

LONGITUDES EQUIVALENTES A PERDIDAS DE CARGA LOCALIZADAS (expresadas en metros de longitud)

Valores de K		0.42	0.60	0.75	0.90	1.25	2.20	1.80	1.00	0.50	0.05	0.10	0.92	0.56	0.19	0.42	0.33	0.19	10.00	5.00	0.19	1.15	5.60	24.00	2.50	1.86	6.10	
DIAMETRO NOMINAL																												
m m.	puig.	Codo de 45°	Codo largo 90° y Tee pas directo	Codo mediano	Codo corriente	Codo recto	Codo corto de 180°	Tee solido de lado y bilateral	Salida de Reserv.	Salida de Reserv.	Salida de Reserv.	Salida de Reserv.	Ensayamientos bruscos			Contracciones			Valvula de		Valvula de compuerta				Valv. de		Valvula de pie y ca-nastilla	
													d/D= 1/4	d/D= 1/2	d/D= 3/4	d/D= 1/4	d/D= 1/2	d/D= 3/4	globo abierto	angulo abierto	todo abierto	1/4 abierto	1/2 cerrado	3/4 cerrado	Tipo Pesado	Tipo Liviano		
13	1/2	0.248	0.354	0.443	0.532	0.739	1.300	1.064	0.591	0.295	0.030	0.059	0.544	0.331	0.112	0.248	0.195	0.112	5.909	2.954	0.112	0.680	3.309	14.182	11.477	1.099	3.599	
19	3/4	0.363	0.518	0.648	0.777	1.080	1.900	1.554	0.864	0.432	0.043	0.086	0.794	0.484	0.164	0.363	0.285	0.164	8.636	4.318	0.164	0.993	4.837	20.727	2.159	1.606	5.260	
25	1	0.477	0.682	0.852	1.023	1.420	2.500	2.045	1.136	0.568	0.057	0.114	1.045	0.636	0.216	0.477	0.375	0.216	11.364	5.682	0.216	1.307	6.364	27.273	2.841	2.114	6.920	
32	1 1/4	0.611	0.873	1.091	1.309	1.818	3.200	2.618	1.454	0.727	0.073	0.145	1.338	0.814	0.276	0.611	0.480	0.276	14.545	7.272	0.276	1.673	8.145	34.909	3.636	2.705	8.858	
38	1 1/2	0.725	1.036	1.295	1.554	2.159	3.800	3.109	1.727	0.864	0.086	0.173	1.589	0.967	0.328	0.725	0.570	0.328	17.273	8.636	0.328	1.986	9.673	41.454	4.318	3.213	10.519	
50	2	0.954	1.364	1.704	2.045	2.841	5.000	4.091	2.273	1.136	0.114	0.227	2.091	1.273	0.432	0.954	0.750	0.432	22.727	11.364	0.432	2.614	12.727	54.545	5.682	4.227	13.841	
63	2 1/2	1.203	1.718	2.148	2.577	3.580	6.300	5.154	2.864	1.432	0.143	0.286	2.634	1.604	0.544	1.203	0.945	0.544	28.636	14.318	0.544	3.293	16.036	68.727	7.159	5.326	17.440	
75	3	1.432	2.045	2.557	3.068	4.261	7.500	6.136	3.409	1.704	0.170	0.341	3.136	1.909	0.648	1.432	1.125	0.648	34.091	17.045	0.648	3.920	19.091	81.818	8.523	6.341	20.761	
88	3 1/2	1.680	2.400	3.000	3.600	5.000	8.800	7.200	4.000	2.000	0.200	0.400	3.680	2.240	0.760	1.680	1.320	0.760	40.000	20.000	0.760	4.600	22.400	96.000	10.000	7.440	24.360	
100	4	1.909	2.727	3.409	4.091	5.682	10.000	8.182	4.545	2.273	0.227	0.454	4.182	2.545	0.864	1.909	1.500	0.864	45.454	22.727	0.864	5.227	25.454	109.090	11.364	8.454	27.682	
150	6	2.864	4.091	5.114	6.136	8.523	15.000	12.273	6.818	3.409	0.341	0.682	6.273	3.818	1.295	2.864	2.250	1.295	68.182	34.091	1.295	7.841	38.182	163.636	17.045	12.682	41.523	
200	8	3.818	5.454	6.818	8.182	11.364	20.000	16.364	9.091	4.545	0.454	0.909	8.364	5.091	1.727	3.818	3.000	1.727	90.909	45.454	1.727	10.454	50.909	218.182	22.727	16.909	55.364	
250	10	4.772	6.818	8.522	10.227	14.204	25.000	20.454	11.364	5.682	0.568	1.136	10.454	6.364	2.159	4.772	3.750	2.159	113.636	56.818	2.159	13.068	63.636	272.727	28.409	21.136	69.204	
300	12	5.727	8.182	10.227	12.273	17.046	30.000	24.545	13.636	6.818	0.682	1.364	12.545	7.636	2.591	5.727	4.500	2.591	136.364	68.182	2.591	15.682	76.364	327.273	34.091	25.364	83.045	
350	14	6.682	9.545	11.932	14.318	19.886	35.000	28.636	15.909	7.954	0.795	1.591	14.636	8.909	3.023	6.682	5.250	3.023	159.091	79.545	3.023	18.295	89.091	381.818	39.773	29.591	96.886	
400	16	7.636	10.909	13.636	16.363	22.727	40.000	32.727	18.182	9.091	0.909	1.818	16.727	10.182	3.454	7.636	6.000	3.454	181.818	90.909	3.454	20.909	101.818	436.364	45.454	33.818	110.727	
450	18	8.590	12.272	15.340	18.409	25.568	45.000	36.818	20.454	10.227	1.023	2.045	18.818	11.454	3.886	8.590	6.750	3.886	201.545	102.272	3.886	23.522	114.545	490.909	51.136	38.045	124.568	
500	20	9.545	13.636	17.045	20.454	28.409	50.000	40.909	22.727	11.364	1.136	2.273	20.909	12.727	4.318	9.545	7.500	4.318	227.272	113.636	4.318	26.136	127.272	545.454	56.818	42.272	138.409	
550	22	10.500	15.000	18.750	22.500	31.250	55.000	45.000	25.000	12.500	1.250	2.500	23.000	14.000	4.750	10.500	8.250	4.750	250.000	125.000	4.750	28.750	140.000	600.000	62.500	46.500	152.250	
600	24	11.454	16.363	20.454	24.545	34.091	60.000	49.091	27.273	13.636	1.364	2.727	25.091	15.272	5.182	11.454	9.000	5.182	272.727	136.364	5.182	31.363	152.727	654.545	68.182	50.727	166.091	
650	26	12.408	17.727	22.158	26.591	36.932	65.000	53.182	29.545	14.773	1.477	2.954	27.182	16.545	5.613	12.408	9.750	5.613	295.454	147.727	5.613	33.977	165.454	709.091	73.863	54.954	179.932	
700	28	13.363	19.090	23.863	28.636	39.773	70.000	57.273	31.818	15.909	1.591	3.182	29.273	17.818	6.045	13.363	10.500	6.045	318.182	159.091	6.045	36.590	178.182	763.636	79.545	59.182	193.773	
750	30	14.318	20.454	25.568	30.682	42.614	75.000	61.364	34.090	17.045	1.704	3.409	31.364	19.090	6.477	14.318	11.250	6.477	340.909	170.454	6.477	39.204	190.909	818.182	85.227	63.409	207.614	
900	36	17.181	24.545	30.681	36.818	51.136	90.000	73.636	40.909	20.454	2.045	4.091	37.636	22.909	7.772	17.181	13.500	7.772	409.090	204.545	7.772	47.045	229.090	981.818	102.272	76.090	249.136	
1050	42	20.044	28.636	35.794	42.954	59.659	105.000	85.909	47.727	23.864	2.386	4.773	43.909	26.727	9.068	20.044	15.750	9.068	477.272	238.636	9.068	54.886	267.272	1145.454	119.318	88.772	290.659	
1200	48	22.908	32.725	40.908	49.091	68.182	120.000	98.182	54.545	27.273	2.727	5.454	50.182	30.545	10.363	22.908	18.000	10.363	545.454	272.727	10.363	62.726	305.454	1309.091	136.363	101.454	332.182	
1250	50	23.862	34.090	42.612	51.136	71.022	125.000	102.272	56.818	28.409	2.841	5.682	52.272	31.818	10.795	23.862	18.750	10.795	568.181	284.090	10.795	65.340	318.181	1363.636	142.045	105.681	346.022	

FORMULA

$$L = \frac{K}{f}$$

L = longitud equivalente (mts)

K = coeficiente de pérdida de carga localizada

f = coeficiente de fricción (0.022)

D = diametro (mts.)