

# 414 HC MIXING STATION - MODEL # 980414

## Requirements

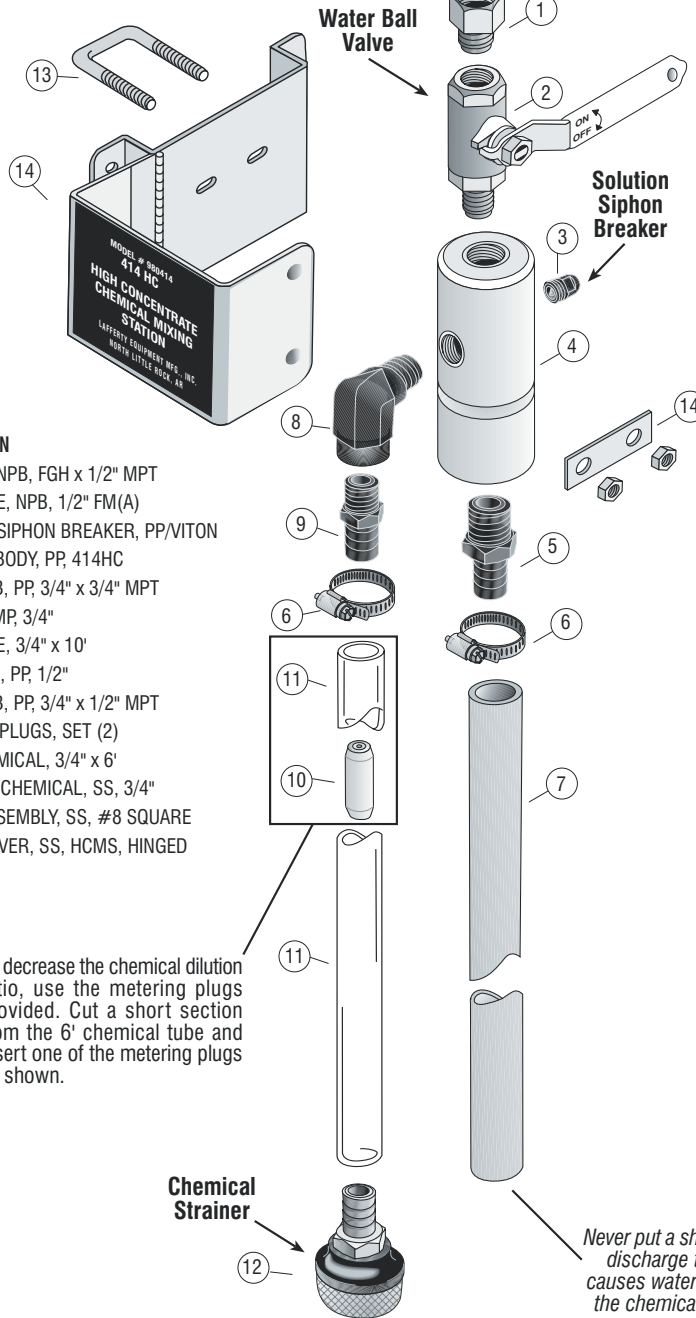
40 - 80 PSI Water  
 (Minimum Flow rate, 5 GPM @ 40 PSI)  
 3/4" I.D. Discharge Hose, 10' Max. Length

## Temperature

Ambient to 140°

Water Supply  
 40 - 80 PSI

**IMPORTANT:** Station supplied without a backflow preventer. Check local plumbing codes for requirements in your area and **install appropriate backflow preventer before operating.**



CALL #	QTY.	PART #	DESCRIPTION
1	1	102027	ADAPTER, NPB, FGH x 1/2" MPT
2	1	413641	BALL VALVE, NPB, 1/2" FM(A)
3	1	491300	SOLUTION SIPHON BREAKER, PP/VITON
4	1	388414	INJECTOR BODY, PP, 414HC
5	1	119289	HOSE BARB, PP, 3/4" x 3/4" MPT
6	2	134306	HOSE CLAMP, 3/4"
7	1	803710NF	HOSE, BLUE, 3/4" x 10'
8	1	257385	ELBOW, ST., PP, 1/2"
9	1	119280	HOSE BARB, PP, 3/4" x 1/2" MPT
10	1	443650	METERING PLUGS, SET (2)
11	1	473706	TUBE, CHEMICAL, 3/4" x 6'
12	1	150120	STRAINER, CHEMICAL, SS, 3/4"
13	1	392498	U-BOLT ASSEMBLY, SS, #8 SQUARE
14	1	222990	BASE & COVER, SS, HCMS, HINGED

To decrease the chemical dilution ratio, use the metering plugs provided. Cut a short section from the 6' chemical tube and insert one of the metering plugs as shown.

Never put a shut-off on the discharge tube. This causes water to flow into the chemical container.

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# LAFFERTY EQUIPMENT MFG., INC.

## INSTALLATION / OPERATION INSTRUCTIONS

### 414 HC MIXING STATION

**IMPORTANT: STATION SUPPLIED WITHOUT A BACKFLOW PREVENTER. TO PREVENT POSSIBLE BACK UP INTO THE WATER SYSTEM, COMPLY WITH LOCAL PLUMBING CODES AND INSTALL APPROPRIATE BACKFLOW PREVENTER BEFORE OPERATING! Prior to use, read the Safety Data Sheet supplied with your chemical. NEVER use chemicals that are not compatible if mixed. ALWAYS wear protective clothing, gloves, and eye wear. Fill only approved chemical resistant containers. NEVER PUT A SHUT-OFF ON THE DISCHARGE HOSE. THIS CAUSES WATER TO FLOW INTO THE CHEMICAL CONTAINER.**

#### TO INSTALL *(See Parts Diagram, Over)*

1. Securely mount the mixing station to a suitable surface near your water source.
2. **After backflow preventer requirements are met**, connect your 40 - 80 PSI water line to the station.
3. The 414 HC Mixing Station will yield **up to a 1:1\* dilution ratio without a plug installed**. For approximately a 2:1\* dilution ratio install plug #2. For approximately a 3:1\* dilution ratio install plug #3.

*\*These dilution ratios are based on water-thin chemicals at 40 PSI. Thicker chemicals will not yield the same dilution ratios. Thicker chemicals may require drilling out metering plug to achieve proper dilution ratio.*

4. *If you will be using a plug*, Cut a short section from the 6' chemical tube as shown on diagram. Next, push remaining section of tubing over the exposed portion of the plug so that the two sections of tubing meet and completely enclose the plug. *See diagram. -over-*

5. Push one hose clamp over the chemical tube and push the hose barb into the tube, then tighten the clamp. Then immerse the opposite end of the tube (with attached hose barb and chemical strainer) in your chemical concentrate.
6. Connect the discharge hose to the station and secure with the clamp.

#### TO OPERATE

1. Hold discharge hose inside container to be filled.
2. Completely open the water ball valve on the station and fill container.
3. After container is full, completely close ball valve.
4. Allow discharge hose to drain completely before removing from container.

WATER PRESSURE	40 PSI	60 PSI	80 PSI
<b>414 HC WATER FLOW RATE</b>	4.1 GPM	5.2 GPM	5.7 GPM

## 414 HC TROUBLE SHOOTING GUIDE

PROBLEMS	POSSIBLE CAUSE/SOLUTION								
	1	2	3	4	5	6	7	8	9
A. Station will not draw chemical.	•	•	•	•		•	•	•	•
B. Station draws too much chemical.					•				
C. Little or no discharge from station.	•	•					•		•

## POSSIBLE CAUSE/SOLUTION

1. **No water to station or low water pressure** — Make sure incoming water supply valve is open, or increase water pressure; must be a minimum of 35 PSI.
2. **Trash/rust clogging injector aspirator** — Disconnect water from station and visually inspect; remove blockage.
3. **Chemical tube not immersed in chemical or chemical depleted** — Immerse chemical tube and/or replenish chemical.
4. **Strainer blocked** — Clean or replace chemical strainer.
5. **No metering plug or plug too large** — Install smaller metering plug.
6. **Metering plug blocked or too small** — Clean metering plug or replace with larger plug.
7. **Ball valve not fully open** — Fully open the water ball valve.
8. **Pin hole or cut in chemical tube** — Replace the chemical tube.
9. **Water scale or chemical build-up may have formed inside the injector:** To descale, carefully disassemble station and soak injector body in descaling acid.