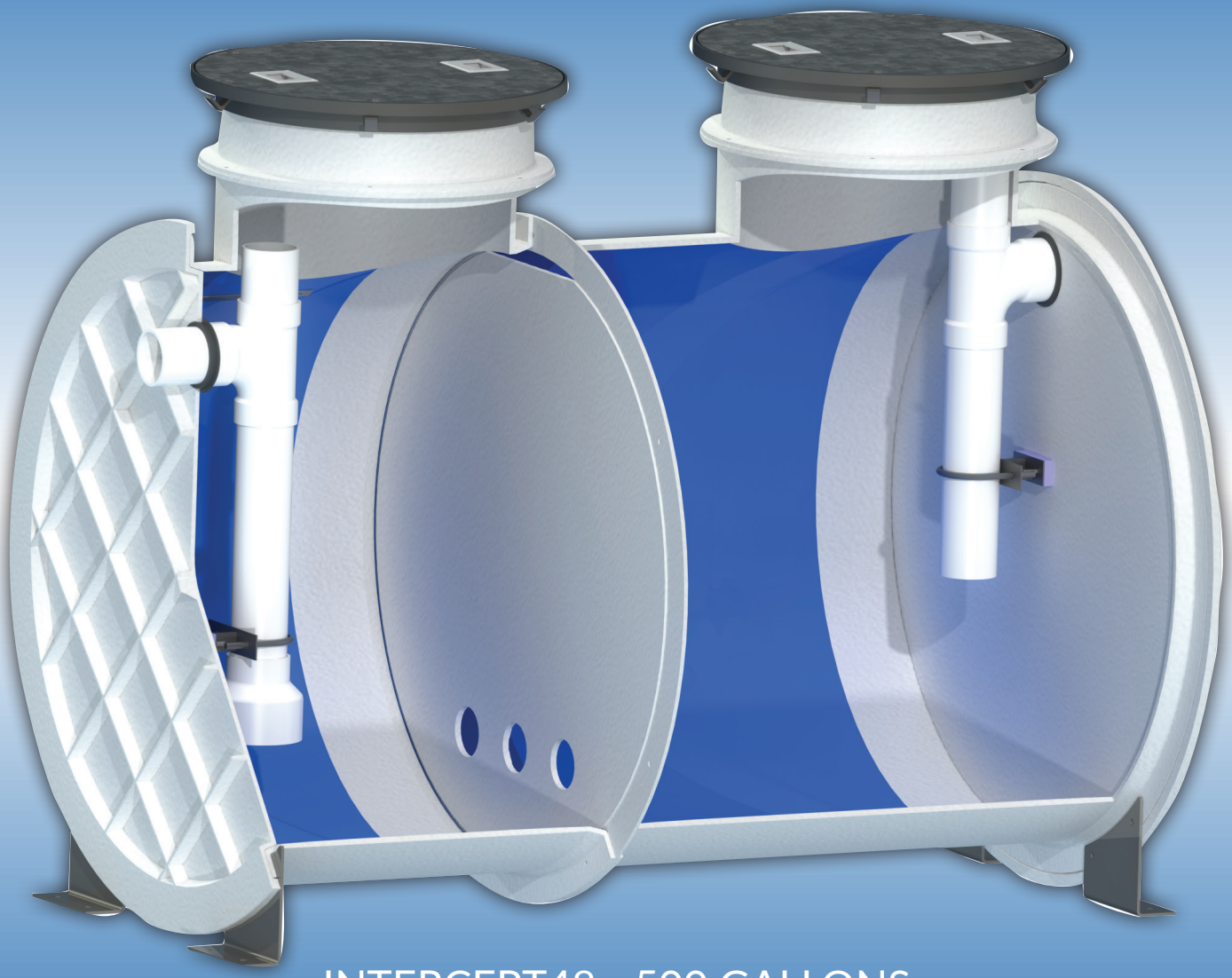
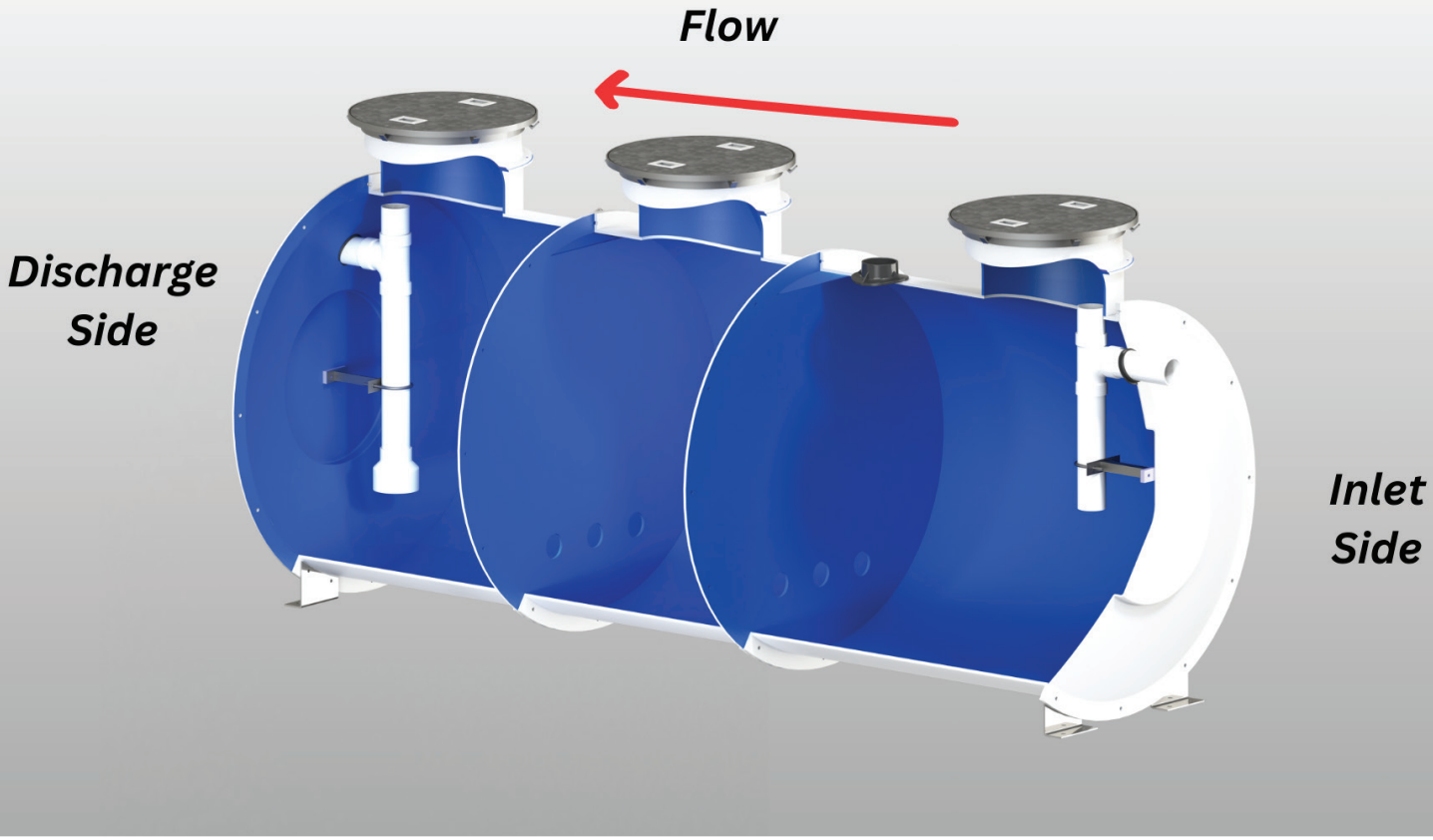
# TOPP Grease/Oil Interceptor System - IAPMO



INTERCEPT48 - 500 GALLONS

Rochester, IN 46975 • (800) 354-4534 • www.toppindustries.com

# INTERCEPTOR SYSTEMS




| Part No. | System Capacity | Est. Shipping Weight | Overall Length |
|---|---|---|---|
| INTERCEPT500-IAPMO | 500 gals | 1035 lbs | 85” |
| INTERCEPT750-IAPMO | 750 gals | 1220 lbs | 124” |
| INTERCEPT1000-IAPMO | 1,000 gals | 1395 lbs | 159” |
| INTERCEPT1600-IAPMO | 1,600 gals | 1630 lbs | 173” |

# The Best Blend of Design, Durability and Environmental Solutions

## From the leader in Sump & Sewage Basins

The fiberglass Grease/Oil Interceptor Systems by TOPP are volume-based grease interceptors (VBGI) intended for either above or below ground installation. Designed to separate fats, oils and greases (FOG), heavy sediments and other contaminants in the wastewater stream that may build up and interfere with the proper drainage into the sewage system for treatment, these systems are listed with The International Association of Plumbing and Mechanical Officials (IAPMO) and compliant with the ANSI/CAN/IAPMO Z1001-2021 standard.

## Operation

Wastewater containing FOG and heavy sediments enter through the system inlet. The internal design of the separator reduces the velocity of the flow and uses the principles of buoyancy to allow the separation of contaminates into three layers. Lighter than water contaminants rise to the top of the separator chambers, heavy sediments settle to the bottom, and the wastewater flows through baffles to the discharge.

## Features

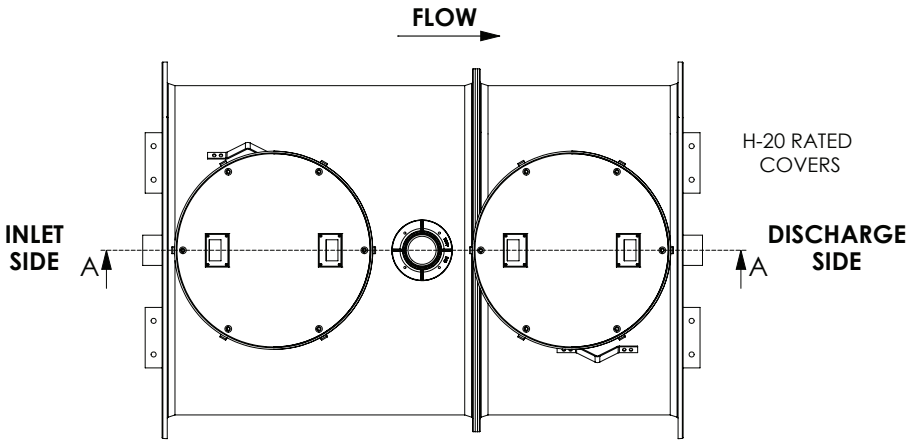
- Corrosion resistant, filament wound fiberglass
- White gel coated exterior
- Stainless steel lifting lugs
- 4” Inlet/Outlet/Vent (*6” Optional Inlet)
- Above and below ground installation
- Available in 500, 750, 1,000 and 1,600 gallon units
- 30 year warranty

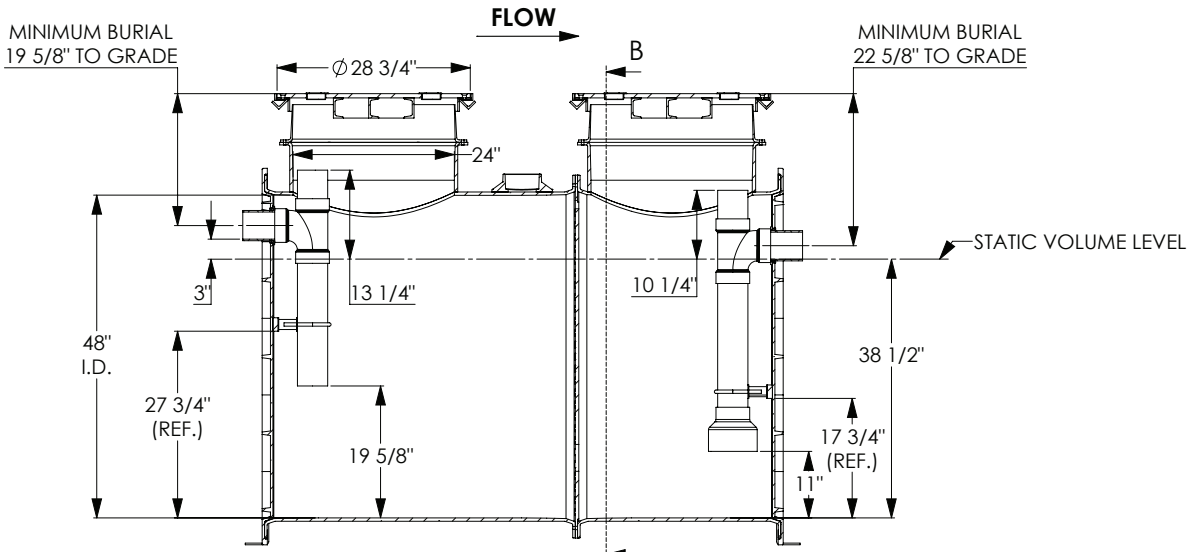
## Cover Options

- H-20 rated solid galvanized steel
- Solid fiberglass (for above ground installation only)

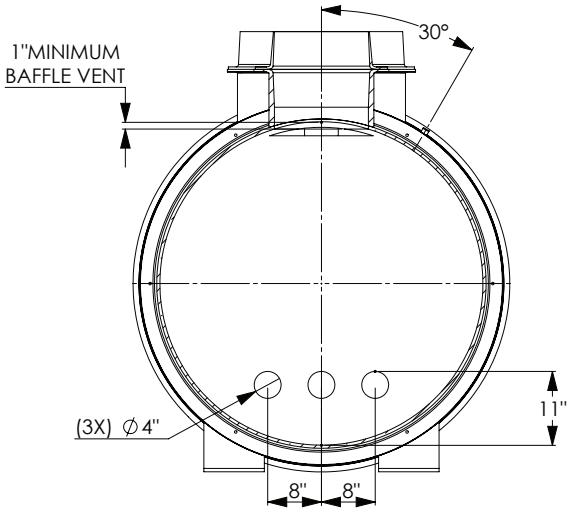
# INTERCEPTOR SYSTEMS

## GREASE/OIL SEPARATOR



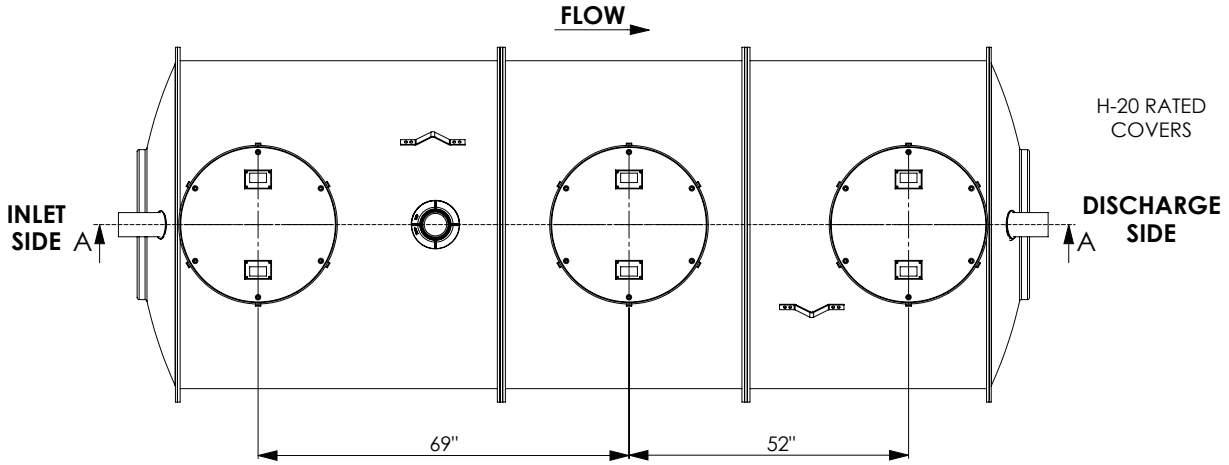

SECTION A-A

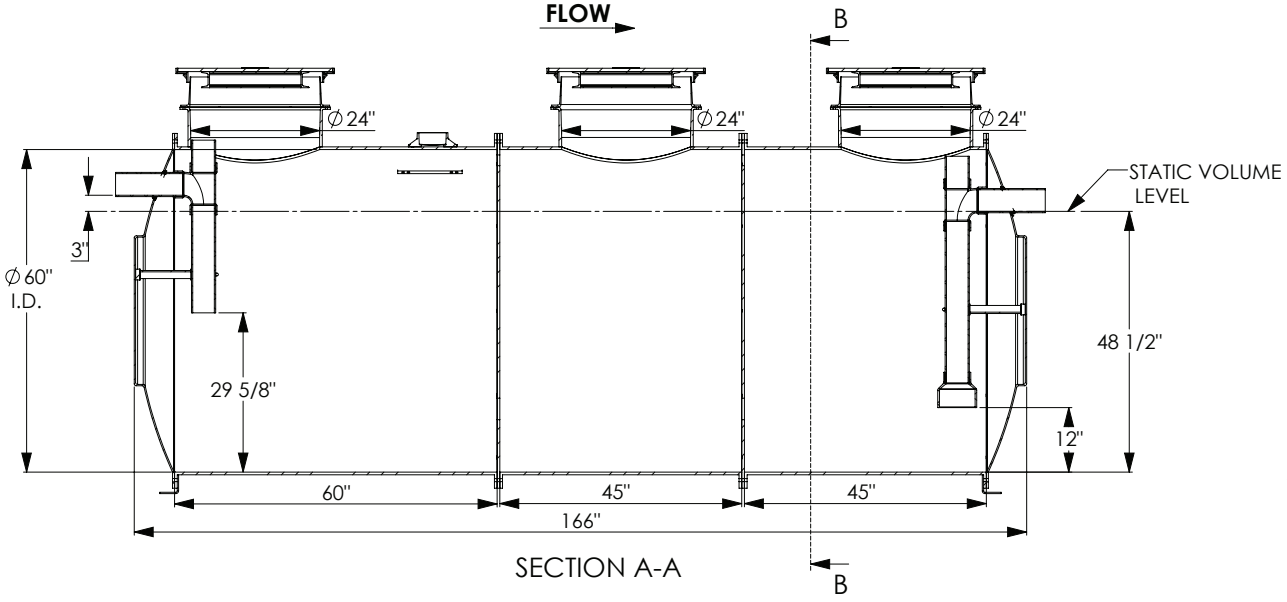



SECTION B-B

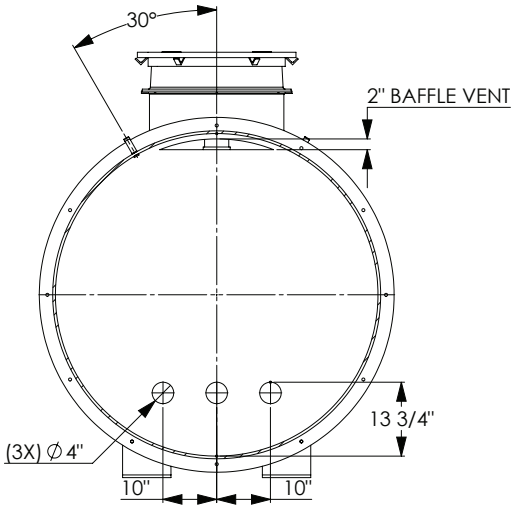
# INTERCEPTOR SYSTEMS

## GREASE/SEDIMENT SEPARATOR



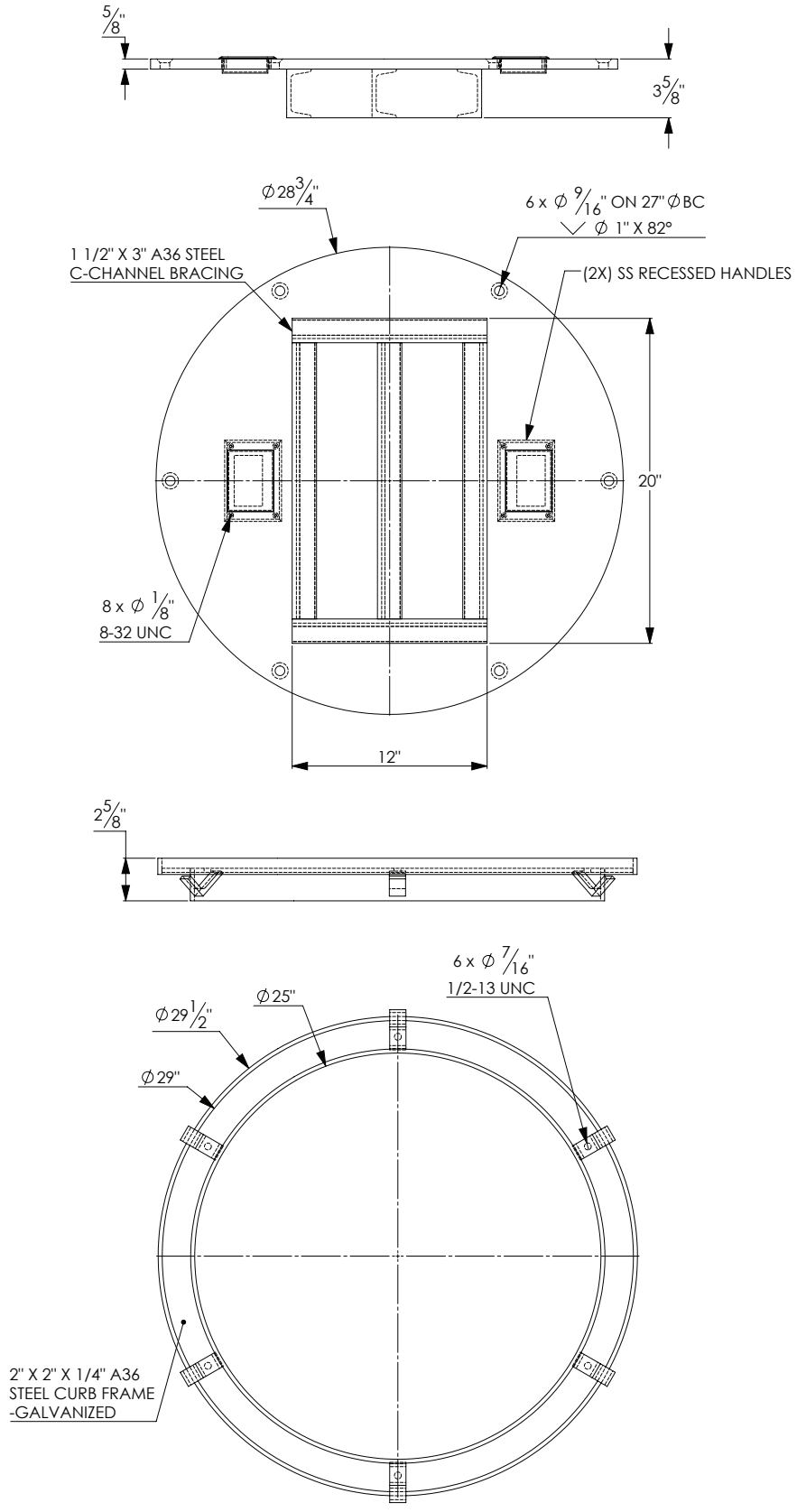

SECTION A-A




SECTION B-B

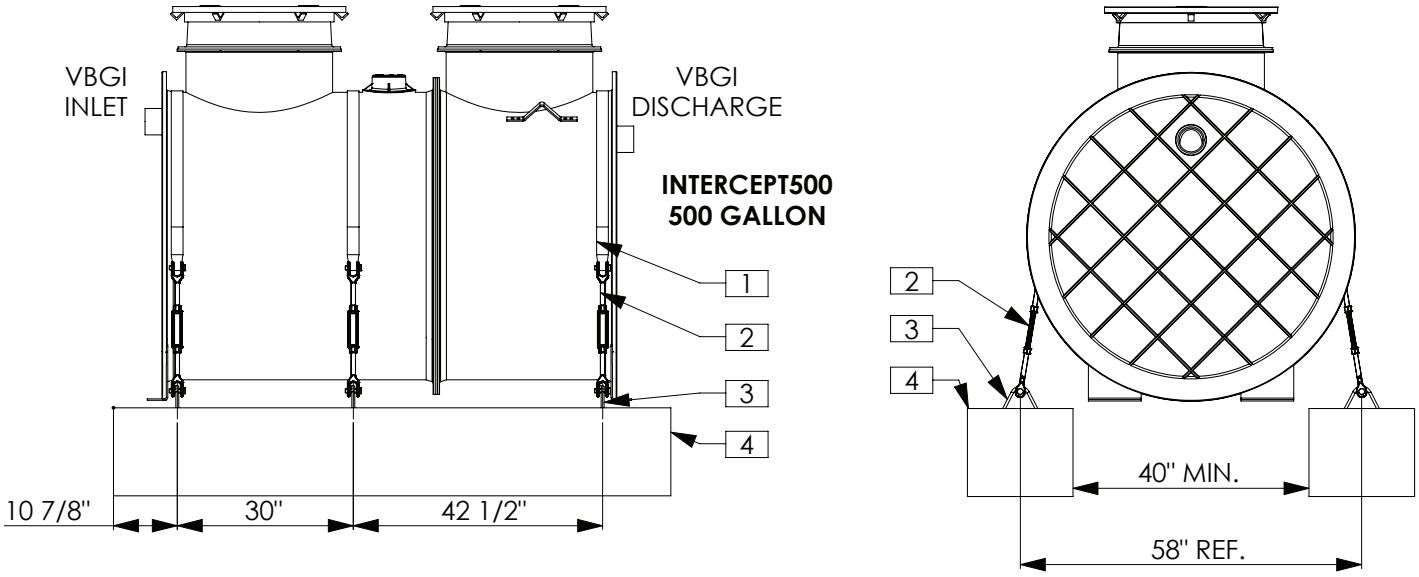
# H-20 SOLID COVER

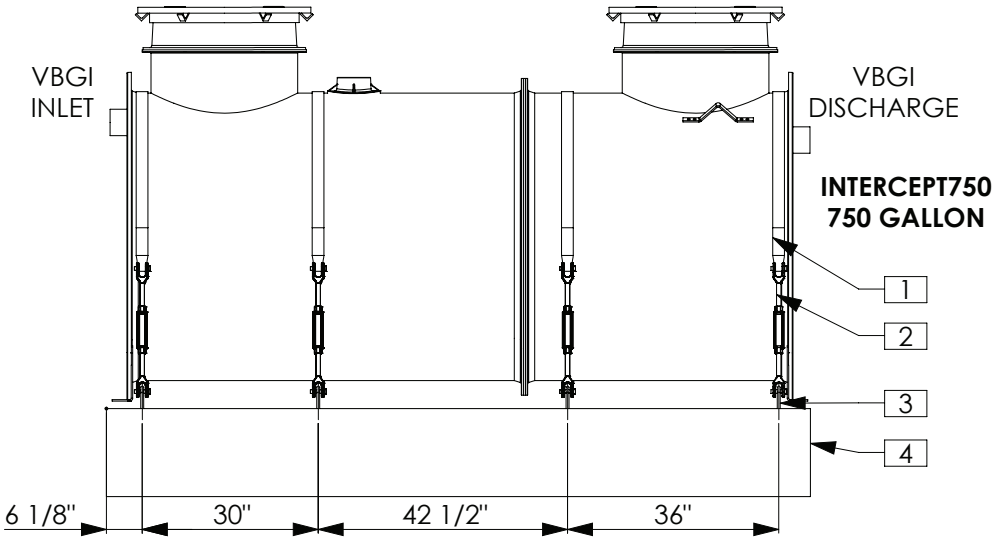
## C24WS-20

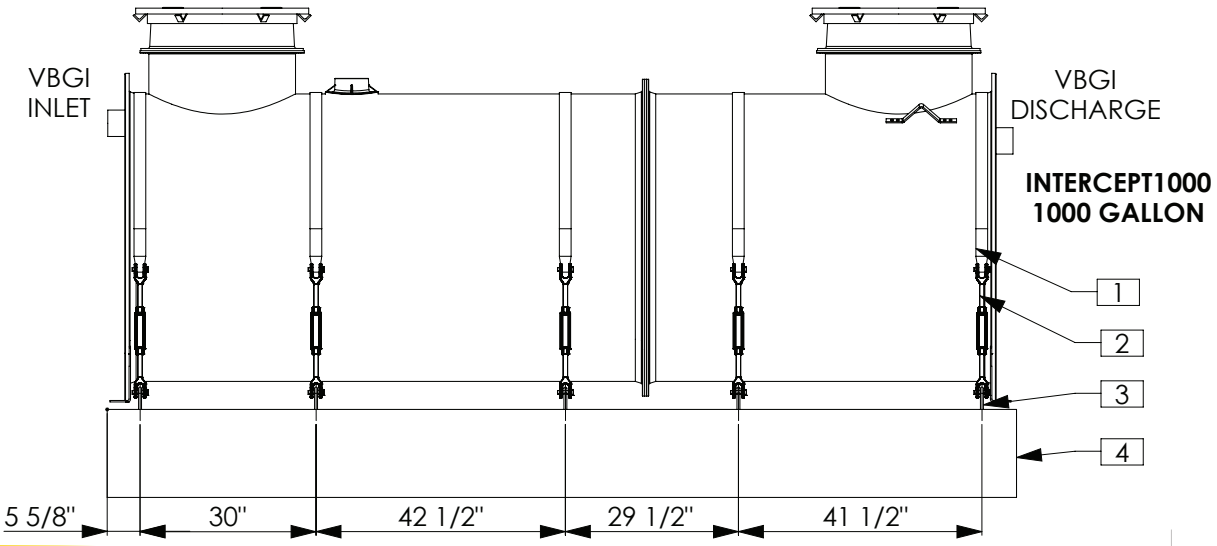


# INTERCEPTOR DEADMAN KITS

## AKIT500, AKIT750, AKIT1000

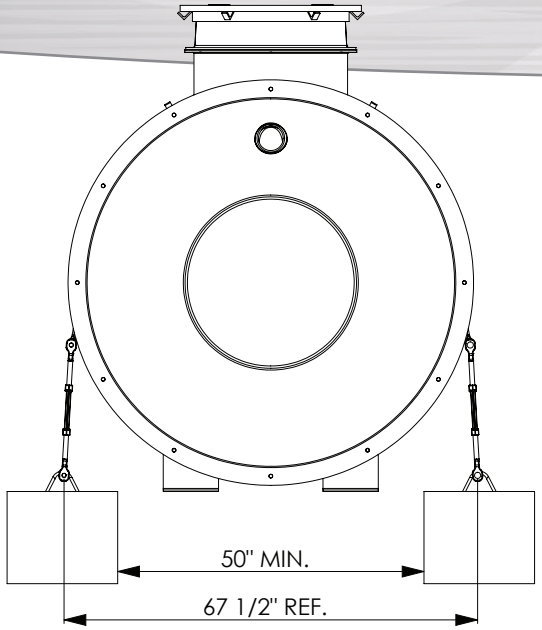


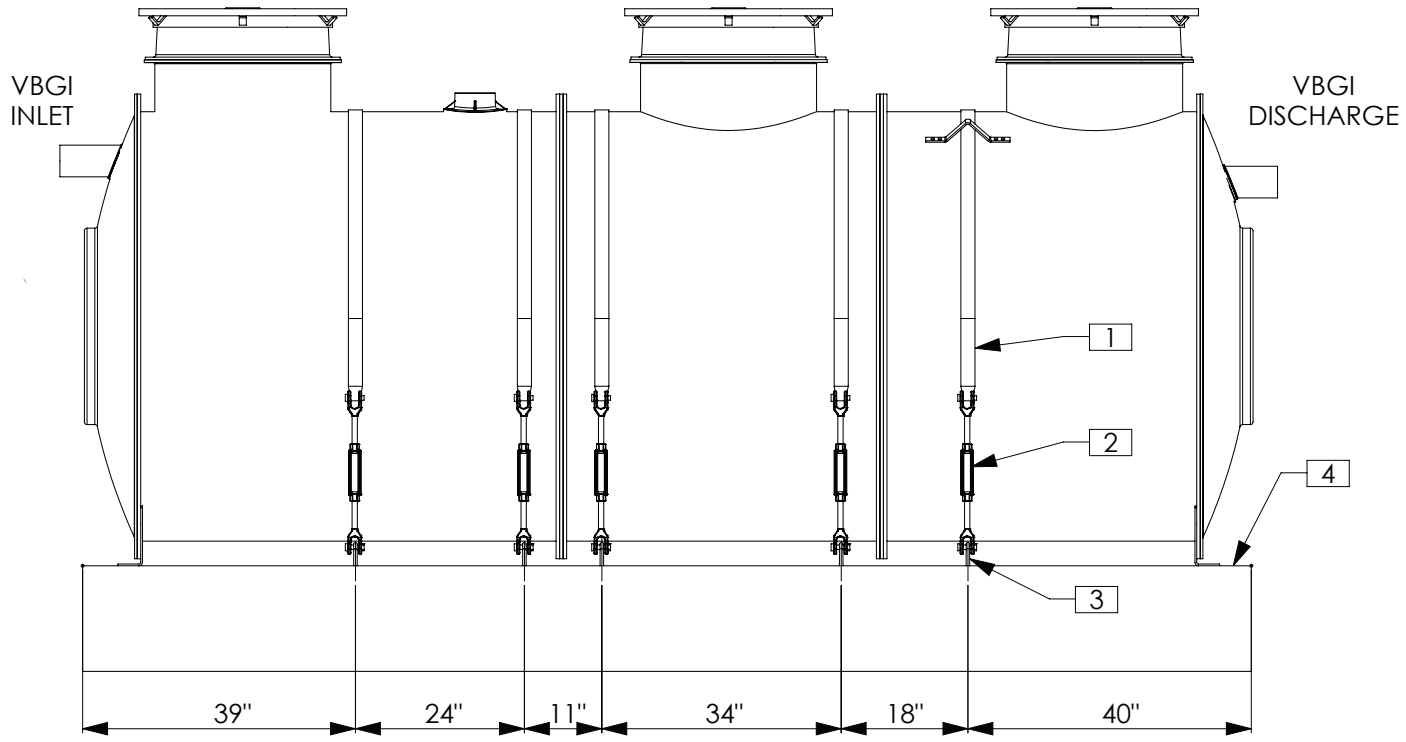



# INTERCEPTOR DEADMAN KIT

## AKIT1600

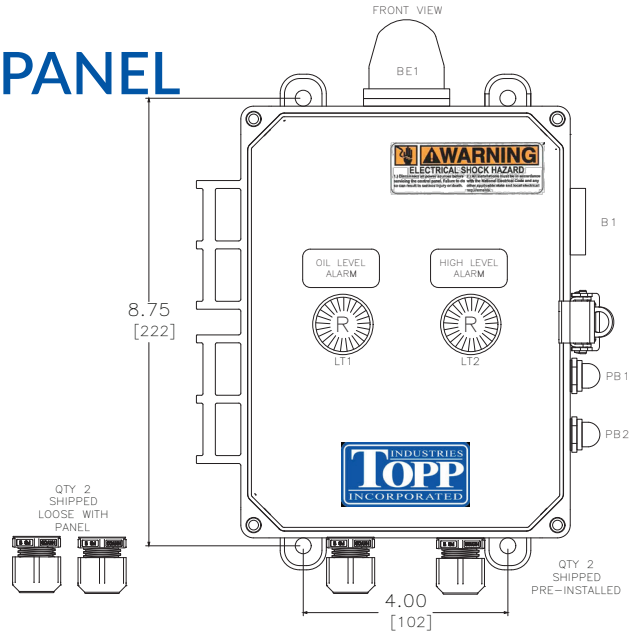


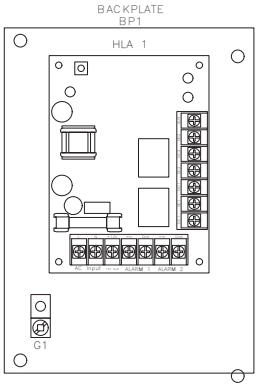




| REF NO. | MATERIAL | DESCRIPTION | AKIT 500 | AKIT 750 | AKIT 1000 | AKIT 1600 |
|---|---|---|---|---|---|---|
| 1 | DEADMAN STRAP - 8' | 2" X 8' Long Twisted Eye-to-Eye 6400# 2-Ply Sling Style Strap | 3 | 4 | 5 | |
| 1 | DEADMAN STRAP - 10' | 2" X 10' Long Twisted Eye-to-Eye 6400# 2-Ply Sling Style Strap | - | - | - | 5 |
| 2 | TURNBUCKLE | 3/4" X 6" Forged Jaw / Jaw Turnbuckle, Galvanized | 6 | 6 | 10 | 10 |
| 3 | DEADMAN TIE-DOWN | Loops or Rebar - By Others | 6 | 8 | 10 | 10 |
| 4 | DEADMAN CONCRETE | Concrete Deadman - By Others | 2 | 2 | 2 | 2 |

# CONTROL PANEL

CP3084


# GREASE INTERCEPTOR ALARM PANEL

## CP3084 INSTALLATION AND OPERATION

The CP3084 provides constant monitoring of potential threatening liquid level conditions at two alarm points. All alarm panels are UL Listed for the United States and Canada and come with a five-year warranty.

### Enclosure Mounting: NEMA 4X RATED

Mounting Brackets - Mounting brackets can be installed either horizontally or vertically over the square boss using the included ¼”-20 x 0.5” stainless steel countersunk Phillips screws. Ensure brackets are securely fastened in a configuration that suits your installation requirements.

Covers/Doors - Covers/doors have a gasket pre-assembled to seal against the base.

Note - The alarm should not be mounted in a location that may be subject to submersion.

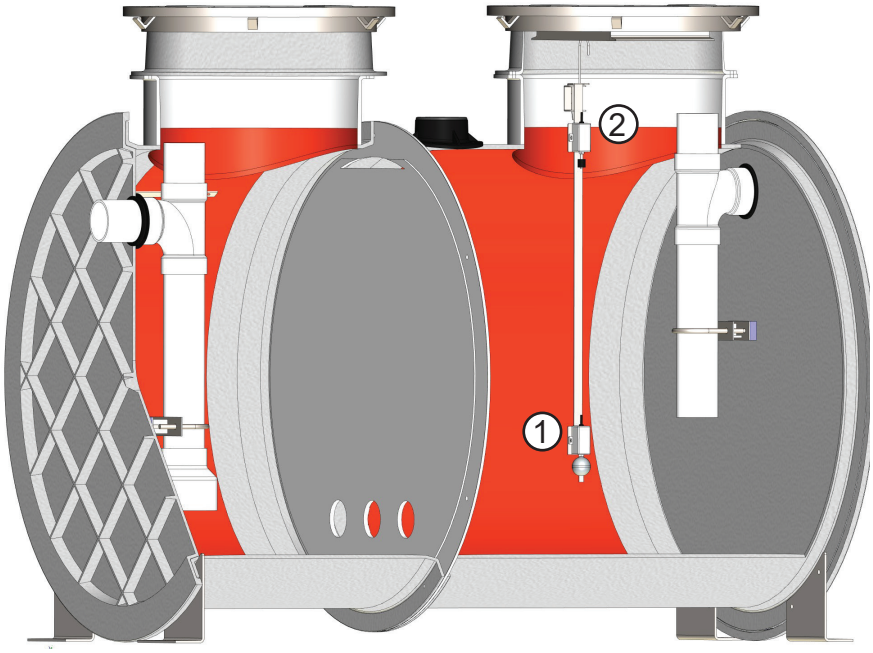
### Panel Installation

1. Caution: To maintain the NEMA 4X rating,make all wiring connections with seal tight cable grips or conduit connections.
2. Run buna float cables through conduit. Make field connections as shown on wiring schematic.
3. Run power line conductor through separate conduit. Wire to terminals per enclosed schematic.
4. Branch circuit protection to be provided by installer.
5. Ensure floats are properly mounted at the correct levels Note: Buna floats shall have free range of motion without touching other equipment.
6. Connect service conductors 120/208/240VAC to proper location.

# GREASE INTERCEPTOR ALARM PANEL

## CP3084 INSTALLATION AND OPERATION

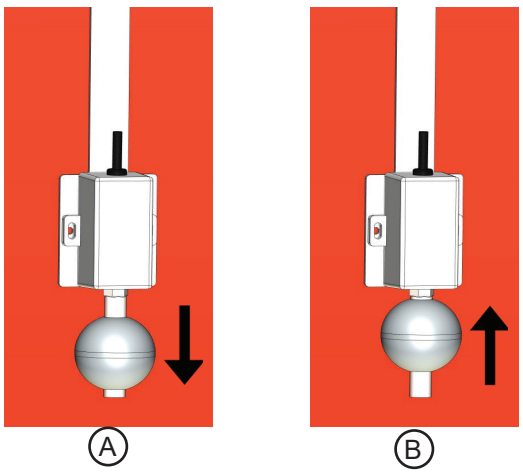
### Sequence of Operation



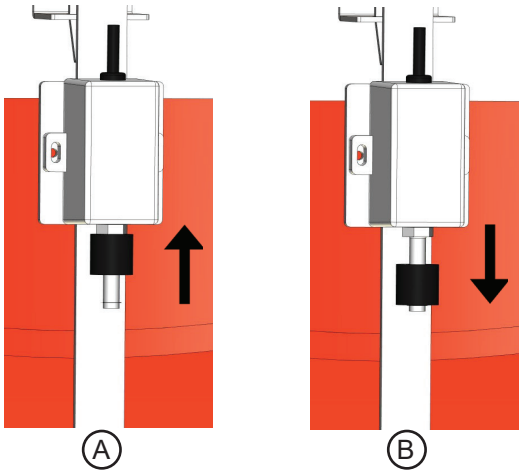

1. The fat/oil/grease float is designed to sink in fat/oil/grease, but float in water. When switch 1 is in the down position as shown in **Figure 1A**, the panel will alarm, illuminate the 360 degree visible beacon, sound an 85 decibel buzzer and close the dry contact for Alarm 1 indicating that fat/oil/grease is present and needs to be cleaned out.

2. If the water level rises to the high level and raises the high level switch 2 as shown in **Figure 2A**, the panel will alarm, illuminate the 360 degree visible beacon, sound an 85 decibel buzzer and close the dry contact for Alarm 2 indicating a high level of water or oil/grease.

1. Grease Float Switch in ON (A) and OFF (B) Position




2. High Water Switch in ON (A) and OFF (B) Position



## Trouble Shooting

Caution - *before checking electrical connections within the control or attempting to replace any components, turn off all branch circuits supplying power to the main control panel.*

Control Board and Fuse - If the power on light is not illuminating on the control board, check the voltage at TS1-1 and TS1-2 with a voltage meter. The voltage should read 120VAC. If voltage is present, check the fuse in the fuse box. If the fuse is blown, replace fuse with same type. The dry contacts are rated for 0-60 VAC or VDC, 1 amp max.

Buna Floats - Clean buna floats off when possible to allow free range of motion for alarm conditions to properly work.

## Warranty

Topp Industries warrants that products of its manufacture are free from defects in material and workmanship for a period of 5 years from the date of purchase. This date shall be determined by the date on the invoice and the serial number on the product. Replacement of the product is at the discretion of Topp Industries. This warranty is valid when the product is installed in compliance with the manufacturer's installation instructions. The manufacturer's obligation under this warranty shall be limited to the repair or replacement of any parts found by the manufacturer to be defective, provided that the product is returned to Topp Industries' factory, freight prepaid with proof of original purchase included.

The manufacturer of this warranty shall not be liable under this warranty if the product has not been properly installed; any alterations/additions/changes to the product will result in a void warranty. Failure to properly install and test this product can result in personal injury or equipment malfunction. Topp Industries shall not be liable for any loss, damage or expenses from installation or use of its products.

# PREFABRICATED FRP VBGI SAMPLE SPECS

## SECTION 1 - GENERAL

### 1. Description

1.1. Scope of Work - Contractor shall furnish all labor, materials, equipment, and performance of all work necessary or incidental to furnish and install a prefabricated fiberglass reinforced polyester (FRP) Volume Based Grease Interceptor (VBGI). The VBGI shall be a completely factory-assembled unit, requiring only minor adjustments and reassembly in the field.

### 2. Quality Assurance

2.1. Qualifications of Manufacturer

2.1.1. \The manufacturer shall demonstrate the ability to fabricate the various VBGI components, as shown in the plans and as specified herein, utilizing adequate number of skilled workmen, equipment, tools, facilities, and subcontractors. The complete VBGI shall be manufactured by Topp Industries, Inc. or pre-approved equal.

2.2. Referenced Standards

2.2.1. ASTM A36 (Latest Revision): Standard Specification for Structural Steel.

2.2.2. ASTM A283D (Latest Revision): Standard Specification for Structural Steel.

2.2.3. ASTM D883 (Latest Revision): Definitions of Terms Relating to Plastics.

2.2.4. ASTM D3753 (Latest Revision): Standard Specification for Glass-Fiber-Reinforced Polyester Manholes.

2.2.5. ANSI/CAN/IAPMO Z1001-2021- Volume-Based Grease Interceptors.

### 3. Submittals

3.1. Shop Drawings and Manufacturer's Literature - The prefabricated FRP VBGI manufacturer shall prepare shop drawings for the complete interceptor including structural and opening details, equipment mounting and location details. The main component of the submittals shall be an 8½" x 11" drawing of the complete prefabricated FRP VBGI prepared by the manufacturer. Manufacturer's cut sheets shall indicate capacities, dimensions, and materials of construction.

### 4. Delivery and Handling

4.1. Conditions for Delivery and Handling

4.1.1. The manufacturer of the prefabricated FRP VBGI shall coordinate with the contractor so that the interceptor is delivered to the jobsite on time for installation. Handling instructions shall be provided by the VBGI manufacturer to ensure proper handling of the interceptor structure.

### 5. Guarantee

5.1. The prefabricated FRP VBGI manufacturer shall guarantee the complete prefabricated FRP lift station to be free from defects in materials and workmanship for a period of 30 years from the date of delivery.

# PREFABRICATED FRP VBGI SAMPLE SPECS
## SECTION 2 - PRODUCTS

### 1. Basis of Design

1.1 Cylindrical Fiberglass (FRP) as supplied by TOPP Industries, Inc. with inlet piping and baffle penetration designed to introduce wastewater in a tangential laminar flow pattern, to be appropriately sized based on 314GPM flow rate to meet applicable sanitary sewer discharge limits, including municipal by-laws. The VBGI design shall be cylindrical to allow solids to be easily captured during pump out maintenance intervals. VBGI's with a flat bottom shall not be allowed as this design does not allow effective cleaning and pump-out of the VBGI. Exterior of system gel coated white with UV inhibitor required.

### 2. Materials

2.1. Fiberglass Reinforced Polyester Volume Based Grease Interceptor: Unless otherwise indicated the plastic terminology used in this specification shall be in accordance with the definitions given in American Society for Testing and Materials (ASTM) designations D883 - Definitions of Terms Relating to Plastics.

### 3. Resins

3.1. The resins used shall be a commercial grade polyester and shall be evaluated as a laminate by test or determined by previous service to be acceptable for the intended environment. The resins used may contain the minimum amount of fillers or additives required to improve handling properties. Up to 5% by weight of a thixotropic agent, which will not interfere with visual inspection, may be added to the resin for viscosity control. Resins may contain pigments and dyes by agreement between manufacturer and engineer, recognizing that such additives may interfere with visual inspection of FRP laminate quality.

### 4. Reinforced Material

4.1. The reinforcing material shall be a commercial grade of glass fiber (continuous strand, chopped-strand, continuous mat, and non-continuous mat) having a coupling agent, which will provide a suitable bond between the glass reinforcement material and resin.

# PREFABRICATED FRP VBGI SAMPLE SPECS

**SECTION 2 - PRODUCTS**, continued

## 5. Laminate Structure

5.1. The FRP laminate shall consist of a resin rich inner surface: chop-spray interior liner; and a chop-hoop filament wound structural exterior layer.

A. Inner surface:

5.1.A.1. The resin rich inner surface shall be free of cracks and crazing with smooth finish and with an average of not over two (2) pits per square foot, providing the pits are less than 0.125 inches in diameter and 0.3125 inches in depth and are covered with sufficient resin to avoid exposure of any fiberglass reinforcement material. Some waviness shall be permissible as long as the surface is smooth. Between 0.01 to 0.02 inches of resin rich surface shall be provided.

5.1.A.2. Chop-Spray Interior Liner: The interior liner shall be reinforced by 25 to 35% by weight of chopped strand glass fiber having fiber lengths from 0.5 to 2.0 inches. The chop-spray interior liner protects the chop-hoop filament-wound structural exterior liner from corrosion damage caused by "wicking" of the wet well liquid contents. A minimum of 0.100 inches of chop-spray interior liner shall be provided.

5.1.A.3. Chop-Hoop Filament-Wound Structural Exterior Layer: The structural reinforcement of the VBGI shall be by the chop-hoop filament-wound manufacturing method only. The axial reinforcement shall be continuous-strand glass fiber. The longitudinal reinforcement shall be chopped-strand glass fiber. The glass fiber reinforcement content of the chop-hoop filament wound structural exterior layer shall be 50 to 80% by weight. The exterior surface of the VBGI shall be relatively smooth with no exposed reinforcement fibers or sharp projections. Hand finish work is permissible to prevent reinforcement fiber exposure. The wall thickness of the chop-hoop filament-wound structural exterior layer shall vary with the VBGI height to provide the aggregate strength necessary to meet the tensile and flexural physical properties requirements.

## 6. Physical Properties

6.1. VBGI FRP Wall Laminate: The wet well FRP wall laminate must be designed to withstand wall collapse or buckling based on the following assumptions and third-party specifications:

6.1.1.1. Hydrostatic Pressure of 62.4 lbs. per square foot

6.1.1.2. Saturated soil weight of 120 lbs. per cubic foot

6.1.1.3. Soil Modulus of 700 pounds per square foot

6.1.1.4. Pipe stiffness values as specified in ASTM D3753 - The wet well FRP laminate must be constructed to withstand or exceed two times the assumed loading on any depth of the wet well.

# PREFABRICATED FRP VBGI SAMPLE SPECS

**SECTION 2 - PRODUCTS**, continued

## 10. Capacities/Sizes

10.1. Number of Compartments: 2 (500-1000 Gal.), 3 (1600 Gal.)
10. 2. Grease Retention Capacity: 280-820 Gal.
10. 3. Solids Retention Capacity: 90-540 Gal.
10. 4. Inlet and Outlet Schedule 40 PVC Pipe Size: 4”
    10. 4.A. Centerline of Inlet to Floor: INTERCEPT48 = 44 ½”, INTERCEPT60 = 53 ½”
    10. 4.B. Centerline of Outlet to Floor: INTERCEPT48 = 41 ½”, INTERCEPT60 = 50 ½”
10. 5. Vent Pipe Size: 4”
10. 6. Installation Position: Above grade or underground with accessway collar riser to grade.
10.7. Options if required:
    10.7.A. 4” or 6” Top Suction port for remote pump-out.
    10.7.B. Alarm for high oil accumulation. Includes alarm probe to be installed in top of tank accessway and alarm panel for indoor wall mount.
10.8. TOPP Industries VBGI Models
    10.8. A. INTERCEPT48
        10.8. A.1. INTERCEPT500
        10.8. A.2. INTERCEPT750
        10.8. A.3. INTERCEPT1000
    10.8. B. INTERCEPT60:
        10.8. B.1. INTERCEPT1600

## 11. H-20 Rated Solid Cover (Underground installation only)

11.1. The accessway cover shall be constructed of 0.625 inches thick galvanized ASTM A36 structural steel plate. Rated for vehicular traffic load per ASTM C1802- Load Level 5. The cover shall have recessed handles.

## 12. Solid Fiberglass Cover (Above grade only option)

12.1. The solid fiberglass accessway cover shall be constructed with compression molded fiberglass, with a minimum thickness of 0.3125 inches. The cover shall be grass green in color. The cover shall be mounted to the wet well with six 300 series stainless steel fasteners of at least 0.375 inches in diameter.

# PREFABRICATED FRP VBGI SAMPLE SPECS
## SECTION 3 - EXECUTION

### 1. VBGI Installation

1.1. Installation

1.1.1. The prefabricated FRP VBGI shall be installed by the contractor according to the VBGI manufacturer's published instruction.

### 2. Field Quality Control

2.1. Start-Up Service

2.1.1. The initial startup of the prefabricated FRP VRBI shall be performed by a qualified factory representative of the lift station manufacturer. It shall be the responsibility of the factory representative to supervise the startup and instruct the owner's personnel in the proper operation and maintenance procedures for the entire prefabricated FRP VBGI.

# VGBI MAINTENANCE AND INSTALLATION GUIDE

## SECTION 1 - GENERAL

### 1, Overview

1.1 The fiberglass INTERCEPT500, 750, 1000 & 1600 by Topp Industries are volume-based grease interceptors (VBGI) intended for either above or below ground installation. These VBGI's are designed to separate FOG (fats, oils, and greases), heavy sediments, and other contaminates in the wastewater stream that may build up and interfere with the proper drainage into the sewage system for treatment.

1.2. Contractor shall furnish all labor, materials, equipment, and performance of all work necessary or incidental to furnish and install a prefabricated fiberglass reinforced polyester (FRP) Volume Based Grease Interceptor (VBGI). The VBGI shall be a completely factory-assembled unit, requiring only minor adjustments and reassembly in the field. Fill interceptor with water until level with discharge invert when unit is installed.

### 2. Operation

2.1. Wastewater containing FOG and heavy sediments enter through the system inlet. The internal baffle design of the interceptor reduces the velocity of the flow and uses the principles of buoyancy to allow the separation of contaminates into three layers. Lighter than water contaminants rise to the top of the separator chambers, heavy sediments settle to the bottom, and the wastewater flows through baffle to the discharge.

### 3. Maintenance

3.1. A safe working environment must be ensured when maintaining/servicing grease interceptors. Care must be taken to avoid sparks or open flames as oils, fats, and greases are flammable.

- 3.1.1. Always use a professional pumping service to evacuate the retained FOG and heavy sediment from the interceptor.
- 3.1.2 Any accumulated debris must be cleaned from the inlet and discharge piping, and internal baffles.
- 3.1.3. After cleaning, refill the interceptor with water until it is level with the discharge invert.
- 3.1.4. All evacuated contents must be disposed of according to any local codes and regulations.

3.2. Pumping frequency will depend on the volume of FOG and sediment in the wastewater stream.

- 3.2.1. Monitor FOG and sediment levels to determine appropriate service/cleaning schedule.
- 3.2.2. A core sampler can be used to test FOG levels.
- 3.2.3. The minimum pumping/cleaning frequency should be at least every 6 months.

# VGBI MAINTENANCE AND INSTALLATION GUIDE

SECTION 1 - GENERAL, continued

## 4. Troubleshooting

4.1. Reduced flow rates may be a sign that the interceptor has reached its maximum FOG capacity. This may also be an indication of excessive FOG build-up, or partial blockage in the inlet/discharge piping or baffles.

## 5. Guarantee

5.1. The prefabricated FRP VBGI manufacturer shall guarantee the complete prefabricated FRP lift station to be free from defects in materials and workmanship for a period of 30 years from the date of delivery.

## SECTION 2 - INSTALLATION

## 1. Excavation

1.1. The excavation should provide adequate space for the basin, piping, and other buried equipment and for the placement and compaction of backfill materials particularly around the basin walls. The size, shape and wall slope of the excavation should be determined by soil conditions, depth of excavation, shoring requirements, and, if workers are required to enter the excavation, safety considerations and federal, state, county, and municipal regulations.

1.2. Safe installation procedures shall be the sole responsibility of the basin installer. Work safety requirements are defined in U.S. Department of Labor 29 CFR part 1926, subpart P, Excavations.

## 2. Placement of Interceptor

2.1. The bottom of the interceptor excavation should be covered with suitably graded, leveled, and compacted backfill material to a depth of at least 12 inches (compacted sub-base). If in high water table conditions and a concrete hold-down/anti-flotation pad is required, this bedding can be reduced to a depth of at least 6 inches. The basin should then be carefully lowered into the excavation and centered on the compacted backfill or concrete pad.

2.1.1. WARNING! Placement of an interceptor on a concrete pad or compacted sub-base smaller than the total length or width of the unit, or on intermediate supports (saddles) will cause uneven distribution of loads. This may contribute to structure failure and is never permitted.

# VGBI MAINTENANCE AND INSTALLATION GUIDE

SECTION 2 - INSTALLATION, continued

## 3. Anchorage (If required)

3.1. The interceptor should be secured to a concrete hold-down/anti-flotation pad utilizing the eight bolt holes provided in the stainless steel legs. Concrete anchors should be rated for at least 2000 psi with a minimum diameter of 5/8".

3.2. Minimum concrete pad dimensions: (L x W x D)

3.2.1. 500 Gallon – 96" x 60" x 6"

3.2.2. 750 Gallon – 126" x 60" x 6"

3.2.3. 1000 Gallon – 168" x 60" x 6"

3.2.4. 1600 Gallon – 178" x 72" x 6"

## 4. Backfill

4.1 Backfill material should be clean, well granulated, free flowing, non-corrosive and inert. It should be free of ice, snow, debris, rock, or organic material, all of which could damage the tank and interfere with the compaction of the backfill material. The largest particles should not be larger than ¾ inch. Not more than 3 percent (by weight) should pass through a #8 sieve, and the backfill material should conform to ASTM C-33, Paragraph 9.1 requirements.

4.1.1. Approved backfill materials include:

- Pea Gravel, naturally rounded particles with a min diameter of 1/8 inch and a max diameter of ¾ inch.
- Crushed Rock washed and free-flowing angular particles between 1/8 inch and ½ inch in size.

4.2. Compaction of backfill materials should be adequate to ensure the support of the tank and to prevent movement or settlement. Backfill materials should be placed in 12-inch lifts and compacted to a minimum soil modulus of 700 pounds per square inch (psi).

# IAPMO RESEARCH AND TESTING, INC.

5001 E. Philadelphia Street, Ontario, CA 91761 • Phone (909) 472-4100 • Fax (909) 472-4244 • www.iapmort.org

# CERTIFICATE OF LISTING

IAPMO Research and Testing, Inc. is a product certification body in which its product certification system includes inspection and testing of samples taken from the supplier's stock or from the market or a combination of both to verify compliance to the requirements of applicable codes and standards. This activity is coupled with periodic surveillance of the supplier's factory and/or warehouses as well as the assessment of the supplier's Quality Assurance System. This listing is subject to the conditions set forth in the characteristics below and is not to be construed as any recommendation, assurance or guarantee by IAPMO Research and Testing, Inc. of the product acceptance by Authorities Having Jurisdiction.

*Issued To:*

## TOPP INDUSTRIES INC.

P.O. BOX 420 - HWY 25NROCHESTER, IN 46975 , United States

*Product:*

Prefabricated Gravity Grease Interceptors

*Products are in compliance with the following code(s):*
**Uniform Plumbing Code (UPC®)**
**National Plumbing Code of Canada**

*Products are certified to the following standard(s)*
**ANSI/CAN/IAPMO Z1001-2021**

**File Number:** 17429

**Effective Date:** May 2025

**Void After:** May 2030*

Chairman, Product Certification Committee

Chief Technical Service Officer

*This certificate is not evidence of current listing. To verify listing status, visit the IAPMO R&T Product Listing Directory at pld.iapmo.org

This listing period is based upon the last date of the month indicated on the Effective Date and Void After Date shown above. Any change in material, manufacturing process, marking or design without having first obtained the approval of the Product Certification Committee, or any evidence of non-compliance with applicable codes and standards or of inferior workmanship, may be deemed sufficient cause for revocation of this listing. Production of or reference to this form for advertising purposes may be made only by specific written permission of IAPMO Research and Testing, IncAny alteration of this certificate could be grounds for revocation of the listing. This document shall be reproduced in its entirety.

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