



### JRD-2-S Jacket Draw Die

Starting diameter: \_\_\_\_\_

Finished diameter: \_\_\_\_\_

Wall thickness: \_\_\_\_\_



The JRD-2-S jacket drawing die is a high precision reducing die designed to maintain close wall thickness tolerances, and to either maintain or thin the jacket walls depending on the punch design.

A small thin steel "stripper plate" is used to pull the jacket from the punch as the ram is retracted. The stripper plate is matched exactly to the punch, and is not interchangeable with other plates. The diameter and wall thickness is usually marked on each stripper plate.

A guide bushing rides up and down with the punch, not attached but closely fitted. The dies are made so that the constriction is near the top, so the dies are short enough to allow easy insertion of long drawn jackets, and long enough to permit pre-alignment of the bushing and punch before the jacket draw begins.

Use only the proper diameter and wall thickness of jacket! Too thick a jacket will crack the die from excess pressure. It is designed to handle a certain amount of reduction, but the diameter difference and wall thickness is clearly marked and must not be exceeded.

The jacket must be lubricated both inside and out, with Corbin Jacket Draw Lube or Corbin Swage Lube. A cotton swab is handy for placing lube inside the jacket. If the proper kind and amount of lubrication is NOT used, the jacket may wrinkle, fold, or the end may be popped off from excess pressure.



A smooth, relatively quick stroke is better than a slow jerky one. Stopping and starting again may leave a ring in the jacket. Strip the jacket by raising it above the die top, and sliding the stripper plate under it for the down stroke.



### Jacket Making Kit

#### JMK-1-S

Strip width: \_\_\_\_\_

Strip thickness: \_\_\_\_\_

Caliber: \_\_\_\_\_

The JMK-1-S is a die set to produce bullet jackets from flat copper strip. The strip width and thickness must be correct for the design of the tooling. The final jacket is trimmed to length with an included ET-2-S trim die. If specific instructions are provided with your die set, follow them instead of these standard instructions if there is any difference.



The JMK-1-S is designed to operate in the CSP-1 S-press. It is not suitable for a reloading press. The jacket length, diameter and wall thickness are limited by the stroke of the S-press. Longer, larger, or thicker walled jackets may be made with the CHP-1 Hydro Press using the JMK-1-H manual feed, or JMK-2-H auto-blank/cup jacket makers. The kit consists of a blanking die (left), a cupping die, one or more drawing dies with guides and stripper plates, and a trim die to adjust the final length.



### Blanking Die

Strip width: \_\_\_\_\_

Strip thickness: \_\_\_\_\_

Disk Diameter: \_\_\_\_\_

The first stage in making a drawn jacket from strip is to cut a disk or blank from the strip. The blanking die has a slot through which the strip is fed. The die fits into the press ram. The blanking punch fits into the floating punch holder, in the press head.



The punch holder is adjusted so that the punch just penetrates the strip, but does not go further than just cutting through the strip. The disk then falls down a slope in the lower part of the die, and out of the die where it is set aside for the next operation.

The strip is lubricated on both sides with a thin film of Corbin Jacket Drawing Lubricant (JDL-2). Be careful not to drop the sharp edged punch on a hard surface, as this may damage the edge.

Disks may "stick" to the punch or to each other because of the lubrication film. Do not allow disks to pile up inside the die. Remove them before making the next pass. Move the strip forward just enough to leave a small "web" of material between the holes, and stroke the press up and down again. Eventually you will develop a rhythm and a feel for how far to move the strip, to get the maximum number of disks.

Always use the recommended material, thickness, and width to avoid damage to the tools. The cutter may work with some other materials but the later stages may be damaged from overly thick disks. The most convenient way to handle strip is in 3 foot strips. If a disk is "nicked" at the edge, by not moving the strip far enough to clear the last hole, do not use that disk to try to produce a cup.



### Cupping Die

Disk Diameter: \_\_\_\_\_

Disk Thickness: \_\_\_\_\_

Cup Diameter: \_\_\_\_\_

The cupping die turns a flat disk into a shallow cup, in preparation for further reduction in diameter, increase in length, and usually a decrease in the jacket wall thickness. The cupping die uses a guide and pressure pad to hold the disk square to the hole in the die, and to align it. A spring



holds pressure on the edges of the disk, so that the disk is not folded or wrinkled when the punch pushes it through the die.

The die goes into the top of the press, directly (remove the punch holder which was used in the blanking stage to hold the blanking punch). The die fits into the press from the bottom of the press head (upside down compared to most drawing dies, which screw in from the top).

The punch goes into the press ram. The pressure pad at the top of the punch is free floating, and is held by tension of the spring. To use the die, put the flat disk into the die mouth or on the pressure pad, and gently raise the ram so that the pressure pad fits into and aligns with the die, holding the disk in perfect center position over the die hole.



Continue to raise the ram so that the disk is formed into a cup. Do not "coil-bind" the spring by raising the ram higher than necessary, or the spring will be ruined. If the disk is turned into a cup and passes freely into the threaded portion of the die, so it is loose in the die, then you have gone as far as needed. The next cups will lift the previous ones out the top of the die. Use CDL-2 draw lube on the disk (both sides) to preserve die life and reduce friction.