

A Segmented Drawing Die with A Binding Collar

Abstract

[0035] The present invention provides a sheet metal drawing die assembly (100). The die assembly (100) comprises a drawing member (130) having two or more die segments (134) and a collar (140) for binding the two or more die segments together with a pre-tension force F . During a drawing operation, the pre-tension force F provides the reaction force for plastically deforming a sheet metal (110) at a drawing edge R2 on the drawing member (130). At the same time, the pre-tension force allows the die segments (134) to expand when a drawing force exceeds the pre-tension force, thereby reducing the frequency of die cracking.

[0036] FIG. 2A for publication.