

Cleaning Solutions: Splitting vs Emulsion? Session Questions and Answers

Q: You mentioned that splitters can be alkaline or acidic. Can emulsions also be alkaline or acidic?

A: The short answer is no. It is possible and you may find some that are. Typically, because it's a solvent based cleaning product, those materials generally don't have a pH of any kind. Which is necessary to either be alkaline or acidic. That's universally true on the splitter-type alkaline cleaning chemistries side.

Q: Why can't I skim or remove the soils out of the emulsions cleaners?

A: It comes down to the fundamental structure of the technology. The nature of an emulsion cleaner is trying to clean the soil, absorb it, solubilize it, and carry it away from the part to keep it clean. The nature of the technology is that it takes the soil into the nature of the cleaner itself. It is not just undercutting it or reacting with it. That's why they tend not to separate. There are some techniques and products that lend themselves whether its with heat or ultrafiltration to strip out some of those oils but it's not nearly as simplified as the whole idea of letting it sit in a quiet tank and let gravity be your separation mechanism. That is why you don't really have skimmers on emulsion cleaner tanks.

Q: You mentioned that skimming takes out the oil from splitter material. Does it take any important parts of that splitter cleaning agent out of the tank as well?

A: If we were to remove part of the cleaning product or scalp it by just taking part of it, that would be bad. In fact, these products are typically designed so they don't react with the oil. They typically use wetting to pop the oil from the surface and because of that they don't get really connected. You may lose a bit of cleaner that goes, not solution of the oil. You're not having one particular component in the cleaning material that is lost to the soil and removed with that splitting. That's one of the great elements of the splitter technologies, the soil doesn't have any long-term negative effects on those products. That's why you tend to get extended tank life if you're doing a good job on the skimming and oil removal.

Q: That oil separator coalescer looked complicated, are they easy to operate?

A: The answer to that is yes. There are two pieces to it from a function perspective. The first and most important is you want to make sure that the float mechanism is adjusted properly. When you set it up right, what happens is that little bit of cleaning fluid and all the oil goes into the flow path that leads from the box to a tank. And that coalescer tank is really just a tank, there is not an on/off switch or anything electrical. Generally, you would have a few plastic plates to help with the coalescer. It's really a static system, much like the water systems in our communities. There is tank or in some cases in areas that are level, there is a water tower that keeps pressure on all of the water lines. That's kind of how the coalescer tank works. You feed fluid into the tank at a very slow rate and the oil separates by gravity, and then cleaning material in the water solution is pushed out of the tank by gravity. The oil is

then pushed out the other side to drip out of the tank into a bucket or receptacle. They take very little care and attention. The real trick is the set up. Getting the receiving skimmer setup properly and then making sure you're flow rates are right. There are good instructions with them and they're a clever approach that provides great value to the users.