

Duraslot® XL

Installation Guide

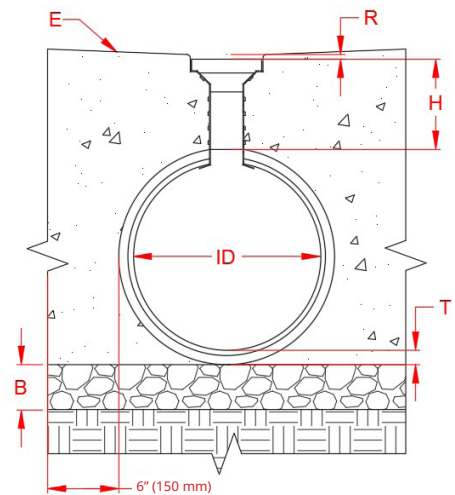
Introduction

- Read this guide to account for additional incidental materials required to complete the installation.
- Detailed burial depth and backfill information should be determined before beginning construction. Duraslot XL installation and backfill conditions will vary depending on the diameter and expected loading application.
- Assembly Guide and Field Cut Instructions can be found within this guide in the following pages.

Installation Guidelines

1. Excavate the pipe trench corresponding to the site plans.
 - If not provided, assume a trench width 12" (300 mm) wider than the pipe diameter to be installed (Figure 1).
 - When calculating excavation depths be sure to account for:
 - o 1/8" (3 mm) slot riser recess (R) below the finished pavement grade (E).
 - o Pipe corrugation height or pipe wall thickness (T), as invert elevations are from the inside diameter (ID) and do not account for wall thickness below the flowline.
 - o Additional depth of any base material (B) required.
2. As required, place base material (B) level in the bottom of the trench. Compact as needed.
3. Place and assemble the Duraslot XL pieces in the bottom of the trench.
 - **Do not remove the metal cap until concrete is completely poured and has cured.**
 - Refer to the "Assembly Guide" in the next section for hardware assembly instructions.
 - Duraslot XL can be cut in the field to the desired length. Refer to the "Field Cut Instructions" on the following pages.
 - A Duraslot XL adapter is required to connect to the outlet pipe or structure, unless connecting to a Nyloplast basin.

Figure 1



4. Brace the Duraslot XL so that it stays secured in place (Figure 2).
 - Stake rebar or wooden stakes in the bottom of trench to cradle the pipe (these will remain in the trench after installation).
 - Screws can be driven through horizontal bracing and into the metal cap to secure the system during installation.
 - Bracing is recommended at least every 5' (1.5 m). However, tall slot heights, large diameter pipe, sandy soils, or other conditions may require more bracing to prevent shifting, floatation, or other unwanted movement.
5. Backfill the trench with the concrete backfill material per the Engineer's design. Contact the Engineer if there are concerns about the concrete design.
 - Backfill material should be placed simultaneously on both sides of the slot to prevent the Duraslot XL from shifting.
 - It is recommend that the backfill be poured in two or more lifts (Figure 3). The first concrete pour should cover the crown of the pipe while leaving the slot exposed. Be careful not to damage the exposed slot before the next pour is complete (i.e., driving over it). Safety cones or similar should be set up to mark the exposed slot.
 - Once the concrete has sufficiently cured, remove the bracing around the slot frame as needed to complete the final pour.
 - More concrete may be needed to reinforce the outlet pipe if installed above the product's minimum burial depth.
6. Backfill any remaining part of the trench to final grade (Figure 4).
 - **Be sure to knife concrete under the slot frame.**
 - The top of the slot should be recessed 1/8" (3 mm) into the finished pavement. A mason's tool can be used to knurl the edges of the slot recess.
7. Once concrete is cured, remove the metal cap from the top of the Duraslot XL. Place the desired grate (G) in the top of the slot frame (Figure 5). Secure the grate in place using bolt (H) through the locking mechanism (I) located between the spacers in the slot. **Do not overtighten bolts.**

Figure 2

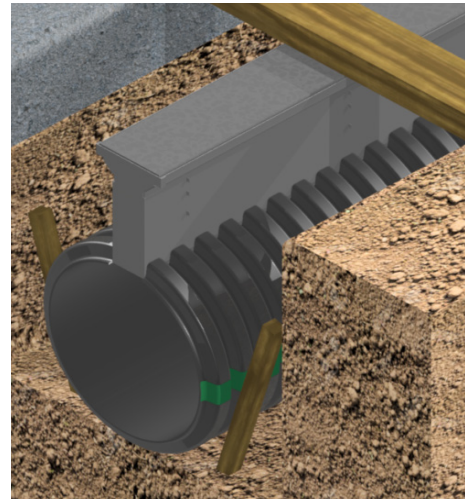


Figure 3

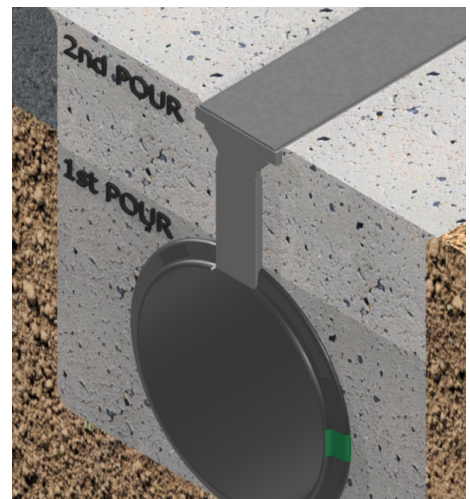
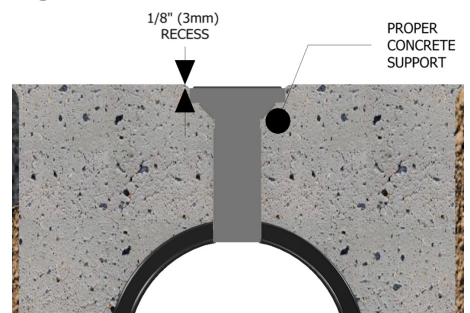


Figure 4



Assembly Guide

- Check inside the Duraslot XL pipe for coupler bands.
- For variable height Duraslot XL each piece has an etched sequential piece number for ease of assembly (i.e., pipe ABC1 connects to pipe ABC2 using coupler band ABC 1,2.)
- Duraslot XL coupler bands, end caps, and adapters will include all hardware required to complete an assembly.

Coupler Assembly:

1. (Figure 6) Place the first section of Duraslot XL pipe (B) into the excavated trench.
2. Wrap coupler band (E) around the end of the Duraslot XL pipe (B).
3. Place the second section of Duraslot XL pipe (B) into the excavated trench.
4. Insert hex head screw set (J) with washers on both sides through the hole in the coupler band (E) and tighten the hex head nut.

Slot Cap Assembly:

At the end of each run of Duraslot XL drains, a slot cap (F) should be installed to close off the end of the slot (Figure 7). These are provided with end caps and adapters and may be used in conjunction with Nyloplast. To assemble, press-fit the slot cap over the end of the slot. Duct tape may be used to help hold in place.

Field Cut Instructions:

1. Determine the length of pipe required and mark where the pipe/slot needs to be cut. **Make sure not to cut through the locking mechanism.**
2. Use a reciprocating saw to cut through the aluminum slot and pipe.
3. Use a cutoff tool as needed to cut the grates to match the new length of trench drain.
4. Attach the slot cap (F) to the open end of the aluminum slot. Proceed with the installation per assembly guidelines above.

Figure 5

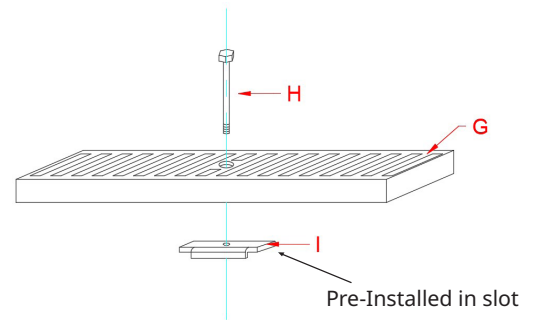


Figure 6

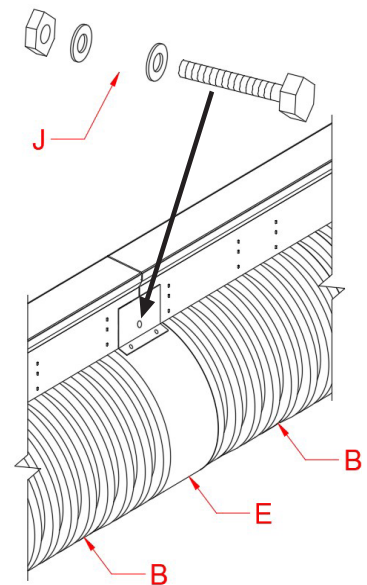
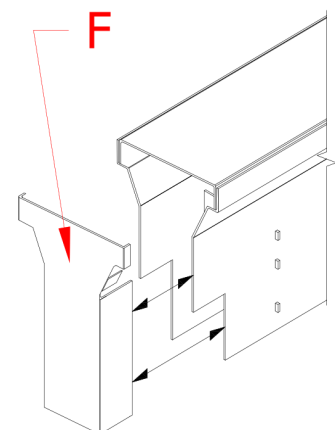
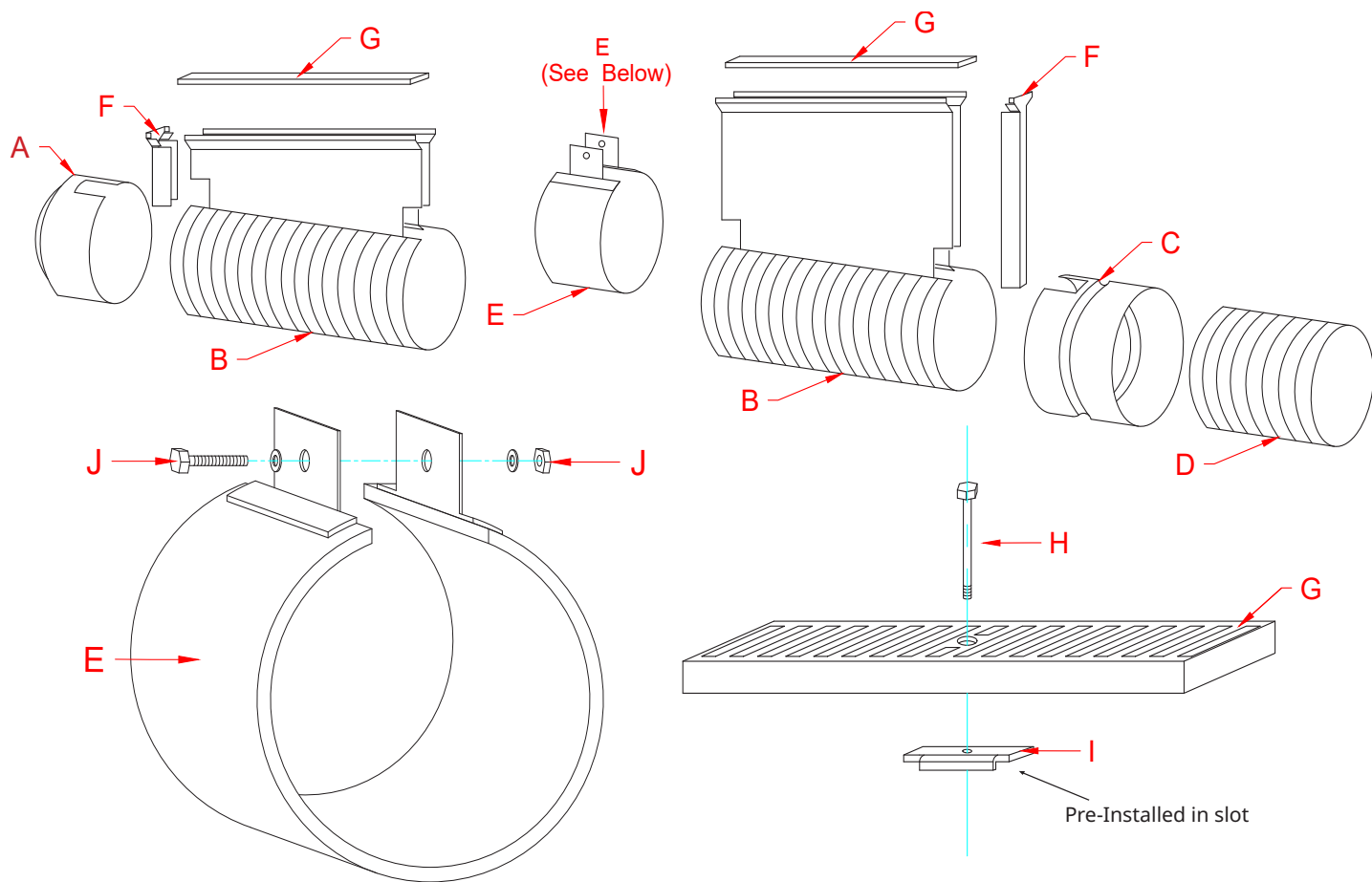


Figure 7





- A. Duraslot XL End Cap
- B. Duraslot XL Pipe
- C. Duraslot XL Adapter
- D. ADS N-12® HDPE or HP Storm Pipe or Plain End Fitting
- E. Duraslot XL Coupler Band
- F. Duraslot XL Slot Cap
- G. 5" (125 mm) Wide Grate (Provided by ADS or Other)
- H. $\frac{5}{16}$ " (8 mm) - 18 Locking Bolt (Bolt Design Varies by Grate Design)
- I. Locking Mechanism with $\frac{5}{16}$ " (8 mm) - 18 Nut
- J. Hex Head Assembly Kit: $\frac{5}{16}$ " (8 mm) Hex Head Screw x 3 $\frac{1}{2}$ " (88 mm) Long w/ (2) Washers & $\frac{5}{16}$ " (8 mm) Hex Nut

Note:

- Slot Height may vary per project
- Each End Cap (A) and Adapter (C) comes with an End Plate (F)
- Coupler Band (E) comes with a Hex Head Assembly Kit (J)

