

HOT WATER EXTRACTION



INTRODUCTION TO HOT WATER EXTRACTION

Hot water extraction is the preferred method of cleaning from carpet manufacturers.

Note: The use of a mobile unit provides better security for the building, as no door must remain open as they do to run hoses from a truck mount. With today's mobile units, performance is as good as a truck mount, for a much lower up front cost for the unit.

There are many types of mobile hot water extractors. You may prefer to use a self-contained unit like the one pictured here. With this type of machine, you pull it backwards, releasing a hot water rinse from the spray jets as a beater brush agitates the carpet fiber before the soil is vacuumed up from the vacuum pickup tool mounted on the front of the machine.



Another type of self-contained unit is one that uses a standard floor wand along with a vacuum and solution hose. These units will vary in price depending on the features and PSI available (anywhere from 150 to 1200 PSI) and the number of vacuum motors. Some models offer:

- Inline heaters to heat the pre-spray solution and rinse water.
- Auto pump-out of the dirty water tank.
- Direct water hook-up from your water source.



Another type of self-contained unit is the KleenRite Multi-Surface machine. This is a multi-purpose machine that can go from carpet cleaning to hard floor care. For carpet cleaning, this unit uses a rotary head that has five spray jets and five vacuum ports, with a 60 PSI pump. It has a 12-gallon solution tank and a 12-gallon recovery tank. It can clean moving forward or backward.



COMMON CONCERNS

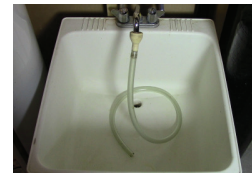
- Carpet re-soiling quickly
- Re-occurring spots
- Spots not removed
- Slow dry time
- Banged up furniture and walls
- Pre-treatment solution splashed on furniture and walls



PREPARATION FOR HOT WATER EXTRACTION

Prepare and have the proper equipment to make the job easier and more efficient. These items will be transported from the equipment storage area to the work site. You will need:

- Personal Protective Equipment (PPE) – gloves and safety glasses.
- Faucet hose
- Blue fresh water container.
- White 5-gallon pail to use for dumping recovery water from the machine.
- Measuring cup to measure the chemical.
- Spotting kit for removing spots.
- White towels for carpet spotting and clean up.
- Carpet pre-treatment chemical and a neutralizer.
- Carpet rake to agitate carpet fibers after pre-spraying and to set the carpet nap in traffic areas.





To carry your pump-up sprayers, chemicals and other equipment, use a tote.



- Vacuum cleaner: Upright or backpack to vacuum all carpet that will be cleaned.
- Carpet fan: to accelerate drying time.



Setting Up the Equipment

1. Put on proper Personal Protective Equipment (PPE); gloves and safety glasses.
2. Set up portable hot water extractor (per manufacturer's instructions).
3. Fill solution tank with hot water.
4. Attach solution hose, vacuum hose, floor wand, and power cord(s) to machine. (If using two power cords find separate circuits to avoid for tripping breakers)
5. Bleed solution pump if necessary per manufacturer's instructions.



6. If you have adjustable PSI on the machine, adjust the meter to 300.
7. Fill a (white) 3-gallon pump-up sprayer with a number 5 tip with 2 ½ gallons of hot water and add the pre-treatment solution per manufacturer's directions.



8. Fill a (black) 3-gallon pump-up sprayer with a number 5 tip with 2 ½ gallons of hot or cool water and add your neutralizer solution per manufacturer's direction.
9. Place equipment in the area where work will begin.



Use color-coded pump-up sprayers to identify the solution. If cleaning small areas of carpet use a 64-ounce pump-up sprayer with a number 5 tip for your neutralizer.

PROCEDURES FOR HOT WATER EXTRACTION

1. Vacuum all carpet that is to be cleaned. (To efficiently vacuum carpet with a back-pack vacuum cleaner stand up straight and draw the top of the wand in toward your waist and use a side-to-side fanning motion while walking forward. Continue this motion until all carpet is vacuumed)



2. Put on Personal Protective Equipment (PPE); safety glasses and gloves.



3. With a starting point determined:

a. Use a (white) 3 gallon pump up sprayer and apply pre-treatment solution evenly to carpet traffic lanes. Let the solution dwell for 5 to 10 minutes. Do not let the pre-treatment dry out before you can extract it. Also, avoid overspray on furniture and walls.

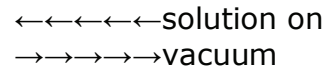
b. Start extracting the carpet, using the floor wand, and work backwards cleaning a block of carpet at a time. Only use hot water in the solution tank.



4. The type of wand strokes you use will depend on the soil load. Always overlap each stroke 1 to 2 inches.

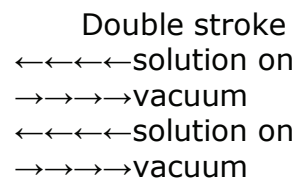
Single stroke

- a. Single Stroke – Use on a light soil load situation where minimum amounts of water are needed.



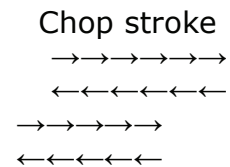
Procedure: one backward stroke with solution spray on, one forward stroke with vacuum only over the same pass.

- b. Double Stroke – Use on moderate to heavy soil loads.



Procedure: one backward stroke with solution spray on, one forward stroke with vacuum only over the same pass, one backward stroke with solution spray on, one forward stroke with vacuum only over the same pass.

- c. Chop Stroke – Use on heavy soil loads.



Move wand forward and back 20" with solution spray on, forward 15", backward 20", forward 15", and so on.

Note: The chop stroke can be used along with any of the other strokes where extra attention to a specific spot may be necessary.

- 5. Dump recovery tank when needed on machine.

Note: Check recovery tank for foam. If present, add de-foamer.



6. As areas are cleaned, check for carpet spotting needed after extraction.



7. After all carpet, has been extracted, use (black) 3 gallon pump up sprayer with neutralizer solution, and evenly mist onto carpet.



8. Rake carpet pile to set nap and help drying (no need to rake carpet with lower pile carpet).

9. Place wet floor signs where needed.



10. Setup carpet fans in areas to accelerate drying time.



Turn on all exhaust fans in the building; this will also help accelerate drying time.



Spin bonnet carpet after extracting with a dry cotton or microfiber carpet bonnet to help remove more soil and dry carpet.



11. Clean up all equipment and return to equipment storage area.

SAFETY CONSIDERATIONS

To prevent injury:

- Wear Personal Protective Equipment (PPE); safety glasses and gloves when working with cleaning solutions.
- Place wet floor signs or caution tape at entrance to area.
- Check power cords for cuts and nicks.
- Stand up straight while extracting carpet with carpet wand.
- Move vacuum and solution hose as you clean so you don't trip over it while moving backwards.

EXPECTED RESULTS

- No spots on carpet.
- Baseboards and furniture will be free of overspray.
- No long dry times.

REVIEW

COMMON CONCERNS

- Carpet re-soiling quickly
- Re-occurring spots
- Spots not removed
- Banged up furniture and walls
- Slow dry time
- Pre-treatment solution on furniture and walls

PREPARATION

- Set up hot water extractor per manufacturer's instructions.
- Use color-coded pump-up sprayers to identify solution.

PROCEDURES

- Vacuum carpet.
- Use proper wand stroke.
- Empty recovery tank as needed and check for foam.
- Set up carpet fans.

SAFETY CONSIDERATIONS

- Wear Personal Protective Equipment (PPE); safety glasses and gloves.
- Place wet floor signs and or caution tape at entrance to area.
- Check power cords for cuts and nicks.
- Stand up straight while extracting carpet with carpet wand.
- Move vacuum and solution hoses.

EXPECTED RESULTS

- No spots on carpet.
- Baseboards and furniture will be free of overspray.
- No long dry time.

CARPET CLEANING TRAINING LOG FOR HOT WATER EXTRACTION

Date	Trainee's Name	Signature	Trainer's Initial

QUIZ

HOT WATER EXTRACTION CARPET CLEANING

1. A portable hot water extractor provides better security for a building.
 - A. True
 - B. False
2. A standard portable unit that attaches a floor wand, solution hose and vacuum could have a PSI range of...
 - A. 100-1000
 - B. 150-1200
 - C. 150-1100
 - D. 125-1300
3. A common concern of hot water extraction is...
 - A. Carpet re-soiling quickly.
 - B. Spots not removed.
 - C. Slow dry time.
 - D. All the above.
4. To perform the job properly you need the right equipment. Which equipment would you not use when preparing to clean carpet?
 - A. Faucet hose.
 - B. Spotting kit.
 - C. Colored towels for carpet spotting and clean up.
 - D. Carpet fan.
5. When using two power cords on a carpet extractor you should...
 - A. Use the same outlet.
 - B. Attach an extension cord.
 - C. Use two separate circuits to avoid tripping breakers.
 - D. Use two separate circuits to heat the water.

6. The proper PSI adjustment for hot water extraction is...
 - A. 150
 - B. 250
 - C. 300
 - D. 400

7. A pump-up sprayer should have what size tip to properly apply pre-treatment solution?
 - A. #5
 - B. #8
 - C. #3
 - D. #7

8. Why should you use a color-coded system for pump-up sprayers?
 - A. To match your company colors.
 - B. To identify which solution is in the sprayer.
 - C. To identify which one has the #7 tip on it.
 - D. To identify which one is adjusted to a stream spray.

9. When would you use a 64-ounce pump-up sprayer?
 - A. All the time.
 - B. When you are working alone.
 - C. For small areas that you are cleaning.
 - D. When you want to use a #5 tip.

10. The first procedural step when hot water extracting is to...
 - A. Gather equipment.
 - B. Apply pre-treatment.
 - C. Agitate the carpet.
 - D. Vacuum the carpet.

11. Pre-treatment solution should dwell for...
 - A. 3-5 minutes.
 - B. 5-7 minutes.
 - C. 7-10 minutes.
 - D. 5-10 minutes.

12. If you are cleaning lightly soiled carpet, what wand stroke would you use?
- A. Single stroke.
 - B. Double stroke.
 - C. Chop stroke.
 - D. A combination of all.
13. If you are cleaning moderate to heavy soil loads, what wand stroke would you use?
- A. Single stroke.
 - B. Double stroke.
 - C. Chop stroke.
 - D. A combination of all.
14. When extra attention is needed to a specific spot what wand stroke would you use?
- A. Single stroke.
 - B. Double stroke.
 - C. Chop stroke.
 - D. A combination of all.
15. Where do you put a de-foamer?
- A. Recovery tank.
 - B. Solution tank.
 - C. In white pump-up sprayer.
 - D. In black pump-up sprayer.