

# NGU Universal Shredder

Continuous High-Performance Shredder

**BHS**  
SONTHOFEN

TRANSFORMING  
MATERIALS  
INTO VALUE



Headquarters of BHS-Sonthofen



TRANSFORMING MATERIALS INTO VALUE

**BHS**  
SONTHOFEN



### The Company

BHS-Sonthofen is an owner-operated group of companies specialized in machinery and plant engineering. The group is headquartered in Sonthofen, Germany. BHS provides technical solutions for mechanical process engineering with a focus on mixing, crushing, recycling and filtration technologies. With more than 300 employees and several subsidiaries, BHS-Sonthofen maintains a global presence.

### More than 100 Years of Experience in Crushing Technology

100 years have already passed since we built the first crushers for the rock and stone industry. We have been producing innovative crushing machines for the recycling industry for around 20 years. Our acquisition of the AMNI Maschinenbau GmbH product range means that we have rounded out our portfolio with the addition of cutting technologies. The AMNI machine technology is based on many years of experience and extensive practical applications. Given this range of products and expertise, we are a true technology innovator and experienced system supplier for every type of recycling application.

### Global Service

We provide fast and reliable service around the world, complete with technical customer support and a large inventory of spare parts for all common machine types including older models.

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

# UNIVERSAL SHREDDER

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## BHS Universal Shredder

The NGU Universal Shredder is a high-speed single-shaft machine designed for pre- and post-cutting of any material that can be cut, such as paper, files, data media, textiles, wood, cables, plastics and packaging. It cuts the loaded material to a size between 10 and 120 mm.



### Quick and Simple Screen Replacement

The segmented screen can be changed within a few minutes. This is advantageous when destroying files, for example, if different protection classes are applicable in successive batches.

### Convenient Removal of Contaminants

As contaminants can never be fully prevented from finding their way into the feed material, the base plate is mobile and can be lowered from the cutting gap, if required. This allows for fast removal of contaminants. This also enables convenient access to the machine interior for maintenance work.

### Consistent, Clean Cutting Quality

The blades are precision manufactured to very tight tolerances. They are hardened using a special process to ensure a long service life. The blades are also simple to adjust and exchange.

### Powerful Drive System

The granulator is driven by a V-belt drive at a freely configurable speed. At 80 to 240 rotations per minute, the rotational speed range is very high. If contaminants enter the machine, the drive is immediately switched off via an integrated contaminant detection function.

### High Throughput Rate

Continuous material infeed is possible thanks to load-dependent regulation of the pusher unit. High throughput rates are achieved in combination with a clean cutting quality.

### High Machine Uptime

Very high machine runtime is due to the combination of several design features. This includes the sturdy design and long service life of the individual components, simple removal of contaminants, short maintenance times as well as the rapid availability of spare parts.

### Economical Solution

The Universal Shredder has been designed for conventional recycling facilities and use in the manufacturing industry. The primary goal for both applications is to achieve low processing costs per ton.



## 1 Infeed Hopper

The loose feed material is loaded into the infeed hopper, which is individually adapted to the material and type of feeding.

## 2 Rotor

The rotor is produced from a solid forged part. A rotating wear protection element protects the rotor edges at the housing mounting point from wear.

## 3 Blades

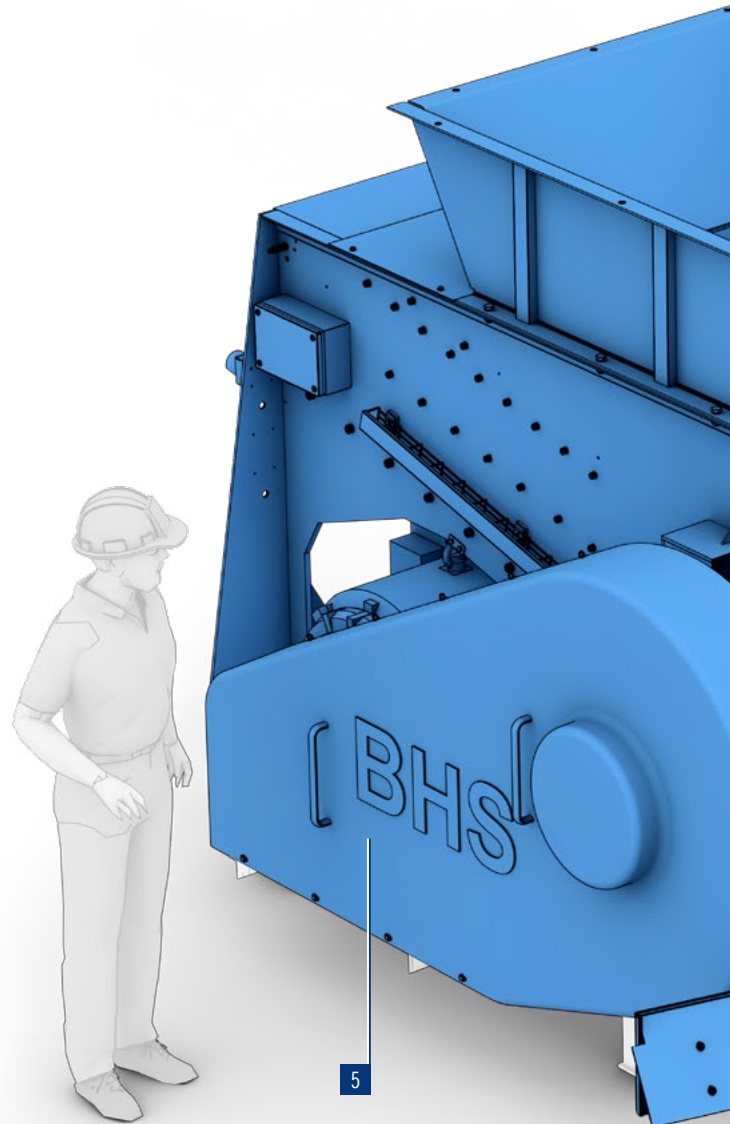
The blades of the rotor and static blade seat are versatile and can be rotated or replaced in just a few steps. The style, quality and number of blades is configured to match the specific application at hand.

## 4 Screen Unit

The screen consists of multiple segments that can be replaced individually. The screen support can be rotated downwards. This makes it significantly easier to perform maintenance work.

## 5 Drive

The drive is frequency controlled, and the speed of the rotor is freely adjustable between 80 and 240 rpm. As a result, the machine can be configured to account for the properties of different feed materials.



### 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 blades and ensures consistent cutting quality.

### Movable Base Plate

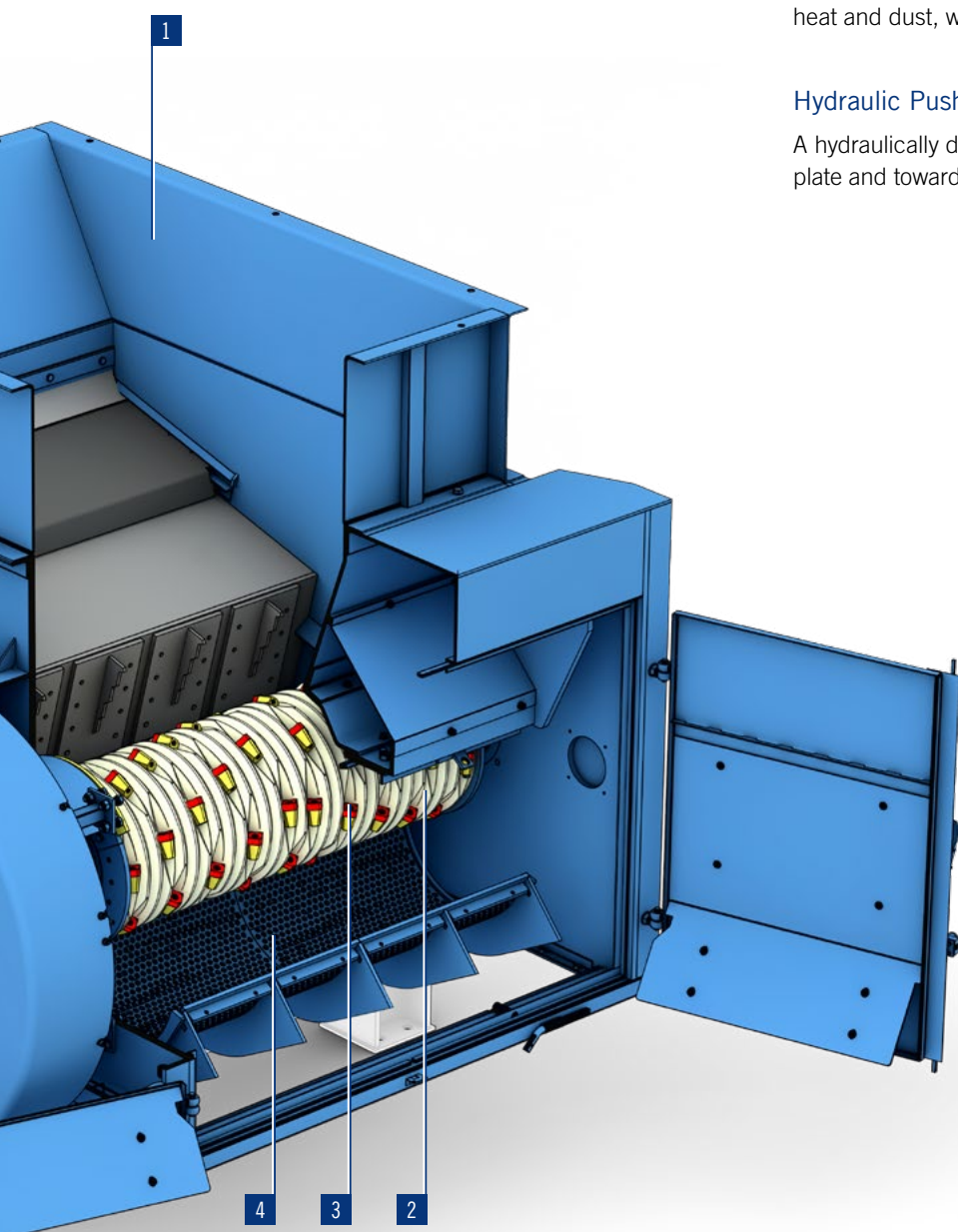
A hydraulically movable base plate simplifies the removal of contaminants and facilitates access when performing maintenance work.

### Isolated Rotor Bearing

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

### Hydraulic Pusher Unit

A hydraulically driven slide pushes the material along the base plate and toward the cutting system where cutting takes place.



## Functional Description

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







## Testing Provides Certainty

We operate a weather-independent processing plant on our Sonthofen business premises. We offer to perform cutting tests on your feed material at this facility. Various machine parameters can be tested intensively. This is followed by a detailed evaluation of the data, which serves as the basis for optimal machine configuration.

Universal Shredder NGU 0513 for testing at the BHS technical center in Sonthofen.



Performance Data (Standard Designs)

Type	Drive Power	Rotor Speed (max.)	Rotor Diameter x Length	Possible Number of Rotor Blades <sup>1)</sup>	Size of Rotor Blades	Number of Static Blades	Number of Static Blade Seats	Throughput Rate	Hole Size of Screen
NGU 0513	55–90 kW	80–240 rpm	495 x 1,305 mm	29, 58, 87	40 x 40 mm 60 x 60 mm	4	1–2	Depends on material	10–120 mm
NGU 0518	90–132 kW	80–240 rpm	495 x 1,795 mm	40, 80, 120	40 x 40 mm 60 x 60 mm	5	1–2	Depends on material	10–120 mm

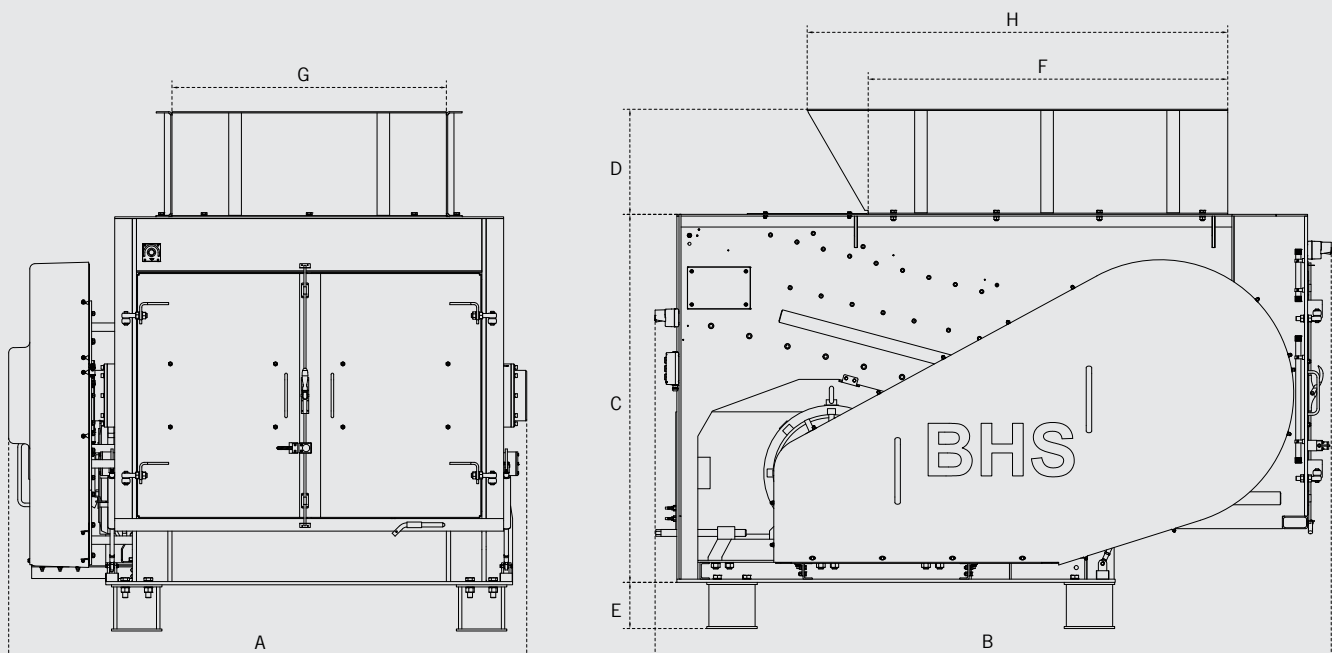
Dimensions and Weights (Standard Designs)

Type	A	B	C	D <sup>2)</sup>	E <sup>2)</sup>	F	G	H <sup>2)</sup>	Weight
NGU 0513	2,464 mm	3,216 mm	1,750 mm	500 mm	220 mm	1,570 mm	1,305 mm	1,850 mm	9 t
NGU 0518	2,954 mm	3,216 mm	1,750 mm	500 mm	220 mm	1,570 mm	1,795 mm	1,850 mm	11 t

All specifications apply to the standard design.  
 Technical specifications for customized designs may differ from the data provided here.  
 All technical specifications are subject to change due to continuous development.  
 Subject to change without notice.

<sup>1)</sup> At 40 x 40 mm rotor blades


<sup>2)</sup> With standard hopper and standard steel construction



# BHS FIELDS OF COMPETENCE



MIXING  
TECHNOLOGY



CRUSHING  
TECHNOLOGY



RECYCLING  
TECHNOLOGY



FILTRATION  
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