## INDIVIDUALITY

## MATERIAL FLOW OPTIMIZATION



WE ARE ACTIVE IN THESE BRANCHES OF INDUSTRY::

- Wood and particle board industry
- Furniture industry
- Timber trade
- Tire and rubber industry
- Natural stone industry
- Building material industry
- Sheet metal industry
- Plastic and metal working industry

### OUR PRODUCTS:

- Materials handling equipment
- High-bay storage systems
- Area storage systems
- Feeding and stacking systems
- Saws
- Automatic timber squaring and packing lines
- Edge cleaning machines
- Stack tuners

Customer – specific solutions



# COMPACT SORTING WAREHOUSE

Customer-specific solutions





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### **EFFICIENCY**

#### Improving Efficiency by Optimization of the Material Flow

Increasing number of versions in combination with 1-piece production at the same time require an optimization of the material flow in the furniture industry to allow an even more efficient use of the processing machines and materials.

The use of a sorting warehouse for the optimization of the material flow can play an important role.



#### Aims of a Sorting System:

- 1. Optimization of active processing times
- 2. Optimization of resetting time
- 3. Smoothing of production capacity
- 4. A more even production, lot-size-1 provided
- 5. Allowing several orders for the next shipping date as well as further orders of the same machine operation, so called "can-pieces" that are provided by the buffer at a later point in time
- 6. Same manufacturing time for A-, Band C-products
- 7. Just-in-time feeding of processing machines directly from the sorting warehouse
- 8. Best possible utilisation of the resources9. Minimisation of waste

The sorting warehouse operates respectively optimizes various tasks individually or in combination.

A production control system performs the stock administration, the management of the entire processes as well as the optimization based on the criteria individually defined.

#### Increasing Manufacturing Efficiency

With a simple and manageable investment in the right place, the efficiency of the entire production can be significantly enhanced. In the course of establishing the 1-piece-production these systems become increasingly important for the production efficiency.

With the help of a sorting warehouse, the work piece will be temporarily stored between each individual processing step and is then made available just-in-time in a new optimised order for the following processing step.

This does not only allows optimizing the production process when manufacturing furniture components, but also opens up entirely new possibilities to a more rational production.

#### Your advantages:

- Ideal flow of the work pieces right from the start
- Higher capacity utilization of processing machines
- Taking account of a plurality of production parameters
- Individual definition of sort criteria

# **PROVEN SOLUTIONS**

### High Mechanical Cycle Performance

The mechanical cycle output of a sorting warehouse comes to approx. 3 cycles per minute. This means, at best, with assumed 6 separate sections on the operator unit that 3 by 6 parts per minute could be transported.

The quantities that are to be stored within a warehouse and the required cycle times must be taken into consideration on the basis of part sizes, installation dimensions and weights in designing the system.

#### Example:

Based on the usual working piece dimensions used in the furniture industry – that is approx. 1.000 x 500 mm -, one sorting warehouse has a capacity of max. 1.320 parts with a cantilever depth of approx. 1.300 mm and 6 sections with the appropriate length and approx. 55 levels on the left and right side of the operator unit, roughly corresponding to a hall height of ca. 6 m.

When planning an efficient sorting system individual requirements are essential.

- Resorting for the next processing step
- Storage, buffering and automatic batch forming
- Optimal packing density thanks to classification into sections and multi-deep storage
- Further sorting warehouses can be installed in a row
- Direct access to individual parts
- High mechanical performance



The specialists for material flow technique

