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 along or about at least one limited axis within the corresponding work envelope to a subregion or subspace,
- it being possible to compensate for the limitation of the movement along or about the limited axis by it being additionally possible for the positioning device and/or the component to be moved about and/or along an external axis, the external axis being parallel to the limited axis of the positioning device.

2. Apparatus according to claim 1, characterised in that
- the movement about and/or along 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 corresponds to at most 50% of the corresponding work envelope.

5. Apparatus according to any of the preceding claims, characterised in that
- the subregion or subspace is formed by a discrete value within the work envelope.

6. Apparatus according to any of the preceding claims, characterised in that
- the limited movement comprises at least one limited rotational movement about at least one limited axis.

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

- the limited axis comprises at least one vertical axis.

8. 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.

9. Method for repairing a component, characterised in that
- the repair is carried out using the apparatus according to claims 1 to 8.

10. Method according to claim 9, characterised in that
- a processing point on the component is moved within the workspace into the predefined subspace by means of a movement along and/or about the external axis, and
- the processing point is then processed by means of the processing tool that is moved within the subspace.

11. Method according to either claim 9 or claim 10, 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.