

Chemical Free Oil/Water Separation Technology for the Food Processing and Restaurant Industry Providing Clean Water and Biodiesel Feedstock



Bradley Mart
CEO
FogBusters, Inc.

CEOCFO: *Mr. Mart, would you tell us the concept at FogBusters?*

Mr. Mart: FogBusters brings green technologies to restaurants and the food processing facilities around unconventional and disruptive oil/water separation and oil extension technologies. The name “FogBusters” is a play on the acronym FOG (Fat Oil Grease), Ghostbusters and the fact we are headquartered in the foggy San Francisco Bay Area.

CEOCFO: *Would you explain the technology and how it differs from what is currently available?*

Mr. Mart: In many industries, including food processing, traditional FOG is extracted from wastewater using dissolved air floatation (DAF) systems. With DAF the wastewater goes in, chemicals are added to coagulate the FOG, the water is agitated with bubbles, the resulting scum floats to the surface, is skimmed off and either dumped in a landfill or may go to animal feed. The FOG rightfully has to be removed per EPA regulations. When you are working with a company that has anywhere from 100,000 to several million gallons a day of wastewater, even miniscule amounts can add up to be quite a bit. This is not great for the environment and most often is a wasted, or low value resource. Now however, that waste oil has value as biodiesel feedstock if it can be harvested from the wastewater in a usable form. The FogBuster technology takes advantage of the natural tension between oil and water and, without chemicals, accelerates that tension between the oil and water within the separation chamber of the system. It automatically ejects the oil without using any chemicals so the benefit then is you have clean water going down the drain and of equal significance the oil that is pulled out without chemicals is in most cases eligible as biodiesel feedstock. Something that previously had a lot of chemicals added to it and was thrown away in a landfill can now being harvested and create an income for the company that is using the technology while complying with EPA requirements.

CEOCFO: *Is this system in use today?*

Mr. Mart: We have multiple systems at an industrial level in use across the country in various food factories. We have done some work with petroleum which is a different ballgame but a similar oil/water scenario. We also have thousands of these in restaurants. Every restaurant has the same requirement. They are not allowed to put oil down the drain and the traditional way they do that is with a grease trap or grease interceptor. The grease trap was invented about 150 years ago here in California. It is the worldwide standard. They are however only marginally effective in removing FOG. Our technology is 99% effective. In addition, even though chemicals are not used with grease traps and interceptors, they are notorious for being that smelly thing in the back of the restaurant or underneath the restaurant’s kitchen sink. Someone has to come in and clean out every once in a while. While sitting there the oil turns rancid and then it has to get disposed of. With our technology, taking the big industrial version and shrinking it down to something that fits under the sink, if the water goes down the drain and passes through the system, it automatically ejects the oil. The oil that is ejected is immediately usable as yellow grease, which is basically biodiesel feedstock. It can then be sold along with a restaurant’s used cooking oil.

CEOCFO: *Are people actively looking for a better system?*

Mr. Mart: Yes, for sure. The DAF system in the industrial environment is not easy to use, is expensive to use, is not green, and often struggles to be effective. For restaurants, increasingly are being required by city and municipal

governments to manage their traps and interceptors and can often suffer penalties for not doing so. In the City of San Francisco, restaurants are being required to convert to our type of technology. So when people look at our technology they are people that are typically being forced to do so by the local regulatory agencies. They will call us and tell us they are spending way too much money on chemicals, their system is ineffective, they need something new or are being required to do better. That is when we would come into the conversation. In the restaurant environment, it is not too different. People do not want to deal with grease traps. They may smell a lot but they are relatively invisible. Typically, when a new or old restaurant that falls out of compliance and gets caught will then come to us. There are a lot of proactive green organizations out there. For example, Costco and Sam's Club have our technology in almost every one of their locations nationwide. That is an example of a company that saw the opportunity and decided to roll it out.

CEOCFO: *Are there competing newer technologies?*

Mr. Mart: There are and there are not. Our technology is a superior technology. I guess the way to look at it is, in-between where the grease trap and grease interceptor was, there has been a couple iterations of new technologies but they were still mechanically based. Whether in a restaurant or industrial environment, they still harvest the oil by mechanical means. The brand-name for our technology is Goslyn for the restaurant industry and FogBusters for the industrial level. Our technology relies on physics so there are no moving parts. They are all stainless steel and automated. They run 24/7. Yes, there is competition but they are all older technologies so none have been able to do what we do and no one does what we do using physics.

CEOCFO: *What is your geographic reach?*

Mr. Mart: North America.

"The FogBuster technology takes advantage of the natural tension between oil and water and, without chemicals, accelerates that tension between the oil and water within the separation chamber of the system."- Bradley Mart

CEOCFO: *Are there certain types or sizes of businesses that are not embracing the new technology?*

Mr. Mart: We have targeted the food industry but there is a much wider application that has not gone addressed yet and that would be all of the synthetic oil, lubricant industries, petroleum industry. Those are not yet touched. That is the next stage in our progress.

CEOCFO: *What is involved in maintenance of the system?*

Mr. Mart: In an industrial environment, typically there are engineers that are working with a wastewater system at any given point and we would just be one part in the cog of their operations. The wastewater engineer would typically be monitoring flows, whether an electrical system is working well, etc. There is not cleaning that needs to be done because the cleaning is automatic in that the oil is being automatically ejected and the wastewater is continually passing through down the drain. In the restaurant environment it is a little different and someone would pay attention to it on a daily basis for a few minutes. As the oil is ejected into the oil cassette, when the oil starts to fill up it would then get removed and dumped into used cooking oil container; typically a drum. There is a food basket that captures any food that goes down the drain and that would be cleaned typically on a daily basis. That is about it.

CEOCFO: *Are most people on the restaurant level taking advantage of accumulating the byproduct to sell or is that typically on the industrial level?*

Mr. Mart: Since the biofuel markets have come into existence particularly in the last decade, most restaurants are capturing the oil. They are saving their used cooking oil and selling it. That is standard now. It went through an interesting shift; originally there used to be renderers or grease trap haulers who would come in and charge a fee to have a grease device cleaned and then charge to haul away the oil. That changed to them just saying they will do it for free because then they got the oil which they could then sell. Now it has changed again as restaurants are selling it to them and it has become competitive to purchase it. You probably have read or have seen in news articles about grease thieves who come in behind the restaurant in the middle of the night with a grease truck and pluck out the grease from a drum. What they are doing then is reselling it to biofuel producers. Now most restaurants if they have their grease drums outside, need to lock them up.

CEOCFO: *What is next for FogBusters?*

Mr. Mart: There is a huge untapped market and we will continue to explore that. One of the biggest challenges at the restaurant level is regulatory approval of the technology. A lot of municipalities are very forward-thinking. Connecticut, Rhode Island, San Francisco, are all requiring these types of technologies. There is a regulatory aspect to it that needs to

be addressed to allow greater education with other municipalities around the country. At an industrial level, I would say some of the other markets that I have identified would be the direction we would go.

CEOFCO: *What surprised you throughout the process?*

Mr. Mart: At the industrial level, the conservatism with which people were willing to explore new technology. I think that also played into just the timing; the economy was tanking as we were delving into this. A lot of people were not willing to look at anything and were not spending any money on anything no matter how compelling it might have appeared. At the restaurant level, there is a big difference in price between a \$500 grease trap and a \$4000 Goslyn. There is an economic hurdle that people need to get over even though there is a long-term cost savings and it is much more beneficial operationally. That can be a hurdle for a restaurant and particularly a smaller one. The City of San Francisco has a way to alleviate that pain, gives back 14.2% on the water bill for the restaurant when they put in this technology and that is on a permanent basis.

CEOFCO: *How would someone find Fog Busters in a web search?*

Mr. Mart: Many people would just type in wastewater and wastewater cleaning. We are very active in tradeshows. We are known in the industry now. There is a prominent tradeshow called the Food and Beverage Environmental Conference, which is actually the oldest environmental conference in the country. It is 45 or so years old. Basically it is where food companies meet annually to talk about environmental issues whether it is lighting, or wastewater or whatever. We have a visible website and a wide presence nationally on the restaurant level.

CEOFCO: *Why choose FogBusters?*

Mr. Mart: We are the provider for the technology and a cutting-edge technology. If you look at the social, environmental and financial components to any purchase, this addresses them all.

Interview conducted by: Lynn Fosse, Senior Editor, CEOFCO Magazine



FogBusters, Inc.

**For more information visit:
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