

Imperfection and Defect Terminology

API BULLETIN 5T1
ELEVENTH EDITION, OCTOBER 2017



AMERICAN PETROLEUM INSTITUTE

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Imperfection and Defect Terminology

1 Scope

This document provides terms, definitions, and example figures of imperfections and defects that occur in manufacturing steel tubulars. The words imperfection and defect refer to metallurgical and other features of steel tubular products that may or may not affect the performance of the products. Inspection requirements and acceptance criteria are not defined in this document and are found instead in the respective product specification.

2 References

For undated references, the latest edition of the referenced document (including any amendments) applies.

API Specification 5B, *Specification for Threading, Gauging, and Thread Inspection of Casing, Tubing, and Line Pipe Threads*

API Specification 5CT, *Specification for Casing and Tubing*

API Recommended Practice 5C1, *Recommended Practice for Care and Use of Casing and Tubing*

API Specification 5DP, *Specification for Drill Pipe*

API Specification 5L, *Specification for Line Pipe*

API Specification 5LCP, *Specification for Coiled Line Pipe*

API Recommended Practice 5L1, *Recommended Practice for Railroad Transportation of Line Pipe*

API Recommended Practice 5L2, *Recommended Practice for Internal Coating of Line Pipe for Non-corrosive Gas Transmission Services*

API Recommended Practice 5L3, *Drop-weight Tear Tests on Line Pipe*

API Recommended Practice 5L7, *Recommended Practices for Unprimed Internal Fusion Bonded Epoxy Coating of Line Pipe*

API Recommended Practice 5SI, *Recommended Practice for Purchaser Representative Surveillance and/or Inspection at the Supplier*

API Specification 5ST, *Specification for Coiled Tubing—U.S. Customary and SI Units*

Kiessling, Roland (with the collaboration of Nils Lange), *Non-metallic Inclusions in Steel*, Parts I–IV, Book 194, Metals Society: London, 1978

Krauss, George, *Steels: Processing, Structure, and Performance*, Materials Park, OH: ASM International, 2005, ISBN: 978-0-87170-817-5

Nichols, Robert K., *Common HF Welding Defects*, East Haven, CT: Thermatool Corp., 1999

3 Terms, Definitions, and Associated Example Figures

For the purposes of this document, the following terms and definitions apply.

Included are photographs (figures) associated with the respective terms and definitions. These are intended to serve as example(s) illustrating the defined terms but not be the only or absolute representations—they are not considered to be exclusive or exhaustive in nature.

3.1 Occurrences in Steel Pipe in Locations Other than the Weld

3.1.1 arc burns

Localized points of surface melting caused by arcing between electrode or ground and pipe surface.



Figure 1



Figure 2

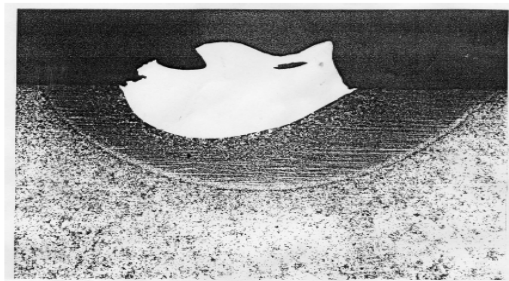


Figure 3



Figure 4