

CYLINDER FORCE AND AIR CONSUMPTION TABLE

Theoretical Force @ Fluid Pressure											Cu. Ft. Free Air* Per In. Piston Travel at 80 PSI
Cyl. Dia.	Rod Dia.	40	60	80	100	125	200	250	450	650	
1½	PUSH	70.8	106.0	141.4	176.7	220.9	353.4	441.8	795.2	1149	.00658
	PULL 5/8	58.4	87.6	116.8	146.0	182.6	292.1	365.1	657.1	949.2	
	PULL 7/8	46.6	69.9	93.3	116.6	145.7	233.2	291.5	524.6	757.8	
2	PUSH	125.7	188.5	251.3	314.2	392.7	628.3	785.4	1414	2042	.01175
	PULL 5/8	113.4	170.1	226.8	283.5	354.4	567.0	708.7	1276	1843	
	PULL 7/8	101.6	152.4	203.2	254.0	317.5	508.1	635.1	1143	1651	
2½	PUSH	196.3	294.5	392.7	490.9	613.6	981.7	1227	2209	3191	.0183
	PULL ¾	178.7	268.0	357.3	446.7	558.4	893.4	1117	2010	2903	
	PULL 1	164.9	247.4	329.9	412.3	515.4	824.7	1031	1855	2680	
3	PUSH	282.7	424.1	565.5	706.9	883.6	1414	1767	3181	4595	.0264
	PULL ¾	265.1	397.7	530.1	662.7	828.4	1325	1657	2982	4307	
	PULL 1	251.3	377.0	502.7	628.3	785.4	1257	1571	2827	4084	
4	PUSH	502.7	754.0	1005	1257	1571	2513	3142	5655	8168	.0469
	PULL 1	471.2	706.9	942.5	1178	1473	2356	2945	5301	7658	
	PULL 1¼	453.6	680.3	907.1	1134	1417	2268	2835	5103	7370	
5	PUSH	785.4	1178	1571	1964	2454	3927	4909	8836		.0731
	PULL 1	754.0	1131	1508	1885	2356	3770	4712	8482		
	PULL 1¼	736.3	1104	1473	1841	2301	3682	4602	8284		
6	PUSH	1131	1696	2262	2827	3534	5655	7069	12723		.1055
	PULL 1¼	1082	1623	2164	2705	3381	5409	6762	12171		
	PULL 1½	1060	1590	2121	2651	3313	5301	6627	11928		
8	PUSH	2011	3016	4021	5027	6283	10053	12566	22619		.188
	PULL 1¾	1914	2872	3829	4786	5982	9572	11965	21537		
10	PUSH	3142	4712	6283	7854	9818	15708	19635	35343		.294
	PULL 2	3016	4524	6032	7540	9425	15080	18850	33929		
	PULL 2¼	2983	4474	5965	7456	9320	14913	18641	33554		
12	PUSH	4524	6786	9048	11310	14138	22620	28275	50895		.423
	PULL 2½	4328	6491	8655	10819	13524	21638	27048	48686		
	PULL 2¾	4286	6430	8573	10716	13395	21432	26790	48222		
14	PUSH	6158	9236	12315	15394	19243	30788	38485	69273		.575
	PULL 2¾	5920	8880	11840	14800	18500	29600	37000	66600		
	PULL 3	5875	8812	11750	14687	18359	29374	36718	66092		

*"Free Air" is normal atmospheric air (sea level) at compressor location. These figures are used in determining size of compressor required. Piston travel in double acting cylinders is twice the stroke. Free Air consumption at other line pressures will vary accordingly.

TIE-ROD (OR SOCKET HEAD CAP SCREWS ON CLASS M) TORQUE VALUES

CYLINDER DIA.	TIE ROD		CLASS 1-2	CLASS M
	DIA. THD.	QTY.	TORQUE — FT. LB.	TORQUE — FT. LB.
1.50"	5/16-24 NF	4	7	14
2.00"	5/16-24 NF	4	7	14
2.50"	5/16-24 NF	4	7	14
3.00"	3/8-24 NF	4	14	20
4.00"	3/8-24 NF	4	14	20
5.00"	3/8-24 NF	6	14	20
6.00"	3/8-24 NF	6	14	20
8.00"	1/2-20 NF	6	40	70
10.00"	3/4-16 NF	8	100	200
12.00"	3/4-16 NF	8	100	200
14.00"	7/8-14 NF	8	170	300