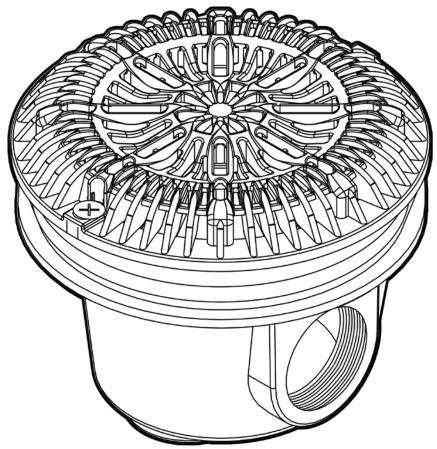


## GALAXY POOL DRAIN WITH SUMP

25514-00X-000, 25515-00X-000, 25516-00X-000, 25519-00X-000





All Custom Molded Products main drains are listed and tested in strict accordance to the requirements of ANSI/APSP-16 2017, the current standard of reference for the Virginia Graeme Baker Act, and compliant to the latest Consumer Product Safety Commission (CPSC) requirements.

For Multiple Drain Use Only | Submerged | Cover Life: 7 Years | Floor or Wall



IAPMO Listed VGB Suction: Compliant to ANSI/APSP - 16 2017 & CPSC Requirements

## **TABLE OF CONTENTS**

Please read through the entire manual before installing your new unit. Your pool drain fitting must be installed and operated as specified.

A. Safety Instructions & Precautions	3
B. Sizing & Specification Reference	4
C. Installation & Maintenance Procedures	5
1. Required for Installation	5
2. Installation Location	5
3. Installation Procedure	5
4. Maintenance & Inspection	7
5. Winterizing	7
D. Diagram & Measurements	8
E. Parts List	9

#### **IMAGES & TABLES IN THESE INSTRUCTIONS**

- page 4 FLOW RATES
- page 4 SPECIFICATIONS
- page 4 HEAD LOSS CHART
- page 6 INSTALLATION LOCATION
- page 6 ALTERNATE PLUMBING
- page 8 DIMENSIONS

## A. SAFETY INSTRUCTIONS & PRECAUTIONS

When installing and using this equipment, basic safety precautions shall always be followed, including the following:

# IMPORTANT SAFETY INSTRUCTIONS. READ, UNDERSTAND AND FOLLOW ALL INSTRUCTIONS.

## ALWAYS PLUMB AND INSTALL ALL SUCTION FITTINGS ACCORDING TO ALL BUILDING CODES THAT APPLY IN YOUR AREA.

**MARNING** 

When using two or more suction fittings on a common suction line, suctions must be separated by a minimum of 3 ft or they must be located on two different planes.



WARNING: DO NOT locate suction outlets on seating areas or on backrests for such seating areas.

NOTICE

Attention Installer: This manual contains important information about the installation, operation and safe use of this product. Before installing this product, read and follow all warning notices and instructions which are included. This information should be given to the owner and/or operator of this equipment.



To reduce the risk of drowning from hair and body entrapment, install suction fittings with a marked flow rate in gallons per minute that exceeds the flow rate of your system by at least 25%. Always use multiple suction outlets. If the fitting/cover breaks, is damaged, or is missing, shut the system down immediately. Do not use the system until damaged parts have been replaced.

NOTICE

Keep hair and clothing a minimum of 12 inches from all suction fittings and drains at all times. Persons with long hair should secure hair to a minimal length or wear swimming cap. Children should never be left unattended at any time in a swimming pool, spa, or bathtub. Be sure the temperature of the water never exceeds the manufacturer's recommendations.

NOTICE

To reduce the risk of injury, installation and service should be done by a qualified Service Professional, certified electrician or authorized CMP representative.

NOTICE

NOTE: In the event that one suction outlet is completely blocked, the remaining suction outlet(s) serving that system MUST have a flow rating capable of the full flow of the pump(s) for the specific suction system.

**MARNING** 

Increasing size of the pump may increase flow rate of suction beyond rated safety limits causing entrapment or death.

NOTICE

All Suction Outlet Fitting Assemblies (SOFAs) shall be installed in accordance with the manufacturer's installation instructions, or for Registered Design Professional SOFAs, in accordance with the registered design professional's engineering plans. Field modification made to a SOFA not authorized by the manufacturer's installation instructions shall void the SOFA certification.

**MARNING** 

Hair or body parts blocking the spa or pool suctions may become trapped and held against the suction fitting. Entrapment against the suction fittings can result in drowning or other severe injury. Never sit on or lean up against suction fittings. Never exceed the maximum allowable flow rate stated on the suction fitting. The suction fitting and fasteners should be inspected for damage or tampering before use. Missing, broken, or cracked suction fittings shall be replaced. Loose suction fittings shall be reattached or replaced before use of this facility.

NOTICE

The maximum hose length difference between any self-contained SOFA and the tee leading to the pump shall not exceed 13 feet (3.96 m).

NOTICE

CMP drain covers are only certified for use with CMP sumps and frames. Do not mismatch with parts from other manufacturers.

## **B. SIZING & SPECIFICATION REFERENCE**

- Suction fitting configuration specific flow ratings MUST NOT be exceeded at any time the pool is open to bathers.
- A system must install a suction fitting, or combination of multiple suctions, such that the resulting individual suction system flow rating is greater than the pumping system's maximum system flow rate.
- To reduce the risk of drowning from hair and body entrapment, install suction fittings with a marked flow rate in gallons per minute that exceeds the flow rate of your system by at least 25%. Increasing size of the pump may increase flow rate of suction beyond rated safety limits causing entrapment or death.
- Any modification that increases the flow rate of the circulation system shall require reevaluation of the cover/grate and sump to ensure that the flow rating of the Suction Outlet Fitting Assembly is not exceeded.
- The flow rating for pools with multiple, blockable SOFAs piped together in one body of water without isolation valves shall be determined by combining the flow rating of all SOFAs, minus the flow rating of one. If the flow ratings of all SOFAs are not equal, subtract the flow rating of the SOFA with the highest flow rating.
- NOTICE: No modification shall be made to a SOFA structure or flow path unless the new configuration has been certified
  as new SOFA.

#### **TABLE 1: IAPMO LISTED MAX FLOW RATES**

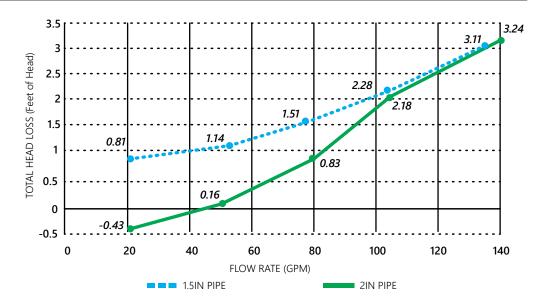
PLUMBING SIZE	PORTS	FLOOR FLOW RATE	WALL FLOW RATE
2"	BOTTOM	112 GPM	92 GPM
2"	SIDE	112 GPM	84 GPM
1.5″	BOTTOM	108 GPM	84 GPM
1.5"	SIDE	100 GPM	84 GPM

FLOW RATE VERIFIED TO CPSC TEST PROTOCOL

#### **TABLE 2: SPECIFICATIONS**

PIPE SIZE	GUNITE - 2" FPT (ADAPTABLE TO 1.5") VINYL - 2" FPT OR 2" SOCKET (ADAPTABLE TO 1.5") DO NOT adapt suction fitting to any pipe size smaller than ASTM 1.5" SCH 40 PVC.		
OPEN AREA	13.2in <sup>2</sup>		
DRAIN COVER LIFE	7 Years. Replace drain cover and screws every seven years.		
SUMP BODY LIFE	30 Years		
Multiple drain use ONLY	PVC Sump Body. Use PVC glue to attach plumbing fittings.		

- Floor or wall installation
- PVC Sump Body. Use PVC glue to attach plumbing fittings.



**CHART 1: HEAD LOSS CHARTS** 

## C. INSTALLATION & MAINTENANCE

### 1. REQUIRED FOR INSTALLATION

#### Your Galaxy Drain includes the following:

- Drain Sump Body
- Drain Suction Cover
- Cover Screws
- 2" NPT Plugs (2)
- Protective Plaster Installation Cover (gunite models only)
- Vinyl Ring & Gaskets (vinyl models only)
- 2" to 1.5" FPT Bushings (if threaded model)

#### 2. INSTALLATION LOCATION

- a. This suction fitting is designed for installation on the floor or wall of hot tubs or pools. 25515 models are intended for vinyl pools. 25514, 25516, 25519 models should be installed in gunite pools.
- b. Do not mount directly under seats.
- c. Always use multiple suction outlets. DO NOT use with single drain applications. Use with single drain applications will void any and all warranties. Single drain installation increases the risk of entrapment against the suction fittings, which can result in drowning or other severe injury. Blockable SOFAs shall be installed in a multiple SOFA system only.
- d. When using two or more suction fittings on a common suction line, suctions must be separated by a minimum of 3 ft or they must be located on two different planes.

#### SAFETY CHECKLIST:

- e. Suction fitting and fasteners should be observed for damage or tampering before each use.
- f. DO NOT adapt suction fitting to any pipe size smaller than ASTM 1.5" SCH 40 PVC.
- g. Missing, broken, or cracked suction fittings shall be replaced before use. Loose suction fittings shall be reattached or replaced before use.

### 3. INSTALLATION PROCEDURE

#### **PLUMBING:**

- a. Install sump in floor or wall. If the sump is installed in the pool/spa floor, install in the center of the pool/spa OR the deepest point.
- b. Cover/grates, when installed, shall not protrude more than 2 in. (51 mm) from the finished surface of the pool in which the SOFA is installed.
- c. Drain ports are for 2 inch plumbing and can be adapted to 1.5 inch.
- d. Plumb with either the bottom port OR side port. Plug the unused port with the included plug.
- e. Maximum flow rates will vary depending on plumbing option chosen. See Table 1 for details.

#### **GUNITE INSTALLATION:**

- f. IMPORTANT! Leave the protective cover in place until plaster installation is complete. Use included cover screws to attach protective cover during installation.
- g. Finish pool with gunite/shotcrete and plaster so that it is completely level with the sump body and cover. Ensure the finish is completely level. Pool finish should not exceed the top of the sump.
- h. Remove the protective cover.
- i. When any SOFA component is held in place by the interior finish of the pool, that surface shall be free of deterioration and voids.
- j. Attach cover/grate with the supplied screws. Verify that the suction cover is properly tightened with the #8 316 stainless steel screws in brass inserts to 14in-lbs. DO NOT over-torque the cover screw. Excessive torque can cause premature failure of threads or damage to suction fitting increasing risk of entrapment. Start install of screws by hand to ensure proper thread engagement and to prevent cross threading. DO NOT USE POWER TOOLS TO INSTALL FASTENERS.

## C. INSTALLATION & MAINTENANCE

#### VINYL INSTALLATION:

- a. Finish pool surface so that it is completely level with the sump body and cover. Pool finish should not exceed the top of the sump.
- b. Place gasket on sump body, making sure holes in gasket align with holes in sump flange (a very light application of silicone will help hold the gasket in place).
- c. Install liner before proceeding to next step. Follow pool manufacturer's instructions for proper vinyl liner installations.
- d. Align second gasket and vinyl ring outside the vinyl liner. Pierce vinyl liner through vinyl ring holes one at a time before inserting screws. Screws must go through ring, gasket, liner, second gasket and into sump. Verify that the vinyl ring is properly tightened with the stainless steel screws in brass inserts to 24in-lbs.
- e. Cut out liner along inside edge of vinyl ring.
- f. When any SOFA component is held in place by the interior finish of the pool, that surface shall be free of deterioration and voids.
- g. Attach cover/grate with the supplied screws. Verify that the suction cover is properly tightened with the #8 316 stainless steel screw in brass inserts to 14in-lbs. DO NOT over-torque the cover screw. Excessive torque can cause premature failure of threads or damage to suction fitting increasing risk of entrapment. Start install of screws by hand to ensure proper thread engagement and to prevent cross threading. DO NOT USE POWER TOOLS TO INSTALL FASTENERS.

SOFA components and fastener receptacles shall be clean and free of debris or obstructions during installation of cover/grate and fasteners. The use of adhesives or other attachment methods that prevent access to suction piping or SOFA components requiring periodic servicing is prohibited. Hand-check cover/grate for snugness to the sump/ frame after installation.

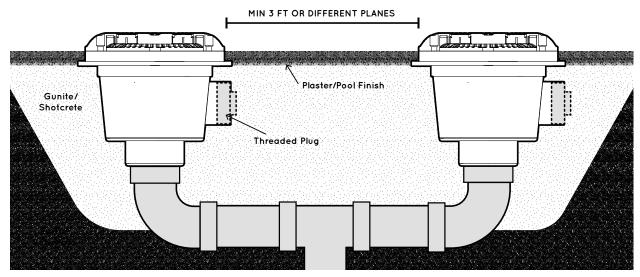


IMAGE 1 - INSTALLATION - BOTTOM PORT

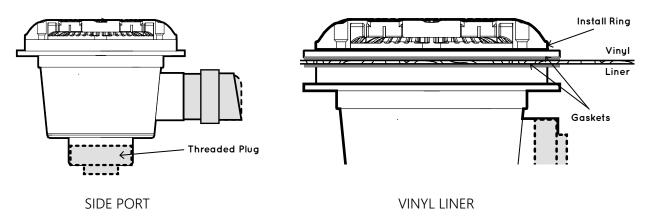


IMAGE 2 - ALTERNATE INSTALLATIONS

## C. INSTALLATION & MAINTENANCE

#### FIELD BUILT SUMP INSTALLATION:

- h. Refer to TABLE 1 for flow rates
- i. Minimum Pipe Depth (A) Side Port: 1-3/4in; Bottom Port: 4-3/4in
- j. Ledge Width (B): 1-1/8in
- k. Minimim Pipe Length Before Pipe Size Reduction: 8.5in
- I. For additional information on proper drain installation refer to The Association of Pool & Spa Professionals ANSI/APSP/ICC-7 2013 Standard and the Virginia Graeme Baker Pool & Spa Safety Act (VGB Act).

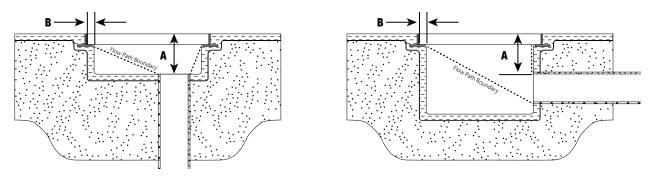


IMAGE 3 - FIELD BUILT SUMP DIMENSIONS

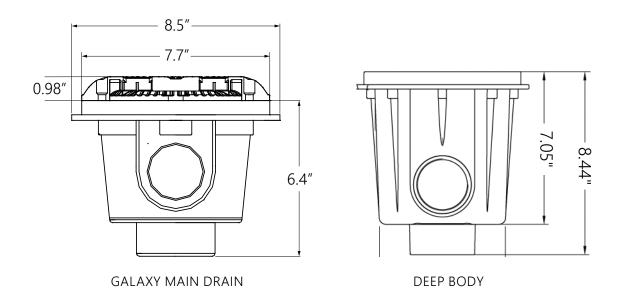
### 2. MAINTENANCE & INSPECTION

- a. Covers/grates and all other SOFA components shall be replaced before the end of their service life. Service life begins the month and year in which a SOFA component is installed with or without water. The cover/grate and screws should be replaced at least every seven (7) years. Sump and frame service life is 30 years.
- b. Inspect pool or spa regularly to ensure that the drain cover/grate is in place and secure.
- c. Missing, broken, or cracked SOFA components shall be replaced before bathers are allowed to use the pool or spa. Loose covers/grates shall be reattached before bathers are allowed to use the pool or spa.
- d. If the cover is found with color changed, broken, cracked, missing, brittle components with chunks or pieces broken off, it must be replaced. Do not use the pool/spa/facility until a replacement is made.
- e. If there are stripped screw holes or if the brass insert receptacles are missing/removed, the SOFA must be replaced. Do not use the pool/spa/facility until a repair or replacement is made.
- f. If a drain cover/grate does not pass inspection:
  - Close the pool or spa immediately
  - Post a closure notice
  - Keep the facility closed until a new drain cover and screws are properly installed.

## 3. WINTERIZING

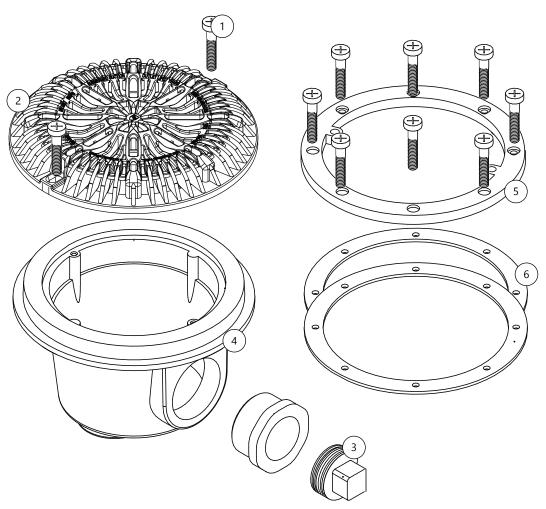
- Requirements for winter will vary depending on region follow normal winter and freeze protection practices for your area.
- For areas that require partial drainage and/or clearing lines to prevent freeze damage:
  - If your suction(s) have a dedicated suction line: Use a blower to clear the suction line of water and cap or close the line with a valve to prevent freeze damage.
  - If your suction(s) are connected to a skimmer/equalizer line: Follow skimmer winterization procedures. Optionally blow and cap the suction line or fill line with foam rope/backer rod to protect from freeze damage.

## D. PART DIAGRAMS AND MEASUREMENTS



**IMAGE 4 - DIMENSIONS** 

## **G. PARTS LIST**



	CMP P/N	DESCRIPTION
1	61050-550-250	SCREWS FOR 25514
1	61051-052-028	SCREWS FOR 25515
1	61004-083-212	SCREWS FOR 25516
1	61051-058-030	SCREWS FOR 25519
2	25507-100-010*	COVER
3	25520-050-010	PLUG FOR 25514, 25516
3	25520-040-010	PLUG FOR 25515
3	25520-020-000	PLUG FOR 25519
4	25514-000-020	SUMP - 25514 MODELS
4	25515-010-010	SUMP - 25515 MODELS
4	25516-000-010	SUMP - 25516 MODELS
4	25519-010-010	SUMP - 25519 MODELS
5	25532-800-000	VINYL ADAPTER RING, WHITE
5	25532-801-000	VINYL ADAPTER RING, GRAY
6	25515-000-011	VINYL GASKETS (2 REQUIRED)

### Record Information on this System Below & Keep for Your Records

Installer			
Purchased From			
Installatio	on Date		
			_
Model N	umber	·	
Pool Size	in Gallons		

### **CMP Customer Service & Tech Support**

Toll Free: 1-800-733-9060

FAX: 770-732-7115

support@c-m-p.com

## **Warranty Questions**

RMA@c-m-p.com

## **Support Resource & Videos Online**

c-m-p.com/resourcecenter