

Rethinking Chemicals, Rethinking Our Environmental Impact



Cores must be cleaned and prepared for disassembly with chemicals that will now be environmentally friendly.

Case Study

The chemicals procurement group at BBB Industries plays a crucial role in reviving worn and broken automotive parts at the Brake Caliper production plant in Reynosa, Mexico. At the site, thousands of brake calipers are sustainably manufactured each year to keep vehicles on the road and ensure that these components don't go into the waste stream. Though a sustainable circular economy strategy is already implemented in this facility, the chemicals procurement team did not want to stop there. They began to look at the production process and how they could be more environmentally friendly. The team asked the question: ***shouldn't a sustainable business model use sustainable chemicals?***

BBB Industries is an industry leader in the sustainable manufacturing of starters, alternators, hydraulic and air disc brake calipers, hydraulic and electronic power steering products, and turbochargers for the OEM, passenger, industrial, and commercial vehicle aftermarket industries. Since 1987 BBB Industries has powered a circular economy in the automotive aftermarket.

When a worn brake caliper, referred to as "core", is brought back to BBB facilities from the road, it can be referred to as dirty. These cores must be cleaned and prepared for disassembly, cleaned again, and inspected to understand what portions of the core need to be replaced before reassembly and testing. Specific teams are brought together to implement the best process possible and ensure that the cleaning process is completed efficiently. Furthermore, the team must use the best chemicals that will degrease and decontaminate components. With thousands of components moving through the production plant daily, a lot of chemicals are used. These chemicals can often be hazardous, difficult to dispose of, and environmentally harmful.

The chemicals procurement team found a German company, Kluthe that manufactures sustainable chemicals specifically for the core cleaning process. This organization ensures that the chemicals provided to process managers are high performing and environmentally focused. At the beginning of June 2023, the braking process transitioned away from using hazardous chemicals to implementing substances that are not hazardous, difficult to dispose of, or environmentally harmful. This transition opened the door for the core processing team to not only use 60% fewer chemicals per year in the cleaning process but also avoid hazardous waste. The BBB team is finding ways to bring business value, process performance, and sustainability impact to each work process. The braking team hopes this will inspire more transitions away from hazardous materials across the automotive industry and beyond.

References

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