

Step by Step Reloading process

Pistol ammunition

Step by Step Pistol Reloading Process

1. Check the condition of your brass before cleaning and after cleaning (I recommend de-priming used brass first before cleaning to clean the priming hole)
2. Clean and polish your brass – sift the media out of the cleaned brass
3. Trim the brass is necessary
4. Remove burrs from the brass
5. Clean the priming socket with a primer cleaning tool
6. De-prime and re-size your brass
7. Prime your brass
8. Flare the case
9. Charge the case with gunpowder
10. Seat the bullet
11. Crimp the case to the bullet

Check the condition of your cases

1. Visually examine the brass case
2. If there are any major dents or cracks in the brass discard the brass
3. Out of round is not a problem since the sizing will correct this
4. Once you are confident all your brass casings are in good condition you can proceed to the cleaning and polishing in a tumbler



Tumbling and sifting your brass

1. Using a walnut or corn cob media and polishing compound tumble your brass in the tumbler
2. It usually takes about 30 to 50 minutes to clean brass depending on the condition and degree of tarnish on the brass
3. Be sure to sift all the media from the brass before reloading. Some often gets stuck in primer pockets



Trimming Cartridge Brass

1. Once your brass is cleaned you may need to trim the brass. After several reloads the brass can stretch
2. Using a case trimmer or simple cast trimmer tools you can trim the brass to size and remove the burrs both inside the brass and outside
3. Use a caliper to determine the correct length of the case



Lubricating brass Cases

1. Before you attempt to resize your brass you should use a lubricating pad to lubricate the case shells
2. There are many different types of lubrication – find one that works for you
3. Spread some lubricant on the pad and run the brass up and down the pad to fully lubricate the brass shells.
4. You can also put a little lubrication on the uppermost part of the ins of the neck with a Q-tip.



Priming the Cartridge

1. Once the old primer has been removed you need to install a new primer
2. Make sure you use the correct size of primer. For most pistol cartridges, such as the .45 caliber you will use a standard pistol primer
3. Dump the primers into the primer tray making sure all are facing up by shaking the tray
4. Place the cover on the tray
5. Install clean, unprimed brass
6. Squeeze the handle to install a new primer in the cartridge



Charging the Brass

1. Once you have primed your cartridges you are ready to add gunpowder to the cartridge.
2. Select the correct pistol or rifle gunpowder for your size and follow the recipe tables precisely
3. Consult powder charging recipe guides such as the Hodgdon .223 sheet on the following slide
4. Use a good digital scale to measure out the right amount of gunpowder
5. Using a funnel pour the powder into each cartridge
6. Inspect the cartridges in good light to make sure you haven't double charged or missed a shell



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Bullet Weight (Gr.)	Manufacturer	Powder	Bullet Diam.	C.O.L.	Grs.	Vel. (ft/s)	Pressure	Grs.	Vel. (ft/s)	Pressure
35 GR. HDY V-MAX	IMR	IMR 8208 XBR	.224"	2.025"	23.0	3181	32,000 PSI	25.0C	3464	40,500 PSI
35 GR. HDY V-MAX	Hodgdon	Benchmark	.224"	2.025"	23.5	3138	33,700 CUP	25.0	3368	40,900 CUP
35 GR. HDY V-MAX	Hodgdon	H322	.224"	2.025"	23.5	3316	36,500 CUP	25.2C	3591	45,600 CUP
35 GR. HDY V-MAX	IMR	IMR 4198	.224"	2.025"	18.7	3252	34,300 PSI	20.8	3659	47,500 PSI
35 GR. HDY V-MAX	Hodgdon	H4198	.224"	2.025"	20.5	3366	36,500 CUP	22.0	3591	43,300 CUP
35 GR. HDY V-MAX	IMR	IMR 4227	.224"	2.025"	15.0	3195	38,500 PSI	17.4	3500	46,500 PSI
35 GR. HDY V-MAX	Hodgdon	H4227	.224"	2.025"	15.0	3095	38,100 CUP	17.2	3342	43,000 CUP
36 GR. BAR VG FB	Hodgdon	H335	.224"	2.150"	23.0	3293	43,000 PSI	24.5	3472	48700 PSI
36 GR. BAR VG FB	IMR	IMR 8208 XBR	.224"	2.150"	22.0	3144	36,700 PSI	25.0C	3582	40,400 PSI
36 GR. BAR VG FB	IMR	IMR 3031	.224"	2.150"	21.1	3147	40,700 PSI	22.4C	3356	47,000 PSI
36 GR. BAR VG FB	Hodgdon	Benchmark	.224"	2.150"	22.0	3178	38,500 PSI	24.0C	3471	48,300 PSI
36 GR. BAR VG FB	Hodgdon	H322	.224"	2.150"	22.3	3331	41,400 PSI	23.7	3535	47,500 PSI
36 GR. BAR VG FB	IMR	IMR 4198	.224"	2.150"	18.3	3199	40,000 PSI	19.5	3433	48,100 PSI
36 GR. BAR VG FB	Hodgdon	H4198	.224"	2.150"	19.3	3277	40,500 PSI	20.5	3470	46,700 PSI
40 GR. SIE HP	Hodgdon	H335	.224"	2.125"	22.5	3125	38,400 CUP	25.0	3371	44,600 CUP
40 GR. SIE HP	Hodgdon	H4895	.224"	2.125"	20.0	2572	23,300 CUP	24.0C	3133	34,200 CUP
40 GR. SIE HP	IMR	IMR 8208 XBR	.224"	2.125"	22.5	3049	30,400 PSI	25.0C	3452	42,800 PSI
40 GR. SIE HP	Hodgdon	Benchmark	.224"	2.125"	23.5	3110	34,800 CUP	25.0	3303	40,700 CUP
40 GR. SIE HP	Hodgdon	H322	.224"	2.125"	20.7	2966	31,700 CUP	23.0	3313	44,000 CUP
40 GR. SIE HP	IMR	IMR 4198	.224"	2.125"	19.0	3226	36,300 PSI	21.2C	3583	48,700 PSI
40 GR. SIE HP	Hodgdon	H4198	.224"	2.125"	19.5	3201	35,200 CUP	21.4	3480	45,700 CUP
40 GR. SIE HP	IMR	IMR 4227	.224"	2.125"	14.0	2984	38,100 PSI	16.0	3240	45,200 PSI
45 GR. SPR SP	Winchester	748	.224"	2.130"				25.5	3210	41,000 CUP
45 GR. SPR SP	Hodgdon	BL-C(2)	.224"	2.130"	23.0	2774	28,100 CUP	25.5	3100	37,400 CUP
45 GR. SPR SP	IMR	IMR 4895	.224"	2.130"	22.0	2829	33,100 PSI	24.0C	3134	42,800 PSI
45 GR. SPR SP	Hodgdon	H335	.224"	2.130"	21.5	2962	36,500 CUP	24.0	3252	46,200 CUP
45 GR. SPR SP	Hodgdon	H4895	.224"	2.130"	20.0	2510	25,000 CUP	23.8C	3080	35,900 CUP
45 GR. SPR SP	IMR	IMR 8208 XBR	.224"	2.130"	22.2	3121	38,700 PSI	23.6	3327	47,200 PSI
45 GR. SPR SP	IMR	IMR 3031	.224"	2.130"	20.0	2806	31,000 PSI	22.5C	3226	45,800 PSI
45 GR. SPR SP	Hodgdon	Benchmark	.224"	2.130"	23.0	3092	39,700 CUP	24.5	3290	44,900 CUP
45 GR. SPR SP	Hodgdon	H322	.224"	2.130"	20.5	2914	34,600 CUP	22.5	3173	43,600 CUP
45 GR. SPR SP	IMR	IMR 4198	.224"	2.130"	17.8	3083	40,600 PSI	19.8	3311	47,600 PSI
45 GR. SPR SP	Hodgdon	H4198	.224"	2.130"	18.9	3011	33,400 CUP	21.0	3315	44,800 CUP
45 GR. SPR SP	Hodgdon	H4227	.224"	2.130"	11.0	2259	24,300 CUP	14.5	2863	46,100 CUP
50 GR. HDY SP	Hodgdon	Varget	.224"	2.130"	23.0	2884	33,600 CUP	25.0C	3114	40,600 CUP
50 GR. HDY SP	IMR	IMR 4320	.224"	2.130"	22.5	2802	36,900 PSI	25.0C	3100	47,600 PSI
50 GR. HDY SP	IMR	IMR 4064	.224"	2.130"	21.0	2711	33,500 PSI	23.5C	3065	46,200 PSI
50 GR. HDY SP	Winchester	748	.224"	2.130"				24.0	2980	38,000 CUP

Alternate Method of Charging Brass

1. An inexpensive, fast, and accurate method of charging your brass with gunpowder are the Lee Yellow Dippers.
2. Simply scoop the appropriate dipper into the gunpowder, level with the top of the dipper and pour the gunpowder into the funnel.
3. Repeat for every cartridge.



A NITRO100	5.0	.44	.43	.5	645	5.5	757	12900 CUP	1.570
SOLO 1000	5.2					5.8	750	11600 CUP	1.570
ACCUR #2	5.2					5.8	707	12700 CUP	1.570
<div> <div> Selecting Reloading Data For Selected Bullet, Powder Type & Charge And Appropriate Powder Dipper </div> </div>									
255 Grain Lead Bullet									
ACCUR #5	9.4	.59	.57	.7	856	6.2	886	15167 CIP	1.600
VEC BA10	5.9	.80	.76	.7	856	6.2	886	15167 CIP	1.600
WIN 231	6.7	.63	.61	.5	835	7.1	875	13000 CUP	1.550
A NITRO100	5.0	.67	.66	.5	796	5.5	868	13100 CUP	1.600
ACC XMP5744	16.0	1.20	1.18	1.0	781	17.8	860	13100 CUP	1.600
VEC BA9	9.0	.83	.82	.7	830	9.0	830	8955 CIP	1.600
ACCUR #2	5.3	.44	.43	.3	740	5.9	813	12500 CUP	1.600
SOLO 1000	5.2	.69	.66	.5	724	5.9	807	12500 CUP	1.600



Die Sets

1. Reloading dies usually come in sets of 3 or 4 dies depending on the need and the caliber
2. The first die is the de-priming or de-capping die. This die also resizes the brass shell
3. It requires using lubrication except in the case of Carbide dies, which are more expensive
4. The second die is the bullet seating die
5. The third die is the factory crimp die



Re-sizing and decapping

1. Set up your reloading press on a solid bench
2. Insert the correct shellholder
3. Install the decapping and sizing die
4. Placing an empty cartridge in the shellholder raise the ram up to the top.
5. Screw down the die until it meets the brass then back off slightly.
6. Raise the ram again pushing the cartridge up into the sizing die
7. The old primer will fall out and the cartridge will be resized, ready to accept the powder charge

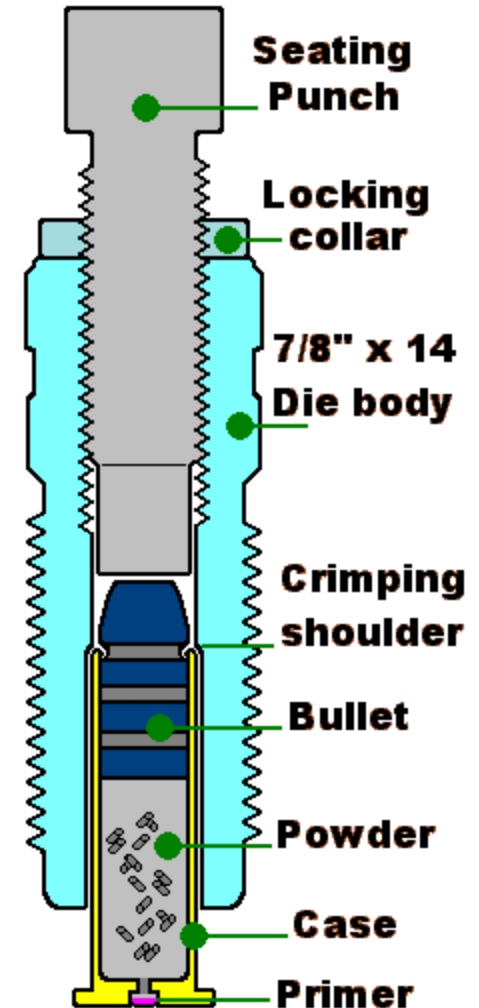


Bullet Seating

- Once your brass shell has been de-primed, resized, and loaded with powder its time to seat the bullet.
- Carefully position the bullet over the case and run the press up into the bullet seating die.
- Using a caliper or Overall Length Guide adjust the bullet seating die so the proper OAL has been achieved.



Lee bullet seating die



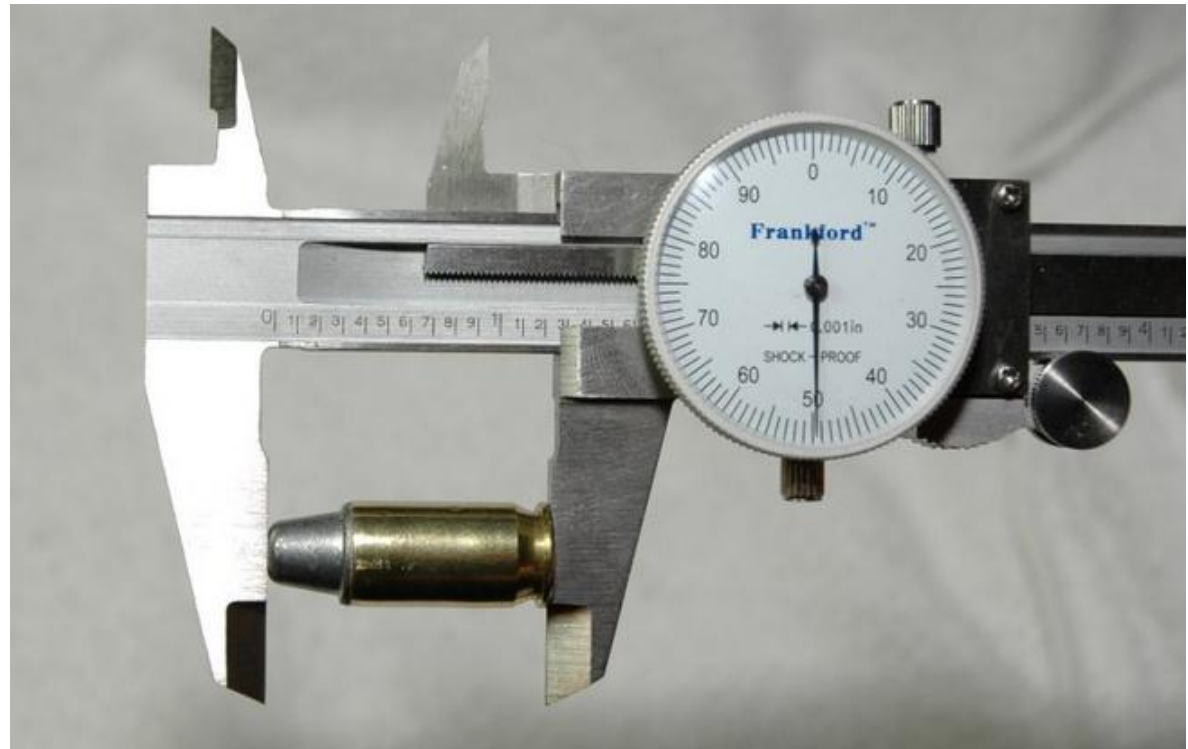
Factory Crimp

- The final step in pistol ammunition reloading is the factory crimp
- While this step may not be absolutely as many bullet seating dies add some crimp it makes the bullet perform better
- When using semi-automatic handguns the factory crimp operates smoother and loads more easily in the clip



OAL or Overall Length

- During the bullet seating process it is necessary to measure the OAL of your bullet.
- It's best to use a caliper to determine the OAL of the bullet caliber you are reloading



Recommendation for presses

There are three types of reloading presses

1. **Single stage** press, which is fine for rifle calibers but is pretty slow going because you have to change the die for each step in the process.
2. **Turret press**, which can greatly speed up the process. Each die sets in the press and is rotated from one die to the next over the bullet resting in the shell holder in the Ram of the press. Some turret presses are auto-indexed, meaning they rotate the die holder with each pull of the handle to correctly position the correct die over the brass, which is being reloaded.
3. **Auto-progressive press**. This press rotates the cartridge instead of the dies. This allows you to move the cartridge automatically from one die stage to another with a pull of the handle. Each time you pull the handle another completed bullet falls into the bucket. You can load 500 rounds per hour with an auto-progressive press.



Case Feeder for Progressive Press

A Case feeder automatically places an empty brass case into the Progressive press with each pull of the press handle. There is usually a round hopper on top of the case drop tube fitted with a limit switch, which turns the rotating hopper off until another case is needed.

Cases are automatically *righted* so that they fall down the tube with the primer end down.

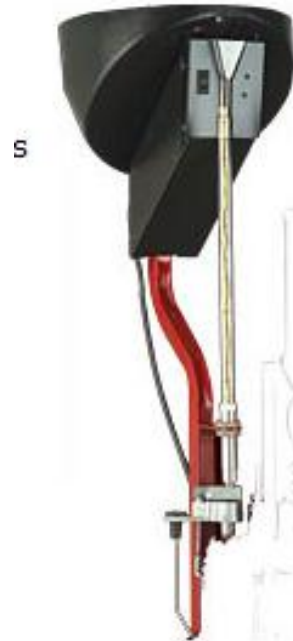


Bullet Feeder for Progressive Press

A Bullet feeder automatically places a bullet into a brass shell, which has been primed and charged with gunpowder. The Progressive press then moves the case and loosely fitted bullet to the Bullet Seating Die, which firmly presses the bullet into the shell to the correct depth.

There is usually a round hopper on top of the case drop tube fitted with a limit switch, which turns the rotating hopper off until another bullet is needed.

Bullets are automatically *righted* so that they fall down the tube with the fat end down.



Case Activated Powder Measure

The empty but primed case usually finds the powder measure in station two. As the lever is pulled down the case raises up and activates a valve in the powder drop. The precise amount of gunpowder is measured into the case before it moves to the bullet seating station.

Powder measures have a tall hopper on top which hold enough gunpowder to fill many cases.

