

Installation Guide

Please Read Carefully

The IntelliDitch™ liner is a lightweight, man-portable system that is easy to with simple tools. The IntelliDitch™ system comes with an Assembly Kit* for each connection. The lining system can be installed in new ditches/channels or can be slip lined and installed in existing ditches/channels that are in need of repair/maintenance.

It is recommended that the following industry standard be utilized as a resource when planning and executing work.

[Natural Resources Conservation Service Standard 428-c, IRRIGATION DITCH LINING, SEMI-RIGID FORMED PLASTIC](#)

[Safety and Health Regulations for Construction \(OSHA\) 29 CFR 1926 Subpart C & Subpart P](#)

Step one:

Shipping and Receiving:

Freight on Board Origin, Freight Prepaid:

- Buyer/purchaser is responsible to inspect all components of delivery to ensure accurate count of liners and assembly kits.
- Inspect liners and packaging for any damage that may have occurred during shipping. If any damage is found, Contact IntelliDitch™ at www.intelliditch.com within 24 hours of receipt.

Step two:

Excavation:

Excavate new or existing ditch to meet the following dimensions.

- Bottom width of ditch/channel = 24" maximum
- Top width of ditch/channel = 82" maximum
- Apron: ensure a minimum of 2' each side of top width is flat, smooth and free of debris for anchoring.
- Depth: Top of ditch bank to flat bedding not to exceed 30" in depth.

Survey:

Ensure that grade line is established from point of diversion to point of discharge. It is highly recommended that a Professional Surveyor complete profile level survey to ensure that the final installation of liner systems can be place on uniform slope from start to end with no low spots that could lead to potential overflowing.

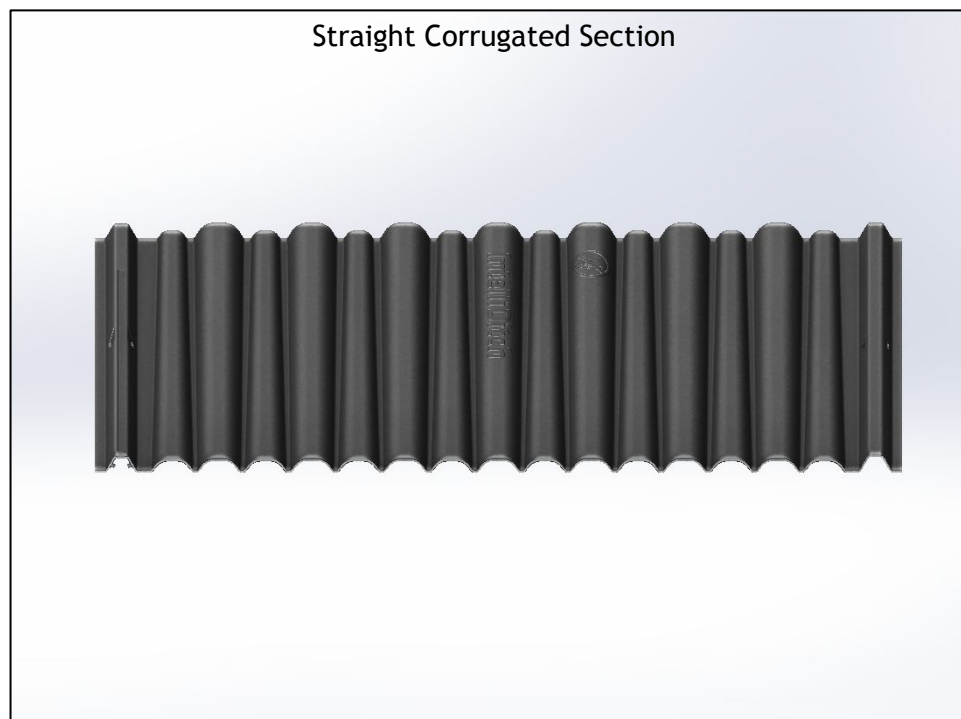
Step three:

Install 8" thick, 24" wide concrete apron at the start and end of existing or new ditch canal

Step four:

Installation of the IntelliDitch™ sections.

- Stage parts alongside ditch/channel
- From survey stationing provided in profile survey, start installation of sections at the end or downstream of the ditch/channel
- Place the first section with the female end of section terminating on the concrete apron. Flow arrow will be pointed downstream.
- Secure IntelliDitch™ Liner to concrete apron with ram set tool and pins
- Place thick Silicone bead on edge of liner and concrete to prevent water from flowing under the liner section.



Note: Silicone, Ramset Tool and Pins are **NOT INCLUDED** in assembly kits and are to be purchased by contractor or owner.

Recommended:

[Henry 10.1 oz. 884 Tropi-Cool 100% Silicone Roof Sealant-HE884004 - The Home Depot](#)

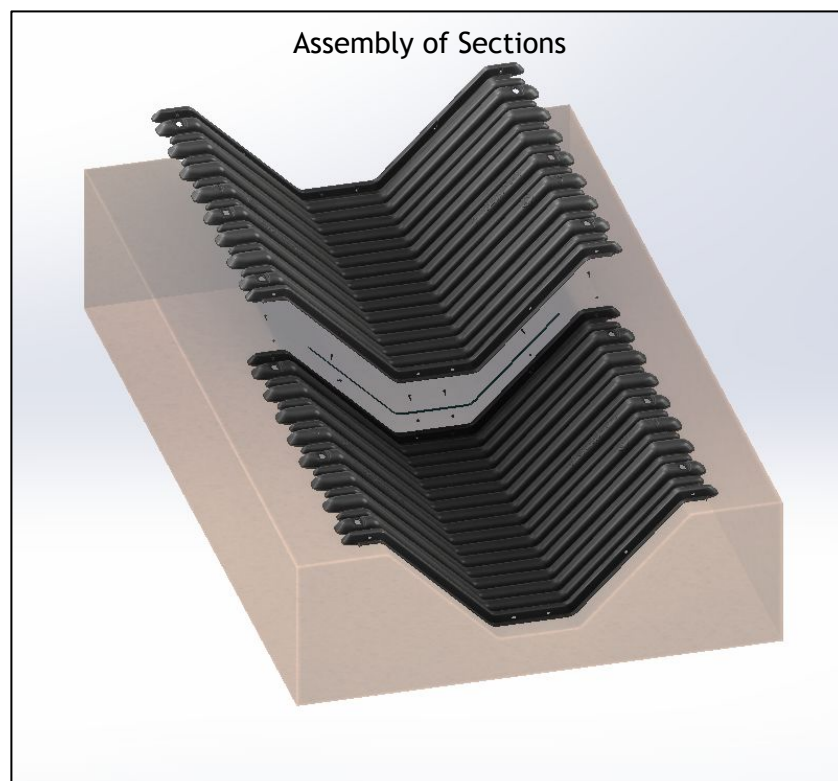
[Ramset MasterShot 0.22 Caliber Powder Actuated Tool-40088 - The Home Depot](#)

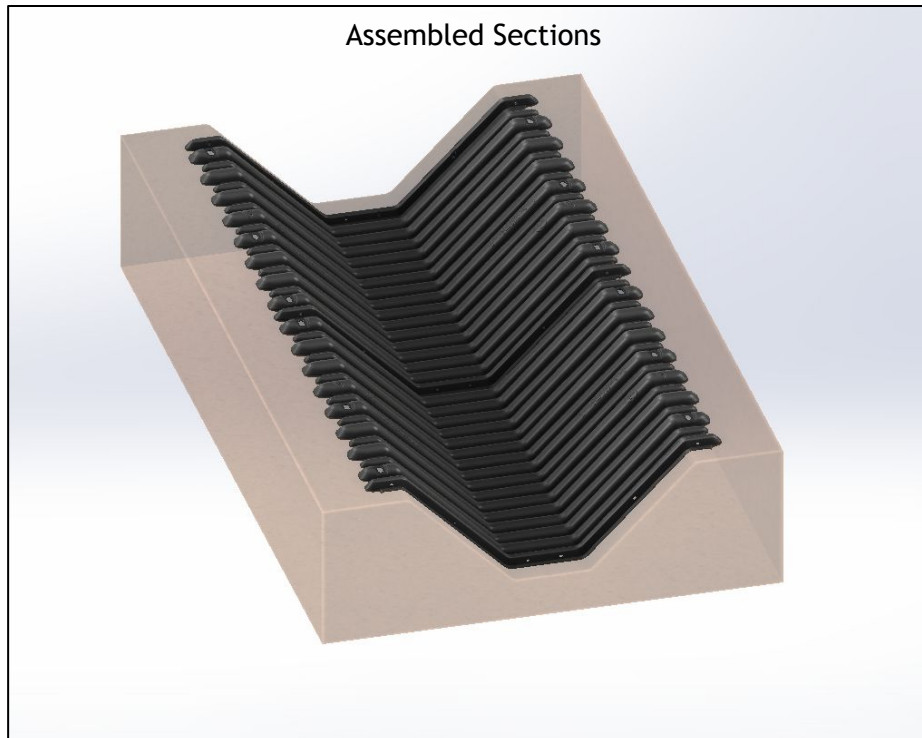
Recommended Ramset Pins:

[Ramset 1 in. Drive Pins with Washers \(100-Pack\)-00797 - The Home Depot](#)

Step five:

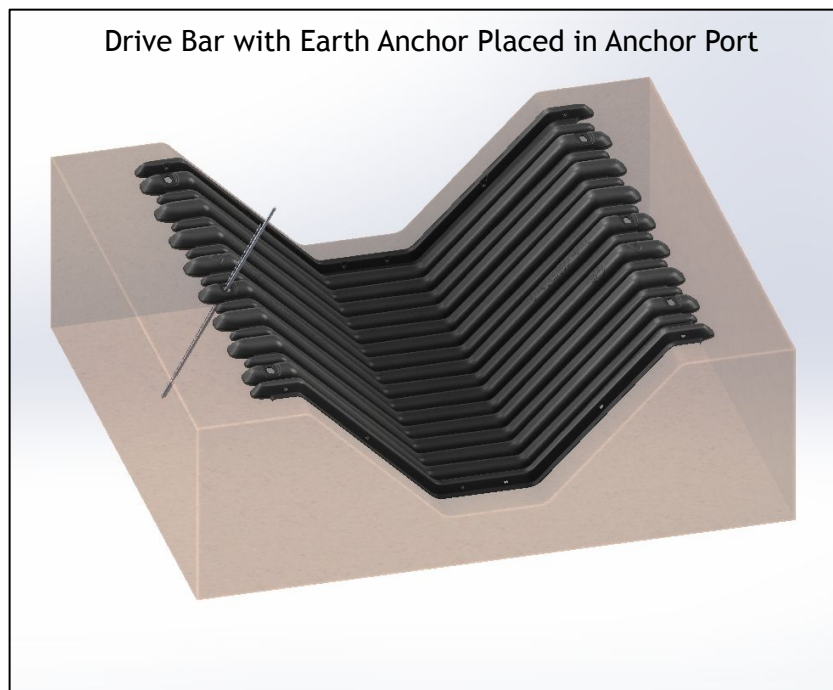
- Once end piece is secure continue to install liners (straight or outlet) sections by placing the hydrophilic gasket on the indentation of the female end corrugation of each section that is facing upstream thereafter.
- Place the next section with the male end downstream on top of the female connection having the hydrophilic gasket and secure mechanical connection with the (12) twelve 5/16" dia. bolts at the bolt ports either side of corrugation. Do not overtighten.
- Once all liners have been installed secure section to the upstream concrete apron and ramset in place.
- Place thick Silicone bead on edge of liner and concrete to prevent water from flowing under the liner section.



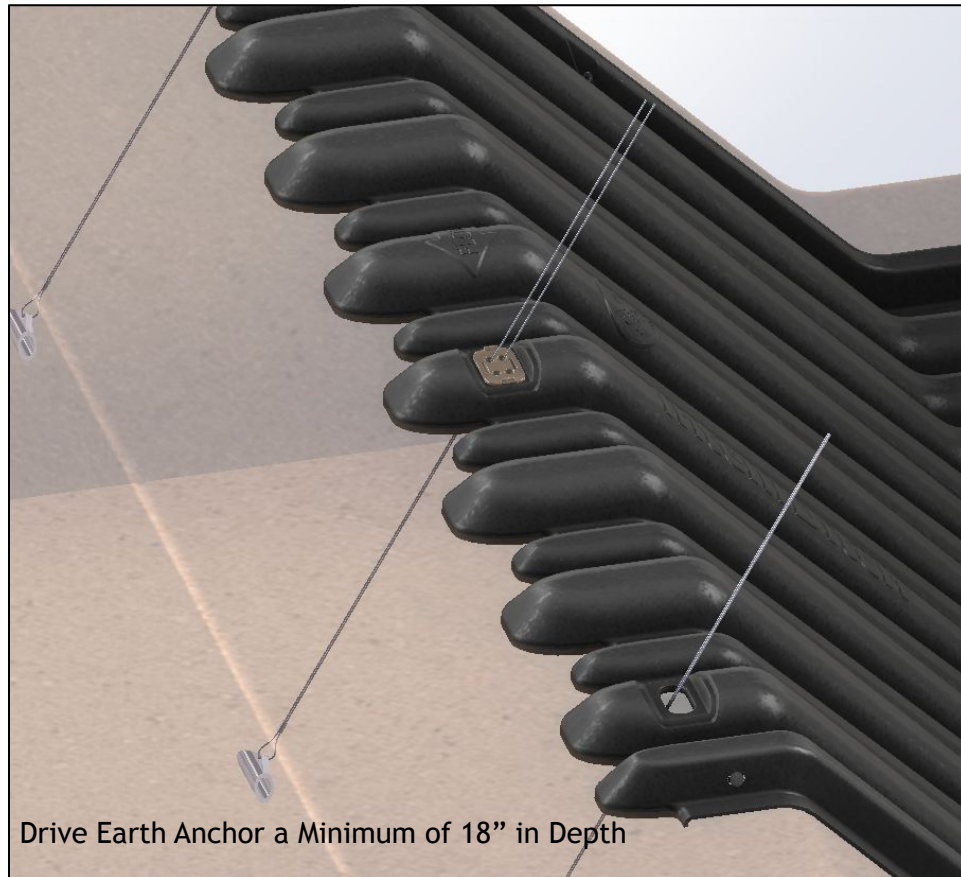


Step six:

- Anchor liner to the ground
- Place an earth anchor on each end and both sides of liner.
- Insert driving rod into earth anchor. Then place anchor and rod into the liner anchor port hole.

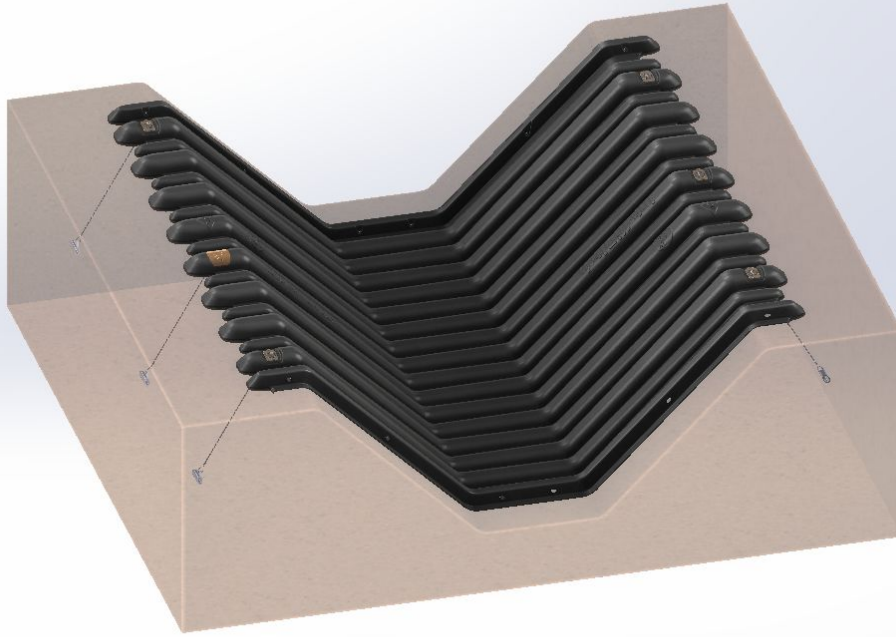


- Drive earth anchor with demolition hammer drill while holding both (2) two 3/32" stainless steel cable against driving rod.
- Drive earth anchor a minimum of 18" into the ground. Pull up both 3/32" cables to set earth anchor until tight and anchor is secure and not pulling up through the earth.

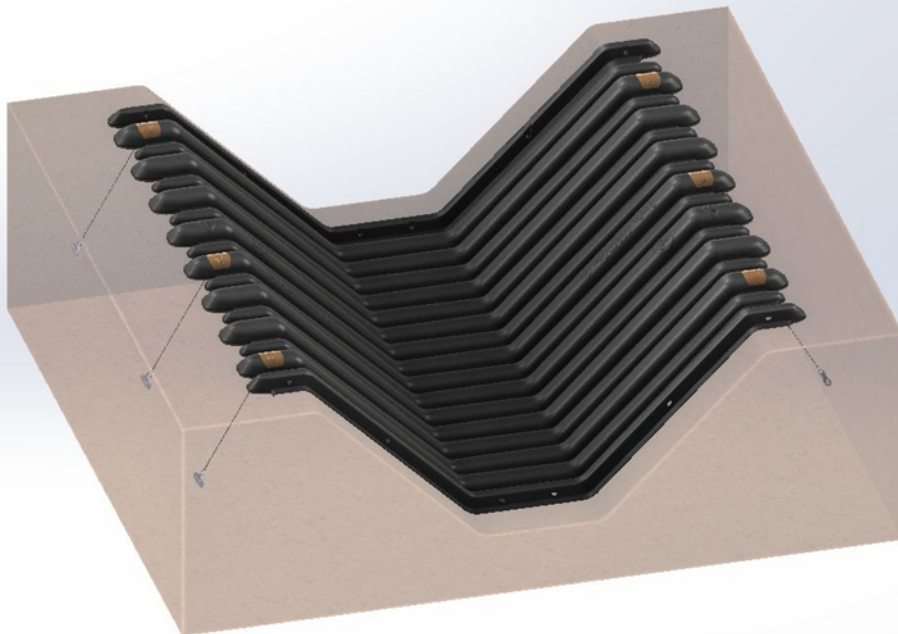


- Pull up to set earth anchor and insert 3/32" wires through anchor plate securing with metal crimp
- Insert both wires into the metal crimp and slide until the crimp is pushed firmly against the anchor port plate.
- Tuck both wires into the unused holes in the anchor plate so that the wires are hidden in the anchor port.
- Place cap over anchor plate and snap into place.

Anchor each section at each end. Middle anchor is optional.



Corrugated Section anchored to the ground.



Assembly Kit Table

Assembly Kit - One Kit per Connection	
Assembly Piece	QTY.
Mechanical Connection Pan Head Bolts 5/16" x1- 1/2" Stainless Steel	12
Gasket (Optional)	1
Anchor Plate and Cap	6
Earth Anchors w/ Crimp	4