

CLAIMS

1. An intravascular device, comprising:
a core having a proximal section and a distal section;
a slotted outer tube coupled to the core such that the distal section of the core passes
5 into and is encompassed by the tube structure, the outer tube and the core defining an
annular space between an inner surface of the outer tube and the distal section of the core
disposed within the outer tube,
wherein an outer diameter of the outer tube is greater than an outer diameter of the
proximal section of the core.
- 10 2. The device of claim 1, further comprising:
a distal coil encompassing part of the distal section of the core;
a proximal coil disposed proximal of the distal coil and encompassing part of the
distal section of the core; and
a bushing coil disposed over at least a portion of one or both of the distal coil and
15 the proximal coil,
wherein the distal coil, proximal coil, and bushing coil fill at least a portion of the
annular space.
3. The device of claim 2, wherein the distal coil is more radiopaque than
stainless steel.
- 20 4. The device of claim 2, wherein the proximal coil is less radiopaque than the
distal coil.
5. The device of claim 2, wherein a wire size of the distal coil is about 0.006
inches or less.
6. The device of claim 2, wherein a wire size of the proximal coil is about
25 0.006 inches or less.
7. The device of claim 2, wherein a wire size of the bushing coil is about 0.006
inches or less.
8. The device of claim 2, wherein the bushing coil extends farther proximally
than the proximal coil.
- 30 9. The device of claim 2, wherein the bushing coil has a length of at least
about 60% of the length of the tube.
10. The device of claim 2, wherein at least one of the proximal coil, distal coil,
and bushing coil is wound in a direction opposite the other coils.

11. The device of claim 10, wherein the proximal coil and the distal coil are each wound in a first direction, while the bushing coil is counter-wound in a second, opposite direction.

12. The device of claim 2, wherein the bushing coil has a pitch that is smaller
5 than that of the proximal coil and/or distal coil.

13. The device of claim 2, wherein the proximal coil, distal coil, and bushing coil fill 15% or more of the volume of the annular space.

14. The device of claim 1, wherein the outer diameter of the outer tube is larger than the outer diameter of the proximal section of the core by about 10% or greater.

10 15. The device of claim 1, further comprising a bushing disposed at a proximal end of the outer tube to aid in coupling the outer tube to the core.

16. The device of claim 15, wherein the bushing comprises a chamfered or beveled proximal edge.

15 17. The device of claim 1, wherein the tube includes at least one of a three-beam section, a two-beam section, and a one-beam section.

18. The device of claim 1, wherein a flattened distal section of the core has a preferred bending plane and wherein the preferred bending plane of the flattened distal section is aligned with a preferred bending plane of a portion of the tube overlying the flattened distal section.

20 19. An intravascular device, comprising:

a core having a proximal section and a distal section;

a slotted outer tube coupled to the core such that the distal section of the core passes into and is encompassed by the tube structure, the outer tube and the core defining an annular space between an inner surface of the outer tube and the distal section of the core
25 disposed within the outer tube;

a distal coil encompassing part of the distal section of the core;

a proximal coil disposed proximal of the distal coil and encompassing part of the distal section of the core; and

30 a bushing coil disposed over at least a portion of one or both of the distal coil and the proximal coil,

wherein the distal coil, proximal coil, and bushing coil fill at least a portion of the annular space.

20. An intravascular device, comprising:

a core having a proximal section and a distal section;

- a slotted outer tube coupled to the core such that the distal section of the core passes into and is encompassed by the tube structure, the outer tube and the core defining an annular space between an inner surface of the outer tube and the distal section of the core disposed within the outer tube, wherein an outer diameter of the outer tube is greater than
- 5 an outer diameter of the proximal section of the core;
- a distal coil encompassing part of the distal section of the core;
- a proximal coil disposed proximal of the distal coil and encompassing part of the distal section of the core; and
- a bushing coil disposed over the distal coil and the proximal coil,
- 10 wherein at least one of the proximal coil, distal coil, and bushing coil is wound in a direction opposite the other coils, and
- wherein the distal coil, proximal coil, and bushing coil fill 15% or more of the volume of the annular space.