

Abstract

ETHYLENE CRACKING FURNACE

5 The present disclosure provides an ethylene cracking furnace, comprising at least one radiant section provided with a bottom burner and/or a side burner, and at least one set of radiant coil arranged along a longitudinal direction of the radiant section. The radiant coil is an at least two-pass coil having an N-1 structure, wherein N is preferably a natural number from 2 to 8. A manifold is arranged at an inlet end of a downstream tube of said at least two-pass coil, and an outlet end of each upstream
10 tube of said at least two-pass coil is connected to the manifold through a curved connector. The arrangement according to the present disclosure can effectively reduce the expansion differences between the upstream tubes and the downstream tubes, and therefore reduce the stress caused thereby. Consequently, bending of the radiant coil
15 can be avoided, thereby extending the service life of the radiant coil.