

PORTABLE WRAPPING MACHINES

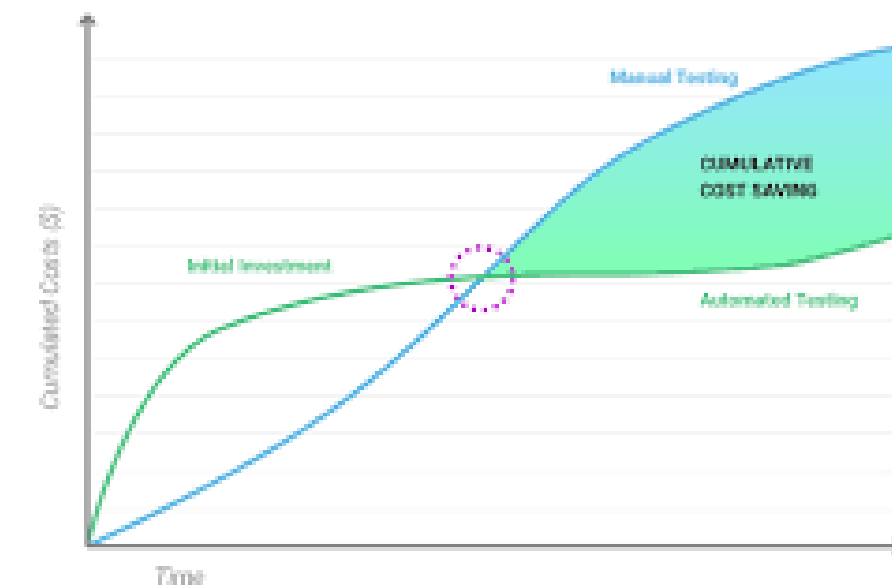
BACKGROUND

Key Points:

- Manual wrapping in logistics is inefficient, accounting for 30% of packaging time.
- Leads to high labor costs (\$50,000 annually) and a 15% increase in damaged goods.
- Automation through a portable wrapping machine can address these challenges.

- Why It Matters:

- Improves efficiency, reduces costs, and enhances product safety during transportation.



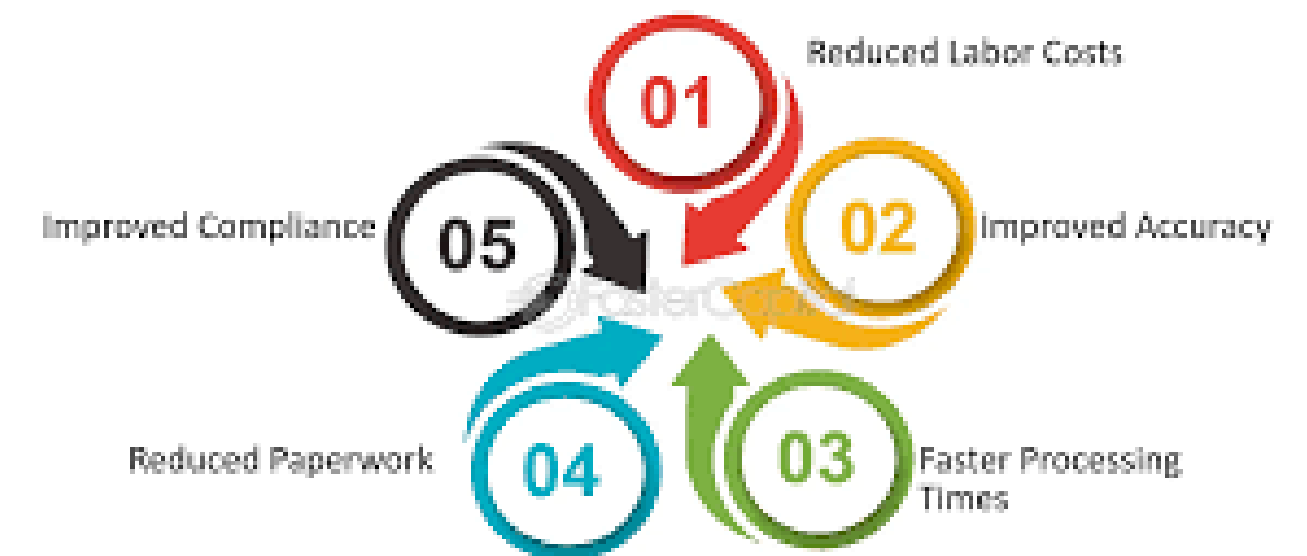
INTRODUCTION

Key Points:

- **Packaging Importance:**
 - **Packaging is a vital part of the production cycle, instrumental in:**
 - Product protection.
 - Enhancing presentation.
 - Optimizing logistics.
- **Our Solution:**
 - **The portable wrapping machine is an innovative solution designed to:**
 - Automate packaging procedures.
 - Handle products of various dimensions and forms with top-tier competency.

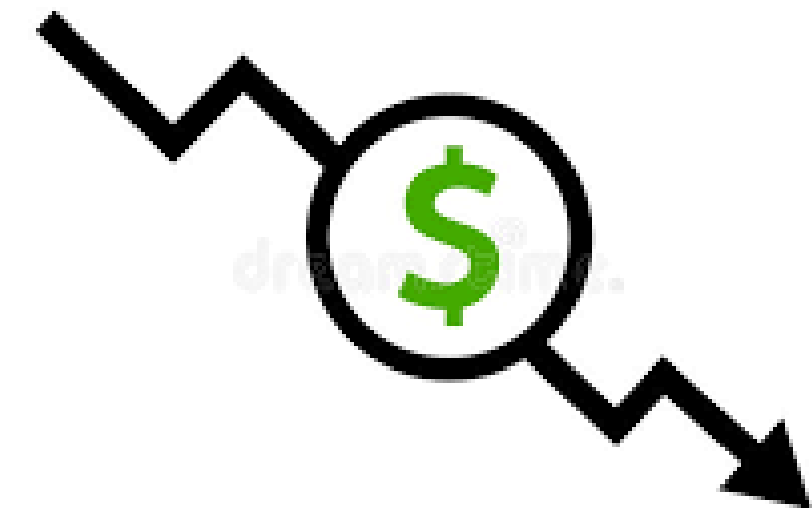


Cost Savings through Automation



PROJECT GOALS

1. Key Points:
 - a. Reduce Wrapping Time: By 50% within 6 months.
 - b. Cut Labor Costs: By 30% through automation.
 - c. Improve Durability: Increase durability of wrapped goods by 20%.
 - d. Ensure Portability: Design a lightweight (<50 kg) and user-friendly machine.
- Outcome: A functional prototype that transforms logistics operations



DISCUSSION

1. Key Points:

- **Efficiency:** Portable machines wrap pallets faster (10 items/minute) compared to manual wrapping.
- **Consistency:** Ensures uniform wrapping, reducing product damage during transit.
- **Worker Safety:** Reduces physical strain and injuries caused by manual wrapping.
- **Cost Savings:** Long-term savings on labor, material waste, and damage-related costs.

1. Comparison: Portable machines outperform manual wrapping in speed, consistency, and safety.



PROJECT RESOURCE

Importance of wrapping in logistics

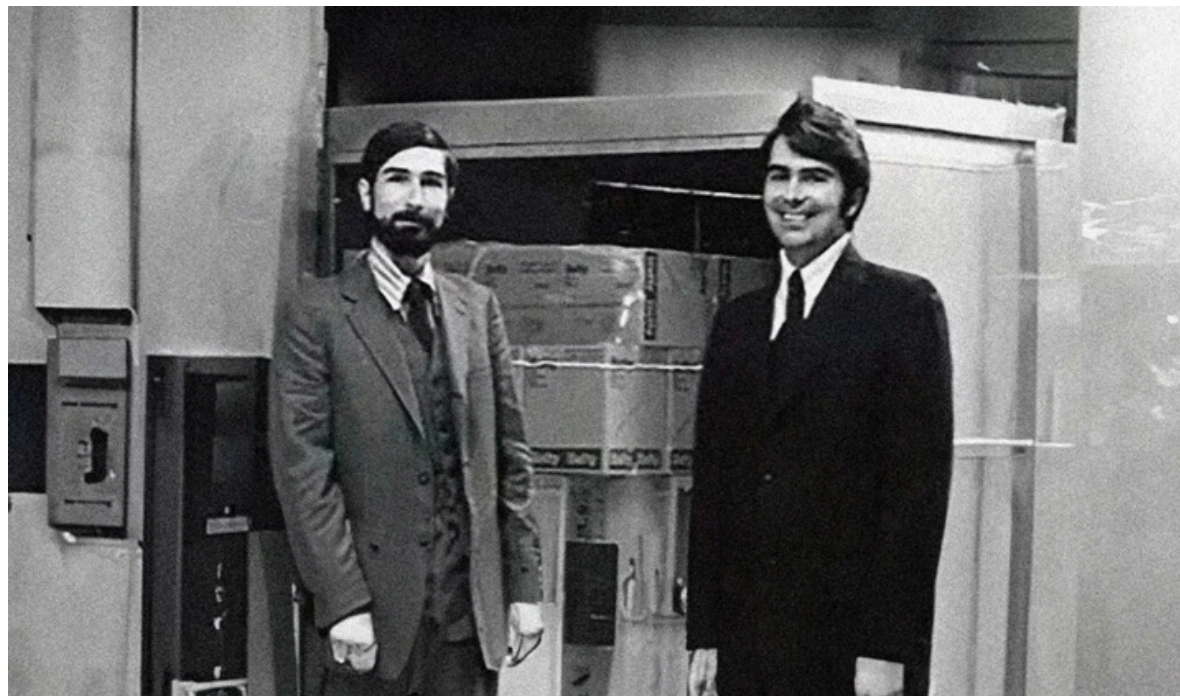
- essential to secure the goods for safe transportation and storage.



Traditional way :

- manually using stretch film.
- with technological advancement, become more efficient solutions.





manual wrapping vs portable wrapping machines :

- ✓ Efficiency & Speed
- ✓ Worker Safety
- ✓ Cost Considerations

First stretch wrapping machine

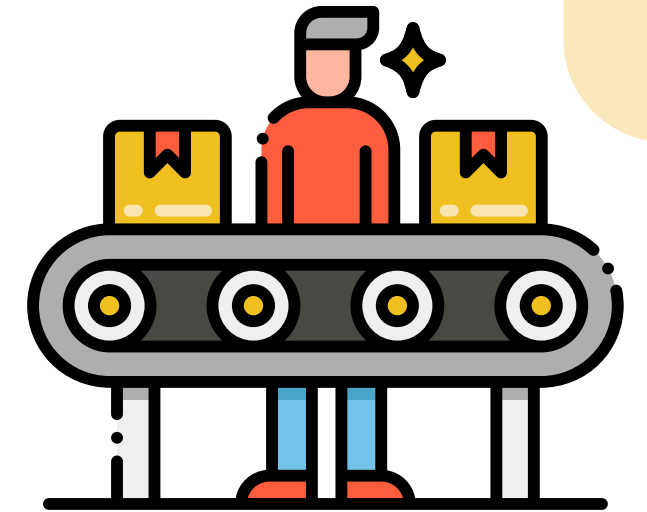
- was invented by Pat & Bill Lancaster (1972)





EFFICIENCY & SPEED

MANUAL WRAPPING

- ✗ Time-consuming, workers walk around pallet 
- ✗ Inconsistent wrapping causing unstable loads



PORTABLE WRAPPING MACHINE

- ✓ Machine automates the wrapping process 
- ✓ Faster, saves time, increases warehouse productivity 



WORKER SAFETY & PHYSICAL STRAIN

📌 MANUAL WRAPPING

- ✗ Requires bending, stretching, walk repeatedly 🤕
- ✗ Leads to back pain & workplace injuries



📌 Portable Wrapping Machine

- ✓ Reduces physical strain on workers 💪
- ✓ Fewer injuries, improved workplace safety

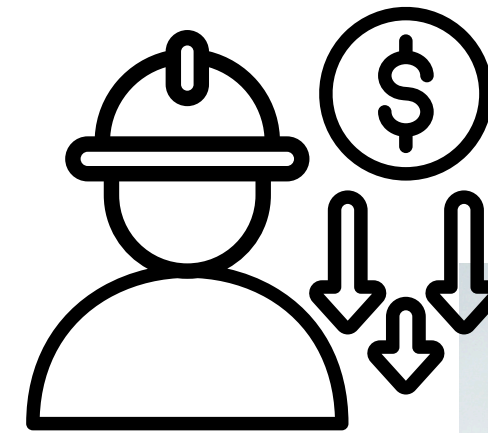


COST CONSIDERATION

Manual Wrapping:

\$ Lower initial cost,
but...

\$ Higher long-term costs (labor,
film waste, damage claims)



I am
**Zero
Waste!**



Portable Wrapping Machine:

\$ Higher initial investment,
but...

\$ Saves labor costs, reduces
waste, prevents product
damage

Project Budget

No.	Category	Estimated Cost (RM)	Budget Overhead (RM)	Total Cost (RM)	Actual Cost (RM)	Variance <u>Cost</u> (RM)
1.	PVC Pipe	RM50.00	RM20.00	RM70.00	RM53.50	(-RM16.50)
2.	Steel Rod	RM15.00	RM5.00	RM20.00	RM11.50	(-RM8.50)
3.	Wrapping	RM10.00	RM10.00	RM20.00	RM10.90	(-RM9.10)
4.	Wheel	RM10.00	RM5.00	RM15.00	RM12.50	(-RM2.50)
5.	Bolt & Nut	RM5.00	RM5.00	RM10.00	RM20.10	RM10.10
6.	Play Woods	RM30.00	RM20.00	RM50.00	-	-
	Total:	RM120	RM65	RM185	RM108.50	(-26.50)

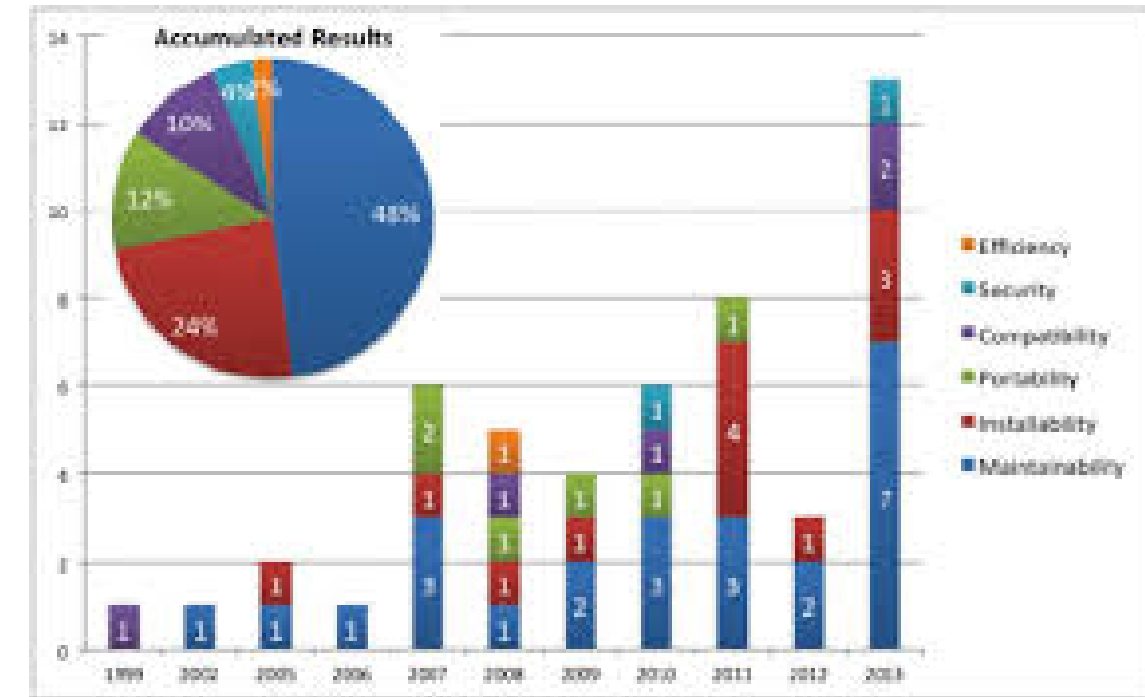
Save: RM76.70

RESULTS

1. Key Points:

- **Prototype:** Successfully developed a functional prototype.
- **Testing:** Conducted 10 test runs with positive feedback.
- **Efficiency:** Achieved a 50% reduction in wrapping time.
- **Cost Savings:** Reduced labor costs by 30%.
- **Durability:** Improved durability of wrapped goods by 20%.

1. Outcome: The machine is ready for real-world implementation



CONCLUSION

1. Key Points:

- The portable wrapping machine successfully addresses inefficiencies in manual wrapping.
- It reduces wrapping time by 50%, cuts labor costs by 30%, and improves durability by 20%.
- The project is on track for real-world implementation within 12 weeks.

1. Next Steps:

- Finalize testing and prepare for deployment in logistics operations





THANK YOU