



Hoppers, Silos, Ash Pits and Furnace Blockages

THE PROBLEM

Operators regularly face blockages that slow down their operations or even cause costly down time.

Examples include:

- Hardened ash pit deposits that the grab cannot penetrate
- Silo blockages due to moisture content or lack of fluidising air
- Sudden, heavy ash falls in hoppers, or blockages that build up over time
- Molten deposits that have hardened on furnace walls and can't be removed

THE SOLUTION

KRR ProStream can despatch a skilled engineering team at short notice to remove the blockages and restore your plant capabilities using the following technologies:

- KRR HPCO₂ – ideal for very hard/stubborn/compacted deposits
- KRR View – infrared camera for problem identification in high temperature sections
- KRR Mobile PWT – highly effective in hopper bridges, blocked hoppers/silos, etc
- KRR Air Lancing – accesses hard-to-reach blockages in tube bundles

These services decrease or completely remove the need for costly down time and reduced operations. The requirement for manual intervention is usually overcome. Health and safety risks are also vastly reduced due to the fact that these services do not normally require entry into the problem area.

TURN OVER TO SEE HOW IT WORKS



HOW IT WORKS

KRR HPCO₂

A hole is drilled in the deposit and a tube filled with liquid CO₂ is inserted and fastened. An electric charge activates the heater element in the tube, turning the liquid into 600 times its volume in gas. This creates a powerful heaving force at pressures up to 40,000 psi (3,000 bar), safely dislodging the blockages or deposits with no flying debris or damage to infrastructure.

KRR View

Our heat sensitive, infrared video technology is designed to operate in temperatures of up to 1,300°C. This allows us to pinpoint issues whilst your facility is still online.

KRR Mobile PWT

Ideal when you have a bridge in a hopper/silo with a view port below the bridge. A lance is inserted via the port and a controlled gas detonation dislodges the blockage, with no impact on plant operations.

KRR Air Lancing

With this service air is forced through slim tubes in order to penetrate blocked areas in a precise and exact manner. This can be done without the need to come off line, usually following a KRR View inspection.



Above: An HPCO₂ tube is secured in position using chains, which prevent it recoiling upon activation. **Below:** Examples of the compacted ash deposits that can be removed using KRR HPCO₂.



Deployment sites:

- Furnaces
- Silos
- Ash Pits
- Hoppers
- Tube Bundles
- Flue Gas Treatments
- CCTV can be used in almost any situation



KRR PROSTREAM Home Farm Business Unit 7, Loseley Park, Guildford, Surrey, GU3 1HS, United Kingdom

+44 (0)1483 570 044 | info@krrprostream.com | www.krrprostream.com