

Vacuum Degreasing Processes with Modified Alcohols

Session Questions and Answers

- Q: My shiny parts have dried coolant on them, and they will not come clean using a vacuum degreaser with Modified Alcohol. It was cleaning before. What am I doing wrong?**
- A: This is pretty common in manufacturing facilities. If your coolant dries on the parts, say over a weekend, what you have to do is get them wet again. Get them wet in the same amount of coolant as you're trying to wash off and then you put the parts in the vacuum degreaser. The dried-on coolant breaks free when you re-hydrate them and then you can put it through the vacuum degreaser. We have seen success using this procedure a number of times**
- Q: When cleaning coolant from my parts with a modified alcohol product, where does the water, if not in the still? You touched briefly on this at the end of your presentation.**
- A: Good question. Every vacuum degreaser has a water separator. This is where water ends up after the water vapors are condensed. So, every so often you have to empty the water separator. The water will be at the bottom layer and solvent at top layer. The more you use your machine, especially in the summer months, the more you'll have to drain water off the water separator.**
- Q: My facility is in Southern California, and we have strict air management requirements when it comes to VOC's. How do I combat emissions? Our limit is 50grams per Liter.**
- A: This is also a good question. We have experience with this. The vacuum pump maintains a vacuum in the entire piping system during the operation of the machine and the discharge usually vents into the facility. You have to minimize the emissions and a lot of machine companies offer an activated carbon drone that you can connect to the exhaust of the vacuum pump. This allows you to pass the emissions test. We have had experience with this for a couple companies in Southern California and adding this carbon drone actually helps maintain the low 50grams per Liter VOC's.**
- Q: Is there any device that can be put into solvent to determine the percent of RP?**
- A: We have been working on a way to determine the density of a material in another material. Basically, with the RP inside of the modified alcohol. We are in the development phases of that right now and it uses a density meter. The RP content goes up, then sound waves flowing between the forks go up because the density goes up. We are looking into that right now so that there might be a way in the future to automatically measure and maintain the RP concentration. We might have more on that later.**

Q: How would that be entered into a tank? Would the vacuum affect it?

A: No, the vacuum would not affect it. It's a full enclosed, basically sonic sensor. A hole would be punched into the tank, and the machine guys will do this on the front end. Then you can either put a bulkhead fitting or some kind of sanitary fitting that is welded on. You can also look up the sanitary fitting on a website called McMaster-Carr. Usually, we attach the sonic velocity sensor by way of a sanitary fitting, and this is how it would be attached or installed into the RP tank.