

Introducing Tech Tip Tuesday

(say that really fast 5 times!)



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Today's Tip: Refrigerant Tubing

Refrigerant tubing is measured in terms of actual length and equivalent length. Actual length is used for refrigerant charge applications. Equivalent length takes into account pressure losses from tubing length, fittings, vertical separation, accessories, and filter driers. The table below references commonly used equivalent lengths.

Table 1

Equivalent Length for Fittings (ft) [m]							
Line Size (in) [mm]	90° Short Radius Elbow	90° Long Radius Elbow	45° Elbow	Solenoid Valve	Check Valve	Site Glass	Filter Drier
3/8 [9.53]	1.3 [0.40]	0.8 [0.24]	0.3 [0.09]	6 [1.83]	4 [1.22]	0.4 [0.12]	6 [1.83]
1/2 [12.71]	1.4 [0.43]	0.9 [0.27]	0.4 [0.12]	9 [2.74]	5 [1.52]	0.6 [0.18]	6 [1.83]
5/8 [15.88]	1.5 [0.46]	1 [0.30]	0.5 [0.15]	12 [3.66]	6 [1.83]	0.8 [0.24]	6 [1.83]
3/4 [19.05]	1.9 [0.58]	1.3 [0.40]	0.6 [0.18]	14 [4.27]	7 [2.13]	0.9 [0.27]	6 [1.83]
7/8 [22.23]	2.3 [0.70]	1.5 [0.46]	0.7 [0.21]	15 [4.57]	8 [2.44]	1 [0.30]	6 [1.83]
1-1/8 [28.58]	2.7 [0.82]	1.8 [0.55]	0.9 [0.27]	22 [6.71]	12 [3.66]	1.5 [0.46]	6 [1.83]

The filter drier is a designed restriction and must be counted in your equivalent length formula. Remember, as per the manual, to add 6 oz. [170 g] for field-installed filter drier (5.4.2 Preliminary Charging by Weight).



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