

## WARNING / ATTENTION/ AVISO

**STOP!****READ  
FIRST****QUIET-FLOW® Maintenance &  
INSTALLATION INSTRUCTIONS**

6" to 18" STRAIGHT SECTIONS &amp; Parallel RADIUS Grating

Read Carefully BEFORE Installation  
(For Radius Sections, please go to page 4)

## ITEMS SUPPLIED BY NEPTUNE BENSON

- Parallel grate sections one foot long - to the required width
- Any mitered or special corners ordered (Template kits provided for special corners)
- Installation Instructions

## ITEMS SOLD SEPARATELY

- Stainless steel hold down clips, anchors, and stainless steel fasteners

## ITEMS SUPPLIED BY CONTRACTOR

- Hammer Drill with masonry bit
- Circular saw with fine tooth blade
- Clamps for holding grate firm for cutting
- Special #2 square tip screw bit

**Installation Note:****Modifying or altering grating without written direction from the manufacturer WILL void the warranty**

Important:

The stainless steel clips used for fastening also draw together the sections of grate. Fasteners should be used to keep the grates stable at corners, gutter access sections, expansion joints or straight to radius joints where the male/female interlock has been removed.

The horizontal ledge (or lip) the grate rests on must be level and even on both the vertical and horizontal directions. For best results, use Lawson PVC Curb Angle. Minimum ledge (lip) is to be 1.5" bearing surface x 1" deep.

NOTE!

If grating is sloped, ledge (lip) must also be sloped.

## STRAIGHT SECTION INSTALLATION INSTRUCTIONS

1. With outdoor installations, a 1/4" expansion joint should be allowed at each corner, and approximately every 15 feet thereafter for thermal expansion and contraction.
2. If you require access sections to the gutter for maintenance reasons, calculate the approximate location and number in advance.
3. As a general rule, one should be allowed in the center of each side of the pool. However, you may desire to have more access sections.
4. Commence with laying the corners of the pool, then the 1 foot sections in one direction, locking into each other. Do not glue straight sections. However, radial grating bars are to be glued with Loctite 406.
5. For concrete gutters, fasten down the grate every 10 feet as shown in **Figure 1**, or as specifications require. Stainless steel gutters require a more aggressive fastening schedule provided by the gutter manufacturer.

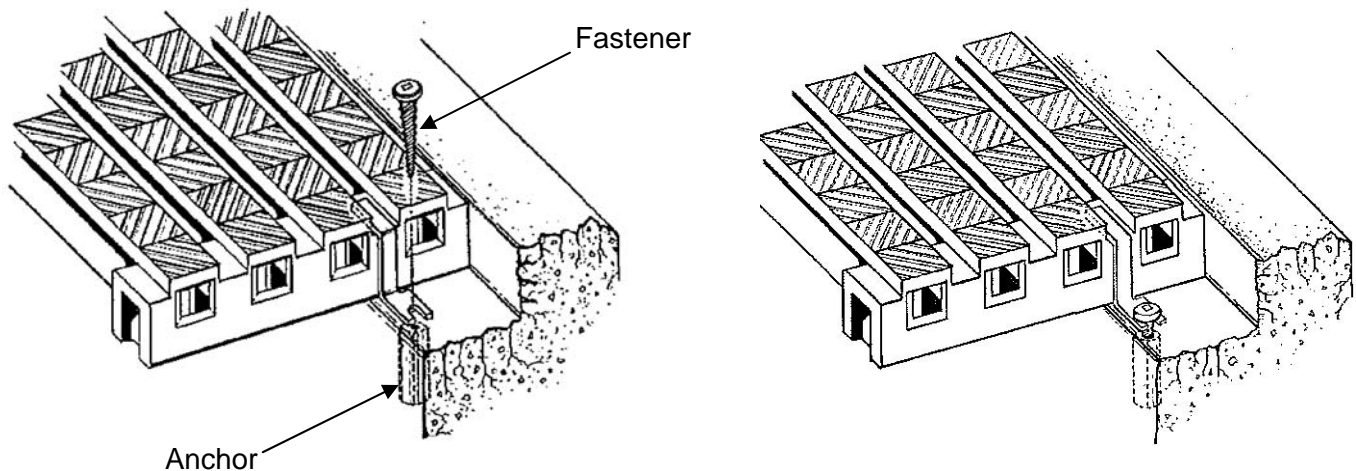


FIGURE 1

6. When you reach the point chosen for an access section or expansion joint, cut off the male connectors cleanly from either side of removable grate section for access (**Figure 2**). Leave a 3/8" gap for expansion before continuing with the next piece. An access section can serve as an expansion joint as well.

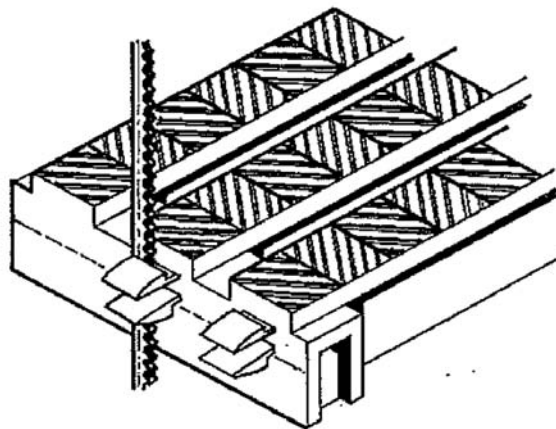
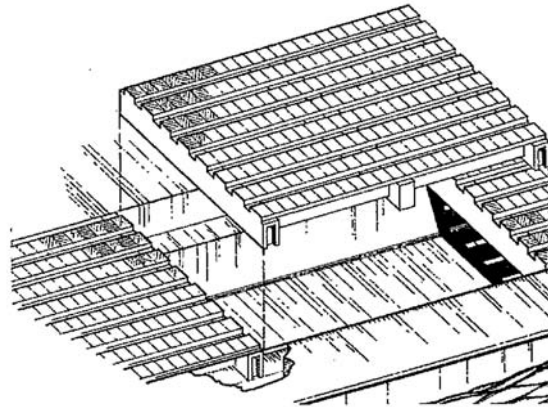


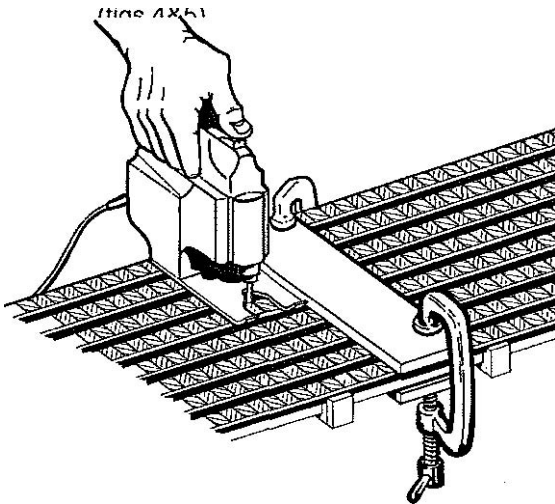
FIGURE 2

- Fasten both sides at each end of the access section. For access, remove the fasteners and lift out the section of grate (**Figure 3**).

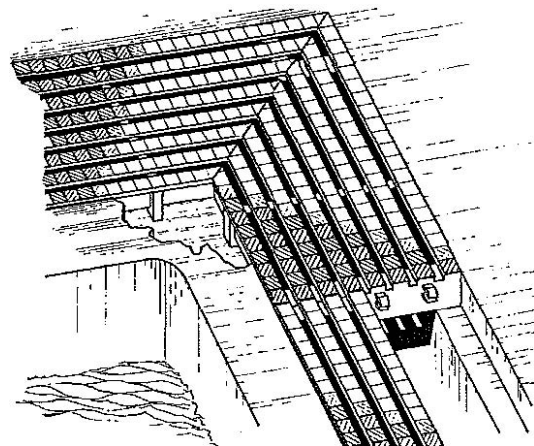


**FIGURE 3**

- When You reach a corner, square or angled gutter ending, or the commencement of a radius, clamp the grate, scribe, and cut off the required amount so that it fits up against the corner or ending.

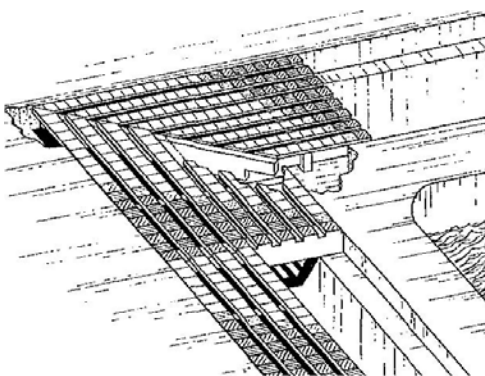


**FIGURE 4**



**FIGURE 5**

- If mitered corners are not used, install the grate on a butt-end basis. In this instance, a stainless steel or PVC cross support is to be fitted into the inside of the gutter to support the grate at the change of direction.



**FIGURE 6**

**IMPORTANT**

Use the fasteners on all sections that do not have the male/female parts in use (corners, access points, expansion joints, etc.).

RADIUS SECTIONS INSTALLATION INSTRUCTIONS

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1. Rim-flow gutter must be formed to the correct dimensions set by manufacturer, and as specified through consultant's drawings (**grating support ledge must be 1" deep x 1 1/2" wide**). **The ledge must provide full support and contact for the cross support to rest on. Gutter opening to be 1/8" wider than grating.**
2. Start by securing the corners and **working in one direction only. Corners must be supplied by Neptune-Benson, or warranty will be voided.** On a complete radius pool, start at an expansion joint. Because of thermal expansion on outdoor pools, a **1/4" expansion joint is required every 15 ft, and at corners.**
- 3a. For radius sizes 6" to 11", locate the cross supports at the start of expansion joints and install every 6" around the perimeter of the pool. The 6" spacing between supports cannot be exceeded and will void warranty if not followed. Drill the required hole in the gutter's ledge for the anchor/fastener. Only install one anchor per cross support needed, alternating from pool side to deck side for radial systems 11" and smaller. Do not over-tighten anchors to allow for thermal expansion.
- 3b. For radius sizes 12" and larger, locate the cross supports at the start of expansion joints, and install every 4" around perimeter of pool. The 4" spacing between supports cannot be exceeded and will void warranty if not followed. Drill the required hole in the gutter's ledge to install the anchor/fastener. Anchor both ends of each cross support for radial systems that are 12" and larger. Do not over-tighten anchors to allow for thermal expansion.
4. Radial curve strip grating bars are 24" in length and are joined by inserting the male and female ends together. A small amount of Loctite 406 instant adhesive is required at each grating bar intersection. Glue (5) pieces together and let dry. Join together enough sections to reach the next expansion joint (20 lf) or corner and install one strip at a time. **For systems with radii smaller than 5', FACTORY BENDING OF THE RADIAL CURVE STRIP GRATING BARS IS REQUIRED. NOTE: 3' IS THE MINIMUM RADIUS.**
5. **Grating bar splices MUST be staggered.** Starting at an expansion joint or corner, snap in the first strip of grating bars to the next joint or corner. Before installing the second strip of grating bars, cut off 1 foot from the first bar to assure splices are staggered. Continue cutting every other row accordingly for the width of the grating. The cross supports will keep the bars securely in place. No adhesion is required.
6. To create an expansion joint, measure out 15 feet and cut the grating bar strips square with the gutter and within 1" of a cross support. Install an additional cross support 1" away and start installing the strips of grating bars as shown above to maintain the staggered splices. When ending into a pre-made corner, install a cross support within 1" of the corner, plus 1/4" for expansion and contraction.
7. PVC grating requires minimal maintenance. Recommended cleaning with a medium bristle brush every 6 months. Along with cleaning and maintenance, periodic checking of fasteners is recommended.

**NOTE:**

**Any corner that is not a true 90 or 45 degree will require a Template Kit. Kits are issued by the manufacturer completed and returned by the customer for factory fabrication.**