

## FINE TREATMENT FOR OPTIMAL METAL RECOVERY

Pure metal concentrates with highest  
recovery rates

TRANSFORMING  
MATERIALS INTO VALUE



Whether it's automotive shredder residue (ASR), waste electrical and electronic equipment (WEE), or incinerator bottom ash (IBA), they all contain numerous valuable metals, from copper and aluminum to gold and platinum. BHS-Sonthofen has dedicated itself to helping its customers recover these valuable metals as efficiently as possible.

In order to meet this demand for the established standard process from BHS, experts are constantly working on the further development of machines and process options. In addition, each plant is adapted to the input material and different customer requirements. As a result, the high recovery rates and high purity of the recovered metal concentrates speak for themselves.

### Advantages

- ✓ Highest metal recovery rates
- ✓ Highest purity of concentrates with reduced operating costs
- ✓ Flexible process solution for a wide range of input materials
- ✓ Fast amortization of your investment

---

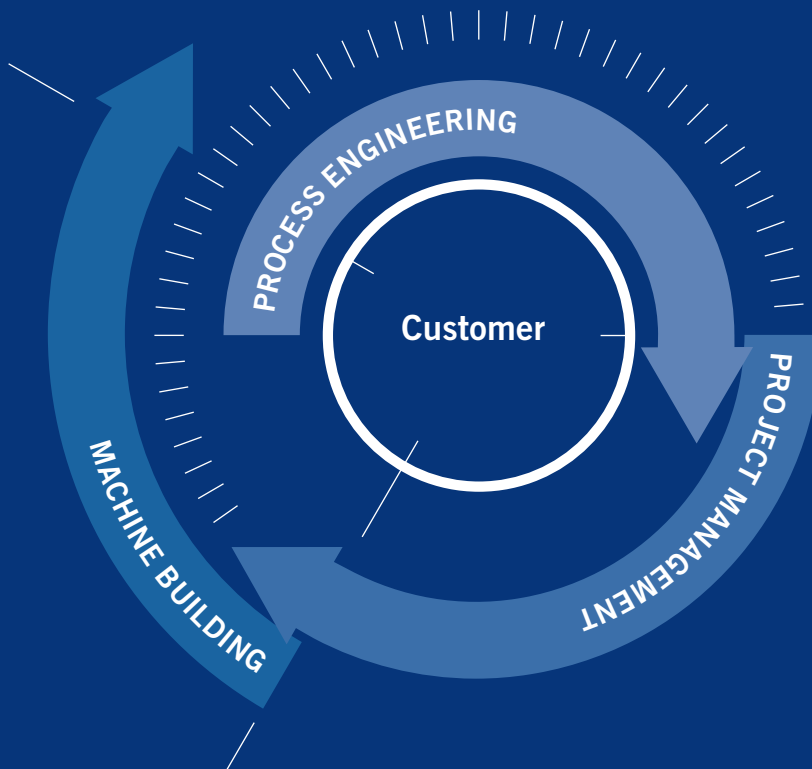
# TECHNICAL EXPERTISE AND ADDED VALUE

---

Our core competencies for your process.

---

Cost efficiency, reliability, and professionalism are key factors in achieving efficient production processes throughout the life cycle of your process technology solution. Take advantage of our comprehensive range of top-quality consulting and other services to achieve maximum system availability.



## **1** Process engineering

Many years of experience and countless test evaluations form the basis for the highest process efficiency: High output quality and recovery rates at minimized operating costs are the goal.

## **2** Project management

Together with you, we plan and realize your plant. And we always keep an eye on time and costs. We are experts in plant engineering in the field of recycling & environment as well as in process technology, and building materials machinery. Cross-industry know-how allows us to make optimum use of synergy effects. With us, you get turnkey solutions from a single source – including tests, planning, production, and purchasing of plant components, expediting, acceptance, installation, and commissioning on site.

## **3** Mechanical engineering

BHS produces the key components for fine treatment itself in order to guarantee quality and on-time delivery of critical components. In addition to the components from crushing, sorting, and classifying technology, BHS-Sonthofen offers a continuously improved process control system with in-house control solutions.

---

# EVERY PROCESS STARTS SMALL

Process design via tests in the test center.

---


## Large-scale tests to determine the wear pattern

Efficient production machines are created on the basis of testing. Key operating parameters need to be defined in advance before the tests are carried out. The high variance of the input material requires each plant to be individually adapted to the customer's needs. The experts at BHS-Sonthofen therefore adapt each system to the specific input material and your requirements based on our standard process. Defined tasks and specific tools ensure that the project is completed efficiently.

## Overview of testing options

- Large-scale tests of the standard process with customer material on a production scale
- Implementation of optional process steps
- Individual tests of all crushing machines as well as the separating and sorting technology
- Extensive, standardized test evaluations (grading curves, etc.)
- Intelligent control technology enables analysis of a wide range of process parameters

 Get more details

 [www.bhs-sonthofen.com/  
recycling-test-center](http://www.bhs-sonthofen.com/recycling-test-center)

---



---

# INNOVATIVE TREATMENT OF YOUR MATERIAL

One standard process – flexible enough for a wide variety of input materials.

---

## The process at a glance

Pre-crushed input material with a particle size of up to 25 mm is optimally processed. Production of the purest metal concentrates is the ultimate goal. The two most important process steps, crushing and sorting, are ideally matched to the respective feed material.

### 1 Presorting

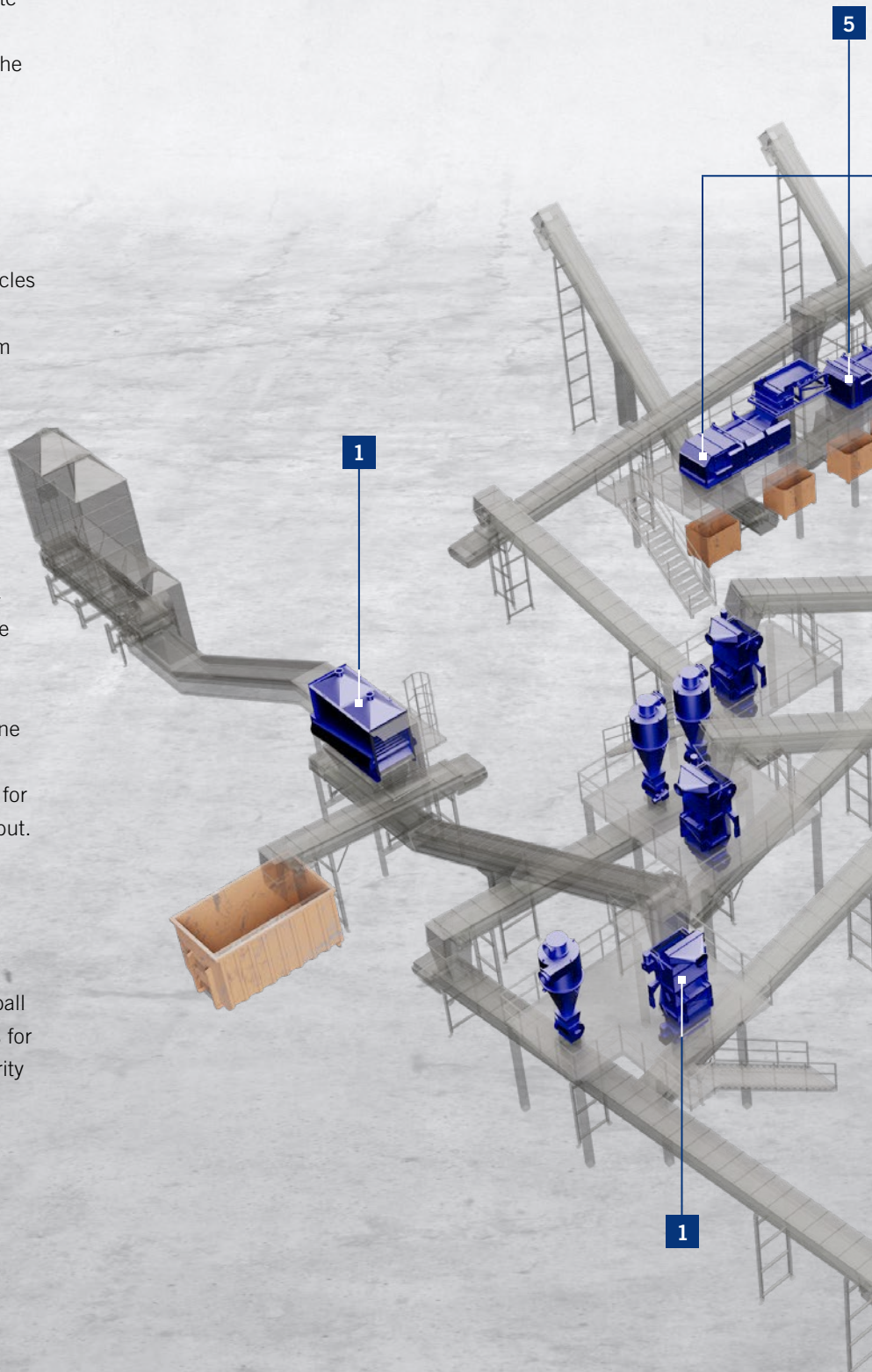
Screen and zig zag sifters sort out larger particles with a particle size above 25 mm. Continuous dedusting also minimizes wear on downstream components.

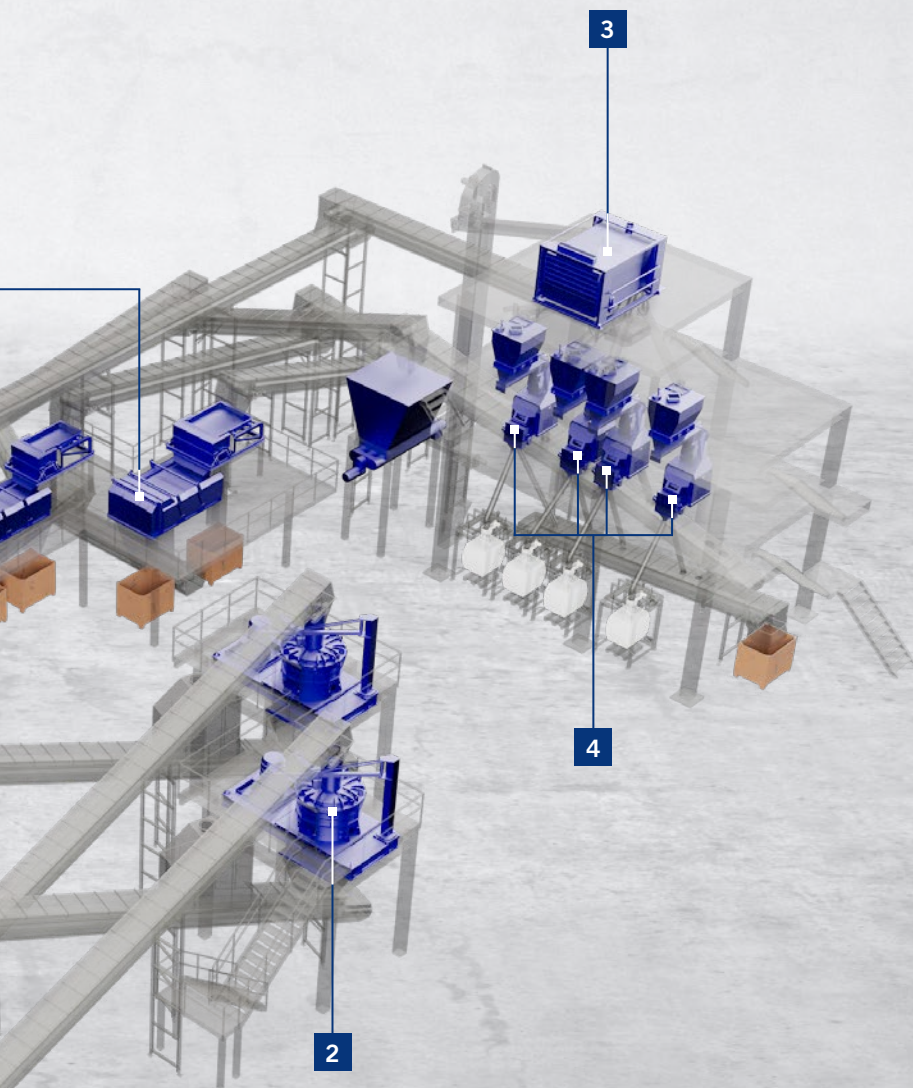
### 2 Crushing

The BHS rotor impact mill (RPMX) forms the heart of our process: This unique high-performance crusher provides efficient and selective loading of the input material. This is the crucial basis for reliable sorting. In the standard process, the material runs through the machine several times in a “cycle.” If desired, several rotor impact mills can be connected in series for a continuous process with increased throughput.

### 3 Sorting (Screens)

Screens separate the crushed and optimally ball shaped material into predefined size fractions for efficient further refining to guarantee high purity and recovery rates. Different screen sections provide flexibility.





**4 Separation (separating tables)**

Excellent upstream ball shaping is decisive in order to obtain pure metal concentrate (copper, aluminum, etc.). Further separation into light and heavy fractions takes place on the separating tables, with the width of the screen section determining the ideal separation efficiency. Optimized separation of the output material is achieved by various setting options of the process parameters and adjustments to the individual input material.

**5 Magnetic and eddy current separation**

Magnetic technology separates the valuable metal-bearing fractions into a magnetic and a non-magnetic part. The latter then passes through eddy current separation to achieve pure metal concentrates. These are now highly pure and directly salable.

**6 Optional accessories**

Depending on the material and customer requirements, individual extensions of the sorting technology (for example, sensor-based technology) are available.

---

# ON THE SAFE SIDE

Expert service in all respects.

---

BHS-Sonthofen is already a worldwide favorite partner for many customers:

**REMONDIS®**

**VEOLIA**

**dhz**

*A Jansen bv*

**TSR**

THE METAL COMPANY

**GALLOO**


## **BHS original spare parts – wide assortment of components in Stock**

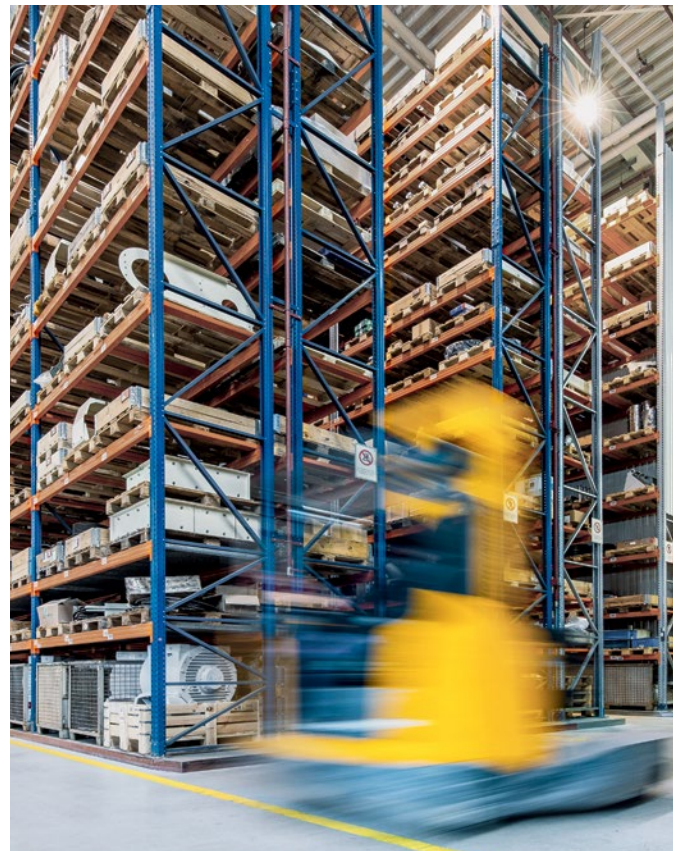
Even small parts can have a big impact if they break. BHS ORIGINAL PARTS meet the highest standards in terms of quality and are designed to work seamlessly with our machines and systems. Take advantage of the speedy delivery of 10,000+ wear parts available in stock and reduce your downtimes to a minimum.

## **Become a contract customer – enjoy benefits**

Are you looking for service and support that meets your specific needs? Our LONG-LIFE service contract not only extends the service life of your equipment, but also reduces operating costs and keeps your machinery budget in check. This means that both the operational safety and reliability of your machinery remain at the highest level.



 [Get more details](#)

 [www.bhs-sonthofen.com/  
recycling-service](http://www.bhs-sonthofen.com/recycling-service)



801.000327\_EN\_02 | 2023, © BHS-Sonthofen GmbH – All rights reserved.  
Technical specifications and illustrations are non-binding with regard to deliveries. Subject to change without notice.

**BHS-Sonthofen GmbH** Recycling Technology • An der Eisenschmelze 47 • 87527 Sonthofen • Germany

 [www.bhs-sonthofen.com](http://www.bhs-sonthofen.com)  +49 8321 60 99-520  [recycling@bhs-sonthofen.com](mailto:recycling@bhs-sonthofen.com)

