



S 240 & TD 64

Accumulator & Transfer

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ACCUMULATOR

Accumulators in a production line are designed to ensure a smooth production flow. They minimize the risk of production stops and therefore increase the performance of a line. Accumulators are material buffers placed between individual production stages. As they balance out different production speeds they increase the efficiency of the complete line. Even during a temporary stop of individual machines, the accumulator keeps delivering tubes or cans to the following machines. A sophisticated counter system continuously tracks the exact number of products in the accumulator. For accumulators of a particular size an independent PLC is used to control the accumulator independently.



Accumulator design secured by protective devices.



Pneumatic chain tensioners provide for proper chain tension. The chain tension is adjusted by pressure regulators. Proper pressure adjustment is achieved when a smooth chain run is achieved.

OPTIMAL STORAGE CAPACITY

The accumulator capacity is projected by the HINTERKOPF engineers sufficiently big to allow a drying plant or annealing oven being evacuated completely, should this be necessary. Thus, damage to the cans or tubes by extended dwell times is avoided.

THATS HOW IT WORKS

An accumulator is always driven and controlled from two sides. Its infeed is connected to the preceding machine, from where parts run in and fill it up gradually. The accumulator outfeed transfers the parts to the machine following next so that the accumulator is emptied again. While the accumulator is being filled, the carriages are travelling to the upper part, singly and one after the other, so long until every chain pin holds a part, and the carriages are at their upper end-stop position. The preceding machine is then stopped by the control system. When the ambient machines run at different speeds, the accumulator is continuously filled and emptied. When the preceding and the following machines run synchronously, the parts on the chain pins travel through the accumulator on the shortest way; the carriages stay at their lower positions. For large capacity accumulators, one or multiple independent auxiliary

drive motors are utilized to control the filling sequence. The auxiliary drive motors provide for a smooth running pin chain, and reduced wear.

INDIVIDUAL ACCUMULATOR SIZES

Accumulators made by HINTERKOPF are custom-made and so may have different dimensions. With heights of up to 7.5 meters and most various widths, the accumulators of various width/size and tilt occupy the available space perfectly and offer a maximum buffer capacity. Optionally, accumulators may be installed on platforms so that other machines are built over.

ADVANTAGE FROM PLEXIGLAS

The HINTERKOPF accumulators are equipped as standard with acrylic glass doors up to a height of two meters – a clear advantage when it comes to cleaning and servicing or, when needed, to feed the accumulator by hand. When desired by the customer, the accumulator can as well be fitted with a complete enclosure to protect very sensitive tubes or cans from being polluted.

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TRANSFER

The transfer units are connecting links between the machines and the accumulators and as such transfer the parts from the chain pins onto a transport belt or vice versa. Rotating unloading drums with vacuum trays or diagonally running infeed or outfeed conveyors are used for accomplishing this transfer.

Separate transport chain strands have proven to be economically reasonable. On the one hand, there is the chain that runs through the washing machine. This chain is constantly exposed to detergents, heat and wetness and has therefore to be changed at regular intervals. An accumulator chain, on the other hand, has a comparatively easy and long life. To reduce the cost for maintenance it is advisable to separate the chains of a washing machine and an accumulator by placing a TD 64 transfer unit in between.



Product baskets hold the products in place securely by vacuum, and pull them off the pin chain.

The TD 64 is a two-drum unit. In it, the parts are first unloaded from the chain pins by a rotating drum with vacuum trays. When the vacuum is shortly interrupted, the parts will fall into a second drum that is situated right under the first drum. This loading drum pushes the parts again onto the pins of the next transport chain – an elegant way of separating the chain.

ADDITIONAL BENEFITS:

- Gapless collection avoids empty pins
- Pin chains with different pitch can be realized with ingoing and outgoing drums
- Electrically adjustable transfer drums allow for the correct distance and enable quick and secure size change



Loading and unloading drums are equipped with vacuum assisted product baskets.

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