

# RenoSys® Corporation

## Gutter #DTRO Specifications

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### Gutter Model # DTRO

#### Section 13100 Perimeter Recirculation Gutter System

##### Part I - General

###### Prologue:

.01 It is the intent of these specifications to describe a swimming pool recirculation system constructed of formed stainless steel components anchored to a pool wall.

.02 This specification includes but is not limited to the following components:

- Return trough
- Supply chamber
- Gutter boxes
- Automatic surge control weirs
- Jet wash fittings
- Surface agitators
- Rope hooks
- Anchors
- Continuous integral deck drain
- Grating
- Continuous turn-down flange

.03 The gutter system described in these specifications reflect the Model #DTRO\_\_\_ gutter, fabricated by RenoSys Corporation, Indianapolis, Indiana. 1-800-783-7005.

.04 It is not the intent of these specifications to limit competition. Any substitute system must be approved by the Architect/Engineer ten (10) days prior to the bid date. All base bids must include the specified gutter. Any substitutes shall be quoted by the bidding contractors as an alternate.

###### Reference:

.01 The following standards shall be incorporated herein, but not limited to:

- ACI American Concrete Institute
- ANSI American Iron and Steel
- ANSI American National Standards Institute
- ASA American Standards Association
- ASTM American Society for Testing Metals

###### Quality Assurance:

.01 The perimeter recirculation system shall have a minimum of five (5) years fabrication experience and have a minimum of five (5) installations of similar type and pool size currently in satisfactory operation.

.02 The hydraulic calculations shall be performed to assure compliance with code requirements as well as guarantee the proper recirculation rates.

.03 The material loading and storage shall be performed by the contractor. The materials shall not be stacked or stored in a manner that may cause damage. The material shall be stored in accordance with the manufacturers specifications.

.05 The gutter trough shall be provided with stainless steel jet wash fittings. The fittings shall be designed to allow for a constant stream of water to assure the gutter trough will remain free of debris. See swimming pool drawings for quantities and locations.

.06 Provide water surface agitators fabricated of chrome plated brass. The agitators shall be fed by the filtered water supply and include a shut-off device. See swimming pool drawings for quantities and locations.

.07 The rope hooks shall be constructed of 3/8" stainless steel rod. These rods shall be welded to the gutter back and extend into the concrete pour for secure attachment. See the swimming pool layout for locations.

.07 The rope hooks shall be constructed with a 3/8" stainless steel rod installed in a stainless steel housing welded to the gutter face. See swimming pool layout for locations.

.08 The gutter manufacturer shall provide to the contractor, 5/8" diameter U-bar anchors. The anchors to be constructed of carbon steel rod. The anchors shall be installed at the elevation indicated on the gutter detail and spaced at a maximum of 4'-0" on center. "Drop-in" anchors are also acceptable.

.09 The gutter system shall be supplied with an integral deck drain welded to the back side of the gutter. The deck drain shall be fabricated from the same material as the gutter. Provide drain clean-outs and connections the quantity, size and locations as indicated on the pool plans.

.10 The gutter grating shall be a T-bar style PVC grating. The grating shall be formed of straight parallel T-bars and joined together with a PVC rod spaced 12" on center. The grating shall have a slip resistant finish with UV inhibitors to protect the grating from the sun rays. The grating sections shall be held in place with fiberglass fasteners and stainless steel cap screws. The grating holdowns shall be fully recessed from the top surface of the grating and can only be removed with the use of tools.

11. There shall be supplied a continuous stainless steel turn-down flange welded to the bottom of the gutter as indicated on the gutter profile detail. The flange will be constructed of the same material as the gutter. The purpose of the flange is to connect the PVC liner to the stainless steel gutter to form a water tight termination. No other connection method will be acceptable.

###### Fabrication:

.01 The stainless steel grain finish shall be parallel with the water surface.

.02 The horizontal surface on the gutter lip and upper deck area shall have a slip-resistant surface integral with the stainless steel.

.03 The stainless steel gutter pieces shall be shop fabricated in 10'-0" sections.

.04 The entire system shall be inspected prior to shipment to verify compliance with the fabrication details.

###### Submittals:

.01 Products data and shop drawings: Submit product data, shop drawings and installation instructions for gutter and related components clearly indicating rated capacities, gauges of material, finishes, etc. . .

###### Warranty:

.01 The recirculation system shall be guaranteed by the manufacturer for workmanship, materials and performance for a period of five (5) years. The warranty will not include abusive or improper treatment to the gutter during construction or under operation.

.02 The manufacturer shall provide complete instructions detailing proper care, maintenance and cleaning of the gutter system.

###### Part II - Products

###### Manufacturer:

.01 The gutter to be quoted on the base bid shall be a Model #DTRO\_\_\_ perimeter overflow recirculation gutter which is the proprietary product produced by RenoSys Corporation, Indianapolis, Indiana. No alternate or substitute gutter systems will be accepted under the base bid as they could adversely affect the entire recirculation and filtration system.

###### Materials:

.01 Unless noted otherwise, all stainless steel shall be fabricated of 12 gauge, # 304 low carbon stainless steel with a # 3 polished finish.

###### Components:

.01 The gutter trough shall be constructed of 12 gauge, # 304 low carbon stainless steel. The gutter trough shall be formed to the dimensions and configuration illustrated on the drawings. The shop fabricated 10'-0" section shall be field welded to assure a custom fit. The gutter shall be a minimum of \_\_\_ Deep, measured from the overflow lip to the bottom of the trough, and shall have a minimum of \_\_\_ square inches of area to ensure the proper flow rate.

.02 The return supply chamber shall be constructed of 12 gauge, # 304 low carbon stainless steel, continuously welded around the entire swimming pool perimeter. The jet inlet orifices shall be a maximum of 3/8" diameter and spaced around the swimming pool perimeter to ensure the proper flow and balance. The orifices shall be aimed at a 45 degree angle towards the pool bottom.

.03 There shall be supplied \_\_\_ ( ) gutter collector box(es) and \_\_\_ ( ) supply converter box(es) with the proper size flanges continuously welded to a stainless steel stub. After installation, the collector and converter boxes shall be encased in a concrete pour by the contractor.

.04 Factory installed automatic surge control weirs shall be provided below the handhold in the face of the gutter at the locations indicated the swimming pool drawings. Each surge weir shall be designed to handle a minimum flow of 50 gpm with a combined capability of 50 % of the pools total GPM requirements.

##### Part III - Execution:

###### Inspection:

.01 The installer shall examine the job site conditions to ensure the swimming pool is in accordance with the manufacturer's submittal details. The installer shall also verify the correct location of the embedded anchors and the proper cut-outs for the gutter boxes.

###### Installation:

.01 All installation is to be performed by skilled welders with a minimum of five (5) years experience with this type of application. All installation is to be in accordance with the manufacturer's specifications and submittal drawings.

.02 All welding will be performed in accordance with the American Standards Association, and those of the gutter manufacturer. All exposed welds shall be smooth and uniform with minimum irregularities. All spatter, burns, and discoloration shall be removed. Welds are to be cleaned in accordance with the manufacturers specifications.

.03 The perimeter recirculation system shall be secured to the U-bar or drop-in anchors as shown on the gutter drawings. The gutter shall be welded to the U-bar or drop-in anchors to form a strong, level base.

.04 The entire system is to be installed level, true, plumb and square to the dimensions indicated on the submittal drawings. The installation shall incorporate the following tolerances:  
Vertical plus or minus 1/8"  
Horizontal plus or minus 1/4"

.05 Upon completion of the gutter installation, the installer shall perform a pressure test on the supply chamber. The chamber must pass the required 5 psi pressure test for a period of four (4) hours. All joints shall be soap tested. After the chamber has passed the required test, the 3/8" jet inlet orifices can be installed.

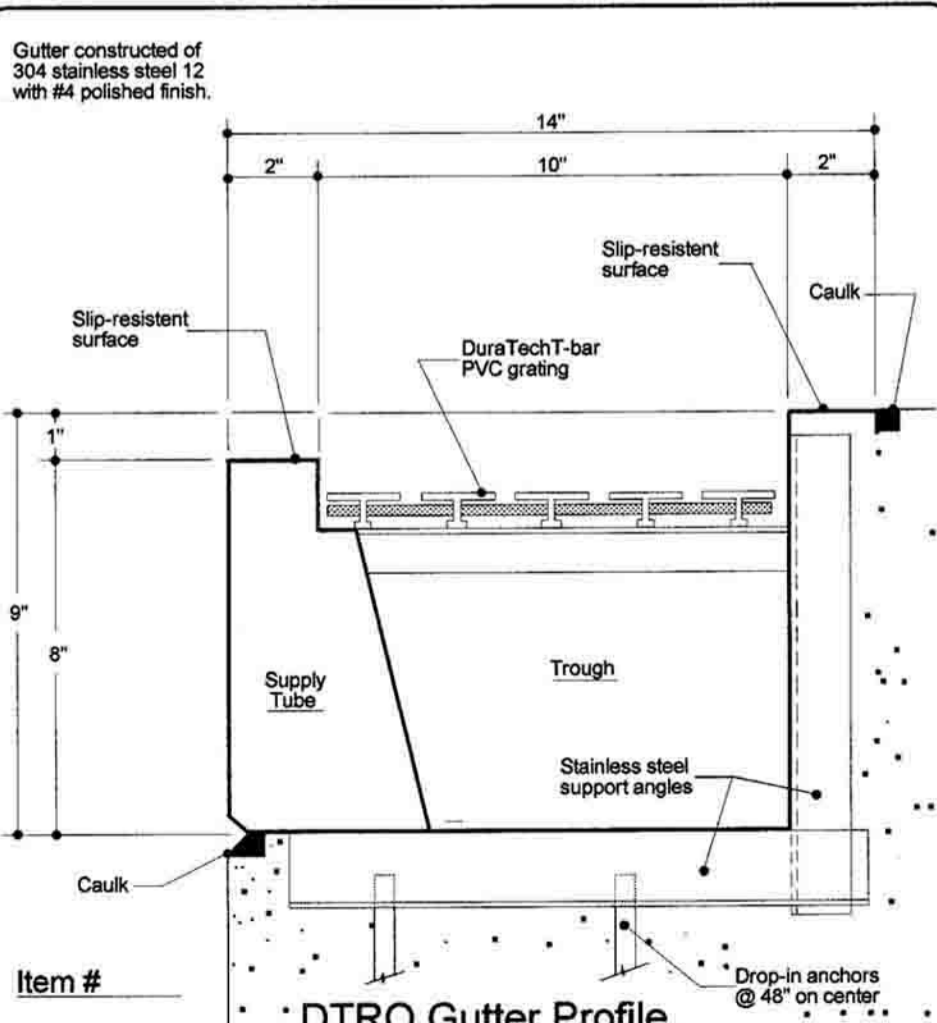
.06 Immediately following pressure testing, the gutter system shall be cleaned and passivated by washing with an acid solution to remove carbide and scale impurities.

.07 After the recirculation system has been installed, the contractor shall place a non-metallic, non-shrink grout underneath and behind the gutter to completely encase the channel. The grout material shall include Sika Interplast-N as manufactured by the Sika Corporation. Mixing proportions shall be followed in strict accordance with Sika Corp. written guidelines. Prior to the installation of the grout, a bonding agent shall be applied to the existing concrete wall. Bonding agent shall be that recommended by the Sika Corp. for this type of installation.

###### Demonstration:

.01 The gutter manufacturer shall provide the necessary supervision to inspect the completed installation, place the system into operation and give operating manuals that reflects the maintenance and care of this gutter system.

Gutter constructed of 304 stainless steel 12 with #4 polished finish.



<b>RenoSys®</b> corporation 2825 East 55th Place Indianapolis, IN 46220 Phone: 317-251-0207 Fax: 317-251-0360	Project:	Date:
		Drawn:
	Draw. No.	
	Scale: None	