SOLVING THE OPEN-PLAN OFFICE PROBLEM

A report from Krownlab on how to transform open-plan office into living offices — workspaces that are more efficient for employees and more effective for employers.

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Open-plan offices are now the norm, but are there drawbacks?

Escaping The Cubicle Jungle

In the 1960's, a designer working for Herman Miller named Robert Propst designed the cubicle as an antidote to what he called the "office wasteland." He hoped the design would increase worker autonomy and foster meaningful communication. His design was a hit and soon spread to workplaces across the country.

The eventual backlash, however, was large. Cubicles became the butt of office drudgery jokes. They were cramped, seemed to hurt communication more than anything, and took on the stereotype of hampering creativity. In short, the cubicle became a symbol for the office drone just punching the clock.[1]

In the 1990s, a sea change came to office design. Businesses across the country shifted to open-plan. The design allowed for better light filtration, made spaces feel more open and modern, and increased the chances that people across departments bumped into each other and had casual conversation—the very thing, according to Malcolm Gladwell, to spur new ideas and better work.[2]

It also cut costs. Lighting expenses lowered and less desks went unused amid the rising trend of employees working from home. GlaxoSmithKline, for example, saves $10 million every year thanks to its open-plan, unassigned seating arrangement.[3] The open plan was also the antithesis of the hated Dilbert style cubicle farm.

The trend continues. Today, according to the International Facility Management Association, 70% of offices in the United States use open-plan designs.[4]

Open-plan Offices Less Than A Magic Bullet?

In the 1990s, the advertising firm TBWA Chiat/Day joined the cubicle backlash. For their new Los Angeles headquarters they made a space without walls or assigned workstations.

People hated it.

Turf wars erupted over prime areas of the building and senior workers had underlings arrive early to stake out territory. One worker even took to carting her things around in a red wagon.[5] If open-offices solved for so much, why weren't employees thriving?

1.) http://www.wsj.com/articles/SB10001424052702304885404579549800874319342 . 2.) http://gladwell.com/designs-for-working/ 3.) http://www.theatlantic.com/business/archive/2015/12/citigroup-manhattan-office/422037/ 4.) http://www.forbes.com/sites/neilhowe/2015/03/31/open-offices-back-in-vogue-thanks-to-millennials/ 5.) http://www.wired.com/1999/02/chiat-3/

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The myth of the open-plan cure-all

When the open plan gets too open

TBWA Chiat/Day wasn't alone in finding faults with the open-plan design. A recent study found that workers in open-plan offices are up to 30% less productive.[1] In fact, studies have shown that worker attention spans, creative thinking, and satisfaction all take hits when working in open-plan spaces.[2]

Many things factor into this effect. Without walls, there's a lack of noise privacy so workers might be hesitant to share ideas or thoughts. And, while a low level of chatter can be helpful—one study found up to 70 decibels of background noise boosted creativity[3]—too much noise pollution in an open space can hurt worker cognition.[4]

There are clear benefits to the open-plan design, but how can architects and designers skim these without losing what cubicles brought to the table?

Pros	Cons
Light Filtration	Reduced Productivity
Ease of Communication	Lack of Privacy
Modern Aesthetics	Noise Pollution
	Inflexible Space

> "More and more, we're seeing clients want multiple, flex-use rooms included in their design. Rooms for anywhere from one to ten people."
>
> - Katya Garanovskaya, Designer at Osmose Design

Hacking the open-plan

Before the 1960s, the office meant banks of desks without partitions—the "office wasteland" Robert Propst lamented. However, cubicles didn't seem to solve the problem and swinging back to the original wide open-plan doesn't work either, so what's to be done?

The newest trend seeks to co-opt the pluses of both the open-plan and the cubicle, it uses flexible spaces that allow employees to find the environment that fits their current task rather than shoehorning everything they do into one type of workplace. These flexible spaces serve as oases for employees to eat lunch, nap, nurse, and most importantly, hold small meetings and work on in-depth projects without distraction. This space adaptability is the crux of the living office.

"More and more, we're seeing clients want multiple, flex-use rooms included in their design," said Katya Garanovskaya, a Designer at Osmose Design. "Rooms for anywhere from one to ten people."

1.) https://www.washingtonpost.com/posteverything/wp/2014/12/30/google-got-it-wrong-the-open-office-trend-is-destroying-the-workplace/ 2.) http://www.newyorker.com/business/currency/the-open-office-trap 3.) http://www.inc.com/magazine/201306/reshma-memon-yaqub/can-coffee-shop-noise-make-you-more-creative.html 4.) http://www.newyorker.com/business/currency/the-open-office-trap

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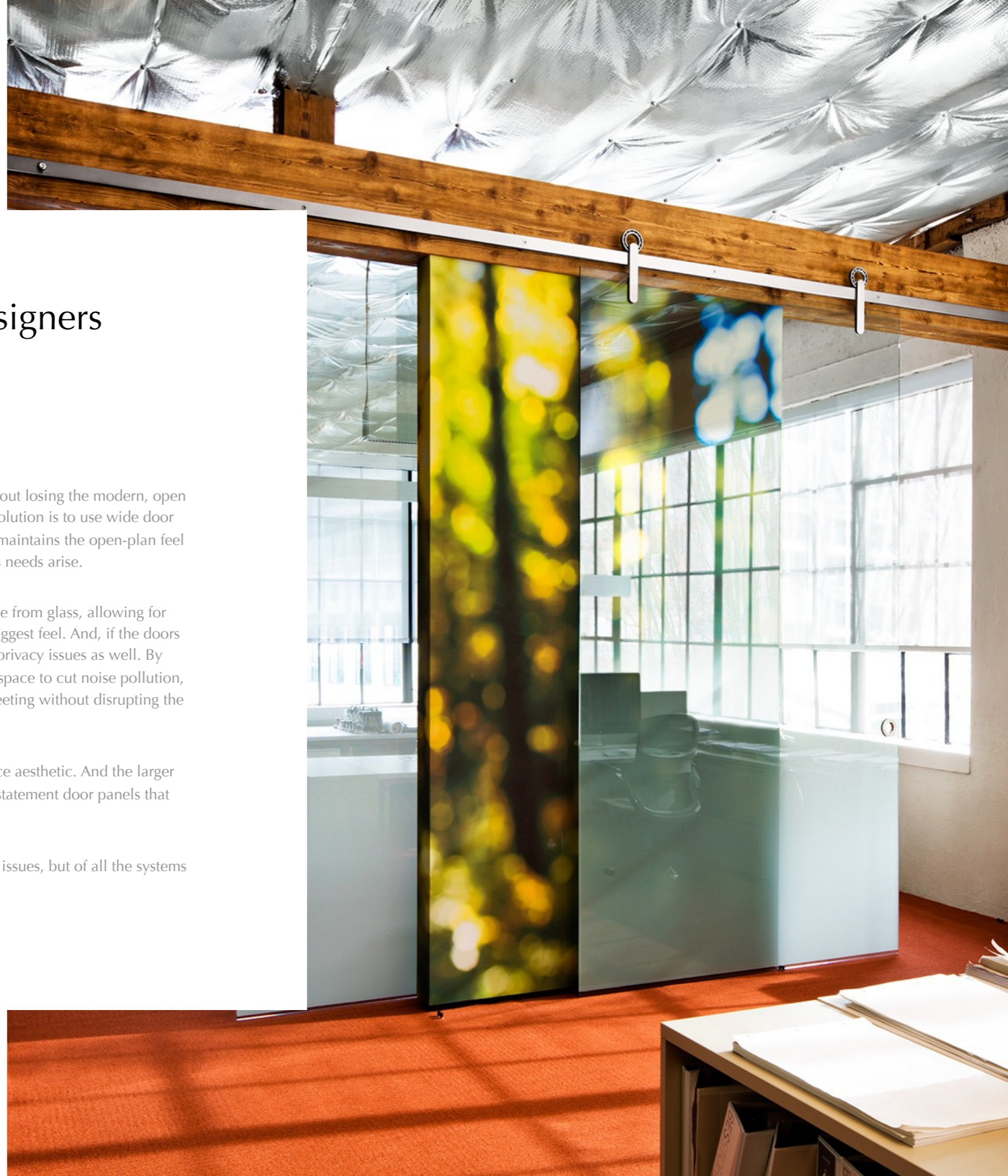# Can architects and designers have it both ways?

When Doors Are Windows Too

Designing an office to have multiple flex spaces without losing the modern, open feel is a tricky bit of business. A simple and elegant solution is to use wide door openings and huge door panels. This way, the office maintains the open-plan feel without losing the flexibility of breaking off spaces as needs arise.

These large doors can be left open as default, or made from glass, allowing for the best light ventilation and lending the space the biggest feel. And, if the doors used are easy to open and close, then they solve for privacy issues as well. By simply closing a door, employees can easily adapt a space to cut noise pollution, preserve noise privacy, or have a loud or sensitive meeting without disrupting the rest of the office.

These big doors are also in line with the modern office aesthetic. And the larger the opening, the more freedom in choosing unique, statement door panels that reflect a business' identity and ethos.

Big doors are an elegant solution to open-plan office issues, but of all the systems out there, which is the best?

Not all big doors are created equal

Choosing The Best System For The Living Office

When it comes to installing oversized doors, there are four main systems to choose from. Traditional swing doors, pivot doors, pocket doors, and finally sliding doors. Each can be made to work within the living office solution but come with attendant benefits and drawbacks. Things to consider are:

Install+Service - Hassle-free installation and service is crucial for oversized doors. Even the best system and hardware will be undermined by a convoluted installation process that results in errors. And, if difficult to service, doors may be left unusable until a specialist can be called in.

Ease Of Use - Ease of use makes the heart of the living office solution beat. Your client must be able to quickly and effortlessly adapt the space to their current need.

Space Efficiency - is also important. With bigger doors, the potential for increased dead space comes into play, which can undermine the flexibility of the rooms.

Design Freedom - Not only are oversized doors a functional coup for a living office, they also provide an opportunity to stamp a personality on the space with unique and creative door panels. These panels can sometimes weigh in upwards of 400 lb, so having a solution that can accommodate a wide range of panels pays off.

In the following section we'll explore which of the systems can best meet the most of these criteria.

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Swing doors are here for a reason, but is it time for something new?
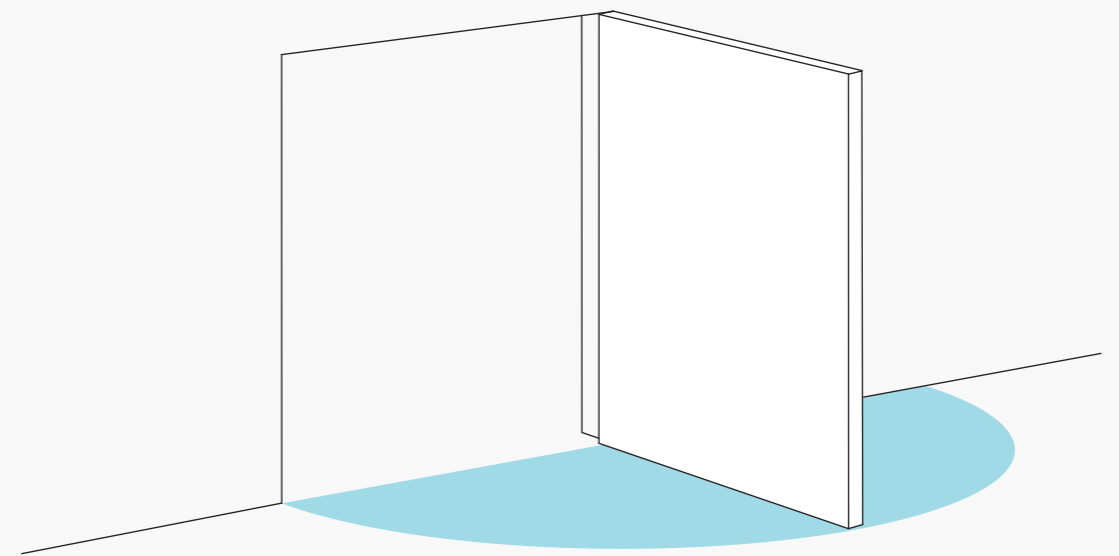
Swing Doors

Traditional swing doors have been around for a long time, and for good reason. They are easy to install (if the door panel is of modest size) and intuitive to use. However, the trouble begins the swing door system is used with oversized door panels.

Install+Service - A pivot door is very challenging to install. The opening has to perfectly match the panel, which in turn must be perfectly true so that it can travel over a perfectly level floor. If any of those perfects are less than perfect, door travel will be sloppy, have hitches, show a large gap between the top of the panel and the wall, or simply not work.
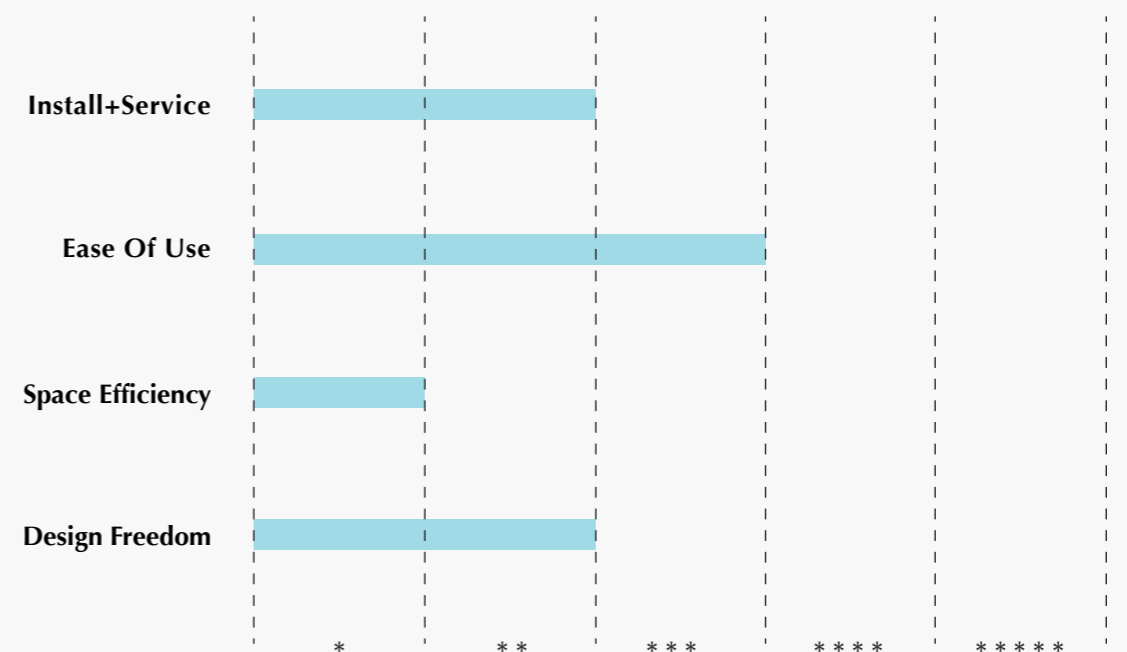
Ease Of Use - Oversized doors on the traditional swing system, while intuitive to operate, are very heavy and so more force is needed. This leads to a higher chance of workplace accidents like crimped fingers as the heavy panel swings back in place under its own momentum.

Space Efficiency - The biggest frustration with a traditional door system is the large amount of dead space it takes up due to its sweeping door travel. And, the bigger the door, the more wasted space. This adds to office inefficiency, increases lighting and heating costs, and weakens a vital element of the flex-space solution—an adaptable floor plan.

Design Freedom - And because a large door on the traditional system will have to be structurally sound, there is less design freedom.

6ft wide door = ~56 sq ft of "dead space"
(all on one side of the door opening)

Install+Service

Ease Of Use

Space Efficiency

Design Freedom

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Pivot doors are striking, but do they strike a balance?
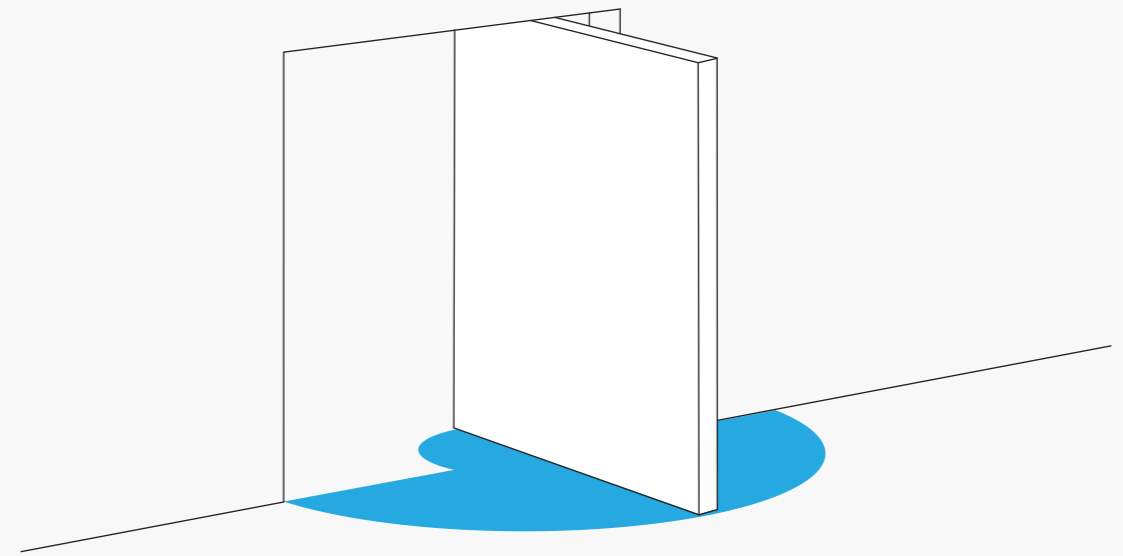
Pivot Doors

Pivot doors are statement pieces. They are beautiful, stand out, and are certainly eye-candy. With the right door-panel, a pivot system can keep some of the open-plan space benefits while in the open position. However, there are some key drawbacks that may make a pivot door system undesirable for your client.

Install+Service - A pivot door is very challenging to install. The opening has to perfectly match the panel, which in turn must be perfectly true so that it can travel over a perfectly level floor. If any of those perfects are less than perfect, door travel will be sloppy, have hitches, show a large gap between the top of the panel and the wall, or simply not work.
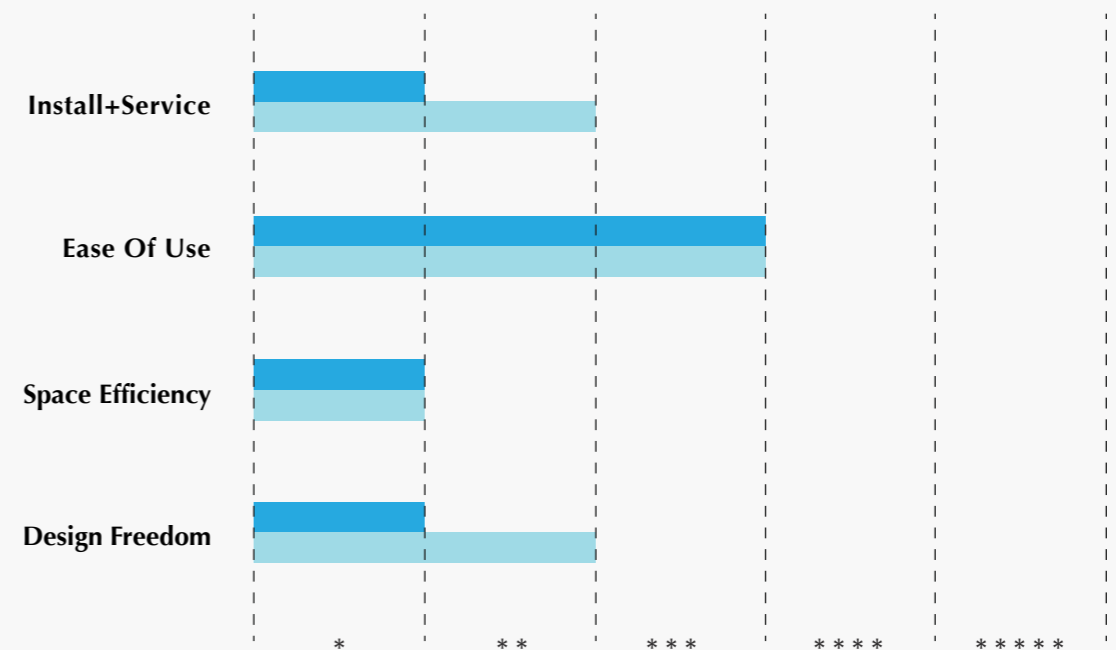
Ease Of Use - Pivot doors, while intuitive to operate, do present some of the same workplace dangers as traditional swing doors.

Space Efficiency - Just like a traditional swing door, even when a pivot system is installed right, it kills a lot of otherwise usable space because of its wide sweep of door travel.

Design Freedom - Because the door itself needs to be structurally sound in a pivot system, there are limits to which sorts of door panels you can use. This cuts down on design freedom. It is very challenging, for example, to use a pivot door in a glass wall, a key element of modern office design.

6ft wide door = ~36 sq ft of "dead space" (mostly on one side of the door opening)

Install+Service

Ease Of Use

Space Efficiency

Design Freedom

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Pocket doors seem unobtrusive, but do they also hide other considerations?
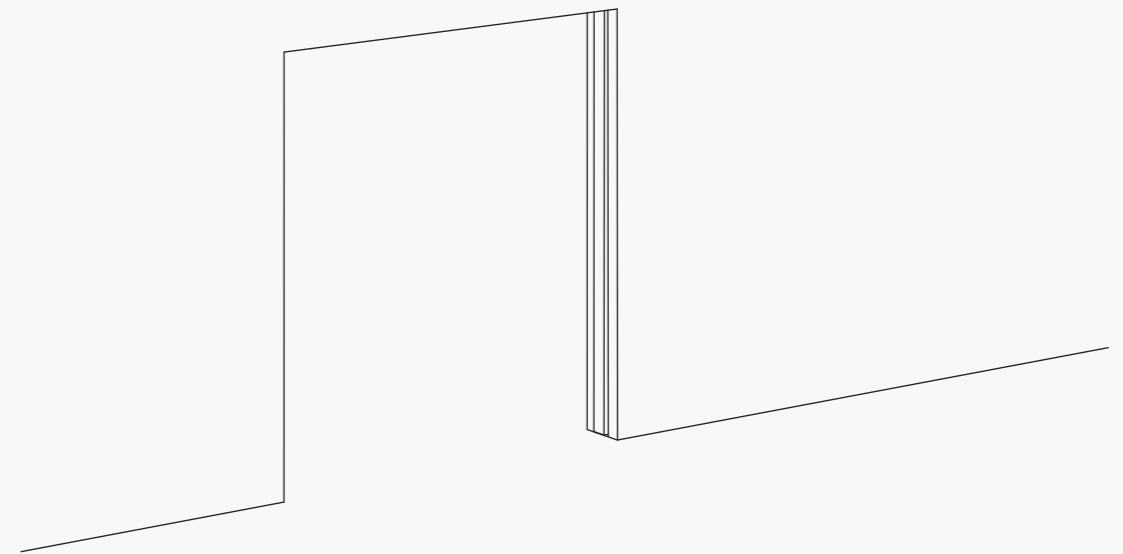
Pocket Doors

Pocket doors pull off a nice effect of "vanishing" into a wall and there's virtually no dead space considerations associated with door travel. However, as we'll see below, the drawbacks may be prohibitive.

Install+Service - Pocket doors are extremely difficult to service because the door travel is hidden. If your client needs to fix anything down the road, they'll go from a toolbox to the phonebook to call the nearest general contractor, increasing cost and time stress.
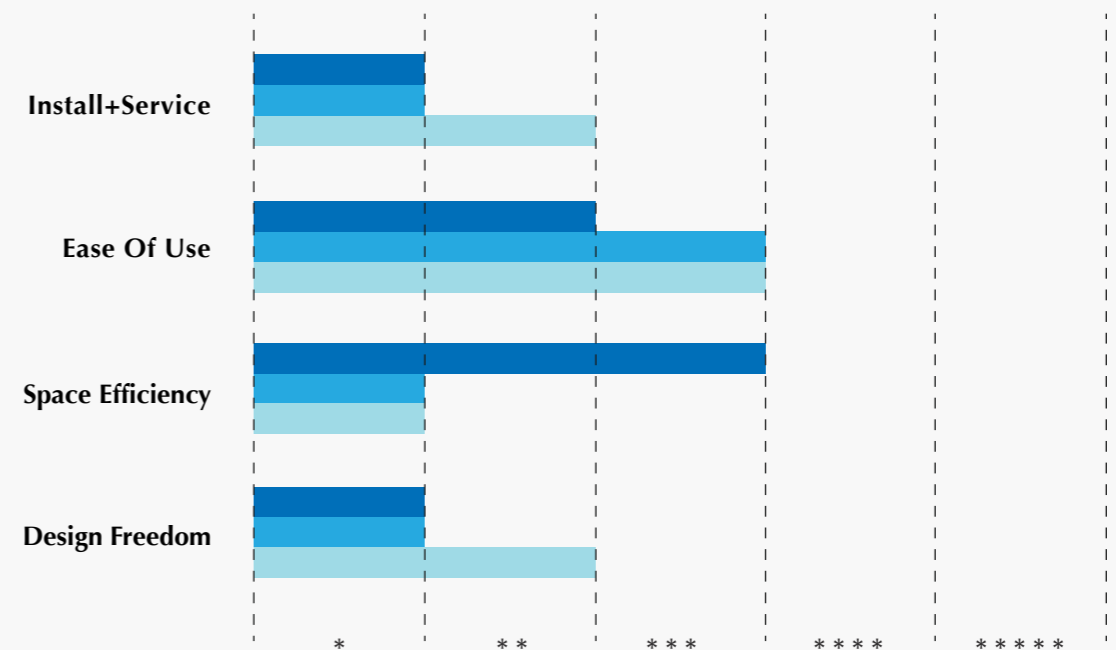
Ease Of Use - With the pocket door system, you can't use any of the more ergonomic door pulls because they need to be low profile to slide into the wall. However, these flush door pulls can become a frustration for the client as they make the system difficult to operate due to their reduced gripping surface.This is a key failing for a space solution that relies on easily modifiable spaces.

Space Efficiency - Pocket doors excel at keeping dead space at a minimum, but need to be specified in very early in the design process to ensure thick enough walls to handle the system.

Design Freedom - Pocket doors reduce design freedom considerably as door panels have to be narrow enough to fit inside the wall. Also, frameless glass panels, a signature of modern office design, can be a bear to install.

no "dead space"

Install+Service

Ease Of Use

Space Efficiency

Design Freedom

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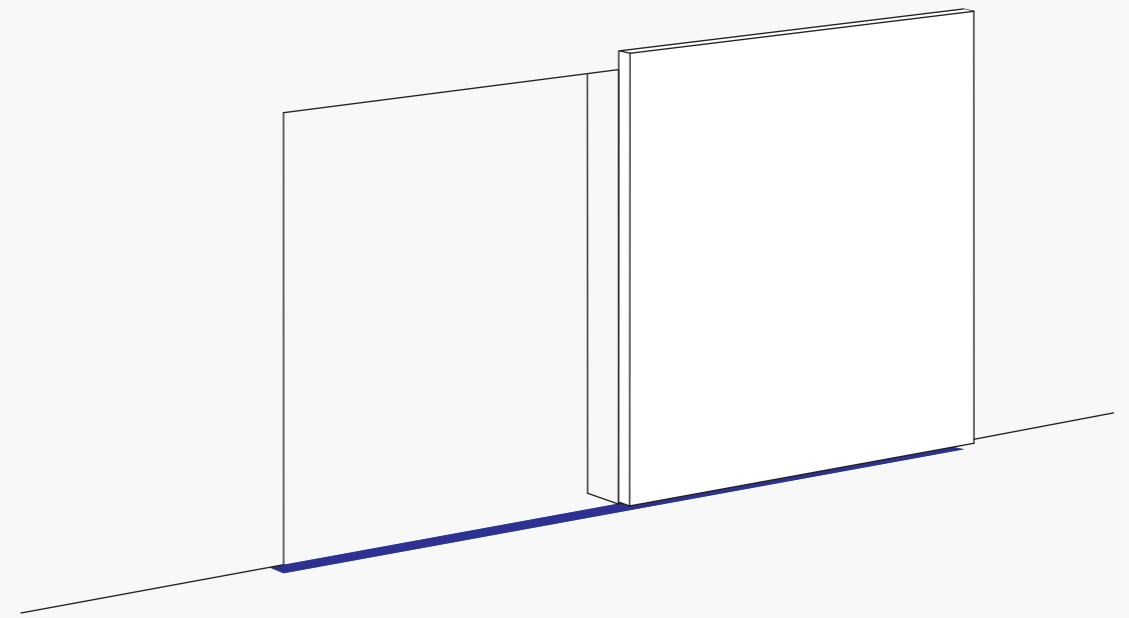KROWNLAB®

The merits of sliding doors

Sliding Doors

Sliding door systems shine when used for large door openings and oversized door panels. From top to bottom, sliding doors offer an attractive best-of-all-worlds feature set that is hard to beat.

Install+Service - Sliding door systems have the huge advantage in that all of the hardware out in the open. This makes them very easy to install and service.
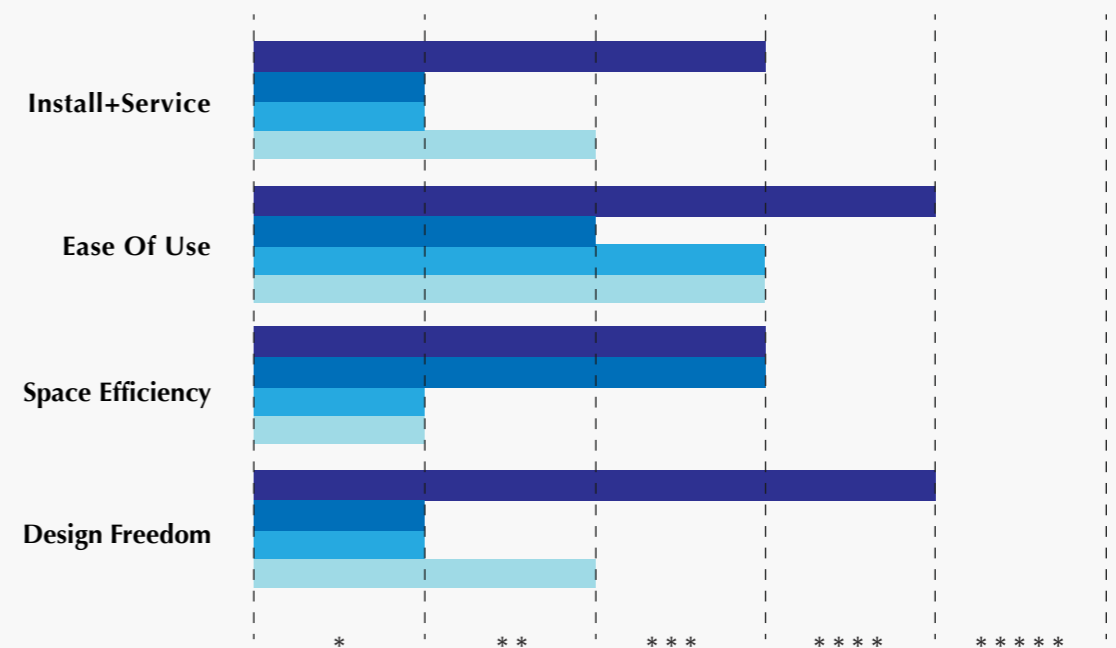
Ease Of Use - Sliding door systems are not only intuitive and easy to use, they offer a unique range of options to increase the flexibility of the living office. Within the door travel are many positions to use as default—open, partially open, closed, and everything in between.
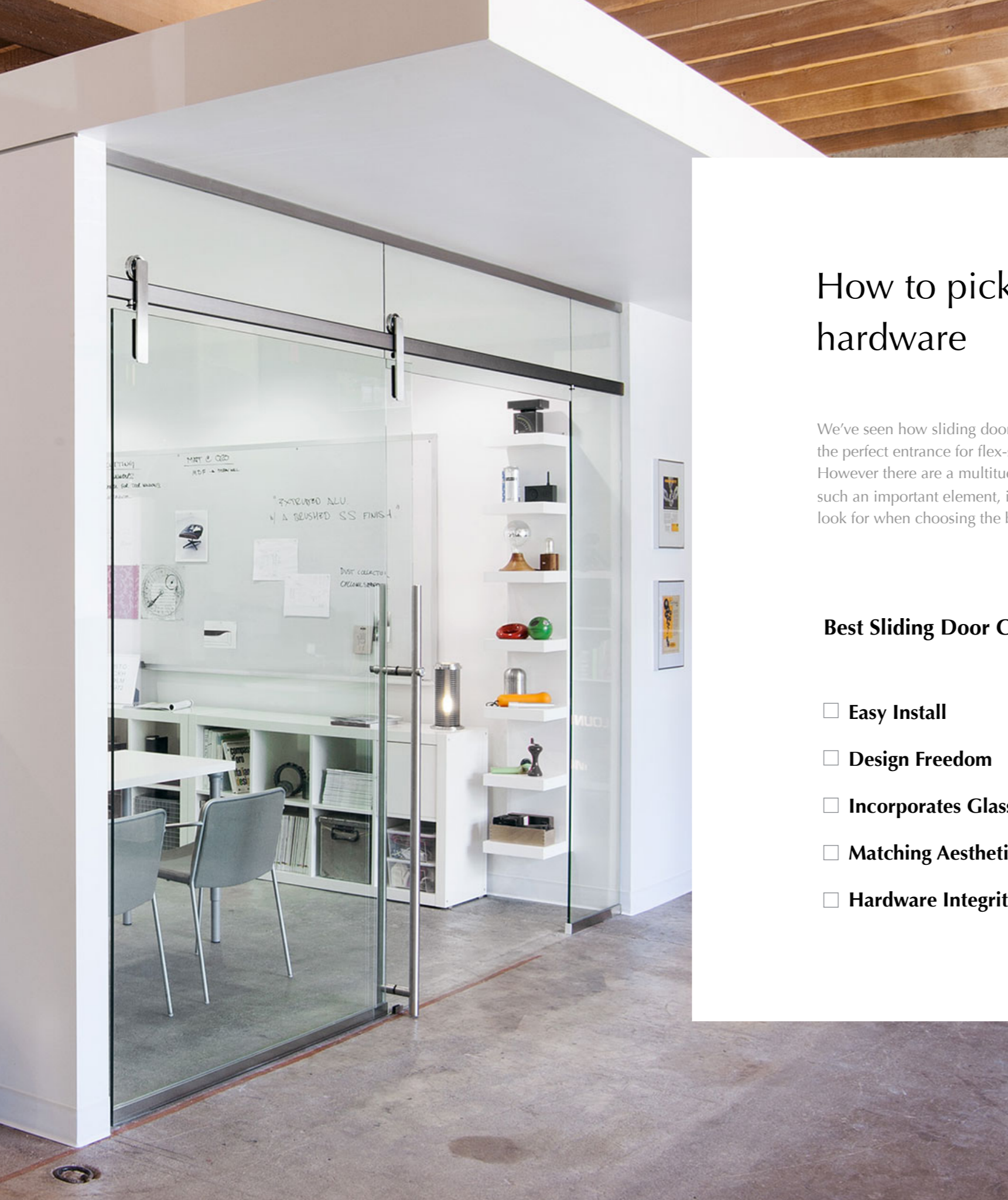
Space Efficiency - Sliding door hardware also effectively cuts out dead space, a major fault of traditional and pivot door systems. Door panels travel very close to the wall, freeing up space for other uses, even while the door is open.

Design Freedom - Nothing beats sliding door systems for design freedom. You can use door panels of almost any size and material with a wide variety of weight parameters. Door panels don't have to be structurally sound, so you can make them out of almost anything. Not only do sliding door systems have a modern aesthetic, they are compatible with fully frameless glass panels and glass walls, go-to modern office elements. And because sliding door systems work so well with glass, you can incorporate more of it into your design. This gives you the option of using local glass and easily upping your LEED ranking, a key value add to clients.

6ft wide door = ~1.5 sq ft of "dead space"
(all on one side of the door opening)

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How to pick the best sliding door hardware

We've seen how sliding door systems are the best fit for the living office. They are the perfect entrance for flex-space rooms and help solve open-plan office woes. However there are a multitude of options on the market to choose from, and with such an important element, it's crucial to get it right. Here is a checklist for what to look for when choosing the best sliding door hardware for your project.

Best Sliding Door Checklist

☐ **Easy Install**

☐ **Design Freedom**

☐ **Incorporates Glass**

☐ **Matching Aesthetics**

☐ **Hardware Integrity**

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1. Easy Install

The gap between the plans and the actual finished workplace is in the installation. Even the best-designed hardware, if installed poorly, will make for a bad result. It is important to seek out sliding door hardware that is easy to install well so the sliding doors work perfectly. Pick hardware that has leeway integrated into the system for changing site conditions, comes with on-site adjustability, and is backed up with comprehensive customer support.

2. Design Freedom

Unique, massive door panels help define an office, and a company. Choose a sliding door system that can handle ambitious design vision. Make sure the hardware can bear a lot of weight, while still being ADA code compliant in terms of door pull force. This will open up the options when choosing the best door panel for the office space, regardless of size or material.

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3. Incorporates Glass

Glass is a crucial element to all modern offices. Make sure the sliding door hardware has been designed with this in mind, and can be installed onto glass walls. The ability to adjust door travel on site is also key. And pick a system that can set the door panel close to the wall to control noise pollution.

4. Hardware Integrity

Any sliding door system in an office environment—especially one designed with the living office in mind—will see extensive use. It is crucial that the selected hardware system is designed and manufactured with high traffic in mind. Ensure that the manufacturer offers a solid commercial-grade warranty, and truly stands behind the quality of their product.

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5. Matching Aesthetics

Keep in mind that a sliding door and it's hardware will attract a lot of attention. Pick a system that conveys the modern, living office feel. Many times, sliding door hardware hews to its rustic heritage too closely for today's office. This can create a design dissonance that is distracting. Find a system that updates the classic barn door hardware for the modern office. Finishes, in this way, are also important. Find a manufacturer that works with their materials to achieve a finish, rather than using paint or a powder coat, which can chip or flake with use, and detract from both the aesthetic, and the performance of the installed product. Also, fasteners are an important element to consider in any system. In many designs, they have to be visible for purely functional reasons, which can create an undesired cluttered appearance. Consider a sliding door hardware system that features concealed fasteners for a cleaner, more modern aesthetic.

"We didn't want the typical brushed stainless steel that most companies offer. We wanted the hardware to speak to the environment it was in."

- Nicole Durcholz, an Interior Designer at OFS

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Conclusion

Sliding Door Hardware Is The Ideal Way To Implement The Living Office Solution

We've addressed the problems with the open plan office and spent some time exploring how the living office, or flex-space, plan solves them. Architects and designers should consider using large door openings with oversized door panels to create a flexible space. And, after exploring the four main door systems, sliding door hardware quickly stood out for its hassle-free installation and service, ease of use, space efficiency, and design freedom.

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