

UNIVERSITI TEKNOLOGI MARA

**A PORTABLE AUTOMATIC
WRAPPING MACHINE**

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ABSTRACT

In modern fast-moving business activity and business environments, the efficiency as well as consistency of packaging methods are necessary. As businesses try to meet increasing consumer demands while maximizing operational productivity, the requirement for innovative packaging products has never been greater. One such innovation is an automatic wrapping machine, an important machine in the automation of packing lines. This project focuses on advancing the creation of a portable automatic wrapping machine, meant to simplify the wrapping process for different goods. Unlike traditional, stationary wrapping machines, our portable solution offers greater mobility and convenience, making it optimal for many different uses, including small factories, distributors, and transportation centers. The primary objective of the project is to develop and build a machine that not only automates the wrapping procedure but also tackles important issues like portability, user-friendliness, product shape, affordable machine, and size flexibility. The machine is designed to minimize use space in the factory, assure portability machine, and greatly reduce cost by minimizing build cost and using a small-scale machine. I hope this project can improve the industry of small factories by offering a useful, adaptable, and affordable solution. By proving the potential for increased production and operational efficiency, the successful deployment of this portable automatic wrapping machine will open the door to more common use among a wide variety of businesses.

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CHAPTER ONE

INTRODUCTION

1.1 Background of Study

Today's manufacturing and industrial situations depend heavily on small factory units because they encourage economic growth and innovation. Compared to their larger industrial counterparts, small factories sometimes experience a variety of challenges, including a lack of financing, not enough of a place to keep their product, and the requirement for them to adopt modern technology that is affordable, portable, small size and increase efficiency to stay successful.

The automated wrapping machine is an illustration of this modern technology. Present wrapping machines are frequently too expensive, rendering them unaffordable for small companies with limited budgets. Furthermore, many of these machines are made to be fixed, which limits their request to areas of a building and decreases operational flexibility. Space is another issue caused by the size of these machines, particularly in smaller manufacturing environments.

Small factories packaging machines are a major trend in automation and intelligent manufacturing. As Industry 4.0 technology becomes easier to access, small industries can also profit from developments like access to the internet, machine learning, and real-time data analytics. Small industries are more competitive because they can better manage and serve the maintenance needs of their equipment, and they can additionally check its performance. All improvements can make some factories more successful in their marketplace.

In conclusion, the background of the study shows the importance of automatic wrapping machines for improving small factories' productivity overall. These machines help with the wrapping process during routine problem activities, allowing them to reduce space, increase flexibility, and stabilize the financing of the factories by only using affordable automatic wrapping machines and giving them a stronger competitive edge in an industry that is changing quickly. To encourage the continuous development of packaging technology and small-scale manufacturing, this project intends to