



## Q. C. Designs, Inc.

810 Botham Ave., St. Joseph, MI 49085

Phone: (269) 983-6859

Fax: (269) 982-0823

<http://www.qcdesignsinc.com>

### Customer Report: Mercury Marine Co.

### 750# Remote Station HD Dross Boss™ Unit



Plant 17 of the Mercury Marine Company in Fond Du Lac WI, is the first American operator of one of the new family of larger Dross Boss™ units. The 750# Remote Station unit was commissioned in January 2015, and is recovering specification aluminum alloy from the hot aluminum drosses generated by five large Hearth Melters. The furnaces are skimmed twice a day, with the skims of hot dross and good alloy collected in portable Reaction Vessels (RV) for the recovery operation. The RVs are then transferred to the Mixing Tower, where they are given a small flux addition and processed in an approximate ten minute cycle. The intensive mixing promotes a gravity separation of the aluminum alloy and demetallized dross. The recovered alloy is under the floating dross, and may be conveniently drained into a sow mold and returned to the melting furnace while still at elevated temperature.

All functions are electrically powered and run by a Touch Control panel. A PLC executes the operating program, which is fully capable of running statistical optimization programs for metal recovery and processing time.

The average recovery of metal has been in the range of 50 – 60% of the weight of dross charged, with an occasional high of 70% reached. The Mercury Plant staff is well pleased with the equipment, and is expecting a rapid return on their investment.