

JIS

JAPANESE INDUSTRIAL STANDARD

Methods of radiographic examination for titanium welds by X-ray

JIS Z 3107^{—1993}

JIS Z 3107:1993 has been revised under date of March 20, 2008.
The revised items are included in Amendment 1.

Translated and Published

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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Methods of radiographic examination for
titanium welds by X-ray

Z 3107-1993

1. Scope This Japanese Industrial Standard specifies the methods of radiographic examination for welds of titanium plates and pipes where the transmission thickness is 25 mm or less (hereafter referred to as "material thickness") by the direct photographing method using the X-ray film for industrial use.

Remarks 1. When the radiographic examination by X-ray is carried out, it is necessary to observe the requirements of the "Industrial Safety and Health Law" and the like, and to pay sufficient attention to the prevention of radiographic exposure.

2. The standards cited in this Standard are shown below.

- JIS K 7605 Method for determining photographic density
- JIS K 7652 Photography - Density measurements - Part 2: Geometric conditions for transmission density (ISO 5-2:1985)
- JIS K 7653 Photography - Density measurements - Part 3: Spectral conditions (ISO 5-3:1984)
- JIS Z 2300 Glossary of terms used in nondestructive testing
- JIS Z 2306 Radiographic image quality indicators for non-destructive testing
- JIS Z 4561 Viewing illuminators for industrial radiograph
- JIS Z 4606 Industrial X-ray apparatus for radiographic testing

2. Definition The terms used in this Standard shall comply with JIS Z 2300 together with the definition as follows:

- (1) thickness of base metal Nominal thickness of titanium plates and pipes to be used. In the case where the thickness of the base metal is different on both sides of the weld, the smaller thickness shall be used.
- (2) test part A part including the weld metal and the heat-affected zone.
- (3) effective length of test part The length in the weld line on the surface of the test part on the focus side, and in the range where the requirements on the penetrometer and the density are satisfied on the radiograph.
- (4) focus The focus of X-ray tube.