

Construction and Demolition Waste Concentration in Water Jig, Air jig, and Sensor-Based Sorting

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Abstract: The paper presents a comparison of the concentration methods water jig, air jig, and sensor-based sorting to treat construction and demolition waste. All tests were made with concrete, brick, and gypsum particles and the tests aim to separate these materials into different size ranges, depending on the method. The equipment tested, water jig, air jig, and sensor-based sorting present good results to concentrate construction and demolition waste particles, with different concentrations and mass recoveries. The results show particularly good mass recoveries and particle concentration for conventional jig, especially for concrete and gypsum particles. Sensor-based sorting should preferably use concentration circuits for best results.

Keywords: construction and demolition waste; sensor-based sorting; wet jig; air jig