

Drop Installation

When installing drop cable (i.e., from the pole to the home, to the ground block, through the wall, and to the television set), there are many points where the cable is subject to tight bends. The tightness of each bend should be controlled in order to avoid compromising cable performance. The key areas of concern are:

1. The stiff copper clad steel conductor should not be bent so tightly that it's forced against the softer foamed polyethylene. Excessive forces could result in an impedance drop, causing signal reflections. In very extreme conditions, the conductor could eventually make contact with the shield, resulting in a short.
2. The laminated shielding tapes should not be stressed so severely that the coating develops fissures and cracks, compromising shielding performance.

In order to assure that excessive internal mechanical stresses are not developed, a minimum bend radius is recommended below for each of our basic drop cable designs.

Flexure

The radii shown are not intended for applications where the cable will be continually flexed or subjected to severe tension or sidewall pressure. If the cable were being installed in densely packed electronic equipment bend

radii as large as 10 times the cable diameter would be recommended. If the cable were subject to moderate or even slight continuous flexing, radii as large as 25-100 times the cable diameter might even be required for long life freedom from material degradation due to fatigue.

One Time Bends

For conventional cable TV home wiring, bends are put in as part of the drop installation which will not be subject to subsequent flexure as part of their normal use. There may also be small stress relieving loops, where applicable, and the cable will not be subject to high tension forces or severe sidewall crushing, while being bent.

Under these typical cable TV installation conditions, the minimum bend radius can be as small as 3.0-3.5 times the cable diameter as shown below:

Recommendations

TFC drop cable utilizes a gas injected dielectric, containing a significant proportion of high density polyethylene. Therefore, the dielectric is tough and capable of withstanding relatively high levels of abuse. The bend radii provided are conservatively selected and are based on a rugged drop cable design. Therefore, these represent the smallest bend radii applicable to drop cable regardless of the source.

Minimum Recommended Bend Radius inches (millimeters)					
	Series 59	Series 6	Series 7	Series 11	TX Flexible Feeder
Tape/Braid	0.750(19.050)	1.000(25.400)	1.1250(28.580)	1.375(34.930)	2.000(50.800)
QuadShield	0.875(22.230)	1.000(25.400)	1.250(31.750)	1.500(38.100)	2.500(63.500)