

Resource Recovery

COUNTRY: USA

PRODUCT: 14m² LCI Vertical Thin-Film Short Path Evaporator and engineering of all auxiliary components including the de-fueling system.

KEY BENEFIT: Re-refining Used Oil



Used Oil Re-refining Plant

LCI Short Path Evaporators are successfully used to re-refine used oil.

Problem:

The client was already recycling used oil at their mid-west location and desired to install and operate a small scale used oil re-refining plant.

LCI Solution:

LCI process engineers met with the Client and assisted in development of the engineering package for the plant.

LCI supplied a 14 square meter short path evaporator for operation in a semi-batch mode. The evaporator features a stationary, removable entrainment separator as well as hinged blades for product distribution on the heated wall. Rotor agitation keeps the walls clean and reduces fouling effects of even the dirtiest and most viscous oil bottoms.

Normal operating temperatures is ~650°F and pressure is ~2.5 to 3 Torr. Open design and internal condenser allows operation of very low internal pressure to process very high boilers.

The evaporator was shipped disassembled and LCI mechanical engineers supported the owner by being present and re-assembling the evaporator on-site.

Once the unit was mechanically complete, LCI process engineers returned to the plant and assisted during start-up of the plant. LCI has visited the facility several times since construction to offer assistance and support..

Results and Comments:

The plant has been in successful operation since August 2010. The LCI Thin Film Short Path Evaporator continues to operate at design capacity while delivering on-spec product.



LCI Short Path Evaporator