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## INSTALLATION GUIDELINES FOR CAR WASH SILT TRAPS



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## Introduction

Klargester Silt Traps are manufactured in Glass Fibre Reinforced Polyester (GRP). The finished products are light in weight, easy to transport and install. GRP is extremely robust, but can be susceptible to damage by sharp objects and from point loads. Care should be taken to avoid contact with sharp objects and point loads and the unit should be uniformly supported during transportation and installation.

Because of their light weight and large volume, there is a risk of buoyancy and movement during installation. The unit should be carefully strutted in position and ballasted with water in order to minimise these risks. On sites where the excavation is likely to be water logged the excavation must be kept free of water using suitable pumping equipment.

Klargester Environmental Limited will accept no liability for damage incurred through failure to comply with this procedure.

This document should be used in conjunction with the latest issue of the relevant General Arrangement drawing, along with concrete specification SK296.

## **WARNING**

The unit is designed to take light vehicular loads, such as passenger cars. Under no circumstances should the load exceed that stated on the General Arrangement Drawing.

## Installation Procedure

CHECK: Drain invert depth and orientation of unit. Relevant drawing and concrete specification SK296

are supplied with this document.

**INSPECT:** Silt Trap for damage before installation.

**DO NOT:** Subject Silt Trap to impact, contact with sharp edges or use metal chains, when lifting the unit.

1. The installation of any particular unit should be carried out in accordance with details shown on the relevant and current issue of the Klargester drawing. In particular, note the outlet pipe position and levels relevant to ground level, the depth and size of the excavation.

- 2. Set out the excavation to size, in the correct position relevant to existing pipe positions. Allowance must be made for timbering or trench sheeting.
- 3. Excavate the hole to the correct size and depth. For wet installations it will be necessary to dewater the excavation using suitable pumping equipment.
- 4. Lay a concrete base (sulphate resisting, if required) of suitable thickness to suit site conditions in accordance with concrete specification SK296 below and level to the correct depth below drain invert. Reinforcement may be required for installations where a high water table is present.
- 5. Allow the concrete base to set.
- 6. Using webbing slings of suitable strength, lift the unit and lower onto the base. Wedge the unit in position with timber wedges under the unit, set to the correct level and alignment of pipes. The level should be checked across the width and along the length of the unit. Strut firmly with suitable timbers.
- 7. Begin to ballast the unit with water, in stages, to invert level and backfill with concrete to a minimum thickness of 150mm. Pour concrete, keeping the level of water balasting 300mm ahead of backfill until full.
- 8. Connect pipe work before backfilling up to final level as shown on relevant drawing. Ensure that the concrete is free of voids under the GRP top flange as it is important that any loads exerted on the mesh covers are transferred to the concrete and not the GRP. Ensure that the hinges are kept free of concrete to enable cover to be lifted and replaced.
- 9. Carefully remove trench sheeting and strutting before the concrete fully sets and prevents their removal, ensuring that the unit's position is not moved during this operation.
- 10. Leave unit full of water on completion of installation. For wet installations dewatering should continue until the unit is full of water or the concrete has set.
- 11. In the event of any problems please contact Klargester Environmental Limited.

CONCRETE SPECIFICATION SK296 IN ACCORDANCE WITH BS 5328 PARTS 1,2,3 AND 4		
TYPE OF MIX		DESIGN
PERMITTED TYPE OF CEMENT		BS 12 (OC): BS 12 (RHPC): BS 4027 (SRPC)
PERMITTED TYPE OF AGGREGATE (coarse & fine)		BS 882
NOMINAL MAXIMUM SIZE OF AGGREGATE		20 mm
GRADES:	C30 (30 N/mm <sup>2</sup> )	REINFORCED & ABOVE GROUND WITH HOLDING DOWN BOLTS
	C30 (30 N/mm <sup>2</sup> )	REINFORCED (EG. FOR HIGH WATER TABLE)
C20 (20 N/mm <sup>2</sup> )		UNREINFORCED (NORMAL CONDITIONS)
MINIMUM CEMENT CONTENT	C30	270 - 280 Kg/M³
	C20	220 - 230 Kg/M³
SLUMP (NOT IN ACCORDANCE WITH BS 5328)		25mm
RATE OF SAMPLING		READY MIX CONCRETE SHOULD BE SUPPLIED COMPLETE WITH APPROPRIATE DELIVERY TICKET IN ACCORDANCE WITH BS 5328 PART 3
NOTE: STANDARD MIXES SHOULD NOT BE USED WHERE SULPHATES OR OTHER AGGRESSIVE CHEMICALS EXIST IN GROUND WATER		