

Cleaning Your Production Parts Washer

In order to keep your washer producing top quality, clean parts it is necessary to perform the required preventive maintenance. Cleaning the washer is a tough and dirty job, but if it is not performed the washer will not perform up to expectations. Residue develops on parts during the manufacturing process, and when the washer removes the residue, it is left in the washer. This residue clogs the machine, and makes it difficult for the washer to produce a clean product.

It is common for a company to believe that “cleaning the washer” means replacing the water and solution in the machine that is used for the cleaning. Simply changing the water in the machine is not enough to clean the washer. To truly clean the machine, attention must be paid to the entire process.

Soil accumulates in every part of the washer. Nozzles, heating devices, inside pump housings, material-handling components, as well as the side walls of the fluid and blow off stages. There can also be a tremendous accumulation of soil inside the plumbing itself. The soil contamination prevents the washer from performing to its abilities, resulting in parts that are not clean, which means the washer becomes a waste of floor space.

Cleaning the washer to ensure high performance can take from 4 to 12 hours. Naturally many companies do not wish to lose this amount of production time, but making the time sacrifice when it is deemed necessary will ensure parts are clean to the specification of the customer and avoid future problems.

Cleaning the machine and restoring performance capability to affected areas can be broken down into a nine-step process.

1. Schedule 4 to 12 hours of production down time to clean the washer.
2. Add descaling solution, at a 10-15% concentration ratio, to attack hard water salts, sludge, and scale buildup. The surfactants in the solution loosen the buildup, making removal easier.
3. Remove nozzles and filter media from the washer.
4. Turn up the heat and run the pumps with no nozzles or filters for up to ½ hour. (Running with no back pressure, which is created by the nozzles puts too much pressure on the pump motor. This will burn the pump motor out if allowed to run free for an extended period.)
5. Replace the nozzles only and run the heated descaling solution while the conveyor and blower are on. Run machine for 4-8 hours to dislodge caked soil.
6. Remove solution and dispose.
7. Power spray the inside of the entire unit. Spray the tank, conveyor, fluid stages, blow off stage, heating coils and anywhere soil can be seen.
8. Remove solution and dispose.
9. Inspect all gaskets, nozzles, and filters. Replace if necessary.
10. Fill wash tank with proper chemistry.

Cleaning the washer is a difficult and long task. Performing this process will require a person or team willing to handle one of the dirtiest jobs in a plant. There

are products and add-ons that can be purchased that will stretch the length of time between total system clean outs.

Nothing can replace manual cleaning, however these products will help keep the washer cleaner for longer.

1. In-process fluid treatments.
 - a. Screen baskets to catch large particles before the cleaning fluid re-enters the tank.
 - b. Particulate removing filter bags or filter paper systems that hold tighter microns as water is pumped from the tank to the spray manifolds.
 - c. Magnetic collection units to attract metal dust.
 - d. Oil-water separation systems to remove free-floating oil from water, and thereby return clean water to the tank.
 - e. Cleaning chemistries that split oil instead of holding it in suspension, making oil-water separation easier.
 - f. Making use of oil-based or semi-synthetic metal forming lubricant, allowing oil-water separators to do their jobs easier.
2. Use quick fit nozzles. These nozzles can be removed easily with a quarter turn and pull, and then replaced within seconds.
3. Use quick-fit Victaulic or grooved piping instead of threaded piping for manifold connectors. These pipes can be cleaned quickly and easily with compressed air and a snake.
4. Install a Blow off section spray down manifold. This manifold is automatically fed from the rinse pump for 5 minutes each time the washer shuts down. This sprays away oils, dried chemicals and particles that have been carried over to the blow off stage. With the spray coming on with only the blower and the conveyor running, the fluid easily drains back to the rinse tank where it can be treated with the other soils.

Using a combination of these products will keep your washer running cleaner, longer. This is especially useful for companies that have a difficult time finding employees to perform the manual maintenance necessary. While these products do not replace manual cleaning, when the time comes, the company can place a call to the washer vendor and begin a maintenance contract to ensure the work is performed correctly.