PERFORMANCE PIPE
A Division of Chevron Phillips Chemical Company LP

High Pressure Flow of Propane Gas in DriscoPlex® Pipe

Inlet Pressure: 10 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	1326	9403	7632	13794	23890	36312	65302	186048	360308
20	911	6462	5246	9481	16419	24957	44882	127869	247638
30	732	5190	4212	7613	13185	20041	36042	102684	198862
40	626	4442	3605	6516	11285	17153	30847	87884	170200
50	555	3937	3195	5775	10002	15202	27339	77890	150845
60	503	3567	2895	5233	9062	13774	24771	70574	136677
70	463	3281	2664	4814	8337	12672	22789	64927	125741
80	431	3053	2478	4479	7756	11789	21201	60402	116977
90	404	2864	2325	4202	7277	11061	19892	56673	109756
100	382	2706	2196	3969	6874	10448	18790	53533	103675
125	338	2398	1946	3518	6092	9260	16653	47446	91885
150	306	2173	1764	3187	5520	8390	15089	42989	83255
175	282	1999	1622	2932	5078	7719	13882	39549	76593
200	262	1860	1509	2728	4725	7181	12914	36793	71255
250	232	1648	1338	2418	4187	6365	11446	32609	63152
300	211	1493	1212	2191	3794	5767	10371	29546	57220
350	194	1374	1115	2015	3490	5305	9541	27182	52642
400	180	1278	1037	1875	3247	4936	8876	25288	48973
450	169	1199	973	1759	3047	4631	8328	23727	45950
500	160	1133	919	1662	2878	4374	7867	22412	43404
600	145	1026	833	1506	2608	3963	7128	20307	39327
700	133	944	766	1385	2399	3646	6557	18682	36181
800	124	878	713	1289	2232	3392	6100	17380	33659
900	116	824	669	1209	2094	3183	5724	16307	31581
1000	110	778	632	1142	1978	3006	5407	15404	29831
1500	88	625	507	917	1588	2414	4342	12370	23956
2000	75	535	434	785	1359	2066	3716	10587	20503

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.

$$Q = \frac{2284\ D^{2.63}}{C_R^{0.541}} \cdot \left[\frac{(p1+14.7)^2 - (p2+14.7)^2}{L} \right]^{0.541}$$

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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Performance Pipe , a division of
Chevron Phillips Chemical Company LP
PO Box 269006
Plano, TX 75026-9066
Phone: 800-527-0662
Fax: 972-599-7348