

## Key Elements in Designing Materials' Warehouses

Designing materials' warehouses means arranging a space (existing or which will be built) to efficiently and profitably serve for storage and all warehousing operations of materials stocks (raw materials, subassemblies and finished goods).

Advanced planning of operations is done by checking a company's history and experience in materials warehousing, taking into consideration materials specifics (dimensions, stacking possibilities, dangerous materials, etc.) space constraints, forecasted volumes' fluctuations and health and safety regulations specific for the country where the warehouse is built or established.



Key elements in designing materials warehouses:

- ❖ Materials (Specific elements, ABC analysis and seasonality, volumes and forecast)
- ❖ Processes (Unloading and frequency of unloadings, quality need (incoming inspection), storing routes and storing process, scanning, picking, loading and frequency of loadings)
- ❖ Storing areas (is there a need to split raw materials areas from finished goods areas, shelves or bulk, raw materials tanks, uncontrolled warehousing areas, routes and markings)
- ❖ Material resources (unloading/loading ramps, forklifts, travelling cranes, wi-fi, shelves)
- ❖ Human resources (offices, locker rooms, sanitary rooms, air conditioning, visual help markings)
- ❖ Health and safety regulations (fire escape doors, sprinkler systems, venting windows, evacuation areas, pedestrian ways, internal procedures)

A design for warehousing areas is defined with the purpose of maximal efficiency in using space and taking into consideration the future development of projects and business.

Designing based on the key elements described above leads to reduction of storage costs and improvement possibilities for the warehouse activities (reducing loss from waiting and transport) on short and medium term.

