1.2.3 Overview of flow loss coefficients (Zeta values)

Besides when the liquid flows through a pipe, it also loses energy when its changes direction. The liquid must then overcome extra resistance. The table below gives an overview of the flow loss coefficients of the different auxiliary parts and the corresponding number of metres of piping.

Auxiliary parts		Zeta values								
		Ø14	Ø16	Ø18	Ø20	Ø26	Ø32	Ø40	Ø50	Ø63
Curved bend		1,50	1,25	1,10	1,85	0,70	-	-	-	-
90° bend		4,20	3,40	2,80	2,05	1,40	1,00	0,80	0,55	0,50
90° T-piece	T-piece flow separator	5,20	4,45	3,85	3,20	1,70	1,20	0,85	0,70	0,65
	T-piece passage	4,00	3,05	2,25	1,35	0,85	0,55	0,40	0,35	0,30
	T-piece up cut with flow separator	4,30	4,15	3,10	1,95	1,50	1,10	0,90	0,75	0,70
	T-piece up cut with flow joint	4,30	4,15	3,10	1,95	1,50	1,10	0,90	0,75	0,70
Wall plate		3,25	2,80	2,55	2,15	1,30	-	-	-	-
Transition reduction		4,20	3,40	2,80	2,05	1,40	1,00	0,80	0,55	0,50
Fitting	(straight connector)	2,50	2,00	1,50	0,95	0,35	0,25	0,20	0,20	0,10

Auxiliary parts		Equivalent pipe length/m								
		Ø14	Ø16	Ø18	Ø20	Ø26	Ø32	Ø40	Ø50	Ø63
Curved bend		0,74	0,65	0,61	0,50	0,49	-	-	-	-
90° bend		1,65	1,50	1,35	1,20	1,10	1,00	1,20	1,20	1,30
90° T-piece	T-piece flow separator	1,65	1,60	1,55	1,50	1,45	1,35	1,30	1,30	1,40
	T-piece passage	1,60	1,30	1,00	0,70	0,75	0,60	0,60	0,70	0,70
	T-piece up cut with flow separator	1,90	1,70	1,50	1,30	1,25	1,20	1,40	1,40	1,50
	T-piece up cut with flow joint	1,90	1,70	1,50	1,30	1,25	1,20	1,40	1,40	1,50
Wall plate		1,28	1,30	1,33	1,35	1,10	-	-	-	-
Transition reduction		1,65	1,50	1,35	1,20	1,10	1,00	1,20	1,20	1,30
Fitting	(straight connector)	1,05	0,90	0,75	0,60	0,30	0,25	0,30	0,40	0,30