

ASTM A420 WPL6 ASME B16.9 Long Radius 90 Degree Elbow

The ASTM A420 WPL6 90-degree long radius (LR) elbow is designed for low-temperature pressure piping systems requiring excellent impact toughness. Manufactured in accordance with ASME B16.9, the long radius design ($R = 1.5D$) provides smooth flow transition and reduced pressure loss.

- Material: ASTM A420 WPL6 carbon steel
- Elbow Type: 90° Long Radius (LR), $R = 1.5D$
- Connection: Butt welding
- Dimensional Standard: ASME B16.9
- Service: Low-temperature and cryogenic applications

Low Temperature Impact (CVN) Requirement

ASTM A420 WPL6 fittings are supplied with Charpy V-Notch (CVN) impact testing to ensure adequate toughness at low temperatures.

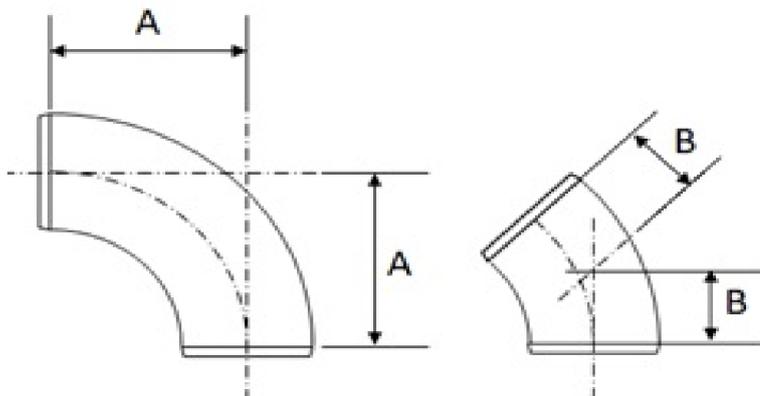
Typical requirement:

- Test temperature: -46°C (-50°F)
- Minimum average absorbed energy: 27 J (20 ft-lbf)
- Minimum single value: 20 J (15 ft-lbf)

Impact test results are provided in the EN 10204 3.1 Material Test Certificate.

Standard Drawing of ASME B16.9 90° & 45° Long Radius Elbows

Note: Dimension **A** applies to 90° long radius elbows. Dimension **B** applies to 45° long radius elbows. All dimensions are in accordance with ASME B16.9.



Standard drawing of ASME B16.9 90°
& 45° long radius (L/R) elbows

ASME B16.9 90° Long Radius Elbow Dimensions (Dimension A)

NPS	Outside Diameter (mm)	Center-to-End A (mm)
1/2	21.3	38
3/4	26.7	38
1	33.4	38
1-1/4	42.2	48
1-1/2	48.3	57
2	60.3	76
3	88.9	114
4	114.3	152
6	168.3	229
8	219.1	305
10	273.0	381
12	323.8	457
14	355.6	533
16	406.4	610
18	457.0	686
20	508.0	762
24	610.0	914
30	762.0	1143
36	914.0	1372
42	1067.0	1600
48	1219.0	1829