Claims

1. Apparatus for processing a component, comprising a multi-axis positioning device, a processing tool and a control device for controlling the positioning device,

- it being possible for the processing tool to be moved relative to the component by means of the positioning device,
- it being possible for the processing tool to be moved for each axis within a corresponding work envelope by the positioning device,

characterised in that

- the control device is designed to limit the movement of the positioning device about at least one limited axis within the corresponding work envelope to a subregion or subspace, the subregion or subspace corresponding to at most 50% of the corresponding work envelope, and
- it being possible to compensate for the limitation of the movement about the at least one limited axis by it being additionally possible for the component to be moved by rotational movement about an external axis, the external axis being parallel to the at least one limited axis of the positioning device,

wherein the limited movement comprises at least one limited rotational movement about the at least one limited axis,

wherein the at least one limited rotational movement about the at least one limited axis is limited to a predefined angular range, and

wherein the at least one limited axis comprises at least one vertical axis.

2. Apparatus according to claim 1, characterised in that

- the rotational movement about the external axis is controlled by the control device.

3. Apparatus according to either claim 1 or claim 2, characterised in that

- a subspace is formed by a sectional surface of the component.

4. Apparatus according to any of the preceding claims, characterised in that

- the subregion or subspace is formed by a discrete value within the corresponding work envelope.

5. Apparatus according to any of the preceding claims, characterised in that

- a protective gas apparatus is provided,

- the protective gas apparatus being designed such that the protective effect is limited to the subspace.

6. Method for repairing a component, characterised in that
- the repair is carried out using the apparatus according to claims 1 to 5.

7. Method according to claim 6, characterised in that
- a processing point on the component is moved within the workspace into the predefined subspace by means of a movement about the external axis, and
- the processing point is then processed by means of the processing tool that is moved within the subspace.

8. Method according to either claim 6 or claim 7, characterised in that
- the subspace is formed by a sectional surface of the component or the sectional surface according to claim 3, and
- during processing the processing tool is only moved in the plane of the sectional surface.