

ABSTRACT

MANDREL FOR COMPOSITE PART FABRICATION AND REPAIR

In an example, a mandrel for a composite part includes an upper-mandrel portion, a lower-mandrel portion, and a mid-mandrel portion between the upper-mandrel portion and the lower-mandrel portion. The mandrel also includes a cavity and an exterior surface defined by the upper-mandrel portion, the lower-mandrel portion, and the mid-mandrel portion. An actuator is movable in the cavity between a first position and a second position. The exterior surface can support the composite part. A perimeter of the exterior surface has a first length when the actuator is in the first position and the perimeter has a second length when the actuator is in the second position. The first length is greater than the second length such that the mandrel is in an expanded state when the actuator is in the first position and the mandrel is in a contracted state when the actuator is in the second position.

Fig. 3A