

Title (en)
PROCESS AND DEVICE FOR ASSEMBLING THERMOPLASTIC COMPOSITE PREFORMS

Title (de)
VERFAHREN UND VORRICHTUNG ZUR MONTAGE VON THERMOPLASTISCHEN VERBUNDVORFORMEN

Title (fr)
PROCÉDÉ ET DISPOSITIF D'ASSEMBLAGE DE PRÉFORMES EN COMPOSITES THERMOPLASTIQUES

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Application
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Abstract (en)
[origin: WO2011135267A1] The subject of the invention is a process for assembling at least two rigid preforms (1, 2) based on a thermoplastic composite material in order to form a three-dimensional structure, the two preforms being positioned relative to one another so that they have at least one zone of superposition. According to the invention, it comprises the following successive steps: - positioning a working head assembly (100) and heating means (4) in a region of the zone of superposition in order to produce a junction point (12) by inserting a fastening member (102), said working head comprising a piercing head (101) having a hollow body; - locally heating this region with the heating means (4) so as to locally soften the region facing the heating means; - piercing this region using the piercing head, - placing the fastening member (102) into said hollow body while keeping said piercing head (101) in position in the preforms; - introducing the fastening member (102) into the preforms through said hollow body of the piercing head (101) using a plunger (103); - withdrawing the piercing head (101) and moving said assembly in order to produce the next junction point; - repeating these steps so as to form at least one line of junction points in this zone of superposition.

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