CLAIMS

1. A screen assembly capable of being disposed in a bore, the screen assembly comprising: a base pipe comprising a sidewall portion having an opening therein; a rigid member disposed exterior to a first portion of the base pipe, the rigid member comprising an opening in fluid communication with the opening of the base pipe; a swellable material disposed exterior to a second portion of the base pipe; and a filter medium at least partially disposed exterior to the swellable material, the filter medium being in fluid communication with the opening of the rigid member, wherein, in response to contact with an activating fluid, the swellable material is capable of expanding and displacing at least part of the filter medium toward a surface of the bore.

2. A screen assembly according to claim 1, further comprising: a piston disposed in the opening of the rigid member and coupled to the base pipe, wherein the piston comprises a telescoping portion coupled to the filter medium, the radially telescoping portion being capable of extending from the opening of the rigid member when the swellable material expands, wherein the filter medium is capable of filtering fluids and directing the fluids to an internal flow path of the base pipe through the piston.

3. A screen assembly according to claim 1 or 2, further comprising a material between the filter medium and the rigid member, the material comprising at least one of a non-swelling media or a low-swelling media and the material being capable of providing a temporary seal between the filter medium and the rigid member.

4. A screen assembly according to claim 3, wherein the material comprises rubber.

5. A screen assembly according to any preceding claim, wherein the activating fluid is at least one of a hydrocarbon fluid, water, or a gas.

6. A screen assembly capable of being disposed in a bore, the screen assembly comprising: a base pipe comprising a sidewall portion having a plurality of openings therein; a rigid member disposed exterior to a first portion of the base pipe, the rigid member comprising a plurality of openings, each opening of the plurality of openings of

the rigid member being in fluid communication with an opening of the plurality of openings of the sidewall portion; a swellable material disposed exterior to a second portion of the base pipe; and a plurality of filter mediums at least partially disposed exterior to the swellable material, each of the plurality of filter mediums being in fluid communication with at least one of the plurality of openings of the rigid member, wherein, in response to contact with an activating fluid, the swellable material is capable of expanding and displacing at least part of each of the plurality of filter mediums toward a surface of the bore.

7. A screen assembly according to claim 6, further comprising: a plurality of pistons comprising a telescoping portion, the plurality of pistons being coupled to the base pipe, wherein each opening of the plurality of openings of the rigid member has a piston of the plurality of pistons disposed therein, the telescoping portion being capable of extending from the rigid member when the swellable material expands.

8. A screen assembly according to claim 6 or 7, wherein the activating fluid is at least one of a hydrocarbon fluid, water, or a gas.

9. A screen assembly according to claim 6, 7 or 8, wherein each filter medium of the plurality of filter mediums has a cross-sectional shape of at least one of: a kidney shape; an oval; a circle; or a rectangle.

10. A screen assembly according to any one of claims 6 to 9, wherein the rigid member is a ring that is at least one of: a metal; a composite polymer; or a non-swelling rubber compound.

11. A screen assembly capable of being disposed in a bore, the screen assembly comprising: a base pipe comprising a sidewall portion having a first plurality of openings and a second plurality of openings therein, the first plurality of openings being at a first portion of the base pipe, the second plurality of openings being at a second portion of the base pipe; a first rigid member disposed exterior to the first portion of the base pipe; a second rigid member disposed exterior to the second portion of the base pipe; a swellable material disposed exterior to a third portion of the base pipe; and a

plurality of filter mediums at least partially disposed exterior to the swellable material, each of the plurality of filter mediums being in fluid communication with at least one opening of the first plurality of openings or the second plurality of openings, wherein, in response to contact with an activating fluid, the swellable material is capable of expanding and displacing at least part of each of the plurality of filter mediums toward a surface of the bore.

12. A screen assembly according to claim 11, wherein the third portion of the base pipe is located between the first portion of the base pipe and the second portion of the base pipe.

13. A screen assembly according to claim 11 or 12, wherein each of the plurality of filter mediums is in fluid communication with at least one opening of the first plurality of openings or the second plurality of openings through at least one of a plurality of openings of the first rigid member or a plurality of openings of the second rigid member.

14. A screen assembly according to claim 11, 12 or 13, wherein each of the first rigid member and the second rigid member comprise: a first receiving portion for supporting a first filter medium of the plurality of filter mediums in a running configuration; and a second receiving portion for supporting a second filter medium of the plurality of filter mediums in the running configuration.

15. A screen assembly according to claim 14, wherein the first receiving portion and the second receiving portion define grooves for supporting the first filter medium and the second filter medium of the plurality of filter mediums in the running configuration.

Claims:

What is claimed is:

1. A screen assembly capable of being disposed in a bore, the screen assembly comprising: a base pipe comprising a sidewall portion having an opening therein; a rigid member disposed circumferential and exterior to a first portion of the base pipe, the rigid member comprising an opening adapted for being in fluid communication with the opening of the base pipe, wherein the rigid member is a ring; a swellable material disposed exterior to a second portion of the base pipe; and a filter medium at least partially disposed exterior to the swellable material, the filter medium being adapted for being in fluid communication with the opening of the rigid member, wherein, in response to contact with an activating fluid, the swellable material is capable of expanding and displacing at least part of the filter medium toward a surface of the bore.

2. The screen assembly of claim 1, further comprising: a piston disposed in the opening of the rigid member and coupled to the base pipe, wherein the piston comprises a telescoping portion coupled to the filter medium, the radially telescoping portion being capable of extending from the opening of the rigid member when the swellable material expands, wherein the filter medium is capable of filtering fluids and directing the fluids to an internal flow path of the base pipe through the piston.

3. The screen assembly of claim 1, further comprising a material between the filter medium and the rigid member, the material comprising at least one of a non-swelling media or a low-swelling media and the material being capable of providing a temporary seal between the filter medium and the rigid member.

4. The screen assembly of claim 3, wherein the material comprises rubber.

5. The screen assembly of claim 1, wherein the activating fluid is at least one of a hydrocarbon fluid, water, or a gas.

6. The screen assembly of claim 1, wherein the filter medium has a cross-sectional shape of at least one of: a kidney shape; an oval; a circle; or a rectangle.

7. The screen assembly of claim 1, wherein the ring is at least one of: a metal; a composite polymer; or a non-swelling rubber compound.

8. A screen assembly capable of being disposed in a bore, the screen assembly comprising: a base pipe comprising a sidewall portion having a plurality of openings therein; a rigid member disposed circumferential an exterior to a first portion of the base pipe, the rigid member comprising a plurality of openings, wherein each opening of the plurality of openings of the rigid member is adapted for being in fluid communication with an opening of the plurality of openings of the sidewall portion, wherein the rigid member is a ring; a swellable material disposed exterior to a second portion of the base pipe; and a plurality of filter mediums at least partially disposed exterior to the swellable material, wherein each of the plurality of filter mediums is adapted for being in fluid communication with at least one of the plurality of openings of the rigid member, wherein, in response to contact with an activating fluid, the swellable material is capable of expanding and displacing at least part of each of the plurality of filter mediums toward a surface of the bore.

9. The screen assembly of claim 8, further comprising: a plurality of pistons comprising a telescoping portion, the plurality of pistons being coupled to the base pipe, wherein each opening of the plurality of openings of the rigid member has a piston of the plurality of pistons disposed therein, the telescoping portion being capable of extending from the rigid member when the swellable material expands.

10. The screen assembly of claim 8, wherein the activating fluid is at least one of a hydrocarbon fluid, water, or a gas.

11. The screen assembly of claim 8, wherein each filter medium of the plurality of filter mediums has a cross-sectional shape of at least one of: a kidney shape; an oval; a circle; or a rectangle.

12. The screen assembly of claim 8, wherein the ring is at least one of: a metal; a composite polymer; or a non-swelling rubber compound.

13. A screen assembly capable of being disposed in a bore, the screen assembly comprising: a base pipe comprising a sidewall portion having a first plurality of openings and a second plurality of openings therein, the first plurality of openings being at a first portion of the base pipe, the second plurality of openings being at a second portion of the base pipe; a first rigid member disposed circumferential and exterior to the first portion of the base pipe; a second rigid member disposed circumferential and exterior to the second portion of the base pipe; a swellable material disposed exterior to a third portion of the base pipe, wherein the third portion of the base pipe is located between the first portion of the base pipe and the second portion of the base pipe; and a plurality of filter mediums at least partially disposed exterior to the swellable material, wherein each of the plurality of filter mediums is adapted for being in fluid communication with at least one opening of the first plurality of openings or the second plurality of openings, wherein, in response to contact with an activating fluid, the swellable material is capable of expanding and displacing at least part of each of the plurality of filter mediums toward a surface of the bore.

14. The screen assembly of claim 13, wherein each of the plurality of filter mediums is adapted for being in fluid communication with at least one opening of the first plurality of openings or the second plurality of openings through at least one of a plurality of openings of the first rigid member or a plurality of openings of the second rigid member.

15. The screen assembly of **13**, wherein each of the first rigid member and the second rigid member comprise: a first receiving portion for supporting a first filter medium of the plurality of filter mediums in a running configuration; and a second receiving portion for supporting a second filter medium of the plurality of filter mediums in the running configuration.

16. The screen assembly of **15**, wherein the first receiving portion and the second receiving portion define grooves for supporting the first filter medium and the second filter medium of the plurality of filter mediums in the running configuration.

17. The screen assembly of claim 16, wherein the second rigid member is rotated forty-five degrees relative to the first rigid member, wherein the first receiving portion of the first rigid member is aligned

with the second receiving portion of the second rigid member.

18. The screen assembly of claim 13, wherein the activating fluid is at least one of a hydrocarbon fluid, water, or a gas.

19. The screen assembly of claim 13, wherein each of the plurality of filter mediums has a cross-sectional shape of at least one of: a kidney shape; an oval; a circle; or a rectangle.

20. The screen assembly of claim 13, wherein each of the first rigid member and the second rigid member is a ring that is at least one of: a metal; a composite polymer; or a non-swelling rubber compound.