BUSINESS PROFILE

PRAZAMANA SAFETIC LLP

Ensuring Safety

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COMPANY PROFILE

Our Philosophy

Prazamana is a Sanskrit word meaning Keeping Safe, and our company philosophy is also that we strongly believe in keeping safety our first priority for all our customers and our team members alike.

Elevate industry standards: Prazamana – Where safety innovates, machinery excels, and excellence is redefined.

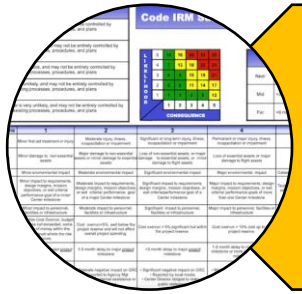
Our Mission

Delivering Safer work environment for one and all.

Our Vision

We are passionate about people and providing them with a safer work environment with technological enhancements at all levels. We go beyond regulatory compliance requirements and add value to creating a safer and more sustainable future.

KEY PRODUCTS AND SERVICES



Machine Safety Assessment

- Risk Assessment
- Validation Report
- Sistema Report
- CAT 3 certificate

Machine Certification

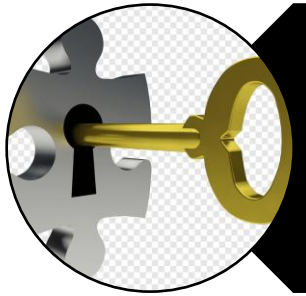
- CE Marking
- UKCA
- AS/NZ

Digital Smart LOTO

- Patented Solution
- Osha Compliant
- Eliminates traditional Challenges.

Machine Safe Guarding

- Manufacturing customized safety Guard
- Safety Fences
- Point Guards



Turnkey Projects

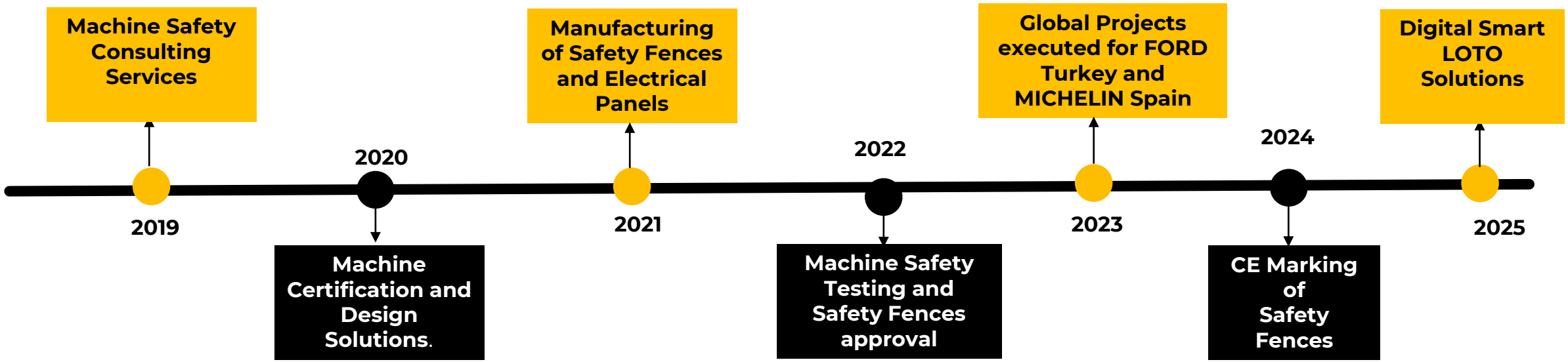
- Designing, manufacturing and Installation of control Panels.
- Integration of safety devices for machines/assembly lines.

Training

- CE and UKCA regulatory requirements.
- Machine safety standards like EN ISO 12100,EN 13489 and more.

COMPANY HISTORY

Journey So Far



CERTIFICATIONS

Safety Fence Test report from TUV

Report No: TUV/PTL/22-23/SFTY-WT/0058 Issue Date: 31 January 2023

Product details:

Test item:	SAFE FIX		
Model Number:	SAFE FIX PRZ 40 / PRZ 60		
Serial No.:	NA		
Trademark:			
Make:	PRAZAMANA		
Sample ID:	--		
Number of Samples:	1		
Date of receipt:	02 November 2022		
Condition of EUT on receipt:	Good		
Applicable Standard/ test specification:	EN ISO 14120:2015 (Annex C)		
Test Result:	The test item passed / failed the test specification(s).		
Declaration of Conformity:	Declaration of conformity of results is based on as per standard limits or criteria.		
Other Aspects:	This test report relates to the test sample submitted		
Testing (Start date) :	2 November 2022	End Date	2 November 2022
Test Site Ambient Condition:	Temperature in °C		25 ± 3 °C
	Relative humidity in %		50%RH - 70%RH
	Atmospheric pressure in hPa (If applicable)		(940-950) hPa
Date of Issue:	31 January 2023		

Authorized by:	Issued by:
Mr. Anand Vedpathak (Head- Product Testing Laboratory)	Sneha Mandve (Executive- Customer Relation)
Date: 31/01/2023	Date: 31/01/2023

TUVP-TR-FF-08-S/ Issue.02/ Rev 01/ dated 07.04.2022 Page 2 of 10

Safety Fence CE Certificate from TUV

TÜVINDIA

Statement of Confirmation

No.: 2324-8120450804-001

Client's reference – Technical File Number : TCF/PRAZ/23-24/01 Rev : 00

Name & address of the manufacturer : **M/s. Prazamana SafeTIC LLP**

Shed No: 07A, Bhumkar Industries, Behind Swami Narayan Temple, Narhe, Tal-Haveli, Pune - 411041, Maharashtra, India

Product nomenclature : SAFE FIX

Models : SAFE FIX PRZ40 / PRZ60

Specification : Refer Annexure 1

Review results/observations
The Technical File referenced above submitted by the manufacturer has been reviewed for its document contents.
The Technical File generally covers the documentation content requirements of the European Directive(s):

- Machinery Directive : 2006/42/EC

Harmonised standard/s referred : EN ISO 14120:2015.

Other technical standard/s referred : Nil

Document issued by the manufacturer : EC Declaration of Conformity

Date of review : 27 March 2024

Jayprakash Hiremath
Associate Vice President – Special Services

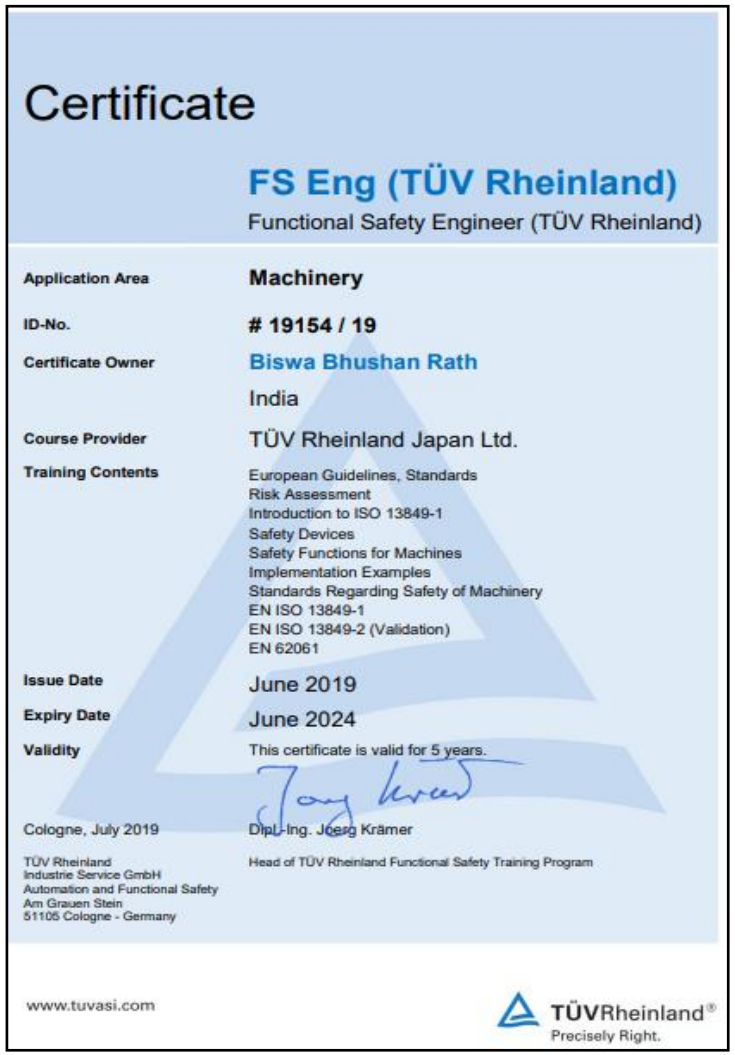
(This Statement of Confirmation is valid under the conditions stated overleaf)

TUVIND/PC/CE/11/01 **Job no: 8120450804**
Issue no.5
Registered & Head Office: 801, Raheja Plaza I, LBS Marg, Ghatkopar (W), Mumbai 400 086 | Email: infoindia@tuv-nord.com Tel: +91-22-66477000
Website: www.tuv-nord.com/in Toll Free Number: 1800-209-0902

TÜVNORDGROUP

TÜV®

OUR TEAM LEADERS



Certificate

FS Eng (TÜV Rheinland)

Functional Safety Engineer (TÜV Rheinland)

Application Area	Machinery
ID-No.	# 19154 / 19
Certificate Owner	Biswa Bhushan Rath India
Course Provider	TÜV Rheinland Japan Ltd.
Training Contents	European Guidelines, Standards Risk Assessment Introduction to ISO 13849-1 Safety Devices Safety Functions for Machines Implementation Examples Standards Regarding Safety of Machinery EN ISO 13849-1 EN ISO 13849-2 (Validation) EN 62061
Issue Date	June 2019
Expiry Date	June 2024
Validity	This certificate is valid for 5 years.

Cologne, July 2019

Dipl.-Ing. Joerg Krämer

Head of TÜV Rheinland Functional Safety Training Program

TÜV Rheinland
Industrie Service GmbH
Automation and Functional Safety
Am Grauen Stein
51105 Cologne - Germany

www.tuvasi.com

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CERTIFICATE ◆ 認証証書 ◆ СЕРТИФИКАТ ◆ CERTIFICADO ◆ CERTIFICAT

TÜV SÜD South Asia

CERTIFICATE

The Academy Division of TÜV SÜD South Asia Pvt. Ltd.

hereby certifies that

Bikram Nag

from Prazamana

has successfully completed

Functional Safety Certified Program (FSCP) based on
ISO 12100:2011
ISO 13849-1:2015
IEC 62061:2021
and is awarded : Functional Safety Engineer

held on: 06th, 07th and 08th July 2022

venue: Virtual Instructor Led Training

Date of certificate release: 09th August 2022
Place of printing: Ahmedabad

Vishal Nerurkar
Sr. Vice President
TÜV SÜD South Asia

Controller of Examinations
Certification Body for Persons
TÜV SÜD South Asia

Machine Certification, RA and Safety testing team

(FSE Engineers)

Mr. Biswa Bhushan Rath

Mr. Bikram Nag,

Mr. Nagendra Singh

Mr. Abinash Pradhan

Mr. Ankit Kumar

MARKETS SERVED

Machine Risk Assessment

Electrical Safety Testing for Machine Panels

Machine Safety Fence and Guarding

Machineries
Electrical and Electronics
Steel and Engineering
Oil and Gas
Petrochemicals
Pharmaceuticals
Automobiles
Chemical, Rubber &Plastic
Food &Beverages
Construction

Machine Certifications

Machine Safety Panel

Machine Safety Turnkey Projects

RISK ASSESSMENT& RISK MITIGATION

- Risk Reduction, is the aim of the norm (ISO 12100), which provide guidelines about how to obtain a safe machine or equipment. The process conducted for this purpose is called Risk Assessment.
- Risk Assessment is performed as per ISO 12100, Verification & Validation of SRP-CS as per ISO 13849
- It is carried out by our Functional Safety Experts certified by TUV.
- Services are directed towards end-user who want safe working environment for their employees.
- PRAZAMANA can support in risk assessment, mitigation and validation for machines and assembly lines etc.

MACHINE SAFETY TURNKEY PROJECTS

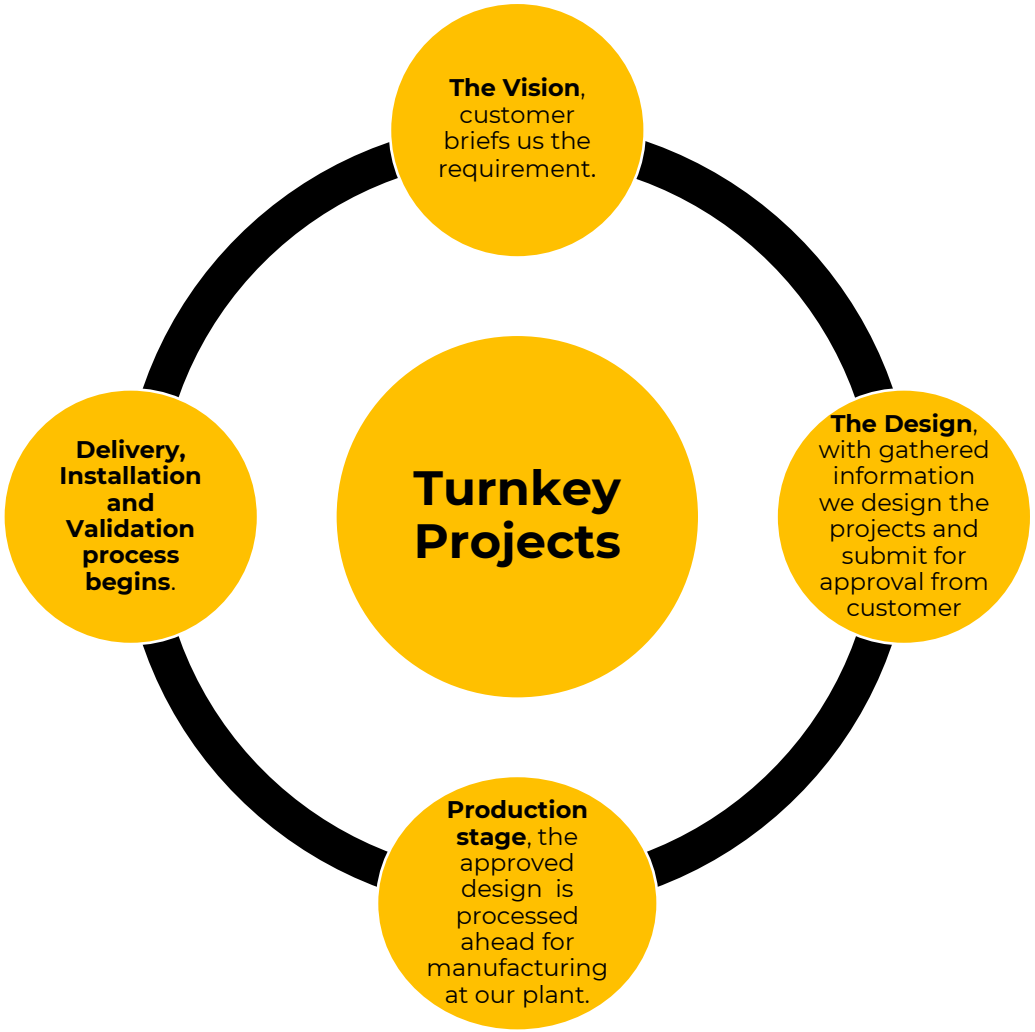
When we say end to end solution for Safety it includes our Project team also which does the installation as a part of risk mitigation process

It includes visiting site and offering various solutions to customer

Based on the selection of solution by customer we offer safety fences and electrical safety devices installation.

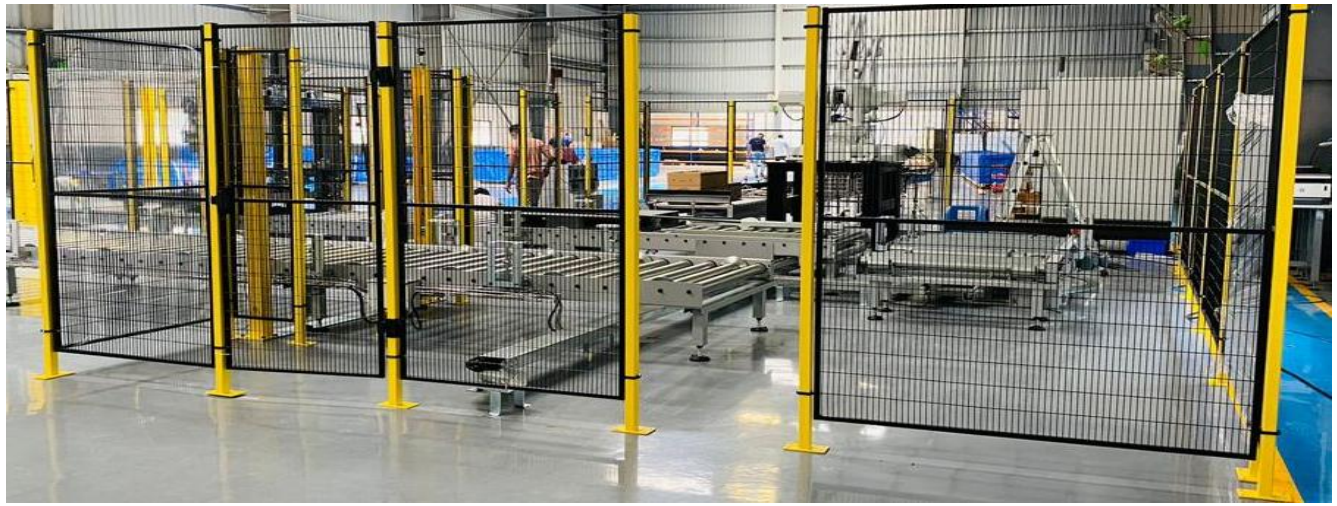
On approval our team install the fences and safety devices as per international standards and ensure safety of employees

A separate team does the validation part of the entire process



MACHINE GUARDS AND FENCES

- With aim to offer complete safety solutions to customer we have invested in setting up a state of the art manufacturing facility in Pune.
- We have our inhouse design team which offers 3D drawings to customer to visualize as per the customized machine layout.
- Our Inhouse manufacturing and quality control helps us to achieve global quality standards. .
- More automatic machines are also planned next year to meet customer growing demand and quicker delivery
- Perimeter fences are CE certified by TUV .



PASSPORT FOR EXPORT CE MARKING AND UKCA

- Support customer for exporting their machines to various countries which needs international certification.
- CE marking is a common marking which is used for all machines exported to European Union for Machines to be exported to UK, requires UKCA.
- Our vast experience and knowledge about European directives and standard helps customer to meet the European requirements in India so that they can export the machine to Europe
- It is carried out by our Functional Safety Experts certified by TUV
- Services are directed towards OEMS who want to export their machines.

DIGITAL SMART LOTOTO SOLUTION

Ensuring Everyone Goes Home Safe!

The World's Most Advanced Digital LOTOTO Platform For Process Industries!

Cloud Software + **Mobile Application** + **Smart Hardware** = **DIGITAL LOTO SYSTEM**

KEY CUSTOMERS

KEY PROJECTS

Project 2-Blender Machine

Hazard Observed -

It is observed that , rotating tank is easily accessible by operator .

There is no barricade available to restrict access for operator or persons working nearby.

This could lead to crushing/impact hazard .

Action taken to mitigate risk -

Safety fence with hinge door is installed to restrict access.

A safety switch is installed on hinge door of safety fence in dual channel manner to a safety relay.

Safety relay output is connected to contactors in dual channel manner in such a way that when the hinge door is locked and the Safety relay is healthy, then only the system can be started.

If the door is not properly locked, then the safety relay won't be healthy and the system can not be started without closing the door properly.

System is installed to monitor agitator motor speed and its feedback is taken into safety switch circuit , so that , when the motor is in zero speed , then only the door can be opened through UNLOCK selector switch .

KEY PROJECTS

Project 6-IDENT 175

Ident 175 : Before Safety Implementation

- No safety switches were installed on all doors.
- One can open door and access machine inside hazardous motion without stopping the machine. This could lead to accidents.
- Some rotating parts were exposed for easy access.
- No E-Stop were installed to cut power supply from machine in emergency condition.
- Jogging was done in manual mode bypassing safety.
- Safety signage were not available.

Ident 175 : After Safety Implementation

- Safety switches installed on all openable doors. All safety switches are monitored by Safety PLC.
- Whenever any door is opened, process stops immediately and after closing properly ,process resumes once reset pb is pressed.
- E-Stops installed in dual channel manner with a safety relay. Safety relay output is connected to contactors in dual channel manner to cut power supply from machine once E-Stop is pressed.
- Guards provided on exposed rotating parts to restrict access.
- For jogging in manual mode an enabling switch is provided for safe operation. Enabling switch is connected with a safety relay.

RISK ASSESSMENT REPORT AFTER

VALIDATION									Date: 18-03-2023
Probability Of Exposure	**PE**	**Frequency Of Exposure**	**FE**	**Degree Of Possible Harm**	**DPH**	**No.Of person at Risk**	**NP**	**HRN**	**Risk Level**
Almost impossible	0.033	Constantly	5.0	Loss of one limb, eye, hearing (permanent)	6.0	1-2 persons	1.0	**0.99**	**Negligible**

Action taken to mitigate the risk

Light Curtain with Radar Sensor Safety System

Two safety light curtains are installed at both entry points.
If someone tries to access the restricted area when the HT is in forward motion then HT will stop.

Two Radar sensor are installed to crosscheck any human presence before starting HT movement.
IF the restricted area is clear then only HT motion will start.

Standard Reference	,,,EN ISO 13849-1,EN 61496-1,EN ISO 13855,,,,					
SRP/CS:		S	F	P	Control Category	Pla
		S2	F2	P1	3	d

HANDLER TROLLEY

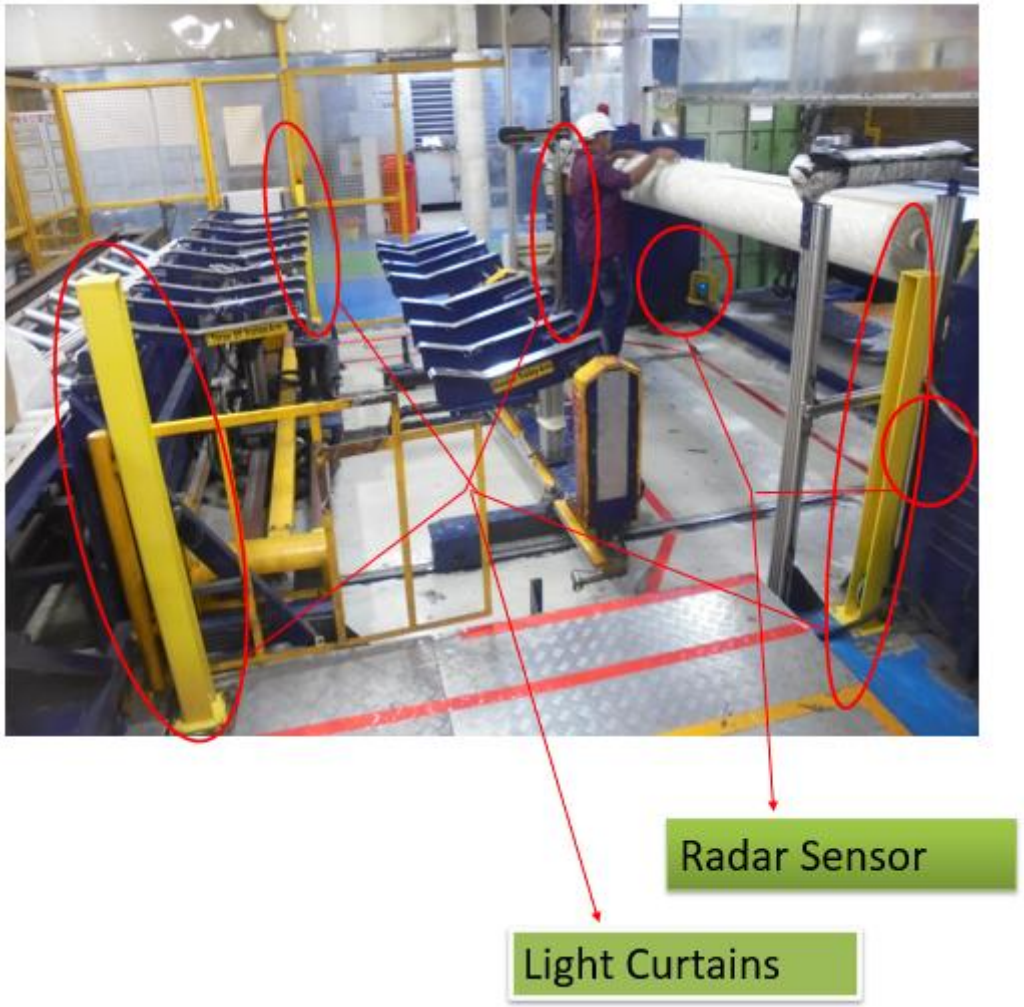
Before Safety Radar Implementation -

- One light curtain was installed to detect human presence. If someone is standing in this area(covered by light curtain) then the forward motion of handler trolley will not start. But the light curtain was not covering all area inside the danger zone. And if someone is working below the light curtain then light curtain will not be able to detect that person.
- One foot detection photo sensor was installed to detect any human presence as well. When the handler trolley is in forward motion and the photosensor detects anyone while moving then the forward motion was stopped. But the photo sensor also was not covering all area and there were many blind spots.
- No provision to detect human entry while the handler trolley is in forward motion. Anyone can access restricted danger area while the handler trolley is in forward motion.
- One can be working inside the restricted danger zone and the handler trolley will still start moving forward if it gets a forward start command.

HANDLER TROLLEY

After Safety Radar Implementation -

- Two radar sensors are installed to detect human presence inside the danger zone. Both radar sensor are installed in such a way that it covers all the restricted danger area without leaving any blind spot inside that area. Before starting the forward motion of handler trolley , radar sensor detects any human presence inside restricted area and if it finds clear then only forward motion starts.
- Two light curtains are installed at both entry points. While the handler trolley is in forward motion and if someone tries to enter inside the restricted area then forward motion stops immediately.
- Once any of the light curtains is interrupted ,while the handler trolley is in forward motion, then the handler trolley movement stops and both radar sensor gets activate again. Till someone will be inside the restricted area then the radar sensor will not let the system be reset and the movement will not resume. Once the area is clear of any human presence, then the movement will resume after pressing reset push button.



CUPPER MACHINE

Cupper Press : Before Safety Implementation

- There were no safety fence installed around the cupper press machine.
- Anyone can access machine inside hazardous zone without stopping the machine.
- No E-Stop were installed to cut power supply from machine in emergency condition.

Cupper Press : After Safety Implementation

- Safety fence installed around Cupper press machine to restrict access.
- Unicode RFID Safety switches installed on all openable doors. All safety switches are monitored by Safety PLC.
- Whenever any door is opened, process stops immediately and after closing properly ,process resumes once reset pb is pressed.
- E-Stops installed in dual channel manner connected to a safety PLC. Safety PLC output is connected to contactors in dual channel manner to cut power from machine once E-Stop is pressed.
- New safety panel installed.

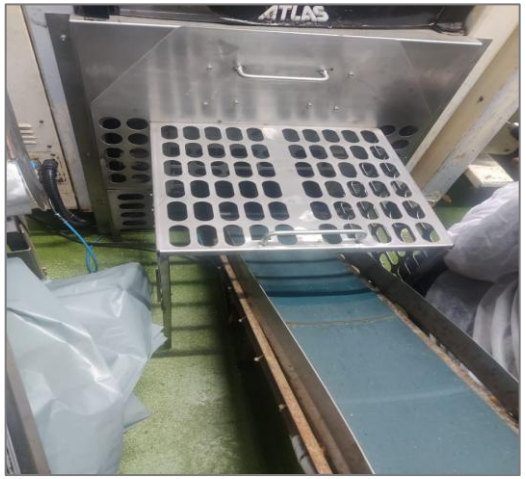
BAGMAKER MACHINE

Bagmaker : Before Safety Implementation

- There were 3 safety switches installed on each door.
- Safety switches were connected in a single channel manner with a safety relay. The current safety architecture was not achieving the required performance level (PLd)
- Installed E-Stops were connected in a single channel manner with a safety relay as well.
- There was no quick exhaust valve to dump air.
- Installed guards were not adequate to restrict access inside the rotating parts.

Bagmaker : After Safety Implementation

- Unicode RFID Safety switches installed on all openable doors. All safety switches are monitored by Safety PLC.
- Whenever any door is opened, process stops immediately and after closing properly ,process resumes once reset pb is pressed.
- E-Stops installed in dual channel manner connected to a safety PLC. Safety PLC output is connected to contactors in dual channel manner to cut power from machine once E-Stop is pressed.
- All existing guards were replaced.
- New safety panel installed.
- The new safety architecture achieved PLd.



WRAPPING AND STRAPPING MACHINE

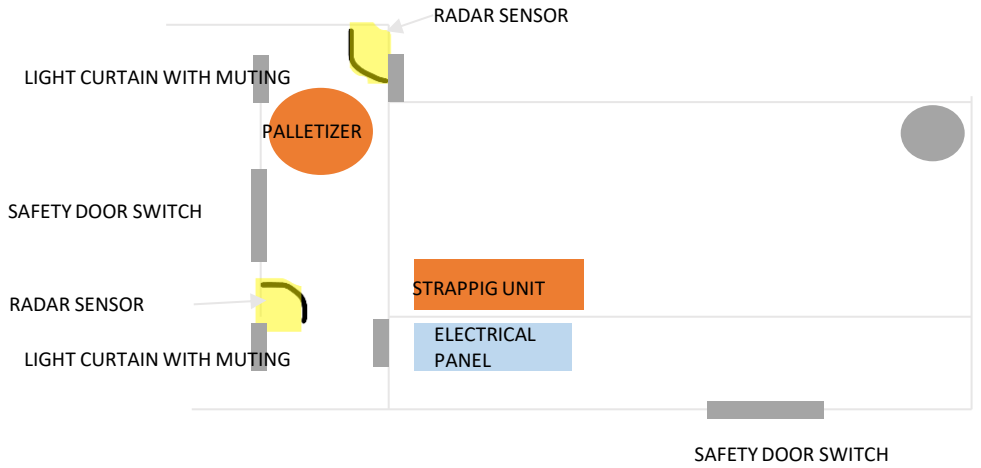
Before Safety Implementation -

- Non-safety rated door switches were installed on doors, which were monitored by a standard PLC.
- There was no light curtains installed at both infeed and outfeed side of the conveyor.
- Muting at both infeed and outfeed side was done by reflective sensors only and was time based.
- E-Stops were connected to a standard PLC in single channel manner.
- There was no presence sensing system to detect if someone is inside the restricted area before starting the machine.

WRAPPING AND STRAPPING MACHINE

After Safety Radar Implementation -

- Radar sensor was installed at conveyor area. One at infeed side of the conveyor and second at outfeed side of the conveyor. Both radar sensor monitor for any human presence at conveyor area.
- Safety light curtain were installed at conveyor area. One at infeed side of the conveyor and second at outfeed side of the conveyor. Both safety light curtain prevent any unauthorized access inside the restricted area. Two muting sensor were installed at both safety light curtain to let the entry of pallet only.
- Area scanner was installed at operational area to detect any unauthorized access.
- Safety door switch were installed at each door.
- New safety panel was installed



ROBOTIC CELL WITH WRAPPING MACHINE

Before Safety Implementation -

- Non-safety rated door switches were installed on doors, which were monitored by a standard PLC.
- There was no light curtains installed at both infeed side .
- Muting at both infeed side was done by reflective sensors only and was time based.
- E-Stops were connected to a standard PLC in single channel manner.
- There was no presence sensing system to detect if someone is inside the restricted area before starting the machine.

ROBOTIC CELL WITH WRAPPING MACHINE

After Safety Radar Implementation -

- Radar sensor were installed inside the robotic cell for any human presence before starting the machine.
- Safety light curtain were installed at both infeed side. Both safety light curtain prevent any unauthorized access inside the restricted area. Muting sensor were installed at both safety light curtain to let the entry of trolley only.
- Safety door switch were installed at each door.
- New safety panel was installed.

THANK YOU

We look forward to work with you

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