

ISO 22825:2017-09 (E)

Non-destructive testing of welds - Ultrasonic testing - Testing of welds in austenitic steels and nickel-based alloys

Contents		Page
Foreword		iv
Introduction		v
1	Scope	1
2	Normative references	1
3	Terms and definitions	1
4	Information required prior to testing	2
4.1	Items to be defined by specification	2
4.2	Specific information required by the operator prior to testing	2
5	Personnel	3
6	Test equipment	3
6.1	Conventional equipment	3
6.2	Phased array equipment	3
7	Range setting for compression waves	3
8	Sensitivity setting	4
8.1	General	4
8.2	Use of side-drilled holes	5
8.3	Use of other reference reflectors	5
9	Test procedure and ultrasonic techniques	5
9.1	Development of the test procedure	5
9.2	Content of the test procedure	5
9.3	Selection of ultrasonic technique(s)	7
9.4	Optimization of test technique and draft of test procedure	8
9.5	Practical implications of the use of refracted compression waves	8
10	Classification and sizing of indications	9
11	Testing of welds	9
11.1	General	9
11.2	Surface condition and couplant fluid	9
11.3	Parent metal testing	9
11.4	Scanning	9
11.5	Evaluation of indications	10
12	Test report	10
12.1	General data	10
12.2	Information related to the test equipment	10
12.3	Information related to the testing technique	11
12.4	Results of testing	11
Annex A (informative)	Compression wave angle-beam techniques	12

Annex B (informative) Stainless steel calibration blocks for range setting	18
Annex C (informative) Reference blocks for sensitivity setting	20
Bibliography	23