



## Online Determination of Melt Temperature in EAF

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.

The EAF has high demand of electrical and chemical energy. Therefore, a precise end point control is essential for energy efficient steelmaking. Currently used models are restricted since they strongly depend on starting conditions.

The MINKON DynTemp® system feeds the optical fibre through a gas purged bottom tuyere, thus offering a fast and continuous temperature measurement instantly during the heating process.

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

### Main benefits are:

- Improve energy efficiency of EAF process
- Avoid deviations from optimal treatment
- Achieve tapping temperature
- Improve working conditions



### Specifications:

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