



## Fire-side boiler cleaning products for oil, coal and gas-fired boilers and steam generators



Regular cleaning of the fireside of boilers and heat appliances:

- Improves performance.
- Maintains efficiency.
- Saves on fuel costs.
- Minimises smoke and emissions.
- Reduces corrosion and maintenance.

### Products for:

- Smoke tube boilers.
- Sectional boilers.
- Air heaters.
- Steam generators.
- Domestic boilers (gas & oil).
- Steam & hot water pressure washers.

<b>SOOTBREAKER</b> boiler cleaning powder	<b>SCALEBREAKER LS3</b> boiler cleaning liquid	<b>SOOTBREAKER GS</b> gas boiler cleaning liquid	<b>SCALEBREAKER DSC</b> boiler cleaning liquid
<p><b>'On line' combustion deposit remover for oil, coal, and larger gas fired boilers and air heaters - removes soot and products of partial combustion.</b></p>	<p><b>'Off line' cleaner for end of heating season - removes corrosion type deposits from oil and coal fired boilers.</b></p>	<p><b>Combustion deposit remover for domestic and small commercial gas-fired boilers and appliances.</b></p>	<p><b>Combustion deposit remover for heat exchangers of modular and high efficiency gas-fired boilers.</b></p>
<p>SOOTBREAKER enables boilers to be cleaned whilst they are actually operating.</p> <p>It oxidises and burns away the soot and products of incomplete combustion which act as a thermal barrier, thereby restoring heat transfer and boiler efficiency.</p> <p>SOOTBREAKER's propellant mechanism ensures distribution throughout the boiler, reaching areas inaccessible to manual cleaning methods. Regular use minimises the need for manual cleaning.</p>	<p>SCALEBREAKER LS3 boiler cleaning liquid is formulated to react with and dissolve the corrosion type deposits found when boilers are fired on sulphur containing fuels.</p> <p>These deposits (light in colour, and very hard), are often bonded to the metal itself, requiring heavy brushing or scraping to remove.</p> <p>SCALEBREAKER LS3 reacts with deposits immediately, destroying their structure and adhesion. The evolution of harmless gases breaks down and separates deposits from the bare metal so that they may be easily removed with a 'wet' vacuum cleaner.</p>	<p>Gas is an inherently clean fuel, but combustion deposits can still be formed as a result of imperfect combustion due to an inadequate air supply, or incorrect setting up.</p> <p>In domestic locations deposits often occur as a result of fluff, hair and other debris being taken in with the combustion air and carbonising on the heat exchanger surfaces.</p> <p>SOOTBREAKER GS cleans domestic and commercial gas boiler heat exchangers whilst the boiler is firing, and will clean areas which cannot be reached by manual cleaning methods.</p>	<p>SCALEBREAKER DSC is a convenient and easy to use product designed to dissolve and break away bonded combustion deposits on the exterior surfaces of modular boiler heat exchangers, without attacking the heat exchanger itself.</p> <p>The accumulation of deposits adds an insulant layer between combustion gases and the metal, so that operating efficiency falls rapidly, whilst condensation of water vapour onto corrosive deposits can attack the metal of the heat exchanger.</p> <p>Regular cleaning of heat exchangers with SCALEBREAKER DSC will prevent these problems.</p>

## Fire-side boiler cleaning products

How combustion deposits reduce boiler efficiency

Soot thickness, in mm	0.8	1.6	3.2	4.8
Loss in heat conductivity	9.5%	26.2%	45.3%	69%

### Application and usage

<b>SOOTBREAKER CDR16</b>	<b>SCALEBREAKER LS3</b>	<b>SOOTBREAKER GS</b>	<b>SCALEBREAKER DSC</b>
<b>'On line' combustion deposit remover for boilers and air heaters - removes soot and products of partial combustion.</b>	<b>Spray-on liquid boiler cleaning chemical for corrosion type deposits in oil and coal fired boilers.</b>	<b>Combustion deposit remover for domestic and small commercial gas-fired boilers and appliances.</b>	<b>Combustion deposit remover for heat exchangers of modular and high efficiency gas-fired boilers.</b>
<p><b>USAGE:</b> SOOTBREAKER tubes are thrown, unopened, into the combustion chamber once the boiler is up to maximum temperature (at least 350°C). The boiler should be fired continuously for a minimum of 30 minutes.</p> <p>Highly reactive chemicals, in both gaseous and solid form, are distributed throughout the boiler, causing hard carbon deposits to dry out, oxidise and disintegrate.</p> <p>Soot is burnt off, and any residue of scale or deposit falls to the bottom of the boiler, where it may be easily brushed or vacuumed out.</p> <p><b>DOSAGE RATE:</b> Boilers up to 25,000 K.cal: 1 tube Boilers up to 50,000 K.cal: 2 tubes Above 50,000 K.cal: 1 tube for every extra 62,000 K.cal. Heavily fouled boilers may require a second treatment.</p> <p>Pack sizes: cartons of 24 and 48 x 100g tubes, cartons of 48 x 375g tubes.</p>	<p><b>USAGE:</b> Loose scale and deposits should first be removed by brush or vacuum cleaner. Depending on the thickness of scale, make up a solution of one part LS3 to one, two or three parts water.</p> <p>The solution should be sprayed on to the fouled surfaces once they have cooled down to below 50°C, starting at the top, until all heat transfer surfaces have been soaked. Deposits immediately begin to effervesce and dissolve. Allow to react for 10 -15 minutes. Heavily fouled boilers may require a second application.</p> <p>At this stage, the deposits have been neutralised, and will fall away with no further action as the boiler dries out. It can be advantageous to refire the boiler for 10 minutes, causing the treated residues to break up and fall away from the heat transfer surfaces.</p> <p>When cleaning sectional boilers, the use of a "wet" vacuum cleaner is the most convenient way of removing the damp debris from the base of the boiler.</p> <p>Pack sizes: 1 litre spray packs, 5 litre refills, and 25 litre drums.</p>	<p><b>USAGE:</b> Fire appliance for at least ten minutes, and then turn off. Spray heat exchanger surfaces with a fine mist of SOOTBREAKER GS until moist, and then refire appliance as soon as possible. Allow to fire for 10 minutes, and switch off.</p> <p>Some white vapour may be seen from the boiler flue during the reaction - this is quite normal.</p> <p>Re-open the boiler, and if necessary, remove any remaining loosened deposits with a vacuum cleaner.</p> <p>For domestic boiler applications, follow above procedure, but after removing casing, use an angled spray to spray up into the heat exchanger, and if possible, down from above also. Place newspaper underneath the appliance being cleaned, to catch any residues from the process.</p> <p><b>THIS PRODUCT IS ONLY FOR USE BY PERSONNEL QUALIFIED TO SERVICE GAS APPLIANCES.</b></p> <p>Pack sizes: 1 litre spray packs, 5 litre refills, and 25 litre drums.</p>	<p><b>USAGE:</b> Modular boiler heat exchangers should first be removed from the boiler.</p> <p>Heat transfer surfaces / coils should be immersed in a dilute solution of SCALEBREAKER DSC in a suitable plastic tank.</p> <p>For heat exchangers with modest deposits, a solution of one part SCALEBREAKER DSC to three parts water should clean the heat exchanger within ten minutes.</p> <p>For heavily fouled heat exchangers, use one part SCALEBREAKER DSC to one part water, for at least twenty minutes.</p> <p>As an alternative, SCALEBREAKER DSC may be sprayed onto fouled heat exchangers with a Systemsure injector, and allowed to react.</p> <p>After reaction period, wash heat exchanger well with fresh clean water.</p> <p><b>CAUTION:</b> SCALEBREAKER DSC should <b>not</b> be used on boilers with aluminium heat exchangers - refer to Kamco for advice in this situation.</p> <p>Pack sizes: 1 litre spray packs and refills, 5 litre refills, and 25 litre drums.</p>

**Use Sootbreaker every month throughout the heating season to maintain boiler output and minimise fuel consumption.**

#### Other SOOTBREAKER packs:

SOOTBREAKER 'Maxi' tubes for boilers of 250,000 K.cal (300 kWh) and above: 1 tube per 125,00 K.cal (150 kWh) output. Supplied in cartons of 50 x 350g tubes.

SOOTBREAKER is also available in 25kg drums for very large users - ask for separate data sheet.