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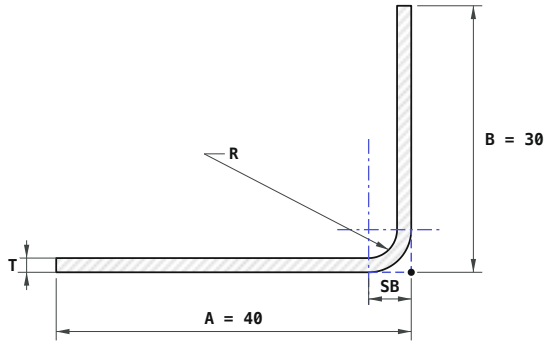
Bend Deduction Chart for 90° Bends, Metric

BD = 2 SB − BA · blank = A + B − BD · outside dimensions

REFERENCE DRAWING — NOT APPROVED DATA · THE SRM ALWAYS GOVERNS

SECTION · 90° BEND

T 1.6 · R 3.2 · A 40 · B 30 · ALL IN MM, TO SCALE



WORKED EXAMPLE

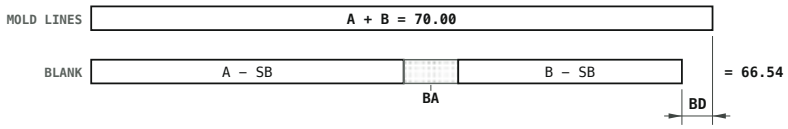
T 1.6 MM · R 3.2 MM · 90°

STEP	RESULT
SB = R + T	4.80 mm
BA	6.14 mm
BD = 2 SB − BA	3.46 mm
A + B	70.00 mm
Blank = A + B − BD	66.54 mm

BA = (0.01743 R + 0.0078 T) × 90
Mold lines are the outside dimensions.
90° only. For other angles use
SB = tan(angle/2) × (R + T).

THE BLANK IS SHORTER THAN A + B

BARS TO SCALE: 6 PX PER MM



BD = 2 SB − BA

at 90° BD = 0.4313 R + 1.298 T

NOTES

1. Dimensions in inches. Do not scale: the SRM sets the values.
2. For reference. The applicable manual always governs.
3. Based on FAA-H-8083-31A ch. 4.

REVISIONS

REV	DESCRIPTION	DATE
A	First issue	2026-10-30

The Aviation Point. — Structural repair reference

TITLE			
Bend deduction, metric			
DRAWING NO.	REV	SCALE	SHEET
TAP-DWG-008	A	TO SCALE	1 OF 1
CODE			
General			

DO NOT SCALE DRAWING

After FAA-H-8083-31A Vol. 1 pp. 4-60 to 4-67. The figures are the formulas applied in millimetres; typical only, the part's drawing and the SRM govern.

Bend deduction, 90° bend, mm

T \ R	R 1	R 2	R 3	R 4	R 5	R 6
0.8 mm	1.47	1.90	2.33	2.76	3.19	3.63
1.0 mm	1.73	2.16	2.59	3.02	3.45	3.89
1.6 mm	2.51	2.94	3.37	3.80	4.23	4.66
2.0 mm	3.03	3.46	3.89	4.32	4.75	5.18
2.5 mm	3.68	4.11	4.54	4.97	5.40	5.83
3.2 mm	4.58	5.02	5.45	5.88	6.31	6.74

Key points

- **BD = 0.4313 R + 1.298 T** at 90°, in any unit; from SB = R + T and BA = (0.01743 R + 0.0078 T) × 90.
- **Blank = sum of the outside dimensions − one BD per bend.** It must come out shorter than the sum.
- **90° only.** Other angles: SB = tan (angle / 2) × (R + T).
- Check the radius against the alloy and the SRM first.

Step by step

1. Take T and the inside R from the drawing.
2. Read BD, or compute 0.4313 R + 1.298 T.
3. Add the outside dimensions; subtract BD for each bend.
4. Bend a test strip and measure.

SOURCES · FAA-H-8083-31A, AMT Handbook: Airframe, Volume 1, Chapter 4 · FAA AC 43.13-1B CHG 1, Chapter 4, par. 4-56

SCAN · OPEN THIS GUIDE
theaviationpoint.com/charts/bend-deduction-metric/

Educational reference only, not approved data. Always consult the applicable SRM, AMM, or AC 43.13-1B and your certifying authority.

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