

SMOOTH OPERATION: SOLUTIONS FOR COMFORTABLE LIVING



INTRODUCTION

The link between design and quality of life has long been established, though the extent to which the former impacts the latter is still being investigated. Recently, tech giant HTC surveyed more than 2100 participants from seven countries including Australia, China, the UK, and the USA. According to 29% of respondents, well-designed objects that were both beautiful and functional triggered positive emotions such as calmness and contentment.¹

The survey is the latest in a string of research that highlights the importance of design as a driver of happiness and comfort within a space. As such, it is essential that designers work toward creating comfortable living environments that combine style and functionality, in turn improving the quality of life of end users. Comfort is a crucial factor in quality of life for all end users, but is of particular concern for ageing populations. Currently, 3.7 million Australians are over 65 years old²; the Australian Bureau of Statistics predicts that by 2064 this will more than double to 9.6 million. This figure amounts to 23% of total population projections and reiterates that ease of operation in our home environments is now a more central concern than ever.

In this whitepaper, we explore three key characteristics that contribute to comfortable living environments – ergonomics, functionality, and aesthetics – and present ways that each of these can be achieved.

ERGONOMICS FOR SMOOTH, EASY OPERATION

Increasingly, ageing Australians are choosing to remain at home or move in with their children in a bid to remain independent and within a familiar, comfortable environment. In June 2017, the ABC reported that 80% of Australians will eventually require aged care; of this, 75% will choose to receive such care at home³. Against this backdrop, it is important that today's homes take into consideration the changing abilities and ergonomic requirements of their occupants.

The Australian architecture and design industry is responding to this challenge accordingly, with AS 4299-1995 – Adaptable Housing reflecting an attitudinal change to designing for accessibility and aged care. The Standard recommends designing housing that is equally suitable for the able-bodied, disabled, and aged, and encourages designers to anticipate occupants of varying abilities over the life of a home. There is evidence to suggest that such a proactive approach is financially sensible: according to Livable Housing Australia, pre-emptively incorporating accessible design features into a home is 22 times more cost efficient than retrofitting when the need arises suddenly (e.g. in the case of an accident).⁴

One key ability that declines with age is grip strength^{5,6}, which is required to operate handles that need to be gripped or turned. Conventional cupboard doors found in the kitchen, bedroom, bathroom, and living areas often employ such handles and thus may become difficult to operate with age. Sliding doors alleviate this difficulty by way of a simple push/pull operating motion that does not require much force. Requiring very little strength to operate and little to no grip force, sliding doors are easy to use regardless of where they are installed in the house and can be fitted with a myriad of handle options.⁷

To facilitate accessibility for wheelchair-bound users or those who cannot reach for significant distances, sliding doors can be fitted with a long, easy-to-reach bar handle. Bar handles do not need to be grasped and pulled with force, and instead simply provide a point for the user to easily push or pull to move the door. Similarly, handleless folding door systems and drawers fitted with magnetic push-to-open mechanisms can facilitate operation by users with accessibility issues. Smooth and easy to operate with little force, such fittings also eliminate the risk of injury posed by accidentally walking into protruding handles.





FUNCTIONAL

As Australia's ageing population grows, homes around the nation are shrinking. In 2017, average new home size decreased by 2.7% over twelve months, placing homes at a 20-year low of 189.8m².⁸ As space efficient and functional as they are ergonomic, sliding doors are ideal for today's compact living environments. They do not require a clearance area to accommodate door swing, nor do they consume valuable floor space when opened or in operation. This feature also means that even when in the 'open' position, doors do not pose a safety risk to elderly users or children in terms of being walked or bumped into.

For areas where space is less constrained, folding doors pose another contemporary, highly functional alternative to hinged doors. Ideal for wardrobes or other environments where a panoramic view of contents is desired, folding doors provide complete, quick, and easy access. Like sliding doors, they are quiet to operate and do not bang or slam. Fully integrated and concealed components lend folding doors a clean, streamlined aesthetic and protect key mechanisms from damage and wear over time, ensuring a longer product lifespan.



AESTHETICALLY PLEASING

As always, aesthetics are a key driver of residential design. Many of today's homes favour a clean, contemporary look with minimal fittings and adornments. Interior design is moving toward an increasingly minimal aesthetic that values subtlety, elegance, and the removal of clutter. Sliding doors – alongside handle-free drawer or cupboard door options – facilitate all of these characteristics, employing large surface fronts that act as a blank canvas for design creativity.

Offering designers unmatched design flexibility, sliding and folding doors can be specified in a virtually unlimited range of materials and finishes. From matte finish laminate to smooth, subtly reflective surfaces and even mirrored doors, sliding doors can be customised to suit any space. The sheer versatility of sliding door products on the market means that there is something to suit every budget and aesthetic. Newer models of sliding door systems can also be specified so that the panels sit flush with another when they are closed and no gaps between panels are visible when they are in operation.

In a similar manner, the pared back design of many contemporary drawers and cupboard doors can be customised to meet the demands of a modern residential brief. Thanks to concealed components, smooth handleless fronts, and availability in a breadth of colours, textures, and finishes, cupboards and drawers can harmonise effortlessly with other interior elements, creating a unified, pleasing aesthetic.

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HETTICH

Given the importance of design in the home environment, specifying products that can be relied upon to deliver performance and functionality is crucial. Since 1888 in the Black Forest Germany, Hettich has supplied high quality sliding doors and cabinet hardware to over 100 countries. The company is committed to design excellence and achieving comfort through design, whether this is in the residential or commercial space. Around the world, Hettich's forward-thinking, practical design has earned numerous international accolades including reddot design awards, iF Design Awards, German Design Awards, and Interzum Awards.

The WingLine L folding door system avails of a revolutionary push/pull to move opening mechanism to give users access to everything inside a cabinet with a single movement. Compatible with wooden doors up to 2400mm for maximum storage space and a natural, contemporary aesthetic, Wingline L is designed with user comfort and ease of operation in mind. A tool-less installation process is bolstered by optimised, smooth running performance, soft closure and opening, and near-silent operation, while the lack of a bottom track allows for safer and easier access, particularly by aged or disabled users.

For kitchens and other areas featuring drawer storage, ArciTech Internal Drawers provide the ultimate in ease and accessibility. Easy operation by users of all strengths and ability levels is enabled by a smooth, balanced running action and simple handleless operation that will not slam shut. The highly stable runners are available in three loading categories of

40kg, 60kg, and 80kg, and the drawers are supplied in numerous profile heights to accommodate contents of various sizes and weights. ArciTech drawers are compatible with the ArciTech P20 Silent System, a push to open system that allows easy, virtually silent operation. The resulting drawers are quick and convenient to open and close simply by pressing the drawer front, which can be easily manoeuvred even when the user's hands are full. The system can accommodate different drawer sizes and weights, and fits neatly under the drawer base, making it ideal for installation in environments where there is no space behind the drawer.

SlideLine M is a 1-track or 2-track close flitting sliding door system compatible with a range of storage options. From living room wall units and shelf systems to bathroom furniture and kitchen storage, SlideLine M allows designers to combine open and closed sections in furniture with ease. A single profile can accommodate two doors fitted one above the other, and an optional soft-close Silent System can be fully integrated and concealed from view.

Drawing from expertise and knowledge gained through years of experience, Hettich is renowned for their stylish cabinetry solutions that combine fast, easy installation with adjustment functions, soft stopping systems, and discreet components. With Hettich, designers and homeowners can achieve an elevated quality of life with the peace of mind that they are installing long lasting, ergonomic, safe, and high quality products in their home.

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