UniqueTek "Tips" File #17:
"Swaging Crimped Primer Pockets"

Rev. 4; 12/2025

By Lee Love

All Military Brass and some commercial ammunition has crimped or "staked" primers. This crimping process leaves a thin lip of brass displaced onto the edge of the primer to secure it in place. Before a case that has a crimped primer can be reloaded, the brass lip around the primer pocket must be removed.

It is also possible to have primer pockets that are undersized but that were not crimped. I had a batch of nickel plated .357 magnum cases with primer pockets undersized enough to make primer insertion extremely difficult, and those that I managed to insert were "high" primers. I finally gave up and quarantined that batch of cases to deal with at some time in the future.

There are two methods of removing the crimp or opening up undersized primer pockets; Reaming and Swaging.

Reaming:

Reaming utilizes a cutter to remove the swage by simply cutting it away. This requires a specially designed cutter. You can't just use a case mouth chamfer tool … although I've seen it done but with poor results. It is far better to purchase a tool designed specifically for reaming primer pockets. There are many reamers available and virtually every press and die manufacturer makes one. They range from simple hand tools to elaborate motor driven units that perform multiple functions in addition to reaming the primer pocket.

The singular advantage of reaming is that it can be done with a simple, inexpensive hand tool … no electricity, no press, nothing other than your hands. The photos at right shows a vintage Lyman small primer pocket reamer (that I've owned for so long that I can't even remember how it came into my possession) along side the current Lyman reamer. But I can remember reaming buckets full of 5.56 brass we obtained from a local Air Force base. I never used it on that batch of .357 Magnum brass I mentioned in the forward because I feared that cutting through the nickel plating would ultimately cause the nickel to peel.

TIP: With reamers, the more cutting edges the better. The Lyman reamer has 6 flutes, which allow it to cut smoother and require less turning to completely remove the crimp (compared to say a 4 flute reamer).

Powered reamers are faster … but perhaps too fast. Since they are already turning, they start cutting upon contact … even if you don't have the primer pocket centered or squared up or, worse yet, have your finger in the way.

Swaging:

Swaging utilizes a hardened steel stud that is forced into the primer pocket, literally pushing the metal back, restoring the primer pocket to its original dimensions. This requires a lot of force and many swagers are designed to be used on a press to take advantage of the high force a press can generate. It should be noted that swagers generally require adjustment to accommodate the slightly different dimensions (in particular the web thickness) between brass manufacturers. So sorting by head stamp is recommended. Mixed brass or a poorly adjusted swager can result in incompletely swaged primer pockets, damaged brass, and even damaged swager and/or press parts.

For the remainder of this Tips file, I will only look at swagers. I will also not attempt to rank the swagers. Each approach to swaging may have advantages for some, yet be irrelevant to others, due to individual needs and reloading equipment configuration. I will also not discuss commercial systems (e.g. Camdex) as they are not commonly used by the average shooter.

Bench Mounted Swagers

Bench mounted swagers are dedicated tools that bolt directly to the bench. They do one thing and one thing only … swage primer pockets. All of the models shown below have an operating lever that is linked to the Swager Rod via a cam to amplify your effort. Since they are bench mounted, they do consume additional bench space. Of course you can unbolt them from the bench when not in use, but this leaves holes in the benchtop. So they are often bolted to a board and the board C-clamped to the bench for use.

Dillon Super Swage 600

Manufacturer: Dillon Precision
Stock #: 20095
MSRP = $155.00

Includes:

- Large and Small Swage Rods
- .22 and .30 caliber Case Locator Rods
- .45 ACP adapter

Available Options:

- Case Locator Rod for 6.8mm/6mm ($31.00)
- 9mm/38 Special Adapter ($24.00)
- .40 S&W Adapter ($20.00)
- .45 ACP Adapter ($21.00)

Installation:
The Super Swage 600 mounts on your loading bench such that the operating handle pulls toward you and downward … similar to operating a press. The handle must extend below the edge of the bench to achieve a complete stroke.

TIP: It can also be mounted crosswise with the operating handle extending off the right end of the bench. Some find it more efficient to use in this orientation.

The Case Locator Rod is screwed in or out to adjust the amount of swage. The user manual warns that "Not enough swage and the primers won't seat fully. Too much swage will stress the unit, possibly bending the locator rod." So brass should be sorted by head stamp and the Backup Rod adjusted when changing to brass of a different head stamp.

Operation:
Brass is placed over the Case Locator Rod, which supports the web from the inside, and then rotated down so the primer pocket is in line with the Swager Rod. The operating lever is then rotated down forcing the Swager Rod into the primer pocket. Dillon doesn't state the expected production rate but operation is slow.

TIP: There are many web postings of DIY modifications to help speed it up a bit. A roller handle would be nice addition!

https://www.dillonprecision.com/20095

TIP: Inline Fabrication makes "Centering Inserts" for the Super Swage 600 that position the brass so the primer pocket is centered-up on the swege. This speeds up the swaging operation and prevents damaged brass. They come as a 2-piece set ($24.00) for .223 and .308. 3-piece sets are also available ($36.00) that includes an insert for 6.8 brass or 9mm, and a 4-piece set ($48.00) that includes all of them.
https://inlinefabrication.com/collections/dillon/products/centering-inserts-for-the-dillon-superswage-1

UniqueTek, Inc.
Gilbert, AZ 85234
Ph: 480-507-0866
Email: info@uniquetek.com
Web: www.uniquetek.com

RCBS® Primer Pocket Swager – Bench Tool

Manufacturer: RCBS®
Part Number: 9474
MSRP = $119.99

Includes:

- Large and Small Swage Rods
- .22 and .30 caliber Backup Rods

Installation:
The RCBS® Swager mounts on your loading bench crosswise such that the operating handle pulls directly toward you. So you don't need to mount it at the very edge of the bench like the Dillon unit.

Operation:
Brass is placed over the Backup Rod, which supports the web from the inside, and then rotated down in line with the Swager Rod. The operating lever is then pulled toward you, forcing the Swage Rod into the primer pocket.

The RCBS® Bench Tool is very similar to the Dillon Super Swage 600. However there are two significant differences;

1) The handle that pivots the Backup Rod is much larger and has a ball grip on the end.
2) The operating handle pivots horizontally and is foam padded.

RCBS® claims that it "Requires 35% less force than other tools", but they fail to state which "other tools". The operating handle is 6-1/4" long and foam padded.

TIP: Although it is not mentioned in the user manual, the operating handle can be installed for right or left handed users. The photo above shows swager mounted for left handed operation. But you may find that it works better this way even if you are right handed. Use your left hand to pull the operating handle (using coarse motor skills) and your right hand to load and unload cases on the Backup rod (using fine motor skills).

Operation is slow … but similar to the Dillon unit.

https://shop.rcbs.com/primer-pocket-swager-bench-tool/

UniqueTek, Inc.
Gilbert, AZ 85234
Ph: 480-507-0866
Email: info@uniquetek.com
Web: www.uniquetek.com

Frankford Arsenal® Platinum Series Primer Pocket Swager – Bench Tool

Manufacturer: Frankford Arsenal®
Part Number: 110007
MSRP = $153.99

Includes:

- Large and Small Swage Rods
- Large and Small “Case Pin Holders” (Backup Rods)

NEW from Shot Show 2018!
The Frankford Arsenal® Platinum Series Primer Pocket Swager is the newest entry in the bench mounted swager category. It mounts on your loading bench vertically such that the operating handle pulls downward … similar to a press operating handle. In fact, the enitre unit looks a bit like a small reolading press. Although I saw an example at Shot Show, the operating manual was not yet available. The swager is expected to hit the shelves around March 2018.

Installation:
The Frankford Arsenal® Swager mounts at the front edge of your bench … similar to a press. If you don’t want to drill holes in your bench, it can be easily clamped to the bench with two C-clamps.

Operation:
Brass is placed over the “Case Pin Holder” (Backup Rod), which supports the web from the inside. The “Case Pin Holder” is manually tipped back into position and then the operating handle pressed downward to swage the primer pocket. On the up stroke of the handle, the “Case Pin Holder” automaically tilts forward where the case can be easily removed and another case installed. This “auto eject” feature makes unloading cases easy and fast.

The operating handle can be installed in one of two orientations. The photo above shows handle installed so that it leans toward you (as shown in photo). Installing the handle the other orientation postitions the handle more vertically. This adjustment helps make it a bit more ergonomic depending on your height and the height of your bench.

There is also an adjustable stop that allows you to accurately center the case under the swager rod. The swage pins are also descrived to be “quick change”. Again, without the operating manual, the details of adjustment, changing primer pocket size, etc. are still a mystery. I’ll update this information as soon as I can get the manual.

Due to the “Auto Eject” feature, it is a bit faster than the other bench mounted swagers. The downward movement of the operating handle gives plenty of leverage.

https://www.frankfordarsenal.com/case-preparation/priming-and-depriming-tools/platinum-series-primer-pocket-swager/110007.html

UniqueTek, Inc.
Gilbert, AZ 85234
Ph: 480-507-0866
Email: info@uniquetek.com
Web: www.uniquetek.com

Press Mounted Swagers - For Single Stage & Turret Presses

Since these swagers are used on a press, you get to utilize the mechanical advantage of the press linkage resulting in minimal effort. They are also much less expensive than a bench mounted swager and don't take up any additional bench space. But they cannot be used on a progressive press. If you have only a progressive press, you'll need to spend some money and sacrifice some bench space for a single stage press.*

TIP: UniqueTek makes the *SOLO*™ Single Stage Press Conversion Kit. It will allow you to use these swagers on Dillon RL 550, XL 650 or XL 750 presses, thus saving you the bench space for a single stage press. Is an additional expense but is less than the cost of a Rock Chucker.
https://uniquetek.com/shop/ols/products/solo-single-stage-press-conversion-kit

RCBS® Primer Pocket Swager Combo-2

Manufacturer: RCBS®
Part Number: 9481
MSRP = $42.99

Includes:

- Swager Die Body (7/8"-14)
- Small (.223 only) and Large Swager Rods
- Small and Large Swager Heads
- Case Stripper

Installation:
The appropriate size Swager Rod is installed inside the die body and then the die body installed 3 or 4 turns into the press. The corresponding size Swager Head is installed on the press ram … just as if it were a shellholder. The Case Stripper is then set over the Swager Head with the tip of the Swager Head sticking up through the central hole. With a case fed into the die body, the ram is raised to its limit. The Die body is adjusted down until the Swager Rod contacts the case web. The ram is then lowered slightly and the die turned an additional ¼ turn down. Raise the ram fully and then remove and inspect the primer pocket. Repeat the above process, lowering the die in ¼ turn increments until primer pocked is properly swaged.

Operation:
A case is fed upward onto the Swager Rod and held in place while the ram is raised enough to keep it from falling out of the die. The case can then be released and the ram raised to its limit. The swaging is done at the top of the ram stroke. On the down stroke of the ram, the Case Stripper stops against the press frame just before the ram reaches bottom, stripping the case off the Swager Head.
NOTE: The Case Stripper is too short to work on Redding presses.

Operation is a bit awkward at first and pinched fingers are a definite possibility. But once you get accustomed to the cycle, it can swage cases at a rapid rate. It would be a bit faster if you didn't need to lower the ram completely to strip the case off the swager head.

If not adjusted properly, the Swager Rods can be bent. Brass should be sorted by head stamp and the die adjustment checked when changing to brass of a different head stamp.

TIP: One indicator of over swaging is if the swaged case is very difficult to get off the swager head. If you have to slam the press handle or try more than once, then it is likely that you are overswaging the primer pocket and need to back off the die adjustment.

https://shop.rcbs.com/primer-pocket-swager-combo-2/

UniqueTek, Inc.
Gilbert, AZ 85234
Ph: 480-507-0866
Email: info@uniquetek.com
Web: www.uniquetek.com

Mighty Armory Magnum Die and Primer Pocket Swage Set

Manufacturer: Mighty Armory
Part Number: None Assigned by Mfg.
MSRP = $84.95 Magnum Die and Primer Pocket Swage Set (shown at right)
MSRP = $144.95 XMS Primer Pocket Swage Die Set

Includes:

- Decapping/Case Hold Down Die
- Heat Treated Tool Steel Hold Down Shaft (aka. Backer Rod)
- Primer Pocket Swager Nipple
- Stabilizer Cup
- Decapping Shaft
- Two (2) Super Duty .074" Decapping Pins

This product is very similar to the RCBS® Primer Pocket Swager Combo 2 which was just described above and most of the comments apply. But it does have one advantage in that it also functions as a Universal Decap Die simply by replacing the Backer Rod with a Decap Rod and then using a standard shellholder. It is a lot more expensive than the RCBS® kit … doubly so because it only includes the parts for either Small or Large primers.

Installation:
Install the Backer Rod into the Die Body then put the Cap on the Die Body and tighten, then install the Die into the press. Install the Swager Nipple on the press ram. Place the Case Stabilizer Cup over the Swager Nipple with the tip of the Swager Head sticking up through the central hole. Raise the press ram to its limit and then adjust the Die Body down until it contacts the shellholder.

Operation:
A case is fed upward onto the Swager Rod and held in place while the ram is raised enough to keep it from falling out of the die. The case can then be released and the ram raised to its limit. The swaging is done at the top of the ram stroke. On the down stroke of the ram, the Case Stabilizer Cup stops against the press frame just before the ram reaches bottom, stripping the case off the Swager Head.
NOTE: The MA Case Stabilizer Cup is longer than the RCBS® Case Stripper so it works on Redding presses.

As with the RCBS® swager, operation is a bit awkward at first. But once you get accustomed to the cycle, it can swage cases at a rapid rate. It would be a bit faster if you didn't need to lower the ram completely to strip the case off the Swager Nipple.

One neat thing about this die is that, once installed, you can convert it from swaging to decapping without needing to adjust the Die Body.

https://www.mightyarmory.com/search?q=Swage+Kit
This link points to a web page showing both Swage Sets plus various accessories.

UniqueTek, Inc.
Gilbert, AZ 85234
Ph: 480-507-0866
Email: info@uniquetek.com
Web: www.uniquetek.com

CH4D Swage Kit

Manufacturer: CH4D
Item #: 419001
MSRP = $60.00

Includes:

- Shellholder Die Body
- Small and Large Swage Punches

Installation:
The appropriate size Swage Punch is installed on the ram as if it were a shellholder. The Die Body is installed a few turns into the top of the press. The appropriate shellholder is then installed in the top of the die.* A case is inserted and the ram raised to its limit. The die body is then turned down until the tip of the Swager Punch contacts the primer pocket. The ram is then lowered slightly and the die turned down ¼ turn. The ram is raised fully, then the case is removed and the primer pocket inspected. The procedure is repeated, turning the die down in ¼ turn increments until the primer pocket is properly swaged.
* Shellholders are not included in the kit.

Operation:
Operation is straight forward. Simply insert a case into the shellholder on top of the die body and then cycle the press. The Swage Punch on the ram passes upward through the die body and the tip swages the primer pocket.

TIP: You only need to lower the ram just enough to disengage the Swager Rod from the primer pocket (less than an inch) before you can remove the swaged case from the shellholder and insert the next case. This makes the operation significantly faster than the RCBS® setup and there is no risk of pinched fingers.

There is also no backup rod to be bent, and the swager rods are beefy enough that the potential for bending them is reduced if the die is not properly adjusted. But all the force is on the case rim and there is potential for rim distortion or breakage if not adjusted properly.

https://chtoolanddie.com/products/priming/psk

UniqueTek, Inc.
Gilbert, AZ 85234
Ph: 480-507-0866
Email: info@uniquetek.com
Web: www.uniquetek.com

Lee Ram Swage

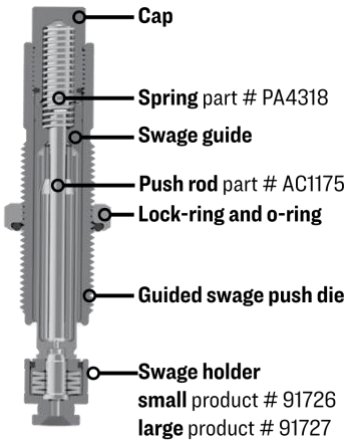
Manufacturer: Lee Precision
Item #: 91617
MSRP = $50.00
Includes:

- Guided Swage Push Die (7/8"-14 thread)
- Small and Large Swage Punches

Installation:
Intall either the small or large ram swage holder assembly into the press ram as if it was a shell holder. Place a deprimed case on the ram swage holder and raise the ram to the top of its stroke. Thread the Guided Swage Push Die into the press frame or turret and screw down until it reaches a firm stop. Lower the press ram slightly and then screw the die down an additional ¼ turn. Raise the press ram fully to swage the case, then lower. Remove the case and inspect the primer pocket. If needed, adjust the die in ¼ turn increments until the amount of sage is achieved and then tighten the die lock ring.

Operation:
Operation is straight forward. Simply place a case into the ram swage holder assembly and then cycle the press. The Swage Punch within the ram swage holder assembly swages the primer pocket when the case enters the Guided Swage Push Die until it stops against the Push Rod. On the down stroke, the swage punch is automatically extracted from the primer pocket buy the five, 400-pound force disc springs within the base of the Ram Swage Holder

In general terms, this is very similar to the RCBS and Mighty Armory swagers but with additional features that set it apart from the rest. The internal structure is much more sophisticated so I have inlcuded a cross section drawing at right.



An all-steel case guide ensures cases will be positively centered on push rod.

Shell-holderless design, allows you to swage any small or large primer pocket, without swapping to a different size shell-holder. The tip of the swage punch sticks up just slightly above to top of the Swage Holder so the case is automatically centered on the swage punch.

The hardened steel swage punch is automatically extracted from the primer pocket by five 400-pound force disc springs within the Ram Swage Holder. Since this happens just as the down stroke of the ram begins, the case won't pop free and fall off.

https://leeprecision.com/ram-swage

Lee App Swage Kit

Lee Precision also makes a version of this called the App Swage Kit. Although it looks quite different from the outside, it works essentially the same. It is designed to fit only the Lee Automatic Processing Press (APP).
Item #: 90237
MSRP = $60.00

https://leeprecision.com/app-swage-kit.html

UniqueTek, Inc.
Gilbert, AZ 85234
Ph: 480-507-0866
Email: info@uniquetek.com
Web: www.uniquetek.com

Hornady® Lock-N-Load® Single Stage Primer Pocket Swage Tool

Manufacturer: Hornady Manufacturing
Item #: 041227 (.223/5.56)
Item #: 041228 (.308/7.62x51)

MSRP = $84.64
Includes:

- Swage Tool Die (7/8"-14 thread)
- Case Anvil
- Shell Holder

This is essentially a single stage version of the Hornady® Lock-N-Load® AP™ Primer-Pocket Swage Tool (discussed in the following section, page 11). It is the same die body with a Case Anvil that is held by a single stage style shell holder. The Feed Die and Eject Die have also been eliminated.

Installation:
Intall the shell holder onto the press ram. Raise the ram fully. Thread the Swage Tool Die into the press frame until it contacts the shell holder. Back off the Swage Tool Die ½ turn and then tighten the lock ring. Lower the press ram, place a case onto the Case Anvil and then insert the Case Anvil into the shell holder. With the swage adjust screw backed out of the Swage Tool Die, raise the press ram fully. Thread the swage adjustment screw down until you feel resistance. Lower the press ram about 1 inch and thread the swage adjustment screw down 1/2 turn. Raise the press ram fully. Lower the ram and inspect the primer pocket. If the primer pocket isn't sufficiently swaged, turn the swage adjustment screw down 1/8 turn and swage again. Continue making samll adjustments until the primer pocket has the desired amount of swage.

Operation:
Insert a case onto the anvil and then insert the anvil in the shell holder. Cycle the press. Remove the anvil from the shell holder and then remove the swaged case from the anvil.

Details:

- Since the entire system is cartridge specific, the Swage Tool (die) is machined to perfectly center the case.
- The tip of the Swager is tapered and highly polished so the case just falls off after swaging. So, there is no need for any type of ejector or stripper mechanism.
  Note: I cannot speak to this claim as I have not had the opportunity to test it myself.
- The Swage Die has an adjustment knob on top to adjust the depth of swage to accommodate different brass manufacturers. It is recommended that all brass be sorted by head stamp before swaging.

https://www.hornady.com/reloading/presses/lock-n-load-accessories/primer-pocket-swage-tool

Note: You will need to scroll about half way down the Hornady web page before you see this version of the swage tool.

UniqueTek, Inc.
Gilbert, AZ 85234
Ph: 480-507-0866
Email: info@uniquetek.com
Web: www.uniquetek.com

Press Mounted Swagers - For Progressive Presses

Since these swagers are used on progressive presses, you not only get the mechanical advantage of the press linkage resulting in minimal effort, you also get the advantage of progressive operation. They are around the same price point as a bench mounted swager but don't take up any additional bench space. But they can only be used on a progressive press … and only on the press for which they were disigned.

Swage It S550, S650 & S750

Manufacturer: Swage It
SKU: S550C, S650C, S750C
MSRP = $129.95 (all 3 models)

Includes:

- Swager Assembly
- Small and Large Sweges


Swage It S550


Swage It S750


Swage It S750

Available Models:

- Swage It S550 Combo (Fits Dillon RL 550B Only and includes sweges for both small and large primers).
- Swage It S650 Combo (Fits Dillon XL 650 Only and includes sweges for both small and large primers).
- Swage It S750 Combo (Fits Dillon XL 750 Only and includes sweges for both small and large primers).

Installation:

RL 550: On the RL 550 and XL 750 the Swage It installs in Station 2 and replaces the entire primer system.
XL 750: Swaging is done using the same motion used to seat primers … pushing forward on the press handle.

XL 650: On the XL 650 the Swage It installs in Station 2 and replaces the primer punch. The primer system can remain in place when swaging but it must be empty of primers. Swaging is done using the same motion used to seat primers … pushing forward on the press handle.

In both installations, there is no die body or backup rod, and the case is supported only by the shellplate. In this respect, it is similar to the CH4D Swage Kit.

Operation:
Operation is straightforward. Just load brass into the case feed and start cycling the press. Swaging requires slightly more force than primer seating, but a lot less than I expected. Out of all the sawgers in this article, this is the only one that doesn't require adjustment for swage depth. So there isn't really any reason to sort your brass by headstamp. However it is possible to over swage the brass simply by pressing too hard on the press operating handle. An indication of this is if the brass is difficult to remove from the swege. If you have to yank on the operting handle to releaase the brass, you are applying too much force during swaging.

TIP: If you install a universal decap die in Station 1, you can decap and swage in the same operation. And if you install a Dillon Case Trimmer in one of the remaining die stations, you can perform all three operations progressively … saving a lot of time. The case feeder on the XL 650 press makes swaging a fast operation.

https://swageit.com/products/swagers-1/

The Swage It is also available at UniqueTek, Inc.
Model S550: https://uniquetek.com/shop/ols/products/swage-it-s550
Model S650: https://uniquetek.com/shop/ols/products/swage-it-s650
Model S750: https://uniquetek.com/shop/ols/products/swage-it-s750

Hornady® Lock-N-Load® AP™ Primer Pocket Swage Tool

Manufacturer: Hornday®
Item Number: 041218
MSRP = $132.72

Includes:

- Shellholder (with 5 Backup Rods)
- Feed Die
- Swage Tool (die)
- Eject Die

Available Sizes:

- .223/5.56mm
- .308/7.62mm

Installation:
The three dies are installed in the recommended stations (Swage Tool Die in Station 1, Eject Die in Station 3 and Feed Die in Station 4). The special Shellholder, with its five Backup Rods, is installed on the ram. Stations 2 and 4 are not utilized. The Swage Tool Die is installed until it just contacts the shellholder plate. Final adjustmet of the swage die is made by an adjustment knob on top of the Swage Tool Die body.

Operation:
Note: To simplify the description of the operation below, I'll pretend that the press has only 3 stations.
With the ram up, a case is simply dropped mouth down into the Feed Die. The Feed Die ensures that the case is aligned with and drops easily onto one of the five backup rods on the shellholder. The ram is cycled moving the case to the Swage Die where the primer pocket is swaged. On the next ram cycle the case is moved to the Eject Die where it is lifted out of the top of the die with your fingers. Of course, being a progressive press, you will be placing an unswaged case into the Feed Die and removing a swaged case from the Eject Die on each cycle of the press. Due to the progressive operation, and the unique Feed Die, brass can be swaged rapidly. Too bad the case feeder can't be used to further speed up operation.

Details:

- The Eject Die contains a 5-finger plastic Wad Guide (same as used in the 366 Wad Guide). The wad guide grips the case and holds it for easy removal even if the ram is lowered.
- Since the entire system is cartridge specific, the Swage Tool (die) is machined to perfectly center the case.
- The tip of the Swager is tapered and highly polished so the case just falls off after swaging. So, there is no need for any type of ejector or stripper mechanism.
- The Swage Die has an adjustment knob on top to adjust the depth of swage to accommodate different brass manufacturers. It is recommended that all brass be sorted by head stamp before swaging.

TIP: In the instructions, Hornady® recommends installing the Swage Die in Station 1, the Eject Die in Station 3 and the Feed Die in Station 4. This positions the Feed and Eject dies at the front of the press for easy access by hand. But the photo above shows the Feed Die in Station 5 and the Eject Die in Station 4. This locates the Eject die in a more ergonomic position for the left hand. But the Swage Tool (die) should always be installed in Station 1 as this position is at the strongest part of the press frame.

https://www.hornady.com/reloading/presses/lock-n-load-accessories/primer-pocket-swage-tool

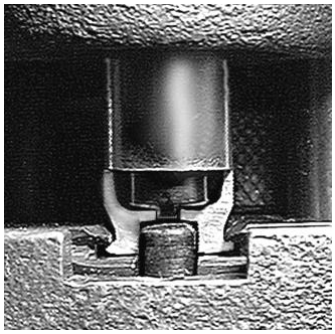
Note: Hornady now has a single-stage version of this swager that is described on page 9.installed
Press Mounted Swagers – Integrated into Progressive Presses Press Mounted Swagers – Integrated into Progressive Presses

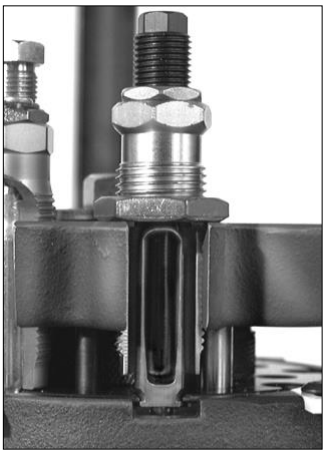
UniqueTek, Inc.
Gilbert, AZ 85234
Ph: 480-507-0866
Email: info@uniquetek.com
Web: www.uniquetek.com

Swagers Integrated into Progressive Presses

I could only find two progressive presses with fully integrated swaging stations. This makes them hands down the fastest of all swagers I've seen. This is because these presses have a dedicated swaging station, so swaging is done as just another step in the loading sequence. You don't need to pass the brass through the press once just to be swaged, and then a second time for the rest of the normal reloading process.

Dillon Precision Super 1050, RL 1100 and CP2000 Press





Manufacturer: Dillon Precision
MSRP: Super 1050 = $2,250.00
RL1100 = $2,450.00
CP2000 = $2,090.00

Included with each Super 1050 Press:

- Swager Rod Assembly - Small
- Swager Rod Assembly - Large
- 1 Backup/Expander (for the cartridge you ordered)

Backup/Expander Available For:

- 14 popular rifle cartridges
- 18 popular pistol cartridges

Installation:
This swaging system is unique in that it is a standard feature of the Super 1050 press … so there is noting to install. Die Station 3 is dedicated to primer pocket swaging. Every case that passes through the press gets swaged, so you don't need to swage the brass before loading. It also has the advantage that if you accidentally get an unswaged case in the batch of brass, it will not jam up the press when it gets to primer seat.

Adjustment is a bit more complicated than with most other swagers and simiar problems can result if not adjusted properly. For instance the manual notes; "Do not force the expander as this will damage the case and shellplate." and "Do not overswage. This condition will cause damage to the shellplate."

Operation:
Operation is as simple as it gets. Just load brass into the case feed and start loading. You don't need to do anything special, as it is automatic. The brass is full length resized and decapped in Station 2 then, at Station 3, the primer pocket is swaged (and the case neck is expanded). The remainder of the loading sequence (primer insertion, powder drop, powder check, bullet seat and bullet crimp) is completed at subsequent die stations. Due to the progressive press operation and dedicated swaging station, this is the fastest swaging system available … but it is also much more expensive.

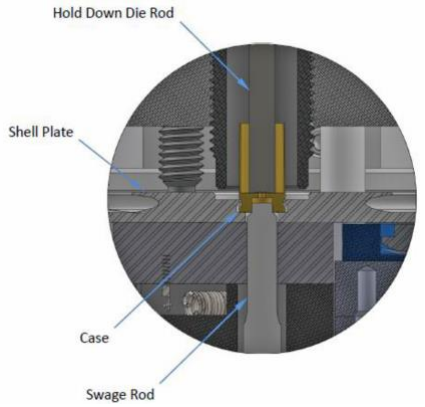
Super 1050: https://www.dillonprecision.com/s000082
RL1100: https://www.dillonprecision.com/s000211
CP2000: https://www.dillonprecision.com/s000213

UniqueTek, Inc.
Gilbert, AZ 85234
Ph: 480-507-0866
Email: info@uniquetek.com
Web: www.uniquetek.com

Mark 7 Reloading Presses

Manufacturer: Mark 7 Reloading
APEX 10®: MSRP = $2,599.99
EVOLUTION: MSRP = Starting at $8,999.95 (Due to many configurations, you must call for final pricing.)
REVOLUTION: MSRP = (Due to many configurations, you must call for pricing.)

Similar to the Dillon Super 1050 and RL 1100 presses, primer pocket swaging is a standard feature … so there is noting to install. Die Station 3 is dedicated to primer pocket swaging. Every case that passes through the press gets swaged, so you don't need to swage the brass before loading. It also has the advantage that if you accidentally get an unswaged case in the batch of brass, it will not jam up the press when it gets to primer seat. *



Installation:
The press is shipped with the swage rod installed, but fully backed off in the down position. Adjustment is required during press installation. The procedure is simple and detailed in the User Manual.*

Operation:
Operation is the same as for the Dillon presses. Just load brass into the case feed and start loading. You don't need to do anything special, as it is automatic. The brass is full length resized and decapped in Station 2 then, at Station 3, the primer pocket is swaged (and the case neck is expanded). The remainder of the loading sequence (primer insertion, powder drop, powder check, bullet seat and bullet crimp) is completed at subsequent die stations. Due to the progressive press operation and dedicated swaging station, swaging is very fast but it is also the most expensive … even compared to the Dillon presses.*

Accessories:
An optional SWAGESense™ is available to automatically detect "ringers" and small pocket primers. If an error is detected, it stops the press. It comes with two hardened chromoly swage rods for both small and large primer pockets. NOTE: This sensor is not compatible with the Dillon CP 2000.
MSRP = $199.95

APEX 10®: https://www.mark7reloading.com/reloading-presses-sport
REVOLUTION: https://www.mark7reloading.com/the-mark-7r-revolutionr
EVOLUTION: https://www.mark7reloading.com/the-mark-7r-evolution-commercial-international

* This is taken from the APEX 10™ User Manual. As I am not an expert regarding all the various configuration options for all Mark 7 press models, this may not be true for all configurations of the EVOLUTION and REVOLUTION presses.

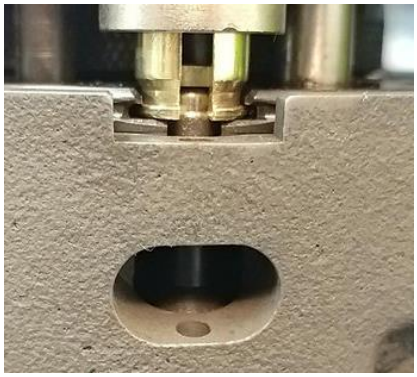
UniqueTek, Inc.
Gilbert, AZ 85234
Ph: 480-507-0866
Email: info@uniquetek.com
Web: www.uniquetek.com

Swager Setup Tools

Swage Setter

Manufacturer: AmmoBrass, LLC.
MSRP: 9mm = $16.29
.223/300 AAC = $16.29
.308/.30-06 = $16.29
3-Piece Set = $42.29

The AmmoBrass Swage Setter is a tool for swaging brass cases. It can be used with any swaging devices such as Dillon Super Swage 600, Dillon 1050 presses, and almost any other swaging device, to assist you in properly setting the tension between your swage rod and swage back-up die. The photo at right shows a Swage Setter being used to set up the swaging station on a Dillon Super 1050 press.



They are machine milled from solid brass block, and not made from brass casings. The side is cut away so you can see if the swager is set up properly.

https://www.ammobrass.com/product-page/ammobrass-swage-setter

UniqueTek, Inc.
Gilbert, AZ 85234
Ph: 480-507-0866
Email: info@uniquetek.com
Web: www.uniquetek.com

Swaging in the Other Direction

Thus far, only swagers that open up the primer pocket have been discussed. But what if you have primer pockets that have become too loose? This can happen with cases that have been reloaded many times … especially if they've been loaded to maximum chamber pressures. Normally these cases would be discarded. But what if they are rare or for a wildcat cartridge that must be reformed from the case of another cartridge? In those cases, getting a few extra loadings out of each case is a big bonus.

Case Saver

Manufacturer: Robert W. Heart & Son, Inc.
Type: Table Top
MSRP = $57.99 (Discontinued around 2022)

Included:

- Support Stand
- Punch with Guide Pin

Available Sizes:

- Small Primer
- Large Primer

Note: For .30 caliber and above only.

Installation:
There is no installation or adjustment to be performed with this product. Just set it on a sturdy table and you are ready to go.

Operation:

1. The case is placed mouth down over the vertical rod on the Support Stand.
2. The Punch Guide Pin goes down through the flash hole in the case and into a Guide Hole in the top of the Support Stand rod.
3. Rap the punch LIGHTLY with a hammer until the primer pocket grips the PUNCH. This indicates the primer pocket diameter has been sufficiently reduced to allow a primer to once again be held firmly in the case.

This process can be repeated as often as the primer becomes loose, further extending the life of the case.

TIP: The punch requires only a few light raps with a hammer. A properly resized primer pocket will grip the punch, but you should not need to struggle to pull it off. Although any hammer will get the job done, I would recommend a medium ball pein hammer rather than a large framing hammer. It will give you more "feel" for how hard you are rapping the Punch. A Sledge Hammer is definitely overkill!

~~http://www.rwhart.com/store/proddetail.asp?prod=dhb-f-swage-sm~~
~~http://www.rwhart.com/store/proddetail.asp?prod=dhb-f-swage-lg~~

Note: As of rev. 2 (2/22), this product seems to have been discontinued and the above links are dead ends.

Gauging Your Results

The result your primer pocket swager yields isn't certain until you actually seat a primer. But unless you are using a Super 1050 or RL 1100 press, you may not know your results for quite some time. A Primer Pocket Gauge will let you know immediately if your swager is properly adjusted and yielding good results. Regardless of the swager you use, this gauge will help you set it up properly right from the start.

SWAGE GAUGE

Manufacturer: Ballistic Tools, Inc.
Product Code: sg-sp-001 (small primer)
sg-sp-001 (large primer)
MSRP = $14.99

This is the only primer pocket gauge I was able to find. It is a handy little Go-No Go gauge and is indispensable for swaging brass. The instructions below are quoted directly from those included with the SWAGE GAUGE.

"The "GO" side should enter easily and the brass should not tend to stick on the gauge if you turn the gauge over and shake it (assuming the primer pockets are relatively clean of breass shavings and residue). The inner lip of the primer pocket should appear shiny. When inserting the GO side, you should not feel any "catching" or resistance. A good deep swage indicated by easy insertion of the GO side will cause the least priming problems."

"The NO GO side may enter very slightly into deeply swaged or reamed brass, but should not go further than the mouth of the primer pocket. You should no be able to insert the NO GO side using firm hand pressure, if you can, that indicates that the pocket is loose. If it took some pressure to get the NO GO side in, the brass may be good for one more firing depending on your brand of primer, but may fail to hold a primer after that."

"You will develop a feel for what level of swage or ream is best for you and your brand of primers. It is best to monitor your swaging periodically, as swage rods do wear out and some systems require adjustment as the rod wears. Dillon swage rods tend to be good for about 15,000 to 20,000 primer pockets in my experience, for both the 1050 and their standalone swager [the Super Swage 600]."

"When a swage rod wears out, one symptom is that adding more swage force actually makes the GO side seem tighter. This is due to the worn rod "ploughing" brass rather than swaging it outward."

"On the GO side, the edge of the groove is a depth gauge. If the brass has a shallow pocket, this can cause flattening of the primers during seating, but is otherwise not a problem unless extreeme. If the brass has a deep pocket, this can cause failure to ignite when hit by the firing pin in some guns"

Small:
"Small rifle and small pistol are the same depth, and the edge of the groove should either be flush or stick very slightly out when the GO side is fully inserted fully into the primer pocket. If it sticks out a lot, ensure that the bottom of the promer pocket is free of fired primer residue and try the gauge again."

Large:
"Large rifle and large pistol have slightly different depth specifications, so the groove on the large gauge is cut so that the shallower edge is the minimum pistol, and the far edge is the maximum rifle. Maximum pistol/Minimum rifle is approximaely half way acrsss the gap." This means that the shallow edge of the groove should be below flush (but still visible) on large rifle brass, and flush to slightly below flush on pistol."

Small Primer: https://ballistictools.com/store/swage-gage-small-primer-pocket
Large Primer: https://ballistictools.com/store/swage-gage-large-primer-pocket-gauge

Swage Gauges are also available at UniqueTek, Inc.
https://uniquetek.com/shop/ols/products/swage-gauge-primer-pocket-gauge

UniqueTek, Inc.
Gilbert, AZ 85234
Ph: 480-507-0866
Email: info@uniquetek.com
Web: www.uniquetek.com

Closing Thoughs

As you can see, there are many options for swaging primer pockets … from downright simple to sublime. But the one that best suits your needs may be governed as much by equipment set and available bench space as by performance or price.

Regardless of the swager you use, it is beneficial to sort your brass by head stamp before swaging. This simple step can not only yield more consistent primer pocket swaging but also prevent damage to brass, swager parts and even your press.

So I guess that I no longer have an excuese not to dig out those .357 Magnum cases I mentiond at the start of this article, and swage the primer pockets.

Acknowledgements:
All photos courtesy of their respective manufacturers.

Trademarks:
Every effort has been made toward giving proper credit to manufacturer's trademarks. If any were missed or incorrectly credited, it is strictly accidental.

AP is a trademark of Hornady Manufacturing.
Hornady and Lock-N-Load are registered trademarks of Hornady Manufacturing.
RCBS is a registered trademark of RCBS.
SOLO is a trademark of UniqueTek, Inc.

NOTE: All prices shown are MSRP as of 12/25 and may change at any time.

UniqueTek, Inc.
Gilbert, AZ 85234
Ph: 480-507-0866
Email: info@uniquetek.com
Web: www.uniquetek.com