

TECHNICAL BULLETIN TB269


EVERLOC+™ FITTING EQUIVALENT LENGTHS

Product: EVERLOC+ Fittings

Date: 05 August 2019 (supersedes 18 May 2018)

It is common practice for designers to convert the pressure drop across fittings to an average equivalent length of pipe. These equivalent lengths are added to the total pipe length. Designers can then calculate total pressure loss using this adjusted piping system length.

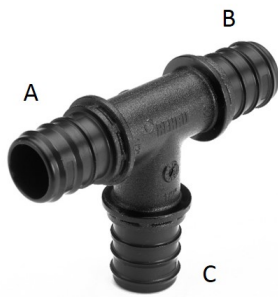
Fitting Pressure Loss Expressed as Equivalent Length of Pipe:

	Fitting Description	Equivalent Length (ft)
	3/8" x 3/8" EVERLOC+ LF Brass Coupling	1.1
	1/2" x 1/2" EVERLOC+ Polymer Coupling	0.4
	5/8" x 5/8" " EVERLOC+ LF Brass Coupling	1.0
	3/4" x 1/2" EVERLOC+ Polymer Coupling	2.1
	3/4" x 3/4" EVERLOC+ Polymer Coupling	0.8
	1" x 3/4" EVERLOC+ Polymer Coupling	2.7
	1" x 1" EVERLOC+ Polymer Coupling	1.1
	1 1/4" x 3/4" EVERLOC+ LF Brass Coupling	3.5
	1 1/4" x 1" EVERLOC+ Polymer Coupling	4.0
	1 1/4" x 1 1/4" EVERLOC+ Polymer Coupling	2.0
	1 1/2" x 1" EVERLOC+ Polymer Coupling	4.8
	1 1/2" x 1 1/2" EVERLOC+ Polymer Coupling	2.0
	2" x 1/2" EVERLOC+ LF Brass Coupling	3.5
	2" x 3/4" EVERLOC+ LF Brass Coupling	3.8
	2" x 1" EVERLOC+ LF Brass Coupling	5.2
	2" x 1 1/4" EVERLOC+ LF Brass Coupling	5.3
	2" x 1 1/2" EVERLOC+ LF Brass Coupling	6.1
	2" x 2" EVERLOC+ Polymer Coupling	2.2


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Fitting Description (A x B x C)	Equivalent Length Run (ft)	Equivalent Length Branch (ft)
1/2" x 1/2" x 1/2" EVERLOC+ Polymer Tee	0.8	4.4
1/2" x 1/2" x 3/4" EVERLOC+ Polymer Tee	-	4.1
3/4" x 1/2" x 1/2" EVERLOC+ Polymer Tee	2.4	4.3
3/4" x 1/2" x 3/4" EVERLOC+ Polymer Tee	2.4	7.6
3/4" x 3/4" x 1/2" EVERLOC+ Polymer Tee	1.3	4.0
3/4" x 3/4" x 3/4" EVERLOC+ Polymer Tee	1.2	7.6
3/4" x 3/4" x 1" EVERLOC+ Polymer Tee	-	6.8
1" x 1" x 1/2" EVERLOC+ Polymer Tee	1.6	3.9
1" x 3/4" x 3/4" EVERLOC+ Polymer Tee	2.8	6.5
1" x 3/4" x 1" EVERLOC+ Polymer Tee	3.1	10.9
1" x 1" x 3/4" EVERLOC+ Polymer Tee	1.2	6.7
1" x 1" x 1" EVERLOC+ Polymer Tee	1.6	10.6
1 1/4" x 1" x 3/4" EVERLOC+ LF Brass Tee	3.7	5.4
1 1/4" x 1" x 1" EVERLOC+ Polymer Tee	3.8	9.7
1 1/4" x 1" x 1 1/4" EVERLOC+ LF Brass Tee	4.3	9.6
1 1/4" x 1 1/4" x 1/2" EVERLOC+ LF Brass Tee	0.8	5.0
1 1/4" x 1 1/4" x 3/4" EVERLOC+ LF Brass Tee	1.3	5.5
1 1/4" x 1 1/4" x 1" EVERLOC+ Polymer Tee	2.3	10.1
1 1/4" x 1 1/4" x 1 1/4" EVERLOC+ Polymer Tee	2.2	14.4
1 1/2" x 1" x 3/4" EVERLOC+ LF Brass Tee	6.8	6.8
1 1/2" x 1" x 1" EVERLOC+ LF Brass Tee	5.5	7.9
1 1/2" x 1" x 1 1/2" EVERLOC+ LF Brass Tee	5.6	12.4
1 1/2" x 1 1/4" x 3/4" EVERLOC+ LF Brass Tee	4.5	5.5
1 1/2" x 1 1/4" x 1" EVERLOC+ LF Brass Tee	4.4	8.1
1 1/2" x 1 1/4" x 1 1/4" EVERLOC+ LF Brass Tee	4.5	9.5
1 1/2" x 1 1/4" x 1 1/2" EVERLOC+ LF Brass Tee	4.3	10.9
1 1/2" x 1 1/2" x 1/2" EVERLOC+ LF Brass Tee	1.0	4.9
1 1/2" x 1 1/2" x 3/4" EVERLOC+ LF Brass Tee	1.0	5.4
1 1/2" x 1 1/2" x 1" EVERLOC+ Polymer Tee	2.2	9.1
1 1/2" x 1 1/2" x 1 1/4" EVERLOC+ LF Brass Tee	1.7	9.6
1 1/2" x 1 1/2" x 1 1/2" EVERLOC+ Polymer Tee	2.6	17.0
2" x 1 1/4" x 2" EVERLOC+ LF Brass Tee	6.7	14.9
2" x 1 1/2" x 3/4" EVERLOC+ LF Brass Tee	5.8	5.7
2" x 1 1/2" x 1" EVERLOC+ LF Brass Tee	6.2	7.7
2" x 1 1/2" x 1 1/4" EVERLOC+ LF Brass Tee	6.3	9.5
2" x 1 1/2" x 1 1/2" EVERLOC+ LF Brass Tee	6.4	11.2
2" x 1 1/2" x 2" EVERLOC+ LF Brass Tee	6.5	14.6
2" x 2" x 1/2" EVERLOC+ LF Brass Tee	1.1	5.0
2" x 2" x 3/4" EVERLOC+ LF Brass Tee	1.0	5.9
2" x 2" x 1" EVERLOC+ Polymer Tee	3.2	9.0
2" x 2" x 1 1/4" EVERLOC+ LF Brass Tee	1.9	9.7
2" x 2" x 1 1/2" EVERLOC+ LF Brass Tee	1.9	10.9
2" x 2" x 2" EVERLOC+ Polymer Tee	4.0	25.3


	Fitting Description (A x B x C)	Equivalent Length Run (ft)	Equivalent Length Branch (ft)
	3/4" x 3/4" x 1/2" FPT EVERLOC+ LF Brass FIREPEX Tee	1.1	1.1
	1" x 1" x 1/2" FPT EVERLOC+ LF Brass FIREPEX Tee	1.5	0.6


	Fitting Description	Equivalent Length (ft)
	1/2" x 1/2" EVERLOC+ Polymer Elbow	1.9
	5/8" x 5/8" EVERLOC+ LF Brass Elbow	5.4
	3/4" x 3/4" EVERLOC+ Polymer Elbow	7.0
	1" x 1" EVERLOC+ Polymer Elbow	10.7
	1 1/4" x 1 1/4" EVERLOC+ Polymer Elbow	14.2
	1 1/2" x 1 1/2" EVERLOC+ Polymer Elbow	16.0
	1 1/2" x 1 1/2" EVERLOC+ LF Brass 45° Elbow	3.4
2" x 2" EVERLOC+ Polymer Elbow	24.2	


	Fitting Description	Equivalent Length (ft)
	1/2" x 1/2" C Male or 3/8" C Female EVERLOC+ LF Brass Elbow	7.4
	1/2" x 1/2" C Female EVERLOC+ LF Brass Elbow	7.2
	3/4" x 3/4" C Male EVERLOC+ LF Brass Elbow	7.4
3/4" x 3/4" C Female EVERLOC+ LF Brass Elbow	7.1	

	Fitting Description	Equivalent Length (ft)
	1/2" x 1/2" MPT EVERLOC+ LF Brass Drop Ear Elbow	7.6
	1/2" x 1/2" FPT EVERLOC+ LF Brass Drop Ear Elbow	4.9
	3/4" x 3/4" MPT EVERLOC+ LF Brass Elbow	7.5
	3/4" x 3/4" MPT EVERLOC+ LF Brass Drop Ear Elbow	7.7
	3/4" x 3/4" FPT EVERLOC+ LF Brass Drop Ear Elbow	9.01
	1" x 1" FPT EVERLOC+ LF Brass Drop Ear Elbow	13.6

	Fitting Description	Equivalent Length (ft)
	1" x 1/2" FPT EVERLOC+ LF Brass FIREPEX Elbow	0.6

	Fitting Description	Equivalent Length (ft)
	1/2" x 1/2" C Female EVERLOC+ LF Brass Adapter	2.3
	1/2" x 1/2" C Male or 3/8" C Female EVERLOC+ LF Brass Adapter	2.4
	1/2" x 3/4" C Female EVERLOC+ LF Brass Adapter	4.0
	3/4" x 1/2" C Female EVERLOC+ LF Brass Adapter	0.3
	3/4" x 1/2" C Male EVERLOC+ LF Brass Adapter	0.5
	3/4" x 1" C Female EVERLOC+ LF Brass Adapter	3.9
	3/4" x 3/4" C Female EVERLOC+ LF Brass Adapter	2.7
	3/4" x 3/4" C Male EVERLOC+ LF Brass Adapter	2.6
	1" x 1" C Female EVERLOC+ LF Brass Adapter	3.5
	1" x 1" C Male EVERLOC+ LF Brass Adapter	3.3
	1 1/4" x 1 1/4" C Female EVERLOC+ LF Brass Adapter	4.1
	1 1/4" x 1 1/4" C Male EVERLOC+ LF Brass Adapter	4.3
	1 1/2" x 1 1/2" C Female EVERLOC+ LF Brass Adapter	5.3
	1 1/2" x 1 1/2" C Male EVERLOC+ LF Brass Adapter	5.4
2" x 2" C Female EVERLOC+ LF Brass Adapter	7.0	
2" x 2" C Male EVERLOC+ LF Brass Adapter	6.9	

	Fitting Description	Equivalent Length (ft)
	3/8" x 1/2" MPT EVERLOC+ LF Brass Adapter	2.4
	1/2" x 1/2" MPT EVERLOC+ LF Brass Adapter	3.3
	5/8" x 1/2" MPT EVERLOC+ LF Brass Adapter	2.9
	5/8" x 3/4" MPT or 1/2" C Female EVERLOC+ LF Brass Adapter	3.6
	3/4" x 3/4" MPT EVERLOC+ LF Brass Adapter	3.4
	3/4" x 1" MPT EVERLOC+ LF Brass Adapter	4.3
	1" x 1" MPT EVERLOC+ LF Brass Adapter	3.8
	1 1/4" x 1 1/4" MPT EVERLOC+ LF Brass Adapter	4.9
	1 1/2" x 1 1/2" MPT EVERLOC+ LF Brass Adapter	5.9
2" x 2" MPT EVERLOC+ LF Brass Adapter	7.3	

	Fitting Description	Equivalent Length (ft)
	1/2" x 1/2" FPT EVERLOC+ LF Brass Adapter	2.8
	3/4" x 3/4" FPT EVERLOC+ LF Brass Adapter	2.8
	1" x 3/4" FPT EVERLOC+ LF Brass Adapter	0.1
	1" x 1" FPT EVERLOC+ LF Brass Adapter	3.6

For pipe pressure loss information, refer to REHAU *PEXa Piping Systems Pressure Loss Tables* (855.681).