

Recommended Fixings Manual



deceuninck

Heritage 2800

Suite of Profiles



The Deceuninck difference

Over the last three years, Deceuninck has made huge investments in research and product development to come up with real show-stoppers, and design some products from scratch. We're obsessive about quality and detail and we're not satisfied with passable products that match the competition – we want to blow competitors' products out of the water! It has become our guiding principle, and we've made it our official policy to make windows and doors that are best-in-class for thermal and weather performance, security, durability and looks. We're using #BestInClass on social media, because best-in-class drives everything we do.

Giving our fabricators the sharpest competitive edge

Patio doors are seen as commodity items. Deceuninck's old patio door did the job but was nothing to shout about. So we set a tough design brief: a patio door with the best weather, energy and security performance that's easy to fabricate and install. With stunning looks of course. We wanted to bowl over the competition – and we did! Slider24 achieves Class A4 air permeability with a rating of 600Pa, Class E8A water permeability with a rating of 450Pa and Class A3 wind resistance with a rating of 1200Pa.



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SPECIAL NOTES WITH REFERENCE TO DOOR HINGE FASTENERS

Due to the extensive range and specification of door hinge hardware, the recommendations within this manual are intended as a guide only. It is therefore essential that you contact Rapiertstar Technical Department for advice on correct fastener selection for your individual requirements.



The Correct Fastener

rapierstar® the market-leading supplier of screws to the PVC-U window industry, with its unrivalled technical expertise, has worked together with your systems company to produce this recommended fixings manual. The following pages contain advice on the correct fastener for each application.

Star Performance

rapierstar® StarPVCU window screws have conformed with all relevant industry standards, guidelines and recommendations for some time and are intended to be used where mechanical resistance, stability and safety of use in the sense of the 'essential requirements' of Annex I of the Construction Products Regulation 305/2011 are to be fulfilled.

Surpassing Standards

rapierstar® branded product ranges have been certified by European approved 'Notified Bodies', confirming initial type testing, assessment and verification of constancy of performance.

BS EN 14351-1:2006+A1:2010, Windows and doors product standard, performance characteristics. **rapierstar®** branded screws conform with the requirements of harmonised European standard BS EN 14351-1 and have been type tested to meet the standard of BS EN 14566:2008+A1:2009. By conforming with this standard, we are independently verifying, that the head/thread/point maintain consistency of design. This also guarantees that steel screws are produced to EU standards and that factory controls are in place during manufacture.

PAS 24:2016 Windows and doors fabricated with correct **StarPVCU** screws exceed PAS 24:2016 - enhanced security performance requirements for doorsets and windows in the UK.

BS EN 1670:2007 Electroplating coatings of **rapierstar®** products comply with the provisions of ISO 2081:2008 and exceed corrosion resistance testing to BS EN 1670 grade 4 for Carbon Steel screws and BS EN 1670 grade 5 for Stainless Steel screws.

ISO 9001, is defined as the international standard that specifies requirements for a quality management system (QMS). Organizations use the standard to demonstrate the ability to consistently provide products and services that meet customer and regulatory requirements. **rapierstar®** is an ISO 9001:2015 registered company and all our window screws are manufactured by ISO 9000 certificated companies.

Screw Tips - Best Practice

Perpendicular Insertion: Ensure that any fastener is applied at 90° to the material at all times.

Mechanical Damage: It is important to replace the screwdriver bit regularly. A worn screwdriver bit may not engage fully into the recess, causing damage to the plating of the screw with the resulting likelihood of corrosion.

Torque Setting: The use of excessive torque may lead to stripping and failure of the fastener. The torque setting on the screwdriver should be the minimum required to effect a complete fastening.

Screwdriver Speed: It is recommended by the Glass & Glazing Federation and the British Plastics Federation that driver speeds between 1500 rpm and 2000 rpm are used.

Avoid Corrosive Elements

Several factors can cause screws to rust, each of which can be accelerated depending on the situation of the application.

Silicone sealants - avoid acetic acid cured high and low modulus sealants. The vapour alone is sufficient to cause corrosion. Therefore a neutral curing sealant is recommended.

Acrylic fillers - contact with any carbon steel component will cause corrosion.

Cleaners - aggressive cleaning substances, especially those containing ammonia, chlorine etc. can reduce the effectiveness of the protective plating and should be avoided.

New-build - screws should not come into contact with wet plaster or cement, as the lime content will cause corrosion. Also, the acid wash that is often used to clean brickwork is highly corrosive and should be avoided completely. **Where any of the above conditions are likely to exist, the use of stainless steel is recommended.**

100% Stainless, 100% Solution

For coastal or heavily polluted regions of the country, when attaching stainless steel hardware, or where prolonged guarantees are being offered, we recommend that stainless steel screws should be used.

Austenitic Stainless Steel - 302

302 grade Austenitic stainless steel is ideal for use in PVC-U only applications, giving excellent corrosion resistance.

Enhanced Martensitic Stainless Steel - 410






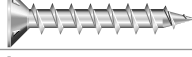
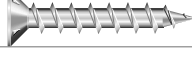












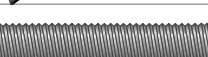


410 grade Martensitic stainless steel is a harder grade which is capable of self-drilling and tapping into steel reinforcement. Screws are tested by UKAS accredited test bodies to beyond 3000 hours salt spray test in accordance with BS EN ISO 9227.

Bi-Metallic





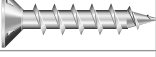
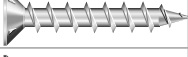
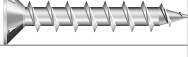








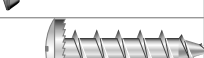



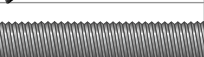


Austenitic stainless steel fastener with a carbon steel drill tip. Suitable for reinforced applications. Combination recess with square drive giving effective 'stick-fit' onto the driver bit for ease of insertion during fabrication and common Phillips no2 recess for on-site adjustment.

In any application where fasteners are required to be guaranteed free from hydrogen embrittlement or any other form of hydrogen induced cracking (HIC), Rapierstar always recommend that fasteners manufactured from a grade of stainless steel considered suitable for the end application be specified and used.

Carbon Steel

	Code	Item	Application
	RSR 3.9 x 13 Z	1	Reinforcement retention
	RSR 3.9 x 16 Z	2	Reinforcement retention
	CFG 4.3 x 16 Z	3	Thermal chamber insulator (TCI) Retention
	CFG 4.3 x 16 Z	3	Hinge to unreinforced section of door sash
	CFG 4.3 X 20 Z	4	Keep to tilt & turn frame
	CFG 4.3 x 25 Z	5	Gearing to unreinforced sash
	CFG 4.3 x 25 Z	5	Keep to unreinforced frame
	CFG 4.3 x 40 Z	6	Hinge to door sash
	CSR 3.9 x 25 Z	7	Gearing to reinforced sash
	CSR 3.9 x 25 Z	7	Keep to reinforced frame
	CSR 3.9 x 32 Z	8	Hinge to door sash
	CSR 3.9 x 38 Z	9	Hinge to tilt & turn frame
	CSR 3.9 x 38 Z	9	Hinge to door frame
	SFG 4.3 x 16 Z	10	Friction stay to unreinforced frame
	SFG 4.3 x 20 Z	11	Friction stay to frame with TCI
	SFG 4.3 x 25 Z	12	Friction stay to unreinforced sash
	SFG 4.8 x 20 Z	13	Claw lock to frame
	SFG 4.8 x 25 Z	14	Claw lock to sash
	SSR 3.9 x 19 Z	15	Friction stay to reinforced frame
	SSR 3.9 x 25 Z	16	Friction stay to reinforced sash
	MS M5 x 40 Z	17	Handle retention
	NFG 4.3 x 12 MY	18	Weatherbar

Stainless Steel

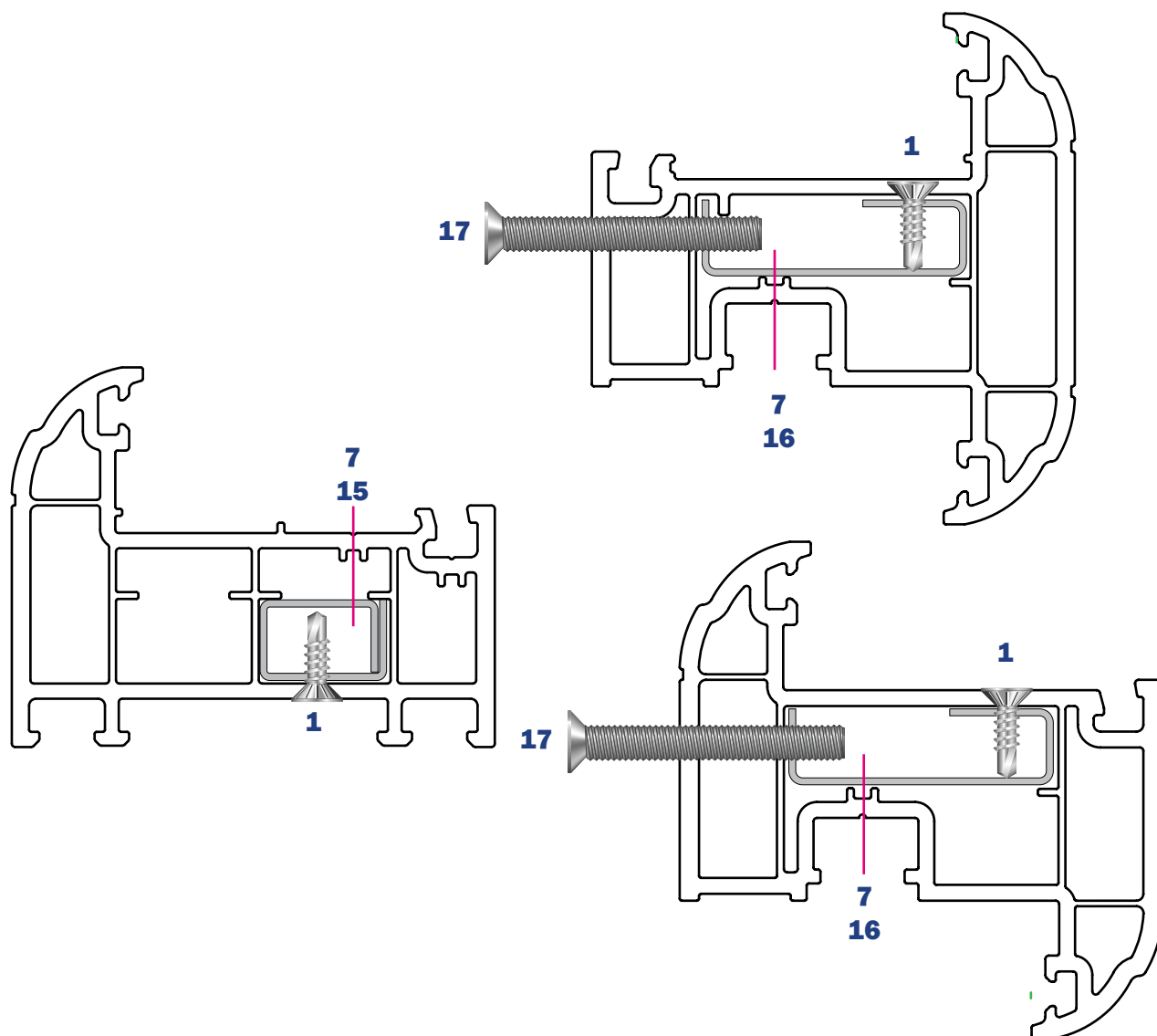
	Code	Item	Application
	RSR 3.9 x 13 S	1	Reinforcement retention
	RSR 3.9 x 16 S	2	Reinforcement retention
	CFG 4.3 x 16 S	3	Thermal chamber insulator (TCI) Retention
	CFG 4.3 x 16 S	3	Hinge to unreinforced section of door sash
	CFG 4.3 x 20 Z	4	Keep to tilt & turn frame
	CFG 4.3 x 25 S	5	Gearing to unreinforced sash
	CFG 4.3 x 25 S	5	Keep to unreinforced frame
	CFG 4.3 x 40 S	6	Hinge to door sash
	CSR 3.9 x 25 S	7	Gearing to reinforced sash
	CSR 3.9 x 25 S	7	Keep to reinforced frame
	CSR 3.9 x 32 S	8	Hinge to door sash
	CSR 3.9 x 38 S	9	Hinge to tilt & turn frame
	CSR 3.9 x 38 S	9	Hinge to door frame
	SFG 4.3 x 16 S	10	Friction stay to unreinforced frame
	SFG 4.3 x 20 S	11	Friction stay to frame with TCI
	SFG 4.3 x 25 S	12	Friction stay to unreinforced sash
	SFG 4.8 x 20 S	13	Claw lock to frame
	SFG 4.8 x 25 S	14	Claw lock to sash
	SSR 3.9 x 19 S	15	Friction stay to reinforced frame
	SSR 3.9 x 25 S	16	Friction stay to reinforced sash
	MS M5 x 40 Z	17	Handle retention
	NFG 4.3 x 12 MY	18	Weatherbar





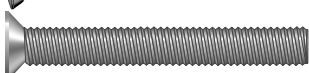
Casement Window

2892 Frame with 2565 Reinforcement

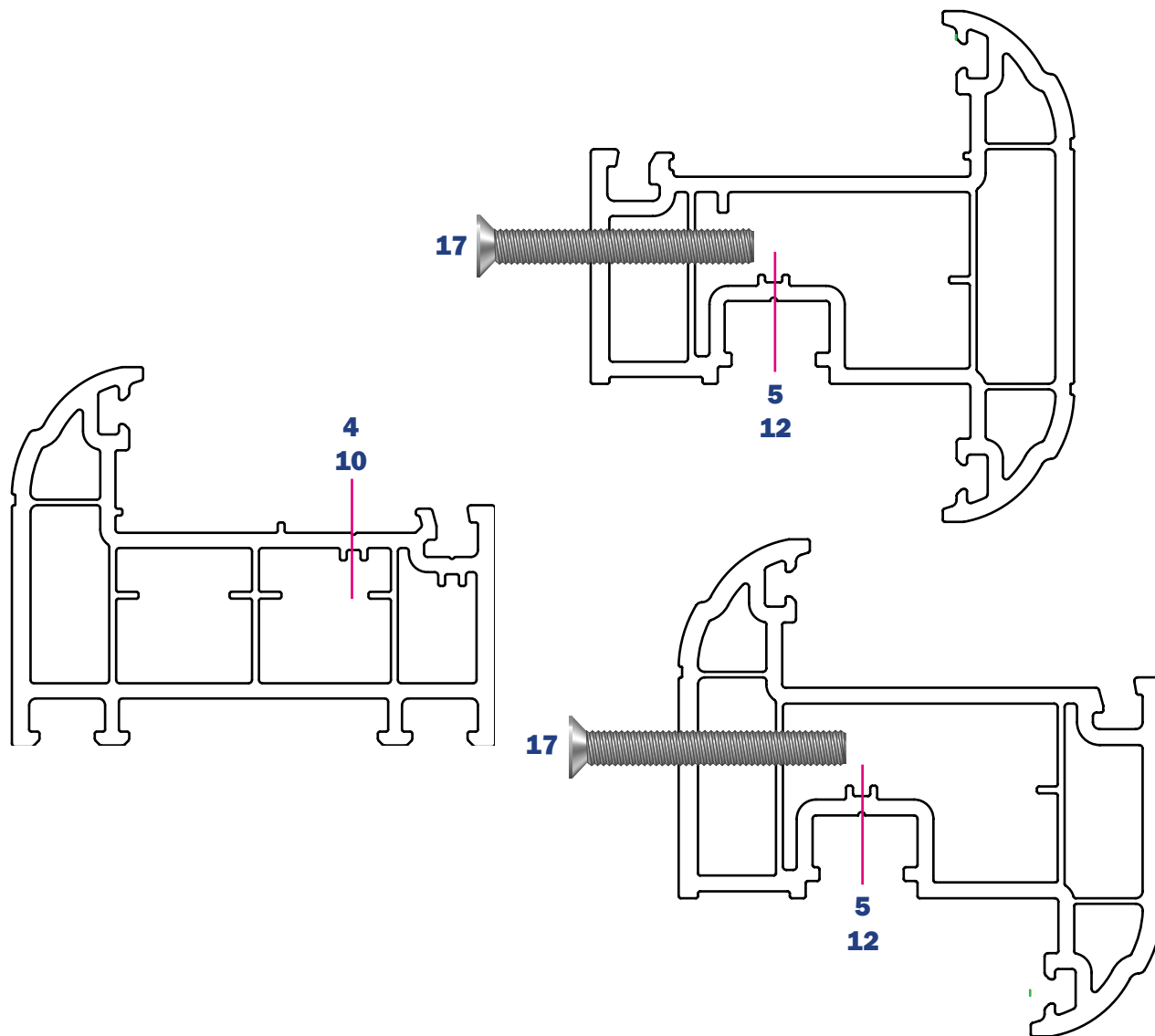
2825 'T' Sash with 2544 Reinforcement





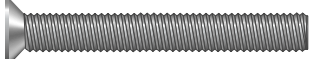
2826 'Z' Sash with 2544 Reinforcement



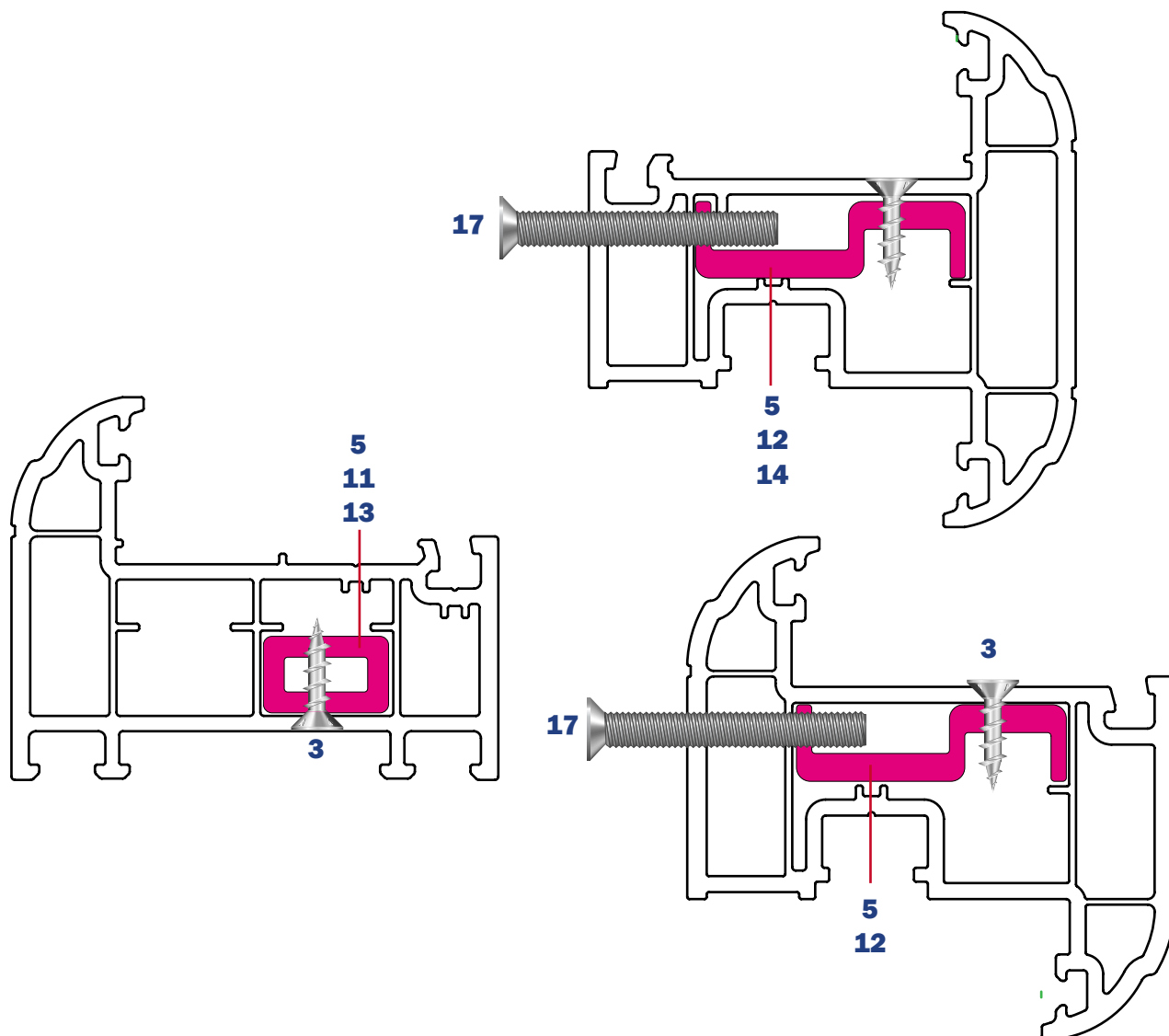
1		RSR 3.9 x 13 Z	Reinforcement Retention
7		CSR 3.9 x 25 Z	Gearing to Sash. Keep to Frame
16		SSR 3.9 x 25 Z	Friction Stay to Sash
15		SSR 3.9 x 19 Z	Friction Stay to Frame
17		MS M5 x 40 Z	Handle



Casement Window - Unreinforced 2892 Frame, 2825 'T' Sash, 2826 'Z' Sash



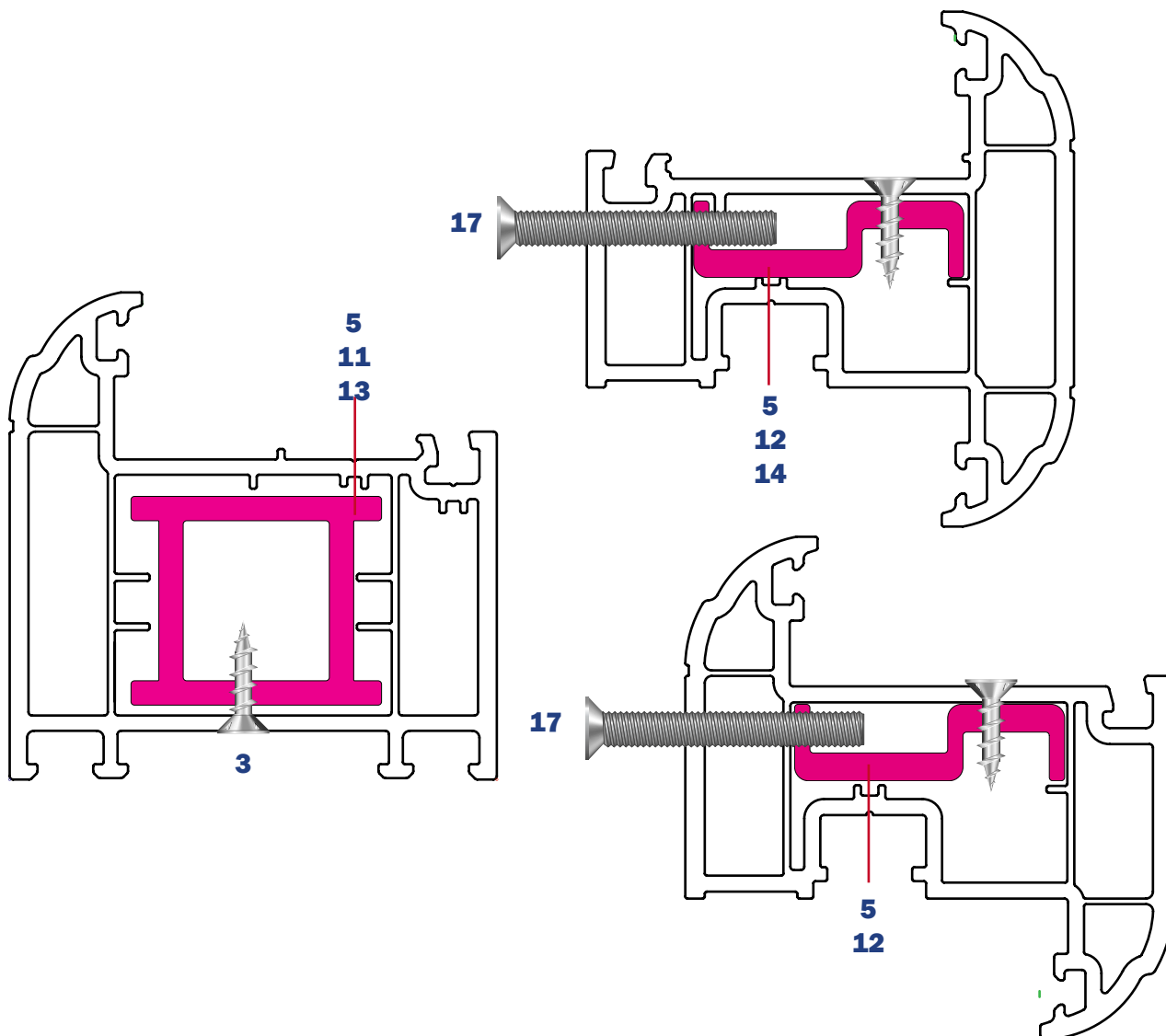
4		CFG 4.3 x 20 Z	Keep to Frame
5		CFG 4.3 x 25 Z	Gearing to Sash
11		SFG 4.3 x 25 Z	Friction Stay to Sash
10		SFG 4.3 x 16 Z	Friction Stay to Frame
17		MS M5 x 40 Z	Handle

Casement Window with Thermal Chamber Insulator
2892 Frame, 2825 'T' Sash, 2826 'Z' Sash



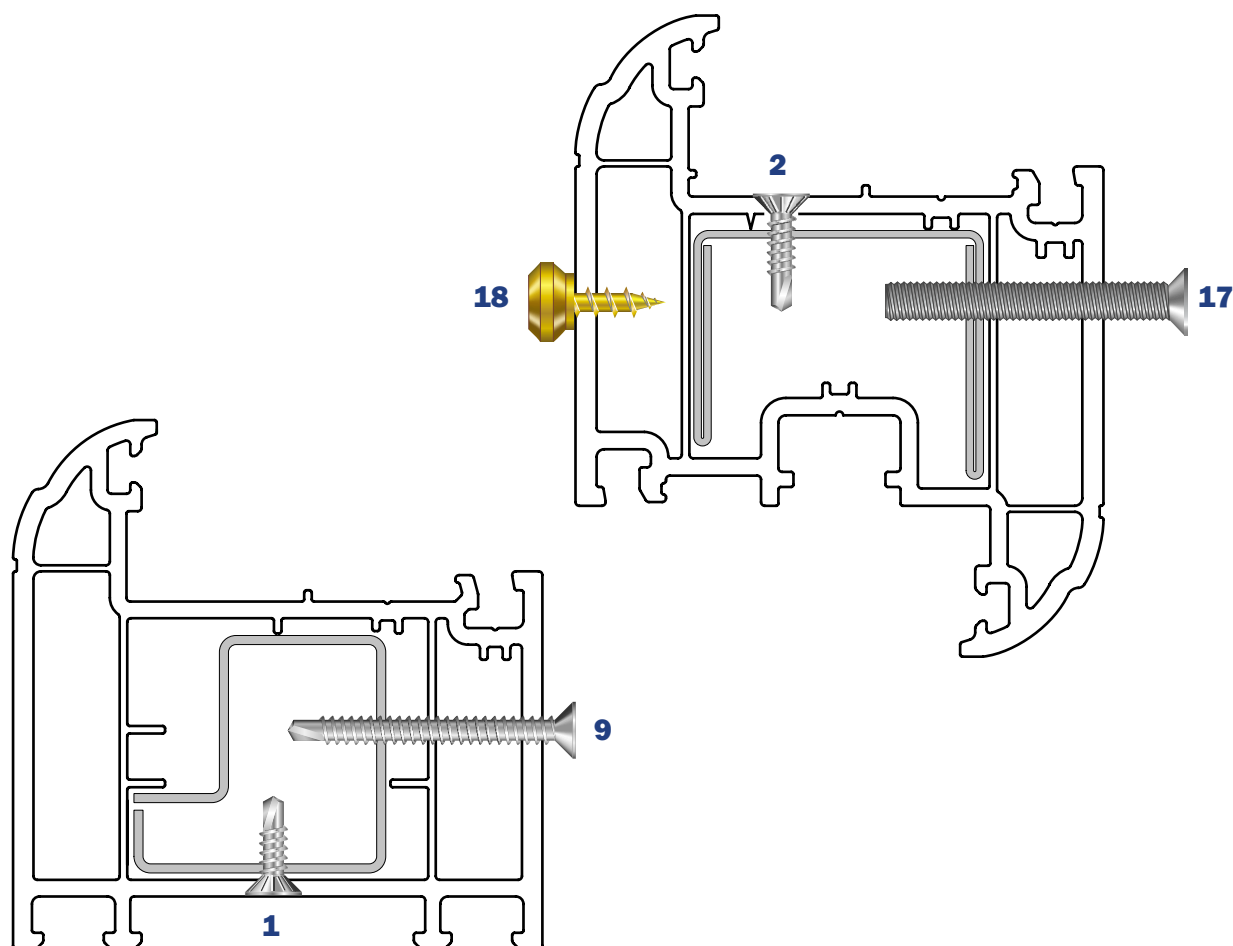
3		CFG 4.3 x 16 Z	T.C.I. retention
5		CFG 4.3 x 25 Z	Gearing to Sash. Keep to Frame
11		SFG 4.3 x 20 Z	Friction Stay (Frame)
13		SFG 4.8 x 20 Z	Claw Lock to Sash
12		SFG 4.3 x 25 Z	Friction Stay to Sash. Claw Lock to Frame
14		SFG 4.8 x 25 Z	Claw Lock to Sash
17		MS M5 x 40 Z	Handle



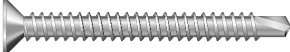
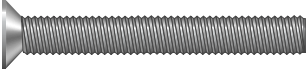
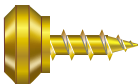
Casement Window with Thermal Chamber Insulator 2833 Wide Frame - Not approved to BS7950



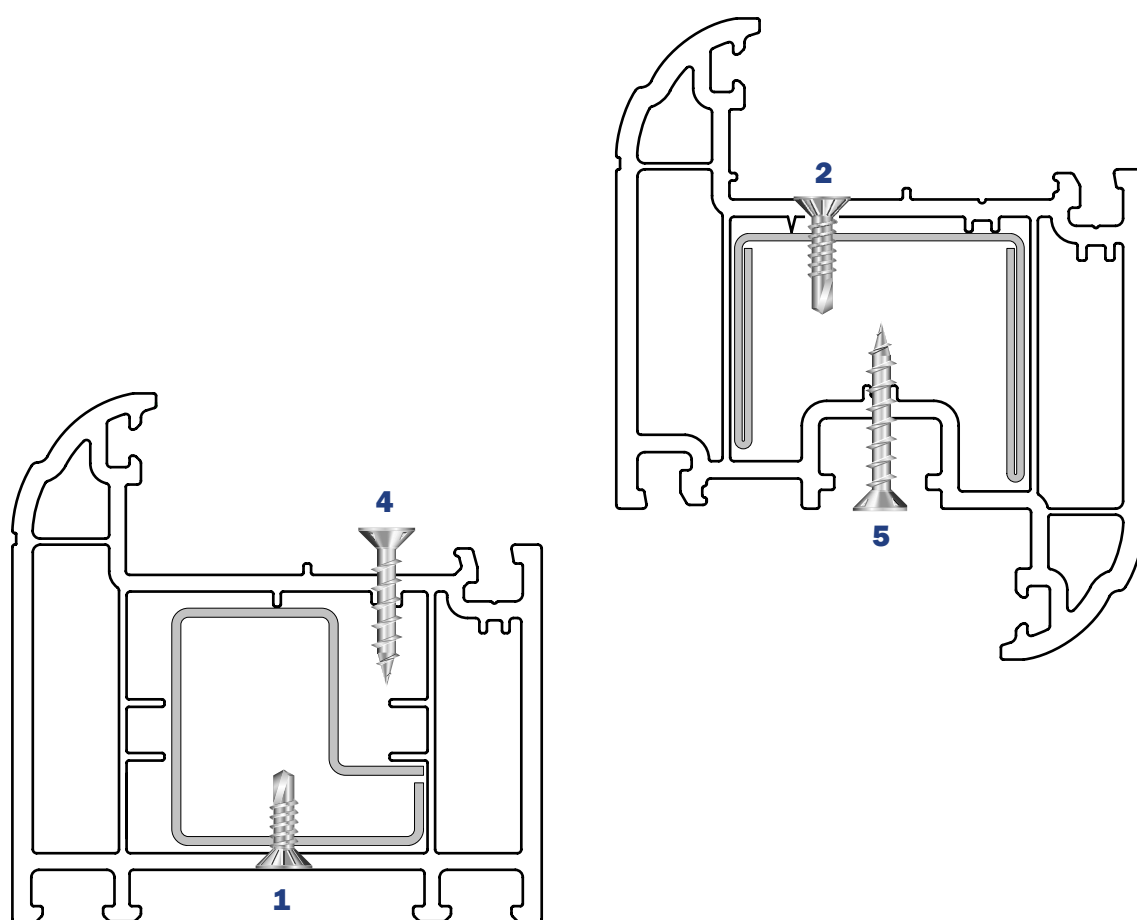
3		CFG 4.3 x 16 Z	T.C.I. retention
5		CFG 4.3 x 25 Z	Gearing to Sash. Keep to Frame
11		SFG 4.3 x 20 Z	Friction Stay (Frame)
12		SFG 4.3 x 25 Z	Friction Stay to Sash. Claw Lock to Frame
13		SFG 4.8 x 20 Z	Claw Lock to Frame
14		SFG 4.8 x 25 Z	Claw Lock to Sash
17		MS M5 x 40 Z	Handle

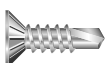
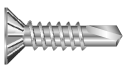


Tilt & Turn Window - Reinforced - Hinge Side
2833 Frame with 2887 Reinforcement
2828 Sash with 2846 Reinforcement



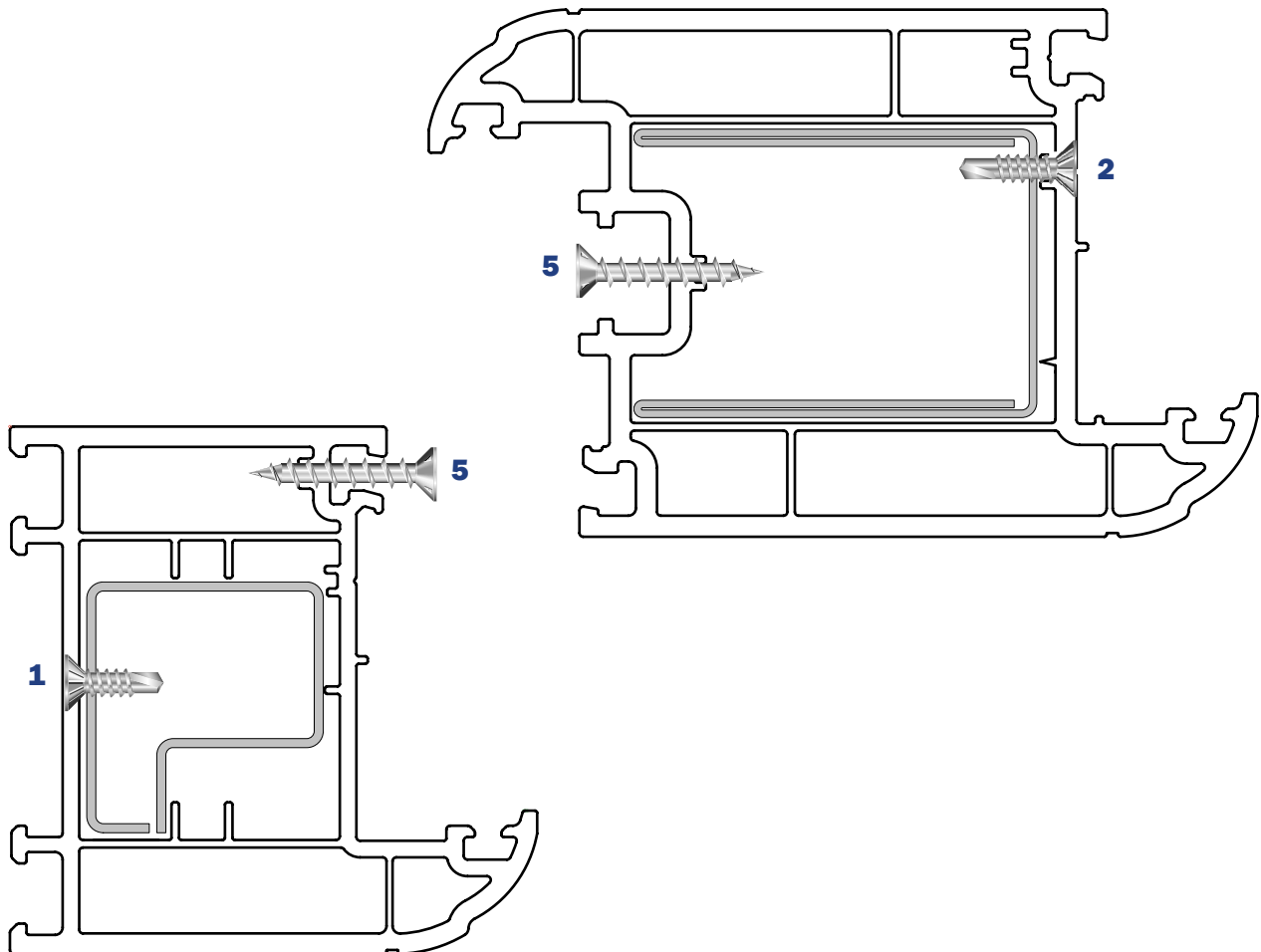
1		RSR 3.9 x 13 Z	Reinforcement Retention (Frame)
2		RSR 3.9 x 16 Z	Reinforcement Retention (Sash)
9		CSR 3.9 x 38 Z	Hinge
17		MS M5 x 40 Z	Handle
18		NFG 4.3 x 12 MY	Weatherbar




Tilt & Turn Window - Reinforced - Non Hinge Side
2833 Frame with 2887 Reinforcement
2828 Sash with 2846 Reinforcement



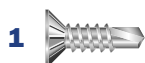
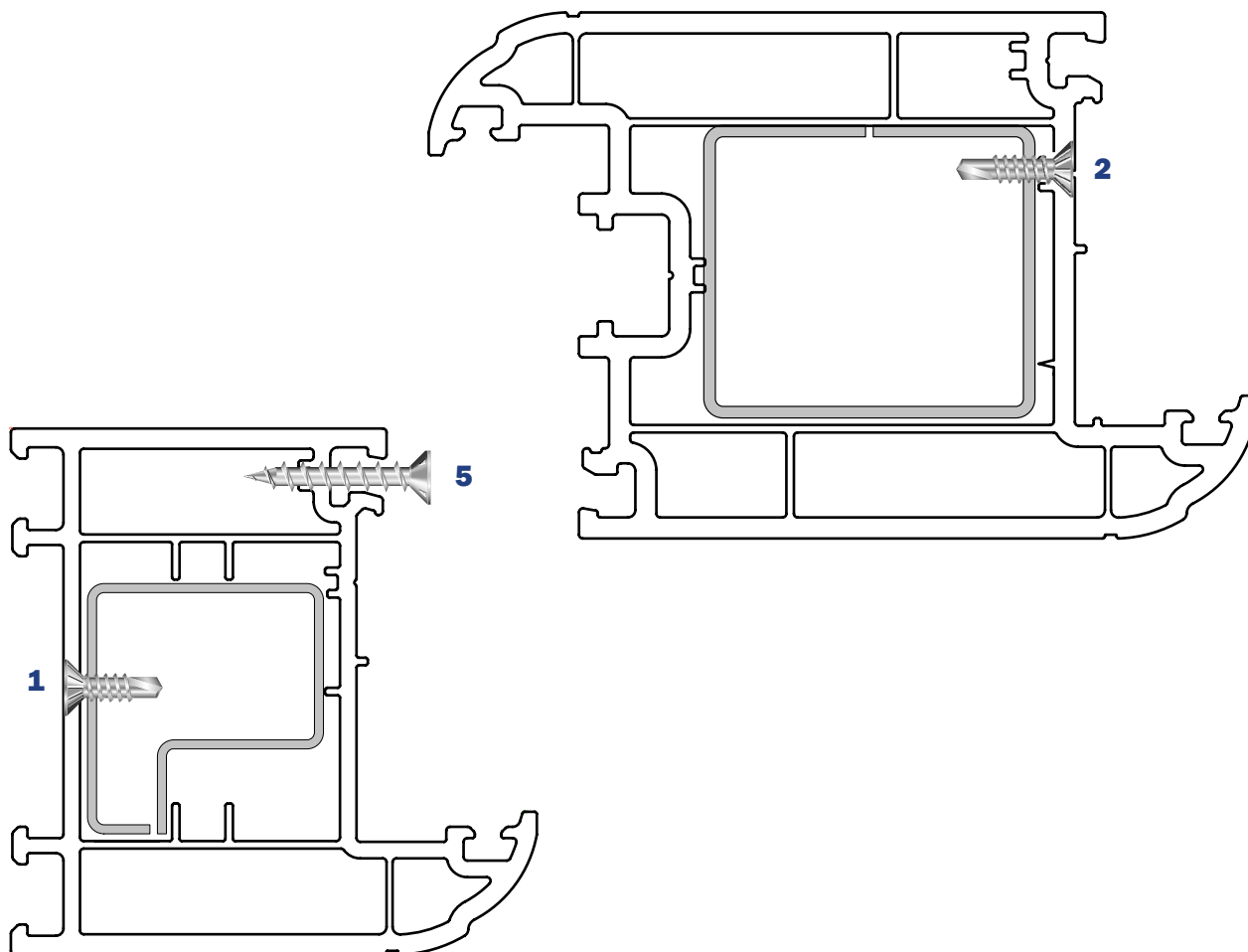
1		RSR 3.9 x 13 Z	Reinforcement retention (Frame)
2		RSR 3.9 x 16 Z	Reinforcement retention (Sash)
5		CFG 4.3 x 25 Z	Gearing
4		CFG 4.3 x 20 Z	Keep

Tilt & Slide Patio - Reinforced - Vertical Section
2833 Frame with 2887 Reinforcement
2828 Sash with 2843 Reinforcement



1		RSR 3.9 x 13 Z	Reinforcement Retention (Frame)
2		RSR 3.9 x 16 Z	Reinforcement Retention (Sash)
5		CFG 4.3 x 25 Z	Keep to Frame, Gearing to Sash

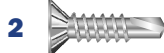
Tilt & Slide Patio - Reinforced - Horizontal Section
2833 Frame with 2887 Reinforcement
2828 Sash with 2859 Reinforcement



1

RSR 3.9 x 13 Z

Reinforcement Retention (Frame)



2

RSR 3.9 x 16 Z

Reinforcement Retention (Sash)

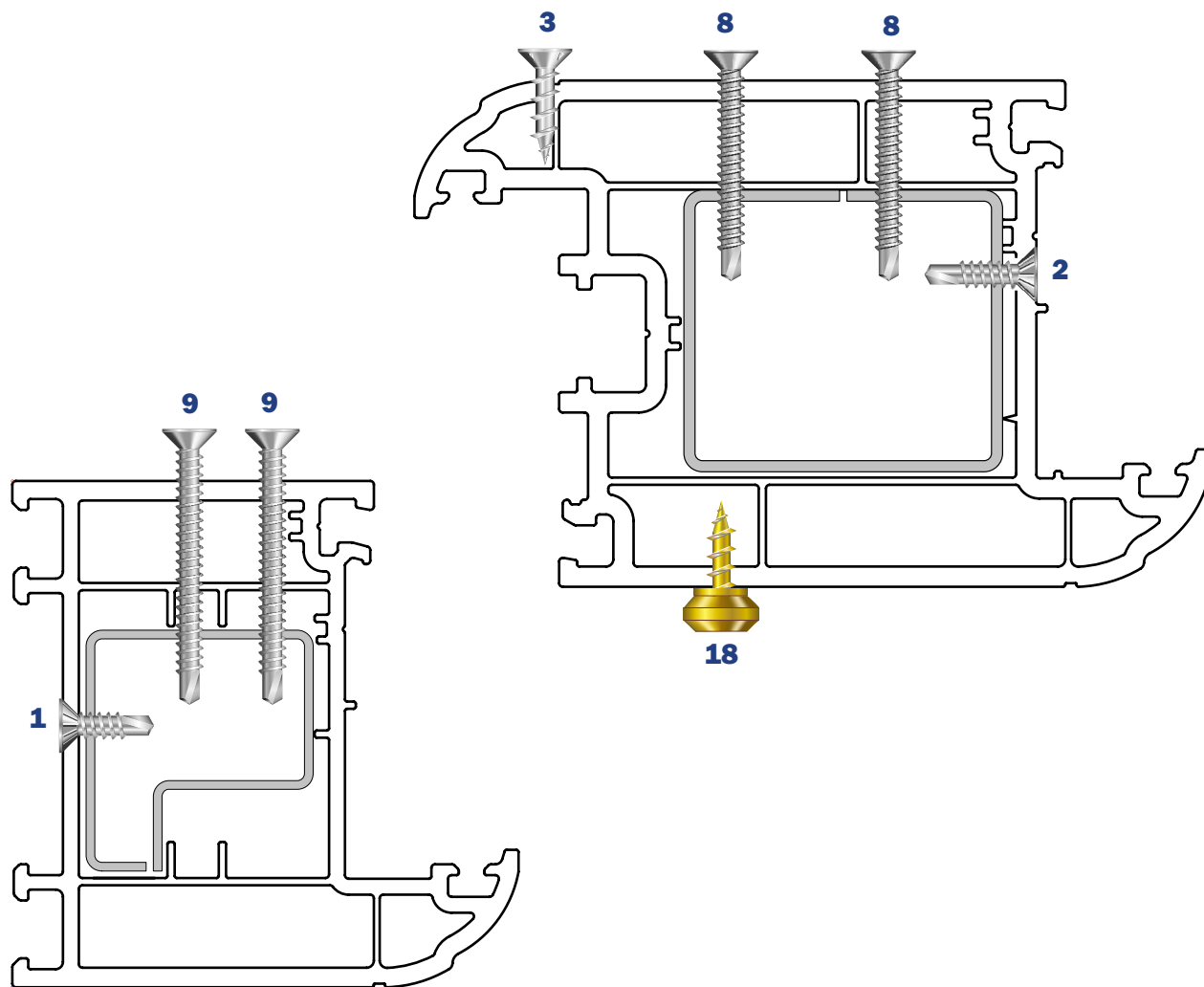


5

CFG 4.3 x 25 Z

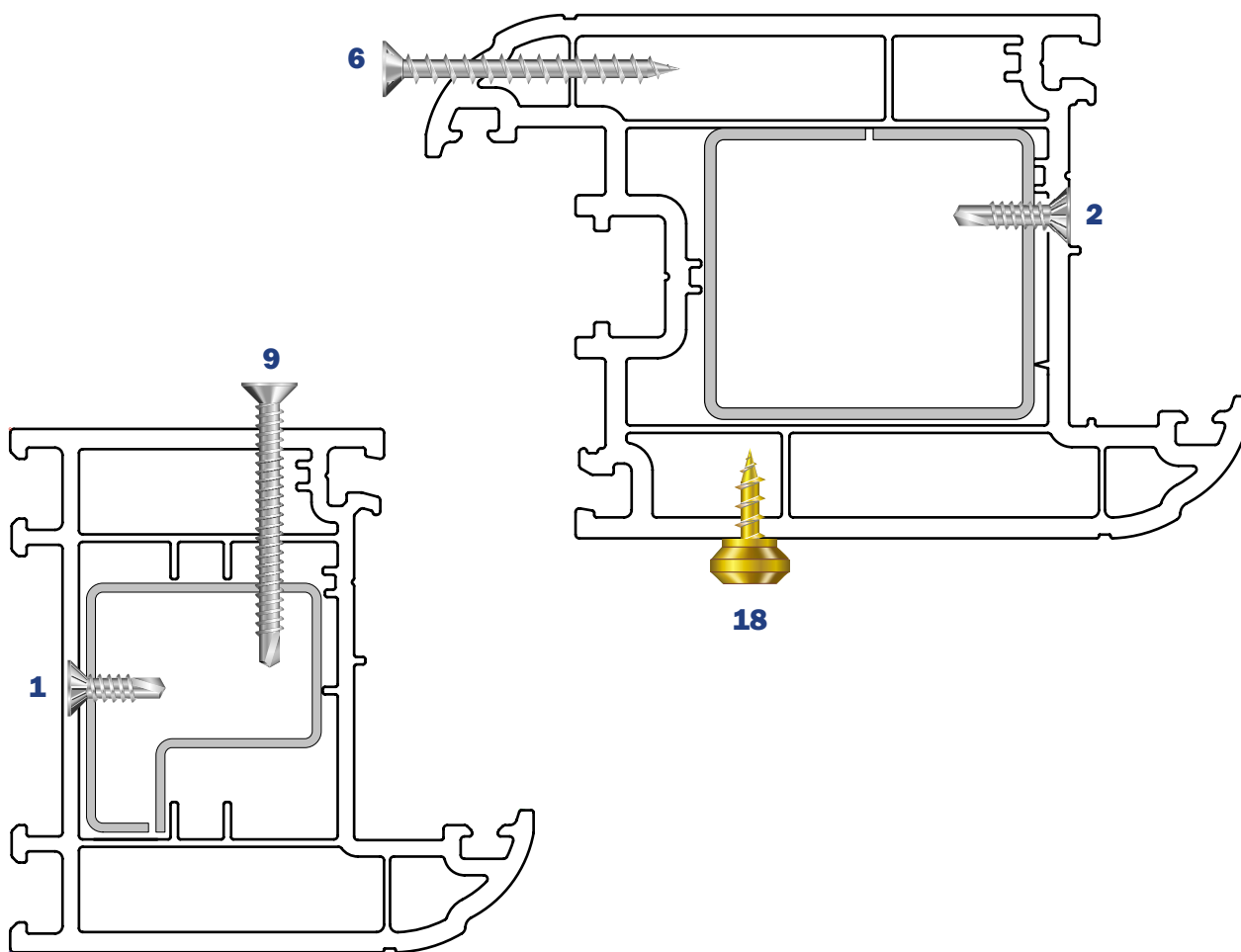
Keep

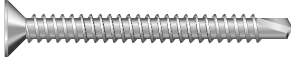

Open-In Door - Hinge Side - Flag Hinges
2833 Frame with 2887 Reinforcement
2830 Sash with 2859 Reinforcement



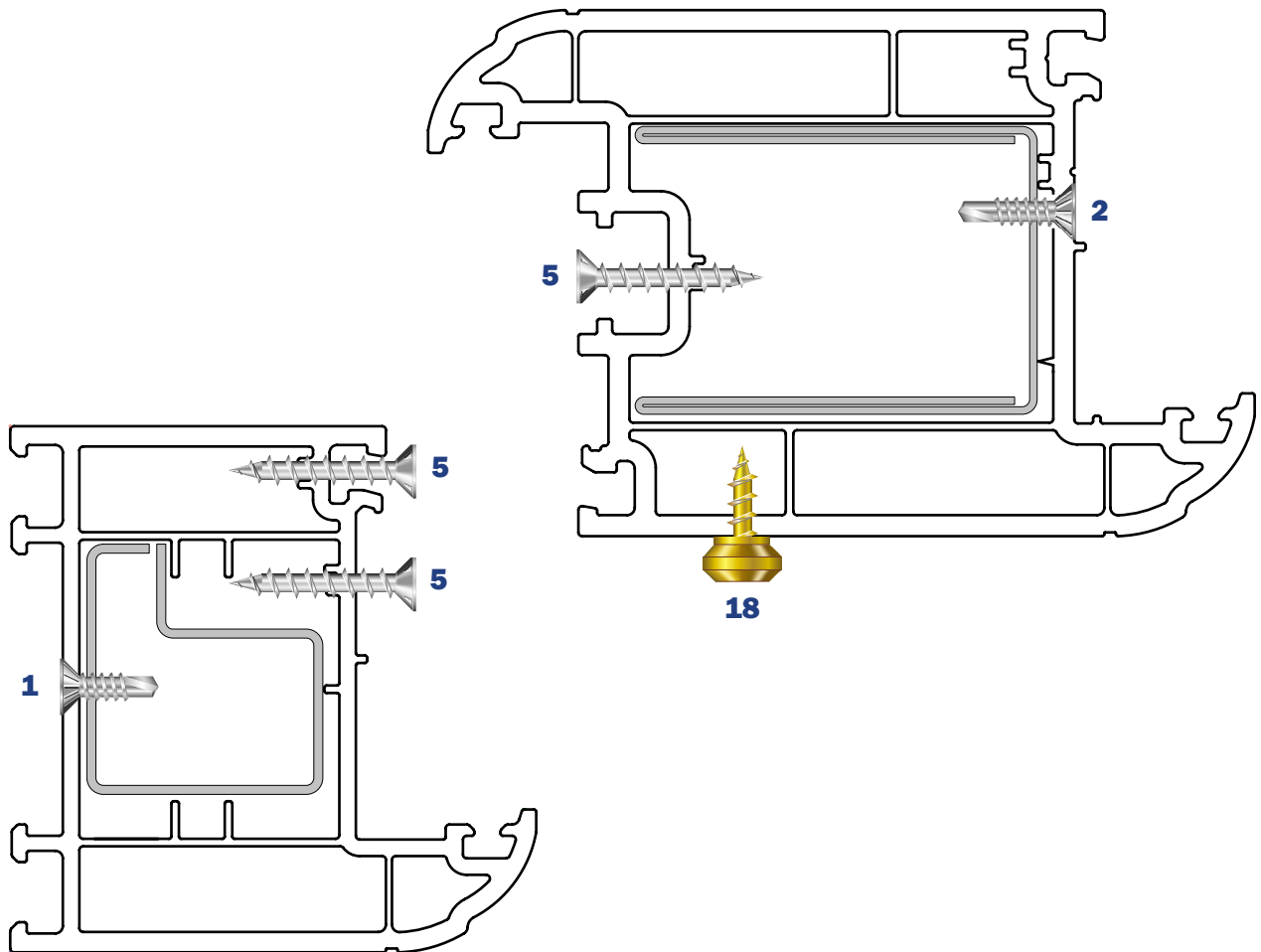
1		RSR 3.9 x 13 Z	Reinforcement Retention (Frame)
2		RSR 3.9 x 16 Z	Reinforcement Retention (Sash)
9		CSR 3.9 x 38 Z	Hinge to Frame
8		CSR 3.9 x 32 Z	Hinge to Reinforced section of Sash
3		CFG 4.3 x 16 Z	Hinge to Unreinforced section of Sash
18		NFG 4.4 x 12 MY	Weatherbar

Open-In Door - Hinge Side - Butt Hinges
2833 Frame with 2887 Reinforcement
2830 Sash with 2859 Reinforcement



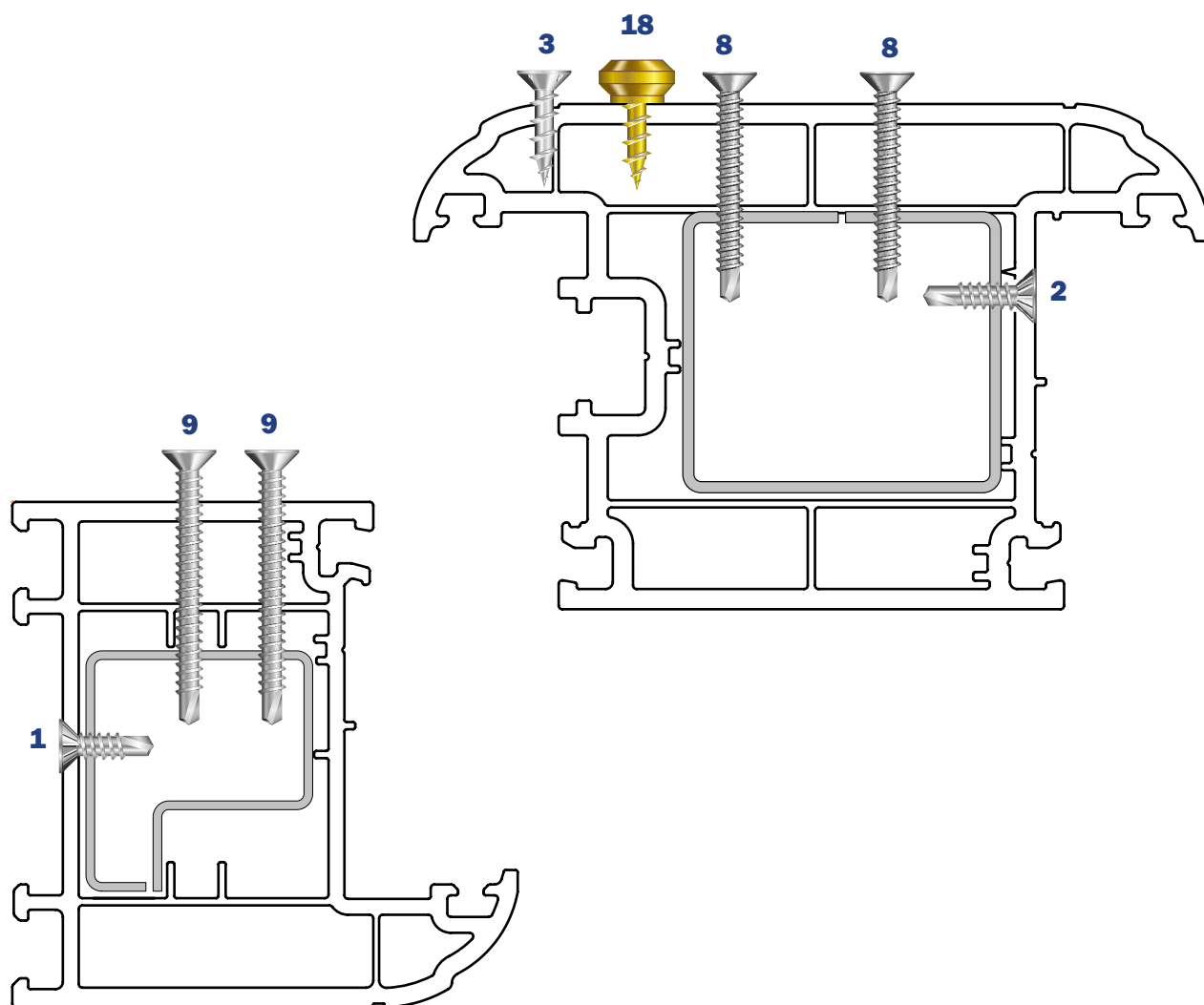
1		RSR 3.9 x 13 Z	Reinforcement Retention (Frame)
2		RSR 3.9 x 16 Z	Reinforcement Retention (Sash)
9		CSR 3.9 x 38 Z	Hinge to Frame
6		CFG 4.3 x 40 Z	Hinge to Sash
18		NFG 4.3 x 12 MY	Weatherbar






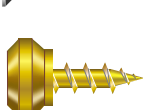
Open-In Door - Lock Side
2833 Frame with 2887 Reinforcement
2830 Sash with 2843 Reinforcement



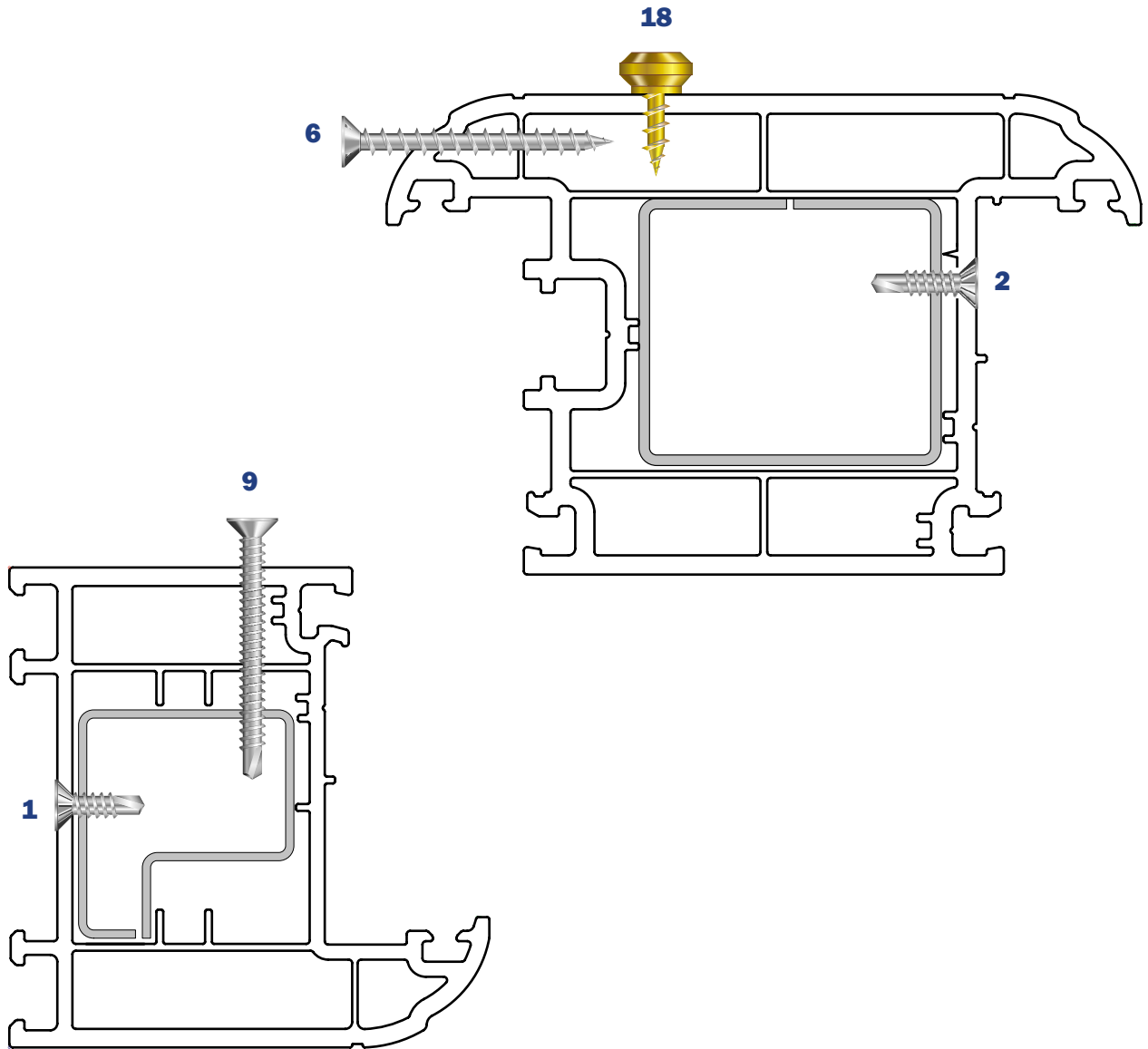
1		RSR 3.9 x 13 Z	Reinforcement Retention (Frame)
2		RSR 3.9 x 16 Z	Reinforcement Retention (Sash)
5		CFG 4.3 x 25 Z	Keep to Frame
5		CFG 4.3 x 25 Z	Gearing to Sash
18		NFG 4.3 x 12 MY	Weatherbar



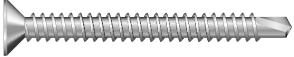
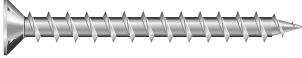

Open-Out Door - Hinge Side - Flag Hinges 2833 Frame with 2887 Reinforcement 2831 Sash with 2859 Reinforcement



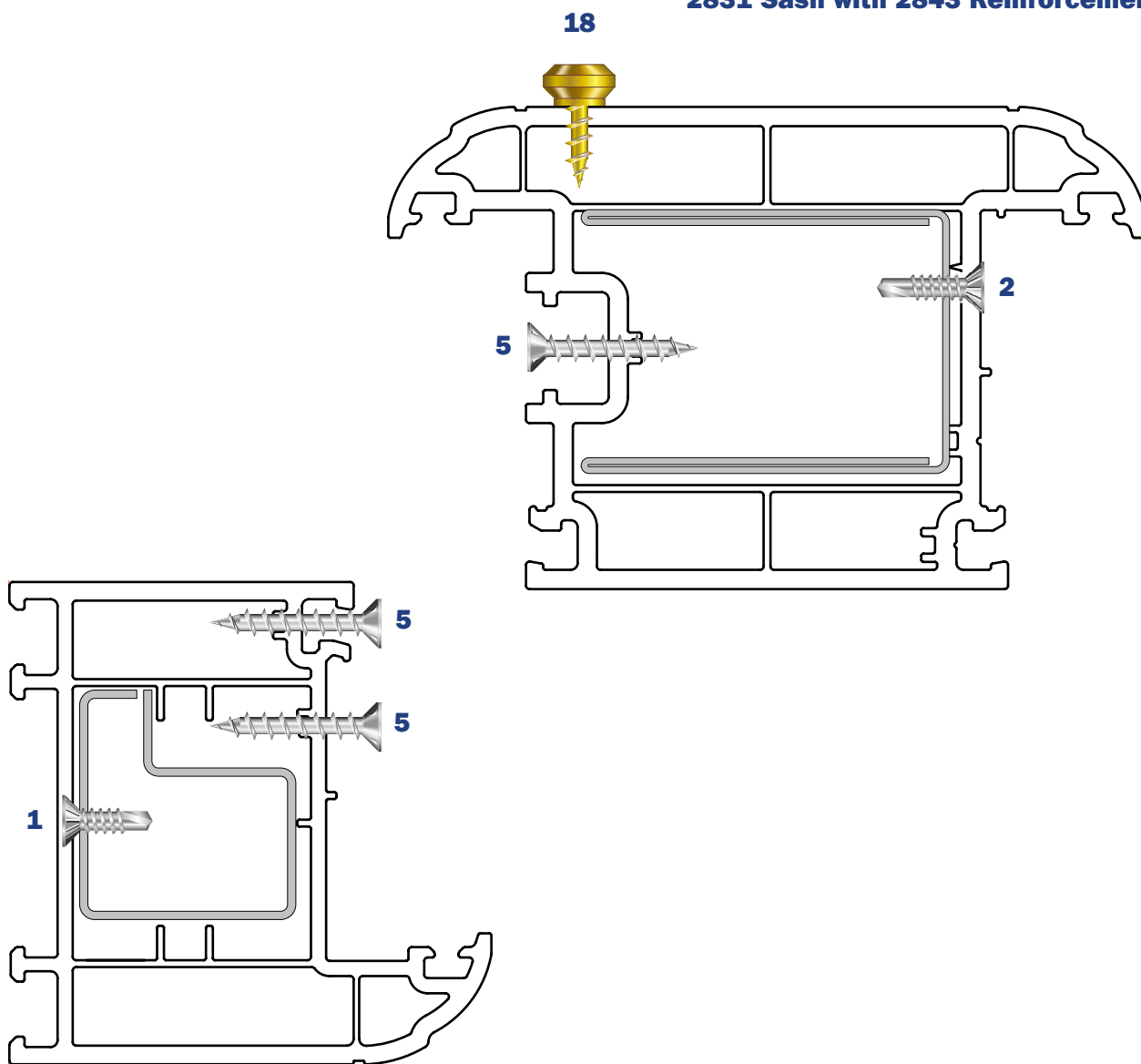
1		RSR 3.9 x 13 Z	Reinforcement Retention (Frame)
2		RSR 3.9 x 16 Z	Reinforcement Retention (Sash)
9		CSR 3.9 x 38 Z	Hinge to Frame
8		CSR 3.9 x 32 Z	Hinge to Reinforced section of Sash
3		CFG 4.3 x 16 Z	Hinge to Unreinforced section of Sash
18		NFG 4.3 x 12 MY	Weatherbar

Open-Out Door - Hinge Side - Butt Hinges
2833 Frame with 2887 Reinforcement
2831 Sash with 2859 Reinforcement



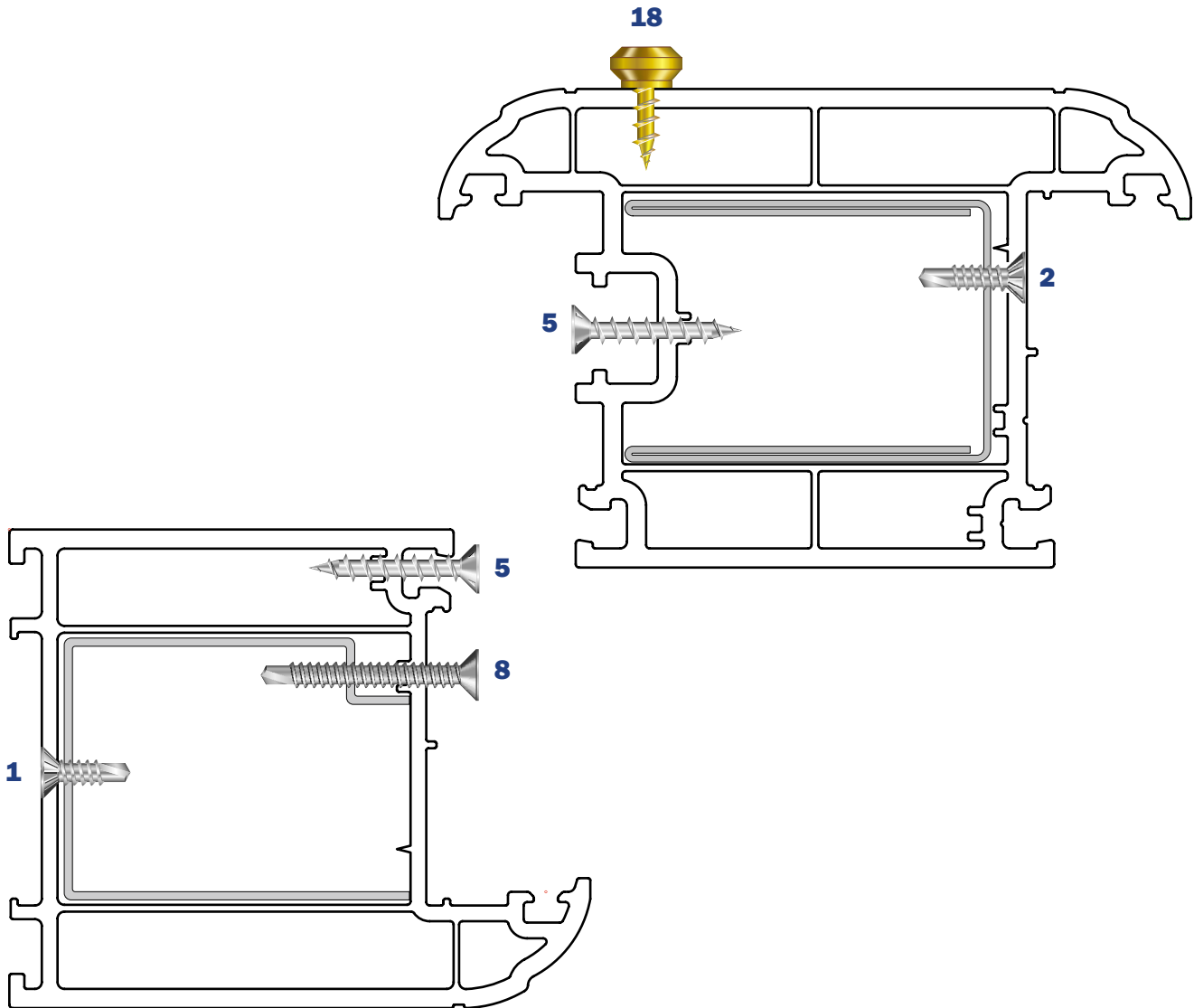
1		RSR 3.9 x 13 Z	Reinforcement Retention (Frame)
2		RSR 3.9 x 16 Z	Reinforcement Retention (Sash)
9		CSR 3.9 x 38 Z	Hinge to Frame
6		CFG 4.3 x 40 Z	Hinge to sash
18		NFG 4.3 x 12 MY	Weatherbar







Open-Out Door - Lock Side
2833 Frame with 2887 Reinforcement
2831 Sash with 2843 Reinforcement



1		RSR 3.9 x 13 Z	Reinforcement Retention (Frame)
2		RSR 3.9 x 16 Z	Reinforcement Retention (Sash)
5		CFG 4.3 x 25 Z	Keep to Frame
5		CFG 4.3 x 25 Z	Gearing to Sash
18		NFG 4.3 x 12 MY	Weatherbar

Residential Door - Lock Side - Wide Outer Frame
2822 Frame with 2842 Reinforcement
2831 Sash with 2843 Reinforcement



1		RSR 3.9 x 13 Z	Reinforcement Retention (Frame)
2		RSR 3.9 x 16 Z	Reinforcement Retention (Sash)
5		CFG 4.3 x 25 Z	Keep to Frame
8		CSR 3.9 x 32 Z	Keep to Frame
5		CFG 4.3 x 25 Z	Gearing to Sash
18		NFG 4.3 x 12 MY	Weatherbar

Notes



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