

**Tank mounted pumps built to handle the strongest descaling chemicals**



Scalebreaker C20

Scalebreaker C40  
with fresh water  
flush facility

Scalebreaker C90  
with fresh water  
flush facility

*Applications include:*

- Domestic and industrial boilers, including combination boilers.
- Steam generators and water heaters.
- Storage water heaters.
- Calorifiers, condensers and chillers.
- Fan coil units and pipework.
- Cooling coils and water cooled rollers.
- Plate and shell type heat exchangers.
- Plastics machinery - oil coolers, mould tools, hopper throats, extruder barrels and pipework.



Scalebreaker C210  
with fresh water  
flush facility

- High performance to enable descaling of severely fouled equipment.
- Extreme chemical resistance; acid proof pump .
- Descaling chemicals safely contained at all times within integral tank.
- Self priming for ease and safety.
- Compact and portable.
- Integral flow reverser device for faster and more effective descaling.
- No seals to leak. • Maintenance free.
- Supporting range of Scalebreaker descaling chemicals.
- Optional fresh water flush facility on C40, C90, and C210 models.

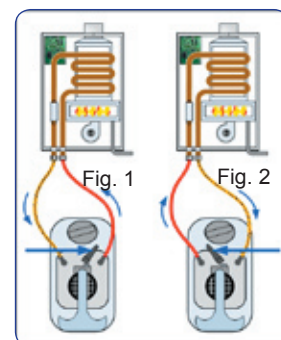


**The advantages of flow reversal when descaling and chemical cleaning**

During descaling limescale dissolves with the evolution of gas. The resulting effervescence and foaming can create a barrier which impedes, and in some cases prevents descaling chemical from further reaction with the

deposits. Reversing the direction of flow and return with the flow reverser (see Fig.1 and Fig.2) allows the foam and gas to discharge through the tank, eliminating the barrier effect. Apart from allowing deposits to be attacked from both

sides, penetrating and breaking up their structure and speeding the descaling process considerably, flow reversal often enables previously blocked tubes and heat exchangers to be successfully descaled.



## Scalebreaker tank mounted descaling pumps - models available and technical data

Model	Tank capacity	Motor (HP)	Max. output (l/min)	Max. head (mt)	Weight (kg)	Dimensions (cm)	Max. height (cm)	Flow & return hoses (mt)	Hose end fittings (BSP)
C20	20 litre / 4.4 gallon	0.20	60	14	9.8	45 x 25	54	2 x 3	1/2"
C40	39 litre / 8.6 gallon	0.50	90	20	17	39 x 44	69	2 x 3 *	3/4"
C90	57 litre / 12.5 gallon	0.75	150	24	22.5	39 x 59	89	2 x 3 *	3/4"
C210	125 litre / 27 gallon	0.75	170+	24	28.5	53 x 68	89	2 x 3 *	1"

\* Scalebreaker C40, C90 & C210 models with the fresh water flush facility also have a 3mt dump hose and 3mt water inlet hose.

### Typical applications

1. C20 - domestic and small industrial applications, small plastics machinery.
2. C40 - medium size applications - boilers, direct-fired water heaters, chillers and condensers. Small to medium plastics machinery.
3. C90 - medium size applications - boilers, direct-fired water heaters, chillers and condensers. Larger plastics machinery.
4. C210 - large commercial and industrial boilers, calorifiers, chillers, and water heaters, ground source heat pump coils.

### General information

All Scalebreaker tank mounted pumps have self priming centrifugal type pump assemblies.

#### Hoses and connections

All pumps are fitted with flow and return tubing, fitted with threaded female couplings.

#### Operational and temperature capabilities

All models have run-dry capability, but liquid temperature should not exceed 70°C.

#### Motors

Electric motors are totally enclosed fan-cooled type, with IP54 or IP55 protection, continuously rated, with integral plastic membrane covered switch and warning light. 230 or 110 volt, 50 Hz motors are available, with 120 volt 60 Hz motors available to special order.

#### Portability and handling

All models have an integral handle moulded into the tank, with a deep hand grip recess on the front for ease of lifting and loading. Pumps are designed for

on-site use, with low weight and good stability.

#### Flow reversal device

All models have an instantaneous flow reversal valve. Regular flow reversal during descaling can halve the time to descale, and is extremely effective in flushing out loosened deposits.

#### Chemical handling capabilities

Scalebreaker pumps are acid-proof, and may be used with all acids in common descaling use - hydrochloric, phosphoric, sulphamic, citric, formic, acetic, etc. They may also be used with alkalis, and chlorine solutions as used for sterilisation purposes. For compatibility with other chemicals, please check with Kamco.

#### Materials of Construction

Motor support flange and body, flow reverser, volute, and impellor: fibre reinforced polypropylene.

Impellor housing cover: polyphenylene sulfide engineering plastic.

Drive shaft (C20-C120): steel, sleeved in PP.

Tank: Translucent HD polyethylene, to enable liquid level to be monitored visually.

#### Hoses:

Flow and return hoses (and dump hose if applicable): reinforced transparent PVC. Water inlet hose (if applicable): reinforced yellow PVC.



Standard Scalebreaker C40 and C90 models  
(without the fresh water flush facility)