

Precision Reloading and the Dillon XL650 Progressive Loader.

I am at a point in load development where I want to test a range of powder charges.

I could use my single stage press, or hand dies, but I want to use this load information to setup my XL650 for production of some high precision varmint loads.

The problem is how to accurately measure powder and charge cases for small runs, like 5 or 10 shots?

I could spend 30 minutes or so tweaking the Dillon powder measure to drop the charge (I've done that, it takes a long time to get 'just right'), there has to be a better way!

I know I want to dispense the charge on my RCBS Chagemaster, and simply pour it into the station #2 (powder) die with as little disruption to the XL650 as possible.

The hopper and everything above the die body are easily removed. This leaves the die body and the die insert. The insert comes in two basic configurations. The bottleneck cartridge configuration is just a funnel and does not require any resistance to work. The straight wall cartridge however is also the expander die used to produce a flair on the case mouth. For my purposes, the only style of insert I am concerned with (for precision rifle loads) is the bottleneck variety.

I tried a couple of simple funnel to top of die jury rigs and left a lot of powder (in CFE223 about 0.2gn out of 30gn) standing on the horizontal surfaces. While this eventually allowed a 'sort-of' accurate charge transfer, it also produced some +/- 0.4gn swings. Unacceptable.

Next I looked at how to eliminate the powder standing on internal surfaces problem and came up with the idea of using a 'straw', which for lack of a proper sized straw, quickly turned into using the upper body of a 223 case to move the powder past the point where it was hanging up.

I have a mini-lathe so some of what I did may require you to become 'creative' or maybe this is the push you need to add 'just one more tool' to your collection.

I used the following:

- RCBS 'Quick Change' powder funnel kit.
<https://www.midwayusa.com/product/1012952421?pid=842036>
- Redding Competition LR-1000 Drop Tube Adapter 22 to 30 caliber
<https://www.midwayusa.com/product/1016291464?pid=938621>
- Copper pipe fitting 103R CXF AD $\frac{3}{4}$ x $\frac{1}{2}$ at Ace Hardware \$0.99/ea.
Similar to <https://www.supply.com/3-4-in-x-1-2-in-c-x-fnpt-copper-adapter/p487887>
- 223 fired case cut to 0.810" from mouth.

Here are some pictures:

