PRE-SPRAY AND TRAFFIC LANE APPLICATIONS:

Hydro-Force injection sprayers eliminate 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 sprayers automatically mix 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.

Hydro-Force injection sprayers offer better penetration and overall coverage than other sprayers. It is therefore possible to pre-spray your jobs up to 45 minutes before that area needs to be cleaned. An effective way to use the Hydro-Force sprayer for pre-conditioning is to start at the door coming into the house; spraying all the traffic areas, and work 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.

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 injection sprayers bypass these hassles and encourage you to apply carpet protectors. 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 acid or vinegar will help) to your Hydro-Force injection sprayer unit. Take off your traffic lane bottle and put on clean water. Run your Hydro-Force injection sprayer 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 them with a Hydro-Force injection sprayer. Whether you use Maxim™ 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 injection sprayer 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.

TROUBLE SHOOTING GUIDE

PROBLEM: Will Not Draw Chemical		
CAUSES	PART	SOLUTIONS
Inlet Strainer Clogged	NA0803	Clean or Replace
Wrong Teejet Size	B280	Replace
Acorn Strainer Clogged	NA0840	Clean or Replace
Metering Tip Clogged	NA0816	Clean or Replace
Water Nozzle Clogged or Worn	NA0808	Clean or Replace
Injector Valve Needs Major Rebuild	NA0849	Install Kit
Bad Injector Valve	NA0809A	Replace
PROBLEM: Container Backfills		
Injector Valve Needs Rebuild	NA0841	Install Backflow Kit
Bad Injector Valve	NA0809A	Replace
PROBLEM: Does Not Shut Off or Leaks From Gun		
Worn Gun	100010	Replace
Valve Needs Rebuild	NA031A	Replace
Worn Valve in Gun	NA031	Replace

HYDRO-FORCE™ PRO

Injection Sprayer



Part Number: AS08

Patent Pending

The Hydro-Force injection sprayer is used to quickly, and evenly apply pre-spray, protector and other chemicals over large areas. A specially designed valve injects chemical into the high-pressure water flow coming from the machine and automatically dilutes it at the desired ratio. A Hydro-Force injection sprayer can be used at pressures as low as 50 PSI or as high as 1,000 PSI. All Hydro-Force sprayers are set at the factory to be used at water pressures of 400 P.S.I. for a dilution ratio of 1:8, but can easily be configured to work at lower pressures by simply changing the metering tip (see Metering Instructions below). 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%.

To learn how you can save time
and money using a Hydro-Force sprayer
call 800-637-3789 or visit www.hydroforce.com

HYDRO-FORCE™
Innovating since 1974

METERING INSTRUCTIONS

Your solution hose pressure affects how much chemical is drawn from the Hydro-Force injection sprayer. Higher pressures decrease the ratio of chemical to water and lower pressures increase the ratio of chemical to water. To ensure your dilution ratios are accurate, use the chart below to determine what metering tip to use at your specified pressure. 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 viscosity similar to water. The injection ratio can also be slightly affected by your main flow water temperature. This generally only changes the dilution ratio slightly, however.
To change metering tips and dilution ratios, remove the clear tube at the bottom of the injection valve and remove the metering tip by turning counterclockwise. Insert the new tip and replace the tubing. Be sure that the screen filter is present at the end of the tubing.

Read the dilution instructions on the label of your chemical, then add the chemical full strength to your Hydro-Force container. Your chemical will then be diluted automatically at the ratio specified in the charts below based on your PSI and metering tip.

If the recommended dilution ratio does not match exactly to a Hydro-Force metering tip, choose the tip that is closest and slightly adjust your rate of application by moving the sprayer faster or slower.

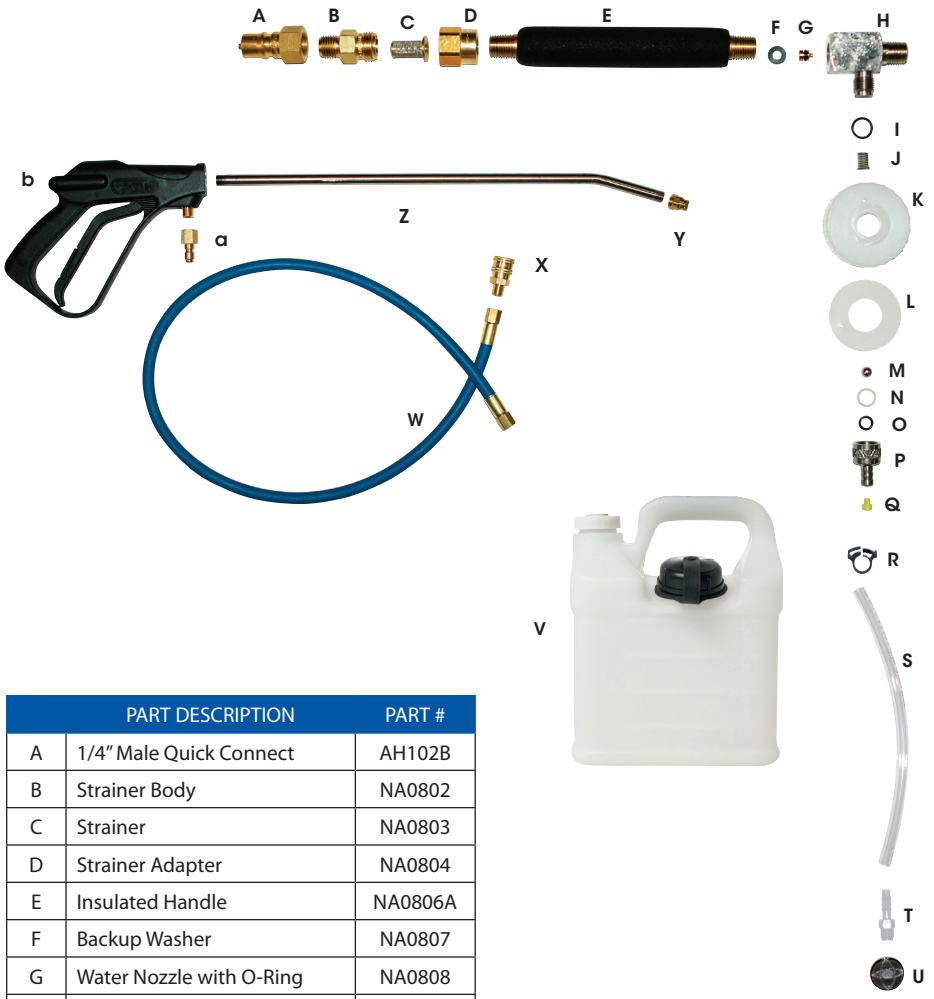
WHEN USED AT 50 PSI		
Oz. of Solution per Gallon of Water	1 Part Solution to () Parts Water	Hydro-Force Metering Tip
32	4	Blue
21	6	White
16	8	Brown
WHEN USED AT 100 PSI		
32	4	Yellow
26	5	Blue
21	6	White
16	8	Brown
WHEN USED AT 150 PSI		
32	4	Yellow
21	6	Blue
16	8	White
11	12	Brown
WHEN USED AT 200 PSI		
32	4	Black
26	5	Yellow
21	6	Blue
16	8	White
9	14	Brown

WHEN USED AT 400 PSI		
Oz. of Solution per Gallon of Water	1 Part Solution to () Parts Water	Hydro-Force Metering Tip
32	4	No Tip
26	5	Grey
21	6	Black
16	8	Yellow
13	10	Blue
8	16	White
4	32	Brown



Metering Tips
Part #NA0816A

PARTS BREAKDOWN & PARTS LIST



	PART DESCRIPTION	PART #
A	1/4" Male Quick Connect	AH102B
B	Strainer Body	NA0802
C	Strainer	NA0803
D	Strainer Adapter	NA0804
E	Insulated Handle	NA0806A
F	Backup Washer	NA0807
G	Water Nozzle with O-Ring	NA0808
H	Injector Valve Complete	NA0809A
I	Viton O-Ring	NA0837
J	Check Valve Spring	NA0810
K	Formed Bottle Cap	NA0812
L	Cap Liner	NA0838
M	Steel Ball	NA0811
N	Spacer	NA0813
O	Viton O-Ring	NA0814
P	Suction Nut	NA0815
Q	Metering Tip	NA0816
R	Clamp HF Draw Tube	NA0818

S	Tubing	NA0817
T	1/4" x 1/8" Hose Barb	NA0839
U	Acorn Strainer	NA0840
V	5 Quart Container	AS68
W	Hose Assembly (HP)	NA0828
X	1/4" Female Flow Thru	BR337
Y	Veejet Brass 1/4" Female	B280
Z	18" Extension	NA0833
a	1/4" Male Flow Thru	BR335
b	Spray Gun	100010