

Marine Scalebreaker | High specification descaling pumps engineered to handle marine environments.

Engineered for **CLEANING IN PLACE**, Marine Scalebreaker removes limescale, rust and corrosion debris from heating and ventilating plant and cooling circuits. Built to handle the strongest descaling chemicals.



Marine Scalebreaker
C20

Marine Scalebreaker
C40 FWF

Marine Scalebreaker
C90 FWF

Marine Scalebreaker
C210 FWF

Applications include cleaning and descaling:

- Plate and shell type heat exchangers
- Seawater coolers, heating coils
- Steam generators and water heaters
- Boilers, calorifiers
- Condensers, chillers, fan coil units
- Intercoolers and aftercoolers

The advantages of flow reversal when chemical cleaning:

The descaling process may generate gas/foam which can impede the cleaning process. Reversing the direction of flow allows gas/foam to discharge safely through the tank, unlocking the system and speeding up the descaling process. Flow reversal often enables previously blocked tubes and heat exchangers to be successfully descaled.

Hoses supplied with FWF models:



- 2x 3m flow & return hose
- 1x 3m discharge hose
- 1x 3m water inlet hose (Yellow)

Marine Scalebreaker models feature:

Integral pump and chemical holding tank for shipboard portability and safety.	Fresh water flush facility* (excl. C20)	Integral flow reverser for faster and more effective descaling
For use with acidic and alkaline cleaning chemicals.	No seals to leak; maintenance-free	Run dry capability
Kamco Support technical expertise, help-line and spares service	BUILT IN BRITAIN	1 YEAR WARRANTY SUBJECT TO TERMS & CONDITIONS



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*It is good practice to flush plant and equipment with fresh water after the chemical clean to remove all traces of cleaning chemical.

Marine Scalebreaker | Models available and technical data

MODEL	TANK CAPACITY (litres)	kW	VOLTAGE FREQUENCY OPTIONS	MAX. OUTPUT (litres/min)	MAX. HEAD (m)	WEIGHT (kg)	WIDTH DEPTH HEIGHT (cm)	FLOW & RETURN HOSES (m)	HOSE END FITTINGS (BSP)
Marine Scalebreaker C20	20	0.45	230v, 50Hz 110v, 50/60Hz	<60	14	9.8	25 x 45 x 54	2 x 3	1/2"
Marine Scalebreaker C40 FWF*	39	0.8	230v, 50Hz 110v, 50Hz 115v, 60Hz 240v, 60Hz	<90	20	17	44 x 39 x 69	2 x 3*	3/4"
Marine Scalebreaker C90 FWF*	57	1.1	230v, 50Hz 110v, 50Hz 115v, 60Hz 240v, 60Hz	<150	24	22.5	59 x 39 x 89	2 x 3*	3/4"
Marine Scalebreaker C210 FWF*	125	1.4	230v, 50Hz 110v, 50Hz 240v, 60Hz	<170-190	24 29(60Hz)	28.5	68 x 53 x 89	2 x 3*	1"

* Marine Scalebreaker FWF models: C40 FWF, C90 FWF & C210 FWF include a fresh water flush facility. In addition to the flow and return hoses these models include: 1x 3m discharge hose and 1 x 3m water inlet hose.

Applications include

Marine Scalebreaker C20

Small cooling circuits; plate and shell type heat exchangers.

Marine Scalebreaker C40 FWF

Medium size applications - boilers, water heaters, chillers and condensers. Small plate and shell type heat exchangers.

Marine Scalebreaker C90 FWF

Smaller boilers, water heaters, chillers and condensers. Plate and shell type heat exchangers.

Marine Scalebreaker C210FWF

Boilers, calorifiers, chillers, and water heaters. Plate and shell type heat exchangers.

Materials of Construction

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

Impeller housing cover: polyphenylene sulfide engineering plastic.

Drive shaft: steel, sleeved in PP.

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

Hoses: Flow and return hoses (and discharge hose if applicable): reinforced transparent PVC.

Water inlet hose (if applicable): reinforced yellow PVC.

General information

All Scalebreaker units have self priming vertical axis centrifugal type pump assemblies.

Hoses and connections

All pumps are fitted with flow and return tubing, fitted with either threaded female couplings or quick release Camlock type hose connectors.

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, with IP54 or IP55 protection, continuously rated, with plastic membrane covered switch and warning light.

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. Pumps are designed for on-board use, with low weight and good stability.

Flow reversal device

All models have a flow reversal valve. Regular flow reversal reduces cleaning time, 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.