

DIN EN ISO 25239-5:2020-12 (E)

Friction stir welding - Aluminium - Part 5: Quality and inspection requirements (ISO 25239-5:2020)

Contents	Page
European foreword	3
Foreword	4
Introduction	5
1 Scope	6
2 Normative references	6
3 Terms and definitions	6
4 Quality requirements	7
4.1 General	7
4.2 Welding personnel	7
4.2.1 General	7
4.2.2 Welding operator	7
4.3 Inspection and testing personnel	7
4.3.1 General	7
4.3.2 Personnel performing non-destructive testing (including visual testing)	7
4.3.3 Destructive testing personnel	7
4.4 Equipment	7
4.4.1 Suitability of equipment	7
4.4.2 Reproducibility tests for qualified machine welding settings	8
4.4.3 Equipment maintenance	8
4.5 Welding procedure specification	8
4.6 Friction stir welding tool	8
4.6.1 Identification	8
4.6.2 Friction stir welding tool inspection	8
4.7 Pre-weld joint preparation and fit-up	9
4.7.1 Joint preparation	9
4.7.2 Pre-weld cleaning	9
4.8 Preheating and interpass temperature control	9
4.9 Tack welds	9
4.10 Welding	9
4.11 Postweld heat treatment	9
4.12 Inspection and testing	9
4.12.1 General	9
4.12.2 Inspection and testing before welding	9
4.12.3 Inspection and testing during welding	10
4.12.4 Inspection and testing after welding	10
4.12.5 Damaged and non-conforming welds	11
4.12.6 Weld geometry correction	11
4.13 Identification and traceability	11
Annex A (normative) Imperfections, testing and examination, acceptance levels, and ISO 6520-1 reference number	12
Bibliography	17