

USER GUIDE:	SAS - BS SPW+ & LOUVRE GUARD	DATE:	MARCH 2026
REVISION:	02	BY	JONATHAN CLARK
REVIEW PERIOD:	ANNUALLY	REVIEW:	MARCH 2027



USER GUIDE TECHNICAL UPDATE BRITISH STANDARD / SAS SPW+ & LOUVRE GUARD



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1. AMENDMENTS AND UPDATES

ISSUE	DATE	AMENDMENT / CHANGE
01	Mar 2026	
02	Mar 2026	Additional information for coupled frames

2. PURPOSE

The purpose of this user guide is to give employees an understanding of changes to the British Standard, and Senior Architectural Systems SPW+ & Louvre Guard

3. TECHNICAL UPDATE - BRITISH STANDARDS

The extract below is from the SAS Technical Update:

Frame Section Inertia Values

Due to an update in the British Standard, we will be removing the rigid I_{xx}/I_{yy} values from our manuals, and these will be replaced with the Effective Moment of Inertia I_{ef} values which have been calculated in accordance with BS EN 14024:2023.

What's the difference: -

- **Span Dependence:** The I_{ef} value is dependent on the span of the profile. For shorter spans, the effective value can be as low as half the rigid value, while for longer spans, it approaches the rigid value.

These values are provided for the initial selection of profiles, then project engineers can use these I_{ef} values to perform project calculations. Because I_{ef} is span-dependent, a qualified engineer can assess the chosen profiles meets the project deflection requirements.

The first manual to be released with the new tables will be the **SPW+ Tilt & Turn Open In Window System**. All the other system manuals will be updated over the coming weeks.

To check the section inertia based on the span, select the **nearest span below** the actual span and use the value shown to check against the inertia required.

For example, if you have a mullion span of 1423mm, select the **nearest span below**, which would be **1500mm**, as shown.

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Profiles	SPWX002001	SPWX003002	SPWX003001	SPWX003001 PUR033	SPWX003001 SPW037
					
SPAN (mm)	I_{xx} (cm ⁴)	I_{xx} (cm ⁴)	I_{xx} (cm ⁴)	I_{xx} (cm ⁴)	I_{xx} (cm ⁴)
500	6.32	7.47	6.80	33.30	65.77
750	8.85	10.42	9.49	38.08	72.09
1000	11.75	13.90	12.62	43.85	79.78
1250	14.69	17.54	15.84	50.03	88.10
1500	17.46	21.07	18.90	56.15	96.44
1750	19.96	24.33	21.69	61.94	104.40
2000	22.13	27.24	24.14	67.22	111.74
2250	24.00	29.80	26.27	71.94	118.35
2500	25.59	32.02	28.09	76.11	124.23

The new Effective Moment of Inertia tables are locating towards the end of the 'B' (Section Identification) pages of the manuals.

4. TECHNICAL UPDATE IMPACT TO GLASS AND FRAMING SOLUTIONS LIMITED

Unfortunately, this technical update does change a couple of things for us:

1. The LogiKal will no longer correctly perform the structural analysis on windows. This will need to be done each time by us, using an ix calculator (<https://www.seniorarchitectural.co.uk/fabricator-tools/deflection-spreadsheets/>) and the window system manual. I asked Mark Durose whether this will also change for curtain walling and he said this does not affect the curtain walling systems as these are calculated differently so we are still able to use the structural analysis in LogiKal for this.
2. When Mark and Jessica looked at this, it seems that with this new calculation method, we are more likely to need reinforcements on the mullions which is why it is so important to check these.

5. SPW+ & LOUVRE GUARD

During week commencing 16th March 2026, Jessica was looking at the SPW+ system with the Louvre Guard. The advantage of using this over PRe is that the louvre guard adapters can be fixed directly to the SPW+ profiles - whereas with the PRe, it needs special add-ons and couplers. This makes the SPW+ a lot more competitively priced, as well as having smaller sightlines and reduced fabrication times.

However, Jessica tried to use it for a project we are looking at and came across an issue, there is only a standard width mullion available in the system which means if you have a fixed window next to an opener, you're unable to use the louvre guard unless it is a small span. This is because the mullion reinforcement profile goes on the outer face of the mullion and therefore will clash with the louvre guard adapter. The reinforcement cannot go on the inside as it will clash with the inward opening tilt turn profile.

Jessica raised this issue with Mark Durose who took this back to his technical team and they've agreed to make a wide mullion profile to get around this issue. He said this will take around 2 months until it will be ready and, in the meantime, to price for the standard mullion and add 20% uplift on top of the mullion price to allow for this wider profile. He said they will honour this pricing when the new profile is available.

6. SPW+ COUPLED FRAMES

The Senior Architectural Systems Technical Manager has confirmed that when coupling frames, we add together the inertia values for the coupler and the outer frame together, to get the combined inertia value. He did mention it is then up to an engineer to determine the fixing centres based on the project requirements.