

In order to cope to metallurgical process challenges of water cooled elements subjects to splashing, hot gas and heat radiation, **CLESID LORBER** developed an ingenious patented water cooled box design.

It consists of a thin and smooth carbon steel sheet at the heat exposed side. At the external side, welded profiles are arranged to form the water channels. The large acquired cooling surface allows to perform a high heat transfer from the hot steel sheet to the fluid with limited thermo-mechanical strength on exposed surface.

Such panels can be arranged in different shapes such as cylindrical to form a skirt or conical to form a cover or flat to perform a closure. Openings for various operations or observation can be easily added.

Due to the water cooling efficiency, ladle furnaces, ladle stirring stations and vacuum degassing plants (VD and VOD type) are concerned by this design.

With a larger cooling area than a conventional cooling tube circuit, the water temperature increase can be higher for a same given water flow rate. That means, more water circuits-no more water flow, must be provided to stay in reasonable limits.

For the same effect to avoid metal splashes sticking, such panels are cheaper than copper or copper clad panels.



Application for condenser



Smooth internal surface



Other application
(4th Hole on EAF)