Edge cracks are cracks at the parting surface and cutting edge of die forging

Crack 1 parting surfaces
Branch crack die surface is the crack along the forging die parting surface generation. Non metallic inclusion of many raw materials, die to the die parting surface flow and concentration or shrinkage pipe residual crack component mould surface usually crowded during die forging flash after.
2 fold
Folding is deformation of metal surface metal confluence process has been oxidised together to form the. It is composed of two stocks (or multi unit) metal convection meet to form; also can be composed of a metal mass flow will rapidly the adjacent portion of the surface of metal with the flow, the two meet to form; can also be due to the formation of metal deformation of bending and reflux; can also be part of the local deformation metal is pressed another part of the metal is formed. Folding and raw material and the shape of the blank and the die design, the forming process of the arrangement, lubrication and forging the actual operation and other relevant. Folding not only reduces the bearing area of parts, and working hours due to the stress concentration often become the source of fatigue.
3 cross flow
Cross flow is a form of streamline distribution improper. In the through flow area, the original into a certain angle distribution of streamline together formed cross flow, and may make the grain size through flow area inside and outside the difference is more disparate. Causes of wear caused by the flow and the folding similar, is composed of two strands of metal or a metal with another metal concentration and the formation of the shares, but flow through metal is still part of the whole. Cross flow to reduce the mechanical properties of the forgings, especially when the cross flow zone on both sides of the grain differ greatly, the performance is greatly reduced.