

JIS

JAPANESE INDUSTRIAL STANDARD

Standard Qualification Procedure for Ultrasonic Testing Technique of Aluminium and Aluminium Alloy Welds

JIS Z 3871—1987

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by

Japanese Standards Association

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

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Ultrasonic Testing Technique of Aluminium
and Aluminium Alloy Welds

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1. Scope

This Japanese Industrial Standard specifies the standard qualification procedure for ultrasonic testing technique of aluminium and aluminium alloy welds.

2. Classification of Tests and Test Pieces

The classification of tests and test pieces shall be in accordance with Table.

Table Classification of Tests and Test Pieces

Classifi- cation	Symbol	Weld to be tested	Test piece mm
Type B	UT-B ⁽¹⁾	Flat plate butt weld	Flat plate butt joint test piece (plate thickness 20 to 30)
Type T	UT-T	Tube periphery weld	Tube periphery joint test piece (wall thickness 10 to 15, outer diameter 200 to 300)
		Tube longitudinal weld	Tube longitudinal joint test piece (wall thickness 10 to 15, outer diameter 300 to 500)
Type F	UT-F	Type T weld	Type T joint test piece (plate thickness 20 to 30)

Note ⁽¹⁾ Type B is taken as the base of ultrasonic testing technique.

The test piece shall be made of aluminium alloy, and as shown in Figure a sound plate or tube is worked with artificial flaw of definite shape and dimensions and further placed with reinforcement of weld or that equivalent thereto. The basic material of test piece shall be A 5083 P of JIS H 4000 or A 5083 T of JIS H 4080.

Applicable Standards:

JIS H 4000-Aluminium and Aluminium Alloy Sheets and Plates, Strip and Coiled Sheets

JIS H 4080-Aluminium and Aluminium Alloy Seamless Pipes and Tubes

JIS Z 3080-Method of Ultrasonic Angle Beam Testing and Classification of Test Results for Aluminium Welds

JIS Z 3081-Method of Ultrasonic Angle Beam Testing and Classification of Test Results for Welds of Aluminium Pipes and Tubes