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Powder Funnel Insert Instructions for Dillon Reloaders

Patent pending

Explanation

The powder funnel you have purchased is a fundamentally different design to the one you probably have in your reloading press. The WSE powder funnel insert will flare your cases very slightly (to minimise case mouth cracking), the bullets will seat more consistently and will be more stable for the longer/heavier bullets (especially in 357SIG cases). Because of the gradual taper the back stroke on the press will be harder and new brass may need cleaning up on the neck as loose brass shavings will bind on the funnel. Clean the funnel with steel wool to remove brass flakes. The ammunition quality and consistency will improve but careful adjustment of the die is required and this is the responsibility of the reloader. As the safe and correct adjustment of the funnel and the reloading process in general cannot be controlled ROLLSIZER.COM cannot be held liable for its use.

You will need to reset the powder thrower, bullet seating and crimp stations again to get the best out of the funnel design. In most cases, the crimp die will need to be backed off slightly as the case mouth expansion will be reduced considerably. Please allow some time to adjust your dies properly. Do not attempt to complete the adjustment process and reloading just before you need to go to the club, it takes time and patience to get it correctly adjusted. The funnel insert supplied is for 9mm, 38Super, 38 Special, 357 Magnum and 357SIG calibres, however the seating depth and degree of flaring required for each calibre varies slightly to achieve the best result. It is recommended a separate funnel insert be purchased for each separate toolhead. The funnel will work with bullet feeders.
For inexperienced reloaders, it is strongly recommended you obtain the help of an experienced reloader from your local club prior before any reloading is started. If you are not sure, ASK FOR HELP. Call me I will run you through the steps. The funnel is not suitable for large flake powders (i.e black powder replacements such as ADI TrailBoss or similar).

Installation and Adjustment.

The following is the recommended process.

1. **Safety First**. Remove all powder and primers from the press, clean the powder hopper, press and lubricate per manufacturers manual (it probably needs it anyway). The work area should be clean and well lit before working on the press.
2. Back off the toolhead locking rings on the powder thrower, bullet seating and crimp stations, these stations will need to be re-adjusted after the powder funnel insert is positioned to the correctly.
3. Disconnect the activating rod, unscrew and remove the powder thrower hopper (if not removed already). Remove the factory powder funnel insert, back out the powder thrower receiver approximately 10 turns.
4. Clean the new powder funnel insert to remove any dirt / dust / oil. Clean the powder funnel receiver in the toolhead.
5. Drop the powder thrower into the receiver in the tool head. Lift this up and down in position to ensure the funnel moves freely, if there is any resistance check the receiver, these sometimes have internal machining marks and may need polishing with fine emery paper. If the powder funnel still does not move freely in the receiver please contact the supplier on the number below, all units have been tested prior to shipping using a standard Dillon receiver but some variances in manufacturing may occur.
6. Reinstall the powder thrower and lock the hopper mounting screws up finger tight only. Do not attach the activating rod to the powder thrower.
7. Deprime and size a single case and cycle the case to the powder throw station, stroke the handle to push the powder thrower down onto the case and hold the lever down whilst screwing the powder funnel down until the funnel insert touches the case.
8. Back off the lever slightly to allow the powder thrower to be screwed down 1 full turn. Stroke the press full range to push the powder thrower onto the case.

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9. Index the shell plate to the bullet seating station and place / drop a bullet. The ideal clearance is for 0.15 to 0.25mm maximum clearance between the bullet and the case mouth. Some variance in the case dimensions and degree of stretch will occur and when you process 100's of cases so do not make this too tight initially. There is significant flex in some presses and when processing 5 or 6 stations simultaneously the mouth stretch from the funnel can reduce very slightly. If the case has not flared enough return the case to the powder thrower and adjust the funnel down another ½ turn. Repeat until case flare is correct.
10. For 357SIG, remove the case with bullet still in place, push on the bullet with firm but not excessive pressure, if the bullet pushes into the case, back out the funnel insert depth by ¼ turn and repeat. Do not move to the next step until the neck tension is correct. The SIG cases use neck tension (not a roll crimp) to hold the bullet and excessive flaring and / or excessive crimp can lead to poor case life performance and excessive pressures.
11. Remove the case with the bullet placed and use a permanent pen marker and mark the edge of the case mouth with a 10mm wide mark. Allow to dry for a few minutes. This mark will be used to establish the actual depth of crimp on your case. Move the case to the seating station.
12. Seat the bullet depth to your requirement.
13. For crimp dies (and combination seating / crimp dies) screw the crimp die down progressively to the minimum crimp. The witness mark on the case edge (from the marker pen) should be a fine line on the case mouth edge. If the witness mark is much further down the case, back the crimp die out and repeat the entire process with a new case. If your combination die cannot seat to the correct depth without over crimping then consider changing to a Lee Factory Crimp Die as these separate the bullet seating depth and case crimp within a single die.
14. Check your round with a case gauge or a barrel drop. Adjust accordingly.
15. Repeat with 10 or so rounds unloaded (no powder or primers) to check the continuous movement. Due to the gradual taper on the funnel, the retraction or raising of the toolhead will be more difficult due to the bind on the funnel insert, this is normal, this will reduce with time (as the funnel polishes on the contact face). After 100 rounds are loaded the funnel will have small traces of brass on it, wipe these off with fine steel wool.
16. Refill the powder hopper and check the throw weight of powder. Stroke the powder thrower 10 or so times to ensure the powder bar and hopper is full and tip the powder back into the hopper before checking the throw weight.
17. I recommend you throw 10 lots of powder together and weigh the total to get an average. This is more accurate than using a single throw.
18. If you have any problems please call me or email me on the contact details below. I will respond as quickly as possible.

Remember keep the noisy end down range and always be safe. Your safety keeps the sport going.
Please, if you have any problems tell me first. If you like it, tell your friends at the club.
Yours Sincerely

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