

# How to Lower Your Materials Handling Costs

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A cost factor, which goes silently unchecked, is the cost of materials handling. Pakistani companies work on the premise that unskilled labour is cheap and any number of people can be employed in the back breaking, carton and bag lifting operation. These costs can, however, add up, to create a high level of un-competitiveness in Pakistani manufacturing.



It is not only the labour cost in materials handling but also wastage of space, quality, time and materials which add up. Then we often hear Pakistani manufacturers say that they cannot meet Chinese prices and that foreign competition is killing them!

It is high time we started paying serious attention to our materials handling costs and make improvements in our work flow and storage.

The workflow must be designed logically, so as to

- Avoid backward movement of products
- Avoid Zigzags
- Reduce Errors

Focus on reducing error within the warehouse. Improving the overall quality of operations will aid in the reduction of expenses. Collect data on error rates and set targets to reduce them. Highlighting, where the faults are, and acknowledging good performance to ensure a focus on quality within the warehouse.

## Maintain Good Storage Conditions

Maintaining a proper temperature and humidity can be beneficial to the goods within the warehouse. To avoid unnecessary costs it is also important to cover and secure storage areas as uncovered areas can permit weather damage.

## Reduce labour

Labour is a significant contributor to cost in warehouse management. By integrating mechanization and automation within the warehouse, labour costs can be drastically decreased and long term profits can be realised.



## Improve Layout of your warehouse

An inefficient layout of your warehouse can have a negative effect on your business. Decreasing productivity, creating inventory control issues, errors in shipping and posing safety risks. When it comes to laying out your warehouse, it is important to exploit its full space. Everything should be accessible and in the right location, allowing staff to carry out their duties in the most efficient way. Ensuring every square foot of space is properly utilised, within your warehouse, will keep overhead costs to a minimum and increase productivity.



Here are some useful tips to help plan the best warehouse layout.

### **Super-size the Receiving Area**

Receiving is arguably the most critical function of the warehouse. It is important to ensure you have enough room for your staff to carry out all of the necessary activities from breaking down pallets to counting items. The more space there is in the receiving area, then the easier it is for your staff to complete the job efficiently.



### **Segmentation**

Warehouse activity can be fast and dynamic which is why it is necessary to create segments in the warehouse that are well defined. For example, your returned products area should be in a separate part of your warehouse that is enclosed by a fence and clearly marked. This ensures that returned products are not mistaken for stock.

It is also important to keep shipping and receiving areas separate and located in different areas of the warehouse to avoid improper staging of freight merchandise.

### **Set up bin locations and pick path**

In order to provide your pickers with the best possible chance at filling their order right the first time, make sure they have adequate instructions. The pick path refers to the direction that you want your pickers to move down the aisle. It should start at the farthest point away from the shipping area and dump the picker in front of the shipping prep area.

Sketch out the pick paths on paper ahead of time. The idea is that pickers will make one pass through the facility in the most efficient way possible.

### Inventory

Design your warehouse so that inventory does not need to be moved more than once. It usually does not make sense to store items in one place and then move them to another place later.



### Special packaging area

Certain products need a value add or special packaging area. This needs to be adjacent to the shipping area, because the product will move directly from the value add area to the shipping area. This area is difficult to cube out and takes up a lot of valuable warehouse space. Therefore, the value adds area should be kept as small as possible.

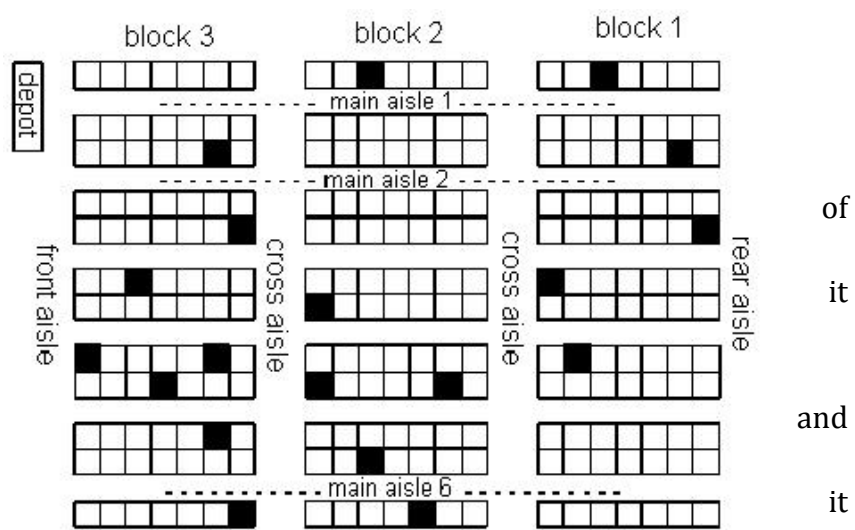
### Random location strategy

A random location strategy is the idea that a warehouse is laid out according to product accessibility other than popularity. This is because product popularity changes based upon buying cycles and company advertising. It is therefore best to arrange products in another manner.

As long as easy access to products is maintained, the random location strategy is generally one of the more effective ways to lay out a warehouse.

### Aisles

Ensure quick product availability by having a system of aisles and cross aisles that make it easier to move around your warehouse. Long continuous aisles can make it difficult in



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getting from one part of the warehouse to another. However, cross aisles that allow access to the main aisles, help create a grid that is more efficient and easier to navigate.

The goal of the warehouse layout is to optimize your warehousing functions and achieve maximum efficiency and space utilization.

### **Make a concept of movement of raw materials and work-in-process**

- Standardize work station requirements
  - Bins
  - Pallets
  - Conveyors
  - Pneumatic Conveyors
  - Fork Lifts
  - Stackers
- Incorporate 5-S Principles into your work flow: ***“A place for everything and everything in its place”*** is the basis of 5-S, in a nutshell. It pays to have a 5-S program in your company in which the CEO and senior management is personally involved and takes pride in. Currently consultants are available in Pakistan for guidance on this vital tool for improving competitiveness in Pakistani industry.

### **Choose Application Specific Equipment**

It has become more challenging in recent years to reduce the cost of materials handling without decreasing levels of productivity. A reduce in costs, means an increase in profit, so it is therefore important to consider where you can save money. There are commonalities within many businesses, that when combined, lead to a serious loss of profit. In order to make improvements and further profit margins, it is important to consider, that one of the many benefits of improving efficiency within your business, is an increase in profit.



It is important to buy equipment for the job at hand; this is significant in reducing overall costs.

It is common for equipment to be used in applications in which it was not designed to be used. Work with professionals who are able to survey your applications to ensure that you are using the right equipment for each job. Using the correct equipment with the right

specifications means efficient and productive results.

**Invest in a robust training program:** Operator safety training and a daily inspection of equipment is one of the main requirements of OSHAS (ISO 18000, Health and safety Standard required for exports under GSP+). Many companies train their operators regarding safe operation, although, more often than not, this is where the training stops.

If you invest in the training of your employees, to perform daily inspections and to know what to look for, you will see results. This ensures that any equipment that is in need of repair will stay off the operating floor and that small repairs will be handled before they become a major problem.

**Reduce shift overlap:** Ensure that shift overlap remains at a minimum. If a business ran two shifts, five days per week with 30 operators on each shift, then two-hour overlaps of 15 operators automatically requires them to have 45 lift trucks. If there were no overlap, the business would have been able to cut that by 15 trucks. In one year, you would see a 10-45% decrease in costs.

### **Choose the right tyre for your forklifts**

It is easy to overlook the tyre in regards to reducing overall material handling costs. However, choosing the wrong tyre can result in a dramatic increase in fleet operating costs, as well as increased safety risks. A properly chosen tyre can last up to 40% longer. When choosing the correct tyre, aspects you must consider are:

- The weight of the load
- The type of surfaces you are operating on
- If the forklift is used for multiple shifts
- What percent of time the forklift is loaded
- The average speed/top speed of the forklift



If you are evaluating tyres for more than one forklift, you must be prepared to answer questions for each unit, separately.

### **Work with a single source dealership**

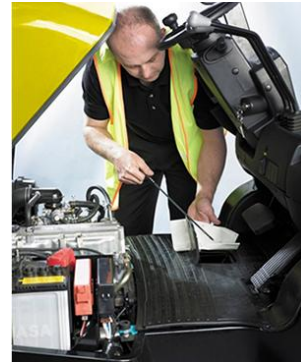
The more work you are able to assign to a qualified and reliable supplier, the fewer calls you will have to make. In turn, the supplier will become familiar with your equipment, facility and applications.

Using one company, that provides everything, from fleet management to maintenance, results in greater efficiencies for you. This allows your supplier to gain a better understanding of your operation and make logical decisions that can reduce your costs, increase your efficiency and improve your bottom line.

To learn more about forklifts, you can call a representative of RMH - Rastgar Materials Handling, Distributors of Hyundai Forklifts in Pakistan with service and spare facilities. ([www.rmh.com.pk](http://www.rmh.com.pk))

## **Planned maintenance**

You should be able to work with your service provider to determine appropriate intervals for planned maintenance. Many businesses schedule their planned maintenance based on the calendar. However, in actuality it can make more sense to schedule planned maintenance based on the hours of use.



It is also important to note that before the technician begins work, a quick exchange of information can save thousands. This will allow the technician to have a better understanding of the trucks history and how they are able to complete repairs.

Reducing materials handling costs can improve efficiency when improvements are implemented correctly. It is important to ensure that you do not reduce costs, through cutting corners and to realise that a safe and smart operation results in an increase in profits

## **How to choose the right forklift**

Choosing the right forklift is important for your business. It affects everything from operation costs, productivity, employee morale and stock management.

There are a large range of forklifts, and each one is designed to be used for specific jobs.

***So how do you know what type you need for your business?***

There are several important factors to consider when choosing the right forklift for you:



### **1. Environment**

Your business environment will influence the type of forklift, tyre selection and fuel type. Consider the floor surface and conditions the forklift will be working in:

- Smooth or rough surfaces?
- Inside, outdoors or both?
- How many hours per day will the forklift be used?

## 2. Load Size / Capacity

It would be a big mistake to choose a forklift with a maximum lift capacity that is below your requirements. It is important to look at:

- What stock will the forklift be handling?
- What is your average load weight?
- What is the heaviest load you need to lift?
- What is the width of your loads?

The type of load also matters as there are specific forklift attachments that can enhance a standard forklift and help you move the load more efficiently. There are many types of attachments available: appliance clamps, carton clamps, paper roll clamps, etc.

Sideshift is another feature which will allow you to move any load left and right, without having to move the truck. This allows for more accurate load placements.

## 3. Height

Similar to maximum load, you want to ensure you choose a forklift which will meet your height restrictions.

- What is your typical lift height?
- What is the highest point the forklift needs to reach?
- Are there any height restrictions to consider? (eg: ceiling beams or low hanging lights)

You must also take into consideration the collapsed height of the mast, if you require the forklift to move underneath a fixed height structure (eg: a garage or container door).

Also check your warehouse height and aisle width requirements, as this will greatly assist you in finding the right unit.

## 4. Fuel type

There are three types of fuel options – electric, gas or diesel.



- **Electric forklifts** will cost more initially, but you will reap the rewards over time as they have a longer life span and cheaper consumption compared to other types of forklifts. They also operate very quietly and produce no emissions, therefore are recommended for working indoors or in cold climates.
- Gas or diesel forklifts can lift much bigger loads and move faster.
- **Diesel forklifts** are strongly recommended if the forklift will be used for heavy lifting or outdoors.
- With **gas forklifts** you have the choice of LPG or CNG – both are quick to refuel and have a long lifespan.

## 5. Tyre selection

There are various types of tyres available for forklifts. The most common are solid or pneumatic, but there are also white non-marking tyres and cushioned tyres – each with their own specific use and suited to certain environments.



Choosing the right tyres will impact on your forklift's handling and safety.

## 6. Ergonomics

High quality adjustable seating is important as forklift operators are sitting in their machines for hours at a time.

Investing in quality ergonomics will lessen the likelihood of injuries, such as back pain, which can be caused by repetitive tasks performed in uncomfortable seating.

## 7. New or Used?

If you think your forklift will be used for more than four hours per day – a leased or new forklift will be much more suitable for you. In this case, the type of forklift you require and your budget will determine which option is the best.

However, if you won't use your forklift every day - and when you do it's only for about an hour or two - then a quality used machine is the smartest economical option.



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