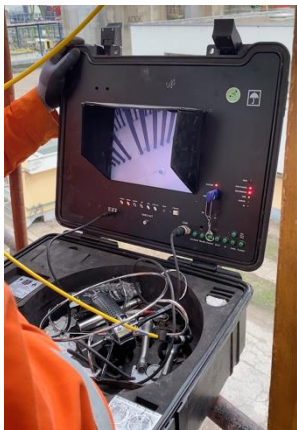


Hot Endoscopy



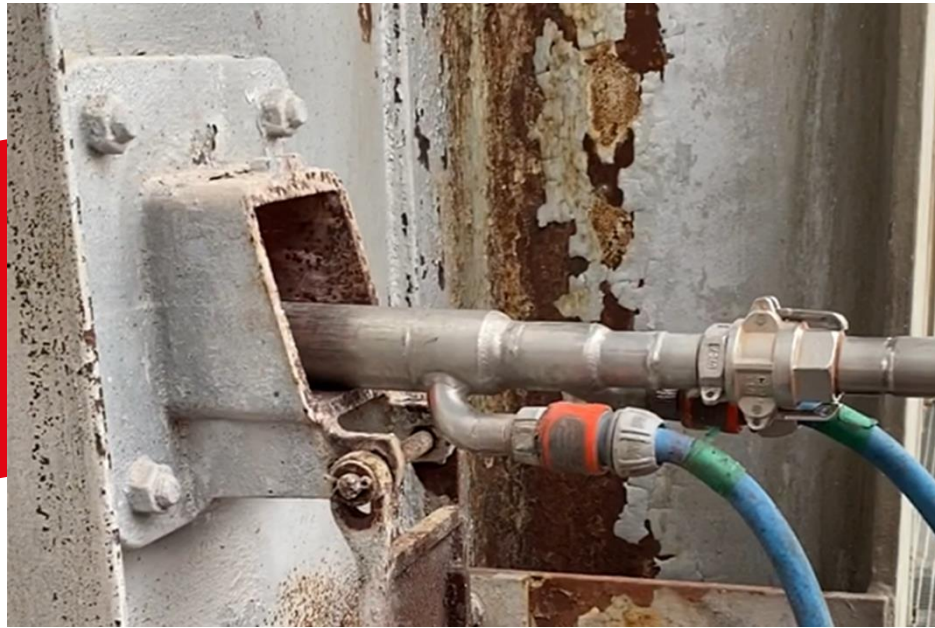
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Insulcon's Hot Endoscopy gives an overview of the damage in the refractory lining and prevents hot spots!

Most thermal units are in operation 24/7 and only have shut-downs during planned periods. A dangerous **hot spot** situation can arise when there are cracks or holes in the refractory lining, or parts thereof become loose and fall off. This eventually can result in an unscheduled shutdown of the unit which entails high unforeseen costs.

Insulcon's hot endoscopy service is a great tool to inspect the unit and to get an overview of the broken refractory lining when there is little or no visibility. For example if inspection is not possible due to the absence of peepholes in a specific damaged area.

Looking into the inner of operational thermal units.

Insulcon's hot endoscopy service technologies make it possible to inspect the inner thermal units such as the refractory lining, burners, process pipes and supports to determine possible damages of furnace internals (process & catalyst tubes) during full operation.

The hot endoscopy camera lance detects the damaged area and records the extent (volume) - **whilst the unit is in full operation!**

By using a water-press air-cooled steel tube Insulcon can detect the damaged spot optimally, and determine and define the scope of the damage.

Hot Endoscopy



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The lance is a tube that can be extended to a maximum length of 3 meters, with a small camera in its head, which can be inserted through an opening into the furnace.

The pictures and recordings made by the camera are saved in HD quality and can be analysed and reported by the client and operator. This way the urgency of a possible hot spot repair service, a process tube leakage or other damages can be determined.

During the last decades Insulcon executed several **hot endoscopy services** all over the world.

Our **hot endoscopy service** can be used for inspections in applications such as refractory furnace linings for example hot process tubes, supports, burners and others. Whilst the unit is in operation with a continuous maximum temperature of **1300°C!**

An impressive reference list is available upon request.

Advantages Hot Endoscopy:

- Gives an overview of the damage in the refractory lining, whilst the unit is in full operation.
- Prevents unscheduled shutdowns
- Prevents hot spots
- Saves energy