METAL RECYCLING PLANT
Complete Solution for Shredding & Separation
The Metal Recycling Plant solution from ARJES crushes and sorts mixed scrap, car bodies, white goods, engine blocks, aluminum profiles, alloy rims, etc. to efficiently recover valuable ferrous and non-ferrous metals. Its modular structure allows for an easy customizable plant design to meet the structure of your location. Based on an efficient 3-step architecture (Pre-Shredding / Screening / Separation) our system is able to achieve high throughput and clean material fractions on heavy-duty tasks.

Key component is the low speed / high torque shredder VZ 1050 with its advanced asynchronous drive technology. The proper extraction of different types of materials is achieved by a powerful drum magnet and a downstream eddy current separator. This simple & flexible design benefits from low maintenance & operational costs, and lower capital investment when compared with traditional systems.

**PRIMARY SHREDDER VZ 1050**
Heavy-duty shredder for pre-crushing of the coarse material into smaller chunks. Asynchronous drive with alternating shaft speeds for easier intake. Jam-detection and automatic reversal to prevent damage.

**ENGINE AND CONTROL**
Powerful diesel engine with approx. 800 hp - also available with electric drive (2 x 250 kW). Service control panel with multi-display for monitoring and adjusting machine data & parameters.

**EDDY CURRENT SEPARATOR**
Secondary separation of fluff and valuable non-ferrous metals. Premium quality from German manufacturer STEINERT!

**VIBRO FINGER SCREEN**
Vibrating finger screen for separation of oversize material (which is transferred back by the return conveyor) and uniform distribution of the finer particles.

**LARGE DRUM MAGNET**
The powerful magnetic cores are able to create a high deposition rate of ferrous materials. Final product is discharged through lateral conveyor.

**HOW DOES AN EDDY CURRENT WORK?**
Non-ferrous metals can be separated from the conveying stream by an eddy current. In this case, many permanent magnets are arranged on a fast-rotating deflection roller, which in turn generates a high frequency magnetic field. With this, the induced currents in the non-ferrous metals counteract their origin and thus push off these material parts.