

NOTICE OF
CHANGE

INCH-POUND

MIL-STD-370(MR)
NOTICE 1
1 February 1991

MILITARY STANDARD

VISUAL ACCEPTANCE CRITERIA FOR INSPECTION OF ALUMINUM ALLOY WELDS

TO ALL HOLDERS OF MIL-STD-370(MR)

1. THE FOLLOWING PAGES OF MIL-STD-370(MR) HAVE BEEN REVISED AND SUPERSEDES THE PAGES LISTED:

NEW PAGE	DATE	SUPERSEDED PAGE	DATE
7	1 February 1991	7	26 May 1988
8	26 May 1988	8	REPRINTED WITHOUT CHANGE

2. RETAIN THIS NOTICE AND INSERT BEFORE TABLE OF CONTENTS.

3. Holders of MIL-STD-370(MR) will verify the page changes and additions indicated above have been entered. This notice page will be retained as a check sheet. This issuance together with appended pages, is a separate publication. Each notice is to be retained by stocking points until the military standard is completely revised or canceled.

Custodian:
Army - MR

Preparing activity:
Army - MR

Review activity:
Army - AT

Project NDTI-A070

AMSC N/A

AREA NDTI

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TABLE I. Allowable discontinuity limits for each grade of weldment.

Discontinuity	GRADE OF WELDING			
	A-SP	A	B	C
1. Cracks	None	None	None	None
2. Crater Cracks	None	None	Retained within crater only	Retained within crater only
3. Mismatch	10% T or 1.5 mm (0.06 in) <u>1/</u>	10% T or 3.0 mm (0.12 in) <u>1/</u>	10% T or 4.6 mm (0.18 in) <u>1/</u>	10% T or 4.6 mm (0.18 in) <u>1/</u>
4. Porosity open to surface	None	2 per 25.4 mm (1 in), 1.6 mm (1/16") max dia <u>2/</u>	4 per 25.4 mm (1 in), 6.4 mm (1/4 in) min spacing <u>2/</u>	4 per 25.4 mm (1 in) 6.4 mm (1/4 in) min spacing <u>2/</u>
5. Undercut	None	20% T or .8 mm (0.03 in) depth <u>1/</u> 1T max length	20% T or 1.3 mm (0.05 in) depth <u>1/</u> 3T max length	20% T or 1.5 mm (0.06 in) depth <u>1/</u> 5T max length
6. Incomplete fusion	None	10% T or .8 mm (0.03 in) depth <u>1/</u> 1T max length	10% T or 1.3 mm (0.05 in) depth <u>1/</u> 2T max length	20% T or 1.5 mm (0.06 in) depth <u>1/</u> 4T max length
7. Overlap <u>3/</u>	None	1T or 2.5 mm (0.1 in) <u>1/</u> max length	1T max length	2T max length
8. Concavity	None	20% T or .8 mm (0.03 in) depth <u>1/</u> 1T max length	20% T or 1.3 mm (0.05 in) depth <u>1/</u> 1T max length	20% T or 1.5 mm (0.06 in) depth <u>1/</u> 1T max length
9. Craters	None	20% T or .8 mm (0.03 in) depth <u>1/</u> 1T max length	20% T or 1.3 mm (0.05 in) depth <u>1/</u> 1T max length	20% T or 1.5 mm (0.06 in) depth <u>1/</u> 2T max length
10. Underbead drop through	3.1 mm (1/8 in) max for T 1.3 mm (0.05 in)	Requirement only for clearance of mating parts		
11. Corner Melt	Not applicable	10% T or .8 mm (0.03 in) depth <u>1/</u> 1T or 6.35 mm (.25 in) max length <u>1/</u>	10% T or 1.3 mm (0.05 in) depth <u>1/</u> 3 T or 9.7 mm (.38 in) max length <u>1/</u>	20% T or 1.5 mm (0.06 in) depth <u>1/</u> 3T or 9.7 mm (.38 in) max length <u>1/</u>
12. Accumulation	Not applicable	10T minimum between any 2 maximum allowable discontinuities	6T minimum between any 2 maximum allowable discontinuities	4T minimum between any 2 maximum allowable discontinuities

Notes:

1/ Whichever is the lesser. 2/ Maximum size 30 percent of T or 2.5 mm (0.10 in), whichever is the lesser; T is plate thickness. 3/ If the defects exhibit sharp radii, sharp terminations or are crack-like, they shall be removed. If depression is not larger than permitted, they need not be rewelded.

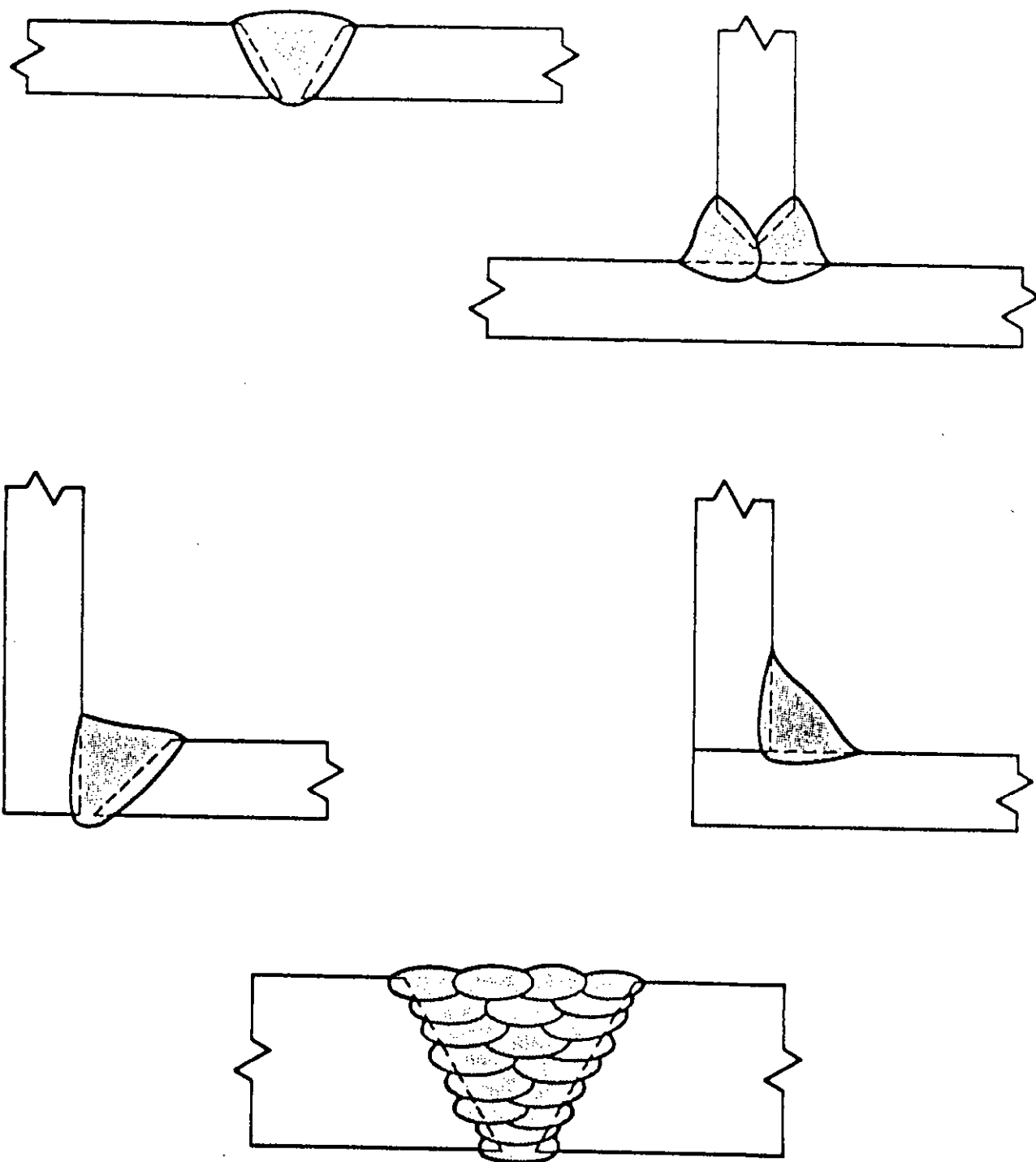


FIGURE 1. Complete fusion.
(Courtesy of the American Welding Society)