[13] In an embodiment, the component support comprises a carrying member configured to fit within the receiving recess and comprising one or more receiving openings corresponding to the one or more component positions when the carrying member is arranged within the receiving recess, wherein each receiving opening is configured for carrying one component of the one or more components and for allowing the top end of a respective movable pedestal to contact the component.

[14] In an embodiment, the carrying member comprises carrying elements protruding towards an inside of each receiving opening and configured for carrying the one or more components.

[15] In an embodiment, the component carrier comprises a down-holder mask configured to be mounted onto the top surface of the component support, the down-holder mask comprises one or more mask openings configured for allowing access to the component(s), and the mask opening(s) correspond in position to the component position(s) defined by the positioning opening(s) of the component support.

[16] In an embodiment, the down-holder mask further comprises positioning pins protruding from a bottom surface of the down-holder mask and configured for fitting in positioning bores formed in the top surface of the component support.

[17] In an embodiment, a gas inlet and a gas outlet are provided in the receiving recess, and wherein the gas inlet and gas outlet are in fluid connection with a gas inlet connection and a gas outlet connection, respectively, through one or more gas ducts, wherein the gas inlet connection is configured for connecting to a gas source and the gas outlet connection is configured for connecting to a gas drain to provide a continuous gas flow to the one or more components.

[18] In an embodiment, the component carrier is configured for holding a gas-impermeable foil, sheet or film completely covering the carried one or more components and creating a closed cavity for the one or more components.

[19] In an embodiment, when the down-holder mask is mounted onto the top surface of the component support , the gas-impermeable foil, sheet, or film is clamped between the down-holder mask and the top surface of the component support.

[20] There is disclosed a component carrier for carrying one or more components to be processed in a component processing apparatus like a press sintering apparatus, optionally according to any one of the preceding claims, wherein the component carrier comprises

- a component support comprising one or more positioning openings formed in the component support at a top surface of the component support, wherein each positioning opening defines a component position within the positioning opening for holding a component to be processed and a component held in the component position within the positioning opening is exposed at the top surface of the component support; and
- two gas inlet connections in fluid communication with the positioning openings of the component support for passing gas from a gas source, connected, in use, to one of the

gas inlet connections, to the positioning openings for purging the positioning openings, wherein each gas inlet connection is configured to be closed off when not connected to the gas source.

[21] It is disclosed that the component support comprises gas ducts connected to each positioning opening for providing fluid connection between the gas inlet connections and the positioning openings.

[22] It is disclosed that the component support comprises two gas outlet connections in fluid communication with the positioning openings of the component support for passing gas from the positioning openings to a gas drain, connected, in use, to one of the gas outlet connections for purging the positioning openings, wherein each gas outlet connection is configured to be closed off when not connected to the gas drain.

[23] In another aspect, the invention provides a method for processing a component in a processing apparatus, wherein the method comprising employing a component carrier.

BRIEF DESCRIPTION OF THE DRAWINGS

[24] Further features and advantages of the invention will become apparent from the description of the invention by way of non-limiting and non-exclusive embodiments. These embodiments are not to be construed as limiting the scope of protection. The person skilled in the art will realize that other alternatives and equivalent embodiments of the invention can be conceived and reduced to practice without departing from the scope of the present invention. Embodiments of the invention will be described with reference to the accompanying drawings, in which like or same reference symbols denote like, same or corresponding parts, and in which

Figure 1 schematically shows a component processing apparatus;

Figures 2A and 2B shows a schematic perspective view and a cross section, respectively, of a component carrier to be used in the component processing apparatus.

Figures 3A and 3B schematically show a perspective view and a cross section, respectively, of a component carrier to be used in the component processing apparatus, according to embodiments of the invention.

Figures 4A and 4B schematically show a perspective view and a cross section, respectively, of a component carrier to be used in the component processing apparatus, according to embodiments of the invention.

Figures 5A and 5B schematically show the cross section of the component carrier depicted in figures 3A to 4B, during the pre-heating stage of the process and during the processing stage of the process, respectively.

Figures 6A and 6B schematically show perspective views of a component carrier to be used in the component processing apparatus, according to embodiments of the invention.

Figures 7A, 7B and 7C schematically show cross sections along different planes of the component carrier of figures 6A and 6B .