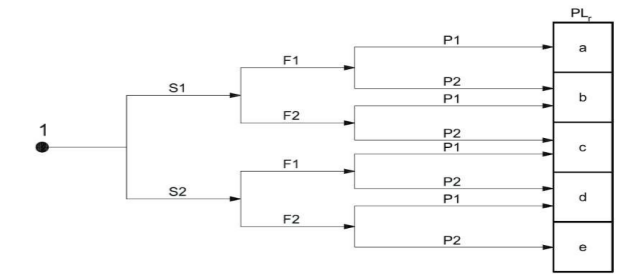


PROTOCOL APPROVAL		
PREPARED BY	DESIGNATION	SIGNATURE AND DATE
Sahana I H	Automation	
REVIEWED BY BRML	DESIGNATION	SIGNATURE AND DATE
Vaibhav Bhosale	Automation	
Pabitra Hazra	Design	
REVIEWED BY STRIDES PHARMA	DESIGNATION	SIGNATURE AND DATE
APPROVED BY STRIDES PHARMA	DESIGNATION	SIGNATURE AND DATE



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, required performance level

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

Assessment reference:	16049	Number of operatives:	1
Type of machine:	Sachet Cartoning Machine	Number of shifts per week:	
Machine location:	Bangalore	Usage (hours per week):	
Machine description:	Sachet Cartoning Machine	Operating manuals:	Supplied
Machine manufacturer:	BAR	SOP's	As required, per post assembly Hazop.
Machine model:	p780	Operatives' training record:	
Machine serial number:	p780-16049-01-2022	Warning signs:	As required, per post assembly Hazop.
Modifications from 'as-supplied':	None	Raw materials:	
Energy sources:	Electrical Power and Compressed Air	Maintenance manual:	Supplied
Energy source ratings:	Electrical - 3phase, 415V Pneumatic - Air @6bar.	Maintenance training record:	Operators & maintenance to be trained upon installation
Safety measures:	(eg. PLd safety architecture)	Access by untrained visitors:	Prohibited
Assessment carried out by:	OB, RB		
Assessment date:	23-08-2022		
Assessment reviewed by:			
Assessment review date:			
Version:	1.0		

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

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

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 risk)	
1	1-2 persons
2	3-7 persons
4	8-15 persons
8	16-50 persons
12	50+ persons

RML Assumptions: Machine has no electronic guarding at all at initial assessment, frame is present.
Keywords: See "Example Keywords" sheet for further keywords

No.	Assembly	Machine Location	Type of Hazard	Potential consequences	Comments	Initial assessment					Action required	Re-assessment after taking action					Residual Risk Action Required		
						LO	FE	DPH	NP	HRN		Risk level	LO	FE	DPH	NP		HRN	Risk level
7	Robot Assembly	Robots Assembly	1.Control Errors 2.Mechanical Failures 3.improper Installation 4.Human Errors	robot failures can cause human injury or death and can also lead to expensive downtime	Hazards - Control Errors, Mechanical Failure, Improper Installation & Human Errors. Why is the hazard there - When the robot installation not done properly, while programming it may cause. What drives the hazard - Robot How could harm be caused - Operator in contact with Robot Surface. Why would the hazard occur - Operator intervention or inspection around the machine, intervention by maintenance personnel. Potential occurrence of hazard - Almost impossible Possible harm - Human injury or death	0.033	4	15	1	1.98	Low, significant	Use best practice design	0.03	4	15	1	1.8	Low, significant	Operator / Maintenance Staff Awareness and Training