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Identifying types of plant can often be difficult, so we've put together this plant guide to help identify plant and equipment. We've also included the applicable legislation, periodicity of inspection and industries where it might be used.

We hope you find it useful.



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The information contained in this guide is of a general informational nature. We have used reasonable endeavours to ensure the accuracy and completeness of the contents but the information does not constitute professional advice and must not be relied upon as such. To the extent permitted by law, we do not accept responsibility for any loss which may arise from reliance on the information contained in this guide.

Electrical and mechanical

01 alternators

03 engines, motors,pumps & compressors

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02 control panels

04 fixed wiring

Alternators

These machines are used to produce electrical power from a mechanically driven unit such as a diesel engine. They're generally found in industrial locations, however they can also be used for the provision of electrical power in the event of an interruption to the normal supply.



Industries where found:



refuse & waste



plastics manufacture



leisure centres



metal workers & engineers



property owners



paper & board



woodworkers

plant hirers/

groundworkers



food manufacture



retailers



construction



hotels



motor trades



doctors/vets & dentists



restaurants



dry cleaners

Why inspect?

- To determine the provision, suitability and security of guarding.
- To ascertain the mechanical and electrical integrity of installation.
- To identify any obvious signs of deterioration, damage or wear (i.e. leakage, excessive noise, vibration or heat).

Applicable legislation:

• PUWER



Periodicity of Inspection:

Control panels

These are generally metallic enclosures for the purpose of housing electrical equipment and/or component parts.

Industries where found:



refuse & waste



plastics manufacture

road haulage



leisure centres



metal workers & engineers

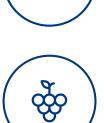


paper & board



plant hirers/ groundworkers

woodworkers



food manufacture



retailers



construction



hotels



motor trades



doctors/vets & dentists



restaurants



dry cleaners



Why inspect?

- To determine the provision, suitability and security of interlocks etc.
- To ascertain the mechanical and electrical integrity of installation.
- To identify any obvious signs of deterioration, damage or wear.

Applicable legislation:

- PUWER
- EAWR



Periodicity of Inspection:

Engines, motors pumps and compressors

These items of plant can be found in most industrial locations and come in a variety of sizes, outputs and uses.



Industries where found:



refuse & waste



plastics manufacture



leisure centres



metal workers & engineers



property owners



paper & board



plant hirers/ groundworkers

woodworkers



road haulage



food manufacture



retailers



construction



hotels



motor trades



doctors/vets & dentists



restaurants



dry cleaners

Why inspect?

- To determine the provision, suitability and security of guarding.
- To ascertain the mechanical and electrical integrity of installation.
- To identify any obvious signs of deterioration, damage or wear (i.e. leakage, excessive noise, vibration or heat).

Applicable legislation:

• PUWER



Periodicity of Inspection:

Why inspect?

• The purpose of inspection and testing

of fixed wiring installation is to provide

for the safety of persons and livestock

against the effects of electrical shocks

and burns, to protect against damage

an installation defect and to confirm

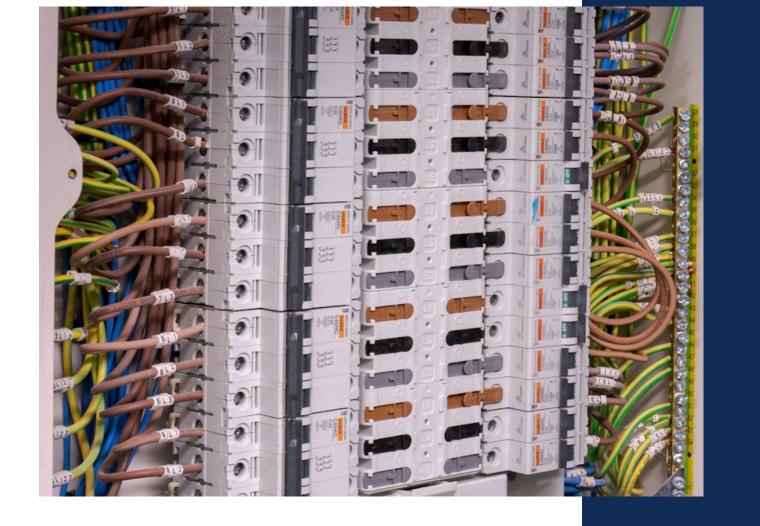
deteriorated so as to impair safety.

to property by fire and heat arising from

that the installation is not damaged or

Fixed wiring

Almost every location will have electrical fixed wiring installed. The complexity and size of the installation will depend on the type of location.



Industries where found:



refuse & waste



plastics manufacture



leisure centres



metal workers & engineers



property owners



paper & board



plant hirers/ groundworkers

woodworkers



road haulage



retailers



construction



hotels



motor trades



doctors/vets & dentists



restaurants



dry cleaners

Applicable legislation:

• EAWR



Periodicity of Inspection:

 Generally 3 or 5 years depending on type of location.

Generators

These machines are used to produce electrical power from a mechanically driven unit such as a diesel engine. They're generally found in industrial locations, however they can also be used for the provision of electrical power in the event of an interruption to the normal supply.



Industries where found:



refuse & waste



plastics manufacture



leisure centres



metal workers & engineers



property owners



paper & board



plant hirers/ groundworkers

woodworkers



road haulage

food manufacture



retailers



construction



hotels



motor trades



doctors/vets & dentists



restaurants



dry cleaners

Why inspect?

- To determine the provision, suitability and security of guarding.
- To ascertain the mechanical and electrical integrity of installation.
- To identify any obvious signs of deterioration, damage or wear (i.e. leakage, excessive noise, vibration or heat).

Applicable legislation:

• PUWER



Periodicity of Inspection:

Lift and **01** cranes 09 lorry loading cranes crane 02 dock levellers 10 mobile cranes 03 escalators 11 motor vehicle lifting tables 04 excavators and loading shovels 12 pallet trucks forklift trucks 13 passenger lifts **06** goods lifts 14 separate lifting accessories lifting 15 window cleaning and building appliances maintenance 08 lifting machines equipment

Cranes

This type of equipment is used in a variety of industrial environments. Typically, cranes are used for the lifting, lowering and movement of loads in locations such as factories and docksides. Such equipment comprises of supporting structures and beams, hoist and drive assemblies, lifting chains or ropes, load hooks and can be both manual or powered.

Industries where found:



refuse & waste



road haulage



plant hires/ groundworkers



logistics



woodworkers



food manufacture



plastics manufacture



retailers



Why inspect?

- The main hazard associated with this equipment is the loss of load due to lifting assembly component failure.
- The mechanical failure of critical load bearing components and insecurity of load can all compromise safety to persons, both operating and in the vicinity of the equipment.

Applicable legislation:

- PUWER
- LOLER



Periodicity of Inspection:

• 6 or 12 months (depending on utilisation).

Dock levellers

This type of equipment is used in a variety of industrial and commercial environments. Typically, dock levellers are used for the loading and unloading of goods in locations such as factories, warehouses and distribution outlets. Such equipment comprises of platforms, hydraulic levelling assemblies and guarding devices.

Industries where found:



hotels



logistics



leisure centres



food manufacture



property owners



retailers



Why inspect?

- The main hazards associated with this equipment are the entrapment of limbs in the moving elements, malfunction of drive assemblies and platform free fall.
- The mechanical failure of critical load bearing components and excessive wear in elements of the equipment can all compromise safety to persons using the equipment.

Applicable legislation:

• PUWER



Periodicity of Inspection:

Escalators

This type of equipment is used in a variety of commercial environments. Typically, escalators are used for the transportation and movement of people in locations such as shopping malls, offices, airports and rail and underground stations. Such equipment comprises of moving walkways, drive assemblies, guard railing and balustrades.

Industries where found:



hotels



property owners



leisure centres



retailers



Why inspect?

- The main hazards associated with this equipment are the entrapment of limbs in the moving elements and the malfunction of drive assemblies.
- The mechanical failure of critical load bearing components and excessive wear in elements of the equipment can all compromise safety to persons traveling on and in the vicinity of the equipment.

Applicable legislation:

 Workplace (Health, Safety and Welfare) Regulations 1992



Periodicity of Inspection:

• 6 months (as per industry guidance).

Excavators and loading shovels

Excavators and loading shovels are used in a variety of industrial environments. Typically, this equipment is used for the excavation and subsequent loading of spoil and aggregate, in locations such as quarries, agricultural, highway maintenance and construction sites. Such equipment comprises of supporting structures and booms, slew unit assemblies, outrigger stability support assemblies, hydraulic drive systems, buckets and quick hitches.

Industries where found:



refuse & waste



construction



plant hirers/ groundworkers



Why inspect?

- The main hazards associated with this equipment are loss of stability of equipment due to overload and loss of load due to boom assembly component failure.
- The mechanical failure of critical load bearing components and lack of adequate stability support can all compromise safety to persons, both operating and in the vicinity of the equipment.

Applicable legislation:

- PUWER
- LOLER (when utilised for lifting operations)



Periodicity of Inspection:

6 or 12 months (depending on utilisation).

Forklift trucks

Forklift trucks are used in a variety of industrial and commercial environments. Typically such equipment is used for the movement of palletised loads in locations such as factories, warehouses and distribution centres. The principle component parts of a forklift truck are: front end loading forks, lifting chains, lifting, side-shifting and tilting hydraulic assemblies, operator protection systems and load guards.



Industries where found:



refuse & waste



plastics manufacture



retailers



plant hirers/ groundworkers



road haulage



paper & board



woodworkers



logistics



construction



food manufacture

Why inspect?

- The main hazards associated with this equipment are loss of stability of equipment due to overload and loss of load due to boom assembly component failure.
- The mechanical failure of critical load bearing components and lack of adequate stability support can all compromise safety to persons, both operating and in the vicinity of the equipment.

Applicable legislation:

- PUWER
- LOLER



Periodicity of Inspection:

 6 or 12 months (depending on utilisation).

Goods lifts

This type of equipment is used in a variety of commercial and industrial environments. Typically, goods lifts are used for the movement of goods from one level to another in locations such as factories, shopping malls and offices.

Such equipment comprises of a car or carrier moving along a fixed vertical path with interlocked landing doors, suspension ropes or chains, electric and hydraulic drive assemblies, safety devices and electric/electronic control systems. Goods lifts are used for carrying goods only and do not carry passengers.

Industries where found:



plastics manufacture



restaurants



motor trades



logistics



leisure centres



paper & board



food manufacture



property owners



hotels



retailers



Why inspect?

- The main hazards associated with this equipment are the entrapment of limbs in the moving elements, malfunction of drive assemblies and carrier free fall.
- The mechanical failure of critical load bearing components and excessive wear in elements of the equipment can all compromise safety to persons operating the equipment.

Applicable legislation:

- PUWER
- LOLER



Periodicity of Inspection:

Why inspect?

The main hazard associated with this

equipment is the loss of load due to

lifting assembly component failure.

• The mechanical failure of critical load

bearing components and insecurity

persons, both operating and in the

of load can all compromise safety to

Lifting appliances

This type of equipment is used in a variety of industrial environments. Typically, lifting appliances are used for the lifting and lowering of loads in locations such as factories and workshops. Such equipment comprises of supporting beams, hoisting mechanisms, lifting chains or ropes, load hooks and can be both manual or powered.



Industries where found:



refuse & waste



road haulage



motor trades



plant hirers/ groundworkers



logistics



metal workers & engineers



woodworkers



food manufacture



paper & board



construction



property owners



plastics manufacture



retailers

Applicable legislation:

vicinity of the equipment.

- PUWER
- LOLER



Periodicity of Inspection:

Why inspect?

• The main hazard associated with this

equipment is the loss of load due to

lifting assembly component failure.

• The mechanical failure of critical load

bearing components and insecurity

persons, both operating and in the

of load can all compromise safety to

Lifting machines

This type of equipment is used in a variety of industrial environments. Typically, lifting machines are used for the lifting and lowering of loads in locations such as factories, workshops, construction and agriculture. Such equipment comprises of supporting beams, hoisting mechanisms, lifting chains or ropes, load hooks and can be both manual or powered.



Industries where found:



refuse & waste



road haulage



motor trades



plant hirers/ groundworkers



logistics



metal workers & engineers



woodworkers



food manufacture



paper & board



construction



property owners



plastics manufacture



retailers

Applicable legislation:

vicinity of the equipment.

- PUWER
- LOLER



Periodicity of Inspection:

6 or 12 months (depending on utilisation)

Lorry loading cranes

Lorry loading cranes are used in a variety of industrial and commercial environments. Typically, this equipment is used for the lifting and lowering of loads in locations such as factories, distribution outlets, agricultural and construction sites. Such equipment comprises of supporting structures and beams, hoist and slew unit assemblies, outrigger stability support assemblies, load hooks and other attachments.

Industries where found:



refuse & waste



logistics



plant hirers/ groundworkers



motor trades



construction



metal worker & engineers



road haulage



retailers



Why inspect?

- The main hazards associated with this equipment are loss of stability of equipment due to overload and loss of load due to lifting assembly component failure.
- The mechanical failure of critical load bearing components and lack of adequate stability support can all compromise safety to persons, both operating and in the vicinity of the equipment.

Applicable legislation:

- PUWER
- LOLER



Periodicity of Inspection:

Mobile cranes

Mobile cranes are used in a variety of industrial environments. Typically, this equipment is used for the lifting, lowering and movement of loads which can include people in locations such as factories, docksides and construction sites. Such equipment comprises of supporting structures and beams, drive, hoist and slew unit assemblies, outrigger stability support assemblies, lifting ropes, luffing assemblies and operator protection systems.





refuse & waste



road haulage



metal workers & engineers





logistics



paper & board



construction



motor trades





Why inspect?

- The main hazards associated with this equipment are loss of stability of equipment due to overload and loss of load due to lifting assembly component failure.
- The mechanical failure of critical load bearing components, insecurity of counterweight, degradation of tyres/tracks and operator guarding systems can all compromise safety to persons, both operating and in the vicinity of the equipment.

Applicable legislation:

- PUWER
- LOLER



Periodicity of Inspection

• 6 or 12 months (depending on utilisation).

Motor vehicle lifting tables

This type of equipment is used in vehicle garages and repair workshop facilities. Typically, motor vehicle lifting tables are used for the raising and lowering of vehicles for access by repair personnel. Such equipment comprises of platforms, hoist drive assemblies, ropes, load nut assemblies, guards and personnel safety devices.

Industries where found:



road haulage



motor trades



logistics



Why inspect?

- The main hazards associated with this equipment are the entrapment of limbs in the moving elements, malfunction of drive assemblies and platform free fall.
- The mechanical failure of critical load bearing components and excessive wear in elements of the equipment can all compromise safety to persons using the equipment.

Applicable legislation:

- PUWER
- LOLER

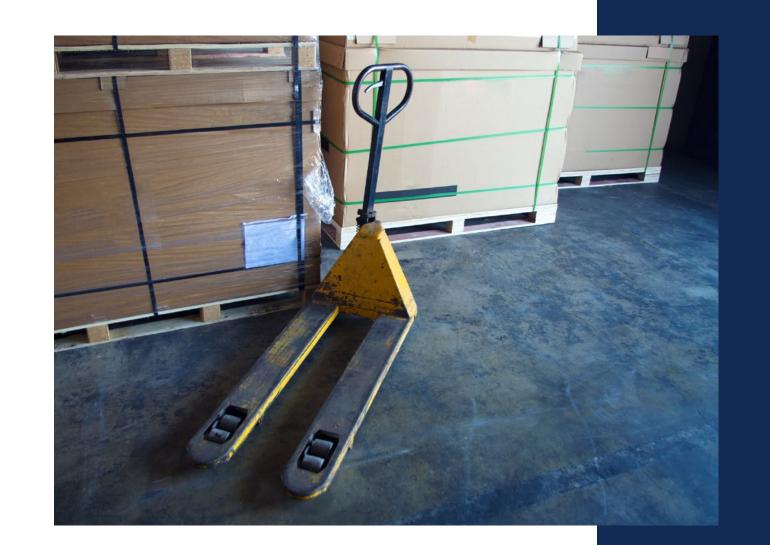


Periodicity of Inspection:

• 6 months (as per industry guidance).

Pallet trucks

This type of equipment is used in a variety of industrial and commercial environments. Typically, pallet trucks are used for the movement of palletised loads in locations such as factories, warehouses and distribution centres. Principal component parts include: front end loading forks, hydraulic lifting assemblies and underside carriage roller sets.



Industries where found:



refuse & waste



plastics manufacture

road haulage



leisure centres



metal workers & engineers



property owners



paper & board



woodworkers

plant hirers/

groundworkers



food manufacture



retailers



logistics



construction



hotels



motor trades



doctors/vets & dentists



restaurants



dry cleaners

Why inspect?

- The main hazards associated with such equipment are loss of stability of equipment due to overload or underside carriage roller failure.
- The mechanical failure of critical load bearing components can compromise safety to persons, both operating and in the vicinity of the equipment.

Applicable legislation:

• PUWER



Periodicity of Inspection:

Passenger lifts

Passenger lifts are used in a variety of residential, commercial and industrial environments.

Typically, this equipment is used for the movement of passengers from one level to another in locations such as factories, shopping malls, offices, hospitals, railway and underground stations.

Such equipment comprises of a car moving along a fixed vertical path with interlocked landing doors, suspension ropes or belts, electric and hydraulic drive assemblies, safety devices and electric/electronic control systems.



Why inspect?

- The main hazards associated with this equipment are the entrapment of limbs in the moving elements, malfunction of drive assemblies, tripping and car free fall.
- The mechanical failure of critical load bearing components and excessive wear in elements of the equipment can all compromise safety to persons using the equipment.

Applicable legislation:

- PUWER
- LOLER
- HSWA



Periodicity of Inspection:

• 6 months.

Separate lifting accessories

This type of equipment is used in a variety of industrial, commercial and transportation environments. Typically, separate lifting accessories are used for the lifting and lowering of loads in locations such as factories, utility service depots, repair facilities, garages and construction sites. Such equipment typically comprises of slings, ropes, hooks and other components.



Industries where found:



refuse & waste



plastics manufacture



motor trades



plant hirers/ groundworkers



road haulage



metal workers & engineers



woodworkers







paper & board



construction



food manufacture

Why inspect?

- The main hazards associated with this equipment are the loss of load due to component failure.
- The mechanical failure of critical load bearing components and resultant insecurity of the load can compromise safety to persons, both using and in the vicinity of the equipment.

Applicable legislation:

- PUWER
- LOLER



Periodicity of Inspection:

• 6 months.

Window cleaning and building maintenance equipment

This type of equipment is used in a variety of industrial, commercial and transportation environments. Typically, separate lifting accessories are used for the lifting and lowering of loads in locations such as factories, utility service depots, repair facilities, garages and construction sites. Such equipment comprises of chains or ropes (fibre and ferrous) and load hook assemblies.

Industries where found:



hotels



leisure centres



restaurants



property owners & retailers



Why inspect?

- The main hazards associated with this equipment are the loss of load due to lifting assembly component failure and inadequate security of the load.
- The mechanical failure of critical load bearing components and insecurity of the load can compromise safety to persons, both using and in the vicinity of the equipment.

Applicable legislation:

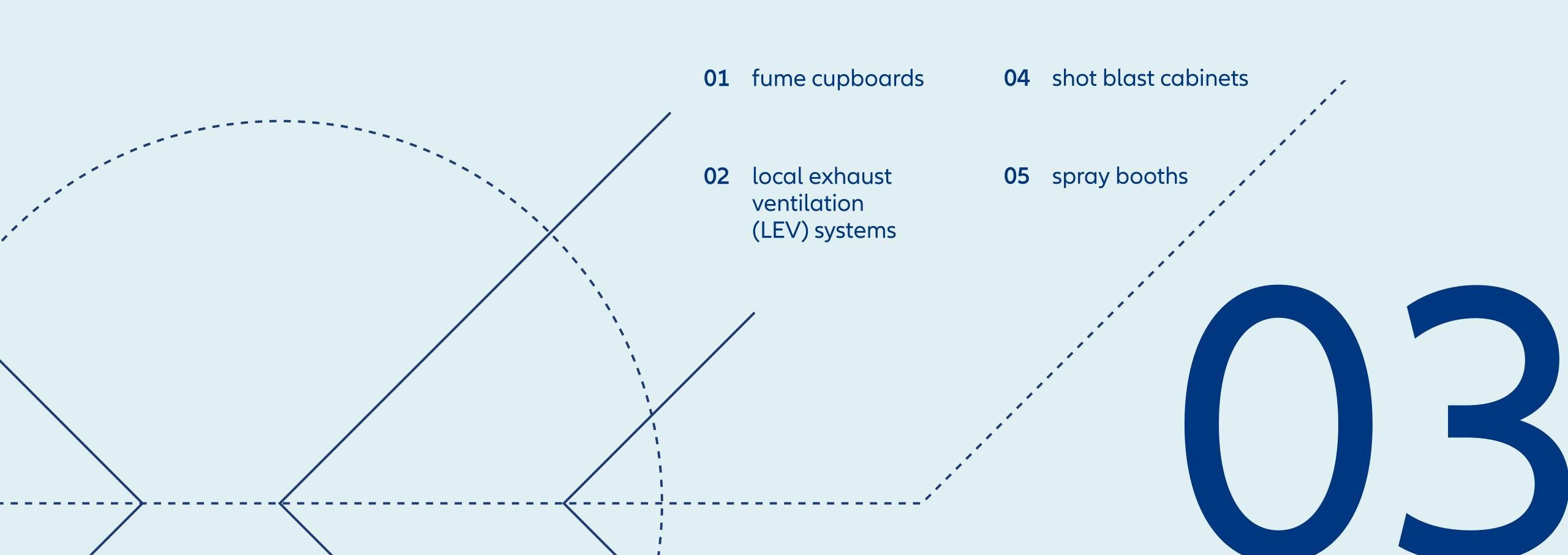
- PUWER
- LOLER
- WAHR



Periodicity of Inspection:

• 6 months.

Local exhaust ventilation plant



Fume cupboards

Fume cupboards are partially enclosed units fitted with a sliding front fascia which can be adjusted depending on the type of work being carried out.

Industries where found:



doctors/vets & dentists



metal workers & engineers



food manufacture



paper & board



Why inspect?

• The purpose of the thorough examination and test is to assess the performance of the system to demonstrate that the plant is performing correctly and effectively.

Applicable legislation:

• COSHH



Periodicity of Inspection:

Local exhaust ventilation (LEV)

A LEV system is one that uses extract ventilation to prevent or reduce the level of airborne hazardous substances from being inhaled by people in the workplace.

Industries where found:



woodworkers



dry cleaners



plastics manufacture



metal workers & engineers



motor trades



paper & board



Why inspect?

• The purpose of the thorough examination and test is to assess the performance of the system to demonstrate that the plant is performing correctly and effectively.

Applicable legislation:

• COSHH



Periodicity of Inspection:

Shot blast cabinets

This plant is generally used for the cleaning or finishing of metal components.

Industries where found:



refuse & waste



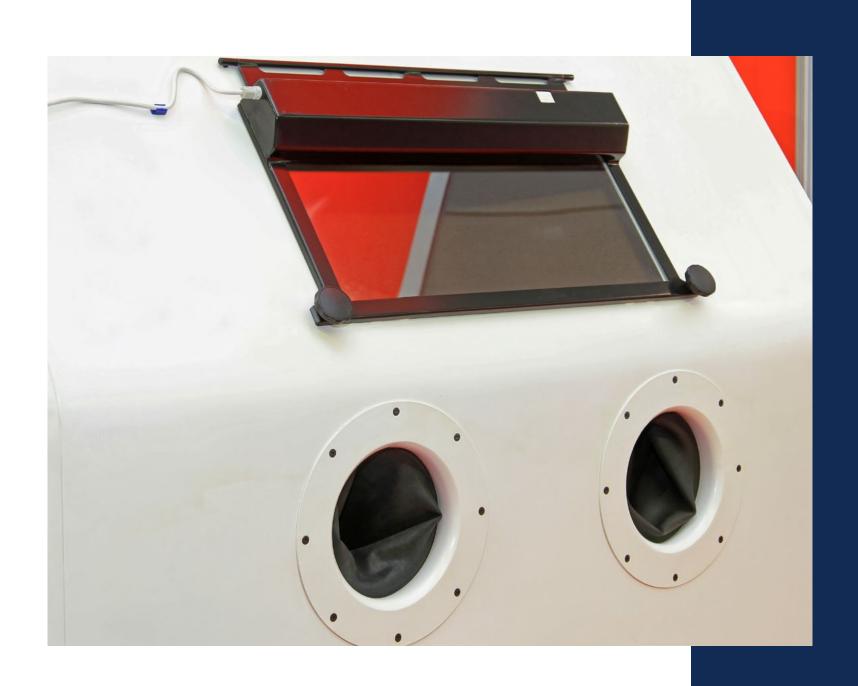
metal workers & engineers



motor trades



paper & board



Why inspect?

• The purpose of the thorough examination and test is to assess the performance of the system to demonstrate that the plant is performing correctly and effectively.

Applicable legislation:

• COSHH



Periodicity of Inspection:

- New casting 1 month
- Abrading metals 6 months
- All others 14 months.

Spray booths

Spray booths and enclosures are used in a variety of industries. They may be large booths which completely contain the process or enclosures where the operation is only partially contained.

Industries where found:



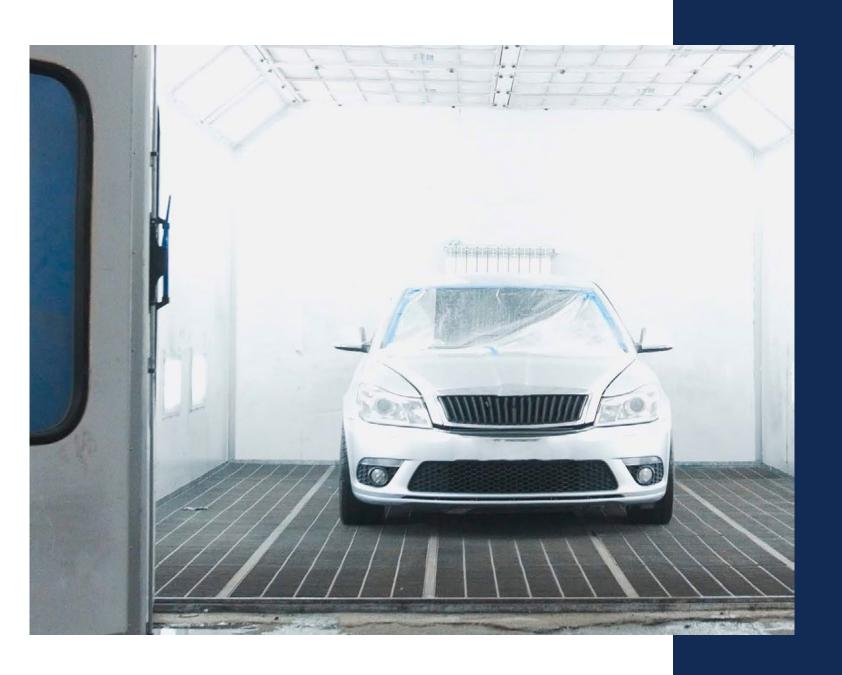
motor trades



paper & board



metal workers & engineers



Why inspect?

• The purpose of the thorough examination and test is to assess the performance of the system to demonstrate that the plant is performing correctly and effectively.

Applicable legislation:

• COSHH



Periodicity of Inspection:

Power Dress

01 guard & protective05 power pressdevices

02 guillotines (metal) **06** press brakes

03 guillotines (paper)07 wood working machines

04 injection moulding machines

Guard and protective devices

To ensure any equipment where access to dangerous moving parts is possible by the operator or third parties is not possible.

Industries where found:





Why inspect?

• The purpose of the inspection is to determine whether the guarding and protection devices fitted to hazardous machinery are adequate, installed and all operate correctly. By preventing access to the danger zone or other potentially dangerous moving parts or bringing them to rest before a dangerous situation can occur.

Applicable legislation:

• PUWER



Periodicity of Inspection:

• Generally 12 months, but for photoelectric, where finger point protection is required, 6 monthly.

Guillotines (metal)

An electro mechanical and/or hydraulic machine designed to cut single layer sheets of steel on a worktable by means of powered blade (knife) passing against a fixed blade.

Industries where found:



plastics manufacture



paper & board



metal workers & engineers



Why inspect?

• To ensure that all guards and protection devices are in sound condition and operate correctly preventing access to the danger zone or other potentially dangerous moving parts.

Applicable legislation:

• PUWER



Periodicity of Inspection:

• Generally 12 months, but for photoelectric, where finger point protection is required, 6 monthly.

Guillotines (paper)

An electro mechanical/hydraulic machine designed to cut paper (multiple layers) on a worktable by means of powered blade (knife) passing against a fixed blade.

Industries where found:



plastics manufacture



paper & board



metal workers & engineers



Why inspect?

• To ensure that all guards and protection devices are in sound condition and operate correctly preventing access to the danger zone or other potentially dangerous moving parts.

Applicable legislation:

• PUWER



Periodicity of Inspection:

• 6 monthly.

Injection moulding machines (moulding machinery)

Machinery that can be an electro/mechanical and/or hydraulic by way of compressing, injecting or blowing a plastic or rubber compound into a mould.

Industries where found:





metal workers & engineers



Why inspect?

• To ensure that all guards and protection devices are in sound condition and operate correctly preventing access to the danger zone or other potentially dangerous moving parts.

Applicable legislation:

• PUWER



Periodicity of Inspection:

• 12 monthly.

Power press

A power press is a machine that is used wholly or partly for the working of metal which is power driven and which embodies a flywheel and a clutch mechanism. They are considered highly dangerous machines and they have been the cause of many accidents over the years.

Industries where found:





Why inspect?

• To ensure that it has been installed correctly and that all guards and protection devices are in sound condition and operate correctly preventing access to the danger zone or other potentially dangerous moving parts.

Applicable legislation:

- PUWER
- PUWER (as applied to power presses)



Periodicity of Inspection:

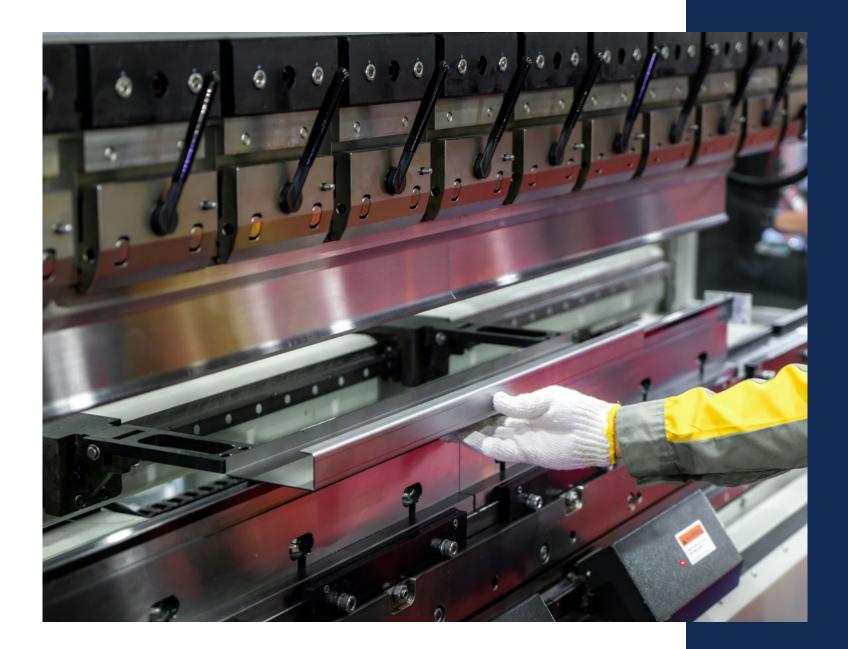
• 12 monthly when fitted with fixed guarding, 6 monthly when fitted with interlock or photoelectric.

Press brakes

A Press Brake is a machine that is used for the working (folding) of metals or other materials. It can be powered by a flywheel with a clutch mechanism or by way off either or a combination of a Hydraulic/Servo mechanisms. They're considered highly dangerous machines, that have been the cause of many accidents over the years. The injuries are usually serious often resulting in amputations of fingers or hands.

Industries where found:





Why inspect?

• To ensure that it has been installed correctly and that all guards and protection devices are in sound condition and operate correctly preventing access to the danger zone or other potentially dangerous moving parts.

Applicable legislation:

- PUWER
- PUWER (as applied to power presses)



Periodicity of Inspection:

• 6 monthly - interlocked, photoelectric and laser guards.

Wood working machines

High speed machinery that include circular saws, cross cut saws, planning and planners and moulders.

Industries where found:





Why inspect?

• To ensure that all guards are correctly positioned of sound construction and protective devices operate correctly.

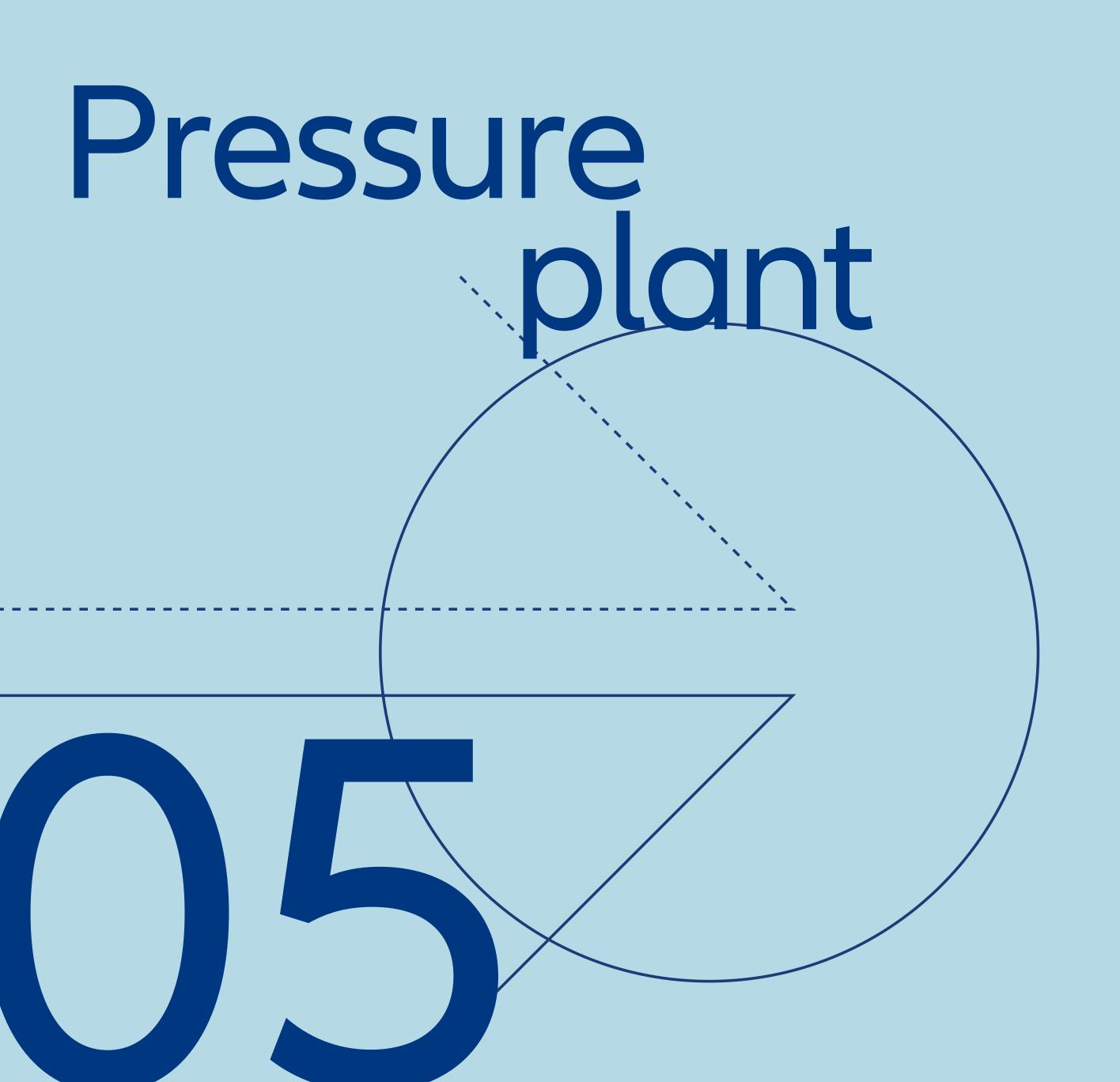
Applicable legislation:

• PUWER



Periodicity of Inspection:

• 12 monthly.



01	air receivers	07	hot water boilers
02	autoclaves	08	reactor vessels
03	blowdown vessels	09	pressurisation units
04	storage vessels (liquid and gas)	10	refrigeration/air conditioning plant
05	café boilers	11	steam boilers
06	calorifiers	12	steam vessels

Air receivers

This type of plant is used in a variety of situations and industries. Typically compressed air is used for production purposes, operation of hand tools and provision of breathing air. Systems generally comprise of air receiver, air oil separator, cooler, air dryer, pipework and protective devices e.g. safety valve, pressure gauge, high temperature cut-out.

Industries where found:



refuse & waste



plastics manufacture



leisure facilities



plant hirers/ groundworkers



road haulage



property owners



woodworkers



food manufacture



retailers



construction



hotels



motor trades





garages & workshops



dry cleaners



metal workers & engineers



paper & board

Why inspect? The main hazard with this type of plant is that the vessel may fail because its safe working pressure has been exceeded or because its ability to withstand pressure has been reduced through in-service

spontaneously ignite.

degradation e.g. corrosion, fatigue.

There is a potential in air/oil receivers

for carbon residues on the surfaces to

Applicable legislation:

- PUWER
- PSSR



Periodicity of Inspection:

• Typically 26 months.

Autoclaves

This type of plant is used in a variety of situations and industries.

Typically steam is used for sterilisation. These items are generally self contained and are often designed to sit on a desk or work surface.

Systems generally comprise of an integral steam chamber and heating element, pipework and protective devices e.g. safety valve, pressure gauge and devices to prevent door opening during operation.

Industries where found:



dentists



dry cleaners



food manufacture



paper & board



Why inspect?

• Most common hazard with this type of plant is failure of the quick opening door. There are many safety features incorporated into the operating system that are required to be inspected to ensure correct operation. Autoclaves may also fail because its safe working pressure has been exceeded or because its ability to withstand pressure has been reduced through in-service degradation e.g. corrosion, fatigue.

Applicable legislation:

• PSSR



Periodicity of Inspection:

• 14 months.

Blowdown vessels

This type of plant is an integral part of a steam boiler system. Their purpose is to contain the hot water and suspended solids blown down from the steam boiler before it is released to the drains.

Industries where found:



pharmaceutical industry



hospitals



construction



food manufacture



plastics manufacture



metal worker & engineers



chemical/power plant



paper & board



Why inspect?

• The main hazard with this type of plant is that the vessel may fail because its safe working pressure has been exceeded or because its ability to withstand pressure has been reduced through in-service degradation e.g. corrosion or fatigue.

Applicable legislation:

• PSSR



Periodicity of Inspection:

- Same periodicity of the boiler to which it is connected.
- Shell boiler 14 months.
- Water tube boiler 26 months.

Storage vessels

These vessels are generally installed where there is a requirement for the bulk storage of fluids. Some fluids e.g. chlorine, ammonia, LPG may be stored under pressures greater than 0.5 barg. The vessel maybe pressurised with a blanket of nitrogen to ensure that the product does not become contaminated.

Industries where found:



plastics manufacture



property owners



road haulage



motor trade



logistics



metal worker & engineers



food manufacture



paper & board



Why inspect?

• The main hazard with this type of plant is that the vessel may fail because its safe working pressure has been exceeded or because its ability to withstand pressure has been reduced through in-service degradation e.g. corrosion or fatigue. Where the vessel contains a hazardous fluid i.e. toxic or flammable then a more rigorous approach to plant inspection may be necessary. Flat bottom storage vessels present an additional issue with respect the integrity of the base.

Applicable legislation:

- PUWER
- PSSR
- COMAH



Periodicity of Inspection:

Will vary depending on risk assessment.

Café boilers

This type of plant is used in a variety of facilities. Although only used for the production of coffee based hot drinks they are found in restaurants, hotels, coffee shops and leisure facilities. Systems generally comprise of steam boiler, separate or combined hot water boiler, pipework and protective devices e.g. safety valve, pressure gauge, water level controls and heating element cut-out device.

Industries where found:



hotels



property owners



restaurants



retailers



leisure centres



Why inspect?

• The main hazard with this type of plant is that the vessel may fail because its safe working pressure has been exceeded or because its ability to withstand pressure has been reduced through in-service degradation e.g. corrosion, fatigue or excessive scale on the heating surfaces.

Applicable legislation:

- PUWER
- PSSR



Periodicity of Inspection:

• 14 months - due to the complexity of the operation of these items it is essential that the inspection coincides with the planned service and maintenance regime.

Calorifiers

This type of plant is generally used in certain hot water systems. They are used to transfer heat from one medium to another without them mixing. Often referred to as heat exchangers. May be steam or hot water heated.

Industries where found:



refuse & waste



food manufacture



plant hirers/ groundworkers



metal workers & engineers



plastics manufacture



paper & board



Why inspect?

• The main hazard with this type of plant is that the vessel may fail because its safe working pressure has been exceeded or because its ability to withstand pressure has been reduced through in-service degradation e.g. corrosion or fatigue.

Applicable legislation:

- PUWER
- PSSR



Periodicity of Inspection:

• 26 months.

Hot water boilers

This type of plant is used in a variety of situations and industries. Typically hot water is used for production purposes and heating. Systems generally comprise of hot water boiler, pipework and protective devices e.g. safety valve, pressure gauge, high temperature cut-outs and flame failure devices



Why inspect?

• The main hazard with this type of plant is that the vessel may fail because its safe working pressure has been exceeded or because its ability to withstand pressure has been reduced through in-service degradation e.g. corrosion, fatigue or excessive scale on the heating surfaces.

Industries where found:



refuse & waste



plastics manufacture



restaurants



dry cleaners





road haulage



leisure centres



metal workers & engineers



woodworkers



logistics



property owners



paper & board



construction



food manufacture



retailers



doctors/vets & dentists



hotels



motor trades

Applicable legislation:

- PUWER
- PSSR



Periodicity of Inspection:

- **PUWER** 24 months (PUWER applies to those boilers in which the water temperature is below 110°C).
- **PSSR** 14 months (PSSR applies to those boilers in which the water temperature is at or above 110°C).

Reactor vessels

These vessels are generally installed in chemical process systems. The jackets (or coils) may be supplied with a variety of heating and cooling fluids such as steam, water or thermal fluid. The vessel may be pressurised with a blanket of nitrogen to ensure that the product does not become contaminated.

Industries where found:



chemical & pharmaceutical works



Why inspect?

 The main hazard with this type of plant is that the vessel may fail because its safe working pressure has been exceeded or because its ability to withstand pressure has been reduced through in-service degradation e.g. corrosion or fatigue. Where the vessel contains a hazardous fluid i.e. toxic or flammable then a more rigorous approach to plant inspection may be necessary.

Applicable legislation:

- PUWER
- PSSR
- COMAH



Periodicity of Inspection:

• Will vary depending on risk assessment.

Pressurisation units

This type of plant is generally used in certain hot water systems. They may also be known as expansion vessels. They are used to maintain a predetermined pressure in the system through the application of air/gas pressure that is separated from the water by a rubber membrane.



Why inspect?

• The main hazard with this type of plant is that the vessel may fail because its safe working pressure has been exceeded or because its ability to withstand pressure has been reduced through in-service degradation e.g. corrosion or fatigue.

Industries where found:



refuse & waste



road haulage



property owners



plant hires/ groundworkers



logistics



metal workers & engineers



woodworkers



food manufacture



paper & board



plastics manufacture



leisure centres



Applicable legislation:

- PUWER
- PSSR



Periodicity of Inspection:

• 60 months.

Refrigeration & air conditioning plant

This type of plant can be found in a variety of locations. Typically air conditioning plant is found in office blocks etc however larger refrigeration systems can be found in industrial locations e.g. cold storage, food production, dairies, pharmaceutical and petrochemical sites.



Industries where found:



refuse & waste



plastics manufacture



leisure centres



metal workers & engineers





road haulage



property owners



paper & board



woodworkers



food manufacture



retailers



logistics



construction



hotels



motor trades



doctors/vets & dentists



restaurants



dry cleaners

• The main hazard with this type of plant is that the vessel may fail because its safe

Why inspect?

that the vessel may fail because its safe working pressure has been exceeded or because its ability to withstand pressure has been reduced through in-service degradation e.g. corrosion or fatigue. The smaller air conditioning plant is inspected in order to determine the provision, suitability and security of guarding, to ascertain the mechanical and electrical integrity of installation and to identify any obvious signs of deterioration, damage or wear (i.e. leakage, excessive noise, vibration or heat).

Applicable legislation:

- PUWER
- PSSR



Periodicity of Inspection:

- PUWER Non PSSR 24 monthly.
- **PSSR** 48 monthly with an intermediate 24 months after the thorough.

Steam boilers

This type of plant is used in a variety of situations and industries. Typically steam is used for production purposes, power generation, heating and sterilisation. Systems generally comprise of steam boiler, blowdown receiver, pipework and protective devices e.g. safety valve, pressure gauge, water level controls, water level gauges and flame failure devices.

Industries where found:



pharmaceutical industry



hospitals



construction



food manufacture



plastics manufacture



metal worker & engineers



chemical/power plant



paper & board



Why inspect?

• The main hazard with this type of plant is that the vessel may fail because its safe working pressure has been exceeded or because its ability to withstand pressure has been reduced through in-service degradation e.g. corrosion, fatigue or lack of appropriate water treatment. The PSSR identifies the additional hazard of the scalding effects of steam.

Applicable legislation:

• PSSR



Periodicity of Inspection:

Horizontal multi-tubular boilers;
 vertical boilers – 14 months.

Steam vessels

This type of plant is generally installed in steam systems to provide steam storage space to prevent undue fluctuations of pressure as demand rises or falls.

Industries where found:



food manufacture



paper & board



dry cleaners



Why inspect?

• The main hazard with this type of plant is that the vessel may fail because its safe working pressure has been exceeded or because its ability to withstand pressure has been reduced through in-service degradation e.g. corrosion or fatigue.

Applicable legislation:

• PSSR



Periodicity of Inspection:

• 26 months.

01 Electrical and Mechanical



Plant/Equipment Type	Applicable Legislation	Periodicity of Inspection
Alternator	PUWER	24 months
Control Panels	PUWER / EAWR	24 months
Engines, Motors, Pumps & Compressors	PUWER	24 months
Fixed Wiring	EAWR	3 or 5 years – depending on type of location
Generators	PUWER	24 months

02 Lift and Crane



Plant/Equipment Type	Applicable Legislation	Periodicity of Inspection
Crane	PUWER / LOLER	6 or 12 months (depending on utilisation)
Dock Leveller	PUWER	12 months
Escalators	Workplace (Health, Safety and Welfare) Regulations 1999)	6 months (as per industry guidance)
Excavators and Loading Shovels	PUWER / LOLER (when utilised for lifting operations)	6 or 12 months (depending on utilisation)
Forklift Trucks	PUWER / LOLER	6 or 12 months (depending on utilisation)
Goods Lifts	PUWER / LOLER	12 months
Lifting Appliances	PUWER / LOLER	12 months
Lifting Machines	PUWER / LOLER	6 or 12 months (depending on utilisation)
Lorry Loading Cranes	PUWER / LOLER	12 months
Mobile Cranes	PUWER / LOLER	6 or 12 months (depending on utilisation)
Motor Vehicle Lifting Tables	PUWER / LOLER	6 months (as per industry guidance)
Pallet Trucks	PUWER	12 months
Passenger Lifts	PUWER / LOLER /HSWA	6 months
Separate Lifting Accessories	PUWER / LOLER	6 months
Window Cleaning and Building Maintenance Equipment	PUWER / LOLER /WAHR	6 months

03 Local Exhaust Ventilation Plant



Plant/Equipment Type	Applicable Legislation	Periodicity of Inspection
Fume Cupboard	COSHH	14 months
Local Exhaust Ventilation (LEV) Systems	COSHH	14 months
Shot Blast Cabinets	COSHH	New casting: 1 month Abrading metal: 6 months All other: 14 months
Spray Booths	COSHH	14 months

04 Power Press



Plant/Equipment Type	Applicable Legislation	Periodicity of Inspection
Guard & Protective Devices	PUWER	Generally 12 monthly but for photoelectric where finger point protection is required 6 monthly.
Guillotine (Metal)	PUWER	Generally 12 monthly but for photoelectric where finger point protection is required 6 monthly.
Guillotine (Paper)	PUWER	6 months
Injection Moulding Machine (Moulding Machinery)	PUWER	12 months
Power Press	PUWER PUWER (as applied to power presses)	12 monthly when fitted with fixed guarding, 6 monthly when fitted with interlock or photoelectric guards where finger point protection is required.
Press Brakes	PUWER PUWER (as applied to power presses)	6 monthly - Interlocked, photoelectric and Laser guards.
Wood Working Machines	PUWER	12 months

05 Pressure Plant



Plant/Equipment Type	Applicable Legislation	Periodicity of Inspection
Air Receivers	PUWER / PSSR	Typically 26 months
Autoclaves	PSSR	14 months
Blowdown Vessels	PSSR	Same periodicity of the boiler to which it is connected: Shell Boiler – 14 months. Water tube boiler – 26 months
Storage vessels (Liquid and Gas)	PUWER / PSSR / COMAH	Will vary depending on risk assessment
Café Boilers	PUWER / PSSR	14 months
Calorifiers	PUWER / PSSR	26 months
Hot Water Boilers	PUWER / PSSR	PUWER – 24 months PUWER applies to those boilers in which the temperature is below 110°C. PSSR – 14 months. PSSR applies to those boilers in which the water temperature is at or above 110°C
Reactor Vessel	PUWER / PSSR / COMAH	Will vary depending on risk assessment
Pressurisation Units	PUWER / PSSR	60 months
Refrigeration & Air Conditioning Plant	PUWER / PSSR	PUWER/Non PSSR 24 monthly. PSSR 48 monthly with an intermediate 24 months after the thorough.
Steam Boilers	PSSR	Horizontal multi-tubular boilers; vertical boilers – 14 months, water-tube boilers – 26 months.
Steam Vessels	PSSR	26 months

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