

JIS

JAPANESE INDUSTRIAL STANDARD

**Methods of ultrasonic
examination for T type
welds of aluminium plates**

JIS Z 3082^{—1995}

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by

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**In the event of any doubt arising,
the original Standard in Japanese is to be final authority.**

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Methods of ultrasonic examination
for T type welds of aluminium plates

Z 3082-1995

1. Scope This Japanese Industrial Standard specifies the method of ultrasonic examination by the pulse echo technique using an ultrasonic test instrument having A scope display on full penetration T type welds of aluminium and aluminium alloy plates of not less than 5 mm in thickness (hereafter referred to as "aluminium").

Furthermore, the method of classification of the examination results is specified in Annex.

Remarks: The standards cited in this Standard are as follows:

JIS G 0801	Ultrasonic examination of steel plates for pressure vessels
JIS Z 2300	Glossary of terms used in nondestructive testing
JIS Z 2345	Standard test blocks for ultrasonic testing
JIS Z 2350	Method for measurement of performance characteristics of ultrasonic probes
JIS Z 2352	Method for assessing the overall performance characteristics of ultrasonic pulse echo testing instrument
JIS Z 3080	Methods of ultrasonic angle beam examination for butt welds of aluminium plates
JIS Z 3871	Standard qualification procedure for ultrasonic testing technique of aluminium and aluminium alloy welds

2. Definitions For the purpose of this Standard, the definitions given in JIS Z 2300 and the following definitions apply:

- (1) equivalent size of transducer An apparent transducer size observed from the propagating direction of ultrasonic wave refracting and transmitting in the test object. It is distinguished from actual transducer size by using the symbol of [].
- (2) ultrasonic discontinuity length An apparent length of discontinuity which is measured by the transferring distance of the probe.

3. Engineer The engineers to be engaged in this ultrasonic testing shall be the personnel who have passed F level examination in accordance with JIS Z 3871 or who have had the technical skills equivalent or superior to that of the successful personnel.

4. Kinds of examination methods Angle beam examination from T1 material having grooves and normal beam examination from T2 material having no groove as shown in Fig. 1 is, as a rule, jointly used as the method for the examination.

Further, it is allowable that angle beam examination from T2 is performed as required.