

# Laundry Equipment in Business Premises

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Laundry equipment is used in many business premises to support the main occupancy or trading activities.

Whilst uncommon, fires and other losses can result from the use of such equipment and this Loss Prevention Standard discusses these risks in more detail and provides guidance on reducing the potential for such losses.



# Laundry Equipment in Business Premises



## Introduction

Laundry equipment, including washing machines, tumble dryers, combined washer/dryers, are found in many commercial premises. The leisure industry whilst typically outsourcing bulk laundry, may operate a small number of machines to clean kitchen cloths, spa towels etc; manufacturing and production businesses may elect to clean gloves, overalls etc., on site; and many workshops and offices will install domestic equipment for cleaning general cloths, and even workers clothing.

Whilst the use of washing and drying equipment is fairly common, there are associated fire and escape of water risks requiring careful management.

Note: This document relates to domestic laundry equipment used in business premises and is focussed on Property loss prevention and related risk management guidance. It is not intended to address the risks associated with commercial laundry premises/facilities or Liability exposures. The presumption is that all regulatory requirements, such as Fire Risk Assessments and compliance with local building regulations, codes, or standards, have or will be met.



## Understanding the Risks

### Fire

Laundry equipment present a number of key concerns. Ignition sources include:

**Self-Heating.** Items removed from or left to cool in drying equipment, and goods awaiting laundering can self-heat and ignite. This exposure is heightened when laundry is damp and/or contaminated with oils such as cooking and essential oils, wax, linseed, workshop grease etc.

**Electrical Fire.** Water can come into contact with electrical equipment and cause shorting and ignition.

**Lint and Fly.** Combustible lint and fly can accumulate on extraction outlets, filters and if not properly ventilated, around electrical fittings, fire detection and protection equipment and other components. Lint accumulated below extraction outlets can also be ignited by smoking waste, processes, maliciously etc.

**Out of Hours Use.** The risks of significant fire damage are increased when the equipment is set to run outside of business hours when workers are not available to respond to emergency events.

**Malfunctions/Faults.** Equipment may be faulty when leaving the manufacturing plant and/or can develop faults as a result of ongoing use. Some domestic equipment may well be replaced after a number of years usage rather than be proactively maintained, meaning faults that could lead to a loss event may not be readily identified.

**Malicious Tampering.** Unauthorised persons can tamper with controls including temperature settings.

The risks of fire spread/growth may be exacerbated by the fire load in the area. Laundry equipment is often located in rooms or halls along with bulk laundry items awaiting cleaning or storage. This fire load increases the potential for fire growth in the event of ignition.

Dried, but not fully cooled laundry may be moved to storage and eventually self-ignite, igniting other combustible materials in proximity e.g. towels, linen etc.

## Water Damage

Laundry equipment can leak during usage and escape of water incidents can lead to further concealed damage to infrastructure requiring potentially costly repairs.

## Managing the Risks

### Self-Heating

- A compulsory cooling cycle must be programmed into all drying appliances.
  - ✓ This should be at least 30 minutes and must not be capable of being over-ridden.
- Laundry should never be left in the dryer to cool, even with the door left open.
  - ✓ Remove all laundry and move to cooling racks, hangers etc., to air upon completion of the cooling cycle.
- Goods should be aired adequately to ensure they are fully cooled after tumble drying before folding and moving to storage.
- Ensure any laundry that is or may be contaminated with oils etc., is segregated from other laundry and processed separately with particular care to hot washing e.g. at least 60 degree wash temperature.
  - ✓ This can help remove the contamination from cotton fibres and significantly reduce the risks of self-heating.
- Keep oil saturated linen separate from non-contaminated linen, consider the use of different coloured towels to ease identification.
  - ✓ Pre-soaking such items in water overnight can help remove contaminants.
- Goods removed from tumble driers should be fully dried.
  - ✓ Return to the tumble drier immediately for further drying if items are damp.
  - ✓ Do not store damp items or leave piled in baskets etc.
  - ✓ Items that have completed the washing process, but still appear to be greasy or oily, should be segregated from other laundry and subject to further washing with additional detergent before drying. Contaminated items should not be placed in the driers.
- Do not tumble dry items with foam, plastic, or rubber components such as bathmats etc.
- Routinely inspect recently laundered and stacked/stored laundry for hot spots.
  - ✓ The use of thermometers or thermographic cameras can highlight any hot spots in stacked laundry.
  - ✓ Refer Aviva Loss Prevention Standard Thermographic Surveys for further guidance.
- Workers should be trained on the key risks associated with self-heating.

### Electrical Risks

- Ensure only competent persons undertake general repairs such as changing fuses, plugs etc.
- Do not use multipoint adaptors under any circumstances.
- Do not use extension leads unless protected by appropriate safety cut outs.
  - ✓ Where the use of extension leads is unavoidable, ensure leads are fixed in a visible location at least 1 metre above floor level.
- Ensure power outlets or junction boxes are installed in a visible location, at least 1 metre above floor level.
- Do not store laundry in storerooms directly under light fittings or near electrical outlets. Sparking can ignite adjacent items.

## Lint and Fly

- Ensure lint is removed from drying equipment filters routinely.
  - ✓ The frequency of cleaning should be dictated by hours of use and lint accumulations, however, should be undertaken at least weekly.
- Check the rear and top of driers routinely, particularly where installed under a work surface, to ensure lint is not accumulating.
- Ensure any permanent drier ducting is cleaned regularly to remove lint accumulations.
  - ✓ Original Equipment Manufacturer guidelines on cleaning should be followed.
  - ✓ Any flexible extraction tubing provided with domestic style equipment should always be utilised and vented to the open.
  - ✓ Check the venting location is not depositing lint on high risk fittings such as hot flues, electrical components etc., smoking areas, or higher risk storage or processing areas.
- The surfaces within the room housing the laundry equipment, should be routinely checked, and cleaned to remove any fly and dust accumulations.
- Routinely check fire detection and protection devices within the room to ensure they are not contaminated.

## Safe Usage

- Do not leave laundry equipment running outside of business hours/when the premises are unoccupied.
- Follow **manufacturer's** instructions on safe operation and maintenance.
  - ✓ The key operating and safety guidance should be displayed on notices in proximity to the equipment.
  - ✓ Ensure workers are adequately trained on the safe operation of all laundry equipment.
- Do not store combustible items on top of laundry equipment.
- Ensure tumble driers are fitted with safety isolation devices in the event of high temperatures being exceeded.
- Ensure a procedure is in place to safely close isolate laundry equipment prior to the end of trading hours.
  - ✓ Equipment in standby mode can suffer faults such as electrical shorting, overheat and ignite. Always safely isolate equipment when the premises are unoccupied.
- Ensure any portable de-humidifiers used in the laundry room are not left to operate when the premises are unattended.

## Location

- Laundry equipment should be located in a dedicated laundry room or compartment.
  - ✓ The compartment should have a fire resistance rating (insulation and integrity) of at least 60 minutes.
- Consideration should be given to maintaining the integrity of the fire compartment in respect of openings, pipework, laundry chutes, ducting, services etc. and ensuring products such as fire shutters and fire stopping meet approval standards and are installed by suitable accredited and competent companies.
  - ✓ Refer to Aviva Loss Prevention Standards Fire Compartmentation and Fire Doors, Shutters and Dampers for guidance.
- The laundry room should not be used for any other purpose.
- Laundry awaiting processing or airing etc., should be stored at least 3 metres from laundry equipment.
  - ✓ This helps reduce the potential for fire spread in the event of a fire event involving the laundry equipment.
- Finished goods should be stored in a separate dedicated storeroom or compartment.
  - ✓ Ensure no hazardous processes are undertaken in this area.
- Store any flammable cleaning agents in appropriate flammables containment cabinets in a clear area remote from the laundry equipment and laundry stores.
- Where a dedicated laundry room cannot be provided, ensure at least five metres separation between the laundry equipment and other storage or trade activities.

## Fire Detection and Protection

- The premises automatic fire detection system should be extended to the laundry room and laundry stores and interlocked to the power supply to isolate all laundry equipment upon activation.
  - ✓ Existing detection technology may not be suitable for laundry room activities and may need to be replaced. An accredited fire alarm installer should be consulted in this regard.
  - ✓ Any tumble driers in use at the time of a fire detection event should be restarted on a cooling cycle immediately upon the risk being declared safe.
- Alarms associated from the above should raise a site fire alarm or monitoring alarm to ensure there is an immediate emergency response and escalation if needed.
  - ✓ Appropriate training should be provided on safe isolation of equipment.
- If not already in place you may wish to consider connecting the alarm to a constantly attended location or an approved Alarm Receiving Centre. An accredited fire alarm installer can provide further guidance.
- Automatic sprinkler systems are the most effective fixed fire protection systems to protect laundry room and laundry stores.
  - ✓ Where an existing automatic sprinkler system is already installed, consult with your sprinkler maintenance company to check the design is adequate for any changes in risk profile associated with laundry equipment and laundry stores.
- Automatic fire suppression systems are available to protect individual items of laundry equipment and provide valuable local fire protection.
  - ✓ Such protection should be approved and certificated to Loss Prevention Standard LPS 1666 Requirements and Test Procedures for the LPCB approval of Direct Low Pressure Fire Suppression Systems and be installed by a company that has achieved independent third-party accreditation for competence in this field. The most common design, installation and service accreditation schemes in the United Kingdom for Direct Low Pressure Fire Suppression Systems being:
    - LPS 1204 - Requirements for Firms Engaged in the Design, Installation, Commissioning and Servicing of Gas Extinguishing Systems (firms accredited to this standard can also register/apply for BAFF scheme SP202 accreditation).
    - BAFF SP203-3 - Design, Installation, Commissioning and Maintenance of Fixed Gaseous Fire Extinguishing Systems Scheme.
  - ✓ The system should be interlocked to shut down electrical power and relay through to the fire alarm system to ensure prompt warning is provided to responsible persons e.g., site engineers, security personnel, fire marshals etc.

Note: Any plans to change or install automatic fire protection systems should be discussed with your Property Insurer and Insurance Broker.

## Maintenance

- Ensure all equipment, including fire detection and protection equipment in the laundry areas are subject to formal maintenance and servicing in line with OEM and/or installer guidelines and carried out by competent and/or qualified companies.
- Ensure thermostats in tumble dryers are regularly checked/calibrated to ensure correct performance and high temperature thresholds cannot be exceeded.
- Any equipment displaying faults should be safely isolated pending repair and reinstatement.
  - ✓ Such equipment should be clearly identified as unsafe to use.

Refer to Aviva Loss Prevention Standard Maintenance Regimes for further guidance.

## Self-Inspection

- Laundry equipment, rooms and laundry stores should be included within the premises self-inspection programme. This can help with early identification of damage, faults, lint accumulation, water leaks etc., that may lead to more significant damage.
  - ✓ Where such issues are reported, remedial action should be taken promptly.
  - ✓ Check combustible items are not stored on laundry equipment.
  - ✓ Check fire doors are not being left in open position or drying equipment in use whilst unattended.
  - ✓ The use of photographic evidence when undertaking with such inspections can prove invaluable.
  - ✓ Thermographic camera inspections can also prove invaluable for such inspections e.g., checking for hot spots or overheating.

Refer to Aviva Loss Prevention Standard Fire Safety Inspections and Self-Inspections for further guidance.

## Water Exposure and Other Fluids

- Routinely check hoses, valves, and fittings for signs of wear, leaks or looseness and replace/action as necessary.
- Isolate the water supply to the laundry equipment when the laundry equipment is dormant, or likely to be dormant for prolonged periods.
- Tanking the floor of the laundry room can help prevent leaks cascading to other areas of the premises.
- Installing floor drainage, connected to the main building drainage systems provides a route for discharged water to drain safely and should be considered, particularly for laundry rooms on upper floor levels.
- Ensure electrical outlets etc., are sited at least 1 metre from floor level.
- Regularly check filters in washing equipment to remove blockages.
- Ensure washing machines automatically drain if the machine develops a fault.
- Leak detection and flow monitoring should be considered to the water services present.
- Consider installing a leak tray below washing machines.
  - ✓ These are designed to catch water in the event of a leak and prevent water damage.
- Store any cleaning liquids in bunded cabinets or stores designed to catch 110% of spilt contents.

Refer to Aviva Loss Prevention Standard Escape of Water and Fluid Leakage for further guidance.

## Security Arrangements

- Ensure the laundry room is appropriately secured when not occupied, and access restricted to authorised persons.
  - ✓ Appropriate restricted access signage should be displayed.

## Emergency Response

Emergency response plans should be extended to address events connected to the laundry equipment/rooms, outlining key responsibilities and actions in an emergency event. The emergency response plan should include best practice responses to all likely property and business interruption risks, including fire and escape of water and other fluid related exposures, security/theft damage.

- ✓ The emergency response rules should be formally documented, and appropriate training provided.
- ✓ Refer to Aviva Loss Prevention Standard Emergency Response Team for further guidance.

## Impairments

Ensure any impairments relating to fire detection, fire protection and security systems within laundry rooms and stores are reported to your Property Insurer and Insurance Broker. Temporary changes may be necessary to some arrangements whilst impairments are ongoing.

Refer to Aviva Loss Prevention Standard Impairment Management for further guidance.

## Specialist Partner Solutions

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For more information please visit:

- Fire risk assessment: [Cardinus Risk Management](#).
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- Automatic fire detection and portable extinguishers: [SECOM](#)
- Business continuity: [Horizonscan](#)
- Leak Detection: [Leaksafe](#)
- Leak Detection: [Quensus](#)

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## Sources and Useful Links

- [BS 5839-1:2017 - Fire detection and fire alarm systems for buildings - Code of practice for design, installation, commissioning, and maintenance of systems in non-domestic premises](#)
- [LPS 1204 : Issue 3.2 Requirements for Firms Engaged in the Design, Installation, Commissioning and Servicing of Gas Extinguishing and Condensed Aerosol Systems](#)
- [BAFE SP203-3 Fixed Gaseous Fire Extinguishing Systems](#)
- [LPS 1048: Requirements for the approval of sprinkler system contractors in the UK and Ireland](#)

## Additional Information

Relevant Loss Prevention Standards include:

- Fire Safety Inspections
- Self-Inspections
- Fire Compartmentation
- Escape of Water and Fluid Leakage
- Fire Safety Legislation
- Fire Doors, Shutters and Dampers
- Electrical Installations - Inspection and Testing
- Housekeeping - Fire Prevention
- Maintenance Regimes
- Thermographic Surveys
- Emergency Response Team
- Impairment Management



To find out more, please visit [Aviva Risk Management Solutions](#) or speak to one of our advisors.

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