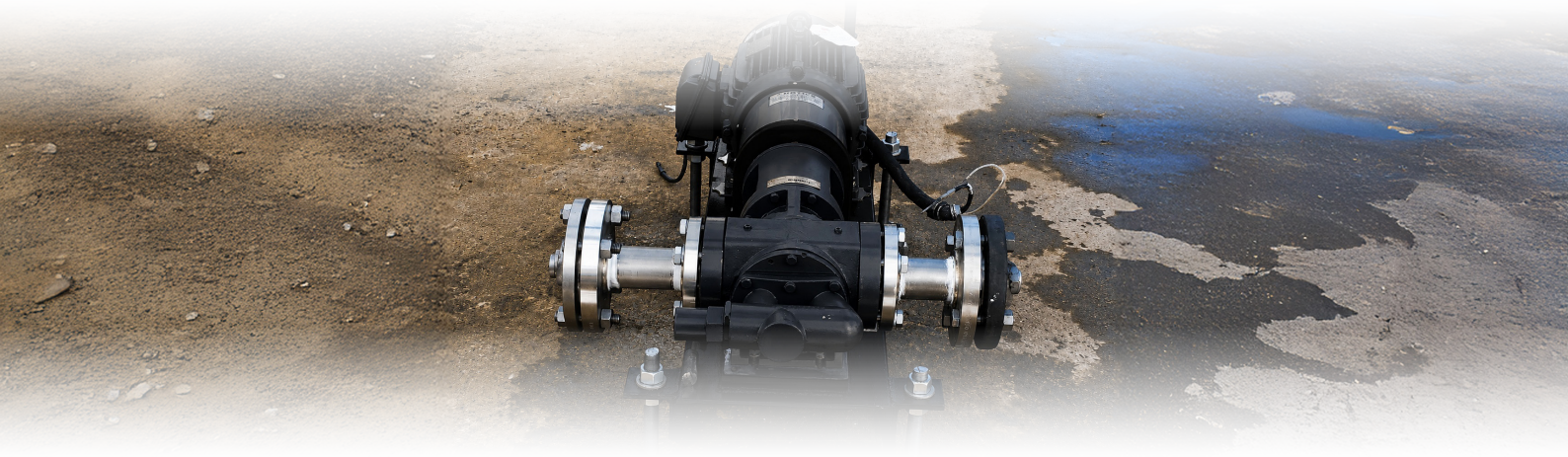
APPLICATION SPOTLIGHT

ARO®

FDA COMPLIANCE IN PROCESSING EDIBLE OILS

GLOBALGEAR SOLUTION



Project Overview

2-aminoethanol (also known as ethanolamine, monoethanolamine, ETA, or MEA) is a colorless, viscous liquid with an odor similar to ammonia. It is commonly used in applications such as the production of detergents, emulsifiers, polishes, corrosion inhibitors, and pharmaceutical formulations. Because of its viscous nature and corrosive qualities, transferring ethanolamine requires a precise application with specialized materials of construction.

About Houghton International

Quaker Houghton International is a global leader in industrial process fluids with a focus on innovative and sustainable solutions for steel, aluminum, automotive, aerospace, offshore, can, mining, and metalworking companies. Quaker Houghton's team consists of chemists, engineers, and industry experts who partner with companies to achieve operational efficiency. Delivering on industrial process fluid needs from corrosion preventatives to specialty coatings, Quaker Houghton tailors solutions for optimized performance for each customer.

Solution

In April 2020, Houghton International's Detroit, MI location contacted ARO because their Viking AK4195 pump was no longer operating to standards. The AK4195 had 2.5" NPT porting with flanges threaded into it with all of the suction and discharge piping at 2". Additionally, the Viking pump was made of cast iron construction, and their application would have required one of stainless steel in order to accommodate 2-aminoethanol 80, an organic chemical compound that contains both a primary amine and a primary alcohol. The Viking had pumped a few successful batches for Houghton International but ultimately was not compatible with their requirements.

The Viking pump was replaced with ARO's GlobalGear GG080, a stainless-steel pump that delivers 60 GPM at 1150 RPM. The GG080 pump was selected with a single mechanical PTFE seal based on chemical compatibility and delivered with a direct drive custom designed skid with adjustable legs. ARO's GlobalGear was ideal for Houghton International's application because of its 2" flange availability and the ability to meet the desired flow/pressure with minimal re-piping.

ARO's GlobalGear pumps are the preferred solution to support a variety of lubrication applications including chemical processing, construction materials, oil & gas, paints & coatings, personal products, and more. Designed with a more robust pump design and more reliable materials to extend pump life, GlobalGear is capable of tackling the toughest high-viscosity applications.

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