

## ***Dry Foam Encapsulation vs. Hot Water Extraction Comparison***

<b>Low Moisture Encapsulation Cleaning</b>	<b>Hot Water Extraction Cleaning</b>
<p><b>Low Moisture:</b> Each gallon of diluted detergent can clean approximately 300 sq. ft. of carpet. Dries quickly so the carpet can be put back into service quickly.</p>	<p><b>Higher Volume of Water Used:</b> With its ability to flush a large quantity of water through the carpet, hot water extraction is a highly effective way to rinse a carpet.</p>
<p><b>Function:</b> The low-moisture encapsulation method (or encap method as it's often called) is a variation of the old "shampoo method". The carpet is scrubbed with a rotary machine, cylindrical brush machine, or a 3-headed scrubber such as the Cimex or Scrub3. As the carpet is scrubbed, the soil that was attached to the fiber is released from the carpet fiber into the encapsulation solution. Today's better quality encap detergents are built with a crystallizing polymer that encapsulates the soil. After the carpet dries, the encapsulated soil can be extracted from the carpet during the post-vacuuming process.</p>	<p><b>Function:</b> The hot water extraction method (or steam cleaning method as it's often called) injects water into the carpet through spray jets. The water is immediately recovered through a vacuum orifice as it's applied. The affect of this process can be compared to the rinse cycle of your washing machine. To facilitate cleaning, a strong detergent pre-spray is applied to the carpet prior to cleaning, and some level of agitation to the carpet is normally applied. Then the carpet is rinsed using the hot water extraction method.</p>
<p><b>Benefits:</b> High production cleaning can be accomplished with the encap method. Cleaning rates of 2,000-3,000 sq. ft. per hour can be achieved with encapsulation. This can be very helpful in larger commercial settings. Wicking and recurring spill stains can also be eliminated. Wicking and recurring spill stains are a common problem with commercial glue down (CGD) carpets. The crystallizing detergents employed and low moisture attributes of the encap method help to eliminate these problems. Encapsulation makes it simple to maintain commercial carpets and keep them looking cleaner longer over an extended period of time.</p>	<p><b>Benefits:</b> Hot water extraction is simply the best way to rinse a carpet of its contaminants. Since the hot water extraction method can employ countless gallons of water during the cleaning process it is possible to flush a large quantity of soil from the carpet during cleaning. For this reason it is recommended to supplement encapsulation cleaning with periodic hot water extraction cleaning. It is commonly seen that the need for hot water extraction cleaning can be greatly reduced when a good program of encapsulation cleaning is being performed.</p>
<p><b>Soil Resistance:</b> Many people hold off cleaning their carpets as long as possible because they've always heard that the carpet will quickly re-soil following cleaning. This condition can occur with traditional cleaning methods. It's impossible to recover 100% of the detergent with any method of cleaning. Detergents act like dirt magnets - or sponges. That's what detergents do. So any detergent left in the carpet will continue to attract soil. With good encap chemistry the detergent is balanced with a crystallizing polymer. So everything on the detergent side of the table is complemented with a polymer on the other side of the table. There is no sticky residue that can attract soil. In fact the polymerized detergent will actually RESIST soil. A good polymeric encap detergent can even consume detergent residues that were left in the carpet from previous cleanings. And some encapsulation detergents may even have an additional built-in fluoro-chemical carpet protector in the formula.</p>	<p><b>Soil Resistance:</b> It is impossible to rinse all of the strong pre-spray detergent from the carpet. Not even the best truck-mount in the world can rinse every trace of detergent residue. To illustrate this: picture taking a gallon of red paint. Add 5 gallons of water. What do you have? Red water. Add another 50 gallons of water. What do you have? Reddish water. Add an additional 100 gallons of water. What will you have? The red color will still be observable. Hot water extraction is a process of addition and subtraction. The thought presented here is that it's nearly impossible to add enough water to fully dilute all of the detergent. At some point you leave behind a diluted quantity of detergent (hence the example of the red paint). This helps us to appreciate why carpets can sometimes re-soil quickly following cleaning. Hence it's critically important to rinse the carpet as thoroughly as possible to dilute and extract as much of the pre-spray detergent from the carpet during hot water extraction cleaning. Using a good encapsulation HWE detergent can eliminate the possibility of attracting more soil - because the detergent is balanced with crystallizing polymer that won't attract more soil. A further benefit to using a good encap detergent is that any soil residues that may be left in the carpet following the cleaning can continue to be recovered during the post-vacuuming process.</p>

<p><b>In A Commercial Setting:</b> Encapsulation is quickly becoming the most sought out method for maintaining commercial carpet today. As mentioned above: Encap is fast. Encap is a low moisture method. Encap eliminates wicking and recurring spill stains. Encap helps carpets to stay clean longer between cleanings. It can also be employed with minimal costs using a scrubber and cost effective detergents. With encap, building security is increased since it's not necessary to be leave doors to the building open during cleaning.</p>	<p><b>In A Commercial Setting:</b> Hot water extraction has the greatest potential to flush contaminants from the carpet in a single cleaning as mentioned above. And it's recommended that periodic HWE cleanings are included at intervals as a supplement to encap cleaning. There may be some issues with wicking and recurring spill stains on commercial glue down carpets when HWE is employed, because the volume of water injected may affect deeply embedded soil at the base of the carpet fiber. Care should be given to thoroughly rinse pre-spray from the carpet so that re-soiling can be minimized (using an encap HWE detergent can be helpful). If a truck mount unit is used doors will need to left open. Long hose runs from the parking lot to the area being cleaned may also present challenges.</p>
<p><b>Impact On The Environment:</b> A single gallon of water can clean 300 sq. ft. of carpet so there's minimal water being consumed. And there is no discharge water heading to the sewage treatment plant. The encapsulated soil is recovered from the carpet as dry-soil during post-vacuuming. A good encapsulation detergent can be formulated without requiring strong solvents or other potentially hazardous ingredients.</p>	<p><b>Impact On The Environment:</b> Hot water extraction can consume a very high volume of water (perhaps hundreds of gallons for a typical commercial job). The water that's extracted during cleaning is laden with chemicals and contaminants. If the water is properly discharged into the municipal sewer system, it is now spent water that will receive sewage treatment. If a truck mount unit is employed, the engine will be left running during the cleaning, which consumes fuel and discharges carbon monoxide and other pollutants into the environment.</p>
<p><b>Selecting The Correct Tool:</b> There's no absolute "perfect method" for every situation. Like tools in a toolbox - a professional carpet cleaner will examine the carpet and the building's requirements and then select the appropriate cleaning method(s). All methods have their place and they each have unique benefits in different settings. Encapsulation is perfect for keeping a commercial carpet looking its best on a day-in day-out basis, and periodic hot water extraction is an ideal way to flush a heavily soiled carpet. The two methods complement each other and can be compared to a good marriage - you don't want to have one without the other. Together they can provide a balanced commercial carpet care program that maximizes the carpet's appearance and extends its useful life.</p>	<p><b>Selecting The Correct Tool:</b> There's no absolute "perfect method" for every situation. Like tools in a toolbox - a professional carpet cleaner will examine the carpet and the building's requirements and then select the appropriate cleaning method(s). All methods have their place and they each have unique benefits in different settings. Encapsulation is perfect for keeping a commercial carpet looking its best on a day-in day-out basis, and periodic hot water extraction is an ideal way to flush a heavily soiled carpet. The two methods complement each other and can be compared to a good marriage - you don't want to have one without the other. Together they can provide a balanced commercial carpet care program that maximizes the carpet's appearance and extends its useful life.</p>