



PRODUCT INFORMATION #2
Edition 16/10/2020

DAMAGES ON INDIRECTLY HEATED ROTARY KILNS

- Causes and Prevention -

Operators of indirectly heated rotary kilns are looking for equipment that will do a reliable and trouble-free job, but the reality is often different. The challenging requirements are a result of the combination of high process temperatures, the presence of aggressive elements present in the bulk solids and production materials as well as process gases which needs to be balanced with the desire for maximum productivity and flexibility.

Not all rotary kilns are able to meet these high requirements with a sufficient service life. In practice, the following damages occur:

- Mechanical deformation (e.g. bulging, bending, ovalization, elongation)
- High temperature corrosion
- Failure of weld seams
- Cracks
- Fracture



Fractured rotary kiln for investigation of failure
Result of examination: Local overheating



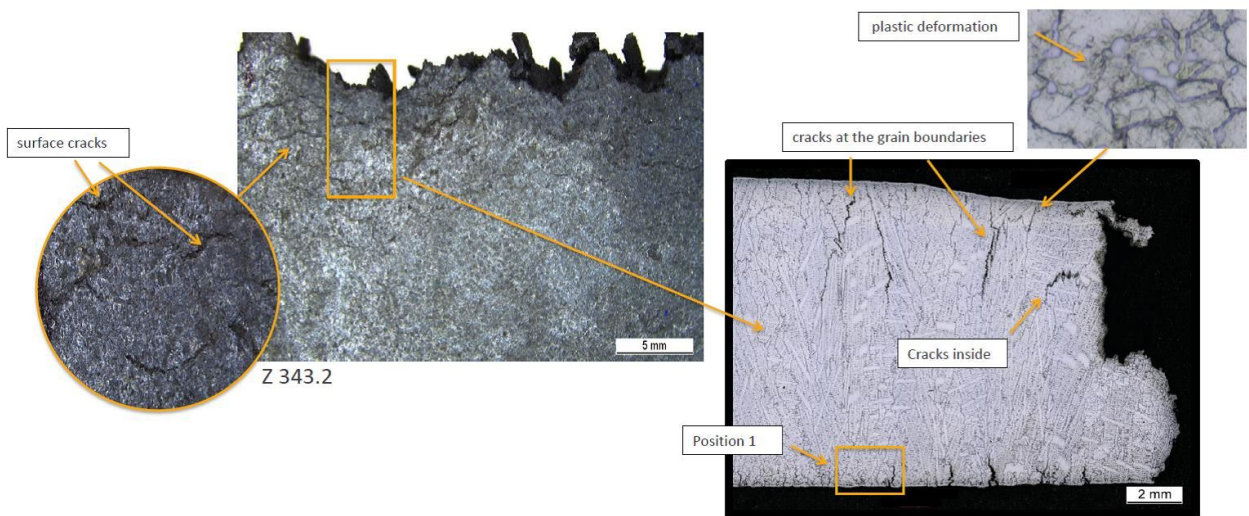
In order to avoid permanently increasing costs for repairs and replacement investments in rotary kilns, it is recommended to determine the causes of the failures and to take measures to prevent avoidable damages. This is a challenging task that not only requires a targeted approach, but also a high level of process and material knowledge.

The very well-equipped materials testing laboratory enables the specialists of Schmidt + Clemens (S+C) to actively determine the causes of the failures, in order to work out a plan, for increasing the service life, in a close cooperation with the operators of the kilns.

This plan includes a proposal for the best possible material for the rotary kiln, its construction and operational conditions. We are looking forward to receive your inquiries.



S+C's Metallurgists during the examination using the scanning electron microscope (SEM)



Photographs that proves the examination result

As a Senior Sales Person in the Schmidt + Clemens Group, Axel is keen to support customers in the best possible way. This includes finding the optimum combination of manufacturing process, material usage and design to create added values that will provide the users of our products with the benefits they need. In this context, Axel is looking for new business contacts in the industrial furnace business for indirectly fired rotary kilns, pusher type reduction furnaces, radiant tubes, furnace rollers etc. He shall look forward to get contacted in order to exchange experiences.

In case of any question, please do not hesitate to contact Axel Korb, Sales Manager – Special Products, e-mail: a.korb@schmidt-clemens.de, phone: +49 2266 92-417.

Any use or downloads of the text in other electronic or printed publications is not allowed without or explicit consent. Only the publisher is entitled to copyright on all texts.