

# CHAPTER I INTRODUCTION



## 1.1 Background

PF Intertech Co.,Ltd . is one of the Pan Group which is a part of Sahapattapibul Group . Pan Group was established in 1974 and now has about 70 companies divided into many kinds of business such as environmental and real estate business , marketing business , research business and footwear business . PAN Group has many business in footwear. Pan Group produce " PAN " shoes brand name sold in domestic, for international brand , Pan Group produce and export NIKE , REEBOK , ADIDAS, SCHOLL , etc. PF Intertech Co.,Ltd . is a shoe making machinery company , support for all companies in PAN Group .

The mission of PF Intertech Co.,Ltd . is to produce the efficient shoes making machines and tools to substitute for the expensive imported machine and tools and supply them to the other company in PAN Group .

PF Intertech Co.,Ltd . has been registered in 1989 with the registered capital of 7 millions baht with Pan Asia Footwear Co.,Ltd ( PAF ) was the major shareholder . The company has 120 staff and located on 507 G.11 Sukhapiban 8 Rd. Nongkharm Sriracha with the factory area of 2000 sqm .

The company business is consist of :

- 1) Adapt and develop the imported machine .
- 2) Maintenance for all shoe making machinery.
- 3) Installation and maintenance service for air condition .
- 4) Installation of machine and piping work
- 5) Making the cutting die .

1997, PAN Group prepare to set up an incentive payment and re-arrange the process of manufacturing in every company in PAN Group. So the group sample is set up in every company. In PF Intertech Co.,Ltd., the group sample is in the department of cutting die.

Cutting die is a tool for making shape of glove and shoe. The process in manufacturing is a batch manufacturing. Products are produced in batches, the size are set by individual orders from customers. The process is varied depend on the pattern of cutting die.

The following will show the process of making cutting die.

No.	Process
1	Specification and prepare accessory
2	Bench curve
3	Fixed base
4	Weld
5	Surface finishing
6	Set pin, punch, white mark
7	QC
8	Paint spray

## 1.2 Statement of the Problem

The problem of making a cutting die like the other batch manufacturing problem in the widely of orders. The traditional production of cutting die is a line production. It was not flexibility, but complicate and it always have an interrupt job for an immediately production of the customer. Various type of products will effect the production planning in balancing manpower and machine. Making a cutting die is a typical batch manufacturing that would not start production until it received

an order . Making a cutting die does not produce stock items . Thus , it depends on constant in flow of customer orders .

In the existing manufacturing process of making cutting die , it is a queuing system . There are 12 persons in the process . When the first one finishes working , he will sent the first finished part to the next person . It will be the sequence of working . If someone late , it will cause the next one late too . The problem can be classified as follows :

- 1) Long production time , because the queuing system depend on the efficiency of everybody in group. So if some one is late or absent , it will make the productivity of group drop .
- 2) Labor cost can not be control . OT is higher than the expectation .
- 3) Efficiency of the employees is very low .

### **1.3 Objective of the Study**

To develop a cellular manufacturing system and incentive plan for cutting die process.

### **1.4 Scope of the Study**

This study will concern with the procedure of making cutting die , the payment , and efficiency of the employees and productivity .

### **1.5 Benefits of the Study.**

The study will directly be benefit to the department of cutting die . The expected benefits include :

- 1) Manufacturing cost reduction .
- 2) Less throughput time .
- 3) More production rate .