



High Pressure Flow of Propane Gas in DriscoPlex® Pipe

Inlet Pressure: 2 psig
Pressure Drop: 1 psig

Length (ft)	Calculated Maximum Capacity (Propane Gas) (1000 BTU's Per Hour)								
	CTS			IPS					
Nom OD	1/2	1	3/4	1	1-1/4	1-1/2	2	3	4
DR	7	11.5	11	11	10	11	11	11.5	11.5
Avg ID	0.436	0.918	0.848	1.062	1.308	1.534	1.917	2.855	3.670
10	1067	7568	6143	11102	19227	29225	52557	149736	289986
20	734	5201	4222	7630	13215	20086	36122	102913	199306
30	589	4177	3390	6128	10612	16130	29007	82643	160050
40	504	3575	2902	5244	9082	13805	24826	70732	136982
50	447	3168	2572	4648	8050	12235	22003	62688	121404
60	405	2871	2330	4211	7294	11086	19937	56800	110001
70	372	2641	2144	3874	6710	10199	18341	52255	101200
80	346	2457	1994	3604	6242	9488	17063	48613	94147
90	325	2305	1871	3382	5857	8902	16010	45612	88335
100	307	2178	1768	3195	5532	8409	15123	43085	83441
125	272	1930	1567	2831	4903	7453	13403	38186	73952
150	247	1749	1419	2565	4443	6753	12144	34599	67006
175	227	1609	1306	2360	4087	6213	11172	31831	61644
200	211	1497	1215	2196	3802	5780	10394	29612	57348
250	187	1326	1077	1946	3370	5122	9212	26245	50827
300	169	1202	976	1763	3053	4641	8347	23780	46053
350	156	1106	897	1622	2809	4270	7679	21877	42368
400	145	1029	835	1509	2613	3972	7144	20352	39415
450	136	965	783	1416	2452	3727	6703	19096	36982
500	129	912	740	1337	2316	3521	6331	18038	34933
600	116	826	670	1212	2099	3190	5737	16344	31652
700	107	760	617	1115	1931	2935	5278	15036	29119
800	100	707	574	1037	1796	2730	4910	13988	27090
900	94	663	538	973	1685	2562	4607	13124	25417
1000	88	627	509	919	1592	2420	4351	12397	24009
1500	71	503	408	738	1278	1943	3494	9955	19280
2000	61	431	350	632	1094	1663	2991	8521	16501

1. Average ID used in all calculations. It equals the nominal OD minus 2.12 times the minimum wall thickness.
2. For flow in SCF/hr at sea level divide flow by 2488. Heat value of Propane Gas is 2488 BTU/scf at sea level.
3. Calculations used high pressure (>1.5 psi) equation from Chapter 12 in National Fuel Gas Code.

$$Q = \frac{2284 D^{2.63}}{C_R^{0.541}} \cdot \left[\frac{(p_1 + 14.7)^2 - (p_2 + 14.7)^2}{L} \right]^{0.541}$$

Q = Flow (cubic ft per hr), D = ID (in), Cr = 1.2462 for propane, p1 = upstream pressure (psi),
 p2 = downstream pressure (psi), L = equivalent length (ft)

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