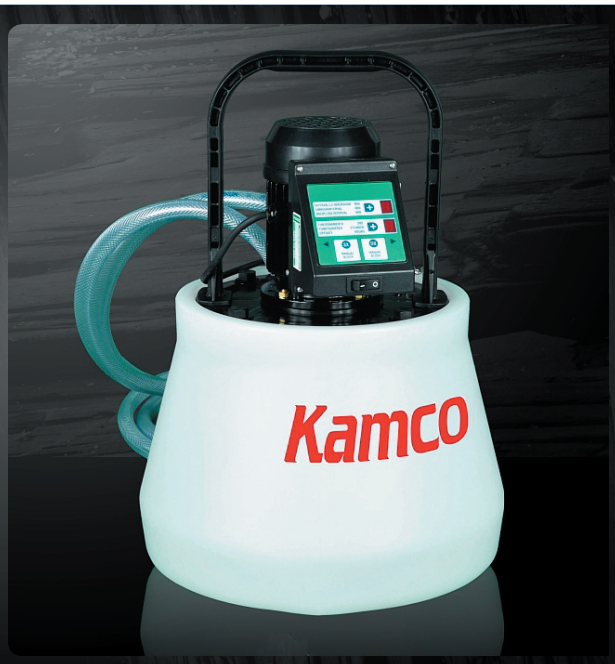
Kamco
Solutions to scale

Scalebreaker C15 AFR
automatic descaling pump

tank mounted descaling and flushing pump,
with electronically controlled run-time and automatic flow reversal



For descaling and flushing:

- ***Domestic boilers.***
- ***Water heaters.***
- ***Catering equipment.***
- ***Plate and shell heat exchangers.***
- ***Fan coil units and piping.***
- ***Water cooled rollers.***
- ***Injection moulding machine oil coolers, mould tools, and pipework.***
- ***Extruder barrels.***

The Scalebreaker C15 AFR tank mounted pump is purpose-built to remove limescale and corrosion deposits from heating and cooling circuits.

The translucent plastic tank safely contains chemicals during descaling, and allows the strength of descaling and cleansing chemicals with colour change pH indicators to be visually monitored. Chemicals are totally enclosed during the descaling process for maximum safety.

The Scalebreaker C15 AFR pump has an electronically controlled flow reversing device, which enables the pump to be left unattended during the descaling process. The automatic valve may be set to control overall running time, and the frequency of flow reversal.

Regular reversal of flow direction can halve the time taken to descale, and assists in dislodging any solid matter present in pipework and cooling circuits.

The pump body is completely contained within the tank, and the pump is self priming with no seals to leak. The drive motor is mounted on the top of the tank, with a splash-proof switch, and warning light to indicate when the unit is pumping.

These features combine to give maintenance free operation over a long period of time, and to make descaling a safer operation.

In use, the tank is filled with descaling chemical, connections are made to the water inlet and outlet of the equipment to be descaled or flushed, and the pump switched on until cleaning is complete.

The Scalebreaker C15 descaling pump can handle all commercially available acidic descaling chemicals.

It is compact, stable, and very portable, and can be carried by one man, enabling use in any workshop or plant room, even when access is difficult.

- **Purpose built for descaling.**
- **Reliable and maintenance free.**
- **Integral tank for convenience and safety.**
- **Automatic flow reversal for more effective descaling in less time.**
- **Compact, stable, and easy to carry.**

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Technical data								
Model	Tank capacity (l)	240 volt motor - kW	Max output (l/m)	Max head - (m)	Hoses fitted	Hose fit-tings	Dimensions l x w x h - cm	Weight kg
C15 AFR	15	0.15	45	9	2 x 2 m	1/2" BSP	35 x 35 x 46	6.5

Materials of construction:

Pump body and impellor - polypropylene.
Tank - translucent HD polyethylene.
Hoses - nylon re-inforced see-through PVC.

Suitable for use with all acids in common descaling use: hydro-chloric, phosphoric, sulphamic, citric, formic, and acetic acids. Also water based alkaline cleansing solutions and chlorine solutions used for sterilization.

General information

The C15 AFR is fitted with nylon re-inforced flow and return hoses, fitted at the outer ends with 1/2" female BSP threaded hose connec-tors. An eight part kit of BSP threaded adaptors is included.

It is self priming as soon as the specified minimum liquid level is available in the tank, but will not be damaged if it is run dry.

The electric motor is of the totally enclosed fan-cooled type, to IP54, continuously rated, with integral plastic membrane covered switch and warning light. Only 240 volt motors are available with electronic control, although 110 volt motor pumps are available on manual operation descaling pumps.

Electronic control:-
The C15 AFR may be set to run from one, up to nine hours, continu-ously, with run-time set in units of one hour.

The interval between automatic operation of the flow reversal function can be set between one and nine minutes.

General descaling notes:

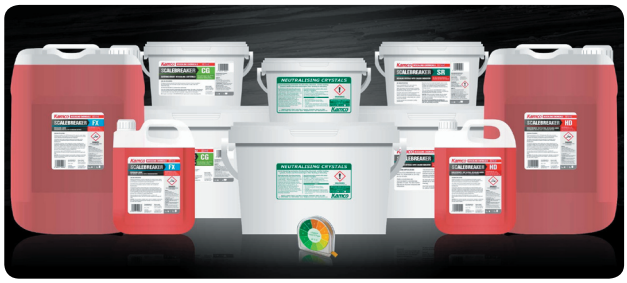
As a general guide, the rate at which deposits are dissolved increases with temperature.

When limescale is being dissolved, carbon dioxide gas is evolved, and may cause foaming, dependent on the amount of scale present. Allow-ance should be made for the volume of foam when descaling commences. Should this be a problem, add Foambreaker at the recommended dosage.

Descaling may be considered complete when there is no further evolution of carbon dioxide, seen as bubbling in the solution, or in the return hose to a pump, but the descaling solution is still pink. If deposits have not been completely removed, and yet the solution has changed colour to amber/ yellow, either add further chemical, or repeat the cleaning process.
After the descaling operation, drain the descaling solution, neutralise with Neutralising Crystals, and dispose of safely. Rinse or flush the descaled equipment thoroughly with clean water. For full information on applica-tion and dosage rates, ask for the Scalebreaker descaling chemicals leaflet.

CAUTION: Scalebreaker chemicals and their solutions are acidic, and therefore protective clothing, gloves, and goggles, should be worn.

SCALE-BREAKER descaling chemicals



Scaling problems - the cause


Scaled copper tubing

In hard water areas, when water is heated, the natural minerals contained in the water break down into insoluble crys-tals, which deposit out within water sys-tems as a scale, on the hottest surfaces.

In all areas of the country, heating and cooling systems using steel pipework and components frequently suffer from fouling, debris and scale problems as a result of the natural corrosion proc-ess by which iron tries to revert to its oxides.

These scale build-ups not only restrict water flow, but also act as a very effec-tive insulant, severely reducing heat transfer and efficiency, so that regular chemical descaling of equipment is necessary.


Scaled heat exchanger

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Stockist: