ISO 22688:2020-04 (E)

Brazing - Quality requirements for brazing of meta llic materials

Contents

Page

Foreword ..... **v**

Introduction ..... **vi**

1 Scope **1**

2 Normative references **1**

3 Terms and definitions **1**

4 General **2**

5 Selection of the appropriate level of quality requirements **4**

6 Comprehensive quality requirements **4**

6.1 General 4

6.2 Review of requirements and technical review 5

6.2.1 General 5

6.2.2 Review of requirements 5

6.2.3 Technical review 5

6.3 Sub-contracting 6

6.4 Brazing personnel 6

6.4.1 General 6

6.4.2 Brazers and brazing operators 6

6.4.3 Brazing coordination personnel 7

6.5 Inspection and testing personnel 7

6.5.1 General 7

6.5.2 Non-destructive testing personnel 7

6.6 Equipment 7

6.6.1 Production and testing equipment 7

6.6.2 Description of equipment 7

6.6.3 Suitability of equipment 8

6.6.4 New and refurbished equipment 8

6.6.5 Equipment maintenance 8

6.7 Brazing and related activities 9

6.7.1 Production planning 9

6.7.2 Brazing procedure specifications 9

6.7.3 Qualification of the brazing procedures 9

6.7.4 Work instructions 9

6.7.5 Procedures for preparation and control of documents 9

6.8 Brazing consumables 10

6.8.1 Storage and handling 10

6.8.2 Batch testing 10

6.9 Storage of parent materials 10

6.10 Brazing and post-brazing heat treatment 10

6.11 Inspection and testing 10

6.11.1 General 10

6.11.2 Inspection and testing before brazing 10

6.11.3 Inspection and testing during brazing 11

6.11.4 Inspection and testing after brazing 11

6.11.5 Inspection and test status 11

6.12 Acceptance criteria 11

6.13 Non-conformance and corrective actions 11

6.14 Calibration and validation of measuring, inspection and testing equipment 12

6.15 Identification and traceability 12
6.16 Quality records 12

7 Elementary quality requirements 13
7.1 General 13
7.2 Review of requirements and technical review 13
7.2.1 General 13
7.2.2 Review of requirements 13
7.2.3 Technical review 13
7.3 Sub-contracting 14
7.4 Brazing personnel 14
7.4.1 General 14
7.4.2 Brazers and brazing operators 14
7.5 Inspection and testing personnel 14
7.5.1 General 14
7.5.2 Non-destructive testing personnel 15
7.6 Equipment 15
7.7 Brazing and related activities 15
7.7.1 Brazing work instructions 15
7.7.2 Brazing procedure specifications 15
7.7.3 Qualification of the brazing procedures 15
7.8 Brazing consumables 15
7.9 Inspection and testing 15
7.9.1 General 15
7.9.2 Inspection and testing before brazing 15
7.9.3 Inspection and testing during brazing 16
7.9.4 Inspection and testing after brazing 16
7.10 Non-conformance and corrective actions 16
7.11 Quality records 16

8 Documents required to claim compliance to these quality requirements 17
8.1 General 17
8.2 Declaration of compliance 17

Annex A (informative) **Criteria to assist in the selection of the appropriate quality requirements 18**

Annex B (informative) **Corresponding national standards 20**

Annex C (informative) **Elements to be considered for a quality management system to complement these requirements 24**

Annex D (informative) **Information and requirements for the workshop and/or installation site 25**

Bibliography 26