SWERIM AB Swerim AB Luleå, Sweden





ABOUT

Swerim AB is a Swedish independent research institute. Its business concept is applied research and technical development in process metallurgy, heating, metalworking, environmental engineering and energy efficiency mainly for the ferrous and non-ferrous industry.

Research is carried out in collaborative research projects or in projects on contract basis, financed by individual companies. Our collaborative partners and customers are found among metallurgical industries, suppliers (mines raw materials, equipment) as well as environmental (recycling, waste product management) and energy companies.

Swerim AB has approximately 100 employees and is a part of the Swerim group.

EXPERTISE

Swerim AB has expertise in design, management and operation of large pilot and demonstration installations, reduction metallurgy and ferrous alloys, as well as industrial recycling and resource efficiency. For research projects or customer projects new or existing equipment can be designed, constructed/modified and operated within a short time period. Moreover there is experience from gas cleaning, fluid bed testing and agglomeration.

In design studies and evaluation CFD and FE modelling, thermodynamic modelling as well as process integration (systems analysis) are conducted and supported by advanced process knowledge.

FACILITIES & SERVICES

Swerim AB has unique large-scale pilot plant equipment in metallurgy and metalworking. The equipment includes e.g. electric DC and AC furnaces of 5 and 10 tonne, and a 6 tonne universal converter. These can all be modified for the specific trial setup and requirements of raw materials.

During tests the gas can be cleaned in the desired way by combining different parts of the pilot gas cleaning facility as dry filters, gas adsorption scrubber, high pressure scrubber as well as dry electric precipitator in series or in parallel. Measurement systems for conventional or gas analyses of mass spectrometer can be connected.

Pre-tests can be conducted in available laboratory furnaces or in technical scale-sized ones as e.g. induction furnaces of 150 kg.

The metalworking pilot plant includes e.g. rolling mills and reheating furnaces.

