

Winner announced of Risk Reduction Through Design Award 2023

Zebra Technologies Europe Limited (Preston) has triumphed at this year's 'Risk reduction through design' awards for its innovative solution that helps protect workers from developing musculoskeletal disorders (MSDs).

The manufacturing company won the prestigious award after overcoming stiff competition from innovators across a wide range of sectors.

The 'Risk reduction through design' award 2022/23, sponsored by The Health and Safety Executive (HSE) and [Chartered Institute of Ergonomics and Human Factors \(CIEHF\)](#), recognises design innovation to reduce the risk of MSDs. MSDs include injuries and conditions that can affect the back, joints and limbs.



The 'Risk reduction through design' award 2022/23, sponsored by The Health and Safety Executive (HSE) and Chartered Institute of Ergonomics and Human Factors (CIEHF), recognises design innovation to reduce the risk of MSDs.

Winning company, Zebra Technologies, developed an innovative design solution in-house for reduction of manual handling of printed rolls and boxes.

Previously, operators lifted the finished roll off the printing press and then by bending and twisting down placed the finished rolls onto the pallet at ground level. A full pallet was then taken by pallet truck to the packing area to be boxed. The operator lifted the rolls from the pallet onto the packing line. Once sealed, the operator lifted the box from the packing line onto the pallet at ground level.

The winning design moved the boxing machine adjacent to the packing line to reduce the lifting tasks. The maintenance team designed a cradle that fits onto the existing boxing machine which allows the whole unit to raise, lower

and tilt to suit each of the operators needs to help reduce and address musculoskeletal issues.

Ali Wellens, from HSE's Health and Work Branch and chair of this year's judging panel said: "We would like to congratulate Zebra Technologies for their efforts to reduce the risks of MSDs in the workplace.

"The 'Risk reduction through design' award is intended to highlight the important contribution that design changes can make in reducing risks of musculoskeletal disorders. We were delighted to receive so many innovative designs from businesses across a wide range of industries. The volume of entries demonstrates some of the great work businesses are doing to protect their workers' health.

"MSDs are a significant risk to workers' health, and we urge all businesses to consider how they could make design changes to eliminate or reduce the risks in their workplaces."

Zebra Technologies was proud to receive the award in recognition of their work to reduce MSDs in the workplace.

Gordon Alexander, Environmental Health & Safety Specialist II, Zebra Technologies Europe said: "The Zebra team in Preston are thrilled to be announced the winners of this 'Risk reduction through design' MSDs Award 2023."

"We continually strive towards a safe and healthy workplace for all, and encourage a culture of safety, teamwork, innovation and continuous improvement. This award reinforces our ongoing efforts and is a fantastic achievement for the team. Thank you to HSE & CIEHF for considering our entry."

The award was presented at CIEHF's annual (virtual) awards ceremony on the 23 June 2023.

A commendation was given to a further entry to the awards. Barrett Steel Shoreham received a commended entry for their moving trailer loading platform design solution.

Iris Mynott, Membership & Partnership Manager of the Chartered Institute of Ergonomics & Human Factors (CIEHF) said: "CIEHF is delighted to collaborate with HSE on these awards to recognise innovation that can make a significant contribution to life, wellbeing and performance.

"Congratulations to our 2023 winner and commended entry and thank you to all the organisations that entered."

Notes to Editors:

1. For more information on the award winner and commended entries visit: <https://www.hse.gov.uk/news/msd-awards.htm>

2. More information about Chartered Institute of Ergonomics and Human Factors (CIEHF) can be found here: <https://ergonomics.org.uk/>
 3. The Health and Safety Executive (HSE) is Britain's national regulator for workplace health and safety. We prevent work-related death, injury and ill health through regulatory actions that range from influencing behaviours across whole industry sectors through to targeted interventions on individual businesses. These activities are supported by globally recognised scientific expertise.
 4. HSE news releases are available at <http://press.hse.gov.uk>
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[Company fined after broken arm forces dad out of work](#)

A manufacturing company has been fined after a dad was drawn into a machine and broke his arm in two places.

Paul Pearce, a father-of-two from Lymington in Hampshire, was unable to work for over a year following the incident on 12 March 2021.

He had been working a night shift for HS Butyl Limited, a manufacturer of adhesive tapes, at the company's site at Gordleton Industrial Park in Lymington when he noticed a build-up of butyl on the conveyor belt of the firm's hot feed extruder machine.

Mr Pearce, who was 43 at the time, then reached into the conveyor to find out how much of the material was blocking the machine.

While doing this however, Mr Pearce's left arm became trapped and entangled between the machine's conveyor belt and pulley.



This led to the ulna and radius bones in his left arm breaking with Mr Pearce

later requiring surgery to fit metal plates in the arm.

However, these plates broke after being fitted and led to Mr Pearce undergoing two more operations. He was unable to work for over a year.

In a victim impact statement presented to the court, Mr Pearce, who is now 45, said: "It was the combination of the incident itself and all of the time off as a result of the incident which depressed me. It was depressing not being able to do all of the things I would normally do. As a result of the time off...I lost [my partner] and had to move out from my home."

A Health and Safety Executive (HSE) investigation found that HS Butyl Limited had failed to provide guarding to stop its workers from being exposed to dangerous areas on moving machinery.



HSE guidance can be found at: [Equipment and machinery – HSE](#)

HS Butyl Limited, of Gordleton Industrial Park, Hannah Way, Lymington, Hampshire, pleaded guilty to breaching Regulation 11(1) of the Provision and Use of Work Equipment Regulations 1998. The company was fined £80,000 and ordered to pay £4,945.90 in costs at West Hampshire Magistrates' Court on 23 June 2023.

HSE inspector Lucy Hacker said: "This incident was wholly avoidable, caused by the failure of the company to provide guarding. Employees should be physically prevented from getting into a position where they can come into contact with dangerous parts of machinery, and experience and procedures alone should not be relied upon to control risk.

"The risk of being drawn in and entangled in dangerous parts of conveyors is a well-known and well-documented machinery risk. The guidance on safe operation of extruders is well established and specifies the requirement for these hazards to be guarded."

This prosecution was supported by HSE enforcement lawyer Rebecca Schwartz.

Notes to editors:

1. [The Health and Safety Executive](#) (HSE) is Britain's national regulator for workplace health and safety. We prevent work-related death, injury and ill health through regulatory actions that range from influencing behaviours across whole industry sectors through to targeted interventions on individual businesses. These activities are supported by globally recognised scientific expertise.
2. More information about the [legislation](#) referred to in this case is available.
3. Further details on the latest [HSE news releases](#) is available.

[Private health care provider fined for exposing workers to chlorine gas](#)

A private health care provider has been fined after three workers received treatment following exposure to chlorine gas.

Anthony Coombes, an engineer from Sandhurst, Berkshire, was working at The Hampshire Clinic on Basing Road in Basingstoke when he was exposed to the potentially deadly gas on 11 March 2021.

He had been hired by Circle Health Group, the firm that runs The Hampshire Clinic, and asked to reduce the PH levels in the clinic's hydrotherapy pool. However, there were no trained employees for the safe operation of pool plant at the clinic's physiotherapy suite and Mr Coombes had not been fully trained in chlorine dosing operations or chemical storage.

He added sodium hydrogen sulphate, also known as sodium bisulphate, to the pool's sodium hypochlorite tank which caused a reaction and resulted in the release of chlorine gas.



The sodium hypochlorite tank at The Hampshire Clinic

Mr Coombes was exposed to the gas and taken to hospital where he was given oxygen. Two other workers at The Hampshire Clinic were affected by the gas exposure and treated by doctors at the site.

Mr Coombes, 59, said in a statement: "I am just not the same person. I have lost my self-confidence, and don't want work alone anymore, I won't be a lone worker. My life nearly ended in two minutes, I now won't work in a plant room on my own and I have lost work because I won't work alone.

"My confidence is not what it used to be, I can't travel on my own and I used to travel a lot. It has affected my life, it has affected my mind. I get depressed and think about how short life can be, it just plays on my mind, so I have been keeping myself to myself. I've gone a bit quiet really, I lack motivation to do things, my life could have been over so quick."

Chlorine gas exposure can be fatal in minutes. Analysis by HSE's Science Division indicated that the maximum volume of chlorine gas produced was nearly 8000 times over the workplace exposure limit (WEL) and nearly 400 times over the Immediately Dangerous to Life or Health (IDLH) Limit.

A Health and Safety Executive (HSE) investigation found that Circle Health

Group fell far short in ensuring the health, safety and welfare of both its employees and contractors. Industry guidance for managing pool water treatment is well-known and been established for a significant period of time. Circle Health Group failed to put in place recognised industry standards of suitable risk assessments, adequate training as well as instructions and safe systems of work for the handling and mixing of chemicals.



The swimming pool at The Hampshire Clinic

HSE guidance can be found at: [Swimming pool management: Leisure activities \(hse.gov.uk\)](https://www.hse.gov.uk/swimming-pool-management-leisure-activities/)

Circle Health Group Limited, of Cannon Street, London, pleaded guilty to breaching Sections 2(1) and 3 (1) of the Health and Safety at Work etc. Act 1974. The company was fined £160,000 and ordered to pay £12,520.03 in costs at Basingstoke Magistrates' Court on 20 June 2023.

HSE inspector Francesca Arnold said: "Swimming and therapy pool operators must comply with their general duties under the Health and Safety at Work etc Act 1974, which includes making a suitable and sufficient risk assessment of the health and safety risks to their workers and users including the risks of operating pool water treatment systems and the incompatible mixing of chemicals.

"Chlorine derivatives in pools are a well-established method of disinfectant provision and the accidental addition of acid to hypochlorite is the commonest cause of chlorine release incidents in pool buildings, it is fortunate that the injuries suffered were not more serious or even fatal."

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- by globally recognised scientific expertise. [hse.gov.uk](https://www.hse.gov.uk)
2. More about the legislation referred to in this case can be found at: [legislation.gov.uk/](https://www.legislation.gov.uk/)
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[Transport company fined after worker fractures skull](#)

A transport company has been fined £255,000 after a worker fell from a lorry and fractured his skull.

The man, who was working as a delivery driver for B Taylor & Sons Transport Limited, had been delivering glass to a customer when the incident occurred in Hinckley, Leicestershire on 4 December 2020.

As no forklift truck was available, the man was passing panes of glass from a stillage in the lorry to another worker on the ground.

The man then fell from the lorry, fracturing his skull, left hand, nose and right eye socket. He also sustained two bleeds on the brain, a 12 centimetre gash on his forehead and dislocated his right elbow.

He spent five days in hospital following the incident and has to make significant adjustments to his day to day life. He struggles carrying out normal activities, including lifting moderate to heavy loads and carrying out DIY tasks in his home. He also experiences pain on a daily basis as a result of his injuries and feels a lot of uncertainty about what the future holds.

An investigation by the Health and Safety Executive (HSE) found that B Taylor & Sons Transport Limited had failed to put in place appropriate control measures for unloading activities. Risks had not been considered and the work was being carried out unsafely.

HSE guidance can be found at: [Loading & unloading Vehicles safely \(hse.gov.uk\)](https://www.hse.gov.uk/load-unload-vehicles-safely)

B Taylor & Sons Transport Limited, of Export Drive, Huthwaite, Sutton-in-Ashfield, Nottinghamshire, pleaded guilty to breaching Section 2(1) of the Health and Safety at Work etc. Act 1974. The company was fined £255,000 and ordered to pay £3,687 in costs at Leicester Magistrates' Court on 20 June 2023.

HSE inspector Nicholas Moreby said: "B Taylor & Sons Transport Limited failed to proactively plan and manage health and safety. The fine imposed on them should underline to everyone in the transport industry that the courts, and HSE, take a failure to follow the regulations extremely seriously.

“We will not hesitate to take action against companies which do not do all that they should to keep people safe.”

This prosecution was supported by HSE enforcement lawyer Nathan Cook.

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2. More information about the [legislation](#) referred to in this case is available.
3. Further details on the latest [HSE news releases](#) is available.
4. HSE guidance on [loading and unloading vehicles safely](#) is available.

[Company fined after worker’s fingers sliced off](#)

A vape liquid manufacturing company in Manchester has been fined after a worker lost two fingers and a thumb while clearing a blockage in a packaging machine.

The agency worker at VN Labs Ltd was operating a nicotine liquid pod packaging machine at the firm’s premises on Beacon Road, Trafford Park, when it became blocked on 22 October 2020.

While removing the plastic that was causing the blockage, the machine’s blade was freed and sliced the worker’s right hand.

This led to the amputation of two of the worker’s fingers (index and middle) and thumb on his right hand after it became apparent they could not be reattached.

The 43-year-old man, who lives in Manchester, has been unable to work since the incident, now struggles carrying out everyday tasks and has suffered from mental health difficulties as a result of his injuries.

He said in his victim personal statement: “The accident has had an impact on my daily activities because from day one until now I did not have a day without pain. My mind has completely changed. I can’t do simple tasks such as prepare eggs for my children. I used to enjoy hobbies like judo, jujitsu and climbing.

“My mental health has suffered because of the accident and is not regular like it was before, there is a lot of instability. I have good days and bad days. My financial situation has deteriorated and I feel like I have no control over anything. I can't work and I have to delay all my bills including my rent. It was never like this before.”

A Health and Safety Executive (HSE) investigation found the machine had recently been imported without any guarding. The engineering team at VN Labs assessed the machine and installed a see-through plastic guard over the top. Despite this, access to dangerous parts of the machine was still possible. There was also no formal written risk assessment for the blister pack machines. The company also failed to implement a safe system for clearing blockages and did not effectively supervise and monitor its working processes.



The packaging machine at VN Labs Ltd



The packaging machine at VN Labs Ltd

HSE guidance can be found at: [Provision and Use of Work Equipment Regulations 1998 \(PUWER\) \(hse.gov.uk\)](https://www.hse.gov.uk/laws/1998/puwr/)

VN Labs Limited, of Beacon Road, Trafford Park, Manchester, pleaded guilty to breaches of Section 2 (1) and 3 (1) of the Health and Safety at Work etc. Act 1974. The company was fined £180,000 and ordered to pay £7,490.05 in costs at Manchester Magistrates' Court on 16 June 2023.

HSE inspector Joseph Wright said: "This incident could so easily have been avoided. Employers should ensure they carry out an assessment of the risks and put in safe system of works for the operation of all machinery.

"Companies should recognise the need to ensure machinery is guarded to the standard of UK legislation even when imported from another country because they may have different laws around the standard of guarding."

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