

# AS08 HIGH-PRESSURE HYDRO-FORCE TROUBLE SHOOTING GUIDE

## PROBLEM: WILL NOT DRAW CHEMICAL

### CAUSES

Inlet Strainer Clogged  
Wrong Teejet Size  
Acorn Strainer Clogged  
Metering tip Clogged  
Water Nozzle Clogged or Worn  
Injector Valve Needs Major Rebuild  
Bad Injector Valve

### PART

NA0803  
B280  
NA0840  
NA0816  
NA0808  
NA0849  
NA0809A

### SOLUTIONS

Clean or Replace  
Replace  
Clean or Replace  
Clean or Replace  
Clean or Replace  
Install Kit  
Replace

## PROBLEM: CONTAINER BACKFILLS

### CAUSES

Injector Valve Needs Rebuild  
Bad Injector Valve

### PART

NA0841  
NA0809A

### SOLUTIONS

Install Backflow Kit  
Replace

## PROBLEM: DOES NOT SHUT OFF OR LEAKS FROM GUN

### CAUSES

Worn Gun  
Valve Needs Rebuild  
Worn Valve in Gun

### PART

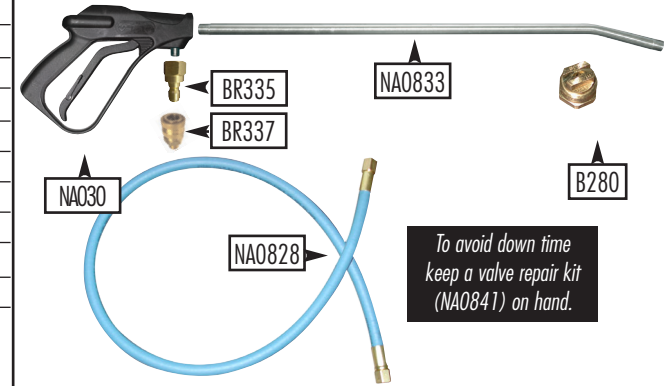
NA030  
NA031A  
NA031

### SOLUTIONS

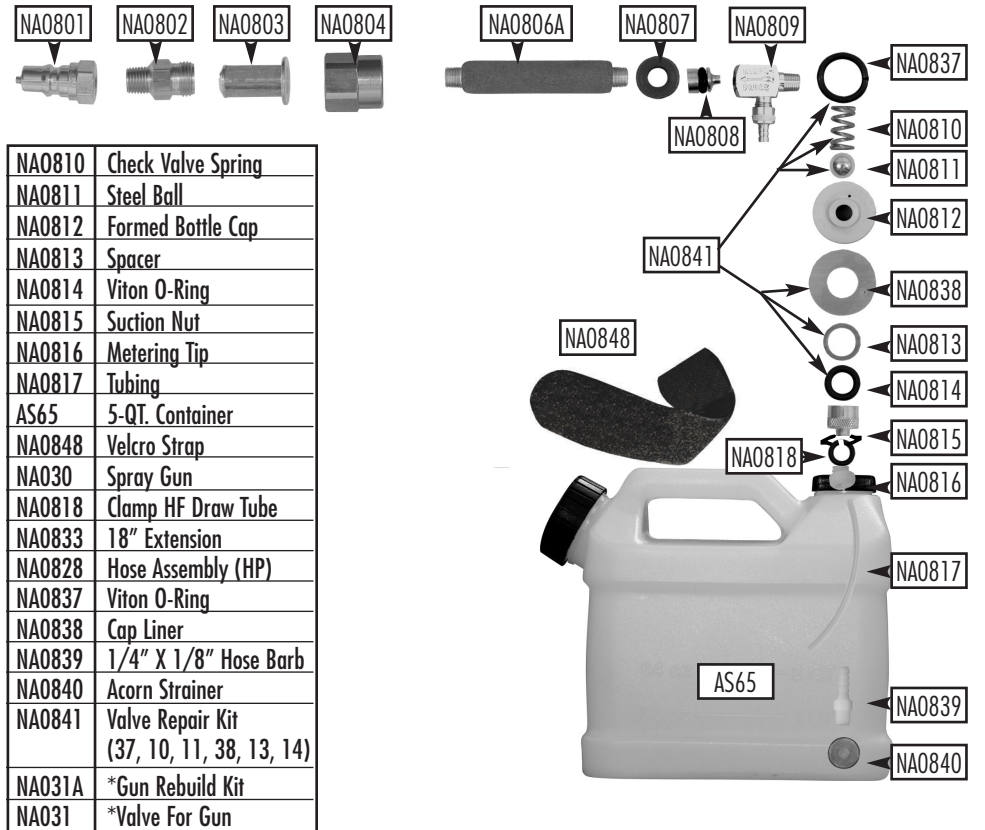
Replace  
Rebuild  
Replace

# HYDRO-FORCE AS08 HIGH-PRESSURE INJECTION SPRAYER

ITEM#:	PART DESCRIPTION
B280	Veejet 8006 Brass 1/4" female
BR335	1/4" Male Flow Thru
BR337	1/4" Female Flow Thru
NA0801	1/4" Male Quick Connect
NA0802	Strainer Body
NA0803	Strainer
NA0804	Strainer Adapter
NA0806A	Insulated Handle
NA0807	Backup Washer
NA0808	Water Nozzle w/ O-Ring
NA0809A	Injector Valve Complete (07, 08, 10, 11, 13, 14, 15, 16, 30, 37)



## AS08 PARTS



NA0810	Check Valve Spring
NA0811	Steel Ball
NA0812	Formed Bottle Cap
NA0813	Spacer
NA0814	Viton O-Ring
NA0815	Suction Nut
NA0816	Metering Tip
NA0817	Tubing
AS65	5-QT. Container
NA0848	Velcro Strap
NA030	Spray Gun
NA0818	Clamp HF Draw Tube
NA0833	18" Extension
NA0828	Hose Assembly (HP)
NA0837	Viton O-Ring
NA0838	Cap Liner
NA0839	1/4" X 1/8" Hose Barb
NA0840	Acorn Strainer
NA0841	Valve Repair Kit (37, 10, 11, 38, 13, 14)
NA031A	*Gun Rebuild Kit
NA031	*Valve For Gun

*NOTE: The instructions below make reference to the Hydro-Force high pressure injector sprayer models AS08 & AS08M. The functions of our low pressure injector sprayer model AS12 are basically the same. The AS12 draws 1-4 and works at pressures of 30 to 250 P.S.I. The suggested uses below should be applicable to the model AS12 with few exceptions. For added convenience and workability, the use of up to 50' of pressure line is recommended when using Hydro-Force AS12 with a portable extractor.*

## SUGGESTED USES FOR HYDRO-FORCE AS08 & AS08M HIGH PRESSURE SPRAY INJECTOR

The HYDRO-FORCE Injection Sprayer has many potential uses. If used properly, HYDRO-FORCE will greatly increase speed, efficiency and reliability of your operations. This material is designed to help you make the most of your HYDRO-FORCE.

### **GENERAL FUNCTION:**

The HYDRO-FORCE is based upon an injection system. A specially designed valve injects a concentrate chemical into the high-pressure water flow coming from the machine. HYDRO-FORCE is designed for use with incoming water pressure of 400 P.S.I. The water flow is automatically reduced as it passes through the injector valve, thus reducing the pressure approximately 64%. To obtain the actual working pressure of your HYDRO-FORCE, multiply your incoming pressure by 36%. The HYDRO-FORCE is factory set to inject chemicals at a 1 to 8 ratio. Other chemicals may be used but should be prepared for a 1 to 8 dilution. The HYDRO-FORCE pressure can be increased by putting a smaller jet at the end of the wand. This will, however, decrease the injection rate of your concentrate chemical. Your injection ratio may also change depending on the viscosity (thickness) of your concentrate chemical. The 1 to 8 ratio is based upon chemicals with a similar viscosity to water. The injection ratio can also be slightly affected by your main flow water temperature. This is generally not enough of a change to appreciably change effectiveness of your system. We do, however, recommend the water temperature be kept below 200 degrees Fahrenheit, as higher temperatures can cause problems on the injection.

The value of our HYDRO-FORCE will be greatly increased if you incorporate the use of a quality shut off ball valve at the end of your high pressure line. This facilitates the easy connection and removal of the HYDRO-FORCE during your cleaning operation. The ball valve, available from HYDRO-FORCE, offers two other advantages. It is rebuildable and it has a reduction chamber so you can decrease your HYDRO-FORCE working pressure right at your wand. This is an advantage for certain applications such as with carpet protectors.

### **PRE-SPRAY AND TRAFFIC LANE APPLICATIONS:**

HYDRO-FORCE will greatly increase effectiveness and speed when doing pre-conditioning. HYDRO-FORCE eliminates the hassles of measuring and mixing. We recommend you keep an extra 5-quart container or two on your truck to make sure you never run out and to facilitate quick changes of your chemical containers. Remember that HYDRO-FORCE automatically mixes at a 1 to 8 ratio. If your 5-quart container is full then that is the same as holding an 11 gallon pump sprayer of regular, ready to use pre-spray.

We have found that HYDRO-FORCE offers better penetration and overall coverage than most other sprayers. It is therefore possible to pre-spray your jobs up to 45 minutes before your reach that area to be cleaned. An effective way to use the HYDRO-FORCE for pre-conditioning or small to medium jobs is to start at the door coming into the house, spraying all the traffic

areas, working your way to the farthest point back in your job. You have then completed your pre-conditioning in just seconds and are prepared to hook up your wand and start cleaning your way out.

On larger jobs, or jobs involving more than an hour of cleaning time, it is recommended that you pre-spray an area that will take no longer than 45 minutes to clean. You can then hook up your HYDRO-FORCE again and pre-spray another large area. Once you have completed your job and worked your way back out of the door, you are ready to employ your HYDRO-FORCE for other uses.

### **APPLICATION OF CARPET PROTECTORS:**

This highly profitable procedure is often passed up on many jobs because it is too big of a 'hassle'. Operators will not mention the availability of protectors because they are running short on time and must hurry to their next job, or they don't want to take the time to rinse tanks then measure, mix and pump.

HYDRO-FORCE bypasses these hassles and encourages you to apply carpet protectors. We recommend that as you finish your cleaning you keep your hose at the entrance. Go to your machine, shut off the chemical and, if you prefer, your heat. You should then take a 5 quart container with clean water (adding an ounce or two of acidic acid or vinegar will help) to your HYDRO-FORCE unit. Take off your traffic lane bottle and put on clean water. Run your HYDRO-FORCE for approximately 20 seconds or until all soap is out of your lines. You may then put on your 5 quart container with carpet protector in it. Your product should be concentrated and diluted at 1 to 8 for application on damp carpet. If this is a difficult dilution to reach you may remove the metering tip to obtain a 1 to 4 ratio. If you are using Scotchgard or a Teflon product on dry carpet you should dilute them 1 to 1 with water before you use it with the HYDRO-FORCE. Whether you use Hydro-Guard or another product, you will find that a 5 qt. container will go a long way. 5 qts. diluted 1 to 8, gives you 11 gallons of ready to apply protector. With a coverage rate of 300 square. ft. per gallon, 5 qts. of protector will cover 3,000 square ft.

Keep in mind that your HYDRO-FORCE is spraying 3 to 4 times the amount of product your normal pump sprayer is putting out. This means you must move quickly to avoid over-applying. Protector should be applied in even, slightly overlapping strokes. You should proceed from the entrance again working your way toward the farthest point. This keeps your hose out of your way. Upon completion of your spraying, you should again rinse and clear your lines so you are prepared for the next procedure.

### **DEODORIZING, DYING AND OTHER APPLICATIONS:**

Your procedure for using HYDRO-FORCE will vary depending on your specialty needs. It is important to remember the different features and ratios of your HYDRO-FORCE as this will help you define your needs in mixing and preparing your special chemicals.