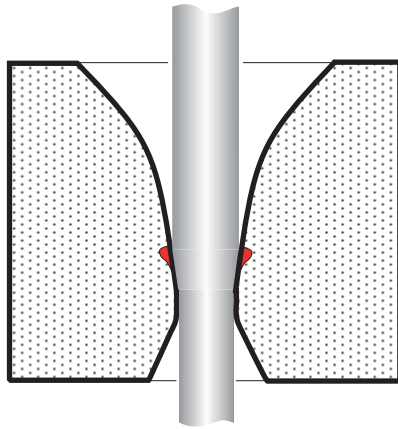


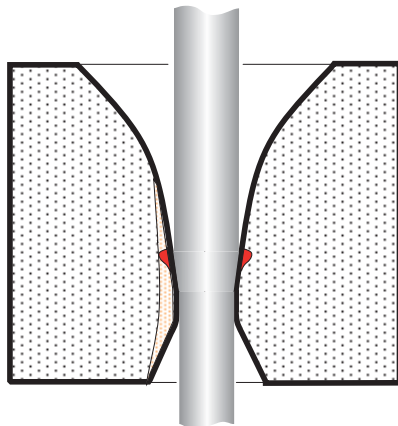
# Die Repolishing – 1



Close to the area of contact between the wire and the die, little by little, some wear will appear on the diamond surface in the form of a wear ring.

It is recommended not to let this defect develop to the extent of getting wire breakages. The right time to proceed to a re-profiling of the die will have to be considered carefully before wire breakages occur. Various methods are used for the re-profiling and the re-sizing of dies.

Only one is really advisable as described on page 2



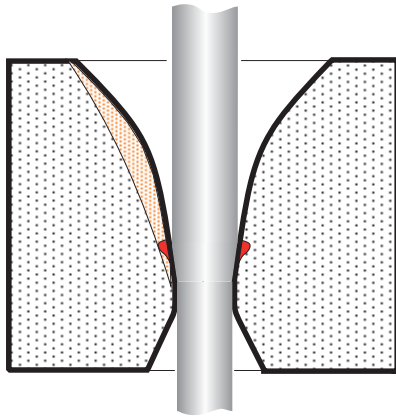
Re-sizing of dies using a «wire» machines has a tendency to substantially increase the bearing.

This method is economical in terms of re-sizing costs but can lead to a much reduced die life span.

This re-sizing by wire should only be used for the finishing and calibration of the bearing.



# Die Repolishing – 2

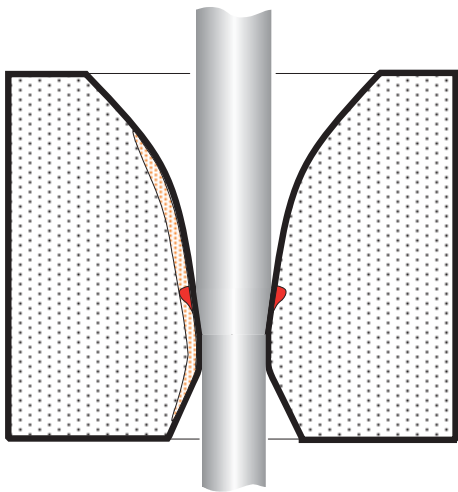


Re-sizing by ultrasonics will seek to minimize the increase in diameter of the die.

For this, the reduction angle is increased and much material needs to be removed.

**The initial geometry, or profile, is lost.** Furthermore, the wire will come into contact lower down the reduction cone. Stress on the wire and its hardening will be strongly modified.

**This method is not recommended.**



**The methods described above seriously change the initial die geometry and lead to early die wear.**

**It is possible to keep the original die geometry using an ultrasonic machine with the appropriate needles (having well defined angles).**

**The die is then polished using fine powders. Lastly, the bearing will reach its required size to tolerance with the use of a “wire” machine and the appropriate fine powder.**

