The Provision and Use of Work Equipment Regulations (PUWER) 1998 was introduced to ensure safety when working with any work equipment. It applies to employers, self-employed and employees – the owners and users of work equipment.

What does the legislation require?
As owners of work equipment, employers need to ensure that it is safe to use and maintained accordingly.

PUWER contains broad requirements for all types of work equipment, and specific requirements for mobile work equipment and power presses. It may need to be considered in conjunction with the Lifting Operations and Lifting Equipment Regulations (LOLER) 1998.

Work equipment is defined as any equipment used by an employee at work – for example, tools, wood and metalworking machinery, dumper trucks, ladders and guillotines.

In general terms PUWER requires work equipment to be:
- suitable for its intended use
- safe for use and in certain circumstances inspected in-service to ensure it remains safe for use
- used only by people who have received adequate training
- accompanied by suitable safety measures.

In order to achieve this, owners and users of work equipment need to carry out a risk assessment to establish the in-service inspection requirements under Regulation 6 of PUWER.

Woodworking machines cause more injuries than any other type of machinery used in the workplace. Woodworking machinery is common in many industry sectors, and some 27% of accidents occur outside the true wood industry (source: Health and Safety Executive).

If an inspection is required, a programme will need to be drawn up to determine who will inspect the equipment and when. A person with the necessary knowledge and experience should always carry out the inspection.

Other requirements include reviewing the equipment’s maintenance programme and providing adequate marking and protection along with training to reduce the risks posed to health and safety.

It’s important to note that power presses and press brakes are dealt with under specific requirements of Part IV of PUWER and require mandatory thorough examination.
Risk assessments
Zurich is able to first help customers identify work equipment that requires a risk assessment and then carry out risk assessments, for all types of work equipment.

Our risk assessment will:
- identify general risks associated with the safe use of work equipment
- determine whether periodic in-service inspection is required
- determine the scope and frequency of the in-service inspection as required.

Written scheme of inspection
Once we’ve carried out a risk assessment, and where there is a requirement, we will prepare a written scheme of inspection. This prescribes the scope and frequency of periodic in-service inspections required for individual items, classes of items or systems.

In-service inspection for work equipment
We provide routine in-service inspections for many types of work equipment including roller shutter doors, injection moulding machines, waste compactors, guillotines, workshop machinery and ladders.

As well as reporting defects, routine in-service inspections are aimed at assessing an item’s fitness for continued use, i.e. ensuring that health and safety conditions are maintained and that any deterioration can be detected and remedied in good time.

In-service inspection is not aimed at assessing the item’s suitability for intended use (i.e. whether the item is suitable for the purpose for which it is to be used) and does not take account of, or include an assessment of, associated risk assessments or control measures.

Scope of inspection
Our engineer surveyors carry out thorough visual inspections, focusing on safety critical components that could affect the ability of the equipment being operated safely.

We will consider the design and installation of the equipment and bring to your attention any problems. For example, if an item requires CE marking and is not at present, we will tell you.

Our engineer surveyors will make use of generic guidance in technical manuals but do not use checklists as such, rather they tailor the inspection to suit the equipment. In some instances the engineer surveyor may call for additional information, such as documentary evidence or supplementary tests, e.g. manufacturers’ test certificates or non-destructive testing.

Where there is a risk of mobile work equipment such as dumper trucks overturning it may be necessary to fit roll-over protection.

We’ll help you identify the risks and the required safety measures.
Recommended frequency of inspection

The frequency of inspections for work equipment is determined by a risk assessment and presented in a written scheme of inspection.

Recommended frequencies for some types of work equipment are provided by the SAFed* Guidance document MLCC05. However this is for guidance only and should not replace a risk assessment.

Mandatory requirements

The minimum frequency of thorough examinations for power presses and press brakes is as defined in PUWER Part IV – this is either 6 or 12 months depending on the method of guarding (interlocking 6 monthly and fixed 12 monthly).

Real-life examples

The risks associated with not managing the safety of work equipment are illustrated by the following incidents, which are real and taken from our records and those of the Health and Safety Executive (HSE).

- A dumper truck driver was killed when he was crushed beneath the dumper as it over turned forward when going down a steep slope. No risk assessment had been carried out (HSE).
- An employee climbed over the barrier at the top of an inclined conveyor feeding a compactor/baler to unblock its feed hopper. While clearing the blockage, he fell into the compactor chamber and suffered fatal injuries when he was crushed by the compression ram (HSE).
- 18-year-old male operator had one hand severely crushed when a guard on a hydraulic press was removed but left electrically connected. He reached through to the tool and the press stroked. The hand had to be amputated.
- A 16-year old operator lost one hand at the wrist when he reached through an open aperture of a metal-cutting guillotine because of a missing guard. The guillotine had received no maintenance and other serious defects were present.

The incidents cited here resulted in fines being imposed but the true cost is significantly higher when other factors such as lost time, legal costs, management time, employee relationships and brand damage are taken into account. Additionally, such incidents can also have a negative impact on a business’s commercial insurance programme.

In a period of 12 months Zurich undertook 15,845 inspections on power presses and discovered nearly 50% had defects, 5% of which were serious, presenting an imminent risk of serious injury to persons. Failing to manage the hazards associated with power presses can lead to injuries to your workforce such as crushing, trapping or amputation.

*The Safety Assessment Federation
<table>
<thead>
<tr>
<th>Equipment Type</th>
<th>Recommended Inspection Frequency</th>
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<tbody>
<tr>
<td>Atmospheric storage tanks</td>
<td>12 months</td>
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<tr>
<td>Bailing machine/press</td>
<td>12 months</td>
</tr>
<tr>
<td>Bulldozers</td>
<td>12 months</td>
</tr>
<tr>
<td>Conveyors (passenger/goods only carrying)</td>
<td>6/12 months</td>
</tr>
<tr>
<td>Dock leveller</td>
<td>12 months</td>
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<tr>
<td>Drilling machines</td>
<td>12 months</td>
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<tr>
<td>Dumper trucks</td>
<td>12 months</td>
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<tr>
<td>Escalators (PM45)</td>
<td>6 months</td>
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<tr>
<td>Guillotines</td>
<td>6/12 months</td>
</tr>
<tr>
<td>Gymnastic equipment at work</td>
<td>12 months</td>
</tr>
<tr>
<td>Injection moulding machines</td>
<td>12 months</td>
</tr>
<tr>
<td>Ladders/steps</td>
<td>12 months</td>
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<tr>
<td>Lathe</td>
<td>12 months</td>
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<tr>
<td>Lighting rigs</td>
<td>12 months</td>
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<tr>
<td>Manual press</td>
<td>12 months</td>
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<tr>
<td>Milling machine</td>
<td>12 months</td>
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<tr>
<td>Pallet trucks</td>
<td>12 months</td>
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<tr>
<td>Pipework (not requiring thorough examination under PSSR)</td>
<td>12 months</td>
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<tr>
<td>Pressure vessels (&lt;250 bar litres, not requiring thorough examination under PSSR)</td>
<td>12 months</td>
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<tr>
<td>Platten machine</td>
<td>12 months</td>
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<tr>
<td>Ramps</td>
<td>12 months</td>
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<tr>
<td>Roller shutter doors</td>
<td>12 months</td>
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<tr>
<td>Storage racking</td>
<td>12 months</td>
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<tr>
<td>Waste compactors</td>
<td>12 months</td>
</tr>
<tr>
<td>Woodworking machinery</td>
<td>12 months</td>
</tr>
</tbody>
</table>
Combining expertise and understanding

We've been helping our customers to identify, manage and control engineering business risks for over 80 years. We have a nationwide team of up to 500 highly trained and experienced engineer surveyors.

An individual approach
We understand that all businesses are different, so we take an individual approach and tailor our solutions. We have the knowledge and experience to deal with all aspects of engineering risk as they apply to your business, and will work with you in the way that suits you best.

Investing in people
We invest heavily in training to maintain our engineer surveyors’ levels of technical expertise. This includes using the latest online technology to assess our staff and to identify training needs.

We regularly assess and audit our technical staff to ensure that their understanding of key technical and health and safety matters meets our exacting standards. We’ve established a benchmark for our engineer surveyors and ensure that all of our people are above it.

Harnessing technology
Our engineer surveyors use some of the latest technology when they carry out inspections. For example, their Toughbook laptops allow them to generate reports while they are at your site, resulting in faster, higher quality reports.

The Toughbooks also contain our technical manuals, health and safety procedures and special customer instructions. This comprehensive library of information means that if a technical issue arises during an inspection our engineer surveyors have the answers immediately to hand.

Inspections on time
We work with customers to ensure that plant is examined when required and if an inspection is likely to become overdue, we have systems and processes in place to alert you so that it can quickly be rescheduled. As a consequence your business is less likely to suffer from plant failures, protecting your turnover.

Advice you can trust
We are a Type A (fully independent) UKAS* accredited inspection body and are entirely removed from the manufacture, operation or maintenance of plant. You can therefore be confident that our advice is always independent and objective.

Our technical services team are on hand to discuss any issue a customer might have. These are senior engineers with a vast amount of engineering experience combining industry expertise as diverse as marine, nuclear, petrochemical and mining.

Instant access to engineering reports
Our online reporting tool Crimson gives you instant access to your reports and to management information on our inspection activity wherever and whenever you need it.

It also allows you to see dates for upcoming inspections – so you can plan shutdowns and maintenance work to cause minimum disruption to your business.

*United Kingdom Accreditation Service

Finding out more

If you’d like to find out more about how we can help you with statutory inspections and other areas of engineering risk, please speak to your broker or usual Zurich contact.

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Telephone – 0113 202 8770 (Northern office) or 0845 601 7039 (Central and Southern office)
Email – engineering@uk.zurich.com
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