

How Partitioning can help manage social distancing.

Introduction

As more business look to return staff who work in offices, addressing social distancing and hygiene are likely to be some of the biggest issues.

Re-cellularisation is the opposite to creating open plan spaces and is intended to provide cellular space where social distancing can be provided, where teams can collaborate, and individuals can find safe concentrated spaces when they are in the office.

It is important that staff are safe and feel safe, so investment in the environment will be a recognised sign in care for employees.

There are well rehearsed examples of social distancing control put in place with Supermarkets that can be adapted by some occupiers, but business should start to consider the real need of the office in the current circumstances, especially as working from home is clearly proven to work (for some), though there is still a need to create a 'Hive' where people can communicate and collaborate, concentrated work activity could probably continue through home working.

There will be those, possibly people living alone or in shared accommodation, who will want to return to the office, and that is where with planning, subdivision with partitioning is a solution. Decisions on what and how should only be taken after understanding the occupancy and relationship between people and departments.

What else should be considered?

Cellularisation is the creation of spaces using partitioning, the questions to consider in this process of re-cellularisation are:

- What are my needs?
- What else should I consider?
- How do I select a partition system?
- How do I organise the installation?

Identifying Needs

The needs of the business should be identified based on staff occupancy, so is occupancy the same or has it reduced since social distancing requirements have come into force?

Then the departmental and communication needs should be evaluated; where are the departments and what are our needs going forward?

Lastly the people and operations, how many people need to meet at any one time and how many single occupancy spaces are needed?

This space analysis can be done in house or there are specialist organisations practiced in studying the data and analysing the results to provide guidance and advice on space planning.

Partition systems come in several options (see Appendix below) and each is designed to accommodate the individual needs of an organisation and its occupants.

The main considerations are:

- Performance
- Aesthetics
- Ventilation
- Lighting
- Services
- Building regulations
- Flexibility
- Dilapidations

Performance considerations include: Fire resistance, reducing sound transmission and privacy, and addressing reverberation in the space, (this is very important with video conferencing) and how can this be balanced with the need for flexibility.

Aesthetics, how will our new partitioned spaces look?

Partition systems can be solid, glazed part glazed and double glazed. Blinds or manifestation can be added which can reinforce a corporate identity or add images of outdoor landscapes to the space.

Some systems are unframed glass whilst others use the frames to break up the glass with vertical and even horizontal lines in dark aluminium or timber.

Ventilation requirements should be discussed with an M&E engineer to ensure the required number of air changes are achieved, or you may find your staff's productivity will drop off as the CO₂ levels rise. Lighting layouts may have to change to accommodate the new layouts and to ensure the correct levels of lighting are maintained, you might want to think about using lighting that reflects the circadian cycle as a further improvement for staff wellbeing.

Any Services that are running through where the partition will be installed should be reconfigured to accommodate the new partitioning, including lighting, ventilation, trunking, floor boxes, radiators etc. Guidance to meet the Building regulations can be found in the '[Approved Documents](#)', these include Fire, Ventilation, Safety and access. You should consult with a Local Authority Building Inspector or approved inspector before commencing.

Selecting a partition system should be based initially on performance, Fire, Acoustics, safety, and then aesthetics and other needs such as if the partition should be installed below, to or through the suspended ceiling and can sound reduction be maintained with baffles in the ceiling void. Other considerations such as using offsite manufactured components and flexible relocatable systems which can attract deductions in Corporate Tax should be discussed.

The type of doors and the use of automatic opening devices and antimicrobial ironmongery are also important considerations.

Ironmongery

With thanks to Douglas Masterson Technical Manager at The Guild of Architectural Ironmongers

The use of anti-bacterial/anti-microbial handles – whilst effective, do not kill germs instantly. Copper and silver are examples of natural materials which are currently being used as either coatings or within the fabric of handles.

Its much better to automate a door where it does not have to be touched at all – consider the use of touch free activation buttons instead of push buttons or radar – note that installation of these devices should only be by trained professionals who would be installing to EN 16005.

Doors could be held open, meaning they do not have to be touched, whilst it can be tempting for people to do so they should not use devices to hold open a fire door unless linked to the fire alarm.

The use of touch free proximity cards or fobs could be considered instead of digital keypads, hands free switches could be used instead of exit buttons. Organising the safe installation of the partition requires professional planning to allow for the disruption and safe delivery and carting of materials into the new office and safe working conditions for the installers as well as the occupants.

The FIS Client Guide to Office Fit-Out and Refurbishment is designed to guide you through the process from the initial decision, through to post occupancy evaluation.

It explains step by step the process, along with outlining the professions who are available to help ensure a successful outcome. Its Free and can be downloaded [HERE](#)

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Appendix

Partition types.

Definitions

Demountable partitions/Relocatable partitions

It is important at this stage to clearly establish the difference between 'relocatable' and 'demountable' partitions.

A relocatable or reusable partition system can be removed and relocated without substantial repair (using a minimum of 80% of original components). It should be capable of reinstallation within a tolerance of ± 10 mm of the original installed height. Demountable partitions cannot be taken down without damaging or destroying some or all of the components.

Pods

Office pods: are informal meeting room solutions in offices and usually comprise acoustic panels, glass panels and either fixed or sliding doors.

Composite 50mm aluminium framed systems

composite systems are designed to construct a generally demountable, lightweight, economical and easily erected office partitioning system.

Modules can be solid or glazed.

The system is based on a nominal 1200mm module and standard components provide for junctions, corners, or changes of direction.

The extrusions accommodate standard 46mm honeycomb or flaxcore panels for solid elevations and UVPC or aluminium glazing profiles for glazed elevations.

Fire performance: the system does not offer any fire resistance. Acoustic performance: through solid honeycomb panels an acoustic performance of circa 29dB(Rw), single glazing 32-35dB(Rw), double glazing 37-40dB(Rw), depending on glass types and thicknesses.

STUD AND BOARD SYSTEMS

Stud and board systems form demountable, non-loadbearing, lightweight performance partitioning systems.

Systems are generally based on 1200mm modules and are constructed with a framework of galvanised studs, faced on both sides with one or two layers of 12.5mm plasterboard.

The cavity formed can be used to incorporate insulation material to enhance the acoustic and fire performance of the partition.

Fire performance: can offer fire resistance of up to 30 minutes in most elevations and up to 60 minutes on 100mm double skin construction.

Acoustic performance: through solid elevations up to 52dB(Rw) can be achieved, whilst glazed modules can achieve up to 42dB(Rw).

FRAMELESS GLASS PARTITIONS

Frameless glass partitions comprise of 10mm to 15mm safety glass, installed between head and floor tracks.

The edges of the glass are polished to accept a jointing method to provide a frameless glass partition.

The glass can be installed in module sizes of up to 1500mm wide (subject to access into and around the site), or can be equalised along the partition run, but this makes relocation more difficult.

Fire performance: up to 30 minutes possible.

Acoustic performance: single glazed systems, up to 38dB(Rw); double glazed with ghost post, up to 49dB(Rw); double glazed without ghost post, up to 48dB(Rw).

TIMBER SYSTEMS

Pre-lacquered timber or veneered MDF (V-MDF) partition systems can offer fire resistance, good acoustic performance, a wide range of veneers, and generally an option of double or offset glazing.

As timber is a natural product, it should be noted that there will be differences in shade and grain. solid timber components are likely to be less similar than veneered

BI-PANEL SYSTEMS

Bi-Panel systems are made up of two single, factory produced panels, usually in 1200mm or 1500mm module widths, hooked onto an upright stud.

Panels can be manufactured from steel faced plasterboard, veneered, painted and laminated MDF panels, as well as glazed panels.

The systems offer great flexibility with the ability to relocate, and opportunity to change module type as well as have different finishes on each side of a module.

Fire performance: 30 minutes is achievable in most module types and up to 60 minutes in solid module format.

Acoustic performance: up to 50dB(Rw) in solid modules and 45dB(Rw) in glazed modules can be achieved.

MONOBLOC SYSTEMS

Monobloc systems are manufactured and assembled in factory conditions to either specific or standard dimensions.

Each panel will arrive on site with its pre-finished face which can be solid, glazed, glazed with integral blinds, or half glazed.

This enables a fast installation time on site, flexibility of design, and simple relocation benefits.

Monobloc systems divide into three categories:

1 Monobloc: generally full height, very good fire and acoustic specification, bespoke design, possibilities to accommodate working wall, usually installed by the manufacturer

2 Steel panel: which offers standard and bespoke products, single or double skin, full or partial height, predominantly steel or glazed modules, installed either by the manufacturer or the specialist contractor

Fire performance: of up to 60 minutes on solid and glazed elevations, 30 minutes on door modules. In certain circumstances 90 minutes can be achieved on solid elevations.

Acoustic performance: of up to 47dB(Rw) on solid elevations, 45dB(Rw) on double glazed elevations and 43dB(Rw) on door modules can be achieved, but higher performance solutions can be provided as a bespoke manufacture.

OPERABLE WALLS

Operable walls are installed by the manufacturer or their specific agent and are delivered to site in their finished state ready for final installation.

During the installation process an acoustic baffle will need to be installed above the partition to at least maintain the acoustic performance of the partition.

MANIFESTATIONS

Glass films are applied within partitions for a number of reasons:

- Document K – manifestation is necessary in critical locations where people may not be aware of the presence of glazing and may collide with it.
- Privacy – privacy within meeting rooms and offices can be achieved without loss of light or change of partition design, by using all over or mid height cover.
- Identity – company logos, themes or room names can be included within film design to provide identity within the office environment.
- Blast film – designed to be used on toughened glass to eliminate glass shards being scattered following an explosion.

DOORS

Doors are an integral part of a partition system and are the one element that users interact with daily.

It is important that doors are coordinated with the partition manufacturer, especially where sound and fire performance is required.

Many partition manufacturers also manufacture doors, so are able to supply doors in structural openings as part of a coordinated interior.