CLAIMS

1. A valve comprising:

a first body having an inlet and an annular base wall surrounding the inlet at a location inwardly of the first body;

a second body having an outlet and a poppet bore having a circumferential poppet bore surface;

a poppet located in the poppet bore and having a sealing face, the sealing face facing the annular base wall of the first body; and

a sealing arrangement comprising;

a circumferential support surface;

a compressible seal ring having an uncompressed free state and a compressed state, an outer circumferential surface, and an inner circumferential surface facing the circumferential support surface; and

a split ring disposed over the outer circumferential surface of the compressible seal ring, the compressible seal ring in a compressed state between the split ring and the inner circumferential surface.

2. The valve of claim 1, further comprising

an annular seal support wall extending radially outwardly from the circumferential support surface;

the split ring comprising a circumferential recess; and

a portion of the seal ring adjacent to the annular seal support wall extends inwardly of the circumferential recess.

3. The valve of claim 1, wherein the split ring further comprises an inner annular face having a first inner circumferential wall and a second inner circumferential wall, the second inner circumferential wall having a frustoconical profile.

4. The valve of claim 3, wherein a second annular wall faces toward the inlet of the first body.

5. The valve of claim 1, further comprising a seal support plate, wherein the circumferential support surface is a projection of a portion of the seal support plate; and,

the seal support plate further comprises a first annular seating surface extending radially outwardly of the circumferential support surface, a second annular surface extending radially outwardly of the first annular surface, and an undercut portion extending between the outer circumference of the first surface and the inner circumference of the second annular surface.

6. The valve of claim 5, wherein the inner circumference of the second annular surface has a smaller diameter than the diameter of the outer circumference of the first annular surface.

7. The valve of claim 1, wherein the circumferential support surface comprises a base and a projection projecting outwardly of the base and inwardly of the compressible seal ring.

8. The valve of claim 2, wherein the split ring comprises a first ring half and a second ring half.

9. The valve of claim 8, wherein the circumferential recess is provided as a tapered wall of the first half ring and of the second half ring, the tapered walls of the first half ring and of the second half ring facing the annular seat support surface.

10. The valve of claim 1, wherein the sealing face of the poppet is a frustoconical surface facing the compressible seal ring.

11. The valve of claim 2, further comprising an annular recessed wall extending radially outwardly of the annular seal support wall and a circumferential undercut wall extending between the annular seal support wall and the annular recessed wall; and

the split ring includes a frustoconical wall extending between the circumferential undercut wall and the annular recessed wall.

12. The valve of claim 1, wherein the split ring further includes a first flow surface extending radially away from the compressible seal ring, and a second flow surface extending from the first flow surface and in the direction of the poppet.

13. The valve of claim 12, wherein the second flow surface is a frustoconical flow surface.