Claims:

1. A furnace for performing an endothermic process, comprising tubes containing a catalyst for converting a gaseous feed, wherein tubes are positioned in rows inside the furnace, wherein burners are mounted between the tubes and between the tubes and the furnace walls parallel to the tubes rows, and wherein the burners rows and the tubes rows are ended by end walls and are divided into sections with, on each row of tubes, the distance from a wall end tube to the end wall being T2W, the distance between two adjacent inner tubes in a section being T2T, and the distance between two symmetry end tubes of two adjacent sections being T2S, characterized in that the tubes in the rows are arranged in such a way that the ratios T2T/T2W and T2T/T2S are greater than 0.5 and smaller than 2 thus limiting the differences in the heat transfer to the outer tubes with respect to the inner tubes and reducing the temperature difference between outer tubes and inner tubes, where the outer tubes are the wall end tubes and the symmetry end tubes.

2. The furnace according to claim 1, characterized in that T2T/T2W and T2T/T2S are greater than 0.75 and smaller than 1.75.

3. The furnace according to claim 2, characterized in that T2T/T2W and T2T/T2S are equals.

4. The furnace according to any of the claims 1 to 3 characterized in that the burners are mounted to the furnace roof.

5. The furnace according to any of the claims 1 to 3 characterized in that the burners are mounted to the floor of the furnace and fire vertically upwards.

6. The furnace according to any of the preceding claims being a steam methane reforming furnace.

7. An endothermic process to be performed in a furnace comprising tubes and burners, said process comprising:

- introducing gaseous feed and steam into tubes containing a catalyst for converting the gaseous feed, wherein tubes are positioned in rows inside the furnace,

- combusting fuel with air in burners that are mounted between the tubes and between the tubes and the furnace walls that are parallel to the tubes rows

- discharging products generated in the tubes,

wherein the burners rows and the tube rows are ended by end walls and are divided into sections with the distance from the wall end burners and the end wall being T2W, the distance between two adjacent tubes in a section being T2T, and the distance between two symmetry end tubes of two adjacent sections being T2S, characterized in that the tubes in the rows are arranged in such a way that the ratios T2T/T2W and T2T/T2S are greater than 0.5 and smaller than 2 thus limiting the differences in the heat transfer to the outer tubes with respect to the inner tubes and reducing the temperature difference between outer tubes and inner tubes, where the outer tubes are the wall end tubes and the symmetry end tubes.

8. A process according to claim 7 for steam methane reforming.

9. A process according to claim 7 or 8 where the ratios T2T/T2W and T2T/T2S are greater than 0.75 and smaller than 1.75.

10. A process according to claim 9 where the ratios T2T /T2W and T2T/T2S are equals.

11. A process according to claims 7 to 10 wherein the furnace is a top fired furnace.

12. A process according to claims 7 to 10 wherein the furnace is a bottom fired furnace.