

# **A new era for the continuous scrap charge: the definitive success of Consteel® Technology and its expansion in Europe from a productivity and environmental perspective**

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## **INTRODUCTION**

Since 1989, when the first Consteel® system was started-up in North Carolina, twenty-two other installations have been ordered in eight different countries. Currently, all of the twenty-three Consteel® facilities worldwide are operating, in construction or being commissioned; there has been no closure of a Consteel® facility.

No other innovative melting technologies can state the same track record. This paper presents the evolution of the Consteel® Technology and includes all the new features that were developed on its way to eventual success as the only real option to the conventional Electric Arc Furnace. In the first ten years the Consteel® system was mostly applied in the United States, where it was initially created and engineered.

From a technological point of view, the System's function of scrap preheating was responding to the needs of variable cost reduction in the United States market. During the subsequent five years the Consteel® System expanded at an impressive rate into China. In order to satisfy the requirements of the Chinese market, the Consteel® was improved from the engineering side, stressing the continuous charge function in order to achieve high productivity increases. Today the Consteel® technology is expanding into Europe. In the last few months, three applications of the Consteel® technology have been contracted in this region. The main drivers behind the current interest for Consteel® in the European market include environmental aspects of the Consteel® technology as well as increasing the productivity of the electric arc furnace.

### **Keywords**

Key words: Continuous Scrap Charge, Scrap Preheat, Cost Reduction, Productivity Increase