DESIGN & FEATURES

Central Dust Control System

Dust and fines created during the shredding process are extracted to a centralised filtration system through a series of ducting

Vertical Shredder

For the aggressive size reduction and densification of pre-shredded materials into into 50-80mm pieces. During this shredding process the material is sheared, crushed, rolled and smashed, creating a clean, dense, steel frag product, whilst also liberating other materials to allow for effective separations.

Twin Shaft Shredder

High torque, slow speed shredding of the input materials into manageable strips, typically 100mm wide x 300mm long, suitable for further processing in downstream equipment.

Steel Hinged Belt Conveyor

Suitable for the conveying heavy, sharp, difficult to handle materials in extremely demanding working environments.

Bottom Fed Drum Magnet

Shredded material is conveyed by a vibratory feeder at a controlled rate to the under side of a drum magnet. Ferrous metal is attracted to the magnet and is delivered onto an inclined conveyor. The non ferrous falls beneath the magnet and is conveyed to an Eddy Current Separator.





Ferrous Metal Discharge

Separated ferrous material from the magnet system is conveyed to a single discharge point.

Non-Metallics Discharge

Non-metallic material is conveyed to a drum screen (trommel) and can besegregated into <25mm, 25-50mm & 50mm+ fractions.

Eddy Current Separator

The non magnatic materials are conveyed to the ECS rotor at a controlled rate. The material is separated by a diverter plate into non-ferrous (aluminium, copper & brass) & non-metallic fractions (plastics etc.). These products can either be sold as is, or be further processed and upgraded to increase their value.

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METALS RECYCLING SYSTEMS

www.genoxtech.com

METAL SCRAP RECYCLING SYSTEM

GENOX METAL RECYCLING TECHNOLOGY

Our advanced Metals Recycling Plants are often installed at scrap metal recycling facilities for the processeing of various different metallic waste streams. Typical applications for these robust, maintenance friendly systems includes; light iron scrap, ELV's (vehicle shells and body panels), steel drums, white goods (refrigerators, washing machines etc.), electronic scrap & computer waste (WEEE / E-Waste), and various other metal containing materials. Following the pre-shredding stage, the shreds are further reduced in size and densified by the Vertical Shredder. During this process non-ferrous and non-metallic materials are liberated allowing them to be effectively separated. Drum magnets and eddy current separators (where required) sort the shredded product into their respective categories - ferrous, non-ferrous & non-metallics. The resulting steel frag product is both clean and compact with a high bulk density, which is ideal for sale and for minimising transportation costs.









Steel Hinged Belt Conveyor

Steel Hinged Belt Conveyors are suitable for the continuous conveying of heavy, high impact, abrasive materials. Reliable operation is ensured even when applied in the most demanding of applications. Heavy duty side frames isolate the material from the belt edges and drive chains, reducing wear and tear on key components and ensuring longevity.









DESIGN & FEATURES



Pre-Shredding

XENO Series Twin Shaft Shredder operate at low speed and high torque to pre-shred the infeed material into manageable pieces before they enter into secondary processes. An optional hydraulic force feeder actively forces material into the cutting zone between the two rotating shafts. Segmented blades can be provided on request to facilitate guick and easy blade maintenace.



Secondary Shredding

OZMA Vertical Shredders are usually installed for the downstream processing of pre-shredded metal strips produced by twin shaft shredding systems. These machines aggressively size reduce, densify and clean the surface of the metallic materials, liberating different fractions and allowing for effective separations, whilst reduced transportation costs.



Drum Magnet Separator

Drum Magnet Separators are intended for the separation of magnetic ferrous metals from non-ferrous and non-metallic materials. These magnets are durable and low maintenance, suitable for installation in demanding ELV & WEEE recycling plants. They can also be applied for the removal of fine ferrous particles from powder or granular materials.



Eddy Current Separator

Eddy Current Separators are an optional system feature where separation of nonferrous emtals from the non magnetic material is required. The ECS unit is capable of separating non-ferrous fragments such as aluminium and copper, from domestic and industrial waste, and are frequently applied in ELV's & WEEE recycling processes.



Central Dust Collection

Common, centralised dust collectiion systems are provided beside the recycling lines to remove dust, fluff and fines created during the size reduction processes. The dust fragments are drawn off the system at various points and are discharged at a single, centralised location into collection bins, thus keeping the working environment clean and reducing the risk of fires.