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Why Glide-On™  
Cassette®  
balconies





# A1

## Where the innovation came from

Since 1992, Sapphire have been involved in balustrading and balconies. The culture at Sapphire is such that we are always looking for ways to improve both our own products and the industry norm. To enable us to deliver better value solutions for our customers.

Having been there and done steel balconies, we learnt the pitfalls and have built on these problems and overcome them with our patented Glide-On™ Cassette® balcony technology and the many new product and process innovations.

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93%

Over two decades Sapphire's service has been experienced on projects for 93 of the UK's 100 top contractors and developers.

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71

The number of innovative product designs which Sapphire has registered with The Patent Office.

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34

The number of Glide-On™ Cassette® balconies installed in just 6 hours and 13 minutes.

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7

The number of times over 20 Glide-On™ Cassette® balconies have been installed in a single day.



# A2

## What are Glide-On™ Cassette® balconies?

Although a lot more elegant, it's like a fork lift lifting a pallet, it's that simple.

The first part is the bracketry which can be chosen from a range of cast-in or post-fixed brackets to enable the connection to the main building structure or floor slab, each with steel arms protruding from the façade.

The balcony Cassette® (the frame structure and balustrade) is a deck made with oversized holes to receive the steel arms when the Cassette® is craned into position. Each Cassette® is delivered preassembled and factory finished to a high quality standard with minimal on site finishing.



# A3 Advantages of Glide-On™ balconies



## Speed of installation

Unique Glide-On™ technology has allowed up to 34 balconies to be installed in just over 6 hours so a huge improvement on the 5-10 steel bolt-on balconies per day, that's over 70% more efficient.



## Offsite manufactured

Offsite manufacturing avoids the hassle of coordinating multiple trades and site storage of materials as balconies are stored offsite preassembled and delivered when required.



## Premium quality

Factory controlled stage by stage quality processes ensure a premium offering.



## Lightweight

Aluminium Cassette® balcony decks are approximately half the weight of steel which can reduce the number of brackets required to connect back to the main structure. This reduces the number of façade penetrations reducing the risk of cold bridging, damp etc. which bring both additional costs and hassle.



## Discreet fixings

Sapphire Cassette® balconies have been carefully engineered to avoid visible welds and keep fixings discreet. All Cassettes® come with soffits which complete the underside, unlike the photo shown.





**Stronger, more rigid**  
Sapphire have developed specialist cast-in anchors which can achieve three times the strength of common market alternatives meaning less deflection and increased rigidity giving the best resident experience and product confidence.



**Always fit**  
Sapphire provide templates with cast-in anchors. These avoid RC frame casting issues, so that balconies fit first time, avoiding the traditional misalignment issues, which cause coordination issues and variations.



**More tolerance**  
+/- 20mm adjustment horizontally and vertically gives far more tolerance than traditional steel balconies which need to align holes perfectly. It's also key for achieving perfect aligning and levelling.



**Reduced H&S risks**  
Glide-On™ balcony technology removes the need for men to connect the balcony underneath, (like traditional installs, as shown in this photo), whilst the crane holds its weight.



**Prefitted soffits saves time**  
Unlike traditional balconies, Glide-On™ Cassettes® are fixed to anchors from above so soffits can be factory installed reducing the finishing works and overall costs.



**Top down installation**  
With the use of Sapphire's innovative counter-balance lifting equipment, a balcony can be installed beneath another. This allows top down installation, close behind scaffold strike, thus reducing programme and prelim costs.



# Glide-On™ Cassette® Sequence



## 1 Preassembled brackets cast-in

Complete brackets arrive preassembled by Sapphire, ready to be cast with the RC Frame. These typically include cast in element, edge shutter, thermal break and arm (or stubs if using a two piece arm). To ensure accuracy Sapphire provide templates, like the ladder template shown, so arms are held in accurate positions and are relative to each other.



## 2 Façade finished around arms

The façade is then completed around the arms. Where access is with mast climbers, or where a two piece arm is chosen, the façade will be finished around the stub. The arm will then be installed from the top down as the scaffold is struck, or mast climber disassembled. For ease of weathering, sapphire can also provide innovative composite sleeves.



## 3 Offsite manufacture and assembly

Rather than manufacturing and assembling on site, Sapphire preassemble whole balconies including decking, soffits and glass. Production is carried out in closely quality controlled dedicated factories, each balcony is checked at multiple stages. This approach means balconies are produced correctly from the start and are right when they exit the production



## 4 Balcony storage

To ensure that balconies are ready exactly when required on sites, once manufactured, completed balconies are stored fully assembled and pre-slung. By doing so it avoids the risks of delays from 'Just In Time' production, and sometimes enables contractors to make sequence changes with their install program by rearranging Cassette® balconies deliveries.



## 5 Balcony transport

Sapphire has several of its own trailers, specially designed to enable efficient stacking, which reduces cost and the carbon footprint of a balcony. Most deliveries are pre-slung for efficient offloading and are made on flat bed trailers with guard rails so that safe offload is achieved.



## 6 Install training and support

Whilst Sapphire aren't the people carrying out the install, our support continues much further than delivery of the balconies. Once a contractor has appointed a balcony install partner, Sapphire provide both practical and theory training, and will typically attend site to ensure new teams are well supported. Sapphire provide door guards, counter balances and necessary equipment needed for the specific install requirements of each project.



## 7 Balcony install

The patented Glide-On™ connection means balconies are installed safely, without men needing to fix them from underneath. Balconies are fixed and levelled from above and final deck boards clipped into place. No access is required from below, meaning soffits are pre-fitted in the factory which is much more cost effective, and safer than pedestals being used.

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