

Conduit Bend Multiplier Calculator

Calculate an offset-bend multiplier, travel distance, and geometry shrink from entered angle and offset depth.

Generated October 10, 2026

<https://www.elecatrix.com/conduit-bending/conduit-bend-multiplier-calculator/>

Inputs

Input	Value	Unit
Bend angle	30	deg
Offset depth	4	in

Results

Result	Value	Unit
Offset multiplier	2	x
Shrink per inch of offset	0.2679	x
Travel between bends	8	in
Geometry shrink	1.0718	in
Bend angle used	30	deg

Calculation details

Detail	Value	Unit
Calculation basis	The mode derives the offset multiplier from the sine of the entered bend angle and applies it to the entered offset depth.	
Layout boundary	Mode arithmetic only; verify the actual bender markings, conduit, springback, bend direction, and field layout separately.	

Formulas

$$M_{\text{offset}} = (1/\sin(\theta))$$

$$T = D_{\text{offset}} \times M_{\text{offset}}$$

$$F_{\text{shrink}} = \tan((\theta/2))$$

$$S_{\text{shrink}} = D_{\text{offset}} \times F_{\text{shrink}}$$

Warnings and limitations

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