Progressive stamping is a metalworking method that can encompass punching, coining, bending and several other ways of modifying metal raw material, combined with an automatic feeding system.

The dies are usually made of tool steel to withstand the high shock loading involved, retain the necessary sharp cutting edge, and resist the abrasive forces involved.

Working process:The feeding system pushes a strip of metal (as it unrolls from a coil) through all of the stations of a progressive stamping die. Each station performs one or more operations until a finished part is made. The final station is a cutoff operation, which separates the finished part from the carrying web. The carrying web, along with metal that is punched away in previous operations, is treated as scrap metal.

The progressive stamping die is placed into a reciprocating stamping press. As the press moves up, the top die moves with it, which allows the material to feed. When the press moves down, the die closes and performs the stamping operation. With each stroke of the press, a completed part is removed from the die.

Since additional work is done in each “station” of the die, it is important that the strip be advanced very precisely so that it aligns within a few thousandths of an inch as it moves from station to station. Bullet shaped or conical “pilots” enter previously pierced round holes in the strip to assure this alignment since the feeding mechanism usually cannot provide the necessary precision in feed length.

The cost is determined by the number of features, which determine what tooling will need to be used. It is advised to keep the features as simple as possible to keep the cost of tooling to a minimum.