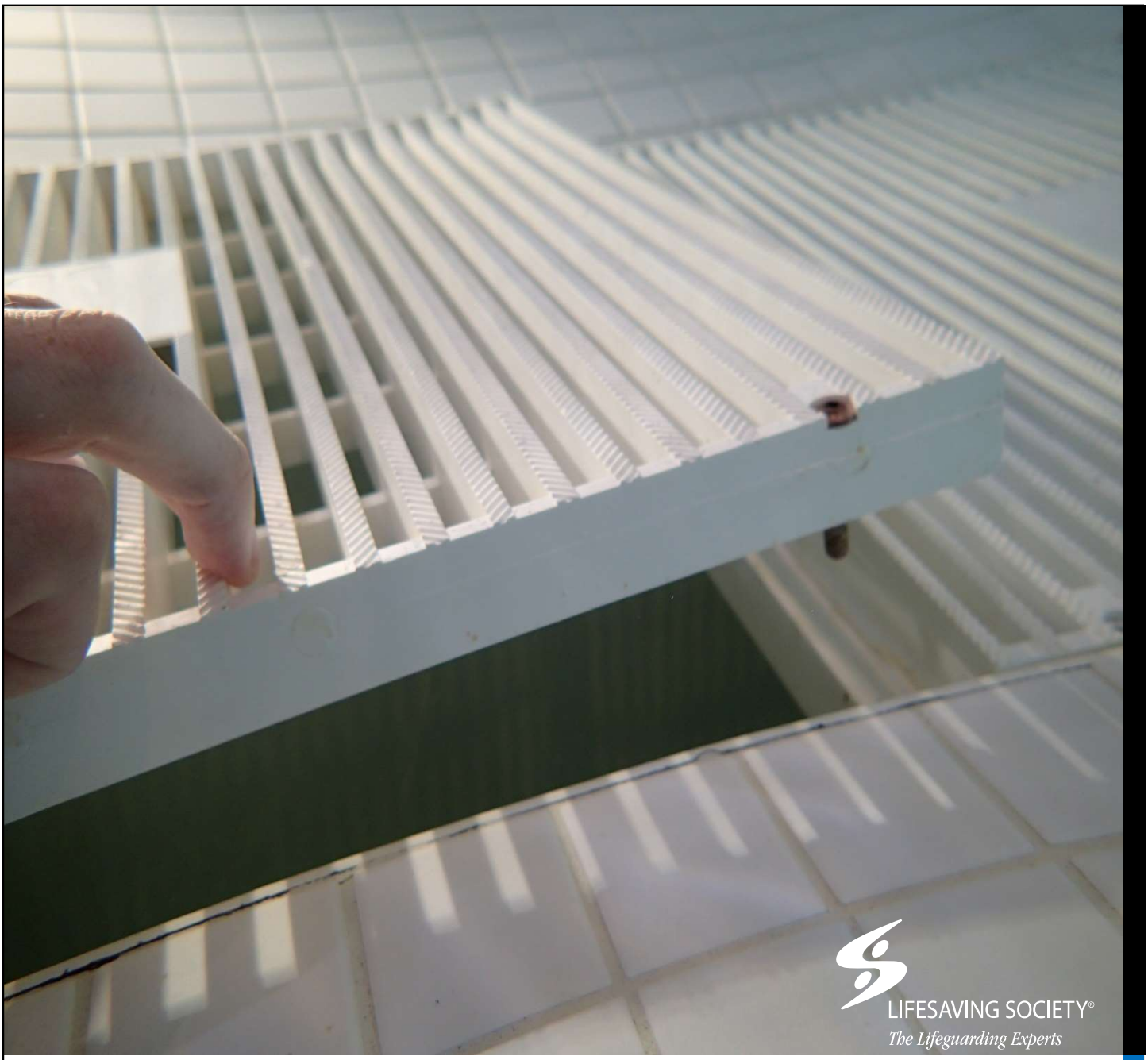


AQUATIC PROCEDURE MANUAL

ANTI-ENTRAPMENT MODULE

This is the (ORGANIZATION) anti-entrapment plan for the safe operation of (FACILITY). This plan was developed using the Lifesaving Society's Anti-Entrapment Plan Template.

AQUATIC MANUAL
ANTI-ENTRAPMENT MODULE TEMPLATE

Published by the Lifesaving Society - First Edition September 2017.

The Lifesaving Society is Canada's lifeguarding expert. The Society works to prevent drowning and water-related injury through its training programs, Water Smart® public education initiatives, water-incident research, aquatic safety management services, and lifesaving sport.

Annually, well over 1,200,000 Canadians participate in the Society's swimming, lifesaving, lifeguard, and leadership training programs. The Society sets the standard for aquatic safety in Canada and certifies Canada's National Lifeguards.

The Society is an independent, charitable organization educating Canadian lifesavers since the first Lifesaving Society Bronze Medallion Award was earned in 1896.

The Society represents Canada internationally as an active member of the Royal Life Saving Society and the International Life Saving Federation. The Society is the Canadian governing body for lifesaving sport - a sport recognized by the International Olympic Committee and the Commonwealth Games Federation.

AQUATIC PROCEDURE MANUAL

ANTI-ENTRAPMENT MODULE

LIFESAVING SOCIETY TEMPLATE

The Lifesaving Society has provided this template to owners and owner's agents who operate public swimming pools. This template will provide owners and their agents a standardized tool that can be utilized to develop an Anti-Entrapment Plan module for their facility.

LIFESAVING SOCIETY®
The Lifeguarding Experts

TEMPLATE PURPOSE

The Public Swimming Pools Regulation in Alberta requires pool owners / owner's agents to establish and follow an Anti-Entrapment Plan.

The Lifesaving Society has provided this template to assist owners and their agents in developing an Anti-Entrapment Plan for their aquatic facility. Content in this document does not reflect the opinion or position of the Lifesaving Society. The information contained in the template is a starting point for aquatic facility owners and their agents. The plan will need to be reviewed and updated with the facility specific procedures as identified.

The Lifesaving Society is a non-profit organization with a charitable mandate for drowning and aquatic injury prevention. As such the Society is available to provide ongoing support to aquatic facility owners and their agents when completing this template.

The Society does not endorse or approve the contents contained in this document. This template has been provided as a tool to assist the aquatic industry in establishing an Anti-Entrapment Plan.

The sample items provided in this document come from a variety of sources.

HOW TO USE

This template includes content headings and formatting that can be used to establish an Anti-Entrapment Plan. The template is one module that can be added to the Aquatic Procedure Manual. The Lifesaving Society currently has a template for Aquatic Safety and Supervision Plans and is working towards developing additional modules to address water quality, public education, and cleaning/sanitization.

Throughout this template you will see areas where you are required to insert information that is specific to your facility. This is identified throughout the document with red text. The template also contains sample documentation and information that assists in illustrating what type of information would be included in each section. Simply delete the sample text or pictures under each heading and replace it with your facility specific policies and procedures.

DEFINITIONS

Amenity – an attraction or feature that is located in or around the pool. Examples would include lazy rivers, spray features, saunas, diving boards, etc.

ANSI – the American National Standards Institute

Anti-entrapment Device – means any device used for the puropose of preventing body entrapment, hair entrapment or entanglement, mechanical entrapment, evisceration incidents and death, including but not limited to: certified ANSI/APSP-16 2011 suction outlets, a SVRS, a suction-limiting vent system or an automatic pump shut off system.

APSP – the Association of Pool and Spa Professionals

ASTM – the American Society for Testing Materials

ASME – the American Society of Mechanical Engineers

ANSI/APSP-16-2011 – the Standard 16 American National Standard for Suction Fittings for Use in Swimming Pools, Wading Pools, Spas and Hot Tubs, published by the American National Standards Institute/Association of Pool and Spa Professionals.

ASTM F2387 – the Standard Specification for Manufactured Safety Vacuum Release Systems (SVRS) for Swimming Pools, Spas and Hot Tubs published by the American Society for Testing and Materials.

ASME/ANSI A112.19.17-2010 – the Manufactured Safety Vacuum Release Systems (SVRS) for Residential and Commercial Swimming Pool, Spa, Hot Tub and Wading Pool Suction Systems published by the American Society of Mechanical Engineers/American National Standards Institute.

Blockable Suction Outlet – means a suction outlet that has a perforated (open) area that can be shadowed by the area the 18 x 23 inches (45.7 x 58.4 centimeteres) body block element described in ANSI / APSP-16 – 2011.

Owner – a person or corporation who is an owner of a public pool.

Owner's Agent – the person designated as the owner's agent.

Patron – an individual who enters the public swimming pool premises and may or may not use the public swimming pool.

Pool Operator – an individual who holds a valid pool operator certification issued from a course provider approved by Alberta Health.

Safety Vacuum Release System (SVRS) – a system that relieves suction when a blockage is detected.

INSTALLATION OF ANTI-ENTRAPMENT DEVICES

All anti-entrapment devices must be installed in accordance with the manufacturer's specifications and be maintained in good working order when the public swimming pool is in use.

A checklist to achieve compliance has been provided and is included in Appendix A.

Appendix A includes all documentation on the installation of anti-entrapment devices for the facility.

ANTI-ENTRAPMENT COMPLIANCE

All pools are required to assess anti-entrapment risks, and develop and implement an appropriate anti-entrapment plan to meet the requirements of the Alberta Health, Health Systems Accountability and Performance Pool Standards.

On or after November 30, 2019, an existing swimming pool that has

a) A blockable singe submerged suction outlet, or
b) Interconnected submerged suction outlets with a distance of less than 656 cm (26 inches) from the outside edge of one cover to the inside edge of the second cover on the same plane

Must employ at least one of the following systems:

a) A multiple suction outlet system with at least two full submerged syuction outlets per pump less than 66 cm (26 inches) from the outside edge of one cover to the inside endge of the second cover,
b) A safety vacuum release system (commonly reffered to as SVRS) that relieves suction when a blockage is detected and that is installed to meet the performace standards of the ASTM F2387 or ASME/ANSI A112.19.17,
c) A properly designed and tested suction-limiting vent system which meets ASME-A112.19.17,
d) An automatic pump shut-off system which meets ASME-A112.19.17,
e) Permanent disablement of the submerged suction outlet either by reversing the flow through the outlet or compeltly sealing the existing outlet if the skimmers are capable of providing for 100 percent flow through,
f) A gravity fed system, or equivalent system, approved by a professional engineer, or
g) Interconnected submerged suction outlets on different planes, not installed in a seating area.

Other submerged suction outlets must have a cover to prevent the risk of entrapment or be permanently disabled.

SOURCE: Alberta Health, Health System Accountability and Performance, Pool Standards July 2014 (Amended 2017).

All pools should be able to provide a certificate of compliance that meets the requirements identified in the Pool Standards for each drain cover installed in a pool basin.

Appendix B includes the Certificate(s) of Compliance for each cover installed in the facility.

Anti-Entrapment Devices

The following anti-entrapment devices are installed in the pool basins as identified below:

MAIN POOL

- Vacuum – There are 2 vacuum outlets in the main pool. Each outlet has a cap that should be in place at all times when the pool is being used by bathers. If a cap is damaged or missing the pool should be closed until the cap can be replaced.
- Drains – The main pool has 2 interconnected drains. Each drain has an approved drain cover that meets the ANSI/APSP-16 2011 performance standard. If a drain cover is damaged, loose or not in place, the pool should be closed until the drain cover can be replaced or installed in accordance to the manufacturer recommendations.
- Add any remaining Anti-Entrapment devices remaining in the basin (Waterslide inlets, etc.)

DIVE POOL

- Vacuum – There are 2 vacuum outlets in the dive pool. Each outlet has a cap that should be in place at all times when the pool is being used by bathers. If a cap is damaged or missing the pool should be closed until the cap can be replaced.
- Drains – The dive pool has 2 interconnected drains. Each drain has an approved drain cover that meets the ANSI/APSP-16 2011 performance standard. If a drain cover is damaged, loose or not in place, the pool should be closed until the drain cover can be replaced or installed in accordance to the manufacturer recommendations.
- Add any remaining Anti-Entrapment devices remaining in the basin (Waterslide inlets, etc.)

HOT TUB

- Vacuum – There are 2 vacuum outlets in the hot tub. Each outlet has a cap that should be in place at all times when the pool is being used by bathers. If a cap is damaged or missing the pool should be closed until the cap can be replaced.
- Drains – The hot tub has 2 interconnected drains. Each drain has an approved drain cover that meets the ANSI/APSP-16 2011 performance standard. If a drain cover is damaged, loose or not in place, the pool should be closed until the drain cover can be replaced or installed in accordance to the manufacturer recommendations.

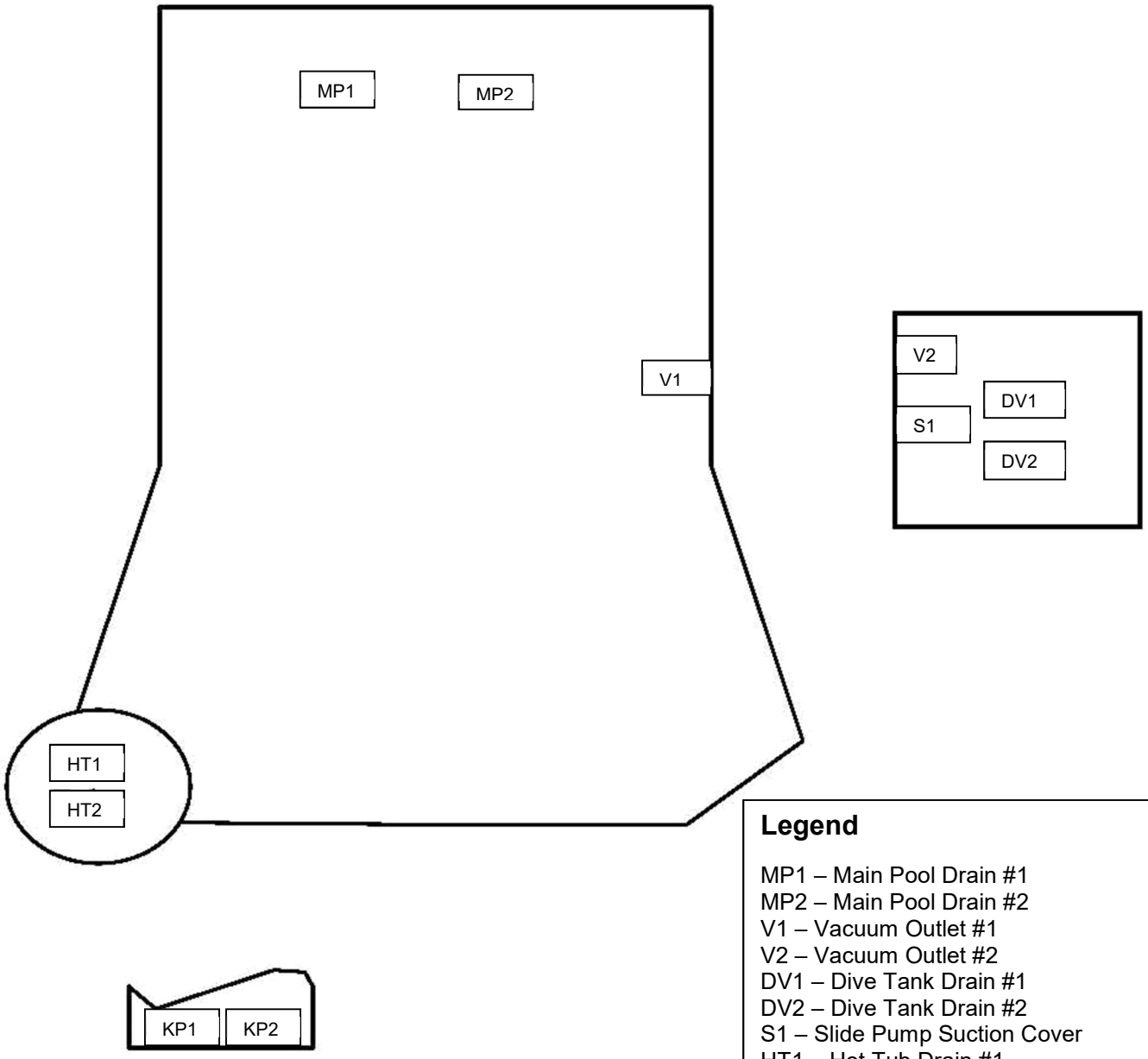
ADD POOL (AS REQUIRED)

- Add Anti-Entrapment Devices as required.

SCHEMATIC OF POOL OUTLETS

The map below indicates the location of each suction outlet in the aquatic facility.

INSERT SCHEMATIC OF POOL OUTLETS AND CREATE A LEGEND OF ALL THE SUCTION OUTLETS IN THE POOL(S). THE FOLLOWING MAP IS A SAMPLE OF WHAT WOULD BE INCLUDED IN THIS SECTION.



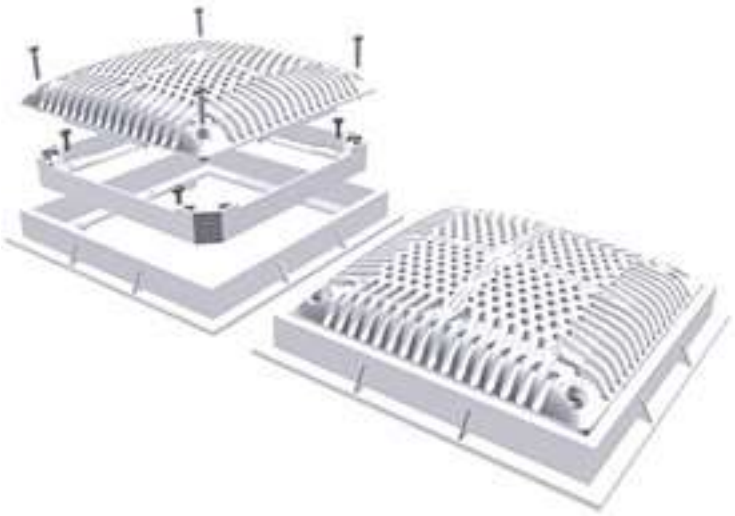
Legend

MP1 – Main Pool Drain #1
MP2 – Main Pool Drain #2
V1 – Vacuum Outlet #1
V2 – Vacuum Outlet #2
DV1 – Dive Tank Drain #1
DV2 – Dive Tank Drain #2
S1 – Slide Pump Suction Cover
HT1 – Hot Tub Drain #1
HT2 – Hot Tub Drain #2
KP1 – Kids Pool Drain #1
KP2 – Kids Pool Drain #2

Main Pool Drain #1

Device

INSERT PICTURE OF THE DRAIN COVER THAT HAS BEEN INSTALLED. THE FOLLOWING IS A SAMPLE OF WHAT WOULD BE INCLUDED IN THIS SECTION.



Description

INSERT MANUFACTUER DESCRIPTION OF THE COVER. SAMPLE:

9" square High Flow Sump with Cover - 3" SKT: Hayward's High Flow suction outlets have some of the industry's highest approved flow rates for use in new construction or as a replacement cover. They also retrofit into all existing Hayward frames. VBG compliant and tested to ANSI/APSP-16 standards.

Maximum designed flow rate: INSERT HERE

Facility flow rate through cover: INSERT HERE

Cover can handle 100% of flow if one (1) other connected cover is blocked: YES OR NO

Add Additional Drains As Needed

Device

INSERT PICTURE OF THE DRAIN COVER THAT HAS BEEN INSTALLED.

Description

INSERT MANUFACTUER DESCRIPTION OF THE COVER

Maximum designed flow rate: INSERT HERE

Facility flow rate through cover: INSERT HERE

Cover can handle 100% of flow if one (1) other connected cover is blocked: YES OR NO

ANTI-ENTRAPMENT INSPECTIONS

INTRODUCTION

The Lifesaving Society developed this template to support owners and owner's agents to establish a procedure to inspect anti-entrapment devices in aquatic facilities. This tool will assist owners and owner's agents in complying with the anti-entrapment requirements for inspection as indicated in the Alberta Public Swimming Pools Regulation, Pool Standards (July 2014), and the Public Aquatic Facility Safety Standards.

This checklist template includes items to be inspected by facility staff on a daily and monthly basis to confirm that anti-entrapment devices are in place and operating as expected for the protection of bathers. Owners and owner agents may choose to do inspections more frequently if required.

Regulations and Standards

9.5 Other submerged suction outlets

Every equalizer line outlet or submerged suction outlet used for vacuuming must have a cover to reduce risk of entrapment and be used in a manner to protect patrons from entrapment or becoming permanently disabled.

9.6 Damaged submerged suction outlets

9.6.1 The covers of each submerged suction outlet shall be routinely inspected prior to opening each day and throughout the day when the public swimming pool is in use. If upon visual inspection the cover of a submerged suction outlet is cracked, broken, improperly secured or missing, the pump shall be immediately shut down and the public swimming pool closed, until the cover is replaced.

9.6.2 An anti-entrapment system installed in accordance with Section 9.4 must be routinely inspected in accordance with manufacturers' instructions. A pool shall be closed if the anti-entrapment system is not operating in accordance with the manufacturer's instructions.

SOURCE: Alberta Health, Health System Accountability and Performance Pool Standards, July 2014

Anti-Entrapment Inspection Checklist Use

Two checklists have been included in this package (Appendix C). The first checklist is to be completed daily by a trained staff member prior to the facility opening to the public. If an employee indicates "NO" for any of the items included, a supervisor should be informed and the affected pool should remain closed until the item can be satisfactorily addressed.

The second checklist is a monthly checklist and should be completed by two trained staff members who follow the in-water inspection procedure (included under inspection process). Similar to the daily inspection, if any item is indicated as "NO" a supervisor should be informed and the affected pool should remain closed until the item can be satisfactorily addressed.

This checklist template may be modified by the owners and owner's agents of aquatic facilities in the following ways:

- Add your logo in the header section of the document
- Items that are not applicable to the facility may be removed from the checklist template
- The checklist may be printed as individual forms in isolation of this template

Public Aquatic Facility Safety Standards Requirements

All pool water outlet covers must be inspected regularly (e.g. monthly) when the pool is in operation. If any of the pool's water outlet covers are loose or missing, the pool must be closed until the cover is repaired or replaced.

Note: An outlet is an opening in the pool that can generate suction (e.g. main drain, vacuum fitting or skimmers). Loose or missing outlet covers have caused fatalities and serious injuries in aquatic facilities. Regular inspection of these outlets must be established.

Note: Some pool and whirlpool circulation systems include pool skimmers with equalizer fittings located in the pool wall below water level. All equalizer fittings must be permanently plugged and disabled so that there is no possibility that these fittings could create a suction hazard.

Any pool with only one drain must have an anti-entrapment device installed and maintained. Suction from the main drain in pools with only one drain has caused drownings and serious injury in the past. An anti-entrapment device can prevent this.

SOURCE: Lifesaving Society, Public Aquatic Facility Safety Standards

Inspection Process

DAILY INSPECTIONS (VISUAL INSPECTION):

Standing from the edge of the pool complete a visual inspection of the checklist items. Note that there are no cracks in the suction outlet covers, that they are in good condition, and that all screws are in place. If the cover appears to be damaged or screws are missing the staff member should complete an in-water inspection following the visual inspection procedure.

MONTHLY INSPECTIONS (IN-WATER INSPECTION):

Facility staff must not underestimate the power or danger of suction. Outlet cover inspections should be undertaken with extreme caution to ensure staff safety. The inspection procedure should include:

- Shutting down the filter system and ensuring that:
  - There is no suction in the system;
  - The system is locked down or supervised to ensure that it is not turned on during the inspection;
- A diagram of the pool depicting the outlet covers will guide the inspection. Each outlet cover should be assigned a number to help the accurate recording of inspection results;
- A second person (who is trained in first aid and emergency response) should be present as an emergency back-up during any in-water inspection; and
- Record the inspection results and any remedial action required and completed on the checklist.

SOURCE: Lifesaving Society, Public Aquatic Facility Safety Standards

STAFF TRAINING:

The facility staff member(s) assigned to complete the anti-entrapment inspection should be trained on the following:

- Orientation to the anti-entrapment checklists
- Location of suction outlets
- Emergency procedures to respond to an entrapment situation
- Knowledge of filtration and circulation systems
- Demonstrated ability to shut off pumps in an emergency

APPENDIX A – INSTALLATION OF ANTI-ENTRAPMENT DEVICE

This section includes 2 parts:

1. Compliance Strategy – the facility's plan to meet anti-entrapment requirements
2. Owner Manuals for Compliant Covers – A copy of each owner's manual and warranty information for covers installed in the facility

INSERT INSTALLATION DOCUMENTATION, SAMPLE DOCUMENTS ATTACHED.

Compliance Strategy

The facility has established the following strategy to achieve anti-entrapment compliance at the facility. Add and remove items as required.

Item	Deadline	Completed Date
Identify if current pool outlet covers meet Anti-Entrapment requirements	INSERT DATE	INSERT DATE
Order new pool outlet covers if required	INSERT DATE	INSERT DATE
Install anti-entrapment compliance covers	INSERT DATE	INSERT DATE
Establish ongoing anti-entrapment device inspection schedule	INSERT DATE	INSERT DATE
Confirm all vacuum outlets have covers	INSERT DATE	INSERT DATE
Order covers for vacuum outlets if required	INSERT DATE	INSERT DATE
Install covers for vacuum outlets if needed	INSERT DATE	INSERT DATE
Determine flow rate through drain covers	INSERT DATE	INSERT DATE
Block or permanently disable equalizer lines	INSERT DATE	INSERT DATE
ADD ADDITIONAL STEPS IF NEEDED	INSERT DATE	INSERT DATE

Anti-entrapment compliance planned to be achieved by: INSERT DATE

Anti-entrapment compliance strategy reviewed by Health Inspector: INSERT DATE and NAME

Note Pool Owner / Owner's Agent

This form has been created to assist your facility to achieve compliance with the ANSI Anti-Entrapment requirements detailed in the most current Alberta Pool Standards. This form is designed to assist you in tracking steps taken to achieve compliance.

1. Surveying the Facility

How many suction outlets does the facility have	
Are all of the suction outlets ANSI/APSP-16 2011 performance standards certified	Yes No

1.a If you answered no to the above question, please answer the following questions:

How many suction outlet covers comply with the ANSI or APSP-16 2011 performance standards:			
How many suction outlet covers do not comply with the ANSI or APSP-16 2011 performance standards			
When will you order the new covers?		When will the new covers be installed?	

1b. Individual/Company/Engineer responsible for the work (if different from the Owner or Owner's agent)

Name

Company Name

Phone	Email

2. Proposed work to be completed

Drain Cover Location	Proposed Compliant Cover	Planned Installation
1. Dive Tank Drain #1	Hayward Dual Suction Outlet, 9" square high flow sump with cover	January 10, 2017
2. INSERT LOCATION	INSERT DESCRIPTION	INSERT DATE

Compliance

Date of compliance		Owner / Owners Agent Signature	

Owner Manuals for Compliant Covers

This section contains all of the manuals acquired by the facility for installed drain covers. It also contains the warranty information cards for each drain cover.

INSERT OWNER'S MANUALS FOR EACH DRAIN COVER.

SAMPLE MANUAL ATTACHED (pages 17-24).

PN: ISSQUAREHF Rev: C

HAYWARD® Pool Products
A Hayward Industries, Inc. Company

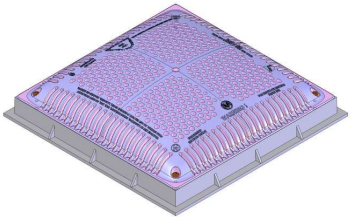
Owners Manual

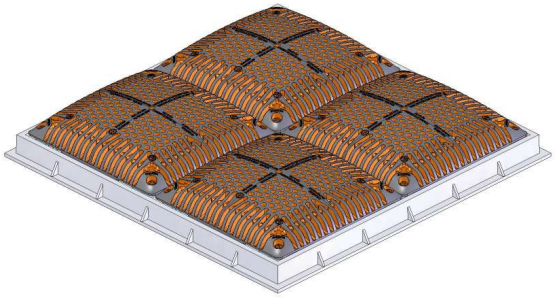
OWNER'S MANUAL

INSTALLATION, OPERATION, & PARTS

DUAL SUBMERGED SUCTION OUTLET FRAMES & COVERS

[Commonly called main drains]





Basic safety precautions should always be followed, including the following: Failure to follow instructions can cause severe injury and/or death.

⚠ This is the safety-alert symbol. When you see this symbol on your equipment or in this manual, look for one of the following signal words and be alert to the potential for personal injury.

⚠ **WARNING** warns about hazards that **could** cause serious personal injury, death or major property damage and if ignored presents a potential hazard.

⚠ **CAUTION** warns about hazards that **will** or **can** cause minor or moderate personal injury and/or property damage and if ignored presents a potential hazard. It can also make consumers aware of actions that are unpredictable and unsafe.

The **NOTICE** label indicates special instructions that are important but not related to hazards.

⚠ - WARNING - Read and follow all instructions in this owner's manual and on the equipment. Failure to follow instructions can cause severe injury and/or death.

IMPORTANT SAFETY INSTRUCTIONS

SAVE THESE INSTRUCTIONS FOR FUTURE REFERENCE.

USE ONLY HAYWARD GENUINE REPLACEMENT PARTS

⚠ WARNING – Suction Entrapment Hazard.

Suction in suction outlets and/or suction outlet covers which are, damaged, broken, cracked, missing, or unsecured can cause severe injury and/or death due to the following entrapment hazards:

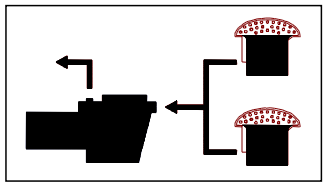
Hair Entrapment- Hair can become entangled in suction outlet cover.

Limb Entrapment- A limb inserted into an opening of a suction outlet sump or suction outlet cover that is damaged, broken, cracked, missing, or not securely attached can result in a mechanical bind or swelling of the limb.

Body Suction Entrapment- A negative pressure applied to a large portion of the body or limbs can result in an entrapment.

Evisceration/ Disembowelment Entrapment- A negative pressure applied directly to the intestines through an unprotected suction outlet sump or suction outlet cover which is, damaged, broken, cracked, missing, or unsecured can result in evisceration/ disembowelment entrapment.

Mechanical Entrapment- There is potential for jewelry, swimsuit, hair decorations, finger, toe or knuckle to be caught in an opening of a suction outlet cover resulting in mechanical entrapment.



To Reduce the risk of Entrapment Hazards:

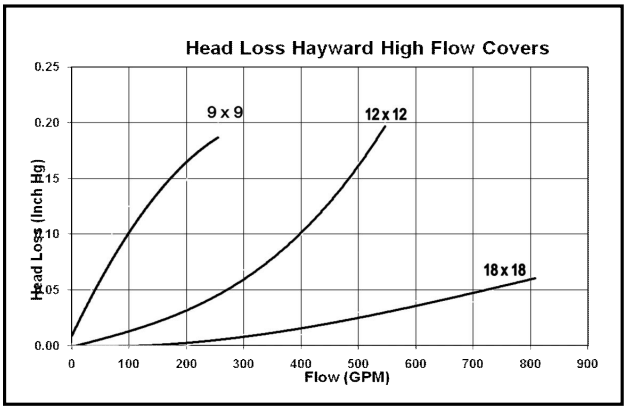
- A minimum of two functioning suction outlets per pump must be installed. Suction outlets in the same plane (i.e. floor or wall), must be installed a minimum of three feet (3') [.94 meter] apart, as measured from suction pipe center to suction pipe center. (See Diagram 1 below). If suction outlets are to be located closer then three feet (3') [.94 meter] apart, they shall be located in different planes (i.e., one on the bottom, and one on the vertical wall, or one on each of two separate vertical walls.) (See Diagram 2)
- Dual suction fittings shall be placed in such locations and distances to avoid "dual blockage" by a user.
- Dual suction fittings shall not be located on seating areas or on the backrest for such seating areas.
- The maximum system flow rate shall not exceed the flow rating of any listed (per ASME/ANSI A112.19.8M-1987, ASME A112.19.8b-2009, APSP-7) suction outlet cover installed.
- Keep suction outlet components clear of debris, such as leaves, dirt, hair, paper and other material.
- Never use a Pool or Spa if any suction outlet component is damaged, broken, cracked, missing, or not securely attached.
- Prior to each use of the swimming pool and/or spa, observe and replace damaged, broken, cracked, missing, or not securely attached suction outlet components immediately.
- Remove pressure test plugs and/or plugs used in winterization of the pool/spa from the suction outlets.
- Two or more suction outlets per pump should be installed in accordance with latest APSP Standards and CPSC guidelines, follow all National, State, and Local codes applicable.
- Multiple layers of protection are available including installation of a vent pipe system, a gravity flow system, or a vacuum release system.
- Suction outlet components have a finite life, the cover/grate should be inspected frequently and replaced at least every seven years or if found to be damaged, broken, cracked, missing, or not securely attached.
- Do not exceed maximum flow rate stated on suction fitting.
- Only replace a pump with one with a similar flow curve, avoid a pump with a higher horsepower rating.
- To reduce the risk of body entrapment, installation of the field fabricated sumps must be such that the top of the mounted WG1031BHF cover is a minimum of 1 ½" above; and the top of the mounted WG1032BHF cover is a minimum of 1 13/16" above, the finished pool surface over an area larger than 40" on a diagonal.

RECOMMENDED SYSTEM SPECIFICATIONS:

ACCEPTABLE PIPE SIZE FOR MAXIMUM RECOMMENDED SYSTEM FLOW RATE PER APSP-7 (6 FT/SEC IN THE BRANCH LINE)

Pipe Size [mm]	Flow rate GPM [Liter/Min]	Pipe Size [mm]	Flow rate GPM [Liter/Min]
2 ½" [75]	90 [340]	4" [100]	238 [900]
3" [90]	138 [522]	6" [90]	540 [2040]

CHART 1



WG1031BHF Suction Outlet Cover (Replacement sold as a WGX1031BHF) is rated for 224 GPM Wall Mounted or 264 GPM Floor Mounted for single or multiple suction outlet use. (9" x 9")

WG1032BHF Suction Outlet Cover (Replacement sold as a WGX1032BHF) is rated for 308 GPM Wall Mounted or 515 GPM Floor Mounted for single or multiple suction outlet use. (12" x 12")

WG1033BHF Suction Outlet Cover (Replacement sold as a WGX1033BHF) is rated for 732 GPM Wall Mounted or 812 GPM Floor Mounted for single or multiple suction outlet use (This is a package of four 9" x 9" covers and frames) (18" x 18")

In the event of one suction outlet being blocked, the remaining suction outlets serving that system shall have a flow rating capable of the full flow of the pump(s) for the specific suction system.

Example: In the System shown in **Diagram 1**, two (2) 12" Square (WG1032HFPAK2) suction outlet covers are selected and mounted on the floor. These covers are individually rated for 515 GPM. For a desired flow of 130 GPM, a minimum pipe size from **Chart 1** is selected at 3". At the desired flow of 130 GPM one cover could be partially blocked and the other suction outlet flow would be below the rated 515 GPM of the remaining suction outlet. Since there are two outlets flowing in normal operation, and the allowable velocity in the branch piping is only 3ft/sec with both outlets flowing, the branch piping would require 3" pipe size.

Example: In the System shown in **Diagram 2**, two (2) 12" Square (WG1032HFPAK2) suction outlet covers are selected and mounted, on one the floor and the other on the wall. These covers are individually rated for 515 GPM on the floor and 308 GPM when wall mounted. For a desired flow of 110 GPM, a minimum pipe size from **Chart 1** is selected at 3". At the desired flow of 110 GPM one cover could be partially blocked and the other suction outlet flow would be below the rated 308 GPM of the remaining suction outlet. Since there are two outlets flowing in normal operation, and the allowable velocity in the branch piping is only 3ft/sec with both outlets flowing, the branch piping would require 3" pipe size.

Minimum distance 3 feet (Pipe Centerlines)

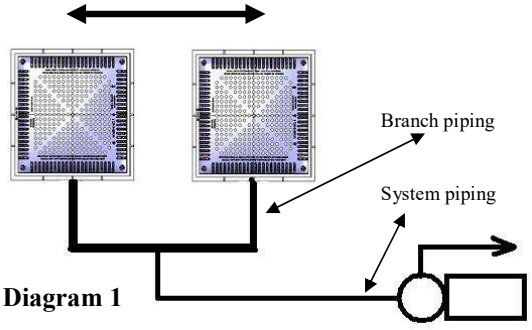


Diagram 1

Dual Outlets on Different Planes (Elevation or Plan View)

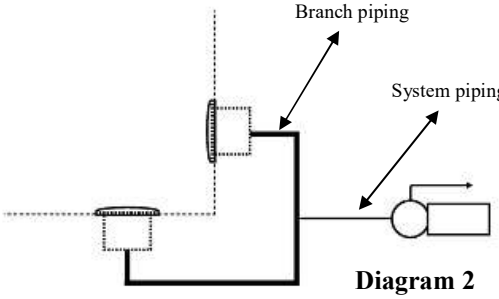


Diagram 2

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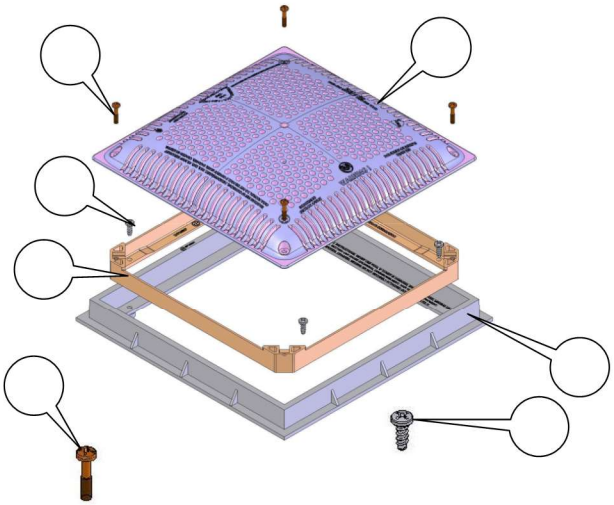
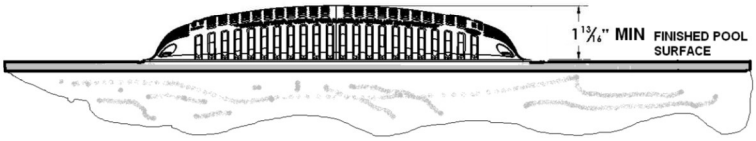
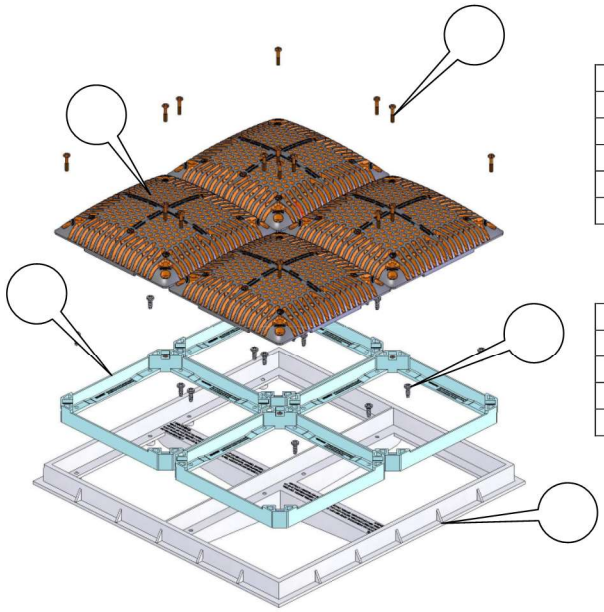
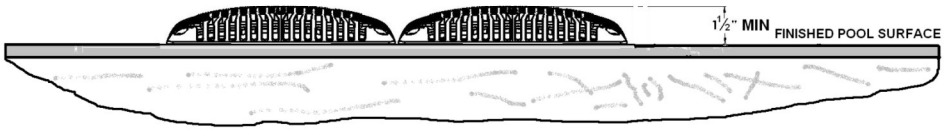



1 13/16" MIN
FINISHED POOL SURFACE

⚠

-




1½" MIN
FINISHED POOL SURFACE

⚠

HAYWARD® LIMITED WARRANTY

To Buyer, as original purchaser of this equipment, Hayward Pool Products, 620 Division Street, Elizabeth, New Jersey, warrants its products free from defects in materials and workmanship for a period of **ONE (1)** year from the date of purchase.

Parts which fail or become defective during the warranty period, except as a result of freezing, negligence, improper installation, use, or care, shall be repaired or replaced, at our option, without charge, within 90 days of the receipt of defective product, barring unforeseen delays.

To obtain warranty replacements or repair, defective components or parts should be returned, transportation paid, to the place of purchase, or to the nearest authorized Hayward service center. For further Hayward dealer or service center information, contact Hayward customer service department. No returns may be made directly to the factory without the express written authorization of Hayward Pool Products

Hayward shall not be responsible for cartage; removal and/or reinstallation labor or any other such costs incurred in obtaining warranty replacements.

The Hayward Pool Products warranty does not apply to components manufactured by others. For such products, the warranty established by the respective manufacturer will apply.

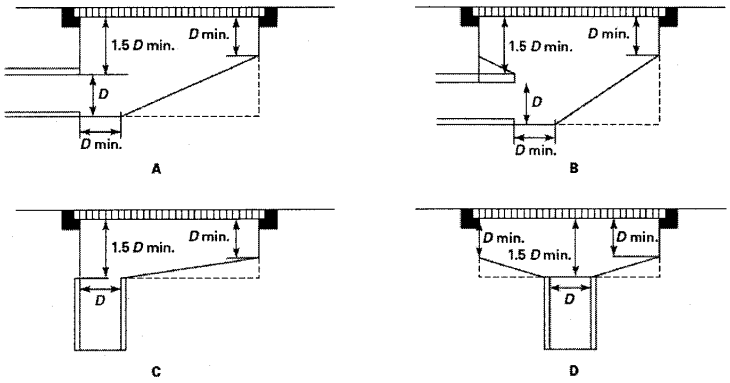
Some states do not allow a limitation on how long an implied warranty lasts, or the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you.

This warranty gives you specific legal rights, and you may also have other rights, which vary from state to state.

***Supersedes all previous publications.**

Hayward Pool Products
620 Division Street
Elizabeth, NJ 07207

Field built sumps must be built in accordance with the following:



GENERAL NOTES:

(a) D= inside pipe diameter.
(b) All dimensions shown are minimums.
(c) A broken line (-----) indicates suggested sump configuration.

PRODUCT REGISTRATION (Retain For Your Records)
DATE OF INSTALLATION _____

▲Retain this Warranty Certificate (upper portion) in a safe and convenient location for your records.

DETACH HERE: Fill out bottom portion completely and mail within 10 days of purchase/installation, OR REGISTER YOUR WARRANTY ONLINE AT WWW.HAYWARDNET.COM

Dual Suction Outlet Set

Warranty Card Registration

Register your warranty on-line at www.haywardnet.com

Please print clearly.

First Name_____ Last Name _____

Street Address_____

City_____ State_____ Zip _____

Phone Number_____ Purchase Date_____

E-mail address _____

Serial Number (10-17 Digit Number) | | | | | | | | | | | | | | | | |

Model Number_____

Pool Capacity_____(U.S. Gallons)

☐ Please include me on all e-mail communications regarding Hayward equipment or promotions.

Years pool has been in service

☐ 1 year or less ☐ 2-3 ☐ 4-5 ☐ 6-10 ☐ 11-15 ☐ >16

Purchased from_____

☐ Builder ☐ Retailer ☐ Pool Maintenance ☐ Internet/Catalog

Company name_____

Address_____

City_____ State_____ Zip_____

Phone _____

Type of Pool:

☐ Concrete/Gunite ☐ Vinyl ☐ Fiberglass ☐ Other_____

☐ New Installation ☐ Replacement

Installation for:

☐ Inground ☐ Aboveground ☐ Spa

Mail to: Hayward Industries, Inc. 620 Division Street, Elizabeth, NJ 07207,
Attn: Warranty Dept. or Register your warranty on-line at www.haywardnet.com

HAYWARD Pool Products
One source. Every pool.

HAYWARD Pool Products
A Hayward Industries, Inc. Company

USE ONLY HAYWARD GENUINE REPLACEMENT PARTS

Pomona, CA
Clemmons, NC

Nashville, TN

North Kingstown, RI
Oakville, ON, Canada

St. Vulbas, France
Wuxi, China

www.haywardpool.com

APPENDIX B – CERTIFICATES OF COMPLIANCE

This section contains the certificate of compliance for each installed drain cover.

INSERT CERTIFICATE OF COMPLIANCE FOR EACH INSTALLED SUCTION COVER.

SAMPLES INCLUDED (page 26).

1 Hayward Industrial Drive
Clemmons, NC 27012
336-712-9900
www.haywardnet.com

CERTIFICATION OF COMPLIANCE

Contains: WG1032BLV Description: 12”x12” Suction Outlet Cover

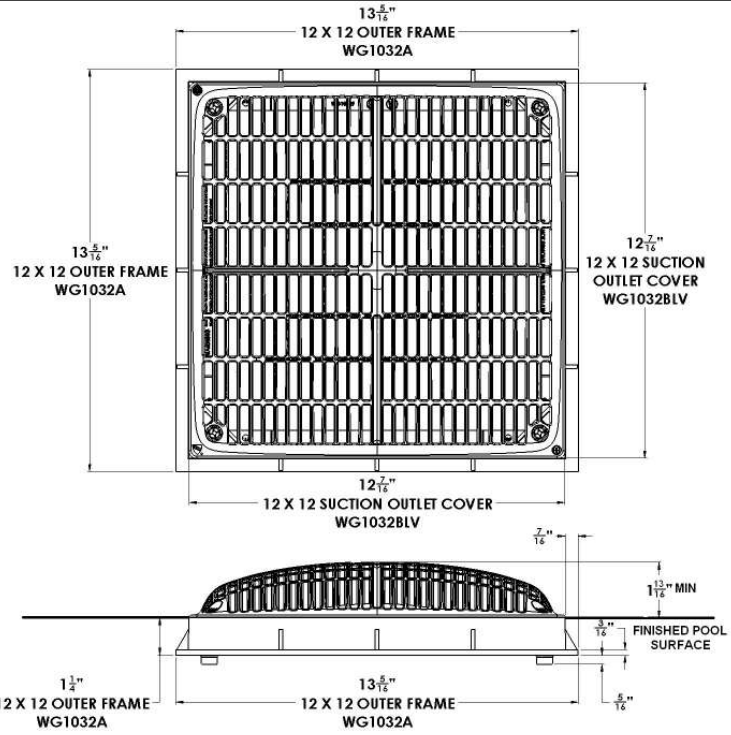
Ratings: Floor:_____***392 GPM***_____ Wall:_____***260 GPM***_____ Open Area:___***83.30 sq-in***____
Certified to Comply with Section 1404 of the Virginia Graeme Baker Act (VGB) Pool & Spa Safety Act
Test Results can be obtained from:www.Haywardnet.com

Manufactured: After September 10, 2009, by Hayward Pool Products in Jiangsu Province, China, a Division of Hayward Industries, Inc. 620 Division Street, Elizabeth, NJ 07207, Phone 908-355-7995

Date of Mfr: The Lot Number shown on the product label contains the Year & Month of manufacture. The first number represents the year (ex 8 = 2008) and the second character the month (A=Jan, B=Feb, H=Aug, I is skipped, J=Sep, etc)

Tested to ANSI/ASME 112.19.8-2007 (addendum 8b-2009) per Section 1404 of the Virginia Graeme Baker Act (VGB) Pool & Spa Safety Act. Certified by IAPMO, 5001 E. Philadelphia Street, Ontario, CA 91761 (909)-472-4100.

Date of Installation:_____ ISWG1032LVCOC Rev A



⚠ Warning – Suction Entrapment Hazard.

Suction in suction outlets and/or suction outlet covers which are installed in a small area and/or below the surrounding surface can cause severe injury or death due to body entrapment hazard.

•To reduce the risk of body entrapment, installation of the field fabricated sumps must be such that the top of the mounted cover is a minimum of 1 13/16” above the finished pool surface over an area larger than 40” on a diagonal.

GOLDLINE CONTROLS A HAYWARD COMPANY

HAYWARD Pool Products
One source. Every pool.

APPENDIX C – IINSPECTION CHECKLISTS

This section contains inspection checklists used by the facility to complete inspections for anti-entrapment devices.

INSERT INSPECTION DOCUMENTATION

SAMPLE CHECKLISTS INCLUDED (page 28-30).

Inspection Checklist Reference – Anti-Entrapment Devices

ITEM	Result	Description
Pool Suction Outlet Drain Covers	Yes	No cracks Screws in place No corrosion or rust on screws Cover is secure (In-Water Inspection)
	No	Crack in cover One or more screw(s) missing Rust present on screws Cover is not secure (In-Water Inspection)
Vacuum Plug(s)	Yes	Bathers are not able to remove the vacuum plug The plug is secure The plug is in good condition (i.e. no cracks)
	No	The cover is missing The cover is damaged The cover could be easily removed by a bather
Emergency Stop Button(s)	Yes	Emergency stop button works as intended Has a label indicating its function
	No	Emergency stop button does not function as intended Does not have a label indicating its function
Slide Pump Suction Outlet Covers	Yes	No cracks Screws in place Cover is secure (In-Water Inspection)
	No	Crack in cover One or more screw(s) missing Cover is not secure (In-Water Inspection)
Water Feature Suction Outlet Covers	Yes	No cracks Screws in place Cover is secure (In-Water Inspection)
	No	Crack in cover One or more screw(s) missing Cover is not secure (In-Water Inspection)
Equalizer Line(s)	Yes	Line is disabled (cemented in, line cut) OR Plug is in place to disable it
	No	Line is not disabled OR plugged

Anti-Entrapment Inspection Checklist (Daily)

Sample Inspection Report

Facility Name:		Pool Basin:	

Daily Checklist (Visual Inspection from Pool Deck)

Item	Description	Yes	No
Pool Drain Covers	The cover is in place and is secure		
	The cover is undamaged (no cracks)		
Vacuum Plug(s)	The vacuum plug is in place and is secure.		
	The vacuum plug could not be easily removed by a bather		
Emergency Stop Buttons	Activating button shuts off pump(s)		
	A label or sign is posted next to the button indicating its function and use		
Slide Pump Suction Outlets	The cover is in place and is secure		
	The cover is undamaged (no cracks)		
Water Feature Suction Outlets	The cover is in place and is secure		
	The cover is undamaged (no cracks)		
Equalizer Line	The equalizer line is disabled		
	The equalizer link is plugged		
Secondary Anti-Entrapment Devices	Passed inspection/test as indicated in manufacturer recommendations		

Notes:

Corrective Actions Taken: None / Pool Closed / Maintenance Requested

Details:

Inspected by		
Name (Print):	Signature	Date:

Reviewed by		
Follow Up Required: (YES/NO)	Further Action:	
Name (Print):	Signature	Date:

Anti-Entrapment Inspection Checklist (Weekly)

Sample Inspection Report

Facility Name:		Pool Basin:	

Daily Checklist (Visual Inspection from Pool Deck)

Item	Description	Yes	No
Pool Drain Covers	The cover is in place and appears secure		
	The cover is undamaged (no cracks)		
	Screws are in good condition (no corrosion)		
Vacuum Plug(s)	The vacuum plug is in place and secure.		
	The vacuum plug could not be easily removed by a bather		
Emergency Stop Buttons	The button works.		
	A label or sign is posted next to the button indicating its function and use		
Slide Pump Suction Outlets	The cover is in place and appears secure		
	The cover is undamaged (no cracks)		
Water Feature Suction Outlets	The cover is in place and appears secure		
	The cover is undamaged (no cracks)		
Equalizer Line	The equalizer line is disabled		
	The equalizer link is plugged		
Secondary Anti-Entrapment Devices	Passed inspection/test as required in manufacturer recommendations		

Notes:

Corrective Actions Taken: None / Pool Closed / Maintenance Requested

Details:

Inspected by		
Name (Print):	Signature	Date:

Reviewed by		
Follow Up Required: (YES/NO)	Further Action:	
Name (Print):	Signature	Date:

RESOURCES

Lifesaving Society – Public Pool Safety Standards
Government of Alberta – Public Swimming Pools Regulation
Government of Alberta – Pool Standards July 2014 (Amended 2017)
Government of Alberta – Alberta Building Code
Lifesaving Society – Public Aquatic Facility Safety Standards
Lifesaving Society – Semi-Public Aquatic Facility Safety Standards
Government of Northwest Territories – Public Pool Regulations, RRNWT 1990
Lifesaving Society – Public Aquatic Facility Safety Standards
Lifesaving Society – Semi-Public Aquatic Facility Safety Standards