What is claimed is:

1. A well diverter assembly, comprising:

a diverter having a deflection surface; and

an annular seal device externally disposed on the well diverter assembly, the annular seal device being longitudinally displaceable on the well diverter assembly in response to a pressure differential being applied across the annular seal device.

2. The well diverter assembly of claim 1, wherein displacement of the annular seal device on the well diverter assembly reduces the pressure differential.

3. The well diverter assembly of claim 1, wherein displacement of the annular seal device on the well diverter assembly substantially equalizes pressure across the annular seal device.

4. The well diverter assembly of claim 1, wherein the annular seal device is positioned longitudinally between the diverter and an anchoring device which secures the well diverter assembly in a well casing.

5. The well diverter assembly of claim 4, wherein the annular seal device sealingly and slidingly engages the well casing, and wherein the annular seal device sealingly and slidingly engages a mandrel connected to the diverter.

6. The well diverter assembly of claim 1, wherein the annular seal device comprises a rigid sleeve having a resilient first seal on an exterior of the sleeve, and having a resilient second seal on an interior of the sleeve.

7. The well diverter assembly of claim 1, wherein the annular seal device prevents cement on a first side of the annular seal device from displacing to a second side of the annular seal device opposite the first side.

8. A well system, comprising:

a well diverter assembly positioned in a well casing, the well diverter assembly including a diverter and an annular seal device that seals off an annulus between the well diverter assembly and the well casing, wherein a pressure differential across the annular seal device is reduced by movement of the annular seal device on the well diverter assembly.

9. The well system of claim 8, wherein the annular seal device moves on the well diverter assembly in response to application of the pressure differential across the annular seal device.

10. The well system of claim 8, wherein displacement of the annular seal device on the well diverter assembly substantially equalizes pressure across the annular seal device.

11. The well system of claim 8, wherein the annular seal device is positioned longitudinally between the diverter and an anchoring device which secures the well diverter assembly in the well casing.

12. The well system of claim 8, wherein the annular seal device sealingly and slidingly engages the well casing, and wherein the annular seal device sealingly and slidingly engages a mandrel connected to the diverter.

13. The well system of claim 8, wherein the annular seal device comprises a rigid sleeve having a resilient first seal on an exterior of the sleeve, and having a resilient second seal on an interior of the sleeve.

14. The well system of claim 8, wherein the annular seal device prevents cement on a first side of the annular seal device from displacing to a second side of the annular seal device opposite the first side.

15. A method of sealing off an annulus formed between a well diverter assembly and a well casing, the method comprising:

positioning an annular seal device on a mandrel, the annular seal device being slidingly and sealingly engaged with an outer surface of the mandrel;

connecting the mandrel to a diverter;

installing the well diverter assembly in the well casing, the well diverter assembly comprising the annular seal device, the mandrel and the diverter; and

applying a pressure differential across the annular seal device after the installing, thereby causing the annular seal device to displace in the annulus.

16. The method of claim 15, wherein the annular seal device sealingly and slidingly engages the well casing after the installing.

17. The method of claim 15, wherein displacement of the annular seal device in the annulus reduces the pressure differential.

18. The method of claim 15, wherein the annular seal device prevents cement on a first side of the annular seal device from displacing to a second side of the annular seal device opposite the first side.

19. The method of claim 15, wherein the annular seal device is positioned longitudinally between the diverter and an anchoring device which secures the well diverter assembly in the well casing.