

Universal application as pre-crusher

The **Neue Herbold** shredder is designed for coarse size reduction i.e., pre-Crushing of extremely bulky materials. The feeding can take place for instance by using a mobile dumper or tipping device. A typical application for this type of machine is in situations where waste containing metal such as crates, cable reels and pallets are to be pre-crushed. This process prepares the waste for the separation of foreign bodies with subsequent size reduction of the material. Additional applications of this unit can be found in the size reduction of bales of cellular material, bales of pressed waste and cardboard.

Mode of operation

The shredder screw shafts which work in pairs in opposing directions to each other are fitted in a welded trough-shaped housing. The shredding is preformed by the cutting and breaking action caused by the movement of the teeth on the screw against the teeth mounted in the housing. The thread-like form of the shredding shaft transports the material in process horizontally so that the shredding action takes place along the whole length of the shaft. The shredder material is finally discharged from the front side of the unit. A steady continuous discharge is attained since the shredder shaft draws in only that amount of material from the hopper that it can process and transport. When the feeding process to the hopper is carried out by a dumper and the loads are of differing sizes, problems of material jamming in the hopper are avoided since the working area of the shredder and the feed cross-section of the hopper are identical.

Overload safety device prevents damage to the system

Should the screw shaft become overloaded it is switched off automatically by a reverse control switch. The shaft is then switched into reverse for a short time before being switched automatically back to the normal running mode. The reverse control switch is put into operation if the power consumption of the screw drive motor becomes too high (amperage overload cut out). Only the screw which is overloaded is effected by the reverse control switch. The opposing screw continues to run normally avoiding an interruption of the shredding process.

Low power consumption

The power to the planetary gears (flanged directly to the screw shaft) is transmitted via drive belts from the motor which is anchored on a swivel head for the proper tensions of the belts. This ensures in addition to the overload control that the shredder is ideally protected against destruction due to large foreign bodies entering the unit. The motor is also equipped with a thermostat which switches off the unit automatically should the windings become overheated.

Variable degree of fineness of the material

The Neue Herbold screw shredding unit operates without a screen. This ensures minimal wear of the unit due to metal foreign bodies, low power consumption and high throughput.

The degree of fineness of the final product depends on type and composition of the material to be processed. Shredding enables mechanical transport and metal selection. Should a finer product be required the Neue Herbold screw shredder can be equipped with a further size reduction unit at the end of the system. A further possibility to obtain a finer end product is to connect a screen device at the outlet of the shredder. The pieces of material that are too coarse to be discharged through the screen are further reduced in size by shredder before discharging from machine. (Screen used only when no metal in product).

Construction

In general, Neue Herbold – shredding units are installed as one stage of a complete system designed for recycling material and waste. Neue Herbold specializes in designing and supplying units for feeding, discharging, metal separation, fine grinding, and transporting to containers depending upon specific requirements. Our special brochure about fine size reduction is available upon request.

Neue Herbold designs and constructs machinery and plants for the recovery of cables, contaminated plastic waste, wood, paper and household waste.

Our wide range of cutting-mills also includes special grinders for particular requirements, eg. Tubegrinders, profile-grinders, hot meltgranulators and pulverizers. Please ask for our special leaflets.

Give our specialists the opportunity to suggest the best answer to your grinding problem. We will carry out tests on your material free-of-charge.

Large feed cross section
Low power consumption
11-15 kw (15-20 HP) per screw
Low costs due to minimum wear and tear
Very sturdy construction
High throughput with low noise level due to low rpm of screw shafts
Easy adaptation for mobile application