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ANALYSIS OF SINGLE COLOR SCREEN PRINTING PROCESS FOR OPTIMUM CONSUMPTION OF INK WITH SCREEN STENCIL HAVING MESH 61T THREAD PER SQUARE INCH

(A Case study of Nutech Packaging, Noida)

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ABSTRACT

This study was conducted at Nutech Packaging, Noida for Analyzing the Single Color Screen Printing Process for Optimum Consumption of Ink with Screen Stencil having Mesh 61T Thread per square inch.

I. INTRODUCTION

This work was carried out in the months of February – May, 2018 at Nutech Packaging, Noidafor Analyzing the Single Color Screen Printing Process for Optimum Consumption of Ink with Screen Stencil having Mesh 61T Thread per square inch.

II. RESEARCH OBJECTIVE

The objective of this study is to analyze the Single Color Screen Printing Process for Optimum Consumption of Ink with Screen Stencil having Mesh 61T Thread per square inchat Nutech Packaging, Noida.

III. RESEARCH METHDOLOGY

The whole study has been divided in sub parts for screen Printing Process for optimum consumption of ink in different types of screen printing work

1. To reduce the ink wastage in Screen Printing process.
2. To make desired Print on several substrates using different inks in Screen Printing.
3. Different jobs were selected and the study was conducted on each selected job.

Data collection was during the study.

IV. DATA COLLECTION & ANALYSIS

NUTECH PACKAGINGS, NOIDA, UTTAR PARDESH

Name of Machine	:	SAKURAI PTG MACHINE
No. of Units	:	SINGLE COLOR
Machine Speed	:	600 impressions per hours
Change over time of job on machine	:	30 Min.
Per day minimum production approx.	:	3000-4000 Sheets
Copies wastage during production (per job)	:	4 to 5 % Approx.
Types of ink	:	Perfecto Ink,
Screen stencil	:	Mesh 61T Thread per square inch
Coating used	:	KIWO 5+1

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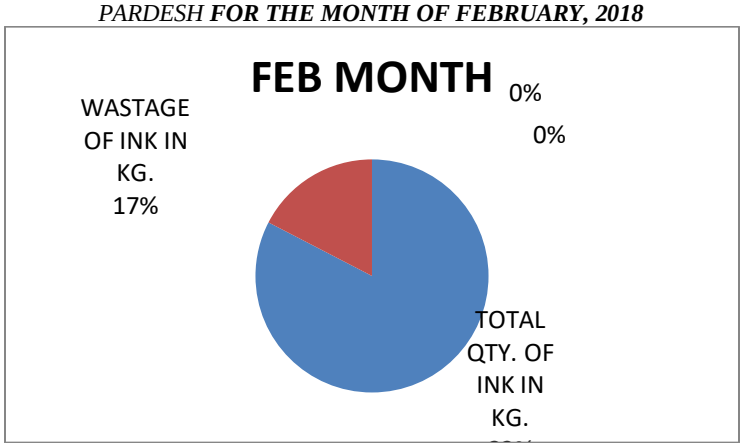
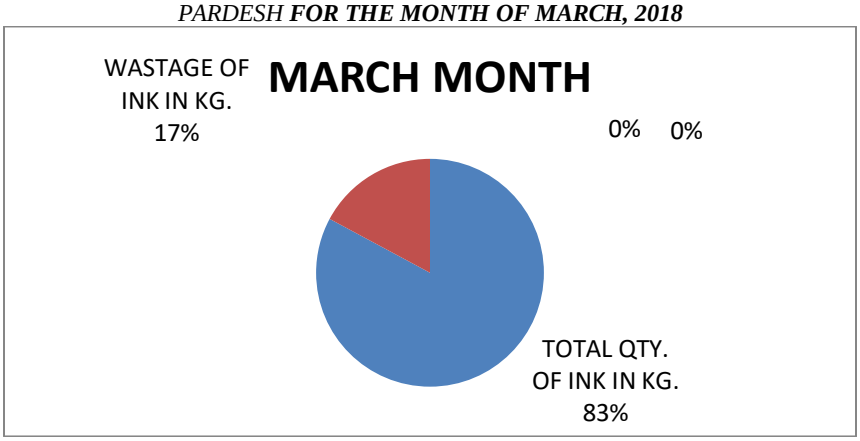
Table No.1- DATA OF SCREEN PRINTING ON SAKURAI MACHINE AT *NUTECH PACKAGINGS, NOIDA, UTTAR PARDESH* ***FOR THE MONTH OF FEBRUARY, 2018***



NUTECH PACKAGINGS, NOIDA, UTTAR PARDESH

Name of Machine	:	GRAPHICA PTG MACHINE
No. of Units	:	SINGLE COLOR
Machine Speed	:	200-250 impressions per hours
Change over time of job on machine	:	25 min.
Per day minimum production approx.	:	1500-2000 sheets
Copies wastage during production (per job)	:	4 to 5 % approx.
Types of ink	:	Perfecto ink
Screen stencil	:	Mesh 61T Thread per square inch
Coating used	:	KIWO 5+1

Table No.2 - DATA OF SCREEN PRINTING ON GRAPHICA MACHINE AT *NUTECH PACKAGINGS, NOIDA, UTTAR PARDESH* ***FOR THE MONTH OF MARCH, 2018***



NAME OF PRESS
DATE: - NAME OF SUPERVISION:-
TABLE NO. 3 - CHECK LIST FOR SCREEN PRINTING MACHINE
Please Tick (√ /x) For Each Job

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Sr. No	Check Point	Job 1 (√ /x)	Job 2 (√ /x)	Job 3 (√ /x)	Wastage of Sheets (approx.)
1.	Speed of Machine.				
2.	Type of screen printing ink in In feed unit at start of Machine.				
3.	Function of screen printing unit.				
4.	Suitable grade of printing substrate for respective jobs.				
5.	Preparation of job for Machine.				
6.	Printing time for screen printing substrate				
7.	Proper amount of work pressure unit & inking unit.				
8.	Apply ink according to printing job				
9.	Coating used in stencil making also affect the ink consumption				
10.	Machine speed setting according to job and substrate.				
11.	Printing time for printing substrate.				

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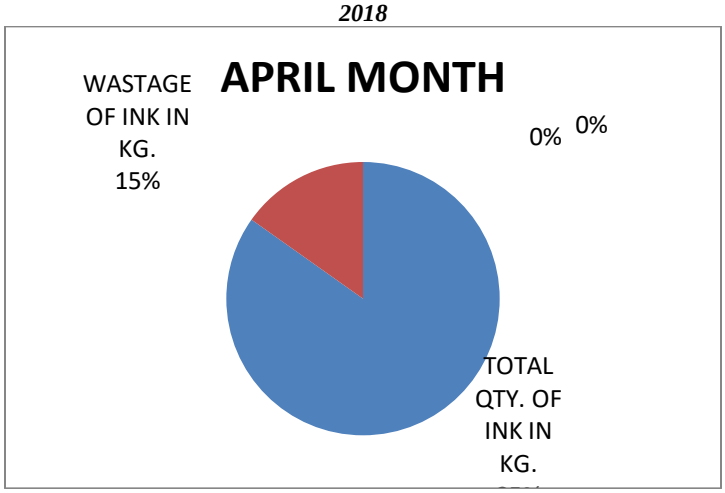
V. RESULT & DISCUSSION

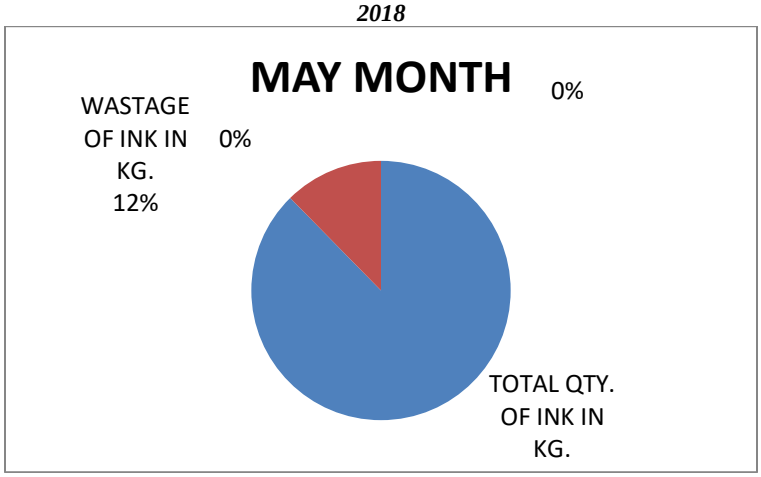
DATA OF SCREEN PRINTING APRIL MONTH FOR SAKURAI MACHINE AFTER IMPLEMENTION OF SUGGESTION POINT CHECK LIST

Table no.4- data of screen printing on sakurai machine at *nutech packagings, noida, uttar pardesh* ***for the month of april, 2018***



DATA OF SCREEN PRINTING APRIL MONTH FOR GRAPHICA MACHINE AFTER IMPLEMENTION OF SUGGESTION POINT CHECK LIST

Table no.5- data of screen printing on graphica machine at *nutech packagings, noida, uttar pardesh****for the month of may, 2018***



VI. CONCLUSION

This research focuses on consumption of ink and explores the possible ways of optimum utilization of the ink used in Screen Printing Processes of Nutech Packagings, Noida. In all four cases when check list get adopted, the wastage goes down by approx. 15 to 20% and consumption of Screen Printing ink goes down by approx. 500 to 600 gm. Ink depending up on the job and machine availability. These preliminary results can be used in future. Check point suggestion incorporated in Screen Printing section on Sakurai and Graphic after consultation with various press authorities may be indicative for other presses.

However researcher feels that limited facilities/infrastructure was available in city like Noida. The result may vary depending upon the type of Machine/Technology, and skills of Man power.

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