

Parallel Offset Calculator

Use offset rise, bend angle, conduit center spacing, first mark, and conduit count to lay out staggered marks for parallel conduit offsets.

Generated October 10, 2026

<https://www.elecatrix.com/conduit-bending/parallel-offset-calculator/>

Inputs

Input	Value	Unit
Offset rise	4	in
Bend angle	30	deg
Center-to-center spacing	2	in
First conduit first mark	24	in
Number of conduits	3	

Results

Result	Value	Unit
Travel between marks	8	in
Offset multiplier	2	x
Adjacent first-mark stagger	0.5359	in
First conduit first mark	24	in
First conduit second mark	32	in
Last conduit first mark	25.0718	in
Last conduit second mark	33.0718	in
Two-bend offset shrink	1.0718	in
Bend angle	30	deg

Formulas

$\text{offset multiplier} = 1 / \sin(\text{angle})$

$\text{travel between marks} = \text{rise} / \sin(\text{angle})$

$\text{adjacent mark stagger} = \text{center-to-center spacing} \times \tan(\text{angle} / 2)$

$\text{first conduit second mark} = \text{first conduit first mark} + \text{travel between marks}$

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`last conduit first mark = first conduit first mark + adjacent first-mark stagger x
(number of conduits - 1) under the later-mark convention`

`last conduit second mark = last conduit first mark + travel between marks`

`two-bend offset shrink = rise x tan(angle / 2)`

Warnings and limitations

This is a field-layout estimate for parallel conduit marks using a later-mark convention across the group. Confirm bend-plane conduit spacing, reference side, bend direction, springback, bend sequence, available straight length, raceway support, and bender behavior before marking the group.