

Abstract

Connectors for Pneumatic Devices in Microfluidic Systems

5 In one embodiment, a removable pneumatic connector, comprises a body
having a plurality of bores passing through, each bore surrounded by a sealing
member on an inner surface of the body. A plurality of gas lines may be placed
within a corresponding bore. A vacuum port is disposed on the inner surface of the
body, and an outer seal on the inner surface of the body surrounds the sealing
10 members and the vacuum port. A vacuum line may be placed within the vacuum
port, and configured to deliver negative pressure to the vacuum port. A vacuum
holding area is created in the volume between the outer seal and each of the
sealing members when the inner surface of the body is placed against a substrate.
When the vacuum line is activated, a vacuum is created within the vacuum holding
15 area, creating a positive seal between the body and the substrate.

(Fig. 1)