

## **Ex-Scalibur Scale Reducers**

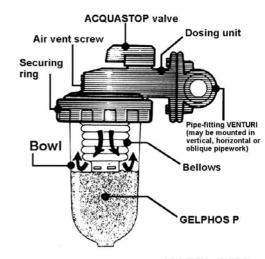
Installation & Maintenance Instructions for D250 / D600 & D700

IMPORTANT: To avoid malfunctioning, read these instructions carefully before installation or servicing, and always keep within easy reach.

#### **EX-SCALIBUR D250**

**DESCRIPTION:** The EX-SCALIBUR D250 scale reducer dispenses minute quantities (4ppm) of powdered polyphosphates, a harmless food grade material, into water to prevent limescale deposits in boilers, water heaters, showers, catering equipment etc. It is effective even with very hard water, and at water temperatures up to 78-80°C.

**INSTALLATION:** To optimise powder consumption, do not install EX-SCALIBUR unit in locations where the temperature is greater than 30°C, such as above hot water pipes, in enclosed cupboards containing hot pipes, or behind dish-washing or washing machines.



MODEL D250

To ensure that the EX-SCALIBUR operates properly, the unit should have a minimum of 15cm (6") of clear unobstructed piping each side, and any valves, other fittings, or pipe bends, should be further away than this. The EX-SCALIBUR pipe fitting (the section which is inserted into piping) must be installed with the arrow pointing in direction of water flow.

The unit may be installed in either horizontal or vertical piping, by rotating the pipe fitting relative to the body, after undoing the 4 x 7mm bolts. It may also be installed at 45°, by perforating further holes already marked on the flange. The EX-SCALIBUR bowl must always be vertical, and should be clearly visible in order to allow the powder level to be checked.

Connect flange to pipework using compression fittings with parallel threads and NOT tapered threads. Use PTFE tape, and not hemp or jointing compounds. Keep blow torches away from scale reducer - heat will damage "O" ring seals.

In areas of high water pressure, pulsating pressure or where "water-hammer" is experienced, it is prudent to fit a pressure reducing valve before the EX-SCALIBUR unit. If water quality is suspect, with suspended dirt particles, a filter should be fitted before the unit to provide protection. KAMCO have a range of suitable water filters.

FILLING AND MAINTENANCE: Close the integral "ACQUASTOP" valve, by simply turning lever on top of body 90° in clockwise direction. Loosen the air vent screw by one turn to release water pressure, and unscrew the bowl securing ring. Wash bellows and bowl carefully. N.B. Although the "ACQUASTOP" valve is closed, a very slight leak is normal.

- 1. If using a rapid refill ready-to-use cartridge, remove the plastic cap from a new cartridge, and simply drop it in the EX-SCALIBUR bowl. If replacing a rapid refill cartridge, remove the empty cartridge case first. Replace bowl (do not overtighten!), close air vent screw, and re-open "ACQUASTOP" valve by turning lever 90° in anti-clockwise direction.
- 2. If using GELPHOS P powder, after washing bellows and bowl, add water up to the "H2O" mark on the bowl, and then polyphosphate powder until the combined mixture level reaches the "MAX" mark. If necessary, add more powder if the level settles a little. Stir to a thick paste and allow the mixture to set for at least 5 minutes until it is hard to the touch. Failure to do so will result in excessive powder consumption. Replace bowl (do not overtighten!), close air vent screw, and re-open "ACQUASTOP" valve by turning lever 90° in anti-clockwise direction.

#### If the unit does not dose the polyphosphates correctly, check:

- 1. That the jet in the body, immediately behind the bellows, is clear. Unscrew and blow through if necessary.
- 2. That the "ACQUASTOP" valve is open.
- 3. That the EX-SCALIBUR has been installed with the correct water flow direction.

TECHNICAL DATA:	
Max. working pressure:	10 bar
Max. inlet water temperature:	30°C
Max. ambient temperature:	40°C (protect against frost)
Connections:	1/2" BSP female thread
Max. rated flow:	1,500 lt/hour
Pressure drop at rated flow:	0.25 bar
Bowl content:	1 rapid refill cartridge, or
	80gm GELPHOS P powder
Volume of water treated:	max 15,000 lt (with full bowl)



## EX-SCALIBUR D600 & D700: Proportional polyphosphate dosing units

Dosing unit (brass)

**DESCRIPTION:** The EX-SCALIBUR D600 & D700 scale reducers dispenses minute quantities (ca. 4ppm) of powdered polyphosphates, a harmless food grade material, into water to prevent limescale deposits in boilers, water heaters, showers, washing machines, catering equipment etc. The treatment is effective even with very hard water, and at water temperatures up to 78-80°C.

**INSTALLATION:** To ensure that the EX-SCALIBUR operates properly, the unit should have a minimum of 15cm (6") of clear unobstructed piping each side, and any valves should be further away than this. The main body (the section which is inserted into piping) must be installed with the arrow pointing in direction of water flow. The bowl must be vertical.

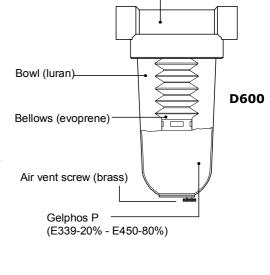
- Do not install in locations where the ambient temperature is greater than 30°C, to ensure optimum powder consumption.
- Connect flange to pipework using compression fittings with parallel threads, and NOT tapered threads. Use PTFE tape, and not hemp or jointing compounds. Keep blow torches away from scale reducer - heat will damage the "O" ring seal.
- In areas of high water pressure, pulsating pressure, or where "water hammer" is experienced, it is prudent to fit a pressure reducing valve before the D600 unit. If water quality is suspect, with suspended dirt particles, a filter should be fitted before the unit to provide protection. Kamco have a range of suitable filters.

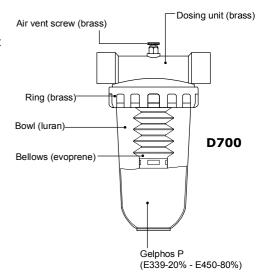
**FILLING AND MAINTENANCE:** Close the isolation valves. Loosen the air vent screw by one turn to release water pressure, and unscrew the bowl. Wash the bellows and bowl carefully. Add water to the "H2O" mark, and then polyphosphate powder until the combined level reaches the "MAX" mark. If necessary add more powder if the level settles a little. Stir to a thick paste, and allow the mixture to set for at least 5 minutes until it is hard to the touch.

Failure to do so will result in increased powder consumption. Replace the bowl (do not overtighten!), close air vent screw, and re-open isolating valves.

## If the unit does not dose the polyphosphates correctly, check:

- 1. That the jet in the body, immediately behind the bellows, is clear. Unscrew and blow through if necessary.
- 2. That the D600 / 700 has been installed with the correct water flow direction.





# Max. working pressure: Max. inlet water temperature: Max. ambient temperature: Connections: Max. rated flow: Pressure drop at rated flow: Bowl content: Volume of water treated: 10 bar 40°C (protect against frost) 1" BSP female thread 5,800 lt/hour 0.25 bar 500 g GELPHOS P powder max 120,000 lt (with full bowl)

**TECHNICAL DATA:** 

### For further information contact:

KAMCO LIMITED: Unit 9, Curo Park, Frogmore, St Albans, Hertfordshire, AL2 2DD

Tel: 01727 875020 Fax: 01727 875335

Email: info@kamco.co.uk Website: <u>www.kamco.co.uk</u>