

UniqueTek “Tips” File #23: “Powder Die Modification for Easy Die Adjustment”

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Adjusting the powder die on a Dillon press presents some unique difficulties. You must turn the die without turning the attached Powder Measure. But there is limited space to grip the die and what you can grip is smooth and slippery. Once you have the die adjusted, it is also difficult to hold it from turning while tightening the die lock nut. It would be very handy if the die was knurled or, better yet, had hex lands for a backing wrench.

I looked into making a custom Powder Die with hex lands located just above where the threads end. But the costs proved to be unacceptably high. However, there is a solution that is both easy and inexpensive.

Add a Die Lock Nut:

Just thread an extra die lock nut onto the die and run it up to the very top of the die threads (see photo at right). Then apply Loctite to the threads. Blue Loctite is probably not strong enough for this application. I'd recommend a red Loctite as it won't accidentally break loose when tightening the die lock nut.

TIP: My favorite is Loctite 609 Retaining Compound as it can be applied after positioning the die lock nut and won't break loose without applying a significant amount of heat.

Instead of using Loctite, you could use a die lock nut with a set screw (e.g. RCBS or L.E. Wilson) but I don't like to risk messing up the die threads with a set screw. Hornady Sure-Loc rings don't use a set screw but may not be a good choice here as they have only two wrench lands that could end up in an inconvenient orientation to engage a wrench.

TIP: Another advantage of using a Dillon die lock nut is that it uses the same 1" wrench as the die lock nut. So you won't have to buy yet another size wrench just for this.

Once installed, this extra die lock nut will provide a place to grip the die with your fingers during adjustment as well as a place to use a backing wrench when tightening the die lock nut. Given the location, you should have enough room to engage it using the Dillon 1" Bench Wrench.

Unfortunately, you can't install the nut from the top, making it difficult to retrofit onto a powder die that has already been set up. You'll need to remove the die from the toolhead, install the hex nut and then set up the die again.



Dillon Powder Die
with Extra Hex Nut