WHAT IS CLAIMED IS:

1. A furnace (10) comprising

a container (12) defining a monolithic internal volume configured to maintain a single vacuum level throughout the monolithic internal volume (15),

a stage (18) moveable between a first position arranged to support an assembly (11) within a first zone (41) of the monolithic internal volume (15) and a second position arranged to support the assembly (11) within a second zone (42) of the monolithic internal volume (15), and

a heating system (14) located within the monolithic internal volume (15), the heating system (14) including a radiant heater (22) arranged to provide radiant heat to the assembly (11) located in the first zone and an inductive heater (28) arranged to provide inductive heat to the assembly (11) located in the second zone (42).

2. The furnace (10) of Claim 1, wherein the radiant heater (22) includes a first induction coil (24, 30) and a susceptor (26) arranged between the first induction coil (24, 30) and the first zone (41).

3. The furnace (10) of Claim 2, wherein the inductive heater (28) includes a second induction coil (24, 30) arranged adjacent to the second zone (42).

4. The furnace of any of Claims 1-3, wherein the first zone (41) and the second zone (42) are arranged along an axis (45) that extends through the monolithic internal volume (15) and the stage (18) moves along the axis during movement from the first position to the second position.

5. The furnace (10) of Claim 4, wherein the inductive heater (29) includes an induction coil (24, 30) arranged in the monolithic internal volume (15) and the induction coil (24. 30) is movable relative to the first zone (41) normal to the axis (45) to adjust the amount of induction available within the first zone (41).

6. The furnace (10) of Claim 4, wherein the radiant heater (22) includes an induction coil (24, 30) and a susceptor (26) arranged between the first induction coil (24, 30) and the second zone (42) and wherein the induction coil (24, 30) and the susceptor (26) are movable relative to the second zone (42) normal to the axis (45) to adjust the amount of radiant heat provided to the second zone (42) by the radiant heater (22).

7. The furnace (10) of Claim 4, wherein the axis (45) is generally vertical and the first zone (42) is spaced vertically apart from the second zone (42) along the axis (45).

8. The furnace (10) of any of Claims 1-7, further comprising an insulator (32, 40) arranged in the second zone (42) and configured to shield a portion of an article arranged in the second zone (42) from being affected by the inductive heater (28).

9. The furnace (10) of any of Claims 4-8, wherein the axis (45) is generally vertical and the first zone (41) is spaced vertically apart from the second zone (42) along the axis (45).

10. A method of brazing components in a furnace (10), the method comprising

positioning an assembly (11) including a first component, a second component, and a braze material in a first zone (41) of a monolithic volume (15) defined by a container (12),

applying radiant heat to the assembly (11) to uniformly heat the assembly (11) to a predetermined temperature,

moving the assembly (11) to a second zone (42) of the monolithic volume (15) defined by the container (12), and

coupling inductive heat to the braze material (39) and the adjacent base material to further raise the temperature of the braze material (39) above a melting point of the braze material (39).

11. The method of Claim 10, further comprising conditioning the atmosphere within the monolithic volume (15) so that the atmosphere within the monolithic volume (15) is substantially homogenous.

12. The method of Claim 11, wherein conditioning the atmosphere includes introducing desired gasses into the monolithic volume (15) and pulling a desired vacuum within the monolithic volume (15).

13. The method of any one of Claims 10-12, wherein moving the assembly to the second zone (42) is accomplished by changing the position of a stage supporting the assembly within the monolithic volume (15) along a vertical axis (45).