INSTRUCTION
MANUAL

KLEENRITE

MODEL
508HX / 512HX

CARPET
UPHOLSTERY
DRAPERY
AND
CEILING
CLEANING
SYSTEM

This manual provides information which is proprietary to KleenRite and is made available to you for the use and maintenance of KleenRite products. Any use, reproduction of or dissemination of this information for any other purpose is prohibited without written permission from KleenRite.

IMPORTANT

Prior to using your machine for the first time read all information about SAFETY PRECAUTIONS and WARNINGS, as well as the procedures contained in this manual.

KleenRite
1122 Maple St., Madera, CA 93637
209 673 5700

Serial Number

Date of Purchase

KleenRite extends a lifetime guarantee on the stainless steel solution and waste tanks and the aluminum chassis and warrants to the original purchaser that the KleenRite Extraction Unit is a product of exceptional quality, engineered to exacting standards for performance and reliabililty.

The KleenRite Warranty Is As Follows:

- For the first twelve (12) months from date of purchase, product defects will be corrected at no charge for labor or parts, provided the machine is delivered or shipped freight prepaid to KleenRite, 1122 Maple Street, Madera, Ca. 93637.
- The sole responsibility of KleenRite shall be to repair or replace in accordance with this warranty; and the Company shall not be otherwise responsible for any loss or damage, direct or consequential, resulting from the failure or inability of the product to perform.
- This warranty does not cover abuse, neglect, freezing, tampering by unauthorized personnel, or damage inadvertently caused by the user.
- Any adjustment or replacement of defective parts made under this warranty does not void the warranty, neither does it extend the original warranty.
- KleenRite reserves the right to judge and determine whether a unit qualifies as a warranty failure.

Date _____ Serial Number _____

KLEENRITE

The Warranty

KLEENRITE

WARRANTY REGISTRATION CARD

Date of Purchase _____

Customer's Name _____

Address _____

City _____

State/Zip Code _____

Signature/Title _____

Purchased From _____

Serial Number _____

Model _____

- IMPORTANT: This card must be completed and mailed within ten (10) days to:
  KleenRite 1122 Maple Street, Madera, CA 93637

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1

INTRODUCTION

Congratulations on your purchase of the KleenRite Model 508HX / 512HX machine and accessories. They represent state of the art carpet, upholstery, drapery, and ceiling cleaning equipment. This manual has been written and illustrated to familiarize you with the layout, operation, and maintenance of the machine, and provide an introductory approach to carpet, upholstery, drapery and ceiling cleaning.

SAFETY PRECAUTIONS

WARNING

SPECIFIC PRECAUTIONS AND PROCEDURES PERTAINING TO THE SAFE OPERATION OF THIS EQUIPMENT ARE CONTAINED IN THIS MANUAL. IT IS RECOMMENDED THAT YOU READ THE ENTIRE MANUAL FOR COMPLETE SETUP AND OPERATIONAL PROCEDURES.

DO NOT Heat Odorless Mineral Spirits in High 208 Degree Heat Range.

DO NOT Use any chemicals or OMS other than those recommended by KleenRite Equipment Inc.

DO NOT Plug both Power Cords into ONE Household Electrical Circuit.

DO NOT Mix OMS and Water.

DO NOT Dry Vacuum.

DO NOT Store at Freezing Temperature with water in system.

DO NOT Plug Cords into Ungrounded Adapter.

DO NOT Fill with Dirty Solution.

DO NOT Run Pump Dry.

DO NOT Dry clean without attaching exhaust hose for outside ventilation.

DO NOT Pull machine with hoses.

2

RECEIVING THE SHIPMENT

Your new KleenRite system has been packaged to ensure its safe and sound arrival at your location. Accidents do happen, however, and people make mistakes. It is your responsibility to check out the system and report any damage or shortage you may find and return the completed warranty registration card in order to validate warranty.

A standard system should be packaged in 3 to 5 boxes and include the following items:

BOX 1

- Machine
- Manual

BOX 2

- Drapery Tool Option (boxed)
- Upholstery Tool Option (boxed)
- Vacuum Lid
- Solution Lid
- Recirculating Hose 15 ft.
- Hose, 25 ft.
- Power Cords 2 (1 with 240 Volt Machine)

BOX 3

- Exhaust Hose 25 ft. 2"
- Vacuum Hose 15 ft. 1 1/4"
- Vacuum Hose 25 ft. 1 1/2"

Box 4

- Floortool Option

BOX 5

- Ceiling Tool Option

Accessories ordered with a machine system may or may not be packed within these boxes. Check your packing list carefully making sure you have received your entire order.

Damage or shortage that may occur during shipment must be reported to the carrier upon arrival and to:

KleenRite
1122 Maple St.
Madera, Ca. 93637
209-673-5700

Reports must be received within 3 working days or the claims will not be honored. It is recommended that the packaging material be retained and used again should it become necessary to ship your machine to another location.

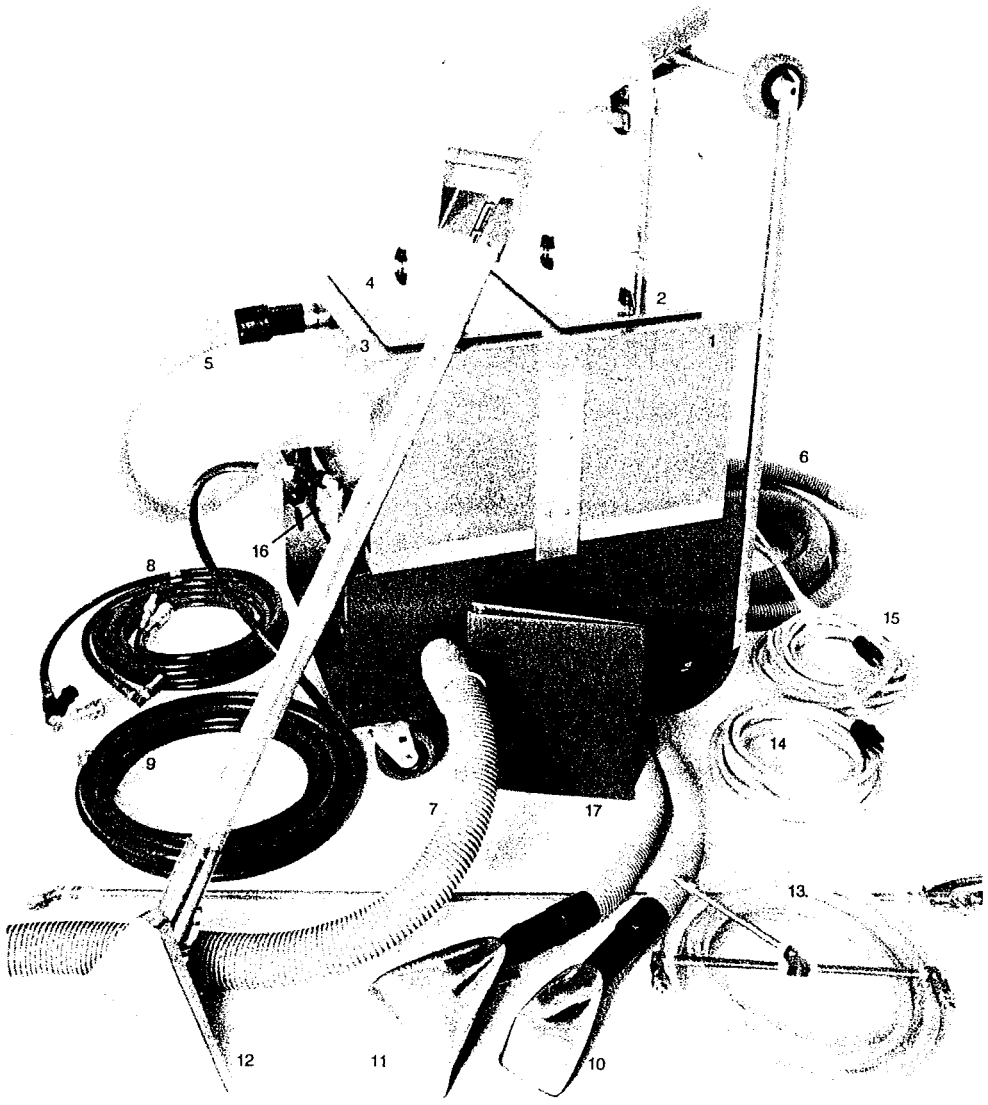
3

EQUIPMENT IDENTIFICATION

Familiarize yourself with all the components, controls and indicators of your system. The more you know about your system the more productive and trouble free it will be.

The MACHINE (Fig. 3-1) is pictured showing its accessories attached and identified.

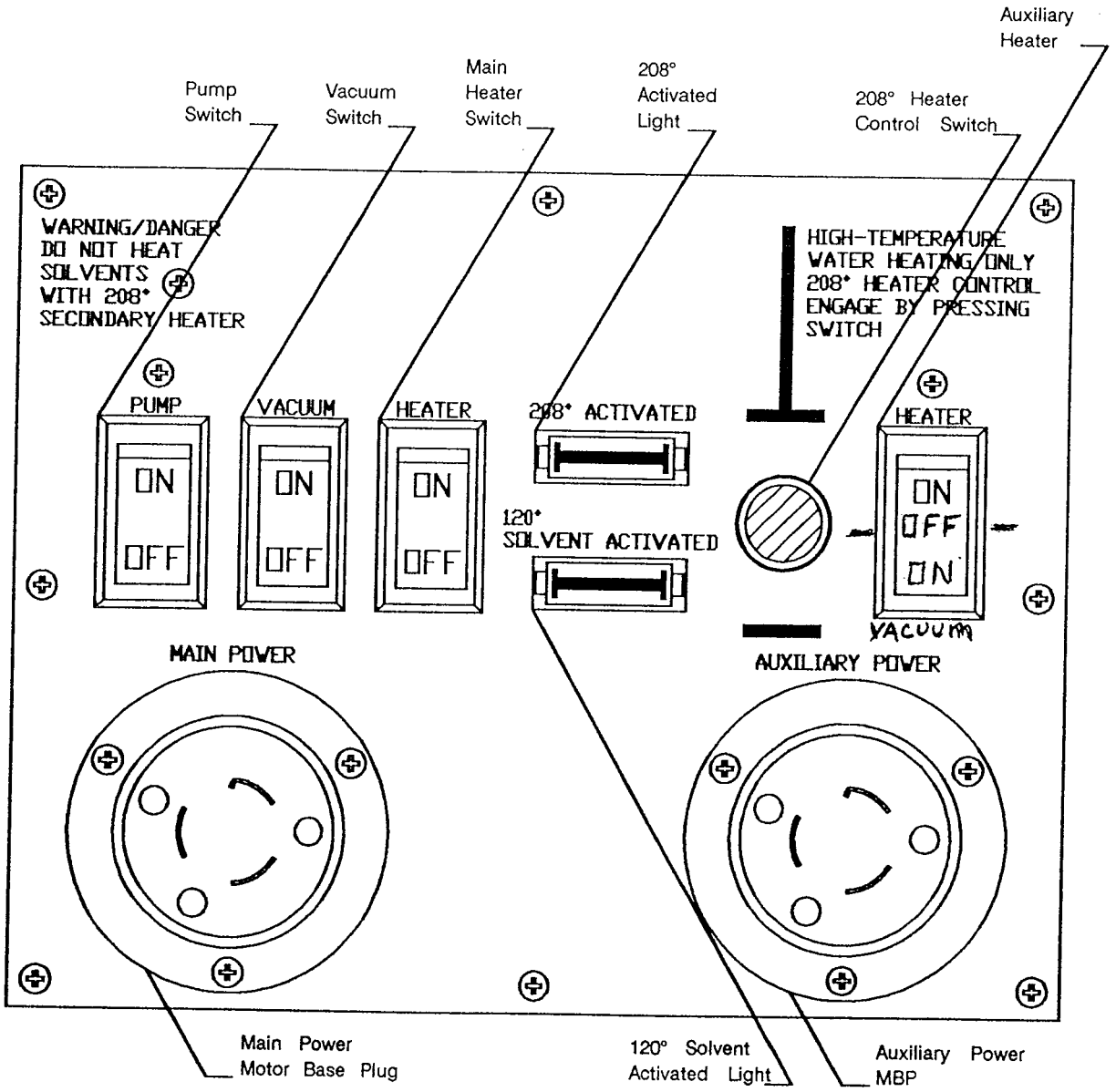
1. Solution Tank
2. Solution Lid
3. Vacuum Tank
4. Vacuum Lid
5. Vacuum Hose 25 ft.
6. Vacuum Hose 15 ft.
7. Exhaust Hose
8. Recirculating Hose
9. Hose 25 ft.
10. Upholstery Tool
11. Drapery Tool
12. Floortool
13. Ceiling Tool
14. Main Power Cord
15. Auxiliary Power Cord
16. Empty Out Nozzle
17. Manual



Machine and Accessories Figure 3-1

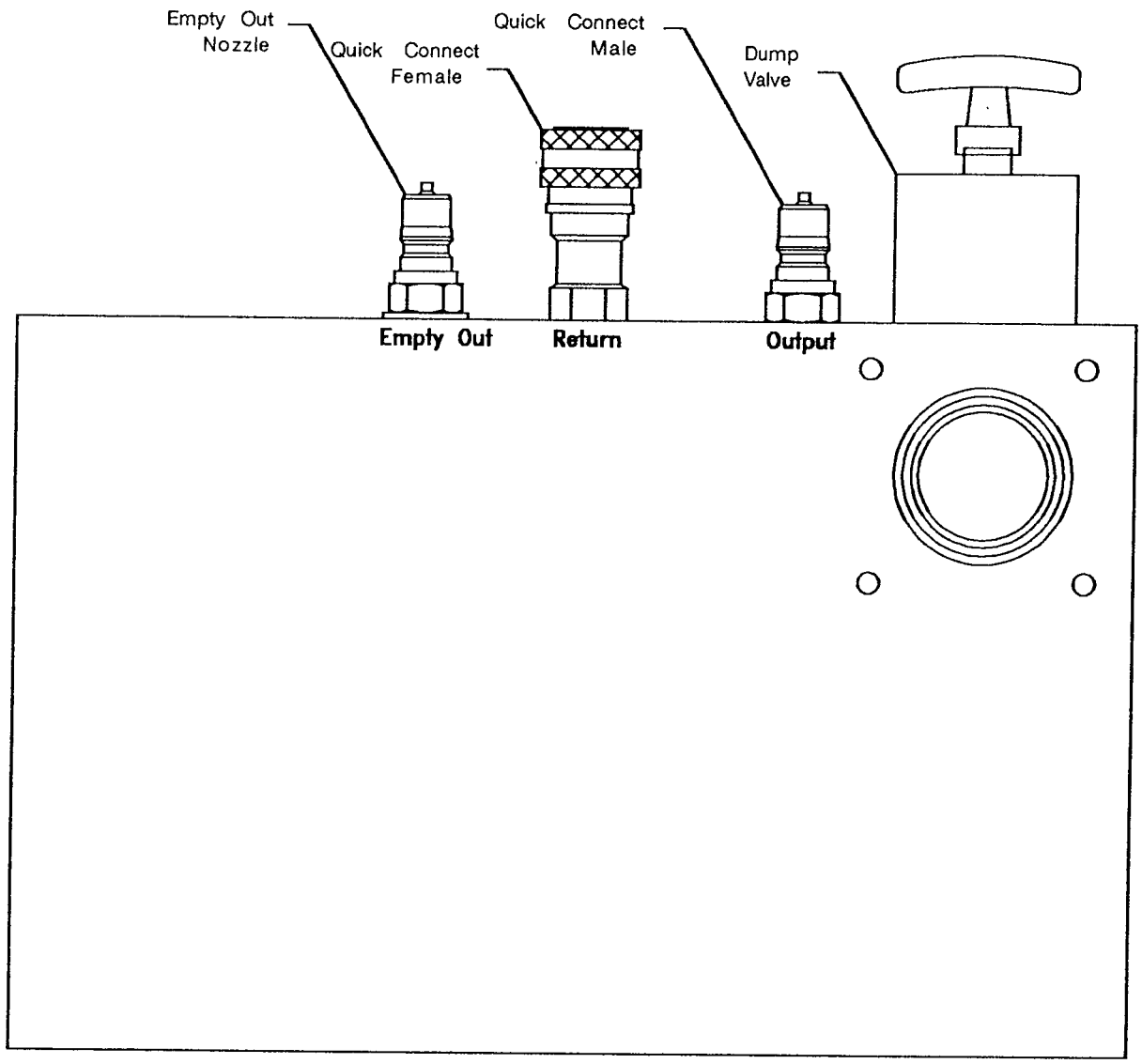
ELECTRICAL CONTROL

PANEL IDENTIFICATION.



Electrical Control Figure 3-2

FLUID CONTROL AND HOOK-UP



Fluid Control Figure 3-3

4

SETUP

Setting up the KleenRite system is an easy procedure if you follow a few basic rules. The first few times you use your machine it is advisable to review the information contained in the following chapter.

FOR THOSE WHO CANNOT WAIT HERE IS A STEP BY STEP QUICK START.

STEP 1 You have probably removed the system from its box without instruction. Now it is time to see if any items are missing or any damage occurred during shipping. For further explanation see Chapter 2.

STEP 2 Hook up system cords and hoses including tool to be used. See Fig. 3-1

STEP 3 Fill solution tank with proper solution. Refer to Chapter 4.

STEP 4 Turn on pump. Check flow.Refer to Chapter 6.

STEP 5 Turn on heat. Select heat range. Refer to Chapter 6.

STEP 6 Proceed to clean.

STEP 7 Empty vacuum tank each time you fill the solution tank.

STEP 8 When done cleaning, flush tool by vacuuming clean solution through it, drain solution tank, and empty vacuum tank. Remember a clean machine cleans.

ELECTRICAL HOOK-UP

Attach the power cord(s) to the machine by plugging the twist-lock end of the cord into the motor base plug on the machine. Twist clockwise to make electrical connection.

Single Cord Machines (240v):
The total power consumed is determined by the number of heaters energized. If the household circuit does not have ample power to run both heaters it may be necessary to operate with only one of the two heaters energized. If this becomes a chronic situation, it may be necessary to reconfigure the heater to lower amperage.

Two Cord Machines (120v):
The main power cord is always necessary to run the machine. The auxiliary power cord is optional and is used to deliver optimum heating capability. Because of the power consumption of the machine, it is necessary to plug the cords into separate circuits of household power.

If the main circuit trips the household circuit, check for other appliances or lights on that circuit. It may be necessary to turn off the main heater and run only the pump and vacuum on the main circuit and the auxiliary heater on the auxiliary circuit.

HOSE AND TOOL HOOK-UP

Connect the recirculating hose to the machine. Be certain to use the end with 90 degree elbows at the machine. Secure the female quick-connect on the solution hose to the male quick-connect (OUTPUT) on the machine. Do so by pulling collar of the female back and pushing the two together until collar slides forward and locks. Repeat the procedure with the return hose.

Attach the tool (drapery or upholstery) to the loose end of the hose in a similar manner. The male and female convention of the recirculating system is such that proper solution flow will be maintained during cleaning. During servicing of your system be certain to maintain this convention.

With the vacuum lid latched in place, slip the vacuum hose cuffs on both the vacuum lid and vacuum injection pipe (VIP) at the end of the tool.

The exhaust hose **MUST** be used when dry cleaning to exhaust fumes from the room. It may also be used to exhaust high humidity during wet cleaning for operator comfort. Attach the cuff end to the blower exhaust port and place the other end out a window or door. Additional length may be coupled to the hose if necessary.

SOLUTION MIXING AND FILLING

The proper use of recommended chemicals will assure the safe, profitable and optimum performance of Kleenrite equipment. Remember, if you put clean solution in you will get clean out. After careful evaluation of the fabric to be cleaned choose the proper chemical and carefully mix according to the manufacturer's directions. Fill the solution tank with an appropriate amount of solution and secure the lid to the tank for both safety from spilling and heat retention.

EMPTYING MACHINE

The solution tank may be emptied in two ways:

First, disconnect the tool from the vacuum hose and vacuum remaining solution out of solution tank. This is the fastest and most common method especially when removing excess water from the machine.

Second, by using the male empty out you may pump the remaining Dry Cleaning solution into a container for future use. You may also rinse out the vacuum tank with the hose and solution.

The vacuum tank is emptied by placing a bucket under the dump valve and pulling

the handle up. Sediment in the bottom of the tank may be rinsed out with the solution hose and empty-out or with a garden hose. If particles fill the seals of the valve, turn the vacuum on and slowly close the valve a few times to suck them out. This same procedure will remove any solution remaining in the empty-out valve and prevent dripping. When emptied, wipe both tanks dry and clean. Remember, a well maintained machine will provide many years of profitable service.

5

PRINCIPLES OF OPERATION

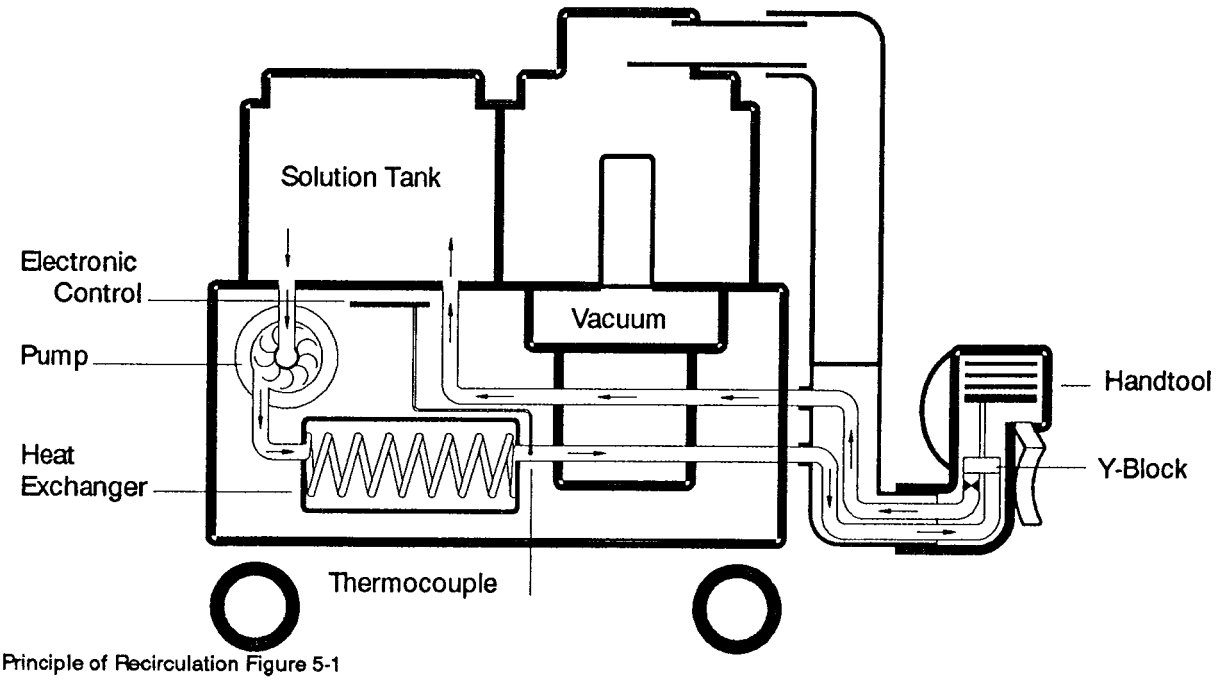
RECIRCULATION

The KleenRite recirculating heat exchanger is designed to provide continuously hot cleaning solution at the tool head. After an initial warm-up of 2 to 3 1/2 minutes the heat exchanger is capable of instantly heating and delivering solution to a KleenRite recirculating tool. The fluid path can be traced through the system from the solution tank to the pump and into the heat exchanger. While passing through the heat exchanger, the temperature will rise a given amount relative to the speed at which it is traveling. At the point of discharge, the fluid passes in contact with a thermocouple which sends signals to the electronic control board to maintain constant temperature output.

When using a recirculating tool, the heated fluid then leaves the machine on a non-stop trip to the "Y" block where a back-pressure orifice restricts the return flow to 11 ounces per minute. This continuous flow maintains a steady supply of hot solution within inches of the cleaning head, ready to clean at high temperature.

The recirculating feature also allows preheating of solution in the tank when hot 120 degree water is not available at a job. The most effective way to preheat is to plug the tool ends of the recirculating hose together (See Fig. 6-3) and turn on the pump and heaters.

When using single hosed tools, recirculation is not a feature however, preheat is accomplished by an internal bypass.



Principle of Recirculation Figure 5-1

6

OPERATION OF EQUIPMENT

RUN MODE

Turning the machine on in the proper order will speed start up and avoid difficulty in priming the pump. Turn the switches on in the following order.

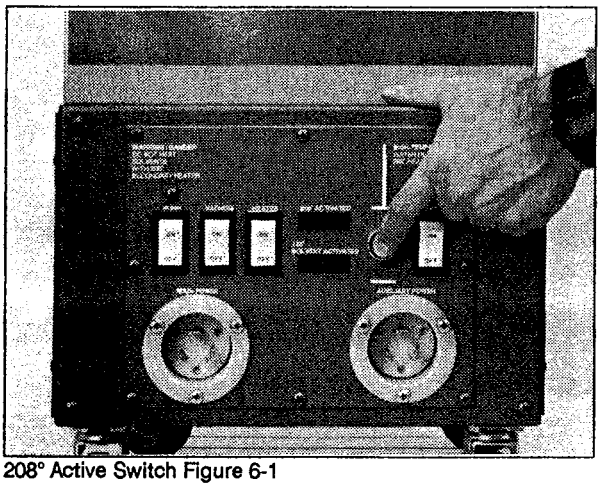
PUMP SWITCH

The pump will start and prime quickly in most cases. You will see air or solution returning through the solution tank bottom and the tool will spray an even pattern as soon as the pump is primed. If the pump does not prime after a short time, shut off the pump, be certain one end of the red hose is attached to the output of the machine and the other end is attached to the quick disconnect located on the sidewall of the vacuum tank. Next secure the vacuum lid in place and turn on the "VACUUM" and "PUMP" switch at the same time. As soon as solution enters the vacuum tank turn off the "PUMP" and "VACUUM" and reattach the red hose to the cleaning tool.

MAIN HEATER & AUXILIARY HEATER

It is necessary to classify your job by the type of cleaning solution to be used. Select dry cleaning using solvent based solution or wet cleaning using water based solution.

IF DRY CLEANING using recommended solvent based dry cleaning solution, use the 120° heat range setting. NEVER use the 208° high heat setting. The machine is designed to turn on in the low 120° range, indicated by the green "120° SOLVENT ACTIVATED" light. To maintain 120° temperature, it is usually necessary to use only one heater. Selection of the heater is determined by the electrical power available. If the system functions on the main circuit only it is not necessary to use the auxiliary circuit. If, however, you trip the household circuit, turn off the main heater, attach the auxiliary cord to a separate household circuit and turn on the auxiliary heater.



208° Active Switch Figure 6-1

IF WET CLEANING using water based cleaning solution, maximum high heat is recommended. To achieve this, turn on both heaters and press the "208° HEATER CONTROL" switch. See Fig. 6-1.

The "120° SOLVENT ACTIVATED" light will go out and the "208° ACTIVATED" light will come on. Note: It is only necessary to use the auxiliary power cord if the auxiliary heater is to be in use, either by itself or with the main power heater. It is always necessary to use the main power cord.

VACUUM

Turn the "VACUUM" switch on when ready to clean.

SHUTDOWN & FLUSHING

Proper shutdown of the system will assure its reliability and readiness for the next job. Consideration of the next job if known may determine the procedure you use for shutdown. REMEMBER water freezes. Do not leave a machine or tool with water based solution in it exposed to the cold where it can freeze.

Three situations may occur:

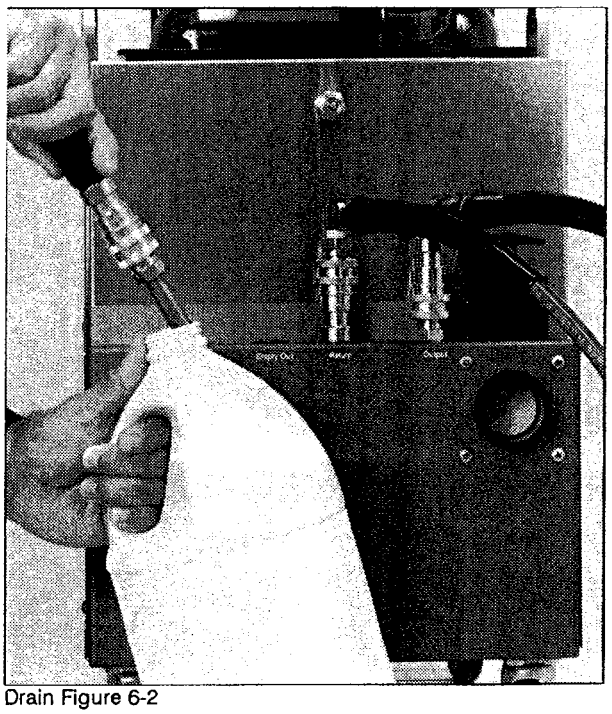
1. Wet cleaning going to wet cleaning. Upon completion of wet cleaning:

- Vacuum clean water through the tool to rinse chemical and lint from inside of the tool and hoses.
- Remove the tool from the system.
- Empty the vacuum tank.
- Plug "EMPTY OUT" nozzle into solution hose and rinse vacuum tank using the pump.
- Drain remaining solution from solution tank either by pumping it out the "EMPTY OUT" nozzle or by vacuuming it out.
- Clean and wipe dry both tanks to avoid chemical buildup.

2. Dry cleaning going to dry cleaning. Upon completion of dry cleaning:

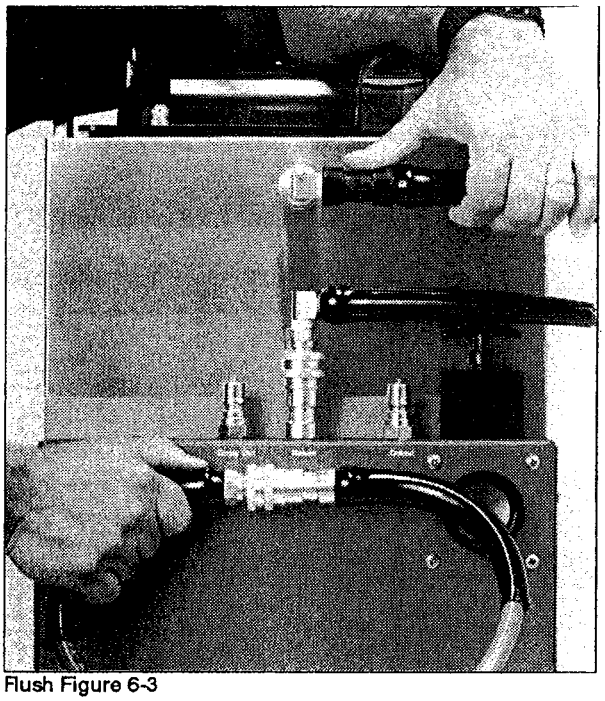
- Remove tool from system.
- Empty the vacuum tank. Recovered solvent can be reused, see "reclaiming solvent" below. Rinse and clean tank.
- Pump remaining solution from the solution tank back into supply container. See Fig 6-2. Clean and dry solution tank.

3. Dry to Wet or Wet to Dry:
Switching from wet to dry or dry to wet cleaning solutions may cause a gel to form in the pump and hoses if precaution is not taken.



Drain Figure 6-2

Seldom are the tools changed from one solution to the other, so remove the tool from the system and proceed as follows.



Flush Figure 6-3

- Empty all solution from solution tank and wipe dry.
- Fill solution tank with new fluid.

REMEMBER: "Oil and water do not mix!"

- Remove the red hose from the output of the machine and attach it to the male quick disconnect on the side of the vacuum tank.
- Plug the two loose ends of the red and blue hose that are away from the machine into each other.
- Secure the vacuum lid in place and plug the vacuum inlet on the lid with your hand.
- Turn on the vacuum for 45 seconds. The setup just described is illustrated in Fig. 6-3.
- Remove the red hose from the side of the vacuum tank and attach it to the output on the machine.
- Disconnect red and blue hose from one another and plug the far end of the red hose onto the male quick disconnect on the side of the vacuum tank.
- Turn the vacuum and pump on for 10 seconds.
- Remove the red hose from the side of the vacuum tank, attach cleaning tool and proceed to clean.

RECLAIMING SOLVENT

dry cleaning solution may be reclaimed for reuse a second time. Care must be taken to settle and filter all foreign material that is suspended in it.

Allow used cleaning solvent that is removed from waste tank to settle over night in a covered container. This will allow solids to fall to the bottom. Without stirring up sediment from bottom, carefully pour solution through fine cloth or a paint filter.

7

MAINTENANCE

Proper care and maintenance of your **KleenRite** equipment will mean years of trouble free and profitable service. Being familiar with your equipment and having the right tools to service it will save you time and money.

DAILY CARE

Each time you use your equipment, certain precautions should be taken to maintain its performance.

- 1. Fill the solution tank with only clean solution. DO NOT use a dirty waste bucket that could introduce lint or sand into the solution tank.
- 2. Use the system for wet extraction only. DO NOT dry vacuum. This can cause lint to lodge in the fans of the vacuum blower.
- 3. Use only fully dissolved cleaning solution. DO NOT mix powder directly in the solution tank. Granular material can move through the system and clog the tool filter or jet.
- 4. Rinse the tool and hoses with clear water at the end of a job. DO NOT store equipment with high concentrations of chemical or fiber impacted in them. After any job where large amounts of animal hair or loose fiber are encountered, remove the tool lid and check for buildup of material. Note: It is recommended that a small amount of anti-seize compound or grease be applied to the end of the lid screws when reassembling. This will prevent corrosion of the threads.
- 5. Check and clean the tool filter regularly. DO NOT allow chemical or local water content to build and clog the filter. Soaking over night in mild acid (vinegar) will clean most filters. A spare filter is recommended.
- 6. Clean vacuum tank, lint basket, and discharge valve. If particles lodge between the discharge valve seats, turn on vacuum and slowly close valve several times to remove debris.
- 7. Clean "Y" filter located at machine end of solution hose. Be certain particles do not pass the filter while cleaning.

QUARTERLY CARE

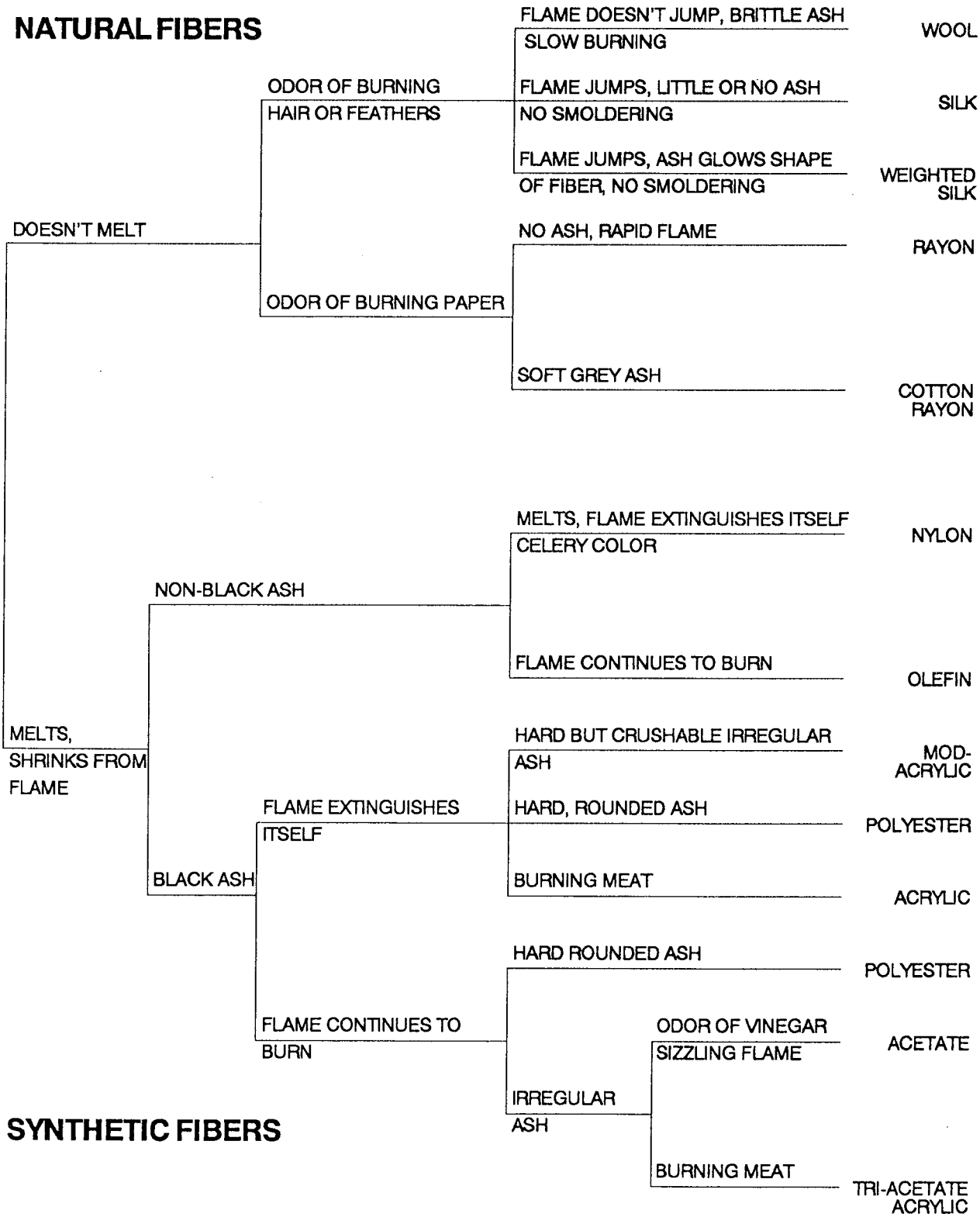
If properly maintained, your **KleenRite** equipment will need little repair. On a quarterly basis, it is recommended that the doors be removed and the hoses and electrical components be carefully inspected. If leaks, irregularities or corrosion are observed, they should be cleaned, tightened or replaced.

Pump and blower motors have sealed bearings which do not need lubrication, however, they do wear. Excessive noise, leaking or high amperage draw indicates a worn motor.

Cleaning and lubricating the latches, casters, and quick-connects with light spray will increase their life.

8

FABRIC IDENTIFICATION



9

UPHOLSTERY CLEANING INSTRUCTIONS

The following section is presented to provide KleenRite users a basic understanding of cleaning procedures. It is not totally complete or all encompassing. For total problem free upholstery cleaning, inquire about the KleenRite upholstery cleaning school. If the following procedures and techniques are closely followed, you will be able to clean virtually any upholstery fabric with excellent results.

1. PRE-INSPECTION

Carefully inspect item to be cleaned for worn threads, fraying, rips, animal damage, color loss due to wear or sunlight, etc. Always inspect cushions for shrinkage and buttons for rust, due to previous improper cleaning. Note all such pre-existing conditions on your work order, and have customer acknowledge these with his signature.

2. PRE-TEST

Pre-testing is the most important step of all and thus should never be neglected.

During this step you will test to determine the type of fabric (this test is optional) and whether or not the fabric is color-fast. These two tests will aid you in choosing the best cleaning process for the fabric.

To determine the type of fabric, several threads need to be removed from an inconspicuous area of the item to be cleaned. Perhaps these threads can be taken from the skirt, underneath, or from inside a cushion. The fabric can then be identified by igniting these threads and comparing the smell, burning characteristics, and residue, with the FABRIC BURNING TEST CHART (Fig. 8-1).

Color-fastness is tested on an area that would not be noticeable should color bleeding occur. An ideal location is the zipper area of a cushion. Spray a KleenRite Equipment approved Upholstery Prespray full strength on both the outside and inside of the cushion. After five minutes, rub a white towel over the area and look for color on the towel. The colors most likely to bleed are red, blue, green, and black. If there is no color transfer on the towel the fabric can be wet cleaned. Proceed to Step # 3.

If there is significant color transfer on the towel, or obvious color run on the fabric, color-fastness should be tested with a cleaning procedure called Dry-Wet-Dry. First, heavily spray an inconspicuous area to be test cleaned with heated KleenRite Equipment approved Dry Cleaning Solution. This solution should be heated by setting a sprayer in a bucket of hot water (120-140 degrees F). Immediately clean area with wet cleaning technique (see Step 4-A). The area just cleaned should be lightly sprayed again with Dry Cleaning Solution, which should be lightly rubbed in with finger tips, and then vacuum extracted well. Again check for color transfer on a towel. If there is little transfer and no color run, fabric should be cleaned with the Dry-Wet-Dry cleaning method. Proceed to Step # 3.

3. SET-UP

For the professional on location touch, lay out a clean drop cloth or indoor/outdoor carpet as protection in your work area. Upholstery, equipment and chemicals should be kept on this protective cover.

4. CLEANING TECHNIQUES

A. Wet Cleaning

The vast majority of fabrics you will encounter may be cleaned with water based (Wet) cleaning solutions. Such fabrics include Herculon, Nylon, Cotton/Rayon, Cotton Velvets, etc. Do not attempt to Wet clean a Crushed Velvet fabric, unless the customer has been made aware that Wet cleaning will remove the crushed effect.

Prepare cleaning solution using a Kleen-Rite Equipment approved Upholstery Cleaning Concentrate as the bottle instructs. Upholstery prespray should also be used, particularly on heavily soiled areas, to greatly speed up cleaning and aid the operator to get better results. Prespray should be heated in a bucket of hot water for greatest efficiency.

To avoid rusty buttons, simply prespray the buttons with a KleenRite Equipment approved Dry Cleaning Solution before cleaning or applying prespray.

During the entire Wet cleaning process remember the following guidelines. The hotter the cleaning solution, the better, faster and safer the cleaning. Over wetting must always be avoided. The faster a fabric can dry the better the results, thus sometimes drying fans may be used. Drying fans should be directed to blow across the fabric surface, never directly into the fabric. (See Fig. 9-1).

After you finish cleaning loose cushions, they should be allowed to dry by standing on end and leaning against each other. A clean white piece of paper inserted between them will insure no color transfer. (See Fig. 9-1).

If the fabric being Wet cleaned is a velvet, the material must be finished with a Kleen-Rite Velvet Brush. The nap is first lightly brushed in one direction and then lightly and uniformly brushed in a perpendicular direction. Velvet fabric brushed in this manner will dry with a soft texture. (See Fig. 9-2).

B. Dry-Wet-Dry Cleaning

Fabrics which can not be Wet cleaned can usually be cleaned using the Dry-Wet-Dry technique. Dry-Wet-Dry gives you the safety of Dry cleaning with the extra cleaning power of Wet cleaning. Fabrics which are suited to this technique include Haitian Cotton, some bright floral prints, and others on which pretesting with Dry-Wet-Dry indicated little color transfer and no color run. This technique is identical to Wet cleaning with the following exceptions.

Before pre-spraying or Wet cleaning the operator must heavily spray heated Kleen-Rite Dry approved Cleaning Solution on the fabric. This is done on just a small area at a time, such as one side of a cushion. This establishes a moisture barrier which does not allow the next step, Wet cleaning, to penetrate below the surface. The Wet cleaning is then followed by an extraction only pass, then a light spray of heated Dry Cleaning Solution, which is immediately vacuum extracted.This last step removes excess moisture from the fabric. It is important that the fabric not be overly wet during

the Wet phase and should be dried rapidly with fans.

C. Dry Cleaning

Virtually any fabric which can not be safely cleaned by the two aforementioned methods can be cleaned with the Dry cleaning technique. Remember, while Dry cleaning results are good, on badly soiled fabrics Wet cleaning is always far superior - if it can be done safely. When Dry cleaning, it is recommended that an exhaust hose be attached to the machine and all exhaust be ventilated outdoors. In areas where fresh air ventilation is poor, it is recommended that an air mover be placed at an open door or window to circulate fresh air. It is recommended that only a KleenRite Equipment approved Dry Cleaning Solution be used because of its lack of toxicity when compared to chlorinated solvents. It is only when a water based solution is used that no respirator is required. No smoking should be allowed on the job.

5. UPHOLSTERY TOOL TECHNIQUES

Hold the upholstery tool firmly where the vacuum cuff joins the tool. Use two fingers to activate the solution valve. Make sure the knuckles of the two trigger fingers touch the fabric during cleaning. This will keep the head of the tool flat on the fabric, thereby making a good seal and preventing over-wetting or overspray.

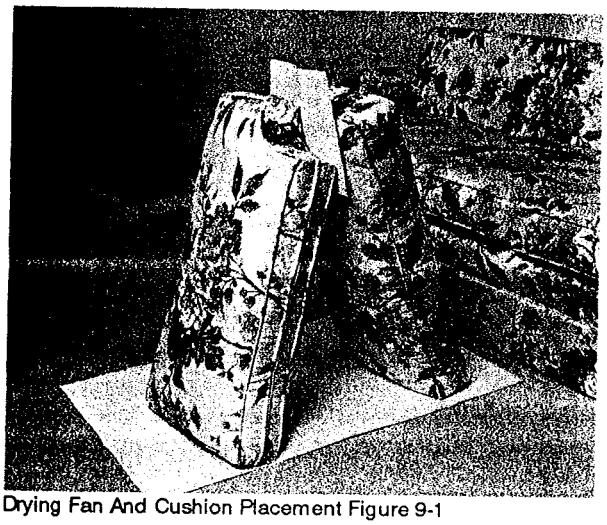
Do not apply any downward pressure on the tool. You should be able to move the tool back and forth with a minimum amount of effort. The faster you move the tool the better it cleans and the easier and more productive it becomes. Be sure to overlap cleaning strokes to avoid streaks.

Where fabric is lightly soiled, use one long quick cleaning pass and one vacuum pass with the solution off. For heavily soiled areas and the removal of spots, use the tool with short back-and-forth strokes of approximately 4 to 6 inches until the desired results are achieved. Then make one vacuum pass with the solution off. (See Fig. 9-3)

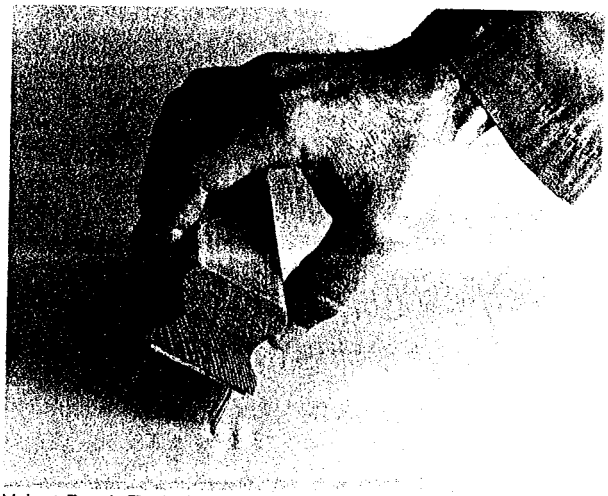
When cleaning welts on a cushion, center the head of the tool over the welt. Apply enough pressure to flatten the fabric under the head. (See Fig. 9-4) Go back and forth using very fast, short 4 to 6 inch strokes in one area until the first 4 to 6 inches of the welt is cleaned. Then make one slow vacuum pass over the material on each side of the welt. Repeat the above procedure until the entire welt has been cleaned. To be certain that all excess moisture has been removed from the welt, take a white towel and squeeze the moisture into the towel. (See Fig. 9-5)

After cleaning an upholstery skirt, lightly stretch fabric out and down so that it will hang properly when dry.

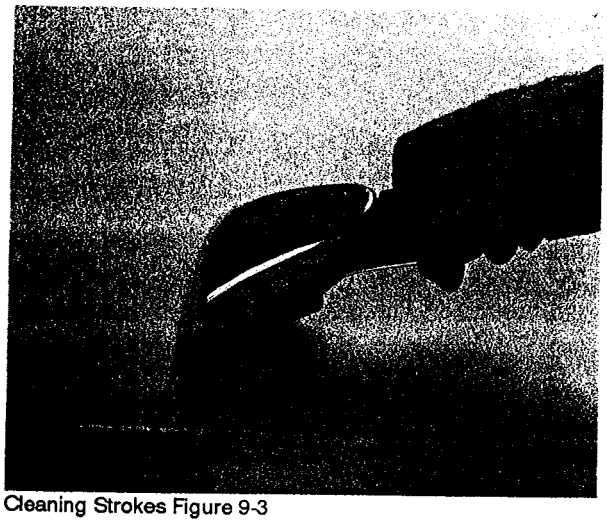
Where fabric is heavily impregnated with soil, apply a KleenRite Equipment approved Upholstery Prespray as the bottle instructions. Then use the above cleaning techniques to remove the prespray and soil.



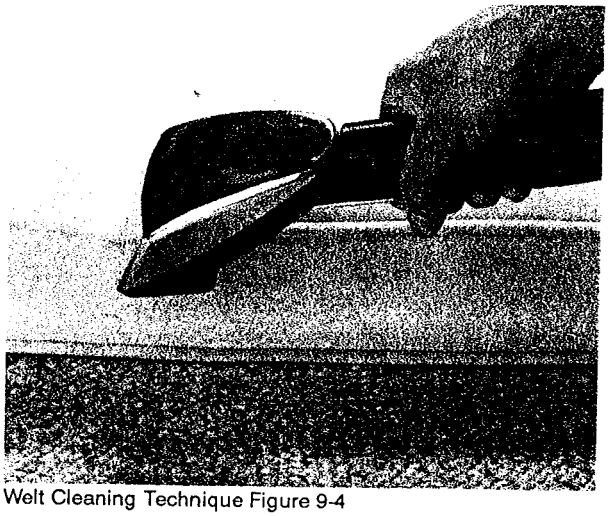
Drying Fan And Cushion Placement Figure 9-1



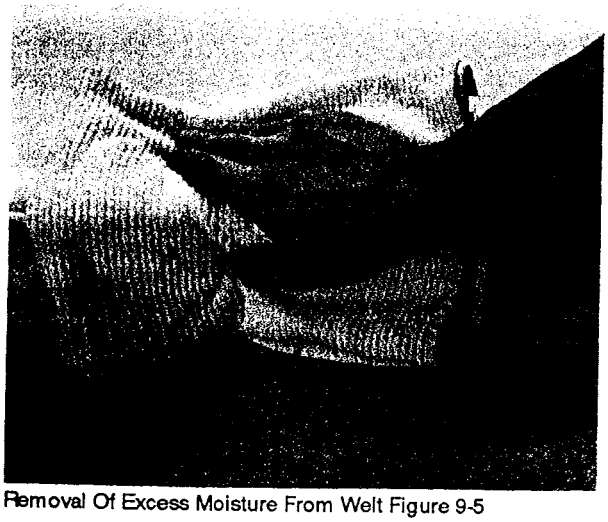
Velvet Brush Technique Figure 9-2



Cleaning Strokes Figure 9-3



Welt Cleaning Technique Figure 9-4



Removal Of Excess Moisture From Welt Figure 9-5

10

DRAPERY CLEANING INSTRUCTIONS

The following section is presented to provide KleenRite users a basic understanding of cleaning procedures. It is not totally complete or all encompassing. For total problem-free drapery cleaning, inquire about the KleenRite drapery cleaning school. If the following procedures and techniques are closely followed, you will be able to clean virtually any drapery fabric with excellent results.

1. PRE-INSPECTION

Carefully inspect draperies to be cleaned for any sunlight damage, animal damage, water stains, tears, fraying (from rubbing against ceiling), and for brittle sun-rotted fibers. Also measure the distance from the bottom of the drape to the floor. While the KleenRite System will not shrink fabrics when properly used, it is possible that the draperies were previously shrunk from improper cleaning. Since you do not want to be blamed for these pre-existing conditions, note them on your work order and have the customer acknowledge these with his signature.

2. PRE-TEST

Pre-testing is the most important step of all and should never be neglected. During this step you will test to determine the type of fabric (this test is optional), whether or not the fabric is color-fast, and whether the fabric should be Wet or Dry cleaned. These tests will aid the operator in choosing best cleaning process for the fabric.

One advantage of the non-chlorinated KleenRite Equipment approved Drapery Cleaning Solution is that this Dry cleaning solution can be used on all drapery fabrics. Chlorinated solvents cannot be used on fiberglass fabrics or rubber and latex backed drapes. Most drapery fabrics should be cleaned with KleenRite Equipment approved Drapery Cleaning Solution. However, some fabrics, due to their construction, will not shrink and they can be Wet cleaned. Any time you can clean with water you will dramatically cut your chemical costs. Fabrics which can be Wet cleaned include fiberglass drapes, fiberglass sheers, and rubber and latex backed drapes. The Wet cleaning solution for drapes is the same as is used for upholstery...KleenRite Equipment approved Upholstery Cleaning Concentrate. When Wet cleaning sheers, always be careful not to get the other drapes wet, to avoid shrinkage and water marks.

To determine the type of fabric, several threads need to be removed from an inconspicuous area of the drape. The fabric can then be identified by igniting these threads and comparing the smell, burning characteristics and residue with the Fabric Burn-Test Chart. (See Chart Page 8-1).

Color-fastness is tested on an area which would not be noticeable should color bleeding occur. This test is done by spraying KleenRite Equipment approved Drapery Cleaning Solution on the fabric and then blotting the area with a white towel, watching for color on the towel. Since the brightest colors are most likely to lose color, these must be tested. If there is no color transfer on the towel, the fabric can be Dry cleaned.

panel, proceed to clean down the rest of the panel as far as possible so that the balance can be reached comfortably from the floor.

When cleaning the bottom six inches of the drape, it is easier to hold the tool on its side and pull the drape past it. (See Fig. 10-4).

When a drape is excessively dirty in any given area, hold the drape taut, using one hand. Take the KleenRite Tool and move it up and down in vigorous, short strokes of approximately four to six inches, with the solution valve open, until the area is cleaned. This method gives better agitation and therefore better cleaning.

To treat an area which does not readily respond to normal cleaning, apply a light application of KleenRite Equipment approved Drapery Spotter. Agitate gently with fingertips, soft brush, or clean rag or towel. Then use the same method described in the previous paragraph. Repeat until area is clean or no longer responds to cleaning.

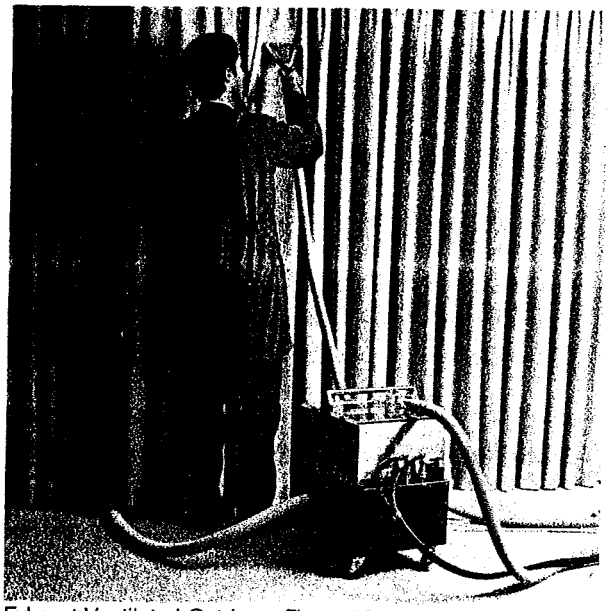
Lined drapes or very soiled drapes should be cleaned on both sides. An additional charge should be made for this. To clean the lining on the back of a drape, unpin half the drape and turn it back over the other half of the drape so the lining on the back of the drape faces you. Clamp the top of the drape to the drapery rod with a spring clamp (such as a welding clamp) and clean as normal. Then reverse the procedure to clean the back side of the other half of the drape. (See Fig. 10-5)

Very loosely-woven drapes can be cleaned easily by clamping an inexpensive plastic drop cloth on the back side of the drape. The vacuum from the tool will draw the plastic up to the fabric and you can proceed to clean as normal. Sheer drapes should be cleaned in the same manner as loose weave drapes except that they should be sprayed with the drapery cleaning solution first, then extracted, or cleaned. This process will eliminate any tendency of solution to run, which can cause streaking.

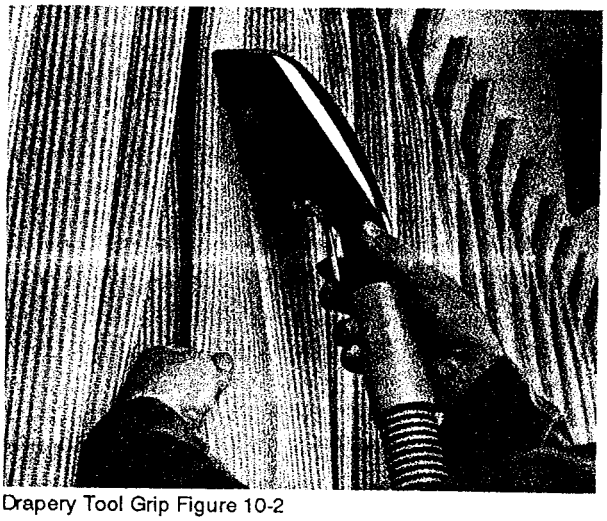
Immediately after cleaning each panel, draw the pleat down between the thumb and index finger to set pleat. For sharp pleat appearance, close the drapes and reopen with about two inches between pleats and let dry. Treat draperies which are wrinkled with KleenRite Equipment approved Drapery Wrinkle Remover.

OBSERVE NORMAL SAFETY PRECAUTIONS

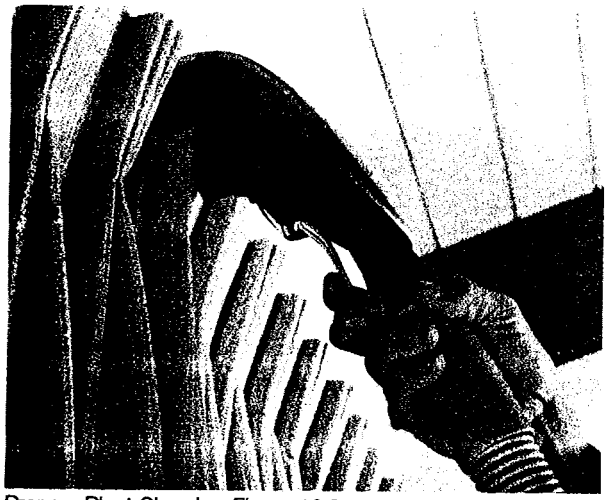
- Always work with adequate ventilation.
- Exhaust drapery cleaning fumes to the outside.
- Do not clean drapes near an open flame.
- Do not smoke while cleaning drapes.



Exhaust Ventilated Outdoors Figure 10-1



Drapery Tool Grip Figure 10-2



Drapery Pleat Cleaning Figure 10-3

Drapery Bottom Cleaning Figure 10-4

Lined Drapery Cleaning Procedure Figure 10-5

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CARPET CLEANING INSTRUCTIONS

The following section is presented to provide Kleenrite users a basic understanding of carpet cleaning procedures. It is not totally complete or all encompassing. There are a number of trade organizations that can provide additional information and training as needed.

1. PRE-INSPECTION

Carefully inspect the carpeting for loose or torn seams, fading, irregular wear of the nap, animal damage, or general stains. Since you do not want to be blamed for these pre-existing conditions, note them on your work order and have customer acknowledge these with his signature. It is possible to charge extra to correct these pre-existing conditions.

2. SET-UP

Generally, cleaning will begin at the most distant corner of the room or building from its entrance. Since this machine is run by two power cords it is necessary to plug them into separate circuits, one of which should be 20 amps. Bathrooms, kitchen garbage disposals, and laundry rooms typically have such circuits. This machine is supplied with a 25 foot vacuum and solution hose. Attach these and Floor Tool to the machine and fill with proper proportion of hottest water available and cleaning chemicals. The concentration will vary depending on the cleaning chemical used and the degree of soil.

3. CLEANING TECHNIQUES

First take note of the heavily soiled areas and apply traffic lane cleaner. Once the machine has heated up to its maximum temperature (approximately 3 minutes) open valve on Floor Tool and clean an area 3 feet by 3 feet using overlapping passes of the Floor Tool. To achieve desired cleaning it may be necessary to make several cleaning passes over the same area. Once clean, turn off solution and make a couple final extraction passes over the area just cleaned. As with cleaning passes, these final extraction passes should be made by overlapping, V-shaped strokes. Remember, while extraction passes are being made, the solution in the heat exchanger is being super-heated. Refer to Chapter 6 page 2 of this manual for switching options to maximize heat and vacuum.

Once a room is cleaned take a finishing groomer and brush the carpet so its nap is uniform and all Floor Tool stroke marks are removed. This is an important step since it determines whether the final texture of the carpet is acceptable or not.

In walkways that are apt to be used prior to the carpet completely drying, lay down a protective paper. If furniture is replaced on wet carpet, place a protective foil tab, foam or wood block under furniture to prevent damage from occurring to both carpet and furniture.

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CEILING CLEANING INSTRUCTIONS

You can provide the additional advantage of ceiling and wall cleaning to your customers without purchasing another machine. Use your KleenRite 200, 300 or 500 Series machine with the complete Single and Double-Tip Spray Wand Assembly.

Suspended acoustical ceilings are common in commercial structures, though many different styles and designs exist. White is the most popular color for ceiling tiles and panels, though it shows soil more than other colors. Pre-vacuuming is recommended, especially around air diffusers and in corners. Protect the area and yourself. Use disposable drop cloths (such as the paper/plastic variety) to protect furniture, equipment, etc. from chemical spray.

You will be using your KleenRite portable *without* heat for this application. Certain precautions, such as a cap, safety glasses or goggles, and a respirator, are still encouraged.

Equipment setup is easy. Secure the female quick connect on the solution hose of the Ceiling Cleaning Tool to the male quick connect (output) on the machine. Do so by pulling the collar of the female back and pushing the two together until the collar slides forward and locks.

Follow the manufacturer's directions for the selected chemical. Fill the solution tank with an appropriate amount of solution and secure the lid to the tank. The proper use of both chemicals and equipment will assure the safe, profitable and optimum performance of your KleenRite machine and tools.

Spraying with an even mist in long strokes is most effective. Do not spray with a sweeping motion and, if possible, have an assistant for wiping. Keep the spray tip parallel to the ceiling, holding it approximately 6 to 8 inches away from the tiles or panels. The single spray tip is for corners and edges, the double for larger areas. Smoke alarms will need to be covered as they detect spray as well as smoke. Wipe exposed walls, windows and air diffusers as necessary.

This economical alternative to replacing or painting is safe and simple. It enables you to offer the widest range of services to your customer.

For the professional touch, lay out a clean drop cloth or indoor/outdoor carpet as protection in your work area. Draperies, equipment and chemicals should be kept on this protective cover. Protect nearby wooden furniture, etc., against accidental overspray by moving it or covering it with a drop cloth. When Dry Cleaning, it is recommended that an exhaust hose be attached to the machine and all exhaust be ventilated outdoors. (See Fig. 10-1) In areas where fresh air ventilation is poor, place an air mover at an open door or window to circulate fresh air. It is recommended that only KleenRite Equipment approved Drapery Cleaning Solution be used because of its lack of toxicity as compared to chlorinated solvents. At present, no known hazards have been associated with the use of OMS without a respirator.In exercising due caution, however, a respirator may be used.No smoking should be permitted on the job.

While the upper part of a drapery may be cleaned from a ladder, many experienced operators prefer to set up a single scaffolding arrangement for cleaning the upper third of a drapery. This is easily accomplished by setting up two strong step ladders with a sturdy plank across them.

4. CLEANING TECHNIQUES

The cleaning techniques for draperies are identical whether you are Dry Cleaning or Wet Cleaning. The type of cleaning you will use on a fabric is determined in Step # 2.

Fill the solution tank with appropriate amount of cleaning solution.

Begin by dusting the top and the pleats of the drapes with a medium bristle brush or lint roller before applying Drapery Cleaning Solution.

Grasp the KleenRite Drapery Cleaning Tool where the vacuum hose cuff joins the tool. Use two fingers to activate the solution valve. This will allow you to keep a firm, yet relaxed grip on the tool. (See Fig. 10-2)

Drapes are cleaned from the top down. It is advisable to pay special attention to the first panel, especially if it is often handled to open and close the drape or to open a sliding door. This first panel should be cleaned on the back if necessary.

Remove the standard insert from the drapery tool, exposing the pleat insert, and hold the drapery tool directly above the pleat sew. Turn the solution on and gently press the tool onto the pleat. Make one pass up toward the top of the drape followed by one extraction pass down. (See Fig. 10-3).

Repeat this same method from the sewn pleat area down the drape for about six inches. Clean all pleats first by this method.

With the standard insert attached, clean the balance of the drape by opening the fabric with one hand and drawing the drapery tool down the drape with the solution on. Make as many passes as necessary (one is usually all that is needed) followed by one vacuum pass. Be sure to overlap slightly to avoid leaving uncleaned areas.

On some fabrics you may note a blotchiness due to evaporation or difference in solvent penetration. This condition is normal and will dry out beautifully. Do not waste solvent in an effort to get uniform darkness.When on a ladder or scaffold, having completed the header on one

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TROUBLE SHOOTING

FAULT	POSSIBLE CAUSE	REMEDY
Machine does not operate	No electrical supply	Check household power circuits
	Cords not properly connected	Plug cords into grounded three wire circuit
	Circuit breakers on machine tripped	Reset breaker by pushing reset button
Tool does not spray	Filter clogged in tool or hose	Remove and clean filter
	Jet clogged	Remove and blow jet clean. Do not use metal object to scrape
	Lint in quick connects	Remove and check quick connects
Pump not pumping	Pump lost prime	Stop and restart pump or use "Flush Valve" to pull prime
Warning buzzer sounding	Machine reset to low range while wet (208°) cleaning	Reset high temperature by depressing both 208° switches
	Heat exchanger above alarm set point while 120° dry cleaning	Cool down machine, flush and test with water. If buzzer sounds again consult factory
Heat exchanger not heating	System not in full use	Remember the heat exchanger heats only the fluid that passes through it. Not the solution sitting in the solution tank. Turn pump on.
	Electronic control failure	Isolate component that is failing. Use wiring diagram and meter to trace fault. Consult factory for assistance
Vacuum weak	Loose or distorted vacuum lid gasket	Replace gasket
	Tool clogged with lint	Remove tool lid and clear lint from tool head
Boiling or popping noise	Solution boiling in heat exchanger	Turn pump on prior to heater. Most common at high altitude.
Electrical failure while working	Failure of household circuit	Use 20 amp 120 volt or 10/13 amp 220 volt circuit if possible or only auxiliary heater, pump and blower
	Circuit breaker tripping	Electric short in machine, worn out motor or high ambient temperature

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SPECIFICATIONS MODEL 508HX / 512HX

SIZE

508HX	25"L x 17"W x 26"H (with handle 40" high)			
512HX	25"L x 17"W x 32"H (with handle 46" high)			
WEIGHT	508HX		85 lbs.	
	512HX		94 lbs.	
SHIPPING WEIGHT	508HX	Box 1	113 lbs.	28L x 23W x 33H
	512HX	Box 1	122 lbs.	28L x 23W x 38H
		Box 2	42 lbs.	21L x 15W x 24H
		Box 3	25 lbs.	17L x 17W x 26H
		Box 4	12 lbs.	11L x 10W x 65H
		Box 5	10 lbs.	11L x 10W x 56H

ELECTRICAL (120 volts)

PUMP	100 psi Flojet:	1.2 amps at 100 psi	Output 1.5 gpm*
	75 psi Oberdorfer:	2.05 amps at 75 psi	Output 1.5 gpm*

BLOWERS

2 stage:

9.0 amps at 1 1/2" orifice
Vacuum 91.3 inches water lift
Air flow 104 cfm

HEATER

6.25 amps,	19.2 ohms	750 watts black wire	pin
14.6 amps,	8.2 ohms	1750 watts white wire	socket

ELECTRICAL (240 volts)

PUMP

100 psi Flojet	0.75 amps at 40 psi	Output 1.38 gpm*
75 psi Oberdorfer	0.59 amps at 40 psi	Output 1.5 gpm*

BLOWERS

4.4 amps at 1 1/2" orifice
Vacuum 87.5 inches water lift
Air flow 108 cfm

HEATER

4.17 amps	57.6 ohms	1000 watts black wire	pin
7.29 amps	32.9 ohms	1750 watts white wire	socket

See "Appendix F" for optional heaters available

FLUID FLOWS

*Output from machine using recirculating hose and male empty out 1.5 GPM

Output from Recirculating 3" Upholstery Tool 1.0 spray jet 20 oz./min.

Output from Recirculating Drapery Tool .50 spray jets 24 oz./min.

Return to machine from 3" tool VIP using male empty out 22 oz./Min

Return to machine from drapery tool VIP using male empty out 23 oz./min.