UTM
UNIVERSITI TEKNOLOGI MALAYSIA

FACULTY OF MECHANICAL ENGINEERING

INDUSTRIAL TRAINING TECHINCAL REPORT

AK DYNAMIC MANUFACTURING SDN BHD

NAME : MUHAMMAD FAKHRUL IZZUAN BIN MD FAKRULLAH

IC NO : 981104-43-5123

MATRIK NO: A17KM0244

DR. MOHD AYUB BIN SULONG
Senior Lecturer
Applied Mechanics & Design Department
Faculty of Mechanical Engineering
Universiti Teknologi Malaysia
81310 UTM Johor Bahru, Johor

INDUSTRIAL TRAINING TECHNICAL REPORT

AT

AK DYNAMIC MANUFACTURING SDN BHD

TRAINING PERIOD:

24th July 2022 – 14th October 2022

SUBMITTED BY:

MUHAMMAD FAKHRUL IZZUAN BIN MD FAKRULLAH

This Technical Report for Industrial Training is submitted to

Faculty of Mechanical Engineering

University Technology Malaysia

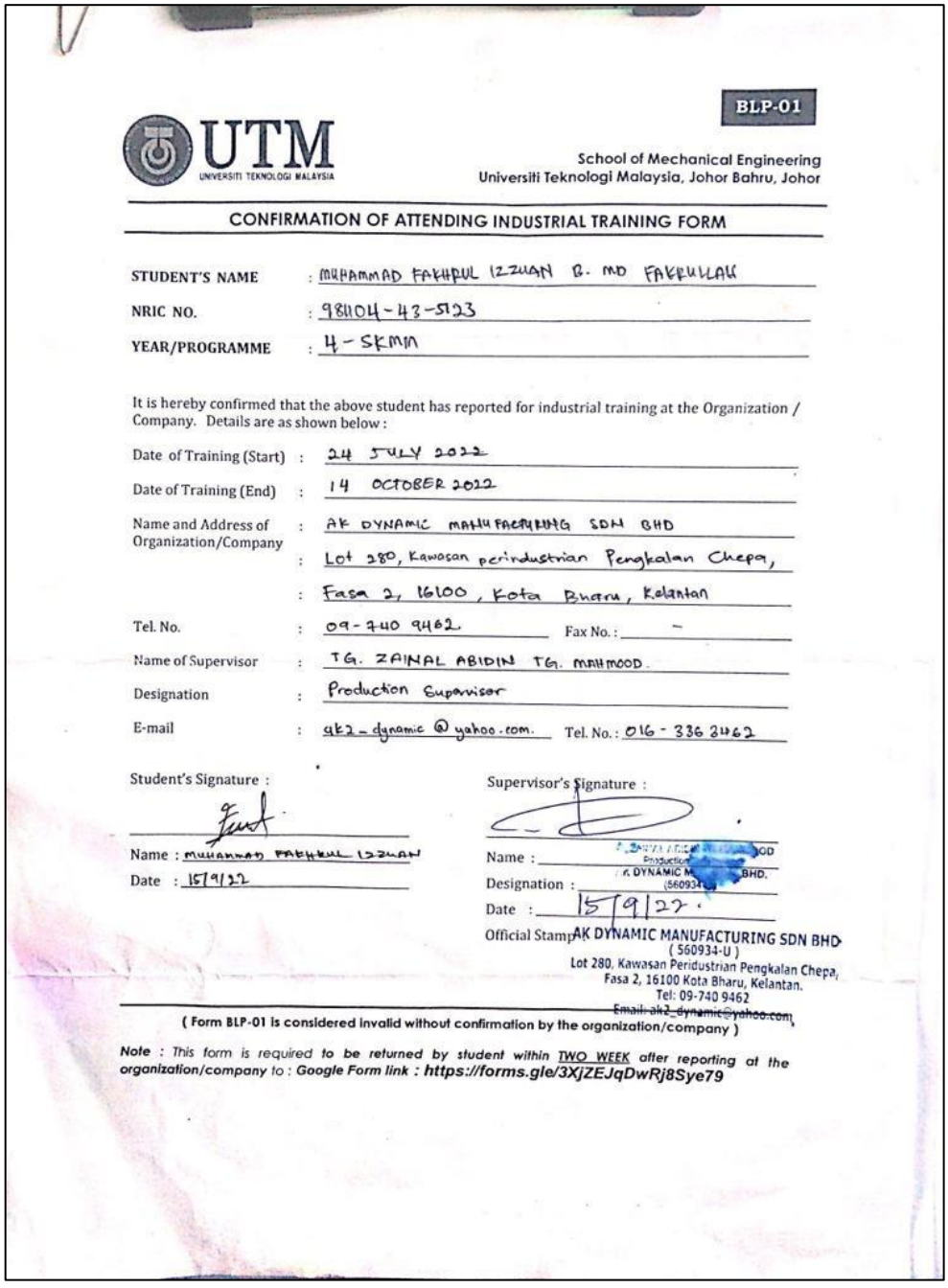
In partially fulfillment for Bachelor of Mechanical Engineering

Faculty of Mechanical Engineering

University Technology Malaysia

October 2022

CONFIRMATION OF ATTENDING INDUSTRIAL TRAINING FORM (BLP-01)



BLP-01

UTM
UNIVERSITI TEKNOLOGI MALAYSIA

School of Mechanical Engineering
Universiti Teknologi Malaysia, Johor Bahru, Johor

CONFIRMATION OF ATTENDING INDUSTRIAL TRAINING FORM

STUDENT'S NAME : MUHAMMAD FAKHRUL IZZUAN B. MD FAKRULLAH

NRIC NO. : 981104-43-5123

YEAR/PROGRAMME : 4 - SKMM

It is hereby confirmed that the above student has reported for industrial training at the Organization / Company. Details are as shown below :

Date of Training (Start) : 24 JULY 2022

Date of Training (End) : 14 OCTOBER 2022

Name and Address of Organization/Company : AK DYNAMIC MANUFACTURING SDN BHD

: Lot 280, Kawasan perindustrian Pengkalan Chepa,

: Fasa 2, 16100, Kota Bharu, Kelantan

Tel. No. : 09-740 9462 Fax No. : -

Name of Supervisor : TG. ZAINAL ABIDIN TG. MAHMOOD

Designation : Production Supervisor

E-mail : ak2-dynamic@yahoo.com. Tel. No. : 016-336 3462

Student's Signature :

Name : MUHAMMAD FAKHRUL IZZUAN

Date : 15/9/22

Supervisor's Signature :

Name : [illegible] OD

Designation : Production

Date : 15/9/22

Official Stamp : AK DYNAMIC MANUFACTURING SDN BHD
(560934-U)
Lot 280, Kawasan Peridustrian Pengkalan Chepa,
Fasa 2, 16100 Kota Bharu, Kelantan.
Tel: 09-740 9462
Email: ak2_dynamic@yahoo.com

(Form BLP-01 is considered invalid without confirmation by the organization/company)

Note : This form is required to be returned by student within TWO WEEK after reporting at the organization/company to : Google Form link : https://forms.gle/3XjZEJqDwRj8Sye79

ABSTRACT

This industrial training report of Muhammad Fakhrul Izzuan Bin Md Fakrullah to undergo anindustrial training for duration of 3 months which consist of 12 weeks. Starting industrial training on 24th July 2022 until 14th October 2022 at AKDynamic Manufacturing Sdn. Bhd which guided by Encik Tg Zainal Abidin Tg.Mahmood.

The purpose of this program is to fulfill the course in order to complete the degree as well as graduate from the college or university. The training refers to work experience that is relevant to professional development prior to graduate. In first chapter this report is defining the term of industrial training and description on industrial training objectives. This part explains the details of objectives of industrial training report and industrial report. In second chapter of report is overview of the company and departments.

The next chapter describes the summary of the duties and various tasks in weekly of industrial training activities that carried out. The next chapter was about the technical report and types of machines and how the process work. This training gives students a good experience in how working environment can create the potential for students to better quality in the field they want to operate in the present. Last but not least, trainee got opportunities to learn more about management and marketing.

ACKNOWLEDGEMENT

In the name of Allah, the most Beneficent and most Merciful, All praises to Allah, Lord of the universe and peace be upon His Messenger. I want to acknowledge Him on top of all for blessing me with patience and tenacity of mind to complete the Internship report. It is undeniably a vital requirement for certified degree with flying colors and I have received outstanding helps from many quarters which I would like to put on record here with great pleasure and deep gratitude.

Firstly, I would like to thank and compliment my industrial training supervisor, Encik Tg Zainal Abidin Tg.Mahmood. He is very kind in person and keen enough to give any newbie his full attention including me. Without his endless care and wit, I would not have made any clear progression and understand the purpose of being an intern at all. Most thanks for his support, feedbacks and all the worthwhile lessons.

I would also want to express my gratitude to dear lecturers who guided me and other companions throughout the internship programmed from the very beginning till its completion. Their expert lead, suggestion in class, and all the updating notices, had provided me relevant information in reaching the concept and objectives of this compulsory report. Surely, without such commitment and tolerance, I may not have finished any chapter efficiently. On top of that, to dear Dr. Mohd Ayub Sulong as my site visit supervisor, thanks for completing the event by hook or by crook.

Furthermore, I dedicated this to my beloved family and practical mates, I do appreciate all the helping hands they lend while I had loss the courage at certain point and they for sure had gathered me back into consciousness effortlessly. There are also seniors outside who share opinions in preparing this report. Not to forget, I value all the contributions whose articles and publications play part in my working papers. I owe my indebtedness to all those authors which had been great use to me. They are very precious people that i couldn't name personally.

Last but not least, it is a special honor to be a part of the firm itself for 12 weeks, so I acknowledge AK Dynamic Manufacturing Sdn. Bhd, solely for accepting me. All the sense of concern towards me are tremendous and unforgettable from the staffs. It is a beautiful experience to engage with the prestige firm. Therefore, the least I can hope is that my hard work and training can be the great epitome to a better application of engineering course in near future.

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INTRODUCTION

1.1 INTRODUCTION

Industrial training is a key component of learning at University Technology Malaysia (UTM). Students are required to pass industrial training before they are certified for certificate award or in degree. Students will be placed in government departments or private firms to expose them to real employment environments and differ from the atmosphere in the study place. Students can apply the knowledge and skills acquired during their studies during the industrial training period as well as learning new things.

Each student is required to find their own training ground by sending an application letter to the company or the desired firm. The company or firm must have something to do with the courses taken. If students fail to obtain a place for industrial training placement, they should meet with lecturers who conduct industrial training or Industrial Relations and Training Units to obtain information about companies or firms offering industrial training ground. While undergoing industrial training, students are still bound by UTM rules for which they must demonstrate discipline such as a UTM student. In addition, students must follow the regulations set by the company or firm. Students must also perform and complete the tasks entrusted by the company to them. Work carried out every working day must be recorded in the daily report book as a guide to writing the final report.

1.2 OBJECTIVE

1.2.1 Objective of industrial training

Industrial training is a major component of the extra-curricular learning in degree. The students are required to pass before the industrial training is recommend for award in degree at any university. The students will be placed in government department or private companies for 12 weeks to expose them to real work environment and different from the atmosphere at university.

Often student will be faced with many challenges and problems that have not been confronted. The main purpose of this training was to expose students to the real working environment when students out of university later.

Students also have the opportunity to use all the knowledge and theories related to course taken while at the university and provide opportunities for students to use the fruit of a creative mind for the good of the firm and indirectly for their own benefit as well. Thus, there has been this experience, maybe can help students to study in the following semester and a real working environment. Students can also be exposed to ways to communicate well, expanding relationship between partners of the workplace and the people around, foster teamwork and good relationship with industrial workers where this at once can cause a sense responsible to a trust (work) and balance as well as from all aspect.

In addition, following the Industrial Training, students can improve their own weaknesses to improve and think more rationally in the handle that had been given by the employer. During industrial training, students can assess their ability to work from employers. The students themselves can infuse the spirit of productivity to the challenges and obstacles that lie ahead.

Hopefully with the Industrial Training which is able to run to enhance the knowledge of students to enable them to contribute more effectively towards national development in the future and also to get a job that suits them according to the skills they have learned.

In conclusion, the objective of the training period is to:

a) To expose students to the real working environment.

b) Let us students see the connection between theoretical learning with practical work.

c) Adopt and comply with safety regulations in the industry.

d) Establish and strengthen confidence in the performance of duties.

e) Instill teamwork and good relationships with other employees.

f) Ability to assess themselves to prepare for the working world after graduation.

g) Raise awareness and increase student interest in the subject selected.

h) Uplifting honest, trustworthy, dedicated and responsible for the tasks assign

1.2.2 Objective of industrial training report

Industry reports are the result of experience of students making industrial training at companies or firms that they have assigned. It is also a report of daily activities performed during the training period while in the company or firm. Meanwhile, the scope of industrial reporting focuses on practicality and then adapted in the form of reports through experiences gained throughout the training period.

It is especially useful for every student to be used as a source of reference in the future. This report will also be a testament to the institute that these students have completed industrial training and are also eligible to receive degree and graduate in the fields taken.

This report can also be used as a reference material to students as well as to those who require it as guidelines or as a source of reference. It is also one of the conditions to pursue studies at the institute as it has already been enshrined as proof that this student has completed industrial training.

Upon completion of the industry, each student is required to prepare a final report on industrial training to be submitted to the institute. This industry training report is an important report because it:

- As a proof of activities carried out throughout industrial training.
- As a proof to that the students have attended industrial training.

Good and quality reports can be used in career interviews to be conducted by students who have successfully called graduates. An outstanding job does not give meaning if it cannot be reported in a good report. Therefore, writing a final report should be given special attention from students. Before starting an industry training report, a student must understand the standards that have been set to ensure good and quality reports can be prepared by the students.

The most important factor through this Industry Report is to enable students to formulate their experience through the experiences that have been gained during the industrial training period which will be adapted in the form of writing i.e. reports at the end of industrial training implemented.

The report must be written and must also follow the prescribed steps based on the information obtained as follows:

- Sentences that are easy to understand
- Good content
- Reporting content in a predetermined order

In this reporting book, it records whatever I have learned throughout the period of industrial training that has been conducted. This report contains diagrams, schedules etc. which will be included in the report. Hopefully, every reader will be able to understand more clearly with what is presented in this report.

1.2.3 The importance of industrial training

Industrial Training must be lived by all students in public higher education institutions or Private as a prerequisite for qualifying students receive a Degree in majors taken. Actually, it is not so qualified, but it is to create awareness about the situation in the working environment. With the Industrial Training many useful and valuable experience gained as supply before foot set in the sphere of employment. It also can build confidence with the experience and knowledge available. So quite easy and convenient to carry out the work that will be given later.

Industry training is important because such training can expose students to the real working environment. It also can add and expand technical knowledge and skills of the student, if the student has previously acquired knowledge is limited, but when students attend this training, students can find out more about things, and when something will work. In addition, students can learn about the latest technology or skills in Training Industry.

In addition, this exercise also introduces the students themselves in terms of ability, willingness, and attitude to the employer. This exercise can highlight the ability of students to work hard and to work with dedication and show a positive attitude to the employer.

This training is also important as it can get rid of inferiority complex while a student at the university, but when students are in training it is likely he will meet with officials of high rank or attend meetings and provide jobs to foreign workers.

Through this training, students are able to handle a problem with wise through experience that has been through this before. The value of respect for those around him will arise within the student if the student's Industrial Training heartfelt and sincere. It is hoped that these properties will be sustained in the future.

The conclusion that can be defined on the importance of industrial training are:

a) To build and strengthen the students to be more confident to face any task and tribulations faced in the workplace.

b) Planting teamwork and good relations between workers and employees of an organization.

c) To expose students to the real working environment.

d) To make students do not face any difficulty or clumsy when start working soon.

e) Adopt and comply with safety regulations in the industry.

f) Linking theory to practice and so on.

g) Build confidence.

h) Fostering honesty and responsibility in performing tasks.

i) Provide an official report on completion of training.

CHAPTER 2 :

BACKGROUND OF INDUSTRY TRAINING PLACE

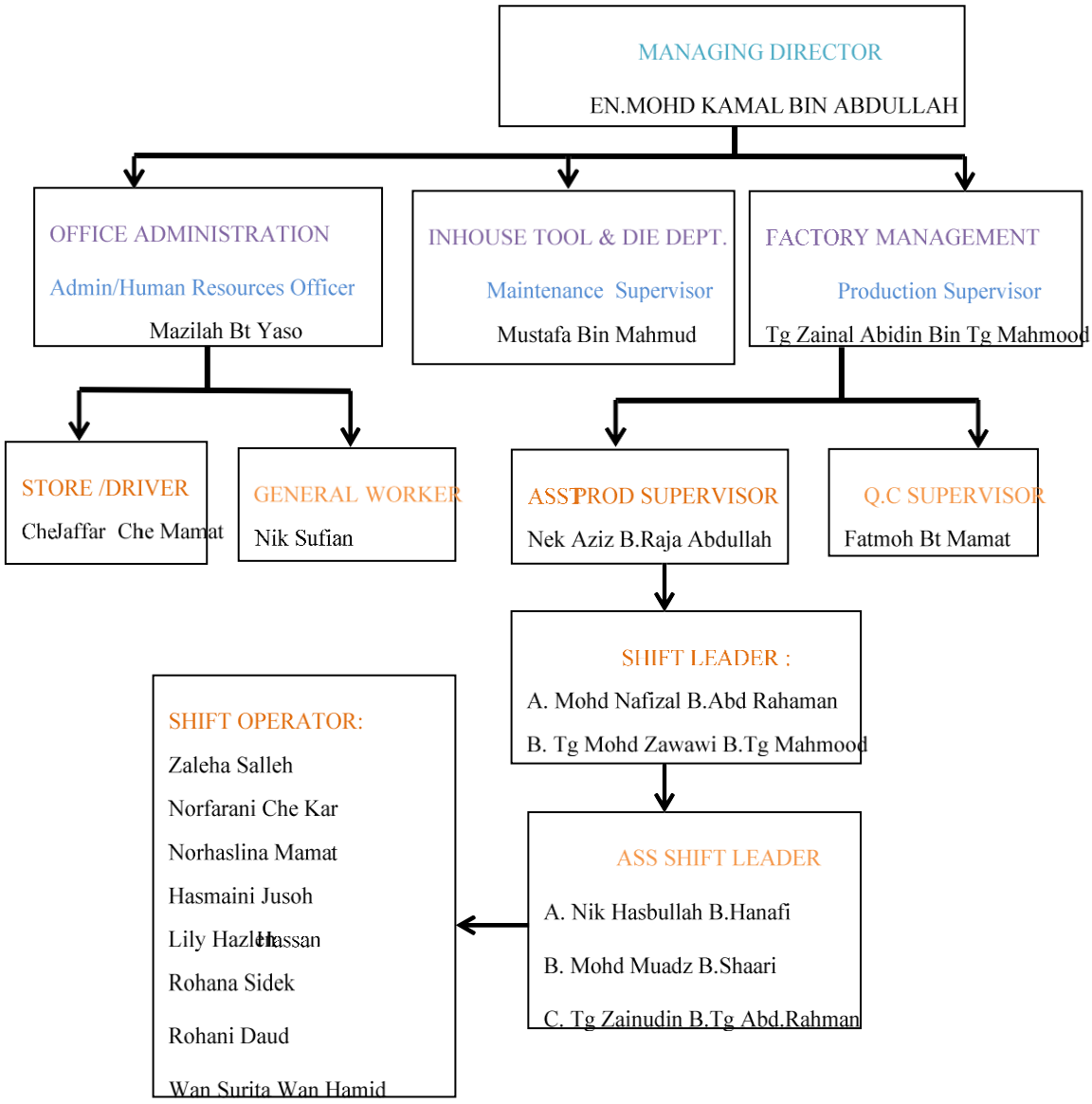
2.1 Introduction of AK Dynamic Manufacturing Sdn. Bhd

Name	AK Dynamic Manufacturing Sdn.Bhd. (2)
Company Registration No.	560934-U
MPKB L License No.	L) 778/2012
NO. Akta Kilang Dan Jentera.1967	JKKP.D 127/T.17/19j1d3(10)
Company Address/ Office	Lot 280, Kawasan Perindustrian, Pengkalan Chepa, Fasa II, 16100 Kota Bharu,Kelantan.
Phone No.	609-7409462
No Faksimili	-
E-Mail	ak2_dynamic@yahoo.com
Pegawai Perhubungan	Mohd Kamal Bin Abdullah-Pengarah Muhammad Fakhri Mohd Mahayuddin- Pengurus/Perhubungan Perniagaan. Mzilah Yaso'-Pegawai Pentadbiran. Tg Zainal Abidin Tg.Mahmood- Penyelia Pengeluaran.

Date Established	**16/02/2012**
Capital paid	RM 500,000.00
Pemegang saham	100% bumiputera
Name of Bank	Bank islam malaysia berhad, cawangan kota bharu, No. 72 Jalan Sultan Yahya Petra, 15720 kota bharu, Kelantan. A/C NO : 03-036-01-003991
Business activities	Are involved in the manufacturing of goods from plastics..

Table 2.1: Introduction of company

2.2 COMPANY ORGANIZATION CHART



2.3 COMPANY VISION AND MISSION

2.3.1 Vision

- Quality advantages with professionalism through the strength of attitudes and material

2.3.2 Mission

- Making AK Dynamic Manufacturing Sdn. Bhd as a main manufacturer and supplier for high quality plastic goods and plastic components at affordable prices and exact deliveries customer satisfaction.

2.4 HISTORY OF THE COMPANY

AK Dynamic Manufacturing Sdn. Bhd. factory formerly known as MS Plstech was registered on 3/10/2001. In early 2002, the company commenced production of plastic products by renting a factory in the MARA Industrial Area, Pengkalan Chepa using 3 units of Blow Moulding Machines and 1 unit of Injection Moulding Machine.

In 2004, MS Plastech Company built its own industrial plant on lot 280 land, Pengkalan Chepa Industrial Estate, Phase 2,16100, Kota Bharu, Kelantan by adding more Blowing Machines and Injection Molding Machines.

In 2012, dated 16 February 2012, MS Plastech Was acquired by AK Dynamic Company by conducting the same business dealings namely making and removing goods based on plastic manufacturing.

2.5 PRINCIPAL ACTIVITIES OF THE COMPANY

Make and manufacture products and components from plastics such as plastic bottles and plastic components. Since the company operated, the company has grown rapidly with a factory area of 24,000 square feet and has the following machine: -

i) 7 units 'Blow Moulding' Capacity: 3 ml-5.0 liters
ii) 4 units 'Injection Moulding', Capacity: 80 tons - 160 tons
iii) 1 unit printing machine
iv) 3 units 'Crusher', 'Mould-Mould' & other accessories

Besides that, the company also has its own workshop measuring 800 square feet with machineries for repairing molds and machineries as follows: -

i) 1 unit Lathe Machine
ii) 1 unit Drilling Machine
iii) 1 Unit Milling Machine
iv) 1 unit Grinding Machine

In addition, the company also has 2 transportation units which are vehicles as follows:

i) 1 unit of lorry “Inokom” 2 ton – for delivery product to customer in and out of state
ii) 1 unit of forklift – for purpose of lifting heavy things in company area

2.5.1 Company's activity

- for hospital and clinic
- Dispensing Bottle / lotion Bottle:
  30 ml,4ml,60ml,90ml,120ml & 240ml
- Plastik Ointment Box:
  15gm,30gm,60gm

- Others
- Plastik Sputum Cup, Bobbin, Jasa Easyclip

- Industrial use
- Plactic bottle for packaging with capacity of :
  500 ml , 1.0 Lt, 22 Lt, 2.85 Lt, 4.0 Lt dan 5.0Lt.
- Plastic bottle for drinks with capacity of:
  190 ml,200ml,250ml,280ml,290ml,310ml, dan 500 ml.
- Plastic bottle for medicine with capacity of:
  35ml,60ml,130ml,341ml

- Components of plastic
- Soy sauce cover / 1 layer vinegar, soy sauce cover /2-layer vinegar, Yellow / Red Tomato Cover, Insert Tomato S/L, Cover Budu Cap Ketereh big and small, Vinegar Cover/Soy screw Cap

2.6 COMPANY CLIENTS

Customer and clients consist of east coast companies such as Kelantan, Terengganu, and Pahang as well as several other states for example Johor and Selangor. Among them are:-

- Hospital-hospital Kerajaan
- Klinik-Klinik Swasta
- Ain Medicare Sdn.Bhd.
- Rohm Wako Electronics (M) Sdn.Bhd.
- Ismail Jusoh “Budu Cap Ketereh”
- MH Mohd Industries Sdn.Bhd
- Adilah Product
- Mahjasa Plaspack
- MY Jaafar
- Jitu Industries Sdn.Bhd.
- Waja Best Enterprise
- Chye Guan Aereted Sdn.Bhd.
- Percetakan Nasional Malaysia Bhd
- JB Yew Seng & Huang Pu Trd., Johor Bharu
- Art Soulist Holding Sdn.Bhd / Lovelure Holdings (M) S/B
- small industries that make drinking water (Kelantan & Terengganu)
- Small Industries Make Chillies & Sauce (Kelantan & Terengganu)
- Traders & Stokis

2.7 LIST OF NAMES/TYPES OF MACHINES

No	NAMA/ JENIS MESIN
	in factory division **:**
1	1 unit Blow Molding Machine FS 495D PE
2	1 unit Blow Molding Machine SINCO VK 750
3	1 unit Blow Molding Machine SMC500
4	1 unit Blow Molding Machine VK 750 DL
5	1 unit Blow Molding Machine VK 750 DC
6	1 unit Blow Molding Machine SINCO VK 2000
7	1 unit Blow Molding Machine SINCO VK 5000 CCS
8	1 unit Injection Molding Machine NISSEI FS75S100SE
9	1 unit Injection Molding Machine NISSEI 80 ASE
10	1 unit Injection Molding Machine NISSEI 120 ASE
11	1 unit Injection Molding Machine HAITIAN HTF250X
12	1 unit Printing Machine CA-101 SXL
13	1 unit Tumbler Mixer Machine 50 kg
14	1 unit Medium Grinder Machine
15	1 unit Large Grinder Machine

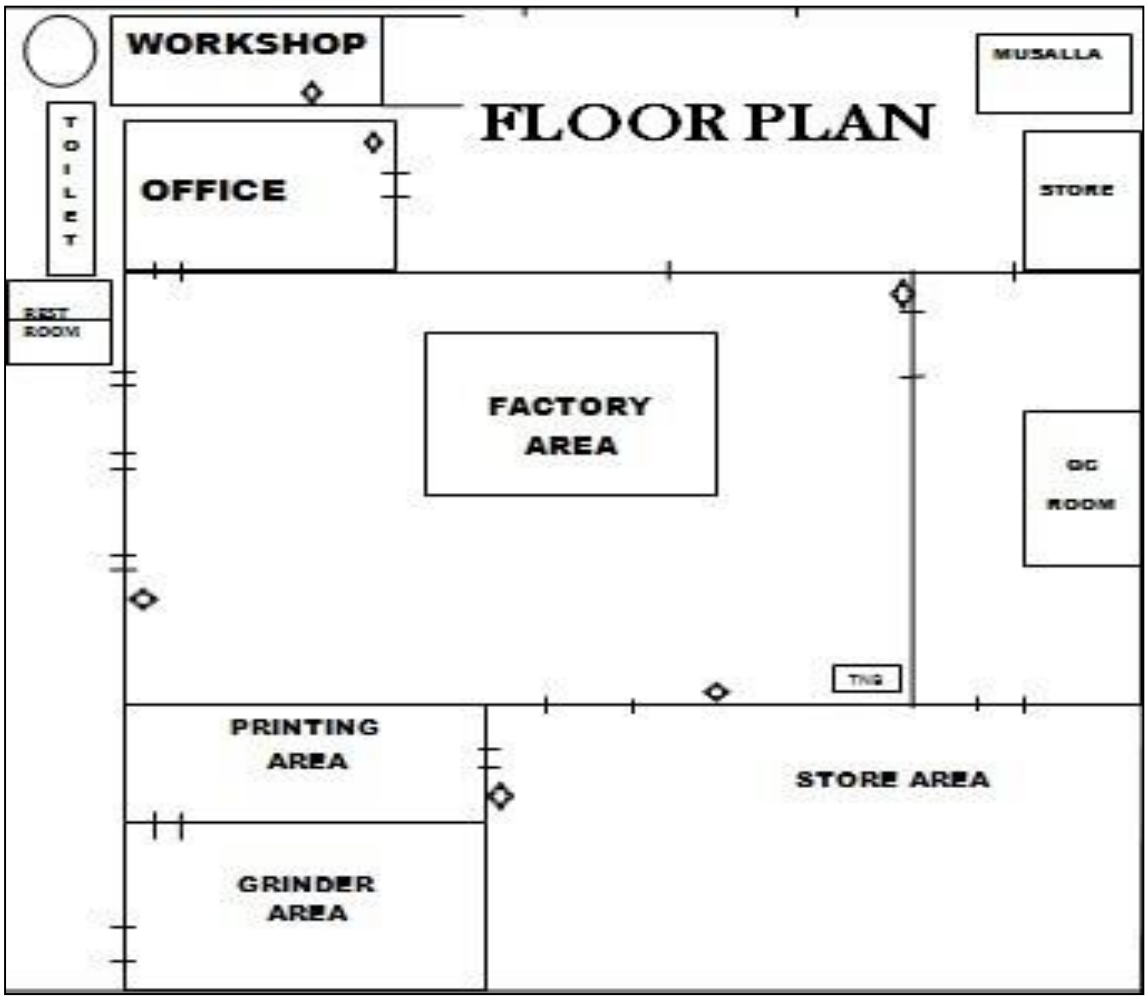
Table 2.2 : List of Machines

No	MACHINE NAME/ TYPE
	In factory workshop :
1	1 unit Lathe Machine
2	1 unit Drilling Machine
3	1 Unit Milling Machine
4	1 unit Grinding Machine

Table 2.3: List of Machinery In Workshop.

2..8 PLAN IN COMPANY

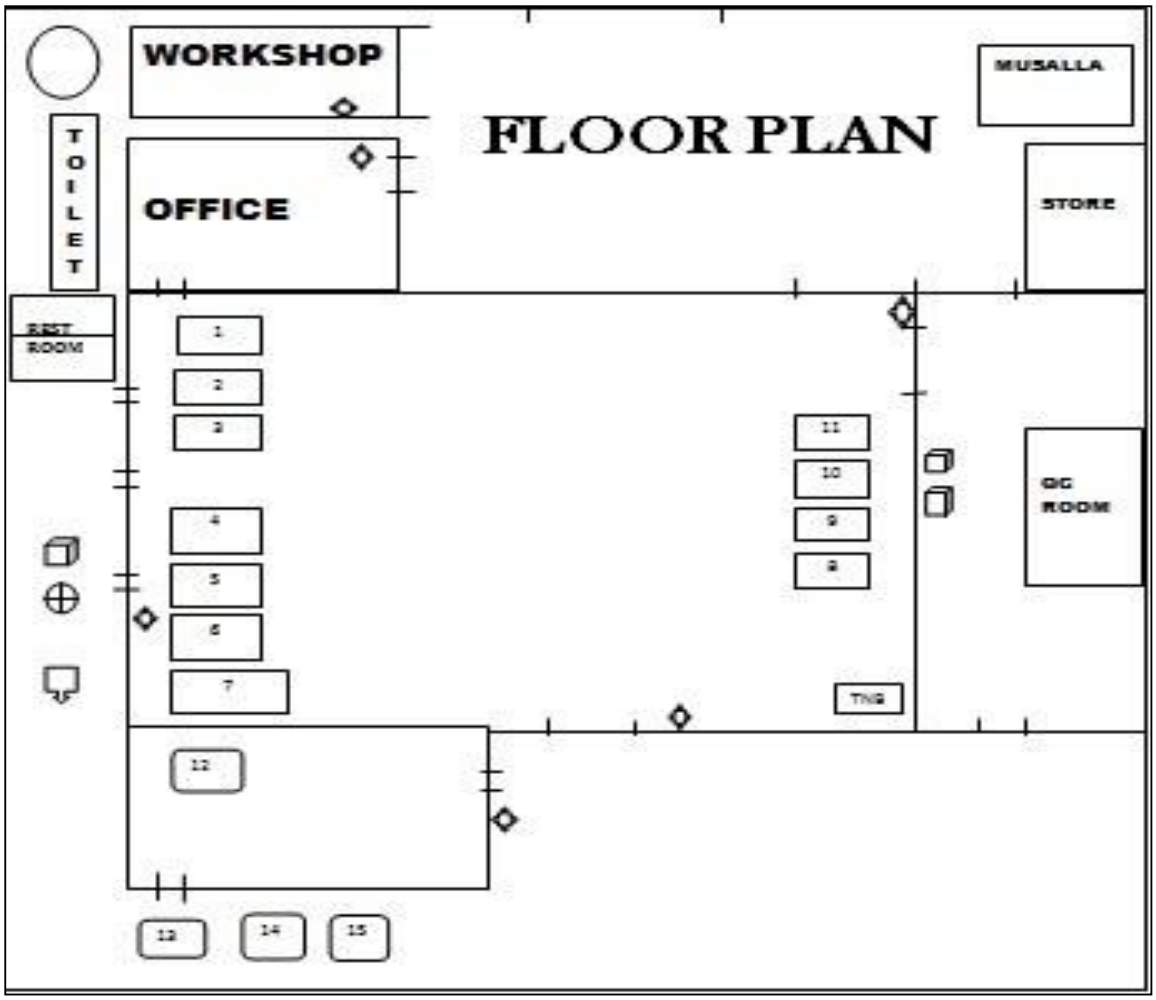
.2.8.1 Plan in company 1



PETUNJUK

FIRE EXTINGUISHHER WATER TANK ENTRANCE

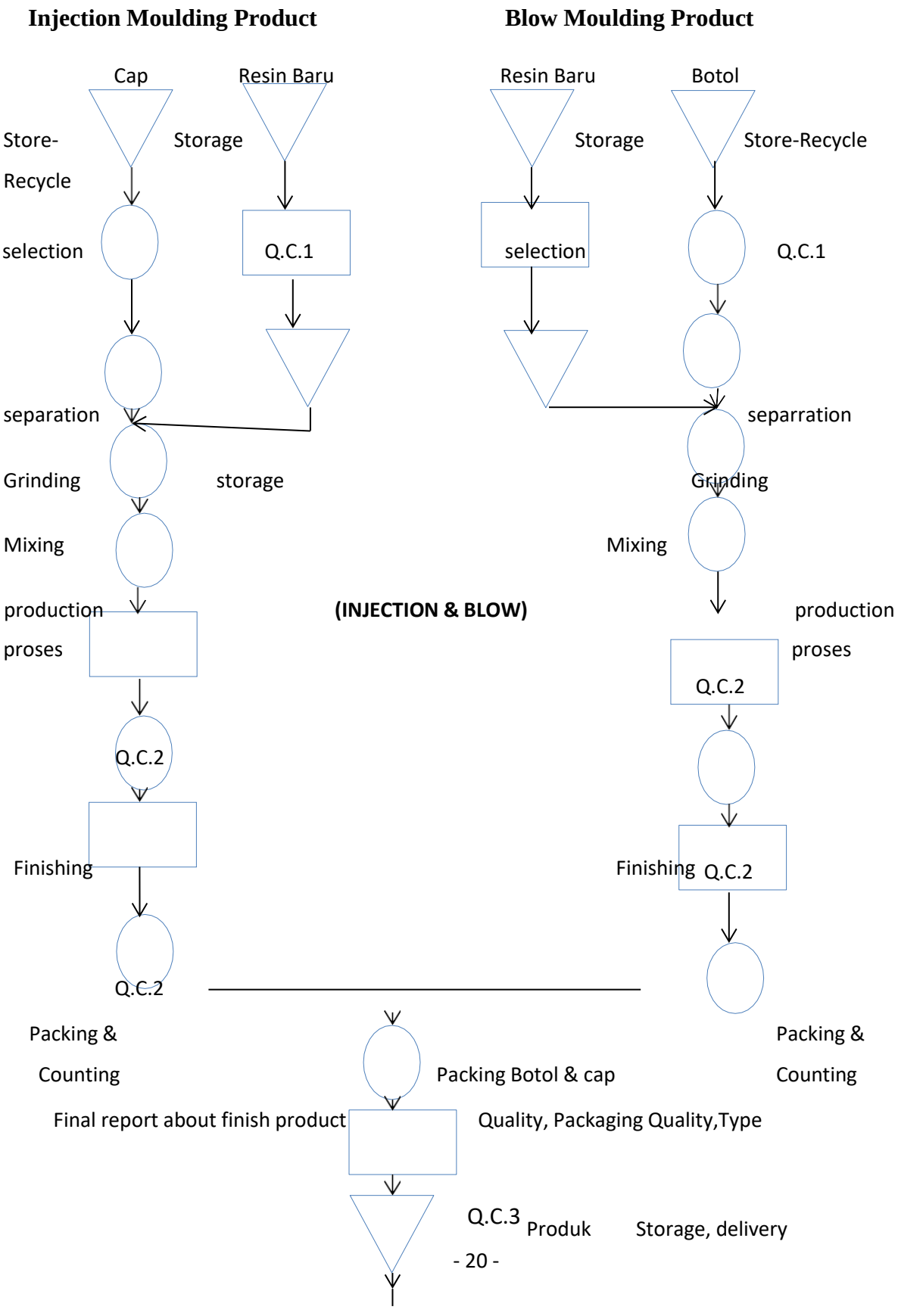
2.8.2 Plan in company 2



FIRE EXTINGUISHER WATER TANK AIR DRYER ENTRANCE

CHILLER AIR COMPRESSOR COOLING TOWER

2.9 FLOW CHART PRODUCTION PROCESS



2.10 LIST OF PRODUCTS MANUFACTURED

2.10.1 clinic product

Bil	*Produk*
1	*Disp/Bottle 30ml c/w cap - square*
2	*Disp/Bottle 45ml c/w cap - square*
3	*Disp/Bottle 60ml c/w cap - square*
4	*Disp/Bottle 90ml c/w cap - square*
5	*Disp/Bottle 120ml c/w cap - square*
6	*Poison Bottle 30ml red cap*
7	*Poison Bottle 45ml red cap*
8	*Poison Bottle 60ml red cap*
9	*Poison Bottle 90ml red cap*
10	*Poison Bottle 120ml red cap*

Table 2.4: List of Clinic Products

2.10.2 Hospital Products

Bil	*Produk*
1	*Disp/Bottle 60ml insertcap - Round*
2	*Disp/Bottle 120ml insertcap - Round*
3	*Disp/Bottle 240ml insertcap - Round*
4	*Disp/Bottle 60ml screw cap - Round*
5	*Disp/Bottle 120ml screw cap - Round*
6	*Disp/Bottle 240ml screw cap - Round*
7	*Lotion Bottle 60ml c/w red cap - Square*
8	*Lotion Bottle 120ml c/w insert & cap*
9	*Lotion Bottle 240ml c/w insert & cap*
10	*15gm Ointment Box tranparent*
11	*15gm Ointment Box White*
12	*30gm Ointment Box*

Table 2.5: List of Hospital Products

2.10.3 Products For Industrial Use/ Local Market

Bil	***Produk***
1	*Botol Susu 190ml c/w cap*
2	*Botol Susu 200ml c/w cap*
3	*Botol Susu 200ml Screw cap*
4	*Botol Susu 250ml c/w cap*
5	*Botol Susu 500ml c/w cap*
6	*Botol Jus 265ml - Body Type*
7	*Botol Jus 280ml*
8	*Botol Jus 250ml - New*
9	*Botol Jus 280ml- Boling*
10	*Botol Jus 200ml*
11	*Botol Jus 310ml*
12	*Botol Jus 290ml*
13	*Botol 130ml c/w cap*
14	*Botol 3411 c/w insert & cap*
15	*Botol Shampoo 500ml c/w insert & cap*
15	*Botol 1.0 Lt c/w insert & cap - Transparent*
16	*Botol 1.0 Lt c/w insert & cap -white*
17	*Botol 500ml Round white c/w Cap & insert*
18	*Botol 1.85 Lt c/w insert & cap*
19	*Botol 2.2 LT c/w Cap & insert*
20	*Botol 2.8 Lt c/w insert & cap*
21	*Botol 3.3 Lt c/w insert & cap*
22	*Botol 4.0 Lt c/w insert & cap - White*
23	*Botol 4.0 Lt c/w insert & cap - Transparent*
22	*Penutup Tomato Kuning*
23	*Penutup Tomato Merah*
24	*Insert Tomato S*

25	*Insert Tomato L*
26	*Penutup Kicap 1 lapis*
27	*Penutup Kicap 2 lapis*
28	*Penutup Kicap screw cap - Merah*
29	*Penutup Kicap 2 lapis -Gold*
30	*Penutup Budu Cap Ketereh - Besar*
31	*Penutup Budu Cap Ketereh - Kecil*
32	*Bobbin*
33	*Botol Tapa 60ml*
34	*Botol Astromin c/w insert & cap*
35	*Botol BB360Kecil*
36	*Botol BB 360Besar*
37	*Botol Sensaoil 35ml*
39	*Jasa Easyclip 3 set*
40	*Jasa Easyclip 2 set*
41	*Botol 100ml -White*

Table 2.6: List of Industrial Products/ Local Markets

Chapter 3:

ACTIVITIES CARRIED OUT THROUGHOUT INDUSTRIAL TRAINING

3.1 INTRODUCTION

While undergoing Industrial Training, I and several other practical institute partners are required to perform directed tasks. We work on schedules set by the supervisor. We also have the opportunity to learn in more detail about a work and task execution with more dedication and perfect.

Employees in the department are also concerned about practical trainees and they are ready to provide tutoring and willing to pour knowledge to us. This helps us in the process of writing training report books Industry.

3.2 DAILY LOGBOOK

The Daily logbook is an important document to record a work done. It should be updated during the implementation period and is a complete important document. This makes it become more valuable. This logbook is important to ensure that all information is done daily during industrial training. All important information should be carefully recorded to learn about the daily progress of students in undergoing industrial training.

3.3 WEEKLY REPORT

The logbook has two sections, which are daily records and weekly records. During this weekly part students should state what knowledge and skills they have found during the week. In this section, students who have undergone industrial training, students should state what impact and impact they have got in themselves during the week in conducting industrial training with knowledge that has been shared and given to them.

3.4 INDUSTRIAL TRAINING SCHEDULE

0800 : - Arrive at the company. Punch in and located at production area.

- Listening task that been given
- Doing the task that been given

1000 : - Morning break

1030 : - Continue with the task

1300 : - Lunch break

1400 : - Continue with the task

1700 : - Punch out and went home

3.4.1 Holiday

- Friday and Saturday

3.5 SUMMARY AND SOME OF WEEKLY REPORT AND LOGBOOK

3.5.1 WEEK 6 (28/8/2022 – 1/9/2022)

- **Sunday**

Time	Entry	Description / Remarks
0800	Arrive at the company Punch in and located at production area	i) Finished product are going to be collected from the machine and to be placed at the specific area before selected.
0830	Collected the finished product from the machine.	ii) 
1000	Morning break	
1030	Selected good product and defect product	
1230	Moved the company's product from the store into the lorry to be transported to the customer	
1300	Lunch break	iii) One of the products that going to be selected
1400	Going with company staff to transport product to customer	
1700	Punch out and went home	

- Monday

Time	Entry	Description / Remarks
0800	Arrive at the company Punch in and located at production area	i) 
0830	Collected the finished product from the machine	
1000	Morning Breaks	ii)
1030	Changing mould plate for blowing machine	
1300	Lunch breaks	
1400	Help staff with repairing grinding machine	iii) Remove old mould plate for blowing machine to be change into the new one
1700	Punch out and went home	iv) 

- Tuesday

Time	Entry	Description / Remarks
0800	Arrive at the company Punch in and located at production area	i) 
0830	Collected the finished product from the machine	
0900	Putting the defected product into grinding machine to recycle it	ii) Grinding machine, tool that employs a rotating abrasive wheel to change the shape or dimensions of a hard, usually metallic, body.
1000	Morning breaks	
1030	Changing mould plate for injection machine 1 & 2.	iii) 
1300	Lunch Break	
1400	Changing mould plate for injection machine 3.	iv) 
1700	Punch out and went home	

- Wednesday

Time	Entry	Description / Remarks
		Independence Day

- Thursday

Time	Entry	Description / Remarks
8.00 0830 0915 10.00 1030 1630 1700	Arrive at the company Punch in and located at production area Collected the finished product from the machine. Moved the company's product from the store into the lorry to be transported to the customer Morning break Going with company staff to transport product to customer Arrive at the company Punch out and went home	i)  ii)  iii) One of the company customer that buy product from the company

3.5.2 Week 8 (11/9/2022 – 15/9/2022)

- Sunday

Time	Entry	Description / Remarks
0700 0715 2200	Arrive at the company Going with company staff to delivery product for customer in Terengganu and Kuantan Arrive at the company. Punch out and went home	i) Delivery company product to customer place in Kuantan \

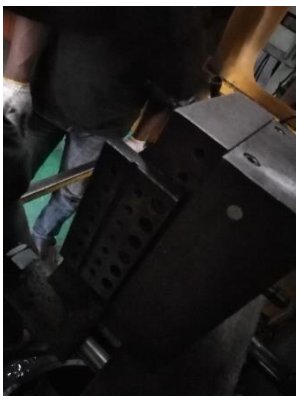
- Monday

Time	Entry	Description / Remarks
8.00	Arrive at the company Punch in and located at production area	i) 
0830	Putting the defected product into grinding machine to recycle it	
10.00	Morning break.	
1030	Selected good product and defect product	ii) 
1300	Lunch breaks.	
1400	Putting material into mixer machine	iii) 
1500	Repairing grinding machine	
1700	Punch out and went home	iv) Material that stuck in the grinding machine

- Tuesday

Time	Entry	Description / Remarks
0800	Arrive at the company Punch in and located at production area	i) 
0830	Putting defected product into grinding machine	
0930	Sew product that has been selected	
1000	Morning break.	
1030	Moved the company's product from the store into the lorry to be delivery to the customer	ii) 
1130	Changing mold plate for blowing machine	
1300	Lunch Break	
1400	Selected product	
1800	Punch out and went home	

- Wednesday

Time	Entry	Description / Remarks
0800	Arrive at the company	i) 
0900	Changing mold plate for blowing machine	
1000	Morning break.	
1030	Repairing and cleaning nozzle for blowing machine	
1200	Selected product	
1300	Lunch break.	
1400	Changing mould plate for blowing machine	
1700	Punch out and went home	

- Thursday

Time	Entry	Description / Remarks
0800 0830 0915 1000 1030 1200 1300 1400 1500 1700	Arrive at the company Weighing product that has been selected Moved the company's product from the store into the lorry to be delivery to the customer Morning break Changing mold plate for injection machine Accompany supervisor to settle some job Lunch break Putting defected product into grinding machine Changing hydraulic oil Punch out and went home	i)  ii) 

3.5.3 Week 10 (25/9/2022 – 29/9/2022)

- **Sunday**

Time	Entry	Description / Remarks
0800	Arrive at company and punch in.	 Figure 1: Leaking oil
0815-1000	Checking injection and blow machine if any leaking oil. Destroy the byside and damaged of cap into grinding machine.	*Injection molding machine use hydraulic pressure to force materials into mold. Normally, if an injection molding machine is leaking oil it is having a problem with a hydraulic gasket failure or a broken hydraulic hose.
1000-1015	Morning breaks.	
1015-1300	Went to selection and packaging area to pick a good product.	
1300-1400	Lunch hour.	
1600-1700	Continues to choose and isolate between good product and damages product. Went home.	  Damaged cap (left) and good cap (right)

- Monday

Time	Entry	Description / Remarks
0800	Arrive at the company Punch in and located at production area	i) 
0830	Going with company staff to delivery product for customer	
1000	Morning break	
1030	Changing new mould plate for injection machine	ii) Defected product in the grinding machine
1300	Lunch break	iii) 
1400	Putting defect product into grinding machine	
1500	Moved the company's product from the store into the lorry to be delivery to the customer.	iv) Product that been moved in the lorry
1700	Punch out and went home	

- Tuesday

Time	Entry	Description / Remarks
0800	Arrive at the company Punch in and located at production area	i) 
0900	Going with company staff to delivery product for customer (Terengganu)	
1000	Morning break.	
1030	Delivery product to customer	
1300	Lunch Break	ii) 
1400	Visit one of the company branches to take material and product in Terengganu	
1800	Arrive at the company Punch out and went home	iii) Product that want to pick up at the company branch

- Wednesday

Time	Entry	Description / Remarks
0800	Arrive at the company	i) 
0900	Moved the company's product from the store into the lorry to be delivery to the customer	
1000	Morning break.	
1030	Changing mould (plate) for blowing machine	
1300	Lunch break.	ii) In process of changing mould for blowing machine
1400	Changing mould (plate) for injection machine	iii) 
1500	Sew product after weighing and selected	
1700	Punch out and went home	iv) A few products that want to be sew

- Thursday

Time	Entry	Description / Remarks
0800 0815-1000 1000-1015 1015-1300 1300-1400 1400-1645 1700	Arrive at company. Setup Blow machine. Morning break. Grin the damaged products. Lunch break. Change new mold for blow machine. Punch out and went home	i)  ii) BLOW MACHINE: ➢ Multiple materials are used, including Low-Density Polypropylene (LDPE), High-Density Polyethylene (HDPE), Polyvinyl Chloride (PVC), Polyethylene Terephthalate (PET), and Polypropylene (PP).

CHAPTER 4

TECHNICAL REPORT

4.1 INTRODUCTTION

Today, there is a very rapid growth in the use of plastic products in the manufacture industry due to its highly versatile and possessive economic value high. Therefore, AK DYNAMIC MANUFACTURING company makes plastic products because of knowledge and technology utilized for polymer easier, thus producing high quality plastic products and good quality.

One of the techniques that is effective and widely used for substance processing is 'Extrusion Blow Molding' and 'Injection moulding'. AK DYNAMIC MANUFACTURING company has become one of the suppliers of a large company namely AIN MEDICARE to supply plastic products. Moreover, the company also accepts orders from customers which is why we need well-functioning and high-tech equipment and machinery to produce quality products.

Therefore, AK DYNAMIC company requires high-quality machines to supply company products to customers with high quality and produce enough products to ship to customers. In addition, AK DYNAMIC management also provides high-tech additional equipment to make it easier for employees to do work such as quality checking, leakage testing and endurance testing

However, hand tools and other equipment facilities to facilitate repair and maintenance works by technicians immediately to ensure timely products to be delivered to customers

The main machines in the AK DYNAMIC company are the 'Extrusion Blow Molding' and 'Injection Moulding' machines. There are five 'Extrusion Blow Molding' machines and four 'Injection Moulding' machines at this AK DYNAMIC company. However, the AK DYNAMIC factory also supplies grinder machines to recycle defect product and bottles that do not follow the desired quality specifications to be used as recycled plastic raw materials.

4.2 MATERIALS USED

4.2.1 TYPES OF MATERIALS USED

Raw materials are the main ingredients for producing a plastic product. There are three types of raw materials used which are high-density polyethylene (HDPE), polypropylene(PP) and low-density polyethylene (LDPE). The selection of raw materials is also crucial for producing quality and high-quality products. Among the selections are:-

i. Characteristics of raw materials based on the product to be produced.
ii. Handling of raw materials.
iii. Procedures that have been prescribed during material selection.
iv. Types of raw materials.

4.2.2 TYPES OF RAW MATERIAL GRADES USED

The normal grades used here are only 3gred grades which are grades A, B, C and D.Each grade used is only for a product.

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4.3 EQUIPMENT & SPECIFICATIONS USED

4.3.1 MOLD TO PRODUCE PRODUCTS

Mold plays an important role in producing products. This mold is a form to produce the product by following the measurements made. That way, it facilitates the work of machines to produce the desired product. The product produced is dependent on the mold. In order to produce product that is good in quality and perfect, the shape and condition of the mold must be taken care of and serviced in good condition.

Figure 4.1: Example of mold

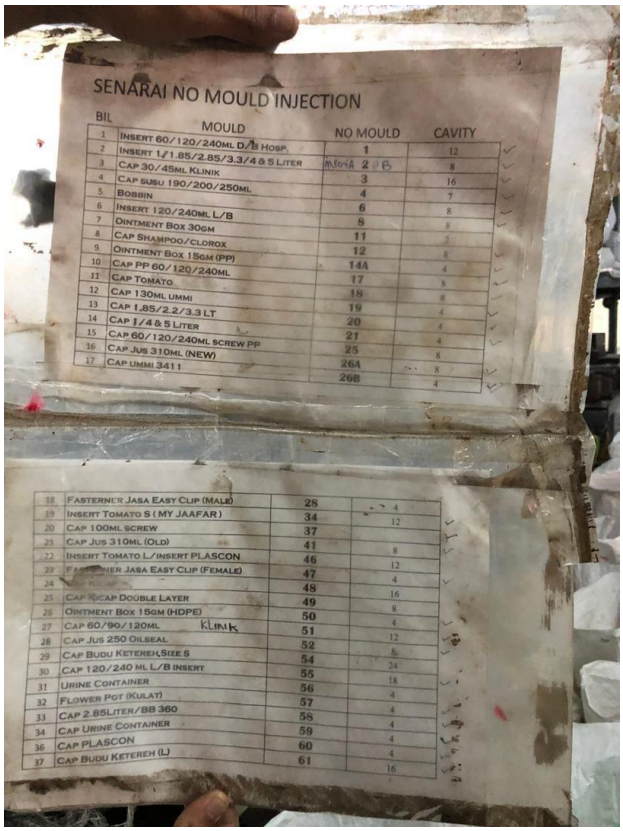


Figure 4.2: List of mold for injection machine

Figure 4.3: List of mold for blowing machine

4.4 TYPES OF MACHINES

4.4.1 Injection Molding Machine

An Injection molding machine, or, also known as an injection press, is a machine for manufacturing plastic products by the injection molding process. It consists of two main parts, an injection unit and a clamping unit. There are four injection molding machines manufactured by AK DYNAMIC MANUFACTURING.

Figure 4.4: Injection molding machine that been used in company

4.4.1.1 The uses of components on the molding injection machine.

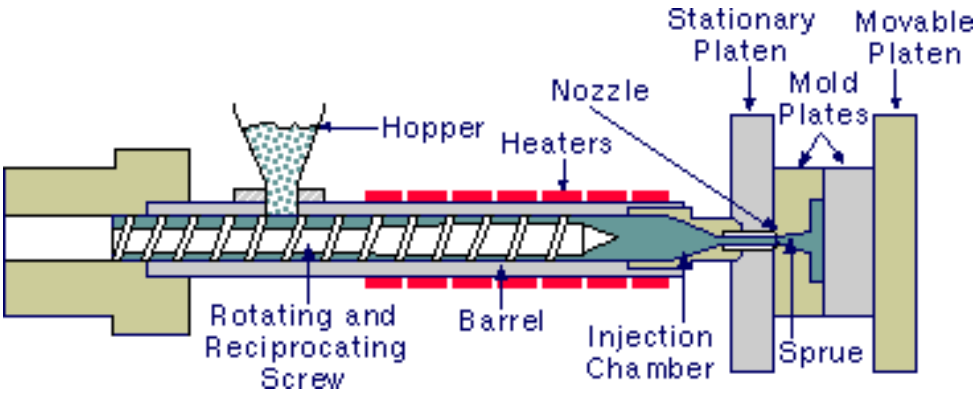


Figure 4.5: component injection machine

- **The hopper** - Thermoplastic material is supplied to molders in the form of small pellets. The hopper on the injection molding machine holds these pellets. The pellets are gravity-fed from the hopper through the hopper throat into the barrel and screw assembly.
- **The barrel** - As shown in figure 5, the barrel of the injection molding machine supports the reciprocating plasticizing screw. It is heated by the electric heater bands.
- **The nozzle** - The nozzle connects the barrel to the sprue bushing of the mold and forms a seal between the barrel and the mold. The temperature of the nozzle should be set to the material's melt temperature or just below it, depending on the recommendation of the material supplier.
- **The reciprocating screw** - The reciprocating screw is used to compress, melt, and convey the material. The reciprocating screw consists of three zones (illustrated below):
    - the feeding zones
    - the compressing (or transition) zone
    - the metering zones

4.4.1.2 Main part in injection molding machine

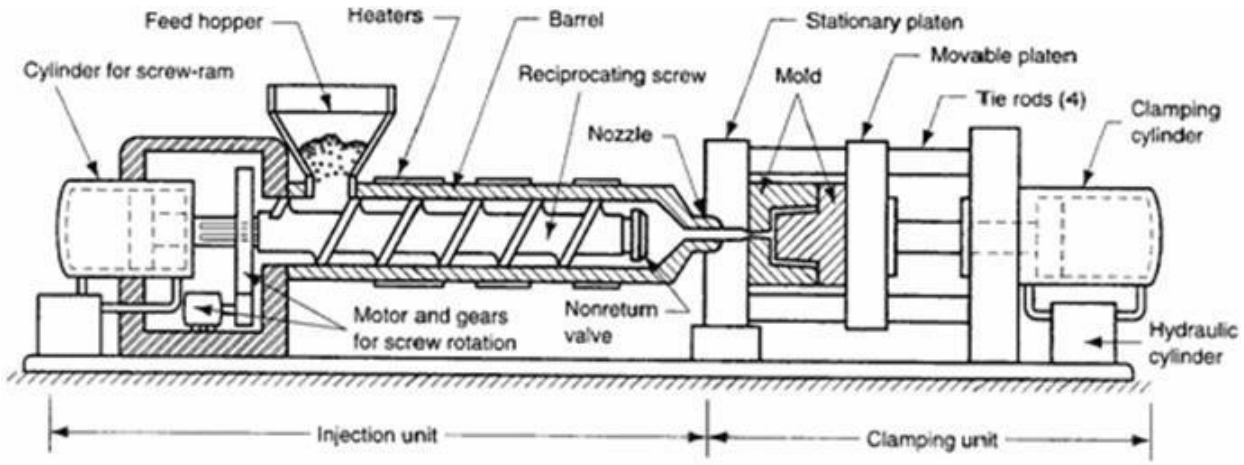


Figure 4.6: part in injection molding machine

FOUR BASIC PARTS OF INJECTION MOLDING MACHINE:

The injection molding machine is consisting of four basic parts: the injection unit, the clamping and ejecting unit, electric and hydraulic control unit. The purpose of injection unit is to melt the plastic and conveys or forces the material into the mold. The clamping unit is to keep the mold in a closed position and to resist the pressures during injecting to form the material into a specific shape, and then opens after cooling to eject the product from the mold. The electric and hydraulic control units is to offer the power to injector and control the movement of injecting such as injection or clamping unit, screw movement or ejector action.

Plasticizing and injection system

The injection unit of the machine is used to plasticize the material at a rate consistent with the time. An exact amount of material for each shot is metered by volume or weight. The shot amount of material includes the sprue and runner system, and should not exceed 80% and less 20% the rated shot capacity of the injector.

In injection molding, an open-ended cylinder, referred to as a barrel, acts as a guide for the pellets to move the pellets and melt from hopper to the mold where the workpiece is made. The auger or screw conveys material down through the barrel to the mold.

Clamping system

It is the function of the clamp system to close the mold with moving platen which takes half of the mold, and hold it closed under pressure during shot and cooling, and then opens the mold so that the workpiece can be knockout from the mold. There are four clamping systems in injection molding machine: hydraulic clamping system, mechanical clamping system, hydromechanical clamping system and electric clamping system.

Ejecting unit

The knockout unit causes an ejection platen in the mold to change its location relative to the rest of the mold. Attached to this knockout plate is ejector or other devices such as ejecting pins, ejecting plate or ejection sleeve, which directly push against and eject the workpiece molded as the mold opens completely.

On most injection machines there is an adjustable stationary ejector platen to which are attached the ejector pins, which go through the movable platen. As the mold closes or opens, the ejector bars contact and stop the ejection plate.

Electric and hydraulic control system

The electrical controls can be mounted in a separate enclosure or on the machine. The manual control panel is mounted on the machine for the operator's convenience. Hydraulic gauge and controls are mounted for convenience in piping. The location of the hydraulic components and the electric motors depend on the individual machine. Most oil reservoirs are in the base of the machine. Fully hydraulic clamps can have tanks above the clamping end.

- Product that been produced by injection molding machine

Figure 4.7: example product that been produced by injection molding machine

4.4.2 Extrusion Blow Molding Machine

In **extrusion blow molding** (**EBM**), plastic is melted and extruded into a hollow tube (a parison). This parison is then captured by closing it into a cooled metal mold. Air is then blown into the parison, inflating it into the shape of the hollow bottle, container, or part. After the plastic has cooled sufficiently, the mold is opened, and the part is ejected. In general, there are three main types of 'Blow Molding' which is 'Extrusion Blow Molding', 'Injection' Blow Molding' and 'Injection Stretch Blow Molding'. The main products produced through blow moulding techniques are plastic bottles that are further only produced with a variety of different types of plastic that are tailored to the demands of customers.

Figure 4.8: Extrusion blow molding machine at company

4.4.2.1 The uses of components on the extrusion blow molding machine.

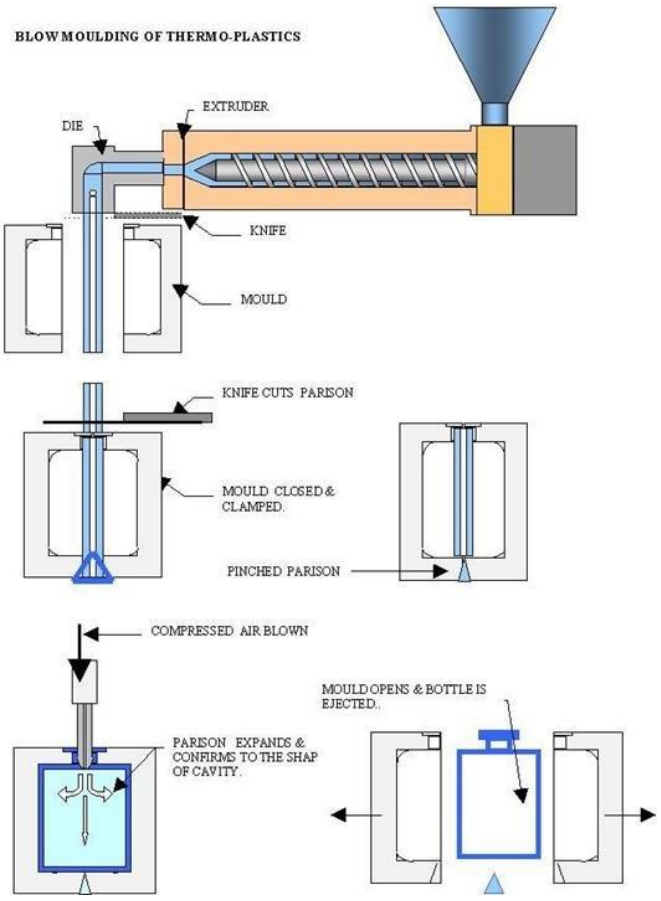
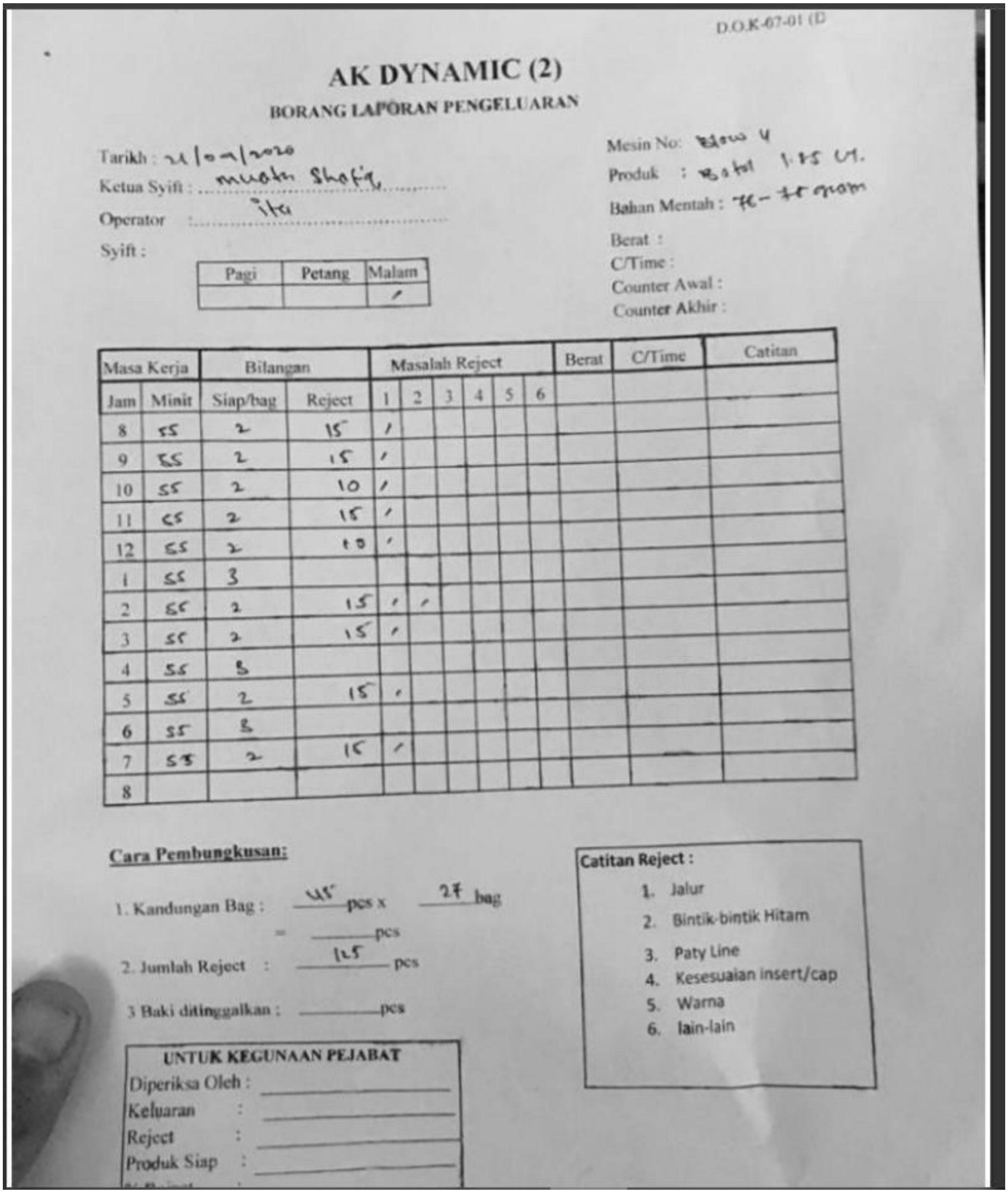


Figure 4.9: Extrusion blow molding machine process

- Extruder: to melt the plastic
- Parison head: to create the desired size of the parison.
- Parison cutter: to cut the length of the required parison.
- Mold-biting unit: open, close and tie the mold and move the mold between the extruding center line and the station's blow(pin).
- Blowing stations and ejection': (also known as calibration stations). This section should be connected to compressed air resources to expand parison.
- Hydraulic system: to operate in the correct order for the mold tracking unit - open mold, close and flank.
- Pneumatic system: to operate in the right order

- Product that been produced by injection molding machine

Figure 4.10: example product that been produced by extrusion blow molding machine



D.O.K-07-01 (D

AK DYNAMIC (2)

BORANG LAPORAN PENGELUARAN

Tarikh : 21/09/2020
Ketua Syift : muatan Shafiq
Operator : ita
Syift :

Pagi	Petang	Malam
		/

Mesin No: Blow 4
Produk : Botol 1.25 Lt.
Bahan Mentah : 75 – 77 gram
Berat :
C/Time :
Counter Awal :
Counter Akhir :

Masa Kerja		Bilangan		Masalah Reject						Berat	C/Time	Catitan
Jam	Minit	Siap/bag	Reject	1	2	3	4	5	6			
8	55	2	15	/								
9	55	2	15	/								
10	55	2	10	/								
11	55	2	15	/								
12	55	2	10	/								
1	55	3										
2	55	2	15	/	/							
3	55	2	15	/								
4	55	3										
5	55	2	15	/								
6	55	3										
7	55	2	15	/								
8												

Cara Pembungkusan:

1. Kandungan Bag : 45 pcs x 27 bag
   = ______ pcs
2. Jumlah Reject : 125 pcs
3. Baki ditinggalkan : ______ pcs

UNTUK KEGUNAAN PEJABAT
Diperiksa Oleh : ______
Keluaran : ______
Reject : ______
Produk Siap : ______

Catitan Reject :

1. Jalur
2. Bintik-bintik Hitam
3. Paty Line
4. Kesesuaian insert/cap
5. Warna
6. lain-lain

- Blowing moulding machine no.4 (bottle 1.85 lt)

IN 12 HOUR TIME

Quality	• 27 bags produced • 125 Pcs defects $(45\ Pcs \times 27\ bags) - 125\ Pcs = 1090 Pcs$ *Quality of the products: 1090/1215* $Pcs = 0.897$
Machine	*Total Mins Of Operation: 55* $min \times 12\ hrs = 660\ mins$ *Total Mins Of Machine Broke:* $\sim 60\ mins$ *Total Mins Of Machine Well Function:* $660 mins - 60 mins = 600 mins$ *Efficiency of the machine:* 600/660 $= 0.909$
Labour	*Total Mins Of Labour Operates: 660mins* *Total Mins Of Labour Stops: ~45mins* *Total Mins Of Labour Well Function: 615mins* *Efficiency of the labour:* 615/660 $= 0.932$

Table 5: Table of Efficiency calculation

- **Total Efficiency Of The Production Line**

$(0.897 \text{ x } 0.909 \text{ x } 0.932) \times 100\% = 75.99\%$

4.4.3 Grinding Machine

Grinding machines (crusher) plastic materials are a type of machine that works to destroy the recycling (crushing) of plastic materials that have been in the reject or 'runner' to be used as local material. Bottles that have problems such as quality that are not in the desired state, have defects, slight leaks and perhaps other problems can be solved with this machine. Because with the availability of this machine it is able to refresh the product to be used as a local material. Perhaps with this method it is a savings measure for the company and avoids being discarded which could disadvantage a company.

The use of this machine should be included with security measures. Its use is limited because its reservoir container cannot accommodate too much ground amount of material with too much quantity. The machine should also be well taken care of to ensure that it can function for a long time and to ensure the grinder process runs smoothly

Figure 4.11: Grinding machine in company

4.4.4 Mixer Machine

Plastic Material Mixer Machine is a type of machine that works to mix plastic raw materials to turn the raw materials used into well before being used for production processes on molding injection machines and 'Extrusion Blow Molding' machines.

Figure 4.12: Mixer machine in company

4.4.5 Sewing Machine

This sewing machine serves to facilitate sewing activities and packaging using sacks and large and medium-sized plastics. These machines can save in terms of time and energy to be used rather than sewing parcels that by hand.

Figure 4.13: Sewing machine in company

4.5 WAY OF USING AND PROCESSING

4.5.1 Process of Injection Molding Machine

The process cycle for injection molding is very short, typically between 2 seconds and 2 minutes, and consists of the following four stages:

1. **Clamping** - Prior to the injection of the material into the mold, the two halves of the mold must first be securely closed by the clamping unit. Each half of the mold is attached to the injection molding machine and one half is allowed to slide. The hydraulically powered clamping unit pushes the mold halves together and exerts sufficient force to keep the mold securely closed while the material is injected. The time required to close and clamp the mold is dependent upon the machine - larger machines (those with greater clamping forces) will require more time. This time can be estimated from the dry cycle time of the machine.

2. **Injection** - The raw plastic material, usually in the form of pellets, is fed into the injection molding machine, and advanced towards the mold by the injection unit. During this process, the material is melted by heat and pressure. The molten plastic is then injected into the mold very quickly and the buildup of pressure packs and holds the material. The amount of material that is injected is referred to as the shot. The injection time is difficult to calculate accurately due to the complex and changing flow of the molten plastic into the mold. However, the injection time can be estimated by the shot volume, injection pressure, and injection power.

3. **Cooling** - The molten plastic that is inside the mold begins to cool as soon as it makes contact with the interior mold surfaces. As the plastic cools, it will solidify into the shape of the desired part. However, during cooling some shrinkage of the part may occur. The packing of material in the injection stage allows additional material to flow into the mold and reduce the amount of visible shrinkage. The mold cannot be opened until the required cooling time has elapsed. The cooling time can be estimated from several thermodynamic properties of the plastic and the maximum wall thickness of the part.

4. **Ejection** - After sufficient time has passed, the cooled part may be ejected from the mold by the ejection system, which is attached to the rear half of the mold. When the mold is opened, a mechanism is used to push the part out of the mold. Force must be applied to eject the part because during cooling the part shrinks and adheres to the mold. In order to facilitate the ejection of the part, a mold release agent can be sprayed onto the surfaces of the mold cavity prior to injection of the material. The time that is required to open the mold and eject the part can be estimated from the dry cycle time of the machine and should include time for the part to fall free of the mold. Once the part is ejected, the mold can be clamped shut for the next shot to be injected.

4.5.1.1 Changing Mold Plate for Injection Machine Process

Production of the product is stop. The injection portion nozzle is spaced from the clamping. The mold shooter part is closed, and the mold is attached to the chain lock using a mold hanger. Nut on each side of the mold opens using a spanner tool. Subsequently the mold was lifted out using chain lock. Then the new mold is inserted using the chain lock. Nut mold will be tightened, and machines can be re-operated. Security measures must be observed such as wearing gloves and shoes.

4.5.2 Process of Extrusion Blow Molding Machine

In Extrusion Blow Molding (EBM), plastic is melted and extruded into a hollow tube (a parison). This parison is then captured by closing it into a cooled metal mold. Air is then blown into the parison, inflating it into the shape of the hollow bottle, container, or part. After the plastic has cooled sufficiently, the mold is opened, and the part is ejected. Continuous and Intermittent are two variations of Extrusion Blow Molding.

In Continuous Extrusion Blow Molding the parison is extruded continuously and the individual parts are cut off by a suitable knife. In Intermittent blow molding there are two processes: straight intermittent is similar to injection molding whereby the screw turns, then stops and pushes the melt out. With the accumulator method, an accumulator gathers melted plastic and when the previous mold has cooled and enough plastic has accumulated, a rod pushes the melted plastic and forms the parison.

In this case the screw may turn continuously or intermittently. with continuous extrusion the weight of the parison drags the parison and makes calibrating the wall thickness difficult. The accumulator head or reciprocating screw methods use hydraulic systems to push the parison out quickly reducing the effect of the weight and allowing precise control over the wall thickness by adjusting the die gap with a parison programming device.

4.5.2.1 Changing Mold Plate for Extrusion Molding Machine Process

Production of products temporary stop and clamping parts opened. To remove the mold, the nut on each side of the mold is opened using a spanner tool and the binder straps are used to hold the mold in order for it not to fall. The mold is removed and placed on a cart to be taken to the mold store. New molds that want to be installed on machines are taken and taken to machines. Next the mold is placed on the clamping and the nut is tightened. After that, the machine can operate as usual. Security measures must be followed such as wearing gloves and shoes.

4.5.3 Grinding Machine Process

The first thing that must be done is to press the green switch available on the machine. Next the motor on the machine will move roundly to distribute the reject product. Leave the machine up to speed for those bearing points to move at normal speeds, not over-fast and not too slow. Then, it is only inserted the runner to grind the reject product into small pieces and turned into a recycled material.

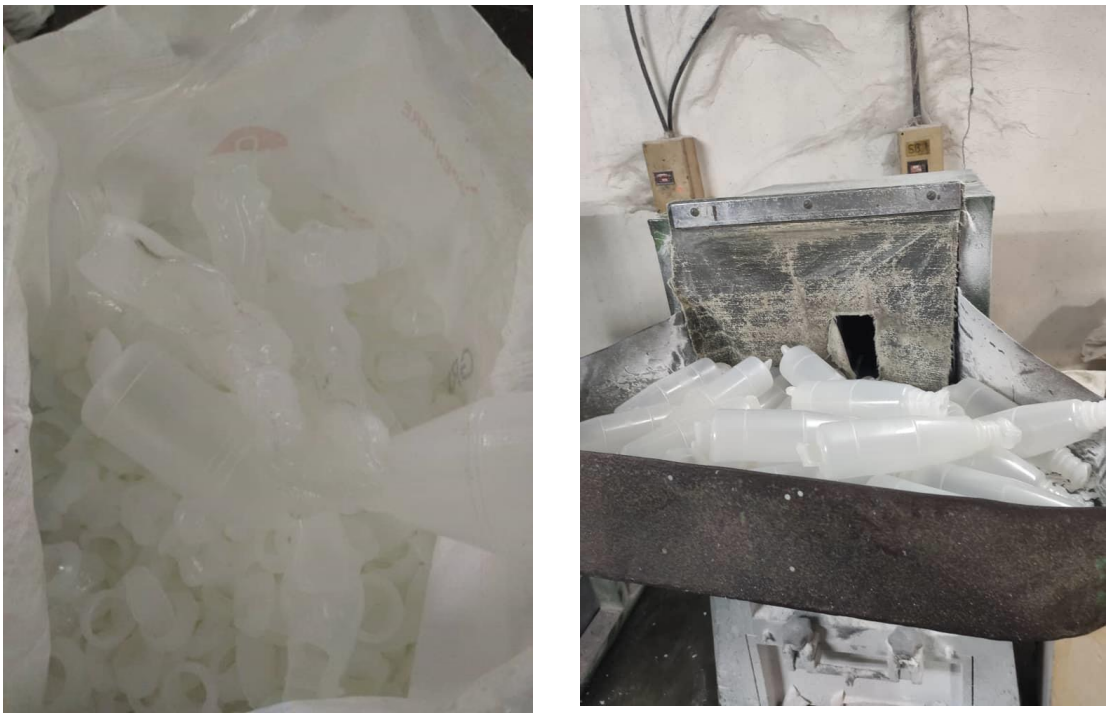


Figure 4.14: Product reject that been used for grinding

4.5.4 Mixer Machine Process

Add all the raw materials that need to be inserted and which will be used into the mixer machine, once all raw materials are required according to the syllabus that has been set inserted into the machine, the machine must be closed in advance.

Next, the button to move the machine should be opened and left for a few minutes to let the machine mix all the raw materials in the machine until well. Finally, if the raw material in the machine has been matched, it should be charged using the sack to be used but during the application of the completed raw material mixed, the iron cover found on the outflow part of the raw material should be taken care of or opened to facilitate the production of completed raw materials mixed.

Figure 4.15: Raw material in mixer machine

Figure 4.16: Material that has been mix

4.5.5 Sewing Machine Process

i. Before performing the operation, make sure that the voltage level is at a level that is suitable for the specifications of the motor.
ii. Hold the machine using the right hand and place the finger on the start button.
iii. Hold the sack/bag using the left hand and insert the sack/bag on the ‘mouth’ between ‘feed dog and foot presser’.
iv. Turn on the machine when the sack is in a straight state. Prohibited from pulling or reversing the sack.
v. Upon sewing, the thread will be cut using a knife or scissor. When cutting the thread make sure the thread has an over 3cm to prevent the occurrence of flexibility at the seam.

Chapter 5:

FINDING & RECOMMENDATION

5.1 FINDING AND RECOGNITION

Industry training held by the UTM is a smart move to foster and train the students in their respective fields. Based on the objective of the Industrial Training Program does have the advantage that more than ugliness.

In my observations during the training period (LI) in this company for 12 weeks, I have listed some comments and suggestions about this university. This opinion is not intended to hurt the feelings of certain parties or degrade the university. This is true from my observations during 3 months of training in the industry and I want to give constructive comments so that the university can improve the quality of all aspects.

The opinions and views I have listed are:

- During the training period, I was exposed to an environment that is professional in identifying the task - the task of a worker. From there, I can see how a technician may play a role.
- The relationship between me pretty good, friend - friends and staff at the AK Dynamic Manufacturing Sdn. Bhd has created an atmosphere that was so cheerful and fun between us all and indirectly strengthen the ties and promote friendship that would leave a lot of memories, joy and sorrow.
- Industrial Training is to train us in combining knowledge-knowledge or theories we have learned in the past and apply it in daily practice so that it can expand our knowledge. As a result of what we have learned in the UTM can help me in the work using machine such as lathe, milling and welding machine and employment - other employment.

5.2 RECOMMENDATION & SUGGESTION

I also give some suggestions and I hope that this proposal can be considered. Among them are:

i. The university should stay in touch with the organization or firm to keep up with current students who are undergoing industrial training. With this, we can forge a closer relationship between the university and organizations. The Organization easier to take students from the UTM to undergo industrial training in place. This was to avoidconfusion or misunderstanding between the organization and UTM.

ii. A lot of companies do not really understand the scope of some courses at the university. Therefore, I would like to suggest to the UTM explains more clearly. This will enable the firm to deliver the tasks related to our course so that we do not deviate from our course. Provide special places for students to undergo industrial training in these companies regularly and successfully.

iii. Companies or firms also play an important role in providing guidance to students about things that are appropriate to the courses studied by students. Thus, the firm should provide employment opportunities such as assignments to students. The firm should also provide any form of reward on the work done by them. With the reward or effective guidance from the firm itself can spur students and can also attract them to the field.

iv. In addition, the company or firm should be focused on the problems of students undergoing Industrial Training sessions (LI). As the students are still new in the pre-employment, the guidance and observation of the firm needed. If this cannot be done, then the students assume the management of the firm is not concerned about the work they have done. Each student should be advised by a supervisor. Supervisors are responsible for helping students to undergo industrial training to show guidance as guidance to students who undergo industrial training for 3 months.

CHAPTER 6:

CONCLUSION

6.1 CONCLUSION

After my industrial training at AK Dynamic Manufacturing Sdn Bhd in 12 weeks. I already know and learn the working depth. As a result, I am very proud of what I have learned, and I am grateful for ending the practice of this industry with very useful experience for the future. This experience not only introduced me to something new, but it was an early exposure to nature before I had a real job.

In addition, I also wanted to prove that what you learn in class is useful for putting yourself in the real job someday. Students will also be more aware of the importance of the subject being studied as a stake in continuing ambition to be required even if the theory learned is not necessarily the same as those carried out during the period of industrial training but passion and enthusiasm are very important before venturing into the working environment.

Many knowledge that I gained during their training program this industry. All the knowledge learned during the training to apply and I will use my best to step up to the job later. This training guides many students are not aware of the additional costs to be taken and studied at UTM.

In conclusion, the industrial training program is very good and can create the potential for students to better quality in the field they want to operate in the present. During the training, I had a taste of how the real atmosphere in the workplace, as well as a good relationship of mutual help - help and cooperation during my industrial training.

6.2 REFERENCES

- http://www.bpf.co.uk/plastipedia/processes/extrusion_blow_moulding.aspx
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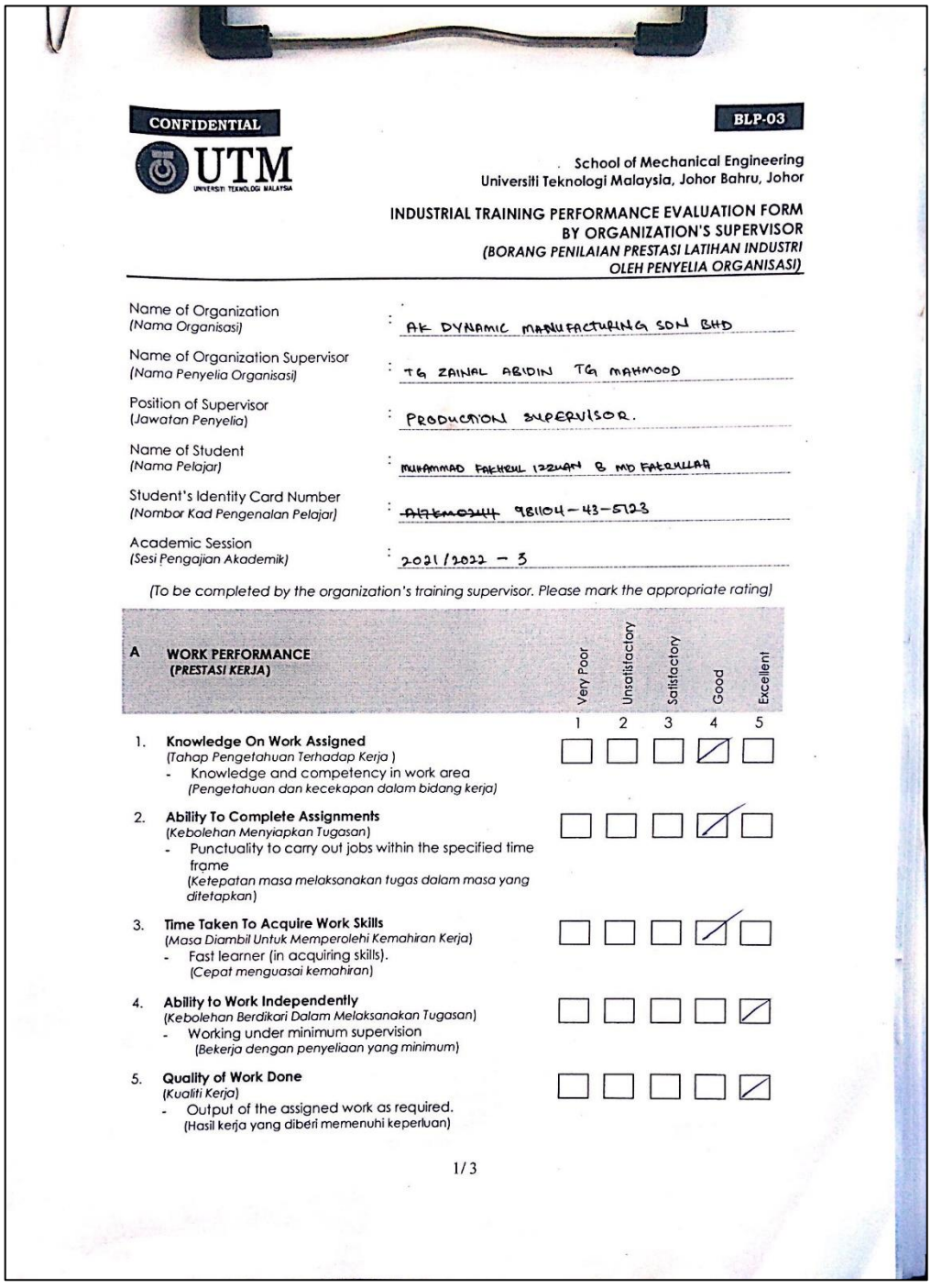
- **https://www.custompartnet.com/wu/InjectionMolding**
- **https://www.sciencedirect.com/science/article/pii/B9780323390408000134**
- **https://medium.com/@jasonmould2017/four-basic-parts-of-injection-molding-machine-e614e995b13f**

INDUSTRIAL TRAINING PERFORMANCE EVALUATION FORM (BLP03)



CONFIDENTIAL

BLP-03

UTM
UNIVERSITI TEKNOLOGI MALAYSIA

School of Mechanical Engineering
Universiti Teknologi Malaysia, Johor Bahru, Johor

INDUSTRIAL TRAINING PERFORMANCE EVALUATION FORM BY ORGANIZATION'S SUPERVISOR
(BORANG PENILAIAN PRESTASI LATIHAN INDUSTRI OLEH PENYELIA ORGANISASI)

Name of Organization *(Nama Organisasi)* : AK DYNAMIC MANUFACTURING SDN BHD

Name of Organization Supervisor *(Nama Penyelia Organisasi)* : TG ZAINAL ABIDIN TG MAHMOOD

Position of Supervisor *(Jawatan Penyelia)* : PRODUCTION SUPERVISOR.

Name of Student *(Nama Pelajar)* : MUHAMMAD FAKHRUL IZZUAN B MD FATAHILLAH

Student's Identity Card Number *(Nombor Kad Pengenalan Pelajar)* : ~~A17EM0344~~ 981104-43-5723

Academic Session *(Sesi Pengajian Akademik)* : 2021/2022 - 3

(To be completed by the organization's training supervisor. Please mark the appropriate rating)

A WORK PERFORMANCE *(PRESTASI KERJA)*	Very Poor	Unsatisfactory	Satisfactory	Good	Excellent
	1	2	3	4	5
1. **Knowledge On Work Assigned** *(Tahap Pengetahuan Terhadap Kerja)* - Knowledge and competency in work area *(Pengetahuan dan kecekapan dalam bidang kerja)*	☐	☐	☐	☒	☐
2. **Ability To Complete Assignments** *(Kebolehan Menyiapkan Tugasan)* - Punctuality to carry out jobs within the specified time frame *(Ketepatan masa melaksanakan tugas dalam masa yang ditetapkan)*	☐	☐	☐	☒	☐
3. **Time Taken To Acquire Work Skills** *(Masa Diambil Untuk Memperolehi Kemahiran Kerja)* - Fast learner (in acquiring skills). *(Cepat menguasai kemahiran)*	☐	☐	☐	☒	☐
4. **Ability to Work Independently** *(Kebolehan Berdikari Dalam Melaksanakan Tugasan)* - Working under minimum supervision *(Bekerja dengan penyeliaan yang minimum)*	☐	☐	☐	☐	☒
5. **Quality of Work Done** *(Kualiti Kerja)* - Output of the assigned work as required. (Hasil kerja yang diberi memenuhi keperluan)	☐	☐	☐	☐	☒

1/3

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B PERSONALITY (SAHSIAH)	Very Poor	Unsatisfactory	Satisfactory	Good	Excellent
	1	2	3	4	5
6 **Socialization and Communication** (*Pergaulan dan Komunikasi*) - Ability to socialize with different levels of staff in the organization. (*Kebolehan menyesuaikan diri di pelbagai peringkat pekerja*) - Ability to express ideas and opinions in clear and organized manner. (*Kebolehan menyampaikan maksud dan buah fikiran dengan jelas dan teratur*)	☐	☐	☐	☐	☑
7 **Work Attitude** (*Sikap Terhadap Kerja*) - Commitment, dedication, self-confidence and initiative on work assigned (*Komitmen, dedikasi, keyakinan diri dan berinisiatif terhadap kerja yang diberi*)	☐	☐	☐	☐	☑
8 **Discipline** (*Disiplin*) - Attendance, punctuality, conform to organization's rules, proper attire, etc. (*Kehadiran, ketepatan masa, mematuhi peraturan organisasi, kesesuaian berpakaian, dll.*)	☐	☐	☐	☐	☑
9 **Creativity And Innovation** (Kretiviti dan Inovasi) - Ability to give new ideas and improve existing process of executing the jobs. (*Kebolehan mengeluarkan dan melaksanakan idea baru dalam mempertingkatkan kualiti hasil kerja).*	☐	☐	☐	☐	☑
10 **Cooperation and Teamwork** (*Kerjasama dan Berpasukan*) - Ability to associate self with other staff in carrying out jobs. (*Sikap mahu melibatkan diri bersama pekerja lain dalam menjalankan tugas).*	☐	☐	☐	☐	☑
11 **Leadership and Decision Making** (*Kepimpinan dan Pembuatan Keputusan*) - Ability to plan, manage and make decisions in carrying out tasks and solving problems. (*Kebolehan merancang, mengurus dan membuat keputusan dalam melaksanakan tugas serta menyelesaikan masalah).*	☐	☐	☐	☐	☑

(For office use / untuk kegunaan pejabat)						
Each Item Score						
TOTAL SCORES = 52/55 X 30 %						

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Organization's Supervisor's Overall Comments (If Any)
(Komen Keseluruhan Penyelia Organisasi (Jika Ada))

Cemerlang dalam melaksanakan tugasan yang diberi. Kerja sempurna.

Supervisor's Name : TG. ZAINAL ABIDIN TG MAHMOOD
Production Supervisor
AK DYNAMIC MFG. SDN. BHD.
(560934-U)

Position :

Date : 11/10/2022

Signature

AK DYNAMIC MANUFACTURING SDN BHD
(560934-U)
Lot 280, Kawasan Peridustrian Pengkalan Chepa,
Fasa 2, 16100 Kota Bharu, Kelantan.
Tel: 09-740 9462
Email: [illegible]@yahoo.com

Please upload the completed form into the Google form link below:
https://forms.gle/6mPEhruzmh4Wv9or8
And please submit in the last week of practical training

Sila naik turun borang yang telah lengkap ke pautan borang google di bawah:
https://forms.gle/6mPEhruzmh4Wv9or8
Borang hendaklah di hantar pada minggu terakhir Latihan Industri

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