GENERAL

A DIMENSIONING OF THE SECTION SHALL FACILITATE INSPECTION OF THE EXTRUSION AT ANY POINT THROUGHOUT ITS LENGTH

B DIMENSIONING SHALL NOT RESULT IN CONFLICTING TOLERANCES.

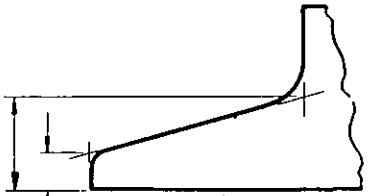
C ALL DIMENSIONS AND NOTES SHALL BE PLACED ON THE EXTRUSION DRAWING SO THAT THEY READ FROM A HORIZONTAL PLANE.

D LINEAR DIMENSIONS SHALL BE SPECIFIED IN DECIMALS, PREFERABLY IN THOUSANDTHS OF AN INCH.

SPECIFIC

E METAL TO METAL DIMENSIONING AND THE USE OF MOLD LINES.

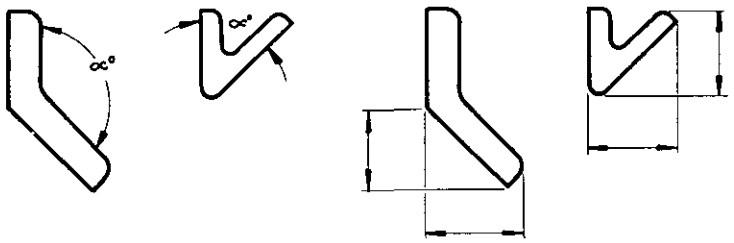
1 DIMENSIONING SHALL BE METAL TO METAL EXCEPT WHEN THE USE OF MOLD LINES IS NECESSARY. NOTE: THE TERM "MOLD LINE" REFERS TO THE IMAGINARY EXTENSION OF SURFACES ENDING IN A POINT OF INTERSECTION EITHER INSIDE OR OUTSIDE THE CROSS-SECTIONAL PERIMETER.



MOLD LINE DIMENSIONING

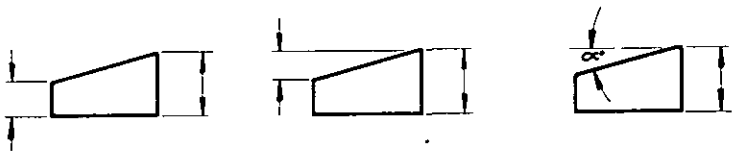
2 UNDER THE CONDITIONS REQUIRING MOLD LINE DIMENSIONING, PROVISION MAY HAVE TO BE MADE FOR ADDITIONAL TOLERANCES IN RECOGNITION OF DIFFICULTY IN INSURING CONFORMANCE TO STANDARD TOLERANCES.

F ANGLES SHOULD BE SPECIFIED INSTEAD OF OFFSETS IN DEPICTING THE RELATIONSHIP OF SURFACES NOT AT 90° TO EACH OTHER. IF CLOSER THAN STANDARD ANGULARITY TOLERANCES ARE REQUIRED, IT SHALL BE PERMISSIBLE TO SPECIFY WHAT TOLERANCE IS NEEDED ON THE ANGLE (PREFERRED METHOD), OR TO DIMENSION OFFSETS WHICH MAY REQUIRE ADDITIONAL TOLERANCES IN RECOGNITION OF DIFFICULTY IN INSURING CONFORMANCE TO STANDARD TOLERANCES.



(PREFERRED) (PERMISSIBLE)

G TAPERED SURFACES MAY BE DIMENSIONED BY METAL THICKNESSES AT SPECIFIED POINTS, BY OFFSETS, OR BY ANGLES. WHEN THE RELATIONSHIP OF THE SURFACES IS GREATER THAN 15°, METAL THICKNESS OR OFFSET DIMENSIONS MAY REQUIRE GREATER THAN STANDARD TOLERANCES IN RECOGNITION OF DIFFICULTY IN INSURING CONFORMANCE TO STANDARD TOLERANCES.

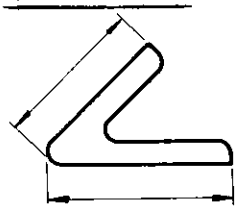


OPTIONAL METHODS

H ADJOINING SURFACES

1 AT ANY ANGLE 90° OR LESS SHALL HAVE THEIR LENGTHS DEFINED BY DIMENSIONS PARALLEL TO THE SURFACES.

Ⓐ CANCELED AFTER 9 MAY 1979 NO SUPERSEDING STANDARD



Ⓐ DENOTES CHANGE

APPROVED 18 Oct 50 REVISED Ⓐ 9 MAY 1979

AIR FORCE-NAVY AERONAUTICAL DESIGN STANDARD

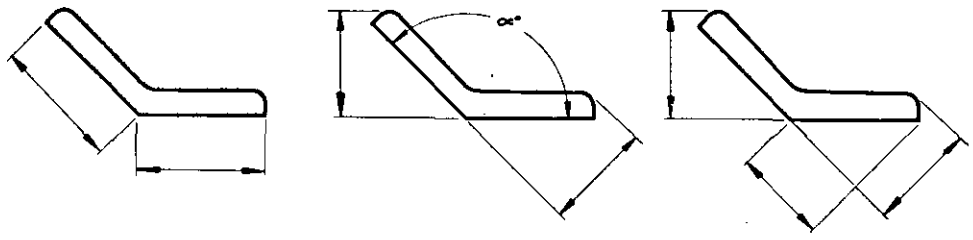
STANDARD DIMENSIONING SYSTEM FOR EXTRUDED SECTIONS

AND10481

SHEET 1 OF 2

NOT A PART NUMBER

2 AT ANY ANGLE GREATER THAN 90° SHALL PREFERABLY HAVE THEIR LENGTHS DEFINED BY DIMENSIONS PARALLEL TO THE SURFACES; OR, BY ANGULAR AND OFFSET DIMENSIONS; OR, BY OFFSET DIMENSIONS ALONE. ADDITIONAL TOLERANCES MAY BE REQUIRED.



(PREFERRED) (PERMISSIBLE)

J PROVIDE RADII ON ALL EXTERNAL CORNERS AND INTERNAL FILLETS. (EXTRUSIONS ARE NOT NORMALLY MADE WITH SHARP CORNERS AND MINIMUM RADII VALUES VARY BY EXTRUSION ALLOY).

K TOLERANCES ON CROSS-SECTIONAL DIMENSIONS OF THE EXTRUSION SHALL BE SPECIFIED BY ONE OF THE FOLLOWING METHODS:

1 INDIVIDUAL TOLERANCE VALUES NOTED BY EACH DIMENSION.

2 A GENERAL NOTE REFERENCING AND10366 OR SUPERSEDING GOVERNMENT SPECIFICATION STANDARD TOLERANCE VALUES.

3 AN AND10366 REFERENCE NOTE, SPECIFYING ANY NON-STANDARD TOLERANCE AS A PART OF THE DIMENSION CALLOUT.

L SYMMETRICAL SECTIONS

WHEN DIMENSIONING SYMMETRICAL SECTIONS, THE WHOLE CROSS SECTION SHALL BE SHOWN; HOWEVER, IT SHALL BE PERMISSIBLE TO SPECIFY RADII AND OTHER DIMENSIONS ON ONE HALF OF THE SHAPE, DEPICTING A CENTER LINE, AND NOTING "SYMMETRICAL ABOUT ℄". DO NOT SHOW DIMENSIONS TO THE CENTER LINE FOR LOCATION OF WEBS, ETC.

M GENERAL NOTES ON DRAWING

CORNER AND FILLET RADII MAY BE SPECIFIED IN THE FORM OF A GENERAL NOTE ON THE DRAWING.

N REFERENCE DIMENSIONS

1 THE TERM "REFERENCE" (REF) IS USED TO RECORD A USEFUL MEAN DIMENSION APPROXIMATE IN THE SENSE THAT WITHOUT THE SUFFIX IT MIGHT CONFLICT WITH ACCUMULATED TOLERANCES. IT DOES NOT CARRY A TOLERANCE AND IT IS NOT A WORKING DIMENSION.

2 REFERENCE DIMENSIONS SHALL BE SHOWN ON EXTRUDED SECTION DRAWINGS ONLY WHEN REQUIRED FOR CLARIFICATION. IN NO CASE SHALL A WORKING DIMENSION BE LABELED AS "REFERENCE" BECAUSE OF DIFFICULTY IN INSPECTION WITH ORDINARY GAGING EQUIPMENT.

O MATING SECTIONS

WHEN EXTRUSIONS ARE DESIGNED AND DIMENSIONED TO MATE WITH OTHERS, THE MANNER OF ASSEMBLY SHOULD BE SHOWN IN PHANTOM. WHENEVER PRACTICAL THE DIMENSIONS THAT CONTROL THE ASSEMBLY SHOULD BE SPECIFIED.

NOTES

1 STANDARD INSPECTION EQUIPMENT CONSISTS OF:

1	OUTSIDE MICROMETER	6	PROTRACTOR
2	INSIDE MICROMETER	7	OUTSIDE CALIPERS
3	DEPTH GAGE	8	INSIDE CALIPERS
4	FLATNESS GAGE	9	RADIUS GAGE
5	SQUARE	10	PLUG GAGE

2 SPECIAL INSPECTION EQUIPMENT CONSISTS OF ANY TOOL CONSTRUCTED TO SPECIFICALLY INSPECT A PORTION OF A PARTICULAR EXTRUSION. EXAMPLES:

1 MAXIMUM AND MINIMUM TEMPLATES.
2 GO AND NO-GO GAGES.

3 THE EXTRUSION PURCHASER'S DRAWINGS SHALL BE THE ONLY AUTHORITY FOR ACCEPTANCE OF EXTRUSIONS IN THE PURCHASER'S PLANT. CHANGES MAY BE NEGOTIATED BETWEEN THE EXTRUSION PRODUCER AND THE PURCHASER ON THE PURCHASER'S DRAWING OR MARKED-UP PHOTOSTATIC PRINTS OF IT.

APPROVED 18 Oct 90 REVISED (A) FOR CHANGES SEE SHEET 1

AIR FORCE-NAVY AERONAUTICAL DESIGN STANDARD

STANDARD DIMENSIONING SYSTEM FOR EXTRUDED SECTIONS

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