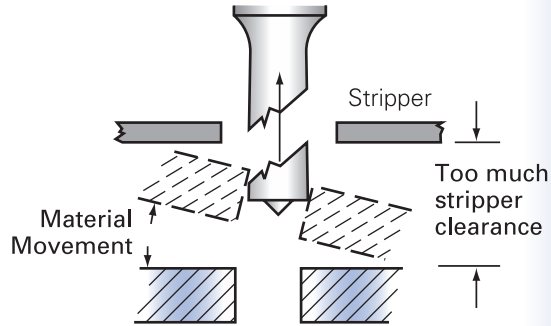
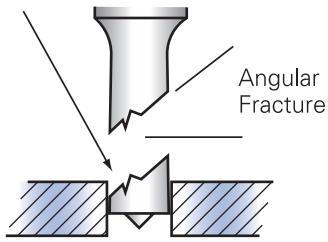


## STRIPPING FAILURE

**FAILURE:** A portion of the punch is broken off in the material.

**PROBABLE CAUSE:** Too much stripper clearance.



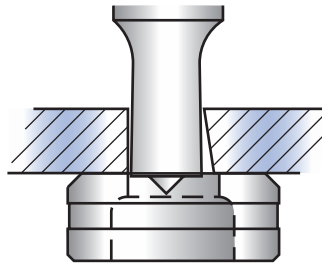
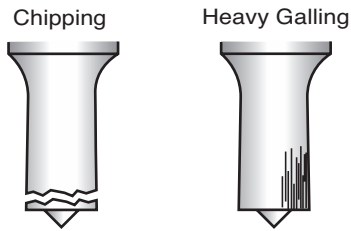
### POSSIBLE SOLUTION:

Adjust stripper closer to the material.

## CHIPPING AND GALLING

**FAILURE:** Punch face chipping or heavy galling on one area of punch.

**PROBABLE CAUSE:** Poor alignment between punch and die, causing the punch to drag.

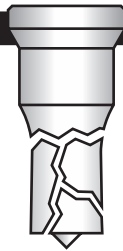


### POSSIBLE SOLUTION:

Adjust alignment between punch and die to create equal clearance all around.

## COMPRESSIVE FAILURE

**FAILURE:** Occurs when the compressive strength of the punch has been exceeded and the entire working end shatters.



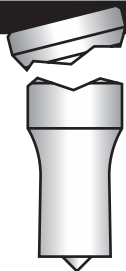
**PROBABLE CAUSE:** Attempting to punch extremely hard or thick materials, or complete misalignment of the punch and die.

### POSSIBLE SOLUTION:

Use an "Alpha Punch" from American Punch Co.

## PUNCH HEAD FAILURE

**FAILURE:** Punch head fractures or breaks off.



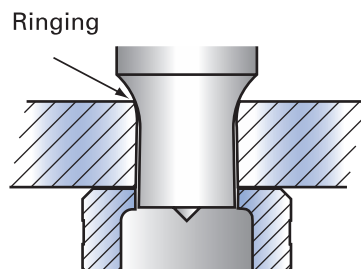
**PROBABLE CAUSE:** Using a loose or worn coupling nut or punch stem.

### POSSIBLE SOLUTION:

Frequently check and re-tighten the coupling nut. Verify that the face of the punch stem is smooth and flat.

## RINGING

**FAILURE:** Material being punched is deformed with each stroke of the press.



**PROBABLE CAUSE:** Material is thicker than the working length of the punch, or the punch is entering into the die too far.

### POSSIBLE SOLUTION:

Adjust the stroke length to enter into the die a maximum of 1/16".

**WARNING:** It is the responsibility of the machine operator to use this tooling safely, in accordance with OSHA Laws and ANSI B11.5 Safety Standards.