



Patent 8,596,921 B2
2,742,262 CANADA

INSTALLATION INSTRUCTIONS

These instructions assume that the excavated area is complete and ready for placement on a secure and level base of compacted gravel meeting ASTM 2321 Class I or Class II criteria. It is also assumed that proper trench safety practices are used under the direction of an OSHA trained "Competent Person". It is the responsibility of the installer to follow proper safety procedures.

- Place pump station in a safe location on level ground near the excavated area and within reach of lifting machinery.
- Remove any shipping hardware including pallet lag screws from the pump base.
- Position **Bal-Last™** ballast blocks in location near the pump unit.
- Install lifting eye bolts in the top of each **Bal-Last™** block and fully tighten threads into the threaded insert.
- Using safe lifting methods carefully maneuver the first **Bal-Last™** block into position with inner ribs facing the outer pump ribs. Ballast block should fit closely into the pump station ribs and rest against the pump unit. Some temporary support blocking may be required to stabilize the block against the pump unit.
- Using safe lifting methods carefully maneuver the second **Bal-Last™** block into position with inner ribs facing the outer pump ribs. Align the pin and groove slots of the first and second block and maneuver blocks into position to align the vertical locking pin slot. Install the first galvanized locking pin in the pin slots to secure the block assembly. Some light hammer force may be required to tap the locking pin into place.
- Repeat the above step with the third **Bal-Last™** ballast block.
- Placing of the last ballast block should follow the procedures above. Once the last block is in place install the last two locking pins.

The assembly is now complete and should be securely attached to the pump base.

Next, use the **Bal-Last™** lifting harness to place the pump in the excavated area.

- The lifting harness Slip Hook with latch is connected to a lifting hook provided by the contractor which must be capable of lifting the loads. This hook should be mounted on the bucket of the excavator or backhoe or bucket loader provided by the contractor.



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Follow all safety precautions when lifting devices are used. Do not use these devices if you are not aware of the requirements for safe lifting and placement of this type of load.

- Attach each of the steel spring hooks to the lifting shoulder eye bolts provided. Substitutions of any type of eye bolt that is not forged and totally closed eyes are strictly forbidden.
- Carefully apply lifting tension on the lifting harness to check for alignment. Lifting harness should provide evenly balanced lifting from four (4) points. Do not cross lifting straps.

Safe lifting is achieved when the equipment operator and ground spotter are in communication. Never assume that one or the other understands the intentions of the other. Make eye contact and communicate clearly to avoid accidents.

- The pump and ballast assembly may be lifted carefully to move the assembly into proper alignment to lower the pump unit into position.
- Carefully lower the pump unit into position.
- Using a guide rope or pole, rotate the pump to align pipe inlet and discharge prior to final setting of pump.

CAUTION

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NEVER lift overhead of personnel including workers and observers. Workers should always stand clear and maintain a safe exit away from potential falling objects.

- Once the pump and ballast ring are fully placed on the gravel base, inspect the pump station for level and make adjustment as needed.
- If the pump base is stable and level, remove each of the four (4) steel spring hooks from the lifting eye bolts and guide the equipment operator to lift out the harness.
- The lifting eye bolts may remain in place if no other riser blocks are to be set atop the ballast block. If additional courses of riser blocks are to be added, remove the lifting eye bolts to permit placement of riser blocks on the flat base of the ballast block.
- See Supplemental Instructions for **Bal-Last™** Riser Block assembly.
- Backfilling of station may begin as directed by the OEM Instructions.
 - As a minimum; well compacted, Class I or Class II soils as defined in ASTM 2321 standards should be used around all pump basins.

For more information see www.intelockingballast.com