

Pressure Conversion Gauge

Listed below are some general instructions and loading pressure recommendations for hobby size rockets from ½” I.D. to 1½”. In general core burn rockets that use a black powder type mix are pressed to 6500 PSI and rockets that use a whistle mix propellant are pressed to 8800 PSI.

The most common rocket sizes and the square inch area:

4 oz.	½” diameter	.196 Square Inches of Area
8 oz.	⅝” diameter	.307 Square Inches of Area
1 lb.	¾” diameter	.441 Square Inches of Area
2 lb.	⅞” diameter	.600 Square Inches of Area
3 lb.	1” diameter	.785 Square Inches of Area
4 lb.	1¼” diameter	1.226 Square Inches of Area
6 lb.	1½” diameter	1.766 Square Inches of Area

This pressure conversion gauge is machined so that the piston area is exactly one square inch in area. This eliminates the necessity of knowing what size hydraulic cylinder your press has.

I have listed the actual pressures for both the Black powder fuels and the Whistle mix fuels for each size rocket. Column “A” is Black powder fuel and column “B” is Whistle mix fuels. Keep in mind that the listed pressure will give you the necessary 6500 PSI and 8800 PSI loading when taking into account the actual square inch area of the respective rocket size.

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“A” 6500 PSI Black Powder Rockets

1/2" I.D.	4 oz.	1,275 lbs.
5/8" I.D.	8 oz.	1,995 lbs.
3/4" I.D.	1 lb.	2,866 lbs.
7/8" I.D.	2 lb.	3,900 lbs.
1" I.D.	3 lb.	5,102 lbs.
1 1/4" I.D.	4 lb.	7,969 lbs.
1 1/2" I.D.	6 lb.	11,479 lbs.

“B” 8800 PSI Whistle Rockets

1/2" I.D.	4 oz.	1,724 lbs.
5/8" I.D.	8 oz.	2,700 lbs.
3/4" I.D.	1 lb.	3,880 lbs.
7/8" I.D.	2 lb.	5,280 lbs.
1" I.D.	3 lb.	6,900 lbs.
1 1/4" I.D.	4 lb.	10,780 lbs.
1 1/2" I.D.	6 lb.	15,540 lbs.