

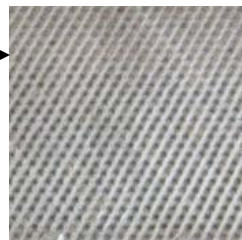
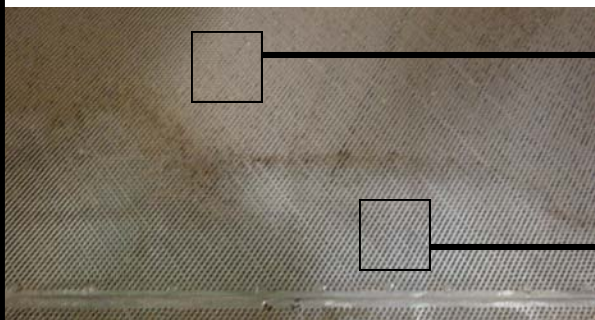
COFFEE ROASTING FACILITY DEMONSTRATION RESULTS

November 25, 2006

Equipment demonstrated:

18 KW Special 2 UltraVapor tool, 3 phase 1.5 HP stainless steel vacuum cleaner, 25 cm suction brush, short and long brush holders with assorted nylon and steel brushes, long and short lances.

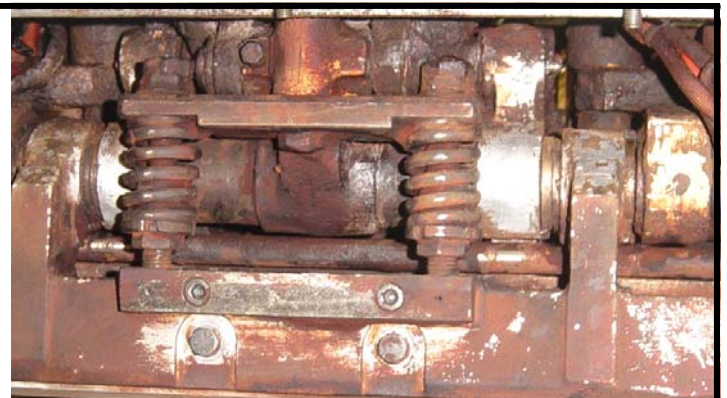
Roasting table



We used a variety of tools on the roasting table including the lance, suction brush and a regular brush.

Loose soils were blown through the screen quickly. As the vapor moistened the encrusted soils these loosened and would blow through the screen. Use of a brush tool to add agitation hastened this process.

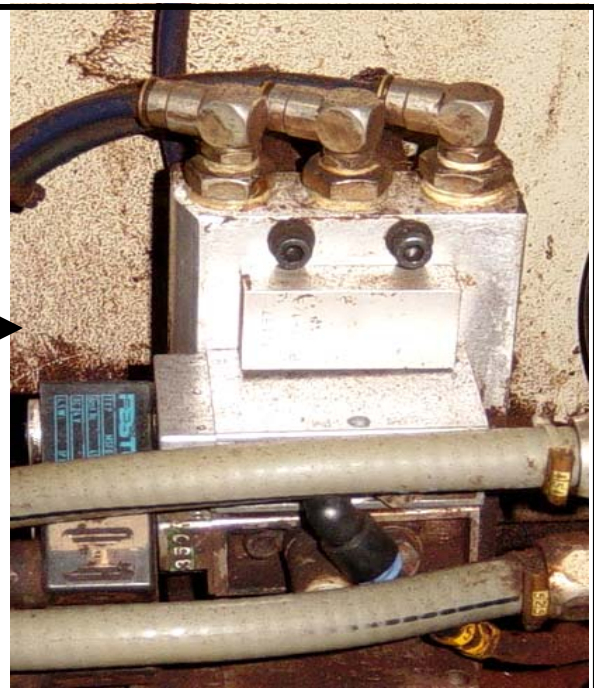
In its current condition it would probably take about 45 mins to clean with a brush tool but these could likely be kept clean on a weekly basis with a 10 to 15 minute use of a lance only.



This machine was caked with ground coffee that normally has to be chiseled or scraped away with significant effort. Using the brush tool we were able to clean out the springs and start cleaning other parts down to the bare metal. In areas with heavy buildup the vapor softened the coffee and allowed it to be easily scraped away. Wiring harnesses were blown clean using both short and long lances.

Due to small gauge wires supplying the outlet we were using and the concern of overheating it we couldn't spend the time to clean the whole section down to the level the vapor is capable of.

Once this machine is cleaned it will be easy to keep clean if addressed on a regular basis.



This area cleaned using lance only



Easily clean electric motors without fear of damaging seals or causing electrical shorts.



Coffee powder easily melted and blown to floor where it can be recovered with vacuum. Unlike compressed air broadcasting of powders is not a problem.



Indicated areas blown clean using long lance. Note absence of any water under the terminal blocks in the picture to the left.