [18.26]	60.77 [90.44]	...	120	2800 [19 300]	2800 [19 300]
			0.812 [20.62]	67.82 [100.92]	...	140	2800 [19 300]	2800 [19 300]
			0.875 [22.22]	72.49 [107.88]	XXS	...	2800 [19 300]	2800 [19 300]
0.906 [23.01]	74.76 [111.27]	...	160	2800 [19 300]	2800 [19 300]			
10	250	10.750 [273.0]	0.188 [4.78]	21.23 [31.62]	...	...	630 [4300]	730 [5000]
			0.203 [5.16]	22.89 [34.08]	...	...	680 [4700]	800 [5500]
			0.219 [5.56]	24.65 [36.67]	...	...	730 [5000]	860 [5900]
			0.250 [6.35]	28.06 [41.75]	...	20	840 [5800]	980 [6800]
			0.279 [7.09]	31.23 [46.49]	...	...	930 [6400]	1090 [7500]
			0.307 [7.80]	34.27 [51.01]	...	30	1030 [7100]	1200 [8300]
			0.344 [8.74]	38.27 [56.96]	...	...	1150 [7900]	1340 [9200]
			0.365 [9.27]	40.52 [60.29]	STD	40	1220 [8400]	1430 [9900]
			0.438 [11.13]	48.28 [71.87]	...	...	1470 [10 100]	1710 [11 800]
			0.500 [12.70]	54.79 [81.52]	XS	60	1670 [11 500]	1950 [13 400]
			0.594 [15.09]	64.49 [95.97]	...	80	1990 [13 700]	2320 [16 000]
			0.719 [18.26]	77.10 [114.70]	...	100	2410 [16 600]	2800 [19 300]
			0.844 [21.44]	89.38 [133.00]	...	120	2800 [19 300]	2800 [19 300]
			1.000 [25.40]	104.23 [155.09]	XXS	140	2800 [19 300]	2800 [19 300]
1.125 [28.57]	115.75 [172.21]	...	160	2800 [19 300]	2800 [19 300]			
12	300	12.750 [323.8]	0.203 [5.16]	27.23 [40.55]	...	...	570 [3900]	670 [4600]
			0.219 [5.56]	29.34 [43.63]	...	...	620 [4300]	720 [5000]
			0.250 [6.35]	33.41 [49.71]	...	20	710 [4900]	820 [5700]
			0.281 [7.14]	37.46 [55.75]	...	...	790 [5400]	930 [6400]
			0.312 [7.92]	41.48 [61.69]	...	...	880 [6100]	1030 [7100]
			0.330 [8.38]	43.81 [65.18]	...	30	930 [6400]	1090 [7500]
			0.344 [8.74]	45.62 [67.90]	...	...	970 [6700]	1130 [7800]
			0.375 [9.52]	49.61 [73.78]	STD	...	1060 [7300]	1240 [8500]

 A 53/A 53M

TABLE X2.2 Continued

NPS Designator	DN Designator	Outside Diameter, in. [mm]	Nominal Wall Thickness, in. [mm]	Nominal Weight [Mass] per Unit Length, Plain End, lb/ft [kg/m]	Weight Class	Schedule No.	Test Pressure, <sup>A</sup> psi [kPa]	
							Grade A	Grade B
			0.406 [10.31]	53.57 [79.70]	...	40	1150 [7900]	1340 [9200]
			0.438 [11.13]	57.65 [85.82]	...	...	1240 [8500]	1440 [9900]
			0.500 [12.70]	65.48 [97.43]	XS	...	1410 [9700]	1650 [11 400]
			0.562 [14.27]	73.22 [108.92]	...	60	1590 [11 000]	1850 [12 800]
			0.688 [17.48]	88.71 [132.04]	...	80	1940 [13 400]	2270 [15 700]
			0.844 [21.44]	107.42 [159.86]	...	100	2390 [16 500]	2780 [19 200]
			1.000 [25.40]	125.61 [186.91]	XXS	120	2800 [19 300]	2800 [19 300]
			1.125 [28.57]	139.81 [208.00]	...	140	2800 [19 300]	2800 [19 300]
			1.312 [33.32]	160.42 [238.68]	...	160	2800 [19 300]	2800 [19 300]
14	350	14.000 [355.6]	0.210 [5.33]	30.96 [46.04]	...	...	540 [3700]	630 [4300]
			0.219 [5.56]	32.26 [47.99]	...	...	560 [3900]	660 [4500]
			0.250 [6.35]	36.75 [54.69]	...	10	640 [4400]	750 [5200]
			0.281 [7.14]	41.21 [61.35]	...	...	720 [5000]	840 [5800]
			0.312 [7.92]	45.65 [67.90]	...	20	800 [5500]	940 [6500]
			0.344 [8.74]	50.22 [74.76]	...	...	880 [6100]	1030 [7100]
			0.375 [9.52]	54.62 [81.25]	STD	30	960 [6600]	1120 [7700]
			0.438 [11.13]	63.50 [94.55]	...	40	1130 [7800]	1310 [9000]
			0.469 [11.91]	67.84 [100.94]	...	...	1210 [8300]	1410 [9700]
			0.500 [12.70]	72.16 [107.39]	XS	...	1290 [8900]	1500 [10 300]
			0.594 [15.09]	85.13 [126.71]	...	60	1530 [10 500]	1790 [12 300]
			0.750 [19.05]	106.23 [158.10]	...	80	1930 [13 300]	2250 [15 500]
			0.938 [23.83]	130.98 [194.96]	...	100	2410 [16 600]	2800 [19 300]
			1.094 [27.79]	150.93 [224.65]	...	120	2800 [19 300]	2800 [19 300]
			1.250 [31.75]	170.37 [253.56]	...	140	2800 [19 300]	2800 [19 300]
			1.406 [35.71]	189.29 [281.70]	...	160	2800 [19 300]	2800 [19 300]
			2.000 [50.80]	256.56 [381.83]	...	...	2800 [19 300]	2800 [19 300]
			2.125 [53.97]	269.76 [401.44]	...	...	2800 [19 300]	2800 [19 300]
			2.200 [55.88]	277.51 [413.01]	...	...	2800 [19 300]	2800 [19 300]
			2.500 [63.50]	307.34 [457.40]	...	...	2800 [19 300]	2800 [19 300]
16	400	16.000 [406.4]	0.219 [5.56]	36.95 [54.96]	...	...	490 [3400]	570 [3900]
			0.250 [6.35]	42.09 [62.64]	...	10	560 [3900]	660 [4500]
			0.281 [7.14]	47.22 [70.30]	...	...	630 [4300]	740 [5100]
			0.312 [7.92]	52.32 [77.83]	...	20	700 [4800]	820 [5700]
			0.344 [8.74]	57.57 [85.71]	...	...	770 [5300]	900 [6200]
			0.375 [9.52]	62.64 [93.17]	STD	30	840 [5800]	980 [6800]
			0.438 [11.13]	72.86 [108.49]	...	...	990 [6800]	1150 [7900]
			0.469 [11.91]	77.87 [115.86]	...	...	1060 [7300]	1230 [8500]
			0.500 [12.70]	82.85 [123.30]	XS	40	1120 [7700]	1310 [9000]
			0.656 [16.66]	107.60 [160.12]	...	60	1480 [10 200]	1720 [11 900]
			0.844 [21.44]	136.74 [203.53]	...	80	1900 [13 100]	2220 [15 300]
			1.031 [26.19]	164.98 [245.56]	...	100	2320 [16 000]	2710 [18 700]
			1.219 [30.96]	192.61 [286.64]	...	120	2740 [18 900]	2800 [19 300]
			1.438 [36.53]	223.85 [333.19]	...	140	2800 [19 300]	2800 [19 300]
			1.594 [40.49]	245.48 [365.35]	...	160	2800 [19 300]	2800 [19 300]
18	450	18.000 [457]	0.250 [6.35]	47.44 [70.60]	...	10	500 [3400]	580 [4000]
			0.281 [7.14]	53.23 [79.24]	...	...	560 [3900]	660 [4500]
			0.312 [7.92]	58.99 [87.75]	...	20	620 [4300]	730 [5000]
			0.344 [8.74]	64.93 [96.66]	...	...	690 [4800]	800 [5500]
			0.375 [9.52]	70.65 [105.10]	STD	...	750 [5200]	880 [6100]
			0.406 [10.31]	76.36 [113.62]	...	...	810 [5600]	950 [6500]
			0.438 [11.13]	82.23 [122.43]	...	30	880 [6100]	1020 [7000]
			0.469 [11.91]	87.89 [130.78]	...	...	940 [6500]	1090 [7500]
			0.500 [12.70]	93.54 [139.20]	XS	...	1000 [6900]	1170 [8100]
			0.562 [14.27]	104.76 [155.87]	...	40	1120 [7700]	1310 [9000]
			0.750 [19.05]	138.30 [205.83]	...	60	1500 [10 300]	1750 [12 100]
			0.938 [23.83]	171.08 [254.67]	...	80	1880 [13 000]	2190 [15 100]
			1.156 [29.36]	208.15 [309.76]	...	100	2310 [15 900]	2700 [18 600]
			1.375 [34.92]	244.37 [363.64]	...	120	2750 [19 000]	2800 [19 300]
			1.562 [39.67]	274.48 [408.45]	...	140	2800 [19 300]	2800 [19 300]
			1.781 [45.24]	308.79 [459.59]	...	160	2800 [19 300]	2800 [19 300]
20	500	20.000 [508]	0.250 [6.35]	52.78 [78.55]	...	10	450 [3100]	520 [3600]
			0.281 [7.14]	59.23 [88.19]	...	...	510 [3500]	590 [4100]
			0.312 [7.92]	65.66 [97.67]	...	...	560 [3900]	660 [4500]
			0.344 [8.74]	72.28 [107.60]	...	...	620 [4300]	720 [5000]
			0.375 [9.52]	78.67 [117.02]	STD	20	680 [4700]	790 [5400]
			0.406 [10.31]	84.04 [126.53]	...	...	730 [5000]	850 [5900]
			0.438 [11.13]	91.59 [136.37]	...	...	790 [5400]	920 [6300]

ASME A 53/A 53M

TABLE X2.2 Continued

NPS Designator	DN Designator	Outside Diameter, in. [mm]	Nominal Wall Thickness, in. [mm]	Nominal Weight [Mass] per Unit Length, Plain End, lb/ft [kg/m]	Weight Class	Schedule No.	Test Pressure, <sup>4</sup> psi [kPa]	
							Grade A	Grade B
			0.469 [11.91]	97.92 [145.70]	...	...	850 [5900]	950 [6500]
			0.500 [12.70]	104.23 [155.12]	XS	30	900 [6200]	1050 [7200]
			0.594 [15.09]	123.23 [183.42]	...	40	1170 [8100]	1250 [8600]
			0.812 [20.62]	166.56 [247.83]	...	60	1460 [10 100]	1710 [11 800]
			1.031 [26.19]	209.06 [311.17]	...	80	1860 [12 800]	2170 [15 000]
			1.281 [32.54]	256.34 [381.53]	...	100	2310 [15 900]	2690 [18 500]
			1.500 [38.10]	296.65 [441.49]	...	120	2700 [18 600]	2800 [19 300]
			1.750 [44.45]	341.41 [508.11]	...	140	2800 [19 300]	2800 [19 300]
			1.969 [50.01]	379.53 [564.81]	...	160	2800 [19 300]	2800 [19 300]
24	600	24.000 [610]	0.250 [6.35]	63.47 [94.46]	...	10	380 [2600]	440 [3000]
			0.281 [7.14]	71.25 [106.08]	...	...	420 [2900]	490 [3400]
			0.312 [7.92]	79.01 [117.51]	...	...	470 [3200]	550 [3800]
			0.344 [8.74]	86.99 [129.50]	...	...	520 [3600]	600 [4100]
			0.375 [9.52]	94.71 [140.88]	STD	20	560 [3900]	660 [4500]
			0.406 [10.31]	102.40 [152.37]	...	...	610 [4200]	710 [4900]
			0.438 [11.13]	110.32 [164.26]	...	...	660 [4500]	770 [5300]
			0.469 [11.91]	117.98 [175.54]	...	...	700 [4800]	820 [5700]
			0.500 [12.70]	125.61 [186.94]	XS	...	750 [5200]	880 [6100]
			0.562 [14.27]	140.81 [209.50]	...	30	840 [5800]	980 [6800]
			0.688 [17.48]	171.45 [255.24]	...	40	1030 [7100]	1200 [8300]
			0.938 [23.83]	231.25 [344.23]	...	...	1410 [9700]	1640 [11 300]
			0.969 [24.61]	238.57 [355.02]	...	60	1450 [10 000]	1700 [11 700]
			1.219 [30.96]	296.86 [441.78]	...	80	1830 [12 600]	2130 [14 700]
			1.531 [38.89]	367.74 [547.33]	...	100	2300 [15 900]	2680 [18 500]
			1.812 [46.02]	429.79 [639.58]	...	120	2720 [18 800]	2800 [19 300]
			2.062 [52.37]	483.57 [719.63]	...	140	2800 [19 300]	2800 [19 300]
			2.344 [59.54]	542.64 [807.63]	...	160	2800 [19 300]	2800 [19 300]
26	650	26.000 [660]	0.250 [6.35]	68.82 [102.42]	...	...	350 [2400]	400 [2800]
			0.281 [7.14]	77.26 [115.02]	...	...	390 [2700]	450 [3100]
			0.312 [7.92]	85.68 [127.43]	...	10	430 [3000]	500 [3400]
			0.344 [8.74]	94.35 [140.45]	...	...	480 [3300]	560 [3900]
			0.375 [9.52]	102.72 [152.80]	STD	...	520 [3600]	610 [4200]
			0.406 [10.31]	111.08 [165.28]	...	...	560 [3900]	660 [4500]
			0.438 [11.13]	119.69 [178.20]	...	...	610 [4200]	710 [4900]
			0.469 [11.91]	128.00 [190.46]	...	...	650 [4500]	760 [5200]
			0.500 [12.70]	136.30 [202.85]	XS	20	690 [4800]	810 [5600]
			0.562 [14.27]	152.83 [227.37]	...	...	780 [5400]	910 [6300]

<sup>4</sup> The minimum test pressure for outside diameters and wall thicknesses not listed shall be computed by the formula given below. The computed test pressure shall be used in all cases with the following exceptions:

- (1) When the wall thickness is greater than the heaviest wall thickness shown for a given diameter, the test pressure for the heaviest wall listed shall be the required test pressure.
- (2) For Grades A and B in sizes under NPS 2 [DN 50] when the wall thickness is lighter than the lightest shown for a given diameter, use the test pressure given for the lightest wall thickness of the table for the diameter involved.
- (3) For all sizes of Grade A and B pipe smaller than NPS 2 [DN 50], the test pressure has been arbitrarily assigned. Test pressures for intermediate outside diameters need not exceed those for the next larger listed size.

$$P = 2S/tD$$

where:

- P = minimum hydrostatic test pressure, psi [kPa],
- S = 0.60 times the specified minimum yield strength, psi [kPa],
- t = nominal wall thickness, in. [mm], and
- D = specified outside diameter, in. [mm].

NPS Designator  
1/8  
1/4  
3/8  
1/2  
3/4  
1  
1 1/4  
1 1/2  
2  
2 1/2  
3  
3 1/2  
4  
5  
6  
8  
10  
12

 A 53/A 53M

TABLE X2.3 Dimensions, Weights, and Test Pressures for Threaded and Coupled Pipe

NPS Designator	DN Designator	Outside Diameter, in. [mm]	Nominal Wall Thickness, in. [mm]	Nominal Weight [Mass] per Unit Length, Threaded and Coupled, lb/ft [kg/m]	Weight Class	Schedule No.	Test Pressure, psi [kPa]	
							Grade A	Grade B
1/6	6	0.405 [10.3]	0.068 [1.73]	0.25 [0.37]	STD	40	700 [4800]	700 [4800]
			0.095 [2.41]	0.32 [0.46]	XS	80	850 [5900]	850 [5900]
1/4	8	0.540 [13.7]	0.088 [2.24]	0.43 [0.63]	STD	40	700 [4800]	700 [4800]
			0.119 [3.02]	0.54 [0.80]	XS	80	850 [5900]	850 [5900]
3/8	10	0.675 [17.1]	0.091 [2.31]	0.57 [0.84]	STD	40	700 [4800]	700 [4800]
			0.126 [3.20]	0.74 [1.10]	XS	80	850 [5900]	850 [5900]
1/2	15	0.840 [21.3]	0.109 [2.77]	0.86 [1.27]	STD	40	700 [4800]	700 [4800]
			0.147 [3.73]	1.09 [1.62]	XS	80	850 [5900]	850 [5900]
			0.294 [7.47]	1.72 [2.54]	XXS	...	1000 [6900]	1000 [6900]
3/4	20	1.050 [26.7]	0.113 [2.87]	1.14 [1.69]	STD	40	700 [4800]	700 [4800]
			0.154 [3.91]	1.48 [2.21]	XS	80	850 [5900]	850 [5900]
			0.308 [7.82]	2.45 [3.64]	XXS	...	1000 [6900]	1000 [6900]
1	25	1.315 [33.4]	0.133 [3.38]	1.69 [2.50]	STD	40	700 [4800]	700 [4800]
			0.179 [4.55]	2.19 [3.25]	XS	80	850 [5900]	850 [5900]
			0.358 [9.09]	3.66 [5.45]	XXS	...	1000 [6900]	1000 [6900]
1 1/4	32	1.660 [42.2]	0.140 [3.56]	2.28 [3.40]	STD	40	1000 [6900]	1100 [7600]
			0.191 [4.85]	3.03 [4.49]	XS	80	1500 [10 300]	1600 [11 000]
			0.382 [9.70]	5.23 [7.76]	XXS	...	1800 [12 400]	1900 [13 100]
1 1/2	40	1.900 [48.3]	0.145 [3.68]	2.74 [4.04]	STD	40	1000 [6900]	1100 [7600]
			0.200 [5.08]	3.65 [5.39]	XS	80	1500 [10 300]	1600 [11 000]
			0.400 [10.16]	6.41 [9.56]	XXS	...	1800 [12 400]	1900 [13 100]
2	50	2.375 [60.3]	0.154 [3.91]	3.68 [5.46]	STD	40	2300 [15 900]	2500 [17 200]
			0.218 [5.54]	5.08 [7.55]	XS	80	2500 [17 200]	2500 [17 200]
			0.436 [11.07]	9.06 [13.44]	XXS	...	2500 [17 200]	2500 [17 200]
2 1/2	65	2.875 [73.0]	0.203 [5.16]	5.85 [8.67]	STD	40	2500 [17 200]	2500 [17 200]
			0.276 [7.01]	7.75 [11.52]	XS	80	2500 [17 200]	2500 [17 200]
			0.552 [14.02]	13.72 [20.39]	XXS	...	2500 [17 200]	2500 [17 200]
3	80	3.500 [88.9]	0.216 [5.49]	7.68 [11.35]	STD	40	2200 [15 200]	2500 [17 200]
			0.300 [7.62]	10.35 [15.39]	XS	80	2500 [17 200]	2500 [17 200]
			0.600 [15.24]	18.60 [27.66]	XXS	...	2500 [17 200]	2500 [17 200]
3 1/2	90	4.000 [101.6]	0.226 [5.74]	9.27 [13.71]	STD	40	2000 [13 800]	2400 [16 500]
			0.318 [8.08]	12.67 [18.82]	XS	80	2800 [19 300]	2800 [19 300]
4	100	4.500 [114.3]	0.237 [6.02]	10.92 [16.23]	STD	40	1900 [13 100]	2200 [15 200]
			0.337 [8.56]	15.20 [22.60]	XS	80	2700 [18 600]	2800 [19 300]
			0.674 [17.12]	27.62 [41.09]	XXS	...	2800 [19 300]	2800 [19 300]
5	125	5.563 [141.3]	0.258 [6.55]	14.90 [22.07]	STD	40	1700 [11 700]	1900 [13 100]
			0.375 [9.52]	21.04 [31.42]	XS	80	2400 [16 500]	2800 [19 300]
			0.750 [19.05]	38.63 [57.53]	XXS	...	2800 [19 300]	2800 [19 300]
6	150	6.625 [168.3]	0.280 [7.11]	19.34 [28.58]	STD	40	1500 [10 300]	1800 [12 400]
			0.432 [10.97]	28.88 [43.05]	XS	80	2300 [15 900]	2700 [18 600]
			0.864 [21.95]	53.19 [79.18]	XXS	...	2800 [19 300]	2800 [19 300]
8	200	8.625 [219.1]	0.277 [7.04]	25.53 [38.07]	...	30	1200 [8300]	1300 [9000]
			0.322 [8.18]	29.35 [43.73]	STD	40	1300 [9000]	1600 [11 000]
			0.500 [12.70]	44.00 [65.41]	XS	80	2100 [14 500]	2400 [16 500]
			0.875 [22.22]	72.69 [107.94]	XXS	...	2800 [19 300]	2800 [19 300]
10	250	10.750 [273.0]	0.279 [7.09]	32.33 [48.80]	...	...	950 [6500]	1100 [7600]
			0.307 [7.80]	35.33 [53.27]	...	30	1000 [6900]	1200 [8300]
			0.365 [9.27]	41.49 [63.36]	STD	40	1200 [8300]	1400 [9700]
			0.500 [12.70]	55.55 [83.17]	XS	60	1700 [11 700]	2000 [13 800]
12	300	12.750 [323.8]	0.330 [8.38]	45.47 [67.72]	...	30	950 [6500]	1100 [7600]
			0.375 [9.52]	51.28 [76.21]	STD	...	1100 [7600]	1200 [8300]
			0.500 [12.70]	66.91 [99.4]	XS	...	1400 [9700]	1600 [11 000]

**TABLE X2.4 Table of Minimum Wall Thicknesses on Inspection for Nominal Pipe Wall Thicknesses**

NOTE 1—The following equation, upon which this table is based, shall be applied to calculate minimum wall thickness from nominal wall thickness  $t_n \times 0.875 = t_m$

where:

$t_n$  = nominal wall thickness, in. [mm], and  
 $t_m$  = minimum wall thickness, in. [mm].

The wall thickness is expressed to three decimal places the fourth decimal place being carried forward or dropped in accordance with Practice E 2.1.  
 NOTE 2—This table is a master table covering wall thicknesses available in the purchase of different classifications of pipe, but it is not meant to imply that all of the walls listed therein are obtainable under this specification.

Nominal Wall Thickness ( $t_n$ ), in. [mm]	Minimum Wall Thickness on Inspection ( $t_m$ ), in. [mm]	Nominal Wall Thickness ( $t_n$ ), in. [mm]	Minimum Wall Thickness on Inspection ( $t_m$ ), in. [mm]	Nominal Wall Thickness ( $t_n$ ), in. [mm]	Minimum Wall Thickness on Inspection ( $t_m$ ), in. [mm]
0.068 [1.73]	0.060 [1.52]	0.294 [7.47]	0.257 [6.53]	0.750 [19.05]	0.656 [16.66]
0.088 [2.24]	0.077 [1.96]	0.300 [7.62]	0.262 [6.65]	0.812 [20.62]	0.710 [18.03]
0.091 [2.31]	0.080 [2.03]	0.307 [7.80]	0.269 [6.83]	0.844 [21.44]	0.739 [18.77]
0.095 [2.41]	0.083 [2.11]	0.308 [7.82]	0.270 [6.86]	0.864 [21.94]	0.756 [19.20]
0.109 [2.77]	0.095 [2.41]	0.312 [7.92]	0.273 [6.93]	0.875 [22.22]	0.766 [19.46]
0.113 [2.87]	0.099 [2.51]	0.318 [8.08]	0.278 [7.06]	0.906 [23.01]	0.793 [20.14]
0.119 [3.02]	0.104 [2.64]	0.322 [8.18]	0.282 [7.16]	0.936 [23.82]	0.821 [20.85]
0.125 [3.18]	0.109 [2.77]	0.330 [8.38]	0.289 [7.34]	0.968 [24.59]	0.847 [21.51]
0.126 [3.20]	0.110 [2.79]	0.337 [8.56]	0.295 [7.49]	1.000 [25.40]	0.875 [22.22]
0.133 [3.38]	0.116 [2.95]	0.343 [8.71]	0.300 [7.62]	1.031 [26.19]	0.902 [22.91]
0.140 [3.56]	0.122 [3.10]	0.344 [8.74]	0.301 [7.65]	1.062 [26.97]	0.929 [23.60]
0.145 [3.68]	0.127 [3.23]	0.358 [9.09]	0.313 [7.95]	1.094 [27.79]	0.957 [24.31]
0.147 [3.73]	0.129 [3.28]	0.365 [9.27]	0.319 [8.10]	1.125 [28.58]	0.984 [24.99]
0.154 [3.91]	0.135 [3.43]	0.375 [9.52]	0.328 [8.33]	1.156 [29.36]	1.012 [25.70]
0.156 [3.96]	0.136 [3.45]	0.382 [9.70]	0.334 [8.48]	1.219 [30.96]	1.067 [27.08]
0.179 [4.55]	0.157 [3.99]	0.400 [10.16]	0.350 [8.89]	1.250 [31.75]	1.094 [27.79]
0.187 [4.75]	0.164 [4.17]	0.406 [10.31]	0.355 [9.02]	1.281 [32.54]	1.121 [28.47]
0.188 [4.78]	0.164 [4.17]	0.432 [10.97]	0.378 [9.60]	1.312 [33.32]	1.148 [29.16]
0.191 [4.85]	0.167 [4.24]	0.436 [11.07]	0.382 [9.70]	1.343 [34.11]	1.175 [29.85]
0.200 [5.08]	0.175 [4.44]	0.437 [11.10]	0.382 [9.70]	1.375 [34.92]	1.203 [30.56]
0.203 [5.16]	0.178 [4.52]	0.438 [11.13]	0.383 [9.73]	1.406 [35.71]	1.230 [31.24]
0.216 [5.49]	0.189 [4.80]	0.500 [12.70]	0.438 [11.13]	1.438 [36.53]	1.258 [31.95]
0.218 [5.54]	0.191 [4.85]	0.531 [13.49]	0.465 [11.81]	1.500 [38.10]	1.312 [33.32]
0.219 [5.56]	0.192 [4.88]	0.552 [14.02]	0.483 [12.27]	1.531 [38.89]	1.340 [34.04]
0.226 [5.74]	0.198 [5.03]	0.562 [14.27]	0.492 [12.50]	1.562 [39.67]	1.367 [34.72]
0.237 [6.02]	0.207 [5.26]	0.594 [15.09]	0.520 [13.21]	1.594 [40.49]	1.395 [35.43]
0.250 [6.35]	0.219 [5.56]	0.600 [15.24]	0.525 [13.34]	1.750 [44.45]	1.531 [38.89]
0.258 [6.55]	0.226 [5.74]	0.625 [15.88]	0.547 [13.89]	1.781 [45.24]	1.558 [39.57]
0.276 [7.01]	0.242 [6.15]	0.656 [16.66]	0.574 [14.58]	1.812 [46.02]	1.586 [40.28]
0.277 [7.04]	0.242 [6.15]	0.674 [17.12]	0.590 [14.99]	1.968 [49.99]	1.722 [43.74]
0.279 [7.09]	0.244 [6.20]	0.688 [17.48]	0.602 [15.29]	2.062 [52.37]	1.804 [45.82]
0.280 [7.11]	0.245 [6.22]	0.719 [18.26]	0.629 [15.98]	2.344 [59.54]	2.051 [52.10]
0.281 [7.14]	0.246 [6.25]				