



# Gutter/Filter & Miscellaneous Operation & Maintenance Manual

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Rev. 07/2021

Total Dynamic Head: 116

# **ATTENTION!**

**This Instruction Manual includes important safety information that should be read by the Engineer, Contractor, Owner, Operator, and Maintenance Personnel.**

**Paddock Recommends That A Copy of The Filter Operation Instructions Be Posted In The Filter Room.**

# **Equipment Templates**

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## JOB NAME, CITY, STATE

### 2-CELL HORIZONTAL PRESSURE SAND WITH MANUAL LINKAGE CONTROL VALVES

#### Introduction

A pressure sand filter is one in which the water to be filtered is pumped through a layer of sand contained within a pressure vessel. High flow sand filters are designed for filtering rates of up to 20 gallons per minute per square foot of filtering area. This filter system will, with proper care and maintenance, give trouble-free and efficient operation.

The filtering principle is simple. Fine sand is used to filter out all the dirt suspended in the water. Pool water is forced by the pump through a distributor system in the top of the filtering tank. This distributor system is designed to maintain a uniform flow downward through the sand and out a second collector system in the bottom of the tank.

In sand filtration, at these high rates, penetration or depth filtration occurs within the sand; the dirt entrapped in the water passes down several inches into the sand rather than being collected on the surface of the sand or in a bed of alum as in the lower rate rapid sand pressure filters.

The influent pressure increases as dirt accumulates in the sand. When the desired flow rate can no longer be maintained, the filter is cleaned by simply reversing the flow. High-rate sand filtration is possible through the proper internal design of the filter. So long as the flow, either upward or downward, is uniform without jets or eddy currents, these high rates may be maintained without disrupting the filter bed.

This system is designed to run 24 hours a day. Filter cycles will vary. Bathing loads, suntan lotions and wind conditions, among other things, create variances in filter cycles. Health departments in many areas maintain and exercise sanitary procedures; nevertheless, even though the flow rate is maintained, we recommend that the filters be put through the backwash cycle when the differential pressure between the influent and effluent reaches 10+ psi or when the designed flow rate cannot be maintained (whichever occurs first). This will keep the filter in excellent, healthy, maintenance-free operation for many years. Any backwash requirements of local or state regulatory agencies should also be met. The filters are usually cleaned in two to four minutes by reversing the flow of the water.



## Operating Instructions

### Valve Legend:

All normal functions of the filter are controlled by wafer valves. It is good practice to stop the pump and motor before changing the position of the valves. For convenience in operation, all valves have been tagged and correspond with the filter valve legend on the filter drawings.

2. Return to pool	5. Filter influent cell #2
3. Filter influent cell #1	6. Backwash Effluent cell #2
4. Backwash Effluent cell #1	7. Backwash Discharge (NOT SHOWN)

Valves #3 and #4 are connected via a lever-controlled linkage

Valves #5 and #6 are connected via a lever-controlled linkage

**NOTE: All valves are shipped in FILTER POSITION/MODE (REFER TO FILTER DRAWING(S)).**

### Initial Start-Up:

**The following steps are to be taken when you place your high flow filter in operation for the first time:**

1. Check pump strainer. Make sure it is clean and full of water.
2. Check pump rotation to ensure that the motor has been correctly wired.  
  
**Note:** the impeller should rotate in a clockwise direction when viewed from the motor end. If rotation is opposite, the motor has been incorrectly wired.
3. Set the filter for backwash (see operating instructions). Backwash a minimum of 2-4 minutes to clean the filter media or Backwash until the sight glass runs clear.

In many areas when a new pool is filled, the water will appear green and/or cloudy. This green and/or cloudy appearance can be caused by plaster fines present in the water, traces of iron or organic matter, algae in the make-up water or by a combination of all. This type of contamination always will clog any type of filter in a relatively short period of time.

If any appreciable amounts of iron or other metals are present, they may turn the pool water brown upon chlorination and stain the interior finish of the swimming pool. The pool water supply should be laboratory tested and the water should be treated to remove the iron or other materials found in it before filling and/or super-chlorinating.

It is recommended that the pool be super-chlorinated immediately after filling and that the filter be backwashed promptly when the differential pressure between the influent and effluent reaches 10+ psi or when the designed flow rate cannot be maintained. If this procedure is followed, the pool will be cleaned up in a minimum of time. After super-chlorination, do not enter the pool until chlorine level has returned to normal.



The backwash operation may be required daily or several times a day for the first few days until the water becomes a sparkling blue. After the cloudiness and/or green appearance is gone, you need only backwash as instructed elsewhere in this manual. Check the pump strainer, the converter strainer basket and any skimmer baskets daily and clean as required, establishing regular schedules.

### **To Backwash Filter:**

**BACKWASH RATE: \_\_\_\_\_ GPM TOTAL TANK**

The filter should be backwashed when the differential pressure reaches 10  $\pm$  psi, or the flow rate can no longer be maintained.

All chemical systems, heaters, and auxiliary pumping equipment should be shut off 15 minutes prior to backwash. Heater isolation valves should be closed just prior to backwashing.

### **Backwashing Cell #1 and Cell #2**

#### **Cell #1**

1. Turn off the pump.
2. Close Return to Pool valve #2.
3. **Move** linkage handle from filter to backwash position for **Cell #1** and lock it into place.
4. Restart pump and backwash **Cell #1** for 3-5 minutes or until water runs clear.
5. Turn off the pump.
6. **Return** linkage handle for **Cell #1** to filter position and lock it into place.

#### **Cell #2**

7. **Move** linkage handle from filter to backwash position for **Cell #2** and lock it into place.
8. Restart pump and backwash **Cell #2** for 3-5 minutes or until water runs clear.
9. Turn off the pump.
10. **Return** linkage handle for **Cell #2** to filter position and lock it into place.
11. Open Return to Pool Valve #2 to marked position for proper flow rate.
12. Restart Pump.

When initially starting the filter system, record the normal influent and effluent pressures with a clean filter operating at the prescribed filter flow rate.

Influent Pressure : \_\_\_\_\_ psi      Effluent Pressure : \_\_\_\_\_ psi

**FLOW RATE : \_\_\_\_\_ GPM PER CELL**



### **To Filter Pool:**

Open valve #2 and put both linkage handles into filter position/mode. With a clean filter, restrict valve #2 until the designed flow rate is achieved and mark its position.

### **Checking the Flow Rate:**

The recirculating pump is designed to deliver the designed flow rate at a specified total dynamic head. Total head on the pump is the combination of the vacuum and discharge pressure losses. The conversion factors for the vacuum and pressure reading to feet of head are:

1. One inch of vacuum equals 1.13 feet of head.
2. One psi equals 2.31 feet of head.

### **Procedure:** (Assume a newly backwashed filter)

1. Set the system to filter position.
2. Read the vacuum gauge.
3. Convert vacuum reading to feet of head by multiplying by 1.13.
4. Subtract the results of no. 3 from the design head of your pump.
5. Divide the results of no. 4 by 2.31. This gives the pump discharge pressure to obtain the desired total dynamic head and, hence, the designed flow rate. (You will need to throttle valve #2 or pump discharge valve.)
6. Should the vacuum reading drop appreciably, repeat steps 2 through 5.

Like a properly installed flow meter, a pump performance curve is guaranteed accurate within 5%. Flow meter installations vary, thus when pump pressures are set as described here, the flow meter reading should be noted as the proper recirculation rate, regardless of its actual reading.



### **To Set MOL: (Minimum Operating Level)**

This level should be set with a clean filter when there is no activity in the pool. Fill pool water level to just below the rim of the gutter on a rim flow pool or below weir slot on a weir pool during quiescent conditions. There should be no water coming from the gutter. Filter will be operating with main drain water only. Adjust main drain valve to achieve a water level roughly equal to centerline of main drain inlet. Set return to pool valve to proper flow to verify main drain setting is correct and providing full flow to pump to prevent cavitation. Once M.O.L. is established, lock main drain valve at this setting. As water enters the gutter, the pressure on the main drain line will increase and water will be taken from the gutter. When the perimeter overflow channel is running near full, most of the water required for the full re-circulating rate will be taken from the surface of the pool.

### **To Filter Pool and Vacuum - Portable Vacuum:**

With all valves in filter position, discharge portable pump into overflow channel. If a considerable amount of dirt is being vacuumed and the pressure builds up in the filter tank, it should be backwashed.

### **To Clean the Strainer:**

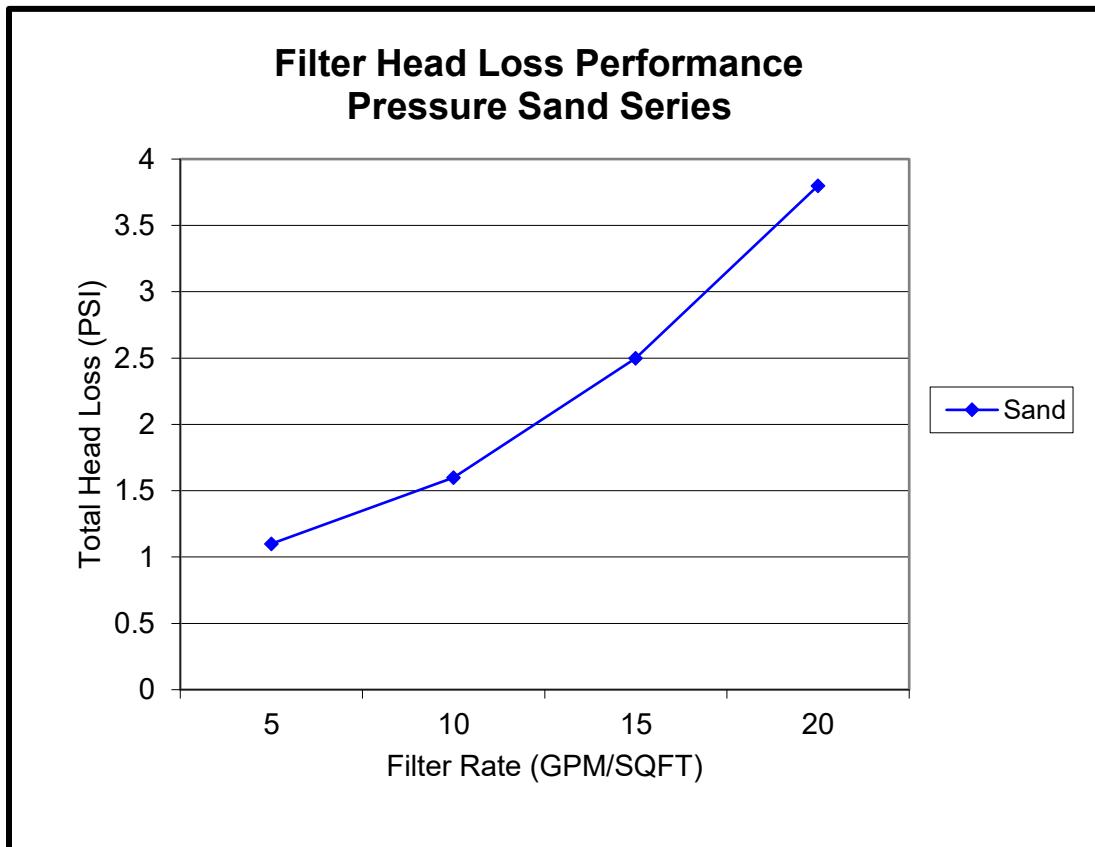
Slowly close isolation valve downstream of pump, then stop pump. Close isolation valve upstream of the strainer. Remove cover and clean basket. Be sure strainer is filled with water after cleaning. Replace cover tightly. Open upstream valve and start pump. Slowly open valve downstream of pump. Establish a regular schedule for checking the strainer.



### **To Empty Pool with Pump and Motor:**

Stop pump and set filter valves in their backwash positions. Start pump and drain the pool through the filter system. If there is a filter bypass to waste valve, use it to bypass the filter and pump directly to waste. Exercise every possible care in this operation to prevent air from entering the main drain line or other piping, as this will cause the pump to lose its prime. It is advisable, when emptying the pool (unless the pump is located beneath the lowest point of the pool); to complete the operation without interruption, since turning off the pump and motor will normally result in loss of prime. However, if it becomes necessary to interrupt the emptying operation, close the valve downstream of the strainer before stopping the pump. When continuing the operation, turn on the pump and motor, then open the downstream valve slowly.

**For further information contact Paddock Pool Equipment Company Customer Service.**





## JOB NAME, CITY, STATE

Type of pool if required

# **Horizontal Pressure Sand Filter System is:**

## **Two Stacked Filter Tanks - Dual Cells - Manual Valves**

### **Introduction**

A pressure sand filter is one in which the water to be filtered is pumped through a layer of sand contained within a pressure vessel. High flow sand filters are designed for filtering rates of up to 20 gallons per minute per square foot of filtering area. This filter system will, with proper care and maintenance, give trouble-free and efficient operation.

The filtering principle is simple. Fine sand is used to filter out all of the dirt suspended in the water. Pool water is forced by the pump through a distributor system in the top of the filtering tank. This distributor system is designed to maintain a uniform flow downward through the sand and out a second collector system in the bottom of the tank.

In sand filtration, at these high rates, penetration or depth filtration occurs within the sand; the dirt entrapped in the water passes down several inches into the sand rather than being collected on the surface of the sand or in a bed of alum as in the lower rate rapid sand pressure filters.

When dirt accumulates in the sand the influent pressure increases. When the desired flow rate can no longer be maintained, the filter is cleaned by simply reversing the flow. High rate sand filtration is possible through the proper internal design of the filter. So long as the flow, either upward or downward, is uniform without jets or eddy currents, these high rates may be maintained without disrupting the filter bed.

This system is designed to run 24 hours a day. Filter cycles will vary. Bathing loads, suntan lotions and wind conditions, among other things, create variances in the filter cycle. Health departments in many areas maintain and exercise sanitary procedures; nevertheless, even though the flow rate is maintained, we recommend that the filters be put through the backwash cycle when the differential pressure between the influent and effluent reaches  $10\pm$  psi or when the designed flow rate cannot be maintained (whichever occurs first). This will keep the filter in excellent, healthful, maintenance-free operation, year-in and year-out. Any backwash requirements of local or state regulatory agencies should also be met. The filters are usually cleaned in two to four minutes by reversing the flow of the water.



## **Initial Start-Up:**

**The following steps are to be taken when you place your high flow filter in operation for the first time:**

1. Check pump strainer. Make sure it is clean and full of water.
2. Check pump rotation to ensure that the motor has been correctly wired.

**Note:** the impeller should rotate in a clockwise direction when viewed from the motor end. If rotation is opposite, the motor has been incorrectly wired.

3. Set the filter for backwash (see operating instructions). Backwash a minimum of (2 - 4) minutes to clean the filter media or Backwash until the sight glass runs clear.

In many areas when a new pool is filled, the water will appear green and/or cloudy. This green and/or cloudy appearance can be caused by plaster fines present in the water, traces of iron or organic matter, algae in the make-up water or by a combination of all. This type of contamination always will clog any type filter in a relatively short period of time.

If any appreciable amounts of iron or other metals are present, they may turn the pool water brown upon chlorination and stain the interior finish of the swimming pool. The pool water supply should be laboratory tested and the water should be treated to remove the iron or other materials found in it before filling and/or super-chlorinating.

It is recommended that the pool be super-chlorinated immediately after filling and that the filter be backwashed promptly when the differential pressure between the influent and effluent reaches 10± psi or when the designed flow rate cannot be maintained. If this procedure is followed, the pool will be cleaned up in a minimum of time. After super-chlorination, do not enter the pool until chlorine level has returned to normal.

The backwash operation may be required daily or several times a day for the first few days until the water becomes a sparkling blue. After the cloudiness and/or green appearance is gone, you need only backwash as covered elsewhere in this manual. Check the pump strainer, the converter strainer basket and any skimmer baskets daily and clean as required, establishing regular schedules.



## **Operating Instructions**

### **Valve Legend:**

All normal functions of the filter(s) are controlled by wafer valves. It is good practice to stop the pump and motor before changing the position of the valves. For convenience in operation, all valves have been tagged and correspond with the filter valve legend on the filter drawings.

1. MAIN DRAIN	5. FILTER INFLUENT- CELL 2
2A. RETURN TO POOL- TANK A	6. BACKWASH EFFLUENT- CELL 2
2B. RETURN TO POOL - TANK B	7. FILTER INFLUENT- CELL 3
3. FILTER INFLUENT-CELL 1	8. BACKWASH EFFLUENT- CELL-3
4. BACKWASH EFFLUENT-CELL 1	9. FILTER INFLUENT- CELL-4
	10. BACKWASH EFFLUENT- CELL-4

Valves #2A & #2B are open for filter mode, closed for backwash mode. Valves #3, 5, 8 & 9 are open for filter and closed for their respective cell's backwash. Valves #4, 6, 7 & 10 are closed for filtration and open for their respective cell's backwash.

### **Checking the Flow Rate:**

The re-circulating pump is designed to deliver the designed flow rate of                 GPM at a total minimum dynamic head of                 Feet each. Total head on the pump is the combination of the vacuum and discharge pressure losses. The conversion factors for the vacuum and pressure reading to feet of head are:

1. One inch of vacuum equals 1.13 feet of head.
2. One psi equals 2.31 feet of head.

**Procedure:** (Assume a newly backwashed filter)

#### HEAD LOSS

All models 2.5 psi @ 15 GPM

\* Clean filter loss through internal piping and media.

1. Set the system to filter position.
2. Read the vacuum gauge.
3. Convert vacuum reading to feet of head by multiplying by 1.13.
4. Subtract the results of No. 3 from the design head of your pump.
5. Divide the results of No. 4 by 2.31. This gives the pump discharge pressure to obtain the desired total dynamic head and, hence, the designed flow rate. (You will need to throttle valve #2 or pump discharge valve.)
6. Should the vacuum reading drop appreciably, repeat steps 2 through 5.

Like a properly installed flow meter, a pump performance curve is guaranteed accurate within 5%. Flow meter installations vary, thus when pump pressures are set as described here, the flow meter reading should be noted as the proper recirculation rate, regardless of its actual reading.



### **EXAMPLE OF CALIBRATION**

**Calculating TDH and determining flow from pump performance curve**

Using your Vacuum gauge and Pressure gauge on the gauge panel, calculate your TDH at current operational load. By using the example below you can determine the flow (GPM) of the pump and can calibrate your flow meter to correspond to your current flow.

Example:

**Vacuum Gauge Reading (4 in.Hg) x 1.13 = 4.52**

**Pressure Gauge Reading (22 psi) x 2.31 = 50.82**

To calculate TDH, add the vacuum gauge reading from the pressure gauge reading to determine your TDH. Example:

$$\begin{aligned} &\text{Pressure Gauge (22 psi)} \times 2.31 = 50.83 \\ &+ \text{Vacuum Gauge (4 in.Hg)} \times 1.13 = 4.52 \\ &= \text{TDH of } 55.35 \end{aligned}$$

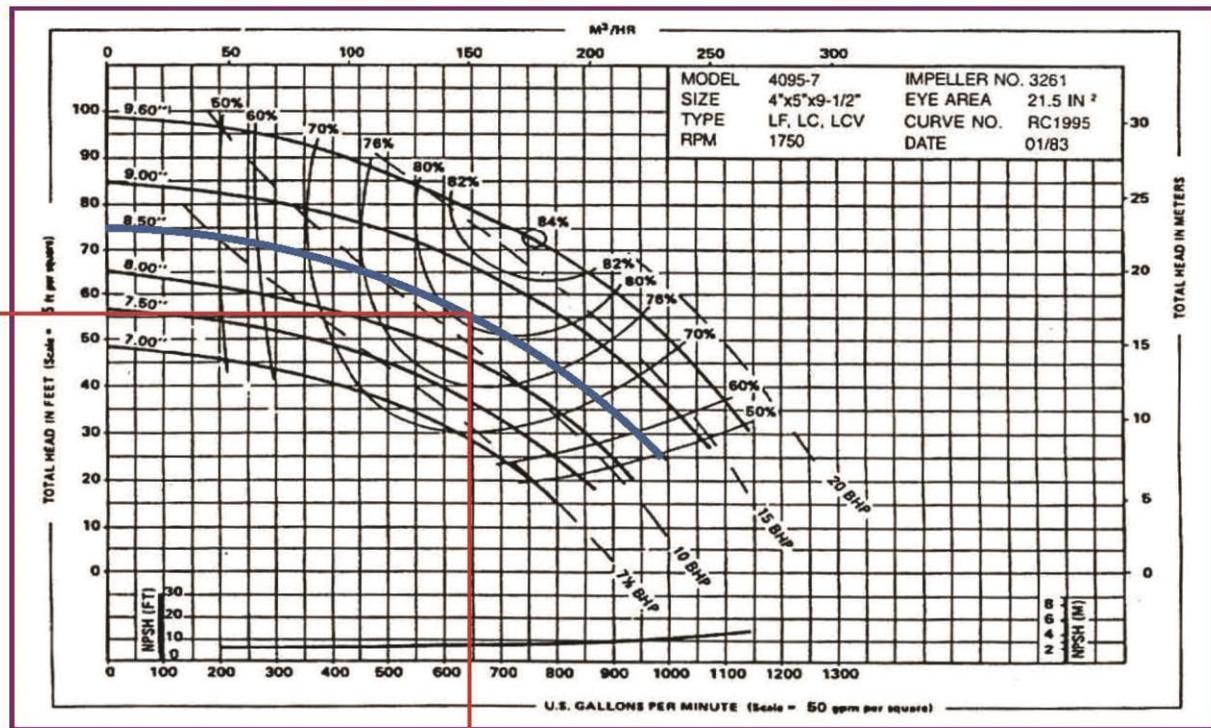
Use the example performance curve below to determine flow (GPM) with calculated TDH. Please notice the blue curve is the installed pump performance line and the red line indicates the TDH and Flow intersection on the performance curve.

**PACO PUMPS**

**LC - 40957 - 1750 RPM - Performance Curve**

Project:	Tag #	P.O. #	By:
Location:	Model: 40957	Cust Ref#	Date: 2/23/2010
Contractor:	Stages: 1	Agent/Rep:	Rev. #
Engineer:	Service:	Doc #	Qty:

Calculated TDH  
55.35 (TDH)



Flow 645 GPM at Calculated TDH



**When initially starting the filter system up, record the normal influent and effluent pressures with a clean filter operating at the prescribed filter flow rate.**

**Influent Pressure** \_\_\_\_\_ **Effluent Pressure** \_\_\_\_\_

**Flow Rate:**       GPM

**To Filter Pool:**

Open valve #1, place manual valves in filter position and start the pump.

In operation, valve #1 is open and flow is balanced from the perimeter overflow channel (PO) and the main drain. To balance the flow with the filter set in the "filter" mode, slowly close valve #1 to set the minimum operating level (MOL) in the surge tank. Note and record the number of turns or which notch the handle is in, to facilitate resetting the main drain valve when necessary. Using valve #2A & #2B set the re-circulating pump to the designed re-circulating rate and readjust valve #1 as necessary.

As activity increases in the pool, more water will flow from the PO channel, causing the water level in the surge tank to rise. This increase in water level in the surge tank will increase the head on the main drain line and less water will flow through valve #1 from the main drain and the system will balance.

**To Clean The Strainer:**

Slowly close isolation valve downstream of pump, then stop pump. Close isolation valve upstream of the strainer. Remove cover and clean basket. Be sure strainer is filled with water after cleaning. Replace cover tightly. Open upstream valve and start pump. Slowly open valve downstream of pump. Establish a regular schedule for checking the strainer.



### **To Backwash Filter:**

**Backwash rate is: \_\_\_\_\_ GPM PER CELL**

**As the filter becomes dirty the flow rate drops and valve #2A & #2B should be opened as required to maintain flow.**

The filter should be backwashed when the differential pressure reaches 10  $\pm$  psi, or the flow rate can no longer be maintained.

All chemical systems, heaters and auxiliary pumping equipment should be shut off 15 minutes prior to backwash. Heater isolation valves should be closed just prior to backwashing.

### **Manual**

Shut off pump, with Tank 'B' valves in filter position, manually close valves #2A, #3 and # 6, open valve #5 and #4 to Cell #1 backwash position and restart pump. Continue backwashing Cell #1 until water runs clear in the sight glass (usually 2 to 4 minutes). Shut off pump, with Tank' B' valves still in filter position & valve #2A closed, close valves #4 & #5 open valves #3 & #6 to Cell #2 backwash position and restart pump. Continue backwashing Cell #2 until water runs clear in the sight glass. Shut off pump. Position Tank 'A' valves to filter. Close valves #2B, #8, & #10, open valves #9 & #7 to Cell#3 backwash position and restart pump. Continue backwashing Cell #3 until water runs clear in the sight glass. Shut-off pump, with Tank 'A' valves still in filter position and valve #2B closed, close valves #7 & #9, open valves #8 & #10 to Cell #4 backwash position and restart pump. Continue backwashing Cell #4 until water runs clear in the sight glass. Shut off pump. Reset all valves in filter position and restart pump to return to normal operation. Return to pool valves #2A & # 2B, should be set to the mark established during set up, the designed flow rate.

### **To Empty Pool With Pump And Motor:**

Shut off pump, close valves #2A, #2B, #5, #6, #9 & #10 and open valves #3, #4, #7, & #8 to bypass the filter system. Start pump. Maintain a positive pressure at all times with valve #3 & #8. Exercise every possible care in this operation to prevent air from entering the main drain line or other piping, as this will cause the pump to lose its prime. It is advisable, when emptying the pool (unless the pump is located beneath the lowest point of the pool), to complete the operation without interruption, inasmuch as turning off the pump and motor will normally result in loss of prime. However, if it becomes necessary to interrupt the emptying operation, close valve #3 & #8 first, then close the main drain valve #1 before stopping the pump and motor. When continuing the operation, turn on the pump and motor; open the main drain valve, then open valve #3 & #8 slowly.



## **Calculations and Notes**

A large rectangular area filled with a uniform grid of light blue horizontal and vertical lines, creating a pattern of small squares. This grid covers most of the page below the title, intended for users to perform calculations or take notes.

**For further information contact us below.**



## JOB NUMBER, JOB NAME, CITY, STATE

VACUUM SAND COMPACT (VSC) FILTER WITH AIR SCOUR BACKWASH

Standard Compak-with Evacuator for indoor filter rooms

### Introduction

The filter on your pool is a vacuum type filter, which utilizes sand as the filtering medium. A vacuum filter is one in which the water to be filtered is in a tank open to atmospheric pressure into which the unfiltered water flows by gravity and is drawn out by the pump through the filter media. This filter system, with proper care and maintenance, will give trouble free and efficient operation.

The filtering principle is simple. Sand is used to filter out all of the dirt suspended in the water. Pool water is drawn in through this layer of sand and it is returned to the pool. Pool water enters the filter chamber from both the bottom of the pool and from the perimeter overflow system channel.

The perimeter overflow channel flows freely to the filter. When the flow increases a preset hydraulic balance will cause less water to come from the bottom of the pool. When there is little or no water flowing from the channel, the main drain line is designed to supply the total required flow rate.

The filter compartment receives water from the main drain and the perimeter overflow (PO). Water entering the filter chamber passes downward through a water distribution and vacuum equalization screen, through sand, and out the underdrain system. When dirt builds up in the sand and the desired flow rate can no longer be maintained, the filter is cleaned by simply reversing the flow.

The water in the lower part of the sand bed is under vacuum. As the pressure of the swimming pool water in the filter is reduced below atmospheric, dissolved gases are released. The order of release will follow their vapor pressures with the more volatile being released first. Among the first will be nitrogen trichloride. This has a beneficial effect on the water in that many of these gases, such as nitrogen trichloride, are irritating to the swimmers. An automatic electrical control device is provided with the paddock vacuum sand filter to ensure the release of the entrapped gases.

Studies have shown the gases, if not allowed to bubble out of the media bed, will impede the flow of water through the sand. This has much the same effect as contaminant particles reducing the filtration efficiency and increasing the frequency of backwashing. The gases removed are released at regular intervals by the automatic gas release system.



The filter is designed to run 24 hours a day. To operate economically and efficiently, the system has been designed to shut off approximately one minute in each 10-hour period to allow for the escape of accumulated gases. The automatic gas release system also provides vacuum protection for the pump and motor. Should the preset maximum vacuum of 16" be reached, the pump will automatically be shut off and remain off until the vacuum limit switch (VLS) is manually reset and the pump restarted.

### **Operating Instructions:**

To assist in these operating instructions, all valves on your VSC filter have been permanently tagged with a tag containing a number. The valves are numbered as follows:

1. Main drain	7. Perimeter overflow
1A. MOL set valve	8. Main drain backwash influent
2. Pump header suction	9. Automatic water make-up (solenoid)
3. Filtered water return to pool	10. Manual make up water control
4. Backwash trough suction	11. Water make up solenoid isolation valve
5. Backwash discharge (pump to waste)	12. Air scour control
6. Underdrain control	12A. Manual air bleed

**Note:** All valves open counter-clockwise and close clockwise as indicated on the valve handle or gear operator.

### **Construction Details:**

The filter tank contains:

- a. A main drain control valve.
- b. A piping header, which controls the main drain influent flow for filtering, backwashing, and draining pool.
- c. An underdrain system of the header lateral type placed at the bottom of the tank.
- d. An air scour system of the header lateral type placed at the bottom of the tank.
- e. The sand bed consisting of an 18" layer of 0.45 to 0.55 mm filter sand supported by a layer of 1/16" to 1/8" (roofing) gravel.
- f. A water distribution and vacuum equalization screen. This is perforated corrugated fiberglass supported by angles welded to the tank. This screen covers the entire filter chamber and is installed over the sand bed just above the backwash trough.



The purpose of this screen is to evenly distribute water entering the chamber and to create a uniform vacuum above the sand bed. The equalization screen is installed in sections with each section being light and easy to remove if required. All sections have holes 3/8" in diameter drilled on 6" centers.

- g. The P.O. channel outlet valve(s). This is above the equalization screen and controls the entry of water from the P.O. channel.
- h. The recirculation pump.
- i. The return and waste line control valves.
- j. The automatic gas release system consisting of an adjustable 24-hour timer preset to 10 hours, a vacuum limit switch on the filtered water outlet that stops the recirculation pump when preset 16" hg is reached, and a manual on/off recirculating pump control switch.
- k. Variable Frequency Drives (VFD) are an option for this filter.

### **Initial Start-Up:**

The following steps are to be taken when you place your Vacuum Sand Compak (VSC) filter in operation for the first time:

1. Check pump rotation to ensure that the motor has been correctly wired.
  - a. **Note:** the impeller should rotate in a clockwise direction when viewed from the motor end. If rotation is opposite, the motor has been incorrectly wired.
2. Flush out main drain line before filling pool.
3. Clean interior of filter of debris and check all bolts and nuts for tightness.
4. Check all electrical connections to Mark V filter control panel and motor starter.
5. 110v input power to 1 & 2 on terminal strip in Mark V box.
6. Output power from terminals 3 & 4 to motor starter coil, auxiliary remote contacts, or VFD if present.
7. Heater and UV connections from 7 & 8 on terminal strip.



8. Gauges on Mark V should be connected with  $\frac{1}{4}$ " tubing to proper fittings provided—compound to suction usually located on pump box wall and pressure to discharge side of pump usually on volute.
9. Place valves in backwash configuration (refer to backwash instructions) and backwash filter thoroughly, then place into filter.
10. Check timers on interior of Mark V panel for proper settings. Start with the left timer representing burp hours. The small window of this timer should indicate 24 HRS. If not, adjust small screwdriver slot on top right of timer. Dial on front of timer should be set on 10. Next timer to the right is the Heater/UV timer. The top right window of this timer should indicate 10 MIN. Adjust on top of timer as before if necessary. The dial on front should be set on 10. The final timer should indicate 1 MIN and can be adjusted as before if necessary. This timer should be set for 30 seconds for Burp time. Note: On rare occasions if pump loses prime with this timer set at 30 seconds it should be adjusted to 1 minute.
11. Vacuum switch should be checked for proper setting and operation by slowly closing down pump suction. When 16" of vacuum is achieved, pump should shut off and VLS light should come on. If this doesn't happen, remove gray metal cover from vacuum limit switch just below Mark V box. Adjust the screw on the top right of switch until the motor shuts off. Reset VLS and try again to be sure of setting. Replace cover.
12. Run filter overnight and then backwash again to be sure filter is clean.
13. Set minimum operating level (MOL) by closing return to pool valve (#3) to specified recirculation rate. Close the perimeter overflow valve(s) (#7) and slowly restrict Valve (#1A) to achieve a water level in the filter roughly equal to the centerline of the main drain pipe in the filter. Lock Valve (#1A) in position and MOL is set.

In many areas, when a new pool is filled, the water may appear green or cloudy. This green and/or cloudy appearance can be caused by "marcite" plaster, traces of iron or organic matter or algae in the makeup water and will clog any type of filter in a relatively short period of time. If the pool is cloudy, we recommend that it be super chlorinated immediately after filling and that the filter be backwashed promptly when the vacuum limit switch causes the filter to shut down and the vacuum is not appreciably reduced upon restarting.



If any appreciable amounts of iron are present, they will turn brown upon chlorination and may stain the interior finish of the swimming pool. Chlorinate a small sample of water first. If it turns brown, the water should be treated to remove the iron. The backwashing operation may be required daily or even several times a day until the water becomes sparkling blue.

### **Backwashing the Filter:**

The filter should be backwashed when the pump is stopped by the VLS indicating backwashing is required or if visual vacuum readings are high (14" hg plus) and pool clarity is poor. (Pool clarity issues can also be due to chemical imbalance)

**Shut off UV, Heaters, chemical controller(s), Water Level Controller, etc. 5-10 minutes prior to Backwash.**

1. Reset vacuum limit switch if tripped. Close Main Drain valve (#1) and Perimeter Overflow valve (#7). Draw the filter tank level down to top of sand bed, opening backwash viewport to see. Slowly close return to pool valve (#3), then shut off pump. Close Pump Suction Valve (#2).
2. Open Air Scour Control valve (#12) and turn on air scour blower. Run 3-5 minutes while monitoring sand bed to ensure water is not bypassing valves. Once the sand bed is thoroughly agitated, turn off air scour blower and close valve (#12). **If the water level does start to rise during air scouring, turn off the air scour blower immediately. Re-check valves (#1, #7, and #3) for full closure. If water rises above backwash trough during air scouring, it will allow sand to enter said trough and potentially return to the pool after the backwashing cycle.**
3. Open Backwash Influent valve (#8) and Air Relief valve (#12A). **Allow water level in the tank to rise until it reaches the bottom of the motor box.** Close Backwash Influent valve (#8) and Air Relief valve (#12A).
4. Open Backwash Suction valve (#4). Start pump and open Backwash-To-Waste valve (#5) slowly to the designated flow. Draw the filter tank level down to the equalization screen. Look through backwash viewport and open Backwash Influent valve (#8) to regulate and maintain water level just below equalization screen, allowing dirty water to flow over edge of backwash trough. Backwash 3-4 minutes or until the sight glass is clear.
5. Close Backwash Influent valve (#8) and turn off pump. Close Backwash Suction valve (#4). Close backwash viewport window. Open Perimeter Overflow Valve(s) (#7) and Main Drain Valve (#1) allowing water level to rise to maximum level. Open Pump Suction Header valve (#2) and turn on filter pump. Rinse filter to waste 15-20 seconds.



6. Open Return to Pool #3 to first setting or notch while slowly closing Backwash-To-Waste valve (#5). Then set Return to Pool valve (#3) to marked position for designated flow rate.
7. Run 2-3 minutes and check operation, turn on UV, heaters, controllers, etc.

When backwashing, it is important to keep the water level in the filter compartment just above the top lip of the backwash trough partition to maximize the efficiency of the backwash flow and dirt removal. This can be observed through the viewport window in the equalization screen. With the proper setting of the backwash discharge to waste valve (#5), the backwash flow can be easily maintained at the proper level in the filter tank and in the backwash trough by modulating Backwash Influent valve (#8).

**Helpful Hint:** It is recommended that a manual backwash at the maximum flow rate allowable by backwash water receptacle capabilities for an extended time of 5-6 minutes is done a minimum of once a year. The air scour feature is not used during this suggested preventive maintenance backwash. This suggested manual extended flow backwash extends the media life & could prevent having to replace the sand in your filter.

### **To Filter:**

**Ensure that pump rotation is in the correct direction at startup.**

Valves (#1), (#2), (#3), (#6), (#7), & (#11) are open. Valve (#1A) is closed to the previously set MOL and locked in place. Valve (#1A) should be left in this position for all filter operations. All other valves are closed.

### **Checking the Flow Rate:**

The recirculation pump is designed to deliver the required recirculation flow of \_\_\_\_\_ GPM at a total dynamic head of \_\_\_\_\_ feet. **REFER TO DRAWING(S)**

Total dynamic head on the pump is a combination of the vacuum and discharge pressure losses. The conversion factors for the vacuum and pressure reading to feet of head are:

1. 1" of vacuum equals 1.13 feet of head.
2. 1 psi equals 2.31 feet of head.



### **Procedure (With A Clean Filter):**

1. Set all valves to “filter” mode. Valve (#1A) is already set.
2. Start the pump and read the vacuum gauge.
3. Convert the vacuum reading to feet of head by multiplying by 1.13.
4. Subtract the vacuum reading expressed in feet (as found in #3 above) from the design total dynamic head of your pump.
5. Divide the results of #4 by 2.31. This is the desired pump discharge pressure to obtain the total designed dynamic head and, hence, with the diameter pump impeller supplied the designed flow rate.
6. Restrict valve (#3) by adjusting the gear operator until the pressure on the pump discharge gauge reads the result of #5. Recheck the vacuum gauge and make adjustments if necessary.

The pump manufacturer guarantees the flow based on their pump curves to within 5%, which is more accurate than the flow meter which is subject to distortion. When the system is properly set as described here, the reading on your flow meter is (and should be noted as) the proper recirculation rate for your pool. Mark the position of the indicator arrow on the gear operator on valve (#3) and return it to this setting after each backwash.

**Note:** If the filter pump for the pool loses prime during filter or backwash, follow these steps:

1. Turn the filter pump off.
2. Open manual air bleed tube located in the pump box and open valve (#12A) to allow any trapped air to escape.
3. Check to make sure all valves are in the proper position.
4. Allow the water in the filter tank to equalize with the pool.
5. Once the water in the filter tank has equalized with the pool, close air bleed tube in pump box and valve (#12A).
6. Turn the filter pump back on.



## **General:**

If debris accumulates on the vacuum equalization screen, it should be removed at regular intervals. This can be accomplished during backwashing. If it is necessary to enter the filter chamber, use the ladder provided and put your weight directly over the support angles.

The Vacuum Equalization Screen (VES) is held in place with fasteners. There is a window in the VES to permit visual inspection of the condition of the media surface. One section near the access ladder is made for easy removal for inspection of the area beneath the screen. All sections may be removed for maintenance operation if required.

If pump loses prime for any reason, let tank fill with pump "off" to displace air, then start pump.

**NOTE:** IT IS IMPORTANT TO CALIBRATE FLOW METER WITH PUMP AS DESCRIBED ABOVE.

## ***Use the actual info***

### **EXAMPLE OF CALIBRATION**

#### **Calculating Total Dynamic Head (TDH) and determining flow from pump performance curve**

Using your Vacuum gauge and Pressure gauge from the Mark V gauge bar, calculate your TDH at current operational load. By using the example below, you can determine the flow (GPM) of the pump and can calibrate your flow meter to correspond to your current flow.

Example:

**Vacuum Gauge Reading (4 in. Hg) x 1.13 = 4.52**

**Pressure Gauge Reading (22 psi) x 2.31 = 50.82**

To calculate TDH, add the vacuum gauge reading from the pressure gauge reading to determine your TDH.

Example:

Pressure Gauge (22 psi) x 2.31 = 50.83

+ Vacuum Gauge (4 in.Hg) x 1.13 = 4.52

= TDH of 55.35

#### **HEAD LOSS**

All models 2.5 psi @ 15 GPM

\* Clean filter loss through internal piping and media.

Use the example performance curve below to determine flow (GPM) with calculated TDH. Please notice the blue curve is the installed pump performance line and the red line indicates the TDH and Flow intersection on the performance curve.

### **Evacuator Feature**

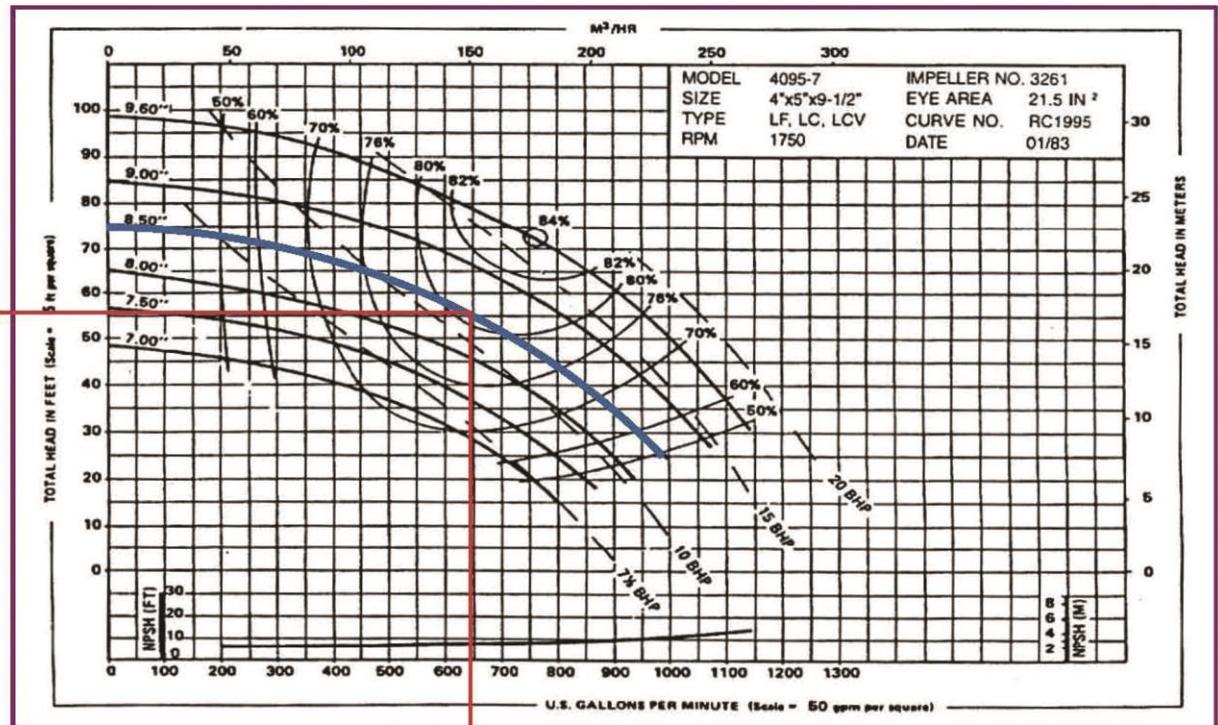
Your filter is equipped with an Evacuator chamber to remove chloramines from the pool water as it is filtered before they can accumulate in the filter room. There is a 4" flanged connection on the side of the tank to which air duct should be connected. This duct should either be tied into the facilities air handling system or routed to a fan (supplied) and vented to atmosphere.

This is not the actual pump curve - EXAMPLE ONLY

**PACO PUMPS**

**LC - 40957 - 1750 RPM - Performance Curve**

Project:	Tag #	P.O. #	By:
Location:	Model: 40957	Cust Ref#	Date: 2/23/2010
Contractor:	Stages: 1	Agent/Rep:	Rev. #
Engineer:	Service:	Doc #	Qty:



For further information contact Customer Service below.

# Maintenance & Operation Guides

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# SAFETY INFORMATION

**This bulletin includes important safety information that should be read by owners, managers, service personnel, and anyone in charge of the pool or pool area. Also, we suggest a copy be posted for quick reference.**

1. Only personnel trained and familiar with the proper use of pool chemicals should handle acid, liquid chlorine or chlorine compounds. Chemicals should never be used when swimmers are in the pool. Acid and liquid chlorine should always be stored, carried, or handled in plastic containers.
2. If grating is a part of the perimeter system, it should be kept firmly clamped down and in good repair at all times. When a section of grating become loose or damaged that particular area must be immediately covered and a replacement of grating ordered. Under no circumstances should swimmers be allowed to use any portion of the perimeter that contains loose or damaged grating. Perimeter grating is not intended for foot traffic. Swimmers should be advised not to walk, stand, or jump on perimeter grates.
3. Ladders and grab rails are intended for the use of one swimmer at a time; they are not designed for handstands or other gymnastic stunts and they should not be used for this purpose. Ladder treads should be inspected regularly. If a tread becomes loose or damaged, the ladder should be taken out of service until repairs are made.
4. Lifeguard Chairs are intended for the individual use of trained "on duty" lifeguards, one (1) guard per chair. Lifeguard chairs are not to be used by swimmers, spectators, or by more than one (1) person at a time. There should be no diving from portable lifeguard chairs. Umbrellas should be closed or removed from portable lifeguard chairs during windy conditions. All frame connections are to be checked for tightness. The seat is bolted to the frame assembly. It is important to advise all users to periodically check to determine that the studs are firmly fastened to the seat and the nuts are tight. If they become loose or detached, it could result in serious injury. On outdoor installations or usage, it is suggested that the seat be removed and stored inside during the winter.
5. Starting Platforms should only be used by trained competitive swimmers or under the direct supervision of an instructor. Swimmers should execute shallow racing dives only. Impact with the pool bottom can cause severe injury. Starting platforms have warning labels and inform the purchaser of the need to remove the platforms during non usage. If your starting platforms do not have warning labels, please contact the manufacturer immediately.
6. Bulkheads are designed and built for strength and safety. Any grating should be kept fully secured to avoid injury. **NO swimming under bulkhead. Never use bulkhead as a support or staging for equipment.** The bulkhead includes a compressor; please refer to owner's manual provided with the unit.

For questions concerning the usage of our equipment, please contact Paddock Pool Equipment Co., customer service.



## To Backwash Using Air Scour:

Shut off UV, Heaters, chemical controller(s), Water Level Controller, etc. 5-10 minutes prior to Backwash.

1. Reset vacuum limit switch if tripped. Close Main Drain valve #1 and Perimeter Overflow valve (#7). Draw the filter tank level down to top of sand bed, opening backwash viewport to see. Slowly close return to pool valve (#3), then shut off pump. Close Pump Suction Valve (#2).
2. Open Air Scour Control valve (#12) and turn on air scour blower. Run 3-5 minutes while monitoring sand bed to ensure water is not bypassing valves. Once the sand bed is thoroughly agitated, turn off air scour blower and close valve (#12). **If the water level does start to rise during air scouring, turn off the air scour blower immediately. Re-check valves #1, #7, and #3 for full closure. If water rises above backwash trough during air scouring, it will allow sand to enter said trough and potentially return to the pool after the backwashing cycle.**
3. Open Backwash Influent valve (#8) and open Air Relief valve (#12A). Allow water level in the tank to rise until it stops. Close Backwash Influent valve (#8) and Air Relief valve (#12A).
4. Open Backwash Suction valve (#4). Start pump and open Backwash-To-Waste valve #5 slowly to the designated flow. Draw the filter tank level down to the equalization screen. Look through backwash viewport and open Backwash Influent valve (#8) to regulate and maintain water level just below equalization screen, allowing dirty water to flow over edge of backwash trough. Backwash 3-4 minutes or until the sight glass is clear.
5. Close Backwash Influent valve #8 and turn off pump. Close Backwash Suction valve #4. Close backwash viewport window. Open Perimeter Overflow Valve(s) #7 and Main Drain Valve #1 allowing water level to rise to maximum level. Open Pump Suction Header valve #2 and turn on filter pump. Rinse filter to waste 15-20 seconds
6. Open Return to Pool (#3) to first setting or notch while slowly closing Backwash-To-Waste valve (#5). Then set Return to Pool valve (#3) to marked position for designated flow rate.
7. Run 2-3 minutes and check operation, turn on UV, heaters, controllers, etc.

When backwashing, it is important to keep the water level in the filter compartment just above the top lip of the backwash trough partition to maximize the efficiency of the backwash flow and dirt removal. This can be observed through the viewport window in the equalization screen. With the proper setting of the backwash discharge to waste valve (#5), the backwash flow can be easily maintained at the proper level in the filter tank and in the backwash trough by modulating Backwash Influent valve (#8).

Helpful hint: It is recommended that a manual backwash at the maximum flow rate allowable by backwash water receptacle capabilities for an extended time of 5-6 minutes is done a minimum of once a year. The air scour feature is not used during this suggested preventive maintenance backwash. This suggested manual extended flow backwash extends the media life & could prevent having to replace the sand in your filter.



**Note:** If the filter pump for the pool loses prime during the backwash procedure, follow these steps:

1. Turn the filter pump off.
2. Open manual air bleed tube located in the pump box and open valve #12A to allow any trapped air to escape.
3. Check to make sure all valves are in the proper position.
4. Allow the water in the filter tank to equalize with the pool.
5. Once the water in the filter tank has equalized with the pool, close air bleed tube in pump box and valve # 12A.
6. Turn the filter pump back on.

**General:**

If debris accumulates on the vacuum equalization screen, it should be removed at regular intervals. This can be accomplished during backwashing. If it is necessary to enter the filter chamber, use the ladder provided and put your weight directly over the support angles.

The Vacuum Equalization Screen (VES) is held in place with fasteners. There is a window in the VES to permit visual inspection of the condition of the media surface. One section near the access ladder is made for easy removal for inspection of the area beneath the screen. All sections may be removed for maintenance operation if required.

If pump loses prime for any reason, let tank fill with pump "off" to displace air, then start pump.



## **Gutter Depth Marker/ Target - Vinyl Decal Installation**

Your graphics will come in three layers, a backing paper layer on the bottom to keep the adhesive from being exposed, the vinyl layer (this is your graphic), and a masking layer on top. The masking layer makes the vinyl easier to handle and keeps everything pre-spaced for you to apply your graphic as one piece.

You will need:

- Clean rags
- Denatured alcohol
- Microfiber towel
- Vinyl applicator

It is best to do this process when the pool is not in use.

1. Lower Water Level
  - a. Water level should be lowered at least an inch below the bottom level of the decal.
  - b. Make sure to turn off any auto-fill devices to keep water from rising while applying decals.
2. Clean Gutter Thoroughly
  - a. Wipe away any moisture.
  - b. Clean the entire area where the decals will be applied using denatured alcohol and a clean rag.
  - c. Wipe dry with a clean microfiber cloth.
3. Apply Decal
  - a. Peel the backing from the decal making sure they stay attached to the protective paper on the front.
  - b. Take care to make sure the decal is level and spaced correctly.
  - c. Apply the decal sticking the top part first to the cleaned gutter surface and using your hand or applicator, slowly starting from the top, slide down the decal gently pressing it onto the gutter until the decal is fully applied.
  - d. Using the applicator, firmly press the decal from the center out to push any air bubbles to the edge.
  - e. Carefully peel the protective paper off making sure the decal sticks to the gutter (If decal starts to come off with the protective paper, stop, put the protective paper back as far as needed, and use applicator to press decal to gutter surface).
4. Cure
  - a. Wait at least 12 hours before introducing water to decals.
5. You can use a SEALITPEN to seal the edges of the graphic for longer durability. Follow directions on the pen.

If you have any question(s) contact customer service see below for our information.

# **GRATING**

## **High Density Polyethylene (HDPE)**

### **ADJUSTMENTS & CHARACTERISTICS with CARE & CLEANING MAINTENANCE**

#### **HDPE Grating Adjustments & Characteristics**

HPDE grating is highly durable and will give years of good service in the pool environment. The grating is held in place by either a front capture strip and a rear HDPE camlock or by a HDPE camlock front and back. A 1/4" x 1 1/2" x 3/16" allen head screw is used to tighten the camlock.

- Grating can be gapped up to 3/8" (three-eighths of inch), however at normal operating temperatures, the gap for indoor pool is 1/8" (one-eighth of inch) and outdoor pool is 1/4" (one-fourth of inch). An outdoor pool grating will contract and expand with sizeable temperature swings. Larger gaps can be expected in cold temperatures. At initial startup grating may need to be adjusted when pool reaches operating temperature.
- Grating fasteners needs to be inspected at the start of the swim season and periodically throughout the year. Adjust as needed, by hand loosening cam-locks with a 3/16" allen wrench, re-adjust gaps as listed above and re-tighten.

#### **Care and Maintenance**

- Paddock's HDPE grating is marine-grade polymer sheeting which is resistant to most chemicals and requires little maintenance to keep it looking new.
- Keep harsh solvents, acids, wood stains and wood preservatives away from Paddock HDPE finish. They may cause permanent staining and damage.
- Staining from rust is very difficult to remove so keep uncoated non stainless metals away from HDPE material.
- Shoes with marking soles can leave scuff marks that can be difficult to remove

#### **Cleaning**

- For daily cleaning of everyday dirt and stains, use a non-abrasive cleaner such as "Zud" or "Soft Scrub" and a nylon brush to scrub lightly. Excessively hard scrubbing can mar the finish.
- Hard to remove stains will usually go away if you soak the area with bleach. **When using this method, you must remove the grating from the stainless steel so it will not cause corrosion.** Do not use 100% granular or tablet chlorine as a bleach alternate.
- Pressure washing can mar the finish.
- Petroleum based stains can be difficult to remove, soak the area with WD-40®. Then use acetone or toluene with a white nylon scrub pad (color-based pads can transfer dye color to finish when combined with acetone)
- Do not use MEK, turpentine or naphtha solvent.
- Do not use polishes such as Armor-All ® to non-skid areas, this will reduce the slip coefficient and cause a fall/slip hazard.



Designing the future of stainless steel perimeters

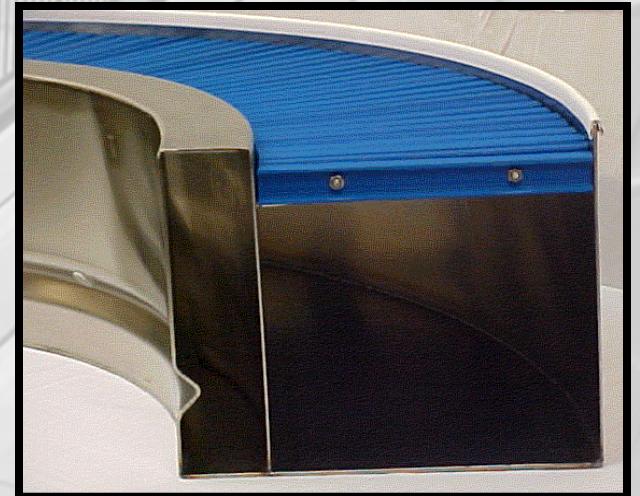
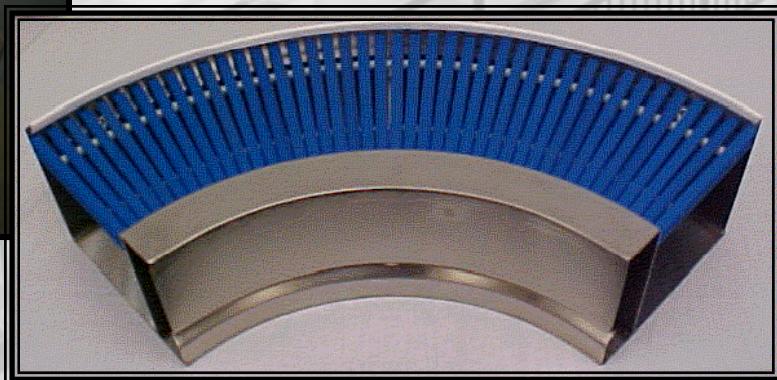


PADDOCK  
POOL EQUIPMENT COMPANY

*The best stainless steel perimeter just got better!*

## *The Radius Section*

- Increased Channel Efficiency and Flow
  - Safer Configuration for the User
  - Corner Maintenance Eliminated
    - Aesthetic Free Form Design





## STAINLESS STEEL PRODUCTS

### Care & Maintenance Guide

#### General Precautions:

Scratching can occur on a bright finish by cleaners that contain hard abrasives or even by “grit” in wash water. The best preventive measure is to avoid using abrasive cleaners unless absolutely necessary. When abrasives are needed first experiment on an inconspicuous area. A “soft abrasive”, such as Zud liquid or Bon Ami should be tried first to see initial test results. While cleaning with products mentioned be sure to observe direction of grain in material. Following grain while cleaning material will limit scratching. Many cleaners contain corrosive ingredients which require thorough cleaning and rinsing with clean water and is recommended for all cleaning procedures.

#### General Maintenance Procedures:

Stainless steel equipment will need to be cleaned on a regular basis for aesthetic considerations and to preserve corrosion resistance against evaporated chloramines or spotting. Stainless steel is protected from corrosion by a thin layer of chromium oxide. Oxygen from the atmosphere combines with chromium in stainless steel to form this passive chromium oxide film that helps protect against corrosion. Any contamination of surface by dirt, chlorides, greases, or other material will hinder this passivation process, and traps corrosive agents thus reducing corrosion protection. Chlorine and bromine used for sanitation are highly caustic chemicals to stainless steel, while heat and humidity enhance corrosiveness of these chemicals especially in natatoriums. Thus, some form of routine maintenance is necessary to preserve appearance and integrity of surface. Stainless steel is easily cleaned by many different methods. They actually thrive with frequent cleaning, and unlike some other materials it is impossible to “wear out” stainless steel by excessive cleaning. Your goal should be a robust cleaning and maintenance program to keep stainless steels protective chromium oxide layer intact which helps prevent corrosion.

To increase longevity of your stainless steel equipment, follow these steps:

1. Establish a proper grounding of all equipment being installed at aquatic facilities. Make it a point that dissimilar metals are not in direct contact of one another. Taking this precaution will minimize risk of forming an electrolytic cell between equipment, pool water and atmosphere at facility.



2. Once all equipment has been installed at facility, apply a coat of paste wax (automotive or marine wax) and buff equipment with soft cloth to assist in extended corrosion protection. Redo this process with waxing after using cleaners or at six-month intervals on stainless equipment. This wax will form a protective barrier between stainless steel and environmental elements left behind by evaporating pool water on equipment.
3. As stated previously rinse all equipment frequently with fresh water and dry with soft clean cloth. This should wash away any accumulated halogen salts such as chlorine or bromine. **DO NOT** use pool water, salt water, high PH or iron in water to clean your stainless steel products.
4. Pool equipment should be inspected regularly. Look for any tarnish, discoloration, stubborn stains, grease build up, blemishes or water spotting of stainless equipment. If apparent, then take appropriate steps to remove corrosive elements with a non-chlorinated stainless steel cleaner and water rinse.

**NEVER** use steel wool, sandpaper, hydrochloric acid, muriatic acid, mineral acids or harsh abrasive cleaners on stainless steel equipment. Steel wool will add to corrosion due to dissimilar metal materials coming into contact with equipment. Discoloration should be removed at first sign with a cleaner or polisher recommended for stainless steel equipment.

**Note:** Avoid adding chlorine in close proximity to stainless steel equipment. Dilute chlorine in 5-gallon bucket and pour as far from stainless equipment as possible. Also avoid cleaning masonry and pool decks with strong acid solutions that come in contact with stainless steel products. Do not pour straight muriac acid directly into pool for PH control. This method increases corrosion to stainless steel around application area.

#### **Effective Cleaning Methods:**

There are many choices available for cleaning stainless steel in market that consumers may utilize. Depending upon cleaning needed and degree of contamination, some products may be better than others. Although some products are listed as stainless steel cleaners, they may scratch surface and may contain chloride bleach which will discolor, tarnish or dull finish if not removed completely.

There are many industry associations that have listed available product that can be utilized in cleaning stainless steel products. Use of these proprietary names is intended only to indicate a type of product available and does not constitute an endorsement. Omission of any proprietary product does not imply inadequacy. Review each product being utilized in strict accordance with instructions on packaging. No one product is best for every form of cleaning, since there are many levels of corrosion.



The simplest, safest and least costly method that will adequately do the job is always best. The longer a stain is on surface of stainless equipment, the higher chance of permanent discoloration or damage. Stainless steel surfaces thrive with frequent cleaning because there is no surface coating to wear off material. A soft cloth and clean warm water should always be first choice for mild stains and loose dirt and soils. A final rinse with clean water and a dry wipe will complete process and eliminate possibility of water stains. **DO NOT** use pool water, salt water, and water with high PH or iron content to clean your stainless steel products.

Dealing with stubborn stains, discolored or tarnished stainless steel product try and utilize recommended merchandise per various manufacturers. Some recommended product: CitiSurf product such as 77 plus or 2310, Sta-clean, Zud liquid, Samae, Bon Ami, Allchem concentrated cleaner, Twinkle, 3M stainless steel cleaner and polish, Sheila Shine, Perfect Sink, Liquid Nu Steel, Lumin cleaner, Gade FFF or Grade F Italian pumice, Highlite and many others.

Surface restoration may be needed when stainless steel is scratched or pitted due to heavy corrosion. This can be accomplished by mechanically polishing as opposed to chemical cleaning above. A professional familiar with process should be contacted to handle.



## Winterizing

### Compak Vacuum Sand Filter

Follow the suggested procedures below:

1. Lower water level in pool below stainless steel gutter.
2. Shut down auto-fill controller and domestic water supply.
3. Once the water level is lowered, close the main drain valve, perimeter overflow valve, return to pool valve to isolate the filter from the pool and open remaining valve(s) to prevent pipes breaking if freeze occurs.
  - a. In high water table areas we recommend that some water is left in the filter to prevent lifting from hydrostatic pressure from ground water. If this is not an issue please pull water level down to the sand level, turn off pump, refer to step #3, and place a small bilge pump in the backwash trough to remove remaining water.
4. Remove drain plugs from pump box (if available) on filter tank and pump housing.
5. Drain and blow out all auxiliary lines such as chlorinators, heaters, sample lines, etc.
6. Check filter and pipes periodically through winter months for possible excess water in these areas in case of valve leakage or rain water.
7. Cover pool if possible or remove debris ASAP to prevent surface damage or excess algae.
8. Power down Mark 5, recirculation pump and VFD (if provided). Put the VFD disconnect switch in the off position. Supplemental heat will be required if the room temperature drops below (-20° F).
9. Disconnects for recirculation pump and optional VFD should be lockout / tag out to prevent accidental powering of equipment.

**Helpful Hint:**

It is recommended that a manual backwash at a full flow rate for an extended time of 5 to 6 minutes is done a minimum of once a year. If your system has the optional air scour feature, it is recommended that the air scour feature is not used during this suggested preventive maintenance backwash. This suggested manual extended flow backwash extends the media life and could prevent having to replace the sand in your filter.

# **Project Documentation**

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Paddock Pool Equipment Company, Inc.  
555 Paddock Parkway  
Rock Hill, SC 29730  
United States of America

Ph: 803-324-1111

**Submittal**

Number: QUO22465 Date: **27-Mar-23**

**Submitted To:**

**To:**

Capri Pools & Aquatics  
22 Gateway Commerce Center Dr. W. Suite 110  
Edwardsville IL 62025  
United States

Liz Crawford

**EMAIL:** [lcrawford@capripool.com](mailto:lcrawford@capripool.com)

**PHONE #:** 618 219 4882

**Project Name:** **USD Wellness Center**

**Project Manager:** Trevor Ottley  
[ottley@paddockindustries.com](mailto:ottley@paddockindustries.com)  
**PHONE #:** 803-372-6088

Qty	Description	Drawing	Approval
2	<b>HZ-FBG-60-92 Stacked Filter,Paddock,Horizontal,FiberGlass,(2) 60-46</b>  Stacked Filter,Paddock,Horizontal,FiberGlass,(2) 60-46 Gauges, Air Relief, Media, Lap Pool - 2 stack 60-92 (4 filters) with full face piping and manual linkage per plan AQ7.	Cut Sheet	
1	<b>HZ-FBG-48-23 Filter,Paddock,Horizontal,FiberGlass,48-23</b>  Filter,Paddock,Horizontal,FiberGlass,48-23 - Spa - 48-23 filter in stack configuration with 3 tees, 1 elbow, 4 valves per plan AQ7.1 - INCLUDE STACK SADDLES ON TOP OF THIS FILTER ONLY TO FACILITATE STACKING WITH THE LIKE FILTER BELOW.	Cut Sheet	
1	<b>HZ-FBG-48-23 Filter,Paddock,Horizontal,FiberGlass,48-23</b>  Filter,Paddock,Horizontal,FiberGlass,48-23 - Activity - 48-23 filter in stack configuration with 3 tees, 1 elbow, 4 valves per plan AQ7.1 -- Top Filter - Filters stacked for space consideration but operating independently.	Cut Sheet	

**Paddock is requesting either a Resale or Exemption Certificate from all customers for every project**



Paddock Pool Equipment Company, Inc.  
555 Paddock Parkway  
Rock Hill, SC 29730  
United States of America

Ph: 803-324-1111

**Submittal**

Number: QUO22465 Date: 04-May-23

**Submitted To:**

**To:**

Capri Pools & Aquatics  
22 Gateway Commerce Center Dr. W. Suite 110  
Edwardsville IL 62025  
United States

Liz Crawford

**EMAIL:** [lcrawford@capripool.com](mailto:lcrawford@capripool.com)

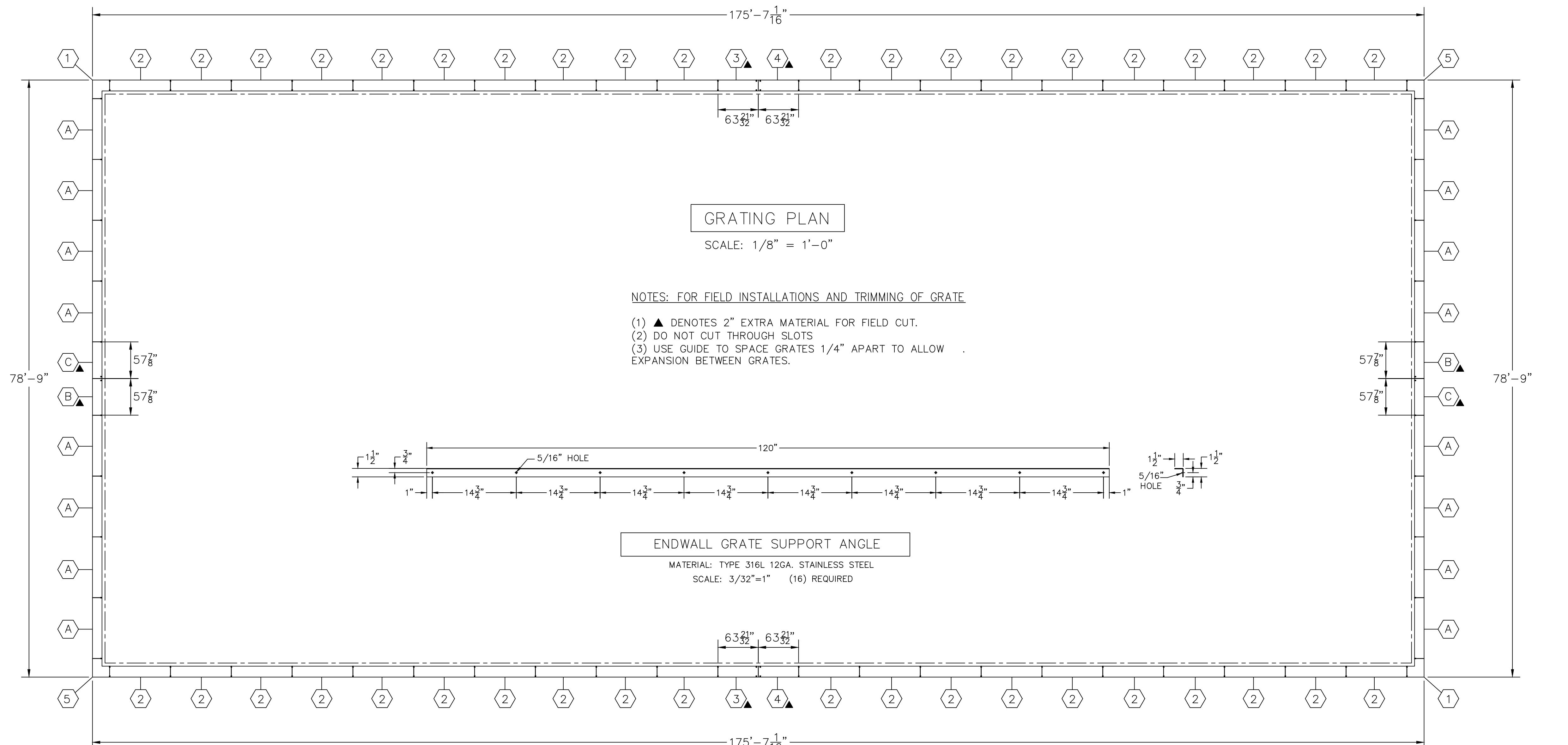
**PHONE #:** 618 219 4882

**Project Name:** USD Wellness Center

**Project Manager:** Trevor Ottley  
[ottley@paddockindustries.com](mailto:ottley@paddockindustries.com)  
**PHONE #:** 803-372-6088

Qty	Description	Drawing	Approval
495 ft	<b>23151.01- RetroFitGrating Retro Fit Grating</b> White 1 x 17.25 HDPE, Lap pool - 17.25" white HDPE drop-in grate with hold down blocks and 316L hardware.	23151.01	
1	<b>23151.01- Miscellaneous Miscellaneous</b> 150' 316L angle for grating support located at back of gutter along the end walls. 160 Total Lineal Feet Mounting hardware not included	23151.01	
142 ft	<b>23151.02- RetroFitGrating Retro Fit Grating</b> Activity pool - 16" white HDPE dropin grate with hold down blocks and 316L hardware.	23151.02	

Approved:

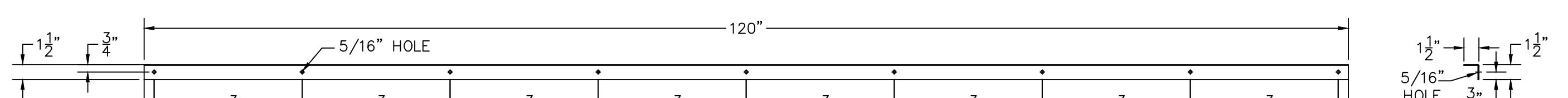


## GRATING PLAN

SCALE: 1/8" = 1'-0"

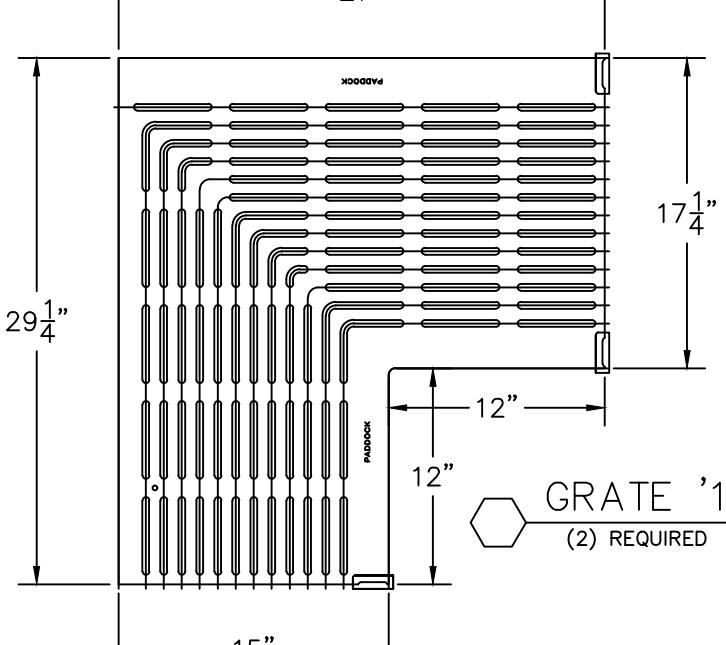
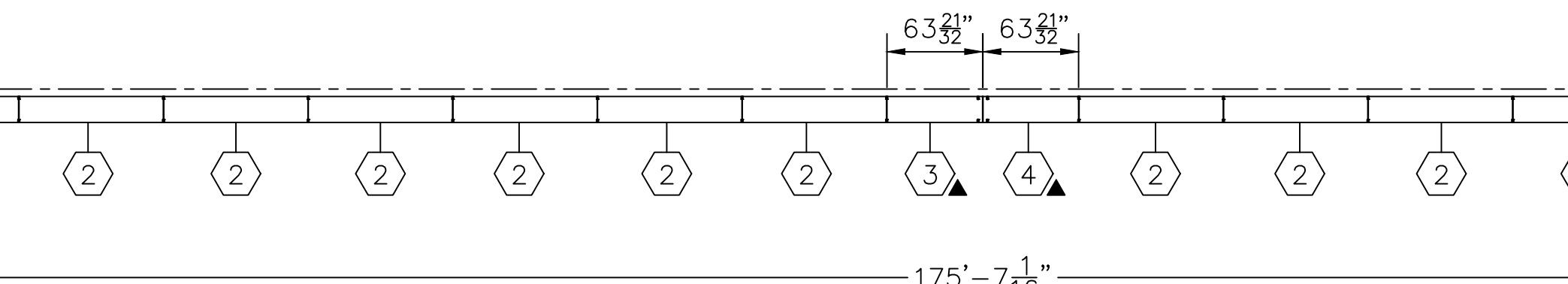
NOTES: FOR FIELD INSTALLATIONS AND TRIMMING OF GRATE

- (1) ▲ DENOTES 2" EXTRA MATERIAL FOR FIELD CUT.
  - (2) DO NOT CUT THROUGH SLOTS
  - (3) USE GUIDE TO SPACE GRATES 1/4" APART TO ALLOW .  
EXPANSION BETWEEN GRATES.

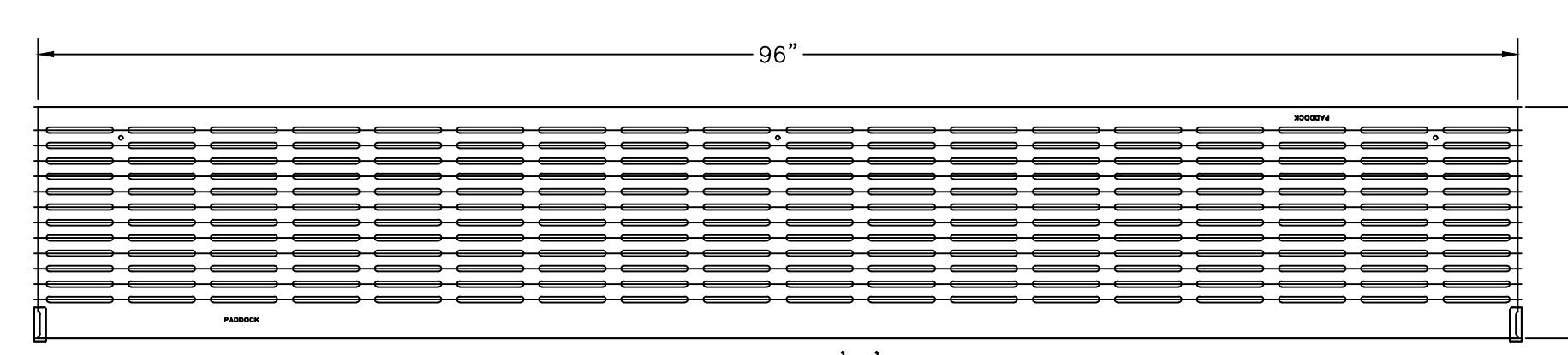


## ENDWALL GRATE SUPPORT ANGLE

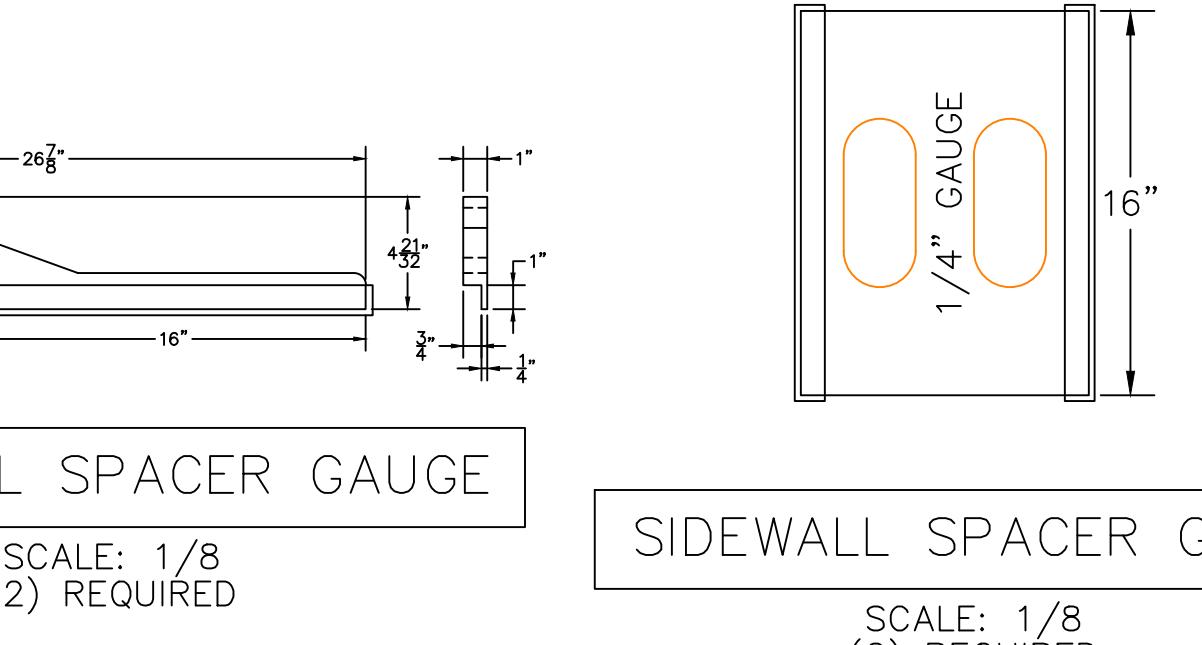
MATERIAL: TYPE 316L 12GA. STAINLESS STEEL  
SCALE: 3/32"=1" (16) REQUIRED



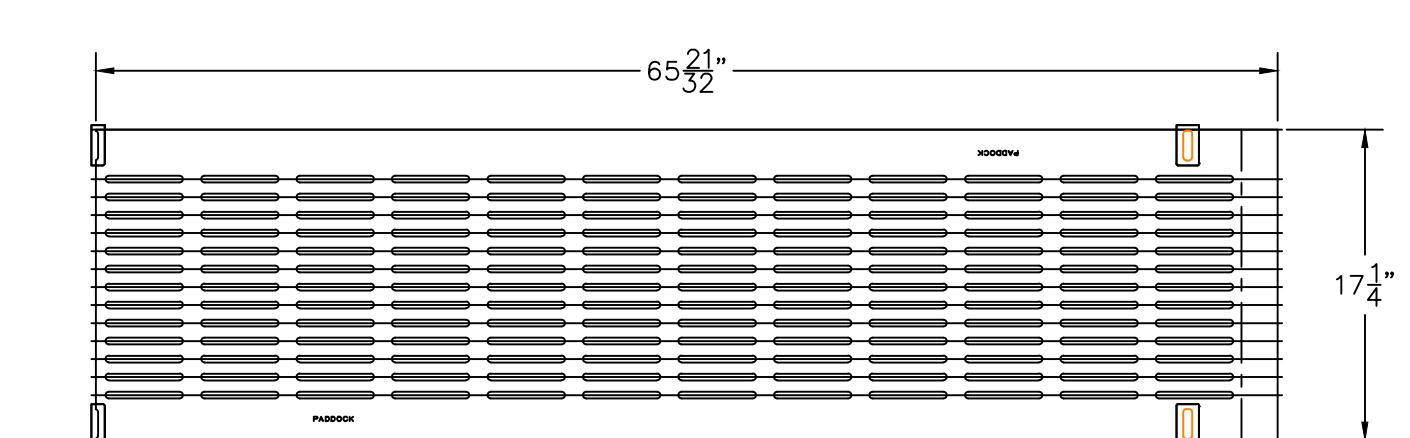
GRATE '2  
(40) REQUIRED



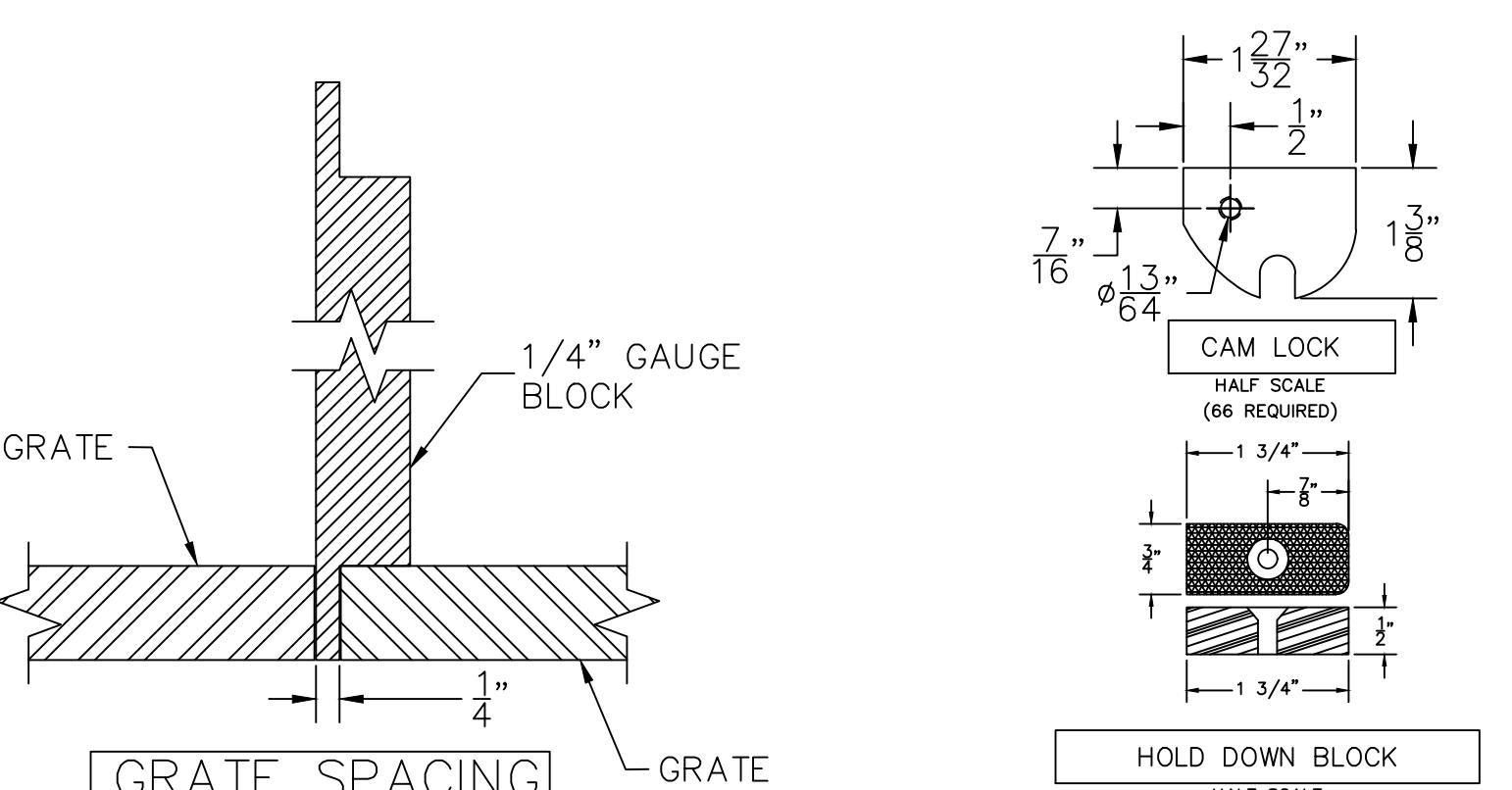
GRATE 'A  
(16) REQUIRED



# SIDEWALL SPACER GAUGE



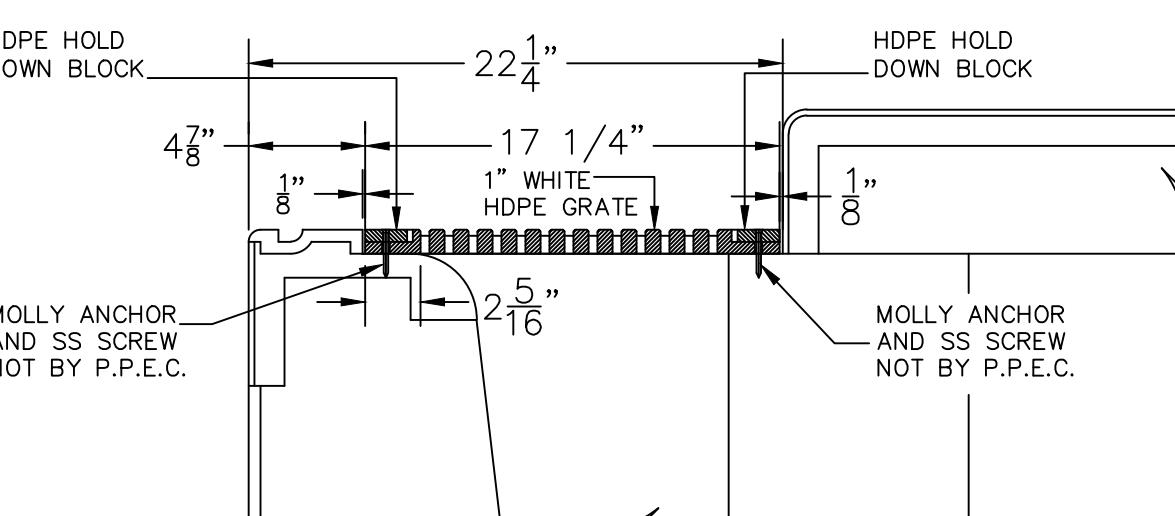
GRA  
(2) REC



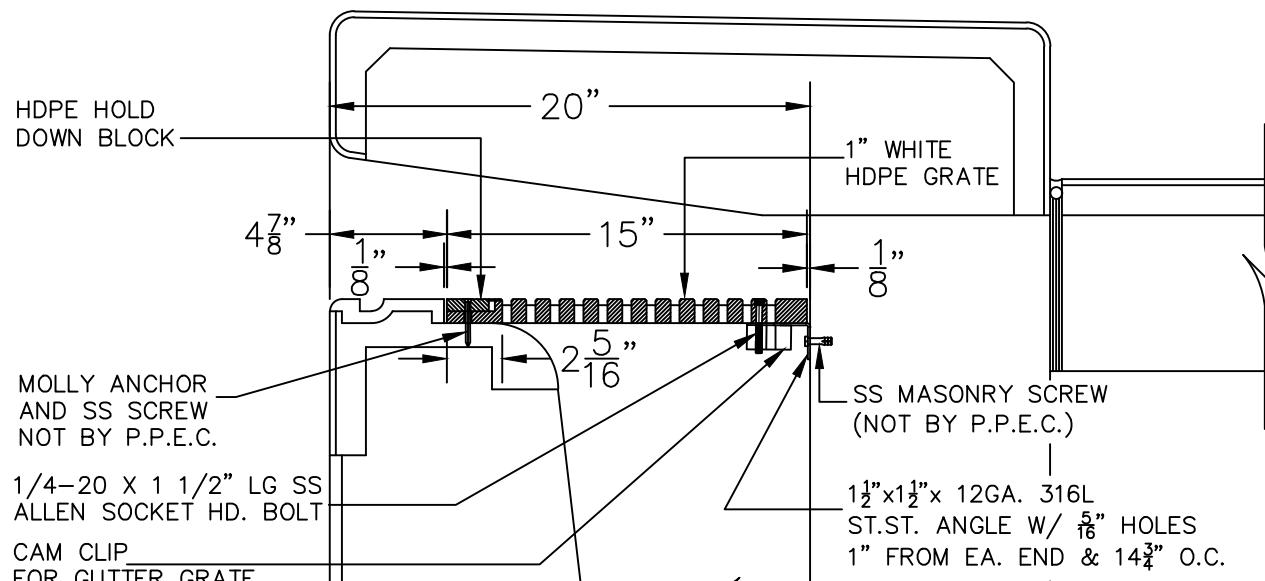
**GRATE SPACING**      **GRATE**      **HOLD DOWN BLOCK**  
**HALF SCALE**

COMPETITION POOL SIDEWALL 17 1/4" WIDE WHITE HDPE GRATE SCHEDULE				
SECTION NO.	QTY. REQ'D	'L' LENGTH	'L' +2" EXTRA FOR FIELD CUT	OTHER
1	2	27" X 29 1/4"	NONE	CORNER
2	40	96"	NONE	
3	2	63 21/32"	65 21/32"	
4	2	63 21/32"	65 21/32"	
5	2	27" X 29 1/4"	NONE	CORNER
			NONE	
TOTALS	48			

COMPETITION POOL ENDWALL 15" WIDE WHITE HDPE GRATE SCHEDULE				
SECTION NO.	QTY. REQ'D	'L' LENGTH	'L' +2" EXTRA FOR FIELD CUT	OTHER
A	16	96"	NONE	
B	2	57 7/8"	59 7/8"	
C	2	57 7/8"	59 7/8"	
TOTALS	20			

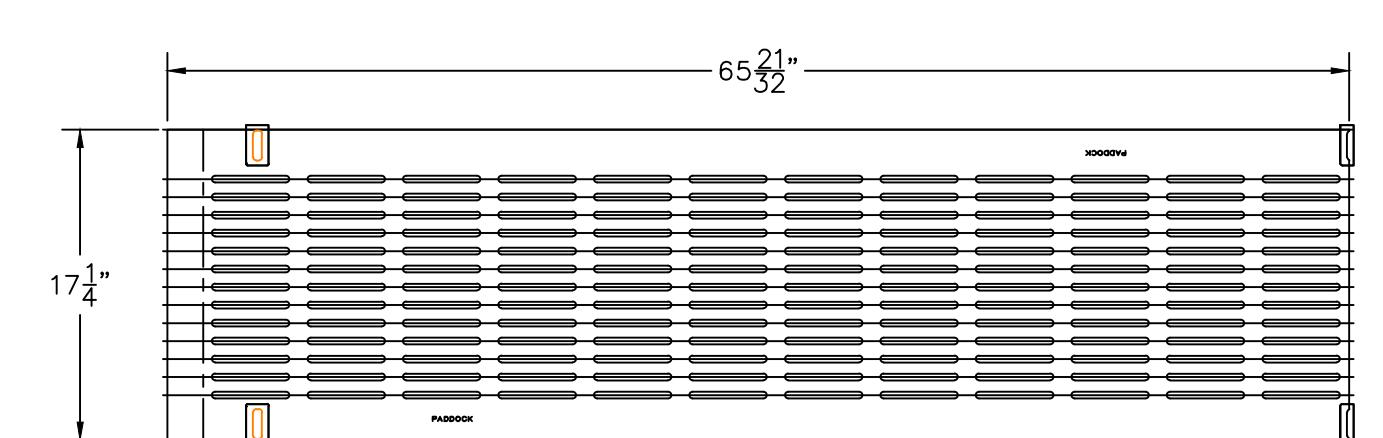


## POOL SIDEWALL GRATE SECTION

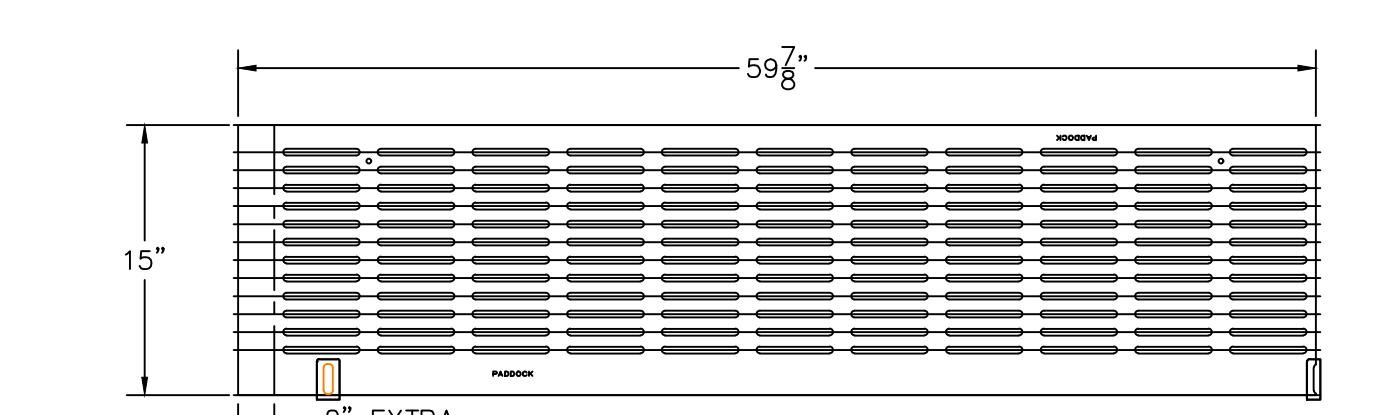


## POOL ENDWALL GRATE SECTION

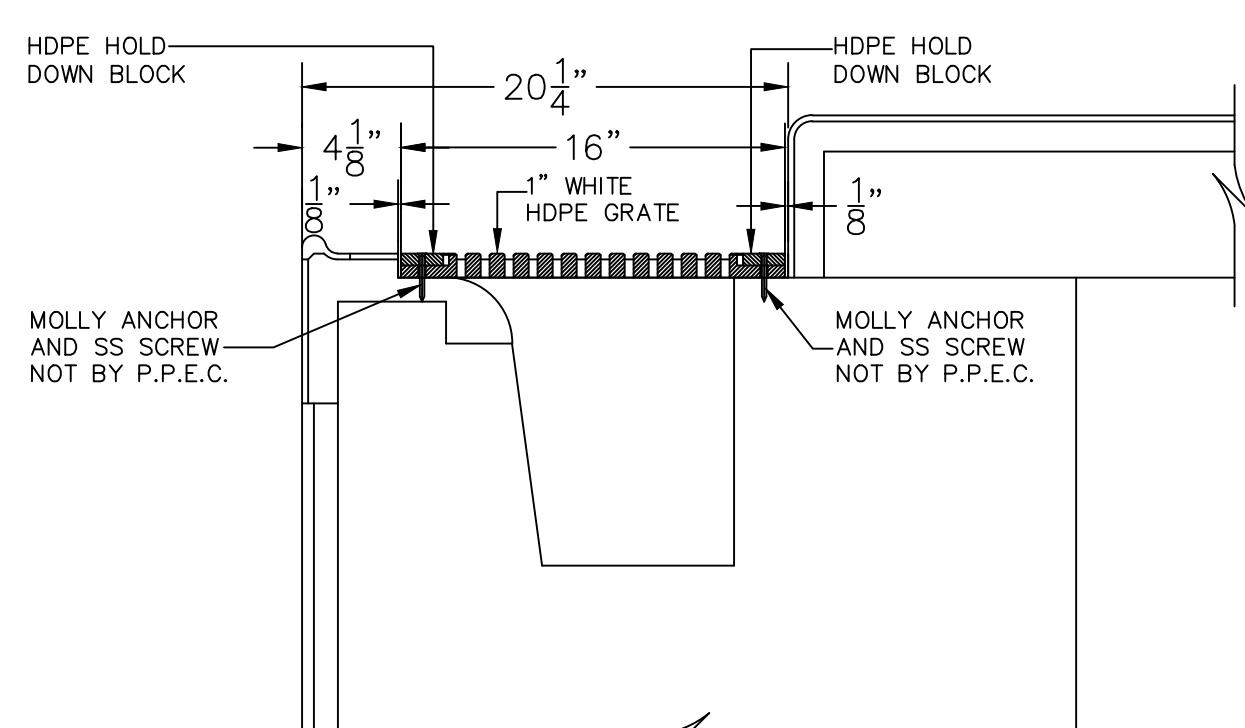
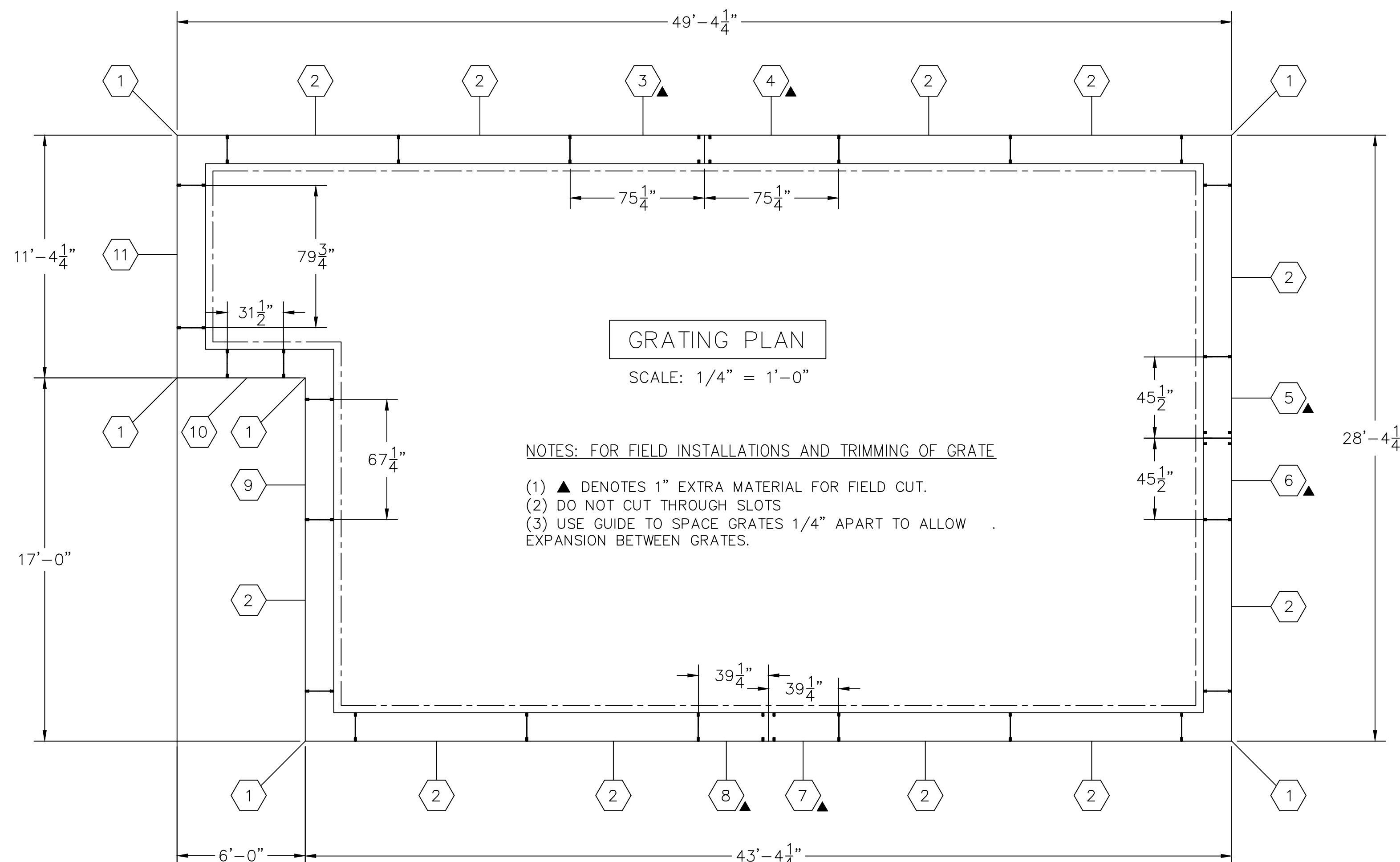
SHIPPING SCHEDULE	
7" X 29 1/4" X 1" WHITE HDPE GRATE CORNER SECTION	4
SIDEWALL WHITE HDPE GRATE 1" X 17 1/4", (46) SECTIONS	±342'-1 1/8"
ENDWALL WHITE HDPE GRATE 1" X 15", (20) SECTIONS	±149'-2"
1/2" X 1 1/2" X 10'-0" X 12GA. 316L ST.ST. ANGLE WITH 5/16"HOLES " FROM EACH END & 14 3/4"O.C.	16
HDPE 3/4" X 1 3/4" X 1/2" HOLD DOWN BLOCKS; SHIP LOOSE	132
HDPE ENDWALL CAM LOCK	66
1/4-20 X 1 1/2"LG. SS ALLEN SOCKET HEAD BOLT	63
ENDWALL WHITE HDPE 1/4" GRATE SPACER GAUGE	2
SIDEWALL WHITE HDPE 1/4" GRATE SPACER GAUGE 12" X 12"	2



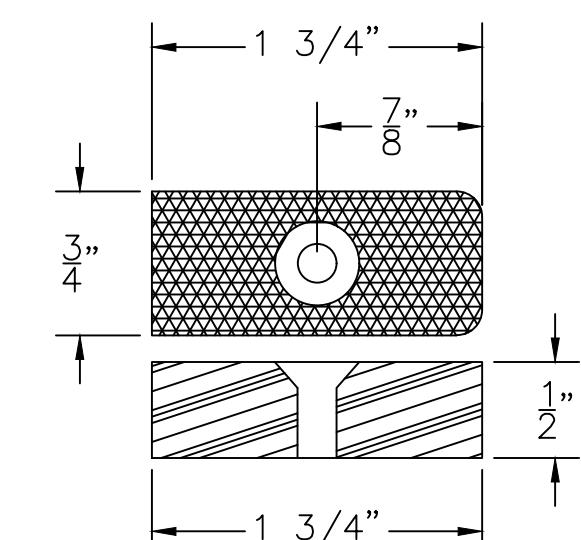
 2" EXTRA FIELD TRIM       GRATE '4' (2) REQUIRED



GRATE 'C.  
(a) REQUIRED

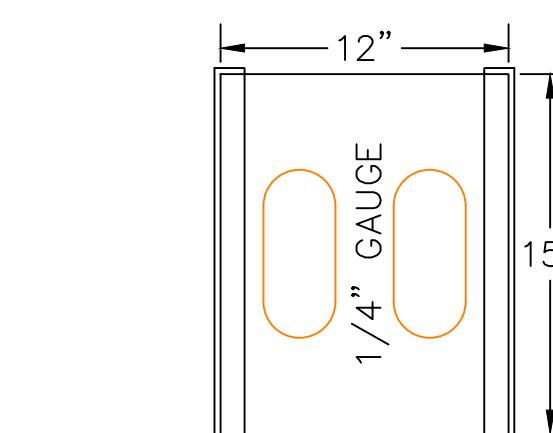
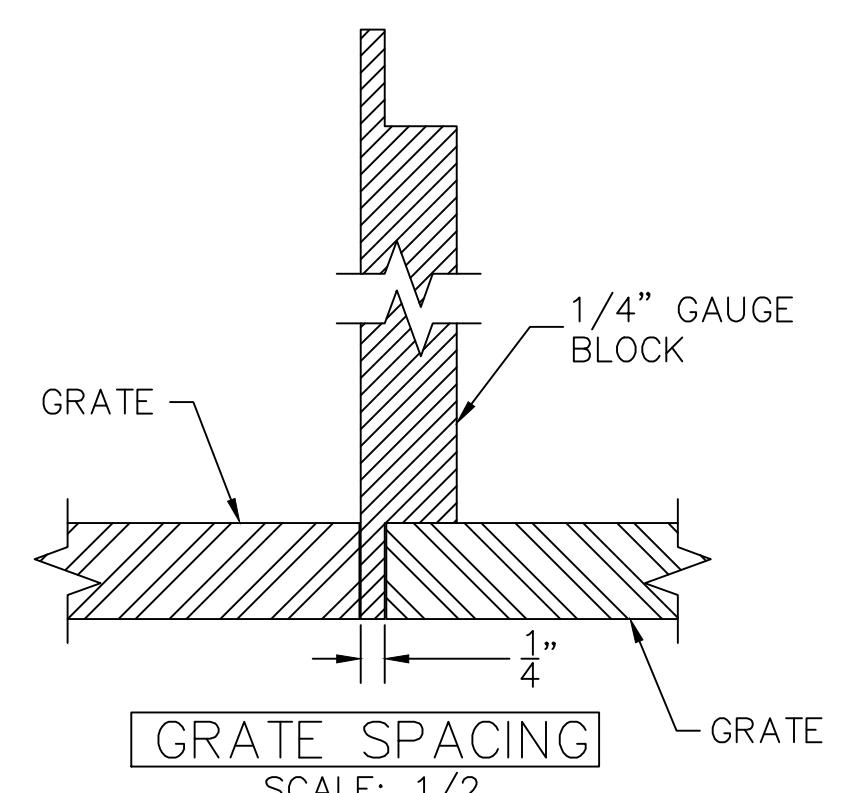


**POOL GRATE SECTION**  
SCALE:  $1\frac{1}{2}'' = 1'-0''$

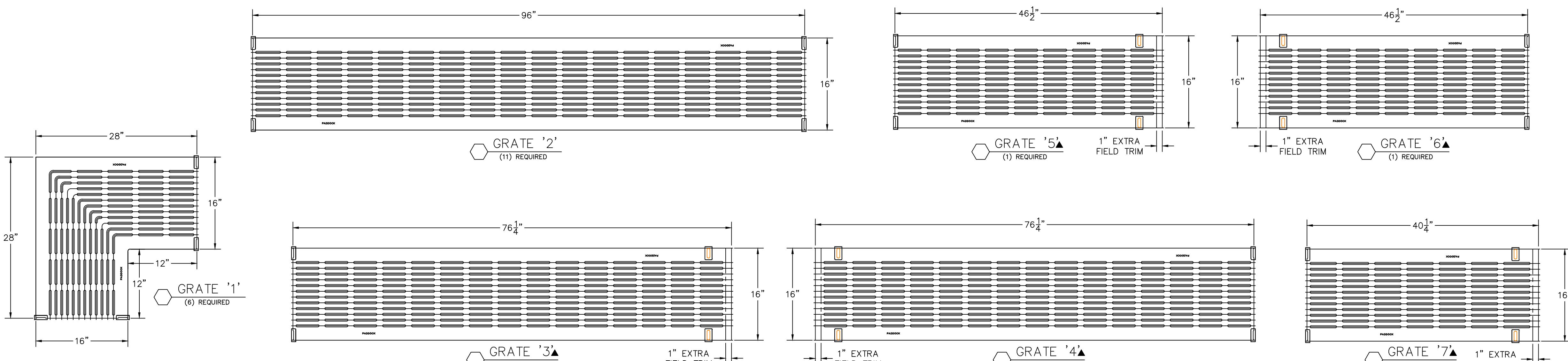


**HOLD DOWN BLOCK**  
FULL SCALE  
(58 REQUIRED)

ACTIVITY POOL 16" WIDE WHITE HDPE GRATE SCHEDULE				
SECTION NO.	QTY REQ'D	'L' LENGTH	'L' + 1" EXTRA FOR FIELD CUT	OTHER
1	6	28" x 28"	NONE	CORNER
2	11	96"	NONE	
3	1	75 1/4"	76 1/4"	
4	1	75 1/4"	76 1/4"	
5	1	45 1/2"	46 1/2"	
6	1	45 1/2"	46 1/2"	
7	1	39 1/4"	40 1/4"	
8	1	39 1/4"	40 1/4"	
9	1	67 1/4"	NONE	
10	1	67 1/4"	NONE	
11	1	67 1/4"	NONE	
<b>TOTALS</b>	<b>26</b>			

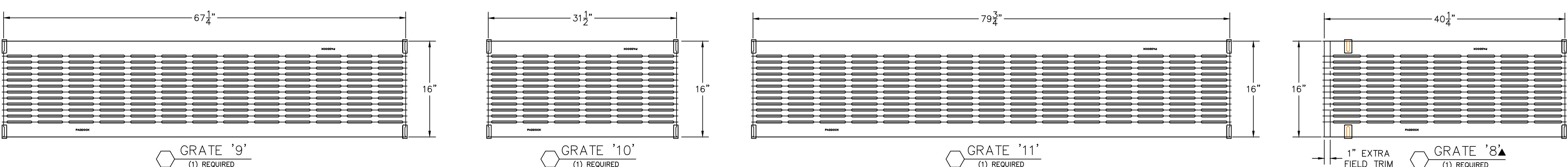


**SIDEWALL SPACER GAUGE**  
SCALE:  $1/8$   
(2) REQUIRED



SHIPPING SCHEDULE	
28" X 28" X 1" WHITE HDPE GRATE CORNER SECTION	6
WHITE HDPE GRATE 1" X 16", (20) SECTIONS	$\pm 130 - 1"$
HOPE 3/4" X 1 3/4" X 1/2" HOLD DOWN BLOCKS; SHIP LOOSE	58
WHITE HDPE 1/4" GRATE SPACER GAUGE 12" X 15"	2

INCL. 10% EXTRA



555 Paddock Parkway Rock Hill, SC 29730 Phone: (803) 324-1111 Fax: (803) 324-1116 info@paddockindustries.com	DESCRIPTION ACTIVITY POOL GRATE LAYOUT DETAILS
DO NOT SCALE DRAWING TOLERANCE UNLESS OTHERWISE NOTED $x \pm 1/8$ $x \pm 1/32$ $x \pm .005$	JOB NAME UNIVERSITY OF SOUTH DAKOTA
X	DATE
BY	LOCATION VERMILLION, SOUTH DAKOTA
DRAWN M.J.G. 5-3-23	CUSTOMER CAPRI POOLS & AQUATICS
CHECKED	SCALE (UNLESS NOTED) $5/16 = 1 - 0$
APPROVED	SIZE D W.O. # JOB: 23151.02
MATERIAL: WHITE HDPE 316LSS	REV. 0

# SUBMITTAL

Job:

Spec Section No:

Spec Section Title:

Submittal Title:

Submittal No:

Revision No:

Sent Date:

Contractor:

 JOURNEY CONSTRUCTION A Journey Group Company	<b>SUBMITTAL #:</b> 13 11 00 - 2.3i <b>SPEC SECTION #:</b> 13 11 00
<input type="checkbox"/> REVIEWED <input checked="" type="checkbox"/> REVIEWED AS NOTED <input type="checkbox"/> REVISE & RESUBMIT	
<b>** CONTRACTOR COMMENTS NOTED IN BLUE **</b>	
Corrections or comments made on the shop drawings during this review do not relieve the subcontractor/supplier from compliance with requirements of the drawings and specifications. This check is only for review of the general conformance with the design concept of the project and general compliance with the information given in the contract documents. The subcontractor/supplier is responsible for confirming and correlating all quantities and dimensions; selecting fabrication processes and techniques of construction; coordinating his or her work with that of all other trades and performing all work in a safe and satisfactory manner.	
<b>BY:</b> <i>mhales</i> Project Engineer	<b>DATE:</b> 9/5/2023

Architect:

Architect's Stamp

Engineer:

 Cousilman • Hunsaker AQUATICS FOR LIFE	<b>SHOP DRAWING &amp; SUBMITTAL REVIEW:</b>
Review is only for general conformance with the design of the project and general compliance with the contract documents. Review does not relieve contractor from compliance with the requirements of the contract documents. Contractor is responsible for conforming and correlating all quantities and dimensions; selecting fabrication processes, means, techniques, sequences and procedures of construction; coordinating their work with that of all other trades; performing this work in a safe and satisfactory manner; and for all errors or omissions in submittals.	
<input type="checkbox"/> Reviewed, no exception <input type="checkbox"/> Revise & Resubmit	<input checked="" type="checkbox"/> Reviewed as noted <input type="checkbox"/> Rejected, Resubmit
Date: 09/07/2023	Reviewed By: CJR
<b>- Ensure air relief valve can operate automatically. - Ensure filter manufacturer approves of the submitted media.</b>	



Paddock Pool Equipment Company, Inc.  
555 Paddock Parkway  
Rock Hill, SC 29730  
United States of America

Ph: 803-324-1111

**Submittal**

Number: QUO22465 Date: **22-JUNE-23**

**Submitted To:**

Liz Crawford

**To:**

Capri Pools & Aquatics  
22 Gateway Commerce Center Dr. W. Suite 110  
Edwardsville IL 62025  
United States

**EMAIL:** [lcrawford@capripool.com](mailto:lcrawford@capripool.com)

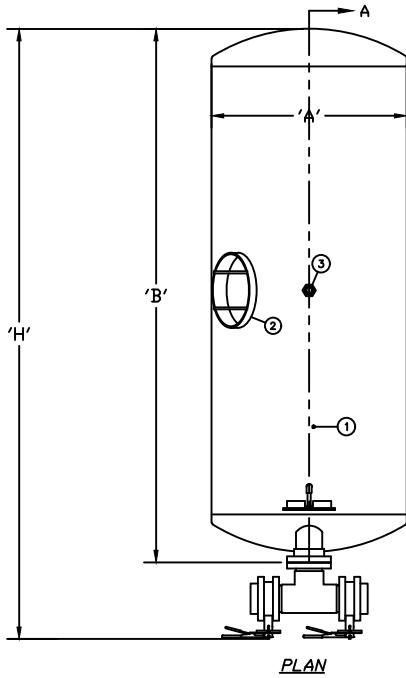
**PHONE #:** 618 219 4882

**Project Name:** **USD Wellness Center**

**Project Manager:** Trevor Ottley  
[ottley@paddockindustries.com](mailto:ottley@paddockindustries.com)  
**PHONE #:** 803-372-6088

Qty	Description	Drawing	Approval
2	<b>HZ-FBG-60-92 Stacked Filter,Paddock,Horizontal,FiberGlass,(2) 60-46</b>  Stacked Filter,Paddock,Horizontal,FiberGlass,(2) 60-46 Gauges, Air Relief, Media, Lap Pool - 2 stack 60-92 (4 filters) with full face piping and manual linkage per plan AQ7.	Cut Sheet	
1	<b>HZ-FBG-48-23 Filter,Paddock,Horizontal,FiberGlass,48-23</b>  Filter,Paddock,Horizontal,FiberGlass,48-23 - Spa - 48-23 filter in stack configuration with 3 tees, 1 elbow, 4 valves per plan AQ7.1 - INCLUDE STACK SADDLES ON TOP OF THIS FILTER ONLY TO FACILITATE STACKING WITH THE LIKE FILTER BELOW.	Cut Sheet	
1	<b>HZ-FBG-48-23 Filter,Paddock,Horizontal,FiberGlass,48-23</b>  Filter,Paddock,Horizontal,FiberGlass,48-23 - Activity - 48-23 filter in stack configuration with 3 tees, 1 elbow, 4 valves per plan AQ7.1 -- Top Filter - Filters stacked for space consideration but operating independently.	Cut Sheet	

**Paddock is requesting either a Resale or Exemption Certificate from all customers for every project.**



# Competition Pool Filters

QTY 2 Units

VALVE LEGEND				
NO.	VALVE DESCRIPTION	FILTER	BACKWASH FILTER #1	BACKWASH FILTER #2
2	RETURN TO POOL	□	X	X
3	FILTER INFLUENT #1	□	X	□
4	FILTER EFFLUENT (B.W. #1)	X	□	X
5	FILTER INFLUENT #2	□	□	X
6	FILTER EFFLUENT (B.W. #2)	X	X	□
7	BACKWASH CONTROL VALVE	□	□	□

□-OPEN, X-CLOSED

ITEM	DESCRIPTION
1	FIBERGLASS FILTER TANK, WITH FLANGED CONNECTIONS & SADDLES
2	TANK MANWAY ASSEMBLY
3	1" AIR RELEASE
4	SCH. 80 PVC OVERDRAIN HEADER WITH 1 1/2" PVC LATERALS
5	SCH. 80 PVC UNDERDRAIN HEADER W/2" NORYL THREADED LATERALS
6	GAUGE PANEL
7	FILTER SAND (.45 TO .55mm) UNIFORMITY COEFFICIENT <= 1.60
8	1/16 TD 1/8 GRAVEL MEDIA
9	FIBERGLASS BAFFLE PLATES

#### **GENERAL NOTES:**

PIPING - SCH. 80 PVC, MAX. VELOCITY LESS THAN 10 FPS. PIPING DEPICTED WITH DASHED LINES AND BACKWASH CONTROL VALVE NOT SUPPLIED BY PADDOCK.

FILTER WORKING PRESSURE IS 50 PSI. TEST PRESSURE IS 65 PSI.

PLAN  
Need actual flow rate for label 2,200 GPM

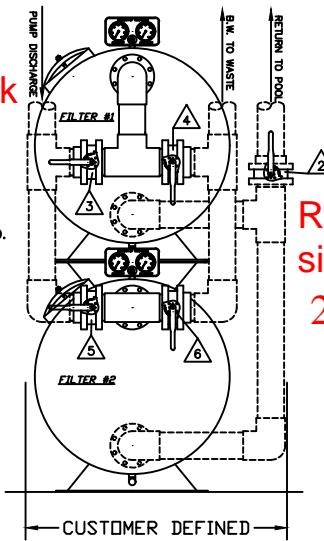
## Mark Manway

### Location on tank

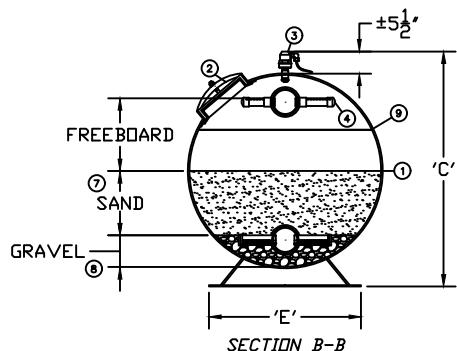
Left side  
2 Left

NOTE:  
DASHED FACE PIPING NOT INCLUDED.

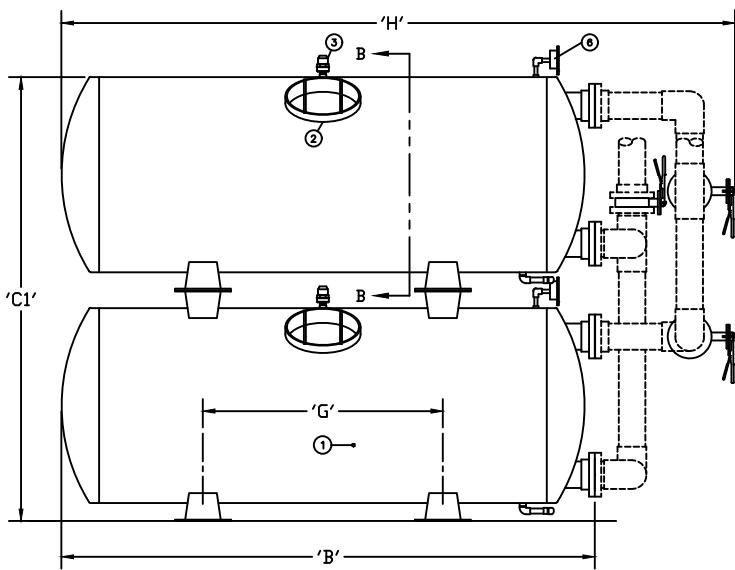
# Piping with manual linkage



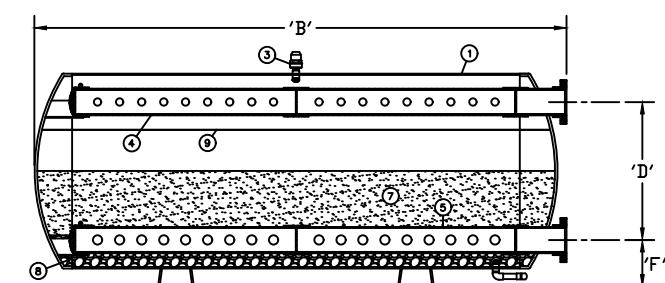
DUAL STACKED FILTER FRONT ELEVATION



SECTION B-B



DUAL STACKED FILTER SIDE ELEVATION



**SECTION A-A**

**Approval Date:** \_\_\_\_\_

**Signature:** \_\_\_\_\_



Certified to  
NSF /ANSI Standard 50

DESCRIPTION	
DWG. NO.	JOB NAME & LOCATION
SHEET NO. 1 of 1	CUSTOMER
REV. 1	
12/17/18	
-	



The logo for Paddock Pool Equipment. It features a circular emblem on the left containing a stylized trident or mace head. To the right of the emblem, the word "PADDOCK" is written in a bold, sans-serif font. Below "PADDOCK", the words "POOL EQUIPMENT" are written in a smaller, all-caps, sans-serif font.

555 Paddock Parkway  
Rock Hill, SC 29730-1676  
[info@paddockindustries.com](mailto:info@paddockindustries.com)

FIBERGLASS HORIZONTAL FILTERS		
REV	REVISION DESCRIPTION	DATE
9		
6		

**PADDOCK STACKED FIBERGLASS HORIZONTAL FILTERS**

CATALOG NO.	DIA.	TOTAL FILTER AREA	TOTAL FILTER RATE		TANK CONN. SIZE	OVERDRAIN LAT'S (TOTAL)	UNDERDRAIN LAT'S (TOTAL)	MEDIA PER (2) TANKS (CU FT)	
			15 GPM/FT <sup>2</sup>	15 GPM/FT <sup>2</sup>				SAND	GRAVEL
HZF-32-33	32"	33 FT <sup>2</sup>	495 GPM	247.5 GPM	4"	40	40	21.80	11.38
HZF-34-33	34"	33 FT <sup>2</sup>	495 GPM	247.5 GPM	4"	48	48	23.20	12.12
HZF-36-40	36"	40 FT <sup>2</sup>	600 GPM	300 GPM	6"	48	48	31.28	11.68
HZF-36-46	36"	46 FT <sup>2</sup>	690 GPM	345 GPM	6"	52	52	35.67	13.50
HZF-36-50	36"	50 FT <sup>2</sup>	750 GPM	375 GPM	6"	56	56	39.18	14.90
HZF-42-48	42"	48 FT <sup>2</sup>	720 GPM	360 GPM	6"	40	40	47.50	15.13
HZF-42-54	42"	54 FT <sup>2</sup>	810 GPM	405 GPM	6"	48	48	55.40	15.30
HZF-42-60	42"	60 FT <sup>2</sup>	900 GPM	450 GPM	6"	56	56	59.06	18.88
HZF-42-66	42"	66 FT <sup>2</sup>	990 GPM	495 GPM	6"	64	64	64.60	20.8
HZF-42-70	42"	70 FT <sup>2</sup>	1,050 GPM	525 GPM	6"	72	72	70.60	19.48
HZF-48-46	48"	46 FT <sup>2</sup>	690 GPM	345 GPM	6"	32	32	51.64	12.10
HZF-48-50	48"	50 FT <sup>2</sup>	750 GPM	375 GPM	6"	36	36	59.00	15.88
HZF-48-60	48"	60 FT <sup>2</sup>	900 GPM	450 GPM	6"	44	44	69.28	16.76
HZF-48-68	48"	68 FT <sup>2</sup>	1,020 GPM	510 GPM	6"	56	56	82.00	18.00
HZF-48-74	48"	74 FT <sup>2</sup>	1,110 GPM	555 GPM	6"	64	64	88.10	21.92
HZF-48-84	48"	84 FT <sup>2</sup>	1,260 GPM	630 GPM	6"	72	72	100.00	22.00
HZF-48-92	48"	92 FT <sup>2</sup>	1,380 GPM	690 GPM	6"	80	80	109.90	24.00
HZF-48-100	48"	100 FT <sup>2</sup>	1,500 GPM	750 GPM	6"	88	88	119.68	30.28
HZF-60-70	60"	70 FT <sup>2</sup>	1,050 GPM	525 GPM	6"	44	88	100.00	33.52
HZF-60-80	60"	80 FT <sup>2</sup>	1,200 GPM	600 GPM	6"	52	104	111.12	36.68
HZF-60-92	60"	92 FT <sup>2</sup>	1,380 GPM	690 GPM	6"	64	128	129.64	43.08
HZF-60-104	60"	104 FT <sup>2</sup>	1,560 GPM	780 GPM	6"	72	144	138.68	43.40
HZF-60-120	60"	120 FT <sup>2</sup>	1,800 GPM	900 GPM	8"	84	168	166.48	54.16
HZF-60-134	60"	134 FT <sup>2</sup>	2,010 GPM	1,005 GPM	8"	96	192	186.00	60.40

\*MULTI-TANK SYSTEM IS DESIGNED TO BACKWASH ONE TANK AT A TIME AT 15 GPM PER SQ. FT.

CATALOG NO.	DIM. 'A'	DIM. 'B'	DIM. 'C'	DIM. 'C1'	DIM. 'D'	DIM. 'E'	DIM. 'F'	DIM. 'G'	DIM. 'H'
HZF-32-33	2'-8"	7'-2"	3'-6"	7'-0 1/2"	1'-6 1/2"	2'-10"	1'-0 1/4"	2'-6"	9'-9 3/4"
HZF-34-33	2'-10"	6'-7"	3'-8 3/4"	7'-4 1/2"	1'-8 1/2"	2'-10"	11 5/8"	2'-6"	9'-6"
HZF-36-40	3'-0"	7'-5"	3'-10 3/4"	7'-8 1/2"	1'-10 1/2"	3'-2"	11 5/8"	3'-6"	10'-4"
HZF-36-46	3'-0"	8'-5"	3'-10 3/4"	7'-8 1/2"	1'-10 1/2"	3'-2"	11 5/8"	4'-0"	11'-4"
HZF-36-50	3'-0"	9'-1"	3'-10 3/4"	7'-8 1/2"	1'-10 1/2"	3'-2"	11 5/8"	4'-4"	12'-0"
HZF-42-48	3'-6"	7'-7"	4'-4 3/4"	8'-8 1/2"	2'-4 1/2"	3'-2"	11 5/8"	3'-6"	10'-6"
HZF-42-54	3'-6"	8'-4 1/2"	4'-4 3/4"	8'-8 1/2"	2'-4 1/2"	3'-2"	11 5/8"	4'-0"	11'-3 1/2"
HZF-42-60	3'-6"	9'-3 1/2"	4'-4 3/4"	8'-8 1/2"	2'-4 1/2"	3'-2"	11 5/8"	4'-6"	11'-9"
HZF-42-66	3'-6"	10'-1"	4'-4 3/4"	8'-8 1/2"	2'-4 1/2"	3'-2"	11 5/8"	5'-0"	12'-7"
HZF-42-70	3'-6"	10'-9 1/2"	4'-4 3/4"	8'-8 1/2"	2'-4 1/2"	3'-2"	11 5/8"	5'-6"	13'-8 1/2"
HZF-48-46	4'-0"	6'-0 3/8"	4'-10 3/4"	9'-8 1/2"	2'-10 1/2"	3'-2"	11 5/8"	2'-0"	8'-11 3/8"
HZF-48-50	4'-0"	6'-9 3/8"	4'-10 3/4"	9'-8 1/2"	2'-10 1/2"	3'-2"	11 5/8"	2'-6"	9'-8 3/8"
HZF-48-60	4'-0"	8'-0"	4'-10 3/4"	9'-8 1/2"	2'-10 1/2"	3'-2"	11 5/8"	3'-6"	10'-11"
HZF-48-68	4'-0"	8'-11 3/4"	4'-10 3/4"	9'-8 1/2"	2'-10 1/2"	3'-2"	11 5/8"	4'-0"	11'-11 3/8"
HZF-48-74	4'-0"	9'-9 3/8"	4'-10 3/4"	9'-8 1/2"	2'-10 1/2"	3'-2"	11 5/8"	4'-6"	12'-8 3/8"
HZF-48-84	4'-0"	11'-0 3/4"	4'-10 3/4"	9'-8 1/2"	2'-10 1/2"	3'-2"	11 5/8"	5'-0"	14'-0 3/8"
HZF-48-92	4'-0"	12'-0 3/8"	4'-10 3/4"	9'-8 1/2"	2'-10 1/2"	3'-2"	11 5/8"	5'-6"	14'-2 1/4"
HZF-48-100	4'-0"	12'-11 3/4"	4'-10 3/4"	9'-8 1/2"	2'-10 1/2"	3'-2"	11 5/8"	6'-0"	15'-11 3/8"
HZF-60-70	5'-0"	7'-9 7/8"	5'-10 3/4"	11'-8 1/2"	3'-2 1/2"	5'-5"	15 5/8"	3'-0"	10'-10 7/8"
HZF-60-80	5'-0"	8'-9 7/8"	5'-10 3/4"	11'-8 1/2"	3'-2 1/2"	5'-5"	15 5/8"	3'-3"	11'-8 5/8"
HZF-60-92	5'-0"	10'-1 7/8"	5'-10 3/4"	11'-8 1/2"	3'-2 1/2"	5'-5"	15 5/8"	4'-2"	12'-8 5/8"
HZF-60-104	5'-0"	11'-3 7/8"	5'-10 3/4"	11'-8 1/2"	3'-2 1/2"	5'-5"	15 5/8"	5'-0"	13'-11 5/8"
HZF-60-120	5'-0"	12'-11"	5'-10 3/4"	11'-8 1/2"	3'-2 1/2"	5'-5"	15 5/8"	6'-0"	16'-1 5/8"
HZF-60-134	5'-0"	14'-3 7/8"	5'-10 3/4"	11'-8 1/2"	3'-2 1/2"	5'-5"	15 5/8"	6'-6"	16'-11 5/8"

QTY:2

Lap Pool

DWG. NO.	DWG. DATE	DESCRIPTION	FIBERGLASS HORIZONTAL FILTERS		
			REV	REVISION DESCRIPTION	DATE
101110	7/21/12	JOB NAME & LOCATION USD Wellness Center	-	CHART INFO UPDATED	7/15/13
O	I	CUSTOMER Capri Pools	-	MEDIA QTY'S NOW REFLECT (2) TANKS	7/22/13



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Fax: (803)324-1116

# SPA POOL FILTER

ITEM	DESCRIPTION
1	FIBERGLASS FILTER TANK, WITH FLANGED CONNECTIONS & SADDLES
2	TANK MANWAY ASSEMBLY
3	1" AIR RELEASE
4	SCH. 80 PVC OVERDRAIN HEADER WITH 1 1/2" PVC LATERALS
5	SCH. 80 PVC UNDERDRAIN HEADER W/2" NORYL THREADED LATERALS
6	GAUGE PANEL
7	FILTER SAND (.45 TO .55mm) UNIFORMITY COEFFICIENT </= 1.60
8	1/16 TO 1/8 GRAVEL MEDIA
9	FIBERGLASS BAFFLE PLATES

VALVE LEGEND			
NO.	VALVE DESCRIPTION	FILTER	BACKWASH
2	RETURN TO POOL	<input type="checkbox"/>	X
3	BACKWASH TO WASTE	X	<input type="checkbox"/>
4	FILTER INFLUENT	<input type="checkbox"/>	X
5	BACKWASH INFLUENT	X	<input type="checkbox"/>

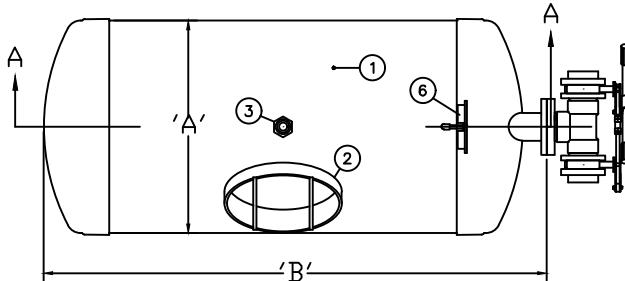
□-OPEN, X-CLOSED

Manway Location Left: \_\_\_\_\_ Right:

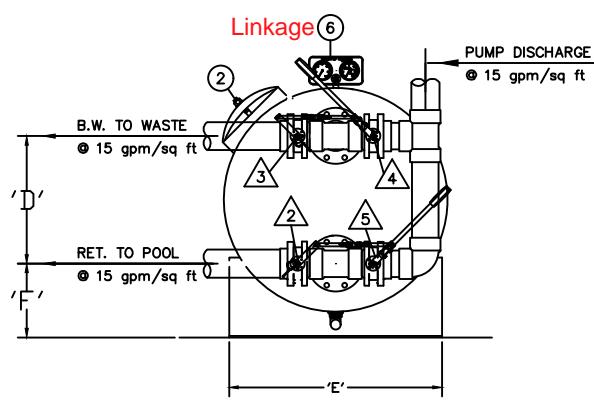
## GENERAL NOTES:

PIPING – SCH. 80 PVC, MAX. VELOCITY LESS THAN 10 FPS. PIPING DEPICTED WITH DASHED LINES NOT SUPPLIED BY PADDOCK.

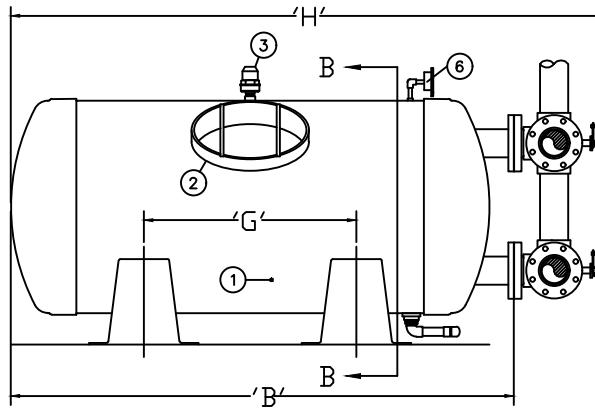
FILTER WORKING PRESSURE IS 50 PSI.



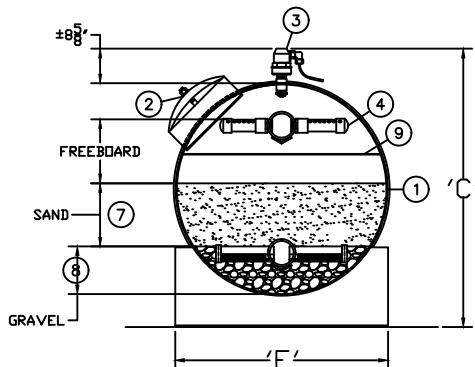
PLAN VIEW



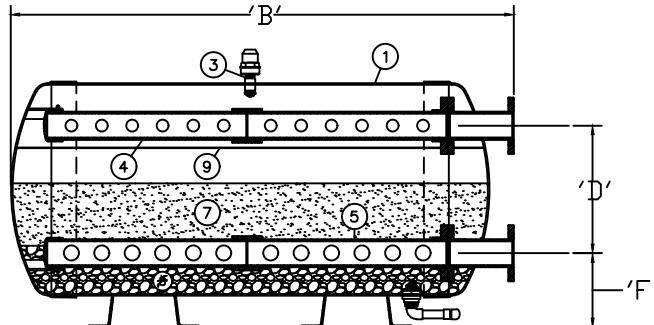
END ELEVATION



SIDE ELEVATION



SECTION B-B



SECTION A-A

## PADDOCK FIBERGLASS HORIZONTAL FILTERS



Certified to  
NSF/ANSI Standard 50

DWG. NO.	DESCRIPTION	FIBERGLASS HORIZONTAL FILTERS		
		REV	REVISION DESCRIPTION	DATE
1	JOB NAME & LOCATION			
1	CUSTOMER			
1	DWG. DATE 12/18/18			
1	REV 1			



**PADDOCK**  
POOL EQUIPMENT COMPANY  
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Rock Hill, SC 29730-1676  
[info@paddockindustries.com](mailto:info@paddockindustries.com)

(800)849-2729  
Fax:(803)324-1116

PADDOCK FIBERGLASS HORIZONTAL FILTERS

CATALOG NO.	DIA.	FILTER AREA	FILTER RATE		TANK CONN. SIZE	OVERDRAIN LAT'S/TANK	UNDERDRAIN LAT'S/TANK	MEDIA PER TANK (CU FT)		
			15 GPM/FT <sup>2</sup>	15 GPM/FT <sup>2</sup>				SAND	GRAVEL	
HZF-32-16.5	32"	16.5 FT <sup>2</sup>	247.5 GPM	247.5 GPM	4"	20	20	10.90	5.69	
HZF-34-16.5	34"	16.5 FT <sup>2</sup>	247.5 GPM	247.5 GPM	4"	24	24	11.60	6.06	
HZF-36-20	36"	20 FT <sup>2</sup>	300 GPM	300 GPM	6"	24	24	15.64	5.84	
HZF-36-23	36"	23 FT <sup>2</sup>	345 GPM	345 GPM	6"	26	26	17.96	6.75	
HZF-36-25	36"	25 FT <sup>2</sup>	375 GPM	375 GPM	6"	28	28	19.59	7.45	
HZF-42-24	42"	24 FT <sup>2</sup>	360 GPM	360 GPM	6"	20	20	23.75	7.56	
HZF-42-27	42"	27 FT <sup>2</sup>	405 GPM	405 GPM	6"	24	24	27.70	7.65	
HZF-42-30	42"	30 FT <sup>2</sup>	450 GPM	450 GPM	6"	28	28	29.53	9.44	
HZF-42-33	42"	33 FT <sup>2</sup>	495 GPM	495 GPM	6"	32	32	32.30	10.40	
HZF-42-35	42"	35 FT <sup>2</sup>	525 GPM	525 GPM	6"	36	36	35.30	9.74	
<b>QTY:1</b>	<b>HZF-48-23</b>	<b>48"</b>	<b>23 FT<sup>2</sup></b>	<b>345 GPM</b>	<b>345 GPM</b>	<b>6"</b>	<b>16</b>	<b>16</b>	<b>25.82</b>	<b>6.05</b>
	HZF-48-25	48"	25 FT <sup>2</sup>	375 GPM	375 GPM	6"	18	18	29.50	7.94
	HZF-48-30	48"	30 FT <sup>2</sup>	450 GPM	450 GPM	6"	22	22	34.64	8.38
	HZF-48-34	48"	34 FT <sup>2</sup>	510 GPM	510 GPM	6"	28	28	41.00	9.00
	HZF-48-37	48"	37 FT <sup>2</sup>	555 GPM	555 GPM	6"	32	32	44.05	10.96
	HZF-48-42	48"	42 FT <sup>2</sup>	630 GPM	630 GPM	6"	36	36	50.00	11.00
	HZF-48-46	48"	46 FT <sup>2</sup>	690 GPM	690 GPM	6"	40	40	54.95	12.00
	HZF-48-50	48"	50 FT <sup>2</sup>	750 GPM	750 GPM	6"	44	44	59.84	15.14
	HZF-60-35	60"	35 FT <sup>2</sup>	525 GPM	525 GPM	6"	22	44	50.00	16.76
	HZF-60-40	60"	40 FT <sup>2</sup>	600 GPM	600 GPM	6"	26	52	55.56	18.34
	HZF-60-46	60"	46 FT <sup>2</sup>	690 GPM	690 GPM	6"	32	64	64.82	21.54
	HZF-60-52	60"	52 FT <sup>2</sup>	780 GPM	780 GPM	6"	36	72	69.34	21.70
	HZF-60-60	60"	60 FT <sup>2</sup>	900 GPM	900 GPM	8"	42	84	83.24	27.08
	HZF-60-67	60"	67 FT <sup>2</sup>	1,005 GPM	1,005 GPM	8"	48	96	93.00	30.20

CATALOG NO.	DIM. 'A'	DIM. 'B'	DIM. 'C'	DIM. 'D'	DIM. 'E'	DIM. 'F'	DIM. 'G'	DIM. 'H'
HZF-32-16.5	2'-8"	7'-2"	3'-6"	1'-6 1/2"	2'-10"	1'-0 1/4"	2'-6"	8'-4 1/2"
HZF-34-16.5	2'-10"	6'-7"	3'-8 3/4"	1'-8 1/2"	2'-10"	11 5/8"	2'-6"	7'-9 1/2"
HZF-36-20	3'-0"	7'-5"	3'-10 3/4"	1'-10 1/2"	3'-2"	11 5/8"	3'-6"	8'-7 1/2"
HZF-36-23	3'-0"	8'-5"	3'-10 3/4"	1'-10 1/2"	3'-2"	11 5/8"	4'-0"	9'-10 3/4"
HZF-36-25	3'-0"	9'-1"	3'-10 3/4"	1'-10 1/2"	3'-2"	11 5/8"	4'-4"	10'-6 3/4"
HZF-42-24	3'-6"	7'-7"	4'-4 3/4"	2'-4 1/2"	3'-2"	11 5/8"	3'-6"	9'-0 3/4"
HZF-42-27	3'-6"	8'-4 1/2"	4'-4 3/4"	2'-4 1/2"	3'-2"	11 5/8"	4'-0"	9'-7"
HZF-42-30	3'-6"	9'-3 1/2"	4'-4 3/4"	2'-4 1/2"	3'-2"	11 5/8"	4'-6"	10'-6"
HZF-42-33	3'-6"	10'-1"	4'-4 3/4"	2'-4 1/2"	3'-2"	11 5/8"	5'-0"	11'-3 1/2"
HZF-42-35	3'-6"	10'-9 1/2"	4'-4 3/4"	2'-4 1/2"	3'-2"	11 5/8"	5'-6"	12'-0"
<b>QTY: 1</b>	<b>HZF-48-23</b>	<b>4'-0"</b>	<b>6'-0 3/8"</b>	<b>4'-10 3/4"</b>	<b>2'-10 1/2"</b>	<b>3'-2"</b>	<b>11 5/8"</b>	<b>2'-0"</b>
	HZF-48-25	4'-0"	6'-9 3/8"	4'-10 3/4"	2'-10 1/2"	3'-2"	11 5/8"	2'-6"
	HZF-48-30	4'-0"	8'-0"	4'-10 3/4"	2'-10 1/2"	3'-2"	11 5/8"	3'-6"
	HZF-48-34	4'-0"	8'-11 3/4"	4'-10 3/4"	2'-10 1/2"	3'-2"	11 5/8"	4'-0"
	HZF-48-37	4'-0"	9'-9 3/8"	4'-10 3/4"	2'-10 1/2"	3'-2"	11 5/8"	4'-6"
	HZF-48-42	4'-0"	11'-0 3/8"	4'-10 3/4"	2'-10 1/2"	3'-2"	11 5/8"	5'-0"
	HZF-48-46	4'-0"	12'-0 3/8"	4'-10 3/4"	2'-10 1/2"	3'-2"	11 5/8"	5'-6"
	HZF-48-50	4'-0"	12'-11 3/4"	4'-10 3/4"	2'-10 1/2"	3'-2"	11 5/8"	6'-0"
	HZF-60-35	5'-0"	7'-9 7/8"	5'-10 3/4"	3'-2 1/2"	5'-5"	15 5/8"	3'-0"
	HZF-60-40	5'-0"	8'-9 7/8"	5'-10 3/4"	3'-2 1/2"	5'-5"	15 5/8"	3'-3"
	HZF-60-46	5'-0"	10'-1 7/8"	5'-10 3/4"	3'-2 1/2"	5'-5"	15 5/8"	4'-2"
	HZF-60-52	5'-0"	11'-3 7/8"	5'-10 3/4"	3'-2 1/2"	5'-5"	15 5/8"	5'-0"
	HZF-60-60	5'-0"	12'-11"	5'-10 3/4"	3'-2 1/2"	5'-5"	15 5/8"	6'-0"
	HZF-60-67	5'-0"	14'-3 7/8"	5'-10 3/4"	3'-2 1/2"	5'-5"	15 5/8"	6'-6"
								15'-6 3/8"

DNC NO.	DRAWING DATE	DESCRIPTION	FIBERGLASS HORIZONTAL FILTERS		
			REV	REVISION DESCRIPTION	DATE
I	O	JOB NAME & LOCATION USD Wellness Center	-	CHART INFO UPDATE	7/15/13
		CUSTOMER Capri Pools			



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# ACTIVITY POOL FILTER

ITEM	DESCRIPTION
1	FIBERGLASS FILTER TANK, WITH FLANGED CONNECTIONS & SADDLES
2	TANK MANWAY ASSEMBLY
3	1" AIR RELEASE
4	SCH. 80 PVC OVERDRAIN HEADER WITH 1 1/2" PVC LATERALS
5	SCH. 80 PVC UNDERDRAIN HEADER W/2" NORYL THREADED LATERALS
6	GAUGE PANEL
7	FILTER SAND (.45 TO .55mm) UNIFORMITY COEFFICIENT </= 1.60
8	1/16 TO 1/8 GRAVEL MEDIA
9	FIBERGLASS BAFFLE PLATES

VALVE LEGEND			
NO.	VALVE DESCRIPTION	FILTER	BACKWASH
2	RETURN TO POOL	<input type="checkbox"/>	X
3	BACKWASH TO WASTE	X	<input type="checkbox"/>
4	FILTER INFLUENT	<input type="checkbox"/>	X
5	BACKWASH INFLUENT	X	<input type="checkbox"/>

□-OPEN, X-CLOSED

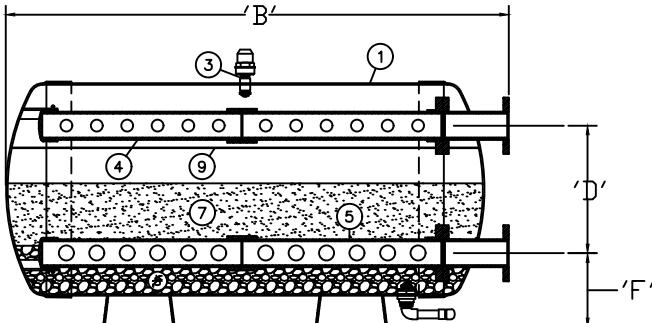
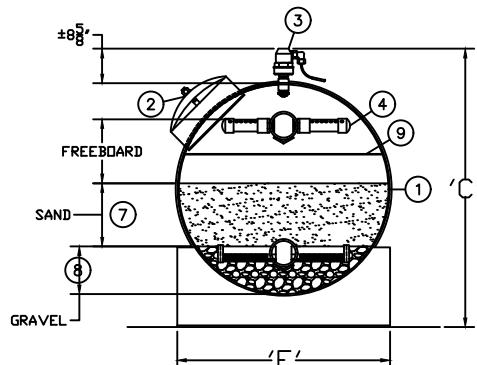
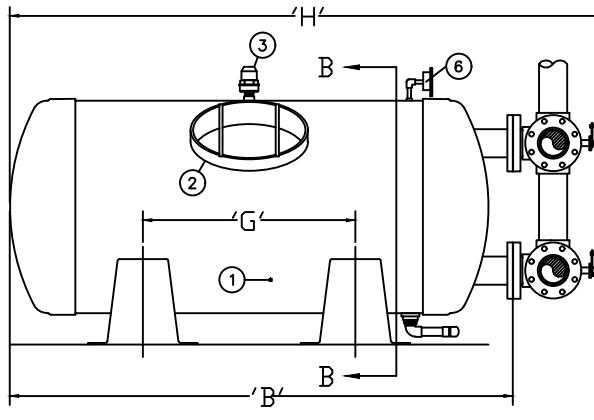
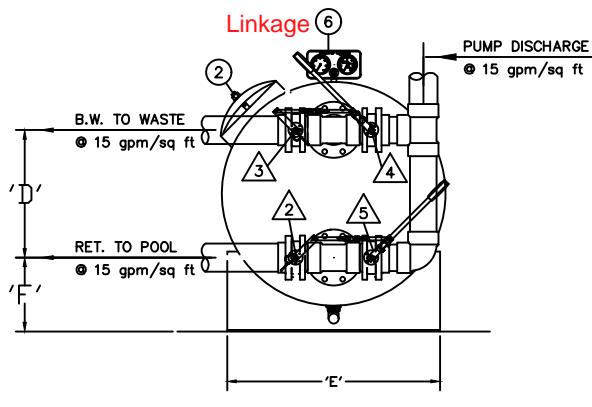
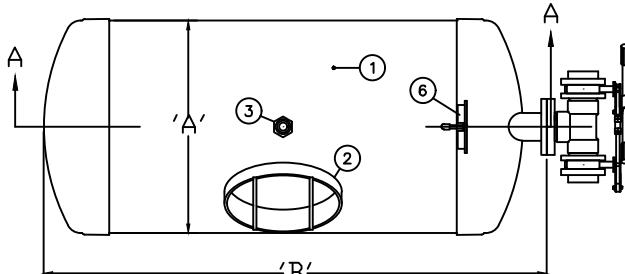
Manway Location Left: \_\_\_\_\_ Right: ✓

## GENERAL NOTES:

PIPING – SCH. 80 PVC, MAX. VELOCITY LESS THAN 10 FPS. PIPING DEPICTED WITH DASHED LINES NOT SUPPLIED BY PADDOCK.

FILTER WORKING PRESSURE IS 50 PSI.

Verify Flow Rate:  
275 GPM



**ACTIVITY POOL FILTER TO BE STACKED ON TOP OF SPA FILTER  
PADDOCK FIBERGLASS HORIZONTAL FILTERS**



Certified to  
NSF/ANSI Standard 50

DWG. NO.	DESCRIPTION	FIBERGLASS HORIZONTAL FILTERS		
		REV	REVISION DESCRIPTION	DATE
1	JOB NAME & LOCATION			
1	CUSTOMER			
1	12/18/18			
1	REV 1			



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PADDOCK FIBERGLASS HORIZONTAL FILTERS

CATALOG NO.	DIA.	FILTER AREA	FILTER RATE	BACKWASH RATE*	TANK CONN. SIZE	OVERDRAIN LAT'S/TANK	UNDERDRAIN LAT'S/TANK	MEDIA PER TANK (CU FT)		
								SAND	GRAVEL	
HZF-32-16.5	32"	16.5 FT <sup>2</sup>	247.5 GPM	247.5 GPM	4"	20	20	10.90	5.69	
HZF-34-16.5	34"	16.5 FT <sup>2</sup>	247.5 GPM	247.5 GPM	4"	24	24	11.60	6.06	
HZF-36-20	36"	20 FT <sup>2</sup>	300 GPM	300 GPM	6"	24	24	15.64	5.84	
HZF-36-23	36"	23 FT <sup>2</sup>	345 GPM	345 GPM	6"	26	26	17.96	6.75	
HZF-36-25	36"	25 FT <sup>2</sup>	375 GPM	375 GPM	6"	28	28	19.59	7.45	
HZF-42-24	42"	24 FT <sup>2</sup>	360 GPM	360 GPM	6"	20	20	23.75	7.56	
HZF-42-27	42"	27 FT <sup>2</sup>	405 GPM	405 GPM	6"	24	24	27.70	7.65	
HZF-42-30	42"	30 FT <sup>2</sup>	450 GPM	450 GPM	6"	28	28	29.53	9.44	
HZF-42-33	42"	33 FT <sup>2</sup>	495 GPM	495 GPM	6"	32	32	32.30	10.40	
HZF-42-35	42"	35 FT <sup>2</sup>	525 GPM	525 GPM	6"	36	36	35.30	9.74	
<b>QTY:1</b>	<b>HZF-48-23</b>	<b>48"</b>	<b>23 FT<sup>2</sup></b>	<b>345 GPM</b>	<b>345 GPM</b>	<b>6"</b>	<b>16</b>	<b>16</b>	<b>25.82</b>	<b>6.05</b>
	HZF-48-25	48"	25 FT <sup>2</sup>	375 GPM	375 GPM	6"	18	18	29.50	7.94
	HZF-48-30	48"	30 FT <sup>2</sup>	450 GPM	450 GPM	6"	22	22	34.64	8.38
	HZF-48-34	48"	34 FT <sup>2</sup>	510 GPM	510 GPM	6"	28	28	41.00	9.00
	HZF-48-37	48"	37 FT <sup>2</sup>	555 GPM	555 GPM	6"	32	32	44.05	10.96
	HZF-48-42	48"	42 FT <sup>2</sup>	630 GPM	630 GPM	6"	36	36	50.00	11.00
	HZF-48-46	48"	46 FT <sup>2</sup>	690 GPM	690 GPM	6"	40	40	54.95	12.00
	HZF-48-50	48"	50 FT <sup>2</sup>	750 GPM	750 GPM	6"	44	44	59.84	15.14
	HZF-60-35	60"	35 FT <sup>2</sup>	525 GPM	525 GPM	6"	22	44	50.00	16.76
	HZF-60-40	60"	40 FT <sup>2</sup>	600 GPM	600 GPM	6"	26	52	55.56	18.34
	HZF-60-46	60"	46 FT <sup>2</sup>	690 GPM	690 GPM	6"	32	64	64.82	21.54
	HZF-60-52	60"	52 FT <sup>2</sup>	780 GPM	780 GPM	6"	36	72	69.34	21.70
	HZF-60-60	60"	60 FT <sup>2</sup>	900 GPM	900 GPM	8"	42	84	83.24	27.08
	HZF-60-67	60"	67 FT <sup>2</sup>	1,005 GPM	1,005 GPM	8"	48	96	93.00	30.20

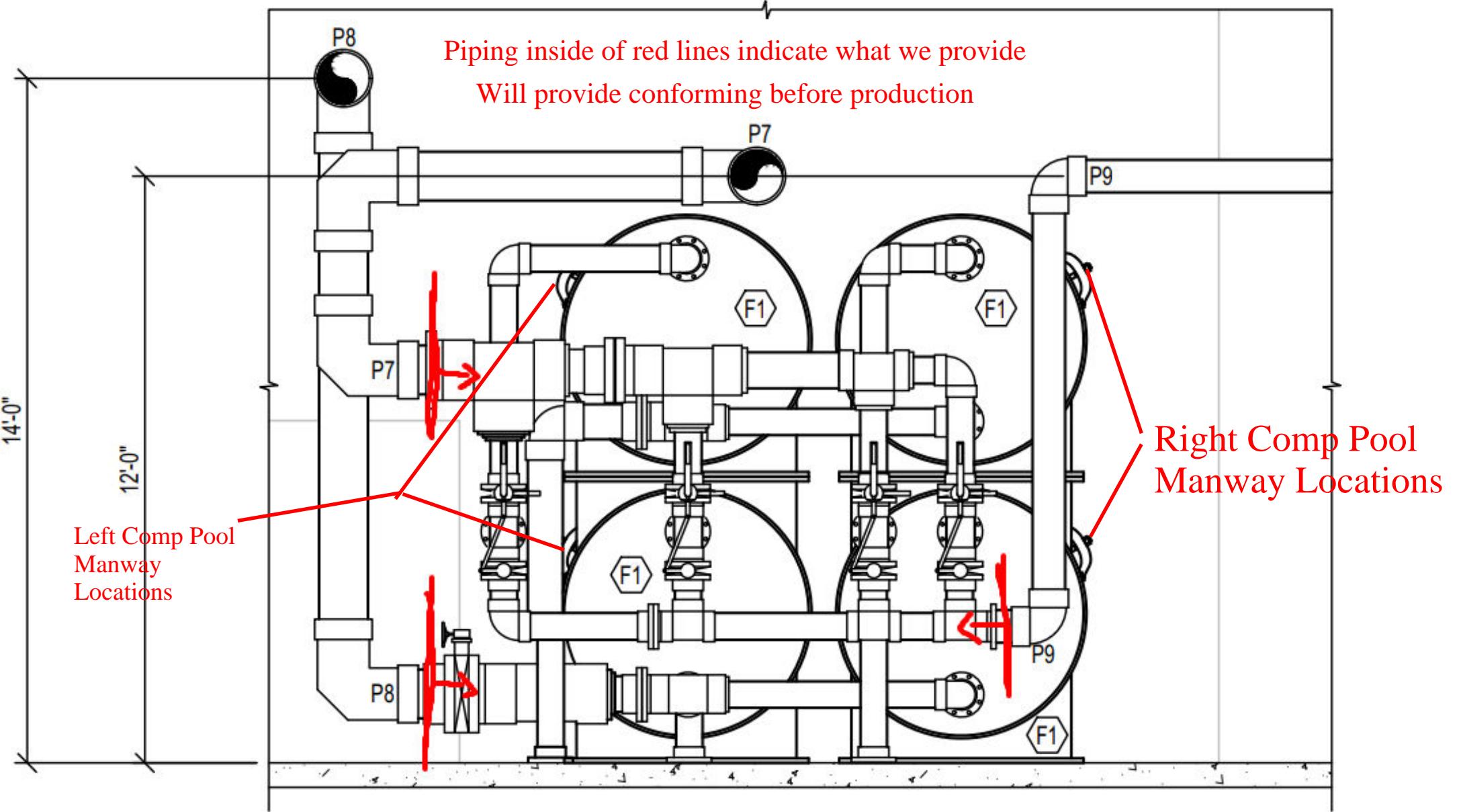
CATALOG NO.	DIM. 'A'	DIM. 'B'	DIM. 'C'	DIM. 'D'	DIM. 'E'	DIM. 'F'	DIM. 'G'	DIM. 'H'
HZF-32-16.5	2'-8"	7'-2"	3'-6"	1'-6 1/2"	2'-10"	1'-0 1/4"	2'-6"	8'-4 1/2"
HZF-34-16.5	2'-10"	6'-7"	3'-8 3/4"	1'-8 1/2"	2'-10"	11 5/8"	2'-6"	7'-9 1/2"
HZF-36-20	3'-0"	7'-5"	3'-10 3/4"	1'-10 1/2"	3'-2"	11 5/8"	3'-6"	8'-7 1/2"
HZF-36-23	3'-0"	8'-5"	3'-10 3/4"	1'-10 1/2"	3'-2"	11 5/8"	4'-0"	9'-10 3/4"
HZF-36-25	3'-0"	9'-1"	3'-10 3/4"	1'-10 1/2"	3'-2"	11 5/8"	4'-4"	10'-6 3/4"
HZF-42-24	3'-6"	7'-7"	4'-4 3/4"	2'-4 1/2"	3'-2"	11 5/8"	3'-6"	9'-0 3/4"
HZF-42-27	3'-6"	8'-4 1/2"	4'-4 3/4"	2'-4 1/2"	3'-2"	11 5/8"	4'-0"	9'-7"
HZF-42-30	3'-6"	9'-3 1/2"	4'-4 3/4"	2'-4 1/2"	3'-2"	11 5/8"	4'-6"	10'-6"
HZF-42-33	3'-6"	10'-1"	4'-4 3/4"	2'-4 1/2"	3'-2"	11 5/8"	5'-0"	11'-3 1/2"
HZF-42-35	3'-6"	10'-9 1/2"	4'-4 3/4"	2'-4 1/2"	3'-2"	11 5/8"	5'-6"	12'-0"
<b>QTY: 1</b>	<b>HZF-48-23</b>	<b>4'-0"</b>	<b>6'-0 3/8"</b>	<b>4'-10 3/4"</b>	<b>2'-10 1/2"</b>	<b>3'-2"</b>	<b>11 5/8"</b>	<b>2'-0"</b>
	HZF-48-25	4'-0"	6'-9 3/8"	4'-10 3/4"	2'-10 1/2"	3'-2"	11 5/8"	2'-6"
	HZF-48-30	4'-0"	8'-0"	4'-10 3/4"	2'-10 1/2"	3'-2"	11 5/8"	3'-6"
	HZF-48-34	4'-0"	8'-11 3/4"	4'-10 3/4"	2'-10 1/2"	3'-2"	11 5/8"	9'-5 3/4"
	HZF-48-37	4'-0"	9'-9 3/8"	4'-10 3/4"	2'-10 1/2"	3'-2"	11 5/8"	4'-0"
	HZF-48-42	4'-0"	11'-0 3/8"	4'-10 3/4"	2'-10 1/2"	3'-2"	11 5/8"	10'-2 1/4"
	HZF-48-46	4'-0"	12'-0 3/8"	4'-10 3/4"	2'-10 1/2"	3'-2"	11 5/8"	5'-0"
	HZF-48-50	4'-0"	12'-11 3/4"	4'-10 3/4"	2'-10 1/2"	3'-2"	11 5/8"	12'-9"
	HZF-60-35	5'-0"	7'-9 7/8"	5'-10 3/4"	3'-2 1/2"	5'-5"	15 5/8"	3'-0"
	HZF-60-40	5'-0"	8'-9 7/8"	5'-10 3/4"	3'-2 1/2"	5'-5"	15 5/8"	3'-3"
	HZF-60-46	5'-0"	10'-1 7/8"	5'-10 3/4"	3'-2 1/2"	5'-5"	15 5/8"	4'-2"
	HZF-60-52	5'-0"	11'-3 7/8"	5'-10 3/4"	3'-2 1/2"	5'-5"	15 5/8"	5'-0"
	HZF-60-60	5'-0"	12'-11"	5'-10 3/4"	3'-2 1/2"	5'-5"	15 5/8"	6'-0"
	HZF-60-67	5'-0"	14'-3 7/8"	5'-10 3/4"	3'-2 1/2"	5'-5"	15 5/8"	6'-6"
								15'-6 3/8"

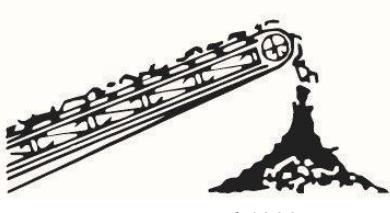
DNC NO.	DRAWING DATE	DESCRIPTION	FIBERGLASS HORIZONTAL FILTERS		
			REV	REVISION DESCRIPTION	DATE
I	O	JOB NAME & LOCATION USD Wellness Center	-	CHART INFO UPDATE	7/15/13
		CUSTOMER Capri Pools			



555 Paddock Parkway  
Rock Hill, SC 29730-1676  
info@paddockindustries.com

(800)849-2729  
Fax: (803)324-1116





Incorporated 1933

# SOUTHERN PRODUCTS & SILICA COMPANY



Certified to  
NSF/ANSI 61

## Filter Sand & Gravel - Industrial Sand - Well Gravel Packs - Quartz Gravel - Epoxy Aggregate

Plant located at 4303 U.S. Highway 1 North, Hoffman, NC 28347

P.O. Drawer 189  
Hoffman, NC 28326

[www.sandandgravel.net](http://www.sandandgravel.net)  
Fax: 910-281-3815 Sales Orders  
Fax: 910-281-3213 Administration

Phone: 910-281-3189  
Toll Free: 800-572-6348

### General Information / Technical Data

Our materials are hard quartzite, sub-angular sand and rounded gravel, free of clay, silt, iron, mica and other foreign matter. All filtering material is washed, screen-sized, washed and sized again according to current American Water Works Association B100 Standards for Filtering Materials and are NSF listed.

#### Water Filter Sand and Gravel

##### Filter Sand

Effective Size (ES)	Uniformity Coefficient (UC)
.45mm-.55mm	U.C. 1.6 or less
.80mm-1.20mm	U.C. 1.6 or less
2.0mm-3.0mm	U.C. 1.6 or less

Custom Filter Sand ES and UC Available Upon Request

##### Filter Gravel

2 1/2 x 1 1/2	1/2 x 1/4
1 1/2 x 1	3/8 x 3/16
1 1/2 x 3/4	1/4 x 1/8
1 x 5/8	3/16 x #10
1 x 1/2	#5 x #16
3/4 x 1/2	1/8 x 1/16
5/8 x 3/8	1/8 x #16

#### Chemical Analysis (% By Weight)

Calcium (Ca)	<0.01%
Calcium Oxide (CaO)	<0.01%
Calcium Carbonate (CaCO <sub>3</sub> )	<0.01%
Magnesium (Mg)	0.05%
Magnesium Oxide (MgO)	0.09%
Magnesium Carbonate (MgCO <sub>3</sub> )	0.19%
Iron Oxide (Fe <sub>2</sub> O <sub>3</sub> )	0.03%
Aluminum Oxide (Al <sub>2</sub> O <sub>3</sub> )	0.17%
Silicon (Si)	46.56%
Silicon Dioxide (SiO <sub>2</sub> )	99.61%
Sulfur Trioxide (SO <sub>3</sub> )	0.04%
Manganese (Mn)	<0.01%
Loss on Ignition	0.14%

#### Industrial Sand

Grade	Approximate Sieve Size
Ultra Fine	30-140
Extra Fine	25-80
Fine	10-45
Medium	8-30
Coarse	4-20

#### Well Gravel Packs

Product	Approximate Sieve Size
Gravel Pack #1	16-50
Gravel Pack #1A	10-40
Gravel Pack #2	7-35
Gravel Pack #3	5-20
Gravel Pack #4	4-12

#### Quartz Gravel for Catalyst Support

1 1/2 x 3/4 / 1 1/4 x 3/4 / 1 x 1/2

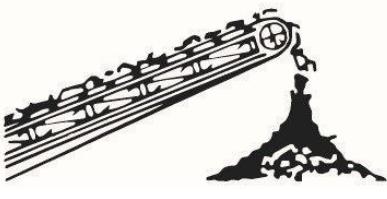
#### Epoxy Aggregates

Available in various sizes.

#### Geothermal Sand

Our Geothermal Sand has been used extensively throughout the Industry

Ask about special sizing and gradation requirements.



Incorporated 1933

# SOUTHERN PRODUCTS & SILICA COMPANY



**Filter Sand & Gravel - Industrial Sand - Well Gravel Packs - Quartz Gravel - Epoxy Aggregates**

## Assurance of Quality

Full service laboratory testing continually monitors sand & gravel specifications for compliance with standards. All filtering materials meet current AWWA B100 standards and are NSF listed. Certified testing analysis is available on all filter sand and gravel shipments.

## Transportation

All material can be shipped by truck, bagged or bulk.

## Packaging

Products are bagged in .5 cu. ft. or 1.0 cu. ft. clear plastic bags (LDPE), or woven 3000 lb. super sacks. Dry palletized bags are shrink-wrapped and have a top cover sheet that provides both rain and UV protection. All material is quoted with pallet. Pallets are Non-Stackable 40"x40", 40"x44", or 40"x48". Heat Treated Option For Export. You can also order our material bulk, delivered via dump bed or pneumatic tanker.

## Pricing

Prices for all materials depend on selected packaging options.  
Prices are quoted F.O.B. Hoffman, NC

## Ordering Information

Our sales staff will be pleased to assist you between the hours of 8 A.M. and 4:00 P.M.,  
Monday - Friday. Please Call or Email:

**SOUTHERN PRODUCTS & SILICA COMPANY**  
**POST OFFICE DRAWER 189**  
**4303 U.S. HIGHWAY 1 NORTH**  
**HOFFMAN, NC 28347**

**TOLL FREE: 800-572-6348**

**PHONE: 910-281-3189**

**FAX: 910-281-3815 SALES ORDERS**

**FAX: 910-281-3213 ADMINISTRATIVE**



**AIR RELIEF/Vent Valve: PVC, PVC,  
¾ IN Inlet Size, FNPT Connection**

232 psi Max. Pressure

Item # 4GPP3

Mfr. Model 4GPP3

**PN 700901**

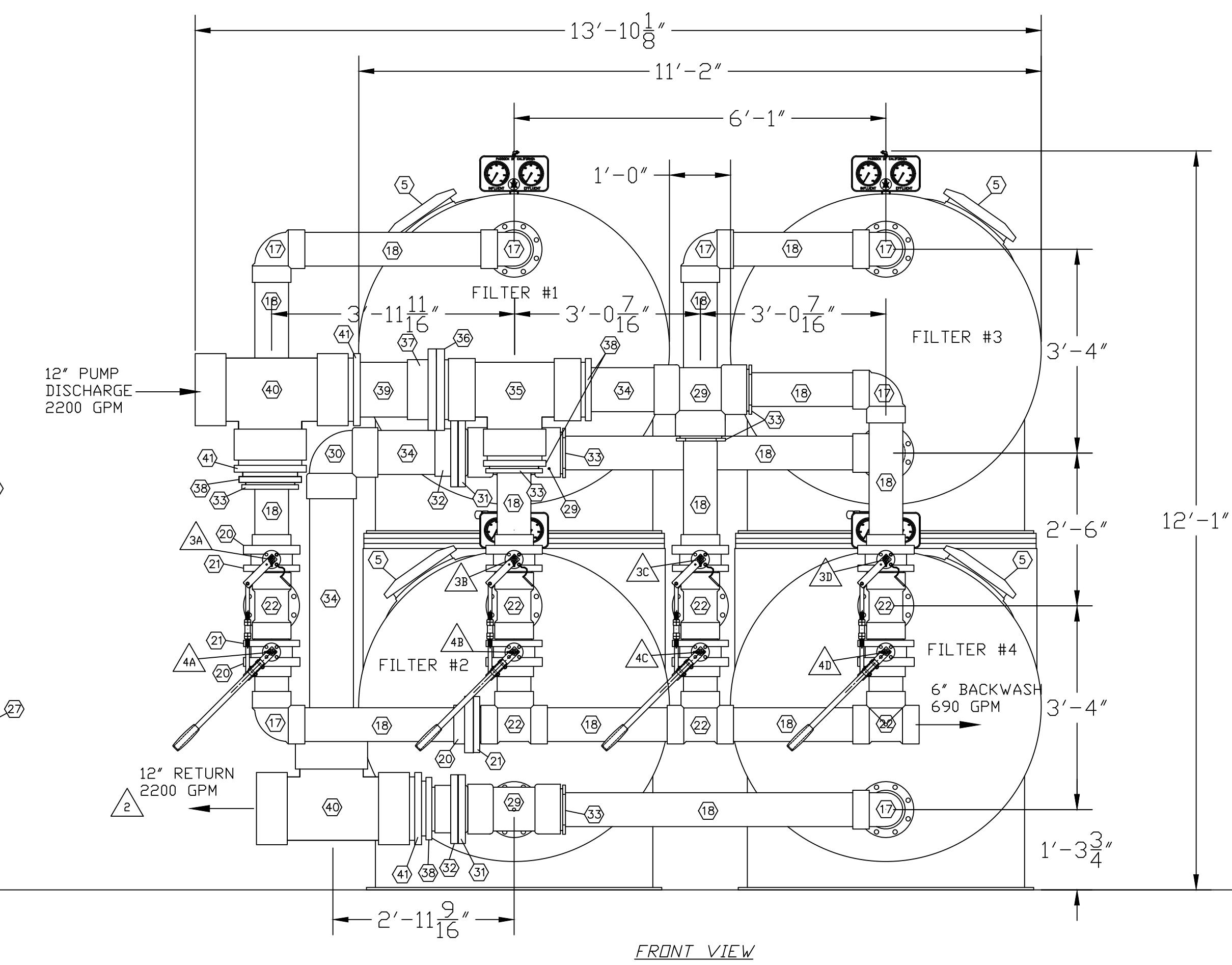
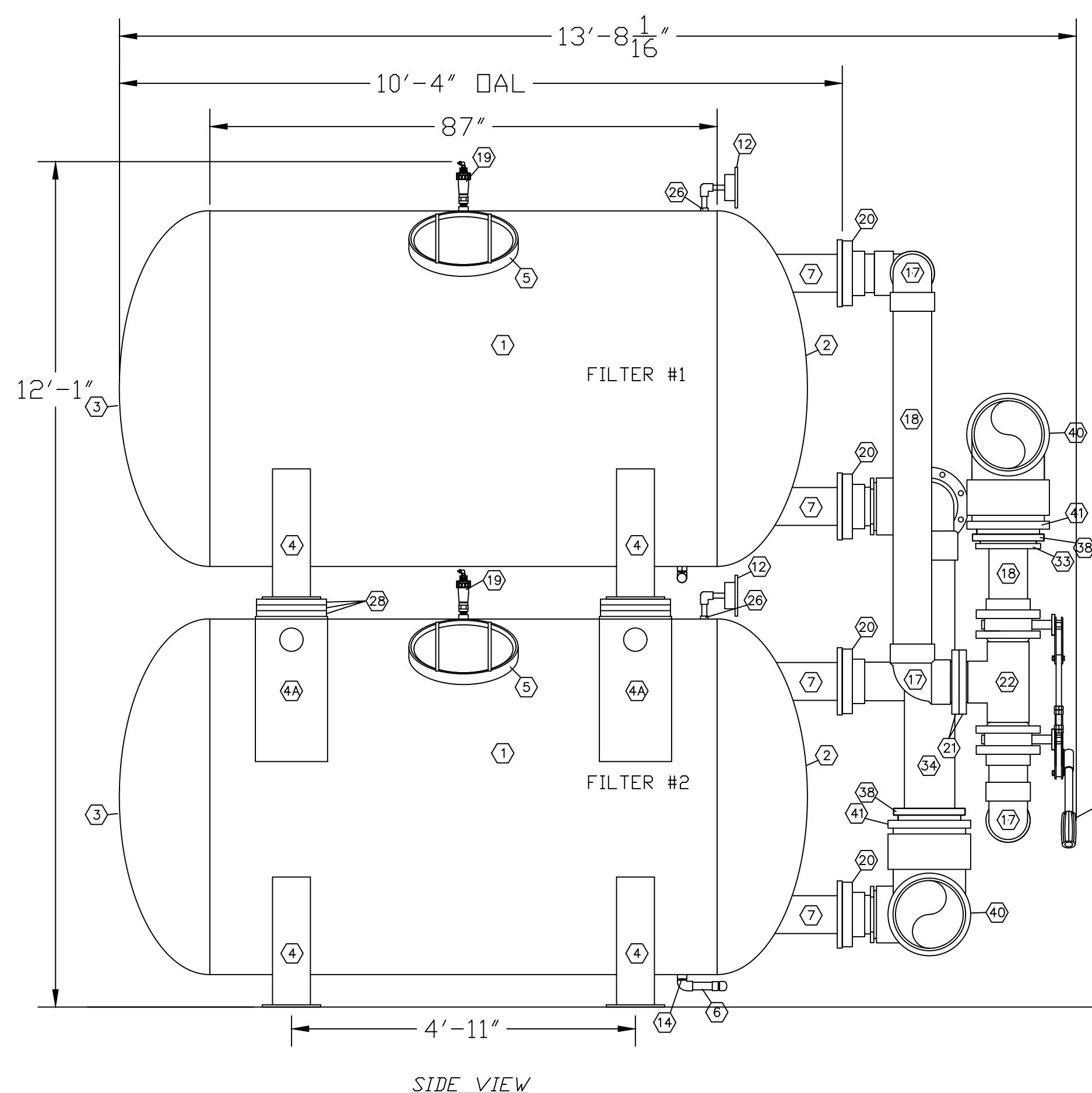


Description:

For use in water distribution and steam systems, these vent valves can help to eliminate pockets of air.

## Product Details

Inlet Size	<b>3/4 in</b>	Vent Dia.	<b>¾ in.</b>
Body Material	<b>PVC</b>	Vent Height	<b>18 in</b>
Connection Type	<b>FNPT</b>	Product Type	<b>Vent Valve</b>
Float Material	<b>PVC</b>	Manufacturer #	<b>4GPP3</b>
Max. Pressure	<b>232 psi</b>	UNSPSC	<b>40141606</b>
Min. Pressure	<b>1 psi</b>	Country of Origin	<b>Italy (subject to change)</b>
Temp. Range	<b>33° to 240°F</b>		



NO.	QTY.	DESCRIPTION
1	4	60"-46" FILTER BODY, FIBERGLASS
2	4	60" FRONT HEAD, FIBERGLASS
3	4	60" REAR HEAD, FIBERGLASS
4	8	60" SADDLE
4A	4	60" BOX STACKING SADDLE
5	4	18" X 14" MANWAY WITH COVER, YDKE(S) & HARDWARE
6	4	3/4" SCH. 80 PVC DRAIN ASSEMBLY
7	8	6" NOZZLE WITH (2) FLANGES
8	8	6" SCH. 80 PVC HEADER ASSEMBLY (SEE INTERNALS DRAWING)
9	128	1 1/2" SCH. 80 PVC OVERDRAIN LATERAL (SEE INTERNALS DRAWING)
10	256	2" NDRY. UNDERDRAIN LATERAL, THD. (SEE INTERNALS DRAWING)
11	8	6" SCH. 80 PVC FULL COUPLING
12	4	GAUGE PANEL W/(2) 4 1/2" DIA. PRESSURE GAUGES, TUBING & PET COCKS
13	4	3/4" SS STRAINER
14	3/4" FT COUPLING	
15	8	MOLDED-IN HEADER SUPPORT WITH SS HARDWARE
16	4	MOLDED-IN 2" X 1/4" TANK SIDESHELL BAFFLE, AROUND ENTIRE TANK INSIDE PERIMETER INCLUDING HEAD
17	9	6" SCH. 80 PVC ELBOW, 90°
18	2	3/4" PVC AIR RELEASE ASSEMBLY
20	15	6" SCH. 80 PVC SICKET FLANGE, (INCLUDE (8) 6" X 11 1/2" GASKET & BOLT SETS)
21	13	6" SCH. 80 PVC SPIGOT FLANGE
22	7	6" SCH. 80 PVC TEE
23	1	1 1/2" BACKWASH SIGHT GLASS-NOT SHOWN
24	8	6" WAFER VALVE, BRAY W/CAST IRON EPOXY COATED BODY, NYLON COATED DUCTILE IRON DISC, 416 ST. STEM, EPDM SEAT & STUD SET
25	1	12" WAFER VALVE, BRAY W/CAST IRON EPOXY COATED BODY, NYLON COATED DUCTILE IRON DISC, 416 ST. STEM, EPDM SEAT & STUD SET WITH GEAR OPERATOR
26	2	3/4" MOLDED-IN HALF-COUPLING FOR GAUGE PANEL
27	4	ST. ST. LINKAGE FDR (2) 6" BRAY VALVES ASSEMBLIES
28	6	12" X 59" X 1" THICKNESS HDPE SPACER SHEET
29	3	8" SCH. 80 PVC TEE
30	9	8" SCH. 80 PVC ELBOW, 90°
31	2	8" SCH. 80 PVC SPIGOT FLANGE
32	2	8" SCH. 80 PVC SICKET FLANGE
33	6	8" X 6" PVC REDUCER BUSHING
34	AR	8" SCH. 80 PVC PIPE
35	1	10" SCH. 80 PVC TEE
36	1	10" SCH. 80 PVC SPIGOT FLANGE
37	1	10" SCH. 80 PVC SICKET FLANGE
38	5	10" X 8" PVC REDUCER BUSHING
39	AR	10" SCH. 80 PVC PIPE
40	2	12" SCH. 80 PVC TEE
41	4	12" X 10" PVC REDUCER BUSHING
42	276	CUBIC FEET OF SANDBLAST FILTER MEDIA (45-55mm)
43	92	CUBIC FEET OF GRAVEL (1/16-1/8)

NOT SHOWN

\*NOTE: LISTED QTY'S FOR (2) 60"-92" STACKED FILTER UNITS. (2) REQUIRED

CATALOG NO.	DIA	FILTER AREA (1 TANK)	FILTER RATE (1 TANK)	FILTER RATE (TOTAL)	BACKWASH RATE	TANK CONN'S	U.D. LAT'S	O.D. LAT'S
HZ-FBG-60-92-S	60"	46 SQ. FT	84 SQ. FT	811.95 GPM/SF	214.98 GPM/SF	215 GPM/SF	6"	64

## GENERAL NOTES:

1) PIPING: INTERCONNECTING PIPING BY INSTALLER TO BE SCH. 80 PVC; MAXIMUM VELOCITY LESS THAN 10 FT. PER SECOND. (NOT BY P.P.E.C.)

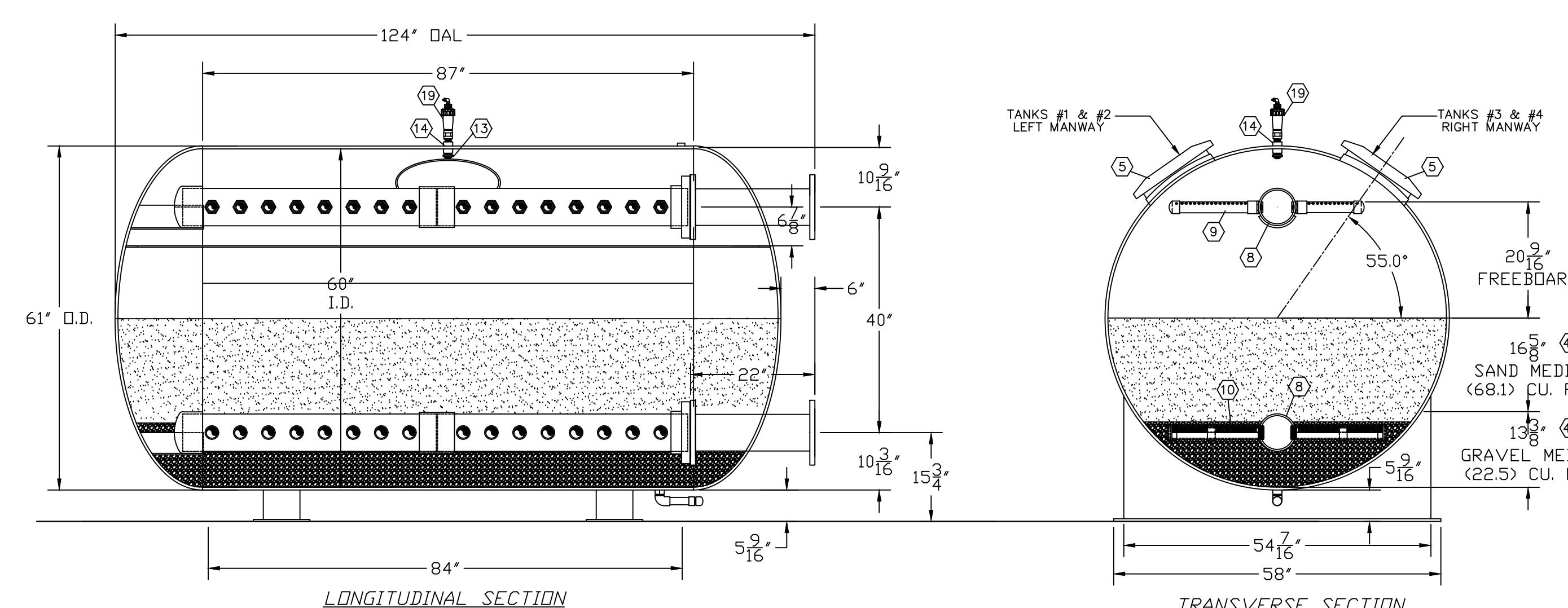
2) THICKNESS: THICKNESS' SHOWN ARE FOR 50 PSI WORKING PRESSURE. TEST PRESSURE = 65 PSI WITH A 4 TO 1 SAFETY FACTOR.

3) ALL NIPPLES AND COUPLINGS PENETRATING TANKS ARE PVC.

4) INSTALL MEDIA USING DEPTH DIMENSIONS.

5) TANKS WARRANTED AGAINST DEFECTS IN MATERIAL AND WORKMANSHIP FOR A PERIOD OF (10) YEARS. INTERNALS FOR A PERIOD OF (2) YEARS.

SUBMITTAL SHOP DRAWINGS FABRICATION CANNOT COMMENCE UNTIL WE RECEIVE APPROVED SHOP DRAWINGS		
SUBMITTAL DATE:		
<input type="checkbox"/> APPROVED AS SUBMITTED		BY DATE
<input type="checkbox"/> APPROVED AS CORRECTED		
<input type="checkbox"/> NOT APPROVED-RESUBMIT		



VALVE LEGEND						
NO.	DESCRIPTION	FILTER	B.W. '1'	B.W. '2'	B.W. '3'	B.W. '4'
1						
2	RETURN TO POOL	<input type="checkbox"/>	THROTTLE	THROTTLE	THROTTLE	THROTTLE
3A	FILTER INFLUENT - '1'	<input type="checkbox"/>	X	<input type="checkbox"/>	X	X
4A	BACKWASH EFFLUENT - '1'	X	<input type="checkbox"/>	X	<input type="checkbox"/>	<input type="checkbox"/>
3B	FILTER INFLUENT - '2'	<input type="checkbox"/>	<input type="checkbox"/>	X	X	X
4B	BACKWASH EFFLUENT - '2'	X	X	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3C	FILTER INFLUENT - '3'	<input type="checkbox"/>	X	X	X	<input type="checkbox"/>
4C	BACKWASH EFFLUENT - '3'	X	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X
3D	FILTER INFLUENT - '4'	<input type="checkbox"/>	X	X	<input type="checkbox"/>	X
4D	BACKWASH EFFLUENT - '4'	X	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>

\*SYSTEM DESIGNED TO BACKWASH (1) TANK AT A TIME WITH FILTERED WATER FROM OTHER FILTER TANKS.\*  
0=OPEN, X=CLOSED

RECOMMENDED MAINTENANCE SPACE		
LENGTH	15'-9"	
WIDTH	15'-11"	
HEIGHT	13'-1"	

NOTE:  
PRESSURE VESSELS

CUSTOMER CHECK TO ENSURE THAT ALL LATERAL SLOTS ARE FACING DOWN & END LATERALS ARE PLUGGED PRIOR TO INSTALLING MEDIA.

555 Paddock Parkway Rock Hill, SC 29730 Phone: (803) 324-1111 Fax: (803) 324-1116 info@paddockindustries.com		DESCRIPTION: 60"-92" SQ.FT. FIBERGLASS HORIZONTAL PRESSURE SAND FILTER DUAL STACKED FILTER UNIT	
DISPOSITION:		JOB NAME: USD WELLNESS	
<input type="checkbox"/> APPROVED AS SUBMITTED		VERMILLION, SD	
<input type="checkbox"/> APPROVED AS CORRECTED		CUSTOMER: CAPRI POOLS & AQUATICS	
<input type="checkbox"/> NOT APPROVED-RESUBMIT		APPROVED: SCALE (UNLESS NOTED): 5/8" = 1'-0"	
DRAWN: DCR	5/16/22	SIZE: D	PART NO.: HZ-FBG-60-92-S
CHECKED:		REV. NO.:	23151.04
APPROVED:		23151.04-SUB	REV. 0
МАТЛ.: FIBERGLASS	QTY: 2	JOB NO.: 23151.04	DWG. NO.:

Certified to  
NSF/ANSI Standard 50



Paddock Pool Equipment Company, Inc.  
555 Paddock Parkway  
Rock Hill, SC 29730  
United States of America

Ph: 803-324-1111

**Submittal**

Number: QUO22465 Date: **22-JUNE-23**

**Submitted To:**

Liz Crawford

**To:**

Capri Pools & Aquatics  
22 Gateway Commerce Center Dr. W. Suite 110  
Edwardsville IL 62025  
United States

**EMAIL:** [lcrawford@capripool.com](mailto:lcrawford@capripool.com)

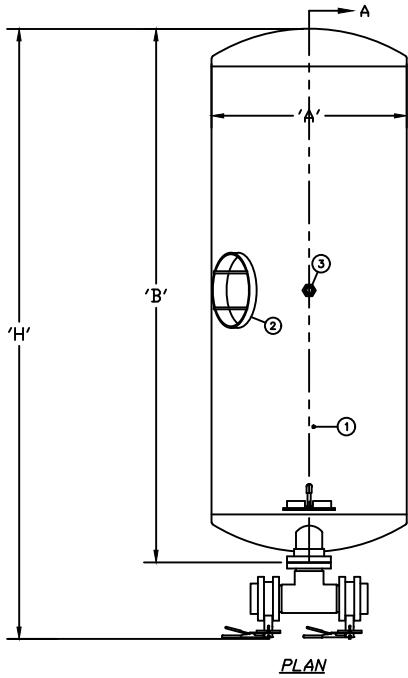
**PHONE #:** 618 219 4882

**Project Name:** **USD Wellness Center**

**Project Manager:** Trevor Ottley  
[ottley@paddockindustries.com](mailto:ottley@paddockindustries.com)  
**PHONE #:** 803-372-6088

Qty	Description	Drawing	Approval
2	<b>HZ-FBG-60-92 Stacked Filter,Paddock,Horizontal,FiberGlass,(2) 60-46</b>  Stacked Filter,Paddock,Horizontal,FiberGlass,(2) 60-46 Gauges, Air Relief, Media, Lap Pool - 2 stack 60-92 (4 filters) with full face piping and manual linkage per plan AQ7.	Cut Sheet	
1	<b>HZ-FBG-48-23 Filter,Paddock,Horizontal,FiberGlass,48-23</b>  Filter,Paddock,Horizontal,FiberGlass,48-23 - Spa - 48-23 filter in stack configuration with 3 tees, 1 elbow, 4 valves per plan AQ7.1 - INCLUDE STACK SADDLES ON TOP OF THIS FILTER ONLY TO FACILITATE STACKING WITH THE LIKE FILTER BELOW.	Cut Sheet	
1	<b>HZ-FBG-48-23 Filter,Paddock,Horizontal,FiberGlass,48-23</b>  Filter,Paddock,Horizontal,FiberGlass,48-23 - Activity - 48-23 filter in stack configuration with 3 tees, 1 elbow, 4 valves per plan AQ7.1 -- Top Filter - Filters stacked for space consideration but operating independently.	Cut Sheet	

**Paddock is requesting either a Resale or Exemption Certificate from all customers for every project.**



## Competition Pool Filters

QTY 2 Units

VALVE LEGEND				
NO.	VALVE DESCRIPTION	FILTER	BACKWASH FILTER #1	BACKWASH FILTER #2
2	RETURN TO POOL	□	X	X
3	FILTER INFLUENT #1	□	X	□
4	FILTER EFFLUENT (B.W. #1)	X	□	X
5	FILTER INFLUENT #2	□	□	X
6	FILTER EFFLUENT (B.W. #2)	X	X	□
7	BACKWASH CONTROL VALVE	□	□	□

□-OPEN, X-CLOSED

ITEM	DESCRIPTION
1	FIBERGLASS FILTER TANK, WITH FLANGED CONNECTIONS & SADDLES
2	TANK MANWAY ASSEMBLY
3	1" AIR RELEASE
4	SCH. 80 PVC OVERDRAIN HEADER WITH 1 1/2" PVC LATERALS
5	SCH. 80 PVC UNDERDRAIN HEADER W/2" NORYL THREADED LATERALS
6	GAUGE PANEL
7	FILTER SAND (.45 TO .55mm) UNIFORMITY COEFFICIENT </= 1.60
8	1/16 TD 1/8 GRAVEL MEDIA
9	FIBERGLASS BAFFLE PLATES

### GENERAL NOTES:

PIPING – SCH. 80 PVC, MAX. VELOCITY LESS THAN 10 FPS. PIPING DEPICTED WITH DASHED LINES AND BACKWASH CONTROL VALVE NOT SUPPLIED BY PADDOCK.

FILTER WORKING PRESSURE IS 50 PSI. TEST PRESSURE IS 65 PSI.

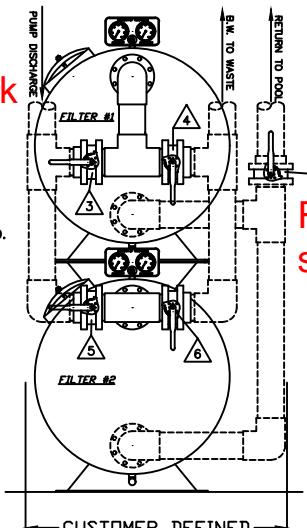
Need actual flow rate for label 2,200 GPM

Mark Manway  
Location on tank

Left side  
2 Left

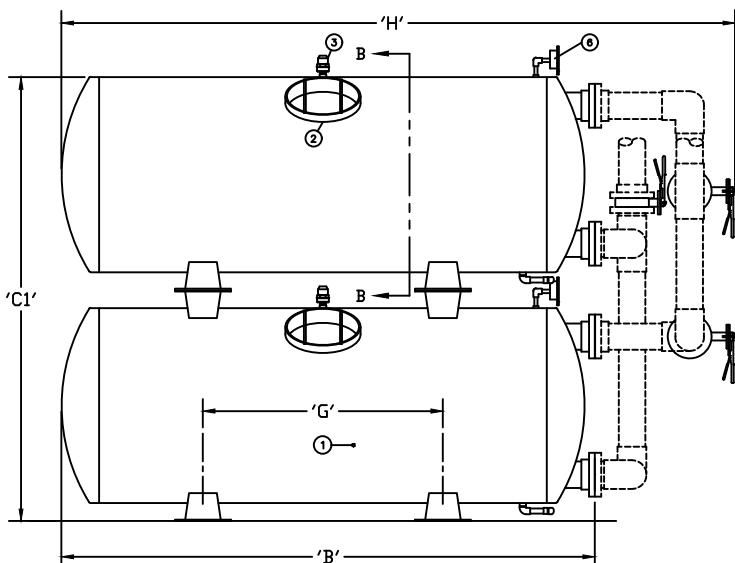
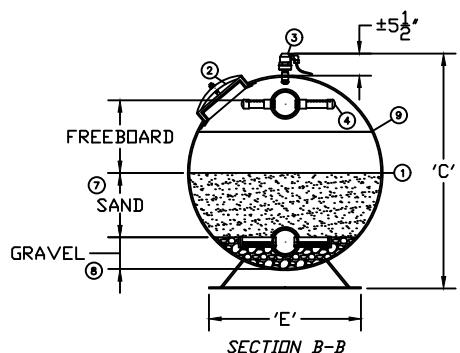
NOTE:  
DASHED FACE PIPING NOT INCLUDED.

Piping  
with  
manual  
linkage

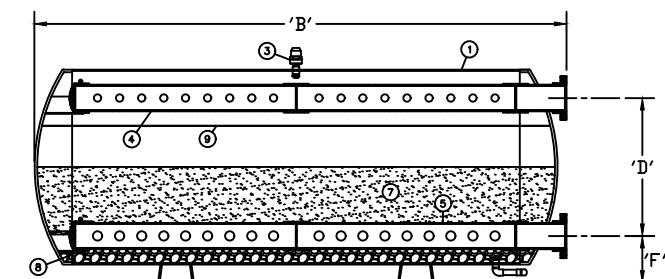


Right side  
2 Right

DUAL STACKED FILTER FRONT ELEVATION



DUAL STACKED FILTER SIDE ELEVATION



SECTION A-A

Approval Date: \_\_\_\_\_

Signature: \_\_\_\_\_



Certified to  
NSF/ANSI Standard 50

DWG. NO.	DESCRIPTION
12/17/18	JOB NAME & LOCATION
SHEET 1 of 1 REV 1	CUSTOMER



555 Paddock Parkway  
Rock Hill, SC 29730-1676  
info@paddockindustries.com

(800)849-2729  
Fax: (803)324-1116

FIBERGLASS HORIZONTAL FILTERS			
REV	REVISION DESCRIPTION	DATE	

**PADDOCK STACKED FIBERGLASS HORIZONTAL FILTERS**

CATALOG NO.	DIA.	TOTAL FILTER AREA	TOTAL FILTER RATE		TANK CONN. SIZE	OVERDRAIN LAT'S (TOTAL)	UNDERDRAIN LAT'S (TOTAL)	MEDIA PER (2) TANKS (CU FT)	
			15 GPM/FT <sup>2</sup>	15 GPM/FT <sup>2</sup>				SAND	GRAVEL
HZF-32-33	32"	33 FT <sup>2</sup>	495 GPM	247.5 GPM	4"	40	40	21.80	11.38
HZF-34-33	34"	33 FT <sup>2</sup>	495 GPM	247.5 GPM	4"	48	48	23.20	12.12
HZF-36-40	36"	40 FT <sup>2</sup>	600 GPM	300 GPM	6"	48	48	31.28	11.68
HZF-36-46	36"	46 FT <sup>2</sup>	690 GPM	345 GPM	6"	52	52	35.67	13.50
HZF-36-50	36"	50 FT <sup>2</sup>	750 GPM	375 GPM	6"	56	56	39.18	14.90
HZF-42-48	42"	48 FT <sup>2</sup>	720 GPM	360 GPM	6"	40	40	47.50	15.13
HZF-42-54	42"	54 FT <sup>2</sup>	810 GPM	405 GPM	6"	48	48	55.40	15.30
HZF-42-60	42"	60 FT <sup>2</sup>	900 GPM	450 GPM	6"	56	56	59.06	18.88
HZF-42-66	42"	66 FT <sup>2</sup>	990 GPM	495 GPM	6"	64	64	64.60	20.8
HZF-42-70	42"	70 FT <sup>2</sup>	1,050 GPM	525 GPM	6"	72	72	70.60	19.48
HZF-48-46	48"	46 FT <sup>2</sup>	690 GPM	345 GPM	6"	32	32	51.64	12.10
HZF-48-50	48"	50 FT <sup>2</sup>	750 GPM	375 GPM	6"	36	36	59.00	15.88
HZF-48-60	48"	60 FT <sup>2</sup>	900 GPM	450 GPM	6"	44	44	69.28	16.76
HZF-48-68	48"	68 FT <sup>2</sup>	1,020 GPM	510 GPM	6"	56	56	82.00	18.00
HZF-48-74	48"	74 FT <sup>2</sup>	1,110 GPM	555 GPM	6"	64	64	88.10	21.92
HZF-48-84	48"	84 FT <sup>2</sup>	1,260 GPM	630 GPM	6"	72	72	100.00	22.00
HZF-48-92	48"	92 FT <sup>2</sup>	1,380 GPM	690 GPM	6"	80	80	109.90	24.00
HZF-48-100	48"	100 FT <sup>2</sup>	1,500 GPM	750 GPM	6"	88	88	119.68	30.28
HZF-60-70	60"	70 FT <sup>2</sup>	1,050 GPM	525 GPM	6"	44	88	100.00	33.52
HZF-60-80	60"	80 FT <sup>2</sup>	1,200 GPM	600 GPM	6"	52	104	111.12	36.68
HZF-60-92	60"	92 FT <sup>2</sup>	1,380 GPM	690 GPM	6"	64	128	129.64	43.08
HZF-60-104	60"	104 FT <sup>2</sup>	1,560 GPM	780 GPM	6"	72	144	138.68	43.40
HZF-60-120	60"	120 FT <sup>2</sup>	1,800 GPM	900 GPM	8"	84	168	166.48	54.16
HZF-60-134	60"	134 FT <sup>2</sup>	2,010 GPM	1,005 GPM	8"	96	192	186.00	60.40

\*MULTI-TANK SYSTEM IS DESIGNED TO BACKWASH ONE TANK AT A TIME AT 15 GPM PER SQ. FT.

CATALOG NO.	DIM. 'A'	DIM. 'B'	DIM. 'C'	DIM. 'C1'	DIM. 'D'	DIM. 'E'	DIM. 'F'	DIM. 'G'	DIM. 'H'
HZF-32-33	2'-8"	7'-2"	3'-6"	7'-0 1/2"	1'-6 1/2"	2'-10"	1'-0 1/4"	2'-6"	9'-9 3/4"
HZF-34-33	2'-10"	6'-7"	3'-8 3/4"	7'-4 1/2"	1'-8 1/2"	2'-10"	11 5/8"	2'-6"	9'-6"
HZF-36-40	3'-0"	7'-5"	3'-10 3/4"	7'-8 1/2"	1'-10 1/2"	3'-2"	11 5/8"	3'-6"	10'-4"
HZF-36-46	3'-0"	8'-5"	3'-10 3/4"	7'-8 1/2"	1'-10 1/2"	3'-2"	11 5/8"	4'-0"	11'-4"
HZF-36-50	3'-0"	9'-1"	3'-10 3/4"	7'-8 1/2"	1'-10 1/2"	3'-2"	11 5/8"	4'-4"	12'-0"
HZF-42-48	3'-6"	7'-7"	4'-4 3/4"	8'-8 1/2"	2'-4 1/2"	3'-2"	11 5/8"	3'-6"	10'-6"
HZF-42-54	3'-6"	8'-4 1/2"	4'-4 3/4"	8'-8 1/2"	2'-4 1/2"	3'-2"	11 5/8"	4'-0"	11'-3 1/2"
HZF-42-60	3'-6"	9'-3 1/2"	4'-4 3/4"	8'-8 1/2"	2'-4 1/2"	3'-2"	11 5/8"	4'-6"	11'-9"
HZF-42-66	3'-6"	10'-1"	4'-4 3/4"	8'-8 1/2"	2'-4 1/2"	3'-2"	11 5/8"	5'-0"	12'-7"
HZF-42-70	3'-6"	10'-9 1/2"	4'-4 3/4"	8'-8 1/2"	2'-4 1/2"	3'-2"	11 5/8"	5'-6"	13'-8 1/2"
HZF-48-46	4'-0"	6'-0 3/8"	4'-10 3/4"	9'-8 1/2"	2'-10 1/2"	3'-2"	11 5/8"	2'-0"	8'-11 3/8"
HZF-48-50	4'-0"	6'-9 3/8"	4'-10 3/4"	9'-8 1/2"	2'-10 1/2"	3'-2"	11 5/8"	2'-6"	9'-8 3/8"
HZF-48-60	4'-0"	8'-0"	4'-10 3/4"	9'-8 1/2"	2'-10 1/2"	3'-2"	11 5/8"	3'-6"	10'-11"
HZF-48-68	4'-0"	8'-11 3/4"	4'-10 3/4"	9'-8 1/2"	2'-10 1/2"	3'-2"	11 5/8"	4'-0"	11'-11 3/8"
HZF-48-74	4'-0"	9'-9 3/8"	4'-10 3/4"	9'-8 1/2"	2'-10 1/2"	3'-2"	11 5/8"	4'-6"	12'-8 3/8"
HZF-48-84	4'-0"	11'-0 3/4"	4'-10 3/4"	9'-8 1/2"	2'-10 1/2"	3'-2"	11 5/8"	5'-0"	14'-0 3/8"
HZF-48-92	4'-0"	12'-0 3/8"	4'-10 3/4"	9'-8 1/2"	2'-10 1/2"	3'-2"	11 5/8"	5'-6"	14'-2 1/4"
HZF-48-100	4'-0"	12'-11 3/4"	4'-10 3/4"	9'-8 1/2"	2'-10 1/2"	3'-2"	11 5/8"	6'-0"	15'-11 3/8"
HZF-60-70	5'-0"	7'-9 7/8"	5'-10 3/4"	11'-8 1/2"	3'-2 1/2"	5'-5"	15 5/8"	3'-0"	10'-10 7/8"
HZF-60-80	5'-0"	8'-9 7/8"	5'-10 3/4"	11'-8 1/2"	3'-2 1/2"	5'-5"	15 5/8"	3'-3"	11'-8 5/8"
HZF-60-92	5'-0"	10'-1 7/8"	5'-10 3/4"	11'-8 1/2"	3'-2 1/2"	5'-5"	15 5/8"	4'-2"	12'-8 5/8"
HZF-60-104	5'-0"	11'-3 7/8"	5'-10 3/4"	11'-8 1/2"	3'-2 1/2"	5'-5"	15 5/8"	5'-0"	13'-11 5/8"
HZF-60-120	5'-0"	12'-11"	5'-10 3/4"	11'-8 1/2"	3'-2 1/2"	5'-5"	15 5/8"	6'-0"	16'-1 5/8"
HZF-60-134	5'-0"	14'-3 7/8"	5'-10 3/4"	11'-8 1/2"	3'-2 1/2"	5'-5"	15 5/8"	6'-6"	16'-11 5/8"

QTY:2

Lap Pool

DWG. NO.	DWG. DATE	DESCRIPTION	FIBERGLASS HORIZONTAL FILTERS		
			REV	REVISION DESCRIPTION	DATE
101110	7/21/13	JOB NAME & LOCATION USD Wellness Center	-	CHART INFO UPDATED	7/15/13
O	I	CUSTOMER Capri Pools	-	MEDIA QTY'S NOW REFLECT (2) TANKS	7/22/13



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# SPA POOL FILTER

ITEM	DESCRIPTION
1	FIBERGLASS FILTER TANK, WITH FLANGED CONNECTIONS & SADDLES
2	TANK MANWAY ASSEMBLY
3	1" AIR RELEASE
4	SCH. 80 PVC OVERDRAIN HEADER WITH 1 1/2" PVC LATERALS
5	SCH. 80 PVC UNDERDRAIN HEADER W/2" NORYL THREADED LATERALS
6	GAUGE PANEL
7	FILTER SAND (.45 TO .55mm) UNIFORMITY COEFFICIENT </= 1.60
8	1/16 TO 1/8 GRAVEL MEDIA
9	FIBERGLASS BAFFLE PLATES

VALVE LEGEND			
NO.	VALVE DESCRIPTION	FILTER	BACKWASH
2	RETURN TO POOL	<input type="checkbox"/>	X
3	BACKWASH TO WASTE	X	<input type="checkbox"/>
4	FILTER INFLUENT	<input type="checkbox"/>	X
5	BACKWASH INFLUENT	X	<input type="checkbox"/>

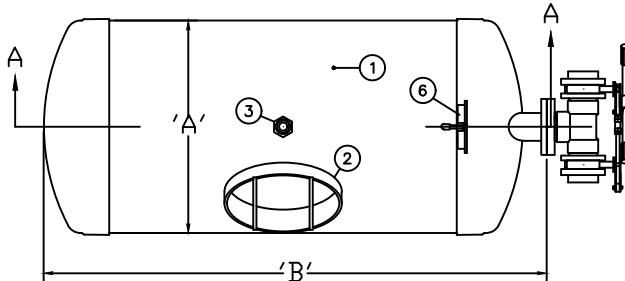
□-OPEN, X-CLOSED

Manway Location Left: \_\_\_\_\_ Right:

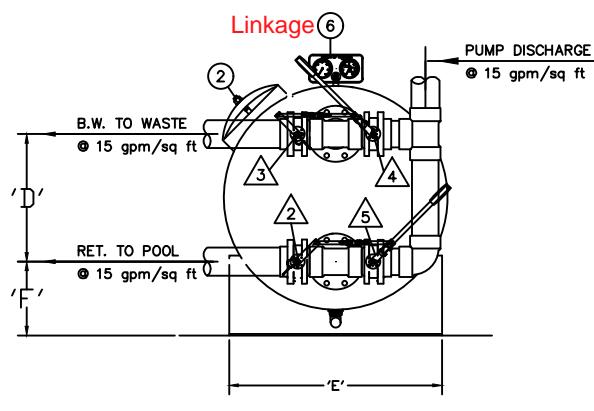
## GENERAL NOTES:

PIPING - SCH. 80 PVC, MAX. VELOCITY LESS THAN 10 FPS. PIPING DEPICTED WITH DASHED LINES NOT SUPPLIED BY PADDOCK.

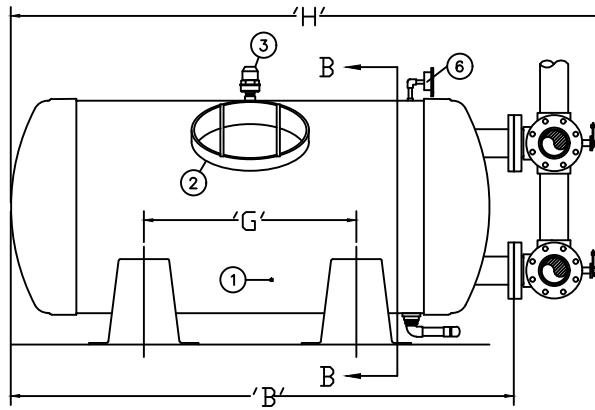
FILTER WORKING PRESSURE IS 50 PSI.



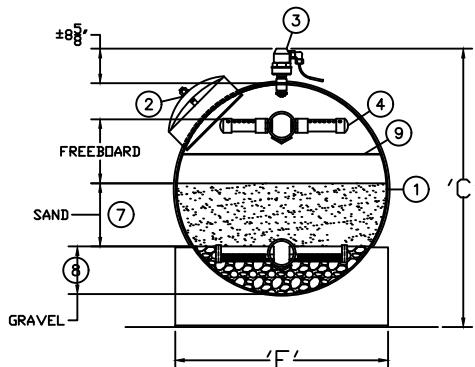
PLAN VIEW



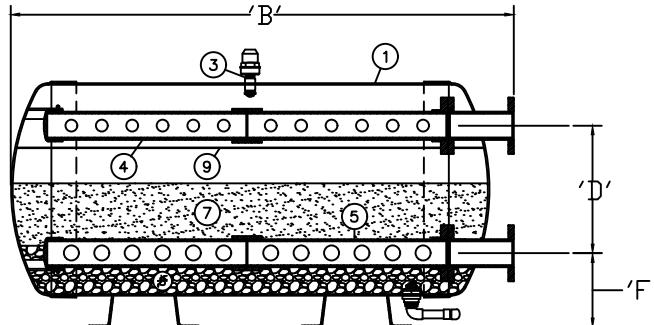
END ELEVATION



SIDE ELEVATION



SECTION B-B



SECTION A-A

## PADDOCK FIBERGLASS HORIZONTAL FILTERS



Certified to  
NSF/ANSI Standard 50

DWG. NO.	DESCRIPTION	FIBERGLASS HORIZONTAL FILTERS		
		REV	REVISION DESCRIPTION	DATE
1	JOB NAME & LOCATION			
1	CUSTOMER			
1	DWG. DATE 12/18/18			
1	REV 1			



**PADDOCK**  
POOL EQUIPMENT COMPANY  
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[info@paddockindustries.com](mailto:info@paddockindustries.com)

(800)849-2729  
Fax:(803)324-1116

PADDOCK FIBERGLASS HORIZONTAL FILTERS

CATALOG NO.	DIA.	FILTER AREA	FILTER RATE		TANK CONN. SIZE	OVERDRAIN LAT'S/TANK	UNDERDRAIN LAT'S/TANK	MEDIA PER TANK (CU FT)		
			15 GPM/FT <sup>2</sup>	15 GPM/FT <sup>2</sup>				SAND	GRAVEL	
HZF-32-16.5	32"	16.5 FT <sup>2</sup>	247.5 GPM	247.5 GPM	4"	20	20	10.90	5.69	
HZF-34-16.5	34"	16.5 FT <sup>2</sup>	247.5 GPM	247.5 GPM	4"	24	24	11.60	6.06	
HZF-36-20	36"	20 FT <sup>2</sup>	300 GPM	300 GPM	6"	24	24	15.64	5.84	
HZF-36-23	36"	23 FT <sup>2</sup>	345 GPM	345 GPM	6"	26	26	17.96	6.75	
HZF-36-25	36"	25 FT <sup>2</sup>	375 GPM	375 GPM	6"	28	28	19.59	7.45	
HZF-42-24	42"	24 FT <sup>2</sup>	360 GPM	360 GPM	6"	20	20	23.75	7.56	
HZF-42-27	42"	27 FT <sup>2</sup>	405 GPM	405 GPM	6"	24	24	27.70	7.65	
HZF-42-30	42"	30 FT <sup>2</sup>	450 GPM	450 GPM	6"	28	28	29.53	9.44	
HZF-42-33	42"	33 FT <sup>2</sup>	495 GPM	495 GPM	6"	32	32	32.30	10.40	
HZF-42-35	42"	35 FT <sup>2</sup>	525 GPM	525 GPM	6"	36	36	35.30	9.74	
<b>QTY:1</b>	<b>HZF-48-23</b>	<b>48"</b>	<b>23 FT<sup>2</sup></b>	<b>345 GPM</b>	<b>345 GPM</b>	<b>6"</b>	<b>16</b>	<b>16</b>	<b>25.82</b>	<b>6.05</b>
	HZF-48-25	48"	25 FT <sup>2</sup>	375 GPM	375 GPM	6"	18	18	29.50	7.94
	HZF-48-30	48"	30 FT <sup>2</sup>	450 GPM	450 GPM	6"	22	22	34.64	8.38
	HZF-48-34	48"	34 FT <sup>2</sup>	510 GPM	510 GPM	6"	28	28	41.00	9.00
	HZF-48-37	48"	37 FT <sup>2</sup>	555 GPM	555 GPM	6"	32	32	44.05	10.96
	HZF-48-42	48"	42 FT <sup>2</sup>	630 GPM	630 GPM	6"	36	36	50.00	11.00
	HZF-48-46	48"	46 FT <sup>2</sup>	690 GPM	690 GPM	6"	40	40	54.95	12.00
	HZF-48-50	48"	50 FT <sup>2</sup>	750 GPM	750 GPM	6"	44	44	59.84	15.14
	HZF-60-35	60"	35 FT <sup>2</sup>	525 GPM	525 GPM	6"	22	44	50.00	16.76
	HZF-60-40	60"	40 FT <sup>2</sup>	600 GPM	600 GPM	6"	26	52	55.56	18.34
	HZF-60-46	60"	46 FT <sup>2</sup>	690 GPM	690 GPM	6"	32	64	64.82	21.54
	HZF-60-52	60"	52 FT <sup>2</sup>	780 GPM	780 GPM	6"	36	72	69.34	21.70
	HZF-60-60	60"	60 FT <sup>2</sup>	900 GPM	900 GPM	8"	42	84	83.24	27.08
	HZF-60-67	60"	67 FT <sup>2</sup>	1,005 GPM	1,005 GPM	8"	48	96	93.00	30.20

CATALOG NO.	DIM. 'A'	DIM. 'B'	DIM. 'C'	DIM. 'D'	DIM. 'E'	DIM. 'F'	DIM. 'G'	DIM. 'H'
HZF-32-16.5	2'-8"	7'-2"	3'-6"	1'-6 1/2"	2'-10"	1'-0 1/4"	2'-6"	8'-4 1/2"
HZF-34-16.5	2'-10"	6'-7"	3'-8 3/4"	1'-8 1/2"	2'-10"	11 5/8"	2'-6"	7'-9 1/2"
HZF-36-20	3'-0"	7'-5"	3'-10 3/4"	1'-10 1/2"	3'-2"	11 5/8"	3'-6"	8'-7 1/2"
HZF-36-23	3'-0"	8'-5"	3'-10 3/4"	1'-10 1/2"	3'-2"	11 5/8"	4'-0"	9'-10 3/4"
HZF-36-25	3'-0"	9'-1"	3'-10 3/4"	1'-10 1/2"	3'-2"	11 5/8"	4'-4"	10'-6 3/4"
HZF-42-24	3'-6"	7'-7"	4'-4 3/4"	2'-4 1/2"	3'-2"	11 5/8"	3'-6"	9'-0 3/4"
HZF-42-27	3'-6"	8'-4 1/2"	4'-4 3/4"	2'-4 1/2"	3'-2"	11 5/8"	4'-0"	9'-7"
HZF-42-30	3'-6"	9'-3 1/2"	4'-4 3/4"	2'-4 1/2"	3'-2"	11 5/8"	4'-6"	10'-6"
HZF-42-33	3'-6"	10'-1"	4'-4 3/4"	2'-4 1/2"	3'-2"	11 5/8"	5'-0"	11'-3 1/2"
HZF-42-35	3'-6"	10'-9 1/2"	4'-4 3/4"	2'-4 1/2"	3'-2"	11 5/8"	5'-6"	12'-0"
<b>QTY: 1</b>	<b>HZF-48-23</b>	<b>4'-0"</b>	<b>6'-0 3/8"</b>	<b>4'-10 3/4"</b>	<b>2'-10 1/2"</b>	<b>3'-2"</b>	<b>11 5/8"</b>	<b>2'-0"</b>
	HZF-48-25	4'-0"	6'-9 3/8"	4'-10 3/4"	2'-10 1/2"	3'-2"	11 5/8"	2'-6"
	HZF-48-30	4'-0"	8'-0"	4'-10 3/4"	2'-10 1/2"	3'-2"	11 5/8"	3'-6"
	HZF-48-34	4'-0"	8'-11 3/4"	4'-10 3/4"	2'-10 1/2"	3'-2"	11 5/8"	4'-0"
	HZF-48-37	4'-0"	9'-9 3/8"	4'-10 3/4"	2'-10 1/2"	3'-2"	11 5/8"	4'-6"
	HZF-48-42	4'-0"	11'-0 3/8"	4'-10 3/4"	2'-10 1/2"	3'-2"	11 5/8"	5'-0"
	HZF-48-46	4'-0"	12'-0 3/8"	4'-10 3/4"	2'-10 1/2"	3'-2"	11 5/8"	5'-6"
	HZF-48-50	4'-0"	12'-11 3/4"	4'-10 3/4"	2'-10 1/2"	3'-2"	11 5/8"	6'-0"
	HZF-60-35	5'-0"	7'-9 7/8"	5'-10 3/4"	3'-2 1/2"	5'-5"	15 5/8"	3'-0"
	HZF-60-40	5'-0"	8'-9 7/8"	5'-10 3/4"	3'-2 1/2"	5'-5"	15 5/8"	3'-3"
	HZF-60-46	5'-0"	10'-1 7/8"	5'-10 3/4"	3'-2 1/2"	5'-5"	15 5/8"	4'-2"
	HZF-60-52	5'-0"	11'-3 7/8"	5'-10 3/4"	3'-2 1/2"	5'-5"	15 5/8"	5'-0"
	HZF-60-60	5'-0"	12'-11"	5'-10 3/4"	3'-2 1/2"	5'-5"	15 5/8"	6'-0"
	HZF-60-67	5'-0"	14'-3 7/8"	5'-10 3/4"	3'-2 1/2"	5'-5"	15 5/8"	6'-6"
								15'-6 3/8"

DNC NO.	DRAWING DATE	DESCRIPTION	FIBERGLASS HORIZONTAL FILTERS		
			REV	REVISION DESCRIPTION	DATE
I	O	JOB NAME & LOCATION USD Wellness Center	-	CHART INFO UPDATE	7/15/13
		CUSTOMER Capri Pools			



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Fax: (803)324-1116

# ACTIVITY POOL FILTER

ITEM	DESCRIPTION
1	FIBERGLASS FILTER TANK, WITH FLANGED CONNECTIONS & SADDLES
2	TANK MANWAY ASSEMBLY
3	1" AIR RELEASE
4	SCH. 80 PVC OVERDRAIN HEADER WITH 1 1/2" PVC LATERALS
5	SCH. 80 PVC UNDERDRAIN HEADER W/2" NORYL THREADED LATERALS
6	GAUGE PANEL
7	FILTER SAND (.45 TO .55mm) UNIFORMITY COEFFICIENT </= 1.60
8	1/16 TO 1/8 GRAVEL MEDIA
9	FIBERGLASS BAFFLE PLATES

VALVE LEGEND			
NO.	VALVE DESCRIPTION	FILTER	BACKWASH
2	RETURN TO POOL	<input type="checkbox"/>	X
3	BACKWASH TO WASTE	X	<input type="checkbox"/>
4	FILTER INFLUENT	<input type="checkbox"/>	X
5	BACKWASH INFLUENT	X	<input type="checkbox"/>

□-OPEN, X-CLOSED

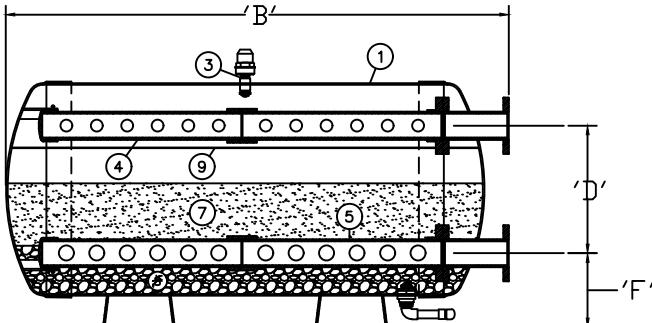
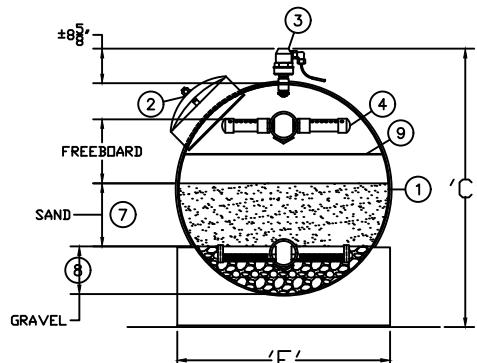
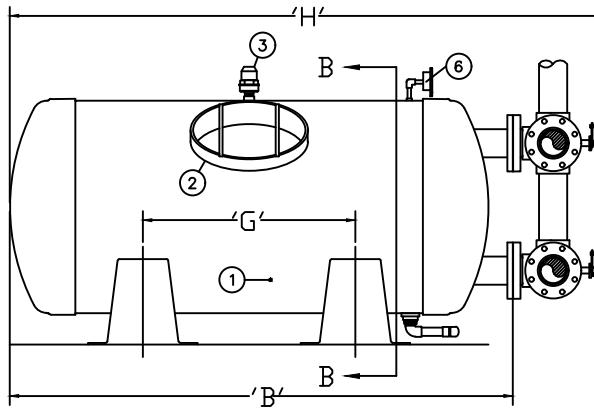
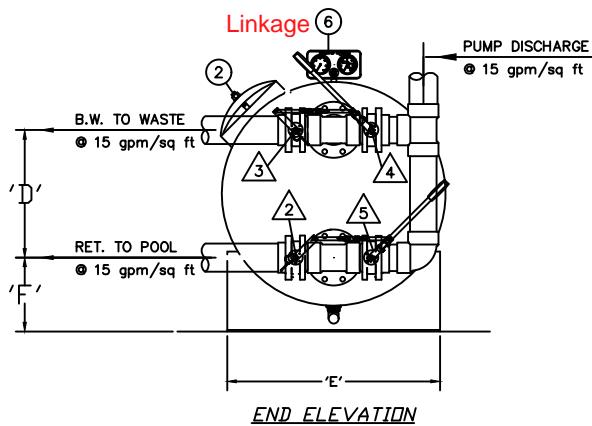
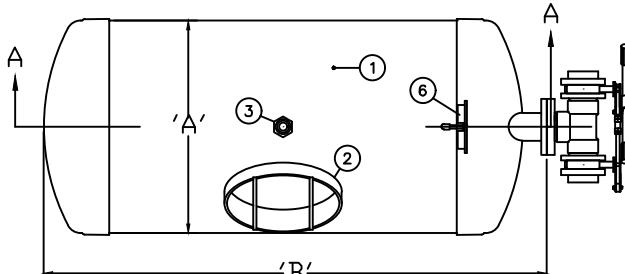
Manway Location Left: \_\_\_\_\_ Right: ✓

## GENERAL NOTES:

PIPING – SCH. 80 PVC, MAX. VELOCITY LESS THAN 10 FPS. PIPING DEPICTED WITH DASHED LINES NOT SUPPLIED BY PADDOCK.

FILTER WORKING PRESSURE IS 50 PSI.

Verify Flow Rate:  
275 GPM



**ACTIVITY POOL FILTER TO BE STACKED ON TOP OF SPA FILTER  
PADDOCK FIBERGLASS HORIZONTAL FILTERS**



Certified to  
NSF/ANSI Standard 50

DWG. NO.	DESCRIPTION	FIBERGLASS HORIZONTAL FILTERS		
		REV	REVISION DESCRIPTION	DATE
1	JOB NAME & LOCATION			
1	CUSTOMER			
1	12/18/18			
1	REV 1			



555 Paddock Parkway  
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PADDOCK FIBERGLASS HORIZONTAL FILTERS

CATALOG NO.	DIA.	FILTER AREA	FILTER RATE	BACKWASH RATE*	TANK CONN. SIZE	OVERDRAIN LAT'S/TANK	UNDERDRAIN LAT'S/TANK	MEDIA PER TANK (CU FT)		
								SAND	GRAVEL	
HZF-32-16.5	32"	16.5 FT <sup>2</sup>	247.5 GPM	247.5 GPM	4"	20	20	10.90	5.69	
HZF-34-16.5	34"	16.5 FT <sup>2</sup>	247.5 GPM	247.5 GPM	4"	24	24	11.60	6.06	
HZF-36-20	36"	20 FT <sup>2</sup>	300 GPM	300 GPM	6"	24	24	15.64	5.84	
HZF-36-23	36"	23 FT <sup>2</sup>	345 GPM	345 GPM	6"	26	26	17.96	6.75	
HZF-36-25	36"	25 FT <sup>2</sup>	375 GPM	375 GPM	6"	28	28	19.59	7.45	
HZF-42-24	42"	24 FT <sup>2</sup>	360 GPM	360 GPM	6"	20	20	23.75	7.56	
HZF-42-27	42"	27 FT <sup>2</sup>	405 GPM	405 GPM	6"	24	24	27.70	7.65	
HZF-42-30	42"	30 FT <sup>2</sup>	450 GPM	450 GPM	6"	28	28	29.53	9.44	
HZF-42-33	42"	33 FT <sup>2</sup>	495 GPM	495 GPM	6"	32	32	32.30	10.40	
HZF-42-35	42"	35 FT <sup>2</sup>	525 GPM	525 GPM	6"	36	36	35.30	9.74	
<b>QTY:1</b>	<b>HZF-48-23</b>	<b>48"</b>	<b>23 FT<sup>2</sup></b>	<b>345 GPM</b>	<b>345 GPM</b>	<b>6"</b>	<b>16</b>	<b>16</b>	<b>25.82</b>	<b>6.05</b>
	HZF-48-25	48"	25 FT <sup>2</sup>	375 GPM	375 GPM	6"	18	18	29.50	7.94
	HZF-48-30	48"	30 FT <sup>2</sup>	450 GPM	450 GPM	6"	22	22	34.64	8.38
	HZF-48-34	48"	34 FT <sup>2</sup>	510 GPM	510 GPM	6"	28	28	41.00	9.00
	HZF-48-37	48"	37 FT <sup>2</sup>	555 GPM	555 GPM	6"	32	32	44.05	10.96
	HZF-48-42	48"	42 FT <sup>2</sup>	630 GPM	630 GPM	6"	36	36	50.00	11.00
	HZF-48-46	48"	46 FT <sup>2</sup>	690 GPM	690 GPM	6"	40	40	54.95	12.00
	HZF-48-50	48"	50 FT <sup>2</sup>	750 GPM	750 GPM	6"	44	44	59.84	15.14
	HZF-60-35	60"	35 FT <sup>2</sup>	525 GPM	525 GPM	6"	22	44	50.00	16.76
	HZF-60-40	60"	40 FT <sup>2</sup>	600 GPM	600 GPM	6"	26	52	55.56	18.34
	HZF-60-46	60"	46 FT <sup>2</sup>	690 GPM	690 GPM	6"	32	64	64.82	21.54
	HZF-60-52	60"	52 FT <sup>2</sup>	780 GPM	780 GPM	6"	36	72	69.34	21.70
	HZF-60-60	60"	60 FT <sup>2</sup>	900 GPM	900 GPM	8"	42	84	83.24	27.08
	HZF-60-67	60"	67 FT <sup>2</sup>	1,005 GPM	1,005 GPM	8"	48	96	93.00	30.20

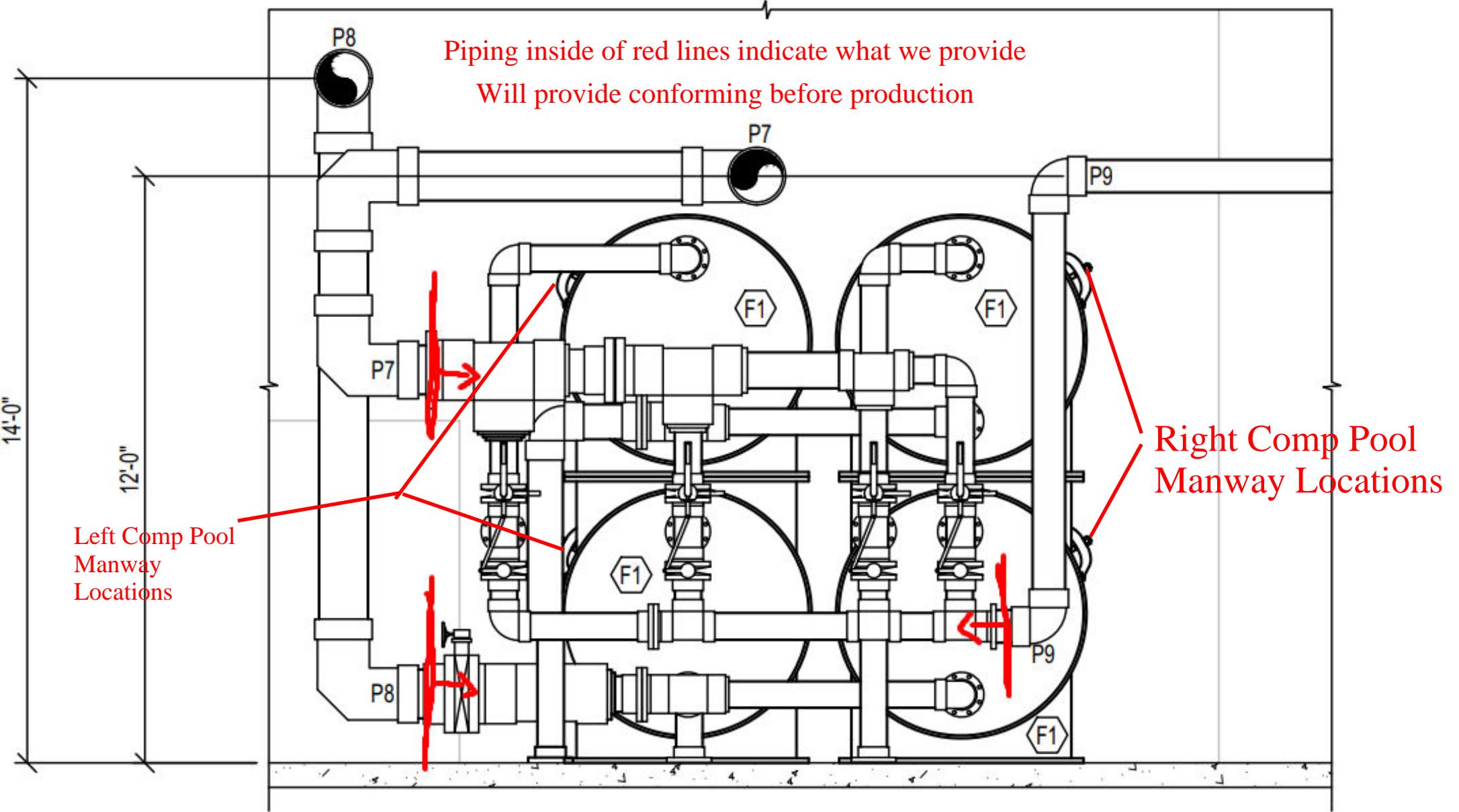
CATALOG NO.	DIM. 'A'	DIM. 'B'	DIM. 'C'	DIM. 'D'	DIM. 'E'	DIM. 'F'	DIM. 'G'	DIM. 'H'
HZF-32-16.5	2'-8"	7'-2"	3'-6"	1'-6 1/2"	2'-10"	1'-0 1/4"	2'-6"	8'-4 1/2"
HZF-34-16.5	2'-10"	6'-7"	3'-8 3/4"	1'-8 1/2"	2'-10"	11 5/8"	2'-6"	7'-9 1/2"
HZF-36-20	3'-0"	7'-5"	3'-10 3/4"	1'-10 1/2"	3'-2"	11 5/8"	3'-6"	8'-7 1/2"
HZF-36-23	3'-0"	8'-5"	3'-10 3/4"	1'-10 1/2"	3'-2"	11 5/8"	4'-0"	9'-10 3/4"
HZF-36-25	3'-0"	9'-1"	3'-10 3/4"	1'-10 1/2"	3'-2"	11 5/8"	4'-4"	10'-6 3/4"
HZF-42-24	3'-6"	7'-7"	4'-4 3/4"	2'-4 1/2"	3'-2"	11 5/8"	3'-6"	9'-0 3/4"
HZF-42-27	3'-6"	8'-4 1/2"	4'-4 3/4"	2'-4 1/2"	3'-2"	11 5/8"	4'-0"	9'-7"
HZF-42-30	3'-6"	9'-3 1/2"	4'-4 3/4"	2'-4 1/2"	3'-2"	11 5/8"	4'-6"	10'-6"
HZF-42-33	3'-6"	10'-1"	4'-4 3/4"	2'-4 1/2"	3'-2"	11 5/8"	5'-0"	11'-3 1/2"
HZF-42-35	3'-6"	10'-9 1/2"	4'-4 3/4"	2'-4 1/2"	3'-2"	11 5/8"	5'-6"	12'-0"
<b>QTY: 1</b>	<b>HZF-48-23</b>	<b>4'-0"</b>	<b>6'-0 3/8"</b>	<b>4'-10 3/4"</b>	<b>2'-10 1/2"</b>	<b>3'-2"</b>	<b>11 5/8"</b>	<b>2'-0"</b>
	HZF-48-25	4'-0"	6'-9 3/8"	4'-10 3/4"	2'-10 1/2"	3'-2"	11 5/8"	2'-6"
	HZF-48-30	4'-0"	8'-0"	4'-10 3/4"	2'-10 1/2"	3'-2"	11 5/8"	3'-6"
	HZF-48-34	4'-0"	8'-11 3/4"	4'-10 3/4"	2'-10 1/2"	3'-2"	11 5/8"	9'-5 3/4"
	HZF-48-37	4'-0"	9'-9 3/8"	4'-10 3/4"	2'-10 1/2"	3'-2"	11 5/8"	4'-0"
	HZF-48-42	4'-0"	11'-0 3/8"	4'-10 3/4"	2'-10 1/2"	3'-2"	11 5/8"	10'-2 1/4"
	HZF-48-46	4'-0"	12'-0 3/8"	4'-10 3/4"	2'-10 1/2"	3'-2"	11 5/8"	5'-0"
	HZF-48-50	4'-0"	12'-11 3/4"	4'-10 3/4"	2'-10 1/2"	3'-2"	11 5/8"	12'-9"
	HZF-60-35	5'-0"	7'-9 7/8"	5'-10 3/4"	3'-2 1/2"	5'-5"	15 5/8"	3'-0"
	HZF-60-40	5'-0"	8'-9 7/8"	5'-10 3/4"	3'-2 1/2"	5'-5"	15 5/8"	3'-3"
	HZF-60-46	5'-0"	10'-1 7/8"	5'-10 3/4"	3'-2 1/2"	5'-5"	15 5/8"	4'-2"
	HZF-60-52	5'-0"	11'-3 7/8"	5'-10 3/4"	3'-2 1/2"	5'-5"	15 5/8"	5'-0"
	HZF-60-60	5'-0"	12'-11"	5'-10 3/4"	3'-2 1/2"	5'-5"	15 5/8"	6'-0"
	HZF-60-67	5'-0"	14'-3 7/8"	5'-10 3/4"	3'-2 1/2"	5'-5"	15 5/8"	6'-6"
								15'-6 3/8"

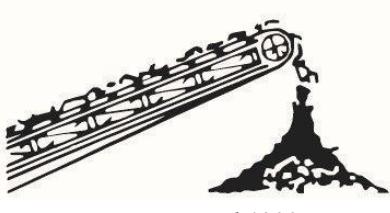
DNC NO.	DRAWING DATE	DESCRIPTION	FIBERGLASS HORIZONTAL FILTERS		
			REV	REVISION DESCRIPTION	DATE
I	O	JOB NAME & LOCATION USD Wellness Center	-	CHART INFO UPDATE	7/15/13
		CUSTOMER Capri Pools			



555 Paddock Parkway  
Rock Hill, SC 29730-1676  
info@paddockindustries.com

(800)849-2729  
Fax: (803)324-1116





Incorporated 1933

# SOUTHERN PRODUCTS & SILICA COMPANY



Certified to  
NSF/ANSI 61

## Filter Sand & Gravel - Industrial Sand - Well Gravel Packs - Quartz Gravel - Epoxy Aggregate

Plant located at 4303 U.S. Highway 1 North, Hoffman, NC 28347

P.O. Drawer 189  
Hoffman, NC 28326

[www.sandandgravel.net](http://www.sandandgravel.net)  
Fax: 910-281-3815 Sales Orders  
Fax: 910-281-3213 Administration

Phone: 910-281-3189  
Toll Free: 800-572-6348

### General Information / Technical Data

Our materials are hard quartzite, sub-angular sand and rounded gravel, free of clay, silt, iron, mica and other foreign matter. All filtering material is washed, screen-sized, washed and sized again according to current American Water Works Association B100 Standards for Filtering Materials and are NSF listed.

#### Water Filter Sand and Gravel

Effective Size (ES)	Filter Sand	Uniformity Coefficient (UC)
.45mm-.55mm		U.C. 1.6 or less
.80mm-1.20mm		U.C. 1.6 or less
2.0mm-3.0mm		U.C. 1.6 or less

Custom Filter Sand ES and UC Available Upon Request

#### Filter Gravel

2 1/2 x 1 1/2	1/2 x 1/4
1 1/2 x 1	3/8 x 3/16
1 1/2 x 3/4	1/4 x 1/8
1 x 5/8	3/16 x #10
1 x 1/2	#5 x #16
3/4 x 1/2	1/8 x 1/16
5/8 x 3/8	1/8 x #16

#### Chemical Analysis (% By Weight)

Calcium (Ca)	<0.01%
Calcium Oxide (CaO)	<0.01%
Calcium Carbonate (CaCO <sub>3</sub> )	<0.01%
Magnesium (Mg)	0.05%
Magnesium Oxide (MgO)	0.09%
Magnesium Carbonate (MgCO <sub>3</sub> )	0.19%
Iron Oxide (Fe <sub>2</sub> O <sub>3</sub> )	0.03%
Aluminum Oxide (Al <sub>2</sub> O <sub>3</sub> )	0.17%
Silicon (Si)	46.56%
Silicon Dioxide (SiO <sub>2</sub> )	99.61%
Sulfur Trioxide (SO <sub>3</sub> )	0.04%
Manganese (Mn)	<0.01%
Loss on Ignition	0.14%

#### Industrial Sand

Grade	Approximate Sieve Size
Ultra Fine	30-140
Extra Fine	25-80
Fine	10-45
Medium	8-30
Coarse	4-20

#### Well Gravel Packs

Product	Approximate Sieve Size
Gravel Pack #1	16-50
Gravel Pack #1A	10-40
Gravel Pack #2	7-35
Gravel Pack #3	5-20
Gravel Pack #4	4-12

#### Quartz Gravel for Catalyst Support

1 1/2 x 3/4 / 1 1/4 x 3/4 / 1 x 1/2

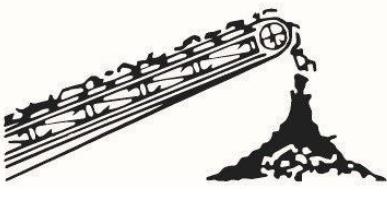
#### Epoxy Aggregates

Available in various sizes.

#### Geothermal Sand

Our Geothermal Sand has been used extensively throughout the Industry

Ask about special sizing and gradation requirements.



Incorporated 1933

# SOUTHERN PRODUCTS & SILICA COMPANY



**Filter Sand & Gravel - Industrial Sand - Well Gravel Packs - Quartz Gravel - Epoxy Aggregates**

## Assurance of Quality

Full service laboratory testing continually monitors sand & gravel specifications for compliance with standards. All filtering materials meet current AWWA B100 standards and are NSF listed. Certified testing analysis is available on all filter sand and gravel shipments.

## Transportation

All material can be shipped by truck, bagged or bulk.

## Packaging

Products are bagged in .5 cu. ft. or 1.0 cu. ft. clear plastic bags (LDPE), or woven 3000 lb. super sacks. Dry palletized bags are shrink-wrapped and have a top cover sheet that provides both rain and UV protection. All material is quoted with pallet. Pallets are Non-Stackable 40"x40", 40"x44", or 40"x48". Heat Treated Option For Export. You can also order our material bulk, delivered via dump bed or pneumatic tanker.

## Pricing

Prices for all materials depend on selected packaging options.  
Prices are quoted F.O.B. Hoffman, NC

## Ordering Information

Our sales staff will be pleased to assist you between the hours of 8 A.M. and 4:00 P.M.,  
Monday - Friday. Please Call or Email:

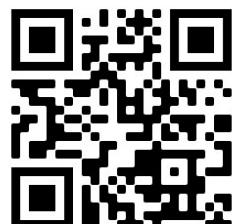
**SOUTHERN PRODUCTS & SILICA COMPANY**  
**POST OFFICE DRAWER 189**  
**4303 U.S. HIGHWAY 1 NORTH**  
**HOFFMAN, NC 28347**

**TOLL FREE: 800-572-6348**

**PHONE: 910-281-3189**

**FAX: 910-281-3815 SALES ORDERS**

**FAX: 910-281-3213 ADMINISTRATIVE**



**AIR RELIEF/Vent Valve: PVC, PVC,  
¾ IN Inlet Size, FNPT Connection**

232 psi Max. Pressure

Item # 4GPP3

Mfr. Model 4GPP3

**PN 700901**



Description:

For use in water distribution and steam systems, these vent valves can help to eliminate pockets of air.

## Product Details

Inlet Size	<b>3/4 in</b>	Vent Dia.	<b>¾ in.</b>
Body Material	<b>PVC</b>	Vent Height	<b>18 in</b>
Connection Type	<b>FNPT</b>	Product Type	<b>Vent Valve</b>
Float Material	<b>PVC</b>	Manufacturer #	<b>4GPP3</b>
Max. Pressure	<b>232 psi</b>	UNSPSC	<b>40141606</b>
Min. Pressure	<b>1 psi</b>	Country of Origin	<b>Italy (subject to change)</b>
Temp. Range	<b>33° to 240°F</b>		



Paddock Pool Equipment Company, Inc.  
555 Paddock Parkway  
Rock Hill, SC 29730  
United States of America

Ph: 803-324-1111

**Submittal**

Number: QUO22465 Date: 04-May-23

**Submitted To:**

**To:**

Capri Pools & Aquatics  
22 Gateway Commerce Center Dr. W. Suite 110  
Edwardsville IL 62025  
United States

Liz Crawford

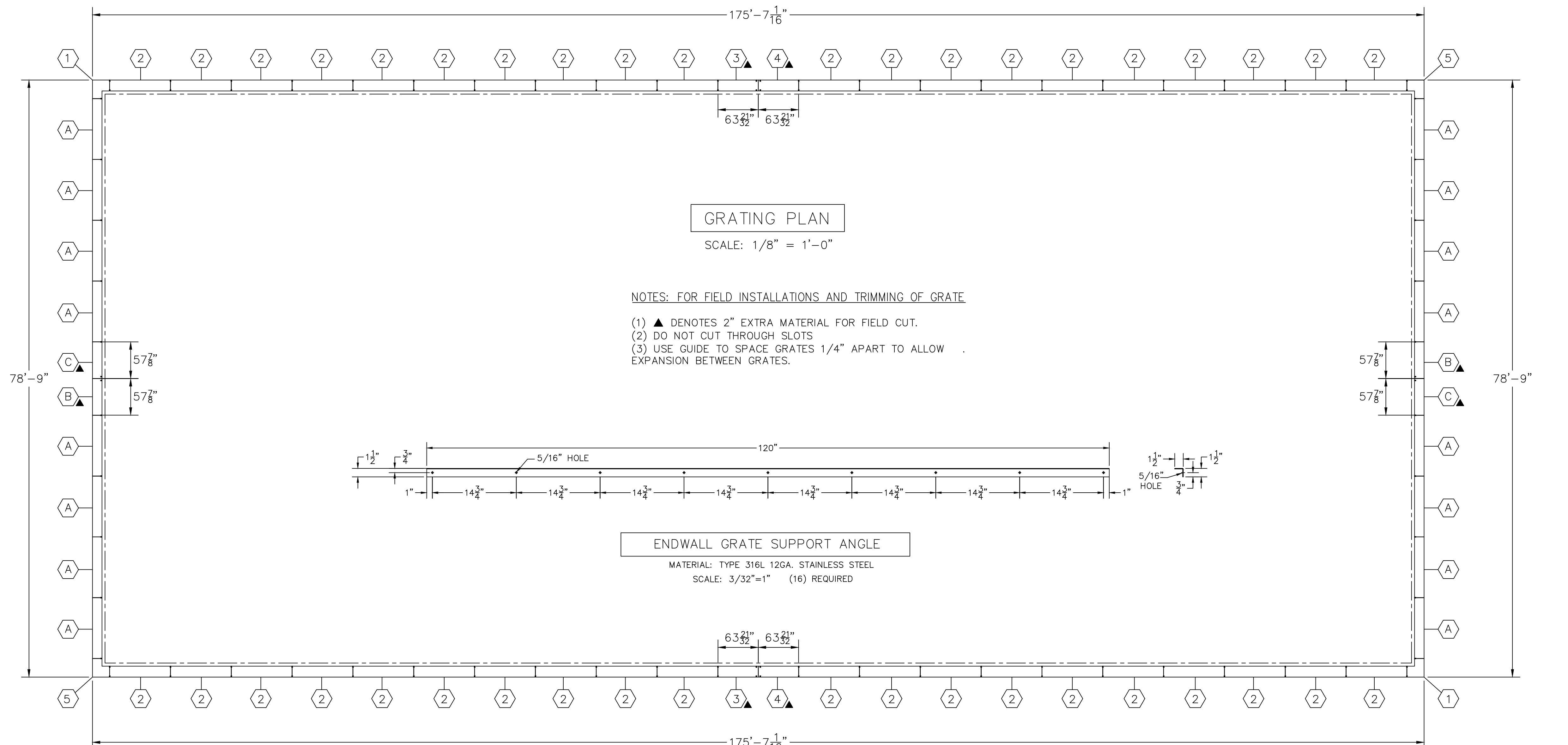
**EMAIL:** [lcrawford@capripool.com](mailto:lcrawford@capripool.com)

**PHONE #:** 618 219 4882

**Project Name:** USD Wellness Center

**Project Manager:** Trevor Ottley  
[ottley@paddockindustries.com](mailto:ottley@paddockindustries.com)  
**PHONE #:** 803-372-6088

Qty	Description	Drawing	Approval
495 ft	<b>23151.01- RetroFitGrating Retro Fit Grating</b> White 1 x 17.25 HDPE, Lap pool - 17.25" white HDPE drop-in grate with hold down blocks and 316L hardware.	23151.01	
1	<b>23151.01- Miscellaneous Miscellaneous</b> 150' 316L angle for grating support located at back of gutter along the end walls. 160 Total Lineal Feet Mounting hardware not included	23151.01	
142 ft	<b>23151.02- RetroFitGrating Retro Fit Grating</b> Activity pool - 16" white HDPE dropin grate with hold down blocks and 316L hardware.	23151.02	

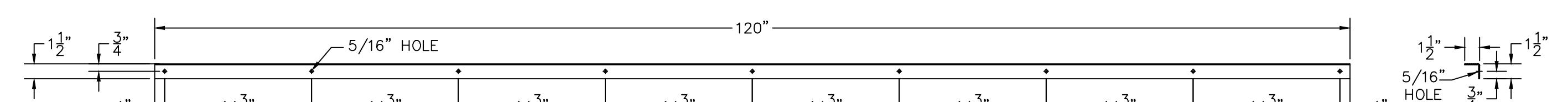


## GRATING PLAN

SCALE: 1/8" = 1'-0"

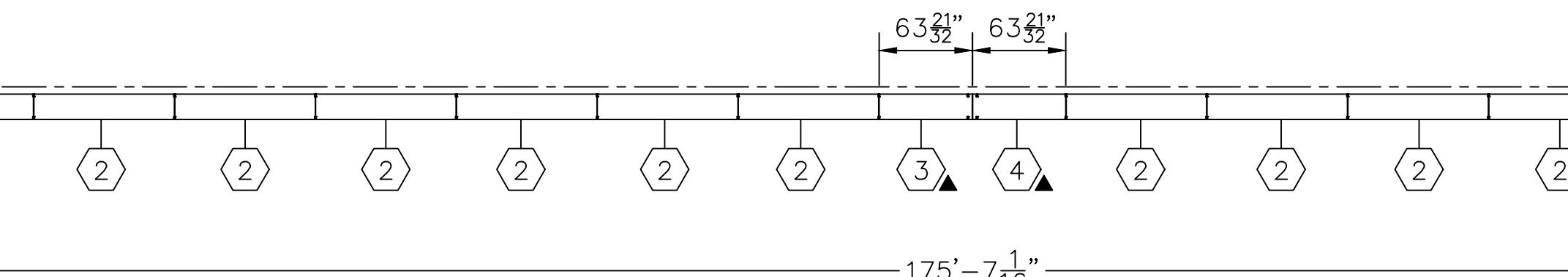
## NOTES: FOR FIELD INSTALLATIONS AND TRIMMING OF GRATE

- (1) ▲ DENOTES 2" EXTRA MATERIAL FOR FIELD CUT.
  - (2) DO NOT CUT THROUGH SLOTS
  - (3) USE GUIDE TO SPACE GRATES 1/4" APART TO ALLOW .  
EXPANSION BETWEEN GRATES.



## ENDWALL GRATE SUPPORT ANGLE

MATERIAL: TYPE 316L 12GA. STAINLESS STEEL  
SCALE: 3/32"=1" (16) REQUIRED

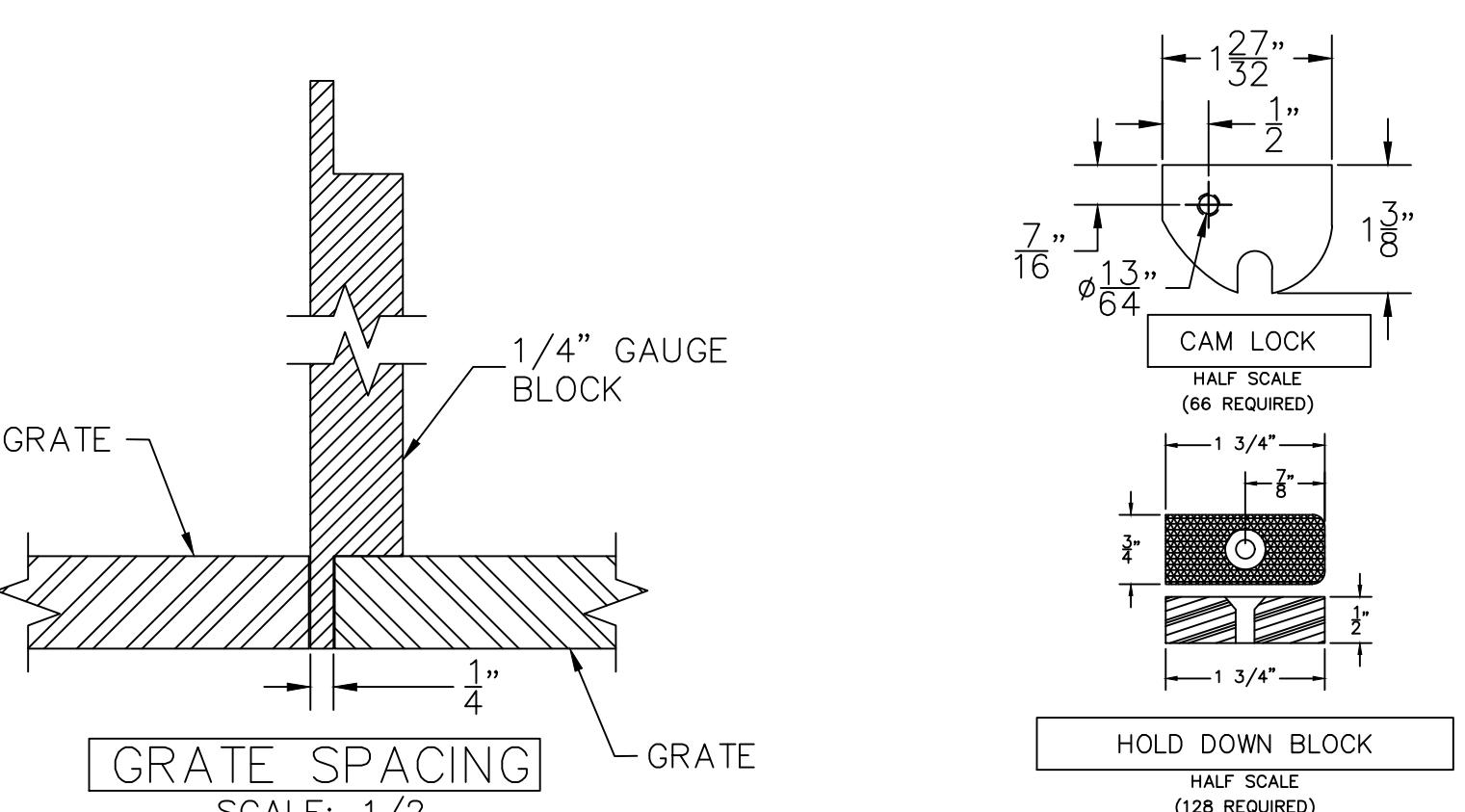


## ENDWALL SPACER GAUGE

SCALE: 1/8  
(2) REQUIRED

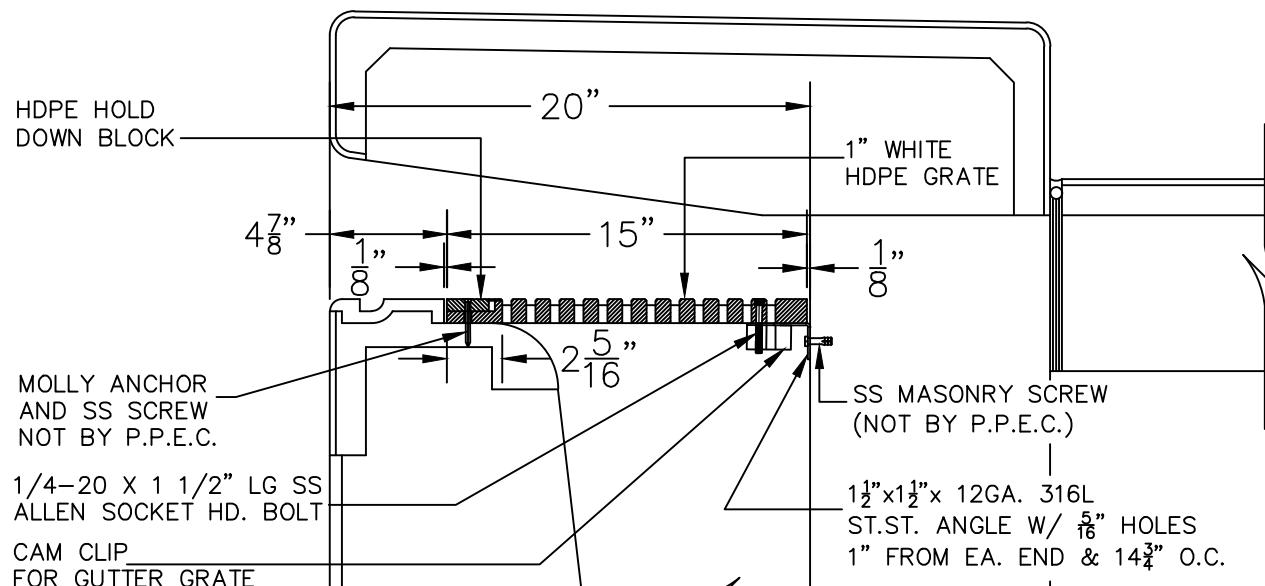
# SIDEWALL SPACER GAUGE

SCALE: 1/8  
(2) REQUIRED



## POOL SIDEWALL GRATE SECTION

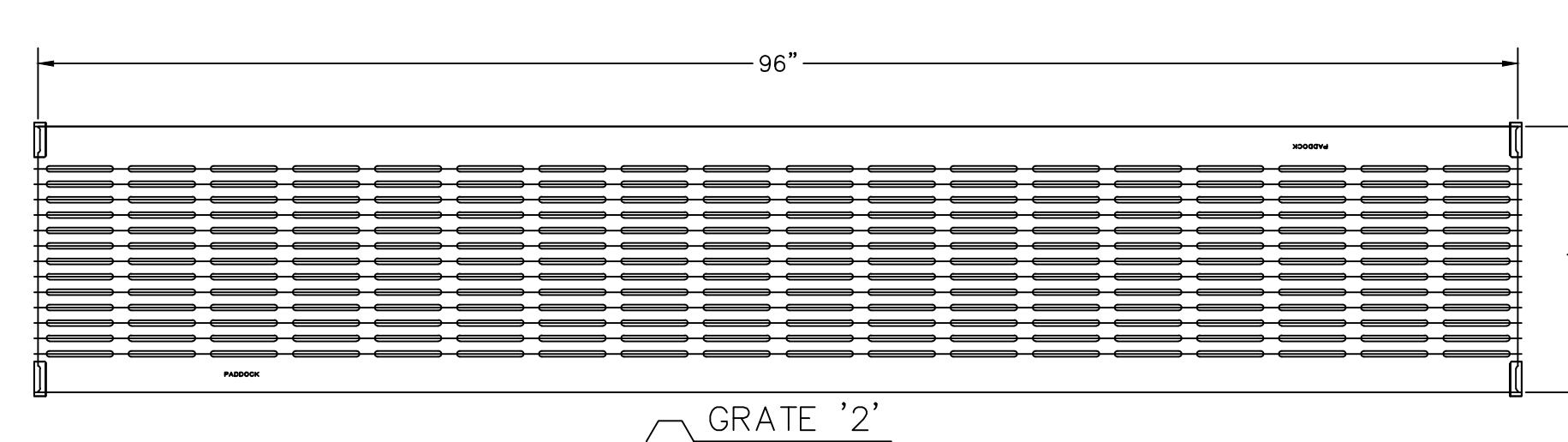
SCALE: 1 1/2" = 1'-0"



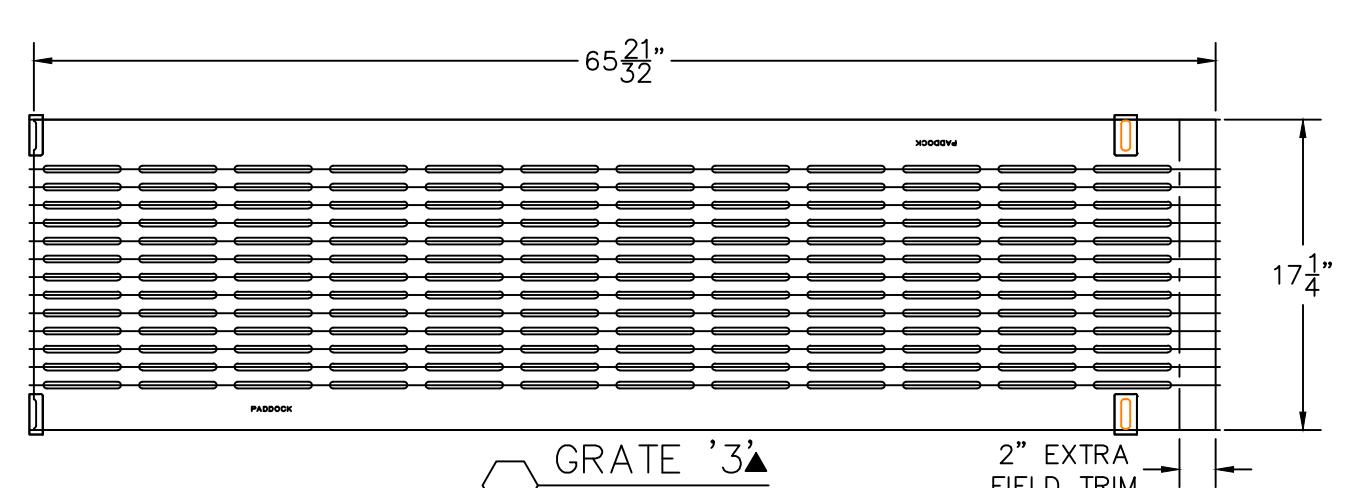
## POOL ENDWALL GRATE SECTION

SCALE: 1 1/2" = 1'-0"

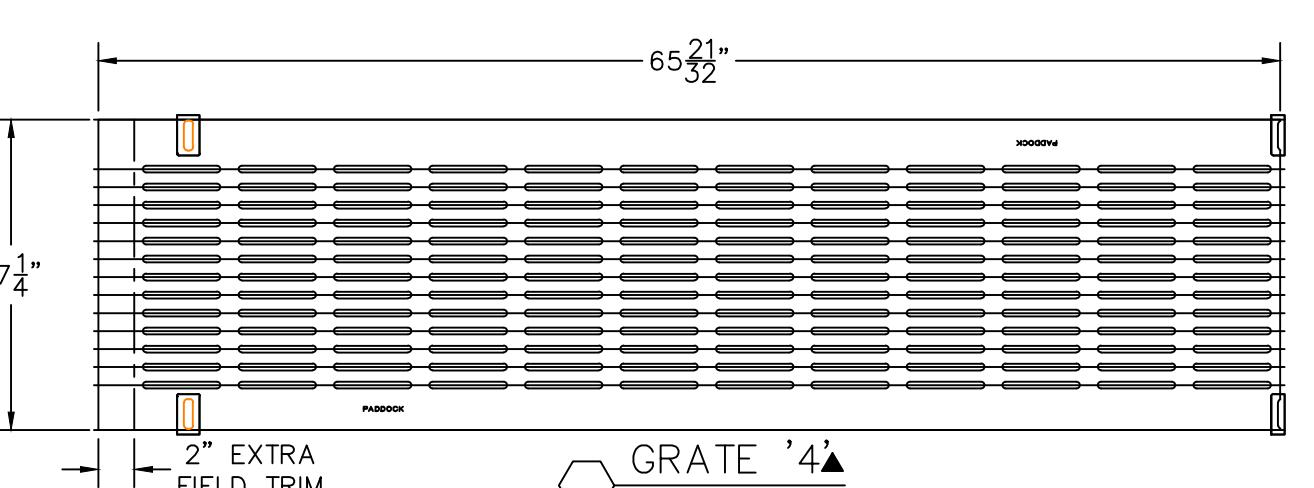
SHIPPING SCHEDULE	
7" X 29 1/4" X 1" WHITE HDPE GRATE CORNER SECTION	4
SIDEWALL WHITE HDPE GRATE 1" X 17 1/4", (46) SECTIONS	±342'-1 1/8"
ENDWALL WHITE HDPE GRATE 1" X 15", (20) SECTIONS	±149'-2"
1/2" X 1 1/2" X 10'-0" X 12GA. 316L ST.ST. ANGLE WITH 5/16" HOLES " FROM EACH END & 14 3/4" O.C.	16
HDPE 3/4" X 1 3/4" X 1/2" HOLD DOWN BLOCKS; SHIP LOOSE	132
HDPE ENDWALL CAM LOCK	66
1/4-20 X 1 1/2" LG. SS ALLEN SOCKET HEAD BOLT	63
ENDWALL WHITE HDPE 1/4" GRATE SPACER GAUGE	2
SIDEWALL WHITE HDPE 1/4" GRATE SPACER GAUGE 12" X 16"	2



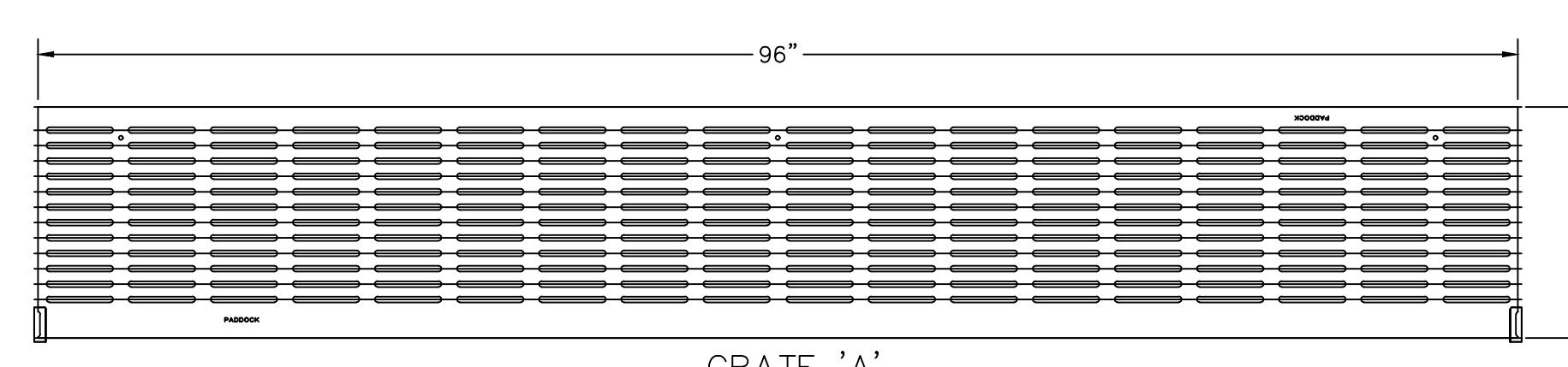
GRATE '21  
(10) REQUIRED



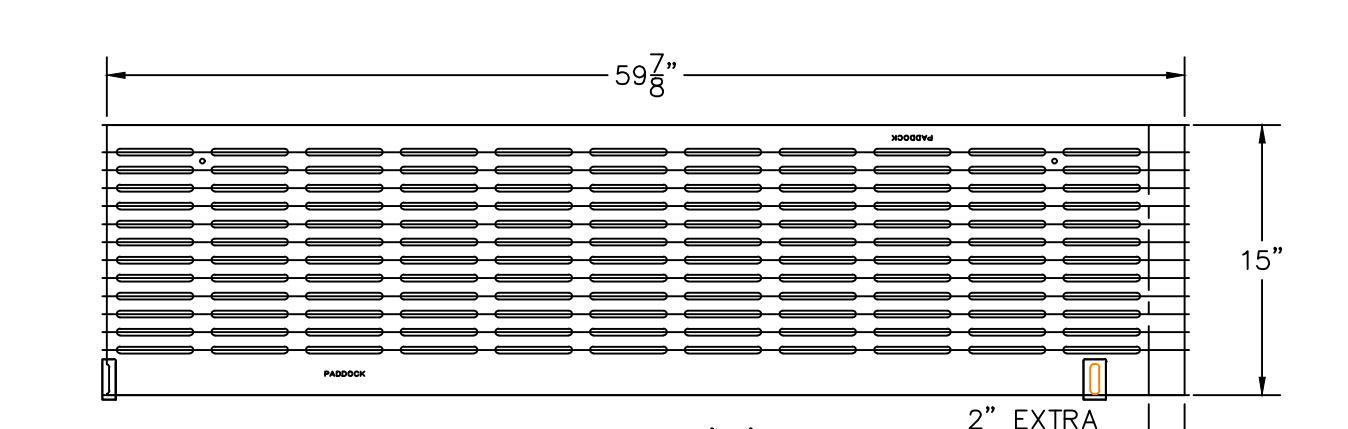
GRAT  
(c) BEG



GRAT  
(s) PE

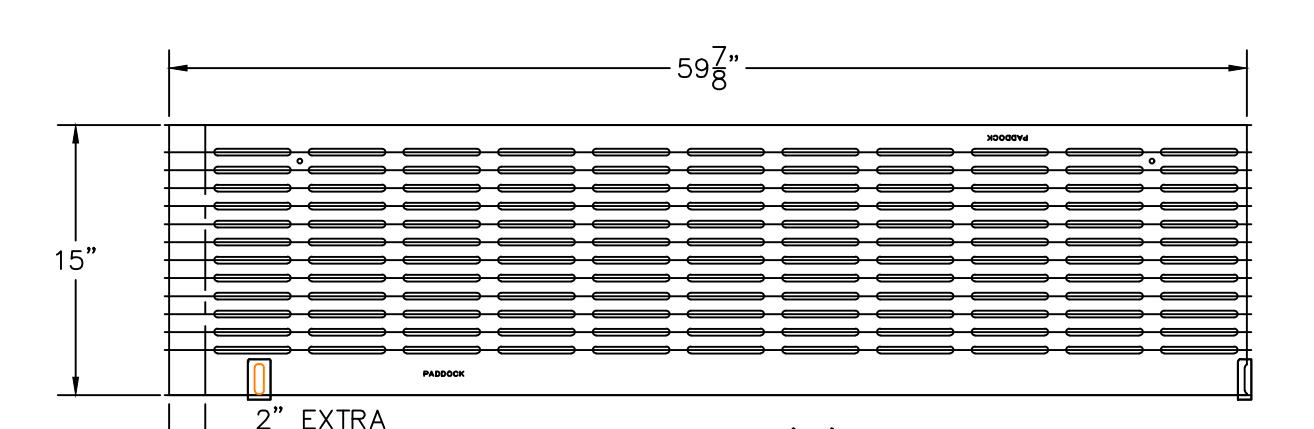


GRATE 'A



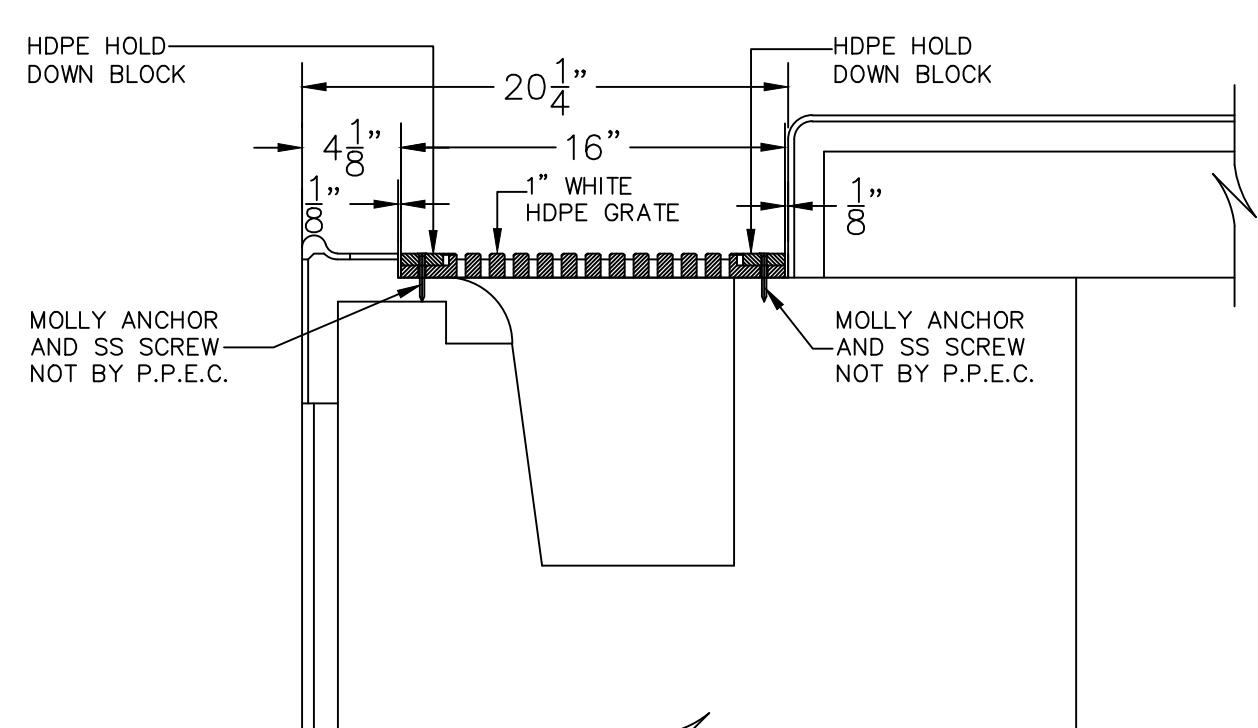
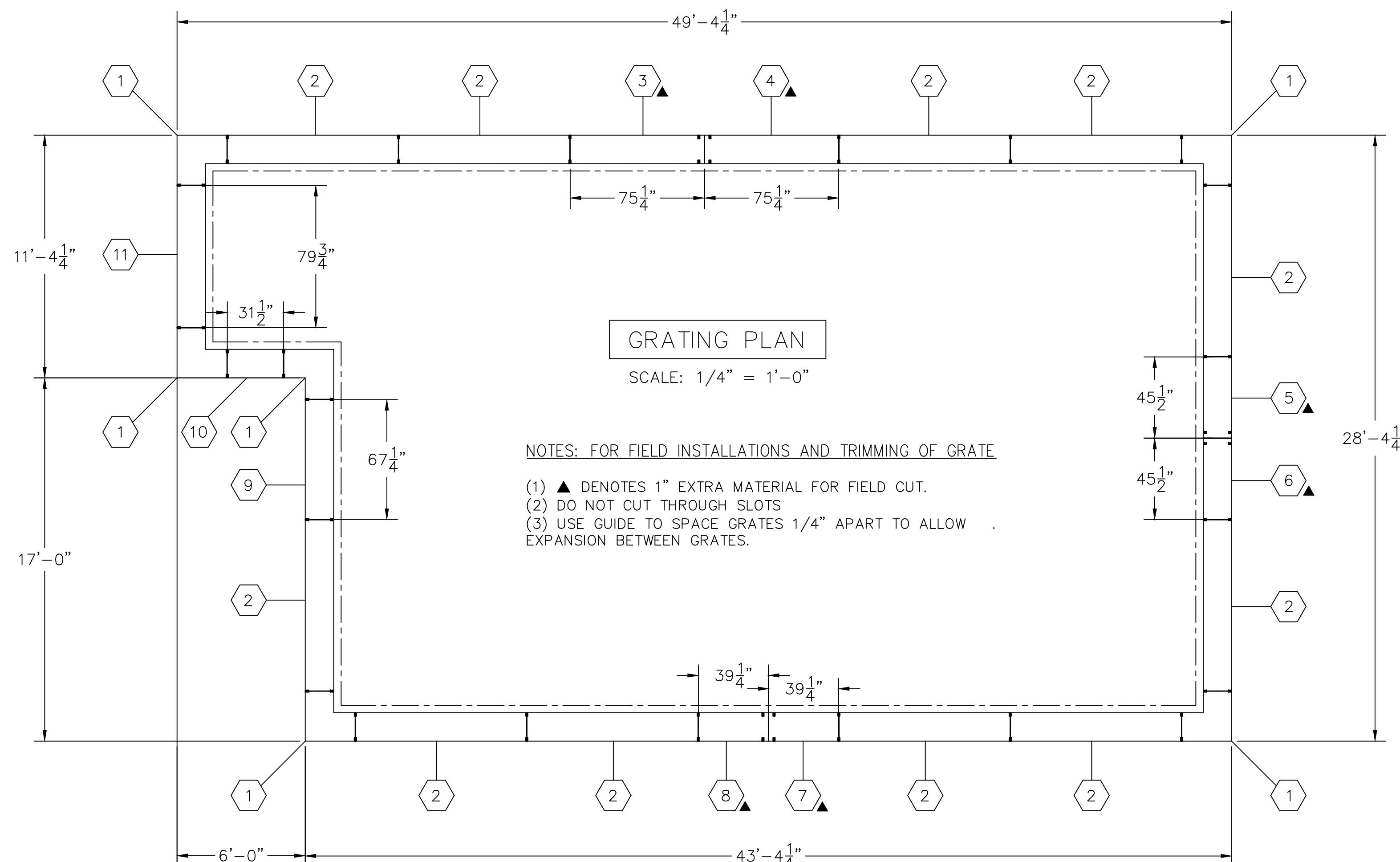
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QDA

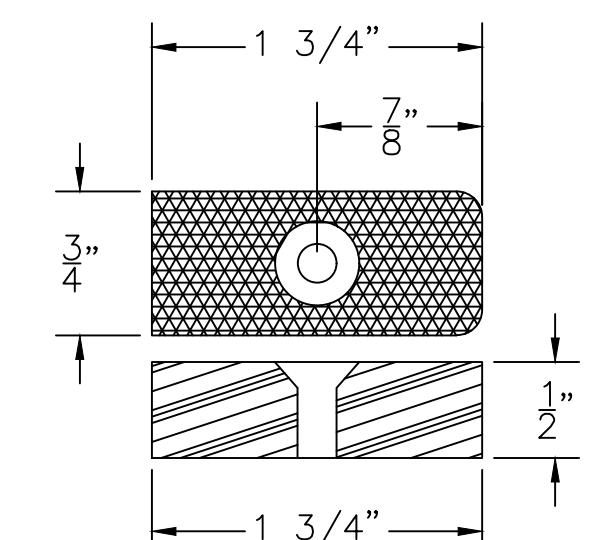


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GBA 5

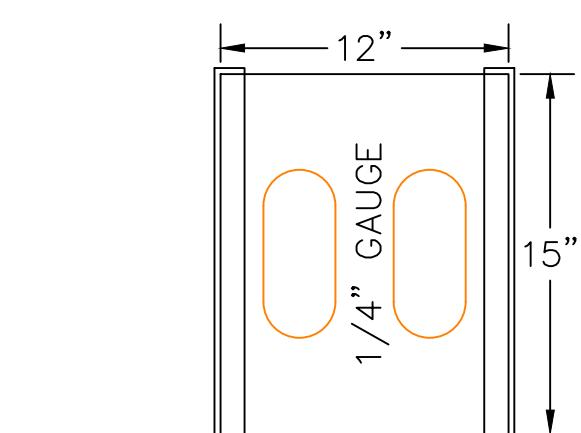
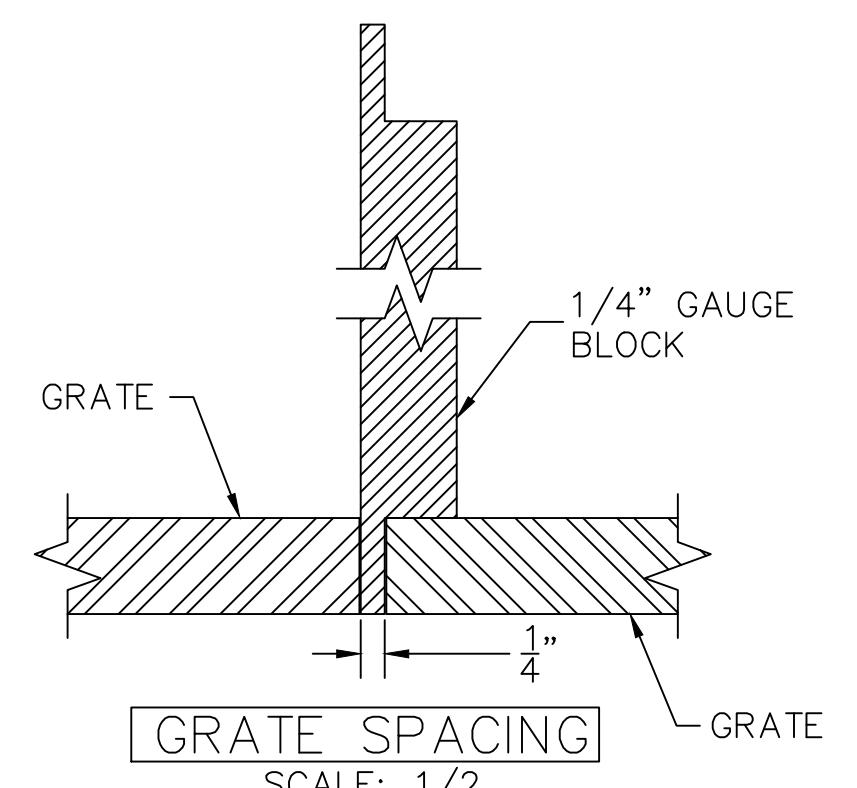


**POOL GRATE SECTION**  
SCALE:  $1 \frac{1}{2}'' = 1'-0''$

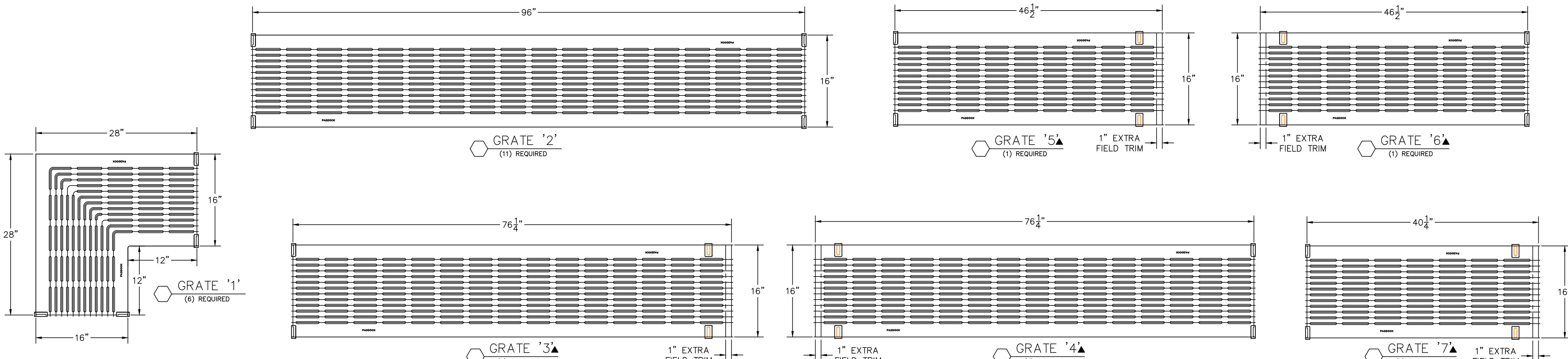


**HOLD DOWN BLOCK**  
FULL SCALE  
(58 REQUIRED)

ACTIVITY POOL 16" WIDE WHITE HDPE GRATE SCHEDULE				
SECTION NO.	QTY REQ'D	'L' LENGTH	'L' + 1" EXTRA FOR FIELD CUT	OTHER
1	6	28" x 28"	NONE	CORNER
2	11	96"	NONE	
3	1	75 1/4"	76 1/4"	
4	1	75 1/4"	76 1/4"	
5	1	45 1/2"	46 1/2"	
6	1	45 1/2"	46 1/2"	
7	1	39 1/4"	40 1/4"	
8	1	39 1/4"	40 1/4"	
9	1	67 1/4"	NONE	
10	1	67 1/4"	NONE	
11	1	67 1/4"	NONE	
<b>TOTALS</b>	<b>26</b>			

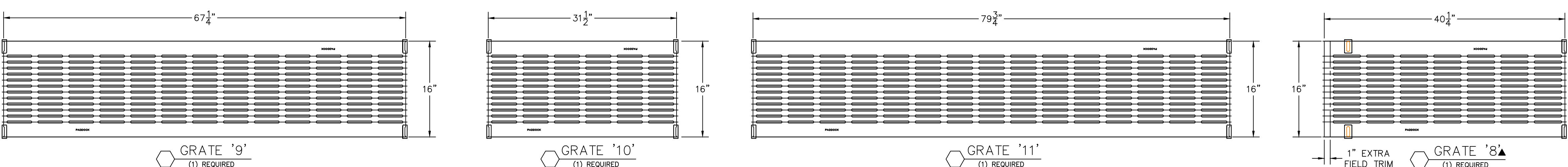


**SIDEWALL SPACER GAUGE**  
SCALE:  $1/8$   
(2) REQUIRED



SHIPPING SCHEDULE	
28" X 28" X 1" WHITE HDPE GRATE CORNER SECTION	6
WHITE HDPE GRATE 1" X 16", (20) SECTIONS	$\pm 130\text{--}1"$
HOPE 3/4" X 1 3/4" X 1/2" HOLD DOWN BLOCKS; SHIP LOOSE	58
WHITE HDPE 1/4" GRATE SPACER GAUGE 12" X 15"	2

INCL. 10% EXTRA



555 Paddock Parkway Rock Hill, SC 29730 Phone: (803) 324-1116 Fax: (803) 324-1116 info@paddockindustries.com	DESCRIPTION ACTIVITY POOL GRATE LAYOUT DETAILS
DO NOT SCALE DRAWING TOLERANCE UNLESS OTHERWISE NOTED: $x \pm 1/8$ $x \pm 1/32$ $x \pm .005$	JOB NAME UNIVERSITY OF SOUTH DAKOTA
X	DATE
BY	LOCATION VERMILLION, SOUTH DAKOTA
DRAWN M.J.G. 5-3-23	CUSTOMER CAPRI POOLS & AQUATICS
CHECKED	SCALE (UNLESS NOTED) $5/16\text{--}1\text{--}0$
APPROVED	SIZE D W.O. # JOB: 23151.02
MATERIAL: WHITE HDPE 316LSS	DWG. NO. 23151.02



Paddock Pool Equipment Company, Inc.  
555 Paddock Parkway  
Rock Hill, SC 29730  
United States of America

Ph: 803-324-1111

**Submittal**

Number: QUO22465 Date: **22-JUNE-23**

**Submitted To:**

Liz Crawford

**To:**

Capri Pools & Aquatics  
22 Gateway Commerce Center Dr. W. Suite 110  
Edwardsville IL 62025  
United States

**EMAIL:** [lcrawford@capripool.com](mailto:lcrawford@capripool.com)

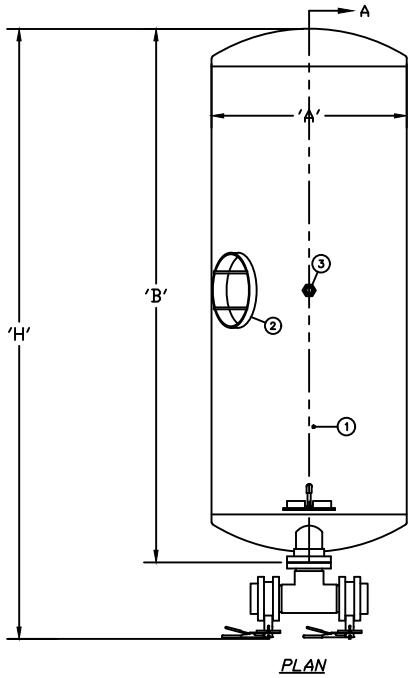
**PHONE #:** 618 219 4882

**Project Name:** **USD Wellness Center**

**Project Manager:** Trevor Ottley  
[ottley@paddockindustries.com](mailto:ottley@paddockindustries.com)  
**PHONE #:** 803-372-6088

Qty	Description	Drawing	Approval
2	<b>HZ-FBG-60-92 Stacked Filter,Paddock,Horizontal,FiberGlass,(2) 60-46</b>  Stacked Filter,Paddock,Horizontal,FiberGlass,(2) 60-46 Gauges, Air Relief, Media, Lap Pool - 2 stack 60-92 (4 filters) with full face piping and manual linkage per plan AQ7.	Cut Sheet	
1	<b>HZ-FBG-48-23 Filter,Paddock,Horizontal,FiberGlass,48-23</b>  Filter,Paddock,Horizontal,FiberGlass,48-23 - Spa - 48-23 filter in stack configuration with 3 tees, 1 elbow, 4 valves per plan AQ7.1 - INCLUDE STACK SADDLES ON TOP OF THIS FILTER ONLY TO FACILITATE STACKING WITH THE LIKE FILTER BELOW.	Cut Sheet	
1	<b>HZ-FBG-48-23 Filter,Paddock,Horizontal,FiberGlass,48-23</b>  Filter,Paddock,Horizontal,FiberGlass,48-23 - Activity - 48-23 filter in stack configuration with 3 tees, 1 elbow, 4 valves per plan AQ7.1 -- Top Filter - Filters stacked for space consideration but operating independently.	Cut Sheet	

**Paddock is requesting either a Resale or Exemption Certificate from all customers for every project.**



## Competition Pool Filters

QTY 2 Units

VALVE LEGEND				
NO.	VALVE DESCRIPTION	FILTER	BACKWASH FILTER #1	BACKWASH FILTER #2
2	RETURN TO POOL	□	X	X
3	FILTER INFLUENT #1	□	X	□
4	FILTER EFFLUENT (B.W. #1)	X	□	X
5	FILTER INFLUENT #2	□	□	X
6	FILTER EFFLUENT (B.W. #2)	X	X	□
7	BACKWASH CONTROL VALVE	□	□	□

□-OPEN, X-CLOSED

ITEM	DESCRIPTION
1	FIBERGLASS FILTER TANK, WITH FLANGED CONNECTIONS & SADDLES
2	TANK MANWAY ASSEMBLY
3	1" AIR RELEASE
4	SCH. 80 PVC OVERDRAIN HEADER WITH 1 1/2" PVC LATERALS
5	SCH. 80 PVC UNDERDRAIN HEADER W/2" NORYL THREADED LATERALS
6	GAUGE PANEL
7	FILTER SAND (.45 TO .55mm) UNIFORMITY COEFFICIENT </= 1.60
8	1/16 TD 1/8 GRAVEL MEDIA
9	FIBERGLASS BAFFLE PLATES

### GENERAL NOTES:

PIPING – SCH. 80 PVC, MAX. VELOCITY LESS THAN 10 FPS. PIPING DEPICTED WITH DASHED LINES AND BACKWASH CONTROL VALVE NOT SUPPLIED BY PADDOCK.

FILTER WORKING PRESSURE IS 50 PSI. TEST PRESSURE IS 65 PSI.

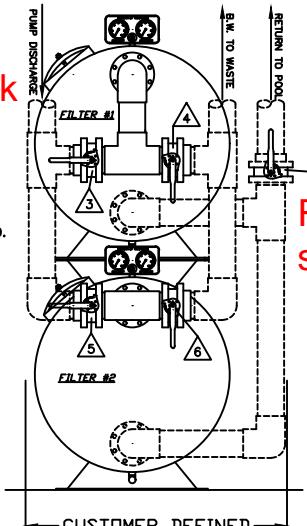
Need actual flow rate for label 2,200 GPM

Mark Manway  
Location on tank

Left side  
2 Left

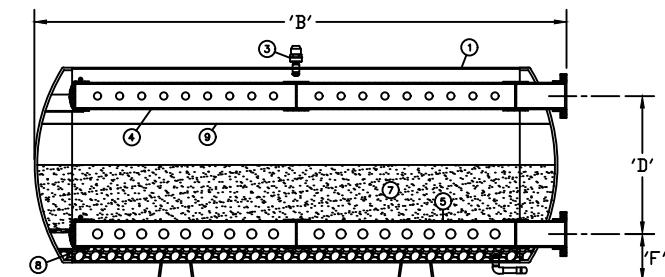
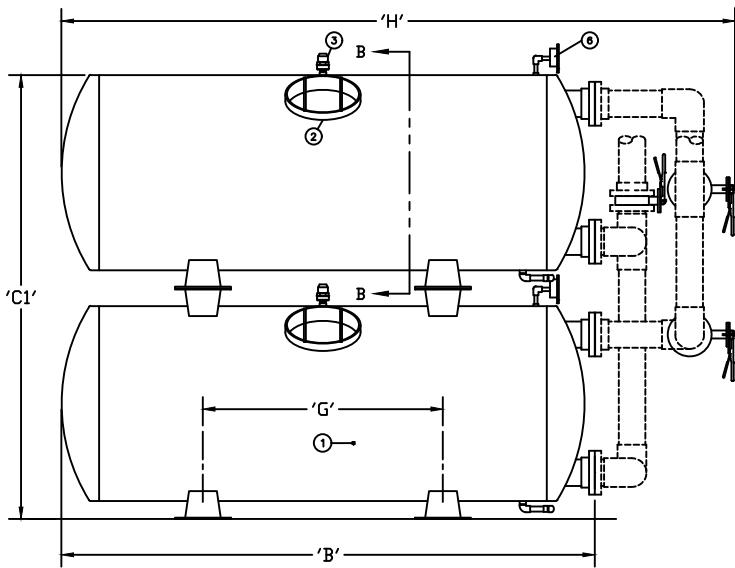
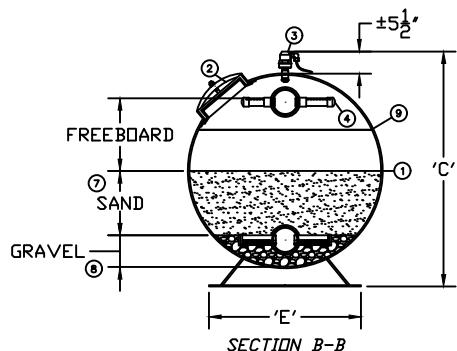
NOTE:  
DASHED FACE PIPING NOT INCLUDED.

Piping  
with  
manual  
linkage



Right side  
2 Right

DUAL STACKED FILTER FRONT ELEVATION



Approval Date: \_\_\_\_\_

Signature: \_\_\_\_\_



Certified to  
NSF/ANSI Standard 50

DWG. NO.	DESCRIPTION	
	DWG. DATE	JOB NAME & LOCATION
1	12/17/18	
	Sheet 1 of 1 Rev 1	CUSTOMER



555 Paddock Parkway  
Rock Hill, SC 29730-1676  
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FIBERGLASS HORIZONTAL FILTERS			
REV	REVISION DESCRIPTION	DATE	

**PADDOCK STACKED FIBERGLASS HORIZONTAL FILTERS**

CATALOG NO.	DIA.	TOTAL FILTER AREA	TOTAL FILTER RATE		TANK CONN. SIZE	OVERDRAIN LAT'S (TOTAL)	UNDERDRAIN LAT'S (TOTAL)	MEDIA PER (2) TANKS (CU FT)	
			15 GPM/FT <sup>2</sup>	15 GPM/FT <sup>2</sup>				SAND	GRAVEL
HZF-32-33	32"	33 FT <sup>2</sup>	495 GPM	247.5 GPM	4"	40	40	21.80	11.38
HZF-34-33	34"	33 FT <sup>2</sup>	495 GPM	247.5 GPM	4"	48	48	23.20	12.12
HZF-36-40	36"	40 FT <sup>2</sup>	600 GPM	300 GPM	6"	48	48	31.28	11.68
HZF-36-46	36"	46 FT <sup>2</sup>	690 GPM	345 GPM	6"	52	52	35.67	13.50
HZF-36-50	36"	50 FT <sup>2</sup>	750 GPM	375 GPM	6"	56	56	39.18	14.90
HZF-42-48	42"	48 FT <sup>2</sup>	720 GPM	360 GPM	6"	40	40	47.50	15.13
HZF-42-54	42"	54 FT <sup>2</sup>	810 GPM	405 GPM	6"	48	48	55.40	15.30
HZF-42-60	42"	60 FT <sup>2</sup>	900 GPM	450 GPM	6"	56	56	59.06	18.88
HZF-42-66	42"	66 FT <sup>2</sup>	990 GPM	495 GPM	6"	64	64	64.60	20.8
HZF-42-70	42"	70 FT <sup>2</sup>	1,050 GPM	525 GPM	6"	72	72	70.60	19.48
HZF-48-46	48"	46 FT <sup>2</sup>	690 GPM	345 GPM	6"	32	32	51.64	12.10
HZF-48-50	48"	50 FT <sup>2</sup>	750 GPM	375 GPM	6"	36	36	59.00	15.88
HZF-48-60	48"	60 FT <sup>2</sup>	900 GPM	450 GPM	6"	44	44	69.28	16.76
HZF-48-68	48"	68 FT <sup>2</sup>	1,020 GPM	510 GPM	6"	56	56	82.00	18.00
HZF-48-74	48"	74 FT <sup>2</sup>	1,110 GPM	555 GPM	6"	64	64	88.10	21.92
HZF-48-84	48"	84 FT <sup>2</sup>	1,260 GPM	630 GPM	6"	72	72	100.00	22.00
HZF-48-92	48"	92 FT <sup>2</sup>	1,380 GPM	690 GPM	6"	80	80	109.90	24.00
HZF-48-100	48"	100 FT <sup>2</sup>	1,500 GPM	750 GPM	6"	88	88	119.68	30.28
HZF-60-70	60"	70 FT <sup>2</sup>	1,050 GPM	525 GPM	6"	44	88	100.00	33.52
HZF-60-80	60"	80 FT <sup>2</sup>	1,200 GPM	600 GPM	6"	52	104	111.12	36.68
HZF-60-92	60"	92 FT <sup>2</sup>	1,380 GPM	690 GPM	6"	64	128	129.64	43.08
HZF-60-104	60"	104 FT <sup>2</sup>	1,560 GPM	780 GPM	6"	72	144	138.68	43.40
HZF-60-120	60"	120 FT <sup>2</sup>	1,800 GPM	900 GPM	8"	84	168	166.48	54.16
HZF-60-134	60"	134 FT <sup>2</sup>	2,010 GPM	1,005 GPM	8"	96	192	186.00	60.40

\*MULTI-TANK SYSTEM IS DESIGNED TO BACKWASH ONE TANK AT A TIME AT 15 GPM PER SQ. FT.

CATALOG NO.	DIM. 'A'	DIM. 'B'	DIM. 'C'	DIM. 'C1'	DIM. 'D'	DIM. 'E'	DIM. 'F'	DIM. 'G'	DIM. 'H'
HZF-32-33	2'-8"	7'-2"	3'-6"	7'-0 1/2"	1'-6 1/2"	2'-10"	1'-0 1/4"	2'-6"	9'-9 3/4"
HZF-34-33	2'-10"	6'-7"	3'-8 3/4"	7'-4 1/2"	1'-8 1/2"	2'-10"	11 5/8"	2'-6"	9'-6"
HZF-36-40	3'-0"	7'-5"	3'-10 3/4"	7'-8 1/2"	1'-10 1/2"	3'-2"	11 5/8"	3'-6"	10'-4"
HZF-36-46	3'-0"	8'-5"	3'-10 3/4"	7'-8 1/2"	1'-10 1/2"	3'-2"	11 5/8"	4'-0"	11'-4"
HZF-36-50	3'-0"	9'-1"	3'-10 3/4"	7'-8 1/2"	1'-10 1/2"	3'-2"	11 5/8"	4'-4"	12'-0"
HZF-42-48	3'-6"	7'-7"	4'-4 3/4"	8'-8 1/2"	2'-4 1/2"	3'-2"	11 5/8"	3'-6"	10'-6"
HZF-42-54	3'-6"	8'-4 1/2"	4'-4 3/4"	8'-8 1/2"	2'-4 1/2"	3'-2"	11 5/8"	4'-0"	11'-3 1/2"
HZF-42-60	3'-6"	9'-3 1/2"	4'-4 3/4"	8'-8 1/2"	2'-4 1/2"	3'-2"	11 5/8"	4'-6"	11'-9"
HZF-42-66	3'-6"	10'-1"	4'-4 3/4"	8'-8 1/2"	2'-4 1/2"	3'-2"	11 5/8"	5'-0"	12'-7"
HZF-42-70	3'-6"	10'-9 1/2"	4'-4 3/4"	8'-8 1/2"	2'-4 1/2"	3'-2"	11 5/8"	5'-6"	13'-8 1/2"
HZF-48-46	4'-0"	6'-0 3/8"	4'-10 3/4"	9'-8 1/2"	2'-10 1/2"	3'-2"	11 5/8"	2'-0"	8'-11 3/8"
HZF-48-50	4'-0"	6'-9 3/8"	4'-10 3/4"	9'-8 1/2"	2'-10 1/2"	3'-2"	11 5/8"	2'-6"	9'-8 3/8"
HZF-48-60	4'-0"	8'-0"	4'-10 3/4"	9'-8 1/2"	2'-10 1/2"	3'-2"	11 5/8"	3'-6"	10'-11"
HZF-48-68	4'-0"	8'-11 3/4"	4'-10 3/4"	9'-8 1/2"	2'-10 1/2"	3'-2"	11 5/8"	4'-0"	11'-11 3/8"
HZF-48-74	4'-0"	9'-9 3/8"	4'-10 3/4"	9'-8 1/2"	2'-10 1/2"	3'-2"	11 5/8"	4'-6"	12'-8 3/8"
HZF-48-84	4'-0"	11'-0 3/4"	4'-10 3/4"	9'-8 1/2"	2'-10 1/2"	3'-2"	11 5/8"	5'-0"	14'-0 3/8"
HZF-48-92	4'-0"	12'-0 3/8"	4'-10 3/4"	9'-8 1/2"	2'-10 1/2"	3'-2"	11 5/8"	5'-6"	14'-2 1/4"
HZF-48-100	4'-0"	12'-11 3/4"	4'-10 3/4"	9'-8 1/2"	2'-10 1/2"	3'-2"	11 5/8"	6'-0"	15'-11 3/8"
HZF-60-70	5'-0"	7'-9 7/8"	5'-10 3/4"	11'-8 1/2"	3'-2 1/2"	5'-5"	15 5/8"	3'-0"	10'-10 7/8"
HZF-60-80	5'-0"	8'-9 7/8"	5'-10 3/4"	11'-8 1/2"	3'-2 1/2"	5'-5"	15 5/8"	3'-3"	11'-8 5/8"
HZF-60-92	5'-0"	10'-1 7/8"	5'-10 3/4"	11'-8 1/2"	3'-2 1/2"	5'-5"	15 5/8"	4'-2"	12'-8 5/8"
HZF-60-104	5'-0"	11'-3 7/8"	5'-10 3/4"	11'-8 1/2"	3'-2 1/2"	5'-5"	15 5/8"	5'-0"	13'-11 5/8"
HZF-60-120	5'-0"	12'-11"	5'-10 3/4"	11'-8 1/2"	3'-2 1/2"	5'-5"	15 5/8"	6'-0"	16'-1 5/8"
HZF-60-134	5'-0"	14'-3 7/8"	5'-10 3/4"	11'-8 1/2"	3'-2 1/2"	5'-5"	15 5/8"	6'-6"	16'-11 5/8"

QTY:2

Lap Pool

DWG. NO.	DWG. DATE	DESCRIPTION	FIBERGLASS HORIZONTAL FILTERS		
			REV	REVISION DESCRIPTION	DATE
101110	7/21/13	JOB NAME & LOCATION USD Wellness Center	-	CHART INFO UPDATED	7/15/13
O	I	CUSTOMER Capri Pools	-	MEDIA QTY'S NOW REFLECT (2) TANKS	7/22/13



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# SPA POOL FILTER

ITEM	DESCRIPTION
1	FIBERGLASS FILTER TANK, WITH FLANGED CONNECTIONS & SADDLES
2	TANK MANWAY ASSEMBLY
3	1" AIR RELEASE
4	SCH. 80 PVC OVERDRAIN HEADER WITH 1 1/2" PVC LATERALS
5	SCH. 80 PVC UNDERDRAIN HEADER W/2" NORYL THREADED LATERALS
6	GAUGE PANEL
7	FILTER SAND (.45 TO .55mm) UNIFORMITY COEFFICIENT </= 1.60
8	1/16 TO 1/8 GRAVEL MEDIA
9	FIBERGLASS BAFFLE PLATES

VALVE LEGEND			
NO.	VALVE DESCRIPTION	FILTER	BACKWASH
2	RETURN TO POOL	<input type="checkbox"/>	X
3	BACKWASH TO WASTE	X	<input type="checkbox"/>
4	FILTER INFLUENT	<input type="checkbox"/>	X
5	BACKWASH INFLUENT	X	<input type="checkbox"/>

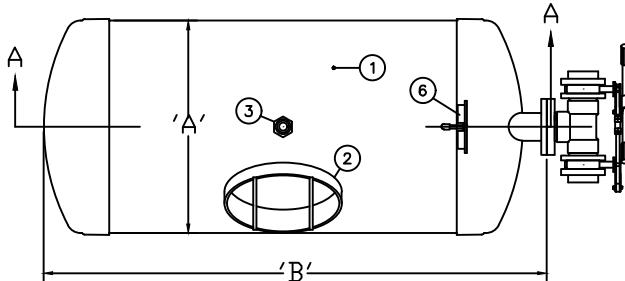
□-OPEN, X-CLOSED

Manway Location Left: \_\_\_\_\_ Right:

## GENERAL NOTES:

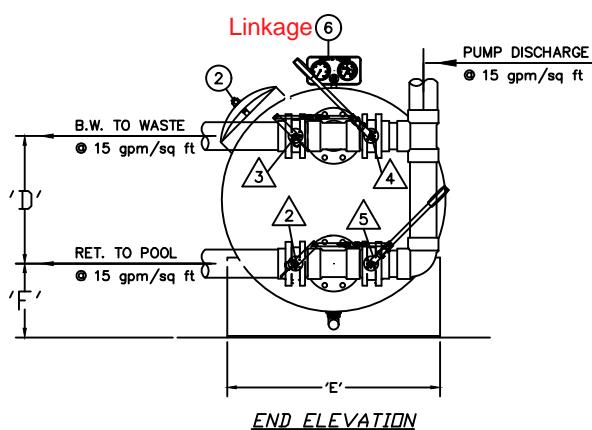
PIPING – SCH. 80 PVC, MAX. VELOCITY LESS THAN 10 FPS. PIPING DEPICTED WITH DASHED LINES NOT SUPPLIED BY PADDOCK.

FILTER WORKING PRESSURE IS 50 PSI.

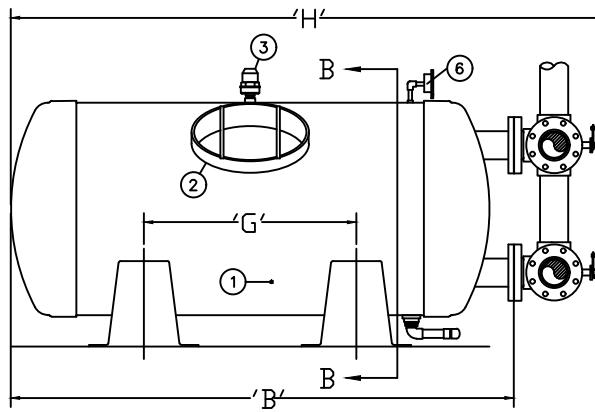


PLAN VIEW

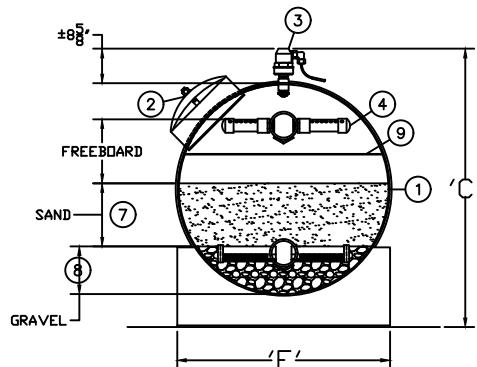
Verify flow rate:  
275 GPM



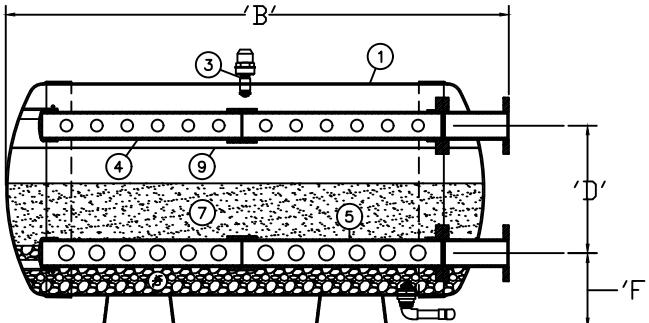
END ELEVATION



SIDE ELEVATION



SECTION B-B



SECTION A-A

## PADDOCK FIBERGLASS HORIZONTAL FILTERS



Certified to  
NSF/ANSI Standard 50

DWG. NO.	DESCRIPTION	FIBERGLASS HORIZONTAL FILTERS		
		REV	REVISION DESCRIPTION	DATE
1	JOB NAME & LOCATION			
1	CUSTOMER			
1	DWG. DATE 12/18/18			
1	REV 1			



**PADDOCK**  
POOL EQUIPMENT COMPANY  
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PADDOCK FIBERGLASS HORIZONTAL FILTERS

CATALOG NO.	DIA.	FILTER AREA	FILTER RATE		TANK CONN. SIZE	OVERDRAIN LAT'S/TANK	UNDERDRAIN LAT'S/TANK	MEDIA PER TANK (CU FT)		
			15 GPM/FT <sup>2</sup>	15 GPM/FT <sup>2</sup>				SAND	GRAVEL	
HZF-32-16.5	32"	16.5 FT <sup>2</sup>	247.5 GPM	247.5 GPM	4"	20	20	10.90	5.69	
HZF-34-16.5	34"	16.5 FT <sup>2</sup>	247.5 GPM	247.5 GPM	4"	24	24	11.60	6.06	
HZF-36-20	36"	20 FT <sup>2</sup>	300 GPM	300 GPM	6"	24	24	15.64	5.84	
HZF-36-23	36"	23 FT <sup>2</sup>	345 GPM	345 GPM	6"	26	26	17.96	6.75	
HZF-36-25	36"	25 FT <sup>2</sup>	375 GPM	375 GPM	6"	28	28	19.59	7.45	
HZF-42-24	42"	24 FT <sup>2</sup>	360 GPM	360 GPM	6"	20	20	23.75	7.56	
HZF-42-27	42"	27 FT <sup>2</sup>	405 GPM	405 GPM	6"	24	24	27.70	7.65	
HZF-42-30	42"	30 FT <sup>2</sup>	450 GPM	450 GPM	6"	28	28	29.53	9.44	
HZF-42-33	42"	33 FT <sup>2</sup>	495 GPM	495 GPM	6"	32	32	32.30	10.40	
HZF-42-35	42"	35 FT <sup>2</sup>	525 GPM	525 GPM	6"	36	36	35.30	9.74	
<b>QTY:1</b>	<b>HZF-48-23</b>	<b>48"</b>	<b>23 FT<sup>2</sup></b>	<b>345 GPM</b>	<b>345 GPM</b>	<b>6"</b>	<b>16</b>	<b>16</b>	<b>25.82</b>	<b>6.05</b>
	HZF-48-25	48"	25 FT <sup>2</sup>	375 GPM	375 GPM	6"	18	18	29.50	7.94
	HZF-48-30	48"	30 FT <sup>2</sup>	450 GPM	450 GPM	6"	22	22	34.64	8.38
	HZF-48-34	48"	34 FT <sup>2</sup>	510 GPM	510 GPM	6"	28	28	41.00	9.00
	HZF-48-37	48"	37 FT <sup>2</sup>	555 GPM	555 GPM	6"	32	32	44.05	10.96
	HZF-48-42	48"	42 FT <sup>2</sup>	630 GPM	630 GPM	6"	36	36	50.00	11.00
	HZF-48-46	48"	46 FT <sup>2</sup>	690 GPM	690 GPM	6"	40	40	54.95	12.00
	HZF-48-50	48"	50 FT <sup>2</sup>	750 GPM	750 GPM	6"	44	44	59.84	15.14
	HZF-60-35	60"	35 FT <sup>2</sup>	525 GPM	525 GPM	6"	22	44	50.00	16.76
	HZF-60-40	60"	40 FT <sup>2</sup>	600 GPM	600 GPM	6"	26	52	55.56	18.34
	HZF-60-46	60"	46 FT <sup>2</sup>	690 GPM	690 GPM	6"	32	64	64.82	21.54
	HZF-60-52	60"	52 FT <sup>2</sup>	780 GPM	780 GPM	6"	36	72	69.34	21.70
	HZF-60-60	60"	60 FT <sup>2</sup>	900 GPM	900 GPM	8"	42	84	83.24	27.08
	HZF-60-67	60"	67 FT <sup>2</sup>	1,005 GPM	1,005 GPM	8"	48	96	93.00	30.20

CATALOG NO.	DIM. 'A'	DIM. 'B'	DIM. 'C'	DIM. 'D'	DIM. 'E'	DIM. 'F'	DIM. 'G'	DIM. 'H'
HZF-32-16.5	2'-8"	7'-2"	3'-6"	1'-6 1/2"	2'-10"	1'-0 1/4"	2'-6"	8'-4 1/2"
HZF-34-16.5	2'-10"	6'-7"	3'-8 3/4"	1'-8 1/2"	2'-10"	11 5/8"	2'-6"	7'-9 1/2"
HZF-36-20	3'-0"	7'-5"	3'-10 3/4"	1'-10 1/2"	3'-2"	11 5/8"	3'-6"	8'-7 1/2"
HZF-36-23	3'-0"	8'-5"	3'-10 3/4"	1'-10 1/2"	3'-2"	11 5/8"	4'-0"	9'-10 3/4"
HZF-36-25	3'-0"	9'-1"	3'-10 3/4"	1'-10 1/2"	3'-2"	11 5/8"	4'-4"	10'-6 3/4"
HZF-42-24	3'-6"	7'-7"	4'-4 3/4"	2'-4 1/2"	3'-2"	11 5/8"	3'-6"	9'-0 3/4"
HZF-42-27	3'-6"	8'-4 1/2"	4'-4 3/4"	2'-4 1/2"	3'-2"	11 5/8"	4'-0"	9'-7"
HZF-42-30	3'-6"	9'-3 1/2"	4'-4 3/4"	2'-4 1/2"	3'-2"	11 5/8"	4'-6"	10'-6"
HZF-42-33	3'-6"	10'-1"	4'-4 3/4"	2'-4 1/2"	3'-2"	11 5/8"	5'-0"	11'-3 1/2"
HZF-42-35	3'-6"	10'-9 1/2"	4'-4 3/4"	2'-4 1/2"	3'-2"	11 5/8"	5'-6"	12'-0"
<b>QTY: 1</b>	<b>HZF-48-23</b>	<b>4'-0"</b>	<b>6'-0 3/8"</b>	<b>4'-10 3/4"</b>	<b>2'-10 1/2"</b>	<b>3'-2"</b>	<b>11 5/8"</b>	<b>2'-0"</b>
	HZF-48-25	4'-0"	6'-9 3/8"	4'-10 3/4"	2'-10 1/2"	3'-2"	11 5/8"	2'-6"
	HZF-48-30	4'-0"	8'-0"	4'-10 3/4"	2'-10 1/2"	3'-2"	11 5/8"	3'-6"
	HZF-48-34	4'-0"	8'-11 3/4"	4'-10 3/4"	2'-10 1/2"	3'-2"	11 5/8"	4'-0"
	HZF-48-37	4'-0"	9'-9 3/8"	4'-10 3/4"	2'-10 1/2"	3'-2"	11 5/8"	4'-6"
	HZF-48-42	4'-0"	11'-0 3/8"	4'-10 3/4"	2'-10 1/2"	3'-2"	11 5/8"	5'-0"
	HZF-48-46	4'-0"	12'-0 3/8"	4'-10 3/4"	2'-10 1/2"	3'-2"	11 5/8"	5'-6"
	HZF-48-50	4'-0"	12'-11 3/4"	4'-10 3/4"	2'-10 1/2"	3'-2"	11 5/8"	6'-0"
	HZF-60-35	5'-0"	7'-9 7/8"	5'-10 3/4"	3'-2 1/2"	5'-5"	15 5/8"	3'-0"
	HZF-60-40	5'-0"	8'-9 7/8"	5'-10 3/4"	3'-2 1/2"	5'-5"	15 5/8"	3'-3"
	HZF-60-46	5'-0"	10'-1 7/8"	5'-10 3/4"	3'-2 1/2"	5'-5"	15 5/8"	4'-2"
	HZF-60-52	5'-0"	11'-3 7/8"	5'-10 3/4"	3'-2 1/2"	5'-5"	15 5/8"	5'-0"
	HZF-60-60	5'-0"	12'-11"	5'-10 3/4"	3'-2 1/2"	5'-5"	15 5/8"	6'-0"
	HZF-60-67	5'-0"	14'-3 7/8"	5'-10 3/4"	3'-2 1/2"	5'-5"	15 5/8"	6'-6"
								15'-6 3/8"

DNC NO.	DRAWING DATE	DESCRIPTION	FIBERGLASS HORIZONTAL FILTERS		
			REV	REVISION DESCRIPTION	DATE
I	O	JOB NAME & LOCATION USD Wellness Center	-	CHART INFO UPDATE	7/15/13
		CUSTOMER Capri Pools			



555 Paddock Parkway  
Rock Hill, SC 29730-1676  
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Fax: (803)324-1116

# ACTIVITY POOL FILTER

ITEM	DESCRIPTION
1	FIBERGLASS FILTER TANK, WITH FLANGED CONNECTIONS & SADDLES
2	TANK MANWAY ASSEMBLY
3	1" AIR RELEASE
4	SCH. 80 PVC OVERDRAIN HEADER WITH 1 1/2" PVC LATERALS
5	SCH. 80 PVC UNDERDRAIN HEADER W/2" NORYL THREADED LATERALS
6	GAUGE PANEL
7	FILTER SAND (.45 TO .55mm) UNIFORMITY COEFFICIENT </= 1.60
8	1/16 TO 1/8 GRAVEL MEDIA
9	FIBERGLASS BAFFLE PLATES

VALVE LEGEND			
NO.	VALVE DESCRIPTION	FILTER	BACKWASH
2	RETURN TO POOL	<input type="checkbox"/>	X
3	BACKWASH TO WASTE	X	<input type="checkbox"/>
4	FILTER INFLUENT	<input type="checkbox"/>	X
5	BACKWASH INFLUENT	X	<input type="checkbox"/>

□-OPEN, X-CLOSED

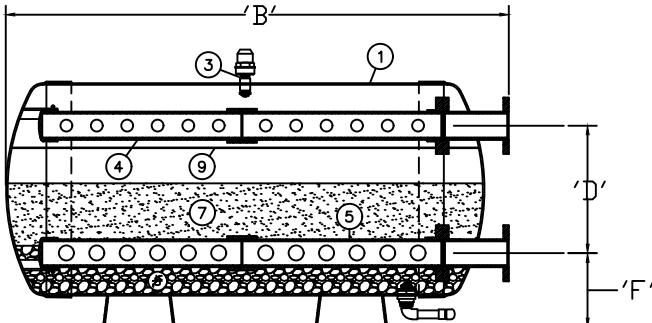
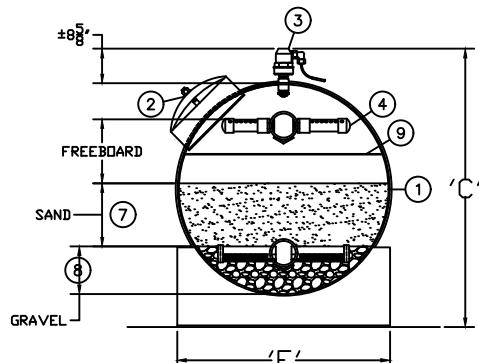
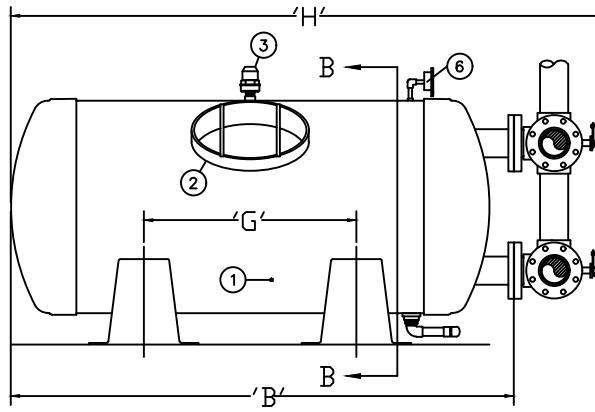
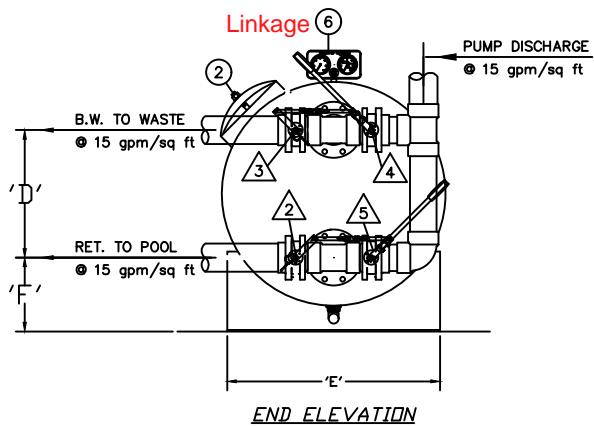
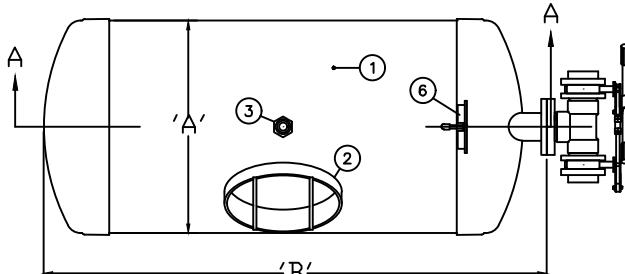
Manway Location Left: \_\_\_\_\_ Right: ✓

## GENERAL NOTES:

PIPING – SCH. 80 PVC, MAX. VELOCITY LESS THAN 10 FPS. PIPING DEPICTED WITH DASHED LINES NOT SUPPLIED BY PADDOCK.

FILTER WORKING PRESSURE IS 50 PSI.

Verify Flow Rate:  
275 GPM



**ACTIVITY POOL FILTER TO BE STACKED ON TOP OF SPA FILTER  
PADDOCK FIBERGLASS HORIZONTAL FILTERS**



Certified to  
NSF/ANSI Standard 50

DWG. NO.	DESCRIPTION	FIBERGLASS HORIZONTAL FILTERS		
		REV	REVISION DESCRIPTION	DATE
1	JOB NAME & LOCATION			
1	CUSTOMER			
1	12/18/18			
1	REV 1			



555 Paddock Parkway  
Rock Hill, SC 29730-1676  
[info@paddockindustries.com](mailto:info@paddockindustries.com)

(800)849-2729  
Fax:(803)324-1116

PADDOCK FIBERGLASS HORIZONTAL FILTERS

CATALOG NO.	DIA.	FILTER AREA	FILTER RATE	BACKWASH RATE*	TANK CONN. SIZE	OVERDRAIN LAT'S/TANK	UNDERDRAIN LAT'S/TANK	MEDIA PER TANK (CU FT)		
								SAND	GRAVEL	
HZF-32-16.5	32"	16.5 FT <sup>2</sup>	247.5 GPM	247.5 GPM	4"	20	20	10.90	5.69	
HZF-34-16.5	34"	16.5 FT <sup>2</sup>	247.5 GPM	247.5 GPM	4"	24	24	11.60	6.06	
HZF-36-20	36"	20 FT <sup>2</sup>	300 GPM	300 GPM	6"	24	24	15.64	5.84	
HZF-36-23	36"	23 FT <sup>2</sup>	345 GPM	345 GPM	6"	26	26	17.96	6.75	
HZF-36-25	36"	25 FT <sup>2</sup>	375 GPM	375 GPM	6"	28	28	19.59	7.45	
HZF-42-24	42"	24 FT <sup>2</sup>	360 GPM	360 GPM	6"	20	20	23.75	7.56	
HZF-42-27	42"	27 FT <sup>2</sup>	405 GPM	405 GPM	6"	24	24	27.70	7.65	
HZF-42-30	42"	30 FT <sup>2</sup>	450 GPM	450 GPM	6"	28	28	29.53	9.44	
HZF-42-33	42"	33 FT <sup>2</sup>	495 GPM	495 GPM	6"	32	32	32.30	10.40	
HZF-42-35	42"	35 FT <sup>2</sup>	525 GPM	525 GPM	6"	36	36	35.30	9.74	
<b>QTY:1</b>	<b>HZF-48-23</b>	<b>48"</b>	<b>23 FT<sup>2</sup></b>	<b>345 GPM</b>	<b>345 GPM</b>	<b>6"</b>	<b>16</b>	<b>16</b>	<b>25.82</b>	<b>6.05</b>
	HZF-48-25	48"	25 FT <sup>2</sup>	375 GPM	375 GPM	6"	18	18	29.50	7.94
	HZF-48-30	48"	30 FT <sup>2</sup>	450 GPM	450 GPM	6"	22	22	34.64	8.38
	HZF-48-34	48"	34 FT <sup>2</sup>	510 GPM	510 GPM	6"	28	28	41.00	9.00
	HZF-48-37	48"	37 FT <sup>2</sup>	555 GPM	555 GPM	6"	32	32	44.05	10.96
	HZF-48-42	48"	42 FT <sup>2</sup>	630 GPM	630 GPM	6"	36	36	50.00	11.00
	HZF-48-46	48"	46 FT <sup>2</sup>	690 GPM	690 GPM	6"	40	40	54.95	12.00
	HZF-48-50	48"	50 FT <sup>2</sup>	750 GPM	750 GPM	6"	44	44	59.84	15.14
	HZF-60-35	60"	35 FT <sup>2</sup>	525 GPM	525 GPM	6"	22	44	50.00	16.76
	HZF-60-40	60"	40 FT <sup>2</sup>	600 GPM	600 GPM	6"	26	52	55.56	18.34
	HZF-60-46	60"	46 FT <sup>2</sup>	690 GPM	690 GPM	6"	32	64	64.82	21.54
	HZF-60-52	60"	52 FT <sup>2</sup>	780 GPM	780 GPM	6"	36	72	69.34	21.70
	HZF-60-60	60"	60 FT <sup>2</sup>	900 GPM	900 GPM	8"	42	84	83.24	27.08
	HZF-60-67	60"	67 FT <sup>2</sup>	1,005 GPM	1,005 GPM	8"	48	96	93.00	30.20

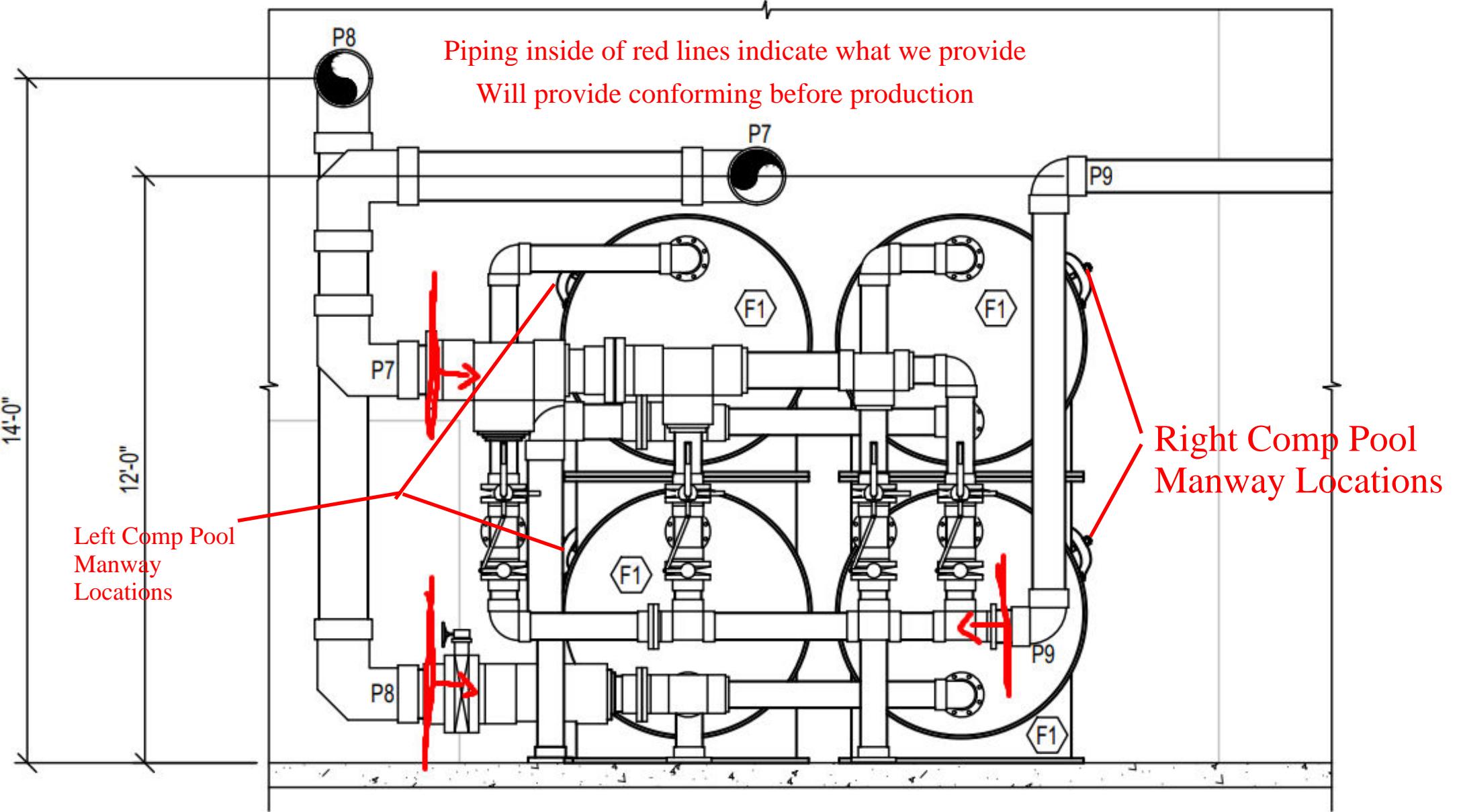
CATALOG NO.	DIM. 'A'	DIM. 'B'	DIM. 'C'	DIM. 'D'	DIM. 'E'	DIM. 'F'	DIM. 'G'	DIM. 'H'
HZF-32-16.5	2'-8"	7'-2"	3'-6"	1'-6 1/2"	2'-10"	1'-0 1/4"	2'-6"	8'-4 1/2"
HZF-34-16.5	2'-10"	6'-7"	3'-8 3/4"	1'-8 1/2"	2'-10"	11 5/8"	2'-6"	7'-9 1/2"
HZF-36-20	3'-0"	7'-5"	3'-10 3/4"	1'-10 1/2"	3'-2"	11 5/8"	3'-6"	8'-7 1/2"
HZF-36-23	3'-0"	8'-5"	3'-10 3/4"	1'-10 1/2"	3'-2"	11 5/8"	4'-0"	9'-10 3/4"
HZF-36-25	3'-0"	9'-1"	3'-10 3/4"	1'-10 1/2"	3'-2"	11 5/8"	4'-4"	10'-6 3/4"
HZF-42-24	3'-6"	7'-7"	4'-4 3/4"	2'-4 1/2"	3'-2"	11 5/8"	3'-6"	9'-0 3/4"
HZF-42-27	3'-6"	8'-4 1/2"	4'-4 3/4"	2'-4 1/2"	3'-2"	11 5/8"	4'-0"	9'-7"
HZF-42-30	3'-6"	9'-3 1/2"	4'-4 3/4"	2'-4 1/2"	3'-2"	11 5/8"	4'-6"	10'-6"
HZF-42-33	3'-6"	10'-1"	4'-4 3/4"	2'-4 1/2"	3'-2"	11 5/8"	5'-0"	11'-3 1/2"
HZF-42-35	3'-6"	10'-9 1/2"	4'-4 3/4"	2'-4 1/2"	3'-2"	11 5/8"	5'-6"	12'-0"
<b>QTY: 1</b>	<b>HZF-48-23</b>	<b>4'-0"</b>	<b>6'-0 3/8"</b>	<b>4'-10 3/4"</b>	<b>2'-10 1/2"</b>	<b>3'-2"</b>	<b>11 5/8"</b>	<b>2'-0"</b>
	HZF-48-25	4'-0"	6'-9 3/8"	4'-10 3/4"	2'-10 1/2"	3'-2"	11 5/8"	2'-6"
	HZF-48-30	4'-0"	8'-0"	4'-10 3/4"	2'-10 1/2"	3'-2"	11 5/8"	3'-6"
	HZF-48-34	4'-0"	8'-11 3/4"	4'-10 3/4"	2'-10 1/2"	3'-2"	11 5/8"	9'-5 3/4"
	HZF-48-37	4'-0"	9'-9 3/8"	4'-10 3/4"	2'-10 1/2"	3'-2"	11 5/8"	4'-0"
	HZF-48-42	4'-0"	11'-0 3/8"	4'-10 3/4"	2'-10 1/2"	3'-2"	11 5/8"	10'-2 1/4"
	HZF-48-46	4'-0"	12'-0 3/8"	4'-10 3/4"	2'-10 1/2"	3'-2"	11 5/8"	5'-0"
	HZF-48-50	4'-0"	12'-11 3/4"	4'-10 3/4"	2'-10 1/2"	3'-2"	11 5/8"	12'-9"
	HZF-60-35	5'-0"	7'-9 7/8"	5'-10 3/4"	3'-2 1/2"	5'-5"	15 5/8"	3'-0"
	HZF-60-40	5'-0"	8'-9 7/8"	5'-10 3/4"	3'-2 1/2"	5'-5"	15 5/8"	3'-3"
	HZF-60-46	5'-0"	10'-1 7/8"	5'-10 3/4"	3'-2 1/2"	5'-5"	15 5/8"	4'-2"
	HZF-60-52	5'-0"	11'-3 7/8"	5'-10 3/4"	3'-2 1/2"	5'-5"	15 5/8"	5'-0"
	HZF-60-60	5'-0"	12'-11"	5'-10 3/4"	3'-2 1/2"	5'-5"	15 5/8"	6'-0"
	HZF-60-67	5'-0"	14'-3 7/8"	5'-10 3/4"	3'-2 1/2"	5'-5"	15 5/8"	6'-6"
								15'-6 3/8"

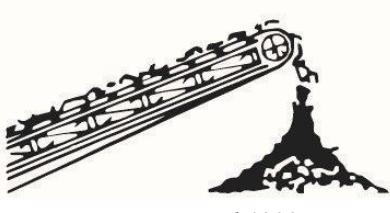
DNC NO.	DRAWING DATE	DESCRIPTION	FIBERGLASS HORIZONTAL FILTERS		
			REV	REVISION DESCRIPTION	DATE
I	O	JOB NAME & LOCATION USD Wellness Center	-	CHART INFO UPDATE	7/15/13
		CUSTOMER Capri Pools			



555 Paddock Parkway  
Rock Hill, SC 29730-1676  
info@paddockindustries.com

(800)849-2729  
Fax: (803)324-1116





Incorporated 1933

# SOUTHERN PRODUCTS & SILICA COMPANY



Certified to  
NSF/ANSI 61

## Filter Sand & Gravel - Industrial Sand - Well Gravel Packs - Quartz Gravel - Epoxy Aggregate

Plant located at 4303 U.S. Highway 1 North, Hoffman, NC 28347

P.O. Drawer 189  
Hoffman, NC 28326

[www.sandandgravel.net](http://www.sandandgravel.net)  
Fax: 910-281-3815 Sales Orders  
Fax: 910-281-3213 Administration

Phone: 910-281-3189  
Toll Free: 800-572-6348

### General Information / Technical Data

Our materials are hard quartzite, sub-angular sand and rounded gravel, free of clay, silt, iron, mica and other foreign matter. All filtering material is washed, screen-sized, washed and sized again according to current American Water Works Association B100 Standards for Filtering Materials and are NSF listed.

#### Water Filter Sand and Gravel

##### Filter Sand

Effective Size (ES)	Uniformity Coefficient (UC)
.45mm-.55mm	U.C. 1.6 or less
.80mm-1.20mm	U.C. 1.6 or less
2.0mm-3.0mm	U.C. 1.6 or less

Custom Filter Sand ES and UC Available Upon Request

##### Filter Gravel

2 1/2 x 1 1/2	1/2 x 1/4
1 1/2 x 1	3/8 x 3/16
1 1/2 x 3/4	1/4 x 1/8
1 x 5/8	3/16 x #10
1 x 1/2	#5 x #16
3/4 x 1/2	1/8 x 1/16
5/8 x 3/8	1/8 x #16

#### Chemical Analysis (% By Weight)

Calcium (Ca)	<0.01%
Calcium Oxide (CaO)	<0.01%
Calcium Carbonate (CaCO <sub>3</sub> )	<0.01%
Magnesium (Mg)	0.05%
Magnesium Oxide (MgO)	0.09%
Magnesium Carbonate (MgCO <sub>3</sub> )	0.19%
Iron Oxide (Fe <sub>2</sub> O <sub>3</sub> )	0.03%
Aluminum Oxide (Al <sub>2</sub> O <sub>3</sub> )	0.17%
Silicon (Si)	46.56%
Silicon Dioxide (SiO <sub>2</sub> )	99.61%
Sulfur Trioxide (SO <sub>3</sub> )	0.04%
Manganese (Mn)	<0.01%
Loss on Ignition	0.14%

#### Industrial Sand

Grade	Approximate Sieve Size
Ultra Fine	30-140
Extra Fine	25-80
Fine	10-45
Medium	8-30
Coarse	4-20

#### Well Gravel Packs

Product	Approximate Sieve Size
Gravel Pack #1	16-50
Gravel Pack #1A	10-40
Gravel Pack #2	7-35
Gravel Pack #3	5-20
Gravel Pack #4	4-12

#### Quartz Gravel for Catalyst Support

1 1/2 x 3/4 / 1 1/4 x 3/4 / 1 x 1/2

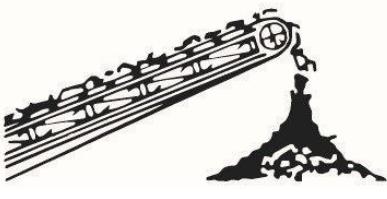
#### Epoxy Aggregates

Available in various sizes.

#### Geothermal Sand

Our Geothermal Sand has been used extensively throughout the Industry

Ask about special sizing and gradation requirements.



Incorporated 1933

# SOUTHERN PRODUCTS & SILICA COMPANY



**Filter Sand & Gravel - Industrial Sand - Well Gravel Packs - Quartz Gravel - Epoxy Aggregates**

## Assurance of Quality

Full service laboratory testing continually monitors sand & gravel specifications for compliance with standards. All filtering materials meet current AWWA B100 standards and are NSF listed. Certified testing analysis is available on all filter sand and gravel shipments.

## Transportation

All material can be shipped by truck, bagged or bulk.

## Packaging

Products are bagged in .5 cu. ft. or 1.0 cu. ft. clear plastic bags (LDPE), or woven 3000 lb. super sacks. Dry palletized bags are shrink-wrapped and have a top cover sheet that provides both rain and UV protection. All material is quoted with pallet. Pallets are Non-Stackable 40"x40", 40"x44", or 40"x48". Heat Treated Option For Export. You can also order our material bulk, delivered via dump bed or pneumatic tanker.

## Pricing

Prices for all materials depend on selected packaging options.  
Prices are quoted F.O.B. Hoffman, NC

## Ordering Information

Our sales staff will be pleased to assist you between the hours of 8 A.M. and 4:00 P.M.,  
Monday - Friday. Please Call or Email:

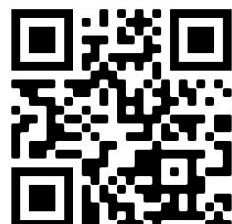
**SOUTHERN PRODUCTS & SILICA COMPANY**  
**POST OFFICE DRAWER 189**  
**4303 U.S. HIGHWAY 1 NORTH**  
**HOFFMAN, NC 28347**

**TOLL FREE: 800-572-6348**

**PHONE: 910-281-3189**

**FAX: 910-281-3815 SALES ORDERS**

**FAX: 910-281-3213 ADMINISTRATIVE**



**AIR RELIEF/Vent Valve: PVC, PVC,  
¾ IN Inlet Size, FNPT Connection**

232 psi Max. Pressure

Item # 4GPP3

Mfr. Model 4GPP3

**PN 700901**



Description:

For use in water distribution and steam systems, these vent valves can help to eliminate pockets of air.

## Product Details

Inlet Size	<b>3/4 in</b>	Vent Dia.	<b>¾ in.</b>
Body Material	<b>PVC</b>	Vent Height	<b>18 in</b>
Connection Type	<b>FNPT</b>	Product Type	<b>Vent Valve</b>
Float Material	<b>PVC</b>	Manufacturer #	<b>4GPP3</b>
Max. Pressure	<b>232 psi</b>	UNSPSC	<b>40141606</b>
Min. Pressure	<b>1 psi</b>	Country of Origin	<b>Italy (subject to change)</b>
Temp. Range	<b>33° to 240°F</b>		



Paddock Pool Equipment Company, Inc.  
555 Paddock Parkway  
Rock Hill, SC 29730  
United States of America

Ph: 803-324-1111

**Submittal**

Number: QUO22465 Date: **24-Mar-23**

**To:**

Capri Pools & Aquatics  
22 Gateway Commerce Center Dr. W. Suite 110  
Edwardsville IL 62025  
United States

Liz Crawford

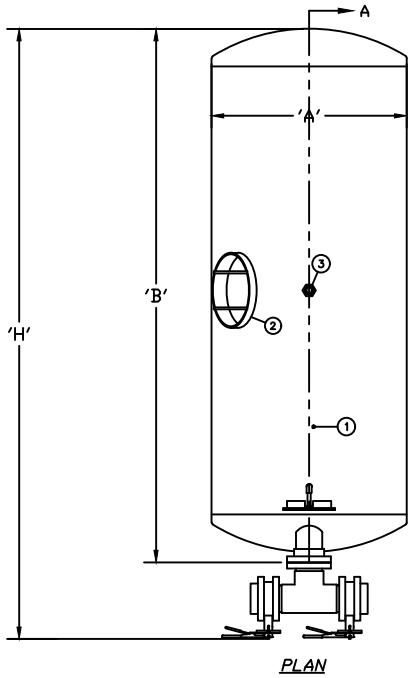
**EMAIL:** [lcrawford@capripool.com](mailto:lcrawford@capripool.com)

**PHONE #:** 618 219 4882

**Project Name:** **USD Wellness Center**

**Project Manager:** Trevor Ottley  
[ottley@paddockindustries.com](mailto:ottley@paddockindustries.com)  
**PHONE #:** 803-372-6088

Qty	Description	Drawing	Approval
2	<b>HZ-FBG-60-92 Stacked Filter,Paddock,Horizontal,FiberGlass,(2) 60-46</b>  Stacked Filter,Paddock,Horizontal,FiberGlass,(2) 60-46 Gauges, Air Relief, Media, Lap Pool - 2 stack 60-92 (4 filters) with full face piping and manual linkage per plan AQ7.	Cut Sheet	
1	<b>HZ-FBG-48-23 Filter,Paddock,Horizontal,FiberGlass,48-23</b>  Filter,Paddock,Horizontal,FiberGlass,48-23 - Spa - 48-23 filter in stack configuration with 3 tees, 1 elbow, 4 valves per plan AQ7.1 - INCLUDE STACK SADDLES ON TOP OF THIS FILTER ONLY TO FACILITATE STACKING WITH THE LIKE FILTER BELOW.	Cut Sheet	
1	<b>HZ-FBG-48-23 Filter,Paddock,Horizontal,FiberGlass,48-23</b>  Filter,Paddock,Horizontal,FiberGlass,48-23 - Activity - 48-23 filter in stack configuration with 3 tees, 1 elbow, 4 valves per plan AQ7.1 -- Top Filter - Filters stacked for space consideration but operating independently.	Cut Sheet	



QTY 2 Units

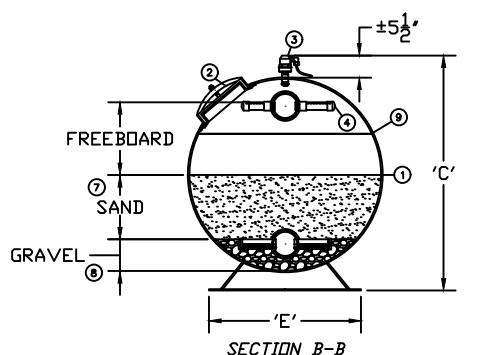
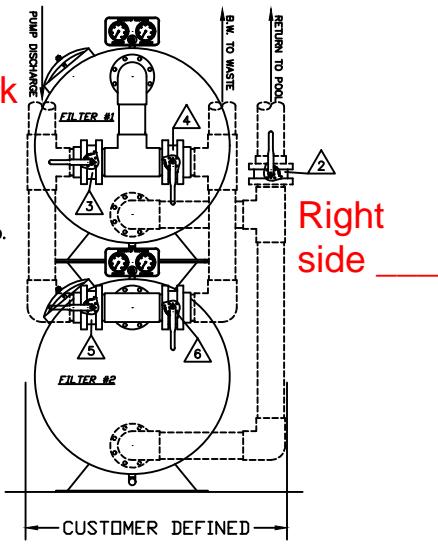
PLAN

Need actual flow rate for label \_\_\_\_\_

Mark Manway  
Location on tank  
Left side \_\_\_\_\_

NOTE:  
DASHED FACE PIPING NOT INCLUDED.

Piping  
with  
manual  
linkage



VALVE LEGEND				
NO.	VALVE DESCRIPTION	FILTER	BACKWASH FILTER #1	BACKWASH FILTER #2
2	RETURN TO POOL	□	X	X
3	FILTER INFLUENT #1	□	X	□
4	FILTER EFFLUENT (B.W. #1)	X	□	X
5	FILTER INFLUENT #2	□	□	X
6	FILTER EFFLUENT (B.W. #2)	X	X	□
7	BACKWASH CONTROL VALVE	□	□	□

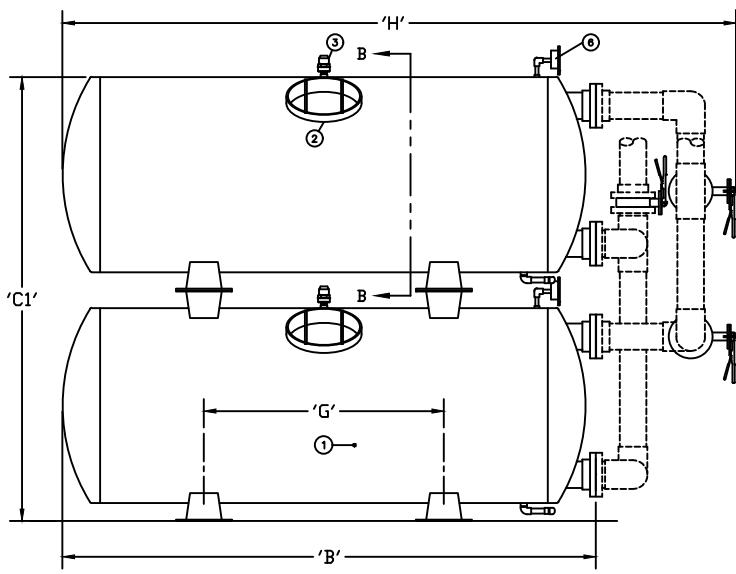
□-OPEN, X-CLOSED

ITEM	DESCRIPTION
1	FIBERGLASS FILTER TANK, WITH FLANGED CONNECTIONS & SADDLES
2	TANK MANWAY ASSEMBLY
3	1" AIR RELEASE
4	SCH. 80 PVC OVERDRAIN HEADER WITH 1 1/2" PVC LATERALS
5	SCH. 80 PVC UNDERDRAIN HEADER W/2" NORYL THREADED LATERALS
6	GAUGE PANEL
7	FILTER SAND (.45 TO .55mm) UNIFORMITY COEFFICIENT </= 1.60
8	1/16 TD 1/8 GRAVEL MEDIA
9	FIBERGLASS BAFFLE PLATES

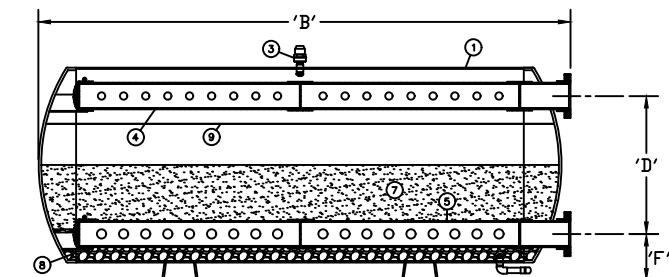
GENERAL NOTES:

PIPING – SCH. 80 PVC, MAX. VELOCITY LESS THAN 10 FPS. PIPING DEPICTED WITH DASHED LINES AND BACKWASH CONTROL VALVE NOT SUPPLIED BY PADDOCK.

FILTER WORKING PRESSURE IS 50 PSI. TEST PRESSURE IS 65 PSI.



DUAL STACKED FILTER SIDE ELEVATION



SECTION A-A



Certified to  
NSF/ANSI Standard 50

DWG. NO.	DESCRIPTION
12/17/18	JOB NAME & LOCATION
Sheet 1 of 1 Rev. 1	CUSTOMER



**PADDOCK**  
POOL EQUIPMENT COMPANY  
555 Paddock Parkway  
Rock Hill, SC 29730-1676  
info@paddockindustries.com

(800)849-2729  
Fax: (803)324-1116

FIBERGLASS HORIZONTAL FILTERS			
REV	REVISION DESCRIPTION	DATE	

**PADDOCK STACKED FIBERGLASS HORIZONTAL FILTERS**

CATALOG NO.	DIA.	TOTAL FILTER AREA	TOTAL FILTER RATE		TANK CONN. SIZE	OVERDRAIN LAT'S (TOTAL)	UNDERDRAIN LAT'S (TOTAL)	MEDIA PER (2) TANKS (CU FT)	
			15 GPM/FT <sup>2</sup>	15 GPM/FT <sup>2</sup>				SAND	GRAVEL
HZF-32-33	32"	33 FT <sup>2</sup>	495 GPM	247.5 GPM	4"	40	40	21.80	11.38
HZF-34-33	34"	33 FT <sup>2</sup>	495 GPM	247.5 GPM	4"	48	48	23.20	12.12
HZF-36-40	36"	40 FT <sup>2</sup>	600 GPM	300 GPM	6"	48	48	31.28	11.68
HZF-36-46	36"	46 FT <sup>2</sup>	690 GPM	345 GPM	6"	52	52	35.67	13.50
HZF-36-50	36"	50 FT <sup>2</sup>	750 GPM	375 GPM	6"	56	56	39.18	14.90
HZF-42-48	42"	48 FT <sup>2</sup>	720 GPM	360 GPM	6"	40	40	47.50	15.13
HZF-42-54	42"	54 FT <sup>2</sup>	810 GPM	405 GPM	6"	48	48	55.40	15.30
HZF-42-60	42"	60 FT <sup>2</sup>	900 GPM	450 GPM	6"	56	56	59.06	18.88
HZF-42-66	42"	66 FT <sup>2</sup>	990 GPM	495 GPM	6"	64	64	64.60	20.8
HZF-42-70	42"	70 FT <sup>2</sup>	1,050 GPM	525 GPM	6"	72	72	70.60	19.48
HZF-48-46	48"	46 FT <sup>2</sup>	690 GPM	345 GPM	6"	32	32	51.64	12.10
HZF-48-50	48"	50 FT <sup>2</sup>	750 GPM	375 GPM	6"	36	36	59.00	15.88
HZF-48-60	48"	60 FT <sup>2</sup>	900 GPM	450 GPM	6"	44	44	69.28	16.76
HZF-48-68	48"	68 FT <sup>2</sup>	1,020 GPM	510 GPM	6"	56	56	82.00	18.00
HZF-48-74	48"	74 FT <sup>2</sup>	1,110 GPM	555 GPM	6"	64	64	88.10	21.92
HZF-48-84	48"	84 FT <sup>2</sup>	1,260 GPM	630 GPM	6"	72	72	100.00	22.00
HZF-48-92	48"	92 FT <sup>2</sup>	1,380 GPM	690 GPM	6"	80	80	109.90	24.00
HZF-48-100	48"	100 FT <sup>2</sup>	1,500 GPM	750 GPM	6"	88	88	119.68	30.28
HZF-60-70	60"	70 FT <sup>2</sup>	1,050 GPM	525 GPM	6"	44	88	100.00	33.52
HZF-60-80	60"	80 FT <sup>2</sup>	1,200 GPM	600 GPM	6"	52	104	111.12	36.68
HZF-60-92	60"	92 FT <sup>2</sup>	1,380 GPM	690 GPM	6"	64	128	129.64	43.08
HZF-60-104	60"	104 FT <sup>2</sup>	1,560 GPM	780 GPM	6"	72	144	138.68	43.40
HZF-60-120	60"	120 FT <sup>2</sup>	1,800 GPM	900 GPM	8"	84	168	166.48	54.16
HZF-60-134	60"	134 FT <sup>2</sup>	2,010 GPM	1,005 GPM	8"	96	192	186.00	60.40

\*MULTI-TANK SYSTEM IS DESIGNED TO BACKWASH ONE TANK AT A TIME AT 15 GPM PER SQ. FT.

CATALOG NO.	DIM. 'A'	DIM. 'B'	DIM. 'C'	DIM. 'C1'	DIM. 'D'	DIM. 'E'	DIM. 'F'	DIM. 'G'	DIM. 'H'
HZF-32-33	2'-8"	7'-2"	3'-6"	7'-0 1/2"	1'-6 1/2"	2'-10"	1'-0 1/4"	2'-6"	9'-9 3/4"
HZF-34-33	2'-10"	6'-7"	3'-8 3/4"	7'-4 1/2"	1'-8 1/2"	2'-10"	11 5/8"	2'-6"	9'-6"
HZF-36-40	3'-0"	7'-5"	3'-10 3/4"	7'-8 1/2"	1'-10 1/2"	3'-2"	11 5/8"	3'-6"	10'-4"
HZF-36-46	3'-0"	8'-5"	3'-10 3/4"	7'-8 1/2"	1'-10 1/2"	3'-2"	11 5/8"	4'-0"	11'-4"
HZF-36-50	3'-0"	9'-1"	3'-10 3/4"	7'-8 1/2"	1'-10 1/2"	3'-2"	11 5/8"	4'-4"	12'-0"
HZF-42-48	3'-6"	7'-7"	4'-4 3/4"	8'-8 1/2"	2'-4 1/2"	3'-2"	11 5/8"	3'-6"	10'-6"
HZF-42-54	3'-6"	8'-4 1/2"	4'-4 3/4"	8'-8 1/2"	2'-4 1/2"	3'-2"	11 5/8"	4'-0"	11'-3 1/2"
HZF-42-60	3'-6"	9'-3 1/2"	4'-4 3/4"	8'-8 1/2"	2'-4 1/2"	3'-2"	11 5/8"	4'-6"	11'-9"
HZF-42-66	3'-6"	10'-1"	4'-4 3/4"	8'-8 1/2"	2'-4 1/2"	3'-2"	11 5/8"	5'-0"	12'-7"
HZF-42-70	3'-6"	10'-9 1/2"	4'-4 3/4"	8'-8 1/2"	2'-4 1/2"	3'-2"	11 5/8"	5'-6"	13'-8 1/2"
HZF-48-46	4'-0"	6'-0 3/8"	4'-10 3/4"	9'-8 1/2"	2'-10 1/2"	3'-2"	11 5/8"	2'-0"	8'-11 3/8"
HZF-48-50	4'-0"	6'-9 3/8"	4'-10 3/4"	9'-8 1/2"	2'-10 1/2"	3'-2"	11 5/8"	2'-6"	9'-8 3/8"
HZF-48-60	4'-0"	8'-0"	4'-10 3/4"	9'-8 1/2"	2'-10 1/2"	3'-2"	11 5/8"	3'-6"	10'-11"
HZF-48-68	4'-0"	8'-11 3/4"	4'-10 3/4"	9'-8 1/2"	2'-10 1/2"	3'-2"	11 5/8"	4'-0"	11'-11 3/8"
HZF-48-74	4'-0"	9'-9 3/8"	4'-10 3/4"	9'-8 1/2"	2'-10 1/2"	3'-2"	11 5/8"	4'-6"	12'-8 3/8"
HZF-48-84	4'-0"	11'-0 3/4"	4'-10 3/4"	9'-8 1/2"	2'-10 1/2"	3'-2"	11 5/8"	5'-0"	14'-0 3/8"
HZF-48-92	4'-0"	12'-0 3/8"	4'-10 3/4"	9'-8 1/2"	2'-10 1/2"	3'-2"	11 5/8"	5'-6"	14'-2 1/4"
HZF-48-100	4'-0"	12'-11 3/4"	4'-10 3/4"	9'-8 1/2"	2'-10 1/2"	3'-2"	11 5/8"	6'-0"	15'-11 3/8"
HZF-60-70	5'-0"	7'-9 7/8"	5'-10 3/4"	11'-8 1/2"	3'-2 1/2"	5'-5"	15 5/8"	3'-0"	10'-10 7/8"
HZF-60-80	5'-0"	8'-9 7/8"	5'-10 3/4"	11'-8 1/2"	3'-2 1/2"	5'-5"	15 5/8"	3'-3"	11'-8 5/8"
HZF-60-92	5'-0"	10'-1 7/8"	5'-10 3/4"	11'-8 1/2"	3'-2 1/2"	5'-5"	15 5/8"	4'-2"	12'-8 5/8"
HZF-60-104	5'-0"	11'-3 7/8"	5'-10 3/4"	11'-8 1/2"	3'-2 1/2"	5'-5"	15 5/8"	5'-0"	13'-11 5/8"
HZF-60-120	5'-0"	12'-11"	5'-10 3/4"	11'-8 1/2"	3'-2 1/2"	5'-5"	15 5/8"	6'-0"	16'-1 5/8"
HZF-60-134	5'-0"	14'-3 7/8"	5'-10 3/4"	11'-8 1/2"	3'-2 1/2"	5'-5"	15 5/8"	6'-6"	16'-11 5/8"

QTY:2

Lap Pool

DWG. NO.	DWG. DATE	DESCRIPTION	FIBERGLASS HORIZONTAL FILTERS		
			REV	REVISION DESCRIPTION	DATE
101110	7/21/13	JOB NAME & LOCATION USD Wellness Center	-	CHART INFO UPDATED	7/15/13
O	I	CUSTOMER Capri Pools	-	MEDIA QTY'S NOW REFLECT (2) TANKS	7/22/13



555 Paddock Parkway  
Rock Hill, SC 29730-1676  
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(800)849-2729  
Fax: (803)324-1116

# SPA POOL FILTER

ITEM	DESCRIPTION
1	FIBERGLASS FILTER TANK, WITH FLANGED CONNECTIONS & SADDLES
2	TANK MANWAY ASSEMBLY
3	1" AIR RELEASE
4	SCH. 80 PVC OVERDRAIN HEADER WITH 1 1/2" PVC LATERALS
5	SCH. 80 PVC UNDERDRAIN HEADER W/2" NORYL THREADED LATERALS
6	GAUGE PANEL
7	FILTER SAND (.45 TO .55mm) UNIFORMITY COEFFICIENT </= 1.60
8	1/16 TO 1/8 GRAVEL MEDIA
9	FIBERGLASS BAFFLE PLATES

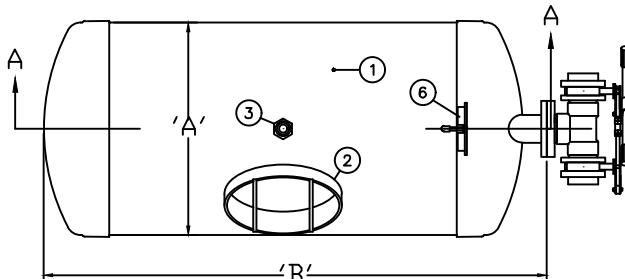
VALVE LEGEND			
NO.	VALVE DESCRIPTION	FILTER	BACKWASH
2	RETURN TO POOL	<input type="checkbox"/>	X
3	BACKWASH TO WASTE	X	<input type="checkbox"/>
4	FILTER INFLUENT	<input type="checkbox"/>	X
5	BACKWASH INFLUENT	X	<input type="checkbox"/>

□-OPEN, X-CLOSED

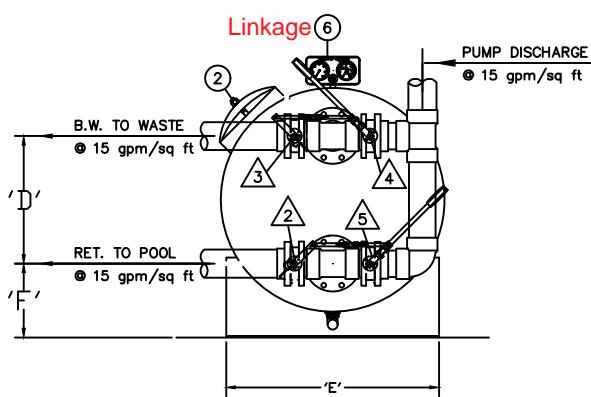
GENERAL NOTES:

PIPING – SCH. 80 PVC, MAX. VELOCITY LESS THAN 10 FPS. PIPING DEPICTED WITH DASHED LINES NOT SUPPLIED BY PADDOCK.

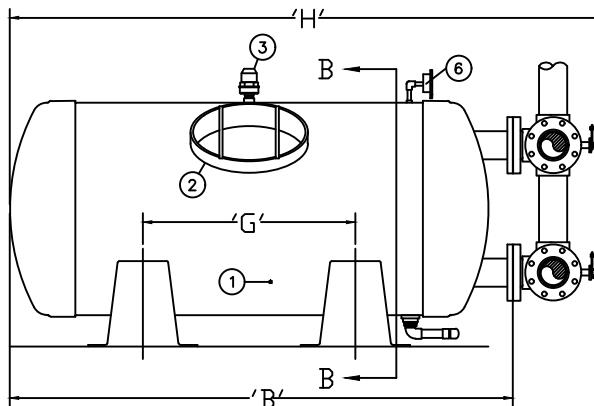
FILTER WORKING PRESSURE IS 50 PSI.



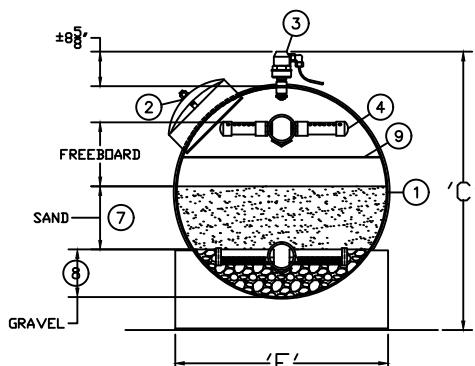
PLAN VIEW



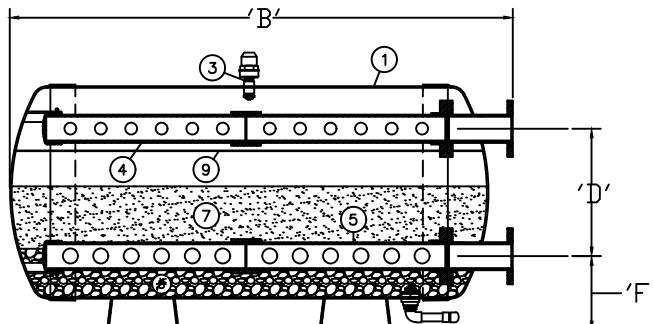
END ELEVATION



SIDE ELEVATION



SECTION B-B



SECTION A-A

## PADDOCK FIBERGLASS HORIZONTAL FILTERS



Certified to  
NSF/ANSI Standard 50

DWG. NO.	DESCRIPTION	JOB NAME & LOCATION	FIBERGLASS HORIZONTAL FILTERS		
			REV	REVISION DESCRIPTION	DATE
1	SHEET 1 of 1				
	REV 1				
12/18/18					



**PADDOCK**  
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[info@paddockindustries.com](mailto:info@paddockindustries.com)

(800)849-2729  
Fax:(803)324-1116

PADDOCK FIBERGLASS HORIZONTAL FILTERS

CATALOG NO.	DIA.	FILTER AREA	FILTER RATE		TANK CONN. SIZE	OVERDRAIN LAT'S/TANK	UNDERDRAIN LAT'S/TANK	MEDIA PER TANK (CU FT)		
			15 GPM/FT <sup>2</sup>	15 GPM/FT <sup>2</sup>				SAND	GRAVEL	
HZF-32-16.5	32"	16.5 FT <sup>2</sup>	247.5 GPM	247.5 GPM	4"	20	20	10.90	5.69	
HZF-34-16.5	34"	16.5 FT <sup>2</sup>	247.5 GPM	247.5 GPM	4"	24	24	11.60	6.06	
HZF-36-20	36"	20 FT <sup>2</sup>	300 GPM	300 GPM	6"	24	24	15.64	5.84	
HZF-36-23	36"	23 FT <sup>2</sup>	345 GPM	345 GPM	6"	26	26	17.96	6.75	
HZF-36-25	36"	25 FT <sup>2</sup>	375 GPM	375 GPM	6"	28	28	19.59	7.45	
HZF-42-24	42"	24 FT <sup>2</sup>	360 GPM	360 GPM	6"	20	20	23.75	7.56	
HZF-42-27	42"	27 FT <sup>2</sup>	405 GPM	405 GPM	6"	24	24	27.70	7.65	
HZF-42-30	42"	30 FT <sup>2</sup>	450 GPM	450 GPM	6"	28	28	29.53	9.44	
HZF-42-33	42"	33 FT <sup>2</sup>	495 GPM	495 GPM	6"	32	32	32.30	10.40	
HZF-42-35	42"	35 FT <sup>2</sup>	525 GPM	525 GPM	6"	36	36	35.30	9.74	
<b>QTY:1</b>	<b>HZF-48-23</b>	<b>48"</b>	<b>23 FT<sup>2</sup></b>	<b>345 GPM</b>	<b>345 GPM</b>	<b>6"</b>	<b>16</b>	<b>16</b>	<b>25.82</b>	<b>6.05</b>
	HZF-48-25	48"	25 FT <sup>2</sup>	375 GPM	375 GPM	6"	18	18	29.50	7.94
	HZF-48-30	48"	30 FT <sup>2</sup>	450 GPM	450 GPM	6"	22	22	34.64	8.38
	HZF-48-34	48"	34 FT <sup>2</sup>	510 GPM	510 GPM	6"	28	28	41.00	9.00
	HZF-48-37	48"	37 FT <sup>2</sup>	555 GPM	555 GPM	6"	32	32	44.05	10.96
	HZF-48-42	48"	42 FT <sup>2</sup>	630 GPM	630 GPM	6"	36	36	50.00	11.00
	HZF-48-46	48"	46 FT <sup>2</sup>	690 GPM	690 GPM	6"	40	40	54.95	12.00
	HZF-48-50	48"	50 FT <sup>2</sup>	750 GPM	750 GPM	6"	44	44	59.84	15.14
	HZF-60-35	60"	35 FT <sup>2</sup>	525 GPM	525 GPM	6"	22	44	50.00	16.76
	HZF-60-40	60"	40 FT <sup>2</sup>	600 GPM	600 GPM	6"	26	52	55.56	18.34
	HZF-60-46	60"	46 FT <sup>2</sup>	690 GPM	690 GPM	6"	32	64	64.82	21.54
	HZF-60-52	60"	52 FT <sup>2</sup>	780 GPM	780 GPM	6"	36	72	69.34	21.70
	HZF-60-60	60"	60 FT <sup>2</sup>	900 GPM	900 GPM	8"	42	84	83.24	27.08
	HZF-60-67	60"	67 FT <sup>2</sup>	1,005 GPM	1,005 GPM	8"	48	96	93.00	30.20

CATALOG NO.	DIM. 'A'	DIM. 'B'	DIM. 'C'	DIM. 'D'	DIM. 'E'	DIM. 'F'	DIM. 'G'	DIM. 'H'
HZF-32-16.5	2'-8"	7'-2"	3'-6"	1'-6 1/2"	2'-10"	1'-0 1/4"	2'-6"	8'-4 1/2"
HZF-34-16.5	2'-10"	6'-7"	3'-8 3/4"	1'-8 1/2"	2'-10"	11 5/8"	2'-6"	7'-9 1/2"
HZF-36-20	3'-0"	7'-5"	3'-10 3/4"	1'-10 1/2"	3'-2"	11 5/8"	3'-6"	8'-7 1/2"
HZF-36-23	3'-0"	8'-5"	3'-10 3/4"	1'-10 1/2"	3'-2"	11 5/8"	4'-0"	9'-10 3/4"
HZF-36-25	3'-0"	9'-1"	3'-10 3/4"	1'-10 1/2"	3'-2"	11 5/8"	4'-4"	10'-6 3/4"
HZF-42-24	3'-6"	7'-7"	4'-4 3/4"	2'-4 1/2"	3'-2"	11 5/8"	3'-6"	9'-0 3/4"
HZF-42-27	3'-6"	8'-4 1/2"	4'-4 3/4"	2'-4 1/2"	3'-2"	11 5/8"	4'-0"	9'-7"
HZF-42-30	3'-6"	9'-3 1/2"	4'-4 3/4"	2'-4 1/2"	3'-2"	11 5/8"	4'-6"	10'-6"
HZF-42-33	3'-6"	10'-1"	4'-4 3/4"	2'-4 1/2"	3'-2"	11 5/8"	5'-0"	11'-3 1/2"
HZF-42-35	3'-6"	10'-9 1/2"	4'-4 3/4"	2'-4 1/2"	3'-2"	11 5/8"	5'-6"	12'-0"
<b>QTY: 1</b>	<b>HZF-48-23</b>	<b>4'-0"</b>	<b>6'-0 3/8"</b>	<b>4'-10 3/4"</b>	<b>2'-10 1/2"</b>	<b>3'-2"</b>	<b>11 5/8"</b>	<b>2'-0"</b>
	HZF-48-25	4'-0"	6'-9 3/8"	4'-10 3/4"	2'-10 1/2"	3'-2"	11 5/8"	2'-6"
	HZF-48-30	4'-0"	8'-0"	4'-10 3/4"	2'-10 1/2"	3'-2"	11 5/8"	3'-6"
	HZF-48-34	4'-0"	8'-11 3/4"	4'-10 3/4"	2'-10 1/2"	3'-2"	11 5/8"	4'-0"
	HZF-48-37	4'-0"	9'-9 3/8"	4'-10 3/4"	2'-10 1/2"	3'-2"	11 5/8"	4'-6"
	HZF-48-42	4'-0"	11'-0 3/8"	4'-10 3/4"	2'-10 1/2"	3'-2"	11 5/8"	5'-0"
	HZF-48-46	4'-0"	12'-0 3/8"	4'-10 3/4"	2'-10 1/2"	3'-2"	11 5/8"	5'-6"
	HZF-48-50	4'-0"	12'-11 3/4"	4'-10 3/4"	2'-10 1/2"	3'-2"	11 5/8"	6'-0"
	HZF-60-35	5'-0"	7'-9 7/8"	5'-10 3/4"	3'-2 1/2"	5'-5"	15 5/8"	3'-0"
	HZF-60-40	5'-0"	8'-9 7/8"	5'-10 3/4"	3'-2 1/2"	5'-5"	15 5/8"	3'-3"
	HZF-60-46	5'-0"	10'-1 7/8"	5'-10 3/4"	3'-2 1/2"	5'-5"	15 5/8"	4'-2"
	HZF-60-52	5'-0"	11'-3 7/8"	5'-10 3/4"	3'-2 1/2"	5'-5"	15 5/8"	5'-0"
	HZF-60-60	5'-0"	12'-11"	5'-10 3/4"	3'-2 1/2"	5'-5"	15 5/8"	6'-0"
	HZF-60-67	5'-0"	14'-3 7/8"	5'-10 3/4"	3'-2 1/2"	5'-5"	15 5/8"	6'-6"
								15'-6 3/8"

DNC NO.	DRAWING DATE	JOB NAME & LOCATION	FIBERGLASS HORIZONTAL FILTERS		
			REV	REVISION DESCRIPTION	DATE
I	O	USD Wellness Center	-	CHART INFO UPDATE	7/15/13
1	3/21/12	Capri Pools			

# ACTIVITY POOL FILTER

ITEM	DESCRIPTION
1	FIBERGLASS FILTER TANK, WITH FLANGED CONNECTIONS & SADDLES
2	TANK MANWAY ASSEMBLY
3	1" AIR RELEASE
4	SCH. 80 PVC OVERDRAIN HEADER WITH 1 1/2" PVC LATERALS
5	SCH. 80 PVC UNDERDRAIN HEADER W/2" NORYL THREADED LATERALS
6	GAUGE PANEL
7	FILTER SAND (.45 TO .55mm) UNIFORMITY COEFFICIENT </= 1.60
8	1/16 TO 1/8 GRAVEL MEDIA
9	FIBERGLASS BAFFLE PLATES

VALVE LEGEND			
NO.	VALVE DESCRIPTION	FILTER	BACKWASH
2	RETURN TO POOL	<input type="checkbox"/>	X
3	BACKWASH TO WASTE	X	<input type="checkbox"/>
4	FILTER INFLUENT	<input type="checkbox"/>	X
5	BACKWASH INFLUENT	X	<input type="checkbox"/>

□-OPEN, X-CLOSED

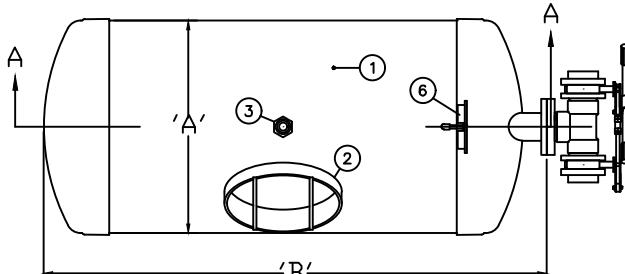
Manway Location Left: \_\_\_\_\_ Right: \_\_\_\_\_

## GENERAL NOTES:

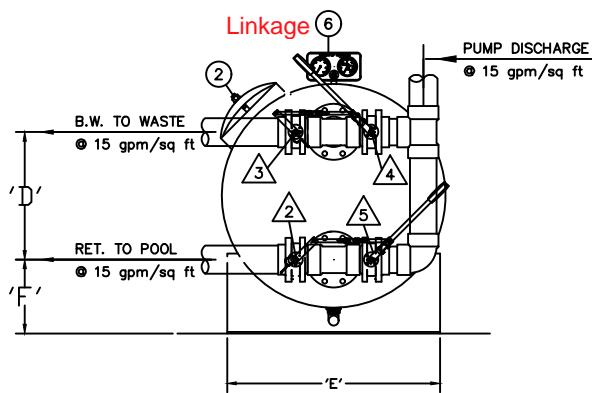
PIPING – SCH. 80 PVC, MAX. VELOCITY LESS THAN 10 FPS. PIPING DEPICTED WITH DASHED LINES NOT SUPPLIED BY PADDOCK.

FILTER WORKING PRESSURE IS 50 PSI.

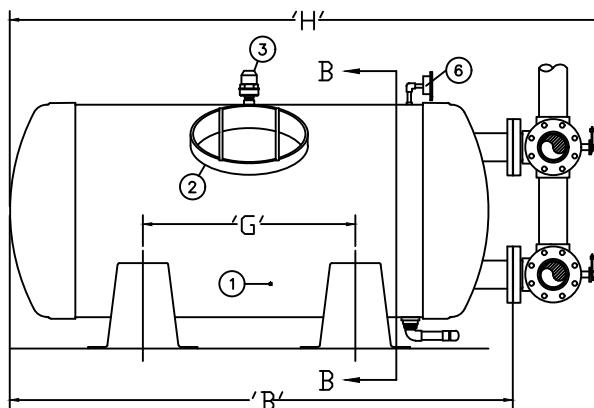
Verify Flow Rate:



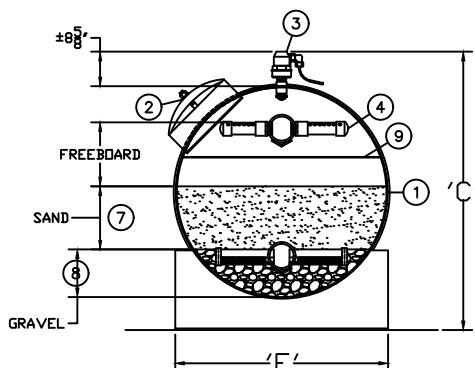
PLAN VIEW



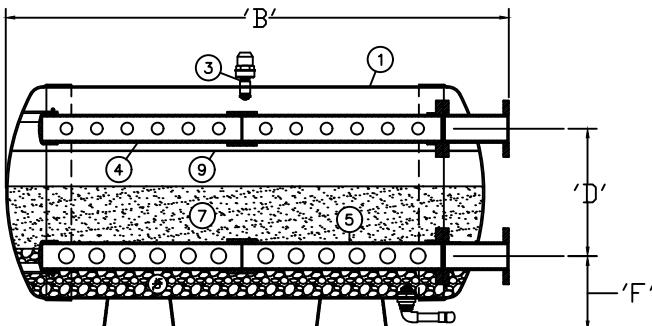
END ELEVATION



SIDE ELEVATION



SECTION B-B



SECTION A-A

**ACTIVITY POOL FILTER TO BE STACKED ON TOP OF SPA FILTER  
PADDOCK FIBERGLASS HORIZONTAL FILTERS**



Certified to  
NSF/ANSI Standard 50

DWG. NO.	DESCRIPTION	JOB NAME & LOCATION	FIBERGLASS HORIZONTAL FILTERS		
			REV	REVISION DESCRIPTION	DATE
1	1 of 1				
DWG. DATE					
12/18/18					
REV					
1					
CUSTOMER					



**PADDOCK**  
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(800)849-2729  
Fax:(803)324-1116

PADDOCK FIBERGLASS HORIZONTAL FILTERS

CATALOG NO.	DIA.	FILTER AREA	FILTER RATE	BACKWASH RATE*	TANK CONN. SIZE	OVERDRAIN LAT'S/TANK	UNDERDRAIN LAT'S/TANK	MEDIA PER TANK (CU FT)		
								SAND	GRAVEL	
HZF-32-16.5	32"	16.5 FT <sup>2</sup>	247.5 GPM	247.5 GPM	4"	20	20	10.90	5.69	
HZF-34-16.5	34"	16.5 FT <sup>2</sup>	247.5 GPM	247.5 GPM	4"	24	24	11.60	6.06	
HZF-36-20	36"	20 FT <sup>2</sup>	300 GPM	300 GPM	6"	24	24	15.64	5.84	
HZF-36-23	36"	23 FT <sup>2</sup>	345 GPM	345 GPM	6"	26	26	17.96	6.75	
HZF-36-25	36"	25 FT <sup>2</sup>	375 GPM	375 GPM	6"	28	28	19.59	7.45	
HZF-42-24	42"	24 FT <sup>2</sup>	360 GPM	360 GPM	6"	20	20	23.75	7.56	
HZF-42-27	42"	27 FT <sup>2</sup>	405 GPM	405 GPM	6"	24	24	27.70	7.65	
HZF-42-30	42"	30 FT <sup>2</sup>	450 GPM	450 GPM	6"	28	28	29.53	9.44	
HZF-42-33	42"	33 FT <sup>2</sup>	495 GPM	495 GPM	6"	32	32	32.30	10.40	
HZF-42-35	42"	35 FT <sup>2</sup>	525 GPM	525 GPM	6"	36	36	35.30	9.74	
<b>QTY:1</b>	<b>HZF-48-23</b>	<b>48"</b>	<b>23 FT<sup>2</sup></b>	<b>345 GPM</b>	<b>345 GPM</b>	<b>6"</b>	<b>16</b>	<b>16</b>	<b>25.82</b>	<b>6.05</b>
	HZF-48-25	48"	25 FT <sup>2</sup>	375 GPM	375 GPM	6"	18	18	29.50	7.94
	HZF-48-30	48"	30 FT <sup>2</sup>	450 GPM	450 GPM	6"	22	22	34.64	8.38
	HZF-48-34	48"	34 FT <sup>2</sup>	510 GPM	510 GPM	6"	28	28	41.00	9.00
	HZF-48-37	48"	37 FT <sup>2</sup>	555 GPM	555 GPM	6"	32	32	44.05	10.96
	HZF-48-42	48"	42 FT <sup>2</sup>	630 GPM	630 GPM	6"	36	36	50.00	11.00
	HZF-48-46	48"	46 FT <sup>2</sup>	690 GPM	690 GPM	6"	40	40	54.95	12.00
	HZF-48-50	48"	50 FT <sup>2</sup>	750 GPM	750 GPM	6"	44	44	59.84	15.14
	HZF-60-35	60"	35 FT <sup>2</sup>	525 GPM	525 GPM	6"	22	44	50.00	16.76
	HZF-60-40	60"	40 FT <sup>2</sup>	600 GPM	600 GPM	6"	26	52	55.56	18.34
	HZF-60-46	60"	46 FT <sup>2</sup>	690 GPM	690 GPM	6"	32	64	64.82	21.54
	HZF-60-52	60"	52 FT <sup>2</sup>	780 GPM	780 GPM	6"	36	72	69.34	21.70
	HZF-60-60	60"	60 FT <sup>2</sup>	900 GPM	900 GPM	8"	42	84	83.24	27.08
	HZF-60-67	60"	67 FT <sup>2</sup>	1,005 GPM	1,005 GPM	8"	48	96	93.00	30.20

CATALOG NO.	DIM. 'A'	DIM. 'B'	DIM. 'C'	DIM. 'D'	DIM. 'E'	DIM. 'F'	DIM. 'G'	DIM. 'H'
HZF-32-16.5	2'-8"	7'-2"	3'-6"	1'-6 1/2"	2'-10"	1'-0 1/4"	2'-6"	8'-4 1/2"
HZF-34-16.5	2'-10"	6'-7"	3'-8 3/4"	1'-8 1/2"	2'-10"	11 5/8"	2'-6"	7'-9 1/2"
HZF-36-20	3'-0"	7'-5"	3'-10 3/4"	1'-10 1/2"	3'-2"	11 5/8"	3'-6"	8'-7 1/2"
HZF-36-23	3'-0"	8'-5"	3'-10 3/4"	1'-10 1/2"	3'-2"	11 5/8"	4'-0"	9'-10 3/4"
HZF-36-25	3'-0"	9'-1"	3'-10 3/4"	1'-10 1/2"	3'-2"	11 5/8"	4'-4"	10'-6 3/4"
HZF-42-24	3'-6"	7'-7"	4'-4 3/4"	2'-4 1/2"	3'-2"	11 5/8"	3'-6"	9'-0 3/4"
HZF-42-27	3'-6"	8'-4 1/2"	4'-4 3/4"	2'-4 1/2"	3'-2"	11 5/8"	4'-0"	9'-7"
HZF-42-30	3'-6"	9'-3 1/2"	4'-4 3/4"	2'-4 1/2"	3'-2"	11 5/8"	4'-6"	10'-6"
HZF-42-33	3'-6"	10'-1"	4'-4 3/4"	2'-4 1/2"	3'-2"	11 5/8"	5'-0"	11'-3 1/2"
HZF-42-35	3'-6"	10'-9 1/2"	4'-4 3/4"	2'-4 1/2"	3'-2"	11 5/8"	5'-6"	12'-0"
<b>QTY: 1</b>	<b>HZF-48-23</b>	<b>4'-0"</b>	<b>6'-0 3/8"</b>	<b>4'-10 3/4"</b>	<b>2'-10 1/2"</b>	<b>3'-2"</b>	<b>11 5/8"</b>	<b>2'-0"</b>
	HZF-48-25	4'-0"	6'-9 3/8"	4'-10 3/4"	2'-10 1/2"	3'-2"	11 5/8"	2'-6"
	HZF-48-30	4'-0"	8'-0"	4'-10 3/4"	2'-10 1/2"	3'-2"	11 5/8"	3'-6"
	HZF-48-34	4'-0"	8'-11 3/4"	4'-10 3/4"	2'-10 1/2"	3'-2"	11 5/8"	9'-5 3/4"
	HZF-48-37	4'-0"	9'-9 3/8"	4'-10 3/4"	2'-10 1/2"	3'-2"	11 5/8"	4'-0"
	HZF-48-42	4'-0"	11'-0 3/8"	4'-10 3/4"	2'-10 1/2"	3'-2"	11 5/8"	10'-2 1/4"
	HZF-48-46	4'-0"	12'-0 3/8"	4'-10 3/4"	2'-10 1/2"	3'-2"	11 5/8"	5'-0"
	HZF-48-50	4'-0"	12'-11 3/4"	4'-10 3/4"	2'-10 1/2"	3'-2"	11 5/8"	12'-9"
	HZF-60-35	5'-0"	7'-9 7/8"	5'-10 3/4"	3'-2 1/2"	5'-5"	15 5/8"	3'-0"
	HZF-60-40	5'-0"	8'-9 7/8"	5'-10 3/4"	3'-2 1/2"	5'-5"	15 5/8"	3'-3"
	HZF-60-46	5'-0"	10'-1 7/8"	5'-10 3/4"	3'-2 1/2"	5'-5"	15 5/8"	4'-2"
	HZF-60-52	5'-0"	11'-3 7/8"	5'-10 3/4"	3'-2 1/2"	5'-5"	15 5/8"	5'-0"
	HZF-60-60	5'-0"	12'-11"	5'-10 3/4"	3'-2 1/2"	5'-5"	15 5/8"	6'-0"
	HZF-60-67	5'-0"	14'-3 7/8"	5'-10 3/4"	3'-2 1/2"	5'-5"	15 5/8"	6'-6"
								15'-6 3/8"

DNC NO.	DRAWING DATE	DESCRIPTION	FIBERGLASS HORIZONTAL FILTERS		
			REV	REVISION DESCRIPTION	DATE
I	O	JOB NAME & LOCATION USD Wellness Center	-	CHART INFO UPDATE	7/15/13
		CUSTOMER Capri Pools			



555 Paddock Parkway  
Rock Hill, SC 29730-1676  
info@paddockindustries.com

(800)849-2729  
Fax: (803)324-1116



Paddock Pool Equipment Company, Inc.  
555 Paddock Parkway  
Rock Hill, SC 29730  
United States of America

Ph: 803-324-1111

**Submittal**

Number: QUO22465 Date: **24-Mar-23**

**To:**

Capri Pools & Aquatics  
22 Gateway Commerce Center Dr. W. Suite 110  
Edwardsville IL 62025  
United States

Liz Crawford

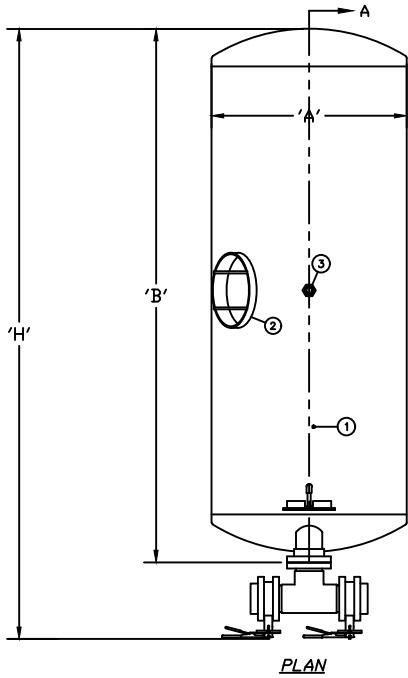
**EMAIL:** [lcrawford@capripool.com](mailto:lcrawford@capripool.com)

**PHONE #:** 618 219 4882

**Project Name:** **USD Wellness Center**

**Project Manager:** Trevor Ottley  
[ottley@paddockindustries.com](mailto:ottley@paddockindustries.com)  
**PHONE #:** 803-372-6088

Qty	Description	Drawing	Approval
2	<b>HZ-FBG-60-92 Stacked Filter,Paddock,Horizontal,FiberGI ass,(2) 60-46</b>  Stacked Filter,Paddock,Horizontal,FiberGlas s,(2) 60-46 Gauges, Air Relief, Media, Lap Pool - 2 stack 60-92 (4 filters) with full face piping and manual linkage per plan AQ7.	Cut Sheet	
1	<b>HZ-FBG-48-23 Filter,Paddock,Horizontal,FiberGI ass,48-23</b>  Filter,Paddock,Horizontal,FiberGlas s,48-23 - Activity and Spa - 48-23 filters in stack configuration with 3 tees, 4 elbows, 4 valves per plan AQ7.1 - INCLUDE STACK SADDLES ON TOP OF THIS FILTER ONLY TO FACILITATE STACKING WITH THE LIKE FILTER BELOW.	Cut Sheet	
1	<b>HZ-FBG-48-23 Filter,Paddock,Horizontal,FiberGlass,48-23</b>  Filter,Paddock,Horizontal,FiberGlas s,48-23 - Filter,Paddock,Horizontal,FiberGlas s,48-23 - Activity and Spa - 48-23 filters in stack configuration with 3 tees, 4 elbows, 4 valves per plan AQ7.1 -- Top Filter - Filters stacked for space consideration but operating independently.	Cut Sheet	



QTY 2 Units

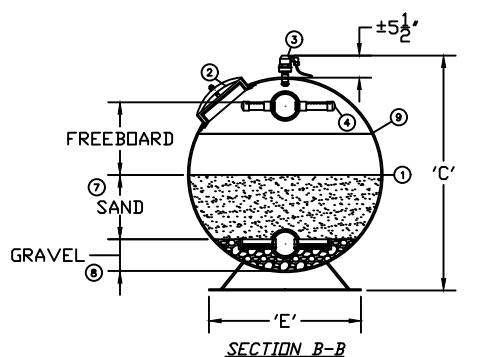
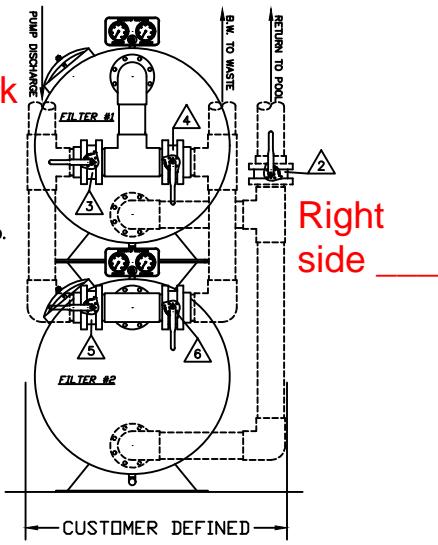
PLAN

Need actual flow rate for label \_\_\_\_\_

Mark Manway  
Location on tank  
Left side \_\_\_\_\_

NOTE:  
DASHED FACE PIPING NOT INCLUDED.

Piping  
with  
manual  
linkage



VALVE LEGEND				
NO.	VALVE DESCRIPTION	FILTER	BACKWASH FILTER #1	BACKWASH FILTER #2
2	RETURN TO POOL	□	X	X
3	FILTER INFLUENT #1	□	X	□
4	FILTER EFFLUENT (B.W. #1)	X	□	X
5	FILTER INFLUENT #2	□	□	X
6	FILTER EFFLUENT (B.W. #2)	X	X	□
7	BACKWASH CONTROL VALVE	□	□	□

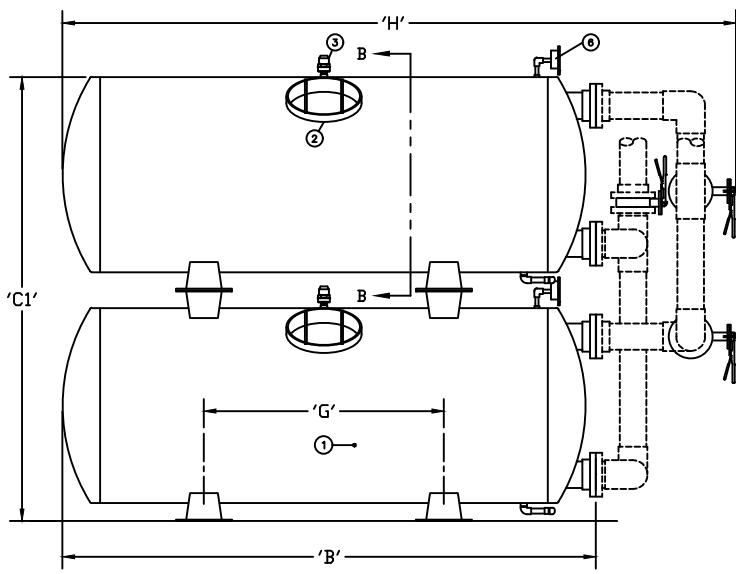
□-OPEN, X-CLOSED

ITEM	DESCRIPTION
1	FIBERGLASS FILTER TANK, WITH FLANGED CONNECTIONS & SADDLES
2	TANK MANWAY ASSEMBLY
3	1" AIR RELEASE
4	SCH. 80 PVC OVERDRAIN HEADER WITH 1 1/2" PVC LATERALS
5	SCH. 80 PVC UNDERDRAIN HEADER W/2" NORYL THREADED LATERALS
6	GAUGE PANEL
7	FILTER SAND (.45 TO .55mm) UNIFORMITY COEFFICIENT </= 1.60
8	1/16 TD 1/8 GRAVEL MEDIA
9	FIBERGLASS BAFFLE PLATES

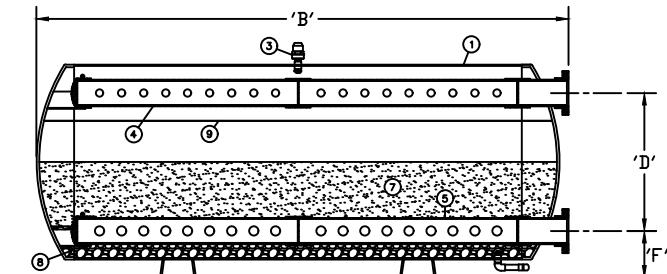
GENERAL NOTES:

PIPING – SCH. 80 PVC, MAX. VELOCITY LESS THAN 10 FPS. PIPING DEPICTED WITH DASHED LINES AND BACKWASH CONTROL VALVE NOT SUPPLIED BY PADDOCK.

FILTER WORKING PRESSURE IS 50 PSI. TEST PRESSURE IS 65 PSI.



DUAL STACKED FILTER SIDE ELEVATION



SECTION A-A



Certified to  
NSF/ANSI Standard 50

DWG. NO.	DESCRIPTION
12/17/18	JOB NAME & LOCATION
Sheet 1 of 1 Rev. 1	CUSTOMER



555 Paddock Parkway  
Rock Hill, SC 29730-1676  
info@paddockindustries.com

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FIBERGLASS HORIZONTAL FILTERS			
REV	REVISION DESCRIPTION	DATE	

**PADDOCK STACKED FIBERGLASS HORIZONTAL FILTERS**

CATALOG NO.	DIA.	TOTAL FILTER AREA	TOTAL FILTER RATE		TANK CONN. SIZE	OVERDRAIN LAT'S (TOTAL)	UNDERDRAIN LAT'S (TOTAL)	MEDIA PER (2) TANKS (CU FT)	
			15 GPM/FT <sup>2</sup>	15 GPM/FT <sup>2</sup>				SAND	GRAVEL
HZF-32-33	32"	33 FT <sup>2</sup>	495 GPM	247.5 GPM	4"	40	40	21.80	11.38
HZF-34-33	34"	33 FT <sup>2</sup>	495 GPM	247.5 GPM	4"	48	48	23.20	12.12
HZF-36-40	36"	40 FT <sup>2</sup>	600 GPM	300 GPM	6"	48	48	31.28	11.68
HZF-36-46	36"	46 FT <sup>2</sup>	690 GPM	345 GPM	6"	52	52	35.67	13.50
HZF-36-50	36"	50 FT <sup>2</sup>	750 GPM	375 GPM	6"	56	56	39.18	14.90
HZF-42-48	42"	48 FT <sup>2</sup>	720 GPM	360 GPM	6"	40	40	47.50	15.13
HZF-42-54	42"	54 FT <sup>2</sup>	810 GPM	405 GPM	6"	48	48	55.40	15.30
HZF-42-60	42"	60 FT <sup>2</sup>	900 GPM	450 GPM	6"	56	56	59.06	18.88
HZF-42-66	42"	66 FT <sup>2</sup>	990 GPM	495 GPM	6"	64	64	64.60	20.8
HZF-42-70	42"	70 FT <sup>2</sup>	1,050 GPM	525 GPM	6"	72	72	70.60	19.48
HZF-48-46	48"	46 FT <sup>2</sup>	690 GPM	345 GPM	6"	32	32	51.64	12.10
HZF-48-50	48"	50 FT <sup>2</sup>	750 GPM	375 GPM	6"	36	36	59.00	15.88
HZF-48-60	48"	60 FT <sup>2</sup>	900 GPM	450 GPM	6"	44	44	69.28	16.76
HZF-48-68	48"	68 FT <sup>2</sup>	1,020 GPM	510 GPM	6"	56	56	82.00	18.00
HZF-48-74	48"	74 FT <sup>2</sup>	1,110 GPM	555 GPM	6"	64	64	88.10	21.92
HZF-48-84	48"	84 FT <sup>2</sup>	1,260 GPM	630 GPM	6"	72	72	100.00	22.00
HZF-48-92	48"	92 FT <sup>2</sup>	1,380 GPM	690 GPM	6"	80	80	109.90	24.00
HZF-48-100	48"	100 FT <sup>2</sup>	1,500 GPM	750 GPM	6"	88	88	119.68	30.28
HZF-60-70	60"	70 FT <sup>2</sup>	1,050 GPM	525 GPM	6"	44	88	100.00	33.52
HZF-60-80	60"	80 FT <sup>2</sup>	1,200 GPM	600 GPM	6"	52	104	111.12	36.68
HZF-60-92	60"	92 FT <sup>2</sup>	1,380 GPM	690 GPM	6"	64	128	129.64	43.08
HZF-60-104	60"	104 FT <sup>2</sup>	1,560 GPM	780 GPM	6"	72	144	138.68	43.40
HZF-60-120	60"	120 FT <sup>2</sup>	1,800 GPM	900 GPM	8"	84	168	166.48	54.16
HZF-60-134	60"	134 FT <sup>2</sup>	2,010 GPM	1,005 GPM	8"	96	192	186.00	60.40

\*MULTI-TANK SYSTEM IS DESIGNED TO BACKWASH ONE TANK AT A TIME AT 15 GPM PER SQ. FT.

CATALOG NO.	DIM. 'A'	DIM. 'B'	DIM. 'C'	DIM. 'C1'	DIM. 'D'	DIM. 'E'	DIM. 'F'	DIM. 'G'	DIM. 'H'
HZF-32-33	2'-8"	7'-2"	3'-6"	7'-0 1/2"	1'-6 1/2"	2'-10"	1'-0 1/4"	2'-6"	9'-9 3/4"
HZF-34-33	2'-10"	6'-7"	3'-8 3/4"	7'-4 1/2"	1'-8 1/2"	2'-10"	11 5/8"	2'-6"	9'-6"
HZF-36-40	3'-0"	7'-5"	3'-10 3/4"	7'-8 1/2"	1'-10 1/2"	3'-2"	11 5/8"	3'-6"	10'-4"
HZF-36-46	3'-0"	8'-5"	3'-10 3/4"	7'-8 1/2"	1'-10 1/2"	3'-2"	11 5/8"	4'-0"	11'-4"
HZF-36-50	3'-0"	9'-1"	3'-10 3/4"	7'-8 1/2"	1'-10 1/2"	3'-2"	11 5/8"	4'-4"	12'-0"
HZF-42-48	3'-6"	7'-7"	4'-4 3/4"	8'-8 1/2"	2'-4 1/2"	3'-2"	11 5/8"	3'-6"	10'-6"
HZF-42-54	3'-6"	8'-4 1/2"	4'-4 3/4"	8'-8 1/2"	2'-4 1/2"	3'-2"	11 5/8"	4'-0"	11'-3 1/2"
HZF-42-60	3'-6"	9'-3 1/2"	4'-4 3/4"	8'-8 1/2"	2'-4 1/2"	3'-2"	11 5/8"	4'-6"	11'-9"
HZF-42-66	3'-6"	10'-1"	4'-4 3/4"	8'-8 1/2"	2'-4 1/2"	3'-2"	11 5/8"	5'-0"	12'-7"
HZF-42-70	3'-6"	10'-9 1/2"	4'-4 3/4"	8'-8 1/2"	2'-4 1/2"	3'-2"	11 5/8"	5'-6"	13'-8 1/2"
HZF-48-46	4'-0"	6'-0 3/8"	4'-10 3/4"	9'-8 1/2"	2'-10 1/2"	3'-2"	11 5/8"	2'-0"	8'-11 3/8"
HZF-48-50	4'-0"	6'-9 3/8"	4'-10 3/4"	9'-8 1/2"	2'-10 1/2"	3'-2"	11 5/8"	2'-6"	9'-8 3/8"
HZF-48-60	4'-0"	8'-0"	4'-10 3/4"	9'-8 1/2"	2'-10 1/2"	3'-2"	11 5/8"	3'-6"	10'-11"
HZF-48-68	4'-0"	8'-11 3/4"	4'-10 3/4"	9'-8 1/2"	2'-10 1/2"	3'-2"	11 5/8"	4'-0"	11'-11 3/8"
HZF-48-74	4'-0"	9'-9 3/8"	4'-10 3/4"	9'-8 1/2"	2'-10 1/2"	3'-2"	11 5/8"	4'-6"	12'-8 3/8"
HZF-48-84	4'-0"	11'-0 3/4"	4'-10 3/4"	9'-8 1/2"	2'-10 1/2"	3'-2"	11 5/8"	5'-0"	14'-0 3/8"
HZF-48-92	4'-0"	12'-0 3/8"	4'-10 3/4"	9'-8 1/2"	2'-10 1/2"	3'-2"	11 5/8"	5'-6"	14'-2 1/4"
HZF-48-100	4'-0"	12'-11 3/4"	4'-10 3/4"	9'-8 1/2"	2'-10 1/2"	3'-2"	11 5/8"	6'-0"	15'-11 3/8"
HZF-60-70	5'-0"	7'-9 7/8"	5'-10 3/4"	11'-8 1/2"	3'-2 1/2"	5'-5"	15 5/8"	3'-0"	10'-10 7/8"
HZF-60-80	5'-0"	8'-9 7/8"	5'-10 3/4"	11'-8 1/2"	3'-2 1/2"	5'-5"	15 5/8"	3'-3"	11'-8 5/8"
HZF-60-92	5'-0"	10'-1 7/8"	5'-10 3/4"	11'-8 1/2"	3'-2 1/2"	5'-5"	15 5/8"	4'-2"	12'-8 5/8"
HZF-60-104	5'-0"	11'-3 7/8"	5'-10 3/4"	11'-8 1/2"	3'-2 1/2"	5'-5"	15 5/8"	5'-0"	13'-11 5/8"
HZF-60-120	5'-0"	12'-11"	5'-10 3/4"	11'-8 1/2"	3'-2 1/2"	5'-5"	15 5/8"	6'-0"	16'-1 5/8"
HZF-60-134	5'-0"	14'-3 7/8"	5'-10 3/4"	11'-8 1/2"	3'-2 1/2"	5'-5"	15 5/8"	6'-6"	16'-11 5/8"

QTY:2

Lap Pool

DWG. NO.	DWG. DATE	DESCRIPTION	FIBERGLASS HORIZONTAL FILTERS		
			REV	REVISION DESCRIPTION	DATE
101110	7/21/13	JOB NAME & LOCATION USD Wellness Center	-	CHART INFO UPDATED	7/15/13
O	I	CUSTOMER Capri Pools	-	MEDIA QTY'S NOW REFLECT (2) TANKS	7/22/13

# SPA POOL FILTER

ITEM	DESCRIPTION
1	FIBERGLASS FILTER TANK, WITH FLANGED CONNECTIONS & SADDLES
2	TANK MANWAY ASSEMBLY
3	1" AIR RELEASE
4	SCH. 80 PVC OVERDRAIN HEADER WITH 1 1/2" PVC LATERALS
5	SCH. 80 PVC UNDERDRAIN HEADER W/2" NORYL THREADED LATERALS
6	GAUGE PANEL
7	FILTER SAND (.45 TO .55mm) UNIFORMITY COEFFICIENT </= 1.60
8	1/16 TO 1/8 GRAVEL MEDIA
9	FIBERGLASS BAFFLE PLATES

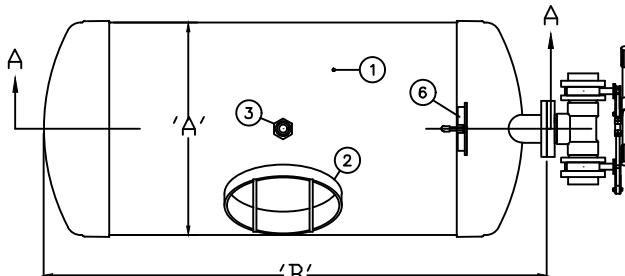
VALVE LEGEND			
NO.	VALVE DESCRIPTION	FILTER	BACKWASH
2	RETURN TO POOL	<input type="checkbox"/>	X
3	BACKWASH TO WASTE	X	<input type="checkbox"/>
4	FILTER INFLUENT	<input type="checkbox"/>	X
5	BACKWASH INFLUENT	X	<input type="checkbox"/>

□-OPEN, X-CLOSED

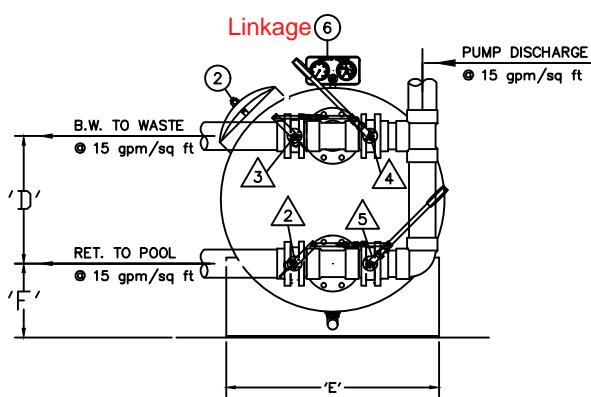
GENERAL NOTES:

PIPING – SCH. 80 PVC, MAX. VELOCITY LESS THAN 10 FPS. PIPING DEPICTED WITH DASHED LINES NOT SUPPLIED BY PADDOCK.

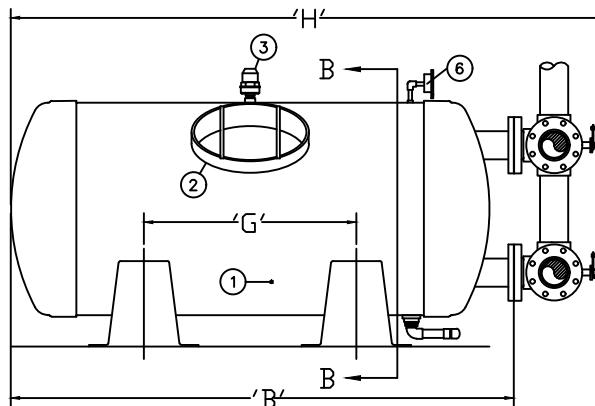
FILTER WORKING PRESSURE IS 50 PSI.



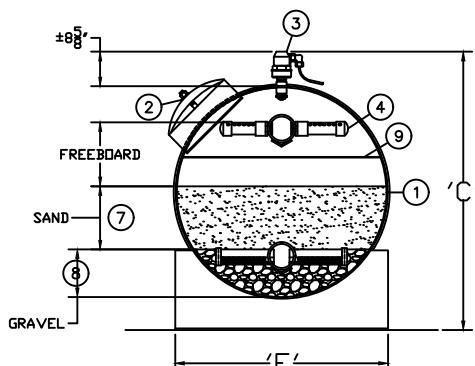
PLAN VIEW



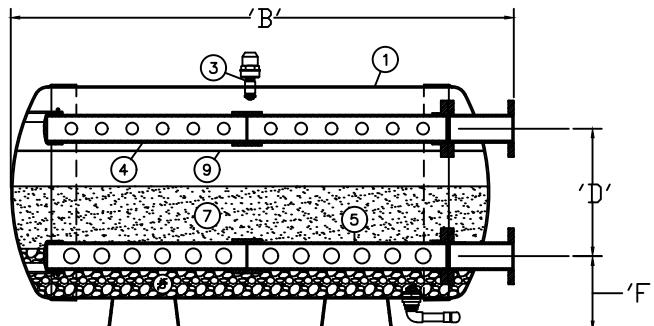
END ELEVATION



SIDE ELEVATION



SECTION B-B



SECTION A-A

## PADDOCK FIBERGLASS HORIZONTAL FILTERS



Certified to  
NSF/ANSI Standard 50

DWG. NO.	DESCRIPTION	JOB NAME & LOCATION	FIBERGLASS HORIZONTAL FILTERS		
			REV	REVISION DESCRIPTION	DATE
1	SHEET 1 of 1				
	REV 1				
12/18/18					



**PADDOCK**  
POOL EQUIPMENT COMPANY  
555 Paddock Parkway  
Rock Hill, SC 29730-1676  
[info@paddockindustries.com](mailto:info@paddockindustries.com)

(800)849-2729  
Fax:(803)324-1116

PADDOCK FIBERGLASS HORIZONTAL FILTERS

CATALOG NO.	DIA.	FILTER AREA	FILTER RATE		TANK CONN. SIZE	OVERDRAIN LAT'S/TANK	UNDERDRAIN LAT'S/TANK	MEDIA PER TANK (CU FT)		
			15 GPM/FT <sup>2</sup>	15 GPM/FT <sup>2</sup>				SAND	GRAVEL	
HZF-32-16.5	32"	16.5 FT <sup>2</sup>	247.5 GPM	247.5 GPM	4"	20	20	10.90	5.69	
HZF-34-16.5	34"	16.5 FT <sup>2</sup>	247.5 GPM	247.5 GPM	4"	24	24	11.60	6.06	
HZF-36-20	36"	20 FT <sup>2</sup>	300 GPM	300 GPM	6"	24	24	15.64	5.84	
HZF-36-23	36"	23 FT <sup>2</sup>	345 GPM	345 GPM	6"	26	26	17.96	6.75	
HZF-36-25	36"	25 FT <sup>2</sup>	375 GPM	375 GPM	6"	28	28	19.59	7.45	
HZF-42-24	42"	24 FT <sup>2</sup>	360 GPM	360 GPM	6"	20	20	23.75	7.56	
HZF-42-27	42"	27 FT <sup>2</sup>	405 GPM	405 GPM	6"	24	24	27.70	7.65	
HZF-42-30	42"	30 FT <sup>2</sup>	450 GPM	450 GPM	6"	28	28	29.53	9.44	
HZF-42-33	42"	33 FT <sup>2</sup>	495 GPM	495 GPM	6"	32	32	32.30	10.40	
HZF-42-35	42"	35 FT <sup>2</sup>	525 GPM	525 GPM	6"	36	36	35.30	9.74	
<b>QTY:1</b>	<b>HZF-48-23</b>	<b>48"</b>	<b>23 FT<sup>2</sup></b>	<b>345 GPM</b>	<b>345 GPM</b>	<b>6"</b>	<b>16</b>	<b>16</b>	<b>25.82</b>	<b>6.05</b>
	HZF-48-25	48"	25 FT <sup>2</sup>	375 GPM	375 GPM	6"	18	18	29.50	7.94
	HZF-48-30	48"	30 FT <sup>2</sup>	450 GPM	450 GPM	6"	22	22	34.64	8.38
	HZF-48-34	48"	34 FT <sup>2</sup>	510 GPM	510 GPM	6"	28	28	41.00	9.00
	HZF-48-37	48"	37 FT <sup>2</sup>	555 GPM	555 GPM	6"	32	32	44.05	10.96
	HZF-48-42	48"	42 FT <sup>2</sup>	630 GPM	630 GPM	6"	36	36	50.00	11.00
	HZF-48-46	48"	46 FT <sup>2</sup>	690 GPM	690 GPM	6"	40	40	54.95	12.00
	HZF-48-50	48"	50 FT <sup>2</sup>	750 GPM	750 GPM	6"	44	44	59.84	15.14
	HZF-60-35	60"	35 FT <sup>2</sup>	525 GPM	525 GPM	6"	22	44	50.00	16.76
	HZF-60-40	60"	40 FT <sup>2</sup>	600 GPM	600 GPM	6"	26	52	55.56	18.34
	HZF-60-46	60"	46 FT <sup>2</sup>	690 GPM	690 GPM	6"	32	64	64.82	21.54
	HZF-60-52	60"	52 FT <sup>2</sup>	780 GPM	780 GPM	6"	36	72	69.34	21.70
	HZF-60-60	60"	60 FT <sup>2</sup>	900 GPM	900 GPM	8"	42	84	83.24	27.08
	HZF-60-67	60"	67 FT <sup>2</sup>	1,005 GPM	1,005 GPM	8"	48	96	93.00	30.20

CATALOG NO.	DIM. 'A'	DIM. 'B'	DIM. 'C'	DIM. 'D'	DIM. 'E'	DIM. 'F'	DIM. 'G'	DIM. 'H'
HZF-32-16.5	2'-8"	7'-2"	3'-6"	1'-6 1/2"	2'-10"	1'-0 1/4"	2'-6"	8'-4 1/2"
HZF-34-16.5	2'-10"	6'-7"	3'-8 3/4"	1'-8 1/2"	2'-10"	11 5/8"	2'-6"	7'-9 1/2"
HZF-36-20	3'-0"	7'-5"	3'-10 3/4"	1'-10 1/2"	3'-2"	11 5/8"	3'-6"	8'-7 1/2"
HZF-36-23	3'-0"	8'-5"	3'-10 3/4"	1'-10 1/2"	3'-2"	11 5/8"	4'-0"	9'-10 3/4"
HZF-36-25	3'-0"	9'-1"	3'-10 3/4"	1'-10 1/2"	3'-2"	11 5/8"	4'-4"	10'-6 3/4"
HZF-42-24	3'-6"	7'-7"	4'-4 3/4"	2'-4 1/2"	3'-2"	11 5/8"	3'-6"	9'-0 3/4"
HZF-42-27	3'-6"	8'-4 1/2"	4'-4 3/4"	2'-4 1/2"	3'-2"	11 5/8"	4'-0"	9'-7"
HZF-42-30	3'-6"	9'-3 1/2"	4'-4 3/4"	2'-4 1/2"	3'-2"	11 5/8"	4'-6"	10'-6"
HZF-42-33	3'-6"	10'-1"	4'-4 3/4"	2'-4 1/2"	3'-2"	11 5/8"	5'-0"	11'-3 1/2"
HZF-42-35	3'-6"	10'-9 1/2"	4'-4 3/4"	2'-4 1/2"	3'-2"	11 5/8"	5'-6"	12'-0"
<b>QTY: 1</b>	<b>HZF-48-23</b>	<b>4'-0"</b>	<b>6'-0 3/8"</b>	<b>4'-10 3/4"</b>	<b>2'-10 1/2"</b>	<b>3'-2"</b>	<b>11 5/8"</b>	<b>2'-0"</b>
	HZF-48-25	4'-0"	6'-9 3/8"	4'-10 3/4"	2'-10 1/2"	3'-2"	11 5/8"	2'-6"
	HZF-48-30	4'-0"	8'-0"	4'-10 3/4"	2'-10 1/2"	3'-2"	11 5/8"	3'-6"
	HZF-48-34	4'-0"	8'-11 3/4"	4'-10 3/4"	2'-10 1/2"	3'-2"	11 5/8"	4'-0"
	HZF-48-37	4'-0"	9'-9 3/8"	4'-10 3/4"	2'-10 1/2"	3'-2"	11 5/8"	4'-6"
	HZF-48-42	4'-0"	11'-0 3/8"	4'-10 3/4"	2'-10 1/2"	3'-2"	11 5/8"	5'-0"
	HZF-48-46	4'-0"	12'-0 3/8"	4'-10 3/4"	2'-10 1/2"	3'-2"	11 5/8"	5'-6"
	HZF-48-50	4'-0"	12'-11 3/4"	4'-10 3/4"	2'-10 1/2"	3'-2"	11 5/8"	6'-0"
	HZF-60-35	5'-0"	7'-9 7/8"	5'-10 3/4"	3'-2 1/2"	5'-5"	15 5/8"	3'-0"
	HZF-60-40	5'-0"	8'-9 7/8"	5'-10 3/4"	3'-2 1/2"	5'-5"	15 5/8"	3'-3"
	HZF-60-46	5'-0"	10'-1 7/8"	5'-10 3/4"	3'-2 1/2"	5'-5"	15 5/8"	4'-2"
	HZF-60-52	5'-0"	11'-3 7/8"	5'-10 3/4"	3'-2 1/2"	5'-5"	15 5/8"	5'-0"
	HZF-60-60	5'-0"	12'-11"	5'-10 3/4"	3'-2 1/2"	5'-5"	15 5/8"	6'-0"
	HZF-60-67	5'-0"	14'-3 7/8"	5'-10 3/4"	3'-2 1/2"	5'-5"	15 5/8"	6'-6"
								15'-6 3/8"

DNC NO.	DRAWING DATE	JOB NAME & LOCATION	FIBERGLASS HORIZONTAL FILTERS		
			REV	REVISION DESCRIPTION	DATE
I	O	USD Wellness Center	-	CHART INFO UPDATE	7/15/13
1 of 1 REV 3/21/12		Capri Pools			

# ACTIVITY POOL FILTER

ITEM	DESCRIPTION
1	FIBERGLASS FILTER TANK, WITH FLANGED CONNECTIONS & SADDLES
2	TANK MANWAY ASSEMBLY
3	1" AIR RELEASE
4	SCH. 80 PVC OVERDRAIN HEADER WITH 1 1/2" PVC LATERALS
5	SCH. 80 PVC UNDERDRAIN HEADER W/2" NORYL THREADED LATERALS
6	GAUGE PANEL
7	FILTER SAND (.45 TO .55mm) UNIFORMITY COEFFICIENT </= 1.60
8	1/16 TO 1/8 GRAVEL MEDIA
9	FIBERGLASS BAFFLE PLATES

VALVE LEGEND			
NO.	VALVE DESCRIPTION	FILTER	BACKWASH
2	RETURN TO POOL	<input type="checkbox"/>	X
3	BACKWASH TO WASTE	X	<input type="checkbox"/>
4	FILTER INFLUENT	<input type="checkbox"/>	X
5	BACKWASH INFLUENT	X	<input type="checkbox"/>

□-OPEN, X-CLOSED

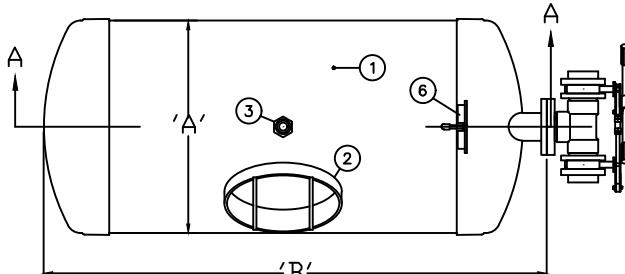
Manway Location Left: \_\_\_\_\_ Right: \_\_\_\_\_

## GENERAL NOTES:

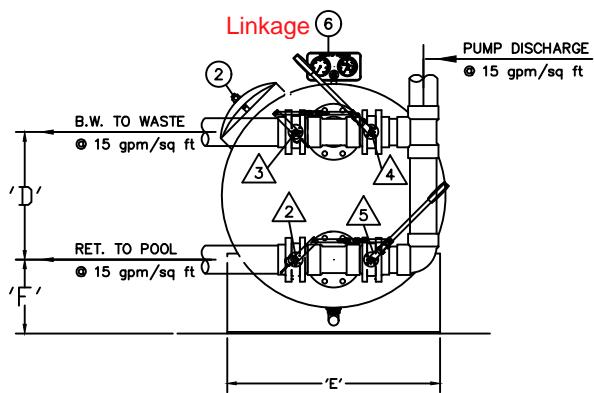
PIPING – SCH. 80 PVC, MAX. VELOCITY LESS THAN 10 FPS. PIPING DEPICTED WITH DASHED LINES NOT SUPPLIED BY PADDOCK.

FILTER WORKING PRESSURE IS 50 PSI.

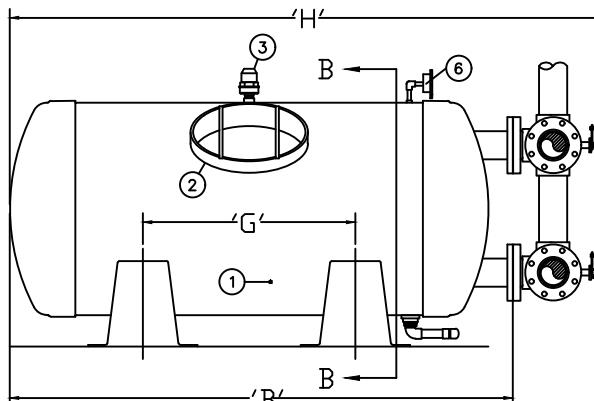
Verify Flow Rate:



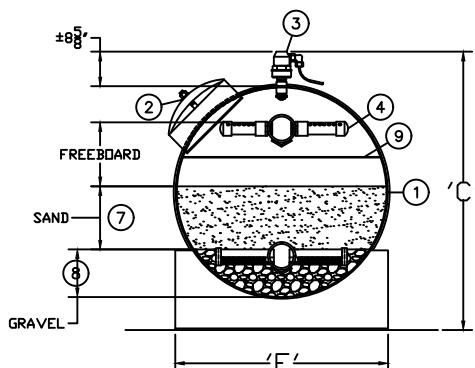
PLAN VIEW



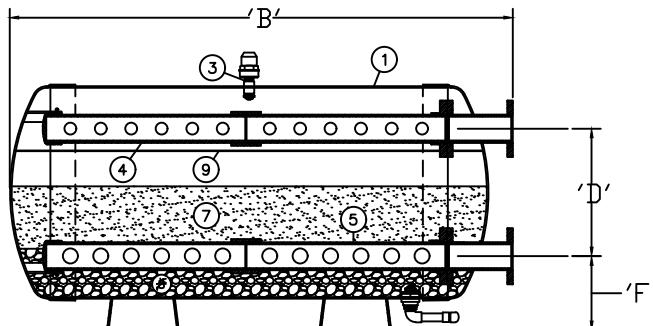
END ELEVATION



SIDE ELEVATION



SECTION B-B



SECTION A-A

**ACTIVITY POOL FILTER TO BE STACKED ON TOP OF SPA FILTER  
PADDOCK FIBERGLASS HORIZONTAL FILTERS**



Certified to  
NSF/ANSI Standard 50

DWG. NO.	DESCRIPTION	JOB NAME & LOCATION	FIBERGLASS HORIZONTAL FILTERS		
			REV	REVISION DESCRIPTION	DATE
1	1 of 1				
DWG. DATE					
12/18/18	REV				
1					
CUSTOMER					



**PADDOCK**  
POOL EQUIPMENT COMPANY  
555 Paddock Parkway  
Rock Hill, SC 29730-1676  
[info@paddockindustries.com](mailto:info@paddockindustries.com)

(800)849-2729  
Fax:(803)324-1116

PADDOCK FIBERGLASS HORIZONTAL FILTERS

CATALOG NO.	DIA.	FILTER AREA	FILTER RATE	BACKWASH RATE*	TANK CONN. SIZE	OVERDRAIN LAT'S/TANK	UNDERDRAIN LAT'S/TANK	MEDIA PER TANK (CU FT)		
								SAND	GRAVEL	
HZF-32-16.5	32"	16.5 FT <sup>2</sup>	247.5 GPM	247.5 GPM	4"	20	20	10.90	5.69	
HZF-34-16.5	34"	16.5 FT <sup>2</sup>	247.5 GPM	247.5 GPM	4"	24	24	11.60	6.06	
HZF-36-20	36"	20 FT <sup>2</sup>	300 GPM	300 GPM	6"	24	24	15.64	5.84	
HZF-36-23	36"	23 FT <sup>2</sup>	345 GPM	345 GPM	6"	26	26	17.96	6.75	
HZF-36-25	36"	25 FT <sup>2</sup>	375 GPM	375 GPM	6"	28	28	19.59	7.45	
HZF-42-24	42"	24 FT <sup>2</sup>	360 GPM	360 GPM	6"	20	20	23.75	7.56	
HZF-42-27	42"	27 FT <sup>2</sup>	405 GPM	405 GPM	6"	24	24	27.70	7.65	
HZF-42-30	42"	30 FT <sup>2</sup>	450 GPM	450 GPM	6"	28	28	29.53	9.44	
HZF-42-33	42"	33 FT <sup>2</sup>	495 GPM	495 GPM	6"	32	32	32.30	10.40	
HZF-42-35	42"	35 FT <sup>2</sup>	525 GPM	525 GPM	6"	36	36	35.30	9.74	
<b>QTY:1</b>	<b>HZF-48-23</b>	<b>48"</b>	<b>23 FT<sup>2</sup></b>	<b>345 GPM</b>	<b>345 GPM</b>	<b>6"</b>	<b>16</b>	<b>16</b>	<b>25.82</b>	<b>6.05</b>
	HZF-48-25	48"	25 FT <sup>2</sup>	375 GPM	375 GPM	6"	18	18	29.50	7.94
	HZF-48-30	48"	30 FT <sup>2</sup>	450 GPM	450 GPM	6"	22	22	34.64	8.38
	HZF-48-34	48"	34 FT <sup>2</sup>	510 GPM	510 GPM	6"	28	28	41.00	9.00
	HZF-48-37	48"	37 FT <sup>2</sup>	555 GPM	555 GPM	6"	32	32	44.05	10.96
	HZF-48-42	48"	42 FT <sup>2</sup>	630 GPM	630 GPM	6"	36	36	50.00	11.00
	HZF-48-46	48"	46 FT <sup>2</sup>	690 GPM	690 GPM	6"	40	40	54.95	12.00
	HZF-48-50	48"	50 FT <sup>2</sup>	750 GPM	750 GPM	6"	44	44	59.84	15.14
	HZF-60-35	60"	35 FT <sup>2</sup>	525 GPM	525 GPM	6"	22	44	50.00	16.76
	HZF-60-40	60"	40 FT <sup>2</sup>	600 GPM	600 GPM	6"	26	52	55.56	18.34
	HZF-60-46	60"	46 FT <sup>2</sup>	690 GPM	690 GPM	6"	32	64	64.82	21.54
	HZF-60-52	60"	52 FT <sup>2</sup>	780 GPM	780 GPM	6"	36	72	69.34	21.70
	HZF-60-60	60"	60 FT <sup>2</sup>	900 GPM	900 GPM	8"	42	84	83.24	27.08
	HZF-60-67	60"	67 FT <sup>2</sup>	1,005 GPM	1,005 GPM	8"	48	96	93.00	30.20

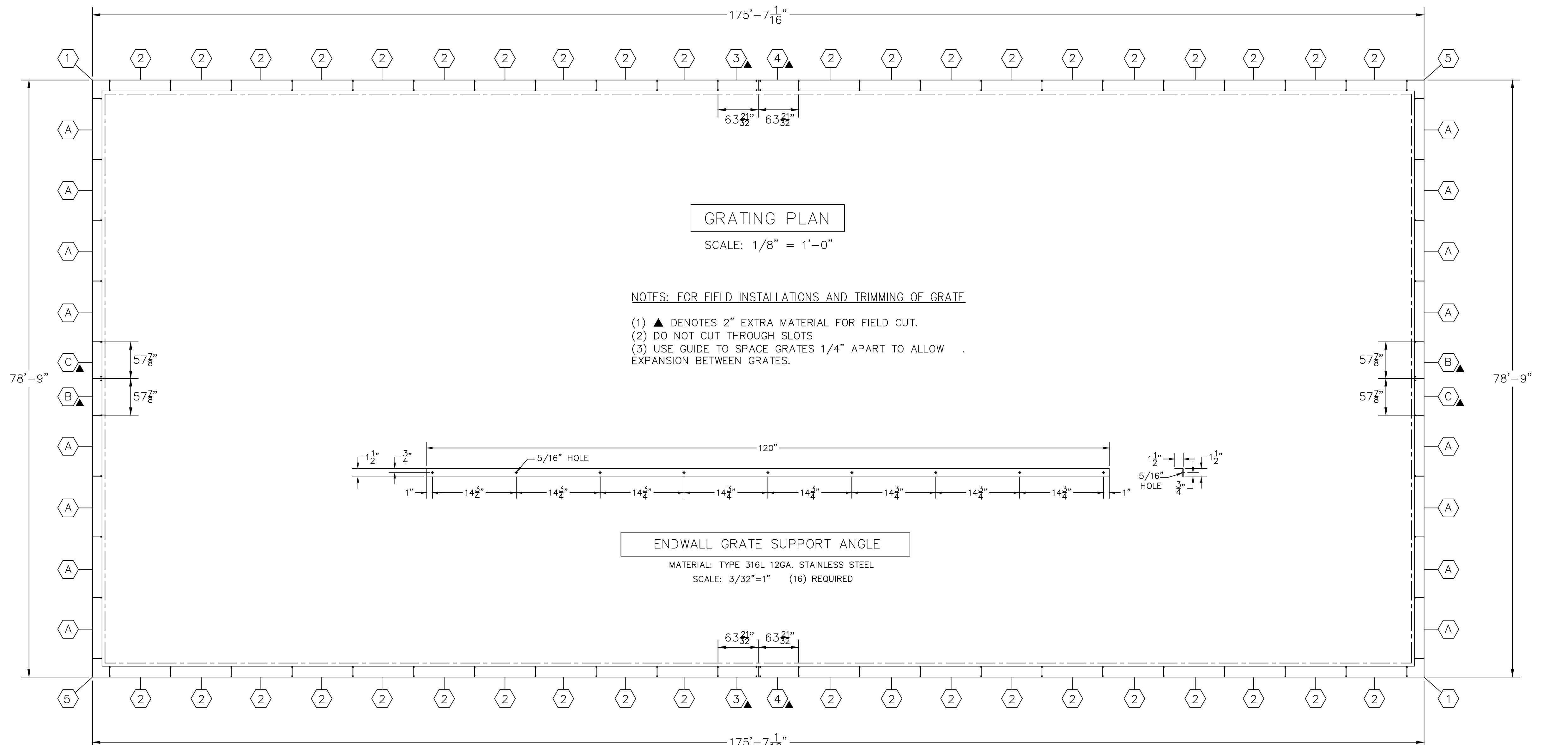
CATALOG NO.	DIM. 'A'	DIM. 'B'	DIM. 'C'	DIM. 'D'	DIM. 'E'	DIM. 'F'	DIM. 'G'	DIM. 'H'
HZF-32-16.5	2'-8"	7'-2"	3'-6"	1'-6 1/2"	2'-10"	1'-0 1/4"	2'-6"	8'-4 1/2"
HZF-34-16.5	2'-10"	6'-7"	3'-8 3/4"	1'-8 1/2"	2'-10"	11 5/8"	2'-6"	7'-9 1/2"
HZF-36-20	3'-0"	7'-5"	3'-10 3/4"	1'-10 1/2"	3'-2"	11 5/8"	3'-6"	8'-7 1/2"
HZF-36-23	3'-0"	8'-5"	3'-10 3/4"	1'-10 1/2"	3'-2"	11 5/8"	4'-0"	9'-10 3/4"
HZF-36-25	3'-0"	9'-1"	3'-10 3/4"	1'-10 1/2"	3'-2"	11 5/8"	4'-4"	10'-6 3/4"
HZF-42-24	3'-6"	7'-7"	4'-4 3/4"	2'-4 1/2"	3'-2"	11 5/8"	3'-6"	9'-0 3/4"
HZF-42-27	3'-6"	8'-4 1/2"	4'-4 3/4"	2'-4 1/2"	3'-2"	11 5/8"	4'-0"	9'-7"
HZF-42-30	3'-6"	9'-3 1/2"	4'-4 3/4"	2'-4 1/2"	3'-2"	11 5/8"	4'-6"	10'-6"
HZF-42-33	3'-6"	10'-1"	4'-4 3/4"	2'-4 1/2"	3'-2"	11 5/8"	5'-0"	11'-3 1/2"
HZF-42-35	3'-6"	10'-9 1/2"	4'-4 3/4"	2'-4 1/2"	3'-2"	11 5/8"	5'-6"	12'-0"
<b>QTY: 1</b>	<b>HZF-48-23</b>	<b>4'-0"</b>	<b>6'-0 3/8"</b>	<b>4'-10 3/4"</b>	<b>2'-10 1/2"</b>	<b>3'-2"</b>	<b>11 5/8"</b>	<b>2'-0"</b>
	HZF-48-25	4'-0"	6'-9 3/8"	4'-10 3/4"	2'-10 1/2"	3'-2"	11 5/8"	2'-6"
	HZF-48-30	4'-0"	8'-0"	4'-10 3/4"	2'-10 1/2"	3'-2"	11 5/8"	3'-6"
	HZF-48-34	4'-0"	8'-11 3/4"	4'-10 3/4"	2'-10 1/2"	3'-2"	11 5/8"	9'-5 3/4"
	HZF-48-37	4'-0"	9'-9 3/8"	4'-10 3/4"	2'-10 1/2"	3'-2"	11 5/8"	4'-0"
	HZF-48-42	4'-0"	11'-0 3/8"	4'-10 3/4"	2'-10 1/2"	3'-2"	11 5/8"	10'-2 1/4"
	HZF-48-46	4'-0"	12'-0 3/8"	4'-10 3/4"	2'-10 1/2"	3'-2"	11 5/8"	5'-0"
	HZF-48-50	4'-0"	12'-11 3/4"	4'-10 3/4"	2'-10 1/2"	3'-2"	11 5/8"	12'-9"
	HZF-60-35	5'-0"	7'-9 7/8"	5'-10 3/4"	3'-2 1/2"	5'-5"	15 5/8"	3'-0"
	HZF-60-40	5'-0"	8'-9 7/8"	5'-10 3/4"	3'-2 1/2"	5'-5"	15 5/8"	3'-3"
	HZF-60-46	5'-0"	10'-1 7/8"	5'-10 3/4"	3'-2 1/2"	5'-5"	15 5/8"	4'-2"
	HZF-60-52	5'-0"	11'-3 7/8"	5'-10 3/4"	3'-2 1/2"	5'-5"	15 5/8"	5'-0"
	HZF-60-60	5'-0"	12'-11"	5'-10 3/4"	3'-2 1/2"	5'-5"	15 5/8"	6'-0"
	HZF-60-67	5'-0"	14'-3 7/8"	5'-10 3/4"	3'-2 1/2"	5'-5"	15 5/8"	6'-6"
								15'-6 3/8"

DNC NO.	DRAWING DATE	DESCRIPTION	FIBERGLASS HORIZONTAL FILTERS		
			REV	REVISION DESCRIPTION	DATE
I	O	JOB NAME & LOCATION USD Wellness Center	-	CHART INFO UPDATE	7/15/13
		CUSTOMER Capri Pools			



555 Paddock Parkway  
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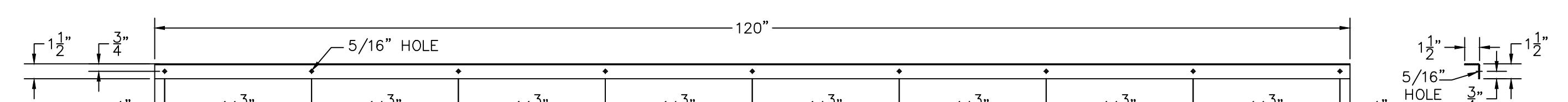


## GRATING PLAN

SCALE: 1/8" = 1'-0"

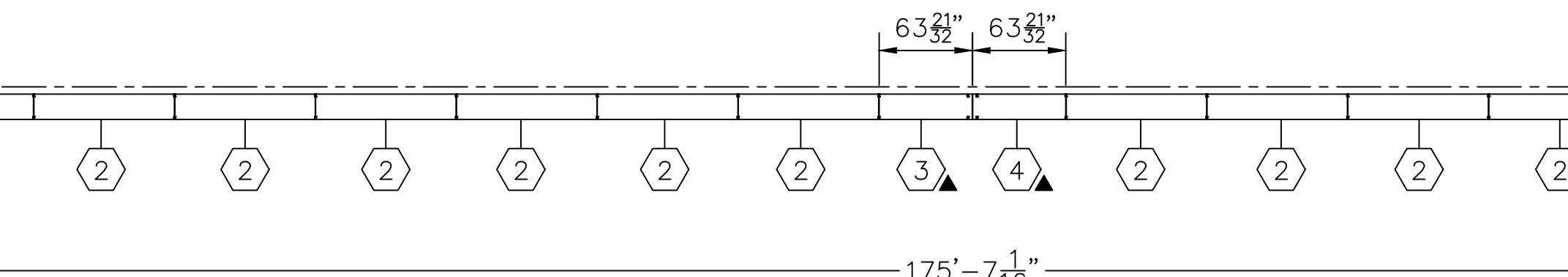
## NOTES: FOR FIELD INSTALLATIONS AND TRIMMING OF GRATE

- (1) ▲ DENOTES 2" EXTRA MATERIAL FOR FIELD CUT.
  - (2) DO NOT CUT THROUGH SLOTS
  - (3) USE GUIDE TO SPACE GRATES 1/4" APART TO ALLOW .  
EXPANSION BETWEEN GRATES.



## ENDWALL GRATE SUPPORT ANGLE

MATERIAL: TYPE 316L 12GA. STAINLESS STEEL  
SCALE: 3/32"=1" (16) REQUIRED

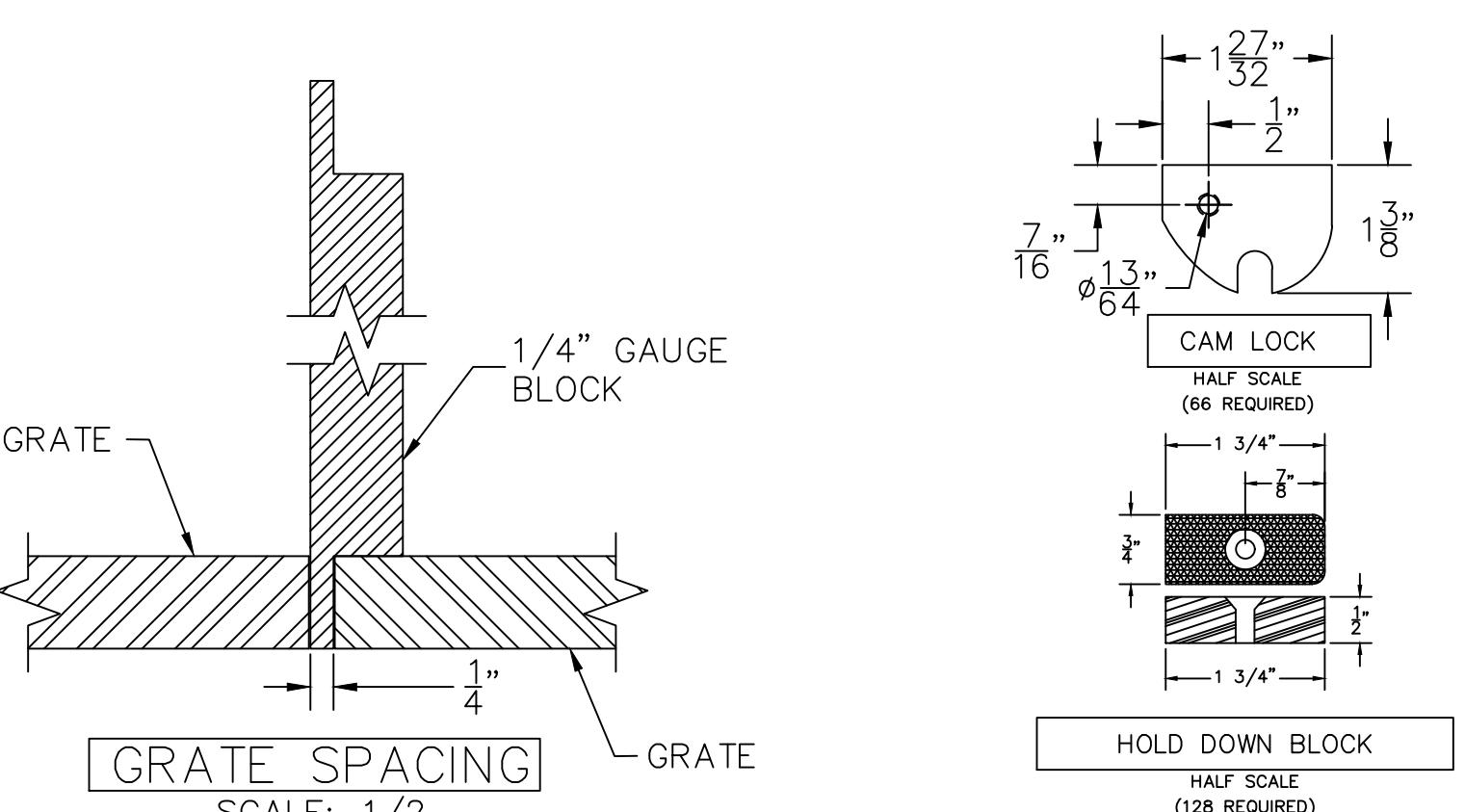


## ENDWALL SPACER GAUGE

SCALE: 1/8  
(2) REQUIRED

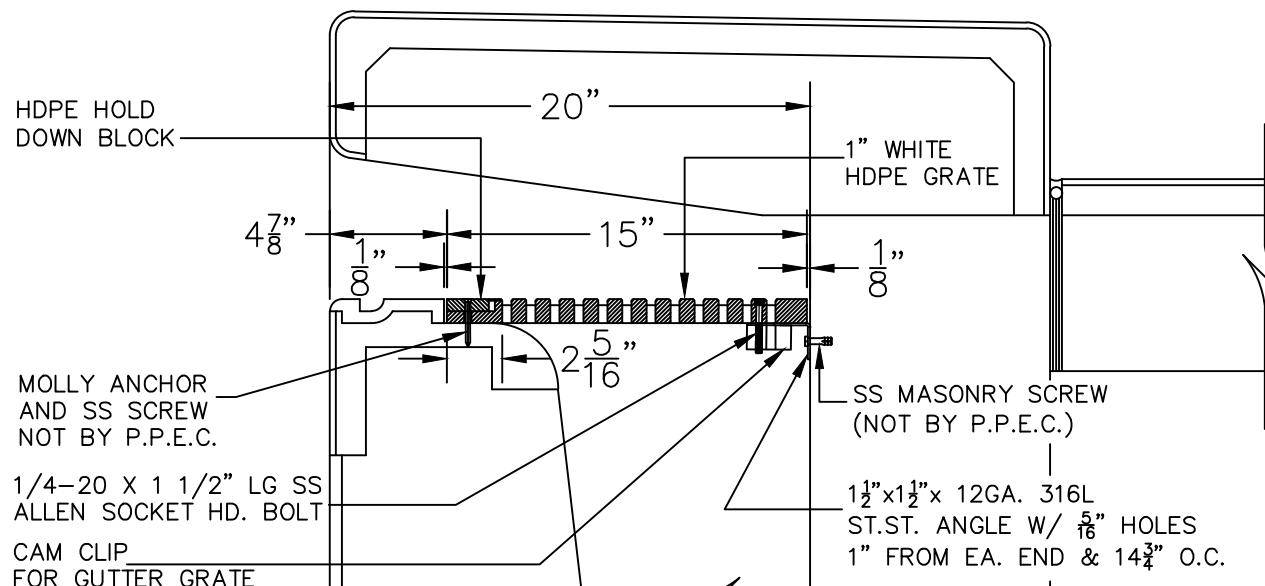
# SIDEWALL SPACER GAUGE

SCALE: 1/8  
(2) REQUIRED



## POOL SIDEWALL GRATE SECTION

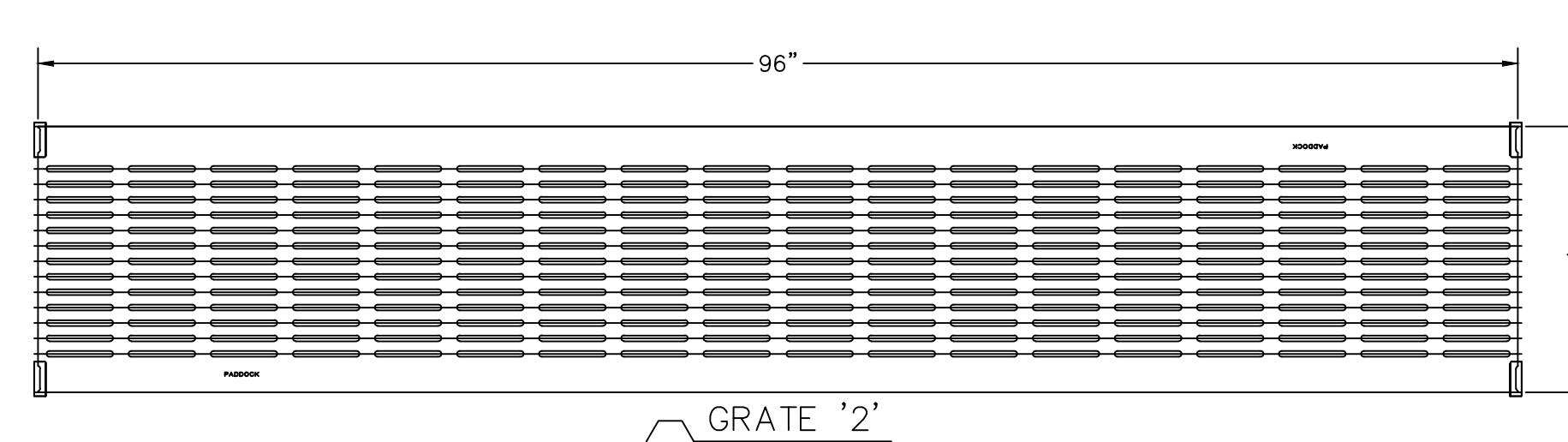
SCALE: 1 1/2" = 1'-0"



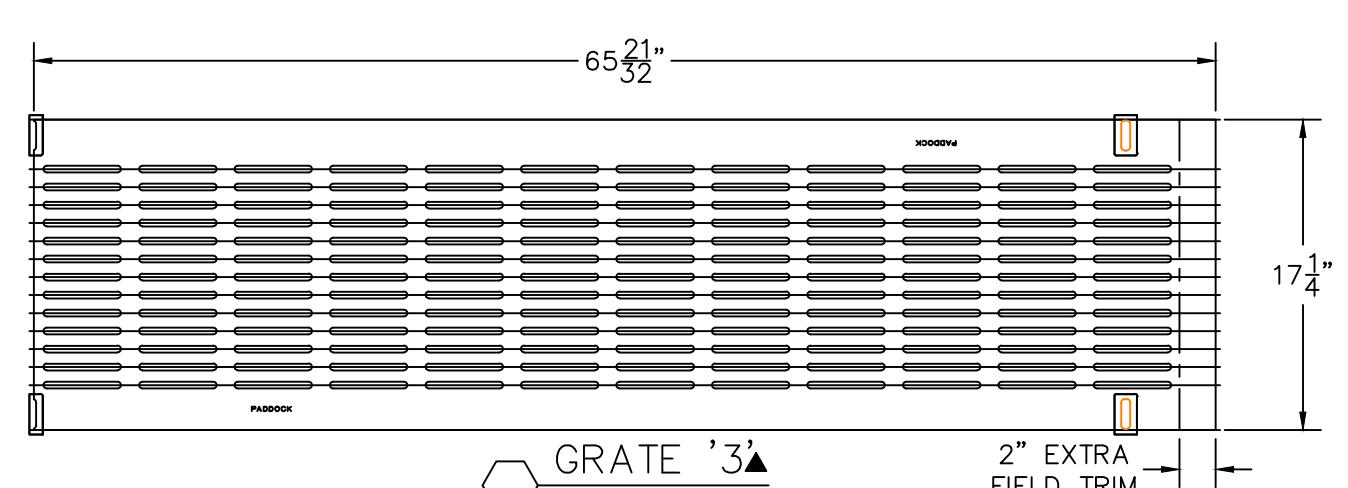
## POOL ENDWALL GRATE SECTION

SCALE: 1 1/2" = 1'-0"

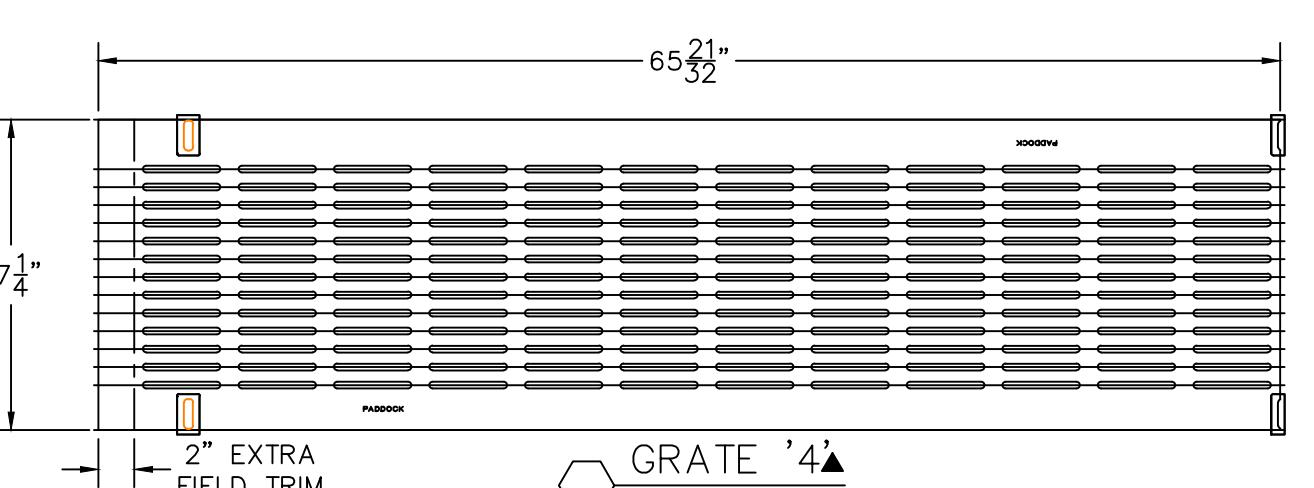
SHIPPING SCHEDULE	
7" X 29 1/4" X 1" WHITE HDPE GRATE CORNER SECTION	4
SIDEWALL WHITE HDPE GRATE 1" X 17 1/4", (46) SECTIONS	±342'-1 1/8"
ENDWALL WHITE HDPE GRATE 1" X 15", (20) SECTIONS	±149'-2"
1/2" X 1 1/2" X 10'-0" X 12GA. 316L ST.ST. ANGLE WITH 5/16" HOLES " FROM EACH END & 14 3/4" O.C.	16
HDPE 3/4" X 1 3/4" X 1/2" HOLD DOWN BLOCKS; SHIP LOOSE	132
HDPE ENDWALL CAM LOCK	66
1/4-20 X 1 1/2" LG. SS ALLEN SOCKET HEAD BOLT	63
ENDWALL WHITE HDPE 1/4" GRATE SPACER GAUGE	2
SIDEWALL WHITE HDPE 1/4" GRATE SPACER GAUGE 12" X 16"	2



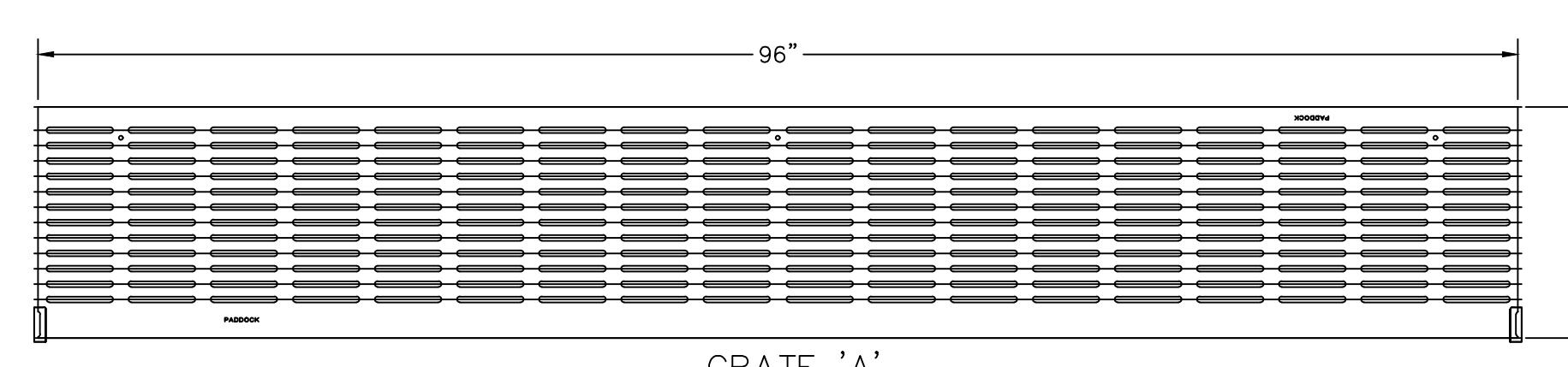
GRATE '21  
(10) REQUIRED



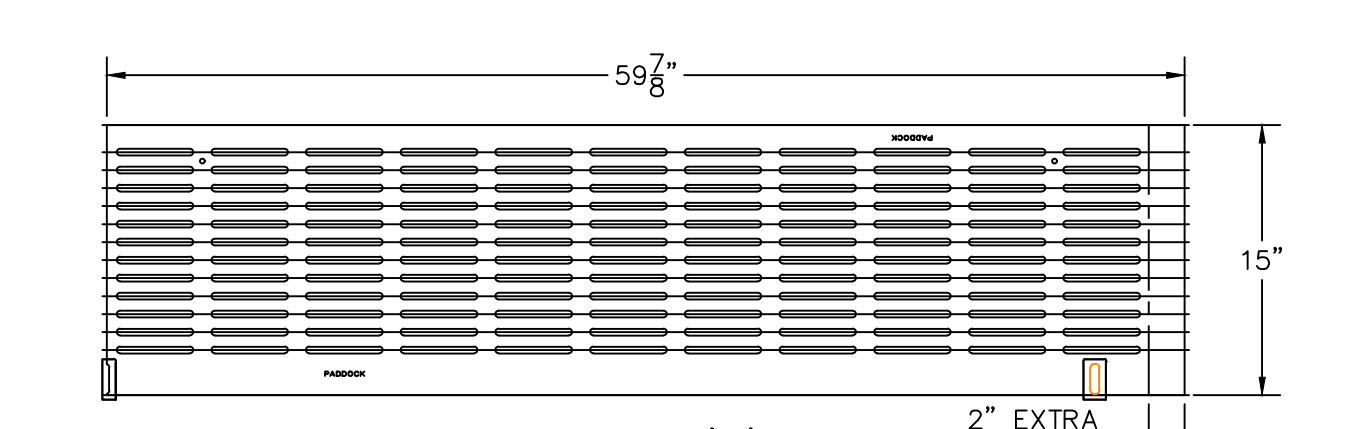
GRAT  
(c) BEG



GRAT  
(s) PE

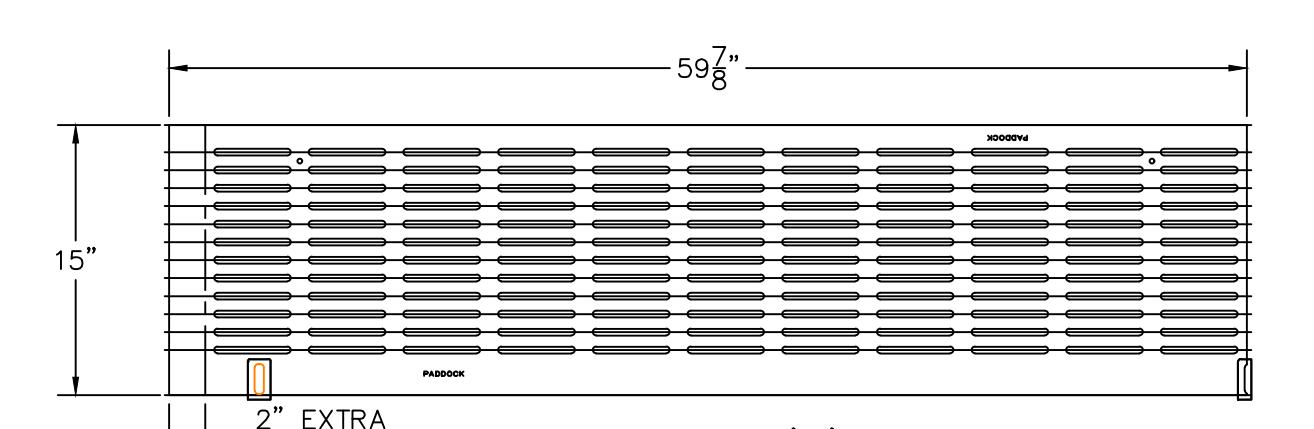


GRATE 'A



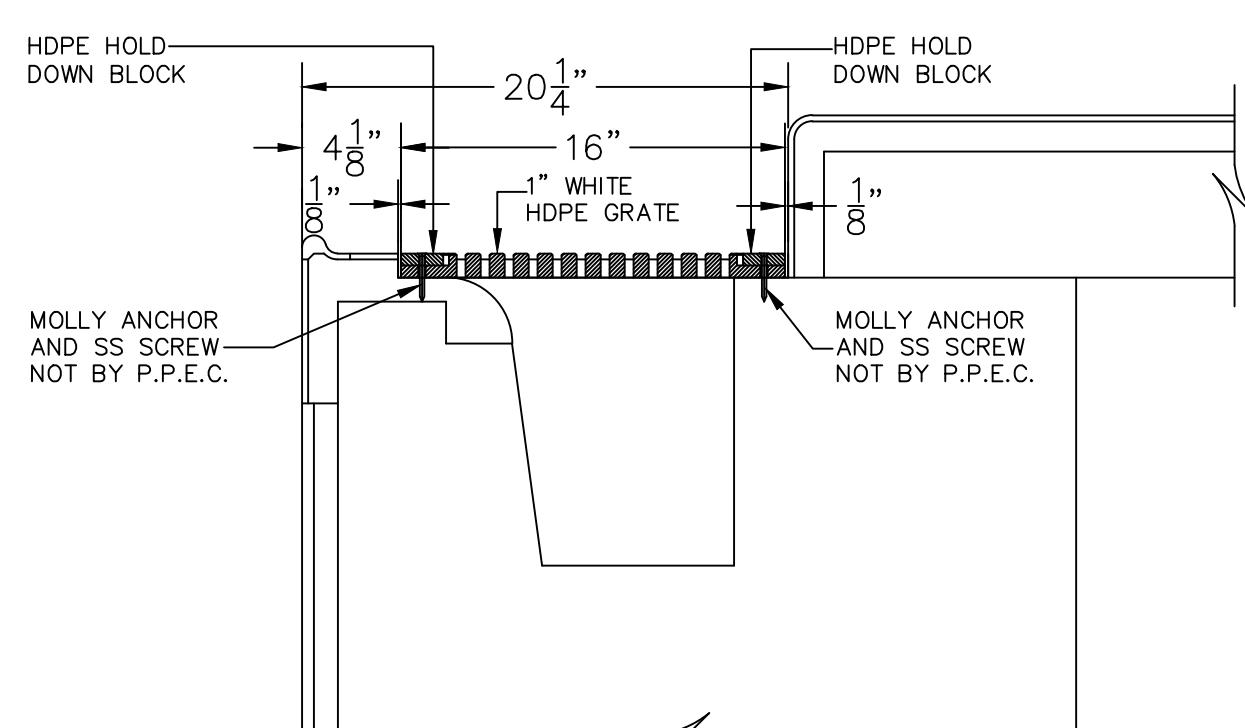
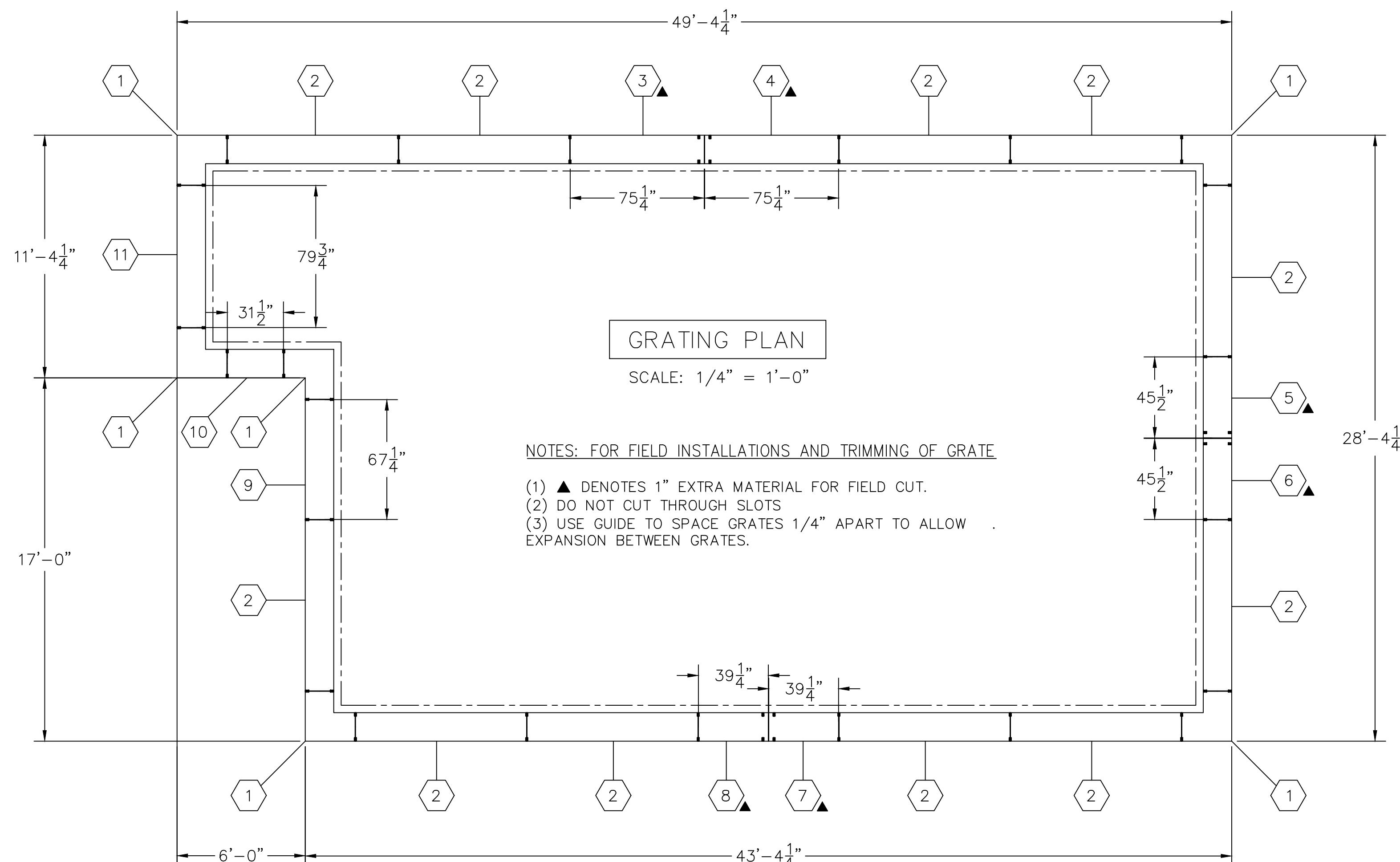
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QDA

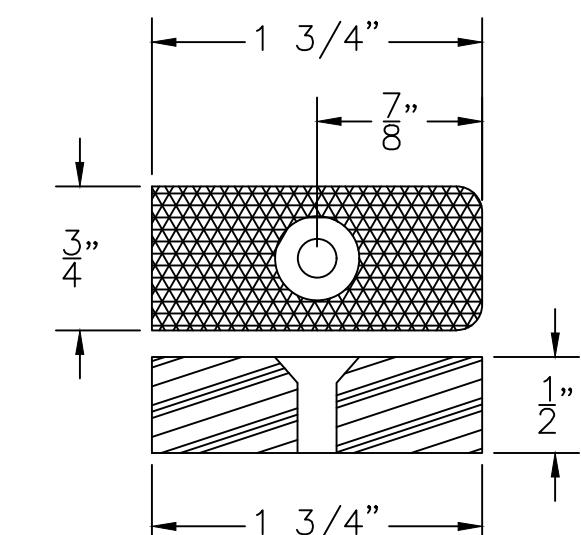


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284

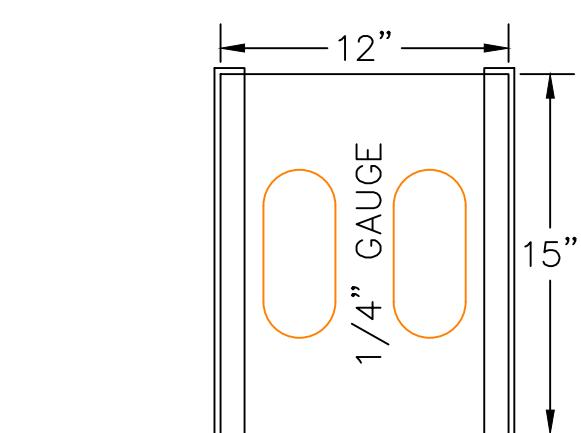
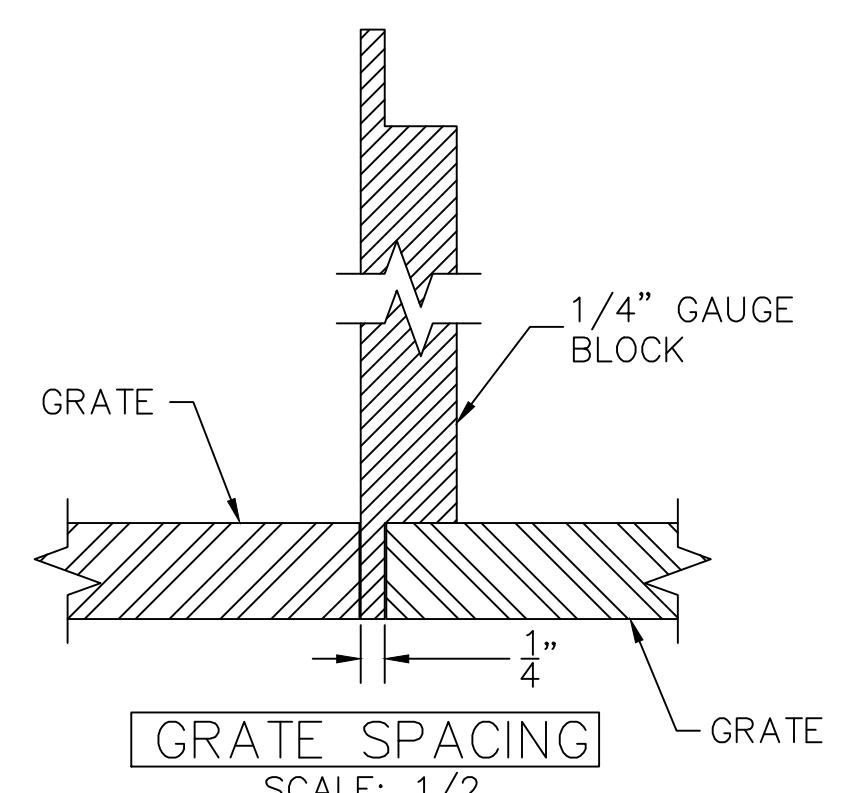


**POOL GRATE SECTION**  
SCALE:  $1\frac{1}{2}'' = 1'-0''$

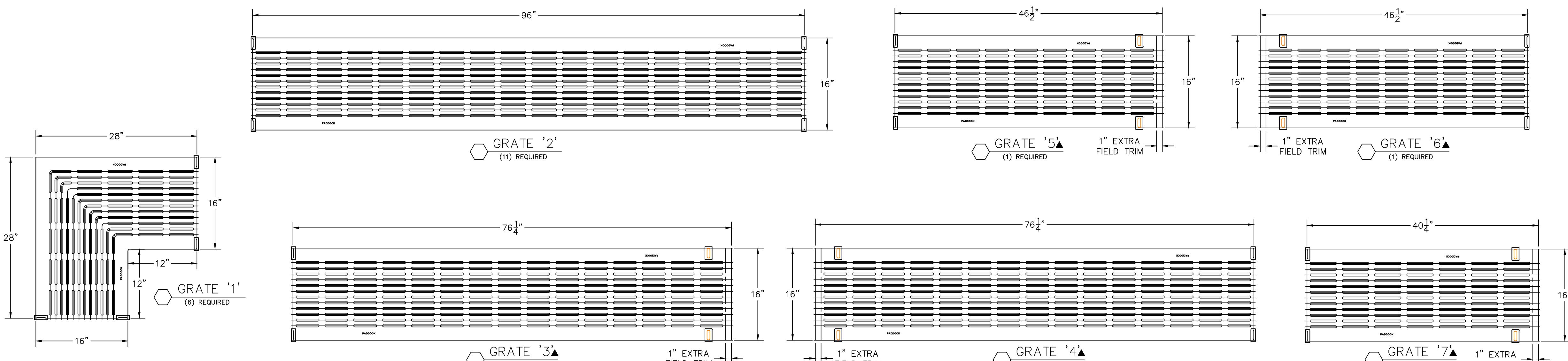


**HOLD DOWN BLOCK**  
FULL SCALE  
(58 REQUIRED)

ACTIVITY POOL 16" WIDE WHITE HDPE GRATE SCHEDULE				
SECTION NO.	QTY REQ'D	'L' LENGTH	'L' + 1" EXTRA FOR FIELD CUT	OTHER
1	6	28" x 28"	NONE	CORNER
2	11	96"	NONE	
3	1	75 1/4"	76 1/4"	
4	1	75 1/4"	76 1/4"	
5	1	45 1/2"	46 1/2"	
6	1	45 1/2"	46 1/2"	
7	1	39 1/4"	40 1/4"	
8	1	39 1/4"	40 1/4"	
9	1	67 1/4"	NONE	
10	1	67 1/4"	NONE	
11	1	67 1/4"	NONE	
<b>TOTALS</b>	<b>26</b>			

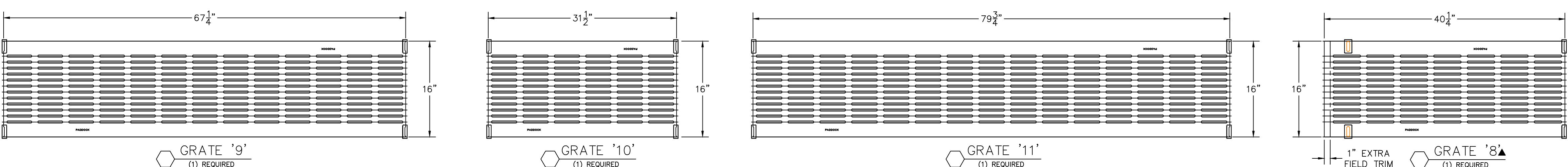


**SIDEWALL SPACER GAUGE**  
SCALE:  $1/8$   
(2) REQUIRED



SHIPPING SCHEDULE	
28" X 28" X 1" WHITE HDPE GRATE CORNER SECTION	6
WHITE HDPE GRATE 1" X 16", (20) SECTIONS	$\pm 130 - 1"$
HOPE 3/4" X 1 3/4" X 1/2" HOLD DOWN BLOCKS; SHIP LOOSE	58
WHITE HDPE 1/4" GRATE SPACER GAUGE 12" X 15"	2

INCL. 10% EXTRA



555 Paddock Parkway Rock Hill, SC 29730 Phone: (803) 324-1111 Fax: (803) 324-1116 info@paddockindustries.com	DESCRIPTION ACTIVITY POOL GRATE LAYOUT DETAILS
DO NOT SCALE DRAWING TOLERANCE UNLESS OTHERWISE NOTED $x \pm 1/8$ $x \pm 1/32$ $x \pm .005$	
JOB NAME UNIVERSITY OF SOUTH DAKOTA	
DRAWN M.J.G.	DATE 5-3-23
CHECKED APPROVED	LOCATION VERMILLION, SOUTH DAKOTA
CUSTOMER CAPRI POOLS & AQUATICS	
SCALE (UNLESS NOTED) 5/16"-1"-0"	
W.O. # JOB: 23151.02	SIZE D DWG. NO. 23151.02

**AIR RELIEF/Vent Valve: PVC, PVC,  
¾ IN Inlet Size, FNPT Connection**

232 psi Max. Pressure

Item # 4GPP3

Mfr. Model 4GPP3

**PN 700901**



Description:

For use in water distribution and steam systems, these vent valves can help to eliminate pockets of air.

## Product Details

Inlet Size	<b>3/4 in</b>	Vent Dia.	<b>¾ in.</b>
Body Material	<b>PVC</b>	Vent Height	<b>18 in</b>
Connection Type	<b>FNPT</b>	Product Type	<b>Vent Valve</b>
Float Material	<b>PVC</b>	Manufacturer #	<b>4GPP3</b>
Max. Pressure	<b>232 psi</b>	UNSPSC	<b>40141606</b>
Min. Pressure	<b>1 psi</b>	Country of Origin	<b>Italy (subject to change)</b>
Temp. Range	<b>33° to 240°F</b>		

ITEM	DESCRIPTION
1	FIBERGLASS FILTER TANK, WITH FLANGED CONNECTIONS & SADDLES
2	TANK MANWAY ASSEMBLY
3	1" AIR RELEASE
4	SCH. 80 PVC OVERDRAIN HEADER WITH 1 1/2" PVC LATERALS
5	SCH. 80 PVC UNDERDRAIN HEADER W/2" NORYL THREADED LATERALS
6	GAUGE PANEL
7	FILTER SAND (.45 TO .55mm) UNIFORMITY COEFFICIENT </= 1.60
8	1/16 TO 1/8 GRAVEL MEDIA
9	FIBERGLASS BAFFLE PLATES

VALVE LEGEND			
NO.	VALVE DESCRIPTION	FILTER	BACKWASH
2	RETURN TO POOL	<input type="checkbox"/>	X
3	BACKWASH TO WASTE	X	<input type="checkbox"/>
4	FILTER INFLUENT	<input type="checkbox"/>	X
5	BACKWASH INFLUENT	X	<input type="checkbox"/>

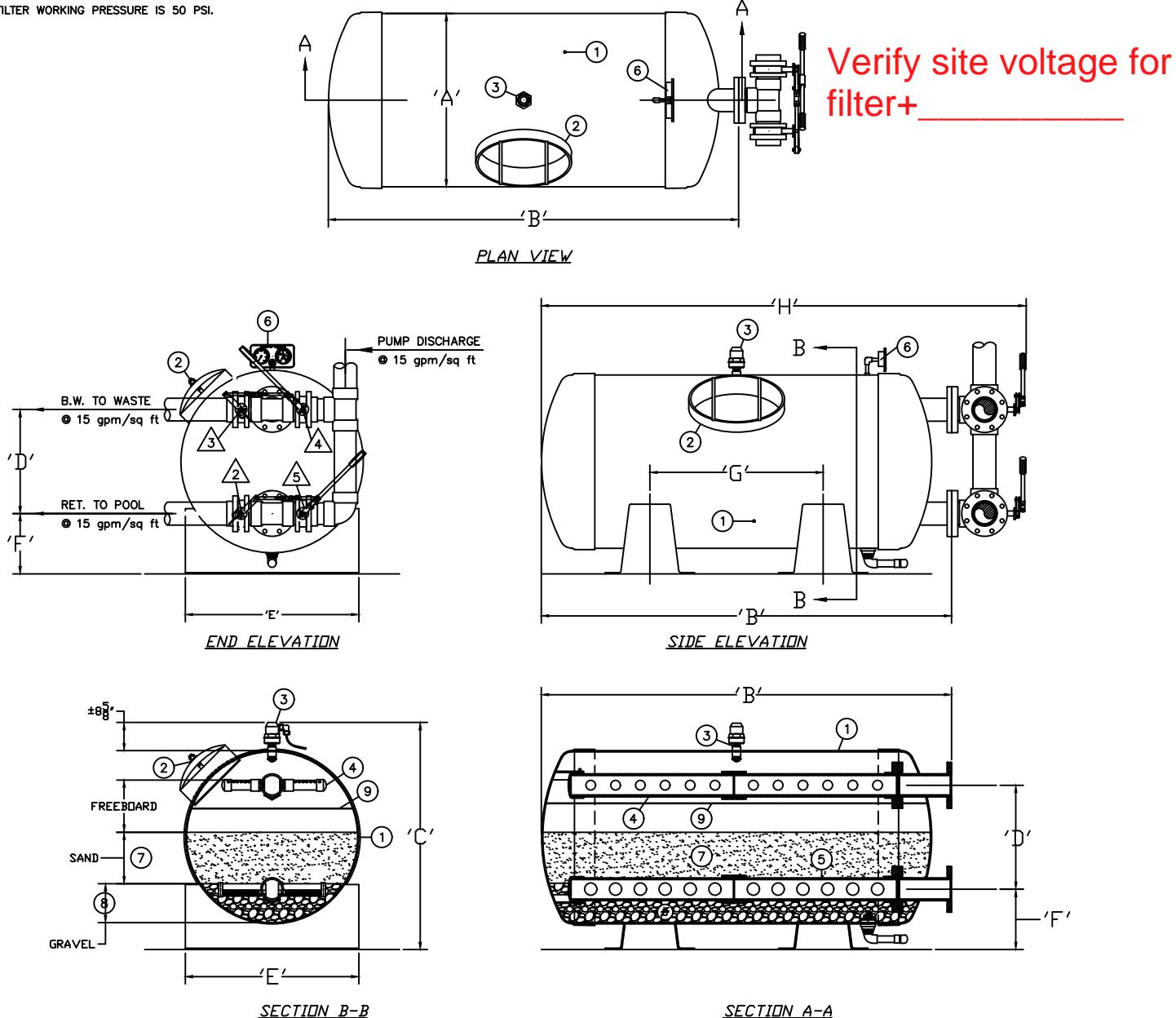
□-OPEN, X-CLOSED

GENERAL NOTES:

PIPING – SCH. 80 PVC, MAX. VELOCITY LESS THAN 10 FPS. PIPING DEPICTED WITH DASHED LINES NOT SUPPLIED BY PADDOCK.

FILTER WORKING PRESSURE IS 50 PSI.

Manway Location Left: \_\_\_\_\_ Right: \_\_\_\_\_



## PADDOCK FIBERGLASS HORIZONTAL FILTERS



Certified to  
NSF/ANSI Standard 50

DWG. NO.	DESCRIPTION	FIBERGLASS HORIZONTAL FILTERS		
		REV	REVISION DESCRIPTION	DATE
1	JOB NAME & LOCATION			
1	CUSTOMER			
1	DWG. DATE 12/18/18			
1	REV 1			



**PADDOCK**  
POOL EQUIPMENT COMPANY  
555 Paddock Parkway  
Rock Hill, SC 29730-1676  
[info@paddockindustries.com](mailto:info@paddockindustries.com)

(800)849-2729  
Fax:(803)324-1116

PADDOCK FIBERGLASS HORIZONTAL FILTERS

CATALOG NO.	DIA.	FILTER AREA	FILTER RATE		TANK CONN. SIZE	OVERDRAIN LAT'S/TANK	UNDERDRAIN LAT'S/TANK	MEDIA PER TANK (CU FT)		
			15 GPM/FT <sup>2</sup>	15 GPM/FT <sup>2</sup>				SAND	GRAVEL	
HZF-32-16.5	32"	16.5 FT <sup>2</sup>	247.5 GPM	247.5 GPM	4"	20	20	10.90	5.69	
HZF-34-16.5	34"	16.5 FT <sup>2</sup>	247.5 GPM	247.5 GPM	4"	24	24	11.60	6.06	
HZF-36-20	36"	20 FT <sup>2</sup>	300 GPM	300 GPM	6"	24	24	15.64	5.84	
HZF-36-23	36"	23 FT <sup>2</sup>	345 GPM	345 GPM	6"	26	26	17.96	6.75	
HZF-36-25	36"	25 FT <sup>2</sup>	375 GPM	375 GPM	6"	28	28	19.59	7.45	
HZF-42-24	42"	24 FT <sup>2</sup>	360 GPM	360 GPM	6"	20	20	23.75	7.56	
HZF-42-27	42"	27 FT <sup>2</sup>	405 GPM	405 GPM	6"	24	24	27.70	7.65	
HZF-42-30	42"	30 FT <sup>2</sup>	450 GPM	450 GPM	6"	28	28	29.53	9.44	
HZF-42-33	42"	33 FT <sup>2</sup>	495 GPM	495 GPM	6"	32	32	32.30	10.40	
HZF-42-35	42"	35 FT <sup>2</sup>	525 GPM	525 GPM	6"	36	36	35.30	9.74	
<b>QTY:1</b>	<b>HZF-48-23</b>	<b>48"</b>	<b>23 FT<sup>2</sup></b>	<b>345 GPM</b>	<b>345 GPM</b>	<b>6"</b>	<b>16</b>	<b>16</b>	<b>25.82</b>	<b>6.05</b>
HZF-48-25	48"	25 FT <sup>2</sup>	375 GPM	375 GPM	6"	18	18	29.50	7.94	
HZF-48-30	48"	30 FT <sup>2</sup>	450 GPM	450 GPM	6"	22	22	34.64	8.38	
HZF-48-34	48"	34 FT <sup>2</sup>	510 GPM	510 GPM	6"	28	28	41.00	9.00	
HZF-48-37	48"	37 FT <sup>2</sup>	555 GPM	555 GPM	6"	32	32	44.05	10.96	
HZF-48-42	48"	42 FT <sup>2</sup>	630 GPM	630 GPM	6"	36	36	50.00	11.00	
HZF-48-46	48"	46 FT <sup>2</sup>	690 GPM	690 GPM	6"	40	40	54.95	12.00	
HZF-48-50	48"	50 FT <sup>2</sup>	750 GPM	750 GPM	6"	44	44	59.84	15.14	
HZF-60-35	60"	35 FT <sup>2</sup>	525 GPM	525 GPM	6"	22	44	50.00	16.76	
HZF-60-40	60"	40 FT <sup>2</sup>	600 GPM	600 GPM	6"	26	52	55.56	18.34	
HZF-60-46	60"	46 FT <sup>2</sup>	690 GPM	690 GPM	6"	32	64	64.82	21.54	
HZF-60-52	60"	52 FT <sup>2</sup>	780 GPM	780 GPM	6"	36	72	69.34	21.70	
HZF-60-60	60"	60 FT <sup>2</sup>	900 GPM	900 GPM	8"	42	84	83.24	27.08	
HZF-60-67	60"	67 FT <sup>2</sup>	1,005 GPM	1,005 GPM	8"	48	96	93.00	30.20	

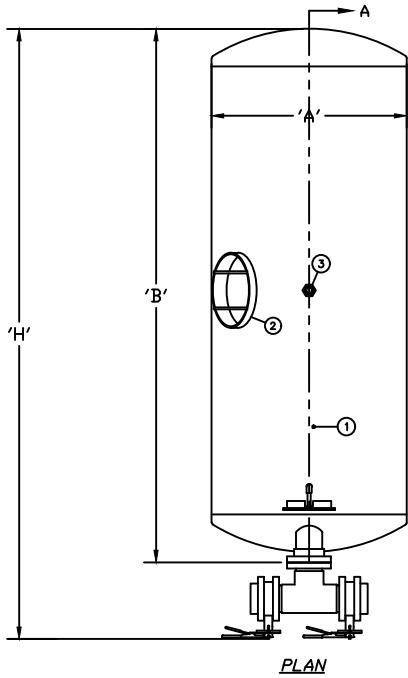
CATALOG NO.	DIM. 'A'	DIM. 'B'	DIM. 'C'	DIM. 'D'	DIM. 'E'	DIM. 'F'	DIM. 'G'	DIM. 'H'
HZF-32-16.5	2'-8"	7'-2"	3'-6"	1'-6 1/2"	2'-10"	1'-0 1/4"	2'-6"	8'-4 1/2"
HZF-34-16.5	2'-10"	6'-7"	3'-8 3/4"	1'-8 1/2"	2'-10"	11 5/8"	2'-6"	7'-9 1/2"
HZF-36-20	3'-0"	7'-5"	3'-10 3/4"	1'-10 1/2"	3'-2"	11 5/8"	3'-6"	8'-7 1/2"
HZF-36-23	3'-0"	8'-5"	3'-10 3/4"	1'-10 1/2"	3'-2"	11 5/8"	4'-0"	9'-10 3/4"
HZF-36-25	3'-0"	9'-1"	3'-10 3/4"	1'-10 1/2"	3'-2"	11 5/8"	4'-4"	10'-6 3/4"
HZF-42-24	3'-6"	7'-7"	4'-4 3/4"	2'-4 1/2"	3'-2"	11 5/8"	3'-6"	9'-0 3/4"
HZF-42-27	3'-6"	8'-4 1/2"	4'-4 3/4"	2'-4 1/2"	3'-2"	11 5/8"	4'-0"	9'-7"
HZF-42-30	3'-6"	9'-3 1/2"	4'-4 3/4"	2'-4 1/2"	3'-2"	11 5/8"	4'-6"	10'-6"
HZF-42-33	3'-6"	10'-1"	4'-4 3/4"	2'-4 1/2"	3'-2"	11 5/8"	5'-0"	11'-3 1/2"
HZF-42-35	3'-6"	10'-9 1/2"	4'-4 3/4"	2'-4 1/2"	3'-2"	11 5/8"	5'-6"	12'-0"
<b>QTY: 1</b>	<b>HZF-48-23</b>	<b>4'-0"</b>	<b>6'-0 3/8"</b>	<b>4'-10 3/4"</b>	<b>2'-10 1/2"</b>	<b>3'-2"</b>	<b>11 5/8"</b>	<b>2'-0"</b>
HZF-48-25	4'-0"	6'-9 3/8"	4'-10 3/4"	2'-10 1/2"	3'-2"	11 5/8"	2'-6"	7'-11 7/8"
HZF-48-30	4'-0"	8'-0"	4'-10 3/4"	2'-10 1/2"	3'-2"	11 5/8"	3'-6"	9'-5 3/4"
HZF-48-34	4'-0"	8'-11 3/4"	4'-10 3/4"	2'-10 1/2"	3'-2"	11 5/8"	4'-0"	10'-2 1/4"
HZF-48-37	4'-0"	9'-9 3/8"	4'-10 3/4"	2'-10 1/2"	3'-2"	11 5/8"	4'-6"	10'-7 7/8"
HZF-48-42	4'-0"	11'-0 3/8"	4'-10 3/4"	2'-10 1/2"	3'-2"	11 5/8"	5'-0"	12'-2 7/8"
HZF-48-46	4'-0"	12'-0 3/8"	4'-10 3/4"	2'-10 1/2"	3'-2"	11 5/8"	5'-6"	12'-9"
HZF-48-50	4'-0"	12'-11 3/4"	4'-10 3/4"	2'-10 1/2"	3'-2"	11 5/8"	6'-0"	14'-2 1/4"
HZF-60-35	5'-0"	7'-9 7/8"	5'-10 3/4"	3'-2 1/2"	5'-5"	15 5/8"	3'-0"	9'-0 3/8"
HZF-60-40	5'-0"	8'-9 7/8"	5'-10 3/4"	3'-2 1/2"	5'-5"	15 5/8"	3'-3"	10'-3 3/8"
HZF-60-46	5'-0"	10'-1 7/8"	5'-10 3/4"	3'-2 1/2"	5'-5"	15 5/8"	4'-2"	11'-3 3/8"
HZF-60-52	5'-0"	11'-3 7/8"	5'-10 3/4"	3'-2 1/2"	5'-5"	15 5/8"	5'-0"	12'-6 3/8"
HZF-60-60	5'-0"	12'-11"	5'-10 3/4"	3'-2 1/2"	5'-5"	15 5/8"	6'-0"	14'-8 3/8"
HZF-60-67	5'-0"	14'-3 7/8"	5'-10 3/4"	3'-2 1/2"	5'-5"	15 5/8"	6'-6"	15'-6 3/8"

DNC NO.	DRAWING DATE	DESCRIPTION	FIBERGLASS HORIZONTAL FILTERS		
			REV	REVISION DESCRIPTION	DATE
I	O	JOB NAME & LOCATION USD Wellness Center	-	CHART INFO UPDATE	7/15/13
		CUSTOMER Capri Pools			



555 Paddock Parkway  
Rock Hill, SC 29730-1676  
info@paddockindustries.com

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Fax: (803)324-1116



QTY \_\_\_\_\_ Units \_\_\_\_\_

VALVE LEGEND				
NO.	VALVE DESCRIPTION	FILTER	BACKWASH FILTER #1	BACKWASH FILTER #2
2	RETURN TO POOL	□	X	X
3	FILTER INFLUENT #1	□	X	□
4	FILTER EFFLUENT (B.W. #1)	X	□	X
5	FILTER INFLUENT #2	□	□	X
6	FILTER EFFLUENT (B.W. #2)	X	X	□
7	BACKWASH CONTROL VALVE	□	□	□

□-OPEN, X-CLOSED

ITEM	DESCRIPTION
1	FIBERGLASS FILTER TANK, WITH FLANGED CONNECTIONS & SADDLES
2	TANK MANWAY ASSEMBLY
3	1" AIR RELEASE
4	SCH. 80 PVC OVERDRAIN HEADER WITH 1 1/2" PVC LATERALS
5	SCH. 80 PVC UNDERDRAIN HEADER W/2" NORYL THREADED LATERALS
6	GAUGE PANEL
7	FILTER SAND (.45 TO .55mm) UNIFORMITY COEFFICIENT </= 1.60
8	1/16 TD 1/8 GRAVEL MEDIA
9	FIBERGLASS BAFFLE PLATES

No Piping or Media by PPEC

GENERAL NOTES:

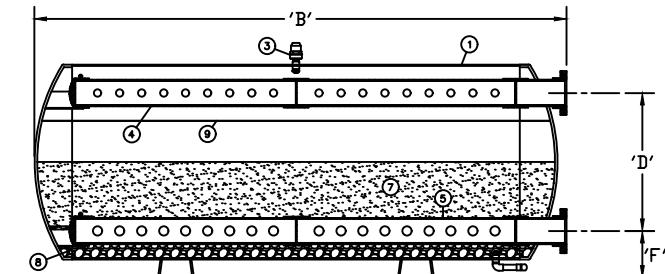
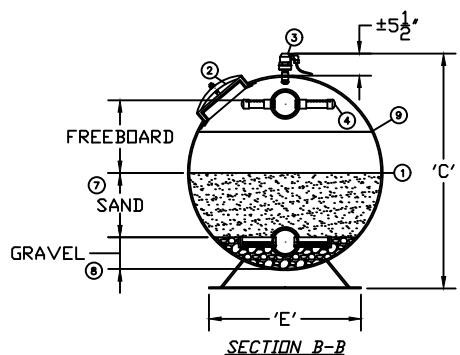
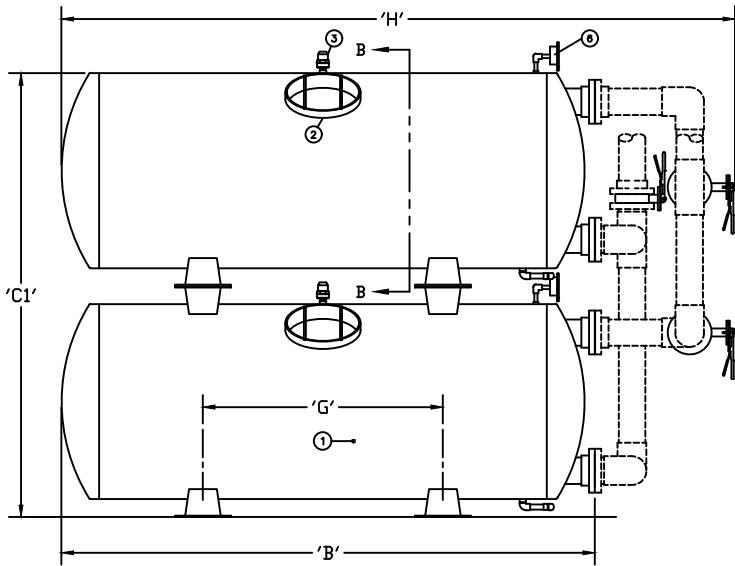
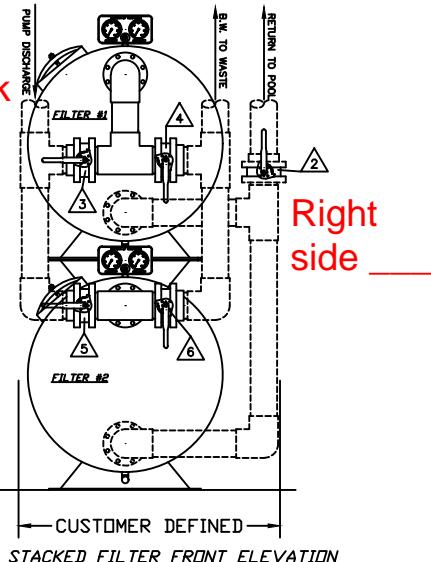
PIPING - SCH. 80 PVC, MAX. VELOCITY LESS THAN 10 FPS. PIPING DEPICTED WITH DASHED LINES AND BACKWASH CONTROL VALVE NOT SUPPLIED BY PADDOCK.

FILTER WORKING PRESSURE IS 50 PSI. TEST PRESSURE IS 65 PSI.

Need actual flow rate for label \_\_\_\_\_

Mark Manway  
Location on tank  
Left side \_\_\_\_\_  
Right side \_\_\_\_\_

NOTE:  
DASHED FACE PIPING NOT INCLUDED.



Approval Date: \_\_\_\_\_

Signature: \_\_\_\_\_



Certified to  
NSF/ANSI Standard 50

DWG. NO.	DESCRIPTION
12/17/18	JOB NAME & LOCATION
1 of 1 REV. 1	CUSTOMER



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Fax: (803)324-1116

FIBERGLASS HORIZONTAL FILTERS			
REV	REVISION DESCRIPTION	DATE	

**PADDOCK STACKED FIBERGLASS HORIZONTAL FILTERS**

CATALOG NO.	DIA.	TOTAL FILTER AREA	TOTAL FILTER RATE		TANK CONN. SIZE	OVERDRAIN LAT'S (TOTAL)	UNDERDRAIN LAT'S (TOTAL)	MEDIA PER (2) TANKS (CU FT)	
			15 GPM/FT <sup>2</sup>	15 GPM/FT <sup>2</sup>				SAND	GRAVEL
HZF-32-33	32"	33 FT <sup>2</sup>	495 GPM	247.5 GPM	4"	40	40	21.80	11.38
HZF-34-33	34"	33 FT <sup>2</sup>	495 GPM	247.5 GPM	4"	48	48	23.20	12.12
HZF-36-40	36"	40 FT <sup>2</sup>	600 GPM	300 GPM	6"	48	48	31.28	11.68
HZF-36-46	36"	46 FT <sup>2</sup>	690 GPM	345 GPM	6"	52	52	35.67	13.50
HZF-36-50	36"	50 FT <sup>2</sup>	750 GPM	375 GPM	6"	56	56	39.18	14.90
HZF-42-48	42"	48 FT <sup>2</sup>	720 GPM	360 GPM	6"	40	40	47.50	15.13
HZF-42-54	42"	54 FT <sup>2</sup>	810 GPM	405 GPM	6"	48	48	55.40	15.30
HZF-42-60	42"	60 FT <sup>2</sup>	900 GPM	450 GPM	6"	56	56	59.06	18.88
HZF-42-66	42"	66 FT <sup>2</sup>	990 GPM	495 GPM	6"	64	64	64.60	20.8
HZF-42-70	42"	70 FT <sup>2</sup>	1,050 GPM	525 GPM	6"	72	72	70.60	19.48
HZF-48-46	48"	46 FT <sup>2</sup>	690 GPM	345 GPM	6"	32	32	51.64	12.10
HZF-48-50	48"	50 FT <sup>2</sup>	750 GPM	375 GPM	6"	36	36	59.00	15.88
HZF-48-60	48"	60 FT <sup>2</sup>	900 GPM	450 GPM	6"	44	44	69.28	16.76
HZF-48-68	48"	68 FT <sup>2</sup>	1,020 GPM	510 GPM	6"	56	56	82.00	18.00
HZF-48-74	48"	74 FT <sup>2</sup>	1,110 GPM	555 GPM	6"	64	64	88.10	21.92
HZF-48-84	48"	84 FT <sup>2</sup>	1,260 GPM	630 GPM	6"	72	72	100.00	22.00
HZF-48-92	48"	92 FT <sup>2</sup>	1,380 GPM	690 GPM	6"	80	80	109.90	24.00
HZF-48-100	48"	100 FT <sup>2</sup>	1,500 GPM	750 GPM	6"	88	88	119.68	30.28
HZF-60-70	60"	70 FT <sup>2</sup>	1,050 GPM	525 GPM	6"	44	88	100.00	33.52
HZF-60-80	60"	80 FT <sup>2</sup>	1,200 GPM	600 GPM	6"	52	104	111.12	36.68
HZF-60-92	60"	92 FT <sup>2</sup>	1,380 GPM	690 GPM	6"	64	128	129.64	43.08
HZF-60-104	60"	104 FT <sup>2</sup>	1,560 GPM	780 GPM	6"	72	144	138.68	43.40
HZF-60-120	60"	120 FT <sup>2</sup>	1,800 GPM	900 GPM	8"	84	168	166.48	54.16
HZF-60-134	60"	134 FT <sup>2</sup>	2,010 GPM	1,005 GPM	8"	96	192	186.00	60.40

\*MULTI-TANK SYSTEM IS DESIGNED TO BACKWASH ONE TANK AT A TIME AT 15 GPM PER SQ. FT.

CATALOG NO.	DIM. 'A'	DIM. 'B'	DIM. 'C'	DIM. 'C1'	DIM. 'D'	DIM. 'E'	DIM. 'F'	DIM. 'G'	DIM. 'H'
HZF-32-33	2'-8"	7'-2"	3'-6"	7'-0 1/2"	1'-6 1/2"	2'-10"	1'-0 1/4"	2'-6"	9'-9 3/4"
HZF-34-33	2'-10"	6'-7"	3'-8 3/4"	7'-4 1/2"	1'-8 1/2"	2'-10"	11 5/8"	2'-6"	9'-6"
HZF-36-40	3'-0"	7'-5"	3'-10 3/4"	7'-8 1/2"	1'-10 1/2"	3'-2"	11 5/8"	3'-6"	10'-4"
HZF-36-46	3'-0"	8'-5"	3'-10 3/4"	7'-8 1/2"	1'-10 1/2"	3'-2"	11 5/8"	4'-0"	11'-4"
HZF-36-50	3'-0"	9'-1"	3'-10 3/4"	7'-8 1/2"	1'-10 1/2"	3'-2"	11 5/8"	4'-4"	12'-0"
HZF-42-48	3'-6"	7'-7"	4'-4 3/4"	8'-8 1/2"	2'-4 1/2"	3'-2"	11 5/8"	3'-6"	10'-6"
HZF-42-54	3'-6"	8'-4 1/2"	4'-4 3/4"	8'-8 1/2"	2'-4 1/2"	3'-2"	11 5/8"	4'-0"	11'-3 1/2"
HZF-42-60	3'-6"	9'-3 1/2"	4'-4 3/4"	8'-8 1/2"	2'-4 1/2"	3'-2"	11 5/8"	4'-6"	11'-9"
HZF-42-66	3'-6"	10'-1"	4'-4 3/4"	8'-8 1/2"	2'-4 1/2"	3'-2"	11 5/8"	5'-0"	12'-7"
HZF-42-70	3'-6"	10'-9 1/2"	4'-4 3/4"	8'-8 1/2"	2'-4 1/2"	3'-2"	11 5/8"	5'-6"	13'-8 1/2"
HZF-48-46	4'-0"	6'-0 3/8"	4'-10 3/4"	9'-8 1/2"	2'-10 1/2"	3'-2"	11 5/8"	2'-0"	8'-11 3/8"
HZF-48-50	4'-0"	6'-9 3/8"	4'-10 3/4"	9'-8 1/2"	2'-10 1/2"	3'-2"	11 5/8"	2'-6"	9'-8 3/8"
HZF-48-60	4'-0"	8'-0"	4'-10 3/4"	9'-8 1/2"	2'-10 1/2"	3'-2"	11 5/8"	3'-6"	10'-11"
HZF-48-68	4'-0"	8'-11 3/4"	4'-10 3/4"	9'-8 1/2"	2'-10 1/2"	3'-2"	11 5/8"	4'-0"	11'-11 3/8"
HZF-48-74	4'-0"	9'-9 3/8"	4'-10 3/4"	9'-8 1/2"	2'-10 1/2"	3'-2"	11 5/8"	4'-6"	12'-8 3/8"
HZF-48-84	4'-0"	11'-0 3/4"	4'-10 3/4"	9'-8 1/2"	2'-10 1/2"	3'-2"	11 5/8"	5'-0"	14'-0 3/8"
HZF-48-92	4'-0"	12'-0 3/8"	4'-10 3/4"	9'-8 1/2"	2'-10 1/2"	3'-2"	11 5/8"	5'-6"	14'-2 1/4"
HZF-48-100	4'-0"	12'-11 3/4"	4'-10 3/4"	9'-8 1/2"	2'-10 1/2"	3'-2"	11 5/8"	6'-0"	15'-11 3/8"
HZF-60-70	5'-0"	7'-9 7/8"	5'-10 3/4"	11'-8 1/2"	3'-2 1/2"	5'-5"	15 5/8"	3'-0"	10'-10 7/8"
HZF-60-80	5'-0"	8'-9 7/8"	5'-10 3/4"	11'-8 1/2"	3'-2 1/2"	5'-5"	15 5/8"	3'-3"	11'-8 5/8"
HZF-60-92	5'-0"	10'-1 7/8"	5'-10 3/4"	11'-8 1/2"	3'-2 1/2"	5'-5"	15 5/8"	4'-2"	12'-8 5/8"
HZF-60-104	5'-0"	11'-3 7/8"	5'-10 3/4"	11'-8 1/2"	3'-2 1/2"	5'-5"	15 5/8"	5'-0"	13'-11 5/8"
HZF-60-120	5'-0"	12'-11"	5'-10 3/4"	11'-8 1/2"	3'-2 1/2"	5'-5"	15 5/8"	6'-0"	16'-1 5/8"
HZF-60-134	5'-0"	14'-3 7/8"	5'-10 3/4"	11'-8 1/2"	3'-2 1/2"	5'-5"	15 5/8"	6'-6"	16'-11 5/8"

QTY:2

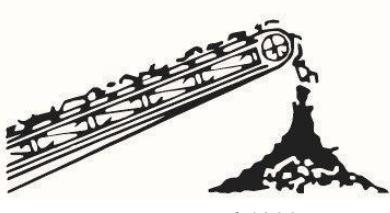
Lap Pool

DWG. NO.	DWG. DATE	DESCRIPTION	FIBERGLASS HORIZONTAL FILTERS		
			REV	REVISION DESCRIPTION	DATE
101110	7/21/13	JOB NAME & LOCATION USD Wellness Center	-	CHART INFO UPDATED	7/15/13
O	I	CUSTOMER Capri Pools	-	MEDIA QTY'S NOW REFLECT (2) TANKS	7/22/13



555 Paddock Parkway  
Rock Hill, SC 29730-1676  
info@paddockindustries.com

(800)849-2729  
Fax: (803)324-1116



Incorporated 1933

# SOUTHERN PRODUCTS & SILICA COMPANY



Certified to  
NSF/ANSI 61

## Filter Sand & Gravel - Industrial Sand - Well Gravel Packs - Quartz Gravel - Epoxy Aggregate

Plant located at 4303 U.S. Highway 1 North, Hoffman, NC 28347

P.O. Drawer 189  
Hoffman, NC 28326

[www.sandandgravel.net](http://www.sandandgravel.net)  
Fax: 910-281-3815 Sales Orders  
Fax: 910-281-3213 Administration

Phone: 910-281-3189  
Toll Free: 800-572-6348

### General Information / Technical Data

Our materials are hard quartzite, sub-angular sand and rounded gravel, free of clay, silt, iron, mica and other foreign matter. All filtering material is washed, screen-sized, washed and sized again according to current American Water Works Association B100 Standards for Filtering Materials and are NSF listed.

#### Water Filter Sand and Gravel

Effective Size (ES)	Filter Sand	Uniformity Coefficient (UC)
.45mm-.55mm		U.C. 1.6 or less
.80mm-1.20mm		U.C. 1.6 or less
2.0mm-3.0mm		U.C. 1.6 or less

Custom Filter Sand ES and UC Available Upon Request

#### Filter Gravel

2 1/2 x 1 1/2	1/2 x 1/4
1 1/2 x 1	3/8 x 3/16
1 1/2 x 3/4	1/4 x 1/8
1 x 5/8	3/16 x #10
1 x 1/2	#5 x #16
3/4 x 1/2	1/8 x 1/16
5/8 x 3/8	1/8 x #16

#### Industrial Sand

Grade	Approximate Sieve Size
Ultra Fine	30-140
Extra Fine	25-80
Fine	10-45
Medium	8-30
Coarse	4-20

#### Quartz Gravel for Catalyst Support

1 1/2 x 3/4 / 1 1/4 x 3/4 / 1 x 1/2

#### Epoxy Aggregates

Available in various sizes.

#### Chemical Analysis (% By Weight)

Calcium (Ca)	<0.01%
Calcium Oxide (CaO)	<0.01%
Calcium Carbonate (CaCO <sub>3</sub> )	<0.01%
Magnesium (Mg)	0.05%
Magnesium Oxide (MgO)	0.09%
Magnesium Carbonate (MgCO <sub>3</sub> )	0.19%
Iron Oxide (Fe <sub>2</sub> O <sub>3</sub> )	0.03%
Aluminum Oxide (Al <sub>2</sub> O <sub>3</sub> )	0.17%
Silicon (Si)	46.56%
Silicon Dioxide (SiO <sub>2</sub> )	99.61%
Sulfur Trioxide (SO <sub>3</sub> )	0.04%
Manganese (Mn)	<0.01%
Loss on Ignition	0.14%

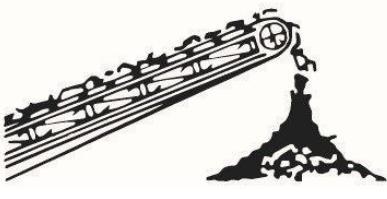
#### Well Gravel Packs

Product	Approximate Sieve Size
Gravel Pack #1	16-50
Gravel Pack #1A	10-40
Gravel Pack #2	7-35
Gravel Pack #3	5-20
Gravel Pack #4	4-12

#### Geothermal Sand

Our Geothermal Sand has been used extensively throughout the Industry

Ask about special sizing and gradation requirements.



Incorporated 1933

# SOUTHERN PRODUCTS & SILICA COMPANY



**Filter Sand & Gravel - Industrial Sand - Well Gravel Packs - Quartz Gravel - Epoxy Aggregates**

## Assurance of Quality

Full service laboratory testing continually monitors sand & gravel specifications for compliance with standards. All filtering materials meet current AWWA B100 standards and are NSF listed. Certified testing analysis is available on all filter sand and gravel shipments.

## Transportation

All material can be shipped by truck, bagged or bulk.

## Packaging

Products are bagged in .5 cu. ft. or 1.0 cu. ft. clear plastic bags (LDPE), or woven 3000 lb. super sacks. Dry palletized bags are shrink-wrapped and have a top cover sheet that provides both rain and UV protection. All material is quoted with pallet. Pallets are Non-Stackable 40"x40", 40"x44", or 40"x48". Heat Treated Option For Export. You can also order our material bulk, delivered via dump bed or pneumatic tanker.

## Pricing

Prices for all materials depend on selected packaging options.  
Prices are quoted F.O.B. Hoffman, NC

## Ordering Information

Our sales staff will be pleased to assist you between the hours of 8 A.M. and 4:00 P.M.,  
Monday - Friday. Please Call or Email:

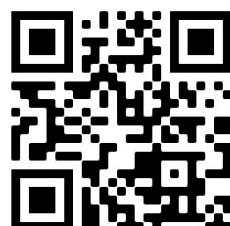
**SOUTHERN PRODUCTS & SILICA COMPANY**  
**POST OFFICE DRAWER 189**  
**4303 U.S. HIGHWAY 1 NORTH**  
**HOFFMAN, NC 28347**

**TOLL FREE: 800-572-6348**

**PHONE: 910-281-3189**

**FAX: 910-281-3815 SALES ORDERS**

**FAX: 910-281-3213 ADMINISTRATIVE**



ITEM	DESCRIPTION
1	FIBERGLASS FILTER TANK, WITH FLANGED CONNECTIONS & SADDLES
2	TANK MANWAY ASSEMBLY
3	1" AIR RELEASE
4	SCH. 80 PVC OVERDRAIN HEADER WITH 1 1/2" PVC LATERALS
5	SCH. 80 PVC UNDERDRAIN HEADER W/2" NORYL THREADED LATERALS
6	GAUGE PANEL
7	FILTER SAND (.45 TO .55mm) UNIFORMITY COEFFICIENT </= 1.60
8	1/16 TO 1/8 GRAVEL MEDIA
9	FIBERGLASS BAFFLE PLATES

VALVE LEGEND			
NO.	VALVE DESCRIPTION	FILTER	BACKWASH
2	RETURN TO POOL	<input type="checkbox"/>	X
3	BACKWASH TO WASTE	X	<input type="checkbox"/>
4	FILTER INFLUENT	<input type="checkbox"/>	X
5	BACKWASH INFLUENT	X	<input type="checkbox"/>

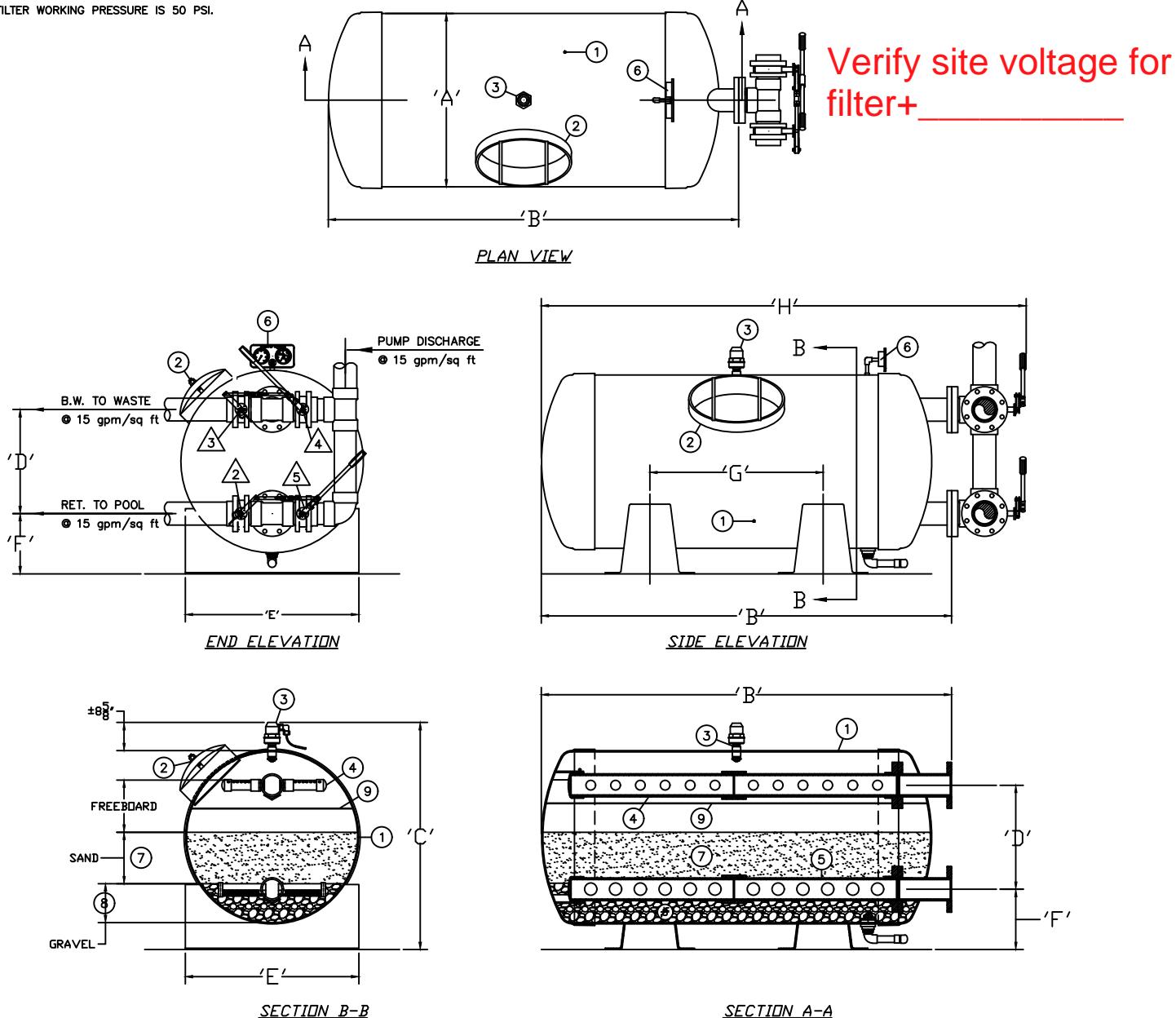
□-OPEN, X-CLOSED

GENERAL NOTES:

PIPING – SCH. 80 PVC, MAX. VELOCITY LESS THAN 10 FPS. PIPING DEPICTED WITH DASHED LINES NOT SUPPLIED BY PADDOCK.

FILTER WORKING PRESSURE IS 50 PSI.

Manway Location Left: \_\_\_\_\_ Right: \_\_\_\_\_



## PADDOCK FIBERGLASS HORIZONTAL FILTERS



Certified to  
NSF/ANSI Standard 50

DWG. NO.	DESCRIPTION	FIBERGLASS HORIZONTAL FILTERS		
		REV	REVISION DESCRIPTION	DATE
1	JOB NAME & LOCATION			
1	CUSTOMER			
1	DWG. DATE 12/18/18			
1	REV 1			



**PADDOCK**  
POOL EQUIPMENT COMPANY  
555 Paddock Parkway  
Rock Hill, SC 29730-1676  
[info@paddockindustries.com](mailto:info@paddockindustries.com)

(800)849-2729  
Fax:(803)324-1116

PADDOCK FIBERGLASS HORIZONTAL FILTERS

CATALOG NO.	DIA.	FILTER AREA	FILTER RATE		TANK CONN. SIZE	OVERDRAIN LAT'S/TANK	UNDERDRAIN LAT'S/TANK	MEDIA PER TANK (CU FT)		
			15 GPM/FT <sup>2</sup>	15 GPM/FT <sup>2</sup>				SAND	GRAVEL	
HZF-32-16.5	32"	16.5 FT <sup>2</sup>	247.5 GPM	247.5 GPM	4"	20	20	10.90	5.69	
HZF-34-16.5	34"	16.5 FT <sup>2</sup>	247.5 GPM	247.5 GPM	4"	24	24	11.60	6.06	
HZF-36-20	36"	20 FT <sup>2</sup>	300 GPM	300 GPM	6"	24	24	15.64	5.84	
HZF-36-23	36"	23 FT <sup>2</sup>	345 GPM	345 GPM	6"	26	26	17.96	6.75	
HZF-36-25	36"	25 FT <sup>2</sup>	375 GPM	375 GPM	6"	28	28	19.59	7.45	
HZF-42-24	42"	24 FT <sup>2</sup>	360 GPM	360 GPM	6"	20	20	23.75	7.56	
HZF-42-27	42"	27 FT <sup>2</sup>	405 GPM	405 GPM	6"	24	24	27.70	7.65	
HZF-42-30	42"	30 FT <sup>2</sup>	450 GPM	450 GPM	6"	28	28	29.53	9.44	
HZF-42-33	42"	33 FT <sup>2</sup>	495 GPM	495 GPM	6"	32	32	32.30	10.40	
HZF-42-35	42"	35 FT <sup>2</sup>	525 GPM	525 GPM	6"	36	36	35.30	9.74	
<b>QTY:1</b>	<b>HZF-48-23</b>	<b>48"</b>	<b>23 FT<sup>2</sup></b>	<b>345 GPM</b>	<b>345 GPM</b>	<b>6"</b>	<b>16</b>	<b>16</b>	<b>25.82</b>	<b>6.05</b>
	HZF-48-25	48"	25 FT <sup>2</sup>	375 GPM	375 GPM	6"	18	18	29.50	7.94
	HZF-48-30	48"	30 FT <sup>2</sup>	450 GPM	450 GPM	6"	22	22	34.64	8.38
	HZF-48-34	48"	34 FT <sup>2</sup>	510 GPM	510 GPM	6"	28	28	41.00	9.00
	HZF-48-37	48"	37 FT <sup>2</sup>	555 GPM	555 GPM	6"	32	32	44.05	10.96
	HZF-48-42	48"	42 FT <sup>2</sup>	630 GPM	630 GPM	6"	36	36	50.00	11.00
	HZF-48-46	48"	46 FT <sup>2</sup>	690 GPM	690 GPM	6"	40	40	54.95	12.00
	HZF-48-50	48"	50 FT <sup>2</sup>	750 GPM	750 GPM	6"	44	44	59.84	15.14
	HZF-60-35	60"	35 FT <sup>2</sup>	525 GPM	525 GPM	6"	22	44	50.00	16.76
	HZF-60-40	60"	40 FT <sup>2</sup>	600 GPM	600 GPM	6"	26	52	55.56	18.34
	HZF-60-46	60"	46 FT <sup>2</sup>	690 GPM	690 GPM	6"	32	64	64.82	21.54
	HZF-60-52	60"	52 FT <sup>2</sup>	780 GPM	780 GPM	6"	36	72	69.34	21.70
	HZF-60-60	60"	60 FT <sup>2</sup>	900 GPM	900 GPM	8"	42	84	83.24	27.08
	HZF-60-67	60"	67 FT <sup>2</sup>	1,005 GPM	1,005 GPM	8"	48	96	93.00	30.20

CATALOG NO.	DIM. 'A'	DIM. 'B'	DIM. 'C'	DIM. 'D'	DIM. 'E'	DIM. 'F'	DIM. 'G'	DIM. 'H'
HZF-32-16.5	2'-8"	7'-2"	3'-6"	1'-6 1/2"	2'-10"	1'-0 1/4"	2'-6"	8'-4 1/2"
HZF-34-16.5	2'-10"	6'-7"	3'-8 3/4"	1'-8 1/2"	2'-10"	11 5/8"	2'-6"	7'-9 1/2"
HZF-36-20	3'-0"	7'-5"	3'-10 3/4"	1'-10 1/2"	3'-2"	11 5/8"	3'-6"	8'-7 1/2"
HZF-36-23	3'-0"	8'-5"	3'-10 3/4"	1'-10 1/2"	3'-2"	11 5/8"	4'-0"	9'-10 3/4"
HZF-36-25	3'-0"	9'-1"	3'-10 3/4"	1'-10 1/2"	3'-2"	11 5/8"	4'-4"	10'-6 3/4"
HZF-42-24	3'-6"	7'-7"	4'-4 3/4"	2'-4 1/2"	3'-2"	11 5/8"	3'-6"	9'-0 3/4"
HZF-42-27	3'-6"	8'-4 1/2"	4'-4 3/4"	2'-4 1/2"	3'-2"	11 5/8"	4'-0"	9'-7"
HZF-42-30	3'-6"	9'-3 1/2"	4'-4 3/4"	2'-4 1/2"	3'-2"	11 5/8"	4'-6"	10'-6"
HZF-42-33	3'-6"	10'-1"	4'-4 3/4"	2'-4 1/2"	3'-2"	11 5/8"	5'-0"	11'-3 1/2"
HZF-42-35	3'-6"	10'-9 1/2"	4'-4 3/4"	2'-4 1/2"	3'-2"	11 5/8"	5'-6"	12'-0"
<b>QTY: 1</b>	<b>HZF-48-23</b>	<b>4'-0"</b>	<b>6'-0 3/8"</b>	<b>4'-10 3/4"</b>	<b>2'-10 1/2"</b>	<b>3'-2"</b>	<b>11 5/8"</b>	<b>2'-0"</b>
	HZF-48-25	4'-0"	6'-9 3/8"	4'-10 3/4"	2'-10 1/2"	3'-2"	11 5/8"	2'-6"
	HZF-48-30	4'-0"	8'-0"	4'-10 3/4"	2'-10 1/2"	3'-2"	11 5/8"	3'-6"
	HZF-48-34	4'-0"	8'-11 3/4"	4'-10 3/4"	2'-10 1/2"	3'-2"	11 5/8"	9'-5 3/4"
	HZF-48-37	4'-0"	9'-9 3/8"	4'-10 3/4"	2'-10 1/2"	3'-2"	11 5/8"	4'-0"
	HZF-48-42	4'-0"	11'-0 3/8"	4'-10 3/4"	2'-10 1/2"	3'-2"	11 5/8"	10'-2 1/4"
	HZF-48-46	4'-0"	12'-0 3/8"	4'-10 3/4"	2'-10 1/2"	3'-2"	11 5/8"	5'-0"
	HZF-48-50	4'-0"	12'-11 3/4"	4'-10 3/4"	2'-10 1/2"	3'-2"	11 5/8"	12'-9"
	HZF-60-35	5'-0"	7'-9 7/8"	5'-10 3/4"	3'-2 1/2"	5'-5"	15 5/8"	3'-0"
	HZF-60-40	5'-0"	8'-9 7/8"	5'-10 3/4"	3'-2 1/2"	5'-5"	15 5/8"	3'-3"
	HZF-60-46	5'-0"	10'-1 7/8"	5'-10 3/4"	3'-2 1/2"	5'-5"	15 5/8"	4'-2"
	HZF-60-52	5'-0"	11'-3 7/8"	5'-10 3/4"	3'-2 1/2"	5'-5"	15 5/8"	5'-0"
	HZF-60-60	5'-0"	12'-11"	5'-10 3/4"	3'-2 1/2"	5'-5"	15 5/8"	6'-0"
	HZF-60-67	5'-0"	14'-3 7/8"	5'-10 3/4"	3'-2 1/2"	5'-5"	15 5/8"	6'-6"
								15'-6 3/8"

DNC NO.	DRAWING DATE	DESCRIPTION	FIBERGLASS HORIZONTAL FILTERS		
			REV	REVISION DESCRIPTION	DATE
I	O	JOB NAME & LOCATION USD Wellness Center	-	CHART INFO UPDATE	7/15/13
		CUSTOMER Capri Pools			



555 Paddock Parkway  
Rock Hill, SC 29730-1676  
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Fax: (803)324-1116



Paddock Pool Equipment Company, Inc.  
555 Paddock Parkway  
Rock Hill, SC 29730  
United States of America

Ph: 803-324-1111

**Submittal**

Number: QUO22465 Date: **24-Mar-23**

**To:**

Capri Pools & Aquatics  
22 Gateway Commerce Center Dr. W. Suite 110  
Edwardsville IL 62025  
United States

Liz Crawford

**EMAIL:** [lcrawford@capripool.com](mailto:lcrawford@capripool.com)

**PHONE #:** 618 219 4882

**Project Name:** **USD Wellness Center**

**Project Manager:** Trevor Ottley  
[ottley@paddockindustries.com](mailto:ottley@paddockindustries.com)  
**PHONE #:** 803-372-6088

Qty	Description	Drawing	Approval
2	<b>HZ-FBG-60-92 Stacked Filter,Paddock,Horizontal,FiberGI ass,(2) 60-46</b>  Stacked Filter,Paddock,Horizontal,FiberGlas s,(2) 60-46 Gauges, Air Relief, Media, Lap Pool - 2 stack 60-92 (4 filters) with full face piping and manual linkage per plan AQ7.	Cut Sheet	
1	<b>HZ-FBG-48-23 Filter,Paddock,Horizontal,FiberGI ass,48-23</b>  Filter,Paddock,Horizontal,FiberGlas s,48-23 - Activity and Spa - 48-23 filters in stack configuration with 3 tees, 4 elbows, 4 valves per plan AQ7.1 - INCLUDE STACK SADDLES ON TOP OF THIS FILTER ONLY TO FACILITATE STACKING WITH THE LIKE FILTER BELOW.	Cut Sheet	
1	<b>HZ-FBG-48-23 Filter,Paddock,Horizontal,FiberGlass,48-23</b>  Filter,Paddock,Horizontal,FiberGlas s,48-23 - Filter,Paddock,Horizontal,FiberGlas s,48-23 - Activity and Spa - 48-23 filters in stack configuration with 3 tees, 4 elbows, 4 valves per plan AQ7.1 -- Top Filter - Filters stacked for space consideration but operating independently.	Cut Sheet	



Paddock Pool Equipment Company, Inc.  
555 Paddock Parkway  
Rock Hill, SC 29730  
United States of America

Ph: 803-324-1111

**Submittal**

Number: QUO22465 Date: **24-Mar-23**

**To:**

Capri Pools & Aquatics  
22 Gateway Commerce Center Dr. W. Suite 110  
Edwardsville IL 62025  
United States

Liz Crawford

**EMAIL:** [lcrawford@capripool.com](mailto:lcrawford@capripool.com)

**PHONE #:** 618 219 4882

**Project Name:** **USD Wellness Center**

**Project Manager:** Trevor Ottley  
[ottley@paddockindustries.com](mailto:ottley@paddockindustries.com)  
**PHONE #:** 803-372-6088

Qty	Description	Drawing	Approval
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1	<b>HZ-FBG-48-23 Filter,Paddock,Horizontal,FiberGlass,48-23</b>  Filter,Paddock,Horizontal,FiberGlass,48-23 - Spa - 48-23 filter in stack configuration with 3 tees, 1 elbow, 4 valves per plan AQ7.1 - INCLUDE STACK SADDLES ON TOP OF THIS FILTER ONLY TO FACILITATE STACKING WITH THE LIKE FILTER BELOW.	Cut Sheet	
1	<b>HZ-FBG-48-23 Filter,Paddock,Horizontal,FiberGlass,48-23</b>  Filter,Paddock,Horizontal,FiberGlass,48-23 - Activity - 48-23 filter in stack configuration with 3 tees, 1 elbow, 4 valves per plan AQ7.1 -- Top Filter - Filters stacked for space consideration but operating independently.	Cut Sheet	

**Paddock is requesting either a Resale or Exemption Certificate from all customers for every project.**



Paddock Pool Equipment Company, Inc.  
555 Paddock Parkway  
Rock Hill, SC 29730  
United States of America

Ph: 803-324-1111

**Submittal**

Number: QUO22465 Date: 04-May-23

**Submitted To:**

**To:**

Capri Pools & Aquatics  
22 Gateway Commerce Center Dr. W. Suite 110  
Edwardsville IL 62025  
United States

Liz Crawford

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Qty	Description	Drawing	Approval
495 ft	<b>23151.01- RetroFitGrating Retro Fit Grating</b> White 1 x 17.25 HDPE, Lap pool - 17.25" white HDPE drop-in grate with hold down blocks and 316L hardware.	23151.01	
1	<b>23151.01- Miscellaneous Miscellaneous</b> 150' 316L angle for grating support located at back of gutter along the end walls. 160 Total Lineal Feet Mounting hardware not included	23151.01	
142 ft	<b>23151.02- RetroFitGrating Retro Fit Grating</b> Activity pool - 16" white HDPE dropin grate with hold down blocks and 316L hardware.	23151.02	