

Monitoring of pickling baths in the steel industry

ProcessLab is a robust, easy-to-use analyzer that is installed directly at the process line. All that is required is taking a bath sample to ProcessLab and start it by pressing a button. Crucial parameters of pickling baths such as free and total acid as well as iron(II) and iron(III) concentrations are analyzed fully automatically. This means straightforward process control right on site, day and night and with maximum precision.



Pickling baths are used in steel production to remove scale and oxides from the surface and to prepare it for subsequent process steps. The baths used are made up of diluted acids (e.g. HCl, H₂SO₄) or mixtures of acids (e.g. H₂SO₄ / H₃PO₄ / HF). In order to improve bath utilization, used acids in the pickling process have to be replenished from time to time. Additionally, the monitoring of the continuous steel production process requires skilled laboratory personnel that is often not available around the clock.

That is where ProcessLab comes in. ProcessLab analyzes fully automatically all relevant process parameters of steel pickling baths. Immediately after sampling all analytical data are available. Even better: If concentrations of the additives in question drop below certain limits, the system calculates the correct amounts to be added and, if required, also supplies them fully automatically. All results are recorded and stored in a database and are available for data export or a process control system.

ProcessLab is the key to operating pickling baths in steel production more economically and ecologically thus cutting costs both for operation and waste disposal.