

This DalFLEX Lane Line Anchor certified by IAPMO R&T against NSF/ANSI/CAN Standard 50 for Aquatic Facilities. For indoor and outdoor use. [www.IAPMO.com](http://www.IAPMO.com)

# DALDORADO



## **DalFLEX LANE LINE ANCHOR SYSTEM**

### **INSTALLATION INSTRUCTIONS**

**“PATENT PENDING 63/438,739”**

**DalFLEX 10”, 12”, 14”, 16”**

**FOR INDOOR AND OUTDOOR USE**

**CERTIFIED by IAPMO R&T to ANSI/NSF/CAN-50 2025**

**40% OPEN AREA of unrestricted flow through grating**

**Read carefully BEFORE installation**

*Installation Note: Modifying or altering DalFLEX lane line anchor system in any way without the written consent of Daldorado LLC will void the manufacturer’s 10-year warranty.*

**Product Numbers: DalFLEX-LLA-10-WT, DalFLEX-LLA-12-WT, DalFLEX-LLA-14-WT, DalFLEX-LLA-16-WT**

**Maximum Pull Load: 1,200lbs (simulations based on min. 2500 psi concrete pour)**

#### **DalFLEX: Daldorado Lane Line Anchor Unit**

DalFLEX is supplied in either 10”, 12”, 14” or 16” lengths and is 2” wide already assembled with base unit, opening grate hatch and silicon covered flexible extension ready to install.

DalFLEX is to be used in conjunction with the Daldorado DPAS perimeter grating on a covered gutter system;

**OR**

DalFLEX can be used independently on a deep trough cantilever gutter system across an open gutter.

#### **Layout and positioning**

**NOTE: When DalFLEX is being used in conjunction with Daldorado DPAS parallel grating the DalFLEX must be installed first before the DPAS perimeter grating installation.**

Always begin the layout and positioning of DalFLEX lane line anchor unit according to the design documents and following the lane line configurations for the intended use; either swimming lane lines or water polo field lane lines.

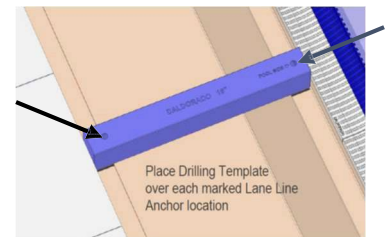
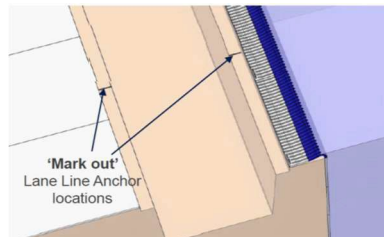
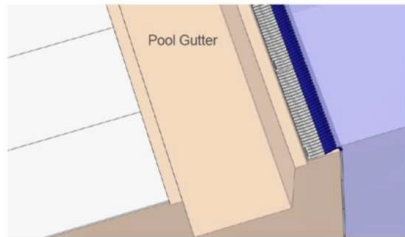
Measure or survey each location for the swimming lane lines, per the Design Documents, beginning in one corner and moving clockwise along the width or length of the pool on one side. On the opposite side measure or survey the exact opposite location of the swimming lane lines, per the Design Documents. Mark these locations on both sides of the gutter/adjacent concrete on both sides of the pool.

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Now at each of these measured locations where the DalFLEX lane line anchor unit is to be installed, beginning at the first location, traveling clockwise, **place and center** the pool side “Position Marking Notch” on each end of the **Drilling Template** at the accurately surveyed lane line locations as marked on both sides of the gutter/adjacent concrete. See Fig 1, 2 & 3 below for correct positioning and marking. (Note: There is no drill guide 10” – use the unit itself)

**Fig 1, 2 - DalFLEX Location Marking, center line.**

**Fig 3 - Setting Drilling Template on center line marking**



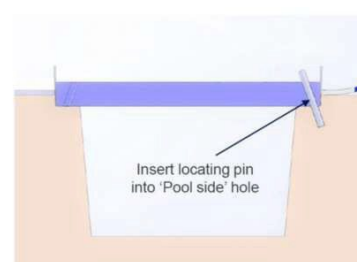
Drilling Template position marking notches are to align with carefully marked locations on each side of gutter/adjacent concrete

Using a conventional Drill with a Masonry Drill Bit (*NOT a hammer DRILL*) carefully insert a 10mm drill bit into the Drilling Template on the pool side, and while still maintaining the Drilling Template in position, drill a hole 50mm (2”) deep into the concrete. Vacuum out concrete dust from inside the hole. Insert the temporary 10mm locating pin through the Drilling Template into the first drilled hole to maintain its position. Confirm the correct alignment of the Drilling Template again before carefully drilling the non-pool side hole in the same manner. Vacuum out both the first and second holes to ensure they are free from concrete dust prior to installing the drop in anchors.

**NOTE:** Both front and rear drill hole and anchoring locations will be angled towards the thickness of concrete, as guided by the Drilling Template.

**Fig 4 - Drilling using Drilling Template**

**Fig 5 - Positioning of temporary Locating Pin**



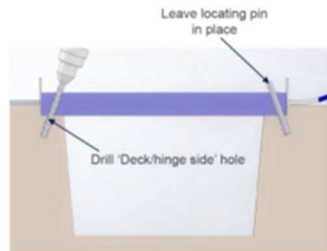
**Drilling of anchor and bolt locations without the use of the Drill Template will void the warranty of the product and the manufacture will take no responsibility for any installation issues, product performance or damage. (Except for 10”)**

**NOTE:** Drill anchor holes using manufacturers supplied Drilling Template guide. Do **NOT** use a hammer drill or other items, **ONLY** use a Conventional Drill with a 10mm Masonry Drill Bit.

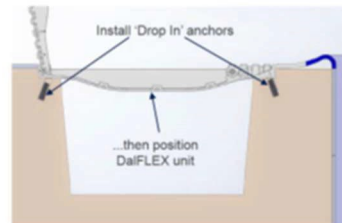
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**NOTE:** After drilling all holes, make sure to vacuum out each hole to ensure both are free from concrete dust before inserting the drop in anchors both front and back.

**Fig 6 - Drilling using Drilling Template**

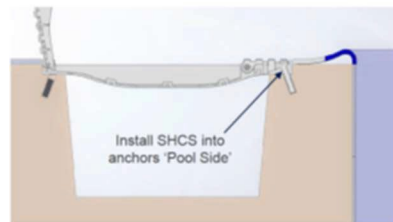


**Fig 7 – Installing Drop-in Anchors**



Following completion of the installation of the two drop-in bolt anchors (pool side and hinge side), both being secured in place with concrete anchor adhesive, both will be angled in as guided by Drilling Template and per Unit design. Tap set each drop-in anchor in place with anchor setting tool, center punch or nail to secure in place. Now align and lay in place the DalFLEX lane line anchor base unit, open the DalFLEX grate hatch, lubricate and insert the 316 SS SHCS (socket head cap screws) into the front and rear holes of the Dal FLEX unit.

**Fig 8 - DalFLEX insert SHCS into DalFLEX pool side**

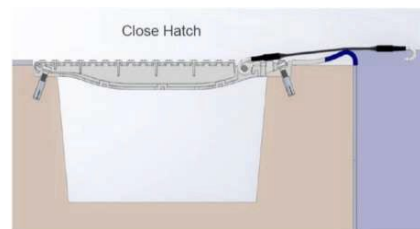
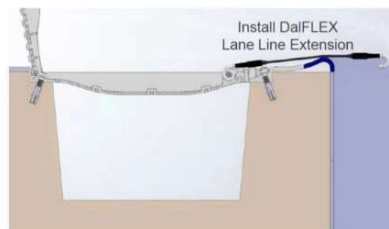


**Fig 9 – insert SHCS into DalFLEX hinge side**



Repeat using the same process at each of the DalFLEX lane line anchor locations around the perimeter of the pool moving in a clockwise direction.

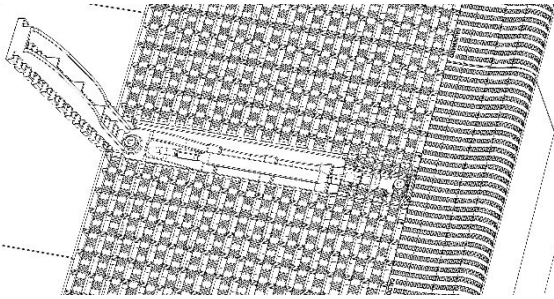
**Fig 10 & 11 - DalFLEX Lane Line Extension Installation**



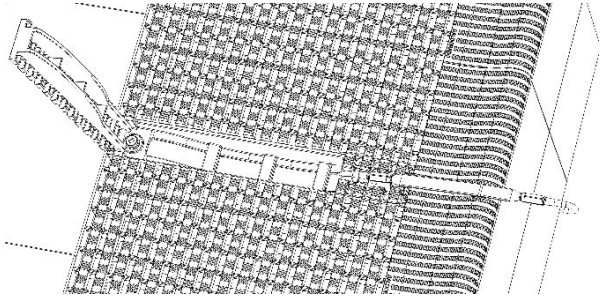
When installing the Lane Line Extension into the base of the DalFLEX unit ensure that the extension is installed correctly. The 'more closed' hook attaches to the anchor base unit and when the extension is in use (extended) the conventional 'more open' hook end will face downwards towards the water for the 'S' hook of the swimming lane line to connect into.

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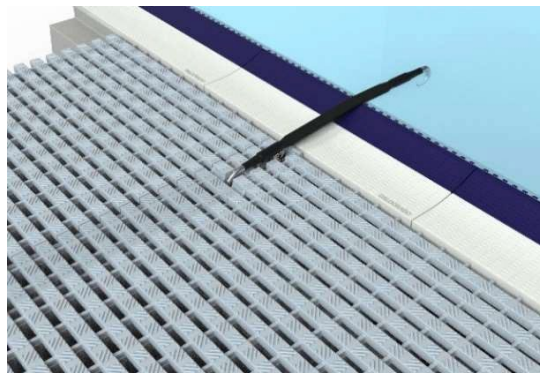
**Fig12 - DalFlex open with stowed extension**



**Fig 13 - DalFlex open with extension ready for use**



**Fig 14 - DalFlex in-use with extension ready for swimming lane rope to connect**



## **10" Lane Line Anchor Install – Concrete**

1. Follow the directions for installation of the 12", 14" and 16" except for there is no drill guide to use. Use the 10" Lane Line Anchor itself as the drill guide as the holes will be vertical and not angled.
2. Using the same 10mm masonry drill bit, drill the holes to a depth of 3-3/8" – vacuum out holes to clear of and dust.
3. Use a concrete anchor adhesive in the hole and insert two drop-in anchors. Tap set anchors with anchor setting tool, center punch or nail to hold in place.
4. Using supplied 316 SS 8mm x 3-1/8" machine screw in front and rear holes.

## **10" Lane Line Anchor Install – Stainless Steel Gutter**

1. Follow the directions for layout of the 12", 14" and 16". Use the 10" Lane Line Anchor as a drill guide to drill 8mm holes
2. Use supplied 316 SS bolts and nuts to secure in place.

If using DalFLEX in conjunction with DPAS parallel straight perimeter grating, refer to and follow the Daldorado DPAS Installation Instructions by commencing installation at the same corner of the pool and moving in a clockwise direction. When abutting the DPAS next to the DalFLEX lane line anchor unit, scribe and cut the adjacent DPAS grate to fit snugly against the DalFLEX lane line anchor unit at each location.

## **Cleaning and Maintenance:**

To keep the DalFLEX lane line anchor unit looking new and maintaining correct operation, the unit must be maintained free of debris at all times especially surrounding the hatch hinge and closing areas. A mild

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detergent with water and a brush will keep stains from occurring on the DalFLEX hatch grate. **DO NOT** acid wash with harsh chemicals.

Regularly inspect the flexible extensions secured to the DalFLEX lane line anchor base and stowed beneath the DalFLEX lane line anchor hatch when not in use. Ensure that the DalFLEX lane line anchor hatch is properly closed at all times to avoid any possible injuries.

**Fixing Hardware:**

Only the 316 SS anchors and socket head cap screws supplied by Daldorado with each DalFLEX lane line anchor unit are to be used, nothing else is acceptable and will void all warranty and certifications for SAFE use of DalFLEX.

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