

Chemilizer™

We Inject Solutions

Chemilizer Products, Inc. Product Manual

We are committed to building the BEST quality product you can buy. If you should need to ask a question or need further technical, sales, or service assistance, please contact us!

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Largo, Florida 33770

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If you would like to contact us via email, use the following email address that corresponds to your needs:

Customer Feedback:	feedback@chemilizer.com
General Information:	info@chemilizer.com
Product Questions:	support@chemilizer.com
Questions about Warranty:	warranty@chemilizer.com
To Become a Dealer:	sales@chemilizer.com
Repair Assistance:	support@chemilizer.com
Web Site Questions:	webmaster@chemilizer.com

We invite you to visit our website: www.chemilizer.com

1.800.234.7211

For the latest updates or modifications, please check our website at: www.chemilizer.com

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Thank you for purchasing a Chemilizer injector!

Chemilizer is committed to manufacturing the highest quality product to fill your injection needs, and to providing you with the best service possible. To help us achieve this, we ask that you please take a moment to fill out and send in the warranty card. Or you can also fill out the warranty online at our web site, www.chemilizer.com.

1. Precautions

Warning! Risk of Chemical Overdose

To reduce risk, follow proper installation methods and instructions. [The point of chemical injection should be beyond all pumps, filters and heaters. Needs to be in pool section, not here. – What about landscaping, and water treatment applications?!]

Caution! Plumbing

Chemilizer injector installations must always adhere to your local plumbing codes and requirements. Check local plumbing codes for guidelines.

Notice:

The Chemilizer injector is a general purpose injector. It was not designed to inject acid. However, some customers use it to inject acids of varying concentrations because our design limits the “damage” caused by aggressive chemicals to the pump, which is inexpensive to repair or replace. Our pump is resistant to chemicals of varying concentrations and a wide range of pH. However, more corrosive chemicals will degrade pump parts faster, necessitating more frequent repair or replacement, adding an additional amount to the cost of using our injectors with that chemical or group of chemicals.

Pump life is determined by a number of factors that include duty cycle, chemical(s) being injected, and frequency of cleaning, among others. Therefore each customer’s experience will be different. Normally the check valve, the pump stem and stem o-rings degrade first with the ceramic sleeve taking longer to be affected. Therefore, a pump rebuild kit will be the most frequent maintenance for customers using aggressive chemicals.

Notice:

Components of Chemilizer Injectors have been tested for tolerance to a wide variety of chemical compounds at common solution strengths. Chemilizer Injectors provide a means of delivery for chemicals in general. Chemilizer does not suggest or recommend ways or procedures for using or handling any chemical.

As required by NSF, please be advised that this injection system and its components have been tested for use in swimming pools with the following chemicals:

Sodium Hypochlorite (10-15%), Muriatic Acid (20 Baume/31.5%), Heatsavr™

Chemilizer Products, Inc. is not responsible for injury incurred by the misuse or improper handling of chemicals.

2. Getting Started

– What you need to know before you install your new Chemilizer injector

A. How it Works

The Chemilizer injector is powered by water. A continuous flow of water through the blue Water Motor activates the movement of an internal diaphragm assembly, which then powers the white Chemical Pump. The Chemical Pump injects solution into the water after the water has passed through the Water Motor; the solution never passes through the blue Water Motor.

The higher the water flow, the faster the diaphragm assembly moves, the faster the pump works. If the water flow stops, so does the pump and consequently the injection of solution into the water.

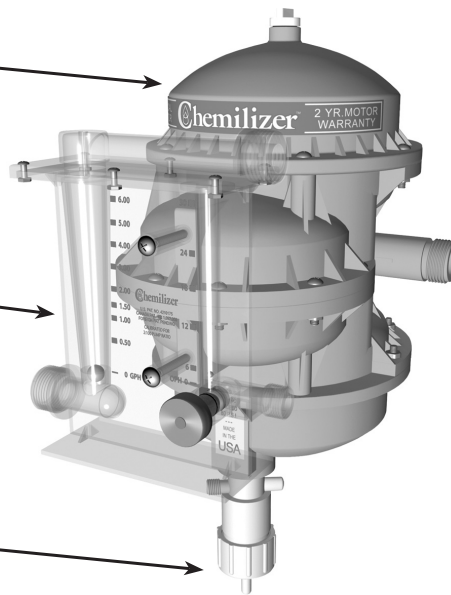
B. Identification of key external parts:

There are two or three key components to the Chemilizer, depending on the model you've purchased. Detailed identification of the parts can be found in Section 3 of this manual.

Water Motor
(Blue)

Injection Control Panel
(Clear)
On the CP33 only!

Chemical Pump
(White)



The blue Water Motor contains the diaphragm mechanism.

The clear Injection Control Panel (*which is only on the CP33*) provides variable control of the injection volume.

The white Chemical Pump draws solution from your container and injects it directly into the water source.

C. Additional Equipment

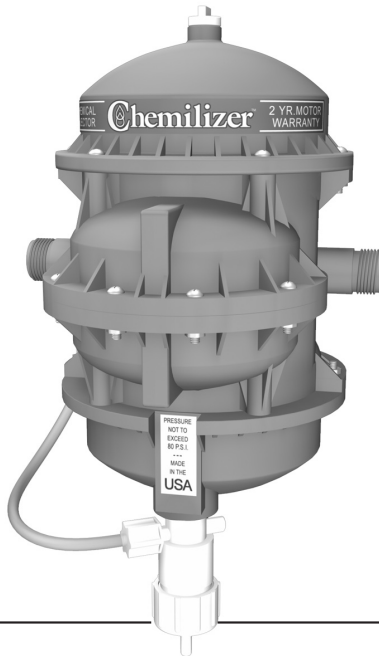
The best method for installation of the injector depends on the model you've purchased and how you want to use it. Please reference Section 4 of this manual for installation guidelines.

All of Chemilizer's recommended installation configurations require commonly available additional components, such as PVC pipe, adapters, hoses and valves. Most of these can be procured locally, should you prefer, Chemilizer offers "Installation Kits" to ensure you have everything you need. If you haven't purchased an installation kit, please see your Chemilizer dealer or contact Chemilizer directly at **1-800-234-7211**.

3. How to Identify the Injector Model You Purchased

Chemilizer injectors are available in three basic models, the HN55, the CP33 and the C3P. All models include a Chemical Pump which is available in a variety of injection ratios. The CP33 includes an Injection Control Panel which is available in a variety of hourly volumetric rates.

For more information on the available Chemical Pump ratios, see section 9 – Technical Specifications



HN55 Proportional Chemical Injector **No. CH9000**

Water Motor with Chemical Hose, Chemical Pump, Suction Hose with Brass Clamp and Suction Hose Filter.

Includes:

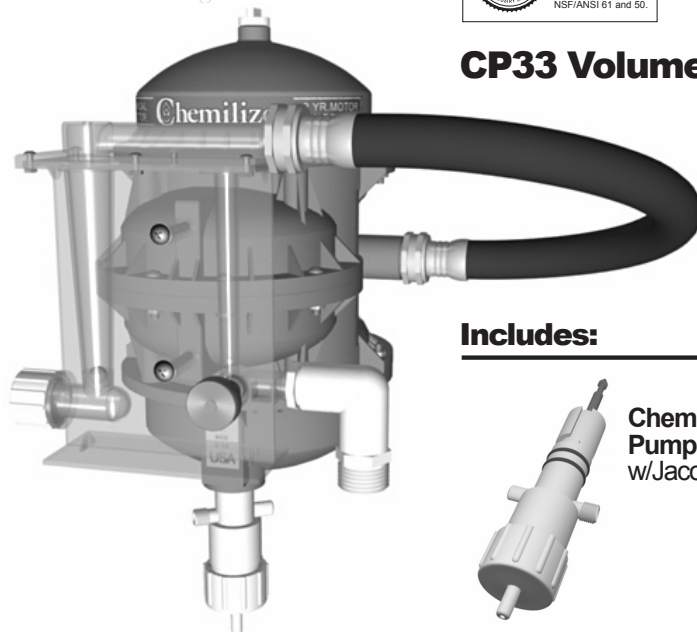
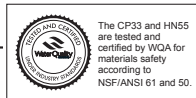
Chemical Pump



**Note: 2 Jaco Nuts
1 Jaco @ unit
1 Jaco on pump**



**Suction Hose
FG5032**



CP33 Volumetric Chemical Injector **No. CH6000**

Water Motor, Injection Control Panel* with Attachments and Caps, Chemical Pump, Chemical Hose with Injection Fitting, Suction Hose with Brass Clamp and Suction Hose Filter.

Includes:

**Chemical Pump
w/Jaco Nut**



**Note:
1 Jaco on pump**

**Suction Hose
FG5032**



**PE Tube (72")
F13025**

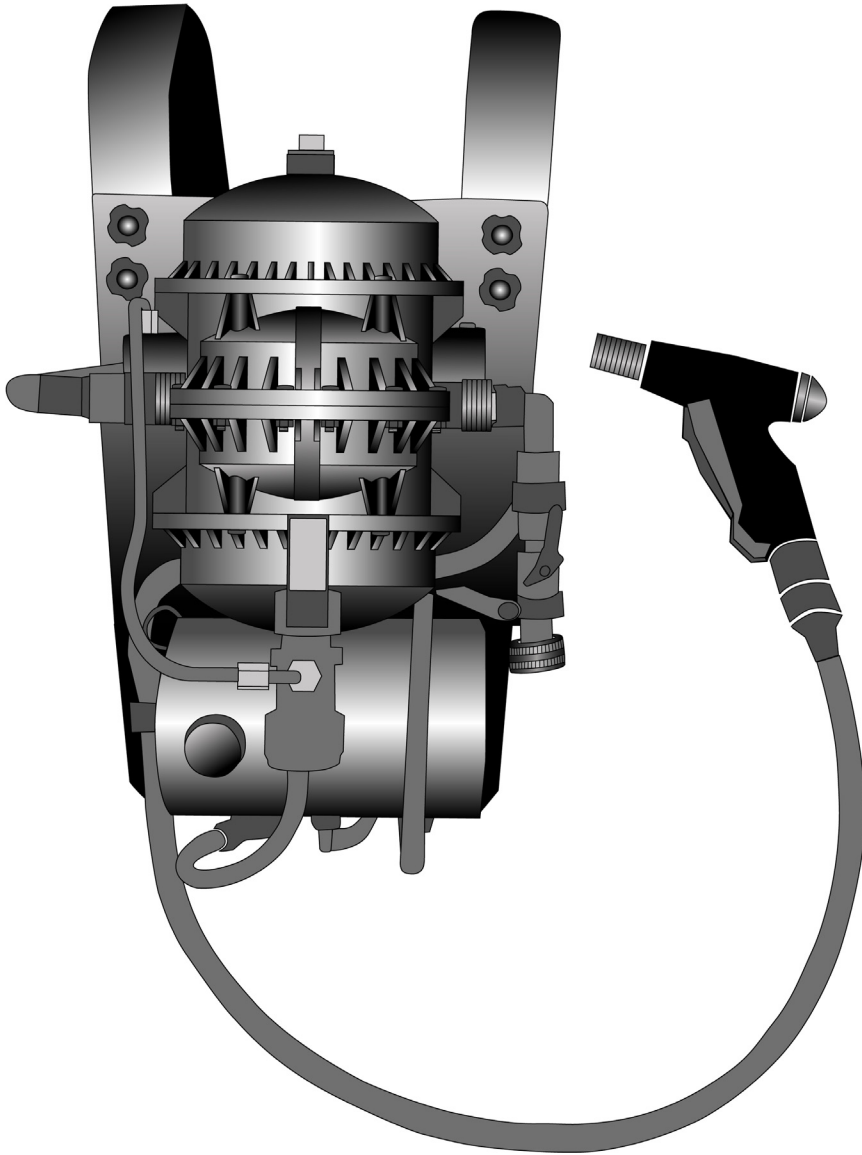
The HN55 is a proportional injector. It is designed to follow flow demands from 1GPH to 13GPM for lower-flow water applications.

The CP33 is a variable-rate injector. It is engineered for higher water flow water applications, and it can handle very low to moderate injection volumes.

C3P Portable Sprayer

No. CHKT1000

Chemilizer also offers the C3P Portable Sprayer. The C3P is designed to attach to a water hose or other water source for portable, low-flow water applications.



 <p>FGKT1500 Tank</p>  <p>FGKT1520 Tank Cap</p>
 <p>FGKT1200 Spray Nozzle Hose</p>
 <p>FGKT1100 Spray Nozzle</p>
<p>FGKT1150 Spray Nozzle Quick Release</p> 
<p>FGKT1050 Tank Quick Release Pins</p> 
 <p>FGKT1001 Strap Hardware</p>

Includes:

HN55 Chemical Tank, Chemical Tank Cap, Spray Nozzle, Spray Nozzle Hose, Spray Nozzle Quick Release, Tank Quick Release Pins, Strap Hardware.



Chemical Pump
w/Jaco Nut

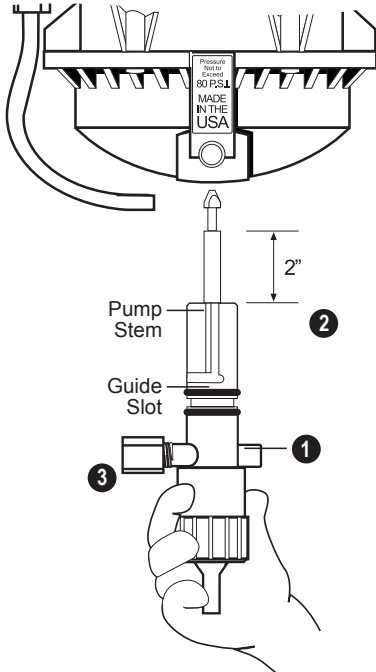
Chemical Pump

4. How to Install and Use the Injector

A. Preassembly

Before installing the injector, you must first install the chemical pump.

Installing the Pump to the Water Motor



1. Lubricate “O” rings on pump housing with any biodegradable lubricant when pump is removed from motor.

NOTE: a light coating of lubricant is all that is required.

2. **Make sure the pump stem is pulled all the way out (about 2”).**

Push the pump up into the water motor, and turn 1/4 turn clockwise, port to front.

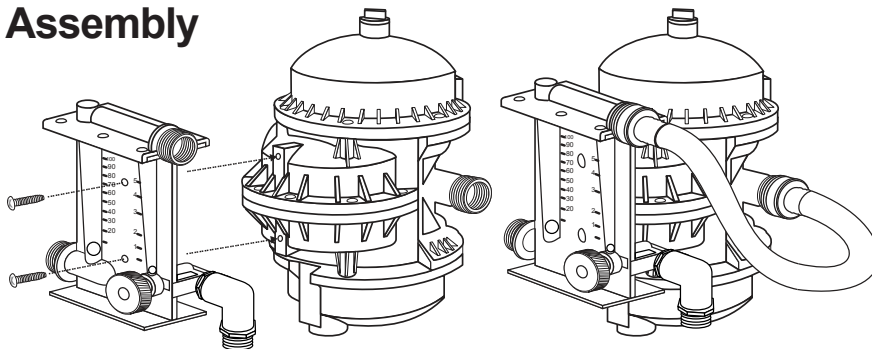
NOTE: the guide slot must be aligned to fit into the key on the inside of the water motor.

3. After installing pump into bottom of water motor loosen nut on pump and insert hose into fitting. Re-tighten nut.

NOTE: The chemical pump **WILL NOT** work properly unless the pump cap is tight.

If you purchased a CP33, you must also attach the Injection Control Panel prior to installing the injector.

Assembly



Attach the Injection Control Panel to the front of the water motor using the two screws included with the Injection Control Panel.

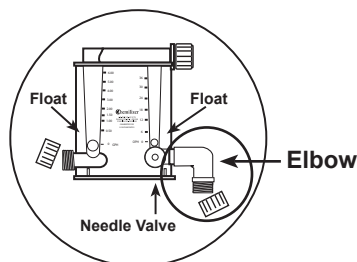
Attach one end of the connection hose to the top of the Injection Control Panel and the other end to the inlet (right) side of the water motor.

Injection Control Panel

Water Motor

Assembled CP33

CAUTION



WARNING:

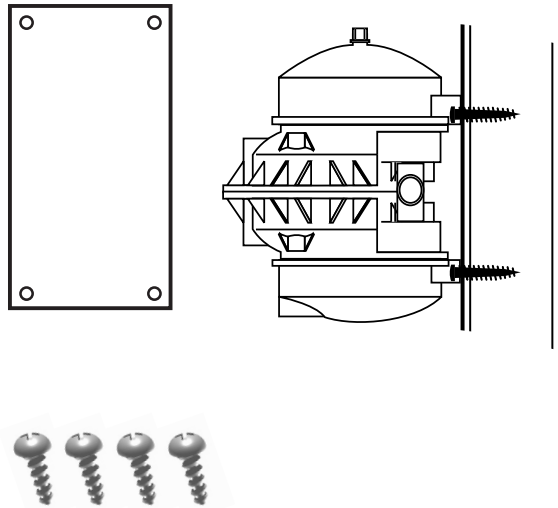
Over tightening the elbow can cause it to leak or even break. The elbow is shipped in the up position and can be used without further tightening. If you wish the elbow to point down, simply turn the elbow by hand 1/2 turn clockwise.

Mounting Template

The injector is designed to be mounted on a vertical surface.

Mounting Template

In each box is a white envelope containing four screws. The envelope is marked for use as a template. Unit can be mounted to any stationary surface, or to a post. Tighten screws until the head is about 1/8" away from the surface. The brackets on the back of the unit will slide down between the screw head and the surface.



B. Safety

Operation & Maintenance Safety

- **NEVER** install an injector directly over the solution tank. The suction hose from the tank to the injector should fall below the top of the tank, then rise back up to the injector (see installation diagrams).
- **NEVER** leave the injector or water lines full of water during freezing temperatures.
- Visually inspect the injector and water system for leakage.
- Before you back wash an in-line filter, if you have one, make sure you close the valves before and after the injector. When the backwash is complete, return them to the open position. If you fail to do this, water may enter the unit from the left, damaging the water motor.

Please refer to the appropriate application section for specific guidelines on how to install your Chemilizer injector.

Note: All recommended installation methods give you the ability to take the injector "off line" as needed and for periodic maintenance. Installations shown are with hoses for flexibility but could be hard plumbed if required.

C. C3P

If you've purchased a C3P Portable Sprayer installation is unnecessary, but some assembly is required.

The C3P can be used in most Animal Health, Horticulture, Landscaping or general sanitizing applications.

How to Use Your C3P Injector

Assembly

Attach Shoulder Straps (A) to the rear of the Chest Plate (B) by fitting screws as shown in Strap Hardware Assembly Diagram. Letters "L" and "R" on the straps correspond to left and right shoulders, respectively.

Filling Chemical Tank

Place C3P on flat surface with the Shoulder Straps hanging freely. Unscrew Quick Change Chemical Tank cap (G). Pour desired amount of chemical into tank (F) and tighten cap.

NOTE: When using C3P, Clear Tubing covering the tank will show liquid level.

Installing C3P to Water Supply

Rotate Ball Valve (I) clockwise $\frac{1}{4}$ turn to prevent water flow. Attach one end of a garden hose to Female Swivel Connector (J) (**Note: Be sure hose washer is in place before attaching**) and the other end to water source. Rotate Ball Valve counter clockwise to start water flow.

Using Spray Nozzle

1. Adjust the tip of nozzle (L) to dictate spray pattern. Adjust the rear knob (P) to dictate spray distance. Squeeze the handle to activate spray. For continuous spray, squeeze the handle until it locks. Release the lock by pressing the index finger button (Q).

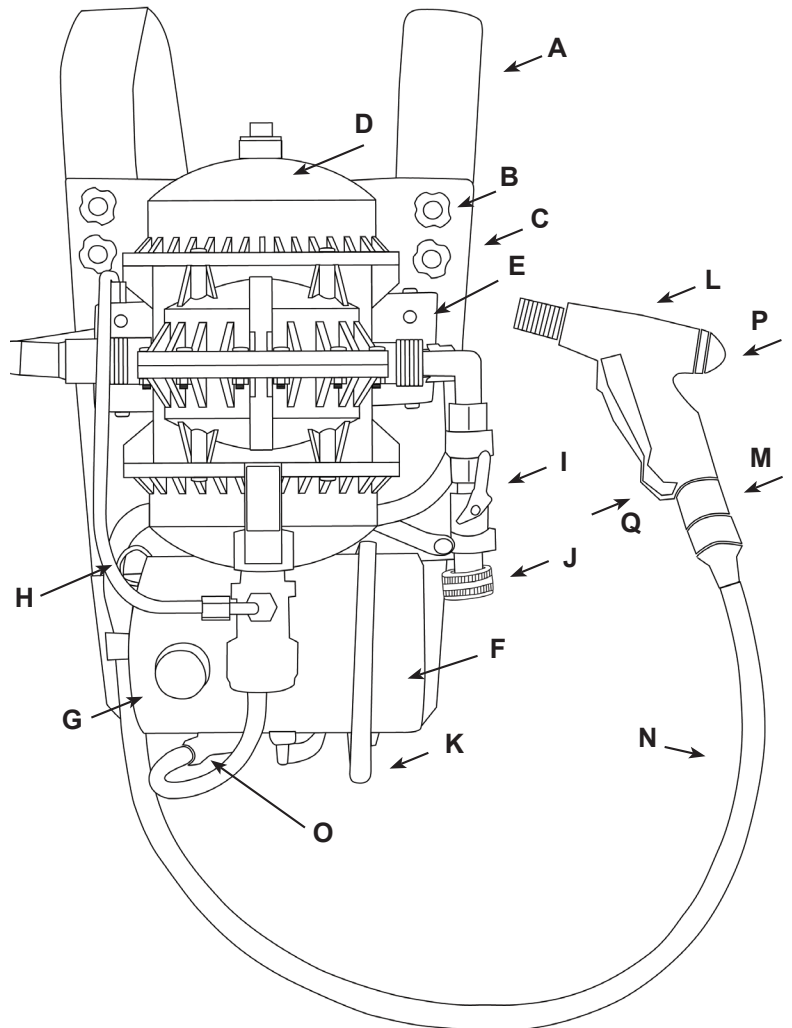
2. To remove the nozzle, pull down on the Quick Release (M) and separate it from the base of the nozzle.

Changing Chemical Tank

1. Press silver button on Quick Disconnect, connecting pump tubing to the Chemical Tank. (**Note: Quick Disconnect has a check valve that will prevent spillage**).

2. Remove Quick Release Pin (H) from each side of the Chemical Tank.

3. Lift tank from the Chest Plate and replace.

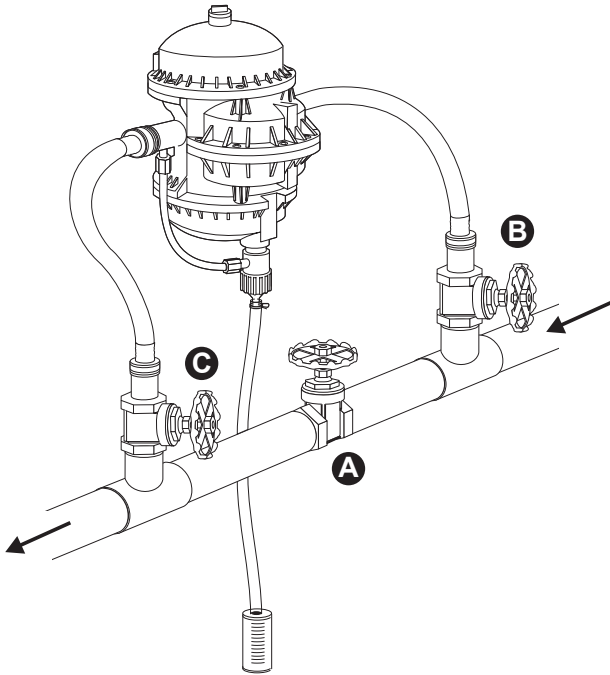


C3P Parts List

A - Shoulder Strap	I - On/Off Ball Valve
B - Strap Hardware FGKT1001	J - Female Swivel Connector ($\frac{3}{4}$ " NHT Required)
C - Chest Plate	K - Liquid Level Indicator
D - Chemical Injector	L - Spray Nozzle FGKT1100
E - Chemical Turbulator	M - Spray Nozzle Quick Release FGKT1150
F - Quick Change Chemical Tank FGKT1500	N - Spray Nozzle Hose FGKT1520
G - Tank Cap FGKT1520	O - Quick Disconnect
H - Quick Release Pin FGKT1050	

D. HN55 Basic Installation

The following are the basic installation methods for the injectors. Please refer to the application-specific sections for additional information and specific recommendations for that application.

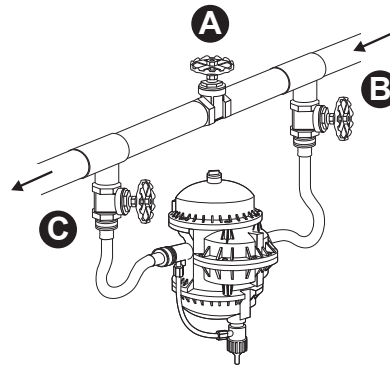


Basic Installation is made by cutting a section of pipe out of an existing water line and putting in a bypass section with three valves. The bypass section can be purchased from Chemilizer. In the Chemilizer catalog, it is called an "Installation Kit." Standard pipe size for the bypass section (installation kit) is 3/4". Bypass sections can be made for larger pipe sizes, but the connection size for the hoses must be reduced to 3/4" thread. In all the installations, water flow must enter the water motor from the right hand side (facing the unit).

Valve "A" is the bypass valve. By closing this valve all the water is diverted to the water motor. When valve "A" is open the water will flow past the injector. Valves "B" and "C" are closed only when the water needs to be shut off to remove water motor for service, or when the chemical pump needs to be removed for service.

Starting The Unit

1. Be sure chemical pump is locked into the bottom of the water motor by turning pump with injection port facing forward.
2. Turn on the water.
3. Open valves (B) and (C).
4. Close valve (A).
5. Open air vent until all trapped air is released.



Same Installation with mounting below pipe

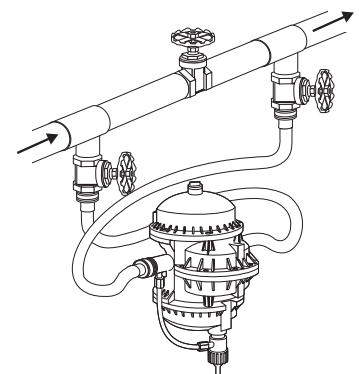
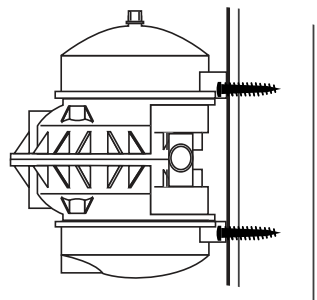
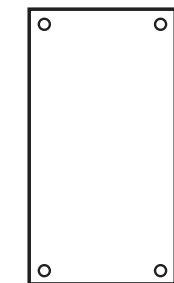
Stopping The Unit

1. Open valve (A), then close valves (B) and (C).
2. Open air vent to release internal pressure when removing for service.

Water must flow through motor from right to left.

Mounting Template

In each box is a white envelope containing four screws. The envelope is marked for use as a template. Unit can be mounted to any stationary surface, or to a post. Tighten screws until the head is about 3/8" away from the surface. The brackets on the back of the unit will slide down between the screw head and the surface.

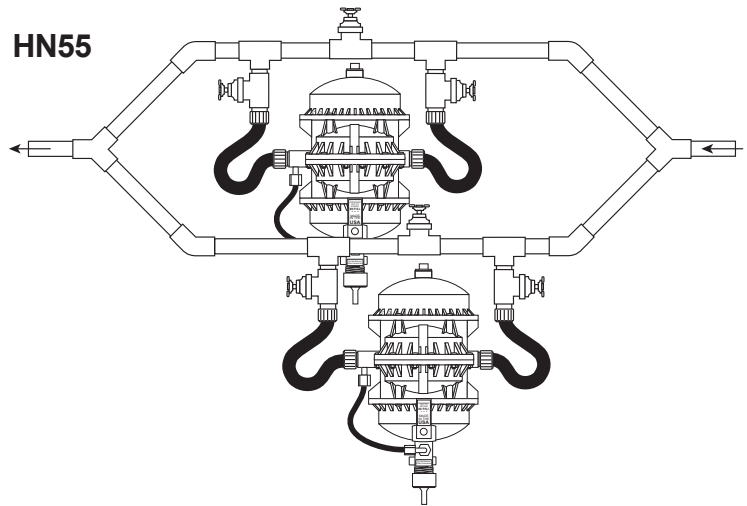
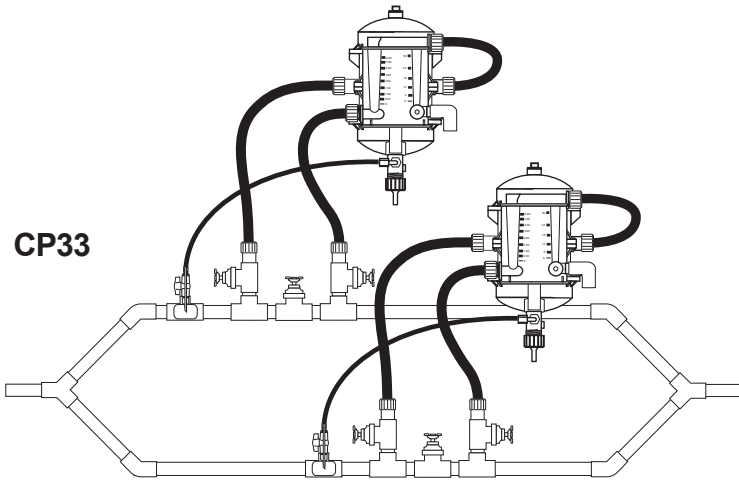


If necessary, crisscross hoses to accommodate setup.

Optional Installations

Parallel Installation (recommended)

Where higher flow rates are in place, two injectors can be installed to split the flow between the two injectors.

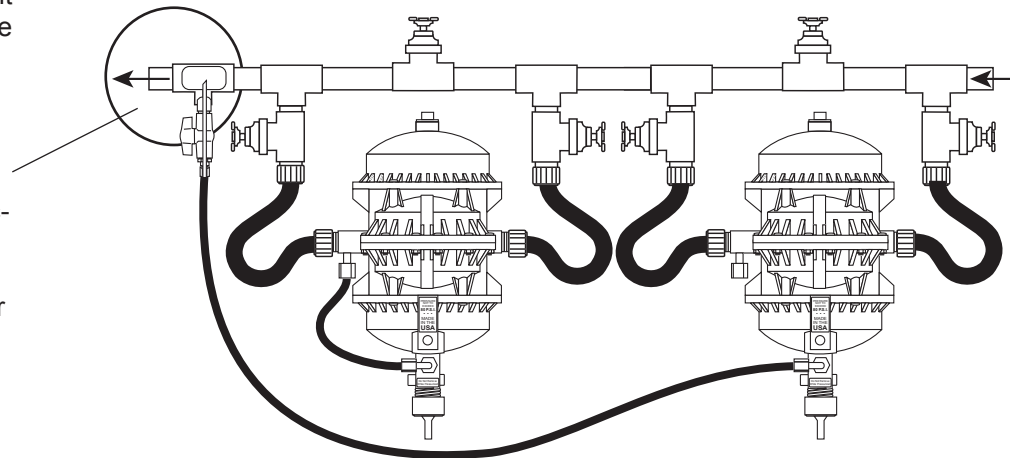


Series Installation*

This installation is intended for putting in two solutions into the same water line.

It is a good idea to add a shut off valve to the injection fitting to prevent water from coming out when the tube is removed.

Note: In this installation, install an injection fitting past the second injector and run the chemical line to the injection fitting. This insures that no chemical goes into the second water motor.



CAUTION:

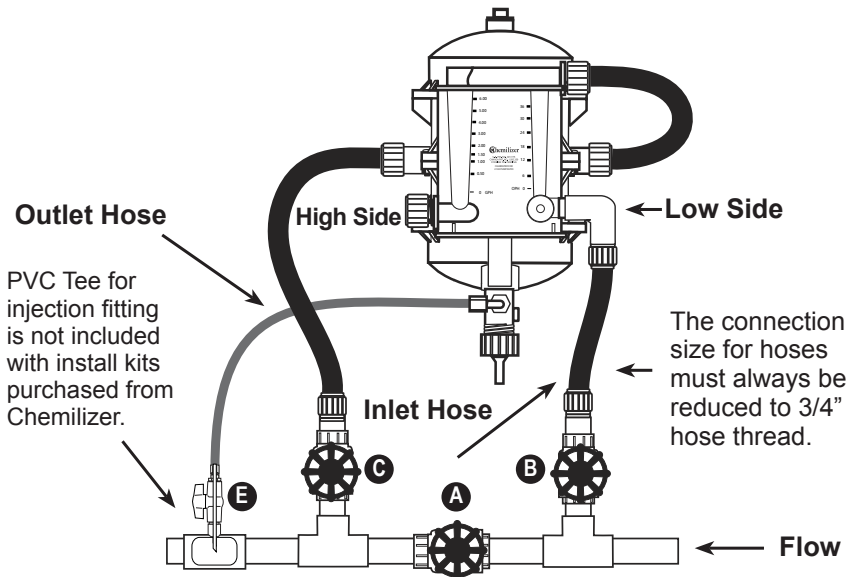
*Series Installation doubles the pressure drop in the system compared to the Parallel Installation.

E. CP33 Basic Installation

A basic installation is made by cutting a section of pipe out of an existing water line and putting in a bypass section with 3 gate valves: **A, B, C**.

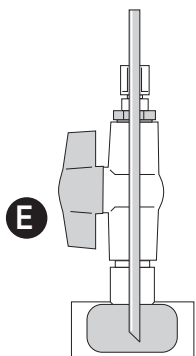
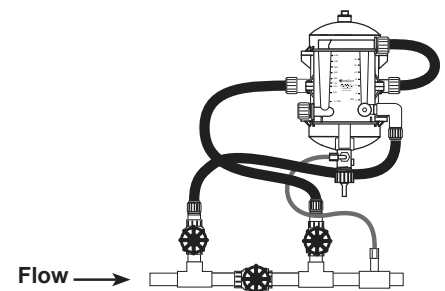
The bypass section can be purchased from Chemilizer as an "installation kit". If you did not purchase an installation kit, you can build your own using standard pvc fittings and brass gate valves.

"TEE" Installation



Note: Do Not Hook Motor Up Backward

Water must flow through motor from right to left. If necessary, crisscross hose to accommodate setup.



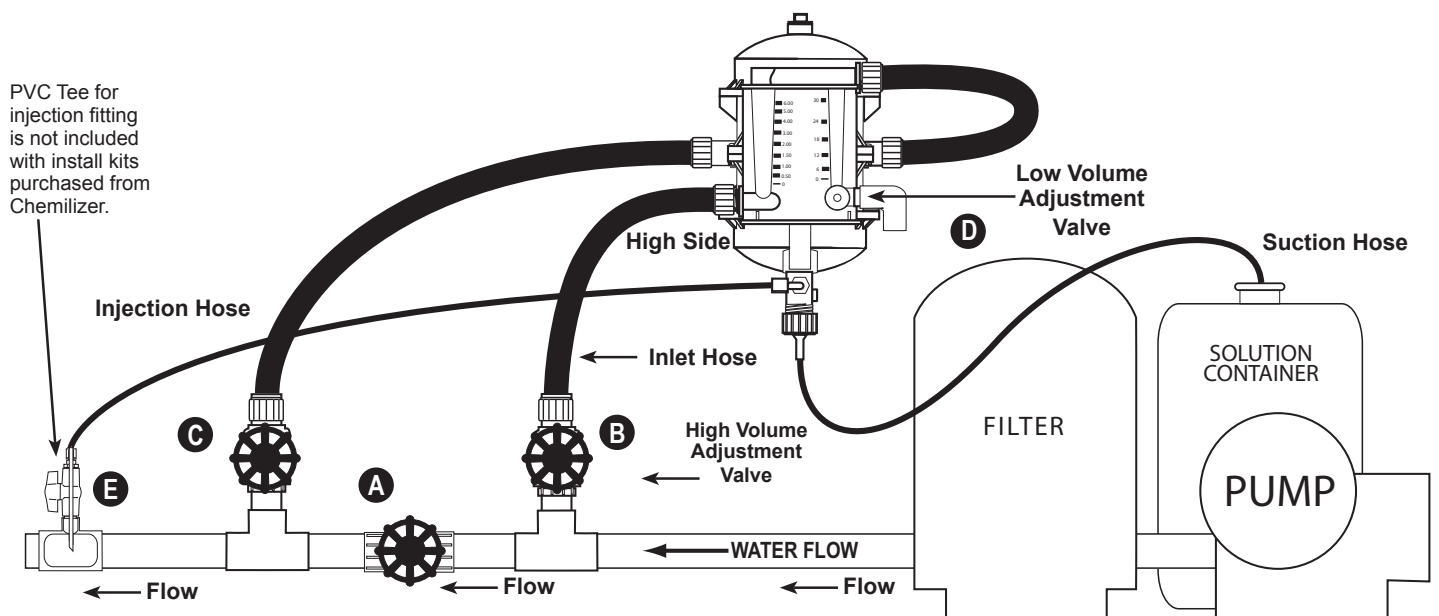
Injection Fitting

The injection fitting is included with all CP33 injectors. It is made to be glued into a standard pvc "T" fitting with a 3/4" opening. For installation in other size pipes, a "reducer tee" or "reducer bushing" is required. We recommend a ball valve (for easy on/off) This is not included with your injector purchase, but is available through Chemilizer Products, Inc.

Setting the Injection Control Panel

1. Locate the **inlet gate valve (B)**, **outlet gate valve (C)**, **low volume adjustment valve (D)** and **control valve (A)** in the diagram below.
2. Connect water inlet hose at valve **(B)** to the desired side of your Injection Control Panel and water outlet, left side of water motor to valve C.
3. With your system water flow at its maximum, valve **(A)** is fully open.
4. Slowly close valve **(A)** until float is positioned just above your desired injection setting. Note: Bounce of the float can be a normal condition, the Injection Control Panel setting is read at the high point of the bounce at top of ball.
5. If the inlet hose is connected to the low volume (ounces per hour) side of the Injection Control Panel, use the **low volume adjustment valve (D)** to move the float to the exact setting you want.
6. If the inlet hose is connected to the high volume (gallons per hour) side of the Injection Control Panel, use the inlet control valve **(B)** to move the float to the setting you want.

Remember, the float may bounce and the position of the top of the float at the highest point of the bounce is the flow rate the Injection Control Panel will achieve.



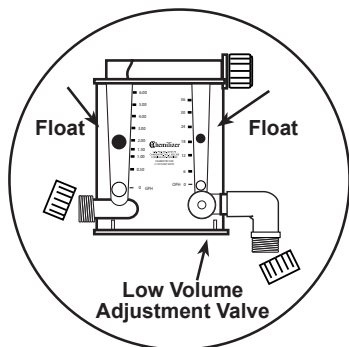
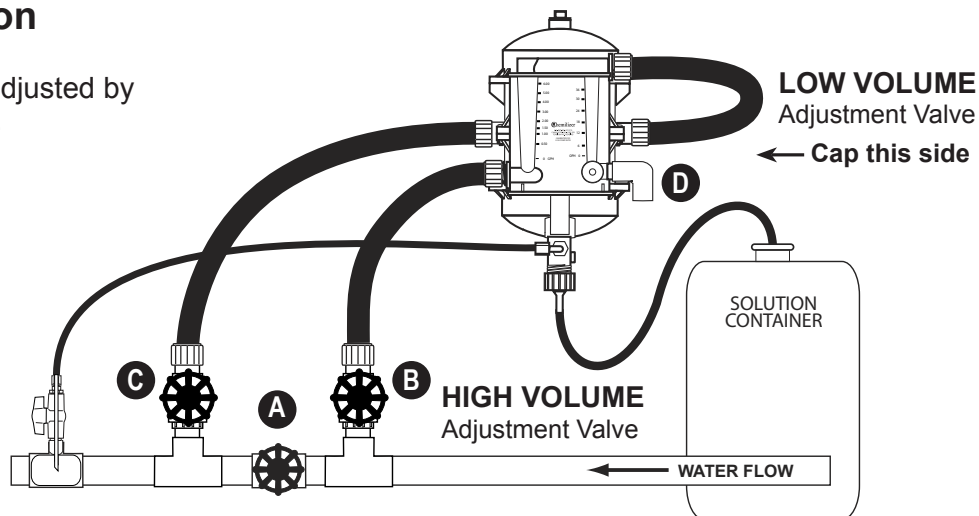
Injection Volume Options

The dual sided **Injection Control Panel** allows a broad range of chemical delivery rates. For pool disinfection applications, the **ounces per gallon** side of the **Injection Control Panel** will be used for all but the largest pools.

High Volume Installation

Gallons Per Hour Injection

Injection rate is adjusted by turning valve "B".



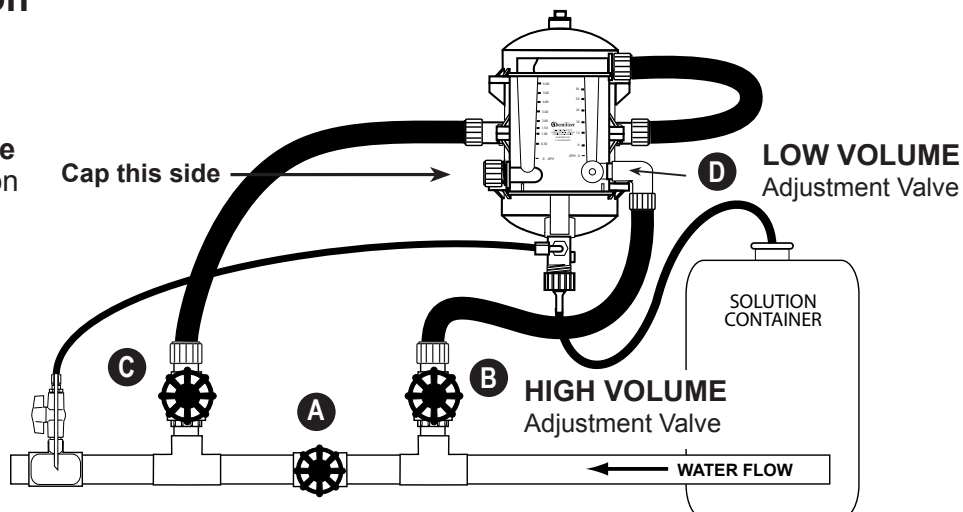
Injection Control Panel

Depending on which side of the Injector Control Panel you use, the other side is **capped off** (cap included).

Low Volume Installation

Ounces Per Hour Injection

Injection rate is adjusted with the **Low Volume Adjustment Valve (D)** on the Injection Control Panel.



F. Application Specific Installation Guidelines

Animal-Health *(basic HN55 installation diagram, page 10)*

Use the Chemilizer injector for reliable delivery of dietary and medicinal additives into your livestock drinker systems or disinfection of the drinking water.

Follow the “Basic” installation method for the model you’ve purchased.

Chemilizer injectors can also be mounted on carts for mobile sanitizing applications.

Horticulture *(basic HN55 installation diagram, page 10 / basic CP33 installation diagram, page 12)*

Whether you use overhead spray booms, spray heads, drip or micro irrigation, Chemilizer injectors integrate easily into your system. They can also be mounted on carts for spot treatment.

Follow the “Basic” installation method for the model you’ve purchased.

Chemilizer injectors can also be mounted on carts for mobile applications.

Landscaping *(basic HN55 installation diagram, page 10 / basic CP33 installation diagram, page 12)*

The accuracy and simple operation of the CP33 makes it easy to achieve the proper coverage during continuous fertigation. Many fertilizers are “injector ready” requiring no dilution prior to injection making it even simpler. Because the CP33 is adjustable, multiple models are not needed to apply different fertilizers. The CP33 can accommodate:

- Zone flow rates from 12 GPM to 1000 GPM and above to handle everything from drip irrigation to municipal parks and sports fields
- Virtually any make of liquid fertilizer without dilution including micro-nutrients and thick, “lumpy” organics, such as fish hydrolysate and seaweed without clogging
- The use of compost tea without damaging the fungi present and degrading the effectiveness of the tea
- Easy adjustment of injection rate when changing fertilizers or regulating turf growth
- Wide ranges of pH

Water Treatment - Municipal *(HN55/CP33 well installation diagram, page 16)*

The CP33 is a cost effective alternative for chlorination in treatment facilities serving populations from 100 to several thousand people. It is a safe alternative to gas chlorination.

Use the “Basic” installation for the CP33, with the water flowing through the High Side of the Injection control panel (See *High Volume Installation* diagram, page 14).

Swimming Pools *(HN55/CP33 pool installation diagram, page 17-19)*

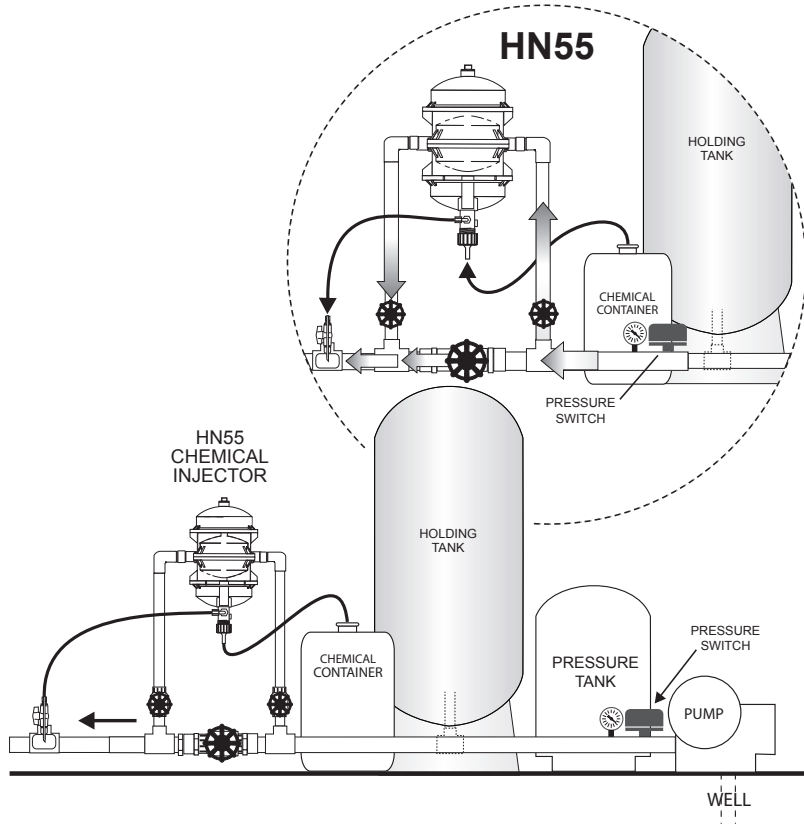
Chemilizer injectors provide reliable, accurate injection resulting in less chemical waste and reduced cost as well as a tightly controlled level of chlorine and pH.

INSTALLATION PROCEDURE

Installation Diagrams - Water Treatment

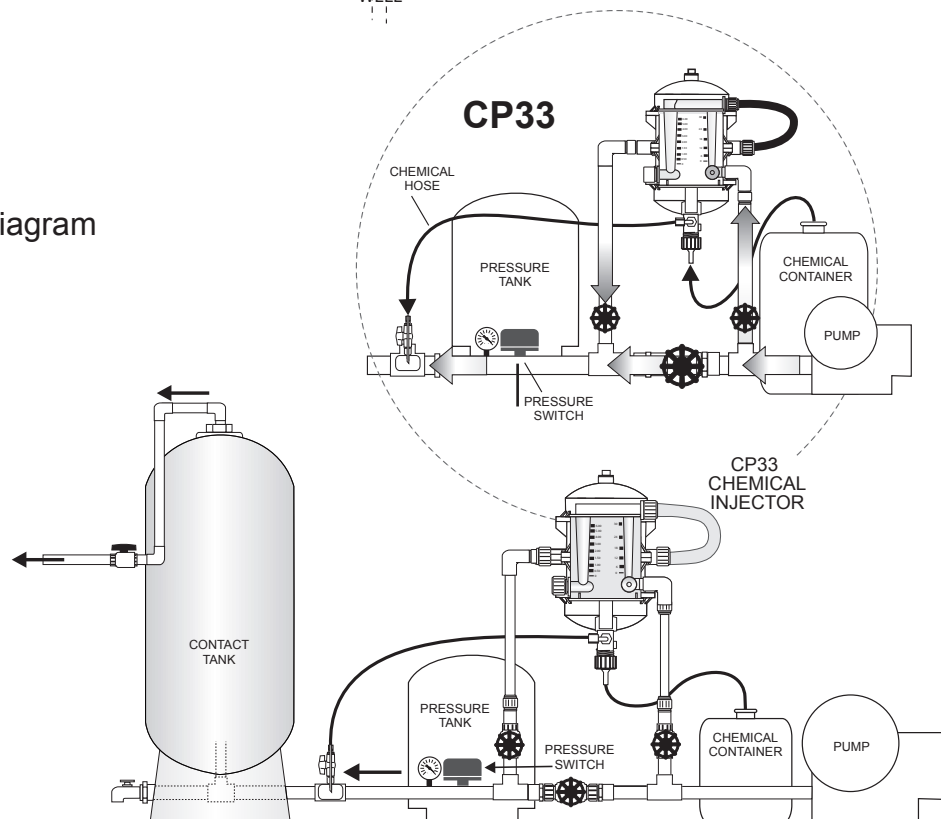
Residential / Community Wells

Chemilizer injectors easily deliver cost-effective, easily obtained chemicals such as chlorine, to effectively sanitize drinking water.



- HN55 Well Installation Diagram

- CP33 Well Installation Diagram



INSTALLATION PROCEDURE

Installation Diagrams - Pools

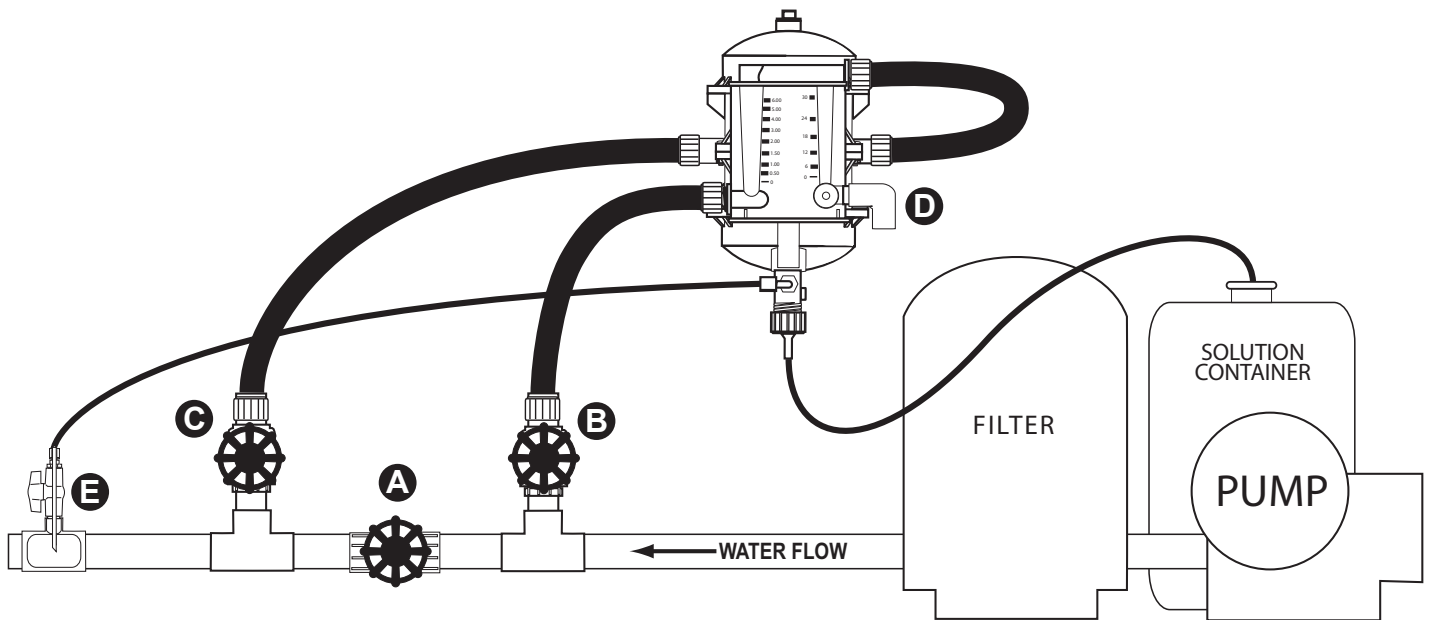
Chemilizer injectors provide reliable, accurate injection resulting in less chemical waste and reduced cost as well as a tightly controlled level of chlorine and pH.

Reminder: Before you back wash the filter, make sure you close valves B and C first. When the backwash is complete, return them to the open position. If you fail to do this, water may enter the unit from the left, damaging the water motor.

Placement:

Note:

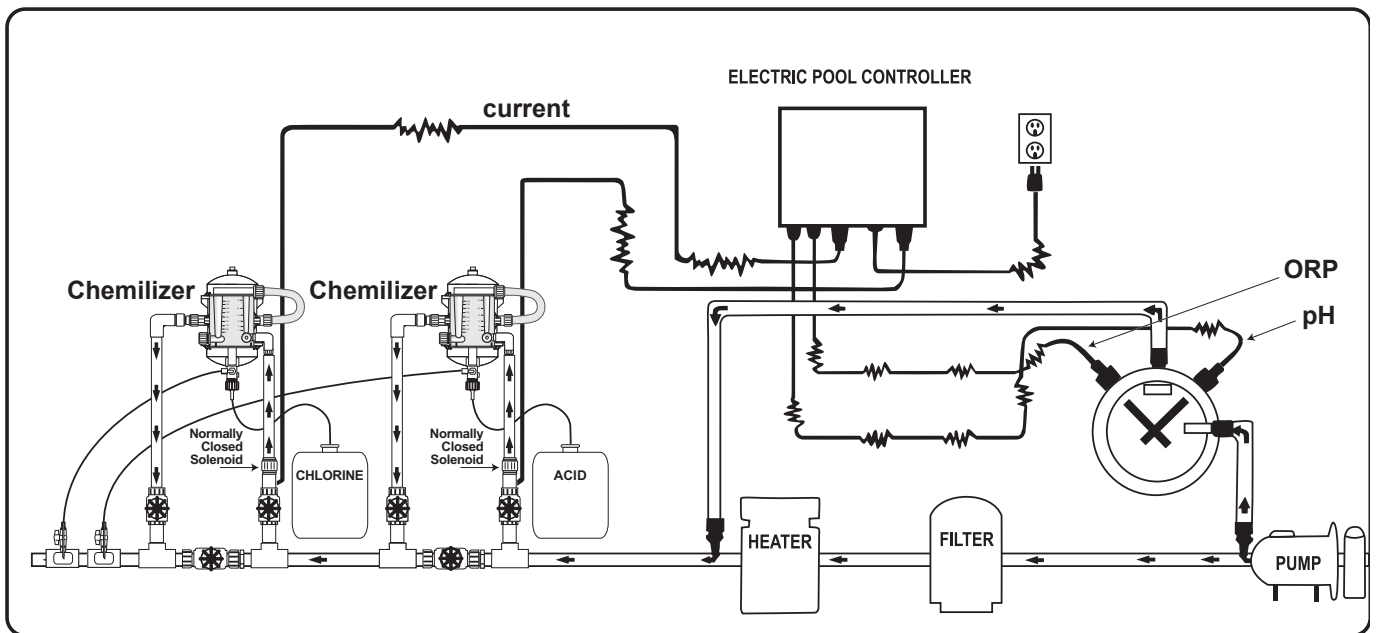
The CP33 injector should always be installed **after** the pool filter.
Injection should take place **after** the pool heater.



INSTALLATION PROCEDURE

Installation Diagrams - Pools

- Electric Controller Diagram #1

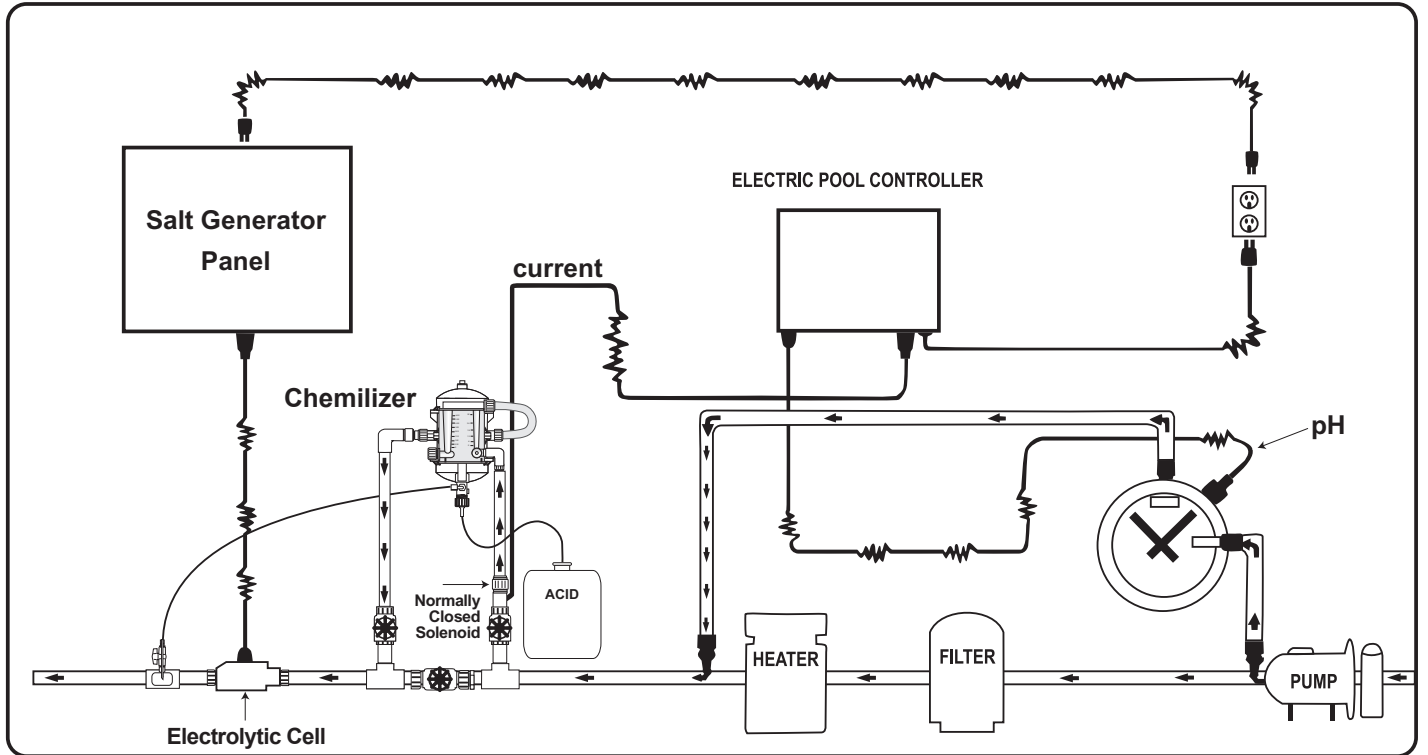


Installation without Salt Chlorine Generator

INSTALLATION PROCEDURE

Installation Diagrams - Pools

- Electric Controller Diagram #2 (with Salt Generator)



Installation with Salt Chlorine Generator

Note: Salt Chlorine Generator with its own pH sensor may not require separate electric pool controller

5. How to Determine Your Chemical Mix

If you are using the HN55 for Water Treatment, use the worksheet below:

WORKSHEETS HN55 Dilution for Water Treatment

CHLORINE DEMAND CALCULATION:

IRON	_____ PPM	X .9 =	_____ PPM
HYDROGEN SULFIDE	_____ PPM	X 8.5 =	_____ PPM
ALGAE REQUIRES EXTRA	5 PPM =		_____ PPM
DESIRED RESIDUAL	=		_____ PPM
TOTAL CHLORINE DEMAND	=		_____ PPM

Selection of the pump ratio will determine how long the stock solution lasts
(2:128 will cause stock solution to run out quicker than 1:128):

Injection factor	Using 2:128 is .0156	Using 1:128 is .0078	Using 1:100 is .01
	Using 2:100 is .02	Using 1:250 is .004	Using 1:500 is .0025

Required Dilution:

$\frac{\% \text{ chlorine} \times \text{Injection factor} \times 1,000,000}{\text{Total Chlorine Demand PPM}}$ then subtract 1 = gallons of water to mix with 1 gal. of chlorine

of Days chlorine solution will last

$\frac{\text{GPD of water use} \times \text{Injection factor}}{128} = \text{GPD of chlorine solution used}$

$\frac{\text{GPD of solution}}{\text{Size of solution container in gallons}} = \text{\# of days between refills}$

Examples: A well supplying 400 gal. of water per day (4 people, 100 gal. each) with least frequent refill.

3.0 PPM IRON	X .9 =	2.7 PPM
5.0 PPM H2S	X 8.5 =	42.5 PPM
ALGAE	=	5.0 PPM
DESIRED RESIDUAL	=	0.5 PPM
Chlorine Demand	=	50.7 PPM

Dilution using 5.25% chlorine (household bleach) and a 1:250 pump

$\frac{5.25\% \times .004 \times 1,000,000}{50.7 \text{ PPM}} = 4.14 - 1 = 3.14 \text{ gal. of water to 1 gal. chlorine}$

Time between refills with a 25 gal. solution tank

$400 \times .004 = 1.6 \text{ GPD}$, then divide 25 by 1.6 to get approximately 15.5 days to empty the tank

20.0 PPM IRON	X .9 =	18 PPM
15.0 PPM H2S	X 8.5 =	127.5 PPM
ALGAE	=	5.0 PPM
DESIRED RESIDUAL	=	0.5 PPM
Chlorine Demand	=	151 PPM

Dilution using 12% chlorine and a 2:128 pump

$\frac{12\% \times .0156 \times 1,000,000}{151 \text{ PPM}} = 12.4 - 1 = 11.4 \text{ gal. of water to 1 gal. chlorine}$

Time between refills with a 35 gal. solution tank

$400 \times .0156 = 6.24 \text{ GPD}$, then divide 35 by 6.24 to get approximately 5.5 days to empty the tank.

If you are using the CP33, use the worksheet below:

WORKSHEETS

CP33 Injection Rate Setting

Dry Calculation

% of chemical concentration	_____	The % of chemical concentration is the %
	A	in the injection solution.
Bag weight in lbs.	_____	
	B	
Max. solubility/gal. in ounces	_____	The maximum solubility is on the fertilizer
	C	or chemical label or bag.
PPM desired	_____	
	D	
Water flow in GPM	_____	The water flow entered should be the
	E	highest rate of flow the system can attain.

Divide **C** by **16** and then divide **B** by the result, which **X** is the number of gallons of water to mix with the chemical.

X

Divide **C** by **128** and multiply the result by **A**, which **Y** is the concentration after mixing with water volume **X**.

Y

Divide **D** by 1,000,000 =

F

Multiply **E** by 60 =

G

Multiply **F** by **G** =

H

Divide **H** by **Y** = _____ Gallon per hour setting for the CP33.

I

If you wish to set the CP33 using the ounces scale on the injection control panel, multiply **I** by 128. _____

Liquid Calculation

% of chemical concentration	_____	The % of chemical concentration is the %
	A	in the injection solution.
PPM desired	_____	
	B	
Water flow in GPM	_____	The water flow entered should be the
	C	highest rate of flow the system can attain.
Divide B by 1,000,000 =	_____	
	D	
Multiply C by 60 =	_____	
	E	
Multiply D by E =	_____	
	F	
Divide F by A =	_____	Gallon per hour setting for the CP33.
	G	

If you wish to set the CP33 using the ounces side of the injection control panel, multiply **G** by 128. _____

Disclaimer: This worksheet is for determining the proper injection rate setting on the CP33 based on the desired PPM in the output water flow and is provided as an aid for the convenience of our users. The results should not be solely relied upon to determine the setting for the injection rate in your application. Measuring the PPM in the output water is strongly recommended. Chemilizer accepts no liability for any damages incurred as a result of using this worksheet.

Notes:

1. If the result of the calculation exceeds 6 gallons per hour, you have two choices. First, if there is a more concentrated form of the chemical being used, rerun the calculations with that data. If not, it will require multiple CP33 units to meet the volume of injection. Call Chemilizer to discuss the best configuration to meet your needs.
2. When using a dry chemical, the higher the solubility the higher the PPM you can achieve with a single CP33.

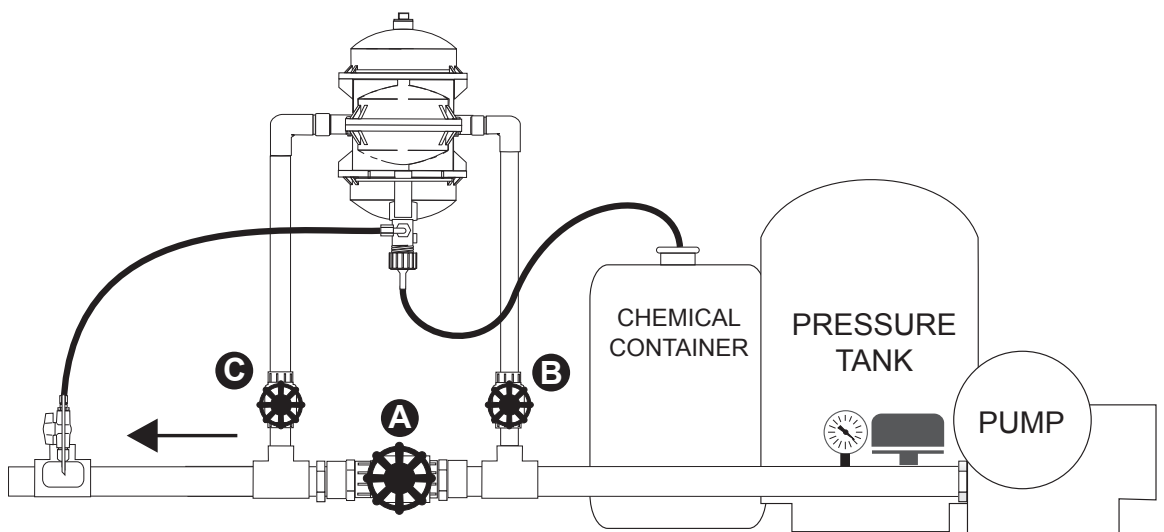
6. Troubleshooting Tips

TROUBLESHOOTING - HN55

Troubleshooting the Water Motor

Note: When the water motor is working properly, you should hear a clicking sound.

Problem	Cause	Solution
Water motor does not click. Water does not flow through unit.	No water flow to motor.	Check that gate valves "B" & "C" are open and that valve "A" is fully closed..
	Incoming water is incorrectly connected to outlet side of water motor.	Verify that incoming water is connected to the inlet (right side) of the water motor.
Water motor does not click. Water does flow past unit.	Water-motor is in "bypass" due to damaged parts on the inside of water motor or excessive wear of moving parts.	Send unit to a service center or to Chemilizer Products for repair.
	Gate valve "A" is not fully closed or may be leaking due to wear from sand or debris.	Check that gate valve "A" is fully closed and not leaking by closing valve "B" and removing hose from "C", open valve "C", water should not come out of valve "C" if valve "A" is working properly.
Motor clicks a few times, then stops.	Unit is in bypass condition.	Shut off water flow. Relieve pressure by loosening air vent. Restart water flow.
	Motor may be in bypass due to worn worn or broken parts.	Send unit to a service center or to Chemilizer Products for repair.
	"O" ring on pump stem may have excessive wear, allowing water to seep past at low flows stopping motor.	Change out pump with a known good pump. If unit continues to work, rebuild old pump with pump rebuild kit.
Motor clicks a few times, then stops.	Clogged chemical feed tube.	Inspect chemical feed tube for blockage and clean or replace tube.
Motor works on high flow (over 5 gpm) but stops on low flows (under 2 gpm).	Gate valve "A" may be leaking.	See above.
	"O" ring on pump stem may have excessive wear.	See above.

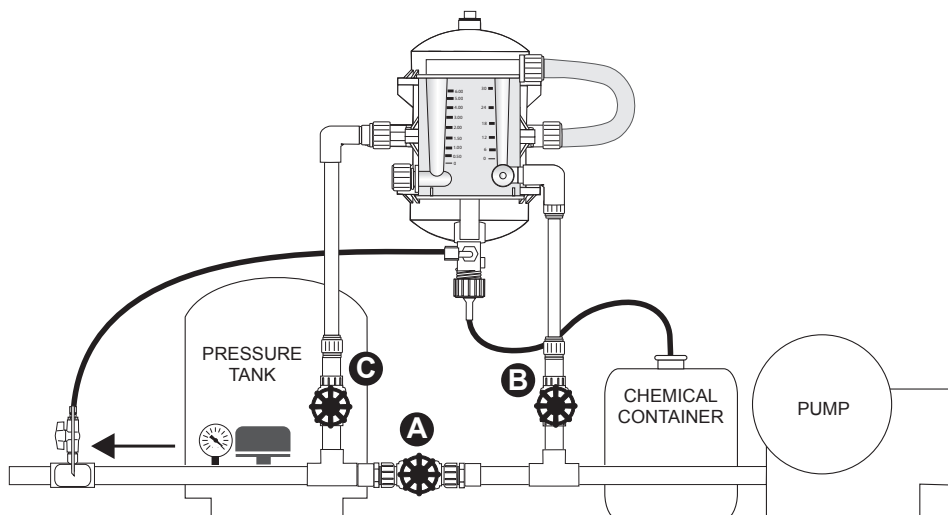


TROUBLESHOOTING - CP33

Troubleshooting the Water Motor

Note: When the water motor is working properly, you should hear a clicking sound.

Problem	Cause	Solution
Water motor does not click.	Gate valve "A" may be incorrectly set.	Verify that gate valve "A" is partially closed, forcing water into the injection panel.
	Water motor is in by-pass condition due to worn or broken parts inside of the motor.	Send unit to a service center or Chemilizer Products for repair. Contact Chemilizer for assistance in diagnosing problem 800.234.7211
Motor clicks a few times, then stops.	Water motor is in by-pass condition due to worn or broken internal parts.	See above.
	Unit is in bypass condition.	Shut off water flow. Relieve pressure by loosening air vent. Restart water flow.
	Clogged chemical feed tube.	Inspect chemical feed tube for blockage and clean or replace tube.
	Needle valve is clogged (if the low side of the Injection Control Panel is used).	Clean needle valve by unscrewing needle completely out of the valve seat. If valve seat is clogged water dribbles out with minimum force. Once cleared water flows in with a strong stream.
	Pump may have excessive wear on upper "O" ring allowing water to seep past, stopping motor.	Replace pump with a known good pump. If motor starts working, rebuild old pump with Chemilizer pump rebuild kit.



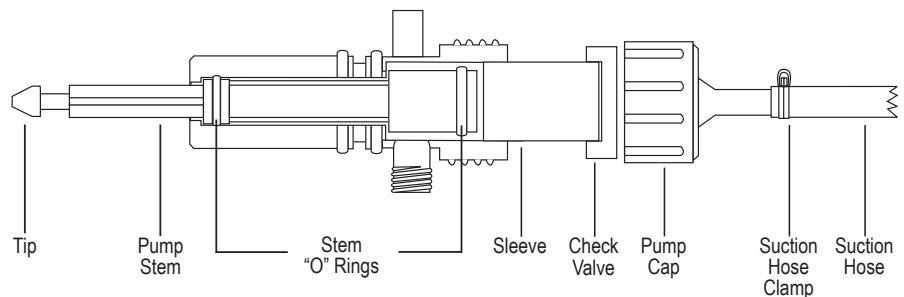
Troubleshooting

The Chemical Pump

Note: The chemical pump will NOT work properly if the pump cap is not tight enough.

Problem	Cause	Solution
Motor clicks, but chemical is not drawn up into the suction hose.	Large "O" ring on lower seal is worn or damaged.	Replace stem assembly with a Chemilizer Products rebuild kit.
	Sleeve may be broken or extremely worn.	Replace sleeve.
	Pump cap is loose.	Chemilizer ships all units and pumps with the pump caps loose. At installation caps need to be tightened to a minimum of 20 inch pounds of torque. (hand-tighten only)
	Pump stem is not engaged into the piston clip in water motor.	Remove pump, check for a broken or worn pump stem at tip. Pump stem must be pulled out completely (approx. 2.5 in.) before being inserted into the bottom of the water motor.
	Piston clip may be broken or worn on the inside of the water motor.	This is an extremely rare occurrence but if the pump stem was not pulled out when initially installed this could cause excessive wear of the piston clip. The water motor must be sent to an authorized repair center or Chemilizer Products for repair.
Chemical solution is drawn up in the suction hose, but then falls back down.	Vacuum leak.	Check valve may need cleaning or replacing. Tighten pump cap to recommended 20 inch pounds of torque. Check suction hose to insure a tight fit with clamp in place. Prime pump by hand and verify that chemical solution stays up in the suction hose.

Cutaway view of pump.



Removing the Chemical Pump from the Water Motor

1. Make sure the water is turned off, and water pressure in the water motor is released - this is done by loosening the Air Vent (pressure relief valve) on the top of the water motor and turning off the water at both gate valves.
2. Turn pump 1/4 turn, with injection port to rear, and then pull down. Always disconnect the chemical hose from the pump before removing.

Pump Rebuild Kit

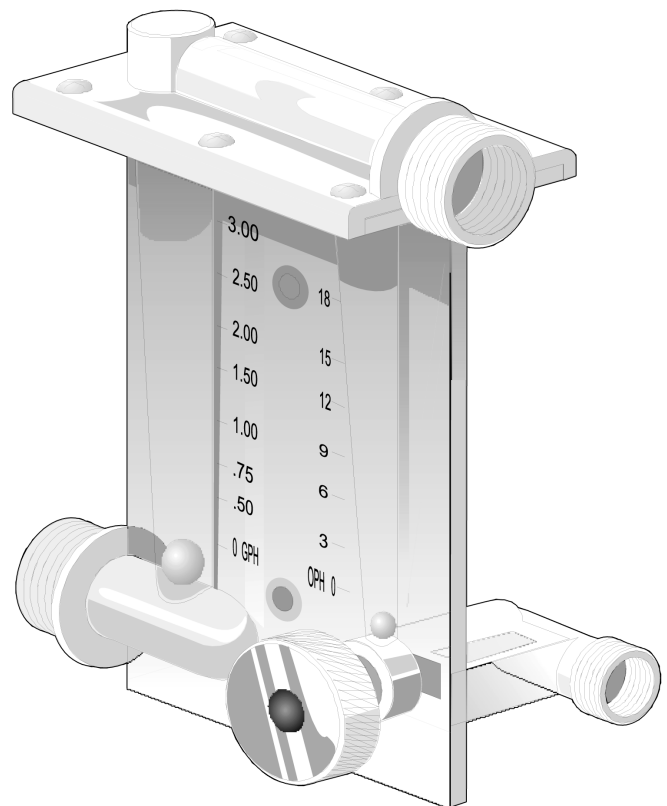
Chemical pumps are mechanical devices which require periodic maintenance. All pump rebuild kits come with a stem, a check valve, and housing "O" rings.

Troubleshooting

The Injection Control Panel

If the Injection Control Panel low volume float has sunk to the bottom of the Injection Control Panel (when pool pump is on), the Low Volume Adjustment Valve may be clogged from debris that was not trapped by the filter. This can only occur when using the low volume side of the Injection Control Panel (the right side).

1. Turn off pump or other water source.
2. Remove the Low Volume Adjustment Valve control knob from the Injection Control Panel, by unscrewing it.
3. Turn pump/water source on until water spurts from the open needle valve, in a steady stream clearing the debris.
4. Turn off the pump/water source and replace the needle valve.
5. Repeat the steps for initially setting the injection level.



7. Maintenance Tips

Water Motor

1. Do not let the unit freeze.
2. Periodically replace the chemical hose and connectors. Chemical buildup will cause the unit not to pump.
3. If the chemical pump becomes hard to remove from the bottom of water motor, clean the inside of the opening on the bottom cap of the water motor with a toothbrush & white vinegar.

Chemical Pump

1. Always use the pump designed for your application (i.e. when pumping vinegar, use a vinegar pump.)
2. Clean the pump after use by running 5 gallons of clean water through the pump, or by removing the pump and hand cleaning individual parts.

Injection Control Panel (CP33 Only)

1. Over tightening the needle valve will cause damage or failure of the valve.
2. Should the needle valve become clogged, remove the valve to allow blockage to move through with water flow.
3. Should clogging of the injection control panel become a problem, install a hose end screen.

Chemical Tank (C3P Only)

1. Keep the chemical tank clean of foreign particles and trash.
2. Do not stand the C3P on its end, as this may damage the elbows attached to the Chemical Tank.

Other

1. Water is always a factor with the life of any injector. If you know you have problem water, an in-line filter before the injector is a wise investment.
2. Keep your stock solution container clean of foreign particles and trash.
3. Keep the suction hose filter off the bottom of the stock solution bucket, insoluble particles may cause clogging.

Chemical Notice:

The Chemilizer injector is a general purpose injector; it was not designed to inject acid. However, some customers use it to inject acids of varying concentrations because our design limits the "damage" caused by aggressive chemicals to the pump, which is inexpensive to repair or replace. Our pump is resistant to chemicals of varying concentrations and a wide range of pH. However, more corrosive chemicals will degrade pump parts faster, necessitating frequent repair or replacement, adding a negligible amount to the cost of using our injectors with that chemical or group of chemicals.

Pump life is determined by a number of factors that include duty cycle, chemical(s) being injected, and frequency of cleaning, among others. Therefore each customer's experience will be different. Normally the check valve, the pump stem and stem o-rings degrade first with the ceramic sleeve taking longer to be affected. Therefore, a pump rebuild kit will be the most frequent maintenance for customers using aggressive chemicals.

8. Frequently Asked Questions

How accurate is your unit?

Answer: Chemilizer's injectors are very accurate due to superior product design and our stringent quality assurance methods. And they maintain their accuracy longer because there are fewer wear points than with traditional designs.

Why should I buy Chemilizer over competitive units?

Answer: A Chemilizer unit provides you with a number of advantages not available from our competitors. These advantages include superior quality backed by a 2 year, warranty (unique in the industry); avoid dependence on an unreliable or expensive electrical source; increased product longevity due to the fact the water motor is not subject to chemical attack; and, last but not least, lower total cost of ownership resulting from reasonable repair cost, instead of replacement.

Do you work on low flow?

Answer: Chemilizer's CP33 and HN55 are versatile. The HN55 can operate with as little as 1 gph and as high as 12 gpm. Whereas the CP33 can operate with as little as 12 gpm and can handle virtually any flow rate above 12 gpm.

Do you have something bigger (than the HN55)?

Answer: Yes, if you need a flow rate above 12 GPM, our CP33 metered chemical injector can handle virtually any flow rate above 5 GPM, injecting from 1 OZ. per hour up to 6 GAL. per hour. If you want proportional injection, two HN55's can be mounted in parallel to handle 24 GPM.

Is it non-electric?

Answer: Our non-electric water motor functions on demand with water flow. Inside the water motor is a fixed diaphragm assembly that travels up and down. This in turn causes the pump, located in the bottom of the motor, to function. The chemical solution is drawn through the pump, an inexpensive replacement part, but never enters the water motor, thereby extending the life of the water motor.

Where are your products made?

Answer: The units are designed, assembled and tested at our facility in Largo, FL.

How easy is it to install?

Answer: Chemilizer's injectors are very easy to install. Since all Chemilizer injectors are non-electric, installation consists of simply attaching the chemical injector to your existing water source. To make things even easier Chemilizer also offers optional installation kits. Installation can often be accomplished in under an hour.

How do I setup the injection control panel?

Answer: To set up the injection control panel simply connect your water supply to either the low flow side (OPH) or the high flow side (GPH) of the injection control panel. Then simply adjust either the needle valve to alter your Ounces Per Hour reading or adjust your gate valve to alter your Gallons Per Hour reading until the flow meter reflects the injection rate you wish to maintain.

How long will the unit last?

Answer: Chemilizer's chemical injectors are built to last. That is why we can offer a 2 year warranty on our water motor. While, your results will depend on your application and duty cycle, many of our customers report their units last 5 years or more with simple, cost effective maintenance. Our satisfied customers have reported using our unit for over 10 years with only minor repairs.

Why is your motor better than the piston type?

Answer: Chemilizer injectors are better because with our diaphragm design, there is no piston to cause wear or be replaced. Our motor does not need pre-filtration and is unaffected by chemical you are using. This saves you time and money. And adds peace of mind.

Can you mount the unit on a cart?

Answer: Yes, Chemilizer's chemical injectors can be mounted almost anywhere and in any orientation.

What type of chemicals can you pump?

Answer: Our products have been proven pumping Chlorine, Surfactants, pH controllers, Fertilizers, Degreasers, Lubricants, Coolants, Biocides, Germicides, Nutrients, Pharmaceuticals, materials such as tetracycline or amoxicillin, and viscous materials as thick as honey. If you have a question concerning a specific chemical send us an email at: info@chemilizer.com or call us at 1-800-234-7211.

Frequently Asked Questions *(continued)*

Can I use your injector to inject acid(s)?

Answer: Although, we have tested some kinds of acid successfully, we do not recommend the use of our injectors to inject acid. We have been successful pumping a 95% sulfuric acid in our facility. However, weaker acid solutions, i.e. 65% sulfuric acid, may accelerate chemical pump failure simply because they are more caustic.

We do not recommend using our injector for acid injection due to the wide range of acids available and the risk of improper handling by your personnel. Depending upon the type of acid you use, the life of the chemical pump may vary widely. Motor failure that is caused or contributed to by injecting acids is not warranted. The warranty would still cover other types of failures.

Acid injectors are very expensive, often costing thousands of dollars. Ours is much more cost effective, but may require more frequent maintenance, if used to inject acid.

Can you pump multiple chemicals?

Answer: Our units can easily be installed in parallel or in series to inject multiple chemicals in the same water line. This avoids problems that can occur when the wrong chemicals come in contact before entering the water line.

Where do you mix your meds?

Answer: All Chemilizer units inject chemicals after the water flow leaves the motor, never inside the water motor. Test have shown total mixing of chemical in water occurs just a 18" from the point of injection.

Is your pump adjustable?

Answer: The CP33 features a injection control panel that allows you to adjust your rate of injection. We offer four pumps with different ratios to meet your needs, these are: a 1:128 pump , a 2:128 pump , a 1:100 pump, and a 2:100 pump. The HN55 chemical pump is a fixed ratio to ensure maximum accuracy at any GPM. By adjusting your chemical solution, you can achieve the desired level of dilution.

Is it repairable?

Answer: Our unique modular design and minimum number of moving parts, ensure simple, cost effective maintenance. Chemilizer offers a complete line of parts, including rebuild kits for both the water motor and the chemical pump. And repairs are easy. Replacing a chemical pump takes less than a minute and it can be rebuilt, without tools, in less than 5 minutes. Rebuilding the water motor, required very infrequently, can be done in less than an hour.

What type of warranty does the unit have?

Answer: We stand behind our products 100%. So much so, that each unit ships with a two year warranty on our water motor. The chemical pump, due to the variety of chemicals that can be used, carries no warranty. Instead, it has been designed to be disposable and inexpensive. It can be replaced in less than a minute without tools.

9. Technical Specifications

HN55 Injector

Water flow.....	1GPH - 13GPM / metric .063 lpm (3.78 lph) to 45.4 lpm (2,724 lph)
Pressure.....	2 psi to 80 psi / metric .138 bar to 5.51 bar
Max. temp.....	110° F (43.3° C)
Pipe size.....	3/4" nht (national hose thread)
Ratio.....	SEE PUMP LABEL*
Size.....	11" height x 8 1/2" width / metric 27.9 cm x 21.6 cm
Weight.....	6 3/4 lbs. (2.5 kg)

Chemical Pump ratio and o-ring material:

CH9000- 209	1:128 Viton
CH9000- 210	1:100 Viton
CH9000- 211	2:100 Viton
CH9000- 220	2:128 Viton
CH9000- 225	1:250 Viton
CH9000- 226	1:500 Viton
CH9000- 309	1:128 Silicone (Vinegar injection only)
CH9000- 310	1:100 Silicone (Vinegar injection only)
CH9000- 311	2:100 Silicone (Vinegar injection only)
CH9000- 320	2:128 Silicone (Vinegar injection only)
CH9000- 325	1:250 Silicone (Vinegar injection only)

CP33 Injector

Water flow.....	12 GPM to unlimited / metric 46 lpm to unlimited
Pressure.....	4 psi to 80 psi / metric .276 bar to 5.51 bar
Max. temp.....	110° F (43.3° C)
Pipe size.....	3/4" nht (national hose thread)
Ratio.....	SEE PUMP LABEL*
Size.....	11" ht x 8 1/2" width / metric 27.9 cm x 21.6 cm
Weight.....	6 3/4 lbs. (2.5 kg)

Chemical Pump ratio and o-ring material:

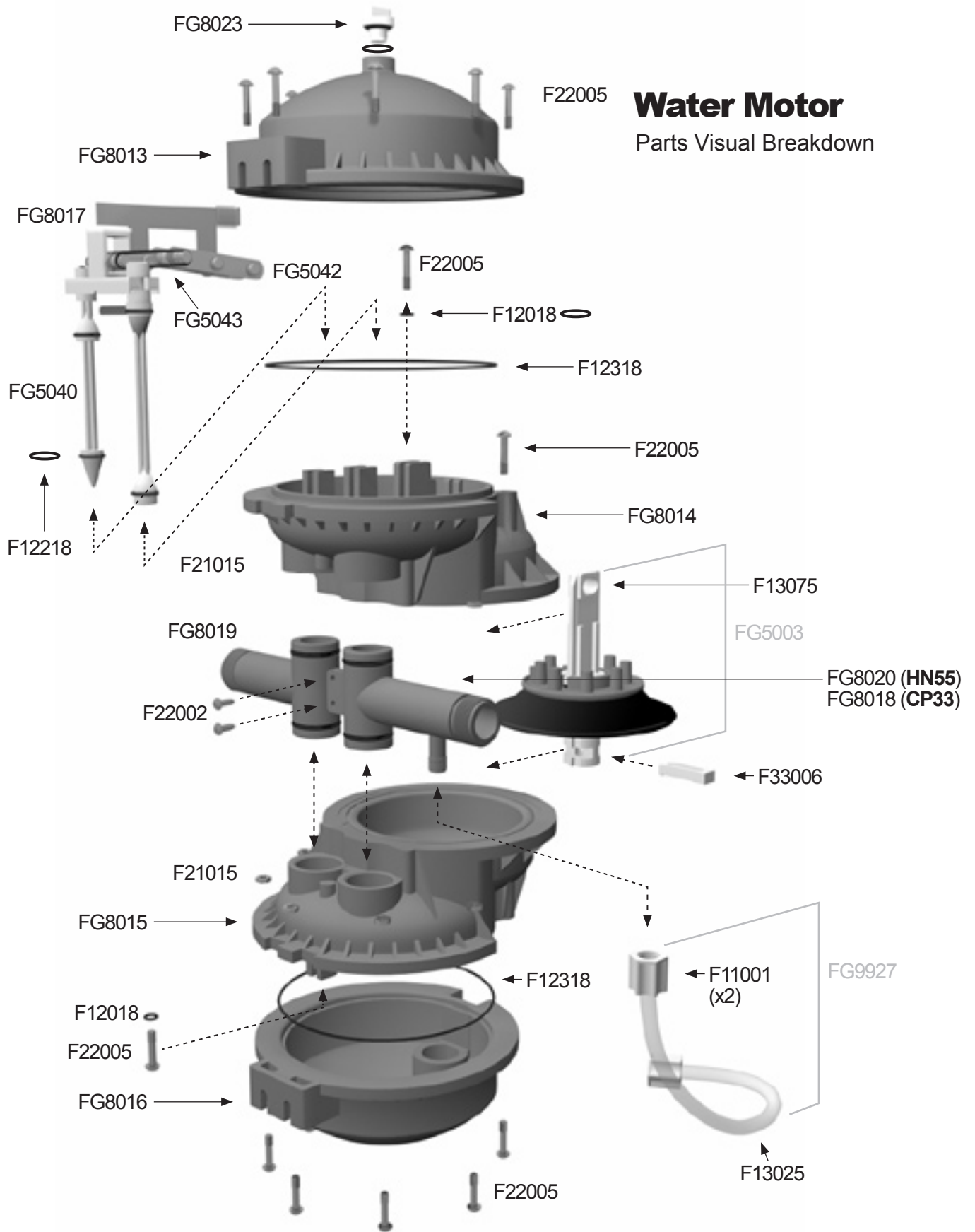
CH6000- 209	1 GPH Viton
CH6000- 210	3 GPH Viton
CH6000- 211	6 GPH Viton
CH6000- 210 M	12 LPH Viton
CH6000- 211 M	24 LPH Viton
CH6000- 309	1 GPH Silicone (Vinegar injection)
CH6000- 310	3 GPH Silicone (Vinegar injection)
CH6000- 311	6 GPH Silicone (Vinegar injection)
CH6000- 310 M	12 LPH Silicone (Vinegar injection)
CH6000- 311 M	24 LPH Silicone (Vinegar injection)

Note: "M" designates Injection Control Panel with metric scale.

C3P Portable Sprayer

Injection Rate.....	1:100 (included)
(Availability.....	1:500, 1:250, 1:100, 2:100, 1:128, 2:128)
Accuracy.....	Plus/minus 5%
Pressure.....	2 PSI to 80 PSI, .138 BAR-5.51 BAR
Connection.....	3/4" NHT (National Hose Thread)
Size.....	17" (H) x 12" (W) x 10" (depth)
Size w/straps.....	23" (H) x 12" (W) x 20" (depth)
Chemical Tank Capacity...	32 ounces
Dry Weight.....	15 lbs

10. Replacement Parts



HN55/CP33 Internal-External Parts

 <p>FG8013 Top Cap Assembly Includes: 159 O-Ring</p>	 <p>FG8023 Twist Air Vent Assembly Includes: 112 O-Ring</p>	 <p>FG8020 Outlet Tee Assembly</p>
 <p>FG8014 Main Top Body Assembly Includes: 009 O-Ring 159 O-Ring</p>	 <p>F22005 Screw 10-32 S.S. for Body</p>	 <p>FG8019 Inlet Tee Assembly</p>
 <p>FG8015 Main Bottom Body Assembly Includes: 009 O-Ring 159 O-Ring</p>	 <p>F21015 Nut 10-32 S.S. for Body</p>	 <p>FG9927 Chemical Hose Assembly</p>
 <p>FG8016 Main Bottom Cap Assembly Includes: 159 O-Ring</p>	 <p>F22002 Screw For Inlet/Outlet Tee</p>	 <p>FG8001 Water Supply Hoses 3' x 1/2"</p>
 <p>FG6306 3 oz. to 3 gal. per hour (uses 1:100 pump) FG6206 6 oz. to 6 gal. per hour (uses 2:100 pump) FG6406 1 oz. to 128 oz. per hour (uses 1:128 pump) FG6206M 200 mL to 24 L per hour (uses 2:100 pump) FG6306M 100 mL to 12 L per hour (uses 1:100 pump)</p> <p>All Injection Control Panels Include: F16070 End Cap FG6108 Meter Elbow</p> <p>see page 6 for individual diagrams</p>	 <p>F13075 Piston Guide Insert NOTE: This is round until inserted</p>	
	 <p>F12232 Tension Bands NOTE: Not an O-Ring</p>	
 <p>FG5043 Actuator Arm Assembly Includes: Tension Bands</p>	 <p>FG5042 Pivot Arm Assembly</p>	 <p>F24060 Retaining Clip Set of 10</p>
 <p>F11020 1/4" Cap for Injection Fitting</p>		
 <p>F33006 Motor Piston Clip</p>	 <p>FG8017 Top By-Pass Assembly</p>	<p>FG5001 Motor Rebuild Kit The following parts are part of the Motor Rebuild Kit.</p> <p>F12018 O-Rings 009 F12238 O-Rings 119 F12318 O-Rings 159 FG5040 Inlet/Outlet Valve Assembly FG5042 Pivot Arm Assembly FG5043 Actuator Arm Assembly FG5003 Diaphragm Assembly FG8017 Top By-Pass Assembly</p>
 <p>FG5040 Inlet/Outlet Valve Assembly *includes 109 O-Ring</p>	 <p>FG5003 Diaphragm Assembly</p>	

Chemical Pump Parts

Chemical Pumps



FG9209-V	1:128 Pump Viton Assembly
FG9210-V	1:100 Pump Viton Assembly
FG9211-V	2:100 Pump Viton Assembly
FG9220-V	2:128 Pump Viton Assembly
FG9222-V	1:250 Pump Viton Assembly
FG9225-V	1:500 Pump Viton Assembly
FG9309	1:128 Pump Silicone Assembly
FG9310	1:100 Pump Silicone Assembly
FG9311	2:100 Pump Silicone Assembly
FG9320	2:128 Pump Silicone Assembly
FG9322	1:250 Pump Silicone Assembly

Pump Stems



FG9009	1:128 Pump Stem Viton
FG9010	1:100 Pump Stem Viton
FG9011	2:100 Pump Stem Viton
FG9020	2:128 Pump Stem Viton
FG9022	1:250 Pump Stem Viton
FG9025	1:500 Pump Stem Viton
FG9109	1:128 Pump Stem Silicone
FG9110	1:100 Pump Stem Silicone
FG9111	2:100 Pump Stem Silicone
FG9120	2:128 Pump Stem Silicone
FG9122	1:250 Pump Stem Silicone

Pump Rebuild Kits All Pump Rebuild Kits Come with Stem, Check Valve and Housing O-Rings



FG9409-V	1:128 Pump Rebuild Viton Kit
FG9410-V	1:100 Pump Rebuild Viton Kit
FG9411-V	2:100 Pump Rebuild Viton Kit
FG9420-V	2:128 Pump Rebuild Viton Kit
FG9422-V	1:250 Pump Rebuild Viton Kit
FG9425-V	1:500 Pump Rebuild Viton Kit

FG9509	1:128 Pump Rebuild Silicone Kit
FG9510	1:100 Pump Rebuild Silicone Kit
FG9511	2:100 Pump Rebuild Silicone Kit
FG9520	2:128 Pump Rebuild Silicone Kit
FG9522	1:250 Pump Rebuild Silicone Kit



F15104 Check Valve 2% - Silicone
F15504 Check Valve 2% - Viton



F15204 Check Valve 1% - Silicone
F15404 Check Valve 1% - Viton



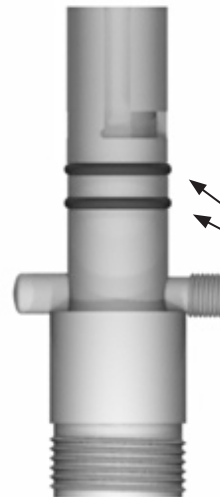
FG9936
 Pump Cap Assembly
 1% Silicone
 Includes:
 Check Valve

FG9936-V
 Pump Cap Assembly
 1% Viton
 Includes:
 Check Valve



FG5031
 Filter PVC Assembly

Pump Housing O-Rings



F12234*

117 Viton
 Pump Housing

Fits 1% or 2% Pumps

1% = 1:100, 1:128, 1:250 & 1:500 ratios
 2% = 2:100 & 2:128 ratios



*Universal O-rings



FG9937
 Pump Cap Assembly
 2% Silicone
 Includes:
 Check Valve

FG9937-V
 Pump Cap Assembly
 2% Viton
 Includes:
 Check Valve



F14010
 Sleeve 1%



F14011
 Sleeve 2%



FG5032
 Suction Hose Assembly



F24150
 1/4 Clamp
 for Suction Hose

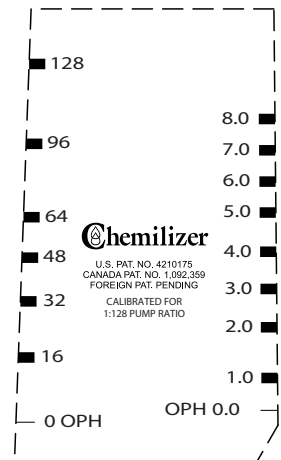
CP33 Injection Control Panels for Hourly Volumetric Injection Ranges

Range	3 oz. to 3 gal. per hour	6 oz. to 6 gal. per hour	100 mL to 12 L per hour	200 mL to 24 L per hour
Settings				
	FG6306	FG6206	FG6306M	FG6206M

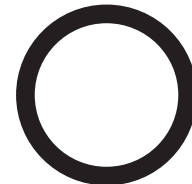
**O-Rings are
Shown
Actual
Size**



**1 oz. to 128 oz.
per hour**

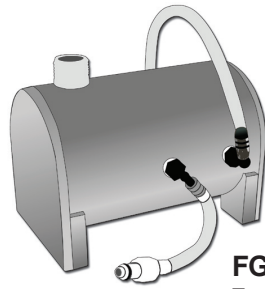


FG6406



F12232
NOT AN O-RING
Tension Bands

C3P Replacement Parts



FGKT1500
Tank



FGKT1520
Tank Cap



FGKT1200
Spray Nozzle Hose

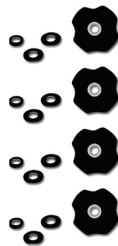


FGKT1100
Spray Nozzle

FGKT1150
Spray Nozzle
Quick Release



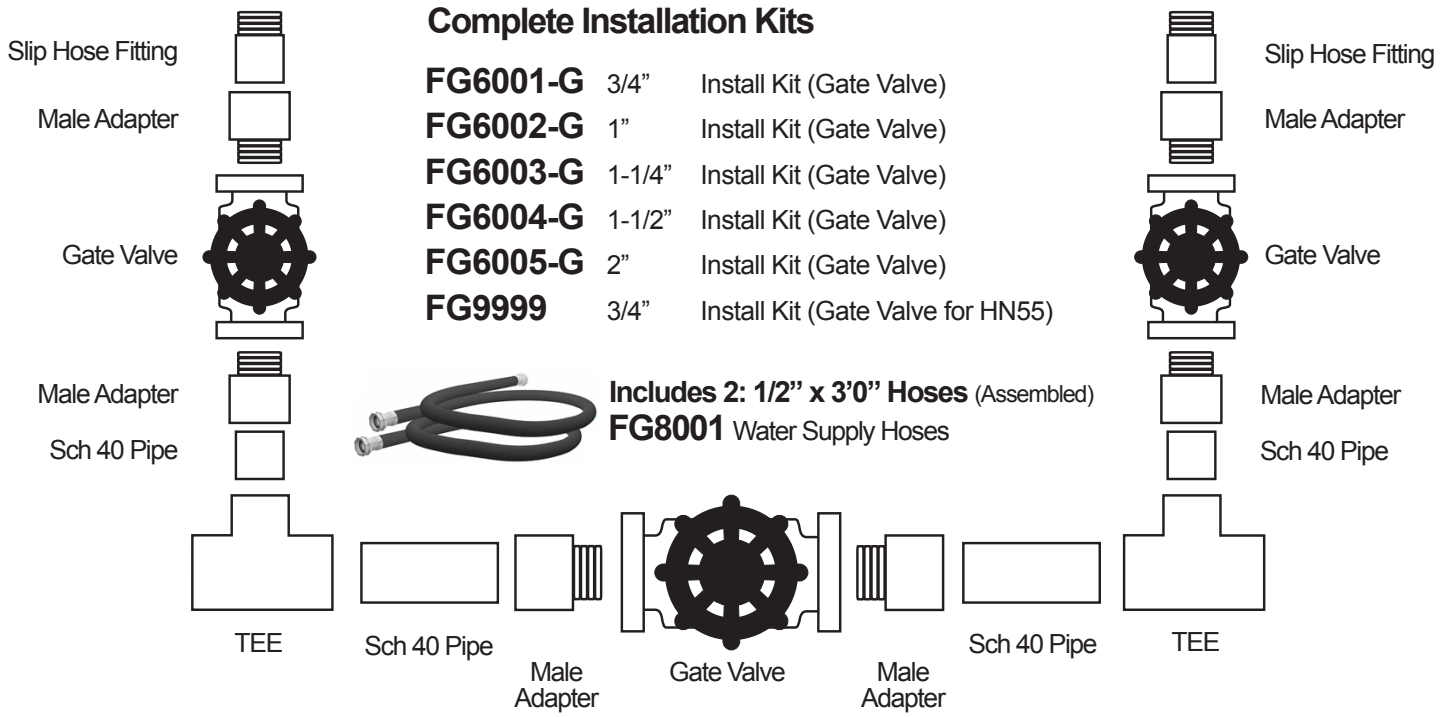
FGKT1050
Tank Quick
Release Pins



FGKT1001
Strap Hardware

Installation Kits

Separated into Individual Parts - As Shipped Assembly Guide for 3/4", 1", 1 1/4", 1 1/2" and 2" Install Kits



11. Warranty

United States Warranty Policy*

Water Motor Warranty:

The water motor is warranted to be free from defects in materials and workmanship for a period of two years from the date of purchase. During the first six-month period, should the water motor fail, it will be replaced with a new water motor and a new warranty. For the balance of the warranty period, should the water motor fail, it will be rebuilt or replaced, at the option of Chemilizer, and warranted for the balance of the original warranty period. This warranty does not cover damage due to misuse, abuse, neglect, or alteration. This warranty does not cover damage that occurs in transit. This warranty does not cover any labor or shipping charges for removal and reinstallation. This warranty is void if the serial number label is removed from the unit. This warranty is non-transferable.

Injection Control Panel:

The Injection Control Panel is warranted to be free from defects in materials and workmanship for a period of one year from the date of purchase. At its discretion, Chemilizer will repair or replace the Injection Control Panel at no charge if the Injection Control Panel is determined to be defective when operated under normal operating conditions, and warranted for the balance of the original warranty period. This warranty does not cover damage due to misuse, abuse, neglect, damage resulting from continued direct exposure to sunlight, or alteration. This warranty does not cover any labor or shipping charges for removal and reinstallation. This warranty is non-transferable.

Chemical Pump:

The Chemical Pump is not covered under warranty. Chemilizer Products, Inc. has no control over the types of materials or chemicals that will be used in this equipment; therefore we can not guarantee the chemical pump to be impervious to each and every chemical. Wear of seals and other components is normal and will vary depending on operating conditions and the chemicals being used. Wear to the pump and components, due to use or chemical attack, are not covered by warranty.

Warranty Claims:

Return to your local dealer, or to Chemilizer Products, Inc. Proof of purchase date, serial number, and an explanation of the complaint must accompany the merchandise. In the event no warranty card is on file or proof of purchase is not available, manufacture date on the unit will be used to determine warranty period. Final determination of all warranty claims will be made by manufacturer.

Miscellaneous Products:

Chemilizer does not warrant parts manufactured by outside sources which are used in the assembly of other product offered by Chemilizer. This includes parts used in installation kits such as gate valves and PVC components.

Before sending merchandise to Chemilizer Products, call for a return authorization number.

1-800-234-7211

*This Warranty Policy applies only to units and component parts purchased and installed in the United States.

To the extent permitted by law, this warranty is made expressly in place of all other guarantees or warranties, express or implied, with respect to quality, merchantability, or fitness for a particular purpose. Chemilizer hereby disclaims any other express or implied warranties. Some states do not allow limitations on how long an implied warranty lasts or their disclaimer so the above limitations may not apply to you. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

12. Contact Us

Thank you for purchasing a Chemilizer injector!

Chemilizer is committed to manufacturing the highest quality product to fill your injection needs, and to providing you with the best service possible.

To help achieve this, we ask that you please take a moment to fill out and send in the warranty card. You can also fill out the warranty online at our web site, www.chemilizer.com

Chemilizer Products, Inc.
230 Commerce Drive North
Largo, FL 33770

Hours of Operation:
Monday – Friday
8:30 AM – 5:00 PM Eastern Time

Telephone: (727) 518-1665

Fax: (727) 559-8266

Web: www.chemilizer.com

Email: info@chemilizer.com