CLAIMS

1. A distributed inflow control device configured for being disposed in a wellbore through a fluid-producing formation, the distributed inflow control device comprising:

a shroud adapted to circumferentially cover a section of a tubing string and to be disposed in the fluid-producing formation, wherein the shroud comprises a profile including a plurality of flow paths that are adapted to be between the fluid-producing formation and an inner volume of the section of the tubing string, wherein each flow path of the plurality of flow paths is configured to restrict a fluid flow through the flow path and is independent of each other flow path, wherein the plurality of flow paths comprises a plurality of respective inlets and a plurality of respective outlets;

a seal over the profile including the plurality of flow paths, to cause fluid to flow from a respective inlet to a respective outlet of each flow path and to prevent fluid from entering or exiting each flow path at a point other than the respective inlet or the respective outlet; and

a plurality of coiled control lines adapted to circumferentially surround the section of the tubing string for being disposed in the fluid-producing formation, the plurality of coiled control lines defining an additional plurality of flow paths positionable between the fluid-producing formation and the inner volume of the section of the tubing string, wherein each coiled control line of the plurality of coiled control lines is adapted to provide a respective flow path independent from each other flow path and is configured to restrict the fluid flow through the flow path.

2. The distributed inflow control device of claim 1, wherein the seal comprises an additional shroud configured for circumferentially covering the shroud.

3. The distributed inflow control device of claim 1, wherein the plurality of flow paths comprises a plurality of curvilinear flow paths.

4. The distributed inflow control device of claim 1, wherein each flow path comprises a variable diode configured to restrict the fluid flow.

5. The distributed inflow control device of claim 1, wherein the plurality of flow paths comprises a plurality of straight flow paths, each straight flow path of the plurality of straight flow paths having a respective dimension configured to generate a fluid friction restricting the fluid flow.

6. The distributed inflow control device of claim 1, wherein the distributed inflow control device is configured to be coupled to a filtering element circumferentially surrounding the distributed inflow control device.

7. The distributed inflow control device of claim 1, wherein the distributed inflow control device is configured to be coupled to a filtering element in line with the distributed inflow control device.

8. The distributed inflow control device of claim 1, wherein the shroud is configured to be formed by processing a rigid material to form the profile including the plurality of flow paths.

9. The distributed inflow control device of claim 1, wherein the plurality of flow paths comprises a parallel fluidic circuit.

10. The distributed inflow control device of claim 1, further comprising:

at least one fastening device configured to couple the plurality of coiled control lines to the section of the tubing string.

11. A flow control assembly configured for being disposed in a wellbore through a fluid-producing formation, the flow control assembly comprising:

a section of a tubing string positionable in the wellbore; and

a plurality of control lines (i) positionable between the fluid-producing formation and the section of the tubing string and (ii) adapted to define a plurality of flow paths forming a distributed inflow control device that includes inlets and ports between the fluid-producing formation and the inner volume of the section of the tubing string, each flow path of the plurality of flow paths being (i) configured to restrict fluid flow through the flow path between an inlet and a port and (ii) independent of each other flow path.

12. The flow control assembly of claim 11, further comprising: at least one fastening device configured to couple the plurality of control lines to the section of the tubing string.

13. The flow control assembly of claim 11, further comprising a filtering element configured for circumferentially surrounding the distributed inflow control device and for providing fluid flow to the inlets for the plurality of control lines.

14. The flow control assembly of claim 11, wherein the inlets and the ports are positioned to restrict the fluid flow through the plurality of flow paths in a common direction along a length of the distributed inflow control device.

15. The flow control assembly of claim 11, wherein the plurality of control lines is a plurality of coiled control lines that circumferentially surround the section of the tubing string.

16. The flow control assembly of claim 15, wherein the section of the tubing string is a joint.

17. The flow control assembly of claim 12, wherein the at least one fastening device comprises a plurality of connectors.

18. The flow control assembly of claim 17, wherein the ports are integral with the plurality of connectors.

19. The flow control assembly of claim 17, wherein the ports are separate components from the plurality of connectors but are coupled to the plurality of connectors.