

NATIONAL AIRCRAFT STANDARDS COMMITTEE

AIRCRAFT INDUSTRIES ASSOCIATION OF AMERICA, INC., 610 SHOREHAM BUILDING, WASHINGTON 5, D. C.

SPECIFICATION

ROLLED FORMED SECTIONS

Aluminum Alloy

① INACTIVE FOR NEW DESIGN

APPROVAL DATE SEPT. 1944 REVISION ① 10-1-47

TITLE

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ROLL FORMED SECTIONS

ALUMINUM ALLOY

A. APPLICABLE SPECIFICATIONS

A-1. The following specifications, issues of which are in effect on date of invitation of bids, shall form a part of the specification:

Army-Navy Aeronautical	AN-A-10	Aluminum Alloy, Clad; (AL-XB-75C2) Plate, Sheet and Strip
	AN-A-12	Aluminum Alloy (AL-24) Plate, Sheet and Strip
	AN-A-13	Aluminum Alloy, Clad; (AL-24C2) Plate, Sheet and Strip
	AN-QQ-H-186	Heat Treatment of AL. Alloy, Process for
Federal	QQ-M-151	Metals - General Specification for Inspection of
Army Air Forces	11354	Parts, Fabricated, Clad Aluminum Alloy

B. COMPOSITION AND CONDITION

B-1. Aluminum alloy roll formed sections shall be furnished in composition and conditions as noted in the Applicable Specifications above.

B-2. Unless otherwise specified, the roll formed sections shall be furnished in the heat treated condition T.

C. MATERIAL AND WORKMANSHIP

C-1. Materials shall be as specified herein.

C-2. Workmanship shall be in accordance with high grade commercial practice. Sections must be free from defects which might affect their serviceability as determined by the inspector for the procurer, and from surface marks other than ordinarily received on materials conforming to the Applicable Specifications. Edges of sections must be smooth and free of shear marks. Sections must be free from cracks.

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D. DETAIL REQUIREMENTS

D-1. See Section E.

E. DETAIL REQUIREMENTS

E-1. Unless otherwise specified, roll formed sections may be made from materials in the A, W (heat treated but unaged), T, TR or F conditions as required by forming or other conditions.

E-2. Chemical composition and analysis limits of the material shall be as specified in the Applicable Specifications.

E-3. Physical properties shall be as specified in the Applicable Specifications unless otherwise specified, except that a reduction of 2% in elongation shall be allowed for sections rolled from 24S material in the T or TR conditions.

E-4. Tolerances

E-4a. Linear cross sectional tolerances shall be as specified in Table I:

TABLE I

Tolerances - Linear Cross Sectional Dimensions

Developed Width of Section	Gage	Tolerance
1/4 to 4	.006 - .102	±.02
4-1/32 to 18		±.03
18-1/32 to 36		±.05
1/4 to 4	.103 - .249	±.06
4-1/32 to 18		±.06
18-1/32 to 36		±.09

All dimensions shall be held ±.02 except that to accommodate the width tolerances for flat sheet or strip stock, one edge flange width shall have the tolerance shown in the above tabulation. Also, the flat pattern total width shall be within the tolerances shown.

E-4b. Angular cross sectional tolerances shall be ± 1° on material gage .188 or less, and ± 2° on material gage over .188.

E-4c. Radii tolerances shall be ±.01 inch.

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