

3E[®]

SHREDDING EQUIPMENT CHINA 3E

撕碎设备 中国 3E



ALTERNATIVE FUELS (RDF/SRF) RECYCLING LINE 替代燃料(RDF/SRF)回收生产线

3E[®]
MACHINERY
Waste Solutions



Domestic sales
国内销售热线Tel:86-(0)20-39960299

Overseas sales
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3E机械官网



公司微信



全球能源的持续消耗、人口增长以及城市化进程的加速发展，迫使我们在传统化石燃料短缺的挑战下寻求新的解决方法。在可持续能源管理和资源回收领域，转化城市固体废物（MSW）为RDF（Refuse-Derived Fuel，生活垃圾衍生燃料）或SRF（Solid Recovered Fuel，固体回收燃料）已成为一种有效的解决方案。这种转化减少了对传统填埋场的依赖，避免了由此产生的环境污染和资源浪费，同时能有效提高能源的回收利用率。

3E 致力于通过高效的设备和系统解决方案，支持和增强从城市固体废物（MSW）到高热值燃料（SRF/RDF）的转换过程。我们的撕碎、分选技术在提高废物转化率和质量控制方面发挥关键作用，从而实现更高的能源回收效率和环保效果。通过这些先进的解决方案，我们帮助客户实现更高的资源回收率和能源利用率，同时确保环境保护和经济效益的平衡。

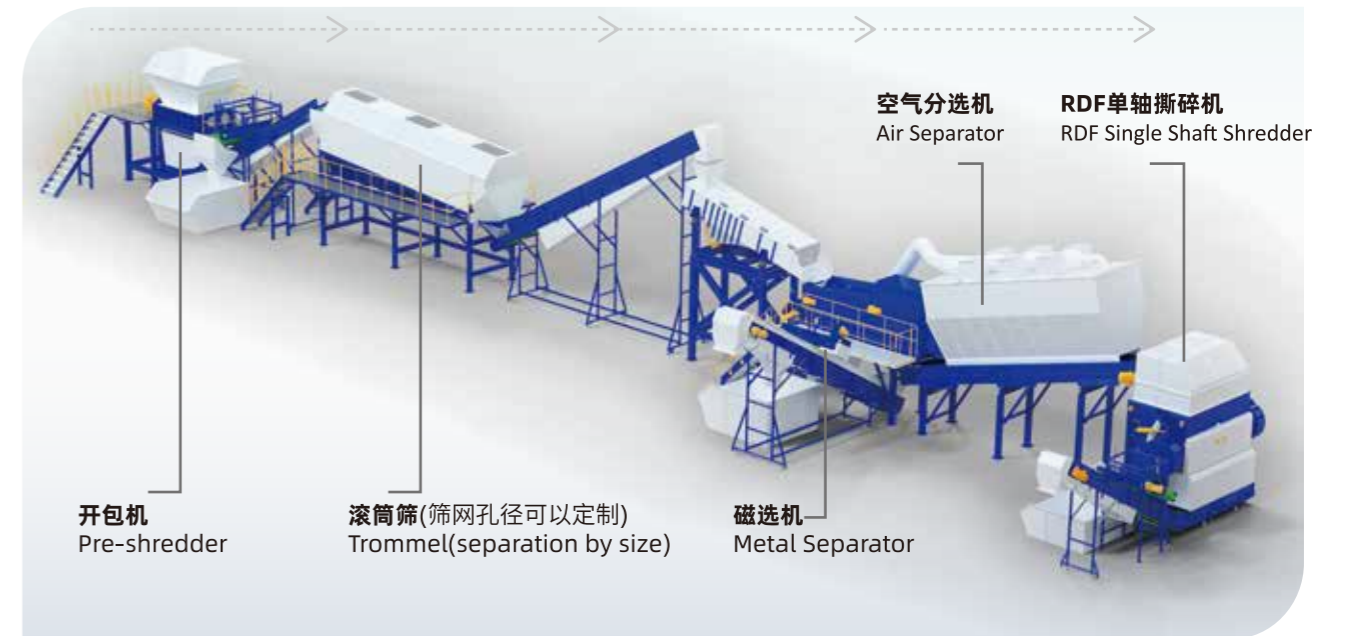
Global energy consumption, population growth, and the acceleration of urbanization force us to seek new solutions amidst the challenges posed by the shortage of traditional fossil fuels. In the field of sustainable energy management and resource recovery, transforming municipal solid waste (MSW) into RDF (Refuse-Derived Fuel) or SRF (Solid Recovered Fuel) has become an effective solution. This transformation reduces reliance on traditional landfills, avoids the resulting environmental pollution and resource wastage, and effectively enhances energy recovery rates.

3E is committed to supporting and enhancing the transformation process from MSW to high-calorific fuel (SRF/RDF) through efficient equipment and system solutions. Our shredding and sorting technology plays a key role in improving waste conversion rates and quality control, thereby achieving higher energy recovery efficiencies and environmental benefits. Through these advanced solutions, we help clients achieve higher resource recovery rates and energy utilization efficiencies while ensuring a balance between environmental protection and economic benefits.

设备特点 EQUIPMENT CHARACTERISTIC

适用领域 Scope of application	<ul style="list-style-type: none"> ■ 水泥厂 Cement Industry ■ 固体燃料发电厂 Solid fuel fired power plants ■ 粉尘发电厂 Dust thermal power plant ■ 气化厂 Gasification plants ■ 石灰工业 Lime Industry ■ 钢铁工厂 Iron Plants
出料尺寸 Output Size	客户可以通过选择RDF撕碎机的筛网孔尺寸来控制出料。 Customers can choose the screen mesh of the single shaft shredder to control the output size
有效合理分选 Reasonable & Effective Separation	分离出来的物料分别是：可作燃料的RDF物料（即垃圾衍生燃料），可回收利用的物料（金属和有色金属），还有剩余惰性物料（通常用作填埋）。 The main purpose of this process is to separate the raw waste into: combustible fraction (to produce RDF – refuse derived fuel), recyclables (ferrous and non-ferrous metals), and the remaining inert fraction (landfill).
优点 Advantage	<ul style="list-style-type: none"> ■ 设备稳定可靠 Equipment is stable and reliable ■ 分选效率高 High separation efficiency ■ 破碎后的物料尺寸大小均匀 Output size uniformity

工艺流程图 FLOWCHART



应用物料 APPLICATION

通过广州市联冠机械有限公司的先进撕碎和分选技术，MSW中的可燃性物料如塑料、纤维、橡胶、木头、食物废料等被有效转化为高热值的RDF或SRF。这些物料在处理过程中经过初步撕碎、筛选去除不可燃成份，然后进行进一步的细碎，使其达到适合燃烧的尺寸和一致性。经过撕碎的物料可能还会经过进一步的干燥和压缩，以提高热值，最终转化为高效、环保的RDF燃料。

With the advanced shredding and sorting technology of Guangzhou 3E Machinery Co., Ltd., combustible materials in MSW such as plastics, fibers, rubber, wood, and food waste are effectively transformed into high-caloric RDF or SRF. These materials undergo preliminary shredding and screening to remove non-combustible components, followed by further fine shredding to achieve the size and consistency suitable for combustion. The shredded materials may also undergo further drying and compression to enhance their calorific value, ultimately transforming them into efficient and environmentally friendly RDF.



生活垃圾
Municipal solid waste



大件垃圾
Large piece furniture



工业固废
Industrial solid waste



废旧轮胎
Waste tires



纸厂垃圾
Paper mill waste



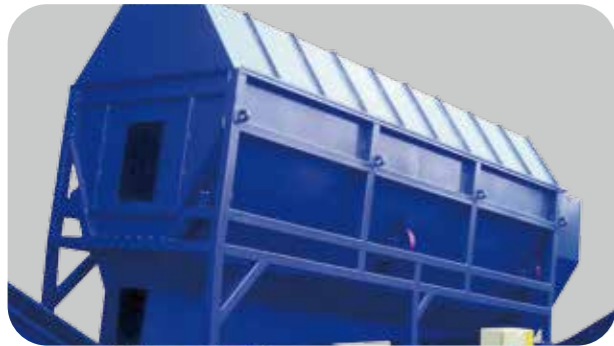
生物质
Biomass

主要设备 MAIN EQUIPMENTS



>> 开包机 Pre-shredder

开包机用于粗撕碎家庭垃圾、大件垃圾、商业和工业垃圾、废木材、床垫、地毯、混合建筑垃圾、铁路枕木、打包货物和卷状货物（输出物料 < 300 毫米）。粉碎的目的是减少体积，方便物料用于生产 RDF，或是减小体积后供下游加工。Pre shredder is used for pre- processing of household waste, bulky waste, commercial and industrial waste, waste wood, mattresses, carpets, mixed construction waste, railway sleepers, baled goods and rolled goods(output size less than 300mm). The aim of shredding is to reduce the waste volume to produce RDF, or reduce the size of the material for next step processing.



>> 滚筒筛(筛网孔径可以定制)
Trommel(the screen size can be customized)

滚筒筛能有效地把废料中小于50mm的物料(不带可燃物料)例如砂石，玻璃等分离出来。
The waste is fed into the trommel (drum screen)where the fine fraction containing mostly non-combustible materials that the size less than 50mm, such as sand and glass, are screened out.



>> 磁选机 Metal Separator

磁选机能有效把物料中的铁分离出来。分离出来的金属可作为可回收金属售出。客户可按需选用横跨式磁选机或滚筒磁选机。
The magnet separator can separating the ferrous metals from the material, The separated ferrous metals can be sold as recyclable metal. usually we can provide over belt magnet separator or Drum magnet separator



>> 空气分选机 Air Separator

空气分选机是利用空气动力学原理，在可控正压气流和负压气流的共同作用下，将物料中的轻物质和重物质分离出来，较轻的物质随着向上气流并通过出口输送到下一步。较重的物质则滑入重物质出料输送机上输出。
The air separator is use the principle of aerodynamic, under the combined action of controlled positive pressure air and negative pressure air , separating the material in light matter from the heavy materials, and the lighter matter are transported with the upward airflow to the next step through the outlet. The heavy material slides into the discharge conveyor for output.

>> RDF单轴撕碎机 RDF Single Shaft Shredder



主要功能
Main Function

3E公司的RDF撕碎机专为提升MSW转化为SRF/RDF的效率而设计，它能将物料撕碎至30-100mm的尺寸，满足不同的处理需求，出料尺寸可通过更换筛网进行调整。
3E's RDF shredder is specifically designed to enhance the efficiency of transforming MSW into SRF/RDF. It can shredding the materials to sizes between 30-100mm, which can be adjusted by changing the screens.

特点
Characteristic

适应能力强: 适用于多种材料，能够有效处理MSW中的可燃性组成部分，如塑料、纸张、纺织物等，转化为高热值的燃料。
高度定制化: 可根据具体的处理需求进行定制，提供灵活、高效的解决方案，以适应不同客户的特定需求。
经济高效: 设备设计考虑到操作的经济性和可靠性，确保长时间运行的稳定性和低维护成本。
环保优势: 在提高资源回收率的同时，减少环境影响，符合当前的环保标准和要求。
Strong adaptability: Suitable for a variety of materials, it can effectively process combustible components in MSW, such as plastics, paper, and textiles, transforming them into high-caloric fuel.
High customization: Can be customized according to specific processing needs, providing flexible and efficient solutions to meet the specific requirements of different customers.
Economic efficiency: The design of the equipment considers operational economy and reliability, ensuring long-term stability and low maintenance costs.
Environmental benefits: While improving resource recovery rates, it reduces environmental impact, meeting current environmental standards and requirements.



>> 刮板输送机 Embedded Scraper

刮板输送机主要由封闭断面的壳体(机槽)、刮板链条，驱动装置及张紧装置等部件组成。设备结构简单、体积小、密封性能好、安装维修比较方便;能多点加料、多点卸料。
The embedded scraper transporter is composed of a closed shell (slot machine),scraper chain,driving device and tensioning device and etc.It's simple structure,small volume, good sealing performance, convenient installation and maintenance;It can be multipoint feeding and discharge.



韩国 (RDF) 生活垃圾回收线
Korean (RDF) Domestic Waste Recycling Line



匈牙利 (RDF) 撕碎机
Hungary (RDF) Shredder



马来西亚布料回收线
Malaysia Fabric Recycling Line



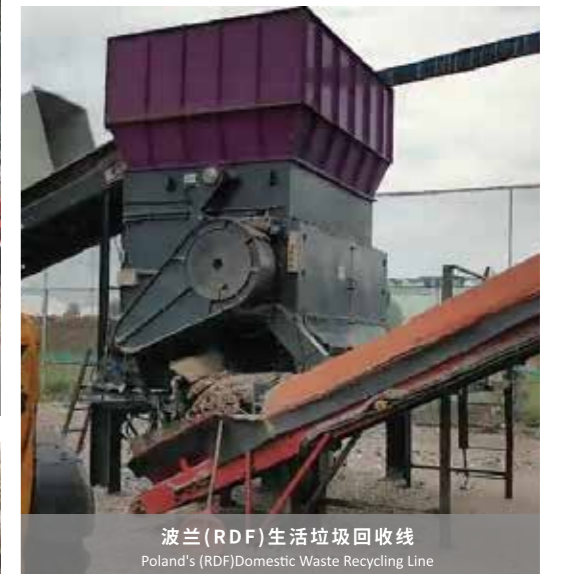
厄瓜多尔布料回收线
Ecuadorian Fabric Recycling Line



韩国 (RDF) 撕碎机
Korean (RDF) Shredder



波兰 (RDF) 生活垃圾回收线
Poland's (RDF) Domestic Waste Recycling Line



波兰 (RDF) 生活垃圾回收线
Poland's (RDF) Domestic Waste Recycling Line