



SHAMON
AIR & FILTRATION

SAFE NZ PRODUCTION MANUAL



Version: 3

SAFE PRODUCTION GUIDE AND MANUAL

Overview

This manual covers all aspects of Production at SAFE NZ Ltd

Introduction

- *All our management and staff are trained on LEAN and these principles are implemented in all our operations, which*
 - *Reduces waste and increase value of our product*
 - *Improves our Stock Management*
 - *Provided us with an ergonomically designed production and warehouse operations*
 - *Ensured us in having trained and valued staff*
- *SAFE NZ utilises SPC (Statistical Process control) to determine the sample size to check/catch QC issues accurately without doing a 100% inspection*
 - *The smaller the quantity the more the checks*
 - a. *1 piece = 1 check =100% check or sample size*
 - b. *Less than 10 pieces = 50% Check or sample size*
 - c. *More than 10 to 50 pieces = 20% check or sample size*
 - d. *More than 50 but less than 100 pieces =10% check or sample size*
 - e. *More than 100 pieces = 5 % check or sample size*
 - *During the QC checks if there was failure, the sample size will expand/increase to be double for that quantity and the manager informed so that the QC process is managed in a control environment and remedial actions taken*

1. Purpose

This manual will explain the various operations involved in the manufacture and supply of orders for filters and air filtration products

- 1.1 Taking of orders
- 1.2 Assessment of the correct filter requirement for the customer
- 1.3 Making of quotes
- 1.4 Special pricings
- 1.5 Loading of jobs in MYOB (our ERB)
- 1.6 Production work process
- 1.7 Materials required for fulfilling the requirements of the orders
- 1.8 The recording of materials used in the manufacture of an order
- 1.9 The Quality Control Systems

2. Project References

- 2.1 SAFE Employee Hand Book
- 2.2 SAFE Health and Safety Hand Book
- 2.3 Airepure Specifications
- 2.4 Vokes (Munn Hummel) Specifications Booklet
- 2.5 AAF Specification Booklet

2.6 Products Manufacturing Procedures for all products. These are individual procedures from materials, methods, machinery, Health & Safety requirement (Gears and Hazards) for each product type as listed below

- a. Media –Cut pads or rolls
- b. Periframes both Aluminium and Plastic
- c. Intersafes
- d. 2VPI and bag insect screens
- e. Filtration Bags
- f. Carbon-Cells or Lab units

2.7 SAFE website: www.safe.co.nz

3. Taking of Orders

Customer orders comes via a few methods as below

- 3.1 Phone Orders
- 3.2 E-mail orders
- 3.3 Fax Orders
- 3.4 Walk in orders
- 3.5 SAFE Sales Engineers from site visits

4. Precautions when taking orders

To ensure that the correct requirement of the customer is met, the following will be observed

- 4.1 We must assume that the customer is no expert on filters and require more initiative questions to determine the correct product required
- 4.2 Ensure that the efficiency, size, and the standards are recorded and understood. The standards can be in Eurovent (EN 779:2012), ASHRAE or ISO 16890
- 4.3 If you or the customer is unsure, please reconfirm the requirement in writing via Email or Text message to verify what was discussed and the final result of the requirement

5. Processing the orders

All orders will have 2 common ways getting into the Sales and Production system as

- 5.1 Raising the orders in the system which is via MYOB
- 5.2 Writing down in the “Job Order Form” and the “Material Required/Used and QC Form” as the job flows through the varies operations until final product, QC inspections and out for various modes of despatch

6. Raising order through MYOB

- 6.1 It is good practice to look at historical data in MYOB for the customer that you are trying to log a job
- 6.2 The historical data will indicate if the customer have purchased this product before and at what price
- 6.3 If the product that is currently being ordered is not in their historical data, it is best to re-consult the customer before raising it in MYOB
- 6.4 Make sure that these are correct in MYOB and entered

- Company Name/Customer Name

- If customer exist in MYOB with account, choose that customer's account
- If the customer do not have an account, enter the data in Cash Accounts
- **CASH Account will be dealt in a different way as it will be treated as "pay first"**

Before the job is written up for production*

- Company Address for Invoicing
- Company delivery Instructions to be noted and entered into customer instructions
 - It could be their office
 - Work site
 - Their customers site
 - Pick up
 - Drop off
 - It may require no paper work or SAFE labels on the products
- Purchase order number
- Contact person who raised the customer order/enquiry
- Items ordered and quantity
- Date ordered
- Date Required
- MYOB would have registered all the above data and would generate a Job Number which will then be used in all Paper work during and after production, including booking of freighter/courier

6.5 CASH Customers

Cash Customers are treated differently because they need to pay first as we do not have systems in place to collect the money owing

6.6 Taking and confirming orders

- All cash sale customer orders and enquiries should have a written trail example email or Text
- The pricing that will be offered for Cash terms is strictly Retail Pricing to protect our Trade and Long customers

6.7 Quotes have to be written and accepted by customer via written trail

6.8 Create a PROFORMER Invoice in MYOB so that the customer can pay

- If the customer is a walk in customer, create a cash sale job in MYOB, with details of the customer like full name, phone number and address
 - Create and invoice and provide it to the customer
 - The customer should pay cash or through the EFTPOS terminal and in reference to the invoice number
 - Once payment have been verified, the job can be raised for Production using the Job Order Form together with the Materials required/used Form
- If the customer is from "on line" shopping or order through the phone

- Sent the created Proformer Invoice to their email address provided
- Advise the customer that once the payment shows in in our account, the job will be started with an ETA expected for that product
- Accounts will advise if the payment has been received and the date it was made
- If the payment has been received, the job can be raised for Production using the Job Order Form together with the Materials required/used Form

7. Filling the “Job Order Form” referred to as (JOF) and “Material Required/Used and QC Form” referred to as MRU/QC. These are attached as APPENDIX A and B

This is the important part of the beginning of the production workflow process as these are the documents used throughout the product built until ready for dispatch/collection/pickup

7.1 The Job Order Form (JOF)

- This is Duplicate book with carbon copy function. The white sheet is written on and the carbon copy is kept for as book for future manual tracking if needed
- Fill in the required information with clear and correct data
- Write the Job Number as generated by MYOB when the job was first entered
- Write the product code as Generated in MYOB
- Write or draw a basis diagram to describe what production should do in case of special products in the form itself
- Write the date that you have committed for the completion in the date Required Column
- Fast same day or next day can be arranged by consulting with the Production Manager

7.2 Materials Required/used and QC Form (MRU/QC Form)

- This is an independent sheet printed and written together with the JOF as it travels through the system and finally used for invoicing and filed for follow up or future tracking
- Fill the required information with clear and correct data
- Write the Job number written in the Job Order Form in this form
- Write the materials required to complete the job example G2 Media, metal Header, Nova frame, Synsafe Bags, Carbon Type or any specific requirement as required by the customer
- If items are needed for the production but normally subcontracted like Aluminium Extrusions which are not standard size of 47mm, Stainless Steel Extrusions and Wire Frames
 - A MYOB order is raised against the sub-contractor and email sent via MYOB.
Note: SAFE can do the standard 47 mm Aluminium extrusions on site as we have notching machine and full length standard extrusion. Anything different to this depth will require metal folding machinery and that’s why they are subcontracted to local machine shop. Wire hoop filter require welding which is also given to subcontractor for H& S reasons
- The order number for the subcontractor is written on the MRU/QC Form
 - Attach this form to the Job Order Form

- Both the forms are attached via stapler and placed in the “Work Pending” board

7.3 Material used section of the MRU/QC Form

- This section is used to inform Production staff what materials are to be used for this product
- Production staff will in return write what were all the materials used in total quantity to make this product and also another staff will confirm the materials used as QC check and sign

7.4 QC Chart and Sample size section of the MRU/QC Form

- The principle behind the sample size selection is SPC (Statistical Process Control)
- The sample size will vary according to the “Failure” or catching of errors during the QC check on the base sampling
- The Base sampling for QC checking
 - 1 piece = 1 check =100% check or sample size
 - Less than 10 pieces = 50% Check or sample size
 - More than 10 to 50 pieces = 20% check or sample size
 - More than 50 but less than 100 pieces =10% check or sample size
 - More than 100 pieces = 5 % check or sample size
- Varying Sample size for QC checking
 - If during the base sampling, a failure was discovered by the QC check
 - a. The sample size will double that of the base sample size to capture any other QC issues
 - b. If further QC issues are captured in this bigger sample size, the manager will take control of the process to see what are the issues and take remedial action
 - c. This will be recorded in the MRU/QC form as well as the JOF form

8. Goggle Work Track webpages –Google sheet

This is the Google Excel Spread Sheet that will track the work and is available remotely to all staff through their log in to this site and is “Live”. The sheet that we are currently using is labelled as WIPs or Work In Progress Sheet and later the “Completed” and “Freight log in Sheet”. At any one time, any SAFE staff who needs to know the status of a particular job can see “live” the status to report to their customer if there is a query. The status field has a drop down menu of, Pending, Waiting for stock, Live and completed choices. This will be selected by Production staff as it goes through the workflow

8.1 WIPs

- Before placing the “Job order form” attached with the “MRU/QC Form” to the production work flow system, use the data to fill the WIPs website
- Load the new job in this electronic sheet by filling in the required fields
- Job number, Customer name, Date job in, ETA Date, Customer order number and in the remarks column-What and quantity of products
- Click the Status field to select through the drop down menu for “pending”

- The production manager will allocate Staff from the drop down menu based on expertise, availability of staff and ETA of job
- The allocated staff will click to this page before they start the job and change the “Live” field from the “Pending” field using the drop down menu
- The allocated staff will use the “Products Manufacturing Procedures Manual” as guide for the particular product this job is for, to ensure correct methods, material, tools and safety gear are used
- Once the job has been completed on the product line, it will have to go through the QC stage (this will be described further in this document)
- Write in the date out column the date this job was completed and change the status from “Live” to “completed”
- Once the “completed” status is selected, the job will be removed from the “WIPs” sheet and populated to the “Completed Sheet” as well as the “Freight log In Sheet” automatically

9. Despatch or Collection

9.1 The job for collection

- Pack the finished goods in the best way for that product-plastic, boxes, corrugated card board or pallet. Wherever possible, use alternative to plastic packaging to reduce environmental impact of plastic waste
- The picking slip from MYOB would have already been printed during the QC stage
- Fold the picking slip and place it inside a transparent picking slip envelope
- Stick it on the package and leave them at the finished goods “Outgoing” area
- Give the completed JOF and MRU/QC forms to Admin in the office
- Either Admin or the Production manager will call the customer to advise that this is ready for collection
- Admin can then raise invoice and sent to customer via Email. Invoicing will be discussed further in this document
- Once this job is collected, open the Goggle Spread sheet for “Freight log In Sheet” and update the info to indicate who and when this was collected

9.2 If the requirement as per the Job Order form is for the item to be couriered or freighted

- Pack the completed job in a carton or in corrugated cardboard
- Use “L” cardboard corners if the item is fragile to ensure that it will withstand the rough and tumble of freighting
- Measure and write the dimension of the package (Height, width and depth) to calculate the volume of for the shipment in the Job Order form
- Give the JOF and MRU/QC forms to Admin/Production Manager who will book the freight according to the size and weight
- Smaller package of size 0.15m³ or less will be booked via courier

- Larger items on carton or pallets will be booked for shipment via Bulk Freighters
- Write the cost of the freight in the JOF as shown by the freighter's website during the booking so that the freight will be correctly invoiced
- Once this job is collected by the freighter/courier, open the Goggle Spread sheet for "Freight log In Sheet" and update the info to indicate when this was collected
- The job can now be invoiced with all the relevant info available in the JOF and MRU/QC sheets

10. Quality Control systems and checks

This is a very important part of the SAFE production procedures and processes as it gives us the ability to provide excellent and consistent quality to our customers

10.1 Tools required

- MRU/QC Form
- QC Stamp
- Production Manual for the process

10.2 The MRU/QC Form will capture all the information required to pass or fail the job

10.3 If the Job is approved as meeting the criteria of the QC check, the staff acting as QC, can stamp the QC stamp on the JOF and the MRU/QC forms and write the details on the stamp mark


10.4 If the job has failed in meeting any QC Criteria, the Failed QC Stamp would be stamped on the MRU/QC form and the job is frozen until the Manager recommends Re-Medial action

10.5 Once the re-medial action is carried out another QC inspection is started and completed with a new Approved QC Stamped on the JOF and MRU/QC Forms

Attached are Appendixes as referred to in this manual

- Appendix A –Job order Form
- Appendix B- MRU/QC Form
- All the Product manuals for various products as references

Appendix A

		Job Order Form		Inv. Nos. <input type="text"/> Job No. <input type="text"/>	
Company Details/Contact Person: <input type="text"/> <input type="text"/> <input type="text"/>		Order Date: <input type="text"/>			
Delivery Details: <input type="text"/> <input type="text"/>		Order taken by: <input type="text"/>			
		Customer Order No. <input type="text"/>			
		Date Order required: <input type="text"/>			
Qty	P/Code	Product/Service Details	Unit Price	Production Time	
		Freight On Charge	S		
COMPONENTS TO ORDER		Ordered by:	Order Date:		
Qty	Code	Components Ordered	Supplier	PO No.	Cost \$
ADMINISTRATION USE ONLY					
Date Job Completed:		By:		Customer Notified: Y / N	
Despatch Details: Pickup / Couriered / Other				Con Note No:	

Appendix B

Materials Required/Used/ QC form

Date in		Customer	
SAFE Job No.		Customer P/O	
Date Out			
Item P/N			

Materials to be Used	Used	QC check	Quantity Used
QC Check by		Date	

QC Chart

Criteria being checked	QC 1	QC 2	GC 3	GC 4	GC 5
Height					
Width					
Depth					
Volume					
Weight					
No. Of pleat					
Visual					
QC Check By			Date		