

**FORCE EFFECTS ON HOSE COUPLINGS FROM INTERNAL PRESSURE  
(in lbs.)**

I.D.	50 PSI	100 PSI	150 PSI	200 PSI	250 PSI	300 PSI	400 PSI	500 PSI	1000 PSI
1/4"	2.5	5	8	10	13	16	20	26	50
3/8"	5.5	11	17	22	28	34	44	56	110
1/2"	10	20	30	40	50	60	80	100	200
3/4"	22	44	66	88	110	132	176	220	440
1"	40	79	120	158	199	240	316	395	790
1 1/4"	62	123	186	246	309	372	492	618	1230
1 1/2"	88	177	264	354	441	528	708	882	1770
2"	157	314	471	638	785	942	1256	1570	3140
2 1/2"	245	491	735	982	1226	1470	1964	2452	4910
3"	354	707	1062	1414	1769	2124	2828	3535	7070
4"	628	1257	1884	2514	3141	3768	5028	6285	12570
5"	982	1964	2946	3928	4910	5892	7856	9820	19640
6"	1414	2827	4242	5654	7069	8484	11308	14135	28270
8"	2514	5027	7542	10054	12569	15084	20108	25135	50270
10"	3927	7854	11781	15708	19635	23562	31416	39270	78540
12"	5655	11310	16965	22620	28275	33930	45240	56550	113100

Force is the dynamic power which is exposed longitudinally through a hose, toward the ends. To arrive at the number of pounds of FORCE exerted, you multiply the area of the I.D. times the working pressure being used.  
 AREA OF A CIRCLE IS:  $\pi \times R^2$  (3.14 times radius squared)      FORCE = AREA x PRESSURE