

JIS

JAPANESE INDUSTRIAL STANDARD

**Visual examination and
classification of surface
quality for steel castings**

JIS G 0588^{—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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Visual examination and classification
of surface quality for steel castings

G 0588-1995

1. Scope This Japanese Industrial Standard specifies the method for visual examination and classification of surface quality for steel castings teemed into sand moulds excluding those for machined surface.

Remarks: The standard cited in this Standard is as given in the following:

JIS G 0307 Steel castings – General technical requirements

2. Definitions The definitions of main terms used in this Standard are as follows:

- (1) sand inclusions and slag inclusions A defect of which sand, slag, etc. are taken in due to the lack of strength of sand mould for foundry, insufficient cleaning of moulds, inappropriate casting operation, or the like.
- (2) gas porosity (pinhole, or blowhole) A concavity caused by evolution of gases contained in the molten metal, moisture in the mould, or the like.
A concavity less than 3 mm in diameter is referred to as the "pinhole", while 3 mm or more thereof the "blowhole".
- (3) surface folding A wrinkle which is appreciable its base produced by too low casting temperature, too slow casting speed, or the like.
- (4) chaplets areas A defect of which metallic devices used to maintain the cores are remained because of insufficient fusion.
- (5) metal removal marks A mark like grooves produced by finishing the section where a feeder head, gate, or the like is cut off.
- (6) gas cutting marks A mark produced in the cut-off area where a feeder head, gate, or the like is removed with gas.
- (7) casting fin A projection produced in the steel casting by flushing molten metal along the boundary between moulds (such as between a cope and drag, core and cope or drag).
- (8) sand burning A sintered state of which foundry sand is stucked on the surface of the steel casting because of too high casting temperature, too low refractoriness of the sand, or the like.
- (9) weld repair areas The state of ground surface where the beads in welded area is rectified by grinding.
- (10) wart, dent Unevenness such as depression produced on the casting surface due to partial peeling-off of foundry sand, sticking of slag, or the like.