Online determination of melt temperature during stirring

The MINKON DynTemp® technology was developed jointly with our innovations partner BFI. It is a revolutionary method for providing continuous temperature measurement and is suitable for many molten metal applications. MINKON DynTemp® is based on feeding an optical fibre continuously into the molten metal. Thermal radiation is simultaneously transmitted to the remote measuring device and allows for exact ‘real time’ temperature control throughout the process.

Lance based metal treatment is most common in secondary metallurgy operation. The MINKON DynTemp® system can make use of standard metallurgical lance systems to feed the optical fibre into the melt offering an instantaneous measure of the bath temperature.

The MINKON DynTemp® system demonstrates a measurement accuracy of 2 K and a response time of less than 100 ms. This enables the system to precisely measure the temperature of the steel bath even within the inhomogeneous conditions during the process.

Main benefits are:

- Reliable and reproducible measurement without the need for bath homogenisation
- Precise adjustment of target temperature
- Avoid unscheduled reheating operations
- Improved working conditions

Specifications:

- Continuous and intermittent measurement
- Pressure-tight implementation
- Robust and flexible connection
- Security valve at process gas interface