## Q

# Advantages of Flat Mopping

### > Scot Young Research Ltd





syrclean.com

Mopping is among the most frequently performed cleaning tasks that an operative may be required to do, with almost 90% of workers mopping and wiping floors on a frequent basis. Despite being a task done daily in almost every environment, it is a practice that has been commonly associated with operative injuries, causing strain, muscle and joint pain, and even slip fall accidents if done improperly. Mopping is also a practice that has not changed a great deal over the years; despite innovations and changes in standards to make it easier or perform more effectively, mopping is still fundamentally the same.



It is also one of the most time-consuming, as well as one of the most strenuous – 63% of those doing this task have reported experiencing musculoskeletal pain associated with it. As a result, it is apparent that seeking more ergonomic solutions and alternatives to mopping tools will have far reaching benefits for cleaning staff, minimising the risk of injuries and improving efficiency and productivity in the process.

Flat mopping represents one of the most visible changes to mopping in recent years. Doing away with the traditional string mop head that many typically associate with the task, flat mopping involves cleaning floors with a flat rectangular frame affixed with a pad or cloth. There are numerous different types of flat mop available, suitable for different floor types, stains and cleaning requirements, including disposable solutions and more abrasive mop surfaces, but microfibre remains the most commonly used material for flat mops. Unlike most string mops, flat mops can be used for both wet mopping and dry mopping, making them a versatile and useful solution to a wider range of cleaning tasks.

#### > SUSTAINABILITY

One of the main advantages to flat mopping, both in terms of the environment and businesses themselves, is the reduction in water usage when cleaning. Perhaps unsurprisingly, mopping is a task that often requires considerable amounts of water to complete; every time that a mop is used to clean a floor and is rinsed back in a bucket of cleaning solution, the water gets progressively dirtier, meaning that it needs to be changed frequently in order to prevent contaminants being transferred back onto the mop head and then on to the floor. Using a 5 litre dolly mop bucket with a traditional socket mop and standard cleaning chemicals, over a 4 hour cleaning shift water will need to be changed an average of 8 times, using a total of 40 litres of water on mopping alone. Considering this action is likely done daily, and replicated several times over for larger, busier environments, it is easy to understand how water usage can accumulate into significant costs for businesses, wasting a precious resource in an era when water supplies are continuously lowering to concerning levels.

Flat mopping, by contrast, requires very little water for optimum results. Designed to hold water without becoming heavy and sodden, flat mops can be submerged and rinsed without the need for strenuous effort wringing. Typically made of microfibre, flat mop pads are able to absorb water without becoming heavy and sodden like traditional cotton mops, capable of being used effectively whilst damp rather than wet. Due to the highly effective dirt-removing performance of flat mops and microfibre, water does not need to be changed so often when in use. The smaller size of flat mops, typically around 40cm in length, also means that less water is required to start with in order to totally submerge the product before using.

**AFTER 30 USES** 

**RADITIONAL MOPPING** 



Microfibre flat mopping requires little to no chemical Overall, flat mopping will reduce water consumption by over 90% when compared to traditional mopping practices, saving time, effort and money for operatives and businesses. A spray flat mopping system – a flat mopping product with an internal water reservoir and spray trigger – is designed to be used with minimal water use, offering controllable moisture through the spray jets dispensing water directly in front of the mop. SYR's Rapid Mop, for instance, with its 480ml internal water reservoir, represents a 97% reduction in water consumption comparing to mopping with a standard bucket, wringer and dolly mop, saving 7000 litres of water a year with daily use.

Similarly, flat mopping offers a distinct reduction in cleaning chemical usage. With every change in water that is required when mopping, additional chemical cleaner must be used, often resulting in significant consumption of detergent or disinfectant, especially in larger environments that require daily cleaning. Not only can this accumulate into high costs for businesses, but it will also result in large amounts of waste water, contaminated by chemical cleaner, that may risk releasing potential harmful compounds into waterways. Chemicals are also often used improperly when mopping, with cleaning operatives frequently using more chemical than they actually need due to incorrect dosing or dilution. This can have a wide range of negative effects aside from wasting money and resources, including impairing cleaning performance, damaging floor quality and potentially causing accidents, as well as releasing fumes and emissions that may harm both the environment and human health.

One notable case study assessing the cleaning in a hospital in the US compared the performance of traditional wet string mops with microfibre flat mops in daily mopping of patient care areas. Among the range of benefits of flat mopping that was found in the study, one of the most pronounced was the reduction in cleaning chemical used in the period observed. Microfibre flat mops used over 20 times less cleaning chemical compared to traditional wet mops, cleaning a larger area in the same time in the process. The same hospital, after switching completely to microfibre flat mops in the cleaning



of all patient areas, reported a 95% decrease in chemical costs associated with mopping tasks over the course of one year.

#### > EFFICIENCY

One of the primary benefits of flat mopping, that quickly becomes apparent when in use, is the labour savings in comparison to traditional dolly mopping. As a result of a number of factors, including the use of microfibre pads and the design of flat mops offering better coverage of the mop to the floor surface, flat mops have been found to be 60% more efficient than dolly mops, cleaning the same floor area in less than half the time.

Flat mops are overwhelmingly lighter and easier to manoeuvre and operate than traditional string mops; where the latter can often become extremely heavy, absorbing the full weight of the water, flat mops can perform effectively with only minimal water use. This not only allows routines to be completed much faster, but also reduces the strain experienced by operators, who commonly suffer from muscle and joint pain as a result of using heavy equipment.

Another primary advantage of flat mops over conventional string mops is their versatility. Where traditional mops are only useful for cleaning floors, the flat frames and reduced weight of flat mopping systems makes them ideal for cleaning areas like stairs, backboards, walls and even ceilings. In addition, unlike cotton mops, microfibre flat mops can be used for purposes other than just wet mopping. The densely packed fibres that make up microfibre products carry a positive charge, perfect for statically attracting negatively charged dust, removing particles from the surface and preventing them from being redistributed in the air. For this reason, microfibre flat mops are an ideal tool for dry dusting too, useful for even high level cleaning.



#### > MICROORGANISM REMOVAL

Although there is a vast multitude of different flat mop types available, most flat mopping systems are used with microfibre pads and cloths, both reusable and disposable. A fabric renowned for its cleaning capabilities, microfibre is a synthetic material composed of very fine yarn, usually created by fusing nylon and polyester and splitting them under high pressure. It is this process that gives microfibre not only its durability but also its unique ability to pick-up and absorb all kinds of messes. The split sections in the weave trap dirt, dust, water, oils and even microorganisms, allowing them to be effectively removed from surfaces.



When used as a mop material, research has shown that microfibre can offer an exceptional pick-up of dirt and an effective removal of microbes from floor surfaces. Consistently, research has demonstrated microfibre mops ability to clean more effectively than traditional cotton string mops, with bacterial activity reduced by at least 30% on hard surfaces. Where string mops were discovered to require disinfectant to remove bacteria to acceptable levels, microfibre mops could perform well with detergent cleaner alone, eliminating microbes by more than 95%. Even using water alone, a damp microfibre mop can remove 60% of bacteria from floors.

Microfibre flat mops are also far more durable than standard cotton string mops. While the latter is made from organic fibres, which will naturally deteriorate over time and can harbour the growth of significant amounts of bacteria, microfibre, as a synthetic material will not do so, lasting for hundreds of washes and continuing to perform exceptionally. Research has shown that string mops, particularly those stored wet, have been a major vehicle for cross-contamination in sensitive hygiene environments like hospitals, the bacteria caused by the mop rotting potentially resulting in the spread of hospital-acquired infections. For this reason, many healthcare facilities have made the switch to microfibre flat mops in their daily cleaning routines, to reduce the risk of infection to all those on the premises.

#### > SAFETY

Despite all the other advantages of flat mopping over dolly mopping, undoubtedly the main reason that makes it a popular alternative with cleaning staff is its ergonomic features. As was mentioned previously, daily mopping can be a strenuous activity, resulting in strain and discomfort to operatives over time, being the second most common cause of cleaning-related injuries in the workplace. These injuries mainly stem from the awkward postures and repetitive motions of mopping, as well as the sheer length of time that cleaning operatives must dedicate to the task.

In surveys of cleaning staff in hospitals, pain was reported by almost of half of the operatives, a much higher amount that staff working in other fields in the same environment, with pain in the wrists being the most common body parts suffering from strain. Mopping, identified as one of the tasks conducted with the highest frequency by the operatives, is a task that can result in considerable strain to this area of the body: the repetitive motions combined with the heavy weight of mops and other equipment can



result in discomfort in the short term and more severe musculoskeletal disorders in the long term.

Flat mopping actively works to minimise this strenuous side of mopping through its lightweight and more ergonomic design. Traditional string mops tend to vary in size, but typically they measure in between 16 to 20oz, or about 450g to 570g. When wet, these numbers can triple, the mop weighing in several times more than its dry weight, which, combined with the weight of the handle, heavy bucket of water, safety sign and any other cleaning tool that may be needed, can make mopping an exhausting and difficult task to perform. In contrast, a 40cm microfibre frame and handle with a damp mop pad weighs about 900g, drastically minimising the potential for strain, even more so if a spray flat mopping system that eliminates the need for a bucket is used. This, combined with the fact that flat mopping takes considerably less time to complete compared to traditional dolly mopping, contributes to the reduction of operator fatigue and musculoskeletal disorders.

In addition to minimising strain experienced by cleaning operatives, flat mopping has other additional safety benefits that can prevent accidents from occurring in the workplace. Due to the absorbent and highly effective cleaning performance of microfibre, flat mopping requires significantly less water to conduct the same task as traditional mopping – even less if a spray flat mopping system with an internal water reservoir is used. As well as having environmental benefits, reducing the consumption of a precious resource, using less water means that, on average, floor surfaces cleaned with flat mops dry 50% quicker.

As well as making the entire mopping process easier to perform, saving time that would have been dedicated to drying the surface after cleaning with a dry mop or preventing areas from being cordoned off whilst air-drying, drier floors reduces the risk of slip accidents occurring on wet and slippery floors. Slip fall injuries are one of the most common types of incidents occurring in the workplace, with a third of reported occupational injuries being attributed to this kind of accident, many of which result in fractures or broken bones. Floors left wet after cleaning have often been highlighted as a common cause of slips, demonstrating the importance of using the proper techniques and equipment in minimising the risk of accidents.

In addition to drying floors quicker compared to traditional dolly mopping, flat mopping is also increasingly used as part of spill management kits. As well as being more absorbent than most string mops, flat mops are on average much lighter and easier to manoeuvre, making them ideal for getting to the spill site as quickly as possible to prevent accidents from occurring. This, combined with the fact that microfibre flat mops are less likely to leave drips, puddles or smears, makes flat mopping superior to dolly mopping in this circumstance.

#### > SYR'S FLAT MOPS

As a producer of a vast catalogue of mops for many years, SYR manufactures and stocks a number of flat mops, ideal for different purposes and areas of cleaning.

One of the strengths of flat mops are their versatility; ideal for cleaning different types of mess or spillage, mop pads can be quickly and easily removed, without the risk of contaminating hands that may be present with traditional string mops, and the flat mop replaced to begin cleaning again. Many SYR flat mops can be used with the same handle and frame, simplifying cleaning routines and improving efficiency, ideal for when cleaning busy areas or for rapid response of spillages.

#### > SYR SNAPPER FLAT MOP HOLDER

Measuring 40cm in length, the Snapper Flat Mop Holder is one of SYR's most versatile and premium flat mop frames, combining strength, durability and innovative design. Featuring a unique folding break frame design, this long-lasting frame is easy to use at the push of a clip, and highly manoeuvrable for use on floors, stairs and backboard. Designed to assure hygiene and efficiency, the frame is complete with a handy foot switch, allowing the used flat mop to be simply and quickly removed without the need to touch the soiled side of pad, and folded for convenience in storing.



As well as being easily attachable to SYR Interchange handles, a range of handles designed to fit a multitude of different SYR cleaning tools, the Snapper Flat Mop Holder can be fitted with a number of compatible flat mops, all of a high quality construction but equipped with features making them perfect for a variety of cleaning purposes.

#### > MICROFIBRE FLAT MOP

A fast and effective cleaning flat mop, colour-coded in the four hygiene colours to designate hygiene areas and prevent cross-contamination whilst cleaning. Made from 100% microfibre, this high quality flat mop is ideal for daily light mopping of floors, efficiently removing dirt, dust and bacteria, and is launderable after use.



#### > SUPER DRYING FLAT MOP

Made of a high quality microfibre, this 40cm flat mop offers fast and effective drying of hard floors, eliminating the risk of slips after mopping or spillages. Fully launderable, the mop features a soft and non-abrasive surface that quickly absorbs liquids, leaving floors clean, dry and smear-free. Complete with colour tabs, which can be cut off to designate to a colour-coded area.



#### > DISPOSABLE DOUBLE POCKET FLAT MOP

A pocket-style flat mop sleeve, this flat mop is a premium solution to rapid response cleaning. Highly absorbent and multi-layered, this superior quality disposable pad is quick and easy to use, available in 5 colours for colour-coded cleaning, and perfect for mopping.



#### > SPRAY FLAT MOPPING SYSTEMS

As a method of reducing water usage even further, spray flat mopping systems are a good alternative for daily light mopping. SYR's Rapid Mop was created as a quick and easy solution to this task, as well as the rapid cleaning of spillages: a light and mobile bucketless mopping system, the Rapid Mop contains a 480ml internal reservoir, with cleaning solution dispensed via button-activated triple spray jets. By dispensing the water directly onto the floor, surfaces are not only left clean, with the powerful microfibre flatmops used, but much drier too, reducing the risk of slips that may occur on overly wet floors.

The Rapid Mop can be used with a choice of flat mops, ideal for different cleaning tasks or different floor areas. As well as the Microfibre Flatmop, a high quality microfibre mop ideal for general use, also available is the High Performance Flatmop, a powerful cleaning pad with scrubber strips to help break up stubborn dirt, and the Fringe Flatmop, a scrubbing pad with a fringed edge for extra mopping power – all of which are fully launderable and highly absorbent. With both reusable and disposable



solutions, the Rapid Mop offers the ultimate in hygienic yet efficient mopping.

The Dual Mop takes the idea of the traditional spray mopping system, and adds an extra innovative dimension to allow it to clean even more safely and efficiently. Similarly, this product contains a 480ml internal water reservoir in the handle and triple spray jets at the base, allowing cleaning solution to be carried and dispensed without the need for a heavy bucket. However, after mopping areas or spillages with the compatible Microfibre Cleaning Flatmop, a powerful mop pad easily attachable via a hook and loop system, the head of the mop can be flipped over to the Microfibre Drying Flatmop on the opposite side. This highly absorbent flat mop pad offers an exceptional drying performance, perfect for rapidly drying floors after cleaning or spillages, something that is vital in preventing accidents from occurring on slippery surfaces. Just as all spray flat mopping system reduce the amount of heavy equipment operatives must carry whilst completing their cleaning routines, minimising the likelihood of strain injuries being developed, the Dual Mop takes this idea to the next level, offering mopping and drying all in one innovative tool.



EPA (2002). Using Microfiber Mops in Hospitals. Environmental Best Practices for Health Care Facilities. https://archive.epa.gov/region9/waste/archive/web/pdf/mops.pdf

Mollenkamp, B. (2016). Prevent Workplace Injury with Proper Mopping Technique, Tools. Cleanlink. https://www.cleanlink.com/sm/article/Prevent-Workplace-Injury-With-Proper-Mopping-Technique-Tools--19921

Rutala, W. (2007). Microbiologic evaluation of microfiber mops for surface disinfection. American Journal of Infection Control 35(9). https://www.researchgate.net/ publication/5866865\_Microbiologic\_evaluation\_of\_microfiber\_mops\_for\_surface\_ disinfection

Safe Home Care and Hospitals Program. (2003). 10 Reasons to Use Microfiber Mopping. University of Massachusetts Lowell. https://www.uml.edu/docs/10%20Reasons%20 for%20Microfiber%20Mops%20052215\_tcm18-187539.pdf

Salwe, K., Kumar, S. & Hood, J. (2011). Nonfatal Occupational Injury Rates and Musculoskeletal Symptoms among Housekeeping Employees of a Hospital in Texas. Journal of Environmental and Public Health. https://www.ncbi.nlm.nih.gov/pmc/articles/ PMC3136138/

#### Contact Us

syrclean.com

Lye By-Pass, West Midlands, United Kingdom, DY9 8HG

contact@syrclean.com

© 2021, Scot Young Research Ltd, Registered in England No. 481830. Lye By-Pass, Lye, Stourbridge, West Midlands, DY9 8HG, UK.

+44 (0)1384 421421