

CLAIMS

1. A wound treatment apparatus for use in a negative pressure wound therapy system comprising:

a wound dressing (100) comprising:

a cover layer (220) comprising an aperture (227);

a wound contact layer (222); and

an absorbent layer (221) between the cover layer and the wound contact layer;

a reinforcement layer (2001) adhered to a top surface of the cover layer, wherein the reinforcement layer (2001) comprises an opening (2002) positioned above the aperture in the cover layer;

a fluidic connector (110) configured to provide negative pressure to the wound dressing through the aperture in the cover layer, the fluidic connector comprising:

an upper layer (510) and a lower layer (540);

a spacer layer (520) between the upper and lower layers;

a sealing surface (216) adhered to the reinforcement layer, wherein the sealing surface surrounds the opening in the reinforcement layer;

an upper surface positioned above the sealing surface that defines a vertical height between the sealing surface and the upper surface;

wherein the sealing surface is provided on the lower layer of the fluidic connector, the lower layer comprising an opening (229) that is positioned over the opening in the reinforcement layer, and the upper surface is provided on an upper layer of the fluidic connector, wherein the upper and lower layers are adhered together;

wherein a first adhesive ring surrounding the opening in the reinforcement layer and surrounding the aperture in the cover layer adheres the reinforcement layer to the cover layer, and a second adhesive ring surrounding the opening in the reinforcement layer adheres the sealing surface to the reinforcement layer;

and

an elongate conduit extending laterally away from the aperture in the cover layer and the opening in the reinforcement layer, the elongate conduit extending generally parallel to the top surface of the cover layer wherein the elongate conduit comprises elongated portions of the upper layer, the spacer layer and the lower layer; and

a filter (530) positioned beneath the upper surface of the fluidic connector wherein the filter spans the opening in the lower layer of the fluidic connector;

wherein the filter is further positioned between the sealing surface of the fluidic connector and the cover layer of the wound dressing and wherein the filter is sized to span the aperture in the cover layer.

2. The apparatus of claim 1 wherein the sealing surface is configured to seal the fluidic connector to the cover layer and wherein the sealing surface comprises an adhesive or weld.

3. The apparatus of claim 1 or claim 2 wherein the spacer layer comprises a material resistant to collapsing in at least one direction thereby enabling effective transmission of negative pressure therethrough.

4. The apparatus of any preceding claim, wherein the reinforcement comprises a skirt of flexible film or a flexible patch.

5. The apparatus of any preceding claim wherein a sealed chamber is formed between the upper layer and the lower layer of the fluidic connector wherein said upper layer and said lower layer comprise flexible film and wherein said filter comprises a portion adhered to the flexible film around the opening in the sealing surface.

6. The apparatus of any preceding claim wherein the fluidic connector comprises an enlarged distal end that is in fluid communication with the wound dressing and wherein the sealing surface of the fluidic connector is provided at the enlarged distal end of the fluidic connector.

7. The apparatus of claim 6 wherein the enlarged distal end forms a teardrop shape.

8. The apparatus of any preceding claim, wherein the fluidic connector comprises a bridge having a proximal end and a distal end, and an applicator at the distal end of the bridge wherein the filter is configured to substantially prevent wound exudate from entering the bridge.

9. The apparatus of any preceding claim wherein the filter comprises a filter element configured to function as a bacterial barrier.

10. The apparatus of any preceding claim wherein the filter is configured to enable gas to be exhausted through the aperture in the cover layer of the wound dressing.

11. The apparatus of any preceding claim wherein the filter element is impermeable to liquids, but permeable to gases.

12. The apparatus of any preceding claim, wherein the absorbent layer is configured to absorb wound exudate and wherein the wound dressing further comprises one or more transmission layers between the wound contact layer and the cover layer.
13. The apparatus of any preceding claim wherein the cover layer is attached to the wound contact layer.
14. The apparatus of any preceding claim, wherein the cover layer and the wound contact layer are joined or sealed together to define an interior space or chamber.
15. The apparatus of any preceding, wherein the fluidic connector comprises a proximal end connected to a distal end of a conduit wherein the conduit comprises a proximal end attached to a coupling configured to be connected to a source of negative pressure and wherein the distal end of the conduit extends into the spacer layer.