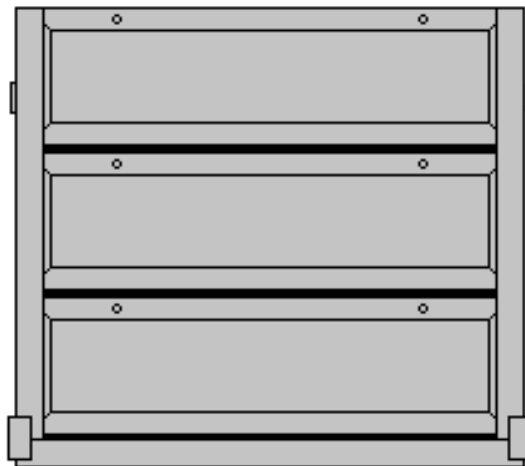


INSTALLATION, OPERATION AND MAINTENANCE MANUAL



STOP LOGS

WATERFRONT

We are a Glasgow based company providing water engineering solutions in fluid control for both the UK and International markets.



Waterfront Engineering Services Ltd was formed in 1988 specialising in the installation and commissioning of Penstocks for Treatment Plants.

We offer a service to supply refurbish and install valves, penstocks and ancillary equipment.

We have extended our range to incorporate a wide range of products for controlling Water Flows. These products cover all types of valves, penstocks and ancillary products.

Waterfront Engineering Services LTD provides consistent high quality products and services.

W A T E R F R O N T

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INSTALLATION RECOMMENDATIONS

HANDLING AND STORAGE

If chains or slings are used for handling purposes, the unit should be protected with cloth sacking or similar material.

NEVER USE HOOKS UNLESS EYEBOLTS ARE FITTED

Stoplog frames should be stored in the horizontal position with the stoplogs removed.

NOTES

1. Pressure of any locating jacks must be spread evenly using timber. **AVOID** point loading to any part of the unit.
2. Due to civil work tolerances, mounting of the unit must be affected by grouting between the wall and frame, without any part of the frame actually touching the wall, thus avoiding the possibility of distortion. **DO NOT** attempt to seal the frame to the wall by means of mastic or other resilient compounds, as this will only result in future problems.
3. The anchor bolts are of stainless steel construction. Anchor bolts should **ALWAYS** be tightened up, using a torque wrench to the correct setting. Please refer to the Liebig anchor bolt manufacturers literature for specific recommendations.
4. All units leave the factory with the stoplogs separate from the frames. It is very important that the seals are checked and prior to installation.
5. Before grouting it is essential that a feeler gauge non-acceptance test of 0.05mm be carried out on all sealing faces. As these are resilient seals only light pressure should be applied to the feeler gauge.

INSTALLATION SEQUENCE

The installation of stoplogs, avoiding distortion and consequent leakage, is not difficult providing these recommendations are followed.

Prior to commencing installation, check civil work is correct to all appropriate drawings and that there is no an obvious obstruction or undulations on concrete surfaces.

CHANNEL MOUNTED FRAME - LOCATION

1. Support the unit in its required position, relative to the flow, in the prepared recess making sure that the invert of the frame is flush with the final invert of the channel.
2. Locate the unit its correct final position by wedging the frame in the recess using jacks and packing pieces, of suitable thickness. Carefully check for plumb and level in all directions and check that the invert to coping dimension is correct (where relevant).

WALL MOUNTED FRAME - LOCATION USING EXPANDING ANCHOR BOLTS

1. Supporting the frame along the whole of its bottom cross member, or by hanging from a crane, present the unit to its required position.
2. Using the frame as a template, drill holes to accept the anchor bolts specified.
3. Insert the top two anchor bolts and place packing pieces, to the recommended grouting thickness, between the back of the frame and the concrete wall, close to the inserted bolts. Tighten the bolts sufficiently to hold the packing pieces in position.
4. Insert the remaining anchor bolts and by using jacks and packing pieces of suitable thickness, locate the frame in its correct final position. Carefully check for plumb and level in all directions and check that the invert to coping dimensions is correct.
5. Having checked for plumb, correct level, alignment and location. Finally measure inside width of stoplog frame making sure log will fit. Now grout the frame.

SHUTTERING AND GROUTING

1. Shutter up the frame for grouting using timber, faced with a thin neoprene type sponge material to ensure a good, clean, seal without undue pressure.
2. CHECK AGAIN for plumb and position. If correct, mix and pour a fluid grout in proportions of 50kg cement, 50kg silver sand and 0.22kg (small tub) cebex 100 plasticized expanding grout admixture (or equivalent) between the frame and wall or recess.
3. When the grout is set, finally re-tighten the anchor bolts in sequence, i.e. when one bolt head has been dealt with follow on with the bolt diagonally or diametrically opposite. After all bolts are tightened, remove the shuttering and generally clean up and remove any excess grout or debris from the frame and logs. Pay attention to the sealing faces to see that they are not damaged in any way, otherwise the unit may leak.

GROUT SPECIFICATION

50kg Ordinary Portland Cement
50kg Silver Sand
1 x Tub Cebex 100 (0.227kg)
22-24 litres Water or less as required

OPERATION RECOMMENDATIONS

Operation of the Stop logs is simple and straightforward providing the installation recommendations have been carried out correctly.

1 The seals on a stop log frame are flexible and after being put into operation may take an initial compression set. This will not detract from the correct operation of the unit.

2 Stop logs are not designed to be drop tight and, therefore, a leakage tolerance has to be applied, and this is:
Up to 6.0m head is 1.25 litres per minute of individual log periphery.

3 When inserting stop logs using lifting poles or a lifting beam into the frame, lower evenly to avoid crabbing. Before releasing the top log ensure that it has seated on the invert, or on the top of the previous stop log.

4 When removing stop logs from the frame lift evenly to avoid crabbing.

MAINTENANCE RECOMMENDATIONS

The Stop Logs should give years of trouble-free operation, providing the following simple inspection procedures are adopted.

THE FREQUENCY OF INSPECTION SHOULD BE BASED ON THE PARTICULAR REQUIREMENTS OF THE INSTALLATION.

1. Clean the unit by hosing down to remove any grit or debris.
2. Check for leakage between the frame and civil structure and the frame logs and also the inter-log seals.
3. Check the tightness of the bolts and nuts. (Wall mounted units).

HEALTH AND SAFETY - SAFE OPERATION

The equipment supplied by Waterfront Engineering Services Ltd has been designed to ensure safe operation when the equipment is used for the purpose for which it is intended.

To ensure safety in operation these Instructions should be read by those who will operate and maintain the equipment.