

INFLATABLE DEVICE WITH GUIDING MECHANISM FOR EFFECTIVE ENGINE CLEANING

ABSTRACT

An inflatable device equipped with a guiding mechanism and methods of installing the inflatable device to form a temporary barrier within a gas turbine engine are provided. In one aspect, an inflatable device includes a backbone and an inflatable bladder connected thereto. The backbone is formed of a flexible and inextensible material. The inflatable bladder is formed of an expandable material. To install the inflatable device within an annular chamber of a gas turbine engine, the backbone is inserted into a first access port of the engine and is moved circumferentially around the annulus of the chamber. The backbone is retrieved through a second access port. The inflatable bladder is moved into position within the chamber by pushing the backbone into the first access port and/or pulling the backbone out of the second access port. When positioned in place, the inflatable bladder is inflated to form an annular seal.

[Figure 1]