

centor ARCHITECTURAL

ES2 / integrated screening system for bi-fold doors



Centor's award winning* door screening system (patents pending) for bi-fold doors is integrated into the bi-folding door frame itself. This new system, a superbly effective, world-first screening solution for openings as large as **3 metres high** and **5.8 metres wide**, means there's no need to compromise between uninterrupted views and unrestricted movement in the summer months and the need to eliminate annoying flying pests year-round.

* Centor Architectural's Door Screen was awarded Best New Product at Designbuild 2006.



centor ARCHITECTURAL
creating systems for windows & doors

World-first Screening Solutions for Bi-fold Openings

Load Balancing Technology (LBT™)

suitable for tall openings – up to 3 metres high
suitable for wide openings – up to 3 metres wide in a single span
child friendly operation – simple magnetic catch – operable from any height on the stile
no slamming when let go
cushioned impact resistance
single handed operation
fingertip ease
can be released at any position and it will stay
more tension in the mesh

Tight Technology™

cloth remains straight and tight – even with wide spans
cloth remains evenly tensioned throughout
Depending upon the size of the screen windgusts above 10 to 15 knots may cause the mesh to blow out of the top and/or bottom channels. The screen will self feed back onto the roll as it is rolled away.
flat screen – better looks
no insect intrusion
increased longevity (no creasing or dragging)
wider openings
taller openings

Contents

Creating Stylish Screening Solution.....	1
Built Tough and Tested.....	2
Expanding Range and Availability.....	3
Architectural Detail.....	4
Vertical Profile	4
Horizontal Profile	5
Brick Veneer Head Alternate A	6
Brick Veneer Head Alternate B.....	7
Brick Veneer Head Alternate C.....	8
Brick Veneer Jamb Option 1	9
Brick Veneer Jamb Option 2	10
Concrete Beam Fixing	11
Concrete Block Jamb Detail	12
Sill Detail Brick Veneer	13
Timber Clad Head Alternate A	14
Timber Clad Head Alternate B	15
Chamfer Board Jamb.....	16

Creating Stylish Screening Solution

The issue of insect screening has long been a limiting factor to external door specification in the modern-day building and renovation industries. The desirability of uninterrupted views and unrestricted movement in the summer months had to be balanced with the need to eliminate insects. Centor Architectural's new Door Screen systems are superbly effective, world-first screening solutions for bi-fold openings.



Used singly, or paired together to allow for an infinitely adjustable opening position, Centor's Door Screen units are ready for action as soon as temperatures allow for open doors, the rest of the year they can be rolled back out of view – a revolutionary response to unpleasant flying pests for those who hate to compromise on style.

ES2 Specifications	
max panel weight	40kg
max panel width	1000mm
max frame sizes	
double screen	2400mm(H) x 5800mm(W) 3000mm(H) x 4800mm(W)
single screen	2400mm(H) x 3000mm(W) 3000mm(H) x 2400mm(W)
door thickness	38-40mm

CONSIDERED DESIGN

The considered design of Centor's Door Screen systems mean they complement any bi-fold opening. Integrated into the architecture of the door frame itself and functioning so simply and smoothly the systems feel integral to the structure, not something tacked on as an afterthought.

Load Balancing Technology™ (LBT™) (patent pending) allows for the sort of effortless fingertip control synonymous with Centor products. There's no crude spring-loading to fight against, no cumbersome latches or locks just a simple magnetic catch. One hand anywhere on the handsome, ergonomically-designed lead-stile set's the screen in motion. Let it go and the screen glides smoothly to a stop, remaining firmly in the chosen position until further pressure is applied.

Load-balancing also means far greater mesh tension across the screen, eliminating any tendency for sag, while Tight Technology™ manufacturing techniques ensure control of the horizontal edges of the screen so they remain straight and tight across the widest spans. A built-in shock absorption system means visitors taken in by the screen's unobtrusiveness damage only their pride! Should a strong wind gust cause the mesh to blow out of the top or bottom channels the screen is designed to self-feed back onto the roll as it is rolled away.

Built Tough and Tested

In developing the Door Screen systems, Centor's designers have catered for anything that modern life might throw at these sturdy products. Manufactured entirely in stainless steel, brass and reinforced engineering polymers the systems have undergone cyclic testing to 50,000 operations in a laboratory and been extensively exposed to dust, mud, sand and corrosive atmosphere.



Product Detail	Description
door size H x W	2160 x 2890
material of construction	sashes and frame WRC, sill Merbau
glazing	6.38 clear laminated glass
panel configuration and thickness	4L – 40mm

Test Data	AS2047 min	ES2
min water rating	150Pa (N1)	300Pa (N5 – C3)
max air infiltration (75Pa)	5 l/s/sq M	0.57 l/s/ sq M
performance rating Pa	N1 (500Pa)	N2 (700Pa)
structural rating ULS	N1 (700Pa)	N2 (1000Pa)

Test results of Centor's ES2 Door Screen bi-folding door system tested to the applicable requirements of AS 2047-1999 in a NATA certified testing facility (Test No. AZT0100).

The systems have also stood up to impact testing with a 17kg punching bag 100 times, wind testing to 20kph and considerable pushing, poking and prodding to simulate real life usage. Centor's usual ten year warranty against manufacturing defects applies to all Door Screen components. PetScreen Lite, the tough PVC-coated polyester mesh chosen for the screen systems, is hardwearing and resistant to damage from pets. The mesh is easy to clean and can be replaced.

AUSTRALIAN STANDARDS

Currently there is no Australian Standard specifically for external bi-fold doors, however Australian Standard AS 2047-1999 Windows in Buildings – Selection and Installation specifies materials and performance requirements for external windows and doors. The wind load, weather and operational performance specified for other types of external windows and doors could reasonably be expected to apply to an external folding door system used in the same application. Centor recommends that all users obtain a copy of AS 2047 and AS 4420 from Standards Australia.

Centor has tested an ES2 Door Screen folding door system to the applicable requirements of AS 2047-1999 in a NATA certified testing facility (Test No. AZT0100) and obtained the results shown in the table above.

This performance data is an indication of the ratings that can be achieved with appropriate door design and manufacture. Centor does not manufacture complete door systems but supplies both the folding hardware and outer frame incorporating ES2 to door manufacturers for assembly and construction. The Centor technical department can assist manufacturers in the design and testing process for doors incorporating Centor Door Screen systems to ensure the required performance criteria for a complete assembled folding door system meets similar standards.

WARRANTY

Centor's usual ten year warranty against manufacturing defects applies to all Door Screen components.



Expanding Range and Availability

The level of demand for a bi-fold scale screening system which didn't compromise on style was obvious even at the prototype stage. An enthusiastic industry reception for the ES2 system confirmed the strength of the concept, while winning the prestigious Best Product award at Design Build 2006 was proof positive that Centor's design team had succeeded in bringing the vision to life.



Centor Architectural's Door Screen was awarded Best New Product Award at Designbuild 2006 amongst 52 entrants.

Not content to stand still, Centor looks to the future with improved availability and an ever-expanding range. The ES2 Door Screen is available through a growing number of Centor-approved manufacturers listed on the regularly updated Centor Architectural website www.centor.com.au. Full-size working displays can be viewed in the showrooms of approved manufacturers who will be pleased to quote for Centor-equipped doors incorporating the ES2 system.

Several major industry players are in the set-up phase for aluminium door production incorporating ES2, while ES3 – the same system adapted to suit doors using medium-heavy Centor E3 bi-fold hardware – will come on line in early to mid 2007.

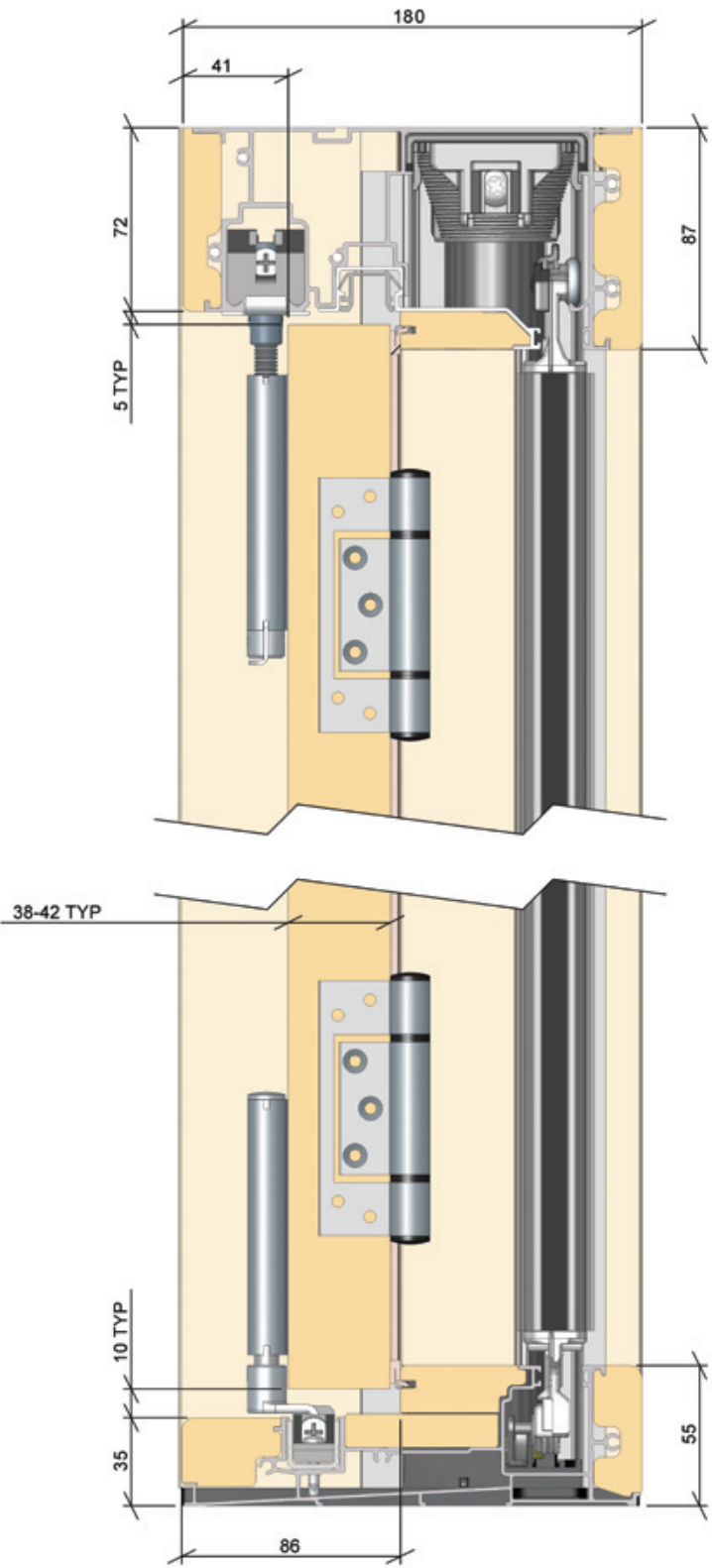
CENTOR ARCHITECTURAL – PUSHING THE BOUNDARIES

Ever since Centor founder Frank Spork first turned his attention to producing superior sliding door tracking, Centor has prided itself on being ahead of the pack. The many patents awarded to Centor for our sliding and folding systems are seen as badges of honour – proof positive that Centor got there first! The ES2 insect Door Screen for bi-fold scale openings, is the latest world-first solution brought into being by the desire to see the end-user get the most from their built environment.



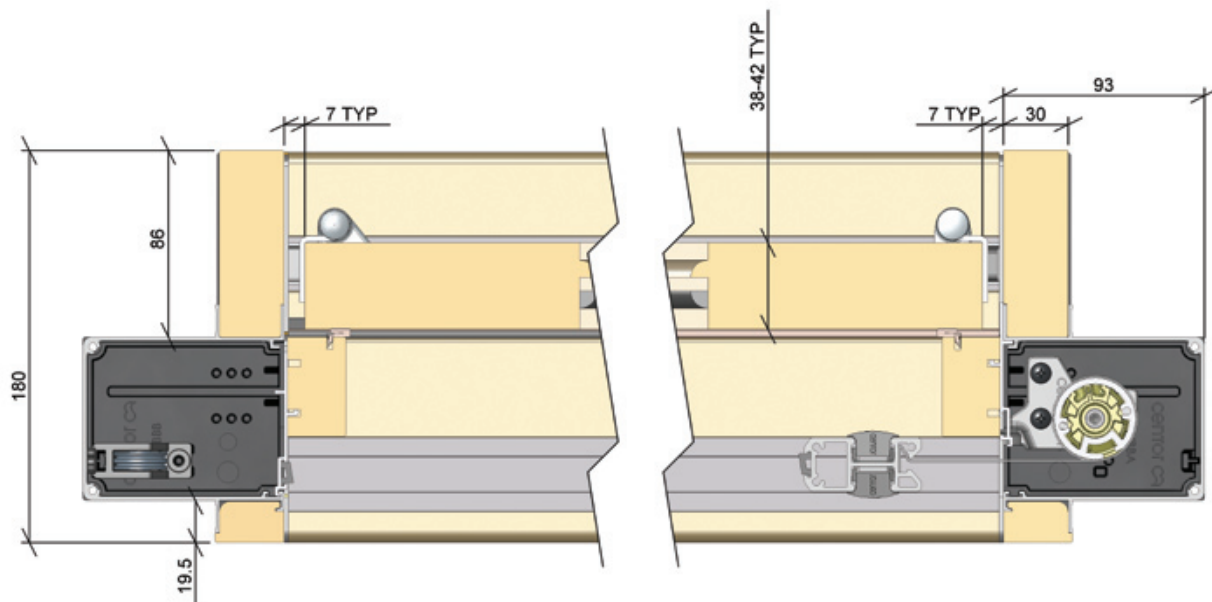
For the list of Centor-approved manufacturers please go to Centor Architectural website at www.centor.com.au

Architectural Detail / Vertical Profile



Patent Pending

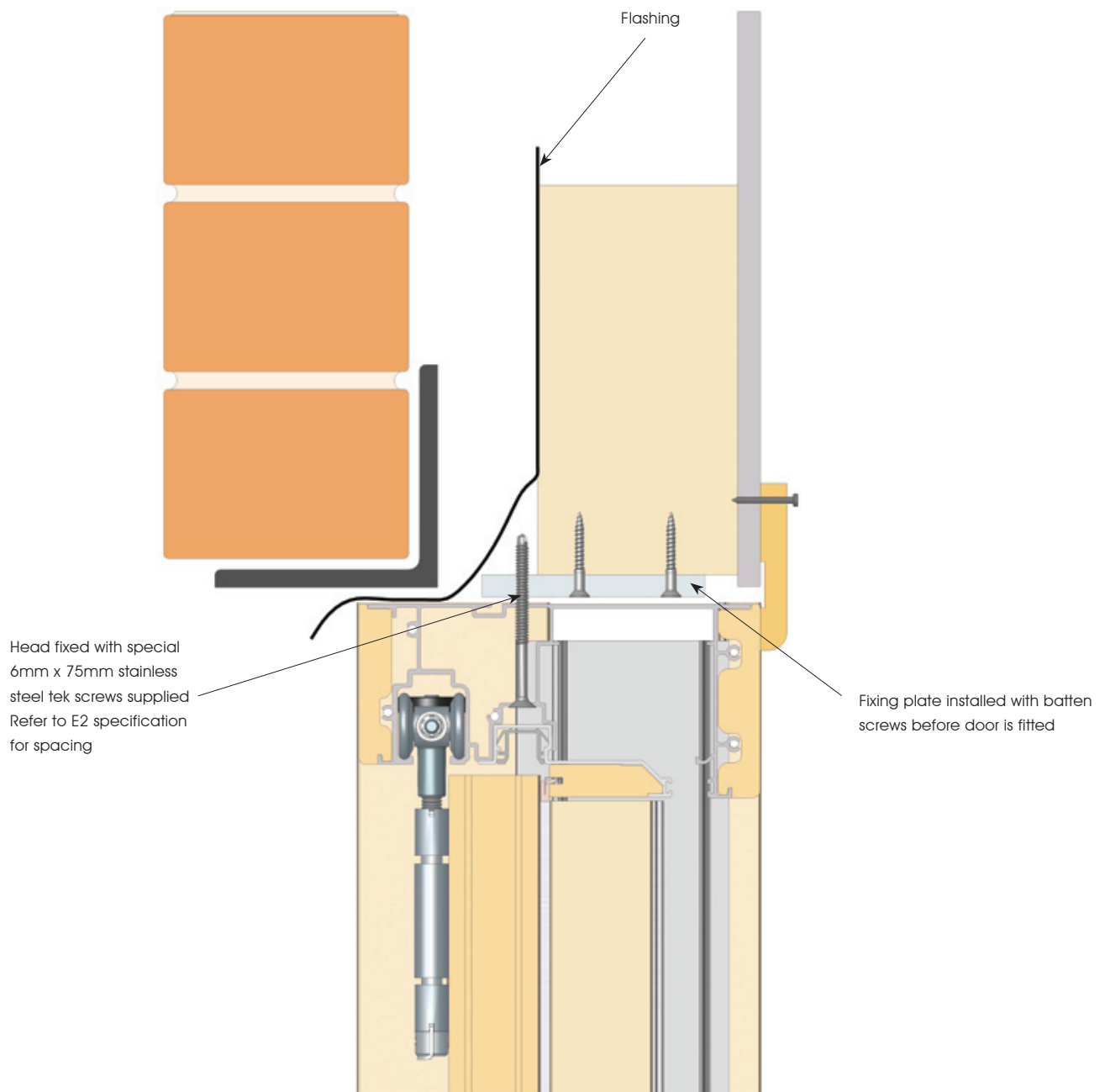
Architectural Detail / Horizontal Profile



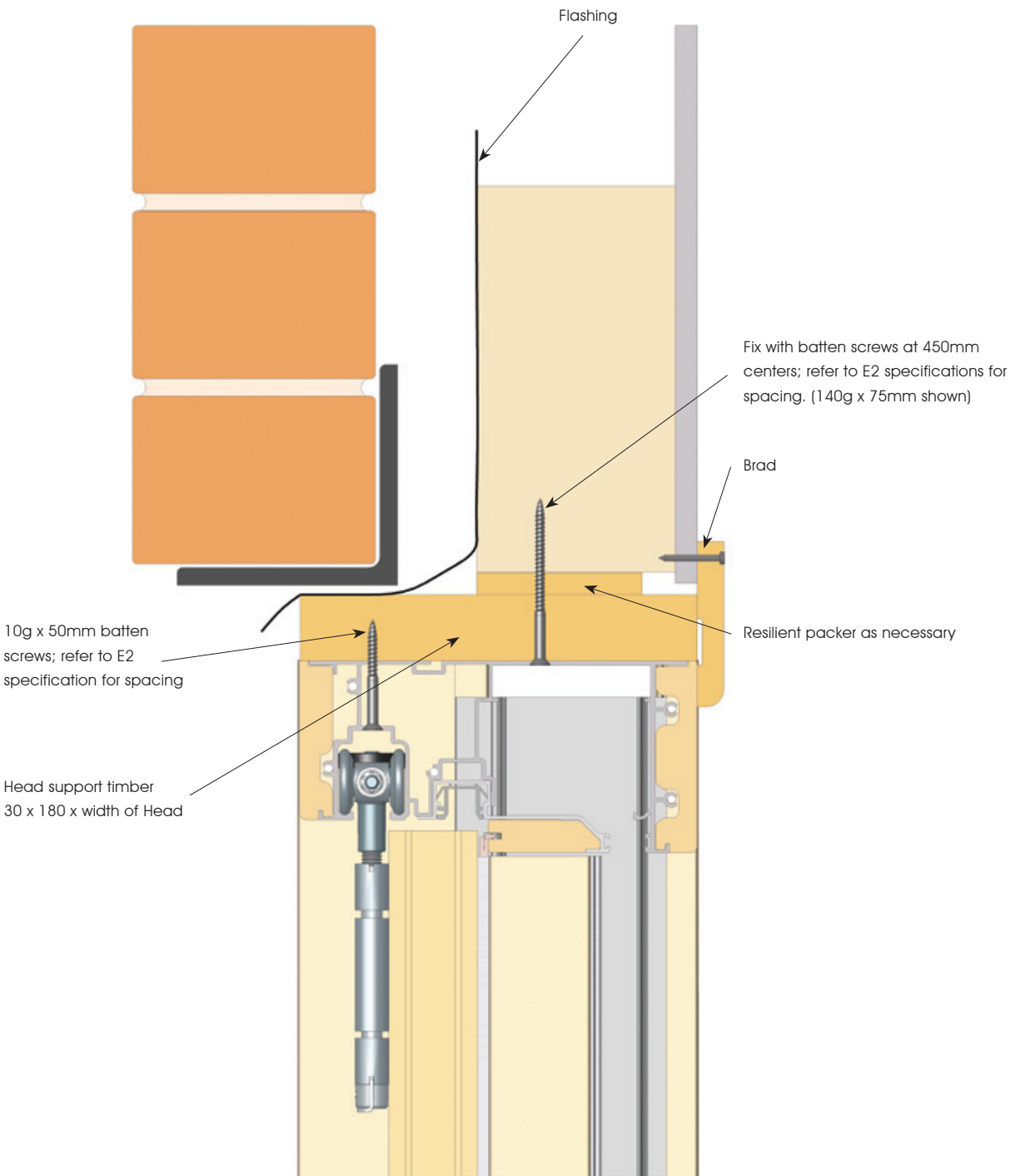
Single screen shown

Patent Pending

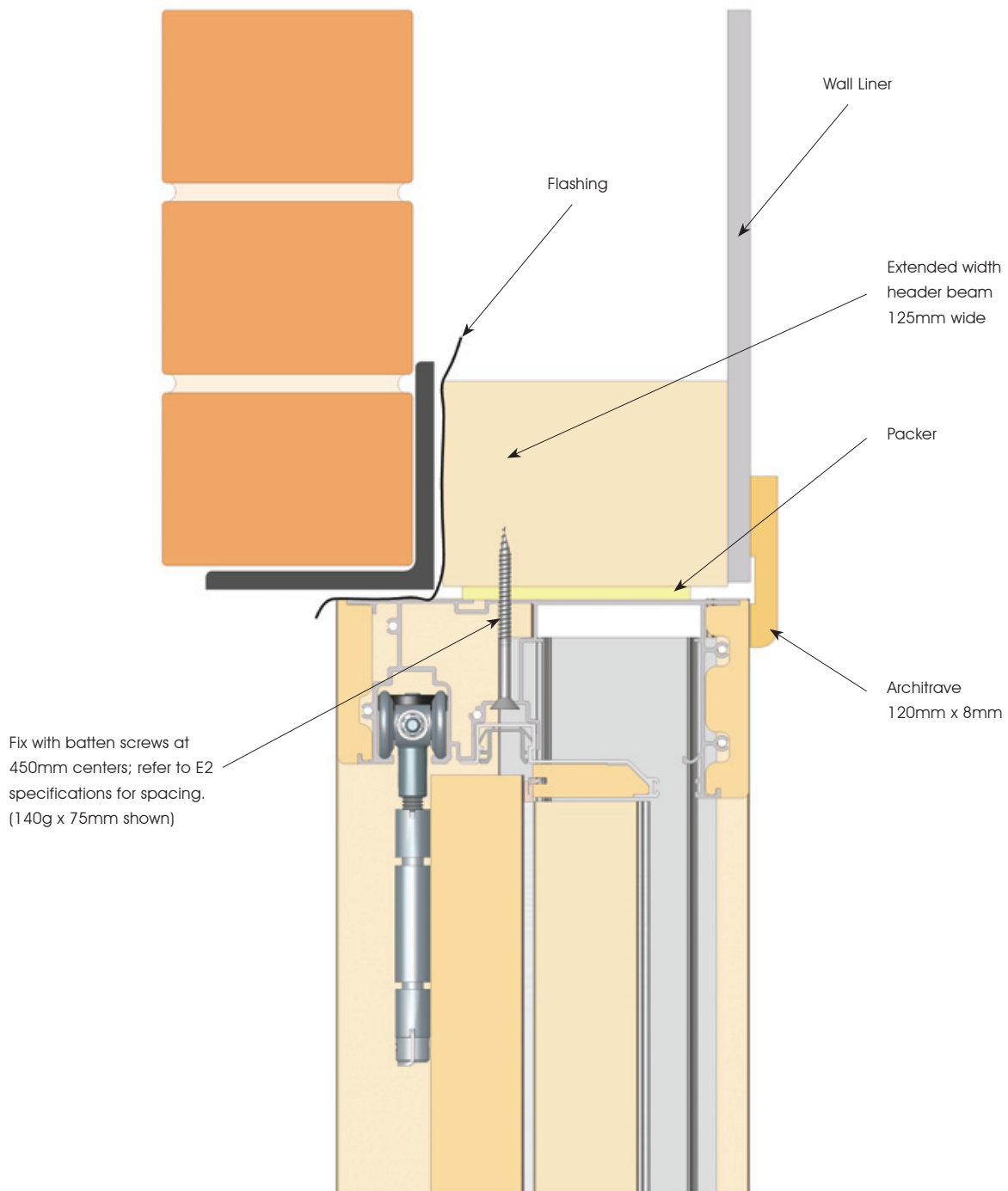
Architectural Detail / Brick Veneer Head Alternate A



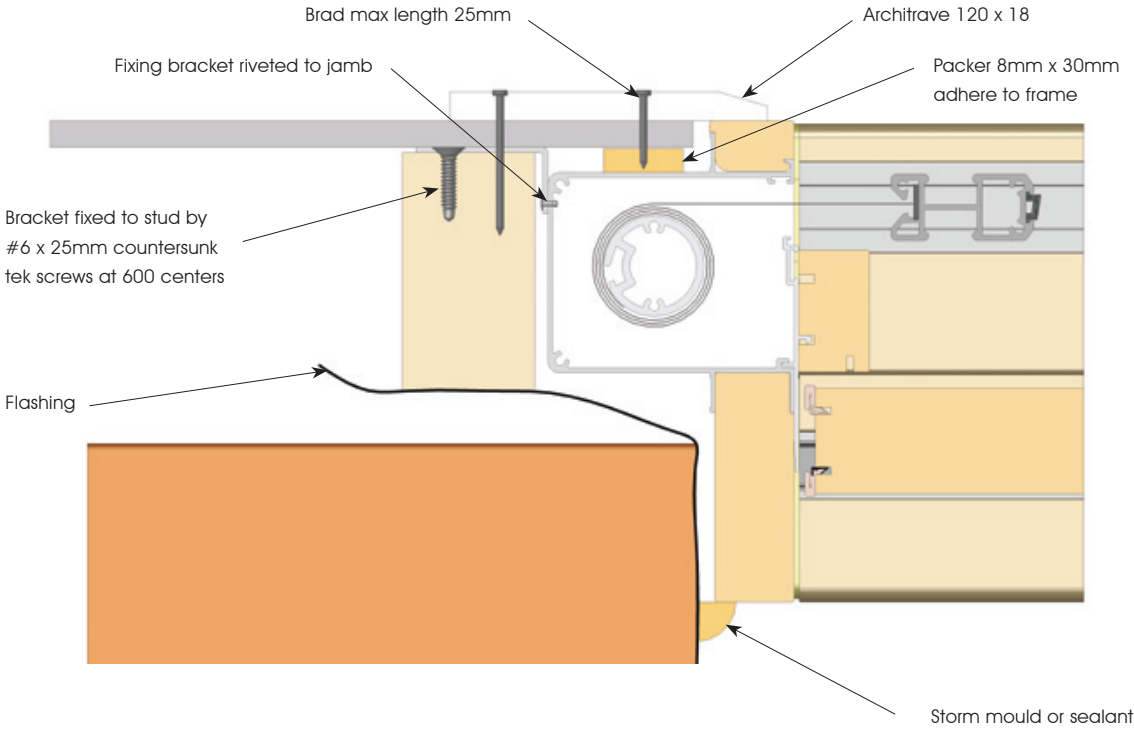
Architectural Detail / Brick Veneer Head Alternate B



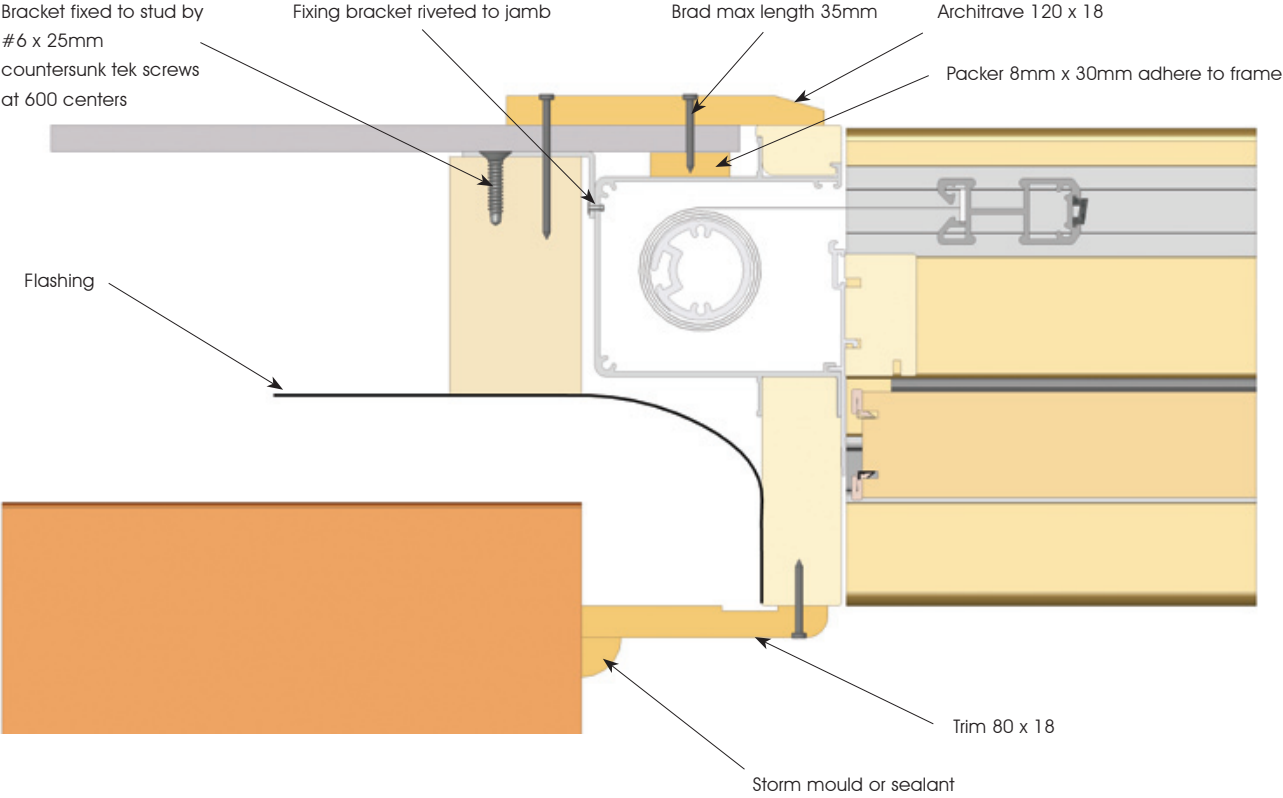
Architectural Detail / Brick Veneer Head Alternate C



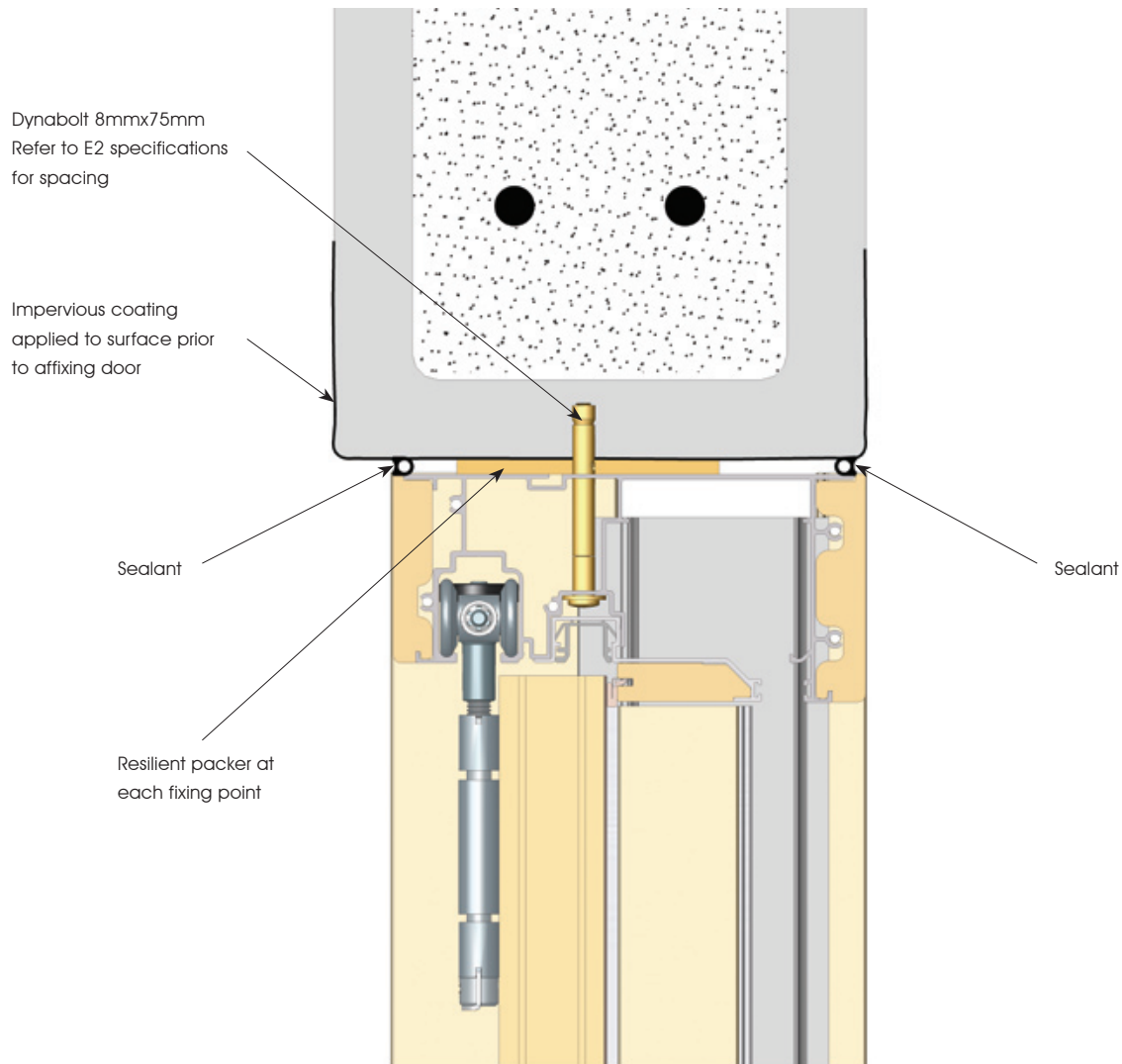
Architectural Detail / Brick Veneer Jamb Option 1



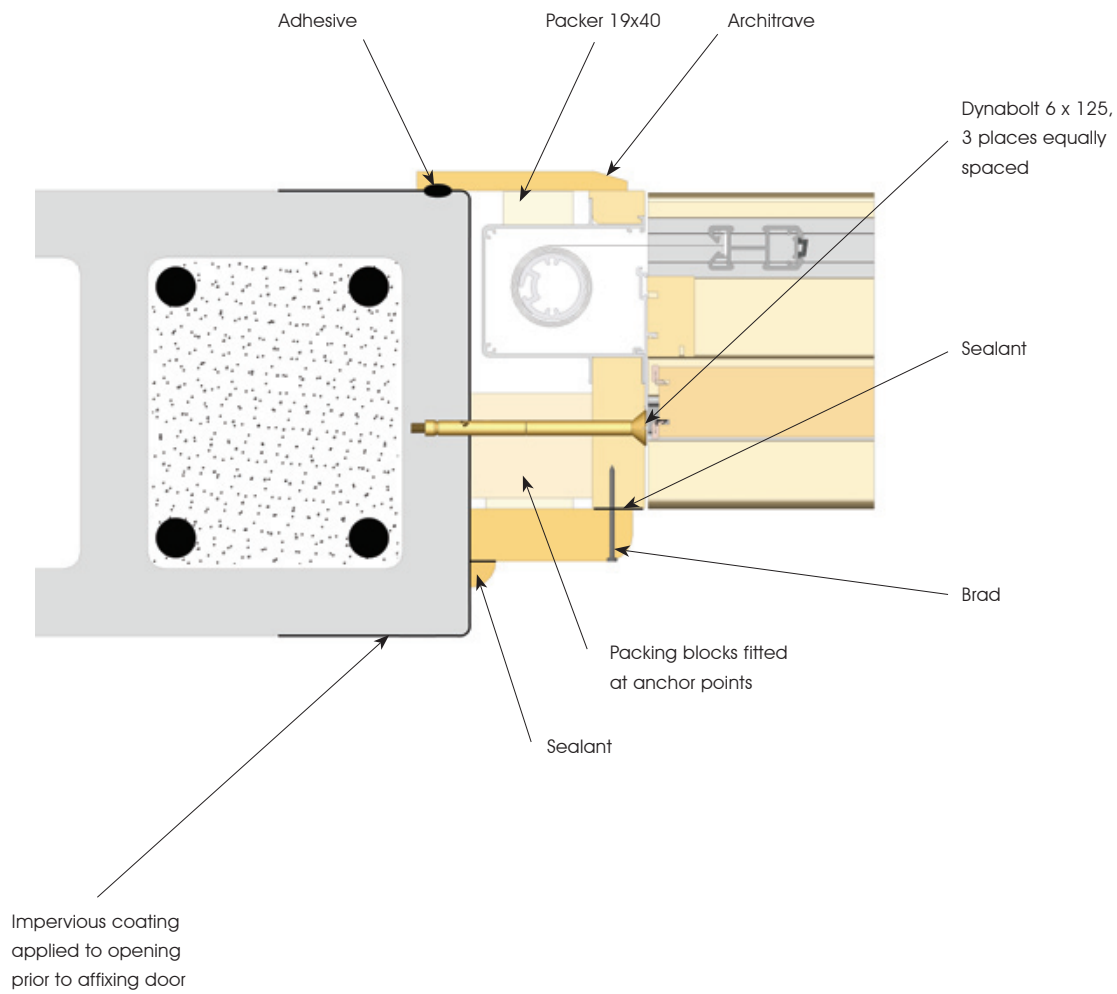
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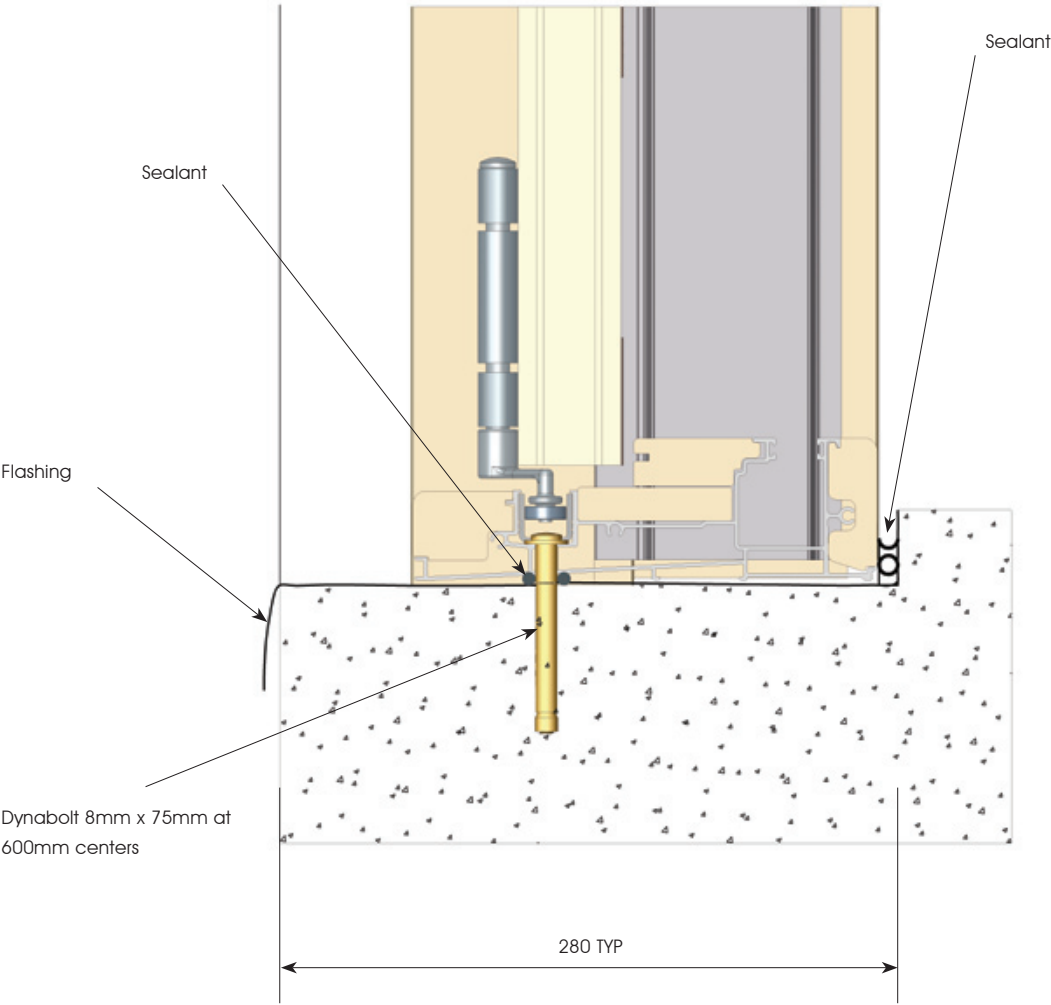
Architectural Detail / Concrete Beam Fixing



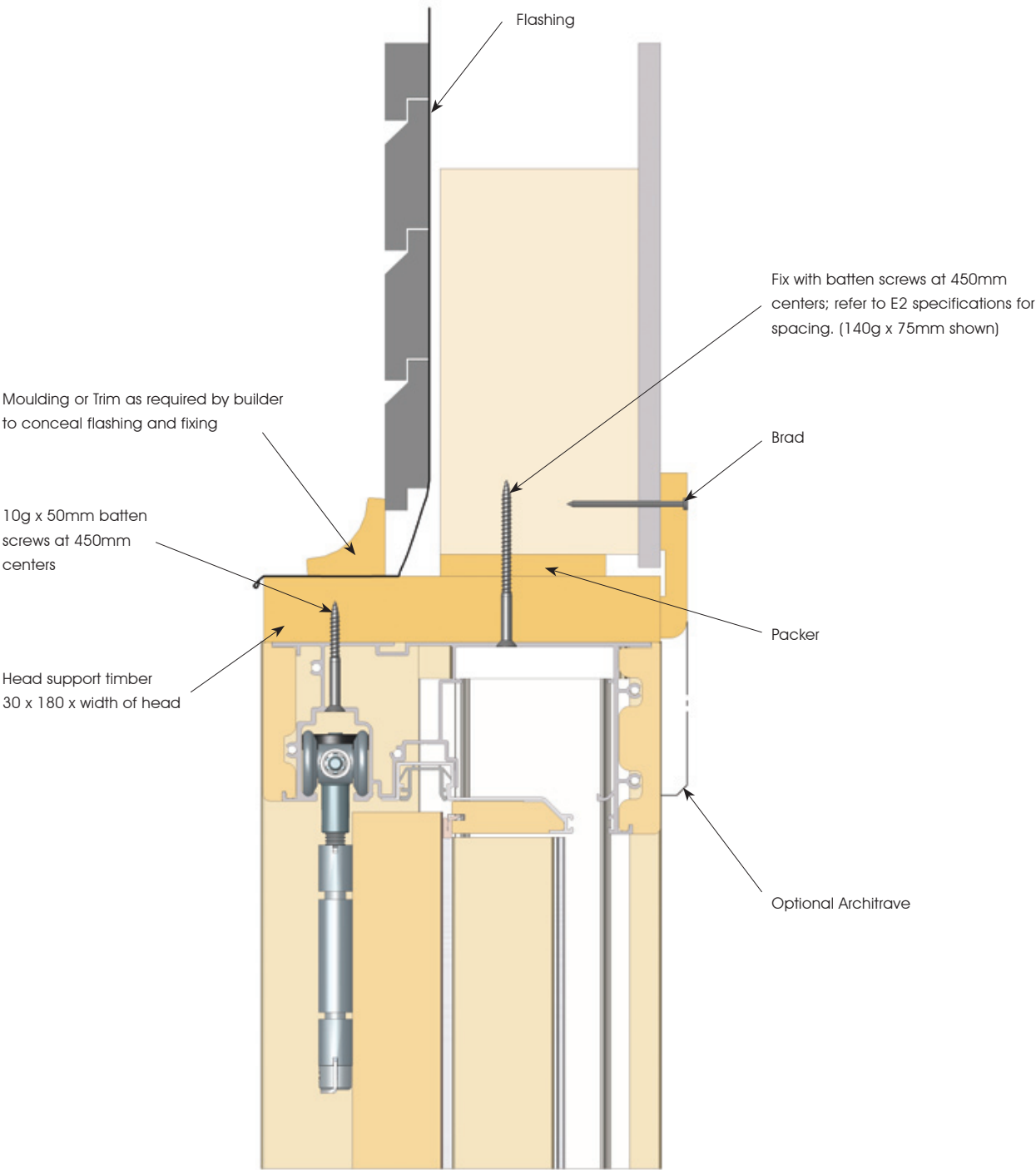
Architectural Detail / Concrete Block Jamb Detail



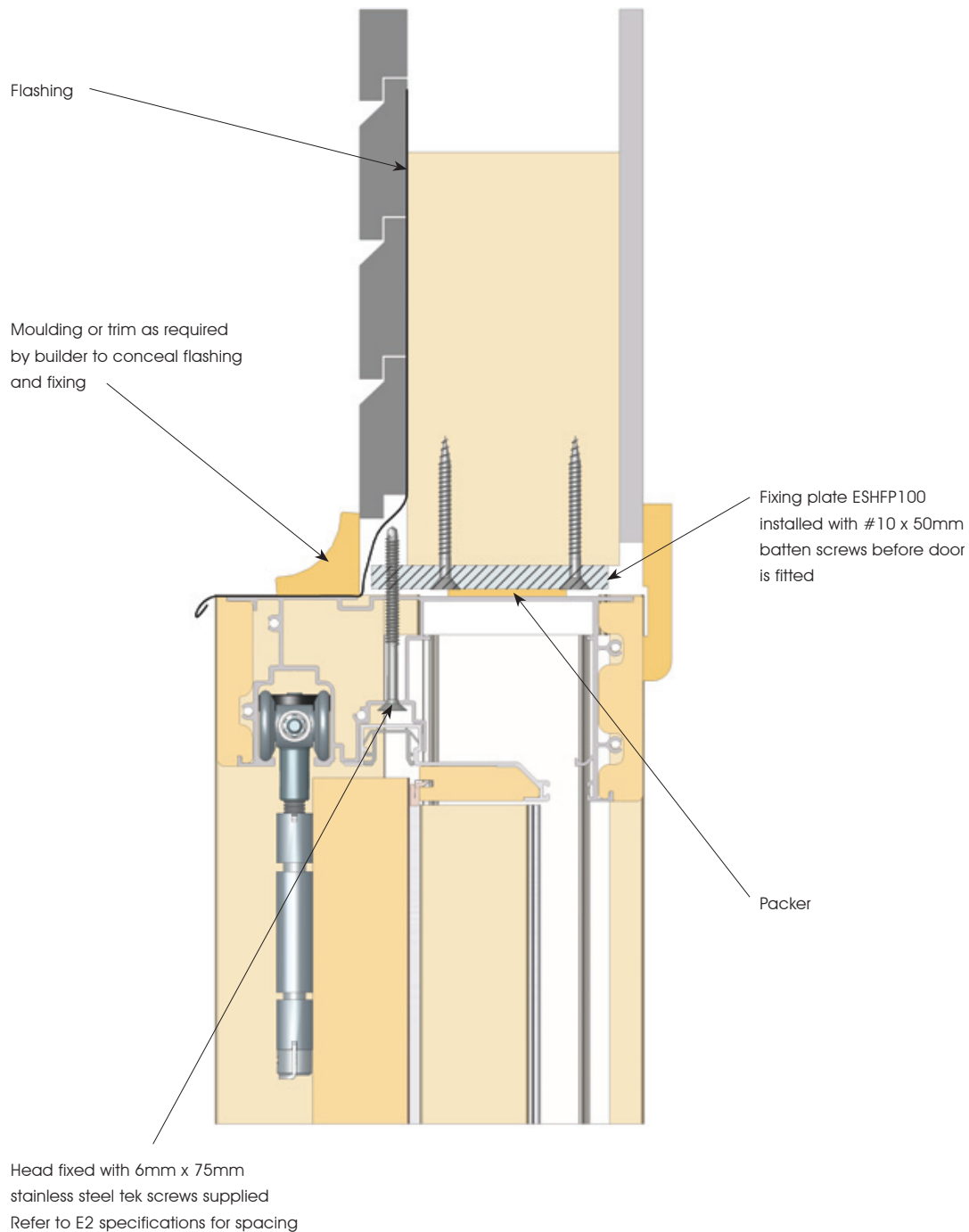
Architectural Detail / Sill Detail Brick Veneer



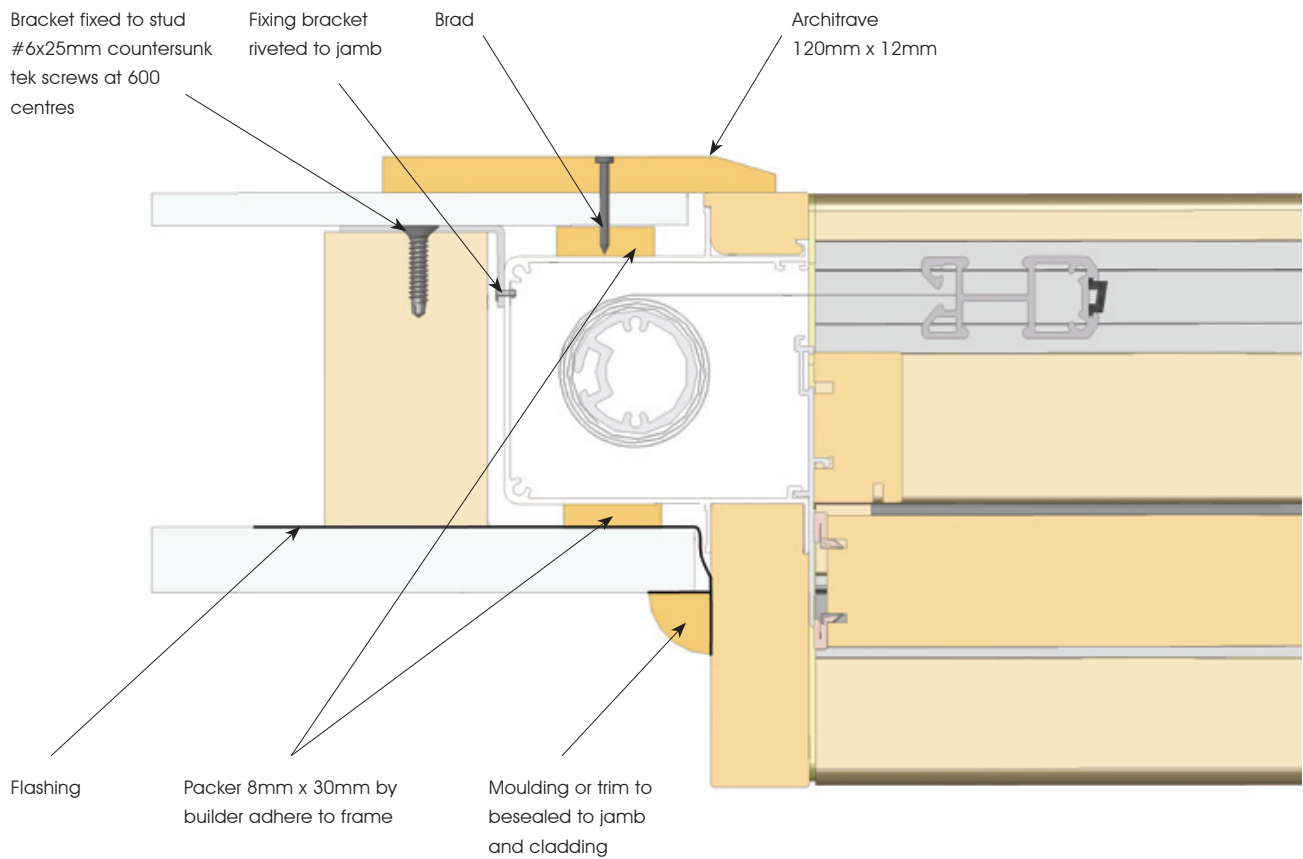
Architectural Detail / Timber Clad Head Alternate A



Architectural Detail / Timber Clad Head Alternate B



Architectural Detail / Chamfer Board Jamb



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