



# **70mm BAYS AND COUPLINGS MANUAL**

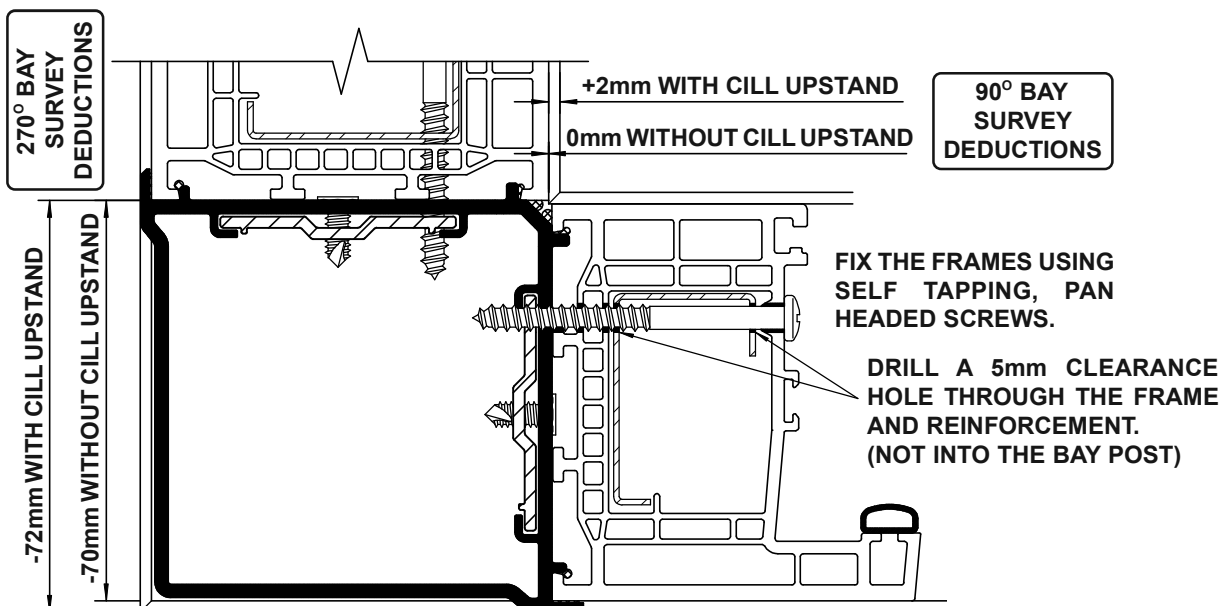
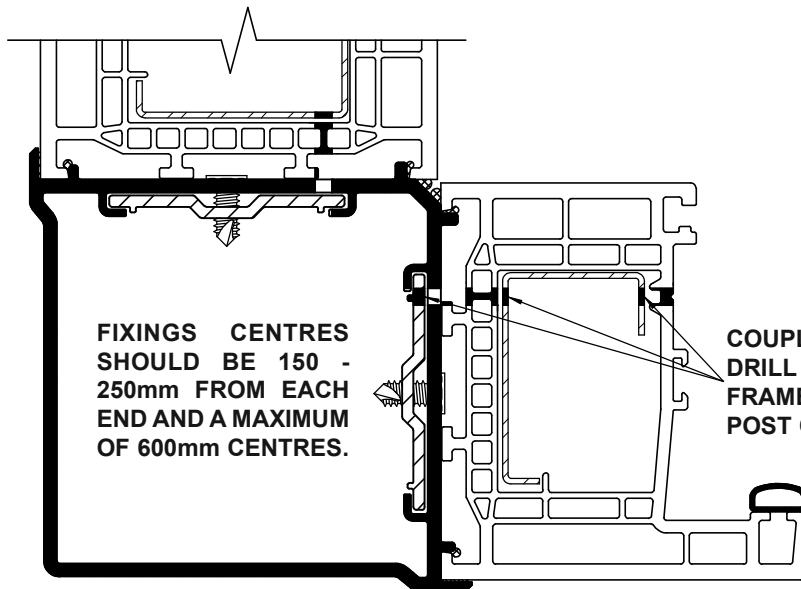
**Issue D  
December 2020**

# FIXED BAYS

## B71 ASSEMBLY INSTRUCTIONS

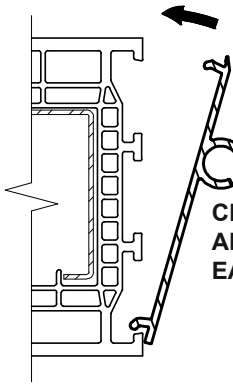


APPLY A BEAD OF SILICONE TO EACH CORNER.



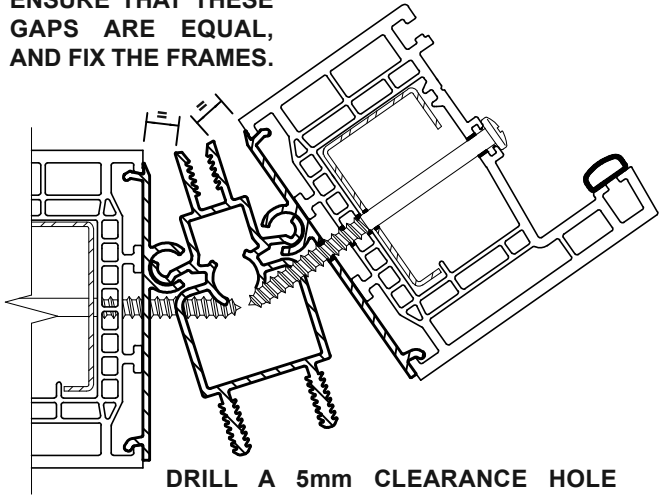
# VARIABLE BAYS

## BR280 & BR281 ASSEMBLY INSTRUCTIONS

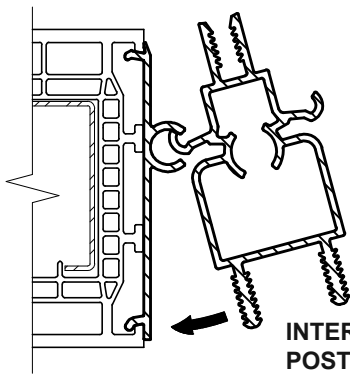


CLIP THE BR281 ADAPTORS ON TO EACH FRAME.

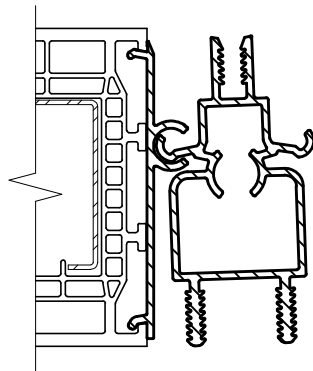
ENSURE THAT THESE GAPS ARE EQUAL, AND FIX THE FRAMES.



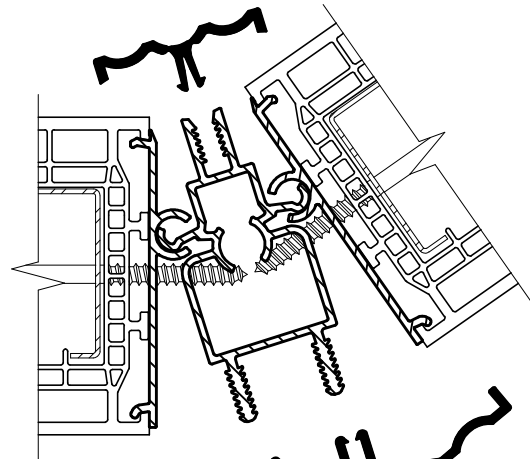
DRILL A 5mm CLEARANCE HOLE THROUGH THE FRAME AND ADAPTOR (NOT INTO THE BAY POST). FIX THE FRAMES USING SELF TAPPING, PAN HEADED SCREWS. FIXINGS CENTRES SHOULD BE 150 - 250mm FROM EACH END AND A MAXIMUM OF 600mm CENTRES.



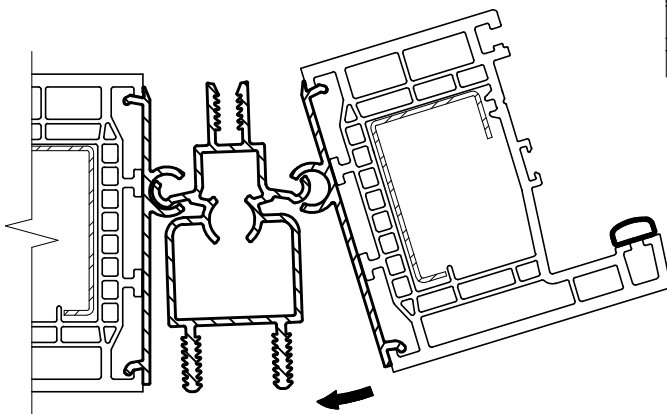
INTERLOCK THE POST ONTO ONE ADAPTOR.



CORRECT LOCKED POSITION.



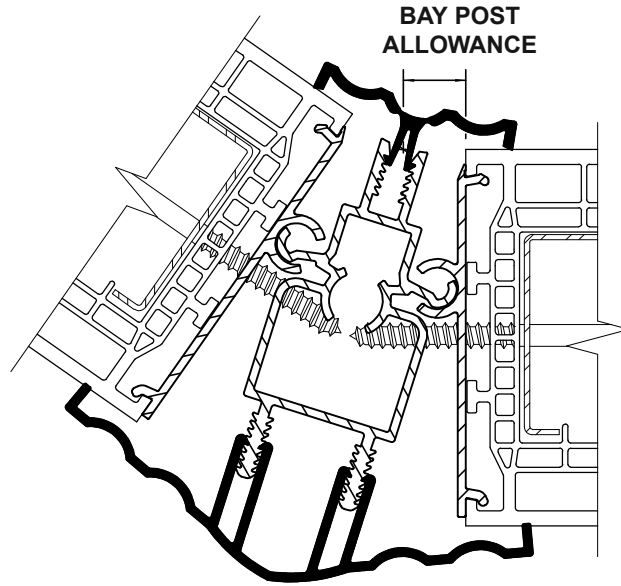
ONCE THE BAY POST HAS BE FIXED TOGETHER, CLIP ON THE B276 INTERNAL AND B277 EXTERNAL COVER CAPS.



INTERLOCK THE SECOND FRAME ONTO THE POST.

# VARIABLE BAYS

## BR280 & BR281 FABRICATION DEDUCTIONS - STANDARD ANGLES



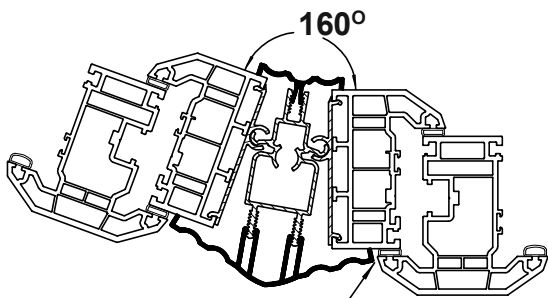
### BAY ASSEMBLY ALLOWANCE

The bay pole has a variable deduction (depending on the angle of the bay) which can be determined from the tables shown below.

WINDOW SIZES WITHOUT CILL			
ANGLE	DEDUCTION	ANGLE	DEDUCTION
120°	-6.3mm	146°	-11.8mm
122°	-6.7mm	148°	-12.2mm
124°	-7.1mm	150°	-12.6mm
126°	-7.6mm	152°	-13.0mm
128°	-8.0mm	154°	-13.5mm
130°	-8.4mm	156°	-13.9mm
132°	-8.9mm	158°	-14.3mm
134°	-9.3mm	160°	-14.7mm
136°	-9.7mm	*162°	-15.2mm
138°	-10.1mm	*164°	-15.6mm
140°	-10.5mm	*166°	-16.0mm
142°	-11.0mm	*168°	-16.4mm
144°	-11.4mm	*170°	-16.9mm

WINDOW SIZES WITH CILL UPSTAND			
ANGLE	DEDUCTION	ANGLE	DEDUCTION
120°	-5.1mm	146°	-11.2mm
122°	-5.6mm	148°	-11.6mm
124°	-6.1mm	150°	-12.1mm
126°	-6.6mm	152°	-12.6mm
128°	-7.0mm	154°	-13.0mm
130°	-7.5mm	156°	-13.5mm
132°	-8.0mm	158°	-13.9mm
134°	-8.4mm	160°	-14.4mm
136°	-8.9mm	*162°	-14.8mm
138°	-9.4mm	*164°	-15.3mm
140°	-9.8mm	*166°	-15.8mm
142°	-10.3mm	*168°	-16.2mm
144°	-10.7mm	*170°	-16.7mm

### MAXIMUM ANGLE WHEN USING THE 50mm SLIM OUTER FRAME



TO AVOID CLASHING

### \*NOTE\*

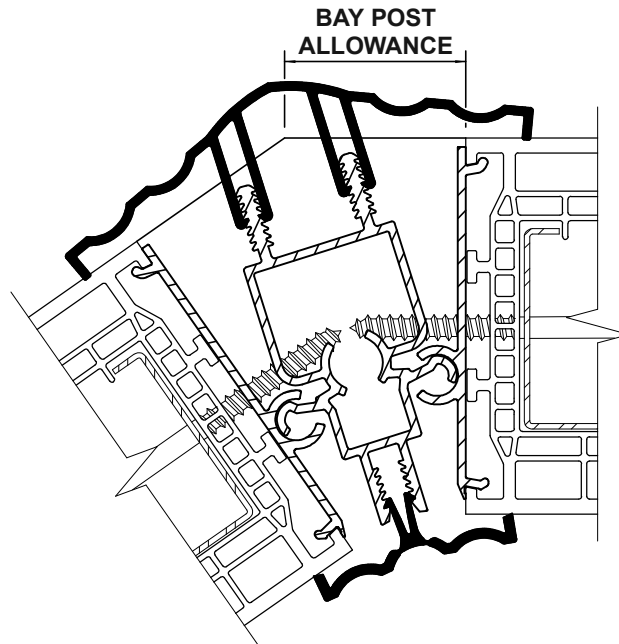
Please note, if using the 50mm slim outer frame and the windows have opening casements, to avoid clashing with the cover cap, the maximum internal angle is 160°

These frames are:

- Optima**      QC01 or QS01
- Swish 24/7**    TS839
- Elite 70**      B01 or B05

# VARIABLE BAYS

## BR280 & BR281 FABRICATION DEDUCTIONS - REVERSE ANGLES



### BAY ASSEMBLY ALLOWANCE

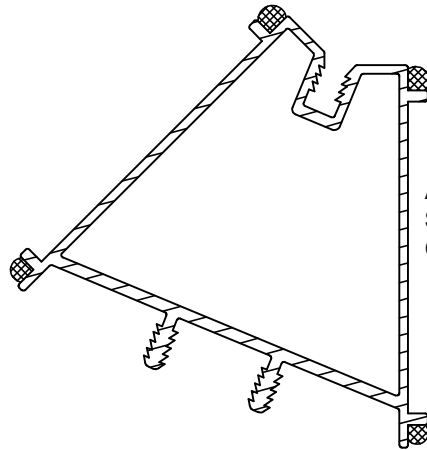
The bay pole has a variable deduction (depending on the angle of the bay) which can be determined from the tables shown below.

WINDOW SIZES WITHOUT CILL			
ANGLE	DEDUCTION	ANGLE	DEDUCTION
190°	-23.0mm	216°	-34.1mm
192°	-23.8mm	218°	-35.1mm
194°	-24.6mm	220°	-36.0mm
196°	-25.4mm	222°	-37.0mm
198°	-26.2mm	224°	-38.0mm
200°	-27.1mm	226°	-39.0mm
202°	-27.9mm	228°	-40.0mm
204°	-28.8mm	230°	-41.1mm
206°	-29.6mm	232°	-42.1mm
208°	-30.5mm	234°	-43.2mm
210°	-31.4mm	236°	-44.4mm
212°	-32.3mm	238°	-45.5mm
214°	-33.2mm	240°	-46.7mm

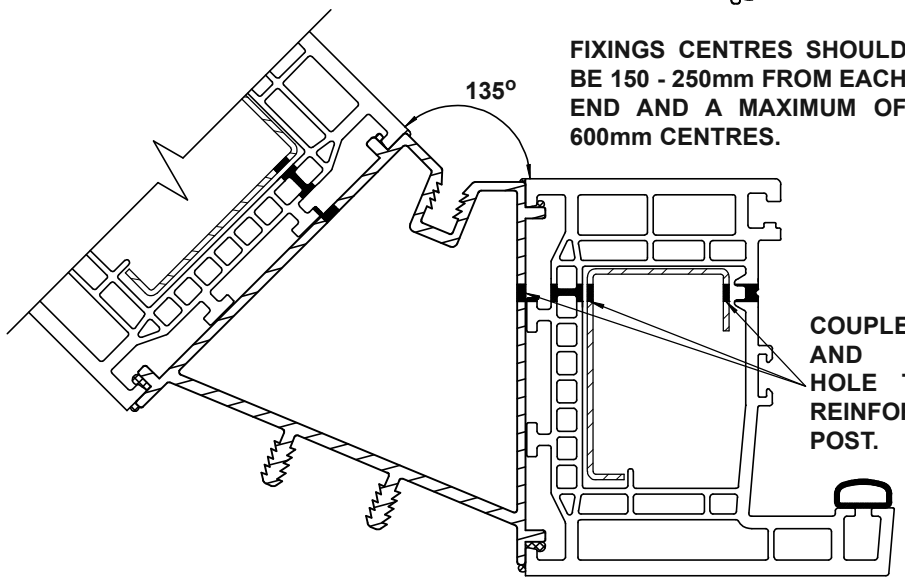
WINDOW SIZES WITH CILL UPSTAND			
ANGLE	DEDUCTION	ANGLE	DEDUCTION
190°	-23.2mm	216°	-34.8mm
192°	-24.0mm	218°	-35.8mm
194°	-24.8mm	220°	-36.7mm
196°	-25.6mm	222°	-37.8mm
198°	-26.5mm	224°	-38.3mm
200°	-27.4mm	226°	-39.8mm
202°	-28.3mm	228°	-40.9mm
204°	-29.2mm	230°	-42.0mm
206°	-30.1mm	232°	-43.1mm
208°	-31.0mm	234°	-44.3mm
210°	-31.9mm	236°	-45.4mm
212°	-32.9mm	238°	-46.6mm
214°	-33.8mm	240°	-47.7mm

# FIXED BAYS

## BR277 ASSEMBLY INSTRUCTIONS



APPLY A BEAD OF SILICONE TO EACH CORNER.

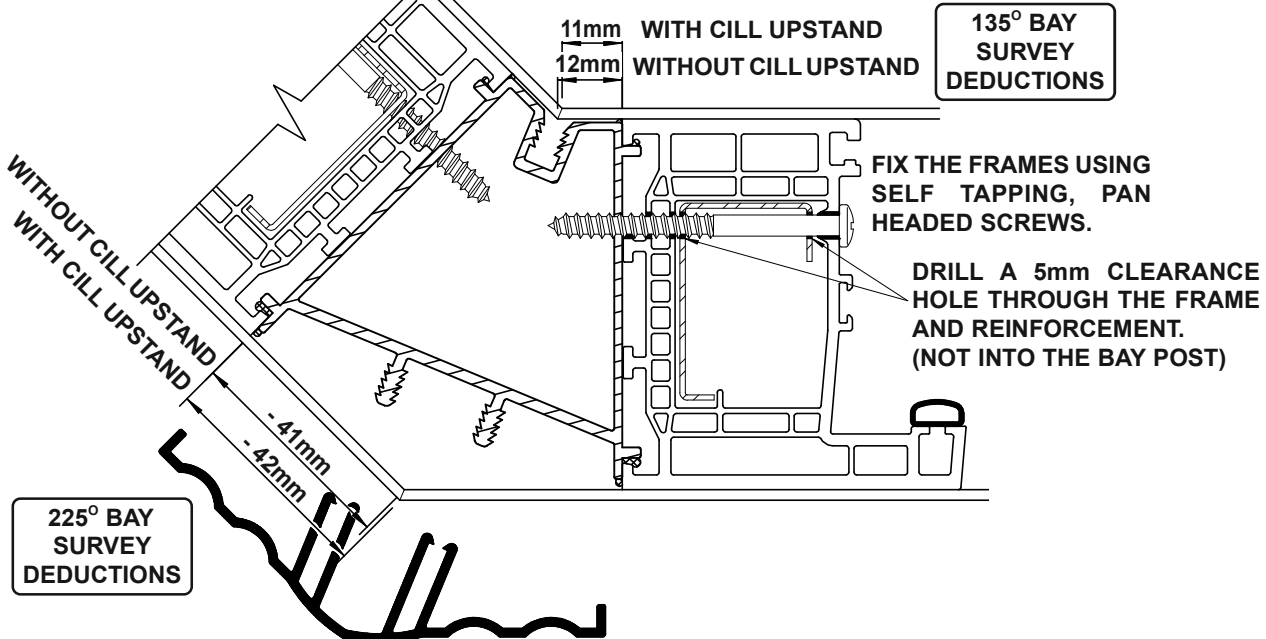


FIXINGS CENTRES SHOULD BE 150 - 250mm FROM EACH END AND A MAXIMUM OF 600mm CENTRES.

COUPLE THE FRAMES TOGETHER, AND DRILL A 3mm PILOT HOLE THROUGH THE FRAME, REINFORCEMENT AND THE BAY POST.



WHEN ALL FIXINGS ARE SECURED, CLIP ON THE COVER CAPS.



11mm WITH CILL UPSTAND  
12mm WITHOUT CILL UPSTAND

135° BAY SURVEY DEDUCTIONS

FIX THE FRAMES USING SELF TAPPING, PAN HEADED SCREWS.

DRILL A 5mm CLEARANCE HOLE THROUGH THE FRAME AND REINFORCEMENT. (NOT INTO THE BAY POST)

225° BAY SURVEY DEDUCTIONS

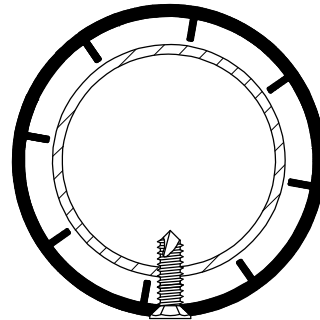
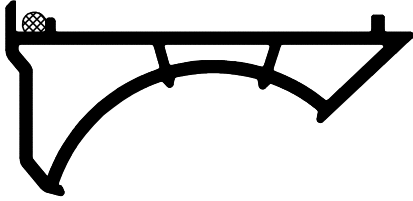
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# VARIABLE BAYS

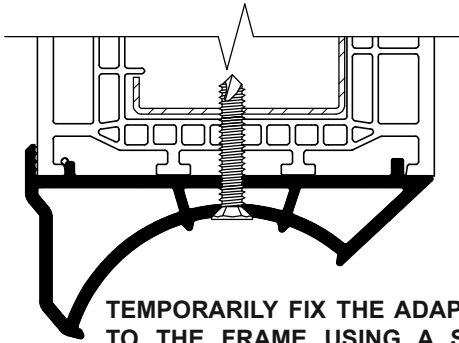
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## B70 & B74 ASSEMBLY INSTRUCTIONS

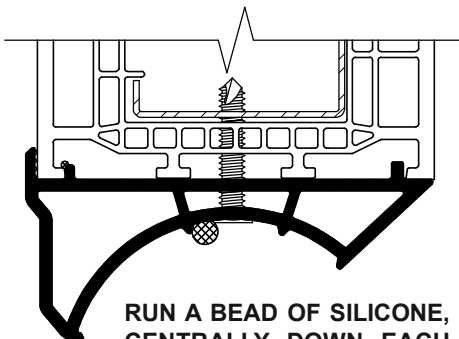
APPLY A BEAD OF SILICONE IN THE FRONT GROOVE.



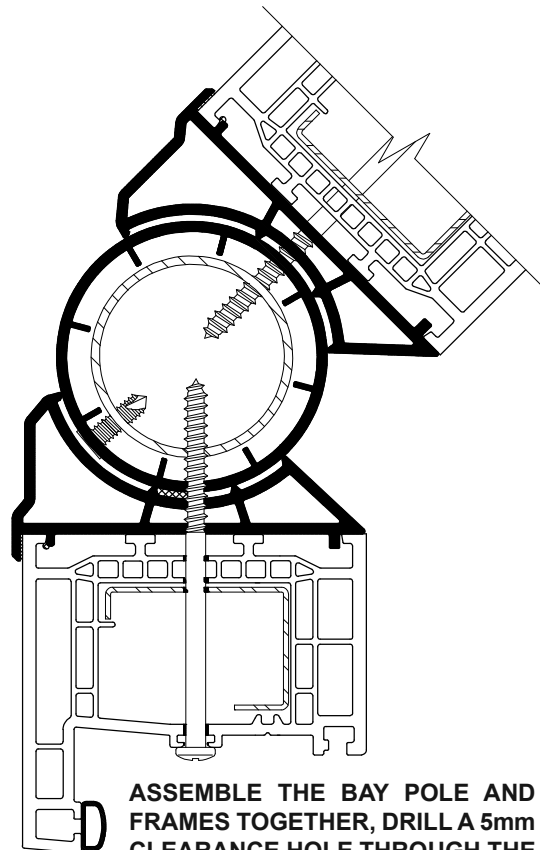
TEMPORARILY FIX THE REINFORCEMENT INSIDE THE PVC-U POLE USING A SELF DRILLING/SELF TAPPING FACET HEADED SCREW. BECAUSE THE FINAL ASSEMBLY WILL BE SECURED AS ONE, ONLY ONE SCREW IS REQUIRED.



TEMPORARILY FIX THE ADAPTOR TO THE FRAME USING A SELF TAPPING COUNTERSUNK SCREW. BECAUSE THE FINAL ASSEMBLY WILL BE SECURED AS ONE, ONLY ONE SCREW IS REQUIRED FROM THE ADAPTOR TO THE FRAME.



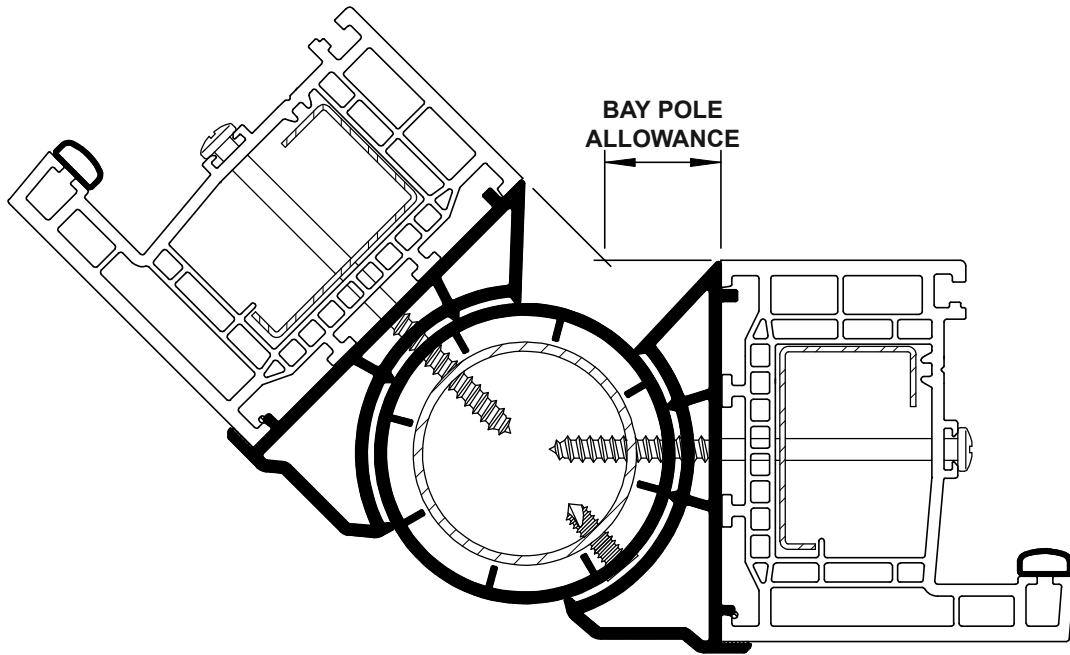
RUN A BEAD OF SILICONE, CENTRALLY DOWN EACH ADAPTOR.



ASSEMBLE THE BAY POLE AND FRAMES TOGETHER, DRILL A 5mm CLEARANCE HOLE THROUGH THE FRAME AND REINFORCEMENT (NOT INTO THE BAY ASSEMBLY). FIX THE FRAMES USING SELF TAPPING, PAN HEADED SCREWS. FIXINGS CENTRES SHOULD BE 150 - 250mm FROM EACH END AND A MAXIMUM OF 600mm CENTRES.

# VARIABLE BAYS

## B70 & B74 FABRICATION DEDUCTIONS - STANDARD ANGLES



### BAY POLE ALLOWANCE

The bay pole has a variable deduction (depending on the angle of the bay) which can be determined from the tables shown below.

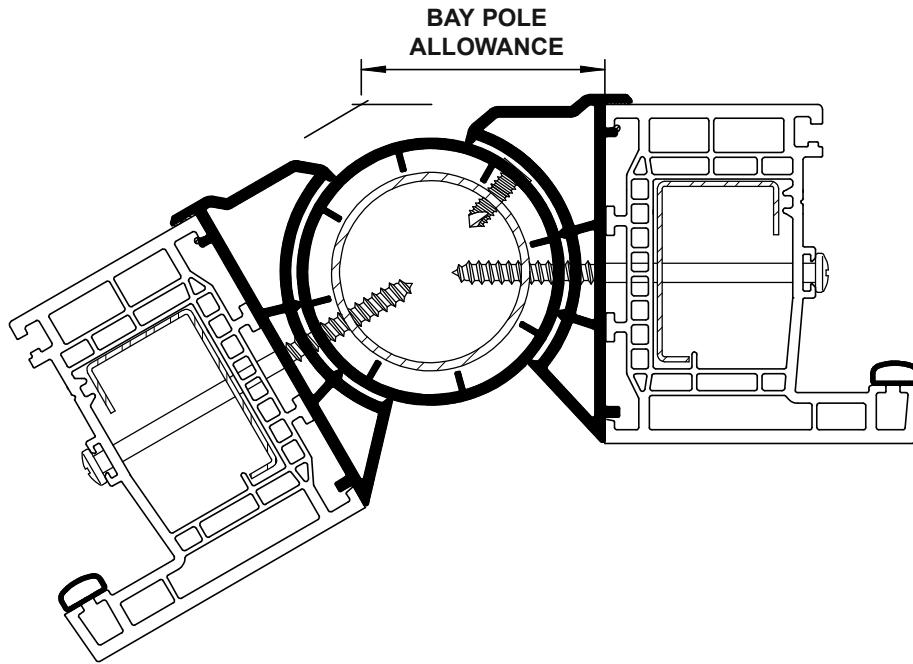
WINDOW SIZES WITHOUT CILL			
ANGLE	DEDUCTION	ANGLE	DEDUCTION
90°	-0.8mm	136°	-21.8mm
92°	-2.0mm	138°	-22.5mm
94°	-3.2mm	140°	-23.2mm
96°	-4.3mm	142°	-23.9mm
98°	-5.4mm	144°	-24.6mm
100°	-6.5mm	146°	-25.2mm
102°	-7.5mm	148°	-25.9mm
104°	-8.5mm	150°	-26.6mm
106°	-9.5mm	152°	-27.2mm
108°	-10.4mm	154°	-27.9mm
110°	-11.4mm	156°	-28.5mm
112°	-12.3mm	158°	-29.2mm
114°	-13.1mm	160°	-29.8mm
116°	-14.0mm	162°	-30.4mm
118°	-14.8mm	164°	-31.1mm
120°	-15.7mm	166°	-31.7mm
122°	-16.5mm	168°	-32.3mm
124°	-17.3mm	170°	-32.9mm
126°	-18.1mm	172°	-33.5mm
128°	-18.8mm	174°	-34.2mm
130°	-19.6mm	176°	-34.8mm
132°	-20.3mm	178°	-35.4mm
134°	-21.1mm	180°	-36.0mm

WINDOW SIZES WITH CILL UPSTAND			
ANGLE	DEDUCTION	ANGLE	DEDUCTION
90°	+1.2mm	136°	-21.0mm
92°	0mm	138°	-21.7mm
94°	-1.3mm	140°	-22.5mm
96°	-2.5mm	142°	-23.2mm
98°	-3.7mm	144°	-23.9mm
100°	-4.8mm	146°	-24.6mm
102°	-5.9mm	148°	-25.3mm
104°	-6.9mm	150°	-26.0mm
106°	-8.0mm	152°	-26.7mm
108°	-9.0mm	154°	-27.4mm
110°	-10.0mm	156°	-28.1mm
112°	-10.9mm	158°	-28.8mm
114°	-11.8mm	160°	-29.4mm
116°	-12.8mm	162°	-30.1mm
118°	-13.6mm	164°	-30.8mm
120°	-14.5mm	166°	-31.4mm
122°	-15.4mm	168°	-32.1mm
124°	-16.2mm	170°	-32.7mm
126°	-17.0mm	172°	-33.4mm
128°	-17.9mm	174°	-34.1mm
130°	-18.7mm	176°	-34.7mm
132°	-19.4mm	178°	-35.4mm
134°	-20.2mm	180°	-36.0mm



# VARIABLE BAYS

## B70 & B74 FABRICATION DEDUCTIONS - REVERSE ANGLES



### BAY POLE ALLOWANCE

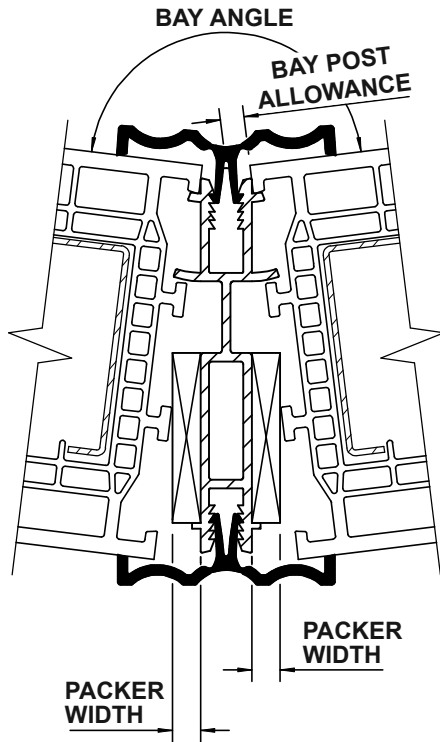
The bay pole has a variable deduction (depending on the angle of the bay) which can be determined from the tables shown below.

WINDOW SIZES WITHOUT CILL			
ANGLE	DEDUCTION	ANGLE	DEDUCTION
180°	-36.0mm	226°	-50.8mm
182°	-36.6mm	228°	-51.5mm
184°	-37.2mm	230°	-52.2mm
186°	-37.8mm	232°	-53.0mm
188°	-38.4mm	234°	-53.7mm
190°	-39.0mm	236°	-54.5mm
192°	-39.7mm	238°	-55.3mm
194°	-40.3mm	240°	-56.1mm
196°	-40.9mm	242°	-56.9mm
198°	-41.5mm	244°	-57.7mm
200°	-42.1mm	246°	-58.6mm
202°	-42.8mm	248°	-59.5mm
204°	-43.4mm	250°	-60.4mm
206°	-44.0mm	252°	-61.3mm
208°	-44.7mm	254°	-62.2mm
210°	-45.3mm	256°	-63.2mm
212°	-46.0mm	258°	-64.2mm
214°	-46.6mm	260°	-65.2mm
216°	-47.3mm	262°	-66.3mm
218°	-48.0mm	264°	-67.3mm
220°	-48.7mm	266°	-68.5mm
222°	-49.4mm	268°	-69.6mm
224°	-50.1mm	270°	-70.8mm

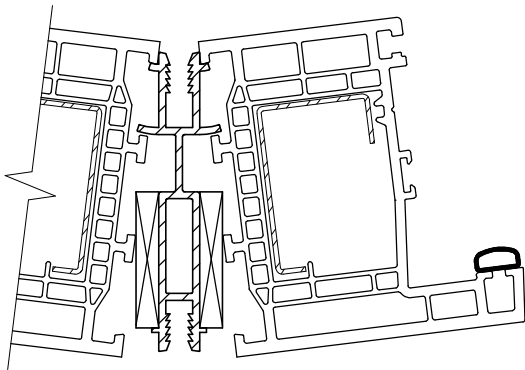
WINDOW SIZES WITH CILL UPSTAND			
ANGLE	DEDUCTION	ANGLE	DEDUCTION
180°	-36.0mm	226°	-51.6mm
182°	-36.6mm	228°	-52.4mm
184°	-37.3mm	230°	-53.2mm
186°	-37.9mm	232°	-53.9mm
188°	-38.6mm	234°	-54.8mm
190°	-39.2mm	236°	-55.6mm
192°	-39.9mm	238°	-56.4mm
194°	-40.5mm	240°	-57.2mm
196°	-41.2mm	242°	-58.1mm
198°	-41.8mm	244°	-59.0mm
200°	-42.5mm	246°	-59.9mm
202°	-43.2mm	248°	-60.8mm
204°	-43.8mm	250°	-61.8mm
206°	-44.5mm	252°	-62.7mm
208°	-45.2mm	254°	-63.7mm
210°	-45.9mm	256°	-64.8mm
212°	-46.6mm	258°	-65.8mm
214°	-47.3mm	260°	-66.9mm
216°	-48.0mm	262°	-68.0mm
218°	-48.7mm	264°	-69.1mm
220°	-49.4mm	266°	-70.3mm
222°	-50.1mm	268°	-71.5mm
224°	-50.9mm	270°	-72.8mm

# VARIABLE BAYS

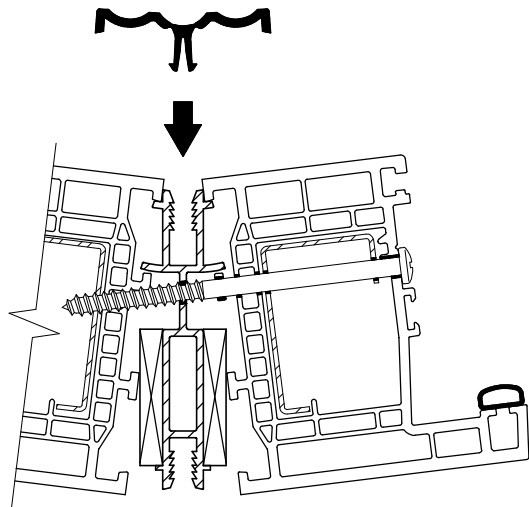
## BR276 ASSEMBLY INSTRUCTIONS



WINDOW SIZES			
PACKER WIDTH	BAY ANGLE	DEDUCTION (NO CILL)	DEDUCTION (WITH CILL)
0mm	180°	-4.5mm	-4.5mm
1mm (x 2)	178°	-4.5mm	-4.5mm
2mm (x 2)	175°	-4.5mm	-4.5mm
3mm (x 2)	172°	-4.5mm	-4.0mm
4mm (x 2)	169°	-4.5mm	-4.0mm
5mm (x 2)	166°	-4.0mm	-4.0mm
6mm (x 2)	163°	-4.0mm	-4.0mm
7mm (x 2)	161°	-4.0mm	-4.0mm
7mm+8mm	160°	-4.0mm	-4.0mm



USING THE CORRECT WIDTH PACKER, COUPLE THE ASSEMBLY TOGETHER AND DRILL A 5mm CLEARANCE HOLE THROUGH THE FRAME AND THE BAY POST. FIX THE FRAMES USING SELF TAPPING, PAN HEADED SCREWS. FIXINGS CENTRES SHOULD BE 150 - 250mm FROM EACH END AND A MAXIMUM OF 600mm CENTRES.



FIX THE FRAMES USING SELF TAPPING, PAN HEADED SCREWS.

ONCE THE BAY POST HAS BEEN FIXED TOGETHER, CLIP ON THE B276 INTERNAL AND EXTERNAL COVER CAPS.