Municipal Solid Waste Systems

What’s next.
BHS united the world’s most advanced waste processing technologies to offer the world’s most profitable solutions.

BHS, Nihot, NRT and Zero Waste Energy (ZWE) components are utilized to create turnkey Municipal Solid Waste (MSW) systems. We design, manufacture and install some of the largest and most efficient MRFs in the industry, helping communities divert more waste. Together, with our forward-thinking customers, we are changing the way the world treats waste.

BHS built the first MSW system in the U.S. to divert more than 70% of waste from landfill, and we continue to lead the industry onward. Regardless of your recovery needs, we have the expertise and technology to help with your most challenging waste streams.

With BHS, you not only get the industry’s top technology, but the industry’s top people. From our robust engineering departments, sales and design teams to our experienced project management and support groups, we have our worldwide customers covered 24 hours a day.
As landfill space declines and demand for commodities rises, it is becoming critical that we dig deeper into the waste stream to extract value. BHS offers unique and proven solutions that greatly increase recovery from municipal solid waste by attacking the challenge in an integrated and comprehensive manner.

Maximize recovery of valuable recyclables.
The highest value products should be your priority target in any MSW recovery system. We condition the material stream and recover these high-value items by applying BHS, Nihot and NRT technologies in a patented recovery process. More than 90% of the recoverable PET, HDPE, OCC, mixed paper, and ferrous and non-ferrous metals are extracted for sale.

Produce low moisture, high caloric value RDF/SRF.
Our unique sorting process produces a stream of high-quality fuel material as a by-product of commodity recovery. A mixture of film plastic, paper, low-value hard plastics and other light materials are available for use in combustion-based power generation. If an engineered fuel specification is required, we have the technology to meet your needs.

Separate organics for anaerobic digestion and composting.
The organics fraction is a largely untapped resource, one that can make up 30-50% of the waste stream. BHS has the tools and experience to extract these materials and turn them into useable resources. Our sorting process delivers an organic-rich fraction that is ideal for the dry anaerobic digestion technology offered by our partner company, Zero Waste Energy (ZWE). The result is compressed natural gas, electricity, and a high-quality compost product.
**BHS Screening Technology**

**Patented BHS Tri-Discs with compound, in-line configuration create a precise opening for highly accurate material sizing and separation.** Unique design minimizes material wrapping and clogging, allowing for high throughput in a small footprint. These discs are built to last with the lowest cost per ton in the industry.

**BHS Debris Roll Screen®**

Tri-Discs produce industry-leading material agitation and separation

More efficient than trommel screens in a smaller footprint

Variable speed drives and angle adjustment allow the screen to be fine tuned

Timed DRS® reciprocating discs kick material out of jamming areas and prevent longer material from being pulled through as occurs with traditional disc screens

Designed for demanding processing environments, durable steel castings hardened to 400+ Brinell rating

**BHS Polishing Screen**

Industry's most effective separation of containers from fiber and film plastics

Creates three material fractions: Containers roll down, fiber and plastic film climb, and fines fall through

Significantly higher throughput than ballistic separators

In-line discs virtually eliminate wrapping

Creates clean container streams in a single pass

Longest disc wear in the industry
Nihot is the proven leader in air separation with more than 65 years in the field and over 750 operational reference sites. This technology can be used on virtually all types of solid waste with the highest degree of separation (up to 99%).

**Nihot Drum Separators**

*Drum separators target the high volume of light material, separating the input into two or three streams.*

- High throughput of more than 50 tph
- Extremely high separation efficiency
- Negative pressure and recirculated air for precise and dust-free separation
- Adjustable to maximize end product recovery
- Fast return on investment
- Durable and reliable, with minimum maintenance and low operating costs

**Other Equipment**

*Windshifters use air and negative pressure to separate based on size and density, and are uniquely designed to operate in a wide variety of conditions and applications*

**Dust Filtration Units**

Film Vacuum Systems and Pneumatic Transfers are maintenance free and can handle various materials including film, aluminum cans, PET bottles, paper/cardboard, etc.
SpydIR®
Infrared sensing technology to recover a wide variety of plastics, paper, metal, wood and other material in flight.

Transmissive or reflective detection configurations depending on need

Transmissive detection provides cleanest PET streams in the industry, with robust signal, minimal interference and label detection capabilities

MetalDirector™ addition enables machine to eject PVC and metals from RDF / SRF

Adjustable technology, flexible configurations, self-cleaning sensors, remote diagnostics and high throughput capabilities makes the SpydIR® versatile, efficient and reliable
Closing the Loop on Recovery

ZWE Anaerobic Digestion
Complete anaerobic digestion (AD) solutions that can be developed in an urban location.
- Low operating and maintenance costs
- Highly efficient biogas capture ability with power and heat recovery
- Short production cycle can yield high-value compost in as few as 21 days

RDF / SRF
Production of high caloric value fuel as a by-product of our patented sorting process.
- Engineered fuel produced to your specifications
- Proven technology produces high-value fuel

Compost Sorting
Screening and air separation to produce highly pure compost products.
- Portable, skid-mounted designs for outdoor settings
- Throughput rates in excess of 50 tph in ¼ the footprint of trommel screens