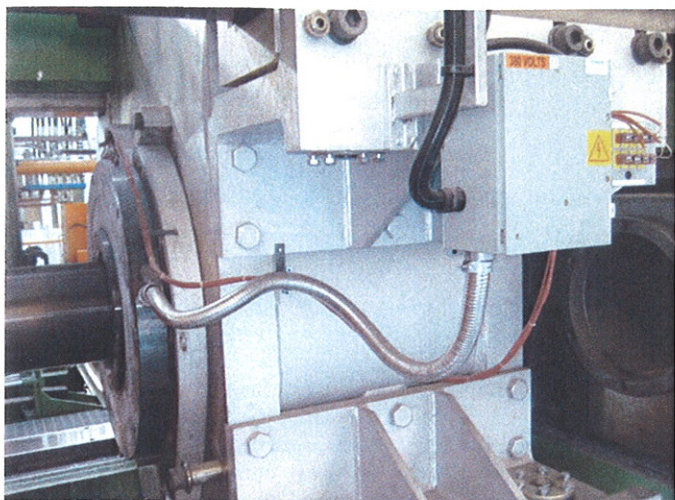


CASTOOL Quick Response container and liner speeds up extrusion process



Castool Tooling Solutions container in operation showing the thermocouple and power connection. The Castool QR container is part of an 8,000 ton press.

The thermal mass of an extrusion container is so much greater than that of the die stack. That means that as soon as the die is firmly clamped to the end of the liner, heat transfer by conduction begins, and thermal equilibrium is quickly reached. The real purpose of the Castool QR Container is therefore to control the temperature of the die during extrusion by closely controlling the temperature of the liner.

The temperature of the billet should also be closely controlled from the time it is heated, until it passes through a uniformly-heated die. This is best done by immediately correcting any variations in the temperature of the container liner as soon as they occur. Think of ripples instead of waves. The reduction in energy required is obvious.

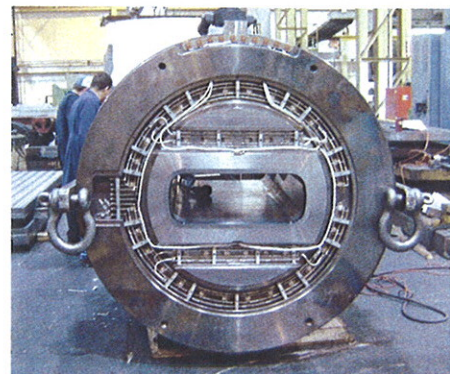
The time taken to respond to a demand for heat is, of course, in direct proportion to the distance between the temperature sensor and the heat source.

In the Castool QR Container, with at least four temperature-control zones, vertical as well as horizontal, cartridge heaters are located close to the liner. Their purpose is to heat the liner, not the mantle, and thus to maintain a consistent billet temperature as the alloy enters the die. Specially-designed double thermocouples are used to monitor the temperature of both liner and mantle simultaneously.



The heating elements are positioned close to the temperature sensors. The quick response that results ensures that the liner temperature will remain fairly constant. The risk of overheating, tempering, and softening the mantle is also practically eliminated. Also, since the demand for heat is so quickly satisfied, the cost of energy is reduced.

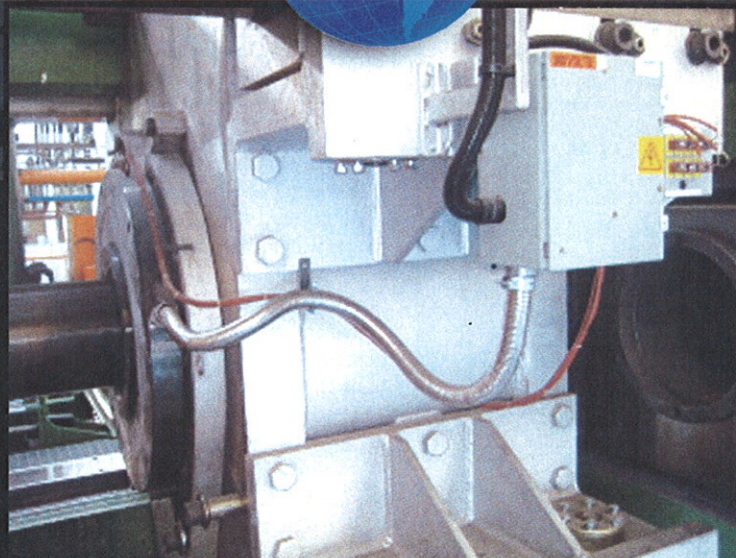
Reader Reply No.105



This container is for an 8,000 ton press and liner 10x20"

Feature

CASTOOL TOOLING SYSTEMS MAKING EXTRUSION BETTER GLOBALLY



**QR CONTAINER
8,000 TON PRESS
19" BILLET**



www.castool.com

