

AXIALL LLC

Forced Venturi Installation Kit SKU 9500154

Revised 03-13-13

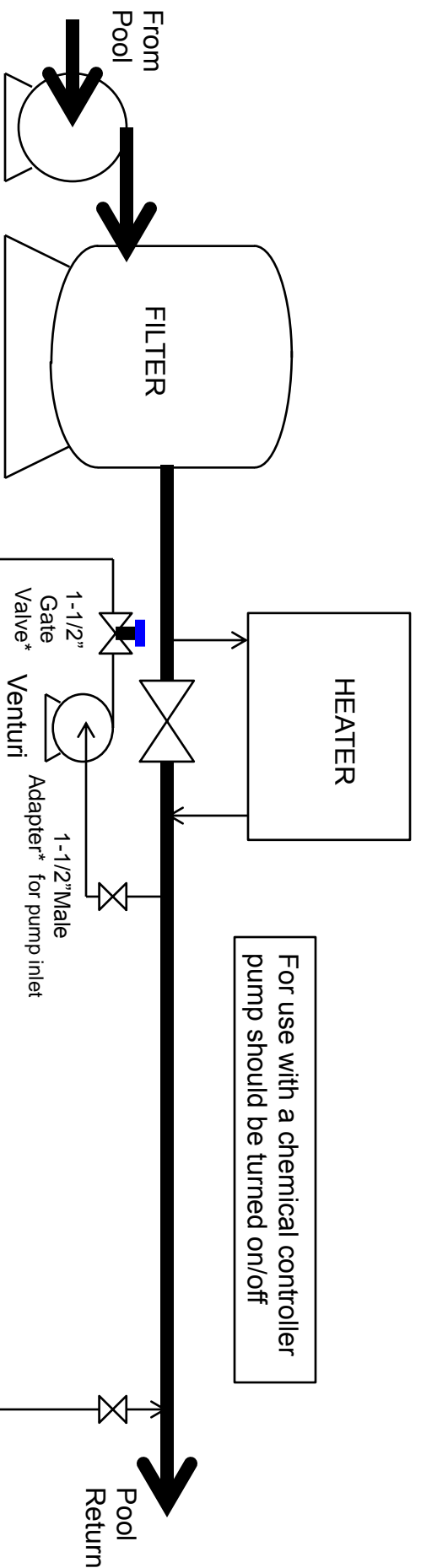
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Kit Contents:

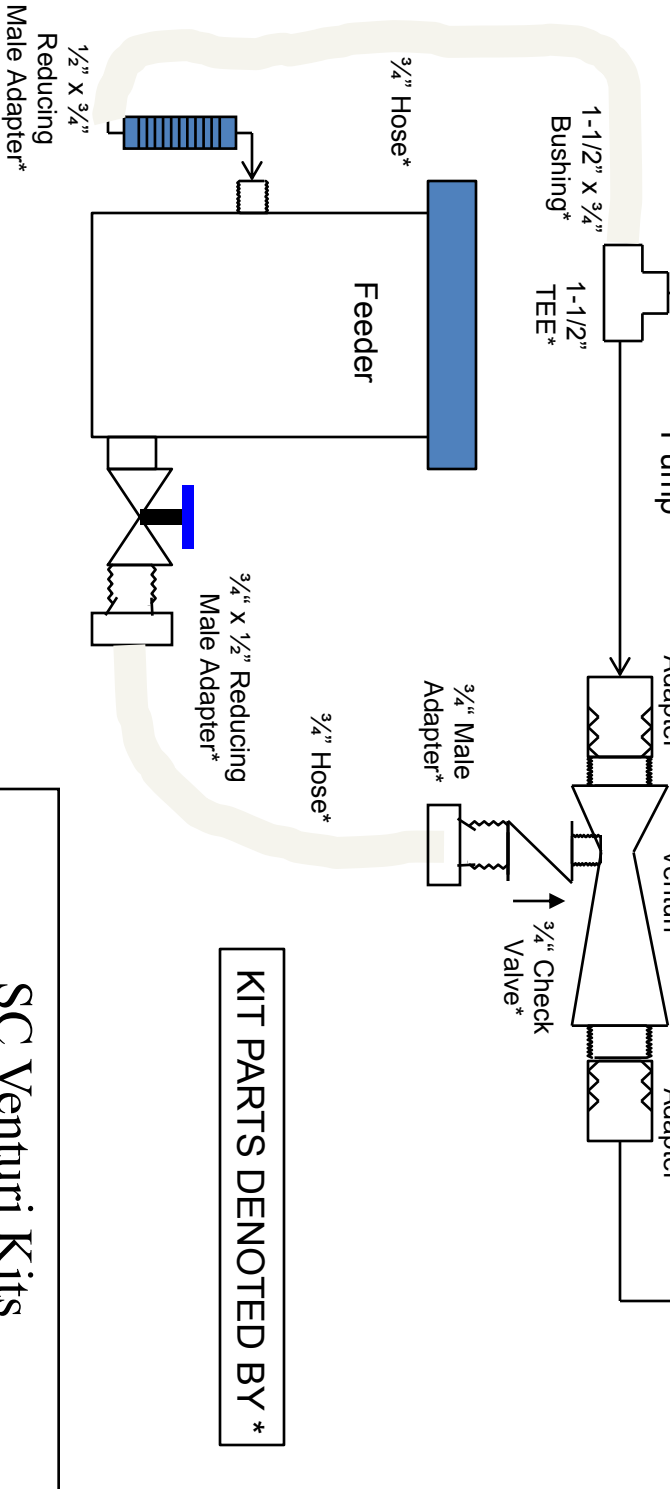
Mazzei 1587 Venturi
2 ea 1½" Female adapters
1 ea ¾" Male adapter
2 ea ½" x ¾" Reducing Male adapter
1 ea ¾" check valve
10 feet of ¾" PVC hose
1 ea 1½" TEE
1 ea 1½"x¾" Soc x Soc Bushing
1 ea 1½" Gate valve
1 ea 1½" Male Adapter
1 ea 1 Hp Hayward pump
1 ea Electrical box w/cords

Kit is shipped in 2 boxes. One box for the pump and one box for the other parts.



For use with a chemical controller pump should be turned on/off

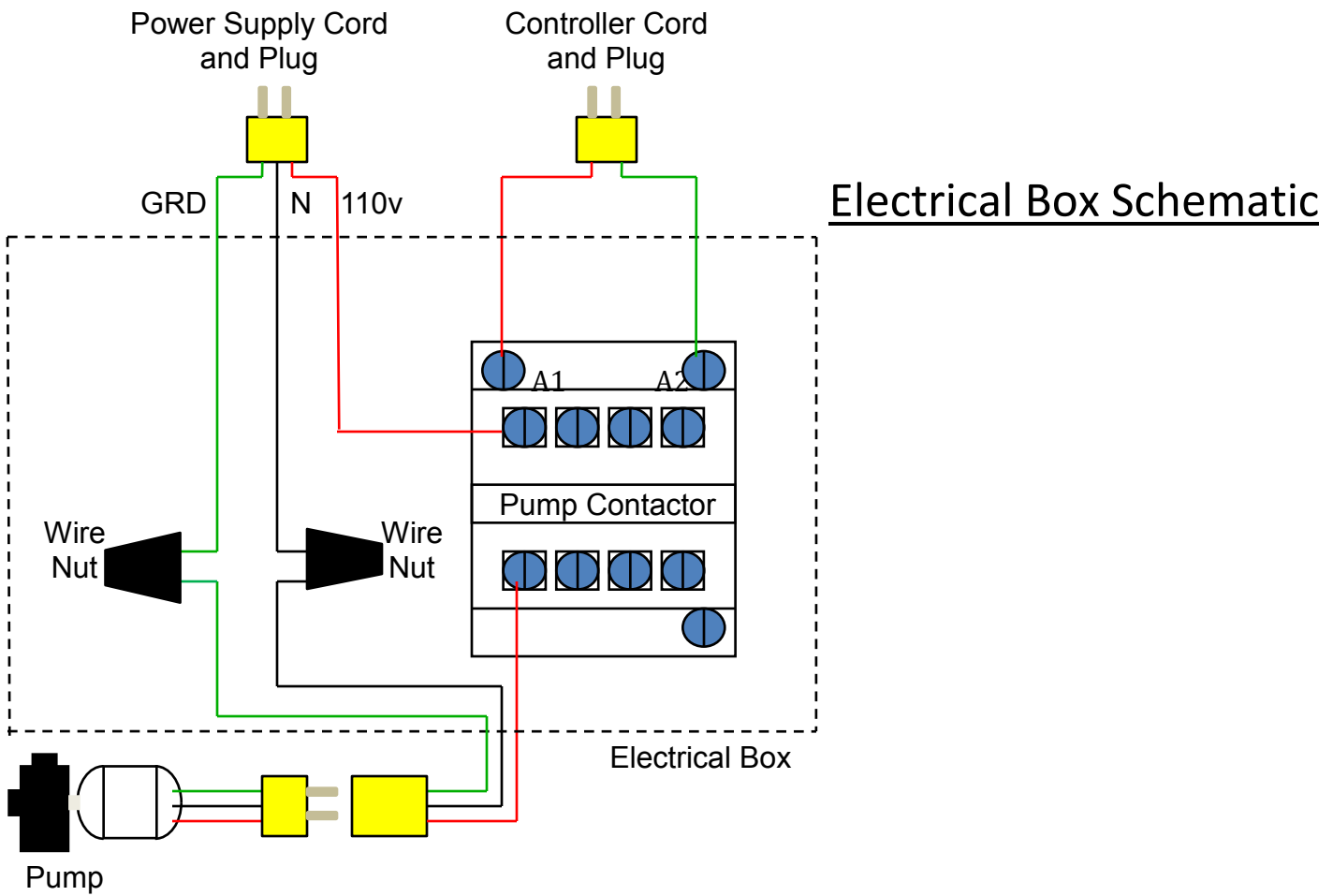
- Parts Lists**
 SK9500154
 SC Venturi/Pump Kit*
 Mazzei 1587 Venturi
 2 ea 1 1/2" Female adapters
 1 ea 3/4" Male adapter
 2 ea 1 1/2" x 3/4" Reducing Male adapter
 1 ea 3/4" check valve
 10 feet of 3/4" PVC hose
 1 ea 1 1/2" TEE
 1 ea 1 1/2" x 3/4" Soc x Soc Bushing
 1 1/2" Gate valve
 1 1/2" Male Adapter
 1 Hp Hayward pump
 Electrical box/cords



KIT PARTS DENOTED BY *

Forced Venturi Installation

SC Venturi Kits	
Installation Drawing Rev 04-30-12	
October 2010	Axiall LLC Pittsburgh, PA
By: R. H. Ferguson	



Prepare the Venturi for Installation

All venturi installation kits are equipped with a Mazzei injector (Venturi) and a $\frac{3}{4}$ " Ball Check Valve. As detailed below, both contain miscellaneous parts that should be discarded to ensure proper installation.

The Mazzei Injector is shipped with the following parts:

- Mazzei Injector
- $\frac{3}{4}$ " Nozzle
- Check Valve Assembly (rubber gasket, ball and spring)

Prior to installation, remove and discard the $\frac{3}{4}$ " Nozzle and the factory Check Valve Assembly as indicated in the picture below.



Prepare the Check Valve for Installation

The Ball Check Valve is shipped with the following parts:

- ¾" Union Ball Check Body
- [2] Female Socket Connections (Pre-Assembled)
- [2] Female Threaded Connections (Shipped in Box)
- Filter Basket (Shipped in Box)

Prior to installation, loosen the unions and replace the female socket connections with the female threaded connections. Discard the filter female socket connections and the filter basket as indicated in the picture below.



Forced Venturi Installation

When to use this Installation

1. With a chemical controller
2. Where direct injection of chlorine is preferred

Additional Parts Required

- [2] 1½" Ball Valves for isolation
- 1½" or larger flexible tubing or PVC pipe
- Miscellaneous fittings (depends on the size of pipe/hose used)
- Miscellaneous Screws to mount the relay box

Installation Instructions

1. Place the chlorination system in a convenient location near the application point
2. Level the system. This is important for proper chlorine delivery
3. Place the venturi booster pump on the floor near the chlorinator
4. Place the Relay Box on the wall near the chemical Controller (if available) and a 120V electrical outlet; **DO NOT** plug cords into electrical outlets until start-up;

5. Install the 1½" booster pump supply line off the pool return line by the following steps:
 - a. Install a *Saddle Clamp* or Plumb a *Pipe Tee* or *Drill & Tap* for a 1½" line into the pool return line (preferably after the filter and heater if available)
 - b. Using appropriate fittings, install an inlet isolation valve (ball valve) on the booster pump supply line
 - c. Thread the 1½" Male Adapter into the inlet (front) of the booster pump
 - d. Using 1½" PVC Pipe or Hose, connect the Male Adapter to the inlet isolation valve
6. Install the 1 ½" booster pump discharge line by the following steps:
 - a. Using 1½" PVC Pipe or Hose, connect the outlet (top) of the booster pump to the 1½" Gate Valve
 - b. Use 1½" PVC Pipe or Hose to connect the 1½" Gate Valve to the 1½" Pipe Tee to split the booster pump discharge into two lines: 1)Chlorinator Feed 2)Venturi Feed
7. Install chlorinator inlet assembly to the inlet of the chlorinator following the instructions in the chlorinator Installation Manual.
8. Prepare 1½" Venturi and ¾" Check Valve for Installation by the following steps:
 - a. Refer to *"Preparing a Venturi for Installation"*.
 - b. Thread the ¾" Male Adapter onto the ¾" Ball Check Valve opposite the direction of the flow indicated on the Check Valve Body
 - c. Thread the ¾" Ball Check Valve onto the suction port of the 1½" Venturi so that the 'flow' arrows indicated on the Venturi and the Check Valve or in the same direction
 - d. Thread both 1½" Female Adapters onto the inlet and outlet ports on the 1½" Venturi
9. Install 1 ½" Venturi Loop by the following steps:
 - a. Install a *Saddle Clamp* or Plumb a *Pipe Tee* or *Drill & Tap* for a 1½" line into the pool return line downstream of the booster pump supply line
 - b. Using appropriate fittings, install an outlet isolation valve (ball valve)
 - c. Using 1½" PVC Pipe or Hose, connect the outlet isolation valve to the female adapter located on the *outlet port* of the 1½" Venturi
 - d. Using 1½" PVC Pipe or Hose, connect the female adapter located on the *inlet port* of the 1½" Venturi to the 1½" Pipe Tee
10. Install the Chlorinator Outlet Line and Connect it to the Venturi by the following steps:
 - a. Thread the ¾" x ½" Reducing Nipple into the chlorinator outlet bulk head fitting
 - b. Thread the ½" Gate Valve onto the Reducing Nipple
 - c. Thread the ¾" x ½" Reducing Male Adapter into the ½" gate valve
 - d. Using the ¾" PVC hose, connect the Reducing Male Adapter(threaded into gate valve) to the ¾" Male Adapter (threaded into ball check valve)

Start Up Instructions

1. Completely open the ½” Gate Valve on the Chlorinator Outlet and completely open the 1½” Gate Valve near the booster pump
2. Open both of the isolation valves
3. Plug the booster pump electrical cord into the relay box female pigtail labeled “Pump”
4. Plug the relay box cord labeled “120 Volt” into a 120V electrical outlet
5. Set the 1½” Booster Pump Gate Valve by the following:
 - a. Initially, Plug the relay box cord labeled “Controller” into any 120V electrical outlet to turn on the pump and to allow the venturi to ‘pull’ solution out of the chlorinator
 - b. Slowly close the 1½” Gate Valve until the chlorinator inlet flow meter reads just below 5 gpm
6. If using a controller to manage chlorine residual, unplug the cord labeled “Controller” from a 120V electrical outlet (from step 5a above) and plug it into the chemical controller
7. If NOT using a controller to manage chlorine residual, adjust the chlorine control valve (½ ” gate valve on chlorinator outlet) to the desired setting
 - a. Check available chlorine regularly to determine the best setting
8. Refill the chlorinator with the appropriate tablets as needed to maintain chlorine level.

