

What is claimed is:

1. A device for centering a temperature measurement device inside a tube reactor that will be filled with catalyst, comprising a single inflatable bladder mechanically and fluidically attached to a centering ring.
5
2. The device of claim 1, wherein a pressurized gas conduit is located inside the centering ring and is fluidically attached to a compressed gas source.
- 10 3. The device of claim 1, wherein the single inflatable bladder is configured to center the centering ring within a reactor tube when inflated.
4. A device for centering a temperature measurement device inside a tube reactor that will be filled with catalyst, comprising:
15
 - a centering ring with an interior and an exterior, configured to accommodate a temperature measurement device and a pressurized gas conduit in the interior,
 - a single inflatable bladder mechanically and fluidically attached to the exterior of the centering ring,
 - 20 • the pressurized gas conduit fluidically attached to the centering ring such that a flow of pressurized gas exiting the pressurized gas conduit passes through a gas passage into the single inflatable bladder.
5. The device of claim 4, wherein the pressurized gas conduit is fluidically
25 attached to a compressed nitrogen source.
6. The device of claim 4, wherein the pressurized gas conduit is fluidically attached to a compressed air source.
- 30 7. The device of claim 4, wherein the single inflatable bladder is configured to center the centering ring within a reactor tube when inflated.

8. The device of claim 4, wherein the temperature measurement device comprises a distal end, and the distal end is attached to a distal end mesh disk.