

Q - What is a Bushing Chart?

A – Modern shotshell loaders use powder bushings to measure the desired amount of powder for a given load. A Bushing Chart shows the relationship between a powder bushing (measuring volume) and the corresponding weight of a specific smokeless powder.

Q – How are Bushing Charts produced?

A – Generating a Bushing Chart is a 2-step process:

Step #1 The internal volume of each bushing is calculated using bushing dimensions provided by the Loader manufacturer. Using the nominal density for each specific powder (provided by the powder manufacturer), volumes and corresponding charge weights are calculated.

Step #2 Using multiple powder throws, the calculated charge weights are checked and verified at set intervals with specific bushings.

Notes on Using Bushing Charts and Loading Shotshell

- **Verify Charge Weights** – The charges weights shown in Bushing Charts are guidelines – verify the charge weight of a specific bushing and powder combination on a powder scale before you start loading.
- **Powder Density** – Hodgdon Powder Bushing Charts are based on the nominal density for each specific powder. The density for each specific smokeless powder may vary from lot to lot.
- **Grain Size** – Larger grain sizes will tend to throw lighter charges while smaller grain sizes will tend to throw heavier charges.
- **Consistency** – Be consistent in the loading process. Establish a loading process and stick to it as you load.
- **Single Stage vs Progressive** – Single stage machines tend to throw heavier charge weights than progressive machines.
- **Press Attachment** – Make sure your loading machine is solidly mounted to the loading surface.
- **Research** – Hodgdon has thousands of shotshell loads available online at hodgdonreloading.com where you can identify the correct powder for your specific application.
- **Powder Hoppers** – Do not leave powder in the loader hopper for long periods of time. Powder left inside the hopper can either lose or gain moisture over time.
- **Powder Dippers** – While there are several tools available on the market today that are used to scoop powder and measure it by volume, Hodgdon does not recommend the use of these tools. Hodgdon recommends that all smokeless powder be weighed on a scale.

PONSNESS-WARREN BUSHING CHART

#	NITRO 100 NF	PERF PATT	TITEWAD	COMP	CLAYS	700-X	HIGH GUN	TITEGROUP	WST	SUPER HDCP	INT'L	WIN 244	UNIV	WSF	HS-6	W572 & ISHOT	LIL'GUN	H110
1AX		8.8										9.9					12.0	
2AX		9.0										10.3					12.7	
3AX		9.3										10.6					13.1	
1A		9.9										11.2						13.7
2A		11.4										12.9						14.8
3A		11.5								11.8		13.1			15.3	13.0	15.0	15.6
A		13.4								13.5		15.2			16.8	15.0	17.8	17.5
B		13.5					14.5	14.5		13.8		15.4			17.6	15.5	18.1	
C		14.6					15.0	15.0		14.8		16.6	12.5		18.5	16.5	19.6	
C1		15.0					16.0	16.0		15.5		17.0	13.0	16.4	19.6	17.0	20.1	
D		15.5					16.3	16.3		15.7		17.6	13.2	16.6	20.4	17.3	21.4	
D1		16.2					17.0	17.0	12.6	17.0		18.4	14.0	17.7	21.3	18.2	22.4	
E		18.1					19.4	19.4	14.1	19.0		20.6	15.7	20.1	23.5	20.7	25.2	
E1		18.8					20.0	20.0	14.6	19.8		21.3	16.2	20.8	24.0	21.6	26.5	
E2	14.7	19.8	14.7	14.7		12.9	21.3	21.3	15.2	20.9		22.5	17.2	21.9	26.1	22.8	27.0	
F	15.6	20.9	15.6	15.6		13.9	22.7	22.7	16.4	22.1		23.7	18.1	23.2	27.5	24.2	27.9	
F1	15.8	21.2	15.8	15.8		14.0	22.9	22.9	16.5	22.2		24.0	18.3	23.4	28.3	24.4		
F2	16.4	22.1	16.4	16.4		14.6	23.5	23.5	16.9	23.1		25.0		24.2		25.3		
F6		23.9										27.1	18.9					
G	17.4	24.2	17.4	17.4		15.6	24.7	24.7	18.1	23.3		27.5	20.2	25.7	31.2	26.8		
G1	17.7		17.7	17.7		15.9			18.5	24.0			20.6	26.0	32.7	27.1		
H	18.9		18.9	18.9	16.0	17.1			19.7		18.5		22.0	28.0	34.0	29.0		
I	19.6		19.6	19.6	16.7	17.6			20.3		19.3		22.8	29.0	34.4	30.0		
J	20.3		20.3	20.3	17.2	18.4			20.9		19.8		23.9	30.2	35.5	31.2		
J1	21.0		21.0	21.0	17.6	19.2			21.7		20.3		24.5	31.1	36.9	32.0		
K	21.3		21.3	21.3	17.8	19.5			22.0		20.6		24.8	31.8	37.1	32.5		
L	22.2		22.2	22.2	18.7	20.1			23.1		21.6		25.7		39.5	34.0		
M	23.4		23.4	23.4	19.7	21.5			24.6		22.5		26.8		41.2	35.7		
N	25.2		25.2	25.2	20.8	22.9					23.7		28.2			38.0		
O					21.0						24.0		28.5			38.5		
P					21.5						24.5					39.9		
Q					21.9						25.0					40.1		
R																41.8		
S																42.5		
T																45.4		