An auto parts manufacturer was in need of a system to process 2,500 gallons per day of oily waste water. An ultrafiltration system was selected based upon its ability to consistently meet the discharge requirements without chemicals and limited operator involvement. This ultra filtration system removes oil and allow zinc in compliance with discharge requirements.

Ultrafiltration excels at the clarification of solutions containing suspended solids, bacteria, and high concentrations of macromolecules, including oil thus making this an excellent solution to this problem.

Ultrafiltration is a form of filtration that uses a membrane to separate suspended and colloidal materials in an aqueous phase. Ultrafiltration will normally separate everything that is not soluble and some larger macromolecules that are soluble. Ultrafiltration uses a PVDF tubular membrane that is permeable to perform the separation. One of the uses that demonstrates the usefulness of ultrafiltration is separation of oil in an emulsion from water. In this case machining coolant oil emulsions can have the oil separated and concentrated, with the water passing through the membrane, and the concentrated oil phase disposed.