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(JSNDI/JSA)

**Non-destructive testing—Ultrasonic  
thickness measurement—Part 2:  
Method for evaluating performance  
characteristics of ultrasonic  
thickness measuring equipment**

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In the event of any doubts arising as to the contents,  
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## Contents

	Page
Introduction.....	1
1 Scope.....	1
2 Normative references .....	1
3 Terms and definitions .....	2
4 General requirements .....	2
5 Specification of ultrasonic thickness measuring equipment .....	2
5.1 General .....	2
5.2 General attributes .....	2
5.3 Display .....	3
5.4 Transmitter .....	3
5.5 Receiver.....	3
5.6 Other information .....	3
6 Reference blocks .....	4
7 Performance verification test group for ultrasonic thickness measuring equipment .....	4
7.1 Test group 1 .....	4
7.2 Test group 2 .....	4
7.3 Test group 3 (daily check) .....	5
8 Probes .....	6
9 Test group 1 .....	6
9.1 General .....	6
9.2 Required equipment .....	6
9.3 Stability against ambient temperature .....	6
9.4 Low battery warning .....	7
9.5 Battery operational time .....	7
9.6 Operational voltage range .....	8
9.7 Operational current value .....	8
9.8 Operational temperature range .....	9
9.9 Pulse repetition frequency (PRF) .....	9
9.10 Pulse characteristics .....	9
9.11 Operational frequency range .....	10
9.12 Minimum and maximum measurable thicknesses .....	10
9.13 Measurement error .....	11
9.14 Range of sound velocity setting.....	11
9.15 Adjustment .....	12

9.16	Adjustment setting storage .....	12
9.17	Data storage .....	12
9.18	Printing .....	13
9.19	Stored data recall .....	13
9.20	Display update frequency .....	13
10	Test group 2 .....	13
10.1	General .....	13
10.2	Visual check .....	13
10.3	Minimum and maximum measurable thicknesses .....	14
10.4	Measurement error .....	14
10.5	Lower limit of measurement .....	14
10.6	Verification of settings .....	14
11	Test group 3 (daily check) .....	14
11.1	General .....	14
11.2	Start-up check .....	14
Annex JA (normative)	Reference block for ultrasonic thickness measurement (RB-T) .....	17
Annex JB (normative)	Reference block for ultrasonic thickness measurement (RB-I) .....	18
Annex JC (informative)	Comparison table between JIS and corresponding International Standard .....	20

## Foreword

This translation has been made based on the original Japanese Industrial Standard established by the Minister of Economy, Trade and Industry through deliberations at the Japanese Industrial Standards Committee according to the proposal for establishment of Japanese Industrial Standard submitted by The Japanese Society for Non-destructive Inspection (JSNDI)/Japanese Standards Association (JSA) with the draft being attached, based on the provision of Article 12 Clause 1 of the Industrial Standardization Law.

Consequently **JIS Z 2355**:2005 has been withdrawn and partially replaced with this Standard.

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Attention is drawn to the possibility that some parts of this Standard may conflict with patent rights, applications for a patent after opening to the public or utility model rights. The relevant Minister and the Japanese Industrial Standards Committee are not responsible for identifying any of such patent rights, applications for a patent after opening to the public or utility model rights.

**JIS Z 2355** series consists of the following 2 parts under the general title “*Non-destructive testing—Ultrasonic thickness measurement*”:

*Part 1: Measurement method*

*Part 2: Method for evaluating performance characteristics of ultrasonic thickness measuring equipment*

# Non-destructive testing— Ultrasonic thickness measurement— Part 2: Method for evaluating performance characteristics of ultrasonic thickness measuring equipment

## Introduction

This Japanese Industrial Standard has been prepared based on the first edition of **ISO 16831** published in 2012 with some modifications of the technical contents to facilitate smooth management of ultrasonic thickness measuring equipment based on the actual management in Japan.

The portions given sidelines or dotted underlines are the matters in which the contents of the corresponding International Standard have been modified. A list of modifications with the explanations is given in Annex JC.

## 1 Scope

This Standard specifies the measuring methods of performances of ultrasonic thickness measuring equipment and acceptance criteria using the ultrasonic pulse-echo method by a single or double crystal probe.

This Standard is applicable to the case where an ultrasonic test instrument is used for the thickness measurement.

NOTE : The International Standard corresponding to this Standard and the symbol of degree of correspondence are as follows.

ISO 16831:2012 *Non-destructive testing—Ultrasonic testing—Characterization and verification of ultrasonic thickness measuring equipment* (MOD)

In addition, symbols which denote the degree of correspondence in the contents between the relevant International Standard and **JIS** are IDT (identical), MOD (modified), and NEQ (not equivalent) according to **ISO/IEC Guide 21-1**.

## 2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this Standard. The most recent editions of the standards (including amendments) listed below shall be applied.

JIS G 0801 *Ultrasonic testing of steel plates for pressure vessels*

JIS G 3103 *Carbon steel and molybdenum alloy steel plates for boilers and pressure vessels*

JIS G 3106 *Rolled steels for welded structure*

JIS Z 2300 *Terms and definitions of nondestructive testing*

JIS Z 2345 *Standard test blocks for ultrasonic testing*