

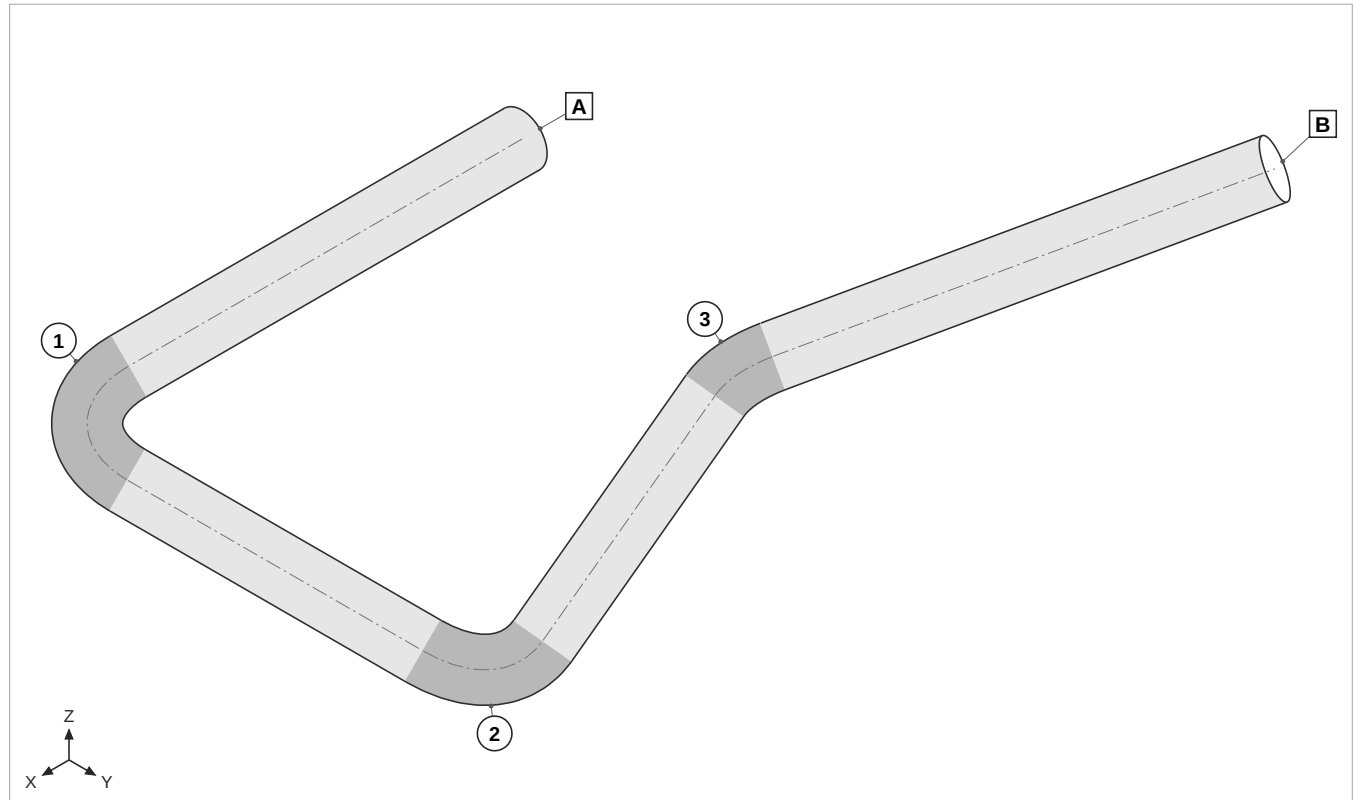
TUBE BEND DATA

Tube fabrication example 2026-10-05
Total: 9 pcs Cut length: 7455.5 mm Mass: 8.46 kg
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#2 TP00001 / r1

QTY x5

TUBE 25 x 2 Precision tube EN 10305	MATERIAL Steel	CLR (DIE) Mixed: see table	CUT LENGTH 908.3 mm
BENDS 3	BENDER / DIE Sample setup / r1	SPRINGBACK None	MASS EACH 1.03 kg



Isometric view, component orientation (Z up). Not to scale - dimensions are in the table.
Overall size X 262.5 x Y 521.2 x Z 319.0 mm

BEND TABLE (LRA)

BEND	L FEED (mm)	R ROTATION (°)	A ANGLE (°)	CLR (mm)	MARK FROM A (mm)
1	200.0	0.0	90.0	50.0	200.0
2	150.0	90.0	60.0	70.0	428.5
3	175.0	-120.0	45.0	40.0	676.8
End	200.0				

NOTES

- End A leads: bends are numbered from end A (bend 1 is nearest to it) and the collet grips end B.
- L = straight between bend tangent points (incremental). The first L is measured from end A; End = the straight after the last bend.
- R = tube rotation between bends, counter-clockwise positive, seen from the front of the bender (where the bent part comes out) looking back along the tube toward the carriage (right-hand rule about the feed direction). Bend 1 is 0 (zero at first bend).
- A = finished bend angle (design).
- MARK FROM A = distance from end A to the start of each bend.
- CUT LENGTH = developed centreline length; no grip, trim or stock allowance added. Lengths in mm, angles in degrees.
- CLR = die centreline radius; the radii differ in this tube, see the CLR column.
- Tolerances: per order or customer drawing (the design gives none).
- Check:** Mixed bend radii in one tube (40, 50, 70 mm): one die per tube is the norm.
- Check:** CLR 40 mm < 2 x OD (25 mm): tight for rotary draw bending without a mandrel.

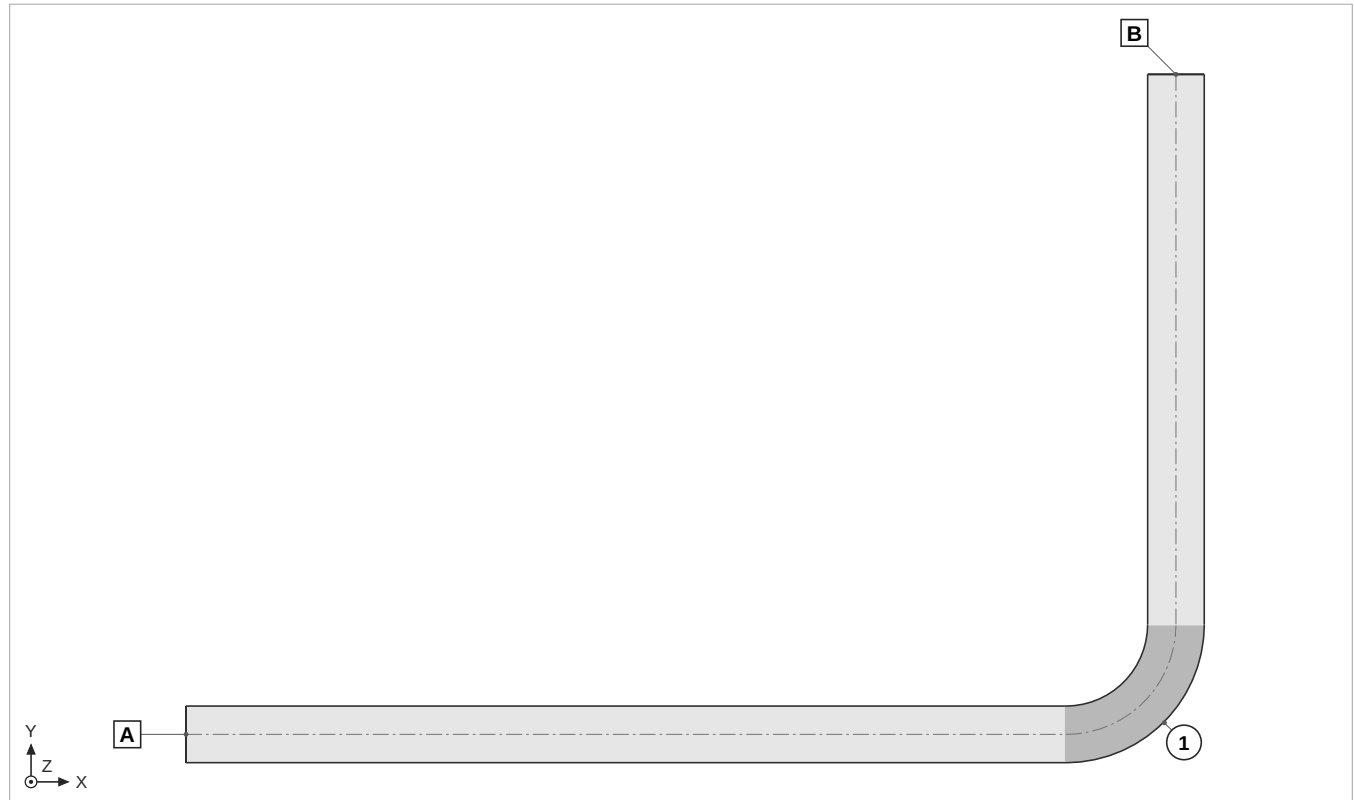
TUBE BEND DATA

Tube fabrication example 2026-10-05
Total: 9 pcs Cut length: 7455.5 mm Mass: 8.46 kg
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#3 TP00003 / r1

QTY x4

TUBE 25 x 2 Precision tube EN 10305	MATERIAL Steel	CLR (DIE) 50 mm	CUT LENGTH 728.5 mm
BENDS 1	BENDER / DIE Sample setup / r1	SPRINGBACK None	MASS EACH 0.83 kg



True-shape view of the bend plane (the tube lies in one plane), component axes. Not to scale - dimensions are in the table.
Overall size X 462.5 x Y 312.5 x Z 25.0 mm

BEND TABLE (LRA)

BEND	L FEED (mm)	R ROTATION (°)	A ANGLE (°)	MARK FROM A (mm)
1	400.0	0.0	90.0	400.0
End	250.0			

NOTES

- End A leads: bends are numbered from end A (bend 1 is nearest to it) and the collet grips end B.
- L = straight between bend tangent points (incremental). The first L is measured from end A; End = the straight after the last bend.
- R = tube rotation between bends, counter-clockwise positive, seen from the front of the bender (where the bent part comes out) looking back along the tube toward the carriage (right-hand rule about the feed direction). Bend 1 is 0 (zero at first bend).
- A = finished bend angle (design).
- MARK FROM A = distance from end A to the start of each bend.
- CUT LENGTH = developed centreline length; no grip, trim or stock allowance added. Lengths in mm, angles in degrees.
- CLR = die centreline radius.
- Tolerances: per order or customer drawing (the design gives none).