

ABSTRACT

A tubing system for conveying a molten material through a vacuum housing includes a tubing having a plurality of convolutions which compress as the tubing expands. A plurality of projections disposed along a length of the tubing carries the electrical current which heats the tubing. A plurality of refractory insulation bricks are stacked between the projections. A first seal flange is coupled to an inlet end of the tubing, and a second seal flange is coupled to an outlet end of the tubing. Each seal flange includes a metal seal ring which is adapted to be coupled to the base of the vacuum housing so as to make a sealed contact with the base of the vacuum housing. Each seal flange also includes a refractory seal block which transfers the expansion force of the tubing to the metal seal ring and, thereby, causes the convolutions to compress.