FOR RECYCLING
OF CONTAMINATED PLASTICS

WASHING PLANTS
NEUE HERBOLD has developed a new series of shredders that are from now on part of NEUE HERBOLD’s delivery scope.

- one shaft shredders
- two shaft shredders
- multiple shaft shredders
- guillotines

Efficient, wear resistant shredders and granulators specially designed for wet operations

- long lasting, easy maintenance shredders and separating systems
- high performance shredding for separation of other contaminants
- service, consulting and optimizing for existing recycling plants
- a complete service package including the development of new machinery and how to design their washing system for mobile applications
- we would be pleased to optimize your present system

For several applications like PET bottle recycling, where highest material quality is requested, NEUE HERBOLD also offers hot-washing systems, hot-wash systems with separation of glue, and pneumatic separating systems like cascade sifters.

The result of a well designed plant is clean and high quality reground material. The NEUE HERBOLD washing plants are based on modular conception and may be adapted or extended in accordance to material and customers special requirements.

Examples of materials processed by NEUE HERBOLD washing plants are:

- agricultural film
- industrial-, trade- and household film
- thin and stretch film
- HDPE bottles, oil bottles and containers
- canisters, bottle crates, waste bins
- PET bottles
- battery casings
- fiber materials like big bags, fishing nets and many other contaminated plastics
- drums, industrial-, trade- and household containers

Starting with size reduction and washing of slightly contaminated bottles/containers and films from packaging materials, NEUE HERBOLD offers complete turn-key recycling systems.

- the processed bottle, containers and film from packaging materials can be handled in a continuous automatic sequence.
- the NEUE HERBOLD washing plants are based on modular conception and may be adapted or extended in accordance to material and customers special requirements.

Size reduction and washing

- NEUE HERBOLD granulators with double cone cutting system can be operated alternatively as dry granulators or as wash granulators.
- Water injection during the cutting process results in prewashing of the material.

- Intensive washing, separating of the contaminated water, separation of organic contamination
- The material which has been washed and size reduced in the wet granulator, falls into a dewatering screw which separates the dissolved contamination.
- For plastics with paper components a friction washer with fast rotating paddle screw is used, followed by an intensive washer, which separates the paper together with the dirty water.

IS 1300/1200

Separation step separation tank/ swim-sink-separation

The dimension and design of the NEUE HERBOLD separation tanks, allows the separation process to be carried out in two steps.

Suitable discharge devices transport the material (floating / non floating) to the downstream systems.

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To guarantee a long life cycle, the NEUE HERBOLD separation tanks are manufactured in stainless steel (steel grade 1.4301).

Pre-wash screw

The prewashed and size reduced material drops into a friction washer and is then discharged into a mechanical dryer.

Pre-Separation of rough contamination

To prevent damages to the downstream grinding and washing systems, NEUE HERBOLD offers prewash devices like the pre-wash drum type TW.

The pre-wash drum separates the shredded films (from heavy contamination like stones, tires and metals) from light contamination like paper, wood and metal.
Mechanical drying

The mechanical dryers manufactured by NEUE HERBOLD are drying aggregates operating on the centrifugal conception.

Drying results reached by these dryers do not require additional thermal drying for many types of material.

Storage / Ensilage

One major component of a recycling plant for plastic scrap is the storage of valuable substances. NEUE HERBOLD supplies suitable silo systems for all kinds of regrind materials, especially for poor-flowing materials like film flakes or mono- and multifilaments.

Thermal Drying

If required the mechanical dryer may be followed by a thermal drying process to reduce the moisture of the material.

The thermal dryer type TT is the suitable device for this application.

To guarantee an efficient energy consumption the heating zones of the dryer are controlled in a sequential mode.

The standard dryer is supplied with an electrical heating aggregate.