

API Ballot ID# 6444

SC 5 TG OCTG

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Work Item Number	2465
Title of Work Item	5CT Flattening Test Allowable Cracking Clarification
Ballot Revision Level	0
Type of Ballot (Initial, Comment, Comment resolution (reference API ballot#), 1 st Re-ballot, 2 nd Re-ballot, etc.)	Initial
Submitter Name(s)	Joe Majkrzak
API Document Modified	API 5CT 11 th Edition
Impacted Documents	None
Revision Key	Current API text = black Deletions = red strikethrough Additions = <u>underlined red</u>

Work Item Charge: Update API 5CT section 9.5.4 to provide clarity on when cracks or breaks are allowed during the flattening test.

Ballot Rationale: The current wording in API 5CT for flattening test is not clear on if or when cracking during the flattening test is acceptable. As a result, conflicts between interpretations have caused issues.

Ballot Text: See below.

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9.5.4 Test Method

Test specimens shall be flattened between parallel plates having a size that covers the entire specimen when completely flattened. From each pair of flattening test specimens, one shall be flattened with the weld located in the 90° position and the other with the weld located in the 0° position. Test specimens shall be flattened until opposite walls of the pipe meet.

There shall be no evidence of lack of fusion or incomplete fusion in the weld, or laminations. ~~during the entire flattening process.~~

Each specimen shall be flattened in two Steps and evaluated after each Step.

Step 1 - Flatten the specimen to at least the distance between plates as specified in Table C.17 or Table E.17. Visually evaluate the specimen and if ~~No~~ cracks, breaks, or tears and ~~no~~ or opening of the weld shall occur in the specimen until the distance between the plates is less than that specified in Table C.17 or Table E.17., then proceed to Step 2. If the specimen has any cracks, breaks, tears or opening of the weld, the test has failed and the product is not acceptable.

Step 2 – Flatten the specimen until opposite walls meet. Visually evaluate the specimen and if no cracks, breaks, or tears propagate through the wall thickness, the test passes, and the product is acceptable. Cracking through wall at the test piece edge shall be acceptable if there is no evidence that these imperfections propagate to the rest of the test piece. The edges of the test piece may be rounded or chamfered.

NOTE Definitions and illustrations are contained in API 5T1.