

ISO 5173:2023-01 (E)

Destructive tests on welds in metallic materials - Bend tests

Contents	Page
Foreword	iv
1 Scope	1
2 Normative references	1
3 Terms and definitions	1
4 Symbols and abbreviated terms	8
5 Principle	8
6 Preparation of test specimens	8
6.1 General	8
6.2 Location	9
6.3 Marking	9
6.4 Heat treatment and/or ageing	9
6.5 Extraction	9
6.6 Specimen size	9
6.6.1 Transverse root and face bend tests of a butt weld (TRBB and TFBB)	9
6.6.2 Transverse side bend tests of a butt weld (TSBB)	9
6.6.3 Longitudinal bend tests of a butt weld (LFBB and LRB)	10
6.6.4 Face bend tests of cladding material without a butt weld (FBC)	10
6.6.5 Side bend tests of cladding material without a butt weld (SBC)	10
6.6.6 Transverse face bend tests of cladding material with a butt weld (FBCB)	10
6.6.7 Side bend tests of cladding material with a butt weld (SBCB)	11
6.6.8 Dimensions	11
6.6.9 Surface preparation	12
7 Conditions of testing	12
7.1 Etching	12
7.2 Testing	13
7.2.1 General	13
7.2.2 Testing with a former	13
7.2.3 Testing with a roller	17
7.2.4 Bend testing with backing plate	18
7.3 Diameter of former and roller	20
7.3.1 Steel, nickel and nickel alloys	20
7.3.2 Aluminium and its alloys	20
7.4 Distance between and radius of parallel rollers	20
7.5 Bending angle	21
7.6 Bending elongation	21
8 Test results	21
9 Test report	21
Annex A (informative) Example of a test report	23
Bibliography	24