WHAT IS CLAIMED IS:

1. A well device for installation in a wellbore in a subterranean zone, comprising:

a first fluid diode comprising:

a first interior surface that defines a first interior chamber, and

an outlet from the first interior chamber, the first interior surface operable to direct fluid to rotate in a rotational direction through the outlet; and

a second fluid diode comprising:

a second interior surface that defines a second interior chamber in fluid communication with the outlet, the second interior surface operable to direct fluid to rotate in the rotational direction in response to receiving the fluid rotating in the rotational direction through the outlet.

2. The well device of claim 1, wherein the second fluid diode includes an inlet operable to receive the fluid directly from the outlet, and the second interior chamber comprises:

a cylindroidal chamber;

a first flow passage from the inlet to the cylindroidal chamber; and

a second flow passage from the inlet to the cylindroidal chamber.

3. The well device of claim 2, wherein the second interior surface is operable to direct a majority of the fluid to the first flow passage in response to receiving the fluid rotating in the rotational direction through the inlet.

4. The well device of claim 1, wherein the first interior surface is operable to direct fluid to rotate in the rotational direction about a first axis of rotation, and the second interior surface is operable to direct fluid to rotate in the rotational direction about a second axis of rotation.

5. The well device of claim 4, wherein the first axis of rotation is parallel to the second axis of rotation.

6. The well device of claim 1, wherein the first fluid diode and the second fluid diode are in fluid communication between an interior and an exterior of the well device.

7. The well device of claim 6, wherein the first fluid diode and the second fluid diode are in fluid

communication between the interior and the exterior to communicate production fluid from the exterior of the well device to the interior of the well device.

8. The well device of claim 7, wherein the well device comprises a section of a completion string.

9. The well device of claim 6, wherein the first and second fluid diodes are in fluid communication between the interior and the exterior to communicate injection fluid from the interior of the well device to the exterior of the well device.

10. The well device of claim 4, wherein the well device comprises a section of a working string.

11. The well device of claim 1, wherein the outlet comprises a first outlet, the first fluid diode further comprises a first inlet, the first interior surface includes a first side perimeter surface and first opposing end surfaces, a greatest distance between the first opposing end surfaces is smaller than a largest dimension of the first opposing end surfaces, and the first side perimeter surface is operable to direct flow from the first inlet to rotate about the first outlet.

12. The well device of claim 11, wherein the second fluid diode further comprises a second inlet operable to receive the fluid directly from the first outlet, the second interior surface includes a second side perimeter surface and second opposing end surfaces, a greatest distance between the second opposing end surfaces is smaller than a largest dimension of the second opposing end surfaces, and the second side perimeter surface is operable to direct flow from the second inlet to rotate about a second outlet.

13. A method of controlling flow in a wellbore in a subterranean zone, comprising:

communicating fluid through a first fluid diode and a second fluid diode in a flow path between an interior and an exterior of a well device in the subterranean zone, communicating the fluid through the first fluid diode and the second fluid diode causes the fluid to rotate within the first fluid diode in a rotational direction and to rotate within the second fluid diode in the rotational direction.

14. The method of claim 13, wherein the fluid comprises a production fluid.

15. The method of claim 13, wherein the fluid comprises an injection fluid.

16. The method of claim 13, wherein communicating the fluid through the first fluid diode and the second fluid diode controls a resistance to a flow of the fluid between the interior and the exterior based on a characteristic of the flow.

17. The method of claim 16, wherein the characteristic comprises at least one of viscosity, velocity and density.

18. The method of claim 16, wherein a resistance to flow through the second fluid diode is based at least in part on a characteristic of inflow received by the second fluid diode from the first fluid diode.

WHAT IS CLAIMED IS:

1. A well device for installation in a wellbore in a subterranean zone, comprising:

a first fluid diode comprising:

a first interior surface that defines a first interior chamber, and

an outlet from the first interior chamber, the first interior surface operable to direct fluid to rotate in a rotational direction through the outlet; and

a second fluid diode comprising:

an inlet operable to receive the fluid directly from the outlet, and

a second interior surface that defines a second interior chamber in fluid communication with the outlet, wherein the second interior chamber comprises a cylindroidal chamber, a first flow passage from the inlet to the cylindroidal chamber, and a second flow passage from the inlet to the cylindroidal chamber, and wherein the second interior surface is operable to direct fluid to rotate in the rotational direction in response to receiving the fluid rotating in the rotational direction through the outlet.

2. The well device of claim 1, wherein the second interior surface is operable to direct a majority of the fluid to the first flow passage in response to receiving the fluid rotating in the rotational direction through the inlet.

3. The well device of claim 1, wherein the first interior surface is operable to direct fluid to rotate in the rotational direction about a first axis of rotation, and the second interior surface is operable to direct fluid to rotate in the rotational direction about a second axis of rotation.

4. The well device of claim 3, wherein the first axis of rotation is parallel to the second axis of rotation.

5. The well device of claim 1, wherein the first fluid diode and the second fluid diode are in fluid communication between an interior and an exterior of the well device.

6. The well device of claim 5, wherein the first fluid diode and the second fluid diode are in fluid communication between the interior and the exterior to communicate production fluid from the exterior of the well device to the interior of the well device.

7. The well device of claim 6, wherein the well device comprises a section of a completion string.

8. The well device of claim 5, wherein the first and second fluid diodes are in fluid communication between the interior and the exterior to communicate injection fluid from the interior of the well device to the exterior of the well device.

9. The well device of claim 8, wherein the well device comprises a section of a working string.

10. The well device of claim 1, wherein the outlet comprises a first outlet, the first fluid diode further comprises a first inlet, the first interior surface includes a first side perimeter surface and first opposing end surfaces, a greatest distance between the first opposing end surfaces is smaller than a largest dimension of the first opposing end surfaces, and the first side perimeter surface is operable to direct flow from the first inlet to rotate about the first outlet.

11. The well device of claim 10, wherein the second fluid diode further comprises a second inlet operable to receive the fluid directly from the first outlet, the second interior surface includes a second side perimeter surface and second opposing end surfaces, a greatest distance between the second opposing end surfaces is smaller than a largest dimension of the second opposing end surfaces, and the second side perimeter surface is operable to direct flow from the second inlet to rotate about a second outlet.

12. A method of controlling flow in a wellbore in a subterranean zone, comprising:

providing first and second fluid diodes, each fluid diode comprising an inlet which branches into a pair of flow passages which selectively deliver fluid to a vortex chamber having an outlet, wherein the inlet of the second fluid diode receives the fluid from the outlet of the first fluid diode; and

communicating the fluid through the first fluid diode and the second fluid diode in a flow path between an interior and an exterior of a well device in the subterranean zone, wherein the communicating causes the fluid to rotate within the first fluid diode in a rotational direction and to rotate within the second fluid diode in the rotational direction.

13. The method of claim 12, wherein the fluid comprises a production fluid.

14. The method of claim 12, wherein the fluid comprises an injection fluid.

15. The method of claim 12, wherein the communicating controls a resistance to a flow of the fluid between the interior and the exterior based on a characteristic of the flow.

16. The method of claim 15, wherein the characteristic comprises at least one of viscosity, velocity and density.

17. The method of claim 15, wherein a resistance to flow through the second fluid diode is based at least in part on a characteristic of inflow received by the second fluid diode from the first fluid diode.