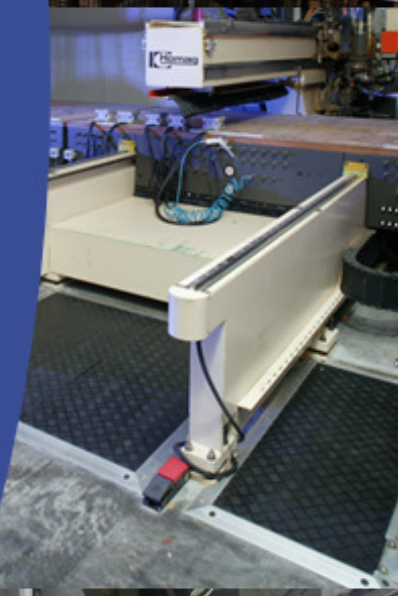
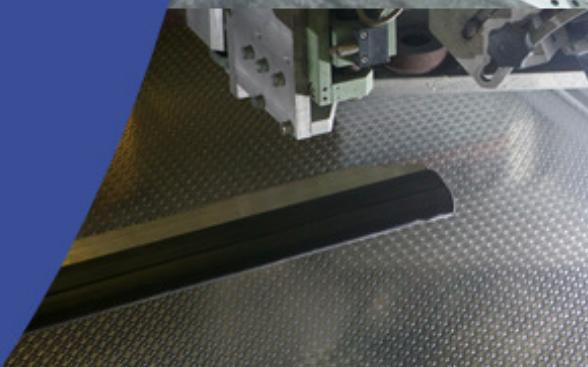
ISS | Safety Ltd.





We make your Workplace Safe

Safety Consultancy

Our consultancy services include, but are not limited to the following;

- Health and Safety Audits.
- Health and Safety Training.
- CE Marking.
- Writing safety policies and procedures.
- Competent person service.
- Advice on compliance with Health and Safety Regulations and Standards.
- Stop Time Tests.
- Application of the Provision and Use of Work Equipment Regulations (PUWER).

Trapped Key Interlocks

HST-SA1
Single Key Switch

HST-LS
Switchgear Interlock.

HST-B1
Single Key Bolt Interlock.

HST-TZ1
Single Key Slam Interlock.

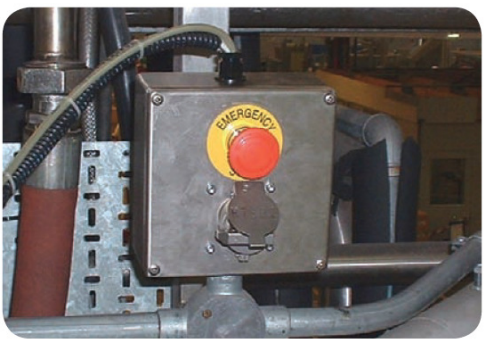
HST-WA
Key Exchange Box.

HST-TS1
Single Key Door Interlock

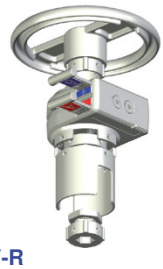
Trapped key interlocking is a very effective means of controlling access to hazardous machinery. The technology forces operating and maintenance personnel to follow a predetermined sequence of events that will ensure the machinery is isolated before access is permitted. Our range of trapped key interlocks are manufactured in stainless steel, supplied with a lock portion protective flip cap as standard and are robust, easy to operate and can be fitted to a wide range of applications.

System Example

This system uses a HST–SA1 single key switch and HST–TS1 access interlock to ensure the mixer is isolated before the lid can be opened.

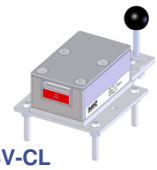


Valve Interlocks



HSV-R
Interlock kit to suit hand wheel operated gate, globe or gearbox valves.

HSV-Q
Interlock kit to suit 90° or 180° rotation ball, butterfly or plug valves.



HSV-CL
Door access interlock for use on cabinet or pig launching closure doors.

HSV-K
Valve interlock system keys.

HSV-SCU
Key selector unit for non linear key exchange applications.

HSV-M-AT
The anti tamper interlock kit has been specifically designed to prevent unauthorised operation, violation and sabotage of any size and type of valve including.

The opening and closing of valves in the wrong sequence can have disastrous consequences causing serious or fatal injury to operating personnel, loss of product and damage to equipment. Ensuring the safe operation of valves is essential in industries ranging from food production to oil refining. While padlocks and chains allow some degree of control, they do not eliminate the potential for human error. Fitting an interlock system ensures that whenever valves are operated the correct sequence of events are followed using a sequence of keys.

System Example

This system uses a HSV-Q valve interlock kit and HSV-CL access lock to ensure the drain valve has been diverted to the spill tank prior to opening the fill point cabinet.

Safety Edges

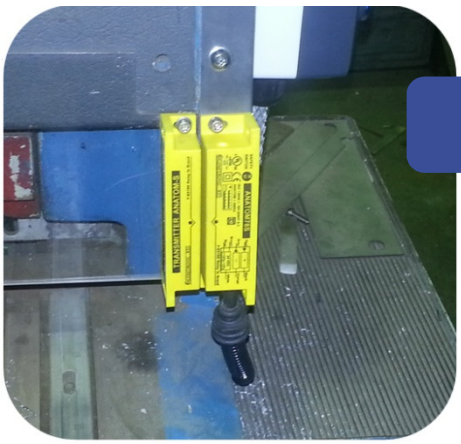
Safety Edges are used to protect against injury from shearing or crushing hazards such as scissor lifts, roller shutter doors, machine guards, lifting tables and theatre stages. Here being used on an ink screen printing machine.

Safety Bumpers

Safety Bumpers are used to protect against injury from shearing or crushing hazards on larger objects such as transverse cars, as seen here.

Safety Mats

Safety Mats are usually used to cover the floor area around a dangerous piece of equipment to prevent it from operating whilst someone is standing on the mats. Here shown on a CNC machine.



Non-Contact Safety Switches

The ISS Safety range of non-contact switches are available in coded magnet or RIFD version, with varying outputs, varying cable lengths/connector types and either Polyamide6 or stainless steel housings. Specials include high temperature and ATEX rated versions.

Safety Relays

Safety relays from ISS Safety comply with either Pld or PLe in accordance with EN ISO 13849-1 and can be used to control numerous safety devices including non-contact switches, tongue switches, E-stops, two hand controls, light curtains and rope pulls.

Pressure & Vacuum Safety Switches

Three versions are available; PS which is for pressure detection, VC for vacuum detection where fluid is present and VS for vacuum detection where gas is present. NC or NO contacts are provided which change state under the pressure or vacuum setting level.

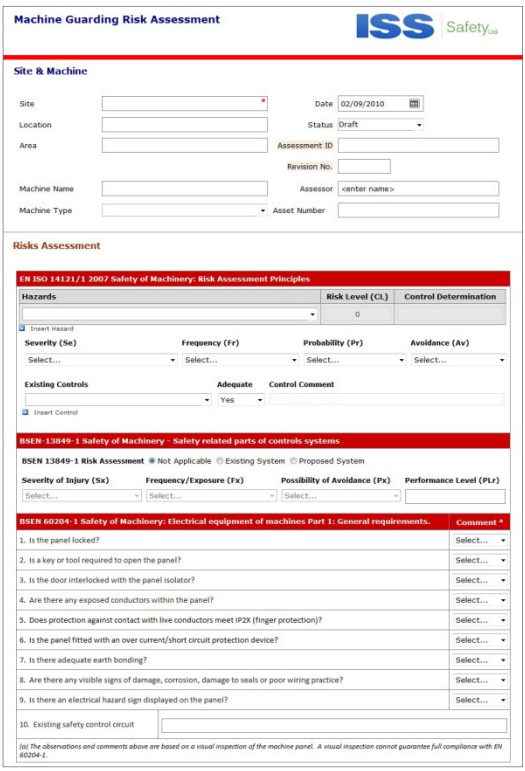
Risk Assessments

Every company is under a statutory duty to carry out an assessment of risks present in their workplace. Users of hazardous machinery and equipment must also comply with the 24 regulations of the Provision and Use of Work Equipment Regulations (PUWER). The Regulations require risks to people's health and safety, from equipment that they use at work, to be prevented or controlled. European Machinery Safety Standards can be used as reference documents to provide guidance on the selection of safety devices to control machinery risk. Primarily intended for use with new machinery, they can be used with existing work equipment to assess compliance with the relevant sections of PUWER. For example BSEN 953 "General requirements for machinery guards" can be used to select new or assess the suitability of existing fixed and movable guards fitted to dangerous machinery. The ISS Safety risk assessment process is a multi-layered exercise in machine risk management. The assessment makes extensive use of Harmonised European Machine Safety Standards and the 24 Regulations of PUWER to identify hazards, assess the level of risk, determine the suitability of existing risk control measures and where appropriate, make recommendations on further risk reduction hardware or procedures.

The process incorporates:

- Discussions with machine users.
- An extensive hazard analysis of the machine and its working environment.
- Numerical and qualitative quantification of risk using BS EN ISO 12100-2010.
- An assessment of the adequacy of the existing safety control measures.
- An assessment of the electrical safety control system using BS EN 13849–1.
- An assessment of electrical safety using BS EN 60204–1.
- An assessment of compliance with the 24 Regulations of PUWER.
- Recommendations and actions.
- Assessment priority rating.
- Photographic log.

A full printed report is issued after the assessment is completed. *(See printed form extract opposite).*



Machine Guarding Risk Assessment

ISS Safety Ltd

Site & Machine

Site | Date 02/09/2010
Location | Status Draft
Area | Assessment ID
Revision No.
Machine Name | Assessor <enter name>
Machine Type | Asset Number

Risks Assessment

EN ISO 14121/1 2007 Safety of Machinery: Risk Assessment Principles

Hazards | Risk Level (CL) | Control Determination
Insert Hazard
Severity (Se) | Frequency (Fr) | Probability (Pr) | Avoidance (Av)
Existing Controls | Adequate | Control Comment
Insert Control

BSEN 13849-1 Safety of Machinery - Safety related parts of controls systems

BSEN 13849-1 Risk Assessment: Not Applicable / Existing System / Proposed System
Severity of Injury (Sx) | Frequency/Exposure (Fx) | Possibility of Avoidance (Px) | Performance Level (PLr)

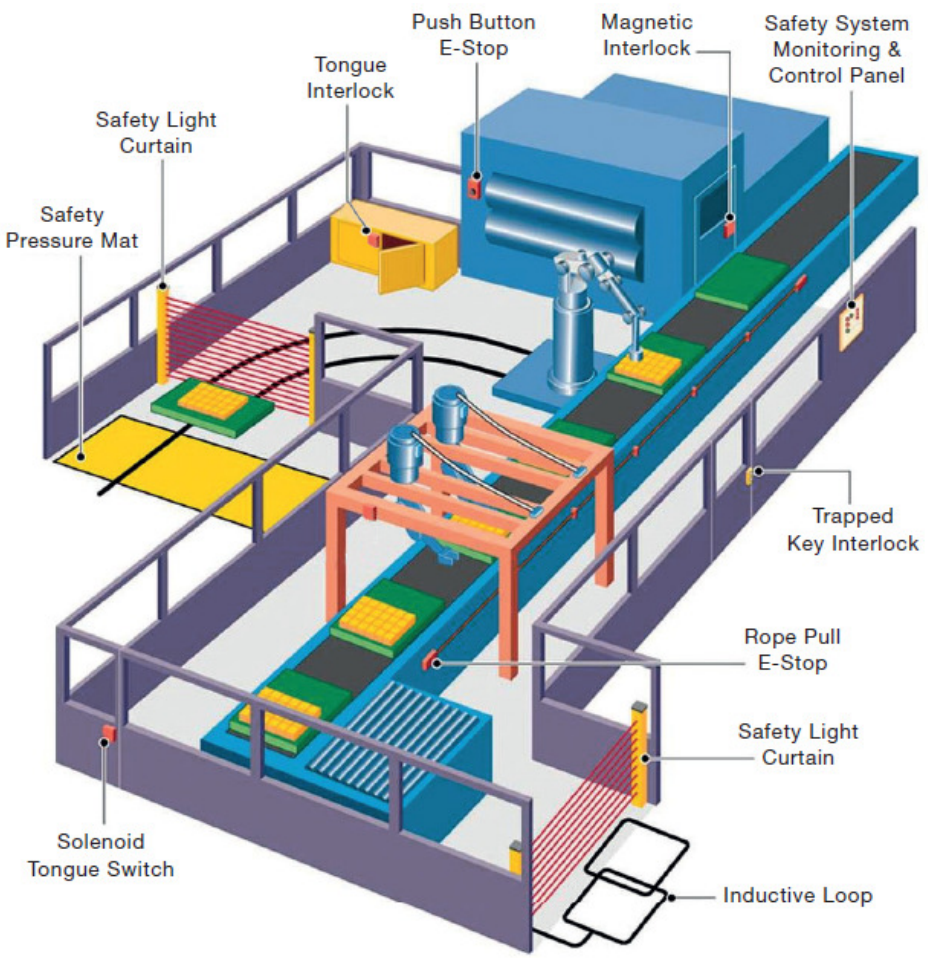
BSEN 60204-1 Safety of Machinery: Electrical equipment of machines Part 1: General requirements. | Comment *

1. Is the panel locked?
2. Is a key or tool required to open the panel?
3. Is the door interlocked with the panel isolator?
4. Are there any exposed conductors within the panel?
5. Does protection against contact with live conductors meet IP2X (finger protection)?
6. Is the panel fitted with an over current/short circuit protection device?
7. Is there adequate earth bonding?
8. Are there any visible signs of damage, corrosion, damage to seals or poor wiring practice?
9. Is there an electrical hazard sign displayed on the panel?
10. Existing safety control circuit

(a) The observations and comments above are based on a visual inspection of the machine panel. A visual inspection cannot guarantee full compliance with EN 60204-1.

Safety System Integration

ISS Safety routinely design and manufacture safety systems for all types of industrial applications that protect personnel working with dangerous machinery or in hazardous environments. Our safety systems are designed to ensure the maintenance of a safe working environment and compliance with safety legislation and standards. All services are conducted in accordance with the relevant European Directives, UK Safety Regulations, European and International Standards and include preparation and supply of all necessary markings and documentation.



As a single source supplier ISS Safety offers a complete package from initial risk assessment through to design, installation, commissioning and training.

ISS | Safety Ltd.

ISS Safety Ltd
Devonshire House
582 Honeypot Lane
Stanmore
Middlesex
HA7 1JS

T +44 (0)208 732 5505
F +44 (0)208 732 5510

sales@iss-safety.co.uk
www.iss-safety.co.uk