

A Blueprint for Bathroom Safety

How to make bathrooms fit for purpose for all generations



Foreword

The government has set steep targets for the construction and upgrade of homes of all types, with social housing a key target area.

The growing trend toward multi-generational occupancy also means many small children and grandparents are now sometimes living under the same roof but often have different requirements of the spaces they inhabit.

At Triton we believe that 'consumer-specific needs and safety should be at the heart of this housing revolution. It is a philosophy that will both protect homeowners and residents, while safeguarding and futureproofing investment made in new residential developments - from privately owned properties to social housing stock and care homes, including specialist nursing facilities.

Nowhere is safety more important than in the bathroom. It is one of the most heavily used rooms in any home environment (domestic or professional healthcare) and as such, needs to be suitable for use by all inhabitants - from the very young to the elderly and less abled users.



This guide offers a safety blueprint, which considers the movement towards multi-generational living in the UK and suggests a number of considerations for occupational therapists, supply chain, maintenance and contracts managers who are responsible for taking an 'end-user first' approach to bathroom and shower specification.

Specifically, we believe there are four key areas that must not be overlooked during this process, which we are calling the PASA Test. This guidance is designed to ensure the right questions are asked to guarantee bathrooms and showers are correctly specified and fit for purpose for all age groups.

Through greater education, extra vigilance and a focus on products with the correct profile for the intended audience, our view is that the housing and bathroom industries can work more closely together to meet multi-generational home needs, make our bathrooms as safe as possible and protect everyone in the process.

Thank you for reading.



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Section 1

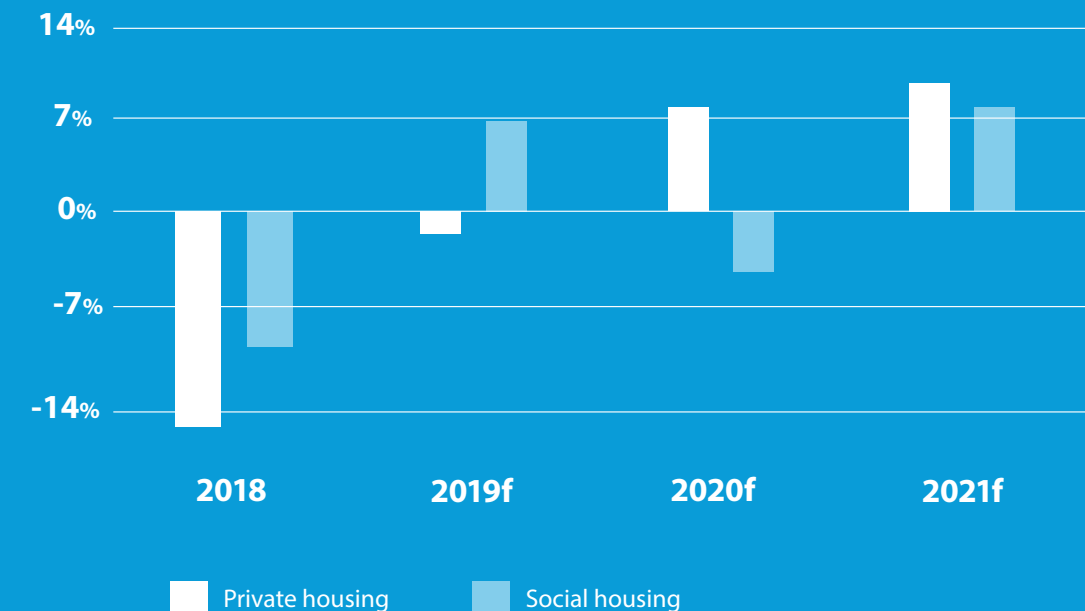
Social Housing Supply and Demand

Demand for social housing remains high and the number of affordable homes being constructed is once more set to enter a growth phase, following the pandemic slowdown.

Last year (2019) 47,965 new houses were built in the UK, of which three-quarters (75%) were affordable homes. While 2020 figures will inevitably dip, the forecasts for 2021 show a sharp rebound in social housing construction.

What is driving this growth?

Central government policy over the last five years has focused on increasing the supply of local authority housing. The scrapping of the Housing Revenue Account (HRA) borrowing cap in July 2019 for example, had the overnight effect of freeing and enabling local councils to escalate plans for new-build developments. Increased support for shared ownership developments announced in the 2018 Budget is also expected to further stimulate social housing construction.



Perhaps most importantly, changes to the planning regulations in England announced in August 2020 are designed to strengthen the housebuilding sector even further. The government's latest overhaul has been dubbed a 'planning revolution' in some circles, as it will force local authorities to allocate land for developments that will not be subject to the full planning process. This means that permission could be automatically granted for hospitals, schools, new homes, shops, and offices to be built in future.

Supply, however, is only one issue. Making residential homes fit-for-purpose for the UK's rapidly changing demographic profile is another matter entirely - especially when it comes to futureproofing new developments to ensure they remain habitable well into the future, while protecting housing association investment.



Section 2

The UK's Demographic Shift

The way we live is changing.

With young people finding it harder to get on the property ladder and older people at risk of isolation, more families are choosing to live under one roof and share the same space.

According to CBRE, the world's largest commercial real estate service and investment firm, there are many reasons for this trend:

Total number of multi-generational households in Britain is thought to be around
1.8 million

CAMBRIDGE CENTRE FOR HOUSING
AND PLANNING RESEARCH

"Around 1.8 million households now span two or more adult generations, up 38% since 2009. Factors driving this increase include providing support for older family members, a lack of retirement homes, help with childcare and increasing housing costs."

"However, the recent rise in multi-generational homes has been primarily driven by millennials living with parents. And with increasing house prices and worsening affordability, this is more likely to continue. Yet, an aging population will have an increasing impact. Currently there are around 11.8 million people over 65 in the UK and forecasts suggest this will rise to 18.5 million by 2040."

Households with three generations living together has risen from 325,000 in 2001 to 419,000 in 2013

ONS



20% of 25-35 year olds still live with parents, compared with 16% in 1991

RESOLUTION FOUNDATION

40% of all over-65s, and 59% of over-80s, have a disability

ONS



14.3 million people will be over 65 by 2025

LGA

Furthermore, CBRE predicts that

"multi-generational housing could have tripled by 2040."

All-too-often though, the very young and old find themselves living in accommodation that is unsuitable for their needs and using equipment or appliances (showers included) that could be more appropriate and user friendly. The bathroom can present daily challenges if fixtures and fittings are incorrectly specified for an individual user's requirements and protection against hot water injuries is inadequate.

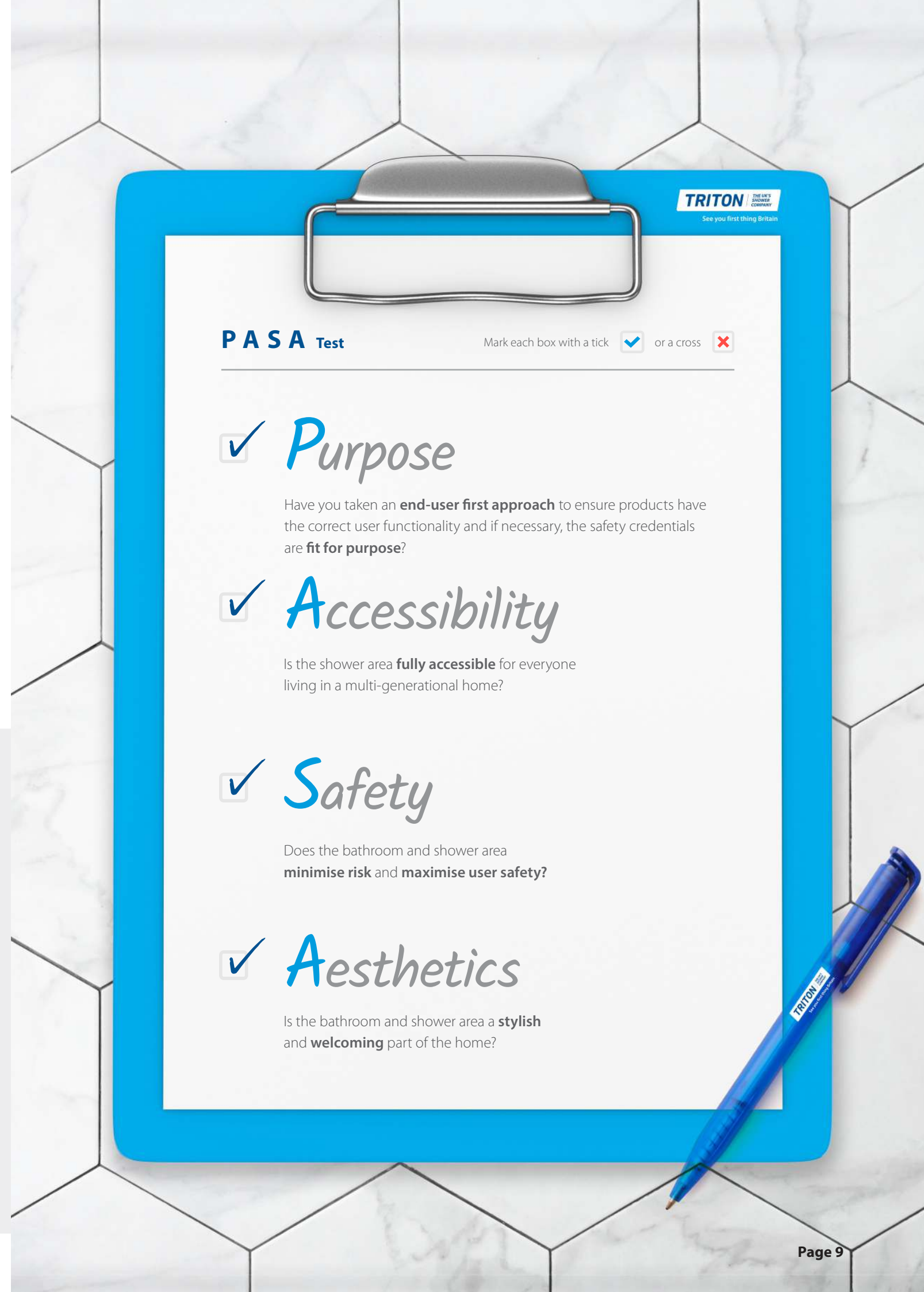
Section 3

Introducing the PASA Test

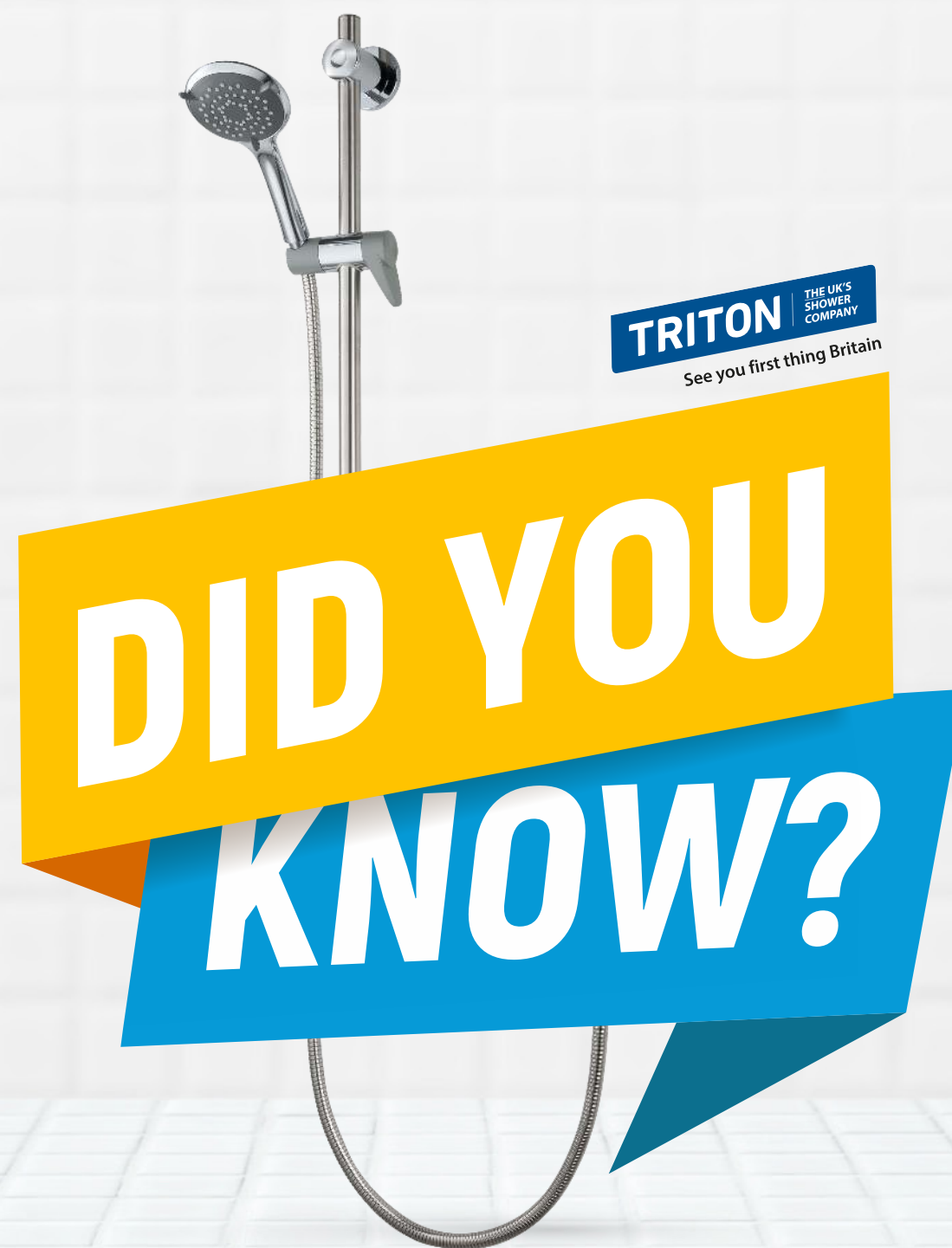
At Triton Showers we recognise that bathroom design, and shower specification, is complex – especially when it comes to meeting the needs of multi-generational living.

With forecasts suggesting this trend looks set to continue and even accelerate, we believe it is important to outline a 'checklist' which each bathroom must meet in order to be fit for purpose, safe, functional and stylish.

We have called this the **PASA Test**.



With over 45 years' experience of designing and manufacturing for the UK market, Triton offers a wide range of **thermostatic electric and mixer shower options** to suit the requirements of **social housing, care homes, hospital environments and private properties** alike.



TRITON THE UK'S SHOWER COMPANY
See you first thing Britain

As well as meeting the needs of **multi-generational families** living together, Triton specialises in designing showers which **assist with independent living** and provide additional care where required.

Thanks to Triton's ongoing commitment to safety, innovation, and affordable style, being market leaders means advanced shower technology, thermostatic controls and eye-catching designs are combined to maximum effect.

This is achieved through in-depth discussion with consumers, carers, Occupational Therapists, and organisations such as the **RNIB** and **BEAB**, resulting in innovative products that are **fit for purpose** and make showering that bit easier for all.

Section 4

Key Elements of the Safe Bathroom

It may be the smallest room in the home, but the blend of restricted space, humidity, water and the range of tasks which need to be carried out in this area can present challenges - especially for young, individuals with specific care needs and the elderly who may be experiencing mobility challenges or visual impairment.

A key element in the construction of a safe bathroom is the shower area. For these reasons it is imperative that all aspects of the PASA Test are considered so that fit for purpose showers are selected for the end user's needs, carried out when required to ensure the correct safety credentials are always selected with the audience in mind.



1: Shower Area Layout

The layout of the shower area is critical.

Too cramped and it can be difficult for an individual to get in and out. Suppliers such as Merlyn understand this and stock a range of enclosures with different door types and widths. The allotted space needs to consider the user's requirements. For example, plans for a wheelchair user require a minimum of 1500mm x 1500mm turning space. In fact, there is a body of opinion that the space needs to be nearer 1800mm x 1800mm to create a more usable and care-friendly environment.

It is also good practice to avoid installing shower cubicle doors, as these can restrict access and space and are difficult to use from a wheelchair. Doors can also be hard to operate for those with limited dexterity or strength. A well-built wet floor shower with adequate drainage would be a preferred option, which maximises usability and safety across the generations. Obstructions or trip hazards should be 'designed-out' as much as possible.



2: Thermostatic Controls

The primary regulations and approvals concerning thermostatically controlled electric and mixer showers are available in more detail in section six of this guide. There are varying levels of thermostatic safety required for different showering applications. For instance, an electric shower with the BEAB Care Mark illustrates that the product complies with additional safety and performance requirements for use in care settings within private housing, hospitals, and care establishments.



3: Remote Stop/Start Button & Ergonomic Controls

Remote start/stop buttons located outside the shower area are important, particularly within social housing and care homes. However, they are not available on all electric shower brands or on mixers. Firstly, they ensure that users are entering the shower at the right temperature for them. This is because the external control enables the optimal temperature to be reached before anyone enters the area.

Secondly, the remote stop/start button enables the carer to start or, in an emergency, stop the shower without getting themselves wet. Easy-to-use shower controls, including devices such as a looped lever handle, offer low resistance and enable those with impaired dexterity to control the shower to their own personal preferences.



4: Grab Bars and Riser Rails

Grab bars are safety devices designed to help a person to maintain balance, stand for longer without tiring, hold some of their weight while moving around, or have something to grasp in case of a slip or fall. While grab rails can be installed as stand-alone items, dual purpose riser bars, that also function as a grab rail, are also available for added support while showering. These products can reduce the need for a separate rail, remove clutter and help decrease the overall cost of a shower installation.

It is, however, important to note that not all risers are strong enough or suitable for this purpose and further checks are needed. With Triton's **Omnicare** range, for example, the riser bar can help the user steady themselves in a shower, or worse, prevent a potentially life-changing fall, as it functions as a grab rail able to withstand a load of up to 150kg without fear of the bar coming off the wall.

When sourcing inclusive products, it's useful to be able to choose from different options to suit your bathroom. Suppliers such as Croydex provide more choice in shape and length of grab bars and riser rails to create bespoke solutions.



5: Intuitive Controls

Complex controls can confuse and make showers difficult to operate, no matter what the person's age is. For multi-generational households, the best showers have the minimum number of variables to avoid confusion. Simple on-off controls with clear flow and temperature operations always offer the best solution.

Figures from the Royal National Institute for the Blind (RNIB) also suggest that one in five people aged 75 and over are living with sight loss, with the condition affecting one in two people aged 90 and over. However, vision impairment is not restricted to the elderly, with many younger people also needing shower or hot water controls that make it easier for them to see and physically adjust hot water temperature.

Look out for showers that carry **BEAB**, **BEAB Care** and the **RNIB Approvals** if this is the case.



6: Shower Seating

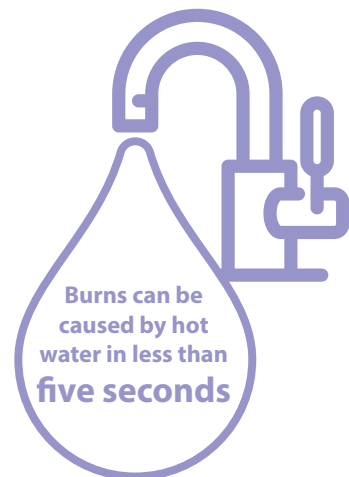
Shower seating is particularly important for some users, enabling people to adopt a more comfortable position while showering and reducing fatigue levels. Not everyone may want or require seating, but our advice during installation is to put additional noggins in the wall to allow a seat to be fitted at a later date, if the resident requires it. The seat should always be fitted at '90 degrees to the shower unit to allow it to be controlled with ease from a seated position. When installing the seat itself, suppliers like Croydex offer products with varying levels of support to cater to different users such as the inclusion of back and arm rests, adjustable legs and cushioned seating.

7: Slower Reaction Times

Statistics demonstrate that a burn or scald can be caused by hot water in less than five seconds, which makes it vitally important that shower area specification considers the potential for users to react slowly. This is a particular issue for the elderly, not only due to skin becoming more fragile as we age, but also if medication is being taken that can slow reflexes or cause drowsiness. Showers which have higher levels of approval such as BEAB Care are ideal choices in this environment as they indicate additional product assessment over and above the requirements of the standard BEAB Approved mark, and take into account the needs of people in care situations, such as the elderly and people with disabilities.

8: Supervision

While showers are safer than baths, constant parental supervision is still required. Keeping a close eye on children as they get a little older is vitally important too, as they are more able to reach controls to adjust the water temperature themselves. Again, specifying thermostatic showers are an ideal choice.



Section 5

Style

“When working with clients, it is vital that we not only discuss their functional needs but also the aesthetics. Well-designed, beautiful bathrooms that support independence and dignity can have a massive impact on a user’s health and wellbeing.”

Kate Sheehan,
Occupational Therapist

Where functionality and style may once have been mutually exclusive, there is no longer a requirement to compromise. Choosing a shower that meets the demands of multi-generational living, while also being visually appealing, is an achievable goal both in the shower space and surrounding area.

We believe there are **three key elements** to balancing style and usability.

1: Aesthetics

The appearance of a shower space should not be under-estimated and offers the opportunity to provide a positive boost to mood and wellbeing.

Taking the time to research interior trends and translate them into practical solutions as part of the specification process will pay dividends on the end-user’s enjoyment of the space. In addition, consider the practical additions that will enhance usability. Frosted glass screens will provide privacy while an emergency stop button located in a discreet location will prevent the space from appearing clinical, while still enabling quick action when required.

A wet room design is a great option to ensure optimum accessibility and easy cleaning, as well as creating an open feel. To allow a smooth transition across the room, ensure there are no steps. Stylish, curved grab rails can also be strategically located to allow autonomy, without the intrusion of lacklustre white rails.

Where seating is required in bathrooms suitable for multi-generational use, factor in an integrated, tiled ledge that is low and deep. This will provide a discreet feature that can be used to place bottles and cleaning accessories, as well as removing the need for a pull-out plastic seat that may look more clinical than cosy.



2: Instinctive Markings for Temperature and Flow Control

Intuitive temperature and flow controls on a shower unit make it easy for those who are visually impaired to identify and select their preferred setting, without bold lettering that can look unsightly. Blue and red are established in our minds to signal cold and warm, which provides a familiar cue to facilitate setting selection. Perfectly warmed water can transform the routine of showering from a practical process, to a pleasurable experience.

3: Tiling

Getting floor and wall tiling right can make a big impact on a bathroom interior, especially in wet room designs. A neutral visual makes sense and will ensure the scheme remains timeless until the next opportunity for refurbishment. Neutral does not however, have to mean sterile. Room size and natural light will have an impact on the type of tiles best suited to the space. Light tiles will create a brighter feel, whereas muted, matt tones create a calming atmosphere.

Combining plain with patterned tiles is another way of making an environment feel homely. Consider layout, too. For example, opting for a traditional metro tile laid in a herringbone, vertical brickbond or basketweave pattern can add interest. White grout may be the traditional option, a grey alternative is perfect for humid conditions and can maintain its colour for longer.

Flooring should be anti-slip to reduce the chance of falls when moisture is on the surface. Safety does not mean sacrificing style either, with the latest innovations providing a functional yet visually pleasing solution. Not only water and slip resistant, but this type of flooring is also easy to install, compatible with underfloor heating and available in ceramic, stone and wood finishes.






Section 6

The Right Credentials

When specifying bathroom and shower equipment that is considered suitable for multi-generational use, there are **five main approvals** to consider.

While not every shower in a manufacturer’s range will carry or need these endorsements, those that have been fully tested and accepted by the relevant regulatory organisations will be clearly labelled. Looking out for these markers when selecting showers will help ensure every appliance is fit for purpose and best suited to the requirements of the audience being catered to.



 TMV2	<p>The TMV Scheme is an independent third-party approval initiative. A TMV2 fitting is designed for use in a domestic dwelling and works with water pressures of between 0.1 bar and 5 bar, making them ideal for multi-generational homes with young children and elderly occupants. TMV2 valves adhere to two British Standards, namely BS EN 1111 and BS EN 1287. The Scheme also works with the Child Accident Prevention Trust to promote the safe use of hot water in domestic buildings, concentrating specifically on social housing.</p>
 TMV3	<p>A TMV3 fitting is specifically designed for healthcare environments, or any population regarded as being at risk, such as the disabled, elderly, or young, but not living in their own home. Crucially, TMV3 applies to environments where TMV2 would be insufficient, such as hospitals and care homes. For this reason, TMV3 adheres to the NHS D08 regulatory standard making it suitable for NHS applications. TMV3 fittings are also designed to work with much higher water pressures, from 0.2 bar to 10 bar.</p>
 Intertek BEAB Approved Mark	<p>The BEAB Approved Mark is a widely recognised electrical safety mark used to support CE Marking and demonstrate conformity with the Low Voltage Directive (LVD). It demonstrates to everyone in the supply chain, including consumers, retailers, and distributors, that an independent third party (Intertek) has verified a product’s safety.</p>
 Intertek BEAB CARE Mark	<p>The BEAB Care Mark is proof that a product complies with the additional safety and performance criteria for use in private housing, hospitals, and other care establishments. Specifically, the Care Mark demonstrates that water heater products meet the additional requirements to existing safety standards that take into account the needs of people in care situations, such as the elderly and people with disabilities who may have limited manoeuvrability or ability to react quickly to changing situations.</p> <p>A BEAB Care Mark approved product has been designed to ensure stable outlet water temperatures under normal supply variations. In addition, the product will protect from scalding under rapid and abnormal supply variations, without adjustment by the user. The BEAB Care Mark is only applied to products that have existing BEAB Approval and conform with the additional safety and performance test schedules. The product must be installed to comply with BEAB Care standards (e.g. for use in healthcare environments the factory set maximum temperature of 41°C must not be altered). Following installation, the shower should be tested again within 6 to 8 weeks or after any major repair. If there is no significant change in the outlet water temperature greater than ±1° C between the two inspections, the in-service test frequency can be reduced - but it must not exceed 12 months between any two inspections. This test schedule is designed to measure performance specifically related to its application in the care sector, and ensures the performance of the shower is consistently monitored. The in-service tests must be recorded on the BEAB Care In-Service Test Record.</p>
 Tried and Tested RNIB Approval	<p>As we age our eyesight deteriorates. In fact, the Royal National Institute of Blind People (RNIB) figures suggest that 4.1 million people will be affected by sight loss by 2050. It is therefore essential that any shower installation, particularly the shower controller and riser bar, meets the needs of those with impaired sight.</p> <p>Showers that come with RNIB approval and have controllers designed for use by the elderly. For example, Triton’s Omnicare electric shower range has audible feedback, tactile buttons, and a grey contrast temperature dial to give added support and assurance to those with visual and auditory impairments</p>



Omnicare Ultra+

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Triton's **Omnicare Ultra+** offers all-encompassing, inclusive showering solutions suitable for any bathroom environment. Combining the best principles of design, safety and simplicity, this shower is not only stylish but can be used by all, regardless of the level of assistance required.

Omnicare Ultra+ at a glance:

- Thermostatic temperature reassurance - regulates water temperature within +/-1°C
- Audible feedback and tactile temperature dial - soft grey tones aids visually impaired users
- Extended shower rail kit – for more flexibility whilst showering
- Grab rail option
- Easy operation – a soft press start/stop power button and looped lever handle offer low resistance control of the shower
- Remote on / off for control outside of enclosure
- Safe-set™ - allows the maximum temperature to be set whilst allowing full rotation of temperature dial
- Ease of replacement – includes multiple cable & water entry points, generous footprint & a fixing hole kit
- Connects to both analogue and digital waste pumps
- Power on illumination along with audible feedback allows ease of use for all users
- Set the duration of the shower ranging from 5 minutes to 30 minutes
- BEAB/BEAB Care and RNIB approved



Elina at a glance:

Triton's Elina is an inclusively designed, TMV3 approved thermostatic bar mixer shower with easy to grip and control, tamper proof looped lever controls and clear flow and temperature markings for ease of use for all users with varying needs and abilities. Included with this Elina bar mixer is a full shower kit including a stylish and robust dual purpose grab riser rail capable of withstanding a support load of up to 150kg.

- Thermostatic temperature control and TMV3 approval for added peace of mind
- Includes dual purpose grab riser rail able to withstand up to 150kg support load
- Automatic shutdown safety feature should either the hot or cold water supplies fail
- Suitable for all pressure systems
- Separate flow and temperature controls with clear markings for ease of use
- Simple to install and maintain - Includes push fit fixings for concealed pipework



RNIB
Tried and Tested

BEAB
Approved
Intertek

BEAB
CARE
Intertek

Section 7

Conclusion

According to the Office for National Statistics:

“Through the latter half of the 20th Century, the UK population has been steadily getting older and this trend is projected to continue in the future. In 2016, there were 11.8 million UK residents aged 65 years and over, representing 18% of the total population – 25 years before, there were 9.1 million, accounting for 15.8% of the population.”

A rapidly ageing population means more new homes are required. These properties must also be built to a high standard to meet the changing needs of occupants at every stage of their lives. In turn, such demands are already placing a huge strain on ever-tightening budgets, especially in the social housing and care sectors.

Add to this the continuing increase in multi-generational living, alongside challenges involved with upgrading existing housing stock, and it is easy to see just how hard it is becoming to make the correct specification decisions in the current economic climate.

As a result of all these factors, there is a mounting need for fit for purpose fixtures and fittings to be installed in homes that not only meet the demands of the young, the elderly and the vulnerable, but that protect them too. Nowhere is this challenge greater than in bathroom specification.

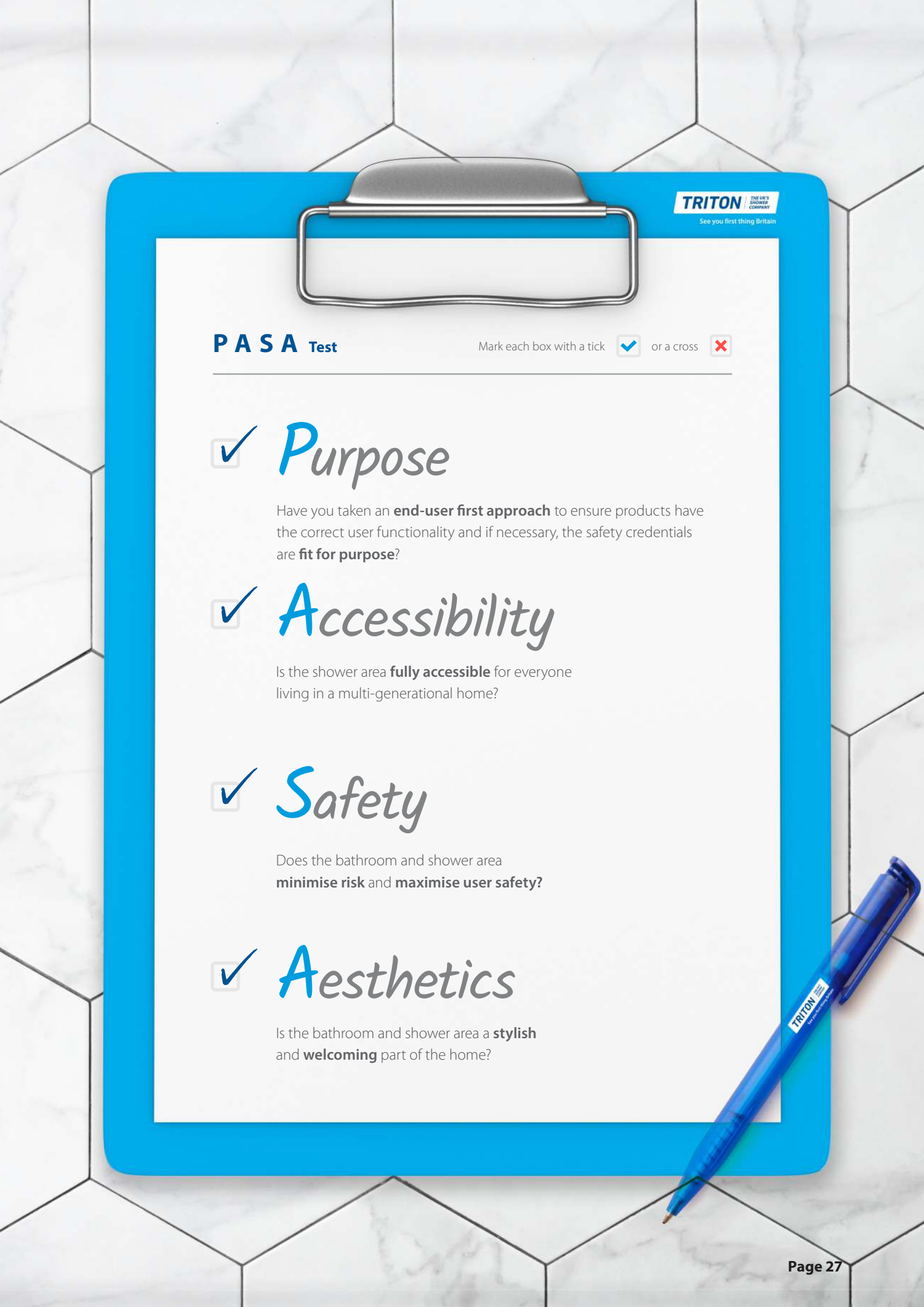
“Looking ahead 25 years to 2041, the 1960s baby boomers (aged in their 50s now) will have moved into older age and by 2066 there will be a further 8.6 million projected UK residents aged 65 years and over, taking the total number in this group to 20.4 million and making up 26% of the total population. This increase in numbers is broadly equivalent to the size of the population of London today.”

Safety must be the primary consideration. This makes the case for taking an ‘end-user first’ approach to only ever specifying fully accredited thermostatically controlled showers, supported by comprehensive after-sales and service support, stronger than ever.

Too often though, one area overtakes all other considerations, when what is needed is a balanced approach that considers all of the different criteria required to develop safe, secure, welcoming and stylish bathrooms.

This is where we believe the **PASA Test** comes in.

It is here to help social housing trusts, local authority specifiers and care home owners make the right decisions in order to fit out or refurbish bathrooms to the very highest standards with products that are **fit for purpose** - in turn protecting tenants for many years to come while catering for the needs of all occupants, regardless of their age.



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SHOWER
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PASA Test

Mark each box with a tick ☒ or a cross ☐

☒ Purpose

Have you taken an **end-user first approach** to ensure products have the correct user functionality and if necessary, the safety credentials are **fit for purpose**?

☒ Accessibility

Is the shower area **fully accessible** for everyone living in a multi-generational home?

☒ Safety

Does the bathroom and shower area **minimise risk** and **maximise user safety**?

☒ Aesthetics

Is the bathroom and shower area a **stylish** and **welcoming** part of the home?

Get in Touch

For more information about Triton's range of thermostatically controlled electric, mixer and specialist care showers, or to speak to a member of our sales team,

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Made in Britain

Feefo Gold Trusted Service Award

