



## PARALLEL GRATE INSTALLATION INSTRUCTIONS

**DPAS 4", 10", 12", 14" AND 16" WIDE**

**DPAR 4" 10", 12", 14" AND 16" WIDE**

**FOR INDOOR AND OUTDOOR USE**

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

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

**Read carefully BEFORE installation**

*Installation Note: Modifying or altering grate without the written consent of Daldorado LLC will void the manufacturer's 10-year warranty.*

**Product Numbers: DPAS-04, DPAS-10, DPAS-12, DPAS-14, DPAS-16  
DPAR-04, DPAR-10, DPAR-12, DPAR-14, DPAR-16**

**Maximum Load:**

- DPAS-04 – 2,608lbs
- DPAS-10 – 4,978lbs
- DPAS-12 – 5,685lbs
- DPAS-14 – 6,047lbs
- DPAS-16 – 4,361lbs
  
- DPAR-04 – 2,608lbs
- DPAR-10 – 3,124lbs
- DPAR-12 – 3,540lbs
- DPAR-14 – 4,204lbs
- DPAR-16 – 2,608lbs

**DPAS: DALDORADO PARALLEL STRAIGHT GRATE**

Grate is supplied in 1-foot sections ready to install. Always begin installation at a corner, connecting the initial 1-foot section to the Daldorado factory fabricated reinforced corner working clockwise around the perimeter of the pool from corner to corner. Do not attempt to meet in the middle. **Fig-1**

**IMPORTANT:** The horizontal ledge (or lip) **must be level and even on both the vertical and horizontal directions.** For best results in formed concrete gutters use, **Daldorado PVC Curb Angle.** Minimum ledge (lip) is to be 1.25" wide and 1" in depth from deck surface finish. (1-3/16" if using curb angle)

**NOTE:** If grate is to be sloped, ledge (lip) must have a corresponding slope across the gutter opening.

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Install first Daldorado factory fabricated corner into the gutter, or CAPSHURE deck drain base, with the connector pins going in the clockwise direction. Fasten down with Daldorado supplied 316-SS clips and screws and plastic anchor. **Fig-3**

**NOTE:** All corners must be fabricated by Daldorado LLC; If not fabricated by Daldorado, the manufacturer's 10-year warranty is voided. For any corner that is not exactly 45 or 90-degree, Daldorado requires a rigid-material (*plywood, masonry board preferred; foam board, hard board only when necessary*) template or a Special-Corner-Order-Form (when applicable), for fabrication. Cardboard and other bendable materials are not acceptable. Templates must be cut to fit the corner in the same manner and shape as the grate; templates must be cut accurately and without jagged edges. Templates must be accompanied with a numbered pool or deck plan, whichever is applicable. Plan corner location map showing the direction of the grate connector pins and marked with the number corresponding with the pool plan or deck plan. The pool side, the deck side, the top, and the bottom, to ensure the fabricated corner is properly oriented.

Begin laying the grate into the gutter, or CAPSHURE deck drain base, starting at the corner. DO NOT hammer the grate sections into each other and leave a small gap for thermal expansion between each section. The grate is designed to fit together "hand tight". Fastening is only required at 10-foot intervals. Design Professionals and/or Building Inspectors may require more frequent fastening per design specifications. The Daldoardo grate is designed to ANSI/NSF/CAN-50 2020 and EN 13451-1 2020 for Finger and Limb entrapment and strength thus ensuring that the grate requires a tool to lift out. **Fig-2**

When installing the grate, a 3/16" expansion joint should be provided at each corner and approximately every 4 to 6-feet thereafter to allow for thermal expansion and contraction due to weather temperature fluctuations. If a gutter drop-out access point is required **Fig-3**, calculate position ahead of installation, as this should be used as an ideal position to place an expansion joint. When a chosen position for either an access section or for an additional expansion joint, cut off the male pins cleanly from the side of the removable section of grate. Leave a 1/8" gap before installing the next section. Fasten down both sides of the access section to eliminate possible tampering. To access under the grate, remove the fasteners and using tools, lift out the section of grate. **Fig-4 & Fig-5**

**Parallel Radius Grates** are supplied as a 2-part system; (1) radial supports and (2) curved strips. The curved strips are snapped into the radial supports **after** the supports are installed. Fig-6. The supporting ledge for the grates must **not** be less than 1" (25mm). A width of either 1.25" (32mm) or 1.5" (38mm) in case of 16" wide is preferred for maximum strength and reduced deflection.

Beginning at one of the corners, or at a chosen location in a full radius pool, set the radial supports into the gutter or CAPSHURE deck drain base. There are two sets of connector pins and cones that interlock during installation. When a radius is used, the inside connector pins and cones should be installed with a flush fit whereas the outer cones should have a slight gap. When the radial supports are installed, they will form to the actual radius when placed into the gutter. Do not hammer the supports together as you must allow for thermal expansion.

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**ATTENTION: For INSIDE RADIUS of 15 feet (4500 mm) or less.** The **outside** side cones should have a maximum gap of 1/8" (4mm). When the support at either end is less than 1.25" (32 mm) the **outside** cone gap must close to 5/64" (2mm) at a maximum. This can be achieved using a grinder belt, by shaving the inside cone to create a snug fit on the internal cones and the reduced gap on the external cones.

**On tighter radii**, such as 10 foot (3000 mm), 7 foot (2000 mm) etc., it is possible that you will need to shave more material off the inside cones to acquire the desired radius whilst ensuring the spacing between them is less than 1/8" (4mm). When the radial supports are in place, use 3M Scotch Weld Adhesive to bond them together and avoid movement under traffic.

Depending on the size of the radius, the radial supports will need to be fastened down every 12" (305mm) and alternating from deck side to pool side. For a radius less than 15 feet (approx. 4500mm), fasten down every 4 radial supports on the outside as well. Any radii less than 5'-0" (900mm) will require fabrication by Daldorado. A 1'-0" (300mm) inside radii is the tightest radius that can be fabricated.

The curve strips come in 24" (610mm) lengths and are joined using the male and female connectors. Assemble without force, 3-4 of the curved strips and snap them into place. Leave a 3/16" gap every 4-ft for thermal expansion. Ensure they are snapped in completely. If not, you will see a section of the curved strip raised. You do not have to stagger the strips joins as the radial supports will keep the strips in place. There is no need for adhesives unless the radius is less than 7 feet (2000mm).

### **Cutting the Grate Section:**

During installation, when arriving at a corner, a straight to radius/radius to straight transition, or a gutter or CAPSHURE deck drain base ending, place a strip of masking tape across the grate and mark to the required length and angle. Using a circular saw with a fine-tooth blade (40 tooth minimum) at full speed, slowly cut the grate along the line. Always wear safety glasses during this process to avoid eye damage. When finished, buff any sharp edges with a fine sandpaper and install grate.

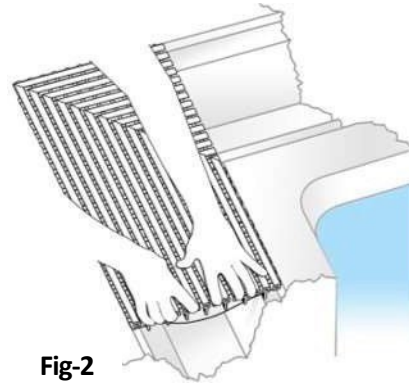
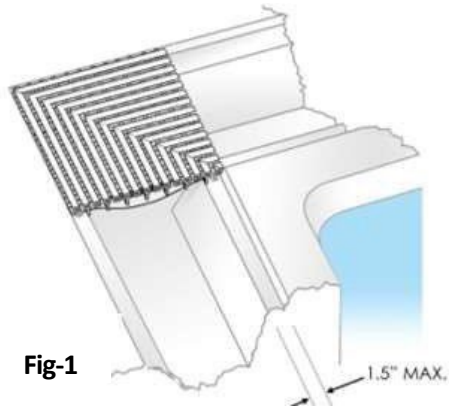
### **Cleaning and Maintenance:**

To keep the grate looking new, the grate must be maintained free of debris. A mild detergent with water and a brush will keep stains from occurring. DO NOT acid wash with harsh chemicals.

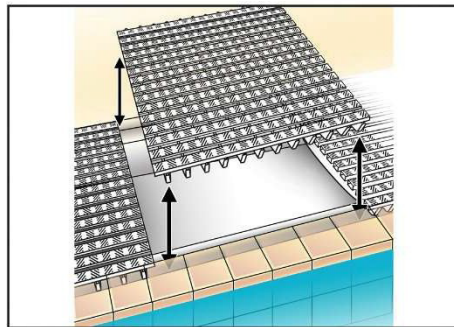
Regularly inspect the fasteners to ensure that the grate is properly secured to avoid any possible injuries.

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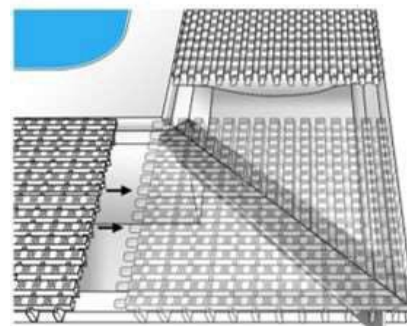
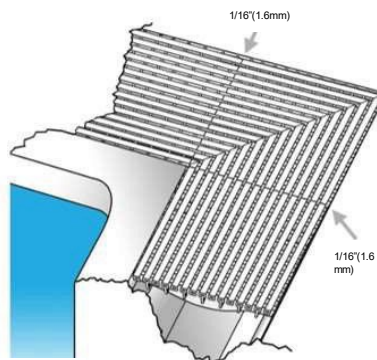
**DPAR & DPAS INSTALLATION:** Begin installation at a corner.



**ACCESS POINT & EXPANSION JOINTS:**



**EXPANSION JOINTS AND CORNERS:**



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## DPAR RADIUS SUPPORTS:

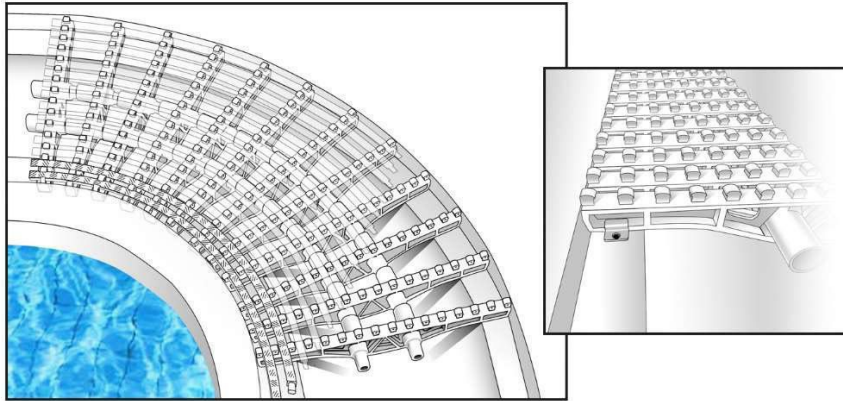
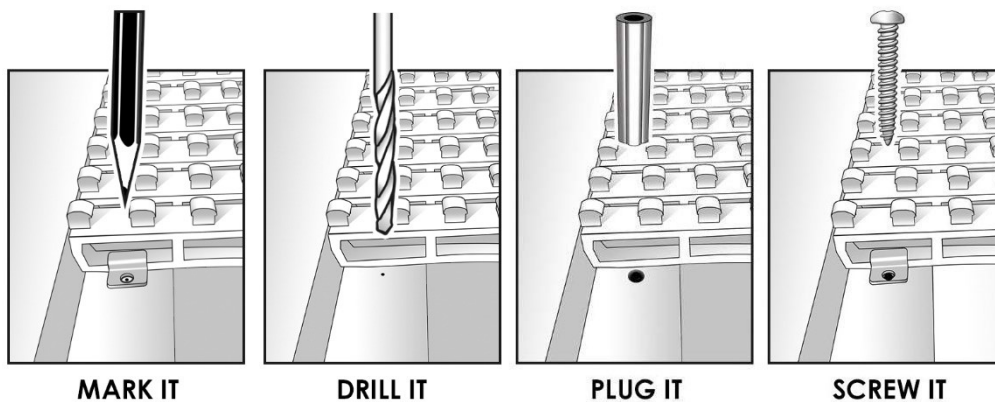


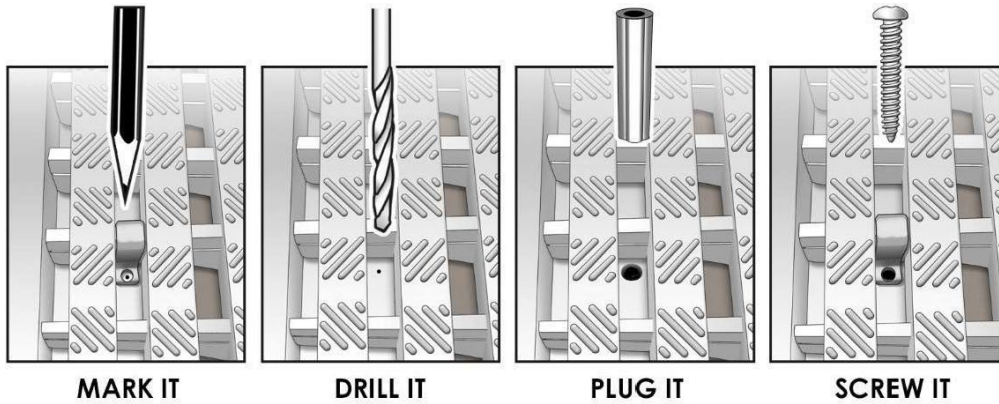
Fig-6

**DPAR FIXING:** Fix radial supports using the screws and clips provided by Daldorado prior to inserting the radial strips of grating.



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**DPAS FIXING:** Fix grate sections using the screws and clips provided by Daldorado.



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