

Faculti Summary

<https://faculti.net/reclaiming-structural-steels-from-the-end-of-service-life-composite-structures-for-reuse/>

This video video discusses research focused on reclaiming and reusing steel from steel-concrete complex structures, which are currently welded together, making reuse challenging. The aim is to develop effective methods to separate steel from concrete to allow for recycling in new construction. Five separation methods were investigated: Ben cutting, Warsaw cutting, wire cutting, core drilling, and laser cutting. The most promising methods identified were wire cutting and Warsaw cutting, due to their efficiency, rapid processing, and low energy consumption compared to new steel production.

Additionally, the quality of reclaimed steel was assessed through testing, revealing that its mechanical properties remained intact. The research indicates potential for these methods to be scaled up for practical application in the construction industry, enabling the reuse of steel at the end of service life for structures.