

JIS

JAPANESE INDUSTRIAL STANDARD

**Ultrasonic inspection of
titanium pipes and tubes**

JIS H 0516—1992

Translated and Published

by

Japanese Standards Association

Printed in Japan

AVA Documents
Document Sharing Club

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

JAPANESE INDUSTRIAL STANDARD

J I S

Ultrasonic inspection of titanium pipes and tubes H 0516-1992

1. Scope This Japanese Industrial Standard specifies the ultrasonic inspection, hereafter referred to as the "inspection", for detecting flaws of titanium seamless tubes and welded tubes, hereafter referred to as the "tubes".

Remarks: The following standards are cited in this Standard.

JIS Z 2300-Glossary of terms used in nondestructive testing

JIS Z 2344-General rule of ultrasonic testing of metals by the pulse echo technique

JIS Z 2352-Method for assessing the overall performance characteristics of the ultrasonic pulse echo testing instrument

2. Definitions For the main terms used in this Standard the definitions in JIS Z 2300 apply.

3. General items

3.1 Applicable dimension range The range of the applicable dimensions of a tube shall be 10 mm to 150 mm outside diameter and 0.3 mm to 10 mm thickness, and the % ratio of thickness to outside diameter shall be 20 % or under.

3.2 Summary of inspection method The inspection shall be carried out by rotating a probe or a tube by an ultrasonic pulse echo technique.

3.3 Engineer for inspection The engineer for inspection shall have the knowledge and technical skill which are necessary for inspection.

3.4 Other items Items not specified in this Standard shall be in accordance with JIS Z 2344.

4. Apparatus for flaw detection

4.1 Construction The apparatus for flaw detection shall be composed of a flaw detector, a probe, a tube feed device, a rotary device of a probe or a tube, and an automatic alarm system or a recorder.

4.2 Flaw detector The amplitude linearity of a flaw detector shall be measured in accordance with JIS Z 2352, and the sum of the absolute value of its positive and negative maximum deviation shall be 8 % or under.

Related standards:

JIS H 4630-Titanium pipes and tubes for ordinary piping

JIS H 4631-Titanium tubes for heat exchangers