



Largely heat-resistant cameras provide information about the detonation process in the boiler area

Detonative cleaning in the course of scheduled shutdowns offers many advantages for plant operators. Safety detonation operations can be performed during the boiler cool-down phase. Large amounts of fouling are quickly reduced in size, to produce conveyable small-sized bulk material. Detonation technologies are combined with standard cleaning processes.

> Your advantages at a glance:

- Shorter scheduled shutdown times
- Lower costs, no scaffolds required
- High personnel safety during the performance of the shutdown preparation work

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BUCHEN is part of the REMONDIS group, one of the world's largest recycling, service and water companies. The company group has branches and associated businesses in more than 30 countries across Europe, Africa, Asia and Australia. With over 40,000 employees, the group serves around 30 million people as well as many thousands of companies. The highest levels of quality. Working for the future.

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Detonative cleaning



> BUCHEN EnergyServices GmbH

Specialist for industrial service in conventional power plants and incineration plants

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Safety detonations in large-boiler furnaces

We use gelatinous, or cartridged industrial explosives and igniters from German manufacturers for the detonations. By using a special camera, we are able to observe the boiler areas during the online detonative cleaning operation.

We remove fouling in the furnaces of large boilers as well as in modern fluidized bed boilers or downstream flue gas treatment plants, such as spray absorbers or residual product silos. Other applications include, for example: superheater surfaces, hoppers, electric filters, flue gas scrubbers, after-burning grates. We operate as an approved company in accordance with Art. 7 of the German Explosives Act. As per Art. 20 of the German

> Our services:

- Detonative cleaning in industrial plants
- Safety blasting
- Online detonative cleaning
- Blasting in hot masses
- General blasting work
- Boulder blasting
- Blasting of buildings and building parts

Explosives Act, the detonation staff employed by BUCHEN EnergyServices GmbH are qualified, highly motivated and very experienced experts. As a member of the German Blasting Association (Deutsche Sprengverband e.V.), we have continuous access to current information and the latest technical and commercial developments on the market.

> Applications:

- Brown coal power plants
- Hard coal power plants
- Biomass power plants
- RDF power plants
- Waste incineration plants
- Cement rotary kilns
- Steelworks
- Nonferrous metal works
- Industrial process furnaces

Typical types of fouling include:

- Slag deposits on heat recovery adjuncts
- Slag deposits on after-burning grates
- Dust deposits on structures like "saddles" between the first and second draft
- Incrustation & ash bridges in silo hoppers
- Clogged superheater packages

The online detonative cleaning offers a wide range of advantages for our customers. Fouling can be removed in the furnace room during the running operations, with the help of detonations.

This provides:

- Longer boiler cycle time
- Increased plant availability
- No contractual issues caused by unscheduled shutdowns
- Only little thermal interference with the boiler and turbine operation from fouling
- High degree of personnel safety
- No plant/equipment damages



The blast waves created through the detonation remove incrustations and deposits