ABSTRACT

The present invention disclosed a flexible heated tubing with double helixes extruded out as compared to single helix for each turning in the prior art. Depending on the design and the intended function of the flexible tubing, the extra second helix can be either solid polymeric material, or it can also carry electrically conductive wires to support additional sensing devices from one end of the tubing to the other end, or even hollow to carry supplementary gas. Another benefit is that with more helixes, the total number of conductive wires embedded within a helix can be distributed as desired between each helix. This removes the need for insulation coating being applied as a secondary process in order to shield the conductive wires to prevent short circuit if they are placed close to each other. Removing the need for insulation coating reduces the cost and weight of the raw electrically conductive wires.

Use **Figure 1.**