



Breakdown and damage examination

Our laboratory perform examinations in order to investigate the cause of damages in connection to failure.

A basic definition of a damage or a breakdown is the inability of a component, machine or process to work in a correct and expected way.

A breakdown and damage analysis can involve extensive examinations, which besides metallography also includes chemical analyses and mechanical testing. The purpose of all this is to find the cause of the incurred damage or failure and through this be able to recommend applicable measures to be taken and changes to be made.

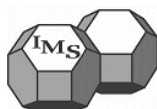
Often a single cause isn't the basis for a damage or failure, usually several factors comes into play. In some causes, the absence of one of the contributing factors have been enough to prevent a damage/breakdown.

The important part during an investigation is to keep an open mind and not only focus on the most likely or most easily accessible cause (a silver bullet theory, if you will), since the cause can have many facets.

Damages and breakdowns can have causes such as fatigue, corrosion, defects, temperature effects, choice of materials, environmental factors and overloading to mention a few. Safe Control has years of experience and competence regarding problems and damages connected to welding technology.



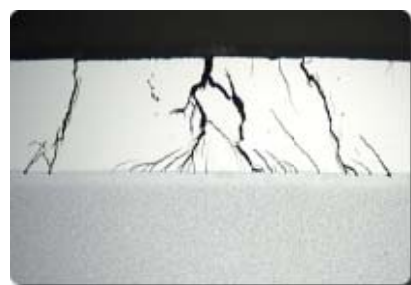
Safe Control is a member of ASM, International/Sweden Chapter. This is a professional organisation for material scientists and engineers with the main focus on metallic materials.



Safe Control is a member of The International Metallographic Society, which is an affiliate society of ASM International.



Indications of cracks on smelt spout tube



Stress corrosion



Corrosion



Pit