CLAIMS

1. A process for the treatment of a component using a fluidised bed of solid particles, wherein the fluidised bed is formed in a treatment chamber (10) and retained in the treatment chamber by one or more containment surfaces (24) and at least one treatment part of the component is placed in the fluidised bed and at least one non-treatment part of the component is located substantially outside the chamber and out of contact with the fluidised bed, wherein the boundary between the treatment part and the non-treatment part of the component is defined by a boundary containment surface at a fixed location with respect to the component.

2. A process according to claim 1 wherein fluidisation of the bed is by a flow of fluidising gas.

3. A process according to claim 1 or claim 2 wherein the treatment chamber has at least one side wall (18), the component being disposed with respect to the treatment chamber so that the treatment part of the component is located within the treatment chamber on one side of the side wall and so that the non-treatment part of the component is located on the other side of the side wall, outside the treatment chamber.

4. A process according to any one of claims 1 to 3 wherein the side wall is adapted to the shape of the component, having one or more apertures (26-34) corresponding in shape and location to the treatment parts of the component.

5. A process according to any one of claims 1 to 4 wherein the boundary containment surface includes at least one seal member (47, 48) to seal between the component and the treatment chamber.

6. A process according to any one of claims 1 to 5 wherein the component has two or more treatment parts which are treated in the fluidised bed simultaneously.

7. A process according to any one of claims 1 to 6 wherein the component is initially installed in the treatment chamber before the solid particle bed is fluidised so that the treatment part(s) of the component are located above the surface of the solid particle bed before fluidisation and on fluidisation, the treatment part(s) of the

component are then completely submerged under the rising surface of the fluidised bed.

8. An apparatus for the treatment of a component using a fluidised bed, the apparatus comprising a treatment chamber, the fluidised bed in use being retained in the treatment chamber by one or more containment surfaces, the apparatus being adapted to allow at least one treatment part of the component to be placed in the fluidised bed and at least one non-treatment part of the component to be located substantially outside the chamber and out of contact with the fluidised bed, wherein in use the boundary between the treatment part and the non-treatment part of the component is defined by a boundary containment surface at a fixed location with respect to the component.

9. An apparatus according to claim 8 wherein the apparatus is adjustable in order to adjust the position of the component with respect to the fluidised bed.

10. An apparatus according to claim 8 or claim 9 wherein the treatment chamber (80) is configured to receive the component in one orientation of the treatment chamber, and then to treat the component in another orientation of the treatment chamber.

11. An apparatus according to claim 10 wherein the treatment chamber is movable to an orientation in which the one or more openings (83) for receiving the component face substantially upwardly and is subsequently movable to an orientation in which the fluidised bad covers the part of the component projecting into the treatment chamber.

12. A kit of parts suitable for assembling an apparatus according to any one of claims 8 to 11, wherein the kit includes two or more interchangeable boundary containment surfaces of different shape, in order to adapt the treatment chamber to different shapes of specific components to be treated by selection of at least one of the two or more interchangeable boundary containment surfaces to be used in assembling the apparatus.

13. A kit according to claim 12 wherein the interchangeable boundary containment surfaces are provided by interchangeable side walls (85) of the apparatus.

CLAIMS

1. A process of treating a component using a fluidised bed of solid particles, wherein the fluidised bed is formed in a treatment chamber and retained in the treatment chamber by one or more containment surfaces and at least one treatment part of the component is placed in the fluidised bed and at least one non-treatment part of the component is located substantially outside the chamber and out of contact with the fluidised bed, wherein the boundary between the treatment part and the non-treatment part of the component is defined by a boundary containment surface of the treatment chamber at a fixed location with respect to the component.

2. A process according to claim 1 wherein fluidisation of the bed is by a flow of fluidising gas.

3. A process according to claim 1 or claim 2 wherein the treatment chamber has at least one side wall, the component being disposed with respect to the treatment chamber so that the treatment part of the component is located within the treatment chamber on one side of the side wall and so that the non-treatment part of the component is located on the other side of the side wall, outside the treatment chamber.

4. A process according to claim 3 wherein the side wall is adapted to the shape of the component, having one or more apertures corresponding in shape and location to the treatment parts of the component.

5. A process according to any one of claims 1 to 4 wherein the boundary containment surface includes at least one seal member to seal between the component and the treatment chamber.

6. A process according to any one of claims 1 to 5 wherein the component has two or more treatment parts which are treated in the fluidised bed simultaneously.

7. A process according to any one of claims 1 to 6 wherein the component is initially installed in the treatment chamber before the solid particle bed is fluidised so that the treatment part(s) of the component are located above the surface of the solid particle bed before fluidisation and on fluidisation, the treatment part(s) of the component are then completely submerged under the rising surface of the fluidised bed.

8. An apparatus for the treatment of a component using a fluidised bed, the apparatus comprising a treatment chamber, the fluidised bed in use being retained in the treatment chamber by one or more containment surfaces, the apparatus being adapted to allow at least one treatment part of the component to be placed in the fluidised bed and at least one non-treatment part of the component to be located substantially outside the chamber and out of contact with the fluidised bed, wherein in use the boundary between the treatment part and the non-treatment part of the component is defined by a boundary containment surface of the treatment chamber at a fixed location with respect to the component, wherein the apparatus is adjustable in order to adjust the position of the component with respect to the fluidised bed.

9. An apparatus according to claim 8 wherein the treatment chamber is configured to receive the component in one orientation of the treatment chamber, and then to treat the component in another orientation of the treatment chamber.

10. An apparatus according to claim 9 wherein the treatment chamber is movable to an orientation in which the one or more openings for receiving the component face substantially

upwardly and is subsequently movable to an orientation in which the fluidised bad covers the part of the component projecting into the treatment chamber.

11. A kit of parts suitable for assembling an apparatus according to any one of claims 8 to 10, wherein the kit includes two or more interchangeable boundary containment surfaces of different shape, in order to adapt the treatment chamber to different shapes of specific components to be treated by selection of at least one of the two or more interchangeable boundary containment surfaces to be used in assembling the apparatus.

12. A kit according to claim 11 wherein the interchangeable boundary containment surfaces are provided by interchangeable side walls of the apparatus.