EMERALD BPS HD

Sticker Breakout Detection System
& Mould Thermal Behaviour Monitoring System
For Continuous Casters
Based on Thermocouples or FBG fibers

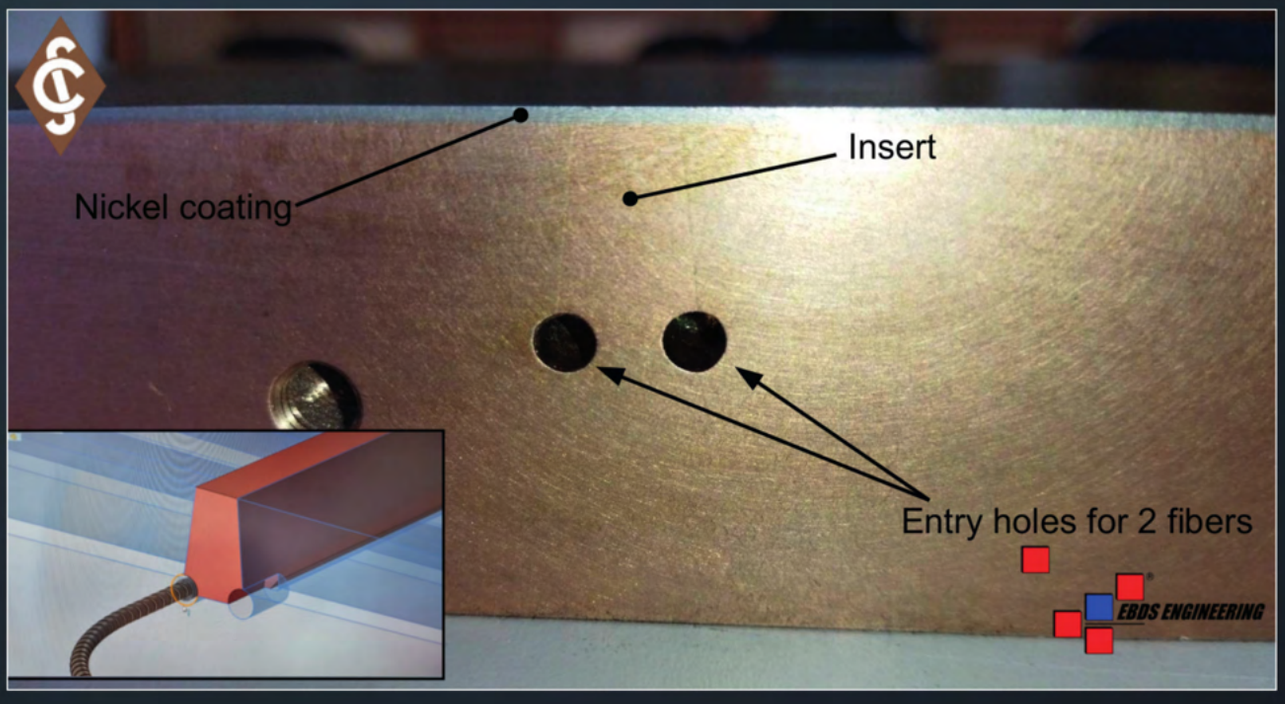
EBDS ENGINEERING®

Nowadays, using FBG optical fibers for measuring temperatures in copper plates is a must for continuous casters.

It gives the following advantages:

- It is simple and very fast to install, compared to thermocouples.
- The quality of the temperature measurement suffers no comparison.
- It is not sensitive to water leaks, to electrical contact problems, and can work in strong magnetic environment (EMbr, EM Stirrers,...).
- Using 2 FBG fibers is cheaper than of 2 or 3 thermocouple rows.

EBDS Engineering has developed a unique technique to install FBG optical fibers horizontally into the copper plates of the caster, which allows the BPS system to be supplied with up to 70 temperatures on each horizontal line of measurement.

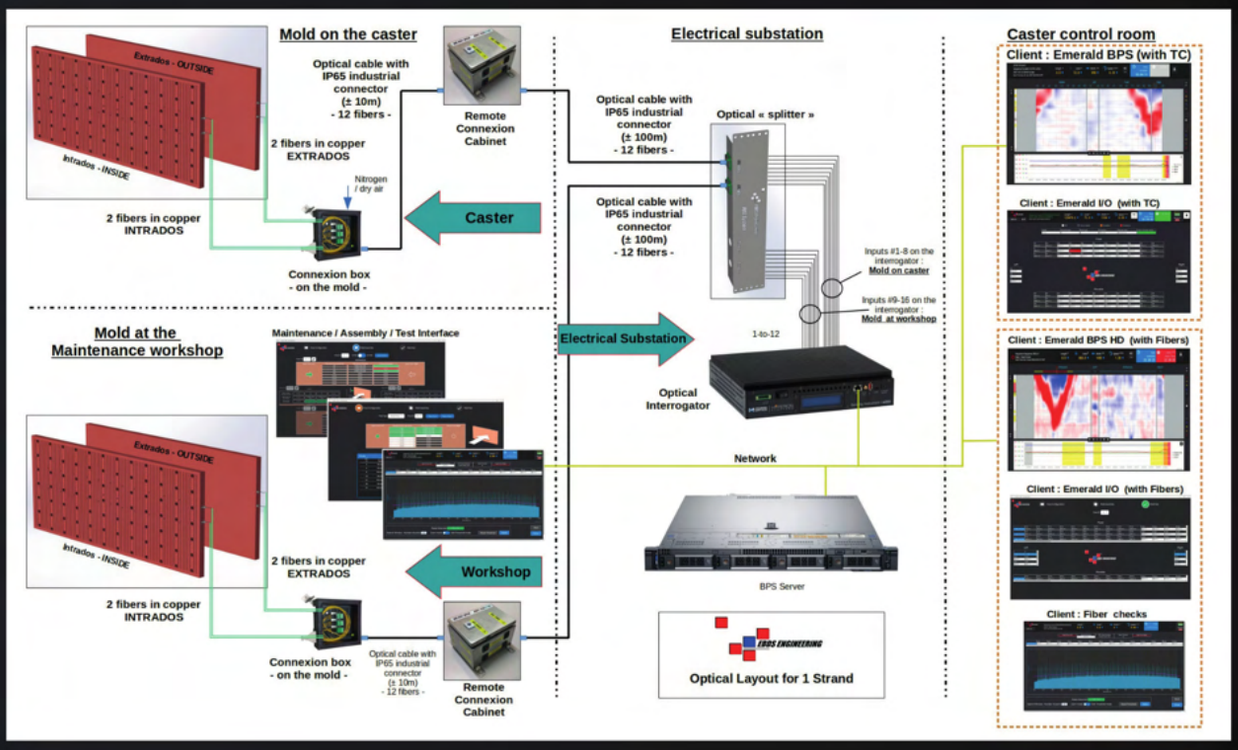


This development has been conducted in collaboration with CSN Carl Schreiber GmbH, a german company specialized in copper plate production (*https://www.csnmetals.de*).

The technique is called “Insert and Dovetail Groove”, and is patent pending.

EBDS Engineering can also use the deep drilling technique.

In conjunction with the FGB fibers usage, EBDS Engineering has developed a brand new BPS program that can exploit the temperature signals, as well as new interfaces that allow to handle all the fiber configurations:



The EBDS Engineering's solutions are giving a maximum flexibility for the installation and a total control over the fiber system to the maintenance operator.

Each fiber can be replaced individually, and it takes some seconds to do it.

The optical response spectrum of each fibers can be individually checked as well as their corresponding temperatures.

Peak detection parameters can be individually adapted and stored into the system through a simple interface.

EBDS Engineering can provide you the best Breakout Prediction System of the market, based on thermocouples temperature signal or FBG optical fibers.

We can demonstrate, based on your temperature data, that we can improve significantly your overall BPS performances, whatever the system you are using today, through a free comparison study.

DON'T HESITATE TO CONTACT US AT

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