

UNIVERSAL SHREDDER (NGU)

Robust high-performance shredder
for highest flexibility

TRANSFORMING
MATERIALS INTO VALUE

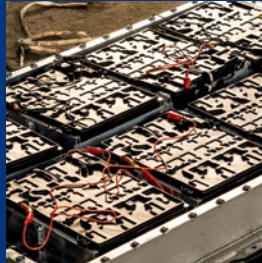


YOUR CHALLENGE – OUR SOLUTION

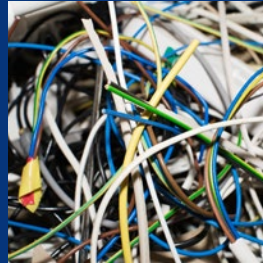
Cutting pre and post-shredding made easy.



Non-ferrous light metals



Batteries



Cables



Plastics



Packaging



Wood



Paper



Files



Data carrier and tapes



Textiles

✔ Universal shredder for maximum flexibility

As one of the most robust and sturdy single-shaft shredders on the market, the NGU is perfect for pre- and post-shredding a wide variety of recyclable, residual, and waste materials. The feed material is shredded to a size between 15 and 120 mm.

✔ Economical solution: low operating costs

The universal shredder was designed for conventional recycling facilities and for use in the manufacturing industry. For both applications, the primary goal is to achieve low processing costs per ton thanks to high efficiency and sophisticated technology.

✔ Optimal shredding despite material diversity

Recyclable, residual, and waste materials consist of many different materials with a wide variety of material properties and compositions. Reliably achieving exact material disintegration with optimum output results in a single operation requires an absolutely proven cutting principle and an extremely robust, high-torque machine. The universal shredder (NGU) masters these challenges with ease. Thanks to the large infeed hopper, even large and bulky feed materials can be easily shredded to the required target size.

✔ Investment security through tests

The modern BHS test center offers the possibility of carrying out targeted tests with customer-specific material on a production scale with various machine parameters. Based on the test results, we offer a tailor-made solution: individual profitability calculation, optimum machine design and process parameters.

[Get more details](#)

www.bhs-sonthofen.com/ngu

ADVANTAGE THROUGH TECHNOLOGY AND KNOW-HOW

All benefits at a glance.

Powerful drive system

The universal shredder is optimally driven by means of a powerful V-belt drive and continuously adjustable speed from 80 to 240 revolutions per minute. An integrated contaminant detection system protects the drive from damage with an automatic shutdown.

Extremely robust machine design

Thanks to the extremely robust machine housing in a very sturdy, one-piece welded steel construction, there are no screw connections that are prone to failure. That guarantees a long machine life.

Quick and simple screen replacement

The segmented screen can be changed within a few minutes.

High throughput rate

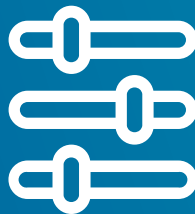
Continuous material infeed is possible thanks to a powerful drive system with high torque values and load-dependent regulation of the push-in unit. In combination with the proven cutting principle and the consistently clean cutting quality, this allows continuously high throughputs to be achieved.

Consistently clean cutting quality

Precision manufactured blades with very tight tolerances ensure optimal and consistent cutting results. They are hardened using a special process to ensure a long service life. The blades are also simple to adjust and exchange.



High throughput rate



Optimum
drive power



Less
downtime



Intelligent
control



Easy
maintenance



In safe
hands

SOPHISTICATED AND PROVEN DOWN TO THE SMALLEST DETAIL

Leading technology for the highest requirements: investment security.

Continuous operation assured

High machine availability is guaranteed due to the robust machine design and long service life of the individual components, simple removal of contaminants, easy and effective maintenance, and the rapid availability of spare parts.

1 Machine housing

Even very high forces are easily handled by the sturdy machine housing in highly robust, one-piece welded steel construction.

2 Infeed hopper

The feed material is loosely fed into the large, central infeed hopper.

3 Rotor

The rotor is made of solid steel for a long service life. A rotating wear protection element additionally protects the rotor edges from increased wear at the housing mounting point.

4 Blades and blade seats

Depending on the feed material and requirements, the type, grade, and number of blades are configured according to customer specifications. Since the blade and counter-blade on the rotor and static blade seat can be rotated by 180°, they can be used on both sides. They can be readjusted, rotated, or replaced in just a few simple steps.

5 Screen unit

The screen consists of multiple segments that can be replaced individually. The screen support can be rotated downwards. Maintenance work on the screen unit can thus be carried out easily and effectively.

6 Drive system

A frequency-controlled, powerful drive system in the machine enables the rotor speed to be continuously adjusted between 80 rpm and 240 rpm. This allows the machine to be individually adapted to the properties of the feed material.

7 Hydraulic push-in unit

The hydraulic slide presses the feed material against the cutting unit on the rotor. For an optimal output result, the front plate of the slide is configured accordingly, depending on the characteristics of the feed material.

Isolated rotor bearing

The rotor shaft bearings are protected from the effects of heat and dust in a double-walled housing, which increases their service life.

Options and accessories

■ Customized infeed hoppers

Material and customer-specific hoppers are optionally available depending on the feed material and type of feeding.

■ Exterior motor

An optional external motor is available for optimum accessibility to the maintenance area.

■ Armored rotor

For increased wear protection with special feed materials, the entire rotor with blade seats can be armored.

■ Blades and blade seats

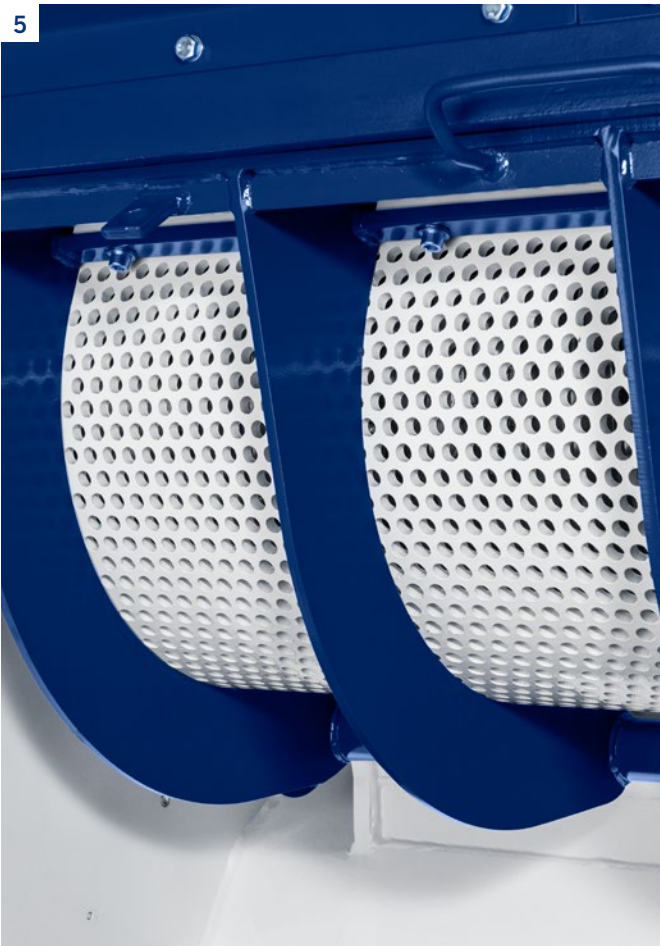
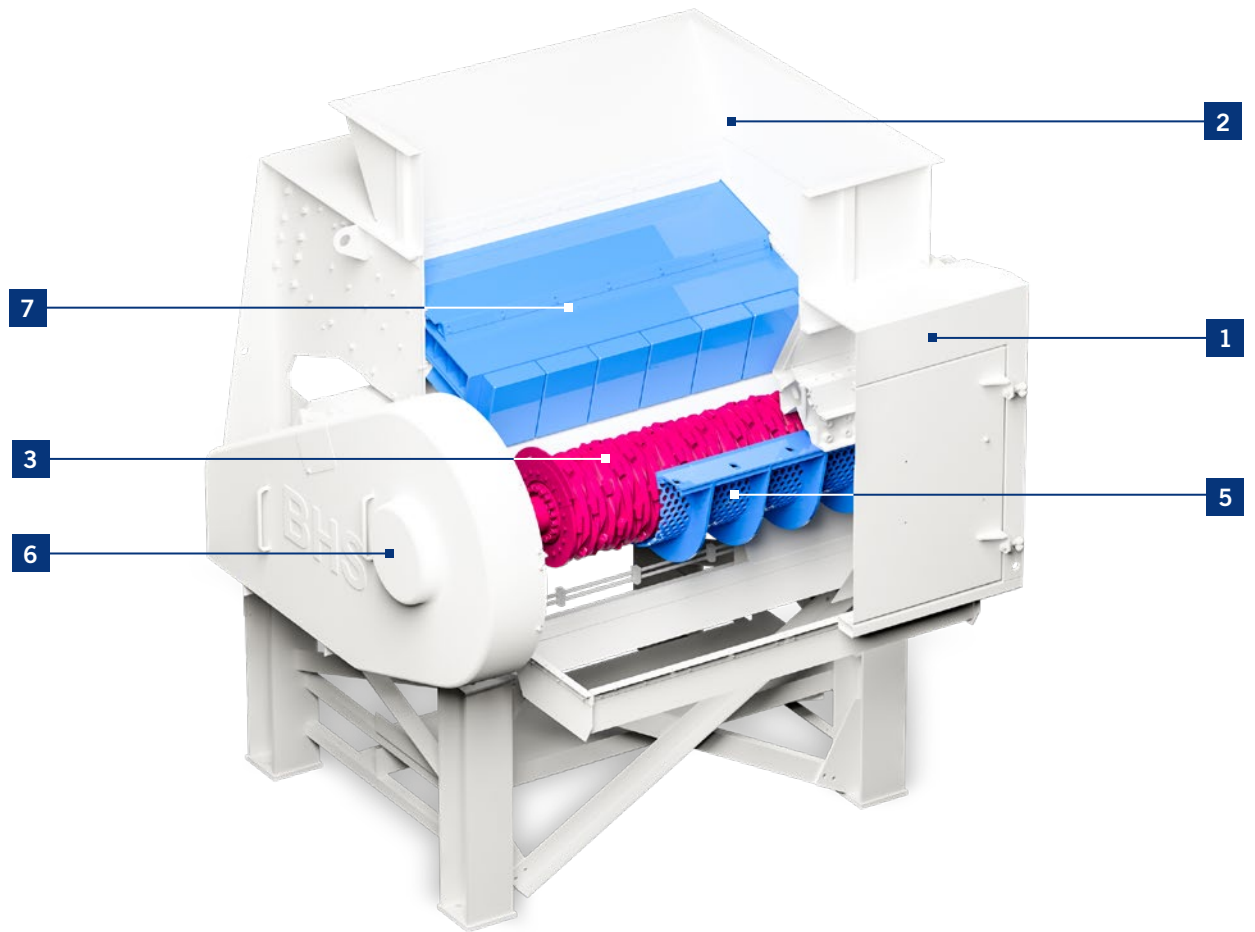
Material and application specific blades and blade seats are optionally available.

■ Additional second static blade seat

An optional second static blade seat can be installed for a higher degree of feed material shredding.

■ Front plates of the push-in unit

Various material and customer-specific front plates are optionally available for an optimal shredding result.



OPERATING PRINCIPLE: SIMPLE BUT INGENUOUS

100 years of crushing technology experience.

Proven cutting principle for optimum function

The feed material is loosely filled into the infeed hopper. A hydraulically driven slide pushes the material along the base plate and toward the cutting unit. The feed material is shredded between the rotor equipped with blades and the counter-blade mounted on the static blade seat. Once a defined particle size is reached, the shredded material falls down out of the machine through a screen basket. The size of the discharge material is defined by the hole pitch of the screen. It can range from 10 to 120 mm.

Convenient removal of contaminants

Since it is never possible to completely avoid contaminants getting into the feed material, the universal shredder has a hydraulically movable base plate that can be retracted if necessary. This allows for fast removal of contaminants.

1 Hydraulic push-in unit

Voluminous, lightweight, or bulky feed materials are pressed against the cutting unit on the rotor by the hydraulic slide on the base plate for optimum shredding.

2 Movable base plate

The hydraulically movable base plate can be retracted for easy removal of contaminants and optimum access for maintenance work.

3 Screen support

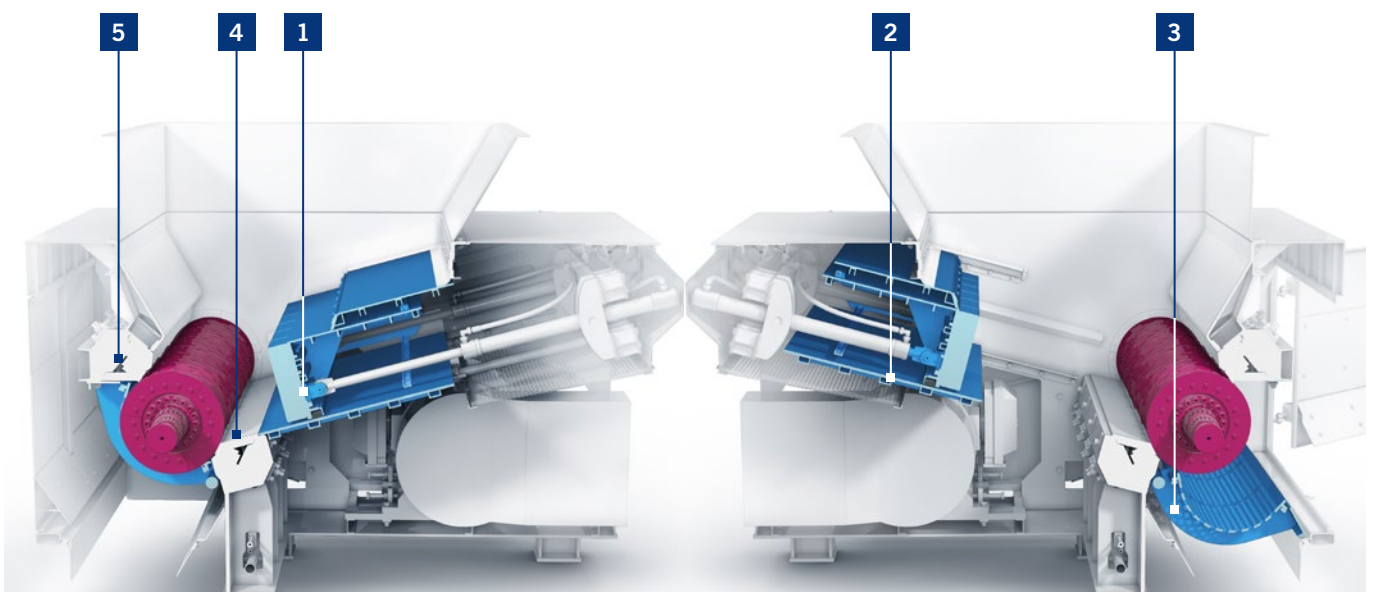
The solid screen support can be lowered either manually or hydraulically. It carries the individual screen elements with variable screen perforation.

4 Static blade seat with blade segments

The modular static blade seat is equipped with multiple blade segments. This modular design enables easy adjustment of the static blades, thus ensuring consistent cutting quality.

5 Optional second static blade seat

To achieve a higher degree of shredding of the feed material and improved throughput, a second static blade seat with additional blades is optionally available.



QUALITY AND COST EFFICIENCY MADE TO MEASURE

Highest efficiency and flexible plant engineering.

Inert design for hazardous waste

When crushing potentially hazardous recyclable, residual, and waste materials (lithium-ion batteries, toxic waste materials, and the like), inertization of the working chamber is required to prevent fires, explosions, hazardous gas leaks, or chemical reactions. For process reliability in processing these problematic materials under a protective atmosphere and to protect the health of employees, BHS offers the universal shredder (NGU) in an inertizable design with an external motor.



Customized plant integration

Our experts will provide you with competent support for customized integration into existing systems, or for the planning and project engineering of a new system, right through to installation and commissioning. Depending on the requirements, we offer compact small plants up to complete system solutions, including steel construction in various designs, hopper and dosing technology, feeding and discharge technology, classifying and separation technology, and dedusting systems. We plan the system design in accordance with your requirements and comprehensively coordinate the project with you.



Maintenance concept ensures high availability

An improved, innovative maintenance concept ensures high availability and favorable operating costs. Large maintenance doors and easy access to the screen unit, the hydraulically swiveling screen support, and the hydraulically movable base plate provide convenient access to the machine interior for maintenance work, ensuring easier and effective maintenance. Optionally, an external motor offers even more space for maintenance work inside the machine. In addition, important machine components are reliably protected thanks to easily replaceable wear parts with improved material properties.

LONG-LIFE service contract

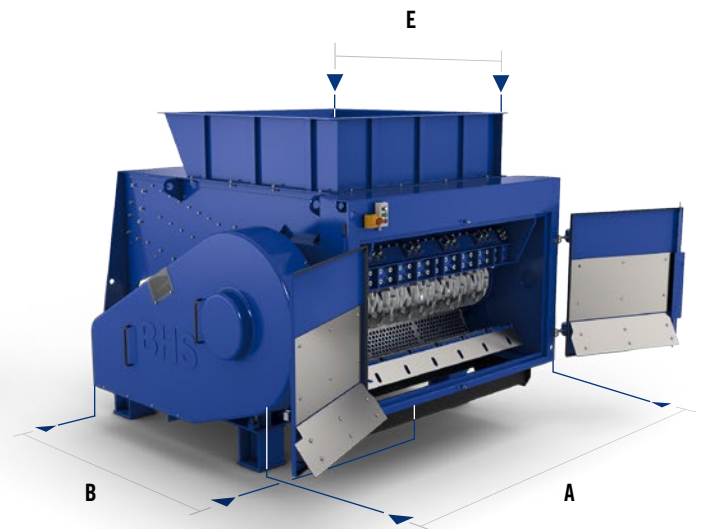
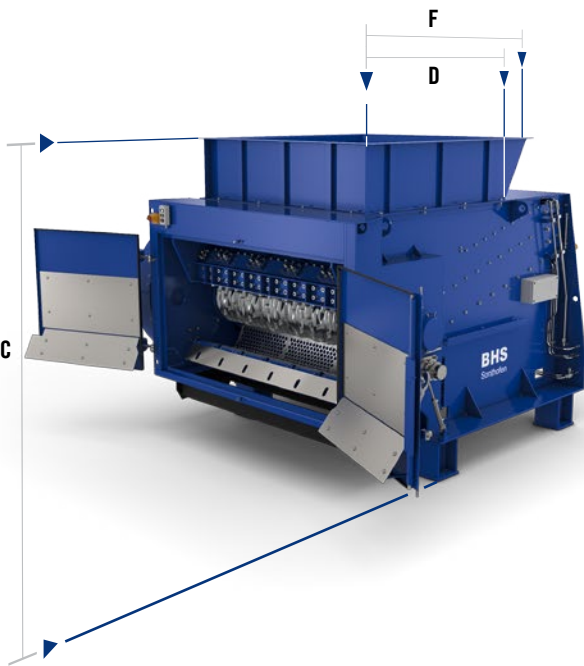
Your machines deserve regular optimal maintenance. A LONG-LIFE service contract will not only extend the service life of your equipment, but you also save operating costs and keep the budget for your machinery in check thanks to predictable costs. The framework agreement for the annual requirement of original BHS spare parts also ensures you 100% delivery availability and short-term call-off options as required. This means that both the operational safety and reliability of your machinery remain at the highest level.

FLEXIBILITY FOR PEAK PERFORMANCE

Two series offer pure performance.

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 worldwide delivery of 10,000+ spare parts available in stock and reduce your downtimes to a minimum.



Performance Data (Standard Version)

Type	Drive power	Rotor speed	Rotor diameter x length	Possible number of rotor blades	Size of rotor blades	Number of static blades	Hole size of screen
NGU 0513	55 - 110 kW	80 - 240 rpm	495 x 1,305 mm	29, 58, 87	40 x 40 mm / 60 x 60 mm	4 / 8	10 - 120 mm
NGU 0518	90 - 160 kW	80 - 240 rpm	495 x 1,795 mm	40, 80, 120	40 x 40 mm / 60 x 60 mm	5 / 10	10 - 120 mm

Dimensions and Weights

Type	A	B	C	D	E	F	Weight
NGU 0513	2,475 mm	3,250 mm	1,750 mm	1,570 mm	1,305 mm	1,850 mm	9 t
NGU 0518	2,965 mm	3,250 mm	1,750 mm	1,570 mm	1,795 mm	1,850 mm	11 t

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