

Title (en)

FLEXIBLE COMPRESSION MEMBER FOR A FLEXIBLE PNEUMATIC STRUCTURAL ELEMENT AND MEANS FOR ERECTING PNEUMATIC ELEMENT STRUCTURES

Title (de)

FLEXIBLER DRUCKSTAB FÜR EIN FLEXIBLES PNEUMATISCHES BAUELEMENT UND MITTEL ZUR ERRICHTUNG PNEUMATISCHER ELEMENTBAUTEN

Title (fr)

BARRE DE COMPRESSION FLEXIBLE POUR ELEMENT CONSTITUTIF PNEUMATIQUE FLEXIBLE ET MOYENS POUR PRODUIRE DES ELEMENTS CONSTITUTIFS PNEUMATIQUES

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Application

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Priority

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Abstract (en)

[origin: WO2004083568A1] A flexible compression member (2) is essentially flat when a pneumatic structural element is in a slack state. When the pneumatic structural element is subjected to the action of pressure via a valve (3), the compression member (2) takes on a functionally curved shape similar to a segment of a cylinder. In the functional shape, the flexible compression member (2) has a greater geometrical moment of inertia and is supported by the skin (1) that is under pressure whereby considerably increasing the buckling load of the compression member (2). The ends of the compression member (2) lead into two node elements that can be joined together via joining elements. This enables the creation of pneumatic element structures and the erection thereof by using compressed air.

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