

HERBOLD



Herbold Label Remover (patent pending)

Herbold's latest development for resolving problems arising in bottle recycling



Abb. 1: before

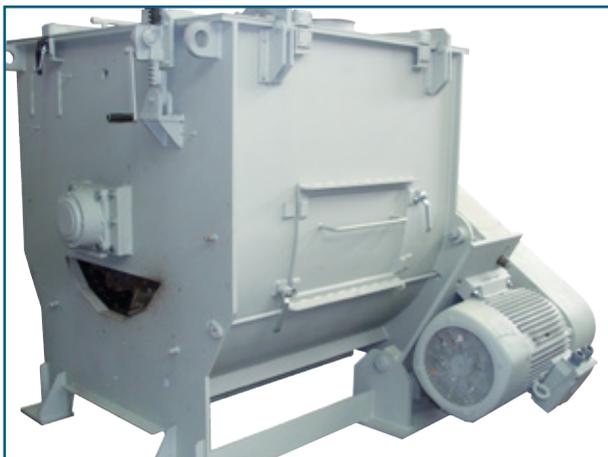


Abb. 2: Label Remover



Abb. 3: after



Abb. 4: Labels

Problem 1: With the usual prewashing steps it has not yet been possible to separate labels covering the whole surface of the bottle. With this type of labels, downstream NIR systems show an unsatisfactory separation performance. A separation during the subsequent steps is complicated, expensive and very often unsatisfactory.

Solution: With the Herbold Label Remover it is now possible to separate labels covering the whole surface of the bottle to a large extent in only one separation step, thus enabling the other subsequent recycling steps to function.

Problem 2: In many parts of the world it can be noticed that PVC labels are on the increase. Due to their shrinking properties, PVC labels cannot be removed any more or only in an unsatisfactory way after undergoing a prewash with steam or hot water. The separation of PVC film rests can then only be achieved by costly technical means.

Solution: The Herbold Label Remover separates PVC labels already during the first processing steps of a PET bottle washing line. With a slight additional effort it is now possible to obtain an end product with the highest possible purity.

Problem 3: Highly contaminated bottles can be prewashed satisfactorily only with high energy consumption (high steam consumption) or otherwise there will be enormous wear costs during the size reduction and processing steps.

Solution: It is possible to separate adherent abrasive contamination either wet or dry to such an extent that the subsequent size reduction and processing units will have a considerably longer lifetime and thus drastically reducing the costs.

Problem 4: In a washing line silicone sealants in bottle caps can only be separated by costly and extensive means.

Solution: The Herbold Label Remover succeeds in separating the great majority of caps without breaking the bottle heads. Bottle caps can then be separated in fairly simple separation steps.

Problem 5: Many debalers break up pressed bottle bales in an unsatisfactory way. Therefore, a complete breakup of the bales has to be accomplished manually, thus causing high labour costs, or if not done this way, subsequent automatic separation steps will not achieve their full performance capacities.

Solution: The Herbold Label Remover manages to separate bottles still sticking together. A manual secondary separation is superfluous since the automatic sorting steps are working in an optimum way.

Machine description

Housing in solid, fracture-proof welded steel construction.

A housing cover that can be hinged open as well as additional service openings ensure an optimal access for the exchange of wear parts.

Exchangeable, segmented and polygon-shaped stator elements with exchangeable fitted pins in wear-resistant special steel. Anti-vibration pads to be mounted on the housing feet are also part of our supply.

Rotor as solid closed rotor body with self-aligning roller bearings on both sides, outside and separated from the housing. Due to their outside position, no humidity and no grease can penetrate the bearings. Easily exchangeable and wear-resistant rip-off elements are bolted on the rotor.

The separation of the labels and the contamination is achieved using the friction between the rip-off elements on the rotor and the exchangeable steel pins. Due to the construction of the rotor and the rip-off elements the material is advanced within the machine. A characteristic feature is the design of the working chamber ensuring even loads and dwell times of the bottles. The chamber has no spaces where bottles might pass through the machine without undergoing full frictional contact, and likewise there are no surfaces to constrict the bottle flow reducing the possibility of damage to the bottle. Once the bottles have passed the working chamber and left the machine, the labels and the removed contamination are separated with the help of the subsequent processing steps.

Motorisation by 3-phase motor and V-belt drive.

Technical Data		
Machine type	Drive	Capacity*
HLR 90/140	45 - 55 kW	3000 - 4500 kg/h
	61 - 74 HP	6600 - 9900 lbs/h
HLR 120/230	55 - 75 kW	4500 - 8000 kg/h
	74 - 100 HP	9900 - 17600 lbs/h

*Depending on the bottle type and the drive



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