

The architects' **checklist**

Everything you need to consider when accommodating dishwashing and laundry facilities in commercial building plans

When working on a new build commercial property or making structural changes to an existing site, designing to accommodate the appropriate facilities is a crucial part of the process. This guide will take you through everything you need to consider when factoring commercial laundry and dishwashing facilities in your plans.



Laundry

When designing any commercial facility that needs to incorporate an on-premise laundry, it's much more complex than installing a collection of appliances into a dedicated space. It's important to consider access, utilisation, hygiene, equipment, and much more besides. A well-planned laundry can make all the difference in staff efficiency, turnaround times, and infection control, but how can you ensure you achieve the best outcome for your client?

The Brief

The Equipment

Regulation

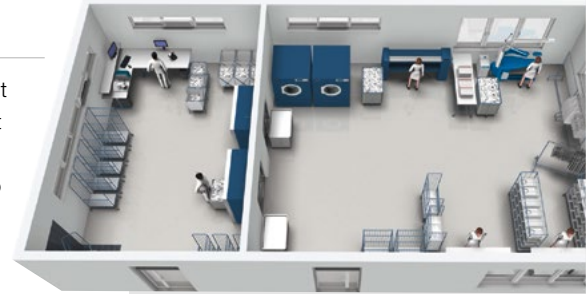
Design Considerations

There's no 'one size fits all' approach to laundry design and planning. In order to tailor the design accordingly, a specific brief from the client and a clear understanding of their objectives is essential.

Aim to understand:

- ✓ If redesigning an existing property, what challenges need to be addressed and what do the key areas of improvement need to be? There might be size limitations to overcome, or the laundry might need to be relocated or repositioned to make access easier.
- ✓ What is the purpose of the laundry room? Is it going to be a big central facility where all laundry will be processed, or, if most of the laundry is outsourced, just a small OPL to process smaller items on-site?
- ✓ What capacity does the client require based on the amount of laundry generated or the number of people it needs to cater for? The professional division of Miele has a collection of calculators for care and hospitality businesses to ensure the equipment matches the requirement.

These factors will all influence the design process but your involvement will vary from project to project. Sometimes we find that clients know exactly what they want – down to the machine specifications and supplier they're partnering with – but others may ask you to advise them based on your experience.



Laundry

When designing any commercial facility that needs to incorporate an on-premise laundry, it's much more complex than installing a collection of appliances into a dedicated space. It's important to consider access, utilisation, hygiene, equipment, and much more besides. A well-planned laundry can make all the difference in staff efficiency, turnaround times, and infection control, but how can you ensure you achieve the best outcome for your client?

The Brief

The Equipment

Regulation

Design Considerations

If the client is unsure exactly what they need, or has asked you to advise, here are several important factors to bear in mind:

- ✔ Maximising limited space – There are lots of design considerations to optimise space (more to come on that!) but choice of equipment is crucial here. If your client is short of space and regularly has large loads of laundry to get through, they should look for efficient commercial cycles and large drum capacity – the bigger the drum volume in litres, the more laundry can be processed within the machine's footprint. If your client requires multiple machines (often a good idea to minimise downtime should one break down) some models can be stacked to fit more capacity within the same footprint.
- ✔ Are there strict infection control measures that need to be taken? It might be that your client should consider a barrier washer, which is usually recommended in healthcare settings for those dealing with large volumes of soiled laundry where exceptionally high levels of hygiene must be demonstrated.
- ✔ The availability of spares and parts – When it comes to choice of appliance, it pays to think ahead. It wouldn't be ideal for your client to invest in a machine and need to replace a part a few years down the line to then find that it's no longer produced or stocked! Finding out the availability of spares and parts upfront can save a lot of hassle later down the line.



Miele provides a supply guarantee of at least 15 years for functional replacement parts at the end of the production of each Miele appliance.

Laundry

When designing any commercial facility that needs to incorporate an on-premise laundry, it's much more complex than installing a collection of appliances into a dedicated space. It's important to consider access, utilisation, hygiene, equipment, and much more besides. A well-planned laundry can make all the difference in staff efficiency, turnaround times, and infection control, but how can you ensure you achieve the best outcome for your client?

The Brief

The Equipment

Regulation

Design Considerations

The following regulations are most relevant in a care setting, but you may need to take them into account on other projects too. While some will not require any direct involvement or action from you, it's important to be aware of them.



[Care Quality Commission](#) (CQC – the independent regulator of health and social care services in England) or the [Care Inspectorate](#) (the government body ensuring quality of care in Scotland) – When working on a care home project, it's incredibly important to be aware of these bodies and their general requirements, particularly with regards to laundry facilities and infection control. Bring the relevant body on board with the project as soon as planning permission is received and take the representative/inspector on the design journey with you. Their experience and insight around the reality of running a care home and infection control can be invaluable, so make sure you take any suggestions or feedback into account and reflect changes in the plans at each stage.



The DoH HTM01-04 outlines that, for effective thermal decontamination to take place, laundry should be held at either 71°C for at least three minutes or 65°C for at least ten minutes. There are no design implications around this but compliant equipment must be specified.



WRAS – Washing machines need to be compliant with the Water Regulations Advisory Scheme (WRAS), usually to category five in a care setting, which insists upon hardware measures to prevent backflow of contaminated water. This is important to be aware of, as well as any local byelaws.



Gas regulations are often updated with new requirements so it's important to stay abreast of these as they can impact the ongoing design process. One of the most important recent changes specifies exhaust termination in relation to the location of air intake into the space, via doors, windows and vents etc.

Laundry

When designing any commercial facility that needs to incorporate an on-premise laundry, it's much more complex than installing a collection of appliances into a dedicated space. It's important to consider access, utilisation, hygiene, equipment, and much more besides. A well-planned laundry can make all the difference in staff efficiency, turnaround times, and infection control, but how can you ensure you achieve the best outcome for your client?

The Brief

The Equipment

Regulation

Design Considerations

Location

Space/Installation

Process/Other

Laundry facilities usually need to be as compact as possible, while being designed for efficiency and serving all the client's needs. Optimising profitable space for a business is always key – the more resident bedrooms you can fit into a care home, for example, or the more guestrooms in a hotel, the more profitable the business will be able to be. And while keeping this in mind, it's vital to ensure that support functions like the laundry and dishwashing don't become an afterthought. Here are some important considerations:

Location

- ✓ A laundry located in close proximity to guest/resident bedrooms could cause noise disruption. If placing the laundry next to guest or resident areas is unavoidable, there are machines on the market that have low decibel ratings, and some can be fixed to plinths to reduce the vibrations.
- ✓ The laundry must be equipped for ventilation, water supply and drainage. The ideal location for the laundry room/s would be one with reasonable lengths of external wall so windows can be factored in for ventilation, and ducts and exhaust points can be kept away from customer or resident areas.
- ✓ At this point it's important to understand the energy source of the chosen appliances so they can be factored into plans. Consider the ducting requirement, how and where it needs to discharge, and how that fits into the floor plans.
- ✓ Ideally, the laundry room would be located on the ground floor with access to an outdoor area where washing can be hung out to dry if the customer wishes. The ground floor also provides ease of access for installation, and later replacement, plus improved water pressure, drainage, and ducting compared to other locations within the building.



Miele Professional's washing machines operate at particularly quiet noise levels from <70bD(A), making them class A for noise emissions.

Plus, a difference of three decibels results in the perception of something being twice as noisy.

Laundry

When designing any commercial facility that needs to incorporate an on-premise laundry, it's much more complex than installing a collection of appliances into a dedicated space. It's important to consider access, utilisation, hygiene, equipment, and much more besides. A well-planned laundry can make all the difference in staff efficiency, turnaround times, and infection control, but how can you ensure you achieve the best outcome for your client?

The Brief

The Equipment

Regulation

Design Considerations

Location

Space/Installation

Process/Other

Laundry facilities usually need to be as compact as possible, while being designed for efficiency and serving all the client's needs. Optimising profitable space for a business is always key – the more resident bedrooms you can fit into a care home, for example, or the more guestrooms in a hotel, the more profitable the business will be able to be. And while keeping this in mind, it's vital to ensure that support functions like the laundry and dishwashing don't become an afterthought. Here are some important considerations:

Space

- ✓ Don't forget to factor in enough space for storage – ideally a separate room to the laundry equipment entirely.
- ✓ Once you've factored in the equipment and space to allow door openings and services to the rear of the machines, is there still ample space for staff to process laundry? Talk to your client to establish how many laundry staff are usually in the facility at one time.
- ✓ Is there adequate space to ensure a clear flow within the room to keep the clean and dirty areas separate?

Installation

Once the client has decided on their laundry appliances and equipment and dimensions are factored into plans, it's vital to factor in how the machines will enter the building. Physical restrictions like doorways can make installation of the machines more challenging, especially in older and listed buildings, so it's important to understand any issues upfront so an alternative method can be established. In the past, we've seen cranes used to hoist machines up through windows on higher floors, and in the case of one new build, the windows fitted after the laundry machines had passed through!



Laundry

When designing any commercial facility that needs to incorporate an on-premise laundry, it's much more complex than installing a collection of appliances into a dedicated space. It's important to consider access, utilisation, hygiene, equipment, and much more besides. A well-planned laundry can make all the difference in staff efficiency, turnaround times, and infection control, but how can you ensure you achieve the best outcome for your client?

The Brief

The Equipment

Regulation

Design Considerations

Location

Space/Installation

Process/Other

Laundry facilities usually need to be as compact as possible, while being designed for efficiency and serving all the client's needs. Optimising profitable space for a business is always key – the more resident bedrooms you can fit into a care home, for example, or the more guestrooms in a hotel, the more profitable the business will be able to be. And while keeping this in mind, it's vital to ensure that support functions like the laundry and dishwashing don't become an afterthought. Here are some important considerations:

Process-led Design

- ✔ Talk to your clients to learn more about their laundry processes so you can establish what equipment and space needs to be factored into floor plans and the most efficient way to lay them out – allowing laundry to easily pass from washing to drying to ironing to storage.
- ✔ A clean to dirty flow is essential to prevent cross-contamination, and the room's ventilation should also be positioned with this in mind, allowing the air to flow from the clean side to the dirty side to avoid recontamination.
- ✔ As businesses become more stringent with hygiene and infection control measures, we're seeing more facilities have designated 'in' and 'out' doors, similar to a commercial kitchen, to promote a circular route around the facility.

Other Equipment

Alongside the laundry equipment, there may be additional stations or facilities that need to be factored into the floor plans, such as handwash basins. In a care home setting where staff are often required to deal with high volumes of soiled laundry, you may need to factor in dispensing, storage, and disposal facilities for PPE, such as disposable aprons, gloves, and disposable washing bags.

An air purifier can also be a good addition to improve hygiene efficiency within closed spaces and minimise the spread of air-borne infections.



Miele manufactured its mobile air purifier, AirControl, in record time to help businesses prevent the spread of viruses and air-borne infections through the pandemic. **Its five-stage filtration is designed to remove 99.9995% of harmful particles from indoor air circulation.**

Dishwashing

As with laundry, when it comes to dishwashing there are a number of important factors to consider to ensure that the facility is safe, compliant, and perfectly serves the client's needs.

The Brief

The Equipment

Regulation

Design Considerations

Take a detailed brief from the client in the first instance to understand what they need and expect from their dishwashing facility. Naturally, requirements will vary a huge amount depending on the size and purpose of the business.

Consider:

- ✓ What purpose do the dishwashing facilities need to serve, and how much cookware or serve ware does it need to cater for on a regular basis? In a care setting, for example, a 60-bed residential home's facilities and requirements would differ greatly to a sheltered housing or extra care facility's requirements, where the central cooking facilities are usually less intense and service users tend to have their own flatlets with domestic facilities for independent use.
- ✓ If this is a redesign project for the client, did they experience any challenges in the facility's former iteration that need to be addressed with the new design? Does the facility need to be repositioned to make it easier to access, or to work better with the circular route of the kitchen?



Dishwashing

As with laundry, when it comes to dishwashing there are a number of important factors to consider to ensure that the facility is safe, compliant, and perfectly serves the client's needs.

The Brief

The Equipment

Regulation

Design Considerations

If the client has not yet decided on their equipment, use generic model sizes or numbers in the first instance when planning so you're working with realistic dimensions as the floor plans develop. The commercial kitchen design process and equipment selection can differ a huge amount depending on who you're working with on the process, so it's important to liaise with the supplier to ensure the equipment is compliant and fit for purpose.

Larger organisations often have maintenance contracts and suppliers they work with across all of their properties, so you may be required to work alongside them to factor their vision into the design plans. If your client is using commercial kitchen designers, establish upfront how much of the process they're handling. If they're installing the stainless steel works and fittings, they may also be fitting the main ventilation duct for the supply and extract from the kitchen. Factor their layouts into your floor plans at the earliest convenience so you can make sure that the spacing works, and the drainage and ventilation are located in the right place.

At this stage, it's usually best to consult the client's chefs or catering managers (if applicable) to get their input on the designs. With commercial kitchen design, each party brings their own expertise and preferences, so it's best to share plans with those concerned as early as possible so any required tweaks can be made sooner rather than later, when they may be more difficult to accommodate.



Dishwashing

As with laundry, when it comes to dishwashing there are a number of important factors to consider to ensure that the facility is safe, compliant, and perfectly serves the client's needs.

The Brief

The Equipment

Regulation

Design Considerations

While dishwashing facilities don't tend to carry as many stringent set guidelines as laundry, adhering to basic environmental health guidelines is key. An important one to look out for is DIN 10512 Hygiene in Catering standard, which specifies the hygienic operation of dishwashers.

Once planning permission has been received for the project, write to the environmental health officer as early as possible to request comment on the scheme. Responses tend to vary from officer to officer, but usually recommendations tend to be quite basic, for example, that hand wash basins should be included.

General infection control knowledge should also be applied to designs, for example, making sure there is enough ventilation in the room to prevent the build-up of steam and condensation.



Miele Professional equipment carries a seal for the removal of enveloped and non-enveloped viruses by the Institute for Integrative Hygiene and Virology.



Dishwashing

As with laundry, when it comes to dishwashing there are a number of important factors to consider to ensure that the facility is safe, compliant, and perfectly serves the client's needs.

The Brief

The Equipment

Regulation

Design Considerations

- ✓ Again, process-led design is key – Allow space for food disposal, room for loading trays before the dishwasher, and space for unloading after.
- ✓ The positioning of the dishwasher/s must complement the kitchen cycle. It should be in a sensible location, ideally away from the main cooking appliances and as close as possible to the kitchen 'in' door so waiting staff can deposit dirty dishes as they enter the kitchen.
- ✓ Factor in working space with room for the doors to open and people to work around them.
- ✓ Effective ventilation around the dishwasher is key. Often, large hooded dishwashers required enhanced ventilation measures to prevent the build-up of steam.



Why work with Miele?

Dedicated to building innovative appliances that go beyond the ordinary, Miele is valued by many leading commercial architects and developers across the globe. Here's what we offer:

- ✓ A dedicated Miele account manager.
- ✓ Consistently perfect components and cutting-edge technology – made in Germany.
- ✓ Bespoke room design and specification compliant with relevant sector regulations and industry standards.
- ✓ Knowledge and passion passed down through generations – just like good architects we don't compromise on the principles that matter the most.
- ✓ Room layout drawing followed by a full M&E.
- ✓ Dedication to sustainability - As member of the UN Global Compact we are dedicated to helping achieve the UN's Sustainable Development Goals. We've managed to cut our appliances' energy and water consumption – without compromising on quality, whilst maintaining high levels of recyclability and long life spans.
- ✓ On-site training upon delivery and/or dedicated sessions with completion certificates.
- ✓ Planning support and aftercare on the total build project and lifecycle of the products supplied to the end user.

For more information, or to talk to us about your next project, simply get in touch: