ISO 15708-2:2017-02 (E)

Non-destructive testing - Radiation methods for computed tomography - Part 2: Principles, equipment and samples

Contents

Page

Foreword iv

1 Scope 1

2 Normative references 1

3 Termsanddefinitions 1

4 General principles 1
4.1 Basic principles 1
4.2 Advantages of CT 2
4.3 Limitations of CT 2
4.4 Main CT process steps 3
4.4.1 Acquisition 3
4.4.2 Reconstruction 4
4.4.3 Visualization and analysis 4
4.5 Artefacts in CT images 4

5 Equipment and apparatus 5
5.1 General 5
5.2 Radiation sources 6
5.3 Detectors 6
5.4 Manipulation 7
5.5 Acquisition, reconstruction, visualization and storage system 7

6 CT system stability 7
6.1 General 7
6.2 X-Ray Stability 8
6.3 Manipulator stability 8

7 Geometric alignment 8

8 Sample considerations 9
8.1 Size and shape of sample 9
8.2 Materials (including table voltage/thickness of penetration) 9

Annex A (informative) CT system components 11

Bibliography 17