

What is claimed is:

1. A sprinkler with flexible body attachable to a source of fire suppressing liquid, said sprinkler with flexible body comprising:

a sprinkler head defining a discharge opening, a deflector mounted on said sprinkler head in spaced relation to said discharge opening;

an adapter extending from said sprinkler head, said adapter defining a bore in fluid communication with said discharge opening;

a flexible conduit extending from said adapter, said flexible conduit being in fluid communication with said bore of said adapter, said flexible conduit having an inlet end attachable to said source of fire suppressing liquid, wherein

said fire suppressing liquid is discharged from said discharge opening at a flow rate defined by a composite K factor which includes pressure losses from said flexible conduit, said adapter and said sprinkler head, said K factor defined as a ratio of said flow rate divided by a square root of a fluid pressure at said discharge opening.

2. The sprinkler with flexible body according to claim 1, wherein said discharge opening has a diameter sized in relation to one or more characteristics of said flexible conduit to provide a desired flow rate.

3. The sprinkler with flexible body according to claim 2, wherein said characteristics of said flexible conduit include conduit length, conduit inner diameter, conduit inner surface roughness and combinations thereof.

4. The sprinkler with flexible body according to claim 1, wherein said discharge opening has a diameter sized in relation to one or more characteristics of said adapter to provide a desired flow rate.

5. The sprinkler with flexible body according to claim 4, wherein said characteristics of said adapter include adapter length, adapter inner diameter, adapter inner surface roughness and combinations thereof.

6. The sprinkler with flexible body according to claim 1 further comprising a nozzle integrally formed with said sprinkler head, said nozzle including said discharge opening and having an intake in fluid communication with said adapter.

7. The sprinkler with flexible body according to claim 1, wherein said inlet end of said flexible conduit comprises a flow conditioning device including a venturi or an orifice.

8. The sprinkler with flexible body according to claim 1, wherein said sprinkler head is permanently attached to said adapter.

9. The sprinkler with flexible body according to claim 8, wherein said sprinkler head is integrally formed with said adapter.

10. The sprinkler with flexible body according to claim 9, wherein said sprinkler head and said adapter are cast as a unitary piece.

11. The sprinkler with flexible body according to claim 8, wherein said sprinkler head is permanently attached to said adapter by a method including welding, brazing, swaging and crimping.

12. The sprinkler with flexible body according to claim 1, wherein said flexible conduit comprises a corrugated hose.

13. The sprinkler with flexible body according to claim 1, wherein said flexible conduit is permanently attached to said adapter.

14. The sprinkler with flexible body according to claim 13, wherein said sprinkler head is integrally formed with said adapter.

15. The sprinkler with flexible body according to claim 13, wherein said flexible conduit is permanently attached to said adapter by a method including welding, brazing, swaging and crimping.

16. The sprinkler with flexible body according to claim 1, further comprising a tamper evident seal extending between said sprinkler head and a portion of said adapter.

17. The sprinkler with flexible body according to claim 16, wherein said tamper evident seal comprises a cover overlying a portion of said sprinkler head and said portion of said adapter.

18. The sprinkler with flexible body according to claim 1, further comprising a tamper evident seal extending between a portion of said flexible conduit and a portion of said adapter.

19. The sprinkler with flexible body according to claim 18, wherein said tamper evident seal comprises a cover overlying said portion of said flexible conduit and said portion of said adapter.

20. A sprinkler with flexible body attachable to a source of fire suppressing liquid, said sprinkler with flexible body comprising:

a sprinkler head defining a discharge opening, a deflector mounted on said sprinkler head in spaced relation to said discharge opening;

a flexible conduit extending from said sprinkler head in fluid communication with said discharge opening, said flexible conduit having an inlet end attachable to said source of fire suppressing liquid, wherein

said fire suppressing liquid is discharged from said discharge opening at a flow rate defined by a composite K factor which includes pressure losses from said flexible conduit and said sprinkler head, said K factor defined as a ratio of said flow rate divided by a square root of a fluid pressure at said discharge opening.

21. The sprinkler with flexible body according to claim 20, wherein said discharge opening has a diameter sized in relation to one or more characteristics of said flexible conduit to provide a desired flow rate.

22. The sprinkler with flexible body according to claim 21, wherein said characteristics of said flexible conduit include conduit length, conduit inner diameter, conduit inner surface roughness and combinations thereof.

23. The sprinkler with flexible body according to claim 20, further comprising a nozzle integrally formed with said sprinkler head, said nozzle including said discharge opening and having an intake in fluid communication with said flexible conduit.

24. The sprinkler with flexible body according to claim 20, wherein said inlet end of said flexible conduit comprises a flow conditioning device including a venturi or an orifice.

25. The sprinkler with flexible body according to claim 20, wherein said sprinkler head is permanently attached to said flexible conduit.

26. The sprinkler with flexible body according to claim 25, wherein said sprinkler head is integrally formed with said flexible conduit.

27. The sprinkler with flexible body according to claim 25, wherein said sprinkler head is permanently attached to said adapter by a method including welding, brazing, swaging and crimping.

28. The sprinkler with flexible body according to claim 20, wherein said flexible conduit comprises a corrugated hose.

29. The sprinkler with flexible body according to claim 20, further comprising a tamper evident seal extending between said sprinkler head and a portion of said flexible conduit.

30. The sprinkler with flexible body according to claim 29, wherein said tamper evident seal comprises a cover overlying a portion of said sprinkler head and said portion of said flexible conduit.