







# Effective and flexible fine crushing

### Application

Hammer mills of the type HUV are mainly used in the sectors of raw materials and the iron and steel industries for secondary and tertiary crushing of various materials. Often, they are employed for the fine crushing of medium-hard to soft materials like: Anhydrite, quicklime, lignite, coal, oil shale, dolomite, chalk, gypsum, glass, clay, limestone, etc.

#### Operation

The feed material which is conveyed to the processing chamber is crushed through impact as well as through attrition. Whilst on the inlet opening impact stress occurs, the crushed material is mainly comminuted through blows by the retracting effect of the rotor in the lower part of the narrowing crushing room. The material remains in the workspace until it is discharged through the grate gaps or opening section. The grate basket restricts the amount of oversize and supports the generation of a cubical and stress-free product.

#### Design

The HUV hammer mills are designed in such way that they can be driven at both continuous or variable rotor speeds. Inspection flaps and hinged housings are provided to facilitate easy maintenance. After opening of the hinged section access to all wear parts and grindings paths is provided.

### Mill Housing

The torsion-free mill casing is protected against wear through screwed-on lateral plates of wear-resistant material. Also, it is mounted on an anti-vibration base frame, which mostly reduces dynamic loads. The two sides of the mill housing can be opened/closed hydraulically.

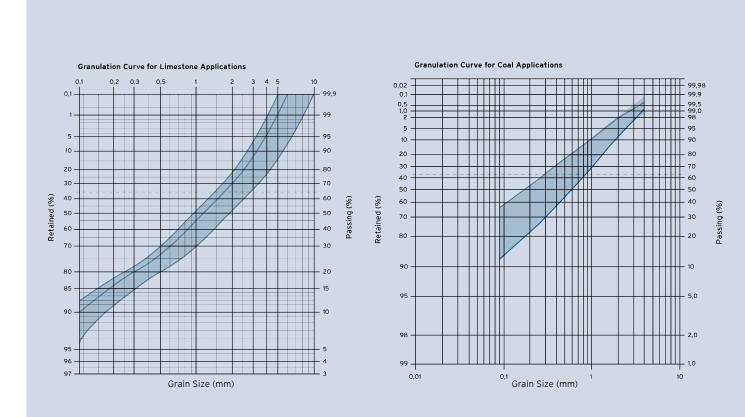
### Rotor

A vital component of the HAZEMAG hammer mills is the disc-type rotor, in which are mounted the moving hammers. The heavy-duty rotor is of a steel disc design, with free moving (360°) hammers mounted between the discs and is shaft mounted and fitted with self-aligning roller bearings. The rotor can be operated in both directions. This way it is not necessary to turn the hammers manually and the utilization of the hammers is optimized. The flexible suspension of the hammers on the rotor ensures that the HUV hammer mill is sturdy enough against the intrusion of foreign particles. The finely balanced design of the opposing hammers ensures balanced running. The hammers are made of compound castings and are easy to exchange.



# HUV - distinguished by its versatility

As the hammers are subject to wear, they are of course exchangeable. The adjustment of the impact wall relative to the crushing radius of the rotor (width of gap) and rotor speed (m/s) are the major factors in determining the rate of reduction and the final grain size. The gap between grinding path and the hammers can be mechanically or hydraulically adapted. In connection of the adjustable grinding path (and by an optional frequency converter to adjust the speed) the product can be optimized.





# HUV | Hammer Mill – HAZEMAG is the specialist

## **Special features**

# Grate Basket

For fine product an optional grate basket can be fitted. This assembled unit gives the built in grate bars the necessary mechanical stability and simultaneously fix the grate bar width which is required to generate a specific product size. The grate basket carrier with contains of a hydraulic cylinder for movement (in and out).

### Reversible and non-reversible HUV

On the reversible version, the hammers can be utilized to their optimum by reversing the direction of drive without having to reverse the heads themselves. On the non-reversible HUV only one grinding path can be used. Instead of the grinding path, a bended plate is installed in order to protect the housing.

The HUV can be driven at either a constant or a variable speed.

# Heated grinding path

Heated grinding path (heat-conducting oil) to improve the material flow when processing materials with a tendency to clog. If the feed material contains a certain amount of moisture and has a tendency to cake, the grinding paths can be supplied fitted with a heating system. Pipes are installed at the rear face of the grinding paths, through which the thermal oil is pumped in circuit. The rear faces of the heated paths are appropriately insulated.

# Rotor turning devices

All HAZEMAG HUV type hammer mills are equipped with a rotor turning devices, by means of which the rotors can be moved and locked in the appropriate position for safe and easier hammer replacement. The rotor turning devices are of a worm gear with hydraulic drive and break.

HAZEMAG Unirotor Vario   HUV				
Туре	Capacity* [mt/h]	max. edge length of lump [mm]	Inlet height x width [mm]	Installed Power* [kW]
HUV 1013	110	120	-	315
HUV 1020	180	120	510 x 1,950	450
HUV 1412	115	220	376 x 1,240	315
HUV 1417	210	220	580 x 1,825	525
HUV 1622	360	280	770 x 2,385	900
HUV 1626	390	280	-	1,000
HUV 1630	450	280	-	1,200
HUV 1634	510	280	-	1,300

\* medium-hard limestone 95%< 6mm - values are variable and can be aligned to the particular requirements.