PRO

PREPARED BY
Sahana I H
REVIEWED BY BRML
Vaibhav Bhosale
Rahul B
REVIEWED BY STRIDES PHARMA
APPROVED BY STRIDES PHARMA

Assessment reference:	16614	Number of operatives:
Type of machine:	Sachet Cartoning Machine	Number of shifts per week:
Machine location:	USA	Usage (hours per week):
Machine description:	Sachet Cartoning Machine	Operating manuals:
Machine manufacturer:	BAR	SOP's
Machine model:	p780	Operatives' training record:
Machine serial number:		Warning signs:
Modifications from 'as-supplied':	None	Raw materials:
Energy sources:	Electrical Power and Compressed Air	Maintenance manual:
Energy source ratings:	Electrical - 3phase, 480V 60Hz Pneumatic - Air @6bar.	Maintenance training record:
Safety measures:	(eg. PLd safety architecture)	Access by untrained visitors:
Assessment carried out by:	OB, RB	
Assessment date:	08.01.2024	
Assessment reviewed by:		
Assessment review date:		
Version:	1.0	

RML Assumptions: Machine has no electronic guarding at all at initial assessment, frame is present.

Keywords: See "Example Keywords" sheet for further keywords

LO (Likelihood of Occurrence)		
0.033	Almost impossible	Only in extreme circumstances
1	Highly unlikely	Though conceivable
1.5	Unlikely	But could occur
2	Possible	But unusual
5	Even chance	Could happen
8	Probable	Not surprising
10	Likely	To be expected
15	Certain	No doubt

FE (Frequency of Exposure)	
0.5	Annually
1	Monthly
1.5	Weekly
2.5	Daily
4	Hourly
5	Constantly

DPH (Degree of Possible Harm)	
0.1	Scratch or bruise
0.5	Laceration or mild ill-effect
2	Break of minor bone or minor illness (temporary)
4	Break of major bone or major illness (temporary)
6	Loss of one limb, eye, hearing (permanent)
10	Loss of two limbs or eyes (permanent)
15	Fatality

NP (Number of Persons at ris	
1	1-2 persons
2	3-7 persons
4	8-15 persons
8	16-50 persons
12	50+ persons

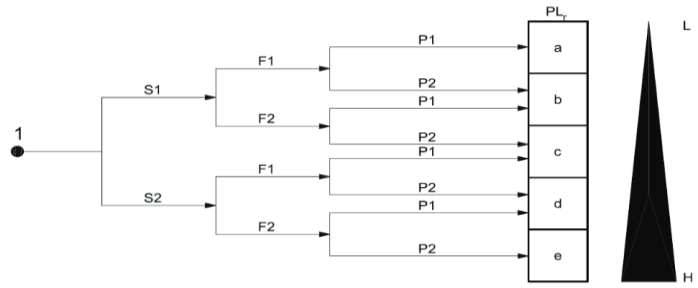
No.	Assembly	Machine Location	Type of Hazard	Potential consequences

No.	Assembly	Machine Location	Type of Hazard	Potential consequences
5	Flap Folding Assembly	Major Flap Closing Assembly	Kinetic energy (Crushing Shearing)	-Injuries include amputations, lacerations, contusions crushing of tissues and bones, and broken bones. -The risk of getting hit by one of the pneumatic tool's attachments

TOCOL APPROVAL

DESIGNATION	SIGNATURE AND DATE
Automation	
DESIGNATION	**SIGNATURE AND DATE**
Automation	
Design	
DESIGNATION	**SIGNATURE AND DATE**
DESIGNATION	**SIGNATURE AND DATE**

1
Supplied
As required, per post assembly Hazop.
As required, per post assembly Hazop.
Supplied
Operators & maintenance to be trained upon installation
Prohibited



Key

1 starting point for evaluation of safety function's contribution to risk reduction
L low contribution to risk reduction
H high contribution to risk reduction
PL$_r$ required performance level

Risk parameters:

S severity of injury
S1 slight (normally reversible injury)
S2 serious (normally irreversible injury or death)
F frequency and/or exposure to hazard
F1 seldom-to-less-often and/or exposure time is short
F2 frequent-to-continuous and/or exposure time is long
P possibility of avoiding hazard or limiting harm
P1 possible under specific conditions
P2 scarcely possible

HRN	Risk
0-5	Negligible
5-50	Low, significant
50-500	High
Over 500	Unacceptable

HRN = LO x FE x DPH x NP

Comments	Initial assessment						Action required	Re-assessment after taking action				
	LO	FE	DPH	NP	HRN	Risk level		LO	FE	DPH	NP	HRN

Comments	Initial assessment						Action required	Re-assessment after taking action				
	LO	FE	DPH	NP	HRN	Risk level		LO	FE	DPH	NP	HRN
Hazards - Impact of operator being struck by rapidly moving mechanisms. **Why is the hazard there** - Mechanisms are required to manipulate the flaps so the box can be closed/loaded. **What drives the hazard** - Pneumatic. **How could harm be caused** - Operators get body or limbs in the path of moving mechanisms. **Why would the hazard occur** - Operator inspection or intervention around the flap folding equipment. **Potential occurrence of hazard** - Possible **Possible harm** - Lacerations, bruising	2	4	2	1	16	Low, significant	Operator / Maintenance Staff Awareness Warning Signs	2	4	2	1	16

		Componets/Instruments might Damage				
Risk level	Residual Risk Action Required	Componets/ Instruments Details	LO	Critical Spare	Recommened Spare	Remarks

Risk level	Residual Risk Action Required	Componets/Instruments might Damage				Remarks
		Componets/ Instruments Details	LO	Critical Spare	Recommened Spare	
Low, significant	Operator / Maintenance Staff Awareness and Training	1.Pneumatic Cylinders	1	--	--	
		2.Photoelectric Sensor	8	✓	--	
		3.Reed Switch	5	--	✓	
		4.Vacuum Generator	2	--	✓	