Patent claims

1. A pump casing for a centrifugal pump, the pump casing extending in an axial direction and comprising:

a first housing part;

a second housing part configured to be sealingly attached to the first housing part;

a plurality of securing elements configured to link the first and the second housing parts; and

a radial sealing element configured to seal between the first and the second housing parts, the first housing part having a first axial end surface and a radially inner surface, and the second housing part having a second axial end surface, the first and second axial end surfaces facing each other, the first axial end surface comprises an annular protrusion extending in the axial direction and the second axial end surface comprises an annular recess configured to engage the annular protrusion and provide an outside centering, and the annular protrusion being arranged radially inwardly with respect to the securing elements, the sealing element arranged at the radially inner surface.

2. The pump casing in accordance with claim 1, wherein the annular recess is a ring-shaped groove.

3. The pump casing in accordance with claim 1, wherein the sealing element is arranged in an annular sealing groove.

4. The pump casing in accordance with claim 3, wherein the annular sealing groove is arranged in the first housing part.

5. The pump casing in accordance with claim 3, wherein the annular sealing groove is arranged in the second housing part.

6. The pump casing in accordance with claim 3, wherein the sealing groove is formed by the first and the second housing parts.

7. The pump casing in accordance with claim 1, wherein the protrusion forms a part of the radial inner surface of the first housing part.

8. The pump casing in accordance with claim 7, wherein an annular sealing groove is arranged in the protrusion.

9. The pump casing in accordance with claim 1, wherein the second housing part comprises an inner section extending into the first housing part such that the first housing part encloses the inner section of the second housing part, and the sealing element is arranged between the inner section of the second housing part and the first housing part.

10. The pump casing in accordance with claim 1, wherein the sealing element is arranged in the annular recess of the second housing part.

11. The pump casing in accordance with claim 10, wherein the sealing element is conical and has an essentially T-shaped cross-section.

12. The pump casing in accordance with claim 1, wherein the sealing element is made of a metallic material, or a plastic, or a rubber, or graphite.

13. A centrifugal pump, comprising: the pump casing according to claim 1.

14. The centrifugal pump in accordance with claim 13, wherein the pump is a boiler feed pump, or an ebullator pump for circulating a process fluid.

15. A pump casing for a centrifugal pump, the pump casing extending in an axial direction and comprising:

a first housing part;

a second housing part configured to be sealingly attached to the first housing part;

a plurality of securing elements configured to link the first and the second housing parts;

a radial sealing element configured to seal between the first and the second housing parts, the first housing part having a first axial end surface, and the second housing part having a second axial end surface, the first and second axial end surfaces facing each other, the first axial end surface comprises an annular protrusion extending in the axial direction and the second axial end surface comprises an annular recess configured to engage the annular protrusion and provide an outside centering, and the annular protrusion being arranged radially inwardly with respect to the securing elements; and

an annular gap formed between the first axial end surface and the second axial end surface in a region located radially outwardly of the securing elements.