Welding Defects and Discontinuities

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Defect or Discontinuity?

- Discontinuity is defined as an interruption of the typical structure of a material, such as a lack of homogeneity in its mechanical, metallurgical, or physical characteristics. A discontinuity could be the result of a defect, but isn't necessarily a defect.
- * A defect, on the other hand, is a discontinuity that by nature or accumulated effect (for example, total crack length) renders a part or product unable to meet minimum applicable acceptance standards or specifications. A defect results in rejection of the part or product.
- Because we're examining these phenomena outside the requirements of specific welding codes or standards and don't discuss their limitations in terms of these documents, we'll use the word discontinuities to describe them.









INCOMPLETE FUSION

or _____Lack of fusion____





UNDERFILL



SPATTER





EXCESSIVE CONVEXITY



EXCESSIVE CONCAVITY





EXCESSIVE WELD REINFORCEMENT



INCOMPLETE PENETRATION & EXCESSIVE PENETRATION





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UNACCEPTABLE WELD PROFILES



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