

# LINEAR CATCH BASIN

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## INSTALLATION GUIDE

INSTALLATION INSTRUCTIONS FOR LINEAR CATCH BASIN

### STEPS

#### Work planning

1. Before undertaking work
2. Handling of linear catch basin

#### Installation

3. Preparation of the trench and bedding
4. Assembly
5. Installation of clips on the bell
6. Leveling
7. Formwork and concrete
8. Backfilling

#### Annex

1. Typical installation trench

## STEP 1

### BEFORE UNDERTAKING THE WORK

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Contact your Soleno representative at least 48 hours before work begins. A visit from your authorized Soleno representative is recommended after receipt of the materials on site or before work begins.

In case of discrepancy between the instructions contained in this guide and those contained in the plans and specifications, please contact your Soleno representative.

Upon receipt of the materials, ensure that all items listed on the delivery slip are delivered and in good condition. Please notify immediately your Soleno representative in case of damage or missing items.

## STEP 2

### HANDLING OF LINEAR CATCH BASIN

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To avoid damage to the linear catch basin and fittings, the following handling recommendations should be followed:

- **Do not** use steel wire ropes, chains, or hooks to unload or handle linear catch basin.
- **Do not** drop linear catch basin and fittings on the ground.
- **Do not** lift the linear catch basin by inserting the forks into its ends.
- Handle linear catch basin manually or use slings (linear catch basin should be placed by hand if applicable. The equipment should only be used for moving, lifting, and lowering. It should not be dropped, thrown, pushed, or rolled into the trench).

## STEP 3

### PREPARATION OF THE TRENCH AND BEDDING

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Proceed with the excavation of the trench to proper width and depth in accordance with Soleno's approved shop drawing and plan (refer to the typical trench detail in Annex 1).

The installation of the linear catch basin must be done in a dry trench. The drying techniques used must comply with local safety standards in force. The design engineer must adapt the foundation to these conditions.

Preparation and proper compaction of the pipe bedding is very important. The pipe's ability to support the overlying earth loads is influenced by the degree of support that the pipe has under it and at its sides.

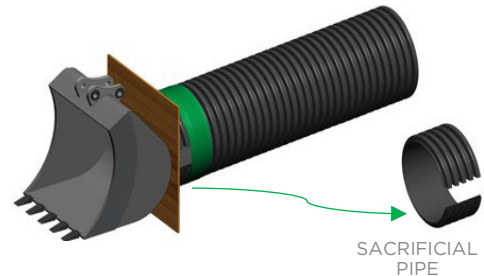
## STEP 4

### ASSEMBLY

- In general, start the installation on the downstream side.
- For the direction of installation, the bell should be facing up-stream. The male end is normally inserted inside the bell.
- Make sure that the male end is fully inserted up to the insertion line, see details below.
- Use one of the two following methods for the assembly of HDPE pipes: with a sacrificial pipe section or slings.
- Validate the longitudinal alignment of the section as the installation progresses.

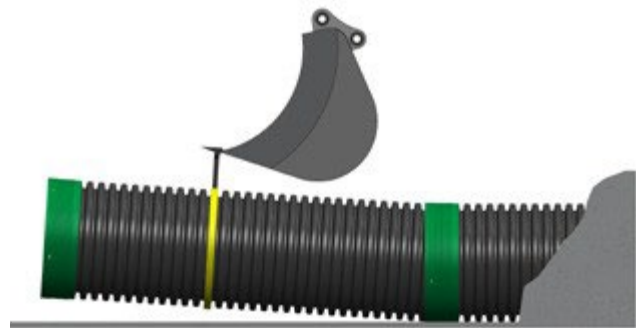
#### A - METHOD WITH SACRIFICIAL PIPE

- Prepare the short sacrificial pipe by cutting a piece of pipe at least five corrugations long and removing a strip of material along the entire length.
- Insert the sacrificial pipe inside the bell of the pipe to be installed.
- Place a rigid panel (plywood) against the end of the sacrificial pipe. The panel should completely cover the surface of the sacrificial pipe.
- Firmly press the bucket of an excavator against the panel and push until the insertion line is aligned with the end of the bell.



#### B - METHOD WITH SLING

- Wrap the sling around the pipe.
- Make sure there is no dirt inside the bell.
- With the excavator, slowly move the pipe to align the male end in the bell.
- When the first ring is in the bell, lower the pipe to have the best possible alignment with the other pipe.
- Slowly pull the sling until the insertion line is aligned with the edge of the bell.



### JOINT TYPE

SOLFLO MAX<sup>®</sup> : DIAMETERS FROM 300 mm (12 in) TO 600 mm (24 in)

The insertion line is marked on the pipe with a paint line. The following diagram is indicative.

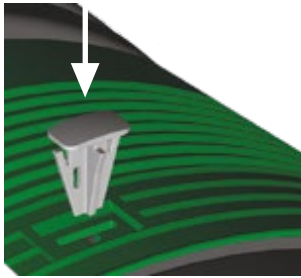


## STEP 5

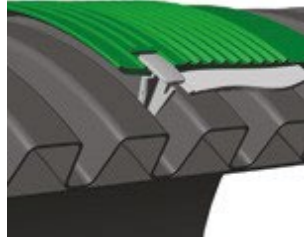
### INSTALLATION OF CLIPS ON THE BELL (IF APPLICABLE)

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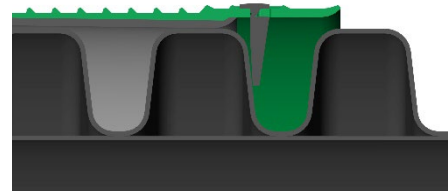
- Installing the clips guarantees the complete insertion of the pipe and provides a robust interlocking until completion of the backfill.



First, align the clip with the opening.



Second, push on the clip with the palm of your hand or with a hammer until it is fully inserted.



Third, install at least 3 clips per joint.

## STEP 6

### LEVELING

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- Place concrete blocks (bricks) under the pipe to support it at the right height and to obtain the required thickness of concrete beneath the system. The bricks can be laid on a small mound of stone dust to facilitate the final height adjustment.
- Adjust the elevation and alignment of the grate using a rope.

## STEP 7

### FORMWORK AND CONCRETE

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- First, proceed to set up and install the formwork, according to Soleno's approved shop drawings.
- Second, pour the first layer of concrete to the base of the pipe to stabilize the structure.
- Third, continue to pour layer of concrete up to the final finish level (refer to the typical trench detail in Annex 1).
- Finally, let the concrete rest and cure, and strip the formwork afterward.



## STEP 8

### BACKFILL

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- Check that the backfill material is well compacted to avoid settling.
- Backfill the concrete block.

## ANNEX 1

### TYPICAL INSTALLATION TRENCH

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The installation method for the HDPE linear catch basin, illustrated below, is based on the standardized drawing of the Ministère du Transport du Québec Volume II, chapter 3. Soleno recommends the application of this method. However, depending on the location of the project, other regulations or standards may apply. Soleno recommends complying with the requirements in force in the city or province of reference.

