CORBIN™

Diam.
Nose
Base
Type

LSWC-1

Lead Semi-Wadcutter Style Swage Die

The LSWC-1-S fits the CSP-1 press, and the LSWC-2-H fits the larger Corbin presses such as the CSP-2 and HydroPress. The die forms lead bullets, which can have gas checks or BaseGuards (using the BG internal punch). The nose will always have a step or shoulder between the shank and the ogive, or it will be a wadcutter style, since the shape of the bullet ends are formed against the end of punches.

A cavity in the external punch forms the nose of the bullet. The edge of this punch cavity must be about .015 inches (or more) in thickness to avoid breakage from movement under pressure. This edge thickness is what forms the step between nose and shank.

The external punch must only be used in the die to which it was hand fitted. Using a punch that has even as little as .001 inches of clearance can result in cracking of the thin punch edge from expansion within the die. Also, using a piece of lead that is too long to fit in the die and allow the full punch cavity length to be inserted and supported by the die walls will usually result in cracking the punch from internal pressure that is not supported by the die.

The die itself has three bleed holes for adjusting the bullet weight. Soft lead (Bhn 5) will flow readily through the holes at moderate pressure. Harder alloys begin to quickly resist flow and build pressure, to the point where the die itself can be cracked through the bleed holes from excess pressure, if the operator tries to form hard lead and continues to apply more pressure attempting to make it extrude or flow. *Only excess pressure will break a die,* unless a punch larger than the die is forced into it and wedges it apart. This, too, generates excess pressure, of course.

The LSWC die screws directly into the ram of the Corbin press. The internal punch slides up and down inside the die, and ejects the bullet on the down stroke. A stop pin (in the CSP-1 press) or a knock-out bar (in the larger Corbin presses) comes to rest against the end of the internal punch and stops it on the down stroke, while the ram and die continue down. This pushes the bullet out.

If the die does not appear to move far enough, or the handle stops before it has made a complete 180-degree arc, you probably have the press in the reloading or long-stroke position with the stop pin in place. This may bend or shear the stop pin if you press hard enough. Always put the press in the short stroke, or swaging, mode by moving the ram link pin to the set of toggle holes that give the shorter ram movement. Instructions and pictures are found in the papers that come with your press.

There is a minimum and a maximum length of lead core that can be swaged in a given die, with a given internal punch. The head length of the internal punch determines the position of the punch during swaging, by resting on a shoulder within the press ram. This sets the location of the opposite end of the punch within the die, in relation to the bleed holes. If the bleed holes are covered or blocked by pushing the external punch too far into the die (trying to make too light a core) you will get no bleed-off of lead. It is possible to break the die trying to use more and more pressure to force the lead to bleed when it cannot. Use a longer lead core, or get an internal punch with a longer head. The maximum weight is that which just allows the full cavity distance to be inserted into the die and supported by the die walls before any pressure is encountered. Too long a core may leave the external punch outside the support of the die, and cause it to swell and break from the pressure.

Always swage at the end of the stroke (maximum stroke, top of stroke). This reduces the effort greatly and gives you consistent weights because the press ram always stops at the same point.