PO Box 2659, White City, OR 97503 ***www.Corbins.com***
Phone: (541)-826-5211 9am-5pm Mon-Thurs. Fax: (541)-826-8669

Shop on-line at www.Corbins.com "secure shopping cart" E-mail: Sales@Corbins.com

BlackPowder and Paper Patched Bullet Swaging

Shouldered bullets

Bullets with a small step or shoulder between the nose and the shank are known as "SWC" or semi-wadcutter" style. If your bullet can have this small (.015-inch) shoulder, then you can make it with a simple, low cost LSWC-1 type die. The shoulder comes from the edge of the nose-forming punch. The nose shape is a mirror image of the cavity made in the punch tip. You can have different nose shapes with the same die, by adding nose punches. The die controls the bullet diameter. The weight is up to you, so long as you can get the lead wire into the die and allow at least a caliber for alignment . Bleed holes in the LSWC-1 die allow the weight to be precisely adjusted. Typically, the base is either flat or cup-base but you can specify other shapes including heel or rebated boatail shapes. Order LSWC-1-S for S-Press (up to .458 cal), or LSWC-1-H for larger Corbin presses.

Smooth ogive bullets

To make a bullet without a shoulder between nose and shank, the bullet ogive or nose is formed against the inside of a die cavity, not a movable punch. This eliminates the need for a punch edge, which removes the source of the shoulder. The PF-1 point form die uses a small spring-wire ejection pin to push the bullet out . In order to develop enough internal pressure to adjust the bullet weight, a preforming die is used. This is similar to a LSWC-1 die except that it uses a flat punch at the nose end of the lead core. The base can be flat or cupped. The cavity diameter of this "core swage" or "CSW-1" die, is slightly less than the cavity diameter of the PF-1 point former. A smooth ogive bullet can have any nose shape but typically will be a 1-E (one caliber length elliptical curve) for rifles and 3/4-E for pistols. The two-die set, CSW-1 and PF-1, are used in sequence to obtain a smooth ogive bullet of precise weight. Order CSW-1-S and PF-1-S for S-Press (up to .458 cal), or CSW-1-H and PF-1-H for larger Corbin presses.

Paper Patch

For paper patched bullets, order the die by precise diameter (groove or bore diameter less four times the paper thickness, depending on whether bullet is breech or muzzle loaded). For instance, a .458 caliber paper patched breech loaded (cartridge) swage die for use with .0025 inch thick paper would be .448 diameter. A .458 caliber paper patched muzzle loaded swage die for the same paper thickness and .004 inch rifling depth would be .440 diameter (and should have a cup or hollow base design). A cup base design is highly desirable to tuck in the "tail" of the paper wrap.

Knurled or Grooved, Lubed Bullets

The Corbin HCT-2 knurling tool applies a diamond knurl to the surface of the bullet, which holds lube in contact with the bore. The diameter can be expanded from .005 to 0.015 inches depending on how deeply the knurling is set. Therefore, a smaller swage die can be used, and the diameter brought precisely to that desired by knurling. The Corbin HCT-3 grooving tool applies a pair of lube grooves. By repositioning the bullet, a second pass can create a total of 3 or 4 grooves. Corbin Dip Lube or Corbin Moly Spray-On Lube can be used. Either the dip or spray lube drys to a hard finish. Soft grease lubes can be applied by melting the lube and pouring it into a pan in which the bullets sit. Then the bullets are "cookie-cut" free using a discarded cartridge with the head cut off.

PO Box 2659, White City, OR 97503 ***www.Corbins.com***
Phone: (541)-826-5211 9am-5pm Mon-Thurs. Fax: (541)-826-8669

Shop on-line at www.Corbins.com "secure shopping cart" E-mail: Sales@Corbins.com

BlackPowder and Paper Patched Bullet Swaging

Reducing Bullets

You can reduct (draw down) an existing bullet up to .006 inches smaller, in order to make it fit a different caliber barrel. The Corbin BRD-1 (bullet reducing die) is available in type -R (fits a standard reloading press), type -S (for the S-Press), or type -H (for the larger Corbin presses). You simply push the bullet in the bottom of the die and out the top. Larger reductions may not be practical, or may distort the bullet. Send six sample bullets and specify the desired final diameter. Each reducing die is made to order.

Knurling and Grooving in High Volume

The PCM-2 Power Canelure Machine can be equipped with a knurling wheel and backing plate to quickly apply a diamond pattern to lead bullets, up to 50 per minute. Grooving wheels can also be made to roll .015-.020 deep grooves around the bullet, provided the grooves are not rolled over a deep hollow cavity area (which would simply collapse). Send six or more sample bullets, specify the depth, width, and position of the grooves with a dimensioned drawing. Extremely deep grooves are not practical with one pass, but may be done with multiple passes by resetting the depth.

Lead Wire, Core Cutters and Core Moulds

Corbin offers pure lead wire in sizes from .100 to .430 diameter. Large caliber bullets typically use .430 or .390 wire (always use the nearest size that is smaller than the die bore). In cartons of four 10-lb spools (40-lbs) of the same diameter, you get a 10% discount. Order LW-40 and specify one of the standard sizes. (The tiny 0.100 inch diameter wire is LW-40S). To cut the wire for precise lengths, use the Corbin PCS-1 core cutter (up to .365 diameter wire) or the Corbin PCS-2 core cutter (any size from .185 to .430). To cast your own lead cores, use the Corbin CM-3 adjustable weight 3-cavity core mould, up to 0.5 inch diameter and in standard wire sizes. For cores of .365 and smaller, you can use the Corbin CM-4 adjustable weight mould, which produces four cores at a time.

Round Balls

Excellent quality round balls are swaged with the BSK-1-S (up to .458) and BSK-1-H (up to 1-in) two-die sets. The lead wire is cut to length, swaged to exact weight, and then swaged into a sphere of remarkable quality. Ball Swage Kits are made to fit any Corbin press.

Corbin Swaging Presses

Diameters larger than .458 can be swaged in the Corbin CSP-2 Mega-Mite press, CSP-2H Hydro Junior, or the CHP-1 Hydro-Press (shown). These presses all use type -H Hydro-Press dies, so you can interchange them between machines. For calibers .458 and smaller, the Corbin S-Press is an economical alternative. It uses the 1-inch diameter type -S dies. All Corbin presses can use standard reloading dies (7/8-14 with button shell holders) with the appropriate adapter kits. Swaging presses provide built-in ejection on the down stroke, hold the swage dies in the ram, and use a CNC-type floating punch holder in the head. They offer greater power, strength, and speed than reloading presses.