



CNC Bender Details

A reference guide outlining standard tube bending tolerances and critical design parameters to support accurate fabrication and consistent part quality.

Swagelok Oklahoma / West Texas

CNC Bender Capabilities

TUBING OD [in]	CENTERLINE RADIUS (CLR) BEND OPTIONS [in]			MINIMUM STRAIGHT LENGTH BETWEEN BENDS [in]
1/8	0.375	0.563		0.25
1/4	0.500	0.563	0.750	0.5
3/8	0.938	1.750		0.75
1/2	1.500			1
3/4	2.200			1.5
1	2.000	3.230		1.5
1 1/4	3.250			2
1 1/2	4.500			2.5

LEGEND
PREFERRED
SECONDARY

STANDARD TUBE BENDING TOLERANCES	
TWO PLACE	X.XX ± 0.13
THREE PLACE	X.XXX ± 0.125
ANGLE	X ± 2.0°

