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1.1Å These reference radiographs illustrate the types and degrees of discontinuities that may be found in aluminum-alloy and magnesium-alloy castings. The castings illustrated are in thicknesses of 1/4Å in. (6.35 mm) and 1/2Å in. (19.1 mm). Reference radiograph films are an adjunct to this document and shall be purchased separately from ASTM International if needed. 1.2Å These film reference radiographs are not intended to illustrate the types and degrees of discontinuities found in aluminum-alloy and magnesium-alloy castings when performing digital radiography. If performing digital radiography of aluminum-alloy castings, refer to Digital Reference Image Standard E2422. If performing digital radiography of magnesium-alloy castings, refer to Digital Reference Image Standard E2869. 1.3Å This document may be used where no other applicable document exists, for other material thicknesses for which it has been found to be applicable and for which agreement has been reached between the purchaser and the manufacturer. 1.4Å From time to time, there may be minor changes to the process for manufacturing of the reference radiograph adjunct materials. These changes could include changes in the films or processing chemicals used, changes in the dies or printing for the cardboard mats, etc.; however, in all cases, these changes are reviewed by the Illustration Monitoring Subcommittee and all reference radiographs are reviewed against a fixed prototype image to ensure that there are no changes to the acceptance level represented by the reference radiographs. Therefore, the adjunct reference radiographs remain valid for use with this standard regardless of the date of production or the revision level of the text standard. 1.5Å Units-The values stated in inch-pound units are to be regarded as standard. The values given in parentheses are mathematical conversions to SI units that are provided for information only and are not standard. Note 1: Vol I: The reference radiography set consists of 13 plates covering discontinuities in aluminum-alloy casting and 10 plates covering discontinuities in magnesium alloy casting. Each plate is held in an 81/2 by 11 in. (216 by 279 mm) cardboard and each plate illustrates eight degrees of gravity for discontinuity in approximately 2 by 2 in. (51 by 51 mm) area. Cardboard frames are contained in a ring binder of 101/2 by 111/2. (267 by 292 mm). Reference radiography is not impacted by this review. There have been no revisions in the adjoint reference radiography since the original edition. The adjoint reference radiography of any problem remains valid and can be used for this pattern. Vol. II: The reference radiography set consists of four plates covering discontinuities in magnesium alloy casting only. Each plate is held in an 81/2 by 11 in. (216 by 279 mm) cardboard and illustrates eight degrees of gravity for discontinuity (except discrete discontinuities, where only one example of each discontinuity is given). Note 2: Reference radiography applicable to aluminum and magnesium die castings up to 1 in. (25 mm) thick are contained in E505 reference radiography. 1.6.26 This standard does not intend to address all security concerns, if any, associated with their use. It is the user's responsibility to establish appropriate safety, health and environment practices and determine the applicability of regulatory limitations before use. 1.7. This international norm was developed in accordance with internationally recognized principles on the standardization established in the Decision on Principles for the Development of International Standards, Guides and Recommendations issued by the Technical Committee of the Technical Barriers of the Organizationof commerce (TBT). This standard is issued under the fixed design 155; the number immediately following the designation indicates the year of original adoption or, in the case of revision, the year of last revision. A number in parentheses indicates the year of last reappraisal. A superscript epsilon (ε) indicates an editorial change since the last revision or reappraisal. Click below to download Astm E 155 e4AA 00 Pdf free Click here to download Astm E 154 eAAA 99 Pdf Free Download Work with ASTM Digital Reference ImagesDigital reference image catalogues and image viewingand image viewingDr.-Ing. Klaus BavendieKInternational GmbHHamburg, GermanyTechnology with Passiong, yDurban, April 14th 2012ContentsContents1. Introduction to Reference Images2. List of the available ASTM Reference Images3. Look on the Hardware4. History of Digital Reference Images5. Producing YOUR Reference Images6 Requirements for Display and Viewer Software6. Requirements for Display and Viewer-Software7. Work with the digital Reference Images- Example with Aluminum Casting- Example with Steel Casting8. ConclusionPractical demonstration in the coffee break Technology with Passion 14.4.2012 | 2Example of ASTM Reference Film StandardExample of ASTM Reference Film StandardWhat you get if you buy a Film-based ASTM Reference Image Set: Technology with Passion 14.4.2012 | 3Standard Reference Image for Casting ApplicationsAvailable ASTM Reference Image Standards on FilmStandard Reference Image for Casting ApplicationsList of Standard Reference Radiographs for:E155-10 Inspection of Aluminum and Magnesium CastingsE186-10 Heavy-Walled (2 to 4-in. (50.8 to 114-mm)) Steel CastingsE192-10 Investment Steel Castings of Aerospace ApplicationsE272-10 High-Strength Copper-Base and Nickel-Copper Alloy CastingsE280 10 Heavy Walled (4 to 12 in (114 to 305 mm)) Steel CastingsE280-10 Heavy-Walled (4 to 12-in. (114 to 305-mm)) Steel CastingsE310-10 Tin Bronze CastingsE446-10 Steel Castings Up to 2 in. 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