System 17 50mm High Rise Curtain Walling

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Specification

System 17

50mm HIGH RISE CURTAIN WALLING

Metal Technology, an acknowledged leader in window and door systems has designed System 17 curtain walling for high rise applications. Its attractive and clean lines will enhance all types of office and commercial façades, with the added benefit of simple fabrication.

Introduction
This system is designed for use in multi-storey and roof glazing applications and is capable of accommodating a variety of glazing, panel and opening options.
As with all curtain walling systems, intermediate tie backs to the structure may be required subject to site conditions.
The basic suite is comprised of structural profiles, spigots, pressure plates and thermal isolators. A wide range of caps allows the designer to select from a variety of aesthetic solutions. Alternative silicone pointed and frameless vent options are available using System 17 Latitude, SSB and SP. A further unitised modular option is available using System 17 Cassette. Various other bespoke profiles can be produced allowing architects to achieve flexible designs. Glazing options are available for a variety of unit thicknesses. As with all other Metal Technology products, manufacturing is to exacting standards giving economy with required strength, and many years of aesthetic, trouble-free operation.

Thermal Performance
Metal Technology System 17 Curtain Walling in conjunction with the correct glass specification, is designed to aid compliance with the latest thermal requirements of the current building regulations.

Scope
This specification defines materials, construction, finishes and size limits for curtain walling.

Materials
Aluminium profiles are extruded from aluminium alloy 6060T6, T5 or T4 complying with the recommendations of BS EN 12020-2/BS EN 755-Parts 1 to 9

Finishes
The range of sections can be provided in either of the following ranges of finishes:
1. Anodised to BS 1615 or BS 3987
2. Powder organic coated to BS 6496 or BS EN 12206-1

Where required, a different colour/finish can be provided internally and externally.

Construction
Mullions are square cut and jointed using specially designed jointing spigots. Transoms have notched ends to ensure an easily weather-proofed joint can be provided between mullion and transom. The system is mullion drained and provision is made to drain water out of the mullion at regular intervals.
The system offers the facility to produce screens façetted on plan. Gaskets provide the facility of façetting up to ± 5º. When combined with the adaptor profiles and pressure caps any angle from 90º to 180º can be achieved.
Metal Technology do not recommend façetting curtain walling screens when incorporating intermediate mullion expansion joints. To facilitate more efficient fabrication of the system Metal Technology can supply punch tooling and jigs to ensure the accurate and efficient preparation of mullions and transoms. Metal Technology recommend that A2 or A4 Austenitic (300 series/class 70) stainless steel fixing screws are used in the assembly of their products.

Installation
The Metal Technology High Rise Curtain Wall system is designed as a 'Stick' built system, therefore mullions and transoms are transported to site as prepared components and the grid work is assembled onto the building in stick form.

Extruded profiles for manufacturing adjustable structural brackets capable of accommodating site tolerance, thermal and structural movement are available. These allow the curtain walling to be fixed to the structure easily and securely so that all loads are transferred back to the building's main structural form.

Expansion joints are allowed on every floor or every other floor to accommodate any building movement.

Glazing
Glass is set against extruded gaskets internally which are fitted into gasket grooves in the mullions and transoms. Special care has been taken to design high performance gaskets which will ensure the long term weather-tightness of the system. Internal gaskets have pre-formed vulcanised corner pieces to aid continuity of the internal seal.
Horizontal and vertical unit edges are then retained using pressure plates and gaskets screw fixed into the structural members. Cover caps are applied to conceal the pressure plate fixings.

Curved Sections
In accordance with Metal Technology's policy of offering the maximum flexibility to the designer, Metal Technology have special facilities available to enable profile to be supplied curved.

Requirements for curved sections should be discussed with Metal Technology at an early stage in the project.

Opening Vents
Details and specifications for the opening vents can be found in the Metal Technology Thermally Enhanced and Windows manuals. For frameless vents refer to System 17 Latitude manual.

Performance
The curtain walling has been impact tested to BS EN 14019 and tested for weather tightness to EN 13050 and in accordance with the CWCT dynamic test for curtain walling and achieved the following results:

Air permeability	- 600 Pa
Water tightness	- 600 Pa
Wind resistance	- 2400 Pa
Dynamic water tightness	- 600 Pa
Wind load (safety)	- 3600 Pa

Full test report details are available on request.

These levels of performance should be sufficient for any location within the UK and Ireland. For further information on testing and performance contact Metal Technology's Technical Department.

Where overall screen height exceeds 20 storeys or screen requirements differ from those stated in this literature refer to Metal Technology's Technical Department.

Development
Our policy is to continually research the market for new and improved products. We must therefore retain the right to amend specifications without prior notice. It is recognised at Metal Technology that in some instances special sections may be required for particular projects. When this occurs it may be possible to produce special sections subject to there being sufficient quantity and adequate time. These requirements should be discussed with Metal Technology.

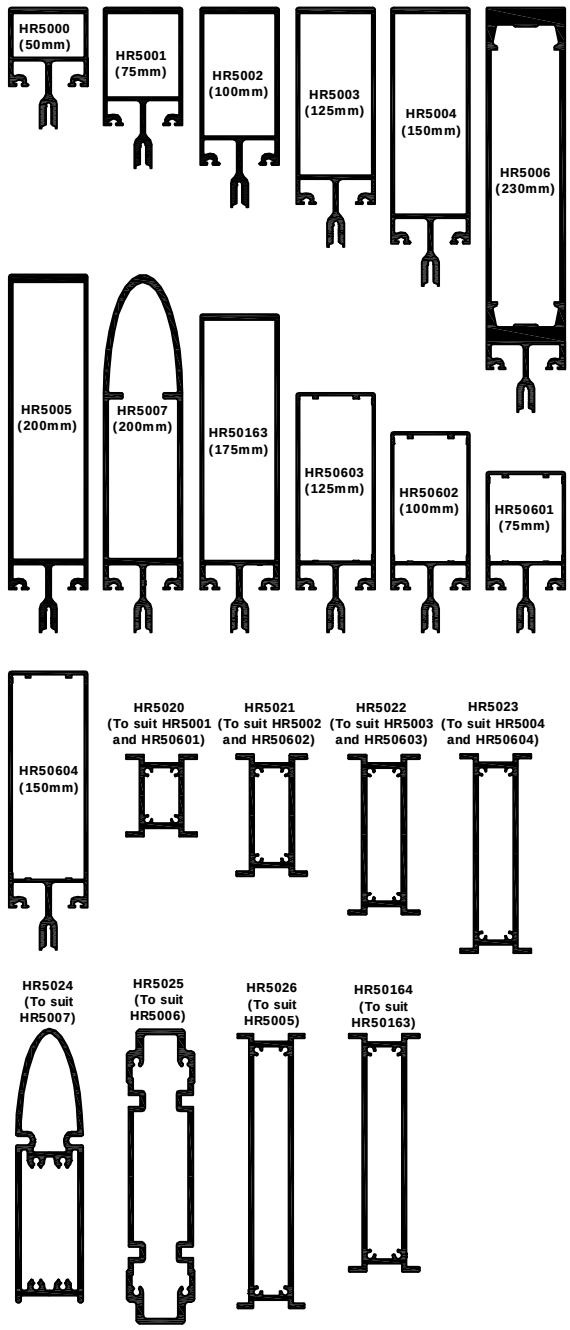
Profile Index

System 17

50mm HIGH RISE CURTAIN WALLING

Profile illustration

Section Properties



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17/1/50	HR5004	3.31	626	4244111	442617
17/1/70	HR5005	4.968	719	9989100	743782
17/1/90	HR5006	7.70	779	21700000	1000000
17/1/80	HR5007	4.844	691	8180000	525800
17/1/20	HR5020	1.58	244	185440	94898
17/1/30	HR5021	2.00	294	532742	119972
17/1/40	HR5022	2.38	342	1116717	145046
17/1/50	HR5023	2.79	392	1984242	170120
17/1/80	HR5024	4.162	442		
17/1/90	HR5025	4.62	510		
17/1/70	HR5026	3.547	481	4402931	205252
17/1/60	HR50163	3.643	671	6128227	511817
17/1/60	HR50164	3.199	443	3072904	188408
17/1/20	HR50601	1.961	476	688500	212800
17/1/30	HR50602	2.178	526	1269500	259700
17/1/40	HR50603	2.551	576	2213100	331300
17/1/50	HR50604	2.969	626	3555800	412600

Not to Scale

Profile Index

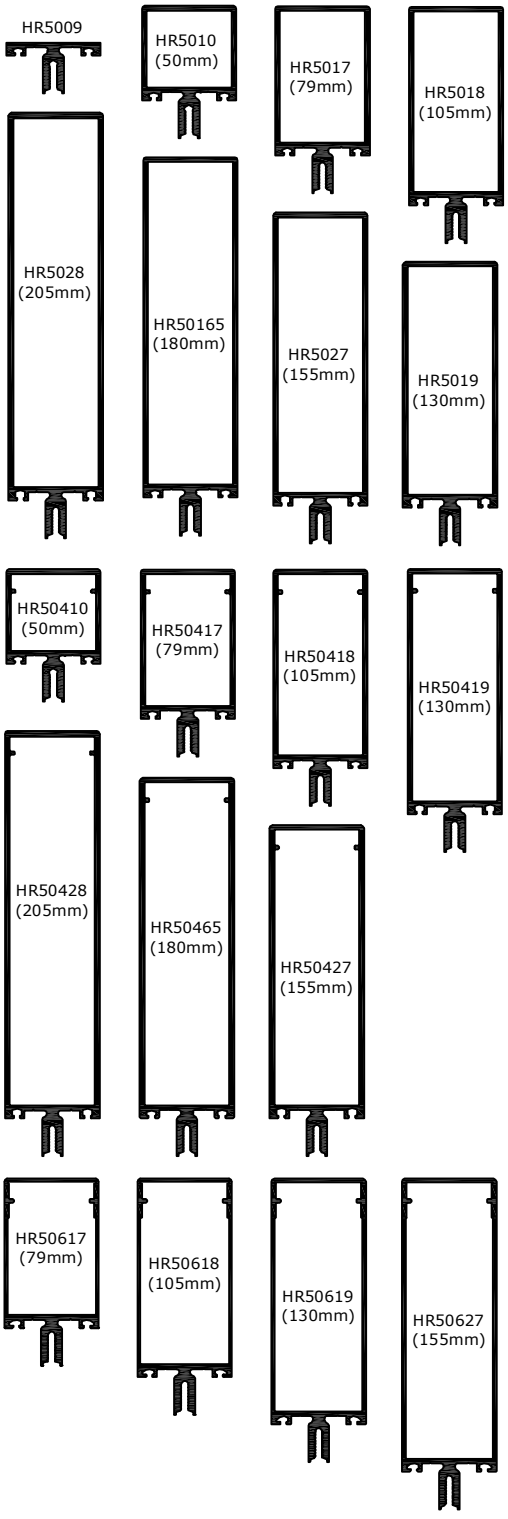
System 17

50mm HIGH RISE
CURTAIN WALLING

Profile illustration

Section Properties

ILLUSTRATION DIMENSIONS



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17/1/30	HR5018	2.61	430	1582500	361600
17/1/40	HR5019	2.94	484	2616800	411400
17/1/50	HR5027	3.274	534	3988400	481900
17/1/70	HR5028	4.609	634	9062600	764416
17/1/60	HR50165	3.61	584	5714771	558227
17/1/10	HR50410	1.87	326	294600	186400
17/1/20	HR50417	2.28	378	822000	267400
17/1/30	HR50418	2.63	430	1582500	361600
17/1/40	HR50419	2.96	484	2616800	411400
17/1/50	HR50427	3.294	534	3988400	481900
17/1/70	HR50428	4.629	634	9062600	764416
17/1/60	HR50465	3.63	584	5714771	558227
17/1/20	HR50617	1.87	388	715200	218500
17/1/30	HR50618	2.095	440	1355900	267200
17/1/40	HR50619	2.448	490	2315300	338200
17/1/50	HR50627	2.854	540	3649800	419600

Not to Scale

Profile Index

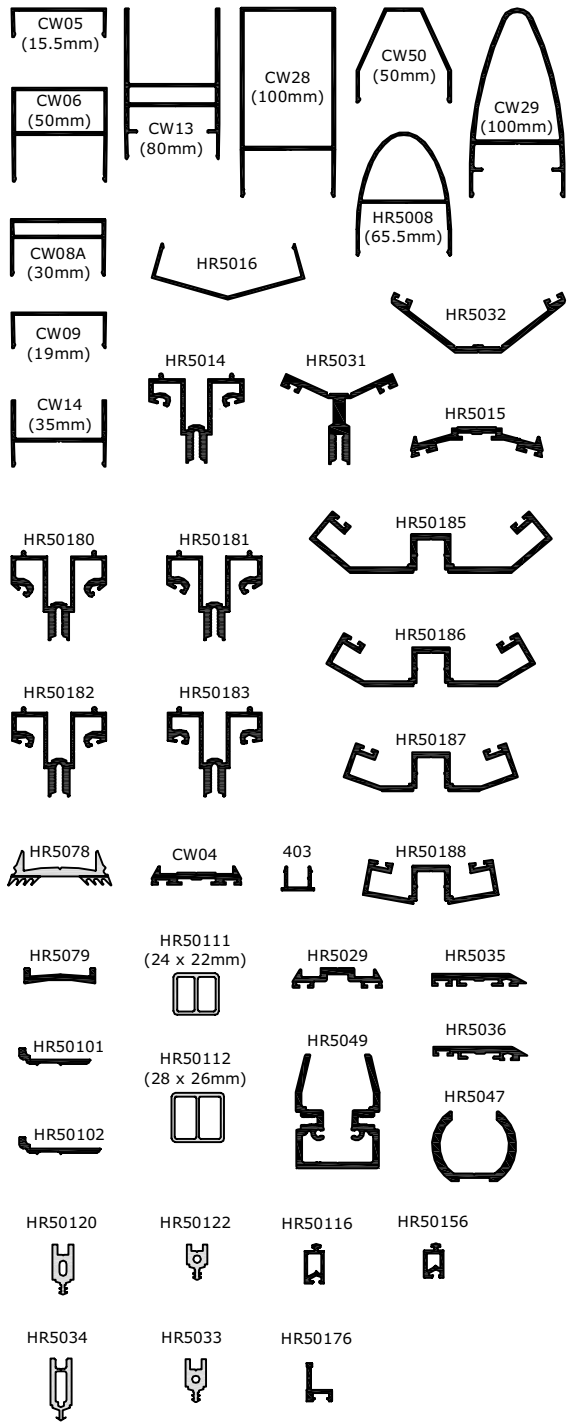
System 17

50mm HIGH RISE
CURTAIN WALLING

Profile illustration

Section Properties

ILLUSTRATION DIMENSIONS



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17/1/130	CW06	0.785	249		
17/1/130	CW08A	0.605	199		
17/1/130	CW09	0.324	172.3		
17/1/130	CW13	1.223	411		
17/1/130	CW14	0.519	238		
17/1/130	CW28	1.192	350		
17/1/130	CW29	1.401	336		
17/1/130	CW50	0.505	250		
17/1/130	HR5008	0.779	256		
17/1/100	HR5014	1.155	396		
17/1/100	HR5015	0.865	230		
17/1/100	HR5016	0.459	239		
17/1/140	HR5029	0.566	162		
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17/1/140	HR5034	-	-		
17/1/140	HR5035	0.54	159		
17/1/140	HR5036	0.51	157		
17/1/150	HR5047	1.02	212		
17/1/150	HR5049	1.774	458		
17/1/140	HR5078	-	-		
17/1/140	HR5079	0.386	100		
17/1/150	HR50101	0.261	89		
17/1/150	HR50102	0.297	101		
17/1/140	HR50111	-	-		
17/1/140	HR50112	-	-		
17/1/140	HR50116	0.253	78		
17/1/140	HR50120	-	-		
17/1/140	HR50122	-	-		
17/1/140	HR50156	0.231	71		
17/1/140	HR50176	0.21	80		
17/1/110	HR50180	1.269	418		
17/1/110	HR50181	1.263	414		
17/1/110	HR50182	1.254	412		
17/1/110	HR50183	1.243	409		
17/1/120	HR50185	1.721	485		
17/1/120	HR50186	1.368	440		
17/1/120	HR50187	1.219	394		
17/1/120	HR50188	1.058	350		

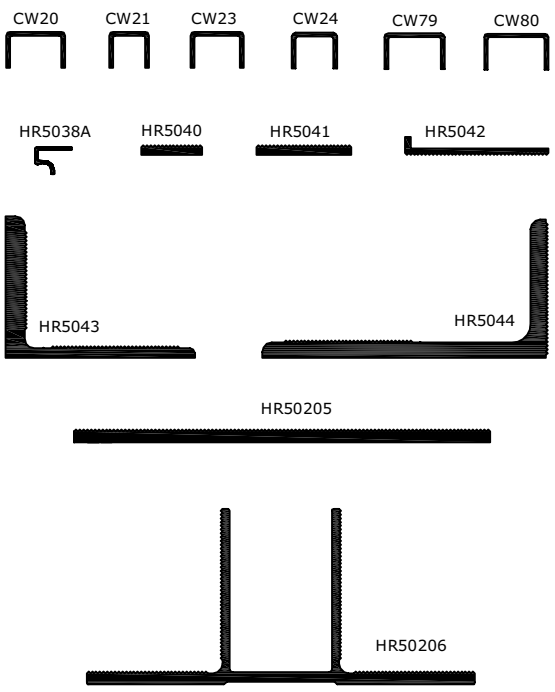
Not to Scale

Profile Index

System 17

50mm HIGH RISE
CURTAIN WALLING

Profile illustration **Section Properties**



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	17/1/160	CW24	0.236	118		
	17/1/160	CW79	0.269	134		
	17/1/160	CW80	0.277	138		
	17/1/140	HR5038A	0.16	81		
	17/1/150	HR5040	0.39	85		
	17/1/150	HR5041	0.61	129		
	17/1/150	HR5042	0.667	200		
	17/1/150	HR5043	3.411	394		
	17/1/150	HR5044	4.877	495		
	17/1/160	HR50205	3.855	545		
	17/1/160	HR50206	5.438	883		

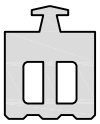
Not to Scale

Component Identification

System 17

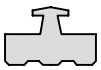
50mm HIGH RISE
CURTAIN WALLING

Mullion Gasket



HR5058
INTERNAL GASKET

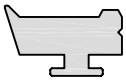
Transom Gasket



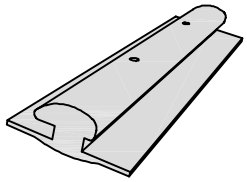
HR5057
INTERNAL GASKET

CW11
GLAZING GASKET

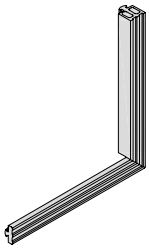
CW12
GLAZING GASKET



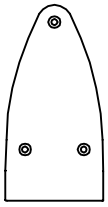
HR5059
OUTER GASKET



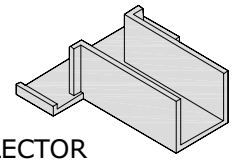
HR50117
MOULDED TRANSOM END SEAL



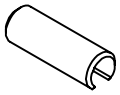
HR5062
VULCANISED CORNERS
(Unit = Pair)



HR50144
LATITUDE COVER CAP ENDS
(Unit = Pair)



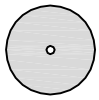
HR5065
WATER DEFLECTOR



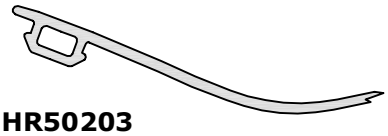
HR50204
SPRING PIN

HR50107
BLACK POZIDRIVE SCREW

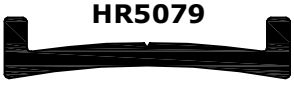
HR50108
ALUMINIUM PRESSURE DISC



HR50109
PRESSURE DISC GASKET



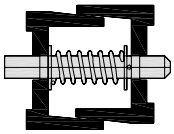
HR50203
240mm EPDM MEMBRANE



HR5079

HR50110
STITCH PLATE @ 100mm

EXTRUDED SPRING LOADED CLEAT



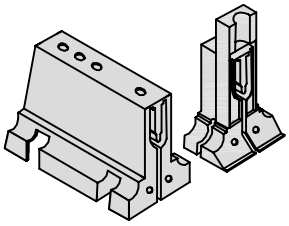
HR5080 - To suit HR5010
HR5081 - To suit HR5017
HR5082 - To suit HR5018
HR5083 - To suit HR5019
HR5084 - To suit HR5027
HR50124 - To suit HR5028
HR50202 - To suit HR50165

HR50102

HR50106
GLAZING SUPPORT @ 100mm

HR50101

HR50104
GLAZING SUPPORT @ 100mm

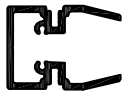


HR50113
EXPANSION SLEEVE AND WATER DEFLECTOR SET

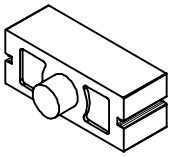
TRANSOM CLEATS

HR5047

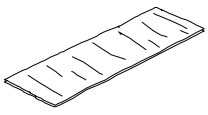
HR5049



HR5073	To suit HR5010	**HR5085**
HR5074	To suit HR5017	**HR5086**
HR5075	To suit HR5018	**HR5087**
HR5076	To suit HR5019	**HR5088**
HR5077	To suit HR5027	**HR5089**
HR50126	To suit HR5028	**HR50125**
HR50200	To suit HR50165	**HR50201**



HR50212
CAST SPRING LOADED CLEAT



HR5064
45mm FOIL-BACKED SEALANT TAPE

Not to scale

Component Identification

System 17

50mm HIGH RISE
CURTAIN WALLING

TO SUIT MULLION **HR5001**

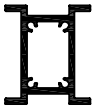
HR50230 MULLION HEAD FIXING SPIGOT AT 250mm

HR50240 MULLION CILL FIXING SPIGOT AT 250mm

HR50250 MULLION SPIGOT ABOVE DOOR AT 35mm

HR50270 MULLION INTERMEDIATE SPIGOT AT 600mm

For use with spigot plates HR50266 and HR50267



BAR **HR5020**

TO SUIT MULLION **HR5002**

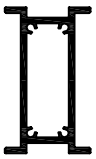
HR50231 MULLION HEAD FIXING SPIGOT AT 250mm

HR50241 MULLION CILL FIXING SPIGOT AT 250mm

HR5068 MULLION SPIGOT ABOVE DOOR AT 35mm

HR50271 MULLION INTERMEDIATE SPIGOT AT 600mm

For use with spigot plates HR50266 and HR50267



BAR **HR5021**

TO SUIT MULLION **HR5003**

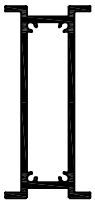
HR50232 MULLION HEAD FIXING SPIGOT AT 250mm

HR50242 MULLION CILL FIXING SPIGOT AT 250mm

HR50252 MULLION SPIGOT ABOVE DOOR AT 35mm

HR50272 MULLION INTERMEDIATE SPIGOT AT 600mm

For use with spigot plates HR50266 and HR50267



BAR **HR5022**

TO SUIT MULLION **HR5004**

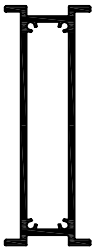
HR50233 MULLION HEAD FIXING SPIGOT AT 250mm

HR50243 MULLION CILL FIXING SPIGOT AT 250mm

HR50253 MULLION SPIGOT ABOVE DOOR AT 35mm

HR50273 MULLION INTERMEDIATE SPIGOT AT 600mm

For use with spigot plates HR50266 and HR50267



BAR **HR5023**

TO SUIT MULLION **HR50163**

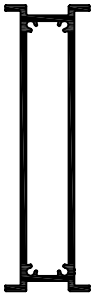
HR50234 MULLION HEAD FIXING SPIGOT AT 250mm

HR50244 MULLION CILL FIXING SPIGOT AT 250mm

HR50254 MULLION SPIGOT ABOVE DOOR AT 35mm

HR50274 MULLION INTERMEDIATE SPIGOT AT 600mm

For use with spigot plates HR50266 and HR50267



BAR **HR50164**

TO SUIT MULLION **HR5005**

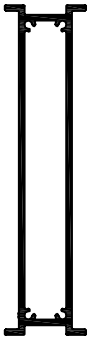
HR50235 MULLION HEAD FIXING SPIGOT AT 250mm

HR50245 MULLION CILL FIXING SPIGOT AT 250mm

HR50255 MULLION SPIGOT ABOVE DOOR AT 35mm

HR50275 MULLION INTERMEDIATE SPIGOT AT 600mm

For use with spigot plate HR50266



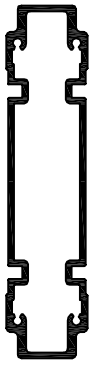
BAR **HR5026**

TO SUIT MULLION **HR5006**

HR50237 MULLION HEAD AND CILL FIXING SPIGOT AT 250mm

HR50277 MULLION INTERMEDIATE SPIGOT AT 600mm

For use with spigot plate HR50268



BAR **HR5025**

TO SUIT MULLION **HR5007**

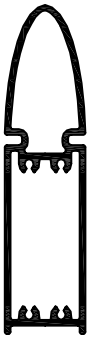
HR50236 MULLION HEAD FIXING SPIGOT AT 250mm

HR50246 MULLION CILL FIXING SPIGOT AT 250mm

HR50256 MULLION SPIGOT ABOVE DOOR AT 35mm

HR50276 MULLION INTERMEDIATE SPIGOT AT 600mm

For use with spigot plate HR50269



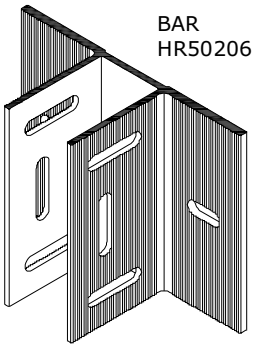
BAR **HR5024**

Scale 1:4

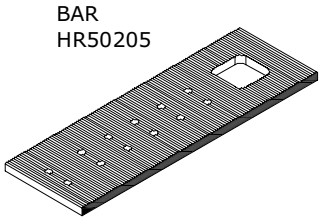
Component Identification

System 17

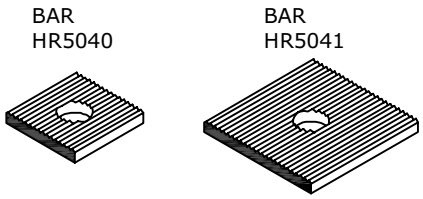
50mm HIGH RISE
CURTAIN WALLING



HR50211
160mm TIE BACK BRACKET

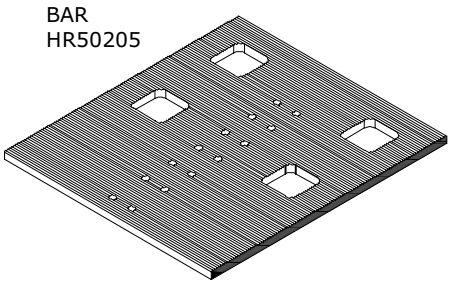


HR50267
72mm SPIGOT PLATE FOR USE WITH HR5001, HR5002, HR5003, HR5004, HR50163



HR50327
32mm SERRATED WASHER FOR USE WITH HR50211

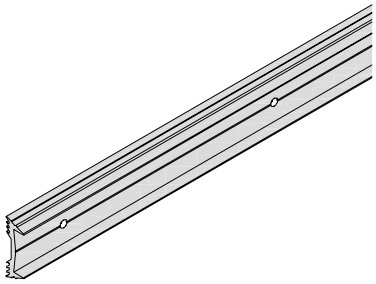
HR50213
50mm SERRATED WASHER FOR USE WITH SPIGOT PLATES



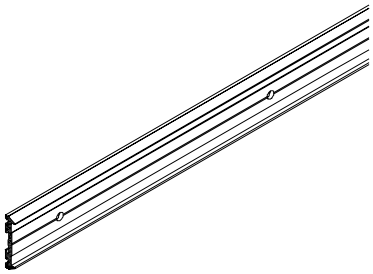
HR50266
194mm SPIGOT PLATE FOR USE WITH HR5001, HR5002, HR5003, HR5004, HR50163, HR5005

HR50268
SPIGOT PLATE FOR USE WITH HR5006

HR50269
SPIGOT PLATE FOR USE WITH HR5007



HR50114
CO-EXTRUDED PRESSURE PLATE (with holes only)



CW33
ALUMINIUM PRESSURE PLATE (with holes only)

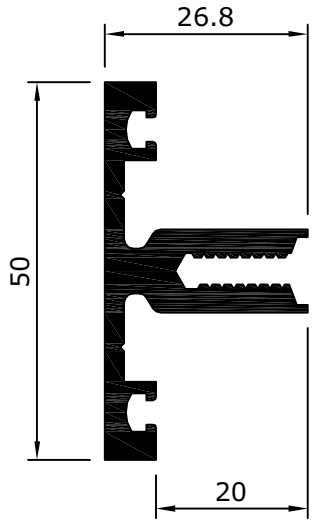
Not to scale

Section Drawings

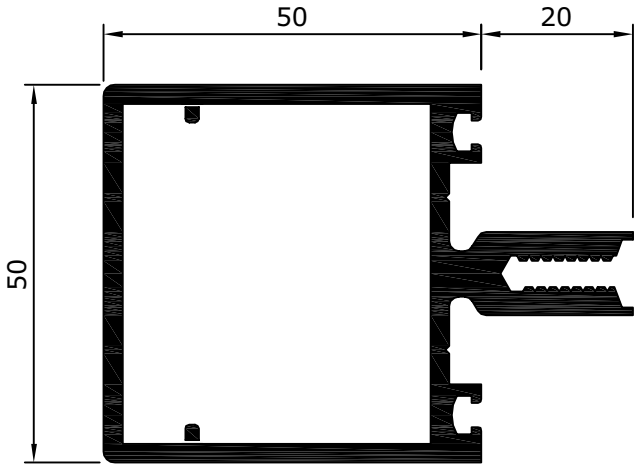
System 17

50mm HIGH RISE
CURTAIN WALLING

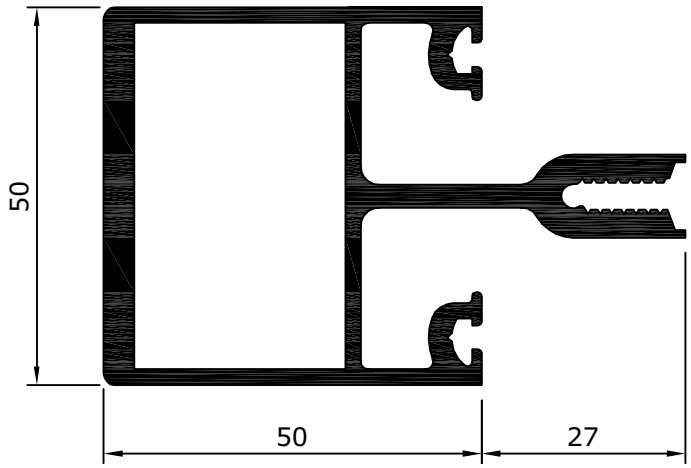
HR5009
T-BAR TRANSOM
(Not suitable for use with vent inserts)



HR5010 50mm TRANSOM
HR50410 50mm TRANSOM WITH PIPS



HR5000
50mm MULLION



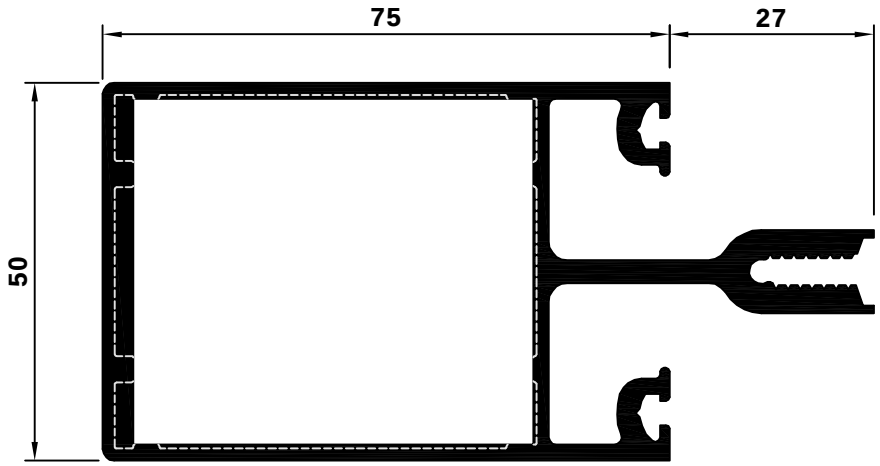
Scale 1:1

Section Drawings

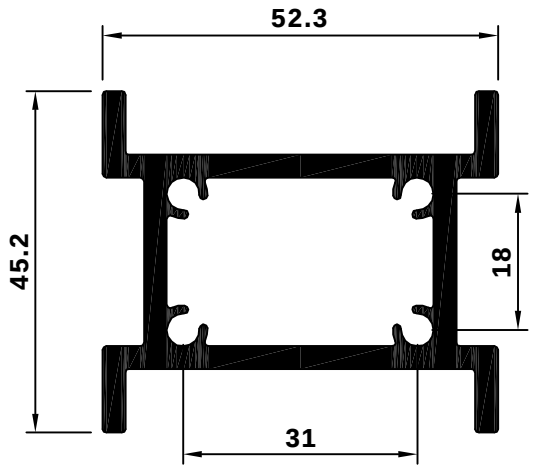
System 17

50mm HIGH RISE CURTAIN WALLING

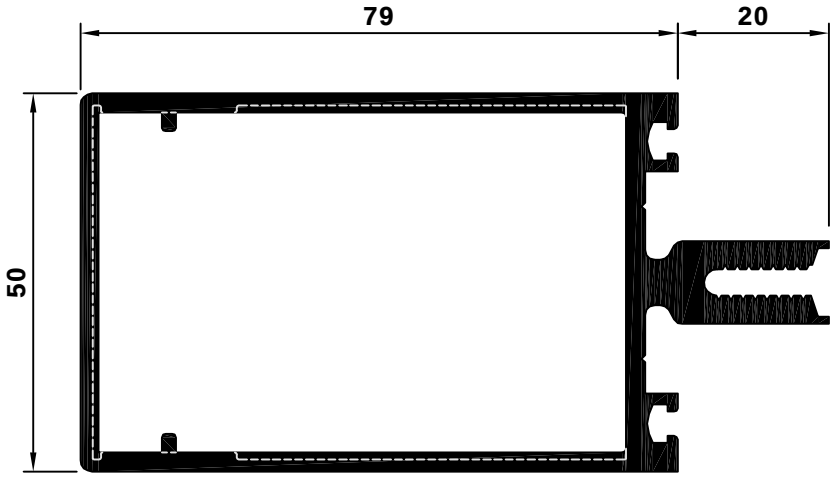
HR5001 75mm MULLION
HR50601 75mm MULLION



HR5020
INSERT FOR HR5001



HR5017 79mm TRANSOM
HR50417 79mm TRANSOM WITH PIPS
HR50617 79mm TRANSOM WITH PIPS



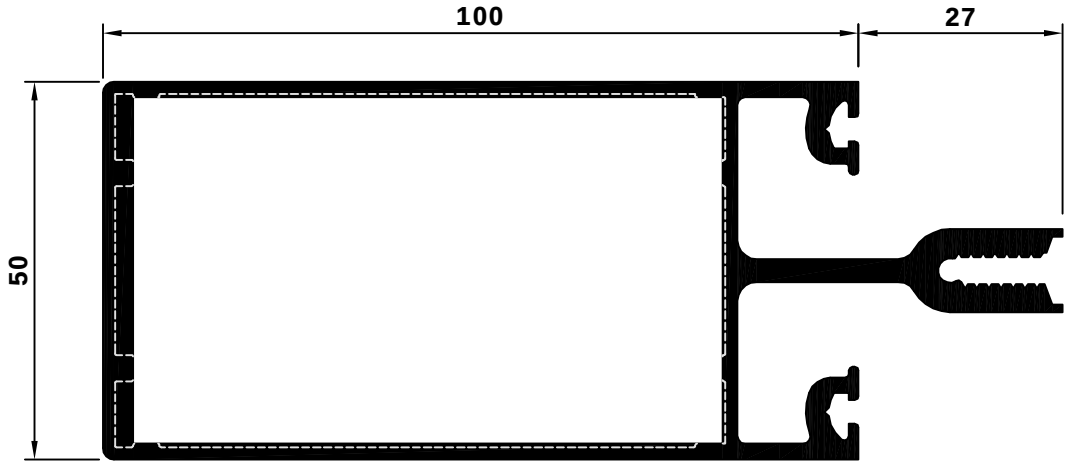
Scale 1:1

Section Drawings

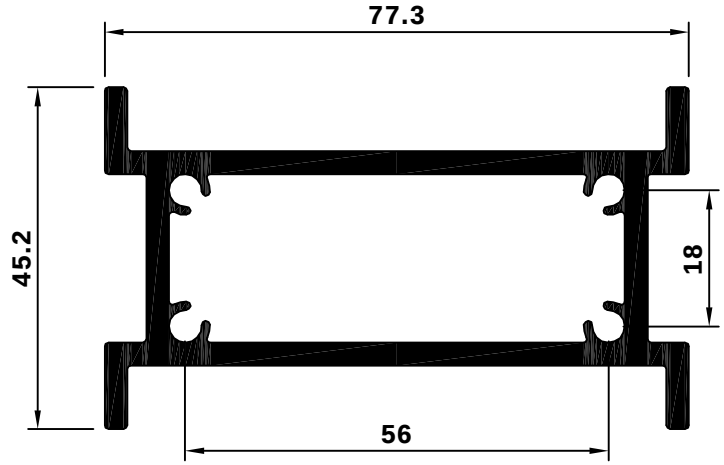
System 17

50mm HIGH RISE CURTAIN WALLING

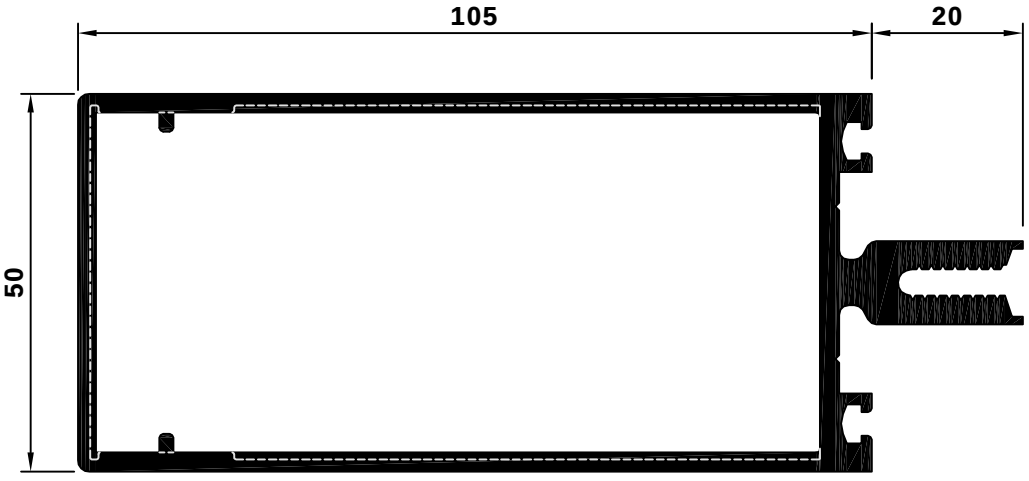
HR5002 100mm MULLION
HR50602 100mm MULLION



HR5021
INSERT FOR HR5002



HR5018 105mm TRANSOM
HR50418 105mm TRANSOM WITH PIPS
HR50618 105mm TRANSOM WITH PIPS



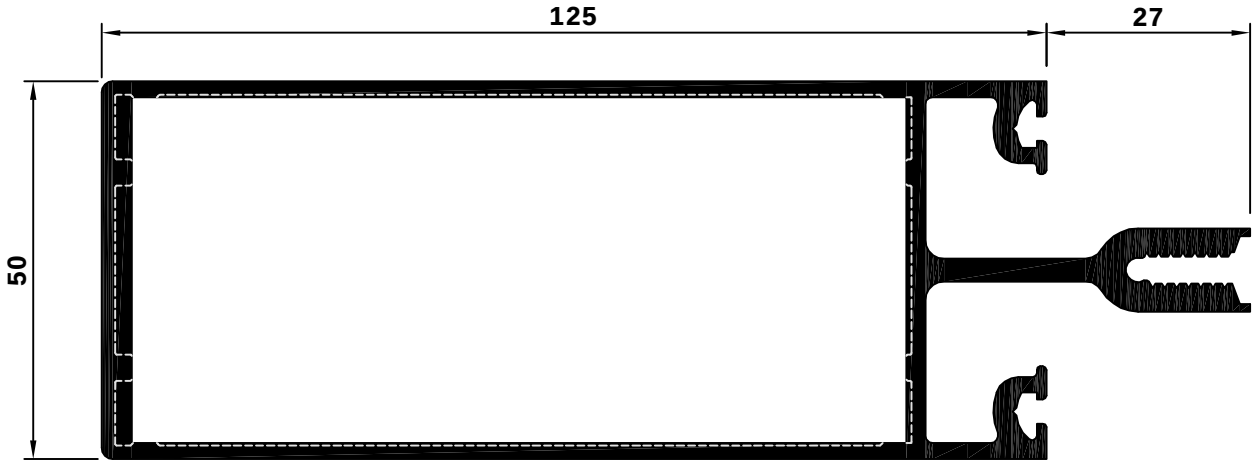
Scale 1:1

Section Drawings

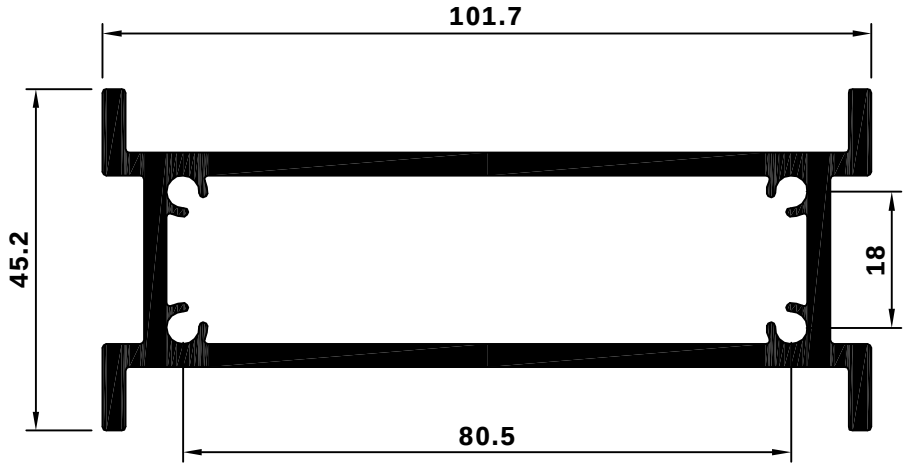
System 17

50mm HIGH RISE CURTAIN WALLING

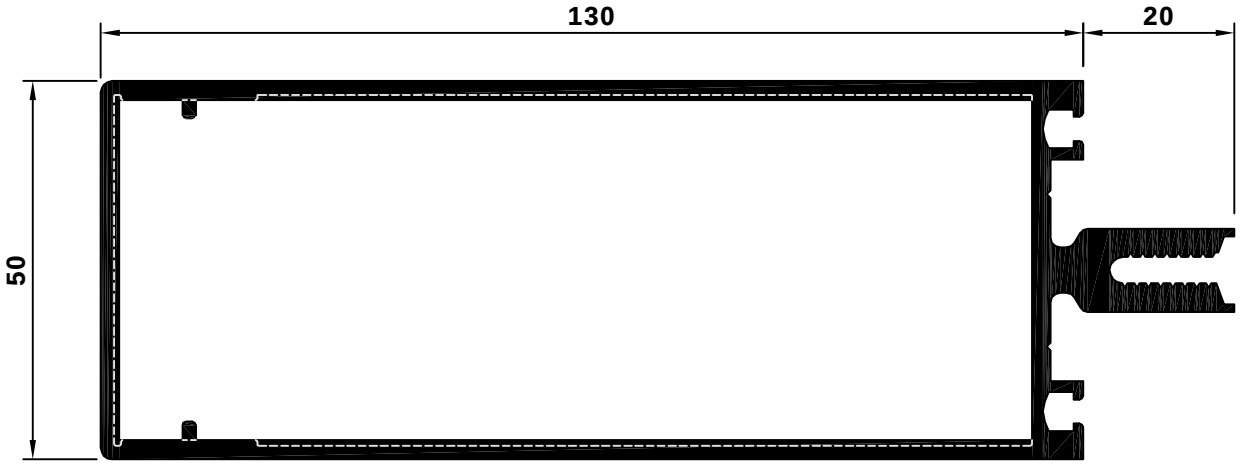
HR5003 125mm MULLION
HR50603 125mm MULLION



HR5022
INSERT FOR HR5003



HR5019 130mm TRANSOM
HR50419 130mm TRANSOM WITH PIPS
HR50619 130mm TRANSOM WITH PIPS



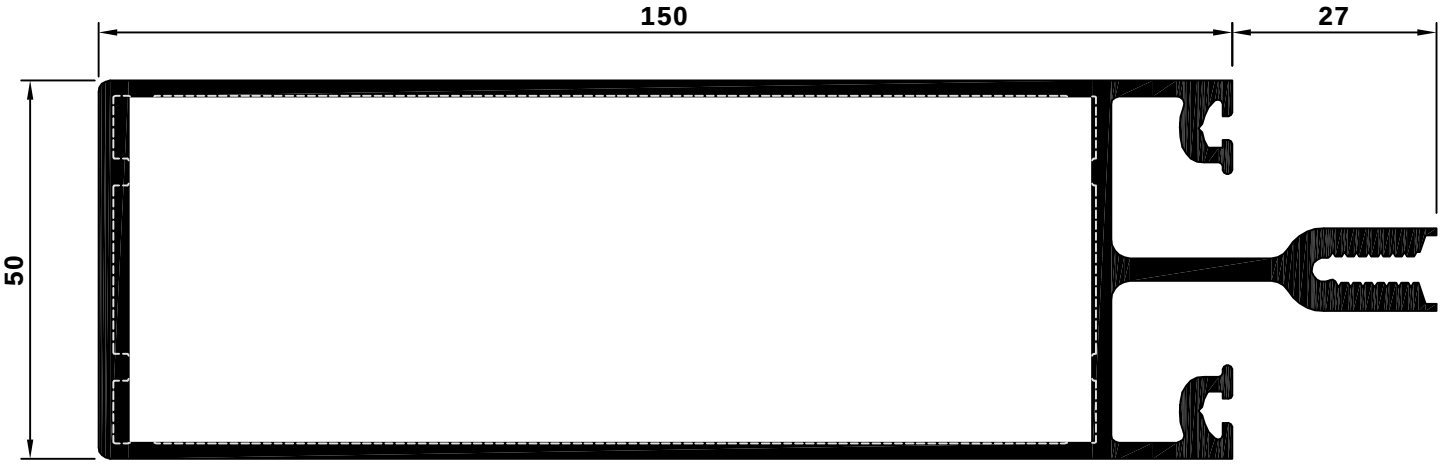
Scale 1:1

Section Drawings

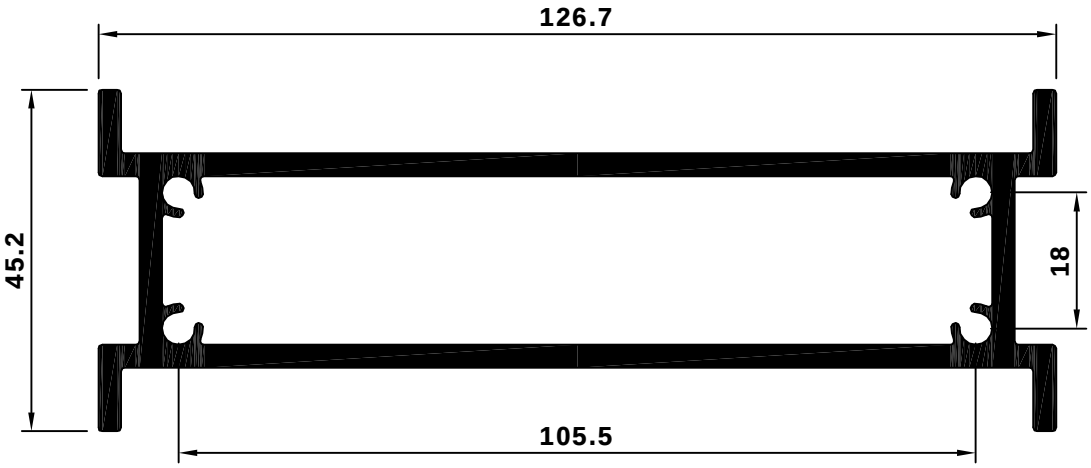
System 17

50mm HIGH RISE CURTAIN WALLING

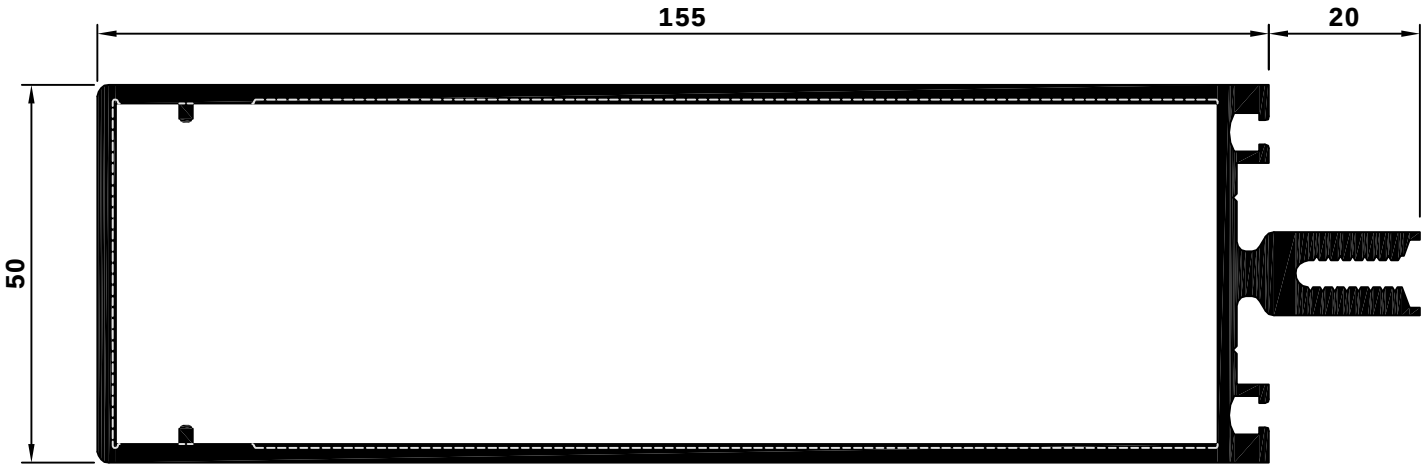
HR5004 150mm MULLION
HR50604 150mm MULLION



HR5023
INSERT FOR HR5004



HR5027 155mm TRANSOM
HR50427 155mm TRANSOM WITH PIPS
HR50627 155mm TRANSOM WITH PIPS



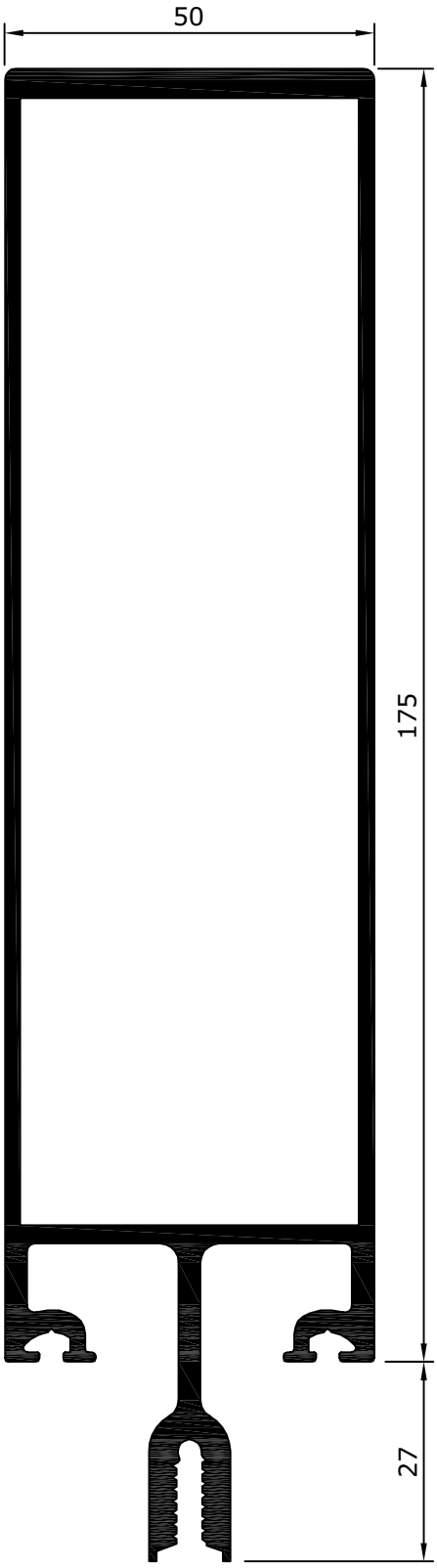
Scale 1:1

Section Drawings

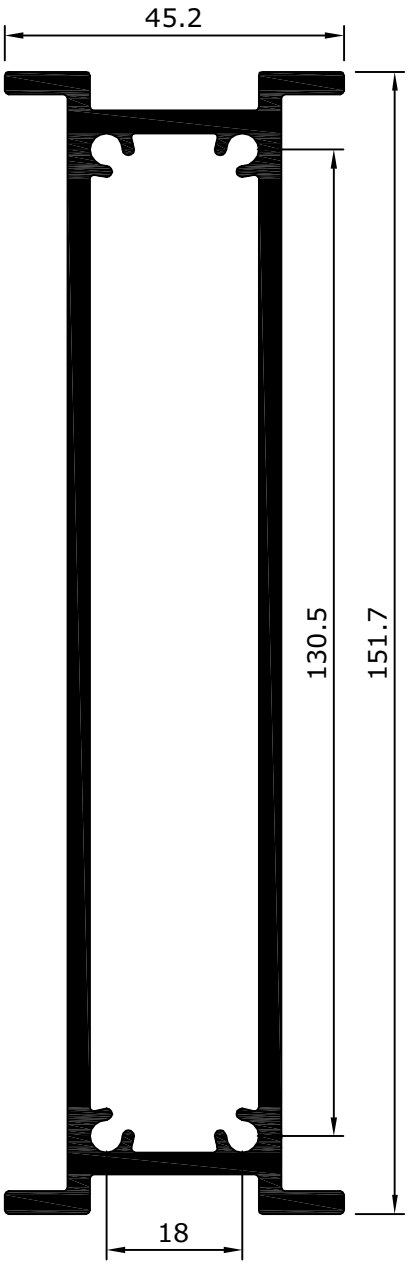
System 17

50mm HIGH RISE
CURTAIN WALLING

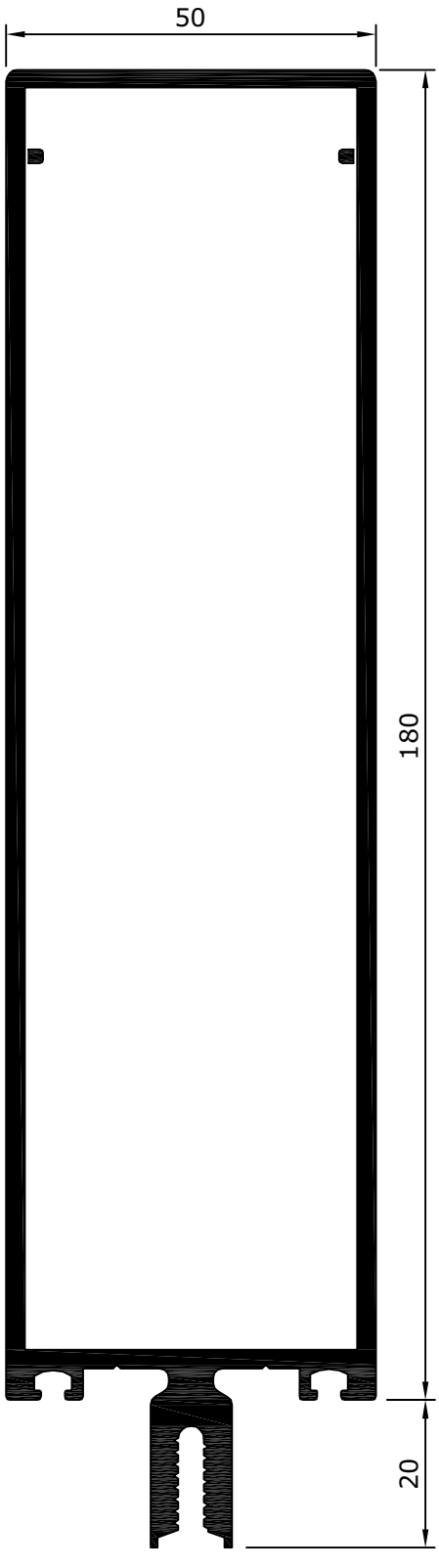
HR50163
175mm MULLION



HR50164
INSERT FOR HR50163



HR50165 180mm TRANSOM
HR50465 180mm TRANSOM
WITH PIPS



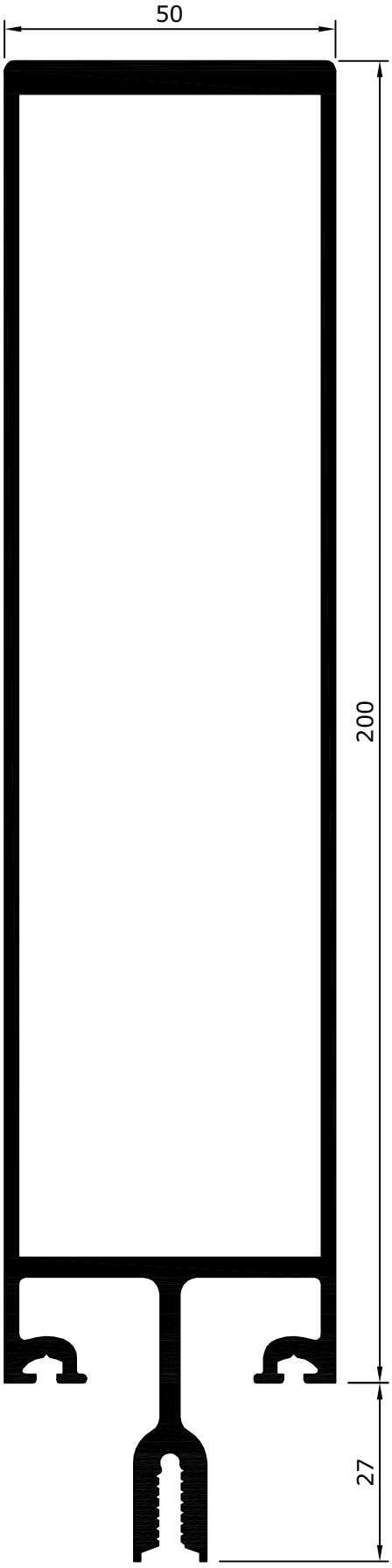
Scale 1:1

Section Drawings

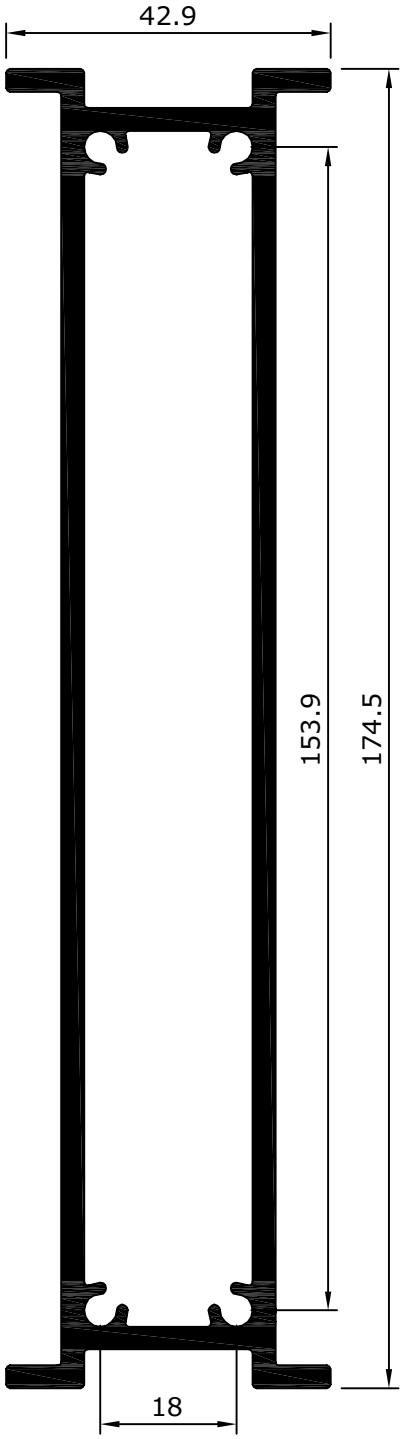
System 17

50mm HIGH RISE
CURTAIN WALLING

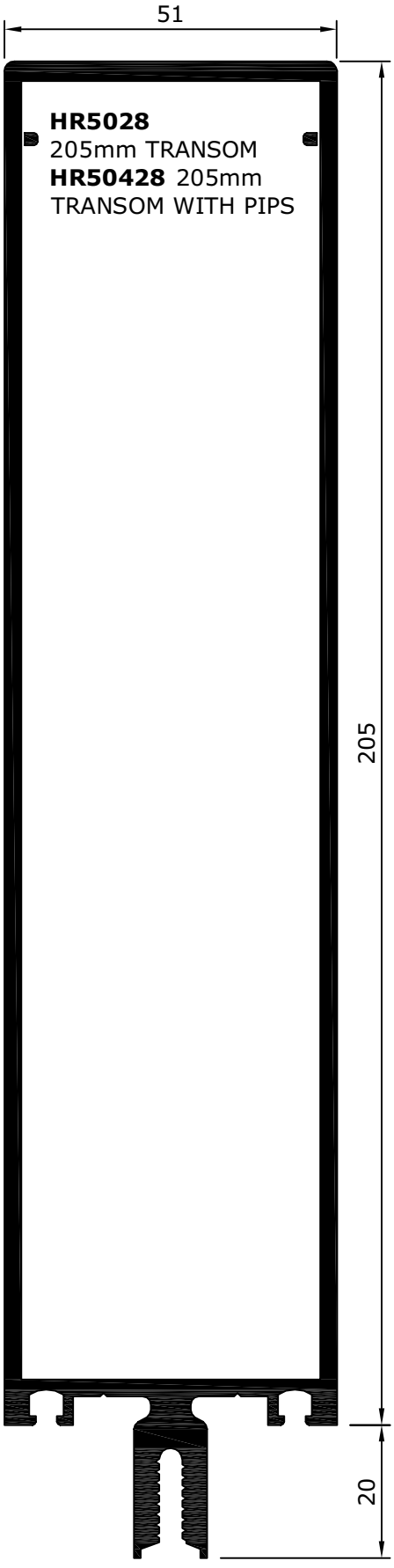
HR5005
200mm MULLION



HR5026
INSERT FOR HR5005



HR5028
205mm TRANSOM
HR50428 205mm
TRANSOM WITH PIPS

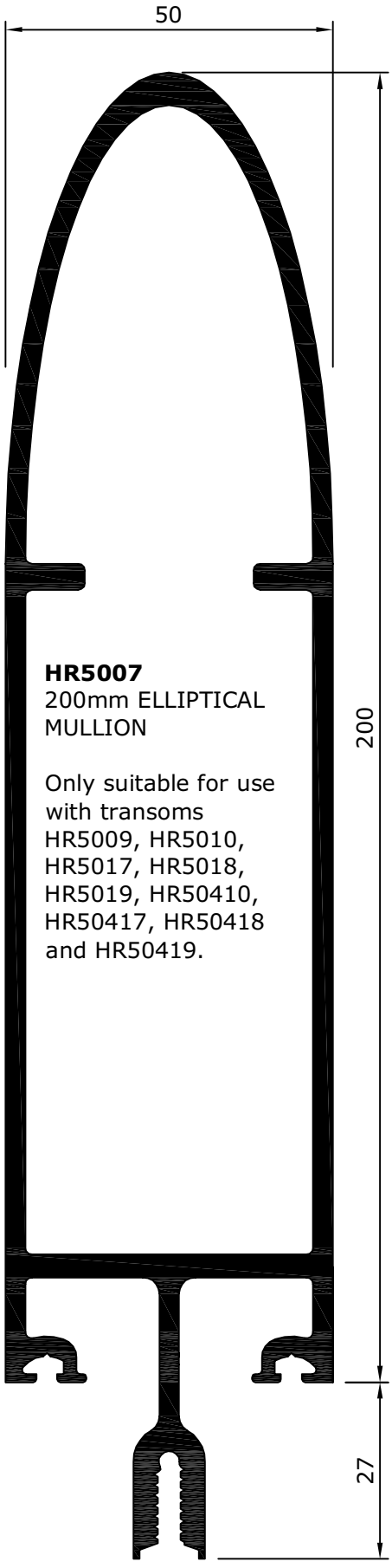


Scale 1:1

Section Drawings

System 17

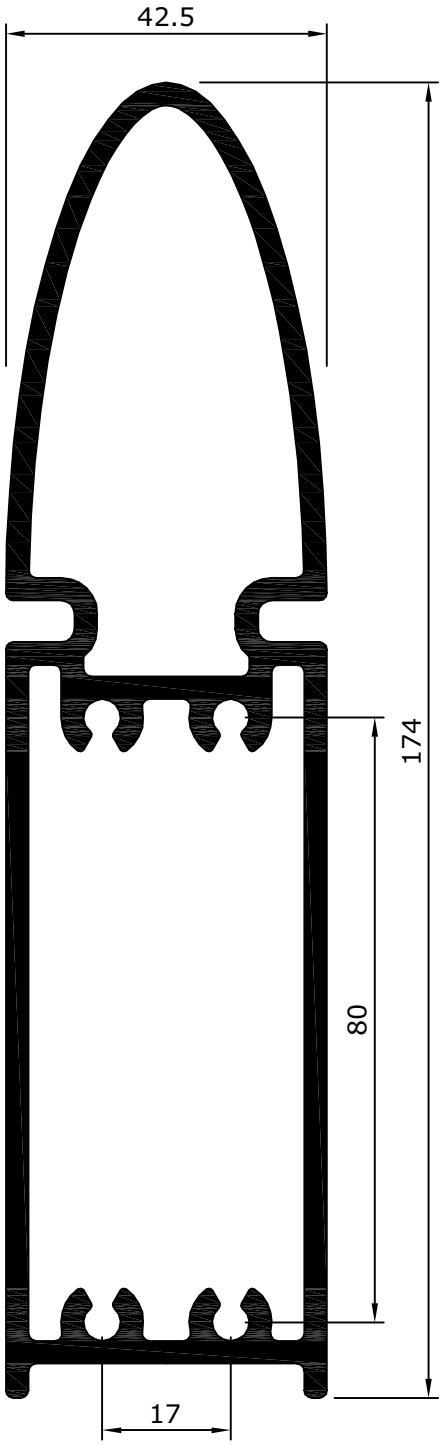
50mm HIGH RISE
CURTAIN WALLING



HR5007
200mm ELLIPTICAL MULLION

Only suitable for use with transoms HR5009, HR5010, HR5017, HR5018, HR5019, HR50410, HR50417, HR50418 and HR50419.

HR5024
INSERT FOR HR5007

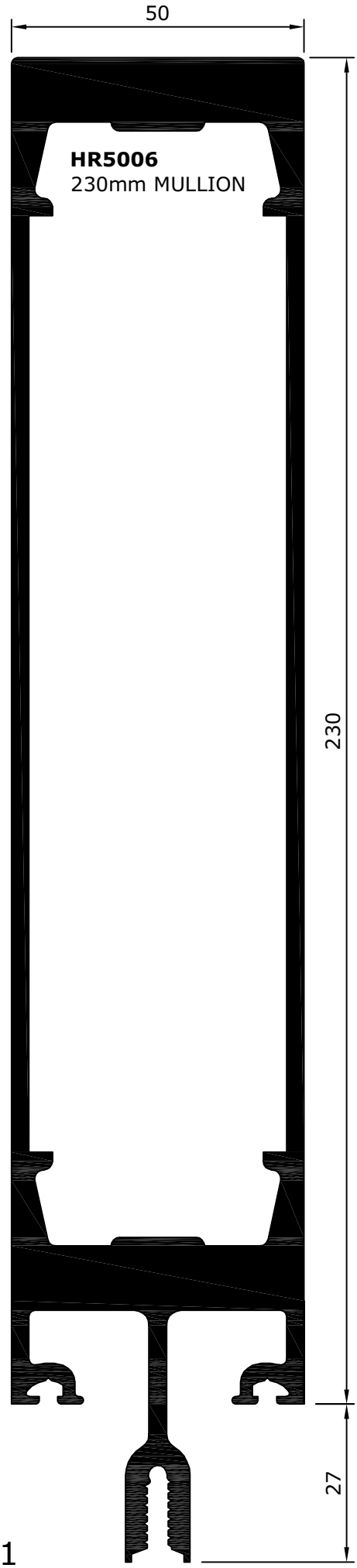


Scale 1:1

Section Drawings

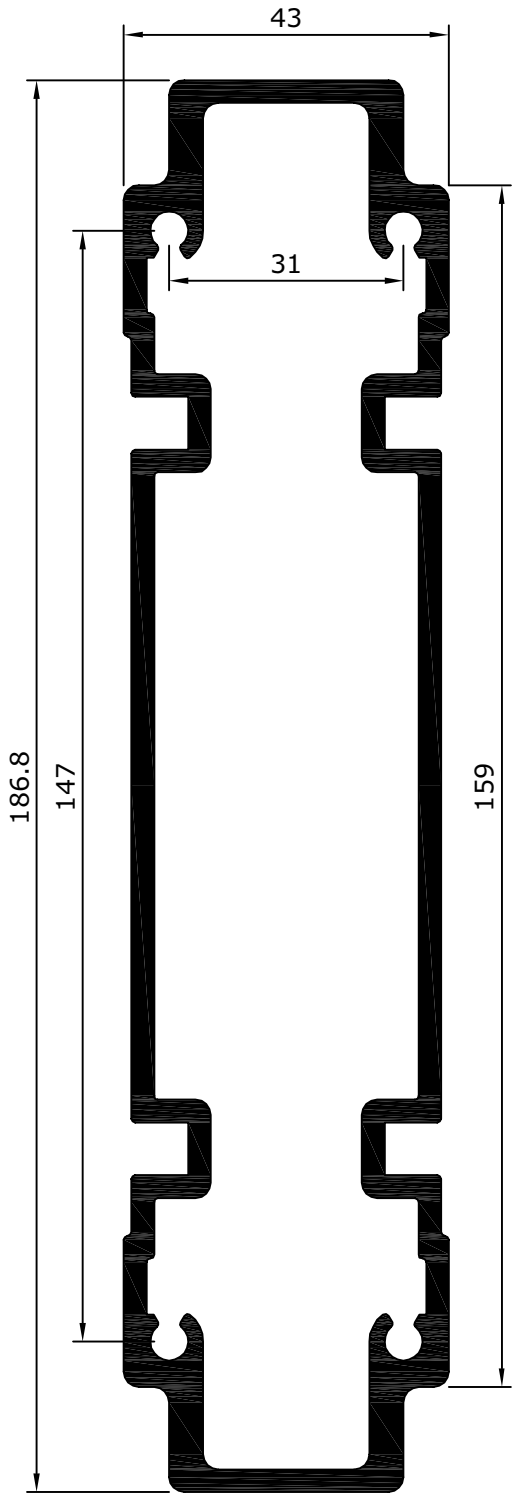
System 17

50mm HIGH RISE
CURTAIN WALLING



HR5006
230mm MULLION

HR5025
INSERT FOR HR5006

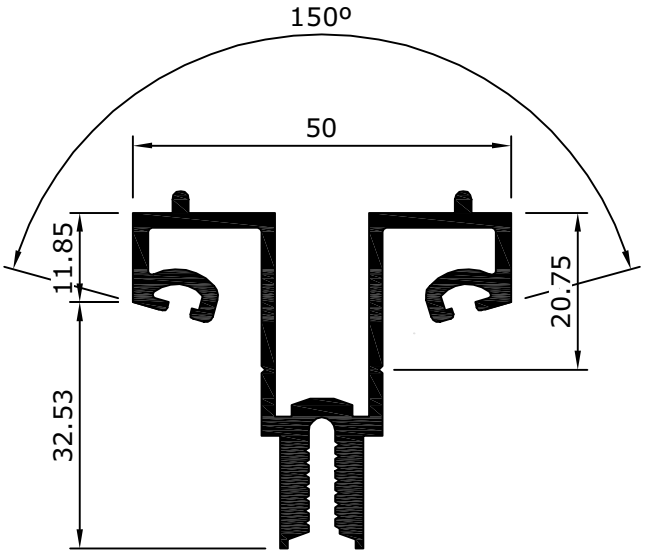


Scale 1:1

Section Drawings

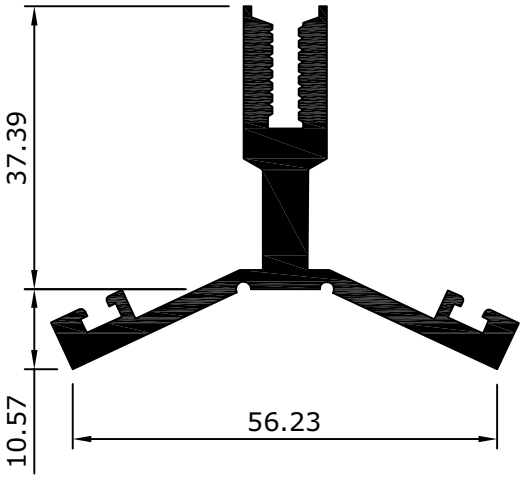
System 17

50mm HIGH RISE
CURTAIN WALLING

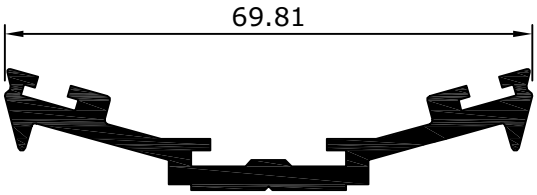


HR5014
150º MULLION ADAPTOR

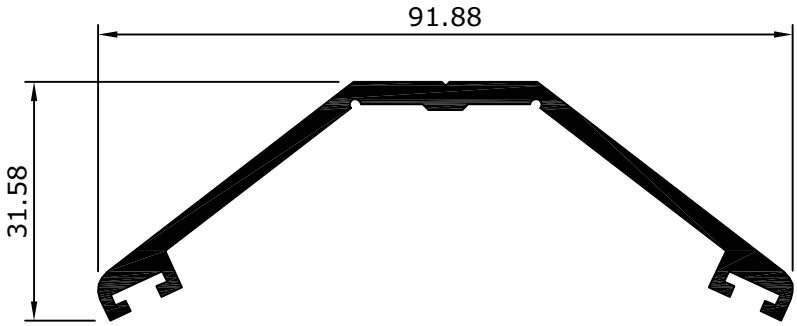
HR5031
RIDGE BAR



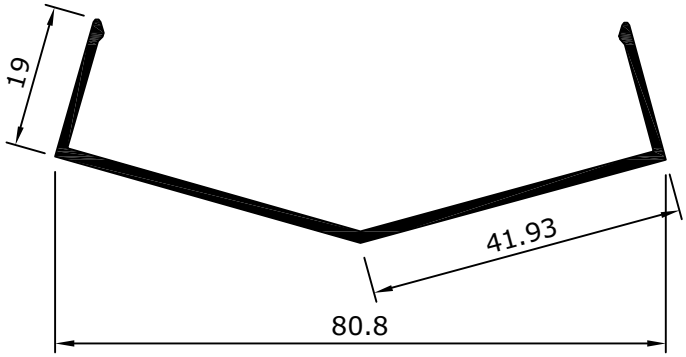
HR5015
150º PRESSURE PLATE



HR5032
RIDGE CAP



HR5016
150º COVER CAP

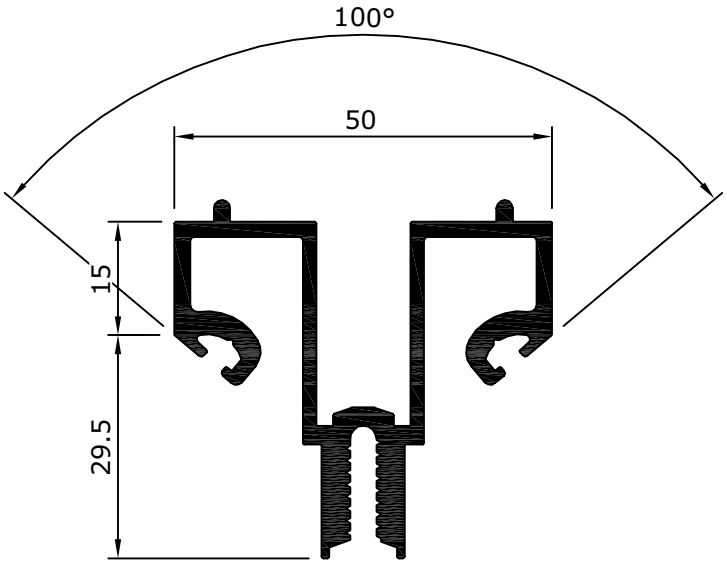


Scale 1:1

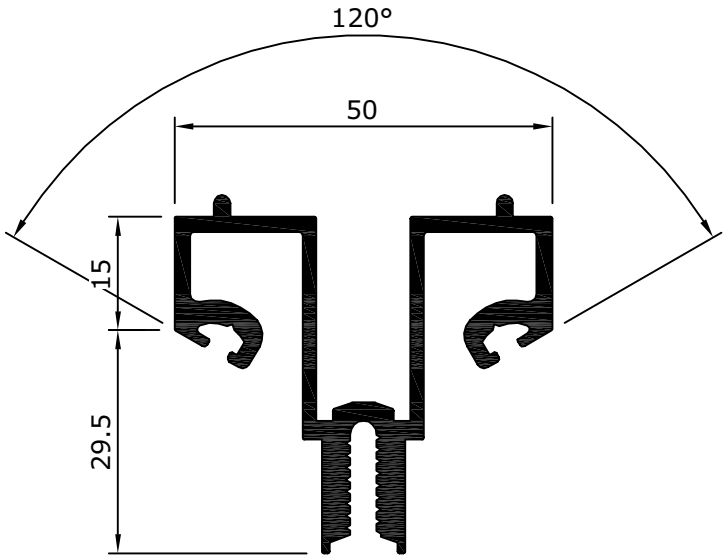
Section Drawings

System 17

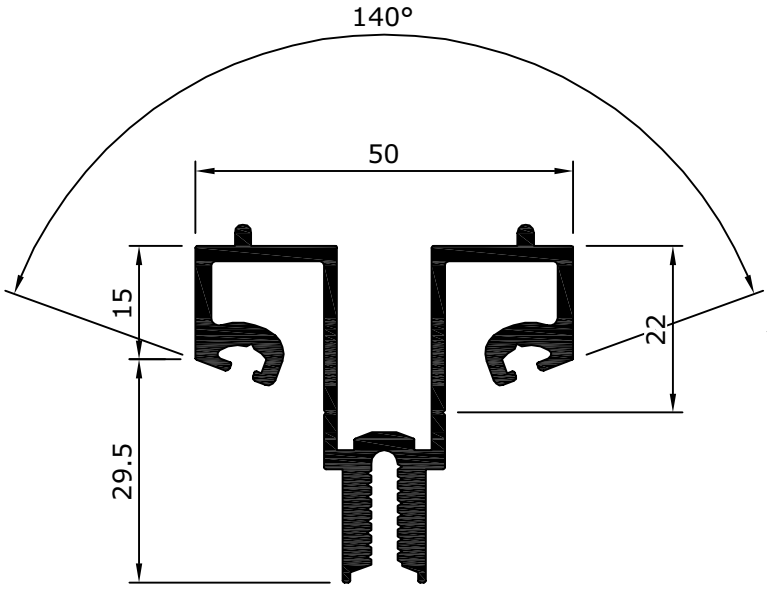
50mm HIGH RISE
CURTAIN WALLING



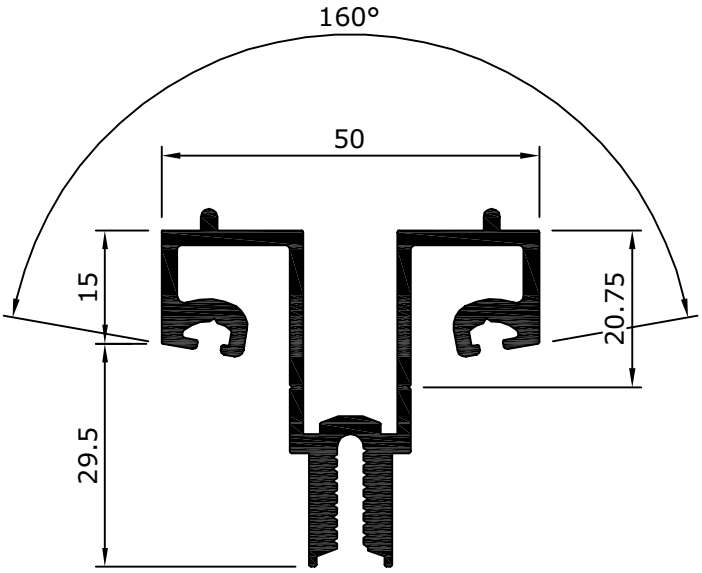
HR50180
100° MULLION ADAPTOR



HR50181
120° MULLION ADAPTOR



HR50182
140° MULLION ADAPTOR



HR50183
160° MULLION ADAPTOR

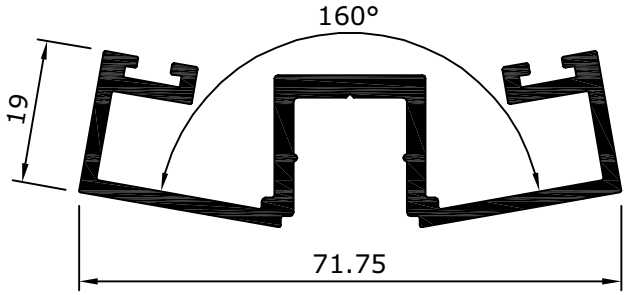
Scale 1:1

Section Drawings

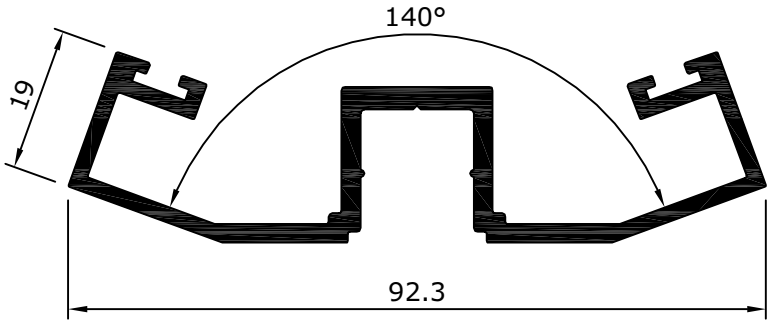
System 17

50mm HIGH RISE
CURTAIN WALLING

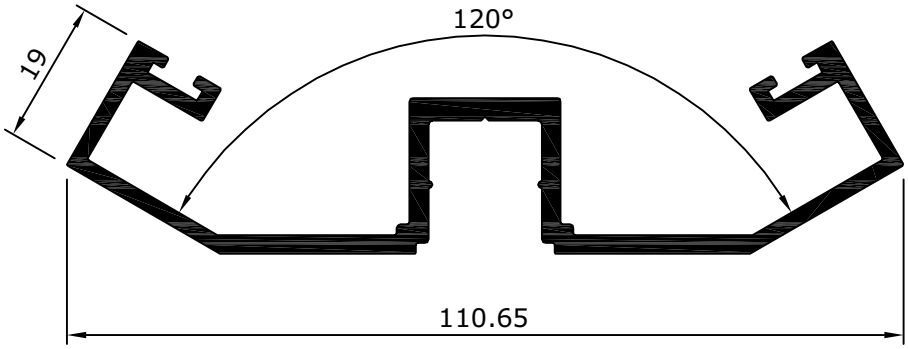
HR50188
160° PRESSURE CAP



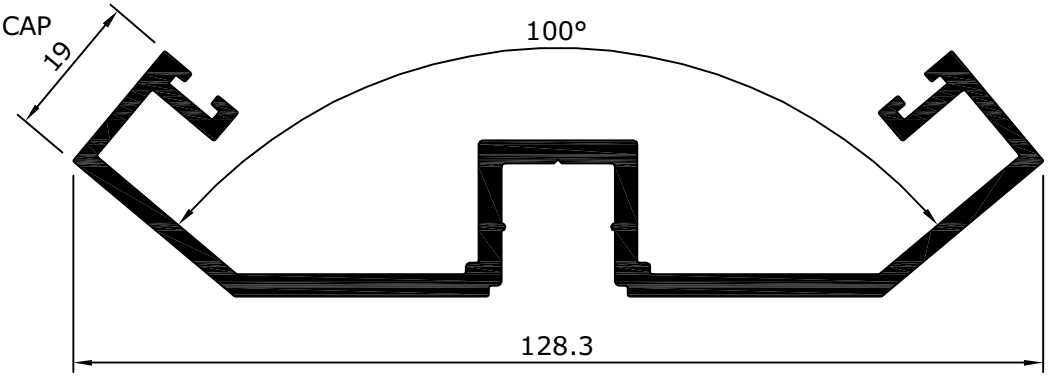
HR50187
140° PRESSURE CAP



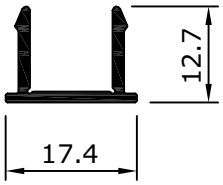
HR50186
120° PRESSURE CAP



HR50185
100° PRESSURE CAP



403
PANEL INSERT CAP

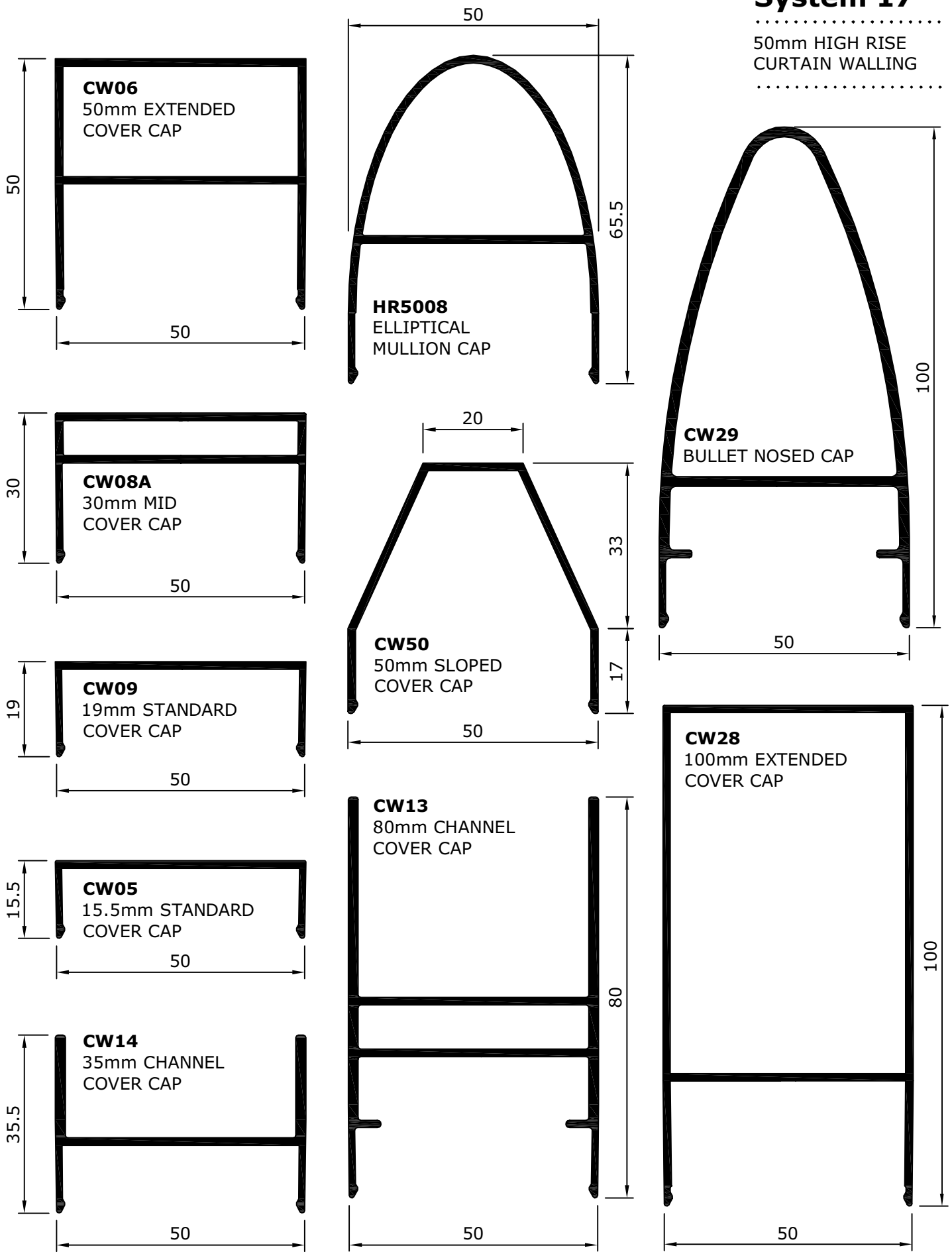


Scale 1:1

Section Drawings

System 17

50mm HIGH RISE
CURTAIN WALLING



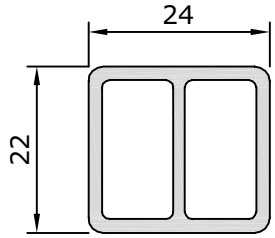
Scale 1:1

Section Drawings

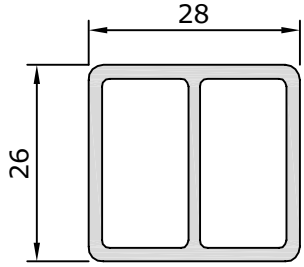
System 17

50mm HIGH RISE
CURTAIN WALLING

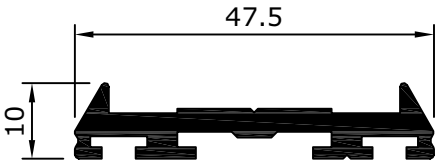
HR50111
24 x 22mm PERIMETER
SPACER



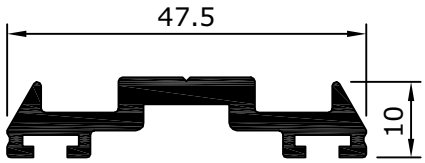
HR50112
28 x 26mm PERIMETER
SPACER



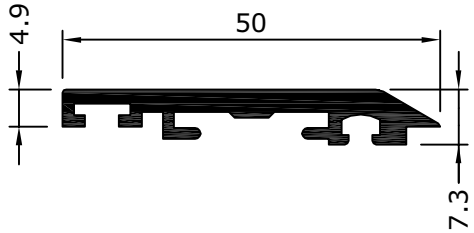
CW04
PRESSURE PLATE



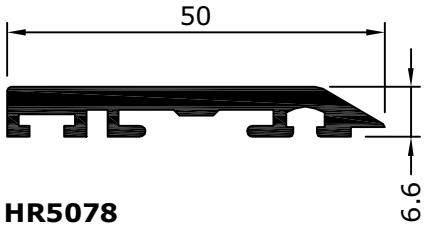
HR5029
SINGLE GLAZE
PRESSURE PLATE



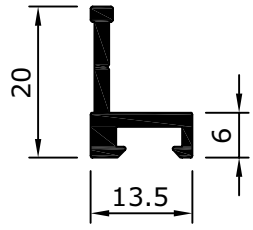
HR5036
4.9mm CAPPING
(For 28mm glazing)



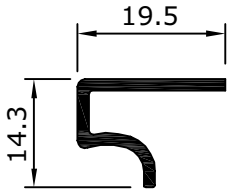
HR5035
6.6mm CAPPING
(For 24mm glazing)



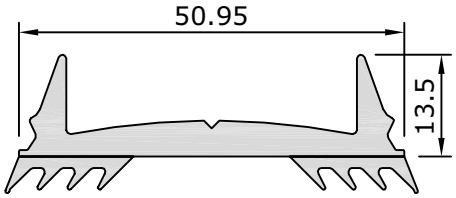
HR50176
EPDM MEMBRANE
HOLDER



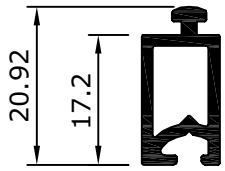
HR5038A
WATER DEFLECTOR



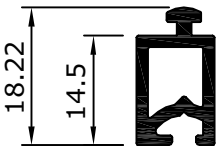
HR5078
CO-EXTRUDED
PRESSURE PLATE



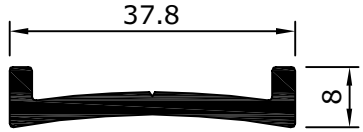
HR50116
GLAZING ADAPTOR



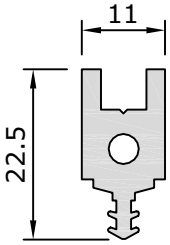
HR50156
GLAZING ADAPTOR



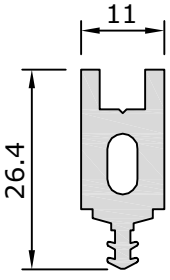
HR5079
STITCH PLATE



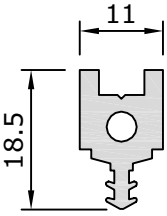
HR5033
PUSH-IN THERMAL
ISOLATOR



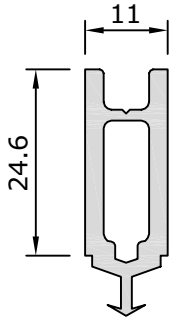
HR50120
PUSH-IN THERMAL
ISOLATOR



HR50122
PUSH-IN THERMAL
ISOLATOR



HR5034
PUSH-IN THERMAL
ISOLATOR (PVC)



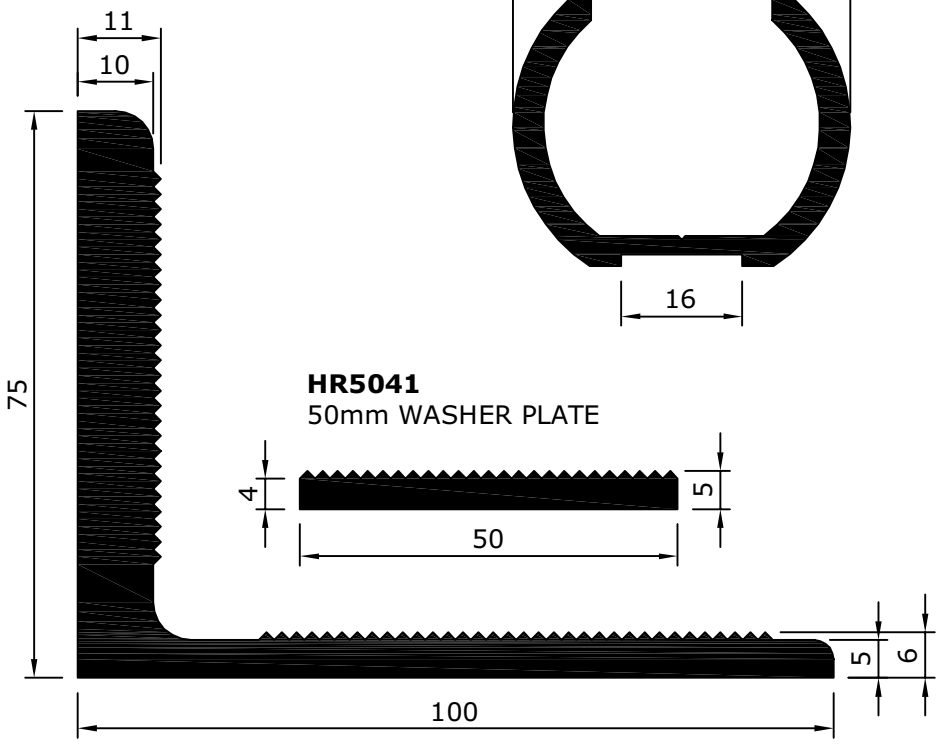
Scale 1:1

Section Drawings

System 17

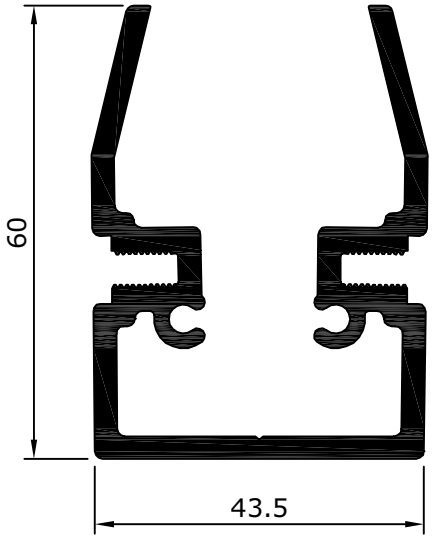
50mm HIGH RISE
CURTAIN WALLING

HR5043
100mm TIE
BACK BRACKET



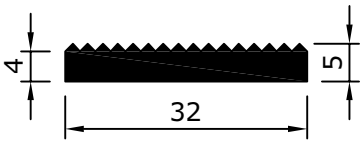
HR5047
'C' CLEAT

HR5049
SCREWPORTED CLEAT

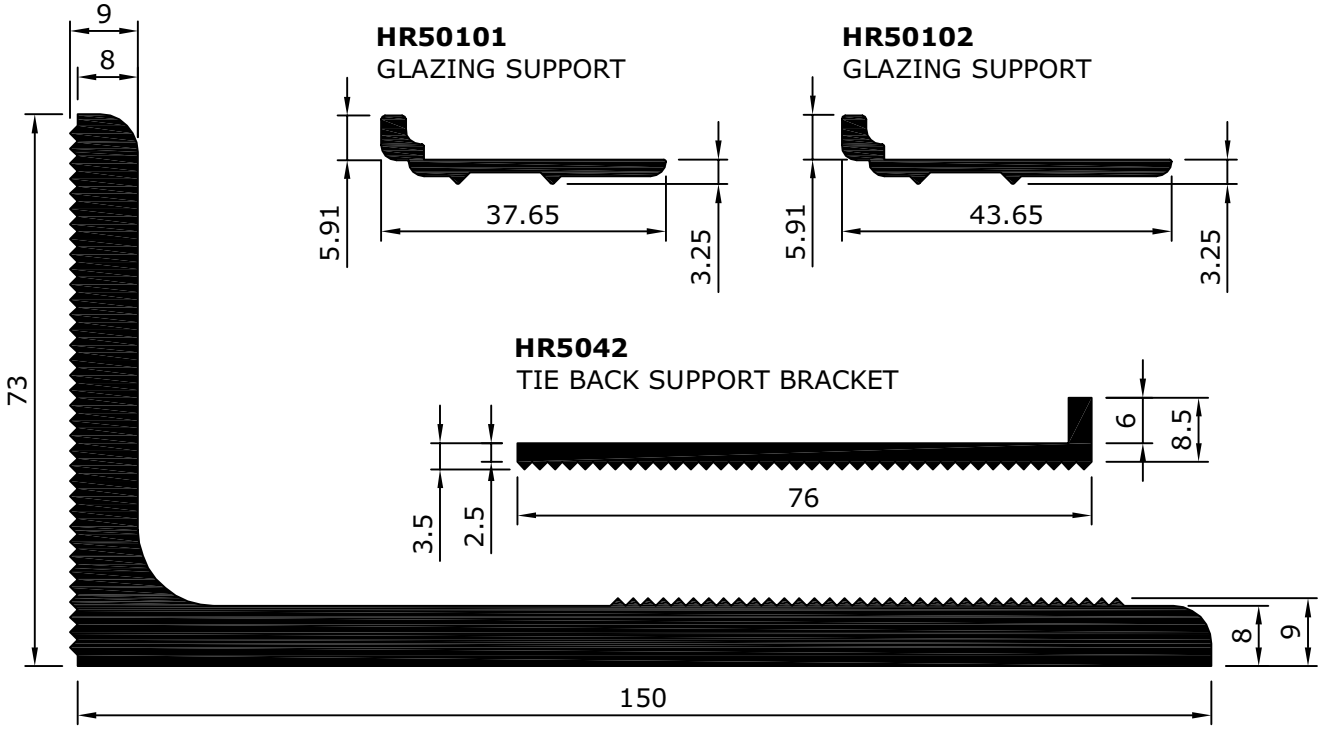


HR5041
50mm WASHER PLATE

HR5040
32mm WASHER PLATE



HR5044
150mm TIE
BACK BRACKET



HR50101
GLAZING SUPPORT

HR50102
GLAZING SUPPORT

HR5042
TIE BACK SUPPORT BRACKET

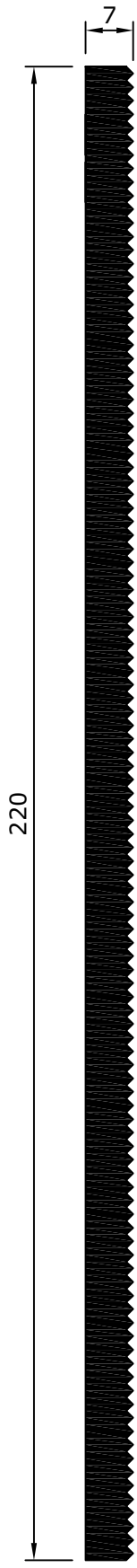
Scale 1:1

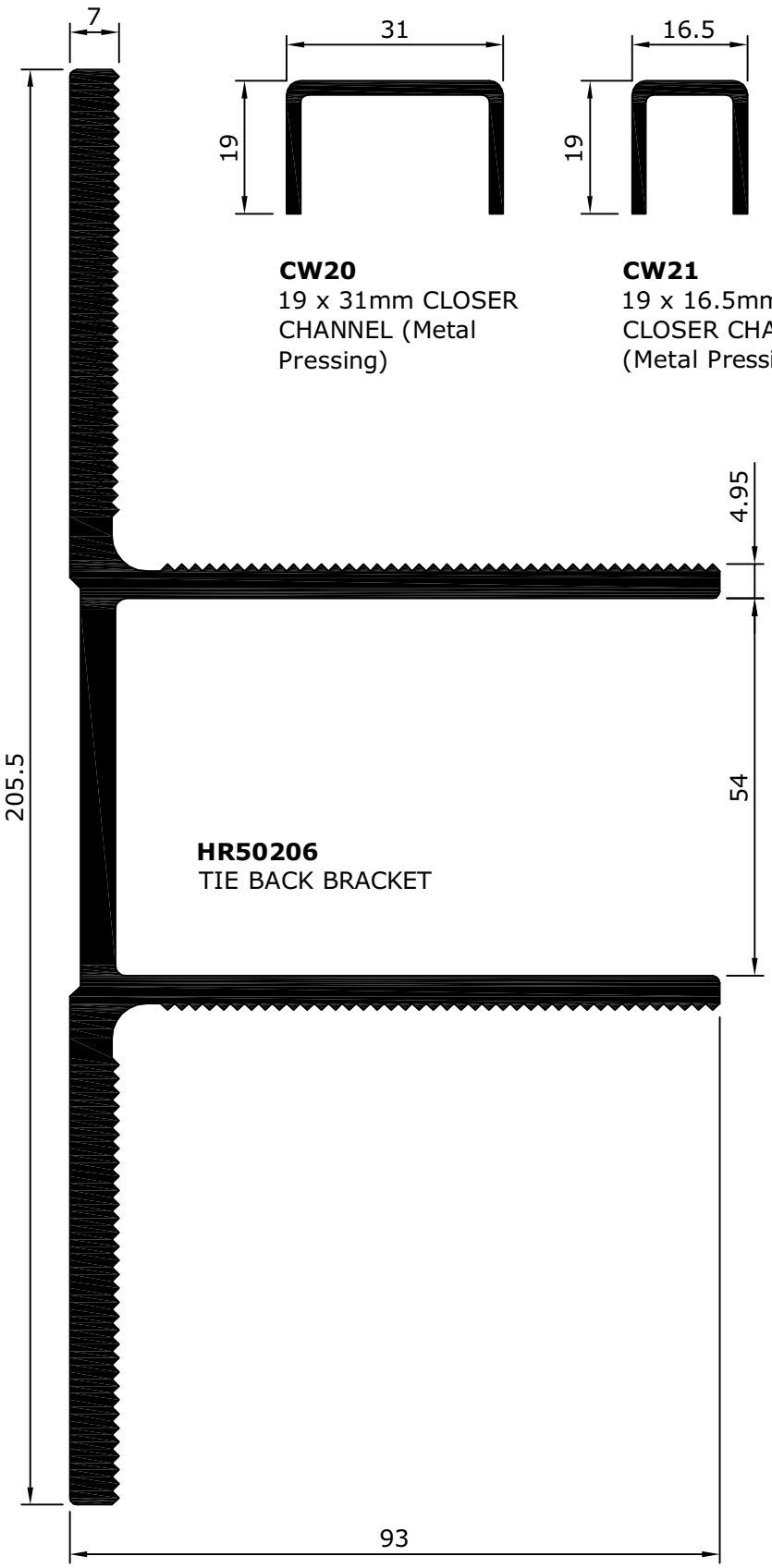
Section Drawings

System 17

50mm HIGH RISE
CURTAIN WALLING

HR50205
SPIGOT PLATE

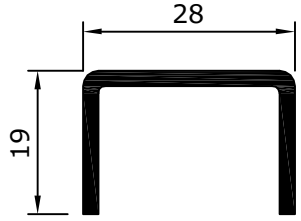




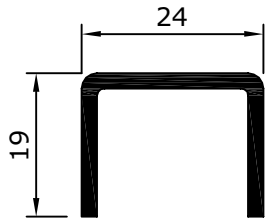
HR50206
TIE BACK BRACKET

CW20
19 x 31mm CLOSER CHANNEL (Metal Pressing)

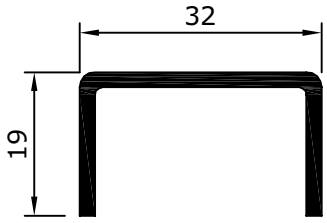
CW21
19 x 16.5mm CLOSER CHANNEL (Metal Pressing)



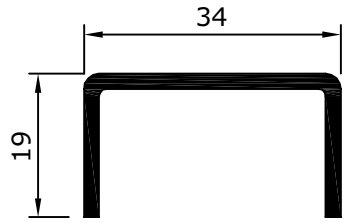
CW23
19 x 28mm CLOSER CHANNEL (Metal Pressing)



CW24
19 x 24mm CLOSER CHANNEL (Metal Pressing)



CW79
19 x 32mm CLOSER CHANNEL (Metal Pressing)



CW80
19 x 34mm CLOSER CHANNEL (Metal Pressing)

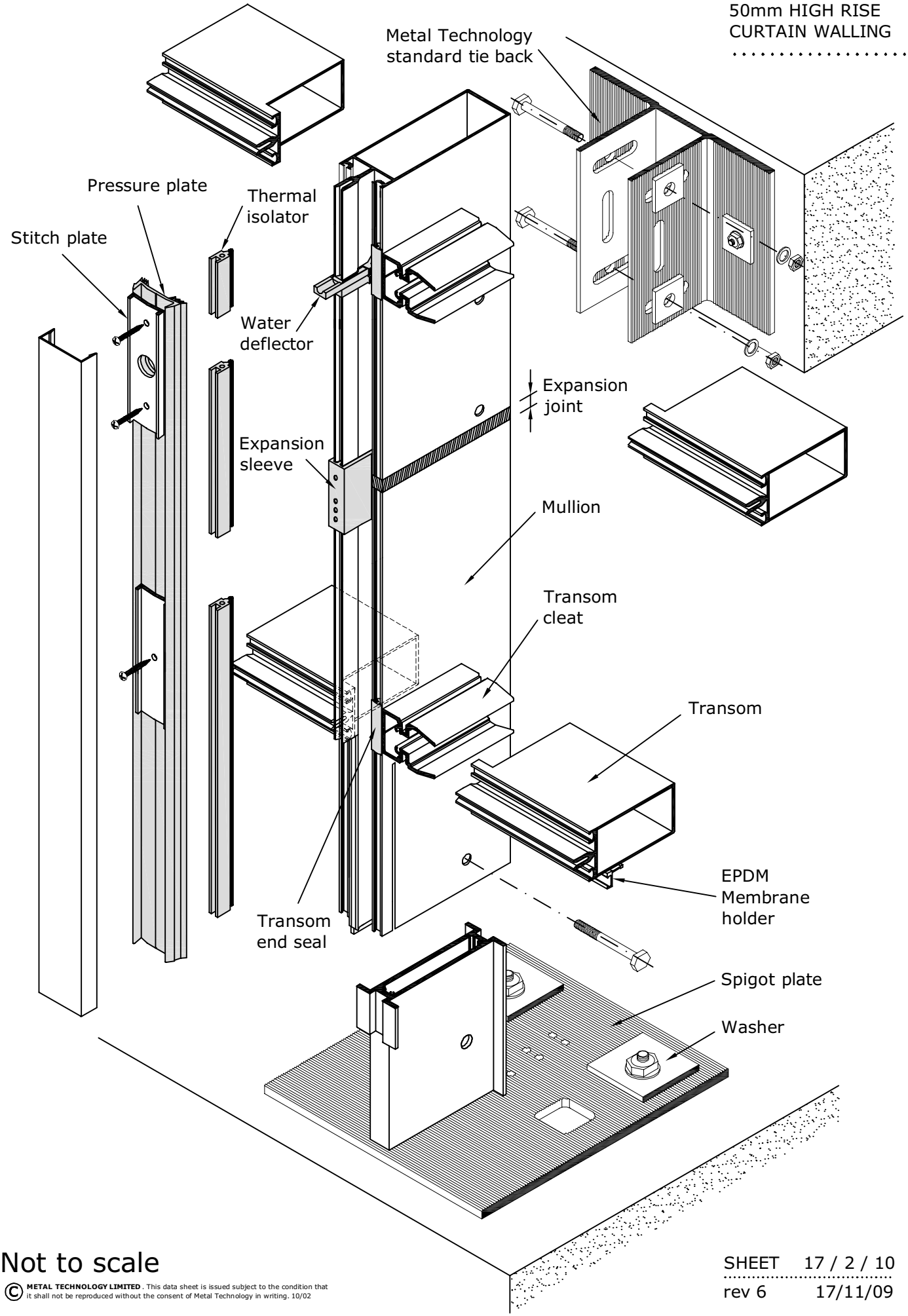
Scale 1:1

General Arrangement

3-Dimensional Assembly Detail

System 17

50mm HIGH RISE
CURTAIN WALLING



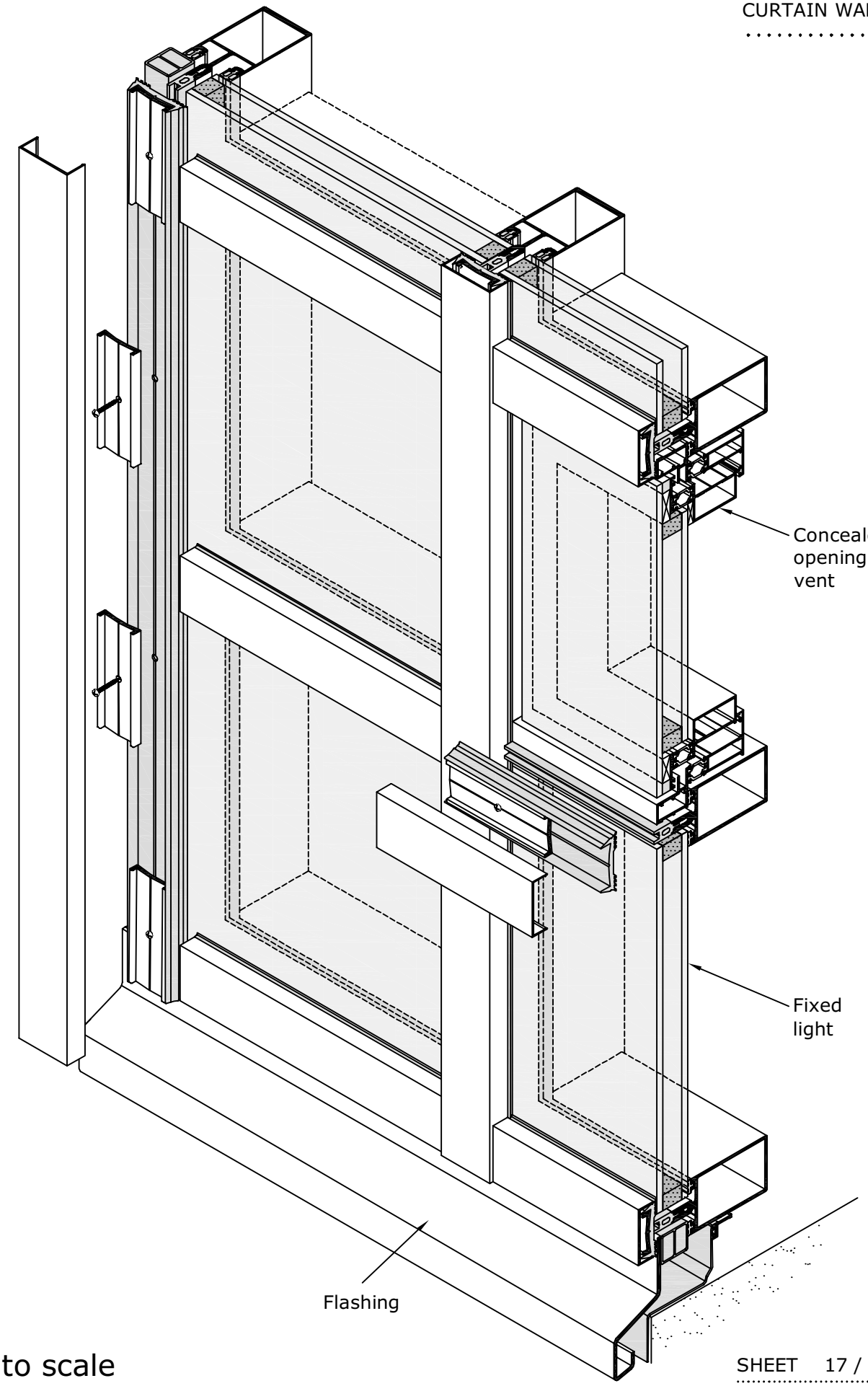
Not to scale

General Arrangement

3-Dimensional Assembly Detail

System 17

50mm HIGH RISE
CURTAIN WALLING

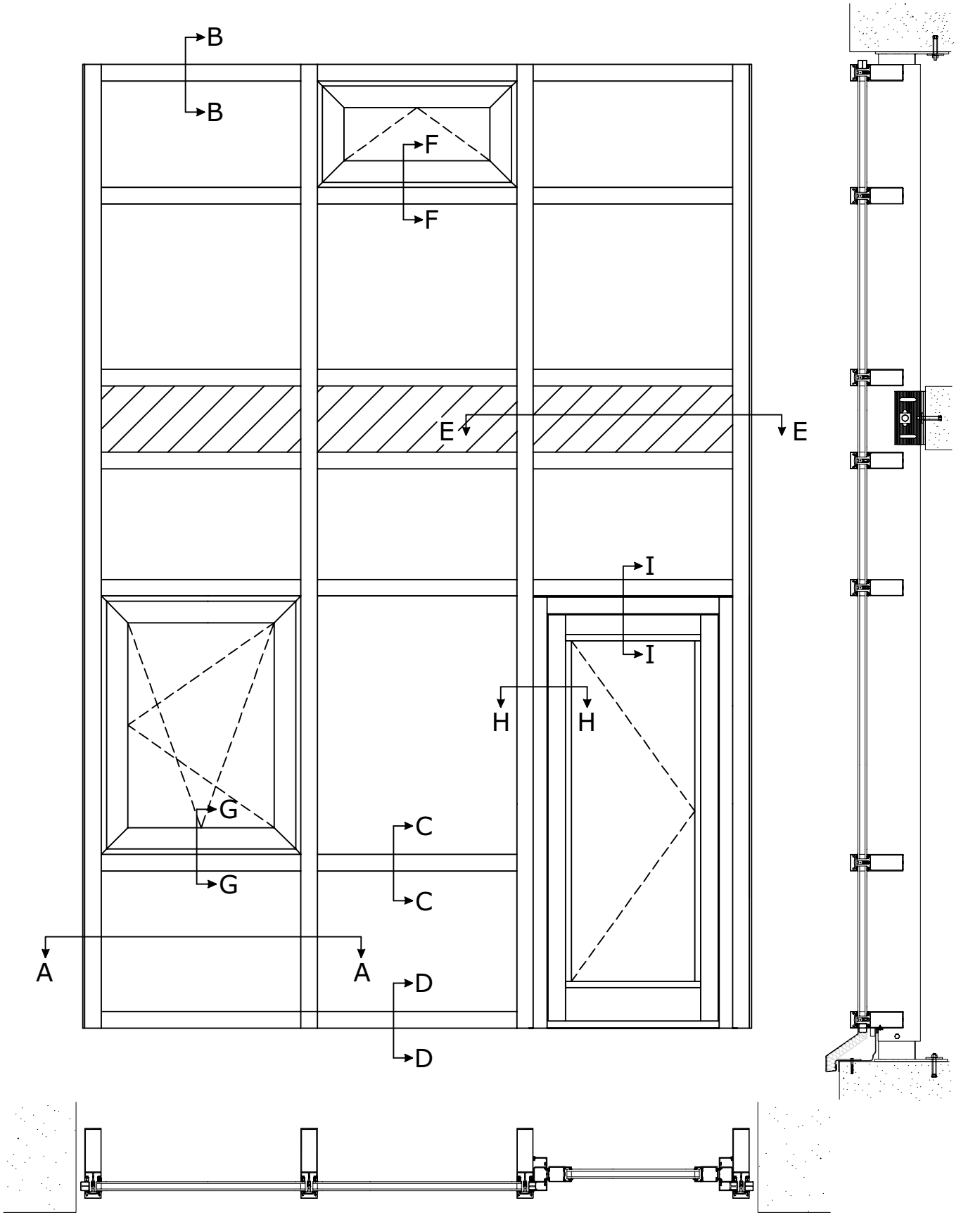


Not to scale

Typical Elevation

System 17

50mm HIGH RISE
CURTAIN WALLING



Not to scale

General Arrangement

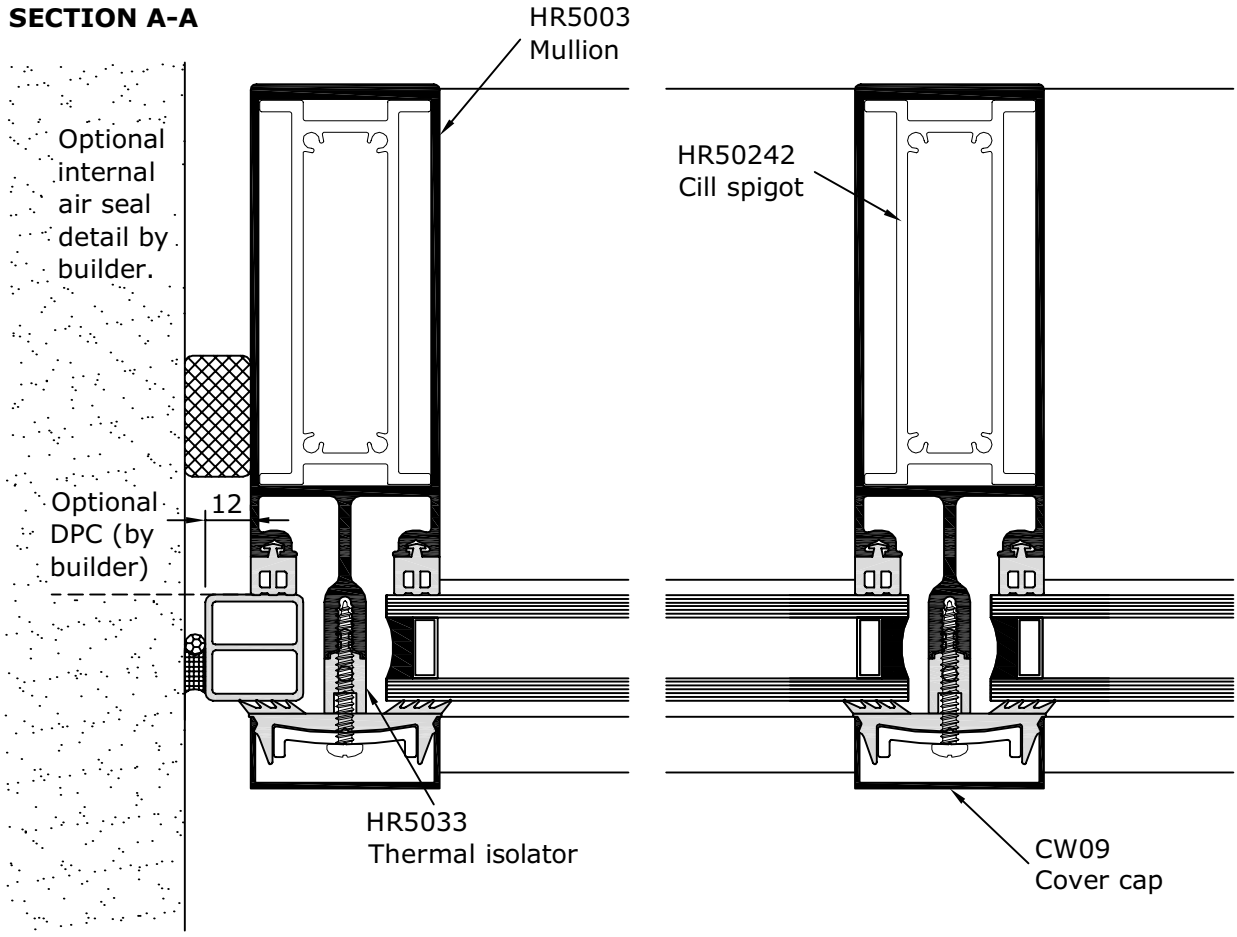
Head, Jamb and Intermediate Mullion Details

System 17

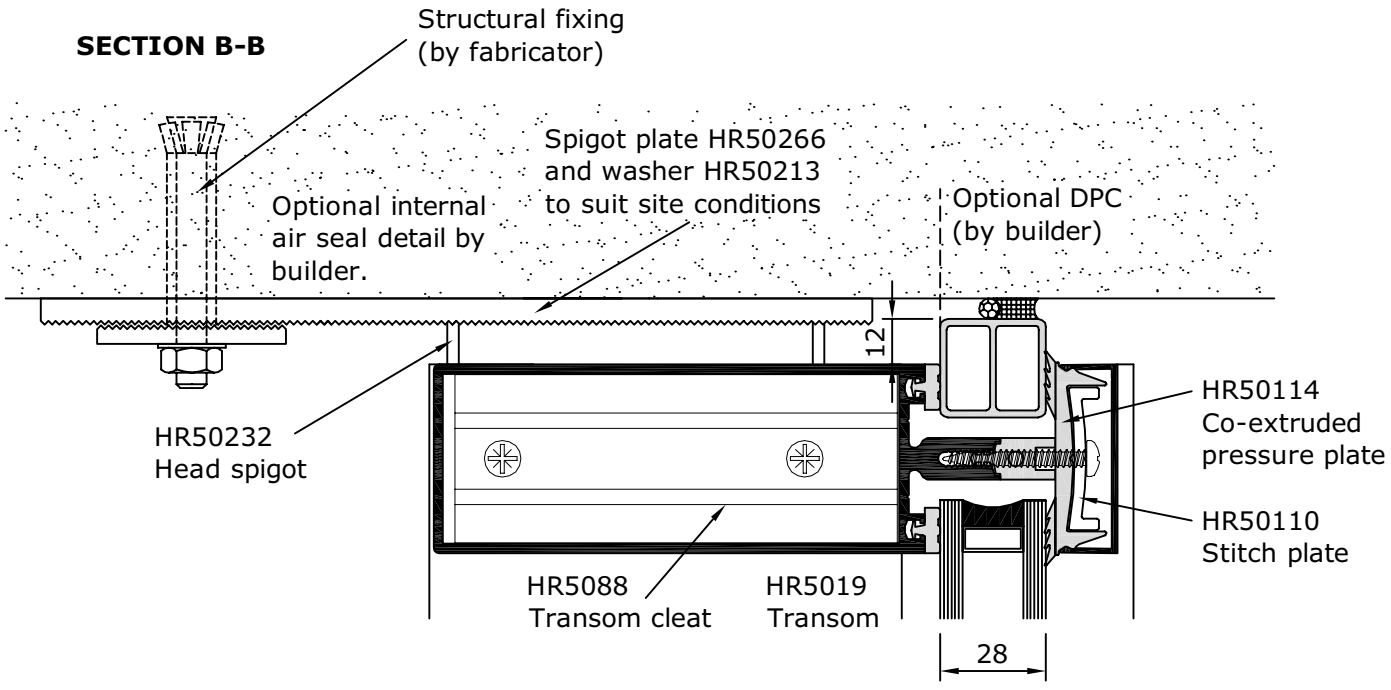
50mm HIGH RISE
CURTAIN WALLING

Perimeter weathering detail to structure to be determined by the fabricator to suit site conditions and DPC/DPM location.
All sections, spigots, brackets and fixings to be sized by a structural engineer to suit site conditions.

SECTION A-A



SECTION B-B



Scale 1:2

General Arrangement

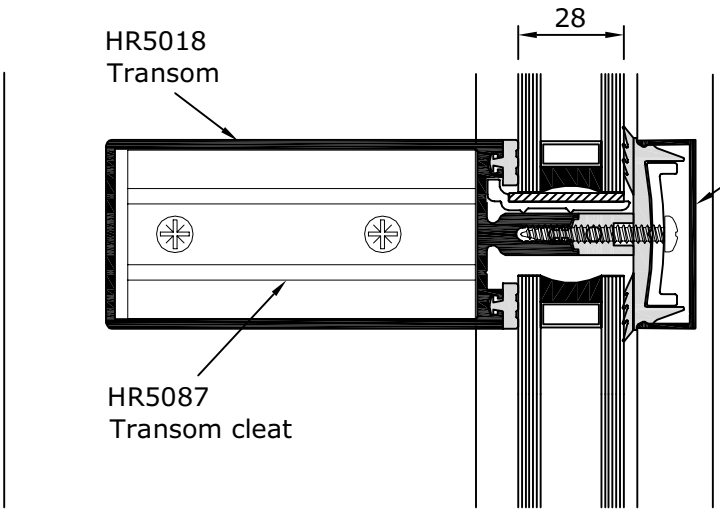
Intermediate Transom and Cill Details

System 17

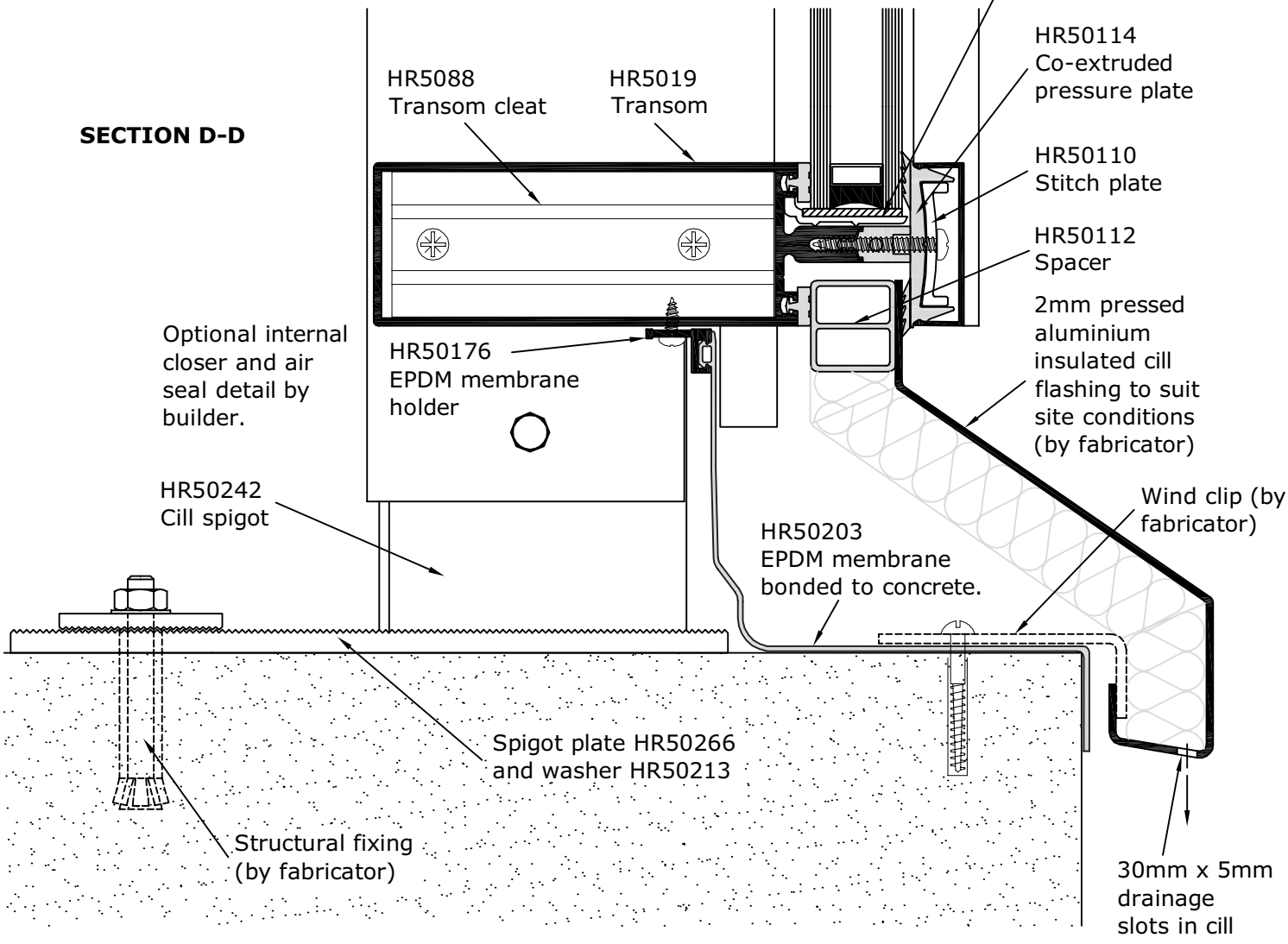
50mm HIGH RISE
CURTAIN WALLING

Perimeter weathering detail to structure to be determined by the fabricator to suit site conditions and DPC/DPM location.
All sections, spigots, brackets and fixings to be sized by a structural engineer to suit site conditions.

SECTION C-C



SECTION D-D



Scale 1:2

General Arrangement

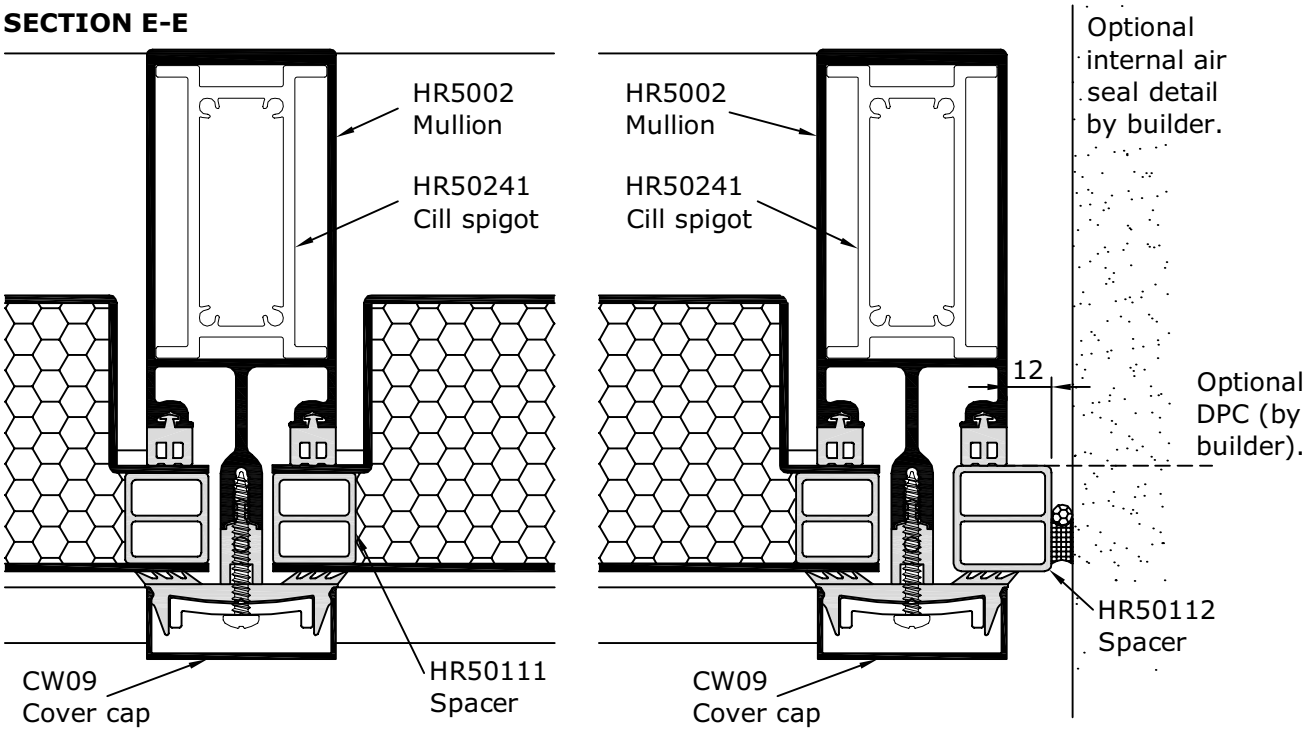
Panel Insert Details

System 17

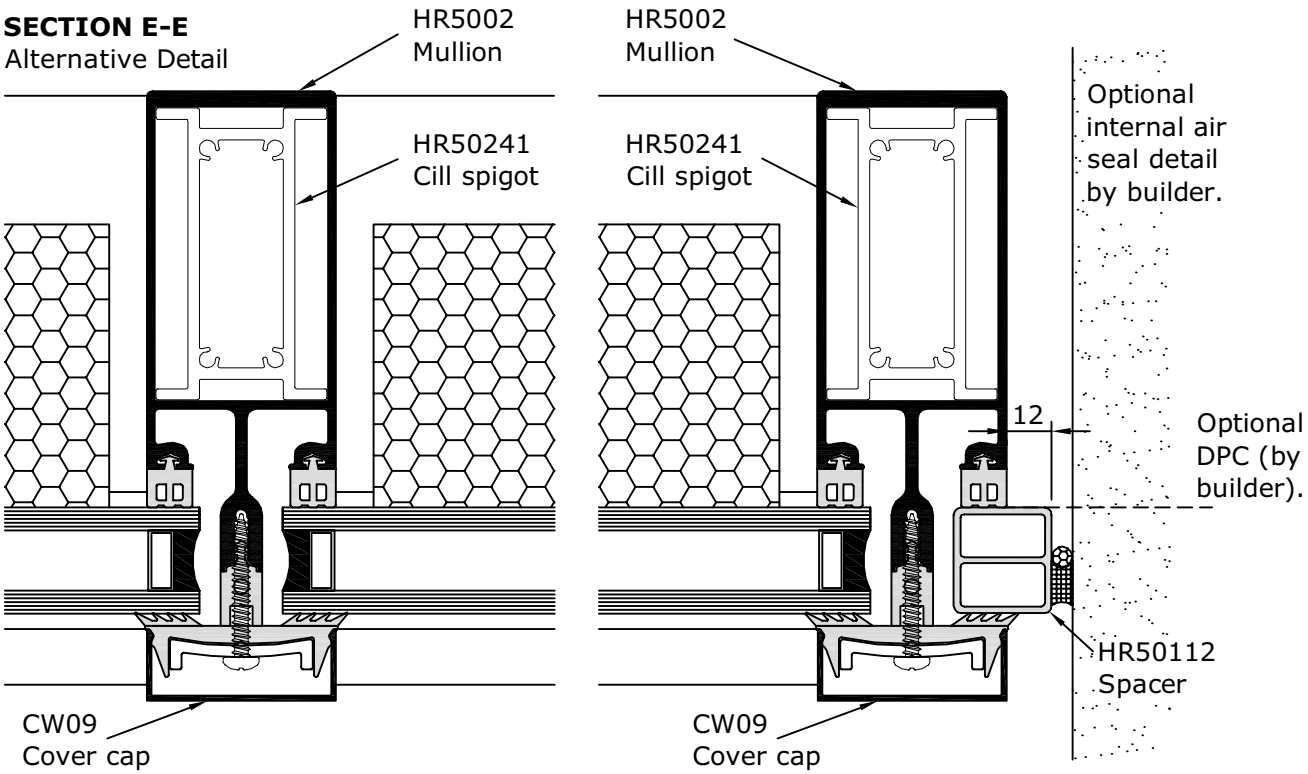
50mm HIGH RISE
CURTAIN WALLING

Perimeter weathering detail to structure to be determined by the fabricator to suit site conditions and DPC/DPM location.

SECTION E-E



SECTION E-E
Alternative Detail



Scale 1:2

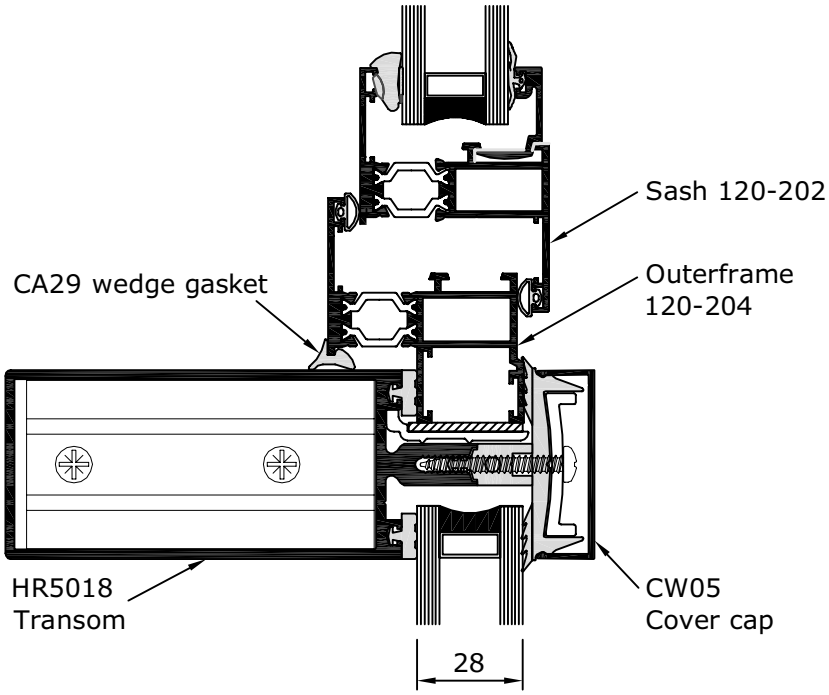
General Arrangement

Window Insert Details

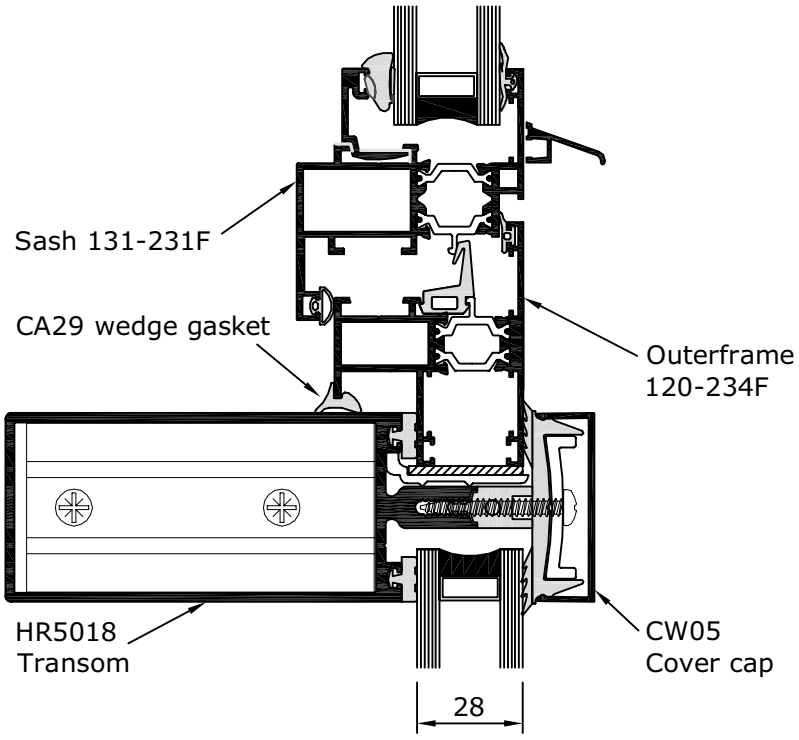
System 17

50mm HIGH RISE
CURTAIN WALLING

SECTION F-F



SECTION G-G



Scale 1:2

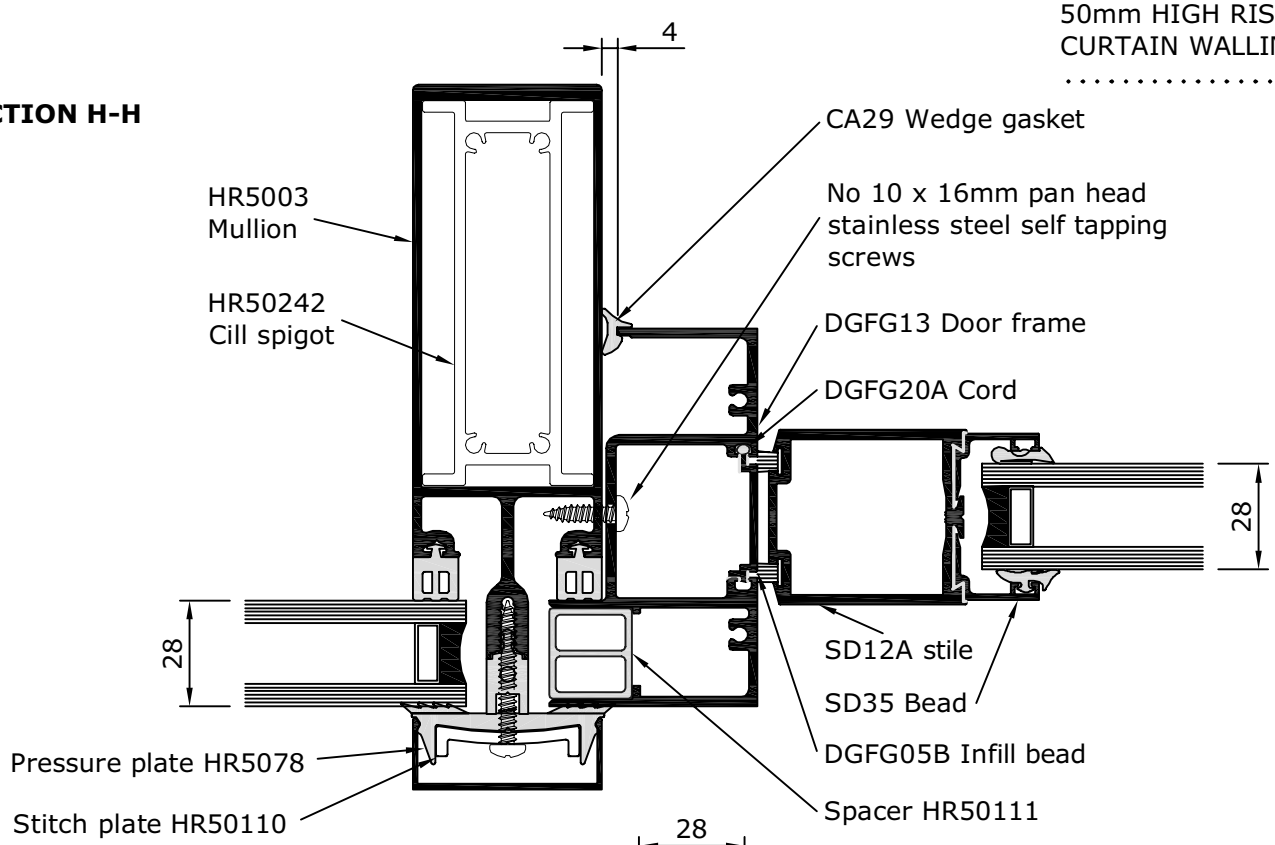
General Arrangement

System 10 Framed Pivot Door Details

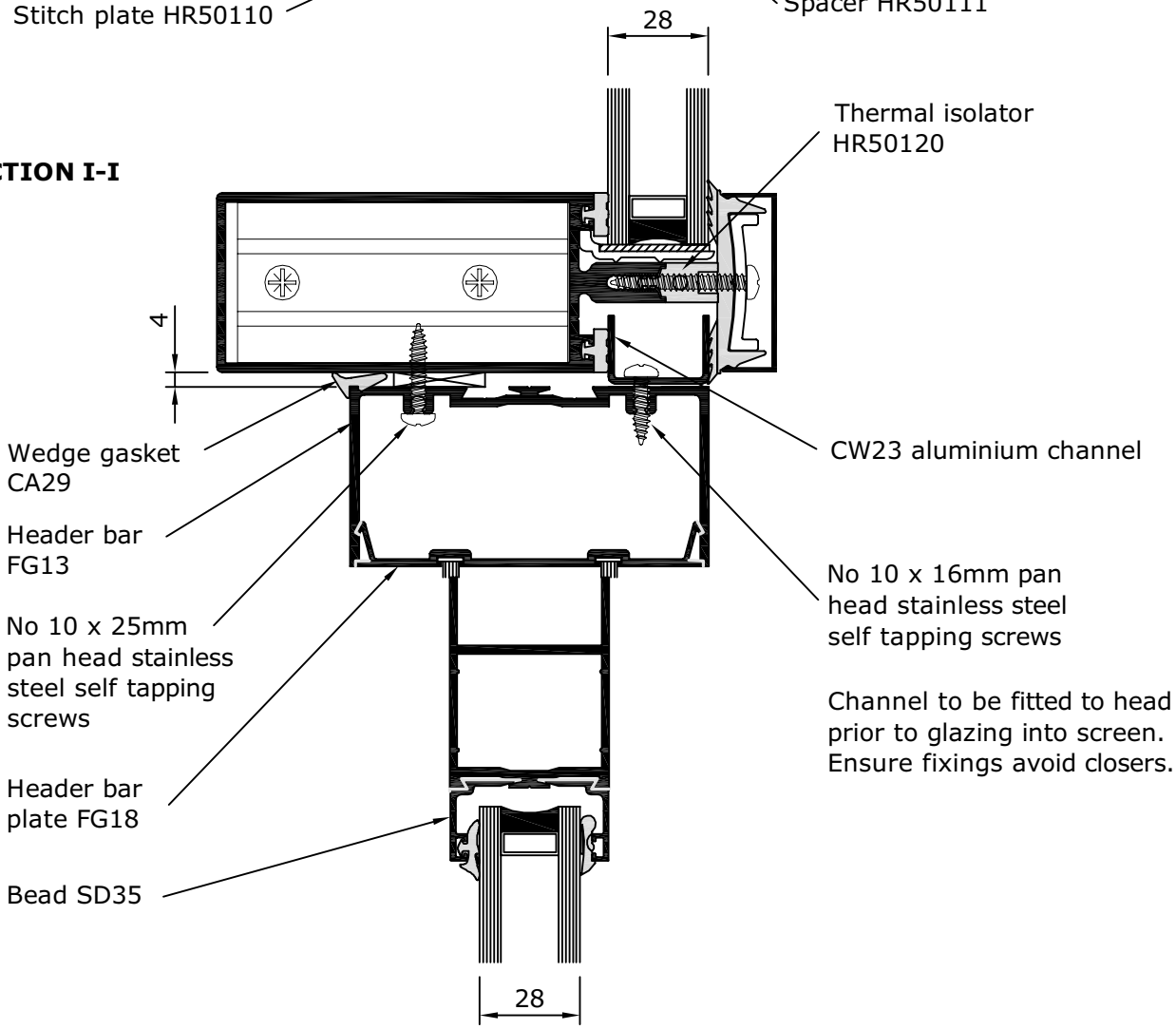
System 17

50mm HIGH RISE
CURTAIN WALLING

SECTION H-H



SECTION I-I



Scale 1:2

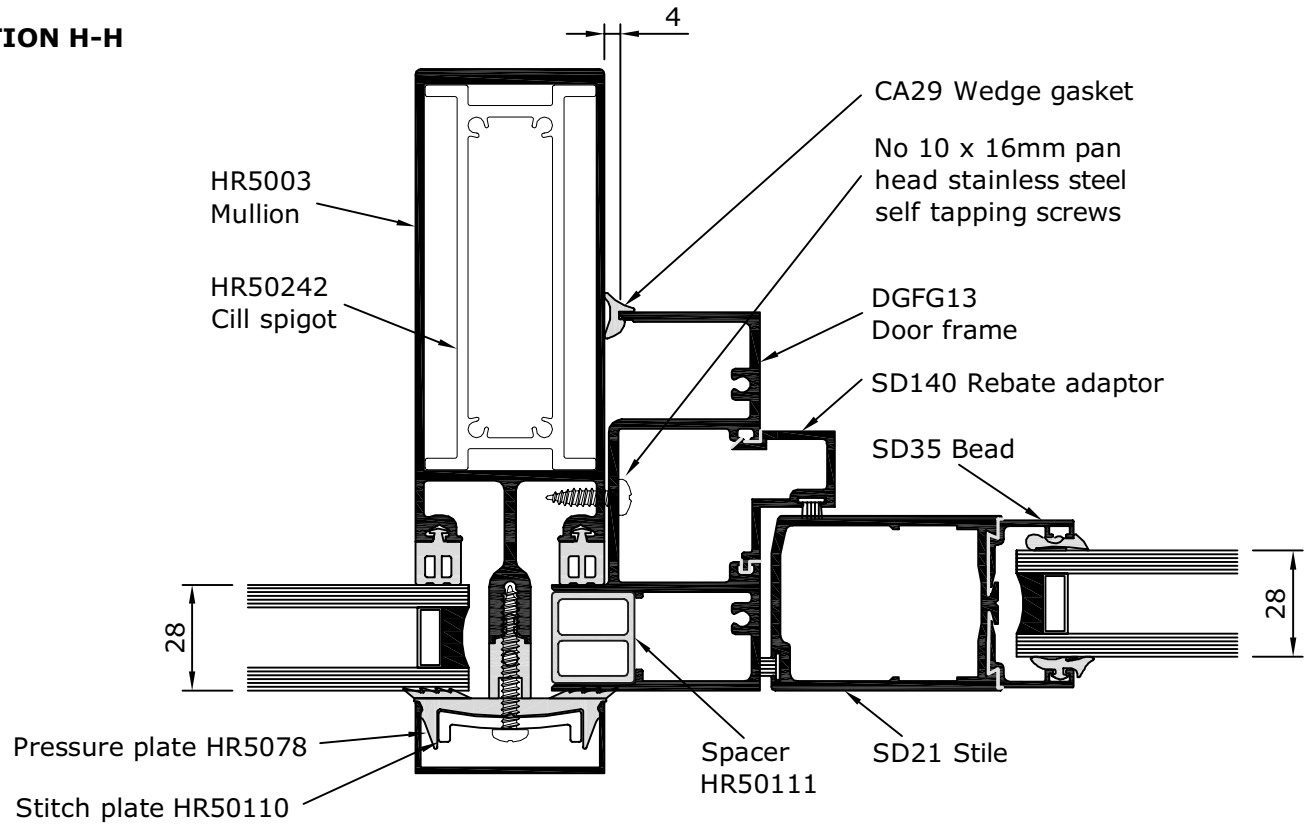
General Arrangement

System 10 Rebated Door Details

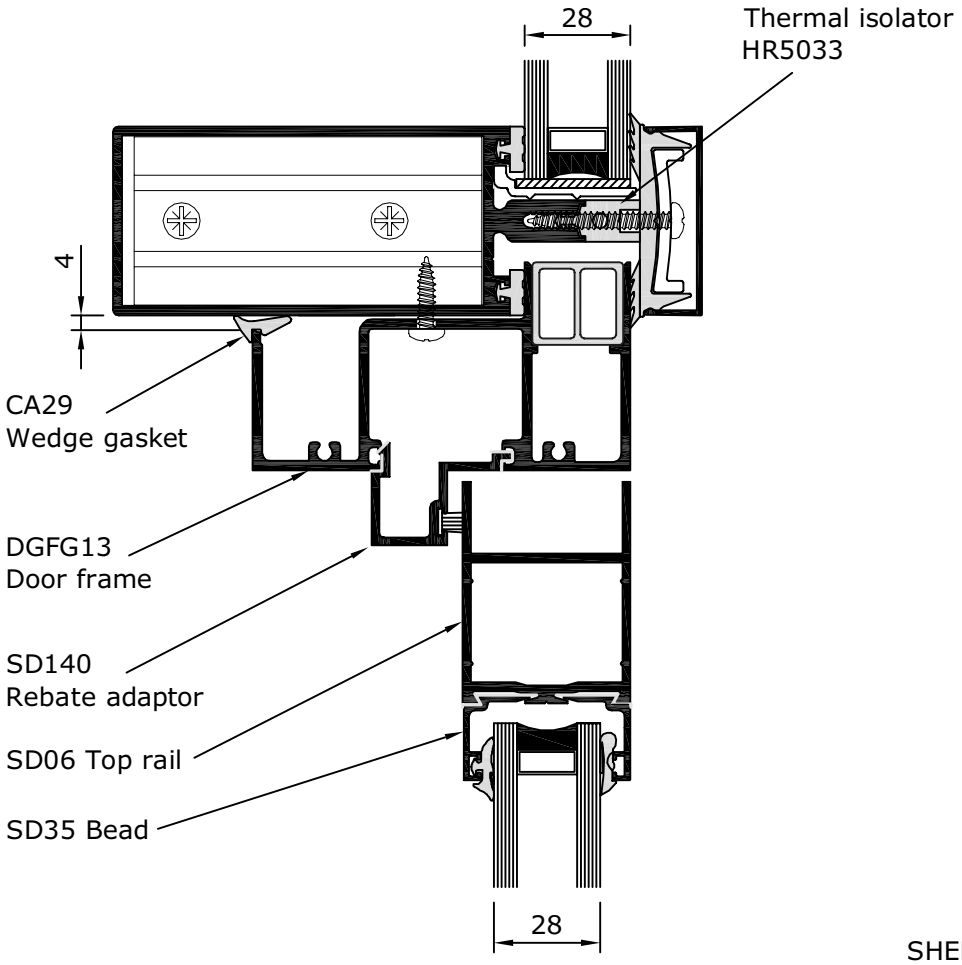
System 17

50mm HIGH RISE
CURTAIN WALLING

SECTION H-H



SECTION I-I



Scale 1:2

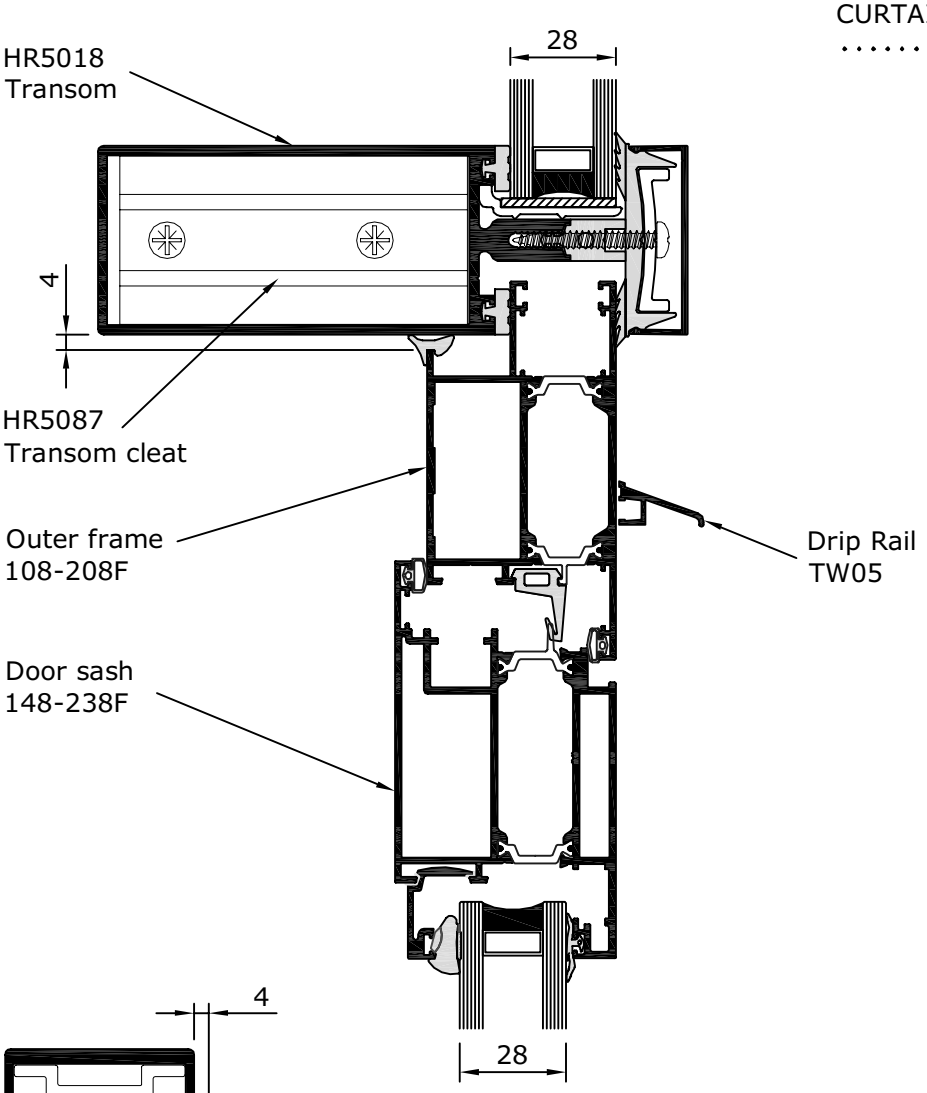
General Arrangement

System 5-20D Door Details

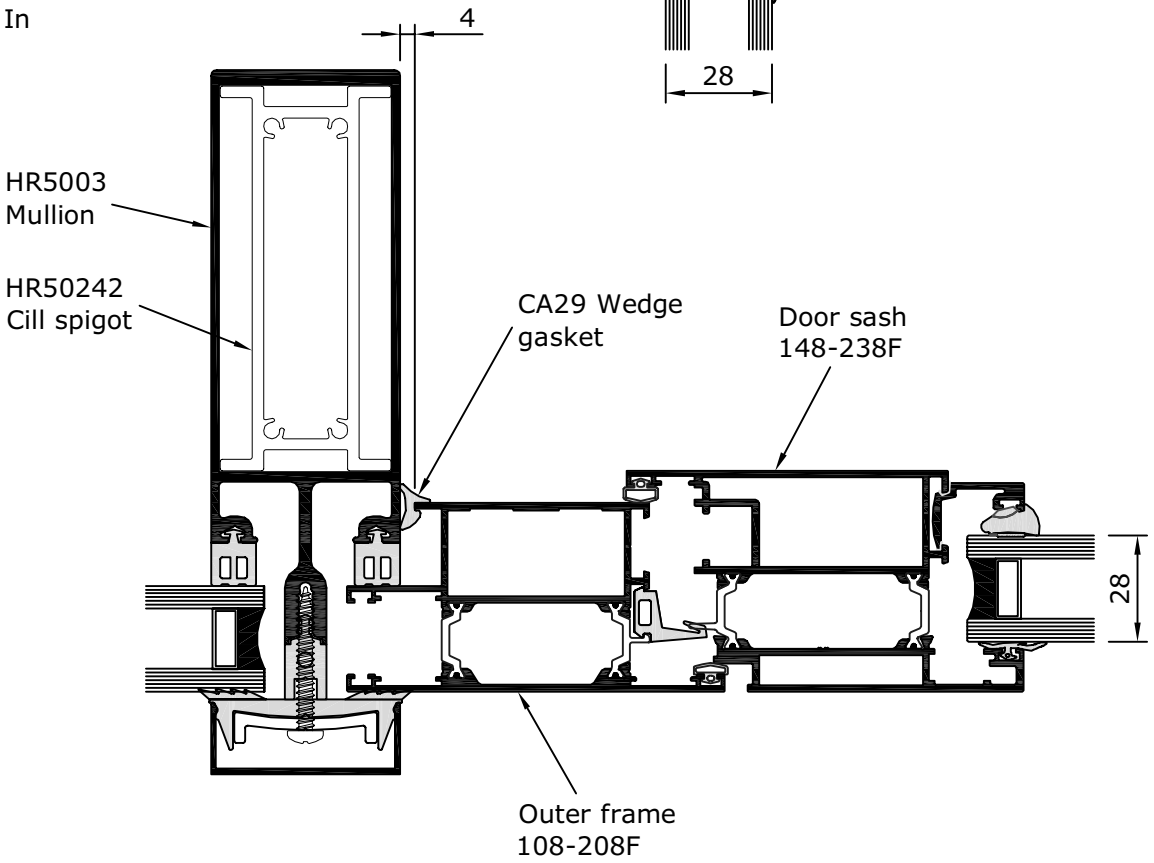
System 17

50mm HIGH RISE
CURTAIN WALLING

SECTION I-I
Open In



SECTION H-H
Open In



Scale 1:2

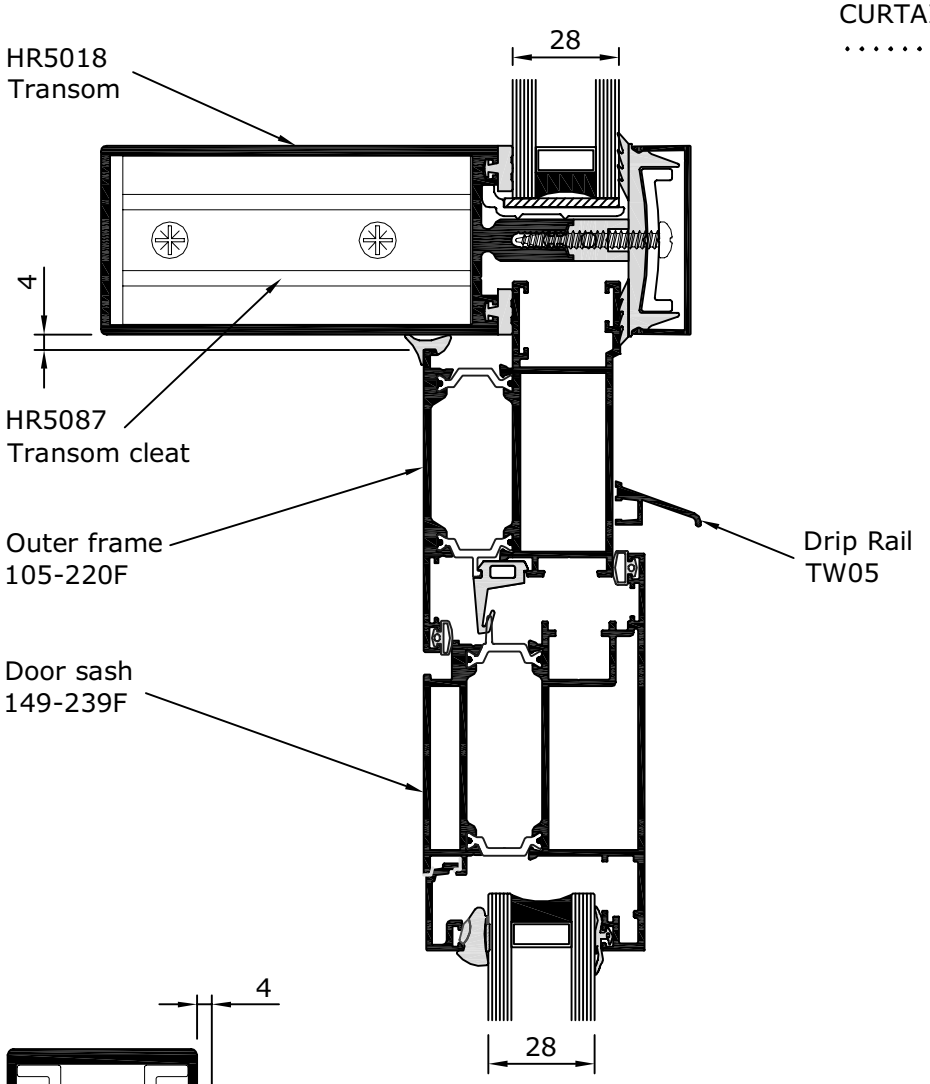
General Arrangement

System 5-20D Door Details

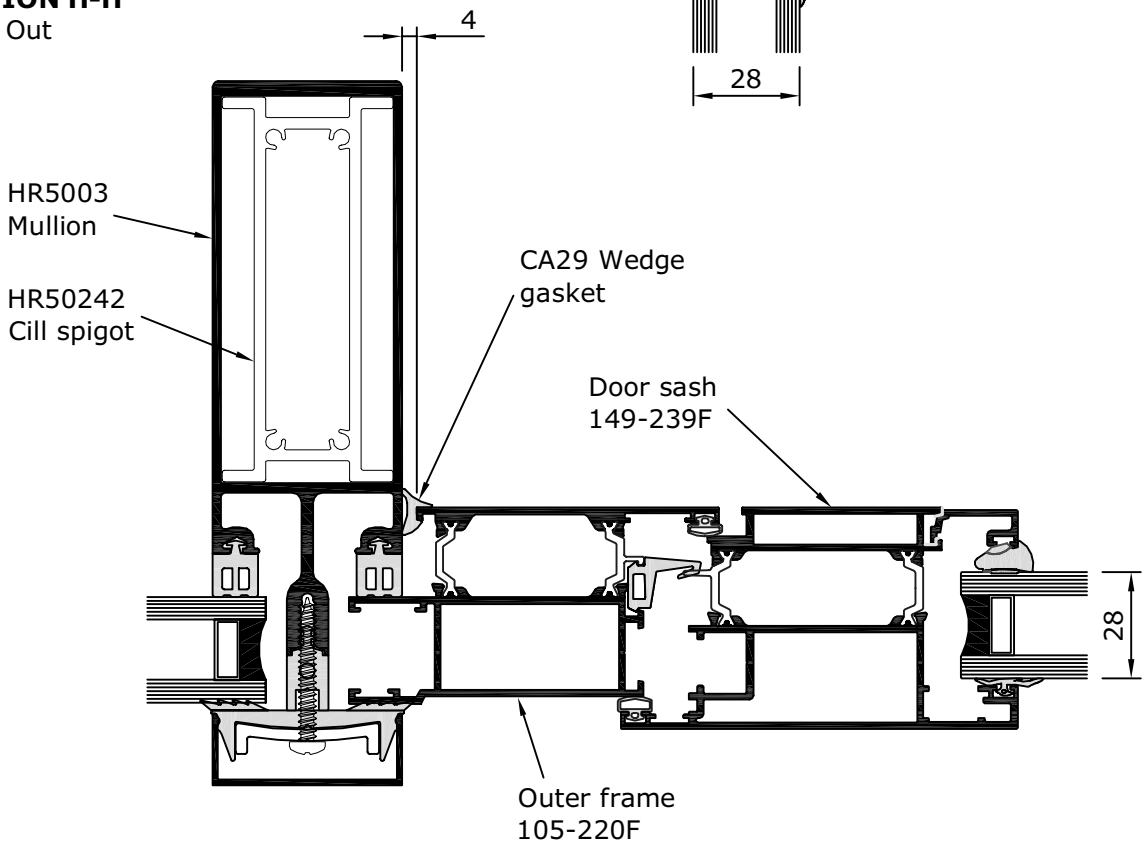
System 17

50mm HIGH RISE
CURTAIN WALLING

SECTION I-I
Open Out



SECTION H-H
Open Out



Scale 1:2

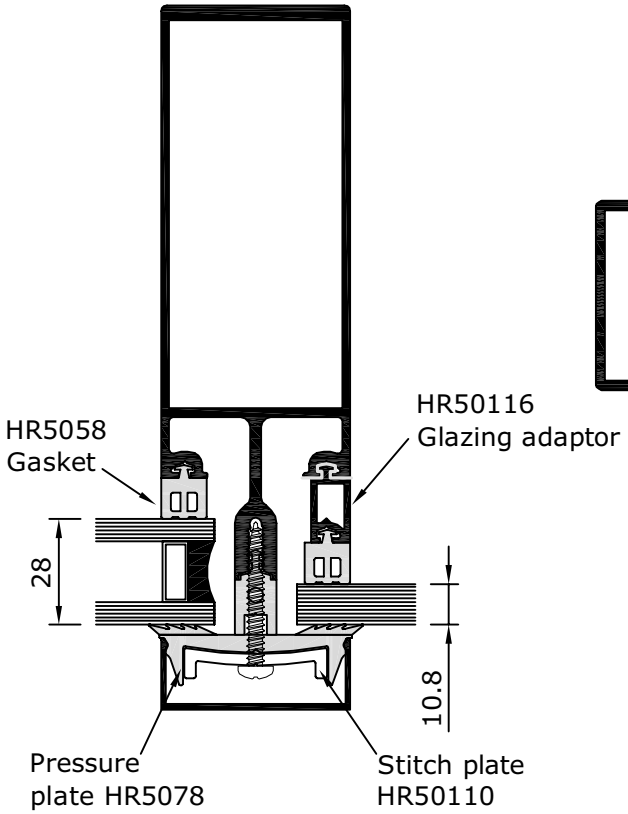
General Arrangement

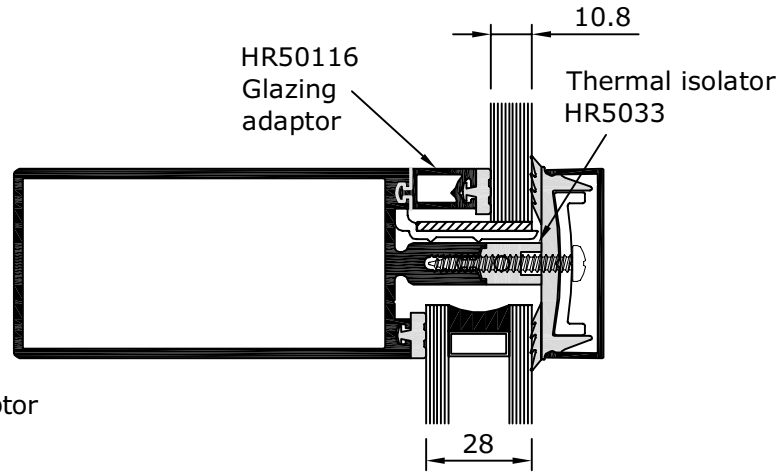
Single Glaze Adaptor Details

System 17

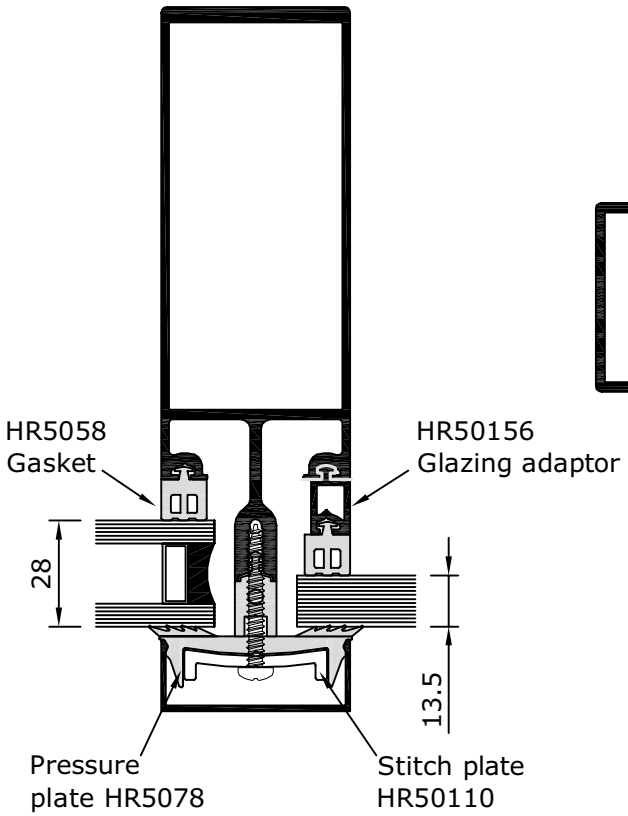
50mm HIGH RISE
CURTAIN WALLING

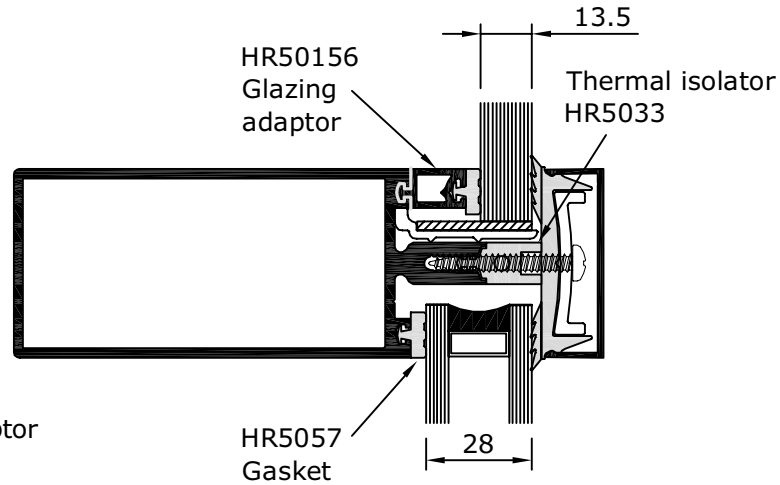
28mm to 10.8mm Glazing





28mm to 13.5mm Glazing





Scale 1:2

General Arrangement

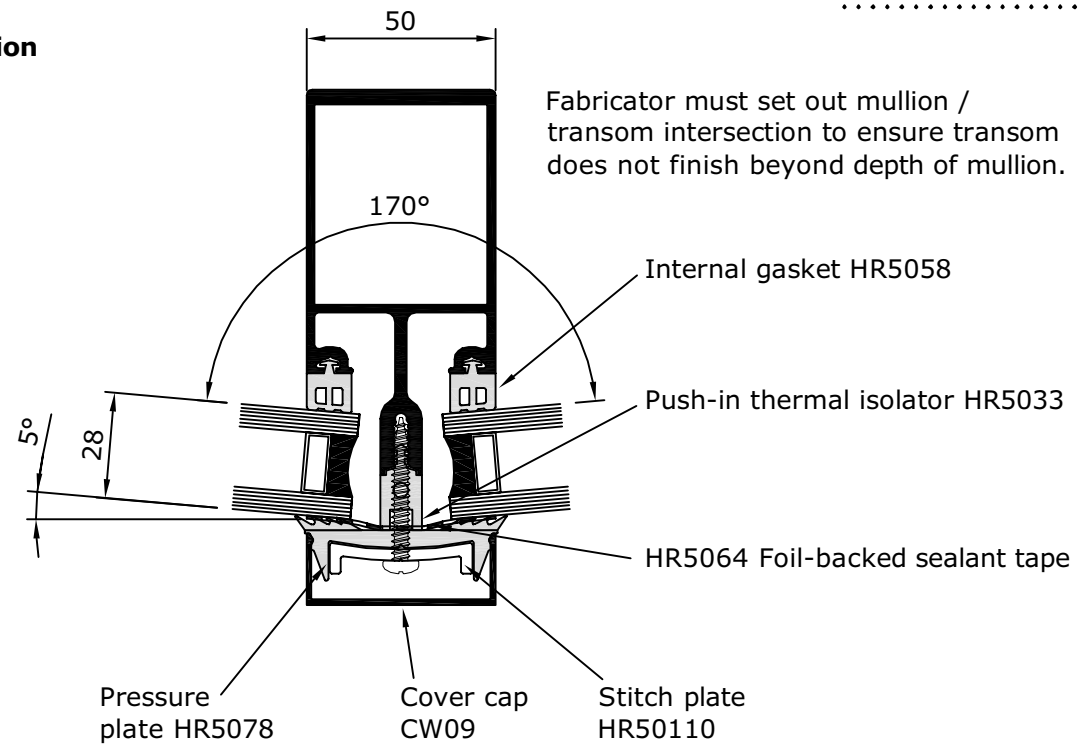
Façetted Mullions

System 17

50mm HIGH RISE
CURTAIN WALLING

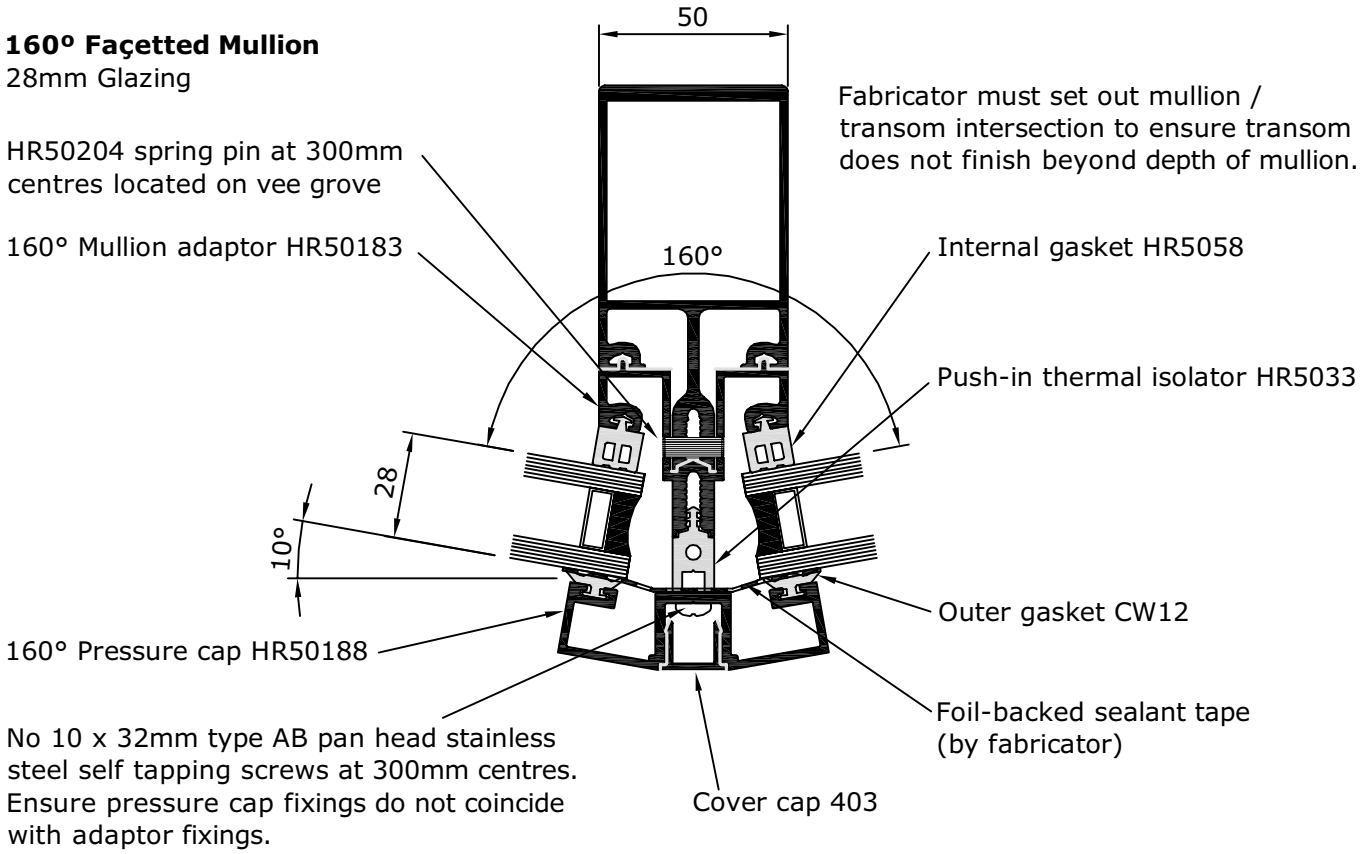
The standard gaskets provide the facility to façet up to ± 5º. When combined with the adaptor profiles and their cover caps any angle from 90º to 180º can be achieved.

170º Façetted Mullion
28mm Glazing



When using the gaskets to vary the angle of façet from the following fixed angles illustrated the fabricator is required to produce bespoke setting out, cutting and prepping details.

160º Façetted Mullion
28mm Glazing



Scale 1:2

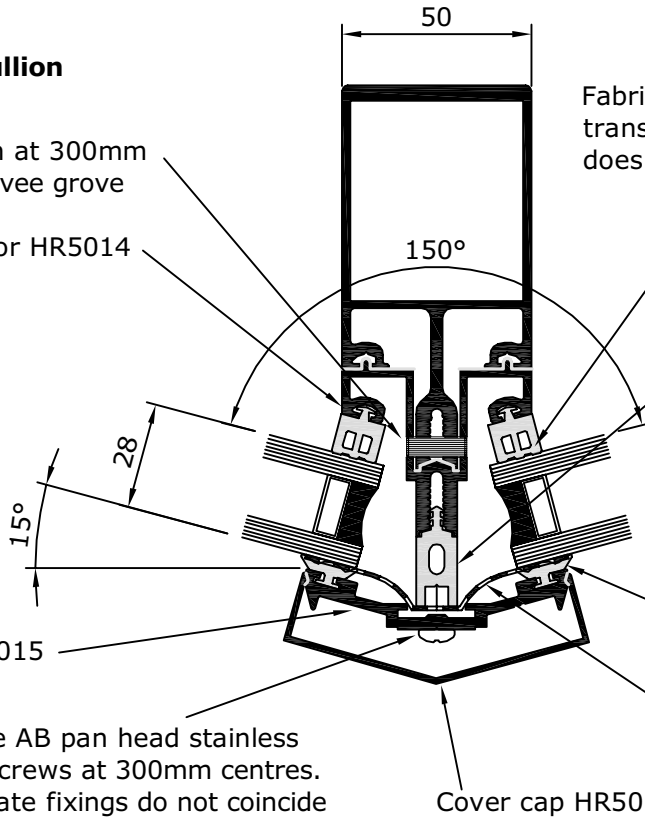
General Arrangement

Façetted Mullions

System 17

50mm HIGH RISE
CURTAIN WALLING

150º Façetted Mullion
28mm Glazing



HR50204 spring pin at 300mm centres located on vee grove

150° Mullion adaptor HR5014

Pressure plate HR5015

No 10 x 32mm type AB pan head stainless steel self tapping screws at 300mm centres. Ensure pressure plate fixings do not coincide with adaptor fixings.

Fabricator must set out mullion / transom intersection to ensure transom does not finish beyond depth of mullion.

Internal gasket HR5058

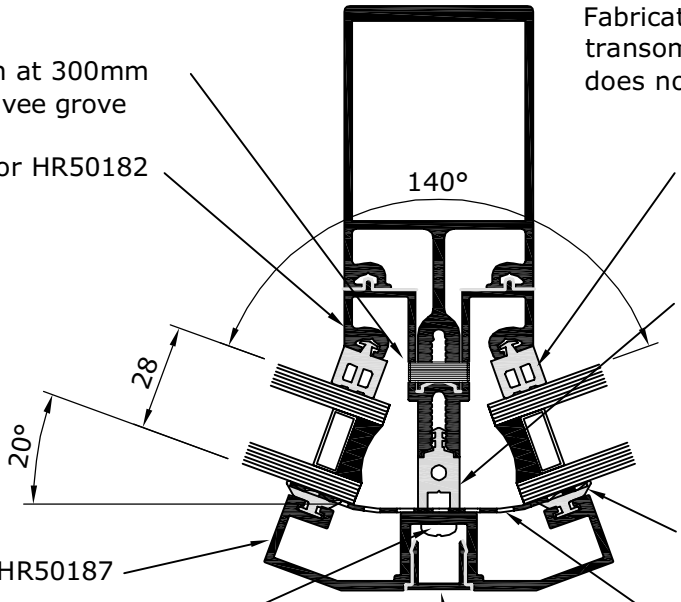
Push-in thermal isolator HR50120

Outer gasket CW12

Foil-backed sealant tape (by fabricator)

Cover cap HR5016

140º Façetted Mullion
28mm Glazing



HR50204 spring pin at 300mm centres located on vee grove

140° Mullion adaptor HR50182

140° Pressure cap HR50187

No 10 x 32mm type AB pan head stainless steel self tapping screws at 300mm centres. Ensure pressure cap fixings do not coincide with adaptor fixings.

Fabricator must set out mullion / transom intersection to ensure transom does not finish beyond depth of mullion.

Internal gasket HR5058

Push-in thermal isolator HR5033 notched locally over adaptor fixings

Outer gasket CW12

Foil-backed sealant tape (by fabricator)

Cover cap 403

Scale 1:2

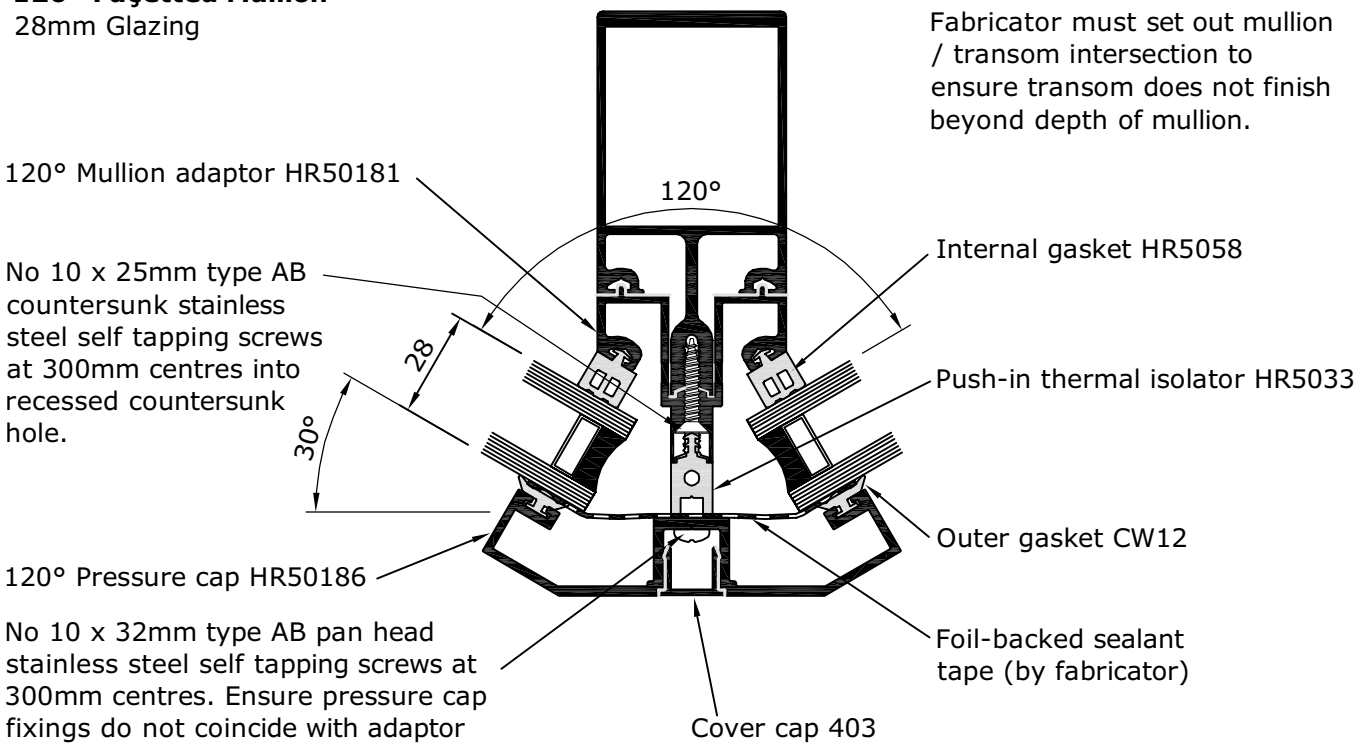
General Arrangement

Façetted Mullions

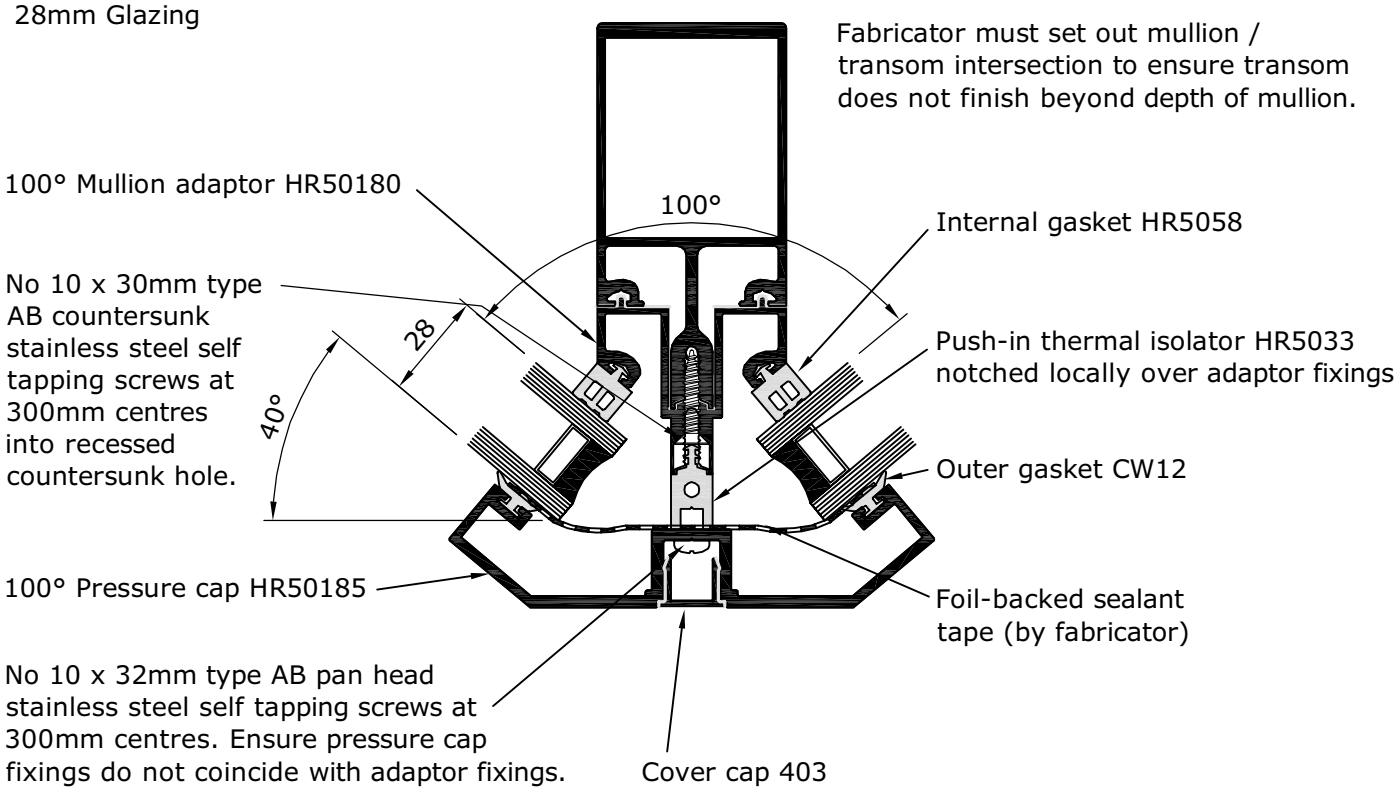
System 17

50mm HIGH RISE
CURTAIN WALLING

120º Façetted Mullion
28mm Glazing



100º Façetted Mullion
28mm Glazing



Scale 1:2

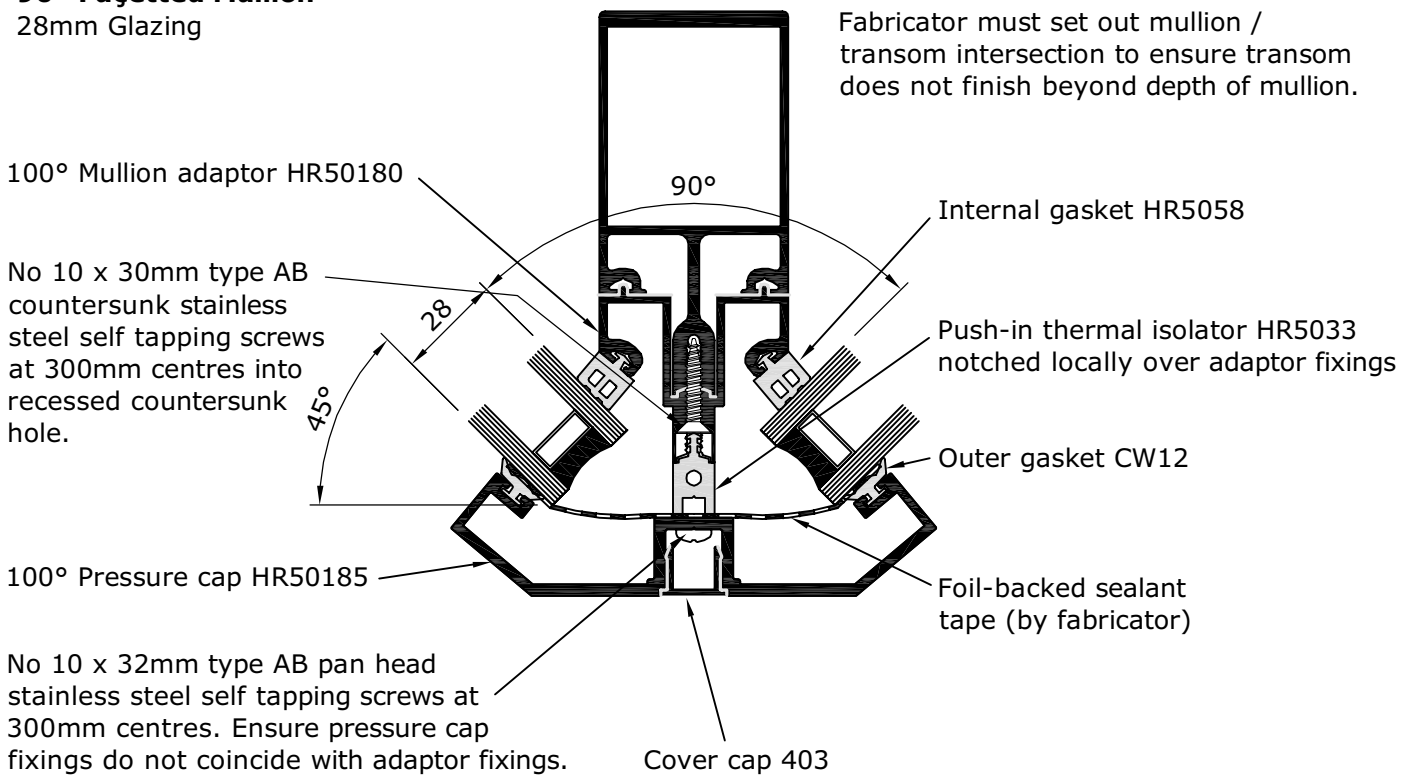
General Arrangement

Façetted Mullions

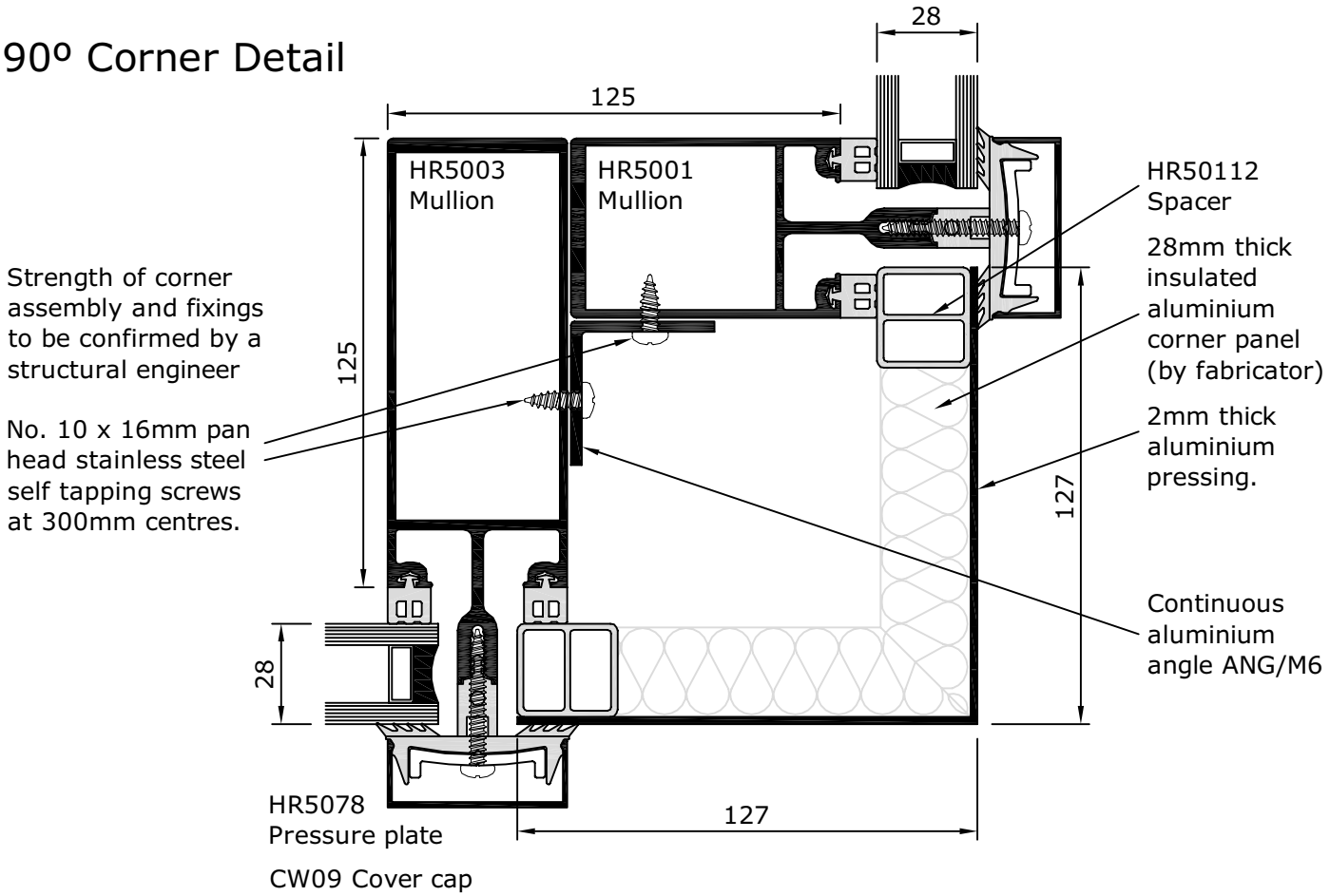
System 17

50mm HIGH RISE
CURTAIN WALLING

90º Façetted Mullion
28mm Glazing



90º Corner Detail



Scale 1:2

General Arrangement

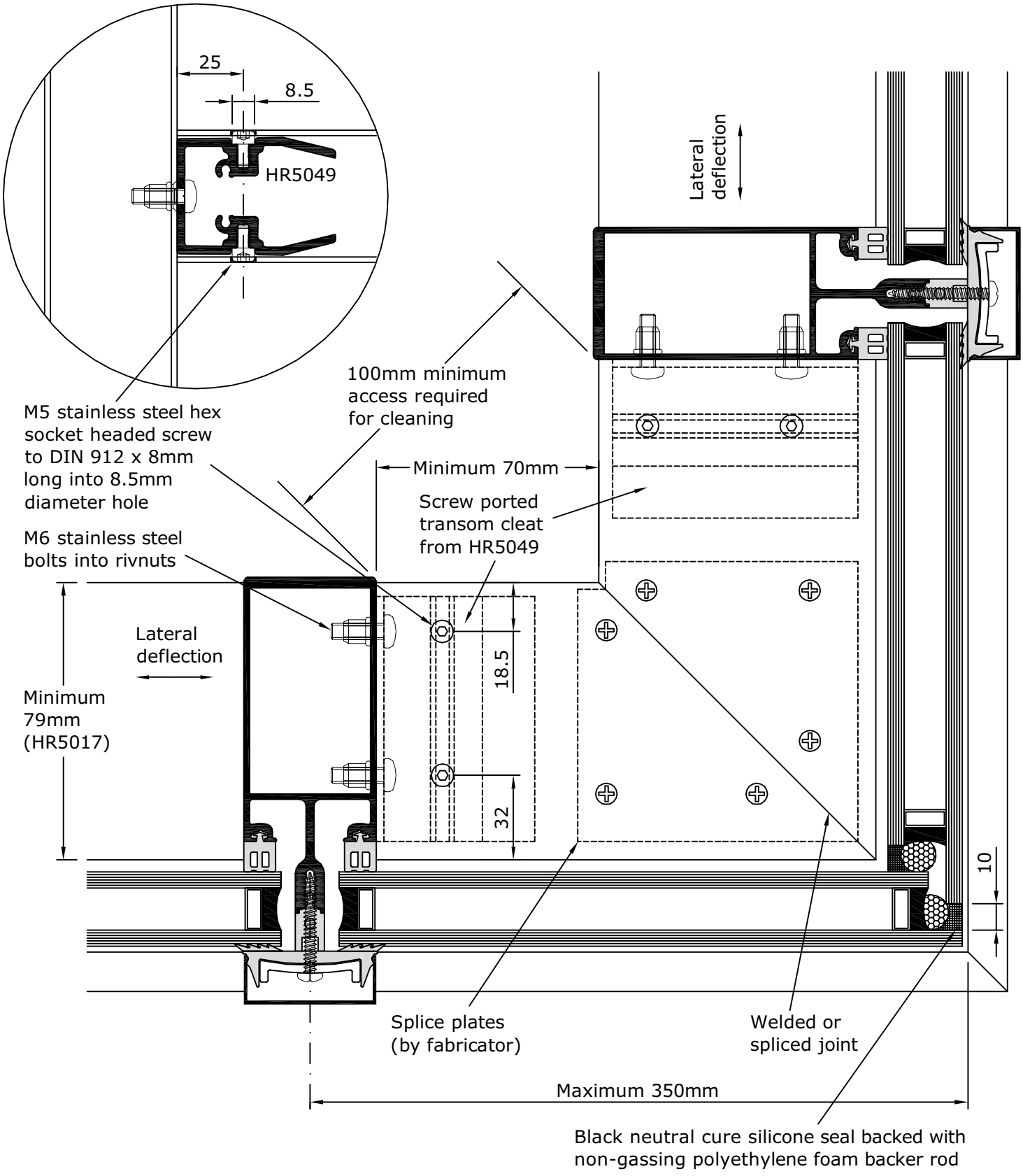
Unsupported Glass to Glass Corner Detail

System 17

50mm HIGH RISE
CURTAIN WALLING

MAXIMUM TRANSOM DEAD LOAD = 40kg (based on developed width)

Lateral deflection of mullion must be checked by a structural engineer. Maximum lateral deflection should not be greater than span/200 up to a maximum deflection of 5mm.



Scale 1:2

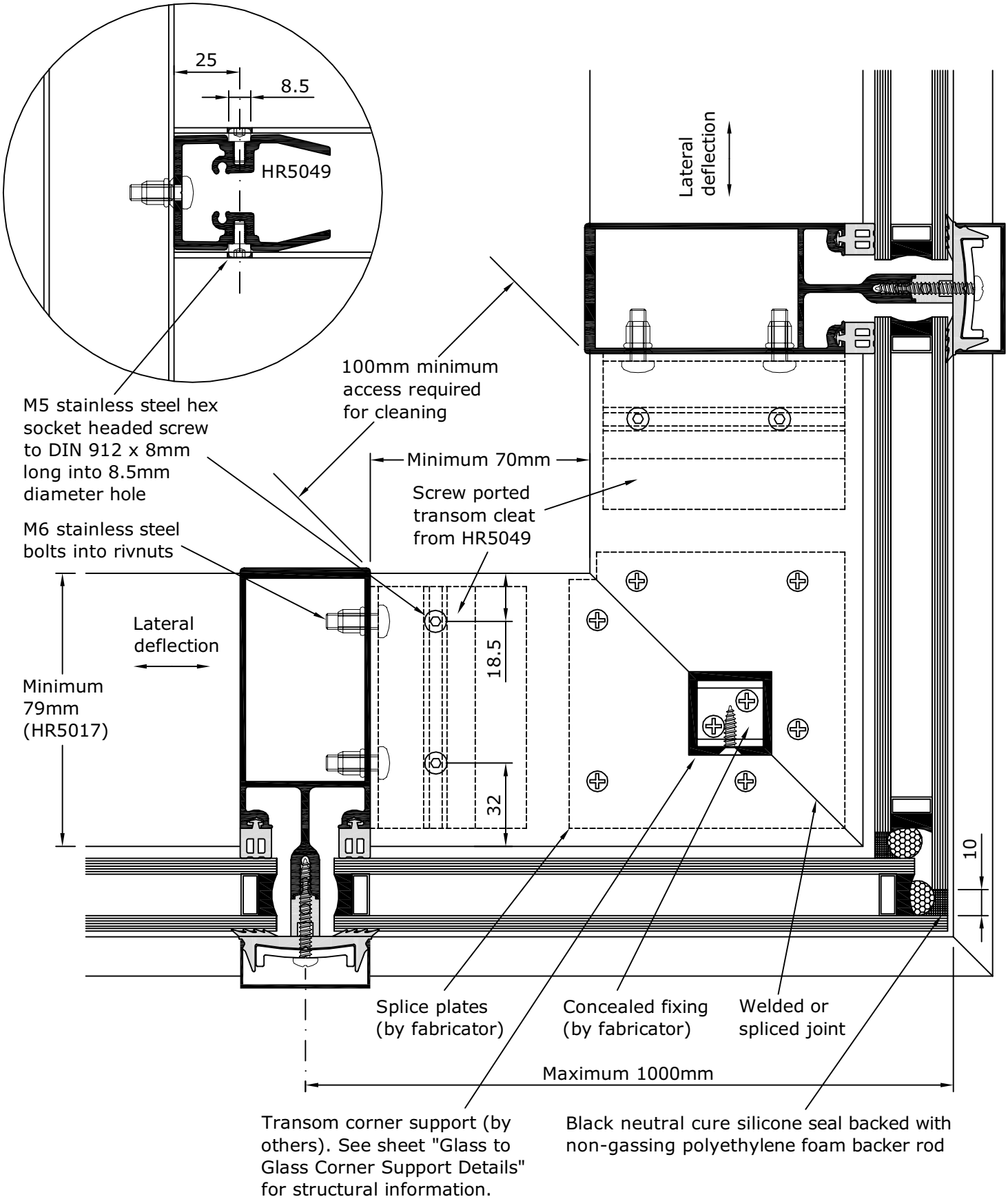
General Arrangement

Supported Glass to Glass Corner Detail

Lateral deflection of mullion must be checked by a structural engineer. Maximum lateral deflection should not be greater than span/200 up to a maximum deflection of 5mm.

System 17

50mm HIGH RISE CURTAIN WALLING



Scale 1:2

General Arrangement

Capped Roof Glazing Details

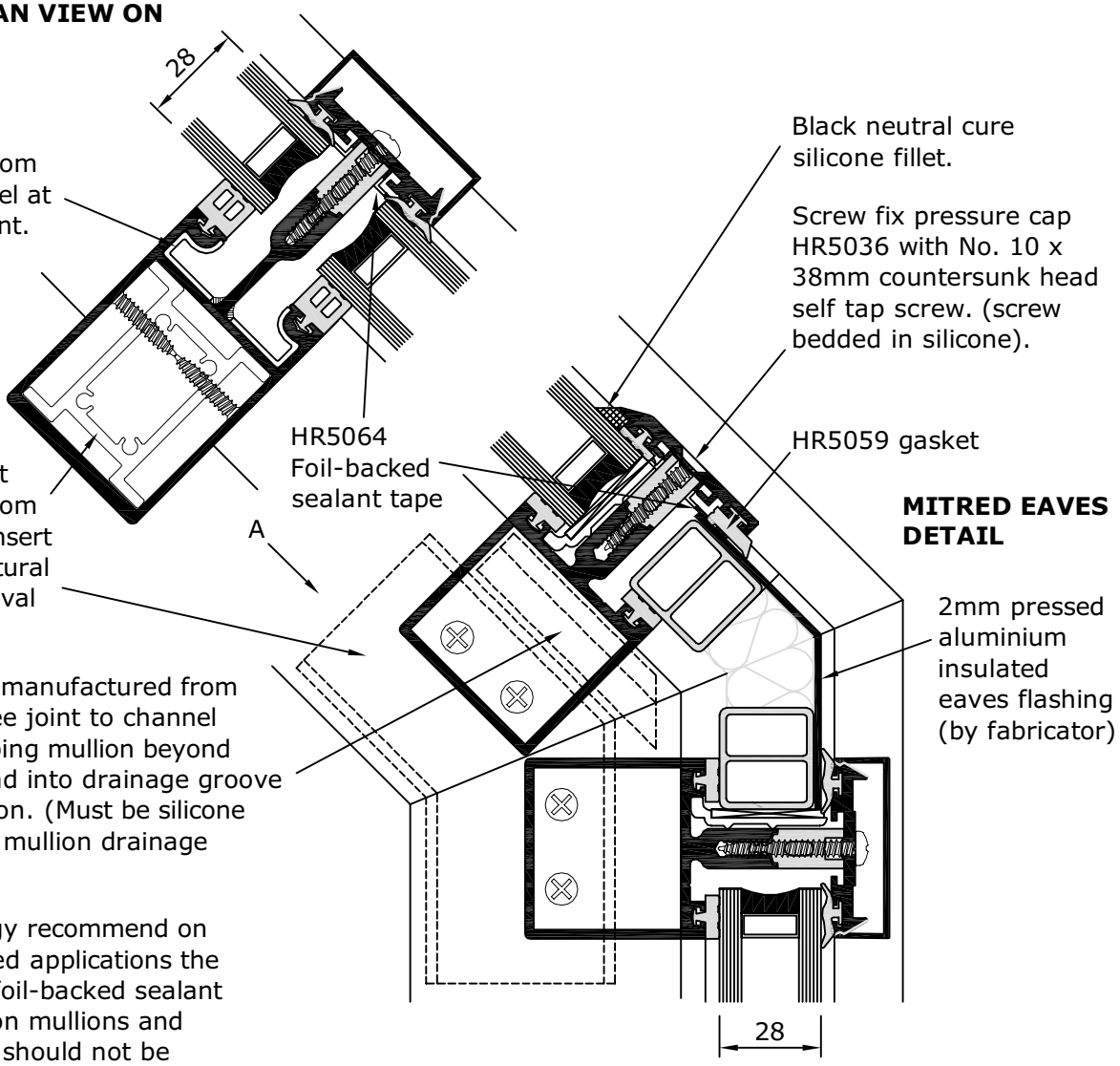
System 17

50mm HIGH RISE
CURTAIN WALLING

All sections, spigots, brackets and fixings to be sized by a structural engineer to suit site conditions.

PITCH OF ROOF MUST NOT BE LESS THAN 15º WHEN USING PRESSURE PLATED TRANSOMS.

REVOLVED PLAN VIEW ON ARROW 'A'



Metal Technology recommend on sloped or inclined applications the use of HR5064 foil-backed sealant tape as shown on mullions and transoms. Tape should not be re-used after screws have been removed.

Scale 1:2

General Arrangement

Silicone Pointed Roof Glazing Details

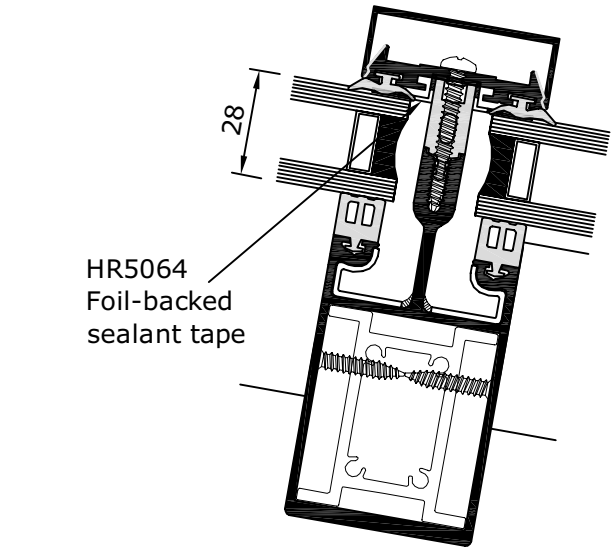
System 17

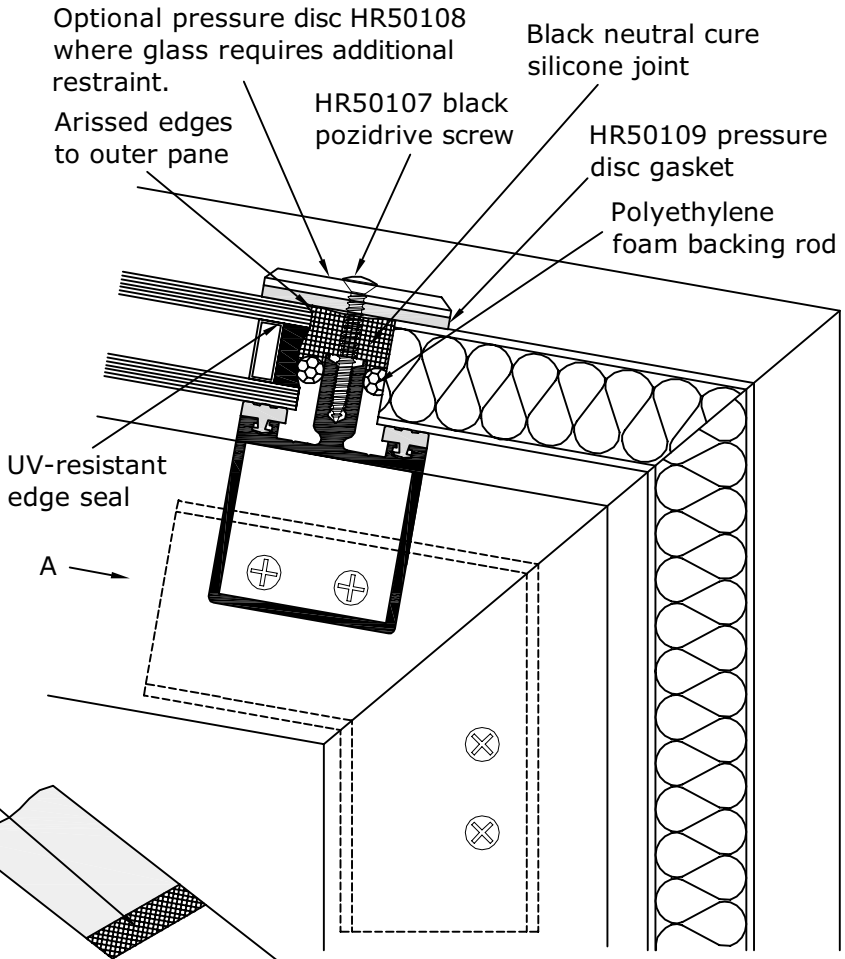
50mm HIGH RISE CURTAIN WALLING

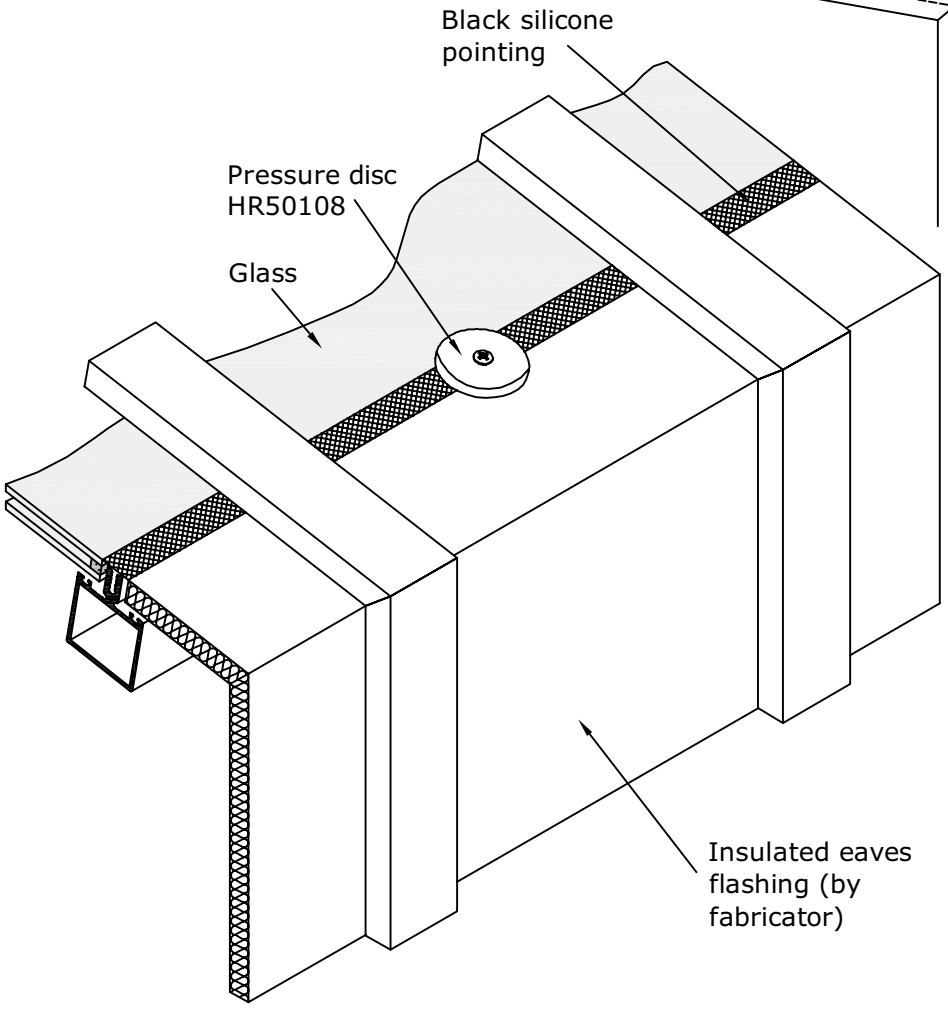
All section, spigots, brackets and fixings to be sized by a structural engineer to suit site conditions.

PITCH OF ROOF MUST NOT BE LESS THAN 10° WHEN SILICONE POINTING TRANSOMS.

REVOLVED PLAN VIEW ON ARROW 'A'







Note that transom profiles are not suitable for single glazed silicone pointed applications.

For silicone jointed transoms, please consult glass manufacturer, and refer to "Glass Span Limitations" sheet in System 17 Latitude manual for pressure disc fixing centres. All sealants to be applied in strict accordance with sealant manufacturers recommendations.

Scale 1:2

General Arrangement

Eaves Detail

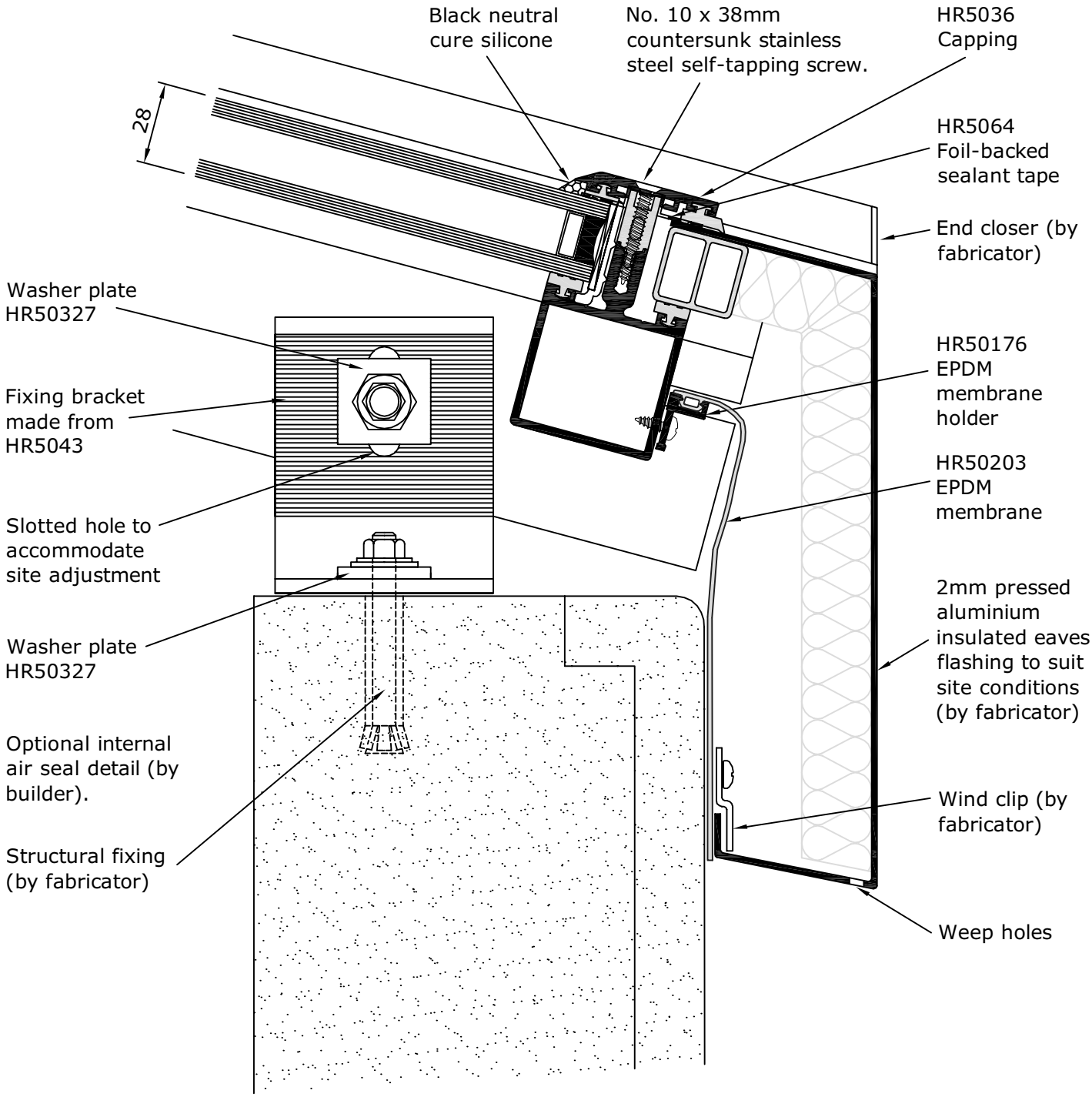
System 17

50mm HIGH RISE
CURTAIN WALLING

All sections, spigots, brackets and fixings to be sized by a structural engineer to suit site conditions.

PITCH OF ROOF MUST NOT BE LESS THAN 15º USING PRESSURE PLATED TRANSOMS

Metal Technology recommend on sloped or inclined applications the use of a butyl tape as shown. Tape should not be re-used after screws have been removed.



Scale 1:2

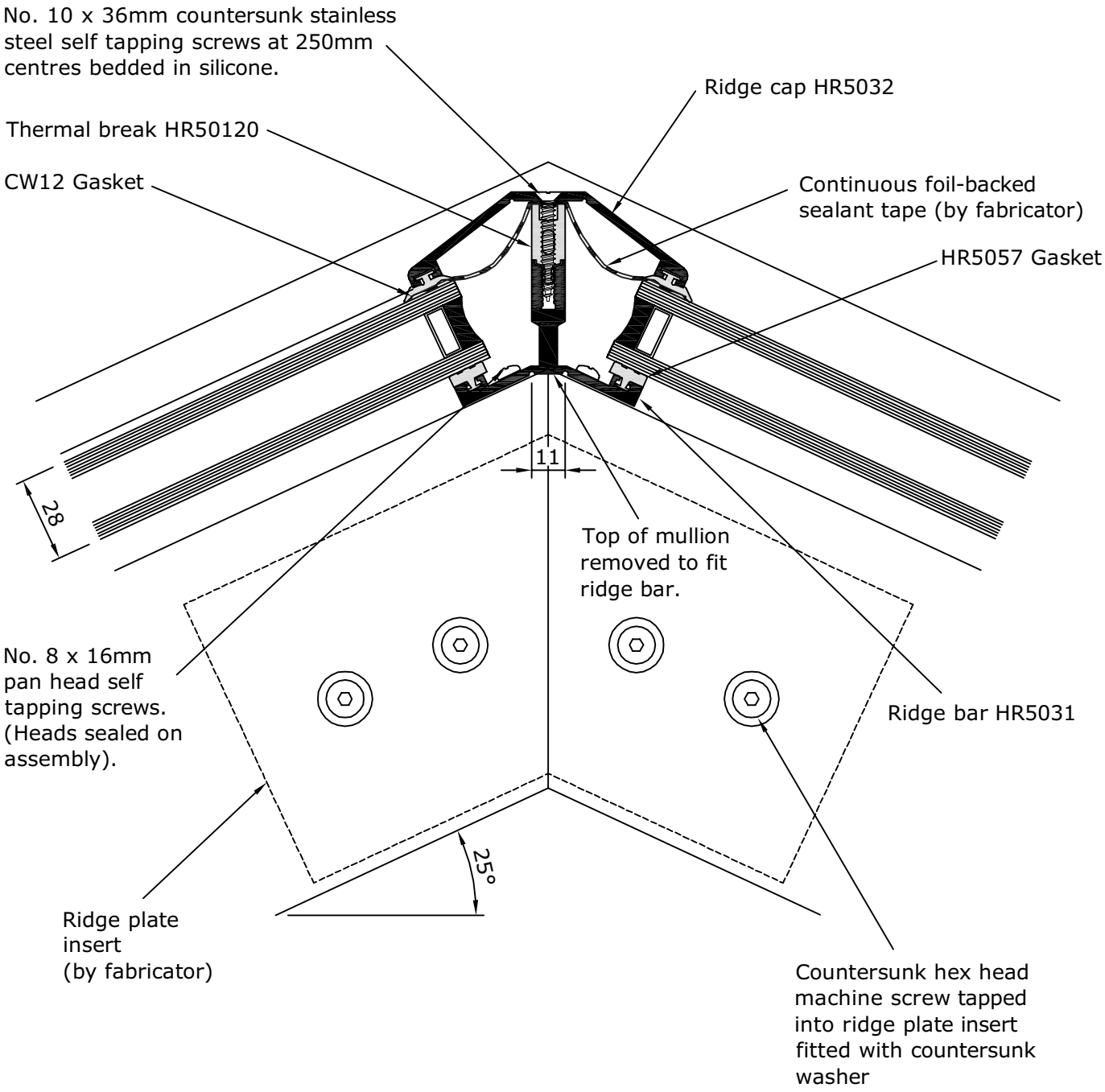
General Arrangement

25º Ridge Bar

System 17

50mm HIGH RISE
CURTAIN WALLING

All sections, spigots, brackets and fixings to be sized by a structural engineer to suit site conditions.



Scale 1:2

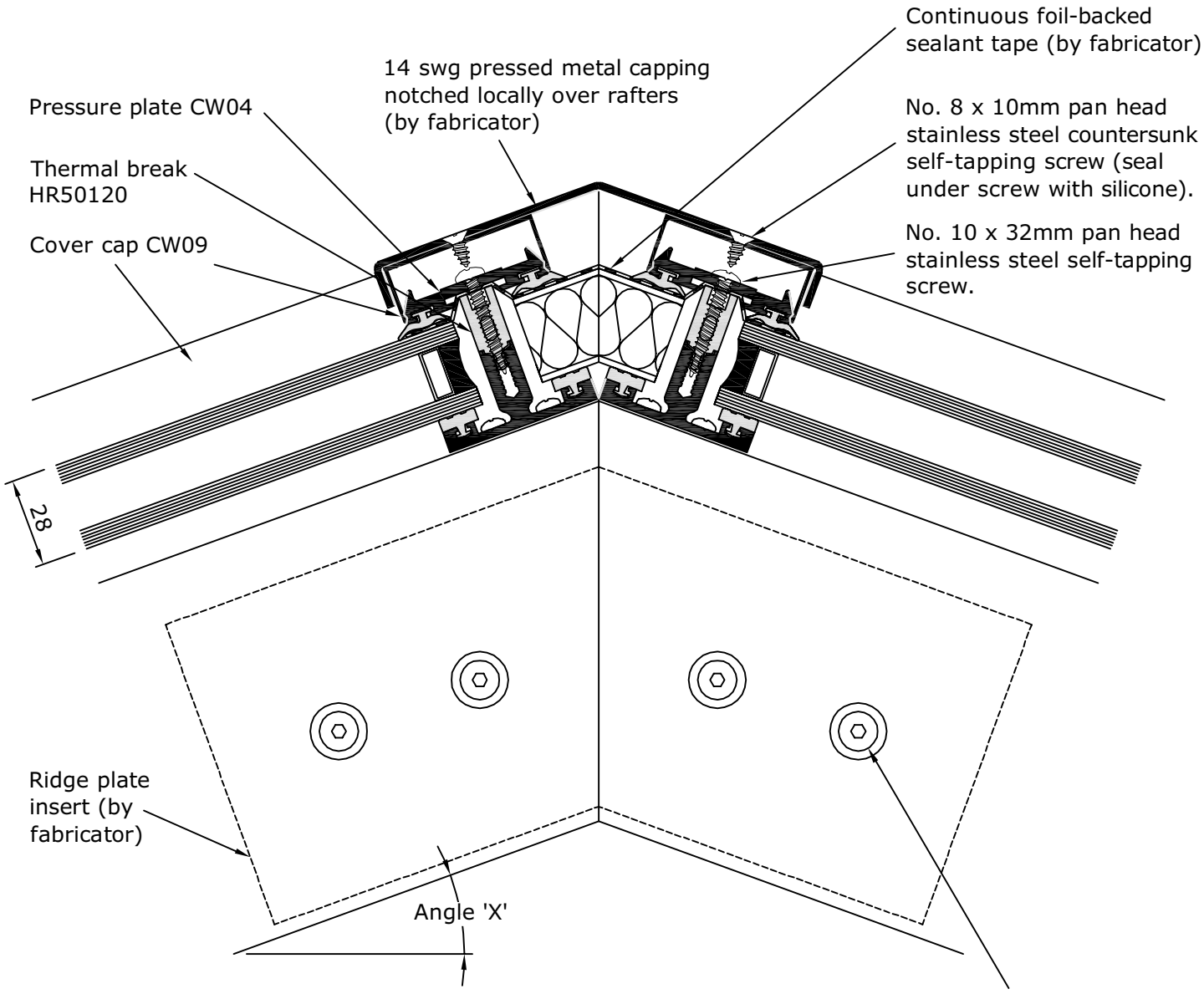
General Arrangement

Variable Ridge Detail

System 17

50mm HIGH RISE
CURTAIN WALLING

All sections, spigots, brackets and fixings to be sized by a structural engineer to suit site conditions.



Scale 1:2

General Notes

The following notes provide guidance to assist in the design, fabrication and installation of the Metal Technology System 17 curtain walling. When incorporating other Metal Technology products into the curtain walling, the appropriate installation and fabrication guide must also be consulted.

Fabricators should produce detailed working drawings to ensure that the curtain walling is properly designed to suit individual site/project requirements.

The fabrication details in this manual are for typical curtain walling modules. For non-rectangular or irregular conditions details should be determined from the working drawings.

This system is designed to be installed in a stick-built form.

When initially selecting this system care should be taken to accommodate building movement, tolerance, expansion and contraction. Additional consideration should be given to the method of assembly and the clearance required to install the final mullion.

When using 50mm (HR5010) and 79mm (HR5017) transoms a transom cleat is optional when the following criteria are met:

- Unit weight is less than 60Kg; and
- Transom span is less than 2000mm; and
- Wind load is less than 1800Pa

The fabricator should determine the most appropriate method of cleating from the following options:

- Screwported cleat (HR5049): For end-loaded assembly where transoms meet mullions at 90º.
- "C" cleat (HR5047): For end-loaded assembly where transoms meet mullions at an angle other than 90º, and between 60º and 120º.
- Cast spring loaded cleat (HR50212): For front-loaded assembly where transoms meet mullions at 90º.
- Extruded spring loaded cleat: For front-loaded assembly where transoms meet mullions at 90º.

The extruded transom cleat HR5049 provides the additional benefit of a secondary fixing option to ensure a tight joint at the mullion/transom connection.

Refer to Metal Technology's structural charts to determine the appropriate mullions, transoms and connection details. All curtain wall members, their brackets, fixings and the structure to which they are attached must be designed/approved by a qualified structural engineer to suit specific site conditions, movement, screen design, wind load, dead load, and all other relevant forces acting on the screen.

The fixings and brackets, etc. shown in this manual are indicative. The type and design of the structural brackets and their fixings to the structure and curtain walling members must be capable of permitting movement and tolerance, and of supporting the loads applied, including the appropriate safety factors.

All fixings must be compatible with the materials into which they are fastened. i.e. when attaching into aluminium, austenitic stainless steel fixings are recommended.

When using self cleaning or other coated glasses the fabricator must check to ensure that all gaskets, sealants and tapes are compatible with the coated surface with which they may come in contact.

Fabricators must ensure that all adhesives and sealants are fully compatible with the materials and finishes they are to be in contact with. Before applying any adhesives/sealants, ensure all relevant surfaces are free from grease or dust. Clean all aluminium mating surfaces with a suitable metal cleaning agent. Metal Technology recommend that fabricators sample all proposed adhesives/sealants and cleaning agents to ensure compatibility on a project by project basis.

Fabrication Information

Cleated Assembly

1. Select appropriate profiles as required, ensuring transom is not larger than mullion.

2. Cut all profiles to length, as per "Glass and Fabrication Sizes" sheet.

3. Prep pressure plates in accordance with the relevant "Pressure Plate Preps" sheet. For ease of fabrication pressure plates may be ordered in a pre-punched condition.

4. Notch and prep holes in transoms as shown on "Transom End Preps" sheet.

5. Drill pilot holes into mullion gasket grooves as shown on relevant "Mullion Prep" sheet.

6. a) When using cleats manufactured from bars HR5047 or HR5049, drill holes in side wall of mullion to suit transom application as shown on "Mullion Prep for Extruded Cleats" sheet.
   b) When using spring loaded cleats drill holes in side wall of mullion to suit transom application as shown on relevant "Mullion Prep" sheet.

7. Notch mullion to accommodate EPDM membrane as shown on "Head and Cill Prep Details" sheet.

8. a) Fix extruded transom cleats to mullions using No 10 x 12mm pan head stainless steel self tapping screws.
   b) Insert cast spring loaded cleats in transom as illustrated on "Cast Spring Loaded Cleat Installation" sheet.
   c) Fix extruded spring loaded cleats into transom, tight to rear wall, as illustrated on "Extruded Spring Loaded Cleat Installation" sheets.

9. When using spigot inserts fabricated from HR5024 and HR5025 at head, cill, and expansion positions:
   a) Insert spigot into mullion before applying extruded transom cleats. Fix extruded transom cleats to mullion and spigot. Where expansion is required, spigot to be slotted to accommodate ends of transom cleat fixing screws, to facilitate movement.
   b) When using spring loaded cleats provide a 30mm x 12mm slot in the spigot to accommodate the spring loaded pin, and facilitate movement where required.

10. Insert thermal isolator into nose of mullions and transoms.

Non-Cleated Assembly

For applications where cleated assembly is not required, follow steps 1 to 5, 7, and 10 above.

System 17 Checklist

System 17

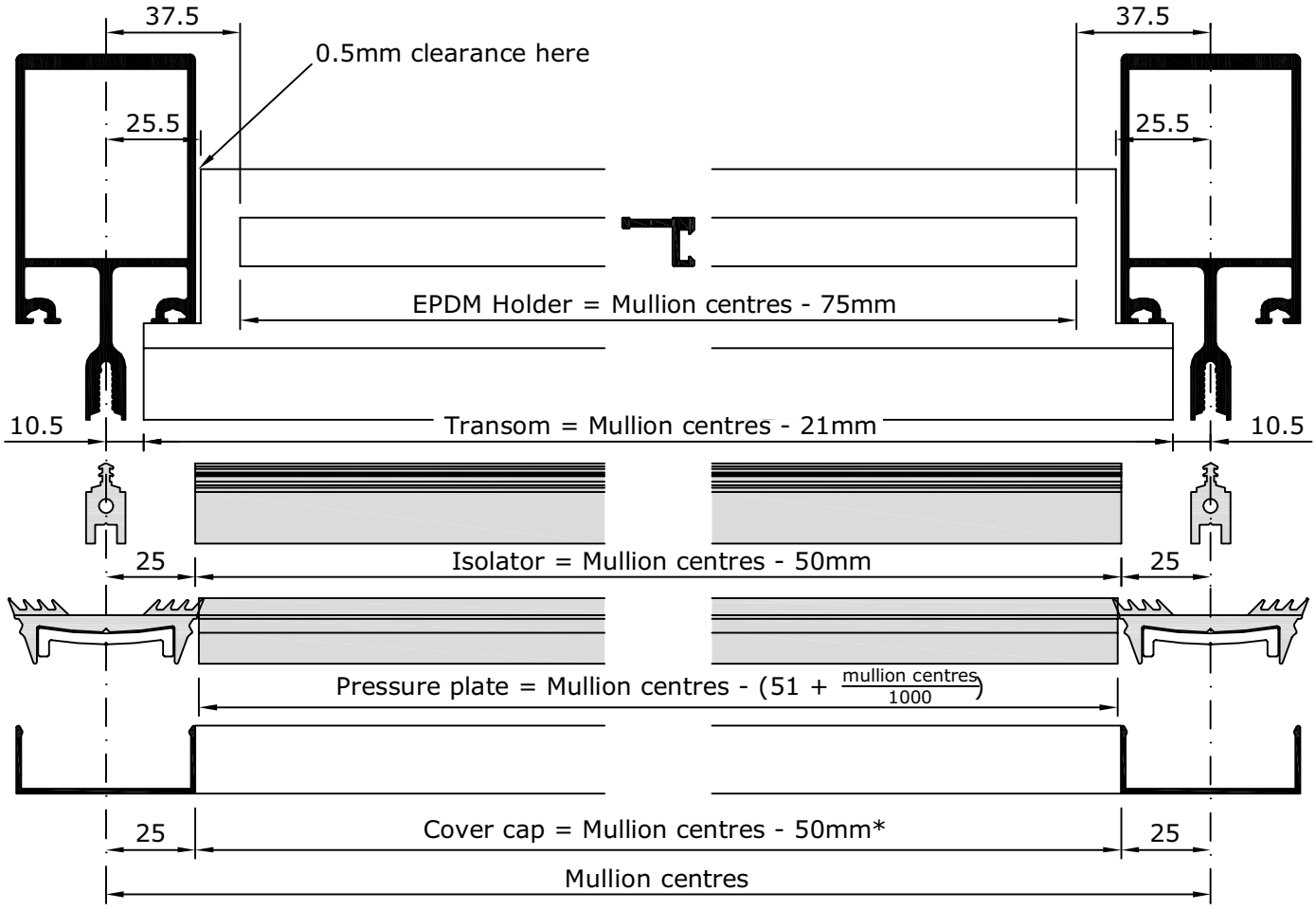
50mm HIGH RISE CURTAIN WALLING

1. Ensure all the relevant and most current information pertaining to the curtain walling screen is available, read and understood prior to estimating, drawing, fabrication and installation. Special care should be taken with regard to any project specific performance requirements. Where any assumptions have been made these should be forwarded to the design team for approval. All necessary information requested within the specification documentation should be forwarded to the design team for approval including testing certification.
2. Where any additional project specific or on site testing is requested within the tender documentation this should be itemised within the BoQ, including any additional information relating to lead times, project schedule and the consequences of potential re-testing.
3. Confirm design wind load for site.
4. Calculation of all member sizes to be carried out by the fabricator's structural engineer. Structural charts provided by Metal Technology are for guidance only.
5. Check deflection and transom dead load for glass/panel weight and suitability of cleated construction.
6. Prepare all relevant contract drawings for submission to the architect for approval prior to commencing fabrication. Ensure all relevant interfaces are considered. All drawings to be fully annotated in conjunction with the architects and engineers perimeter details, and to show all Metal Technology part numbers, flashing, ironmongery, bracketry, and fixing details, colour, and type of finish.
7. Curtain walling sections should not be notched around the structure without the prior approval of a structural engineer.
8. The fabricator should ensure that the proposed curtain walling screen is not only capable of withstanding all the anticipated loads imposed upon it, in conjunction with expansion and contraction, but that it can also work in harmony with the building structure with regard to its anticipated expansion, contraction and movement etc.
9. Curtain walling systems are generally stacked but may occasionally be hung off the structure. Prior confirmation should be obtained from the project engineer that the proposed structure is capable of withstanding the imposed loads.
10. Where a screen requires additional secondary support this information should be relayed to the design team for prior approval and confirmation of who is responsible for providing this support.
11. It is recommended that all/any expansion joints should occur adjacent to a structural fixing, subject to the approval of a structural engineer.
12. All brackets must be designed to accommodate expansion/contraction and slotted where necessary to permit movement. Ensure brackets are designed to suit the building structure and that the fixings are fit for purpose. Consideration should be given to site tolerance and adjustment.
13. When designing brackets ensure the correct spigots and ancillary items are used at the head, cill and expansion joint and that they are sufficiently robust for the purpose.
14. When not adopting the standard Metal Technology aluminium brackets or spigots ensure the alternative brackets are compatible with the aluminium sections or are suitably isolated. The same consideration should also be given to the fixings used.
15. All section sizes, fixings and brackets should be checked and confirmed by a structural engineer.
16. All glass, panel and insert details should be checked to ensure they are capable of withstanding the anticipated loads imposed upon them.
17. The curtain walling screen should be checked to ensure it achieves the required U-value.
18. Consideration should be given to any acoustic requirements and specialist advice sought where required.
19. Check contract documentation to determine if an internal air seal is required. Agree site specific details, and confirm who is responsible for applying the air seal on site.
20. The system drains through the mullions therefore the base drainage detail must be designed to accommodate this using a continuous EPDM membrane.
21. Where a secondary weatherseal is required an EPDM membrane or similar detail may be continued up the jambs and across the head.
22. The water deflectors and expansion sleeves must be fitted as detailed within the System 17 manual.
23. When using foil-backed sealant tape this should be cut back around the deflectors so that drainage and ventilation is not impeded.
24. Ensure that the correct gaskets, isolators and pressure plate are used for the correct thickness of glass.
25. Ensure that the transom end seal gasket is installed between the transom and mullion at their overlap.
26. Ensure all gaskets meet at a tight and compressed joint and are suitably sealed.
27. Where roof lights are being installed expansion joints should not be used. The system must be fixed at one point and allowed to expand from here. Flashings should be detailed to allow for movement.
28. Rooflights should not be installed at a pitch of less than 15° (10° for flush silicone pointed transoms).

Glass and Fabrication Sizes

System 17

50mm HIGH RISE
CURTAIN WALLING



Cutting Sizes - Verticals

Mullions	• Square cut to suit site conditions.
Pressure plates	• Square cut to suit site conditions.
Isolators	• Total transom centres + 11mm (square cut and align with underside of cill transom nose)
Cover caps	• Square cut to suit pressure plate.
Perimeter spacer HR50111/HR50112	• Square cut to suit site conditions.

Cutting Sizes - Horizontals

Transoms	• Mullion centres - 21mm with ends notched.
Pressure plates	• Mullion centres - (51 + $\frac{\text{mullion centres}}{1000}$) with ends cut square.
Isolators	• Mullion centres - 50mm with ends cut square.
Cover caps	• Mullion centres - 50mm with ends cut square.
EPDM Holder	• Mullion centres - 75mm with ends cut square.
Perimeter spacer HR50111/ HR50112	• Mullion centres - 21mm with ends cut square. Alternatively notch mullion nose and run through continuously. = Total mullion centres + 22mm

Glazing

Glass/panels/window inserts: Mullion/transom centres - 22mm.

Where other Metal Technology systems are to be incorporated in the curtain walling, then the relevant manuals must be consulted.

*** Note**

In order to ensure the transom cover caps do not damage the mullion cover caps when 'snapping' them into position on site, it may be necessary to reduce the transom cover cap by 1mm (i.e. mullion centres - 51mm). The transom cover cap should then be centralised to leave a gap, not greater than 0.5mm at each end.

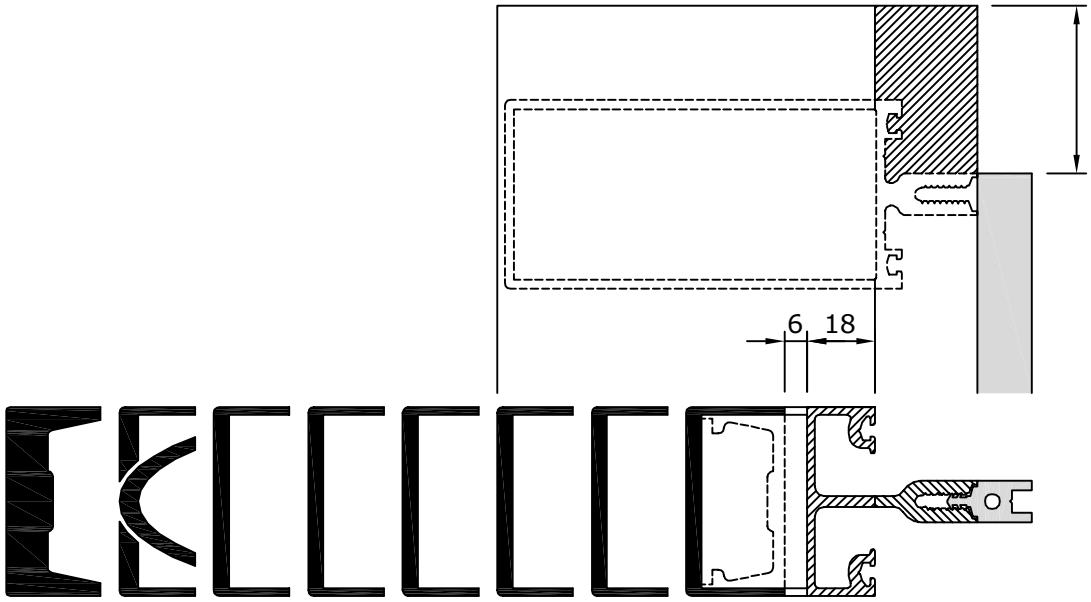
Scale 1:2

Head and Cill Prep Details

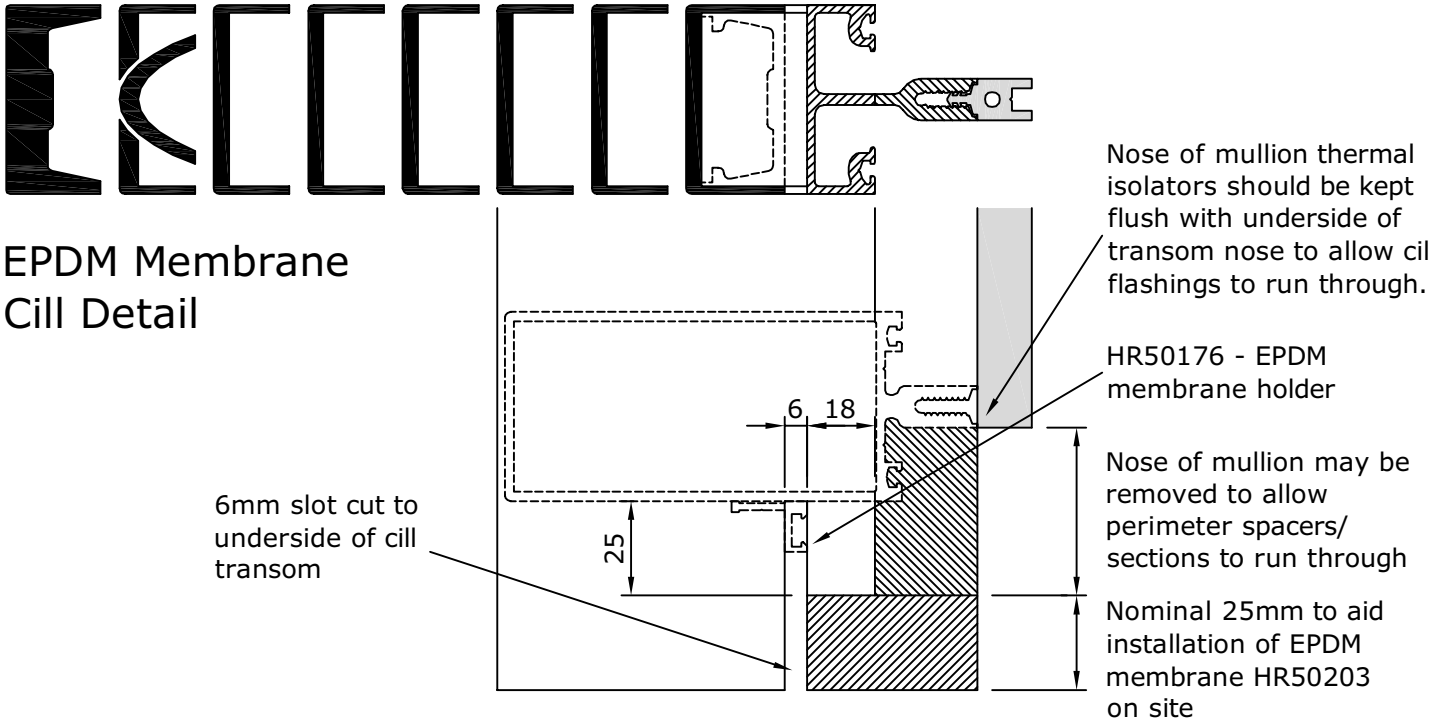
System 17

50mm HIGH RISE
CURTAIN WALLING

Perimeter Spacer Head Detail

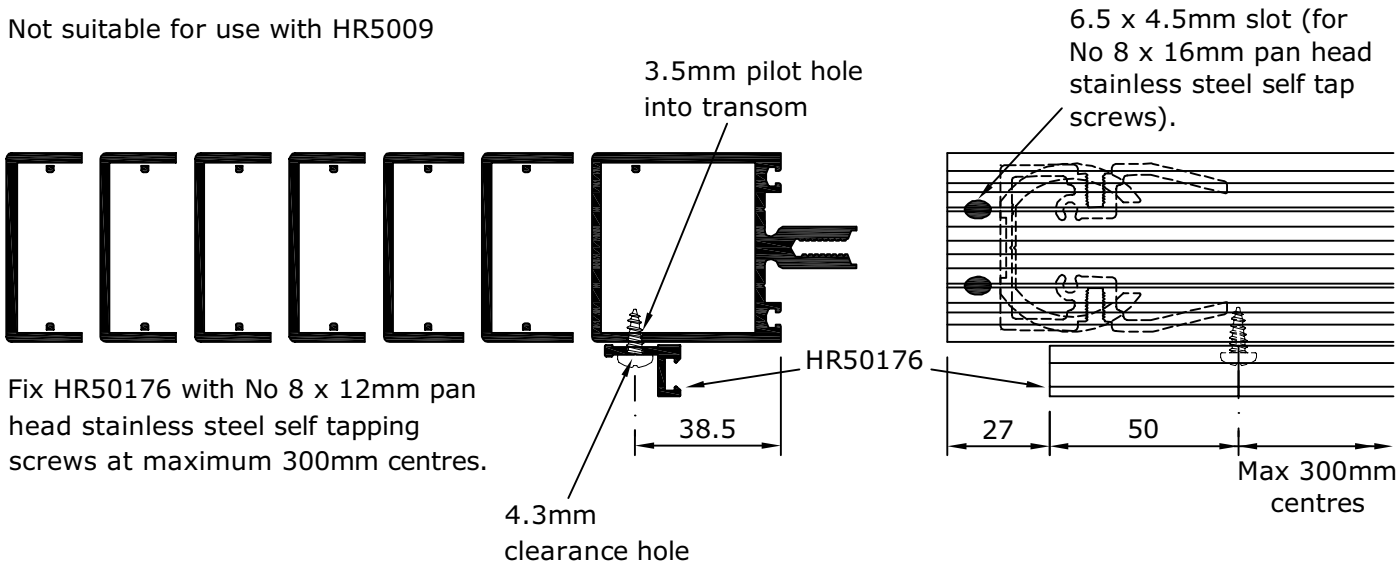


EPDM Membrane Cill Detail



EPDM Membrane Fixing Details

Not suitable for use with HR5009



Fix HR50176 with No 8 x 12mm pan head stainless steel self tapping screws at maximum 300mm centres.

Scale 1:2

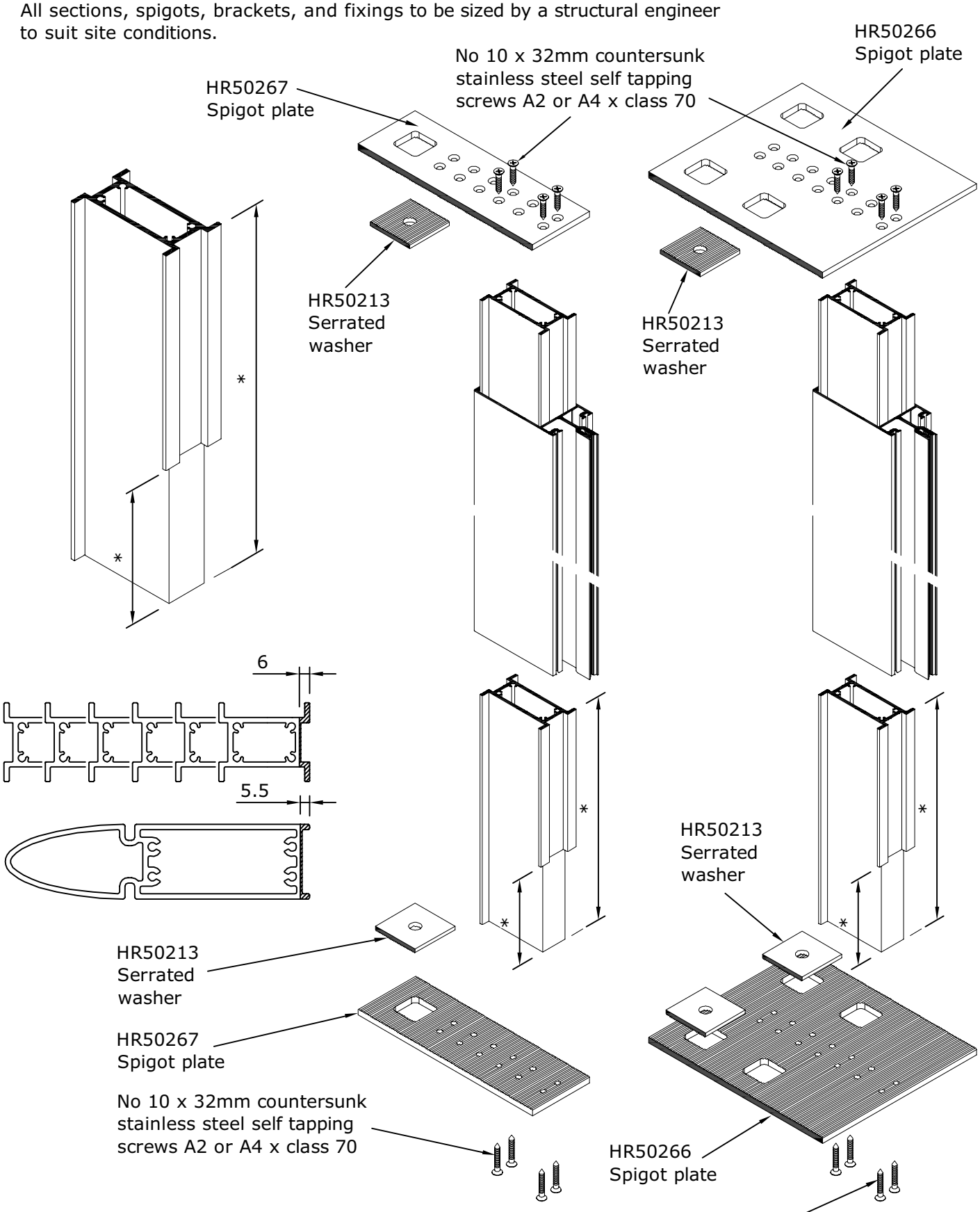
Mullion Spigot Details

System 17

50mm HIGH RISE
CURTAIN WALLING

* Length of Metal Technology standard cill spigot is 250mm, and is milled back 100mm. Where fabricators require these dimensions to vary to suit site conditions bar length must be purchased and cut and prepped accordingly. Mullions to be prepped to suit.

All sections, spigots, brackets, and fixings to be sized by a structural engineer to suit site conditions.



Not to scale

Mullion Preps for Extruded Cleats

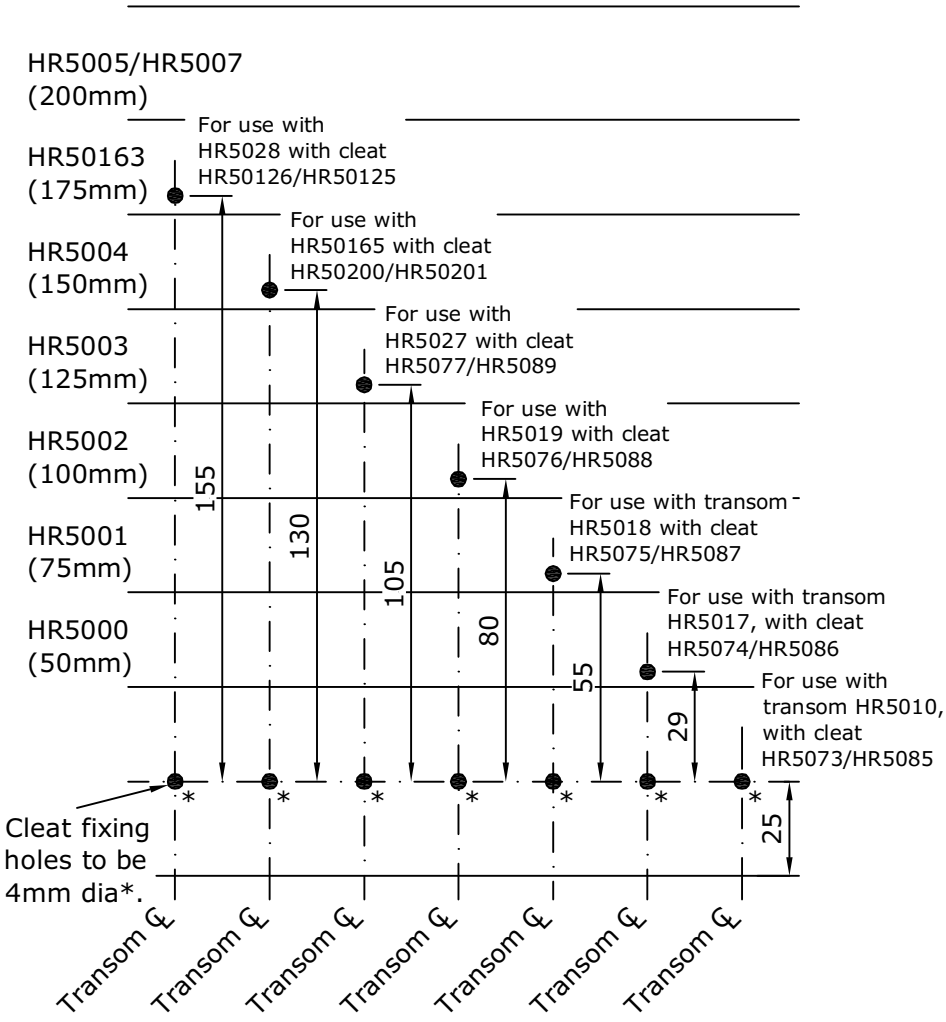
System 17

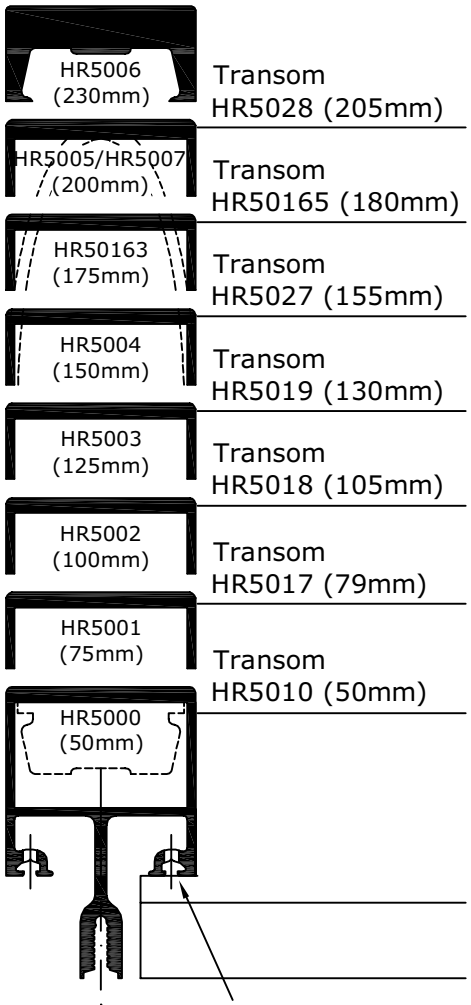
50mm HIGH RISE CURTAIN WALLING

Mullion preps to receive box transoms

Preparation for transom attachment is shown on one side only of mullion. If transoms occur on both sides of mullion, then repeat prep on both sides.

Transoms HR5028, HR50165, and HR5027 are not suitable for use with HR5007 mullion.

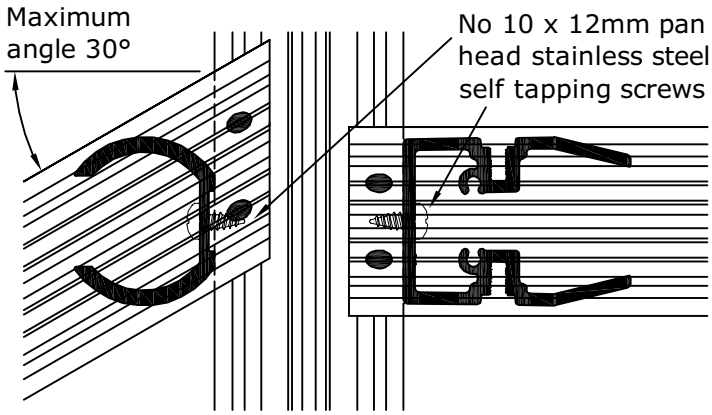




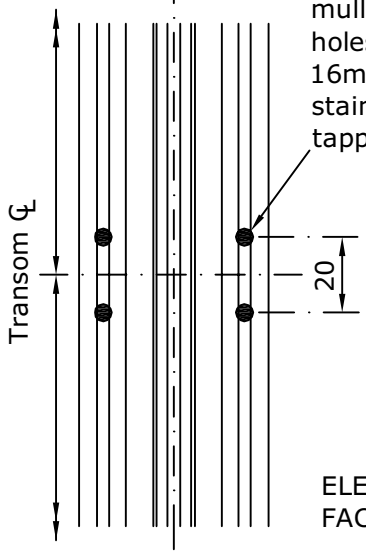
*Holes to be drilled at 4.2mm dia when using mullion HR5006.

ANGLED TRANSOM DETAIL

STANDARD TRANSOM DETAIL



Holes to transom and mullion, and position of cleat to be modified to suit angled transom.



ELEVATION ON FACE OF MULLIONS

Scale 1:2

Mullion Preps For Cast Spring Loaded Cleats HR50212

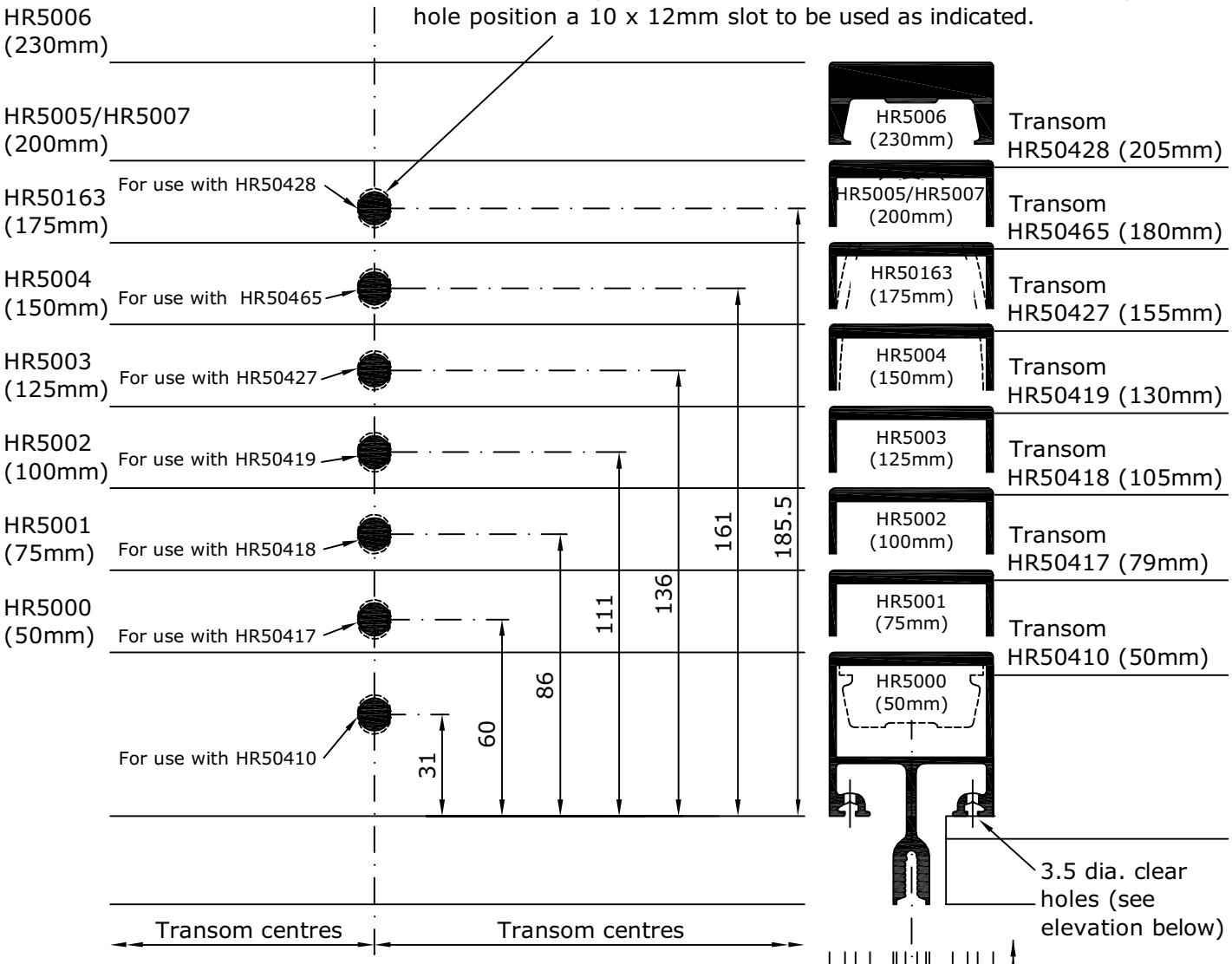
System 17

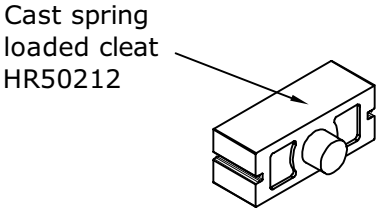
50mm HIGH RISE CURTAIN WALLING

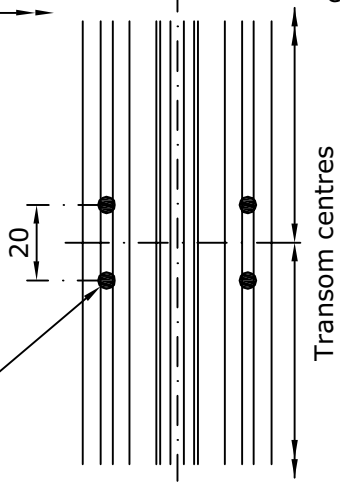
Preparation for transom attachment is shown on one side only of mullion. If transoms occur on both sides of mullion, then repeat prep on both sides.

Transoms HR5028, HR50165, and HR5027 are not suitable for use with HR5007 mullion.

When using 10mm Ø hole, fabricator to sample up transom-to-mullion connection using spring loaded cleat prior to commencing production run. Alternatively, where fabricators cannot ensure the accuracy of the hole position a 10 x 12mm slot to be used as indicated.







3.5 dia. clear holes (use 'V' groove extruded into mullion to centre holes) for No 8 x 16mm pan head stainless steel self tapping screws.

ELEVATION ON FACE OF MULLIONS

Scale 1:2

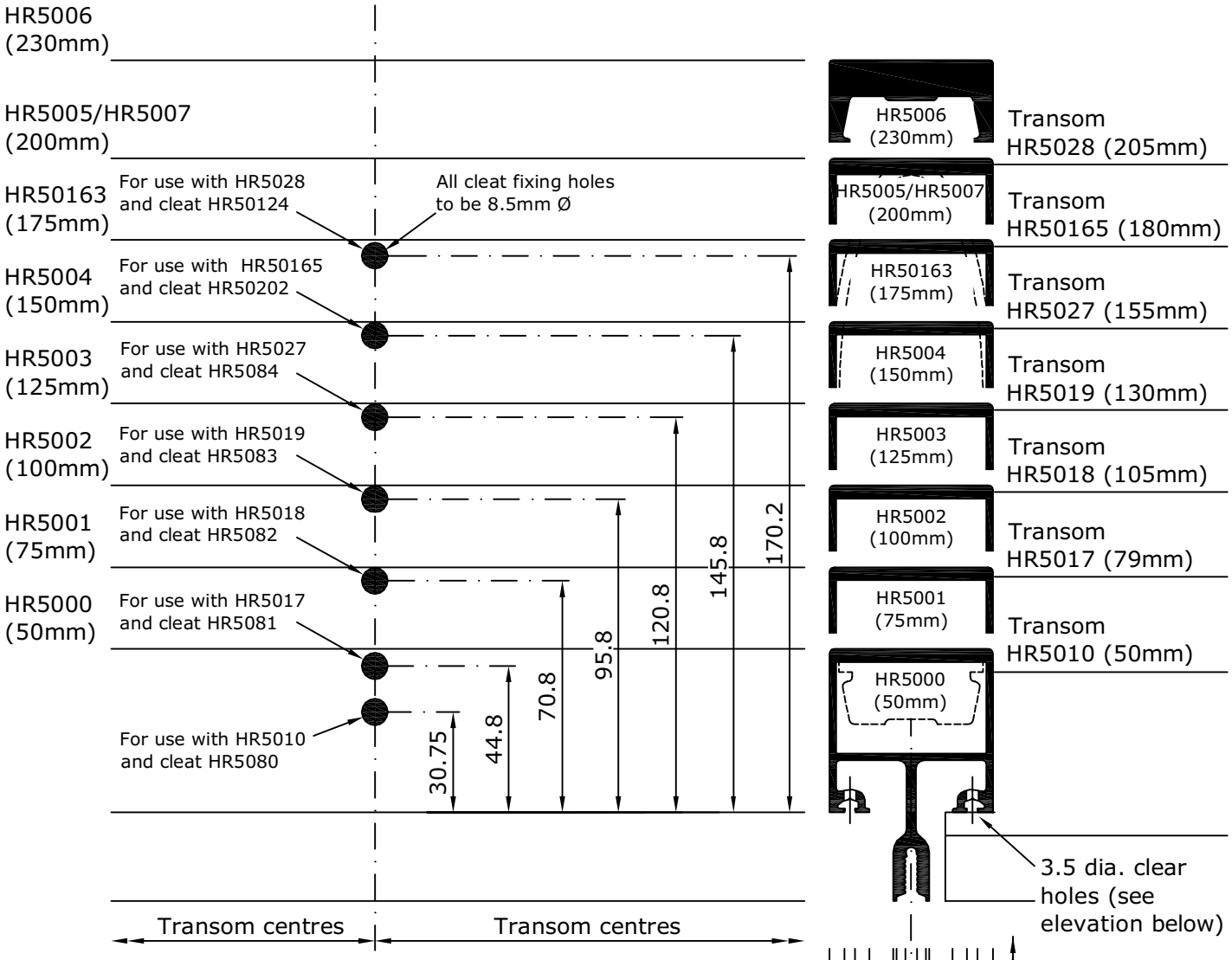
Mullion Preps For Extruded Spring Loaded Cleats

System 17

50mm HIGH RISE CURTAIN WALLING

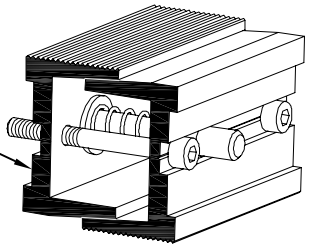
Preparation for transom attachment is shown on one side only of mullion. If transoms occur on both sides of mullion, then repeat prep on both sides.

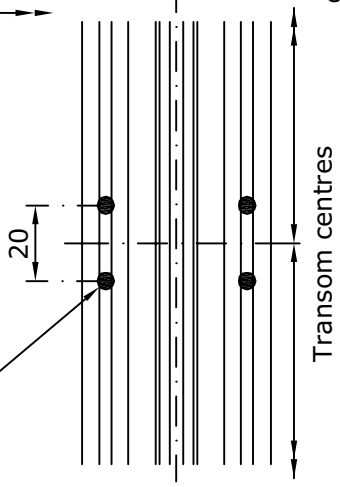
Transoms HR5028, HR50165, and HR5027 are not suitable for use with HR5007 mullion.



NOTE: Do not use spring loaded cleat when using transom HR5010 with mullion HR5006.

Extruded spring loaded cleat





3.5 dia. clear holes (use 'V' groove extruded into mullion to centre holes) for No 8 x 16mm pan head stainless steel self tapping screws.

ELEVATION ON FACE OF MULLIONS

Scale 1:2

Mullion to Transom T-junction

Water deflector HR50113

System 17

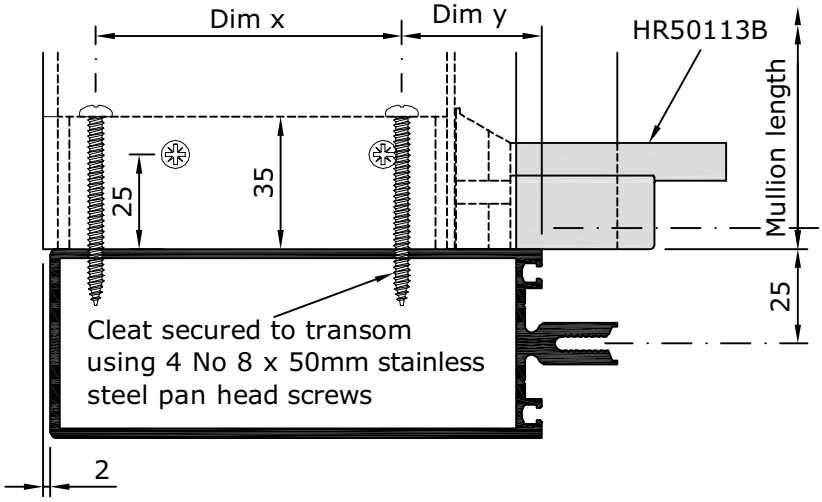
50mm HIGH RISE CURTAIN WALLING

Transoms should not be expected to carry the dead load imposed by a mullion. All sections, brackets and fixings to be sized by a structural engineer to suit application. Where a mullion meets a transom above a set of doors a separate door outer frame should be used to accommodate the door closers.

HR50113 is suitable for use with pressure plate and face cap applications with unit thicknesses up to 32mm. The nose may need to be trimmed back to 5mm beyond the pressure plate to suit single glazed applications.

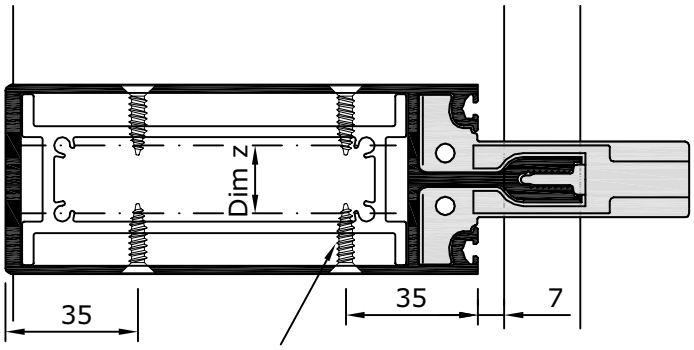
HR50113 is supplied as a set (water deflector and expansion sleeve). In mullion to transom applications the expansion sleeve is not required.

Cleat fixing details



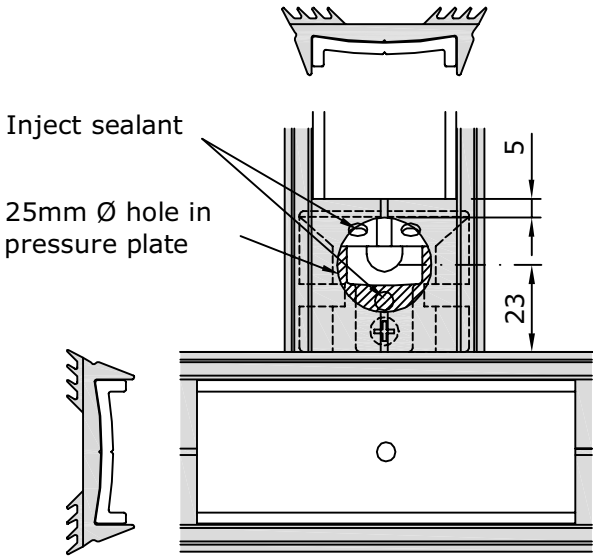
Water deflector secured to nose of mullion using No 10 x 25mm stainless steel countersunk screw

To avoid overhang fabricators should, where suitable, use a smaller mullion than transom profile.

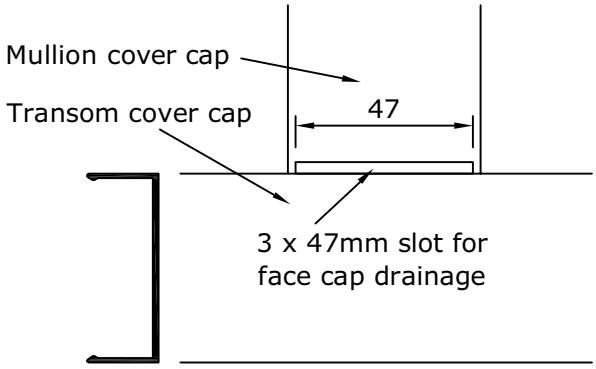


Mullion secured to cleat using No 8 x 19mm countersunk stainless steel screws

Pressure plate end prep



Cover cap end prep



Mullion ref	Spigot ref	Dim x	Dim y	Dim z
HR5001	HR50250	31	36.5	18
HR5002	HR5068	56	36.5	18
HR5003	HR50252	80.5	36.5	18
HR5004	HR50253	105.5	36.5	18
HR50163	HR50254	130.5	36.5	18
HR5005	HR50255	154	36.5	18
HR5007	HR50256	80	36	17
HR5006	Not suitable	Not applicable	Not applicable	Not applicable

Scale 1:2

Mullion to Transom T-junction

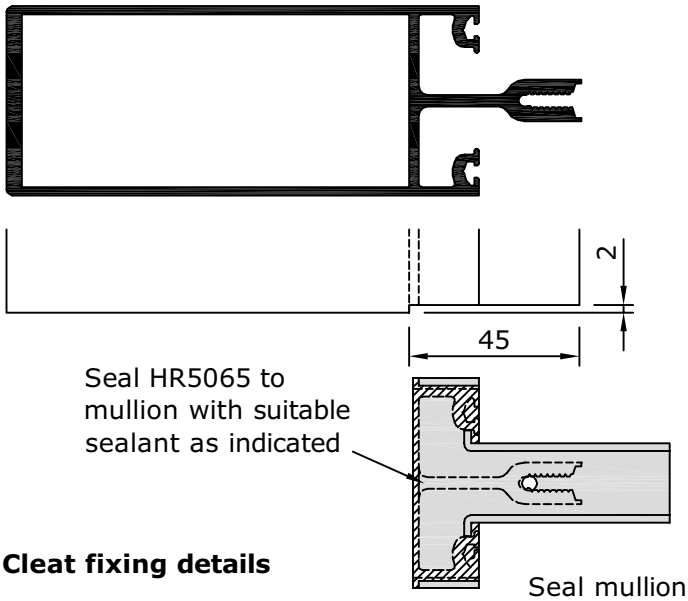
Water deflector HR5065

System 17

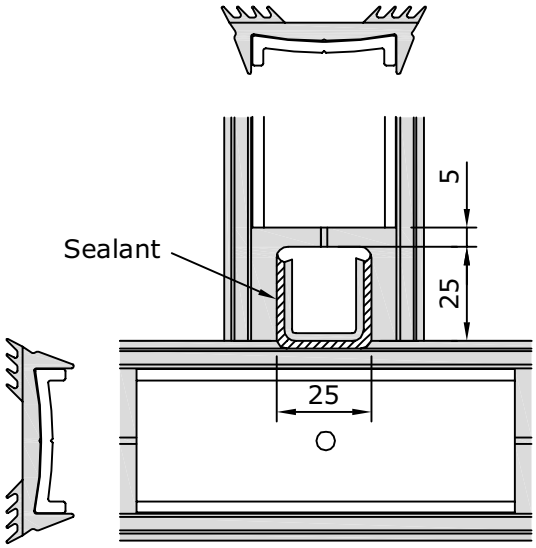
50mm HIGH RISE CURTAIN WALLING

Transoms should not be expected to carry the dead load imposed by a mullion. All sections, brackets and fixings to be sized by a structural engineer to suit application. Where a mullion meets a transom above a set of doors a separate door outer frame should be used to accommodate the door closers.
HR5065 is suitable for use with pressure plate and face cap applications with unit thicknesses up to 32mm. The nose may need to be trimmed back to 5mm beyond the pressure plate to suit single glazed applications.

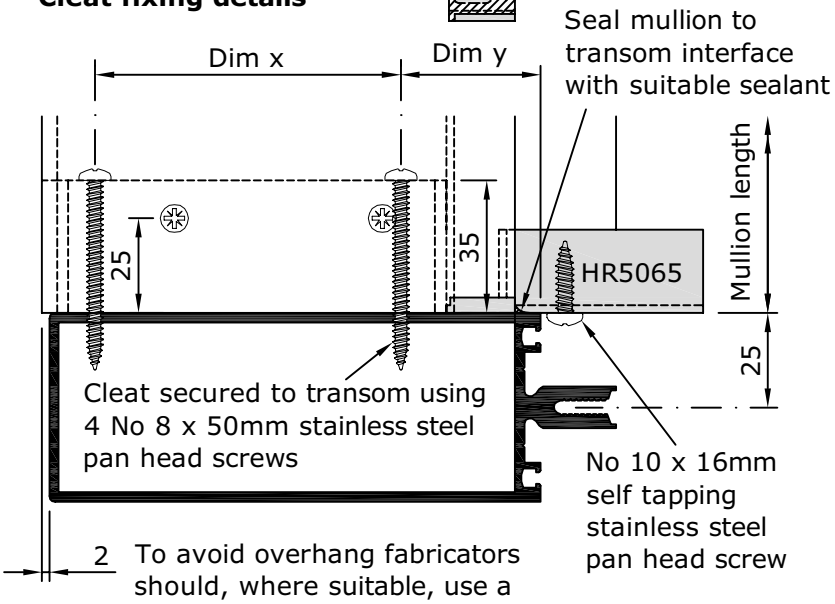
Mullion end prep



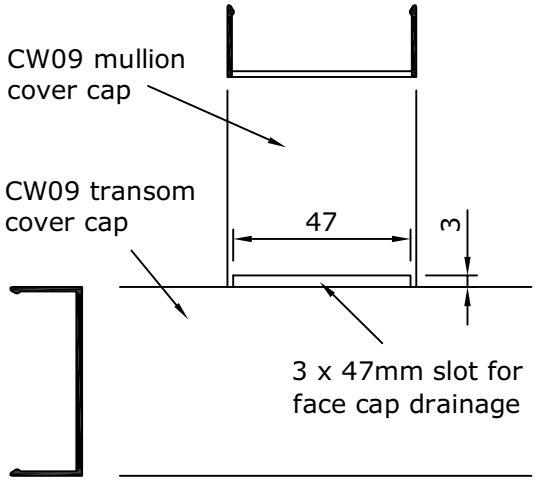
Pressure plate end prep

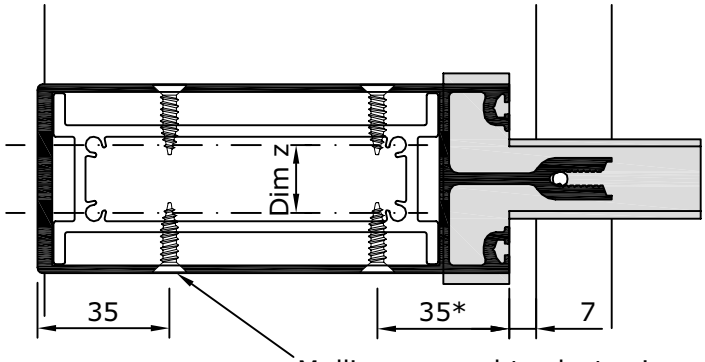


Cleat fixing details



Cover cap end prep





Mullion ref	Spigot ref	Dim x	Dim y	Dim z
HR5001	HR50250	31	36.5	18
HR5002	HR5068	56	36.5	18
HR5003	HR50252	80.5	36.5	18
HR5004	HR50253	105.5	36.5	18
HR50163	HR50254	130.5	36.5	18
HR5005	HR50255	154	36.5	18
HR5007	HR50256	80	36	17
HR5006	Not suitable	Not applicable	Not applicable	Not applicable

* Only use front fixings when fixing HR5000 and HR5001

Scale 1:2

Water Deflector at Mitred Eaves

Water deflector manufactured from HR5038A

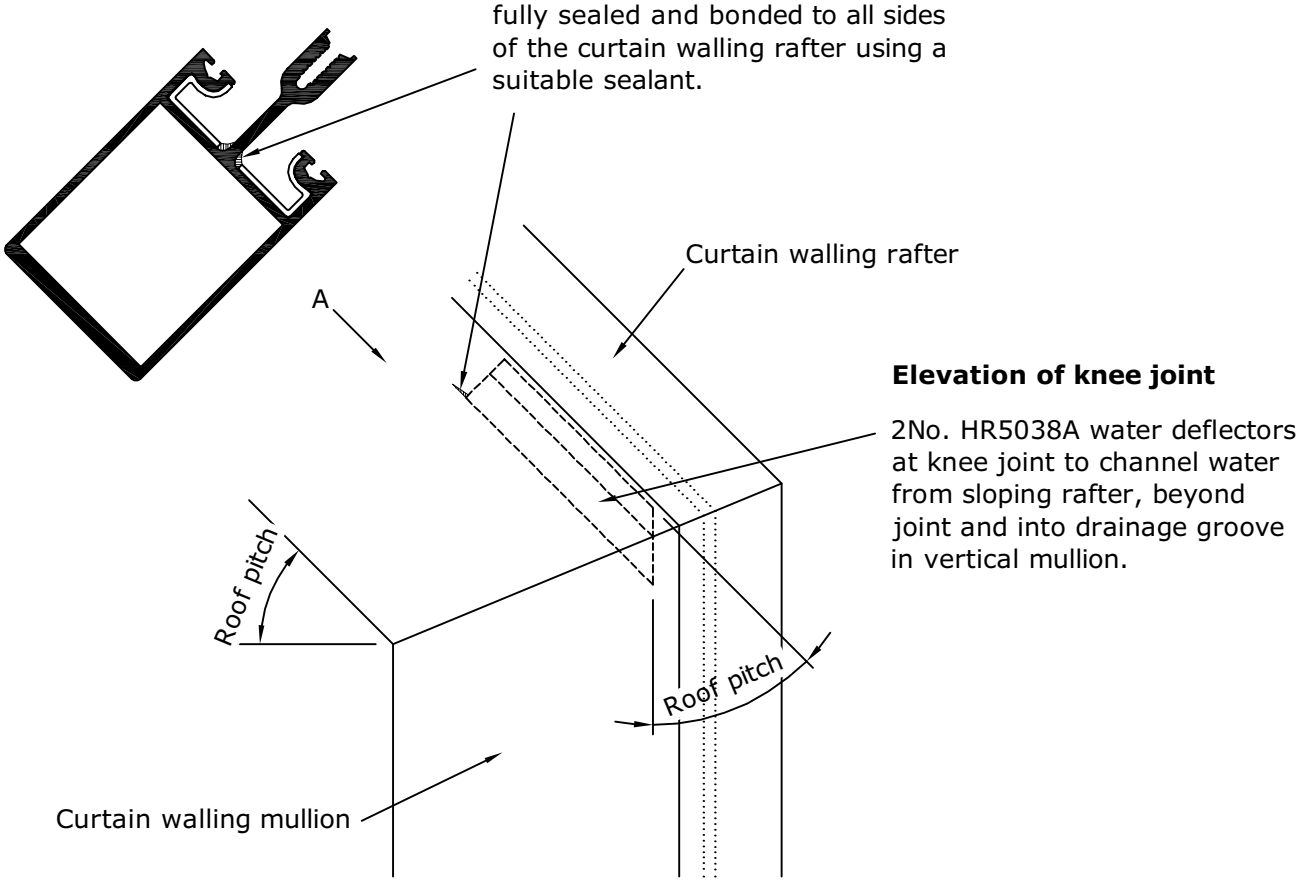
System 17

50mm HIGH RISE CURTAIN WALLING

All sections, spigots, brackets and fixings to be sized by a structural engineer to suit site conditions. Metal Technology require that on sloped or inclined applications the use of HR5064 foil-backed sealant tape must be used on all mullions /rafters and transoms/purlins. Refer to sheet "HR5064 Foil-Backed Sealant Tape Application Detail".

PITCH OF ROOF MUST NOT BE LESS THAN 15º

Revolved view on arrow 'A'



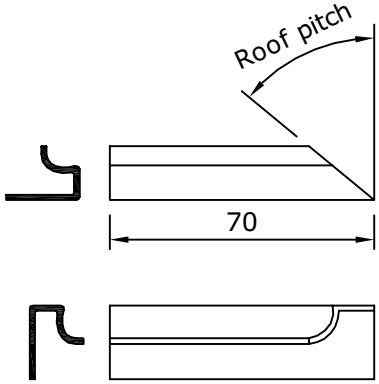
Elevation of knee joint

2No. HR5038A water deflectors at knee joint to channel water from sloping rafter, beyond joint and into drainage groove in vertical mullion.

Fabrication / installation procedure

Cut HR5038A to length, chamfering leading edge to suit angle of roof pitch. Cut mullions/rafters to required angle to create mitred knee joint. Manufacture suitable mitred spigot assembly at angle to suit knee joint. Erect mullions with knee joint spigot inserted. Insert into rafters the water deflectors HR5038A as prepared above. Slide rafter onto mitred spigot. Secure mullion and rafter to the spigot with suitable fixings. Apply sealant to the surfaces of the rafter to which the water deflectors will come in contact. Slide water deflectors into position. Remove excess sealant and point off edge of water deflectors to the rafter to allow the smooth passage of water over the knee joint into the mullion below. Care to be taken to prevent any water getting between the water deflectors and the mullion.

Water deflector manufactured from HR5038A at mullion knee joint
(HR5038A supplied in bar length only)



Scale 1:2

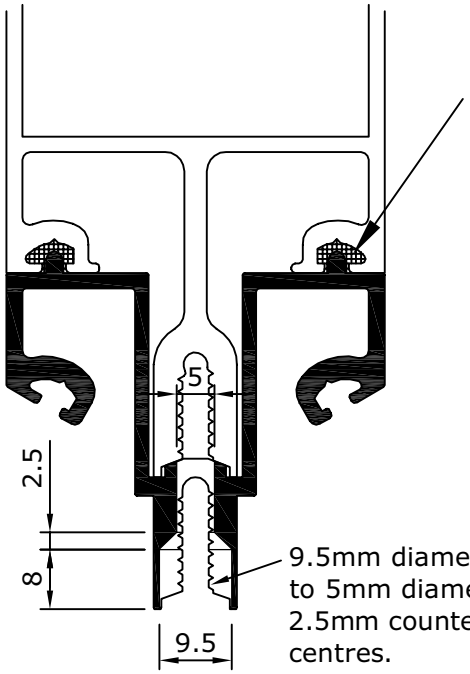
Façetted Mullion Adaptor Preps

Maximum load per adaptor fixing = 1200 N.

Mullion Adaptors HR50180, HR50181

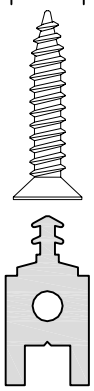
Fabricator to ensure pressure plate screws do not coincide with the mullion adaptor fixings.

OPTION A - Stepped countersunk hole detail



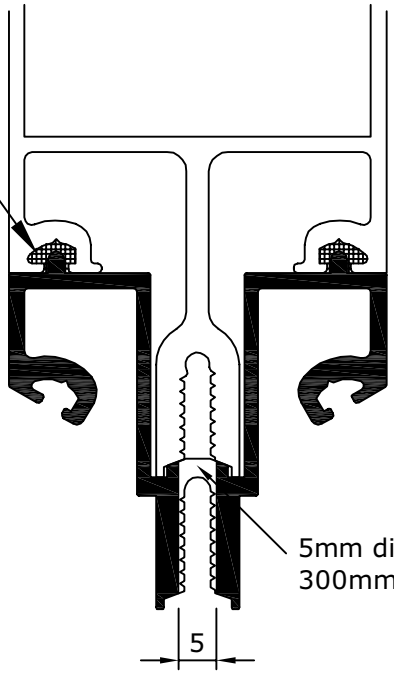
9.5mm diameter hole stepped to 5mm diameter hole with 2.5mm countersink at 300mm centres.

Adaptor secured to mullion with No 10 x 25mm type AB countersunk stainless steel self tapping screws.



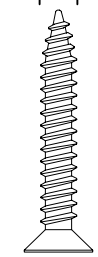
OR

OPTION B - Notched thermal isolator detail

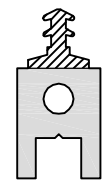


5mm diameter hole at 300mm centres

Adaptor secured to mullion with No 10 x 30mm type AB countersunk stainless steel self tapping screws.



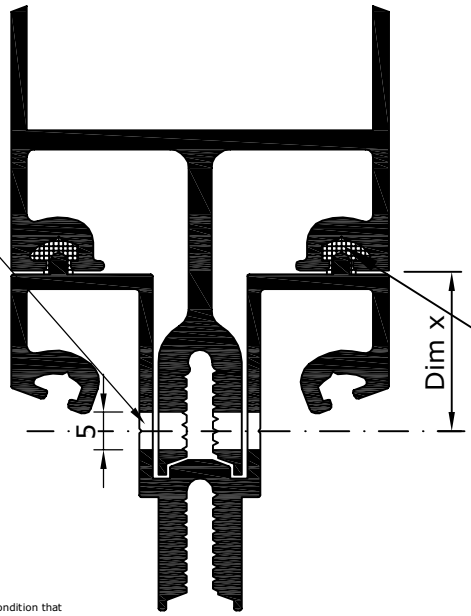
Notch thermal isolator locally to avoid head of screws



Mullion Adaptors HR5014, HR50182, HR50183

5mm diameter hole at 300mm centres. Drill simultaneously through mullion and adaptor profiles.

Adaptor secured to mullion with HR50204 pin. Pin to be installed carefully to ensure equal bearing on both sides.



Seal between mullion gasket groove and adaptor

Adaptor	Dim x
HR5014	20.75
HR50182	22
HR50183	20.75

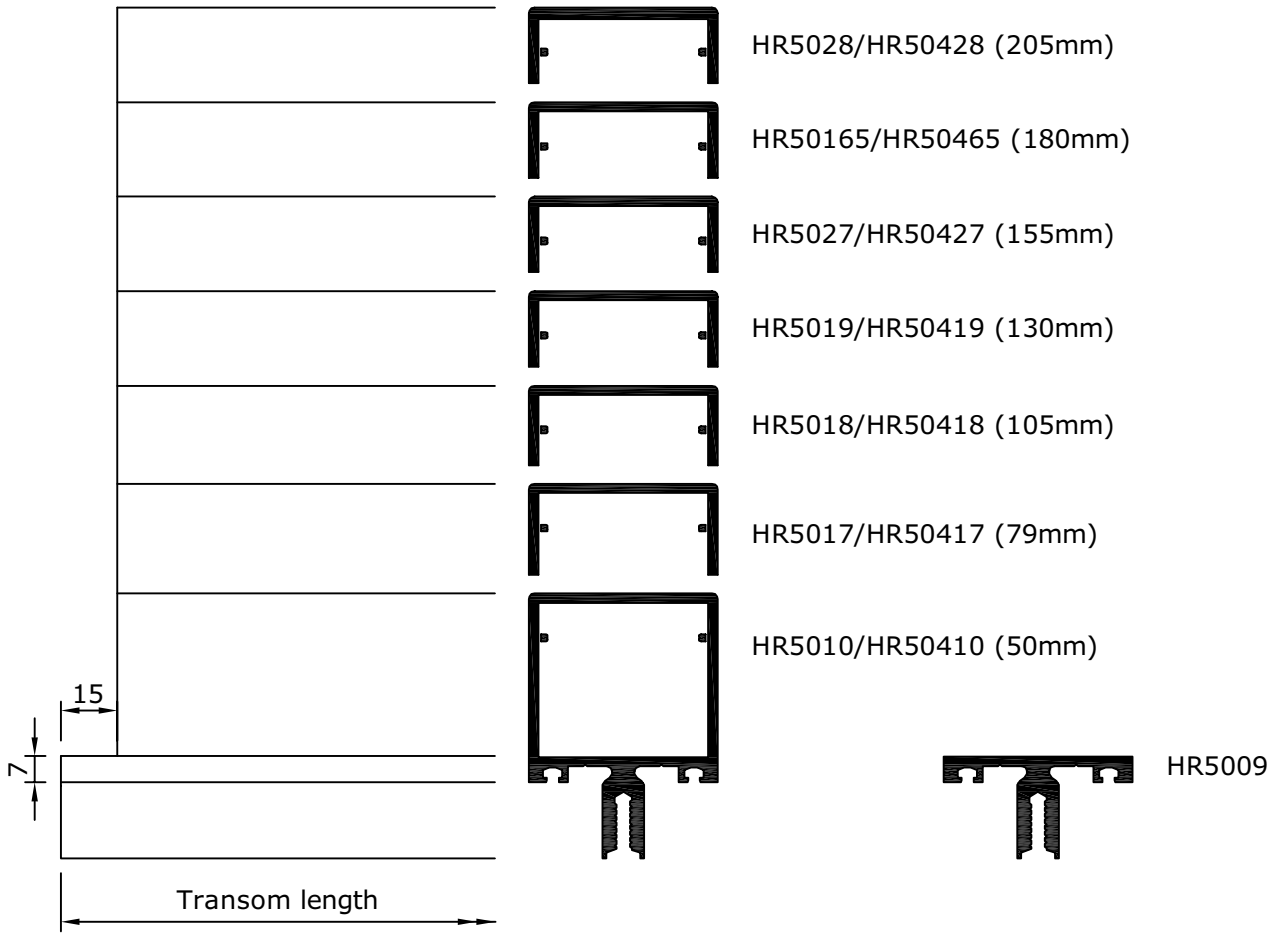
Scale 1:1

Transom End Preps

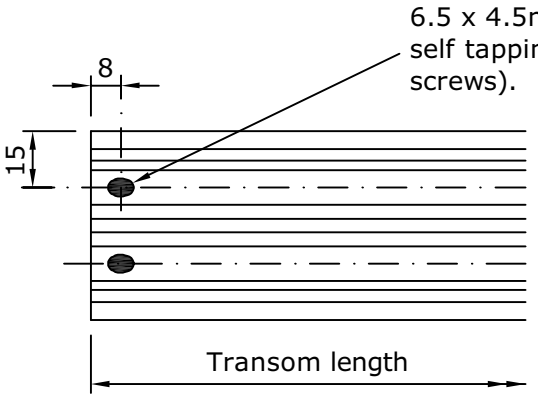
System 17

50mm HIGH RISE
CURTAIN WALLING

Transom end details
Metal Technology recommend the use of their purpose designed pneumatic punch tool for preparation of transoms.



Detail on face of transom bars



Use the 'V' groove extruded in the section for the location of hole centres in the vertical plane.

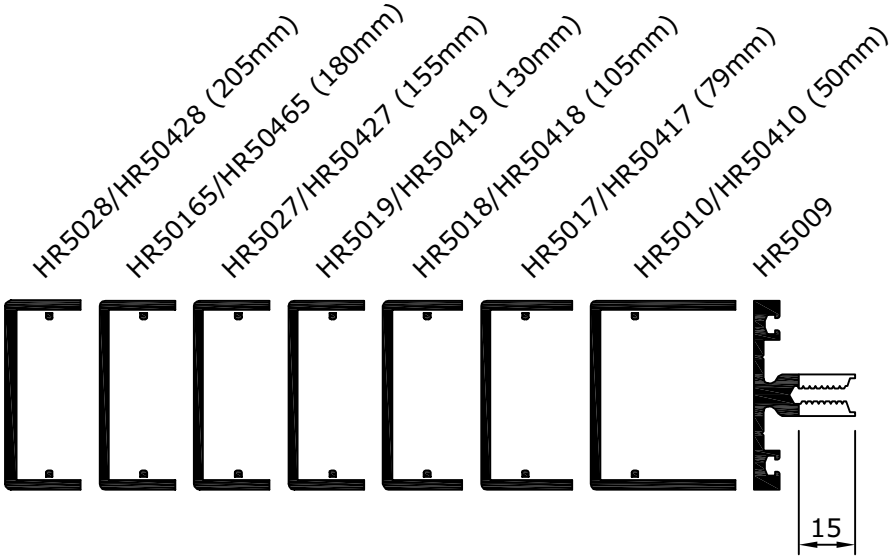
Scale 1:2

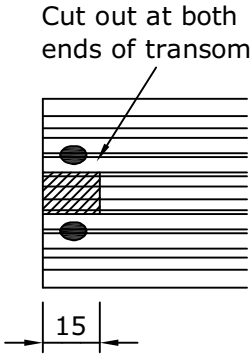
Transom Prep for Single Glazing

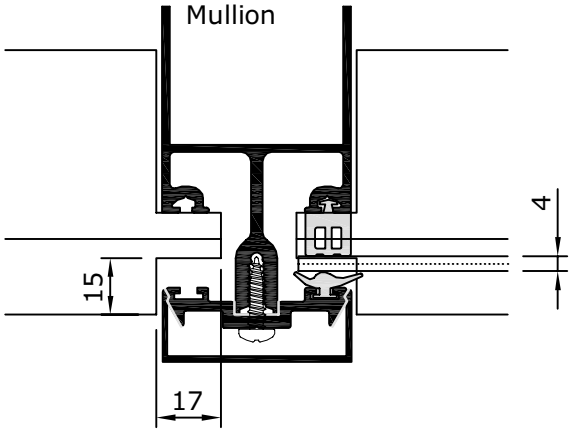
System 17

50mm HIGH RISE
CURTAIN WALLING

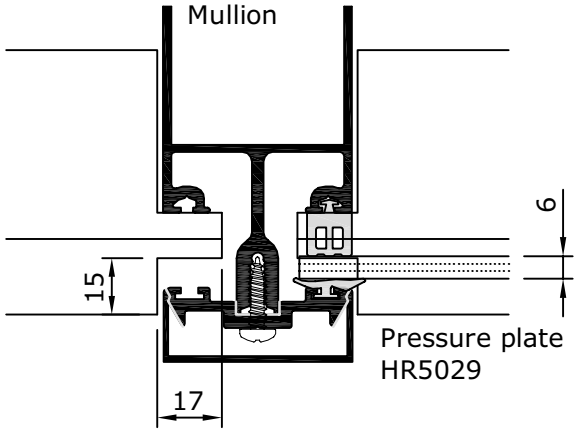
Only required when not using glazing adaptors.



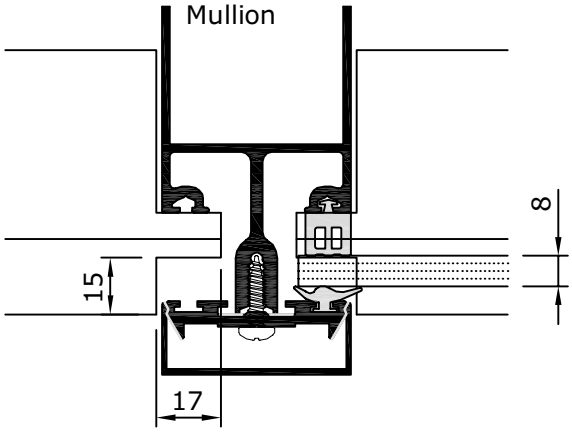




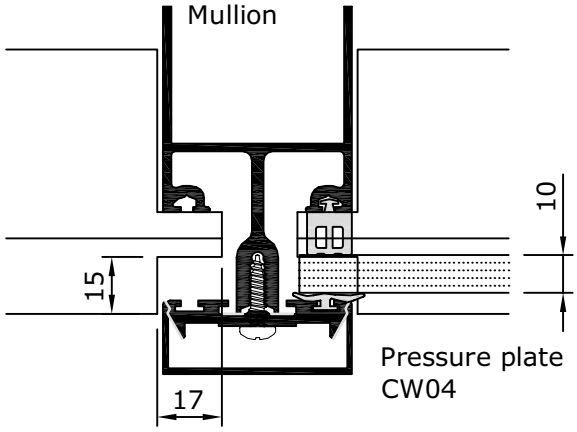
Transom notched to accommodate mullion pressure plate.



Transom notched to accommodate mullion pressure plate.



Transom notched to accommodate mullion pressure plate.



Transom notched to accommodate mullion pressure plate.

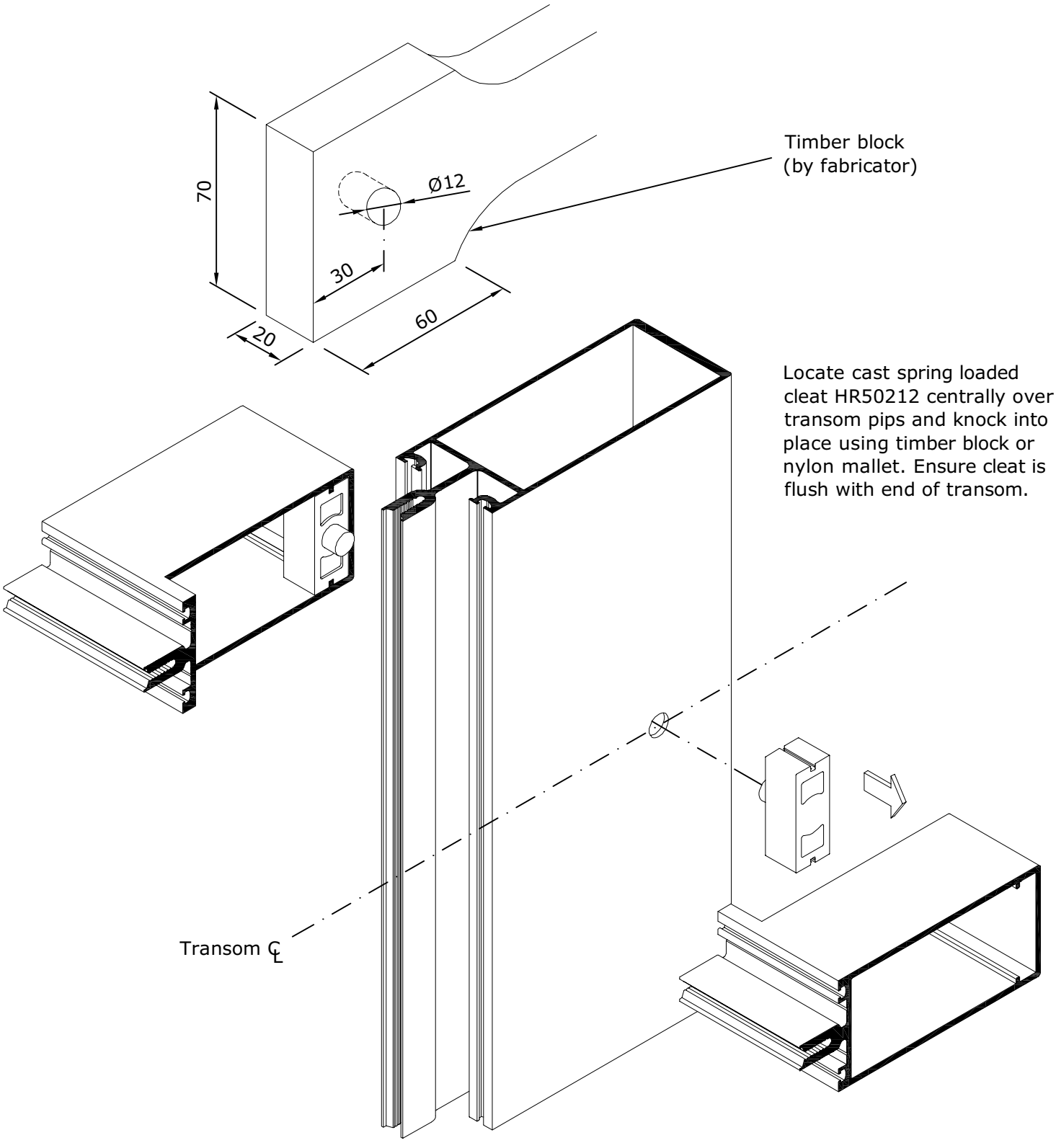
Scale 1:2

Cast Spring Loaded Cleat Installation

System 17

50mm HIGH RISE
CURTAIN WALLING

Metal Technology suggest fabricators manufacture a hardwood timber block to protect the transom end during insertion of the cast spring-loaded cleat HR50212.

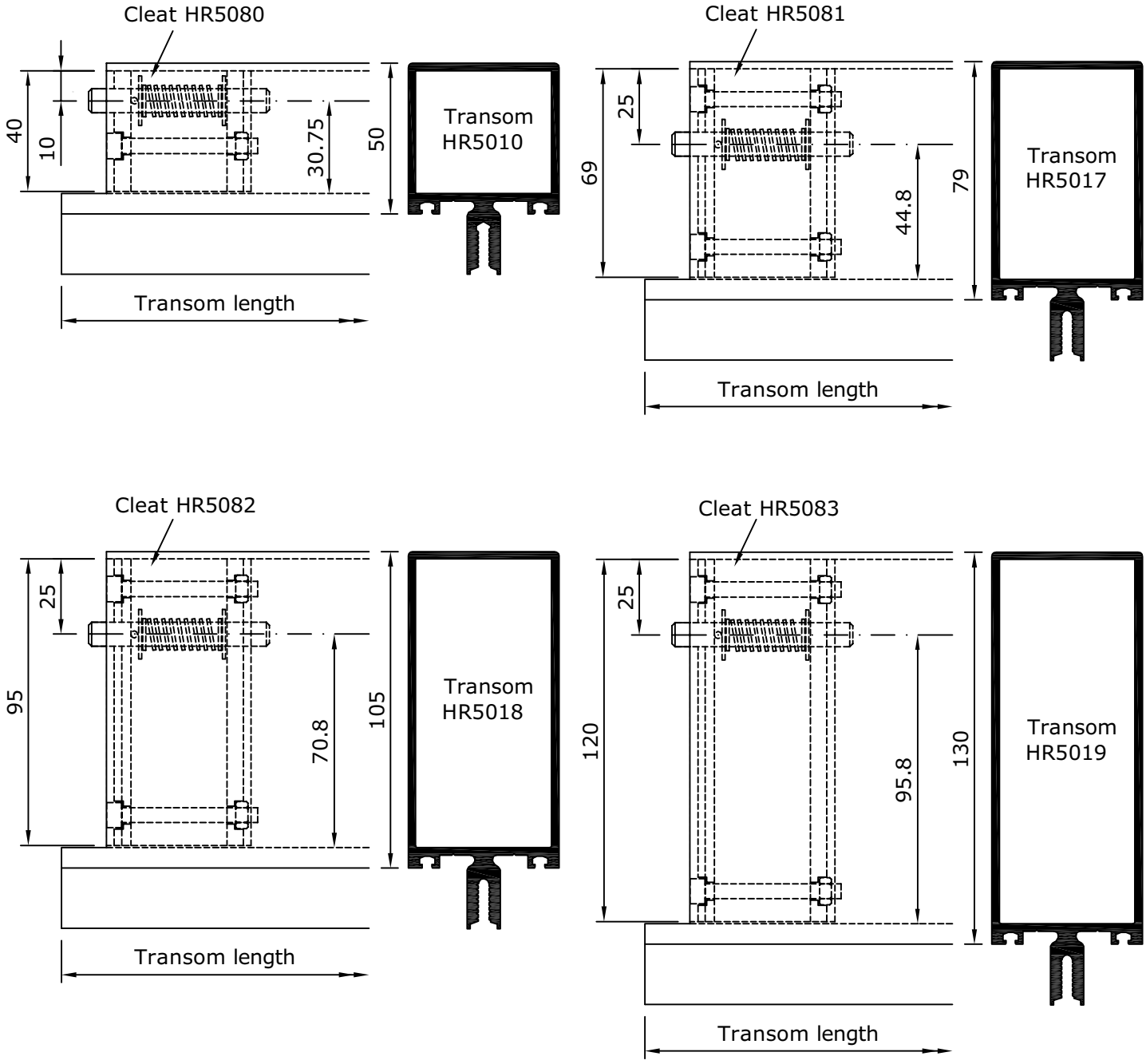


Scale 1:2

Extruded Spring Loaded Cleat Installation

System 17

50mm HIGH RISE
CURTAIN WALLING



POSITIONING CLEAT: In order to ensure the cleat face finishes flush with transom section, the cleat should be positioned approximately 6mm clear of the section prior to tightening it.

Cleat should be fitted tight against rear wall of transom, leaving a small tolerance gap as indicated in drawings above.

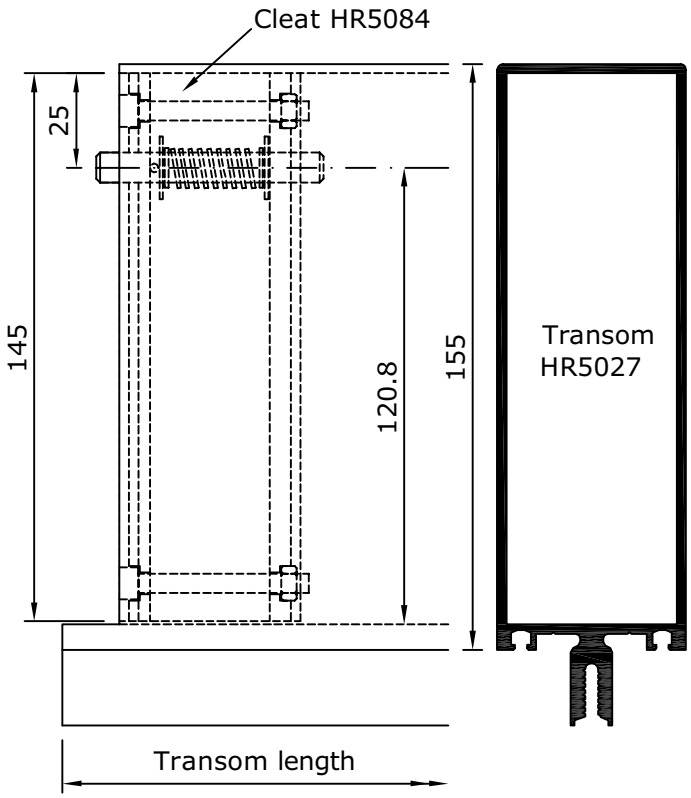
RELEASING CLEAT: The cleat may be released by loosening the screw and inserting a flat metal section between the outer part of the cleat and the transom side and striking it sharply with a hammer.

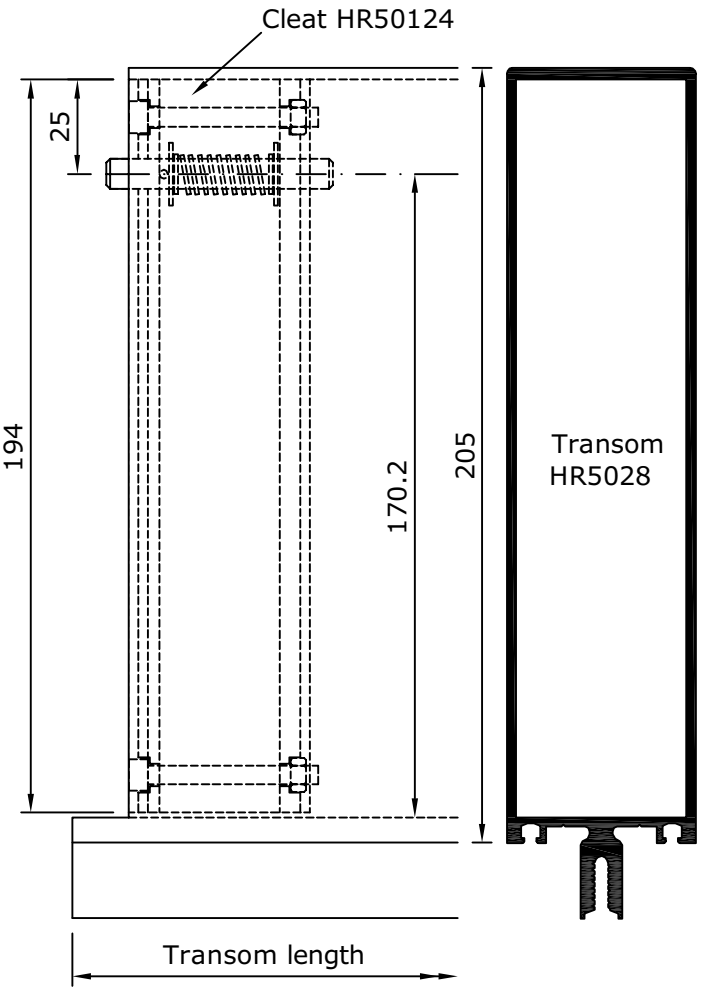
Scale 1:2

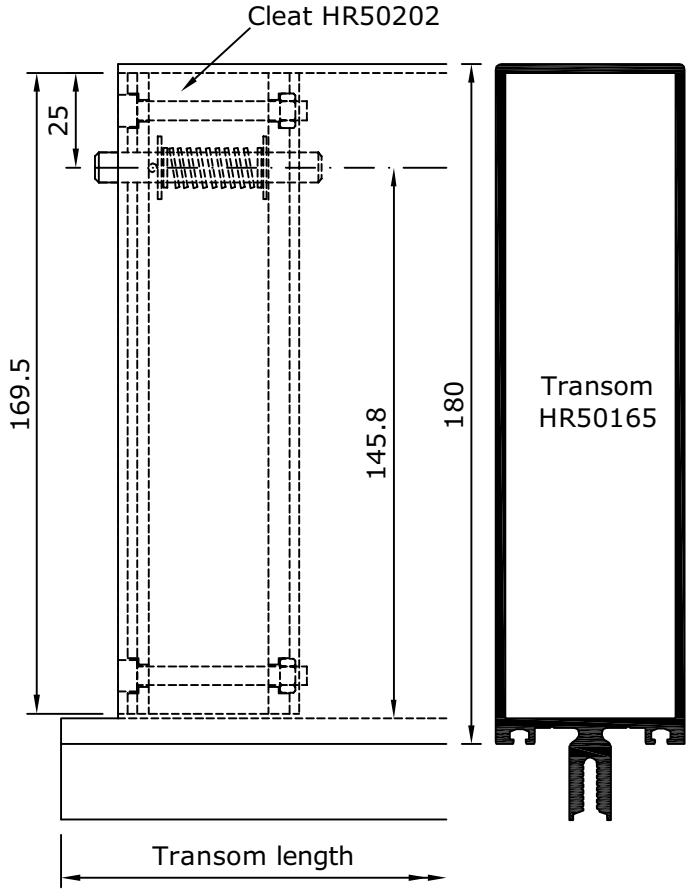
Extruded Spring Loaded Cleat Installation

System 17

50mm HIGH RISE
CURTAIN WALLING







POSITIONING CLEAT: In order to ensure the cleat face finishes flush with transom section, the cleat should be positioned approximately 6mm clear of the section prior to tightening it.

Cleat should be fitted tight against rear wall of transom, leaving a small tolerance gap as indicated in drawings above.

RELEASING CLEAT: The cleat may be released by loosening the screw and inserting a flat metal section between the outer part of the cleat and the transom side and striking it sharply with a hammer.

Scale 1:2

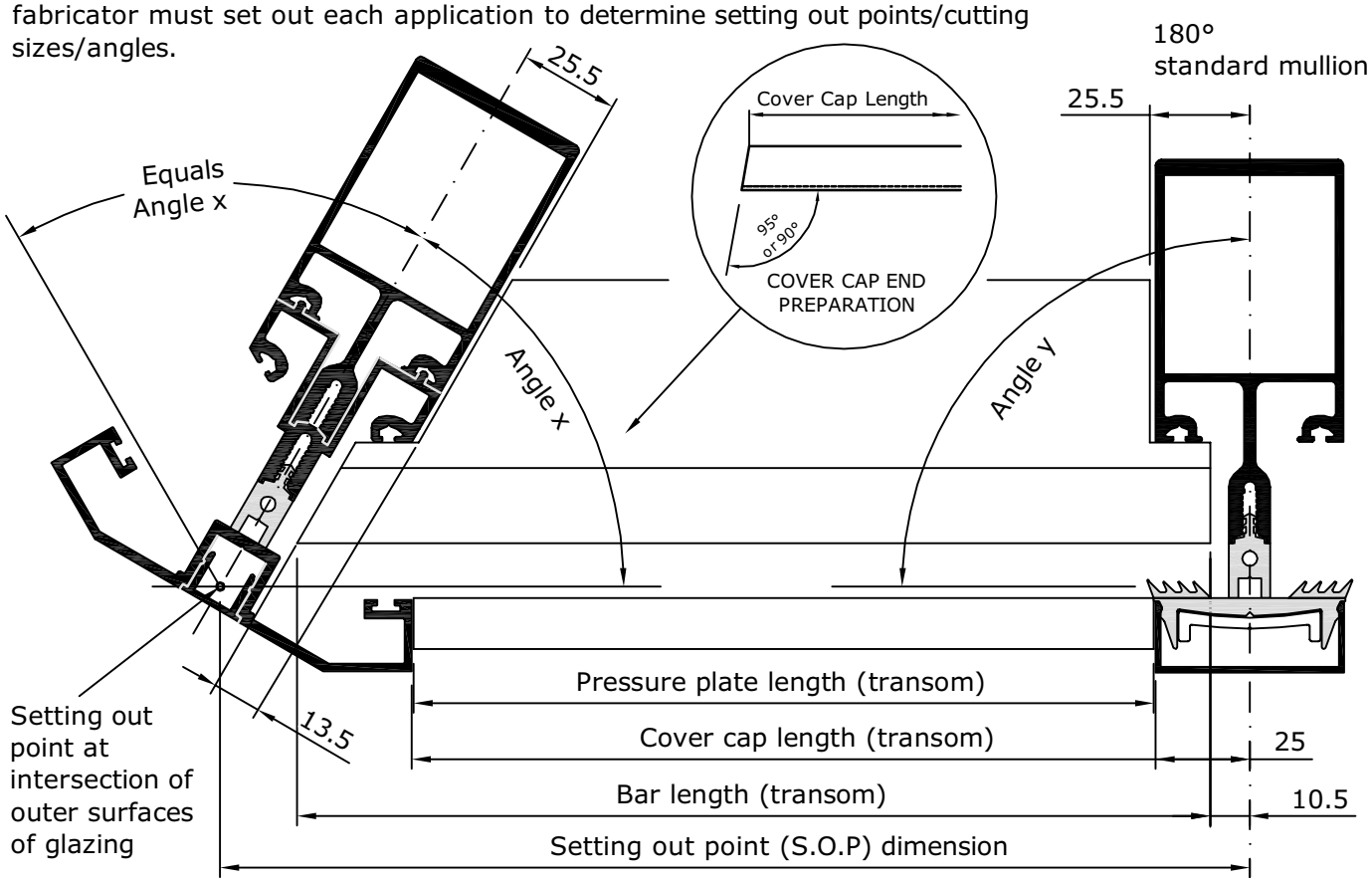
Transom Fabrication Details for Façetted Applications

28mm Glazing Only

System 17

50mm HIGH RISE CURTAIN WALLING

Fabricator must set out mullion/transom intersection to ensure transom does not finish beyond depth of mullion.
The maximum degree of façet achievable with a single mullion assembly is ± 5°.
If unit thickness is not 28mm or if façetted angle varies from those stated below, fabricator must set out each application to determine setting out points/cutting sizes/angles.



Corner angles		Bar length (transom)	Cover cap * and pressure plate length (transom)	Cover Cap Preparation	Glazing unit width
Angle x	Angle y				
45º	45º	S.O.P. less 55mm	S.O.P less 139mm	cut at 95°	S.O.P. less 106mm
45º	90º	S.O.P. less 38mm	S.O.P less 94.5mm	cut at 95°	S.O.P. less 64mm
50°	50°	S.O.P. less 51mm	S.O.P. less 130mm	cut at 90°	S.O.P. less 92mm
50°	90°	S.O.P. less 36mm	S.O.P. less 90mm	cut at 90°	S.O.P. less 57mm
60°	60°	S.O.P. less 41mm	S.O.P. less 102mm	cut at 90°	S.O.P. less 66mm
60°	90°	S.O.P. less 31mm	S.O.P. less 76mm	cut at 90°	S.O.P. less 44mm
70°	70°	S.O.P. less 34mm	S.O.P. less 82mm	cut at 90°	S.O.P. less 48mm
70°	90°	S.O.P. less 27.5mm	S.O.P. less 66mm	cut at 90°	S.O.P. less 35mm
75º	75º	S.O.P. less 31mm	S.O.P. less 71mm	cut at 90°	S.O.P. less 44mm
75º	90º	S.O.P. less 26mm	S.O.P. less 60.5mm	cut at 90°	S.O.P. less 33mm
80°	80°	S.O.P. less 28.5mm	S.O.P. less 65mm	cut at 90°	S.O.P. less 36mm
80°	90°	S.O.P. less 26mm	S.O.P. less 57.5mm	cut at 90°	S.O.P. less 29mm
85°	85°	S.O.P. less 21mm	S.O.P. less 49.5mm	cut at 95°	S.O.P. less 27mm
85°	90°	S.O.P. less 21mm	S.O.P. less 49.5mm	cut at 95°	S.O.P. less 24mm

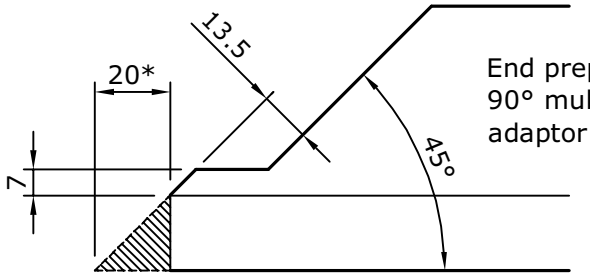
* In order to ensure the transom cover caps do not damage the mullion pressure caps when 'snapping' them into position on site, it may be necessary to reduce the transom cover cap by 1mm. The transom cover cap should then be centralised to leave a gap not greater than 0.5mm at each end.

Scale 1:2

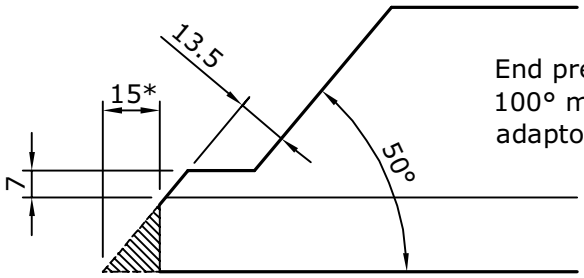
Transom End Prep. Details for Façetted Applications

System 17

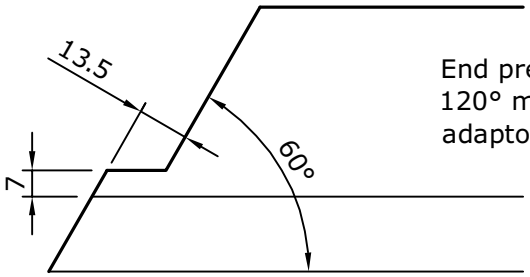
50mm HIGH RISE CURTAIN WALLING



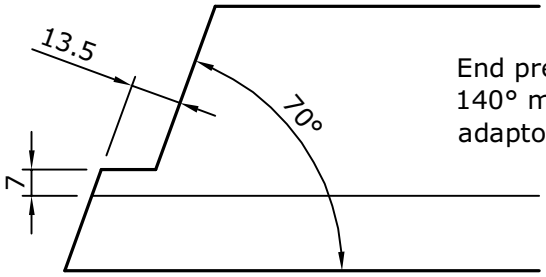
End prep to suit 90° mullion adaptor



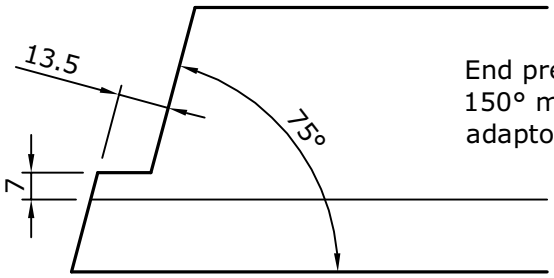
End prep to suit 100° mullion adaptor



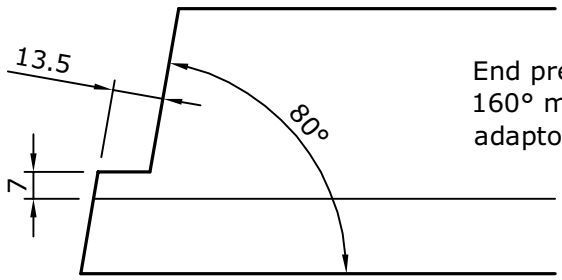
End prep to suit 120° mullion adaptor



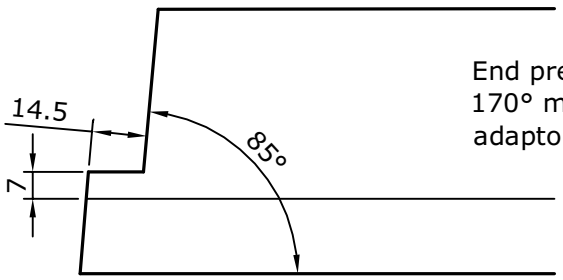
End prep to suit 140° mullion adaptor



End prep to suit 150° mullion adaptor



End prep to suit 160° mullion adaptor



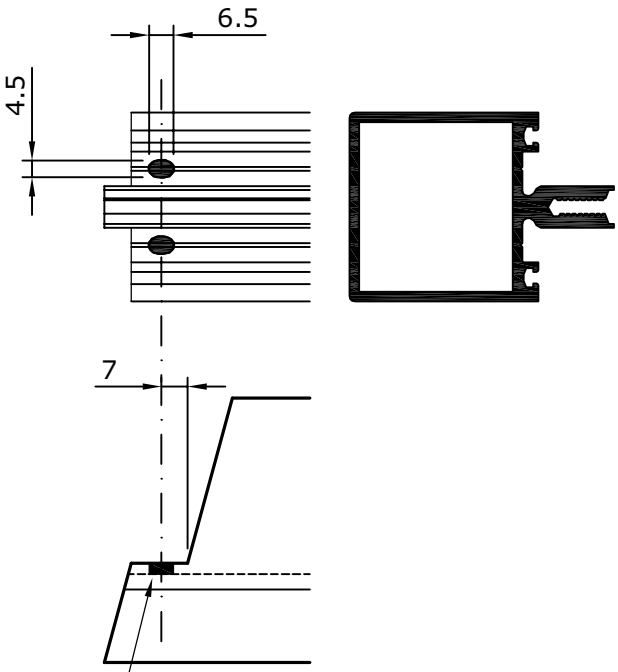
End prep to suit 170° mullion adaptor

Transom bar length

Transom bar length

* Ends trimmed to avoid the piercing of membrane

Use V grooves extruded in section to locate hole centres in the vertical plane.



4.5 x 6.5mm slotted hole (for No 8 x 16mm pan head stainless steel self tapping screws)

Transom cleats must be used where façetted mullions occur.

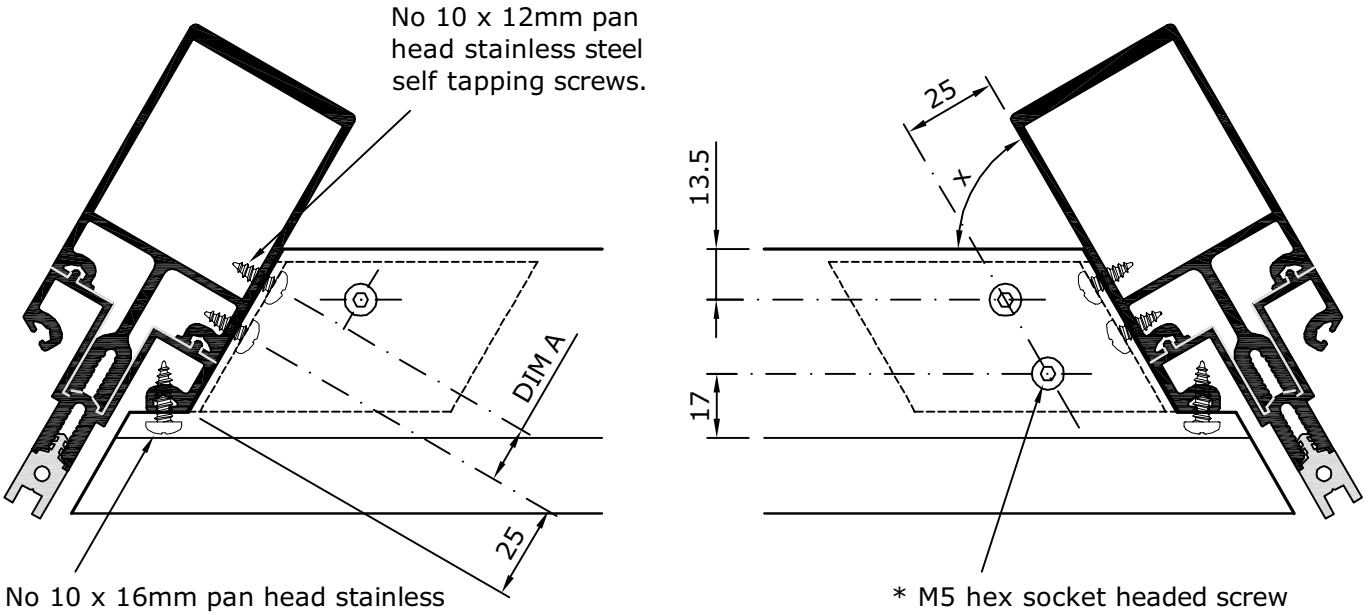
Scale 1:2

Transom Fixing Cleats for Façetted Applications

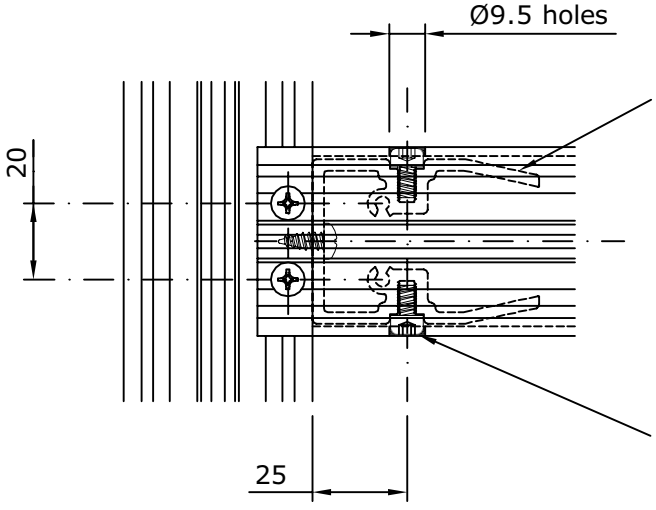
System 17

50mm HIGH RISE CURTAIN WALLING

If façetted angle varies from those started below, fabricator must purchase cleats in bar length and cut and prep to suit.



Transom	Length	DIM A	Angle x =45°	Angle x =50°	Angle x =60°	Angle x =70°	Angle x =75°	Angle x =80°	Angle x =85°
HR5010	39.5mm	N/A	HR50220	HR50258	HR50279	HR50288	HR50297	HR50306	HR50315
HR5017	69mm	29mm	HR50221	HR50259	HR50280	HR50289	HR50298	HR50307	HR50316
HR5018	95mm	55mm	HR50222	HR50260	HR50281	HR50290	HR50299	HR50308	HR50317
HR5019	120mm	80mm	HR50223	HR50261	HR50282	HR50291	HR50300	HR50309	HR50318
HR5027	145mm	105mm	HR50224	HR50262	HR50283	HR50292	HR50301	HR50310	HR50319
HR50165	167mm	130mm	HR50225	HR50263	HR50284	HR50293	HR50302	HR50311	HR50320
HR5028	191mm	155mm	HR50226	HR50264	HR50285	HR50294	HR50303	HR50312	HR50321



* Where internal façet angle >135°, hex socket headed screws are not required. Where internal façet angle is between 90° and 135° two hex socket headed screws are required, which may be positioned above and/or below the transom to minimise visual impact.

Scale 1:2

Glass to Glass Corner Support Details

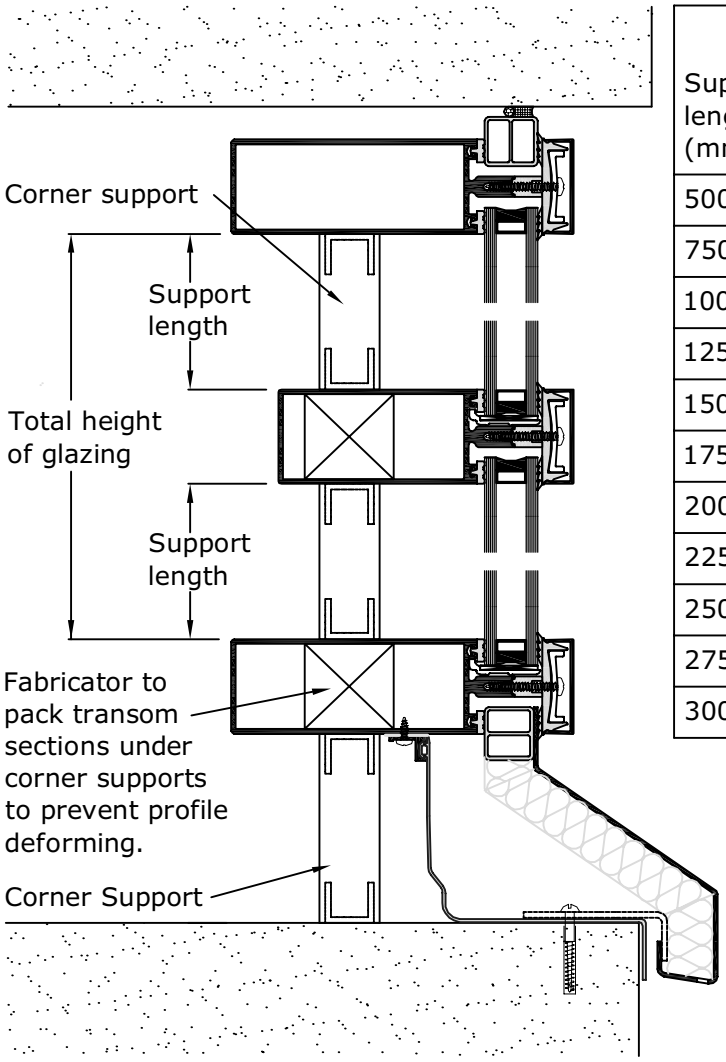
System 17

50mm HIGH RISE CURTAIN WALLING

1. Calculate weight of glazing (Maximum load) = Developed width of the corner A+B in metres x the total height of glazing in metres x the weight of the glazing per square metre. (i.e. 6/20/6 = 30kg/sq m.)

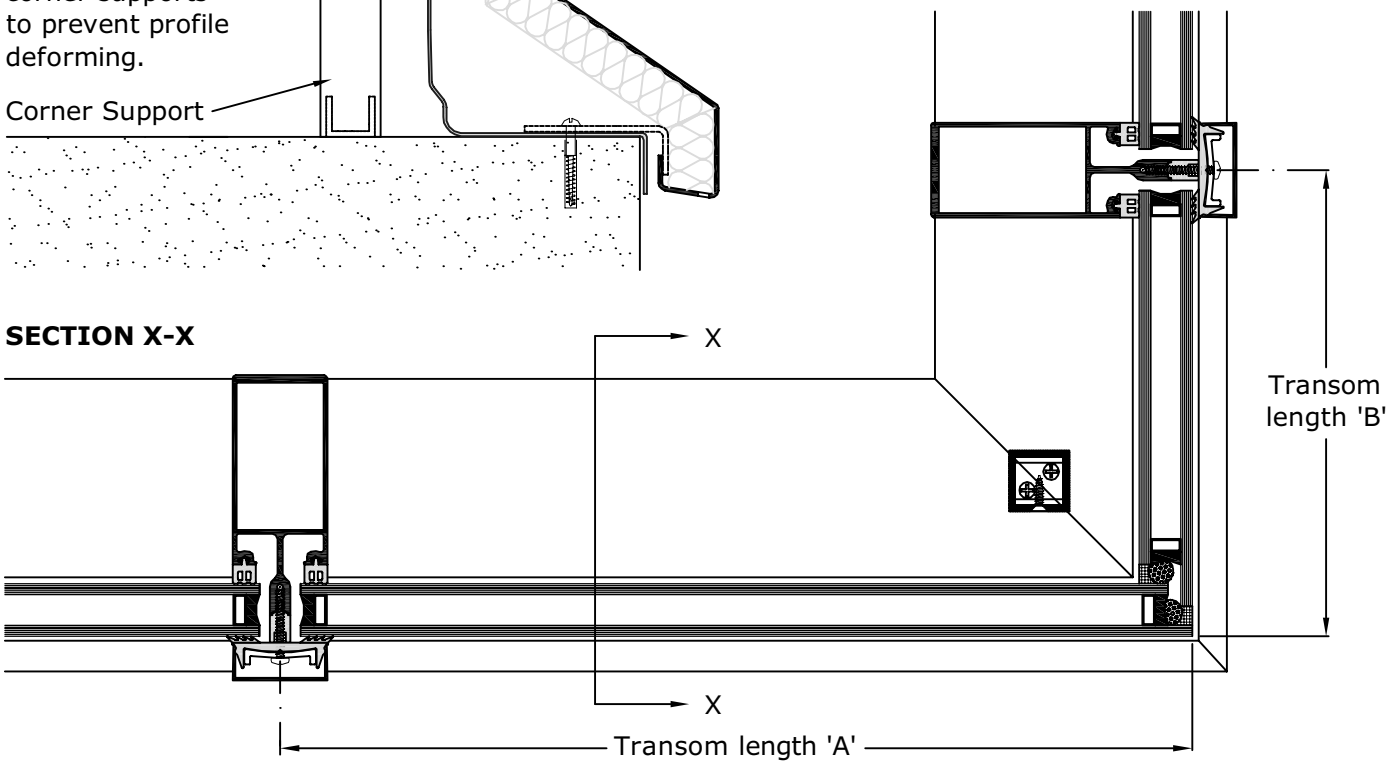
2. Calculate individual support lengths, between adjacent transoms.

3. Use the above to select the support size from the table below.



Support length (mm)	Maximum Load (Kg) (Based on BS 8118 pt1 Appendix K)		
	25 x 25 x 3 Square alum. tube	32 x 32 x 3 Square alum. tube	38 x 38 x 3 Square alum. tube
500	81	132	277
750	66	110	148
1000	56	93	126
1250	41	74	111
1500	31	58	92
1750	24	47	76
2000	19	38	63
2250	16	31	53
2500	13	26	44
2750	11	22	38
3000	9	19	33

SECTION X-X



Scale 1:4

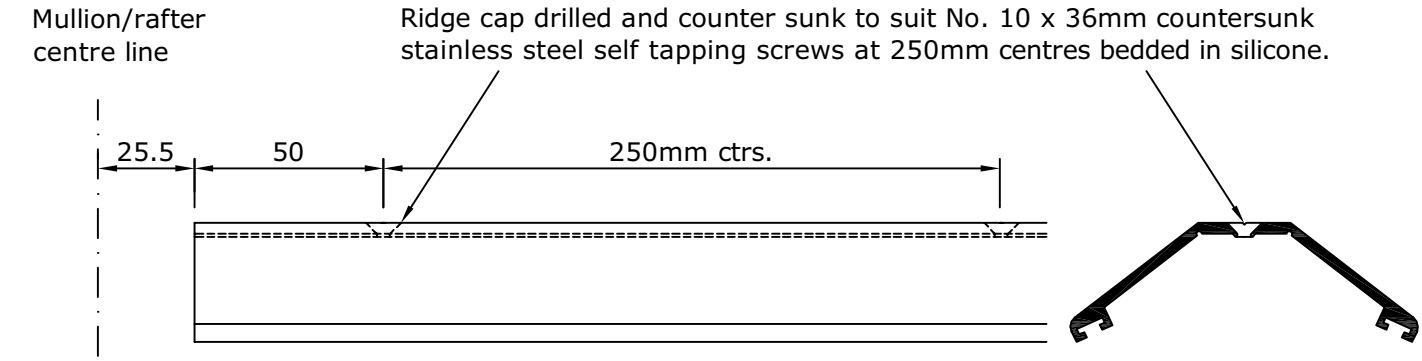
25º Ridge Bar and Rafter Preps

(28mm glazing)

System 17

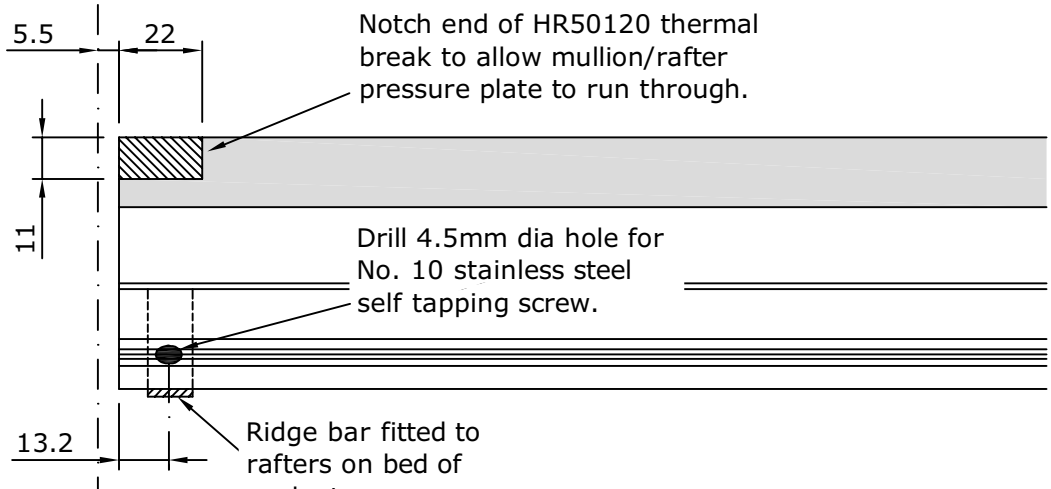
50mm HIGH RISE CURTAIN WALLING

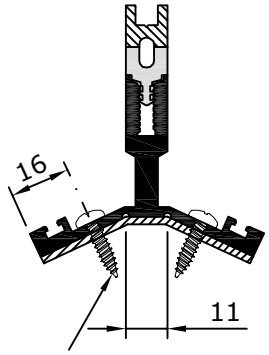
All sections, spigots, brackets and fixings to be sized by a structural engineer to suit site conditions.



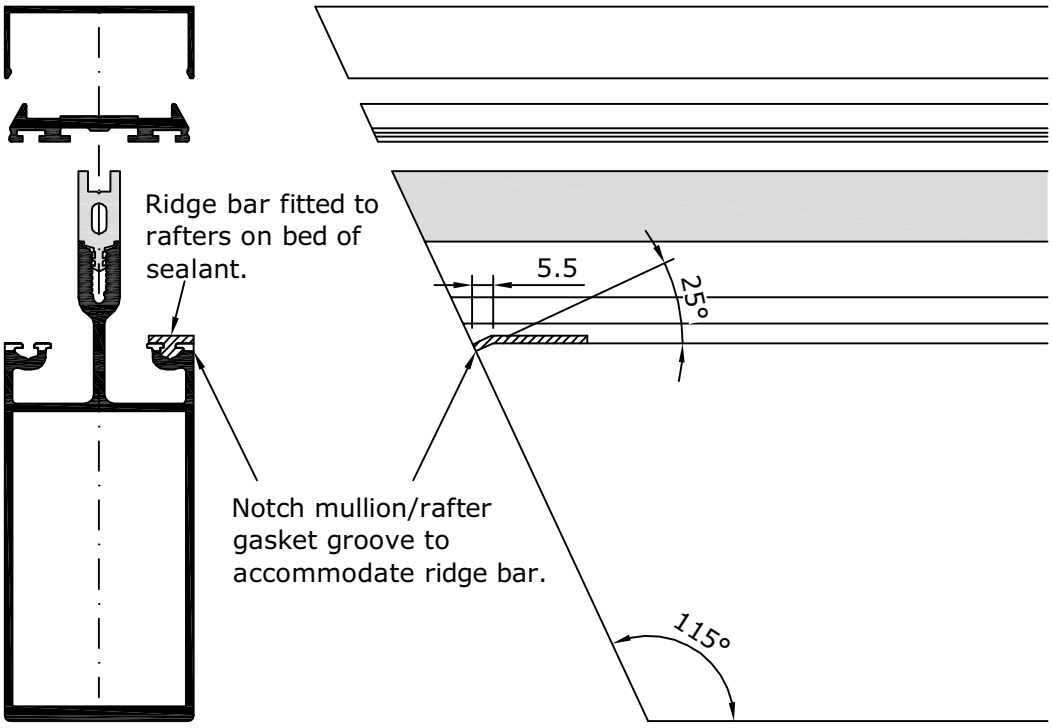
Ridge cap HR5032 Length = mullion centres less 51mm

Ridge bar HR5031 Length = mullion centres less 11mm.





No. 8 x 16mm pan head stainless steel self tapping screw



CW04 Pressure plate

HR50120 Thermal isolator

Sealant suitable for use in small joints

Scale 1:2

Co-Extruded Pressure Plate Preps

System 17

50mm HIGH RISE
CURTAIN WALLING

The thermal isolators must be fitted to mullions/transoms prior to fitting the pressure plate. Pressure plates are secured to mullions and transoms via the stitch plates, by screw fixing through the holes on their centre lines, as indicated.

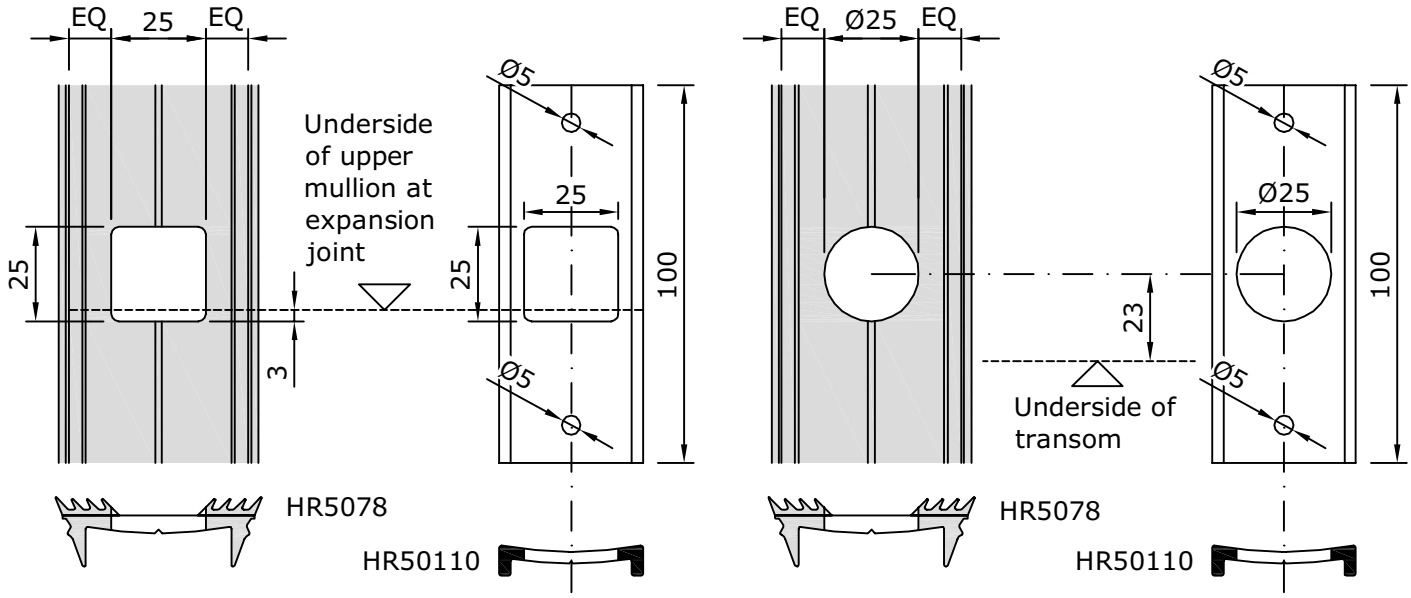
Torque for pressure plate screws = 3.5 Nm.

Maximum load per pressure plate screw = 1200 N.

Maximum design wind pressure for the co-extruded pressure plate = 1500 Pa.

When using extended cover caps in vulnerable applications Metal Technology recommends that caps are mechanically fixed to the pressure plate using No 6 x 12mm long stainless steel countersunk screws at 1000mm centres. Heads of screws to be touched up on site to match cover cap.

Water deflector preps to mullion pressure plate assembly



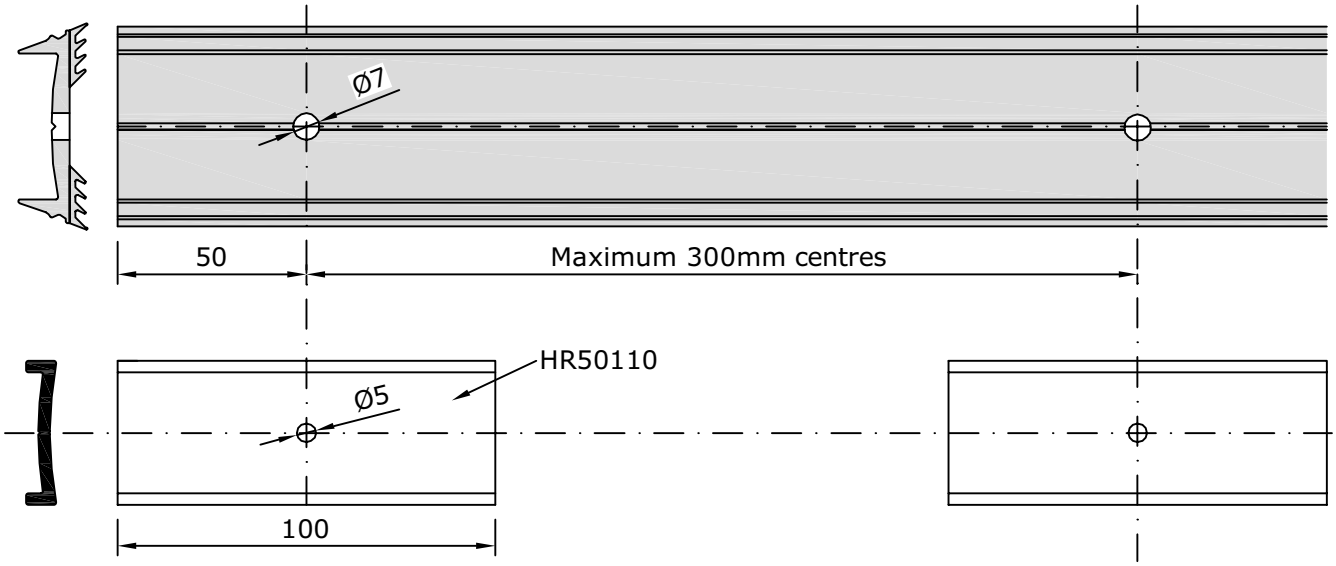
Pressure plate prep for HR5065 water deflector

Stitch plate prep for HR5065 water deflector

Pressure plate prep for HR50113B water deflector

Stitch plate prep for HR50113B water deflector

Pressure Plate Fixing Detail



STITCH PLATE REQUIRED AT EACH FIXING HOLE CENTRE.

Scale 1:2

Aluminium Pressure Plate Preps

System 17

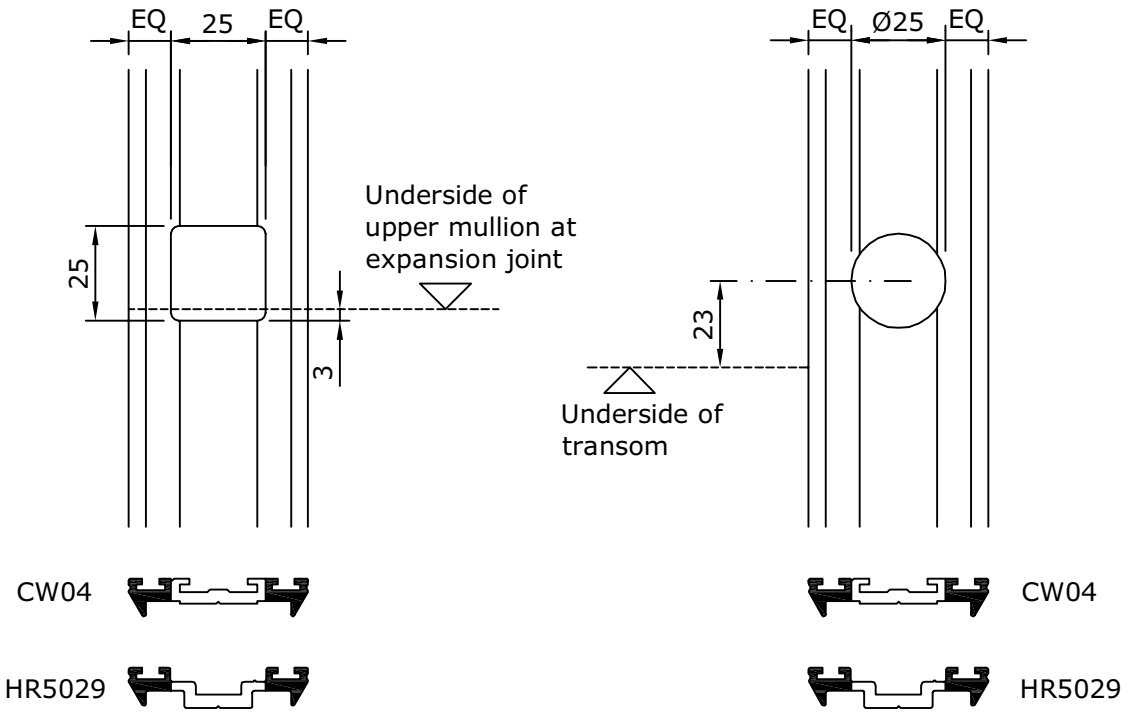
50mm HIGH RISE
CURTAIN WALLING

The thermal isolators must be fitted to mullions/transoms prior to fitting the pressure plate. Pressure plates are screw fixed to mullions and transoms through the holes on the centre line of the pressure plate, as indicated.

Torque for pressure plate screws = 3.5 Nm.

Maximum load per pressure plate screw = 1200 N.

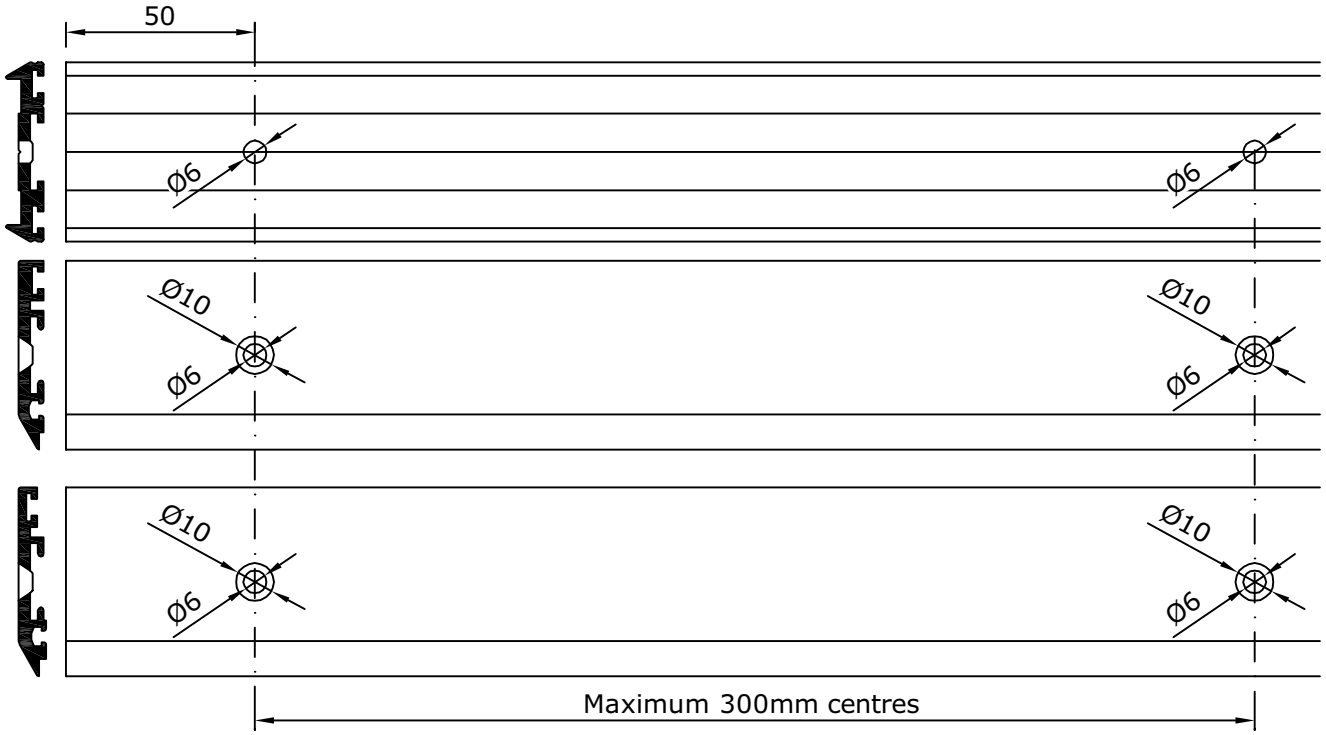
Water deflector preps to mullion pressure plates



Prep for HR5065
water deflector

Prep for HR50113B
water deflector

Pressure Plate Fixing Detail



Scale 1:2

Perimeter Spacer Details

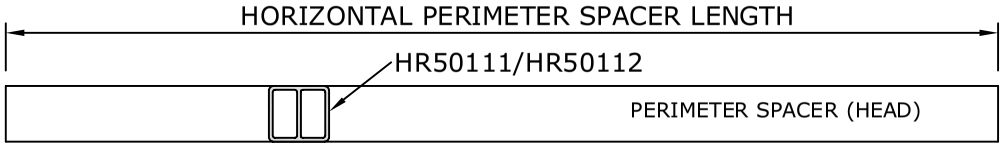
Fabrication and Cutting Sizes
(For 24mm or 28mm glazing)

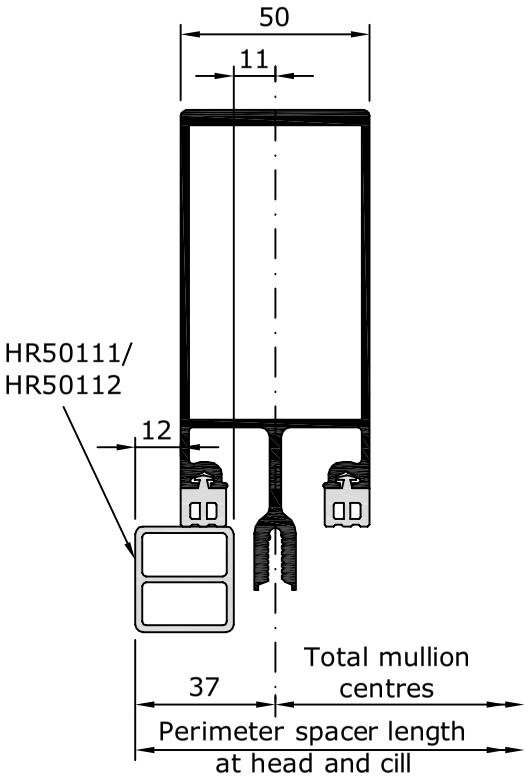
System 17

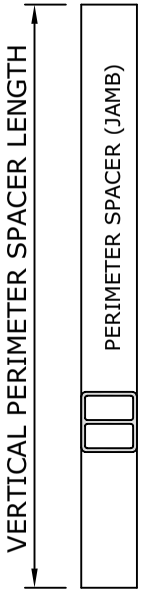
50mm HIGH RISE
CURTAIN WALLING

Fabricator to seal joints between perimeter spacers on site. For long runs of curtain walling, fabricator to take into consideration within their design the potential expansion and contraction of perimeter spacers and cill flashing.

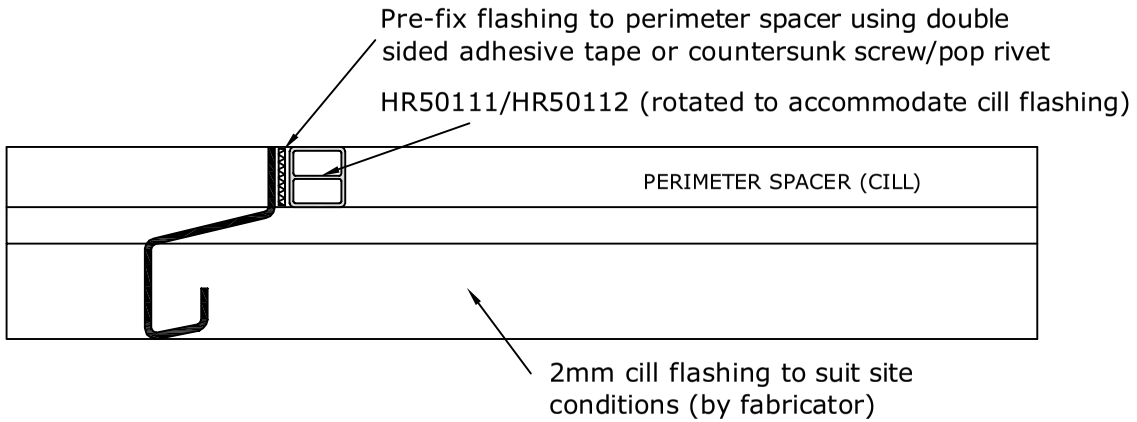
Joint plates (by fabricator) may be required at head, cill and jambs for assembly on site.







DESCRIPTION	QUANTITY	LENGTH	SECTION	PREPARATION
PERIMETER SPACER (HEAD)	ONE	TOTAL MULLION CTRS. plus 74mm	HR50111 or HR50112	ENDS CUT SQUARE
PERIMETER SPACER (CILL)	ONE	TOTAL MULLION CTRS. plus 74mm	HR50111 or HR50112	ENDS CUT SQUARE
CILL FLASHING	ONE	TOTAL MULLION CTRS. plus 74mm	BY FABRICATOR	ENDS SHAPED TO SUIT SITE CONDITIONS
PERIMETER SPACER (JAMB)	TWO	TOTAL TRANSOM CTRS. plus 22mm	HR50111 or HR50112	ENDS CUT SQUARE



Not to scale

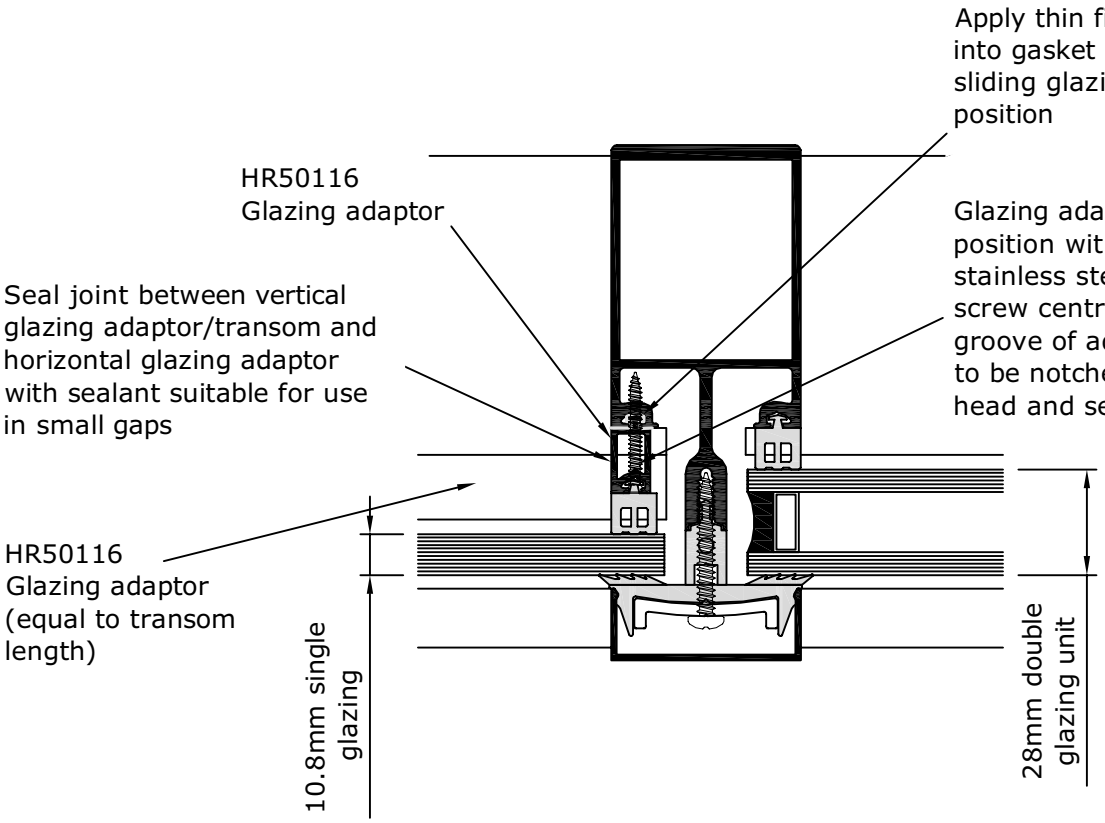
HR50116 Single Glaze Adaptor

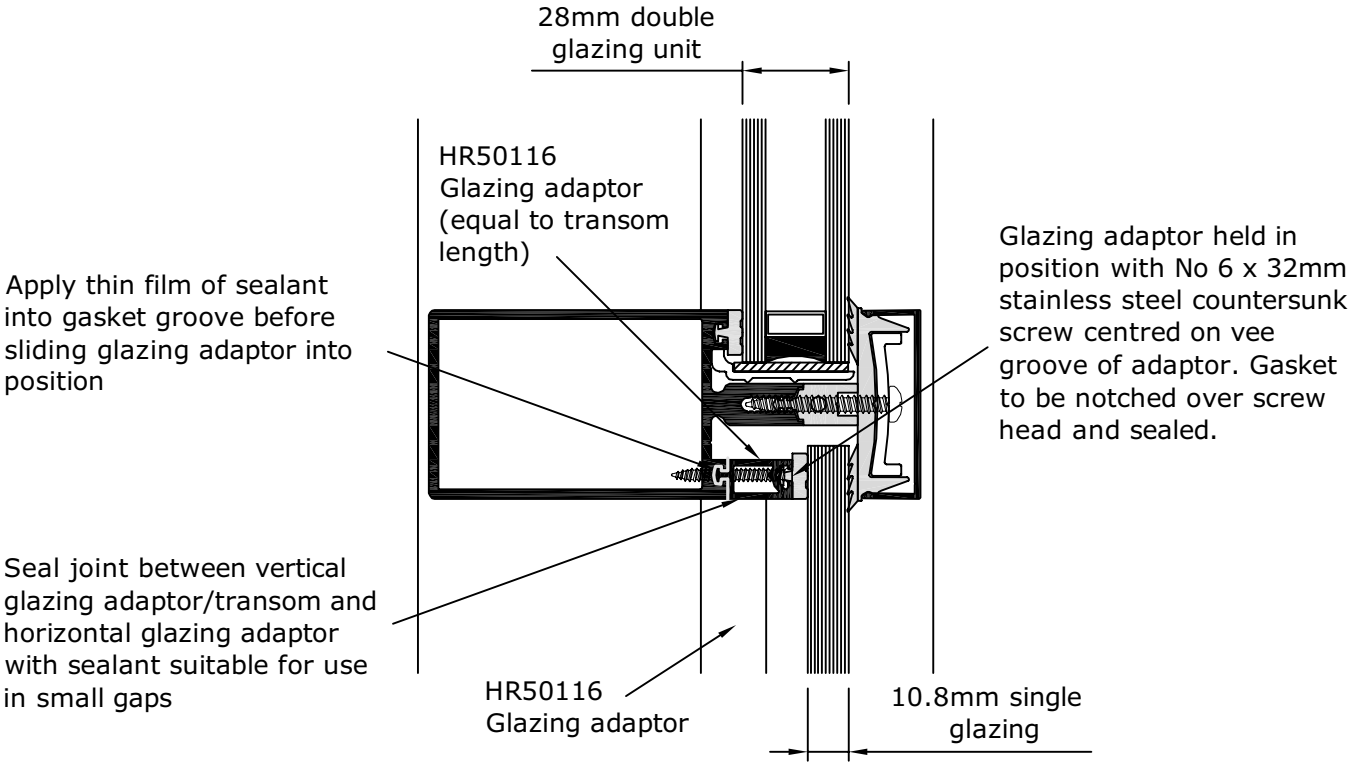
Adapts glazing rebate from 28mm to 10.8mm

System 17

50mm HIGH RISE
CURTAIN WALLING

Glazing Adaptor Bar Lengths :-
Horizontal = Mullion Centres - 21mm
Vertical = Transom Centres - 50mm
Ends to be cut square





Scale 1:2

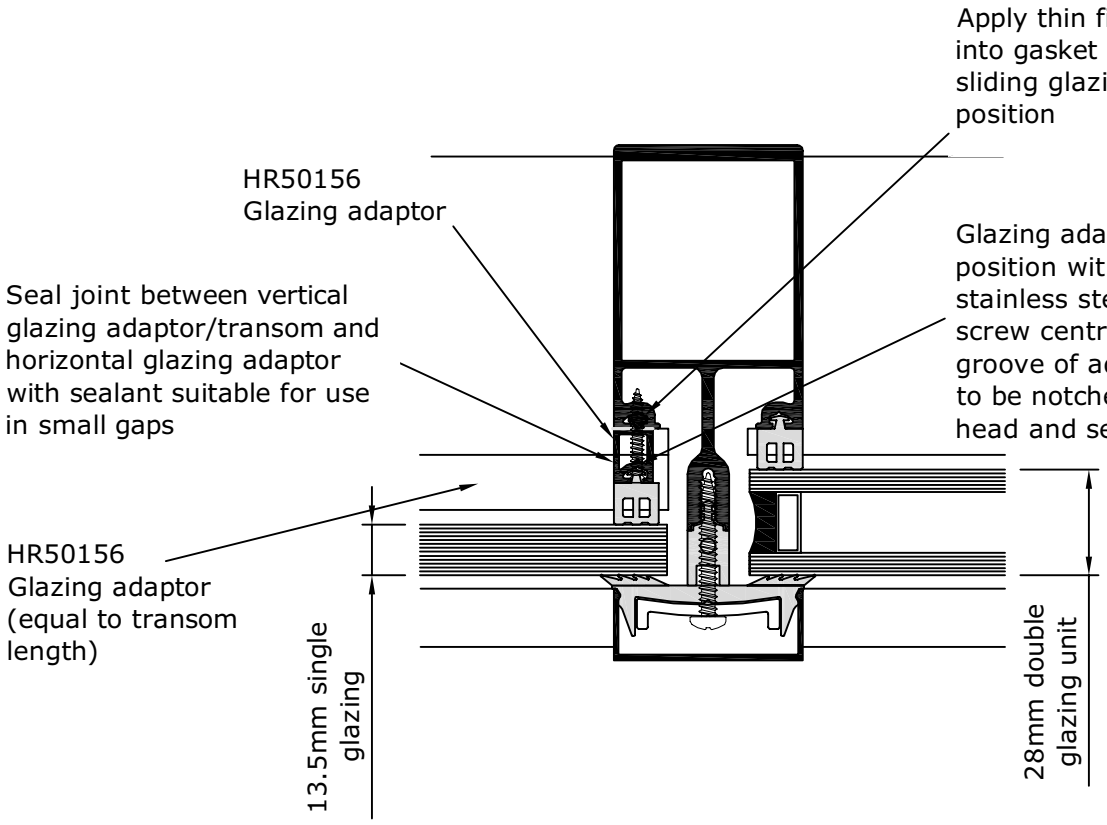
HR50156 Single Glaze Adaptor

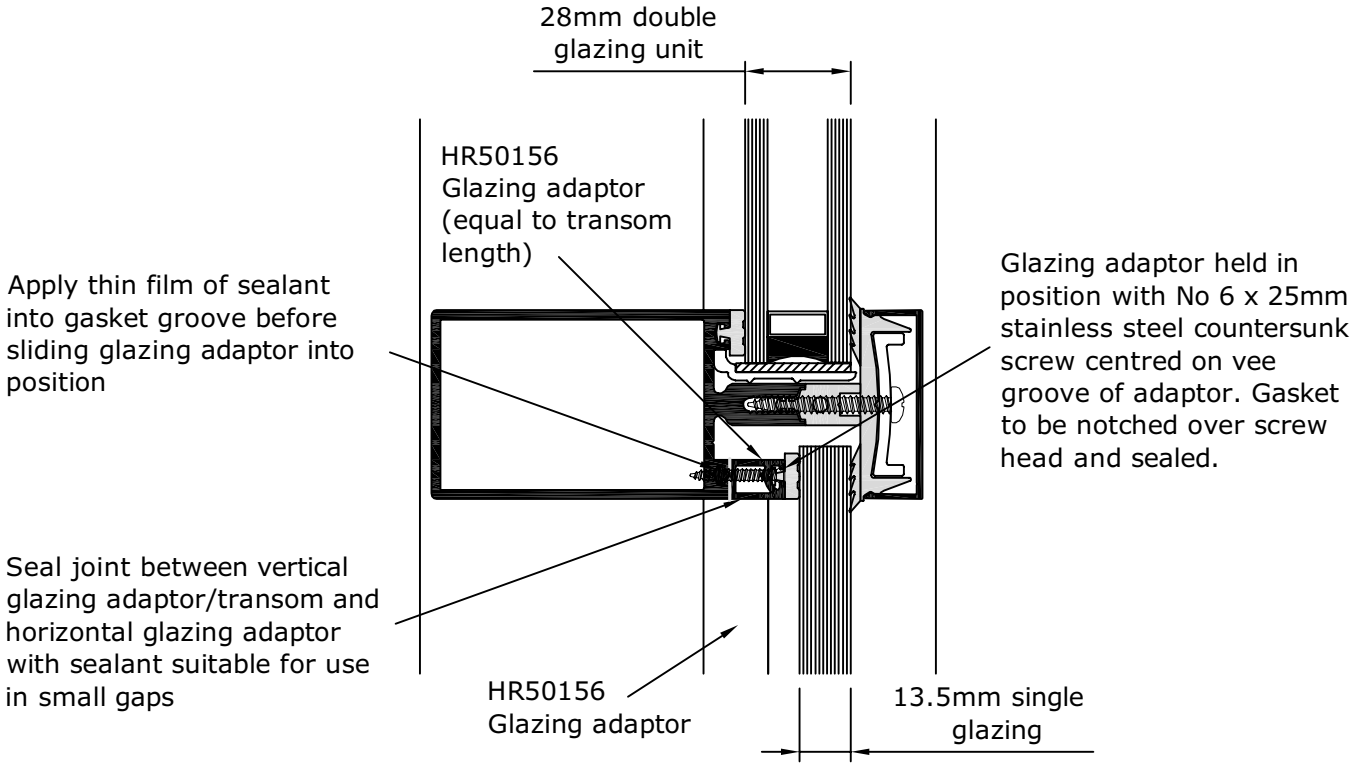
Adapts glazing rebate from 28mm to 13.5mm

System 17

50mm HIGH RISE
CURTAIN WALLING

Glazing Adaptor Bar Lengths :-
Horizontal = Mullion Centres - 21mm
Vertical = Transom Centres - 50mm
Ends to be cut square





Scale 1:2

Curtain Walling Inserts

System 17

50mm HIGH RISE
CURTAIN WALLING

The following products can be inserted within System 17 Curtain Walling:

System 4-20 Casement Window	Refer to System 4-20 Casement Window Manual
System 5-20 Tilt and Turn Window	Refer to System 5-20 Tilt and Turn Window Manual
System 5-20D Door	Refer to System 5-20D Door Manual
System 5-20TS Tilt and Slide Door	Refer to System 5-20TS Tilt and Slide Door Manual
System 7-20 Pivot Window	Refer to System 7-20 Pivot Window Manual
System 10 Commercial Door	Refer to System 10 Commercial Door Manual
Concealed Vents	Refer to System 17 Latitude Manual

Other products may also be inserted within this curtain walling system. Refer to Metal Technology's Technical Department for further information.

General Installation Information

System 17

50mm HIGH RISE
CURTAIN WALLING

Introduction

The following instructions are a general guideline and cover the most common curtain walling conditions. For further information, advice or assistance with project specific applications contact Metal Technology's Technical Department.

General Information

Curtain walling components are a finished product and must be protected against damage at all times. During handling metal should be packed in suitable stillages/racking with adequate separation to prevent bars from rubbing together. Materials should be stored clear of the ground and adequately protected from the elements and other construction trades. Where possible all curtain walling materials should be stored inside in a designated and protected area or in weather-proof containers provided specifically for that purpose.

All curtain walling sections should be adequately protected against minor scuffs and abrasions during installation. This can be achieved using a suitable low tack tape to all exposed finished surfaces of the frame. Low tack tape should be periodically renewed and should not remain on the profiles for more than six months from the date of application. (This period may vary depending on exposure, application and manufacturers instructions)

LOW TACK TAPE IS NOT A SUBSTITUTE FOR CAREFUL HANDLING.

Construction Guidelines

Before any curtain walling installation is undertaken Metal Technology recommend that the fabricator/installer familiarise themselves with the curtain walling system using the appropriate technical binders. The fabricator/installer should be capable of recognising all the constituent parts and understand the relationships of the various components.

The fabricator should ensure that all the relevant information necessary to install the product prior to comencement on site is available including, but not limited to:

- Up to date and relevant Technical Manuals
- Setting out drawings
- Approved working drawings
- Schedule of works
- Installation method statement
- All relevant Heath and Safety and COSHH information and documentation relating to the installation.
- All relevant Health and Safety risk assessment documentation.
- Information on Main Contractors Health and Safety and site induction requirements.
- Material delivery dockets
- Ensure that all necessary ancillary components required to complete the project have also been delivered to site (i.e. fixings, fasteners, brackets, flashings, sealants, backing rod, etc.)
- Where required, relevant certification (ie - relevant licenses, CSCS, and CWCT cards, etc.)

Site Establishment

1. Check site access for deliveries.
2. Ensure satisfactory storage area is available for tools, equipment and materials. Do not accept storage for materials or products where there is a risk of accidental damage.
3. Check scaffolding is safe and suitable for the erection of curtain walling.
4. Ensure power supply is in accordance with regulations.
5. Ensure operational procedures are fully understood.
6. Ensure compliance with Health and Safety Regulations.
7. Do not make assumptions. If in doubt ask for further clarification.
8. Ensure all queries are answered completely and satisfactorily. Do not accept substandard answers.

General Installation Information

System 17

50mm HIGH RISE
CURTAIN WALLING

Tools and Equipment

1. Check accuracy of tape measures, spirit levels and other equipment.
2. Ensure theodolite, laser levels, etc. have been checked and calibrated.
3. Ensure all power tools are in a satisfactory condition and of the correct type necessary for the job and in accordance with the relevant Health and Safety requirements. Ensure all equipment has been maintained in accordance with the manufacturers recommendations and that all maintenance and repairs have been undertaken by qualified personnel and have been logged/signed off accordingly.
4. Ensure all ladders and access equipment are in a satisfactory condition, in accordance with all Health and Safety requirements and have been certified/signed-off accordingly.
5. Ensure that any personnel responsible for operating equipment have been fully trained and are aware of the the relevant Health and Safety regulations.

Drawings and Technical Literature

1. Ensure all fabrication and installation manuals are current and up to date.
2. Ensure all drawings are up to date and in accordance with the drawing register.
3. Record the date on which the drawings and accompanying drawing register are received.
4. Do not accept drawings without a copy of the drawing register.
5. Ensure that method statements pertaining to the contract are provided and are kept close to hand.
6. Make sure the contract program is agreed and fully understood and that any penalties for exceeding contract deadlines are clearly defined.
7. Ensure lines of responsibility on site are clearly established.
8. Ensure all the relevant information necessary to complete the project satisfactorily is available and understood. If in doubt ask for clarification or additional information.

Delivery Notes

1. Ensure all deliveries are received with an accompanying delivery docket.
2. All deliveries should be checked off against the docket. Dockets should not be signed until they have been fully checked and agreed. Signing a delivery docket signifies agreement that the correct goods have been delivered in a satisfactory condition. Any inconsistencies between docket and actual delivery should be noted on the docket prior to signing. Record all damages and obtain written authority if proceeding with their installation.

Fabrication Quality

1. The installer should ensure that all products received on site are manufactured in accordance with Metal Technology's recommendations and guidelines.
2. The installer should ensure that all the information necessary to check the quality of fabrication is available.
3. Where an installer is unsure if fabrication is in accordance with Metal Technology's recommendations he should obtain further clarification or approval.
4. The installer should not install any substandard or damaged products/materials without the written approval/authority of the appropriate fabricator or subcontractor.

Setting Out

1. Check all contract and shop drawings, so that all aspects of the installation are understood.
2. Establish accurate position, line and level from established datums and bench marks in accordance with the contractors drawings.
3. Check all datums, bench marks and off-sets for dimensional accuracy and obtain a good understanding of how and why they were established prior to your involvement on site.
4. Identify who is responsible for providing the necessary datums, bench marks and off-sets. The curtain walling installer/subcontractor should only be responsible for the secondary setting-out of the curtain walling screens.
5. Establish responsibility for the decision-making process when problems, inaccuracies or variations from predetermined norms are encountered.

General Installation Information

Site Storage

1. Store all profiles/product above ground level in weather proof containers, and suitable stillages/racking with adequate separation and protection against accidental damage, etc.
2. Store glass on suitable 'A' frames within a weather proof container or within the building, ensuring it is not exposed to direct sunlight.
3. If glass is to be stored within the building ensure that the designated area is capable of accepting the proposed load, and obtain written authority to proceed.
4. Ensure that all glass is transported and stored in accordance with the GGF Glass Handling, Storage and Transportation Code of Practice.
5. Establish a clean, dry, secure and contaminant-free storage facility for all components, accessories, gaskets and sealants.
6. Where flammable or toxic materials are required on site ensure they are stored in accordance with the relevant Health and Safety and COSHH requirements.
7. All flammable materials must be made known to the site supervisor/manager and stored in designated fire-proof facilites.

Installation and Glazing

For installation and glazing refer to "Installation Procedure" sheets in this manual.

Care and Maintenance

1. Cement and plaster can damage the finish of this product if they are not removed promptly. Any such contaminants should be removed using a weak solution of mild detergent in water, and rinsed clean. Ensure detergent is compatible with surface finish.
2. Finished surface should be cleaned using a soft cloth or sponge, but nothing more abrasive than a natural bristle brush. Abrasive cleaners, solvents or other cleaning agents should not be used.
3. All finished sufaces require regular maintenance. This involves cleaning them down with a compatible mild solution of detergent in water at regular intervals or when the surfaces become soiled, and rinsed clean. For further information regarding maintenance and cleaning refer to Metal Technology's technical literature "Recommendations for Maintenance" - finishes, hardware and gaskets.

Additional Information

1. For additional information on window installation and glazing refer to BS6262, the "CWCT Standard for Systemised Building Envelopes", other relevant British and European Standards and/or Metal Technology's Technical Department.
2. Metal Technology recommends that window and curtain walling screens should be installed by experienced and qualified personnel, possessing either a recognised and relevant NVQ, or CWCT Window Installers qualification. All site operatives should be trained and qualified with regard to the relevant Health and Safety requirements for their applicable site operations and should possess a current and relevant CSCS card.

Installation Procedure

System 17

50mm HIGH RISE CURTAIN WALLING

1. Ensure the current and relevant contract drawings and literature, including a copy of this technical manual and any technical literature relevant to the structural fixings, etc are available on site.
2. Survey the structural opening and floor levels to ensure that they are the correct size, square and plumb, with sufficient clearance to accommodate any expansion, contraction, building movement and the joint width requirement for the applicable sealant.
3. Ensure that all brackets are fit for purpose. Confirm that the structure to which the curtain walling screen is to be fastened is sound and capable of adequately accepting the fixings and the subsequent loads transferred by them.
4. All aluminium should be isolated from direct contact with masonry, concrete and other incompatible materials by means of packing pieces, EPDM membranes, suitable paint or similar materials.
5. Use A2 - A4 austenitic stainless steel fixings when fastening to or fixing through aluminium unless fully and appropriately isolated from contact with the aluminium.
6. Avoid, where possible, fixing into wetted or drainage areas. Where this is unavoidable ensure appropriate precautions are taken, all penetrations are sealed, and only suitable materials are used.
7. Ensure the correct fixings are used in accordance with the contract information/specification. Ensure all fixings are installed in accordance with fixing manufacturers recommendations. Consideration should be given to length of fixing, fixing through non-load bearing materials, hole diameter, cleaning of hole, application of correct torque, and the position of the fixing in relation to the edge of the structure.
8. Ensure all DPC's, DPM's and vapour barriers are located correctly and are not punctured or damaged. Ensure all sealants, primers, cleaners, solvents etc. are compatible with any DPC's, DPM's or vapour barriers with which they may come in contact. Where these are required to be glazed into the curtain wall system ensure that they are of suitable length, in accordance with the contract drawings.
9. Ensure the correct gaskets are available for all applications and that they are kept clean and free from all imperfections, damage, grease and other contaminants.
10. Using the appropriate surveying equipment mark out the level and positions for the fixing brackets as indicated on the contract drawings.
11. Temporarily fix any intermediate brackets to the structure, allowing sufficient movement/tolerance to accommodate the final adjustment and positioning of the curtain wall screen.
12. Insert appropriate "spigot and plate" brackets into the heads and cills of the mullions.
13. The following should be read in conjunction with the relevant sheets of the fabrication manual

a) STICK-BUILT ASSEMBLY: EXTRUDED CLEATS

- Ensure mullions are pre-prepped, including transom fixing holes and that extruded transom cleats are factory fitted.
- Ensure transom ends are notched and prepped, and that, where required, the HR50176 EPDM membrane carrier has been fitted.
- Apply transom end seals as required.
- Starting from one end, install first mullion and temporarily fix to structure by suitable means.
- Slide transoms onto extruded cleats and secure to mullion using No 8 x 16mm pan head stainless steel self tapping screws through fixing holes in transom.
- Offer up the next mullion, ensuring that the previously installed transoms locate over the factory fitted extruded cleats, and secure transom to mullion using No 8 x 16mm pan head stainless steel self tapping screws through fixing holes in transom.
- Apply next set of transoms and repeat along length of screen.
- Ensure sufficient clearance at end of run to locate final mullion.

b) STICK-BUILT ASSEMBLY: SPRING-LOADED CLEATS

- Ensure mullions are pre-prepped, including holes to accommodate spring loaded cleat locating pins.
- Ensure transom ends are notched and prepped, and that, where required, the HR50176 EPDM membrane carrier has been fitted.
- Ensure spring loaded cleats are factory fitted to transom ends.
- Apply transom end seals as required.
- Using suitable means temporarily fix to structure two adjacent mullions at the required centres.
- Offer up transom from front face, locating spring loaded transom cleat pin into mullion holes, and secure to mullion using No 8 x 16mm pan head stainless steel self tap screws through transom fixing holes.
- Apply next mullion and repeat where applicable.

c) STICK-BUILT ASSEMBLY: UNCLEATED

- Ensure mullions are pre-prepped, including transom fixing holes.
- Ensure transom ends are notched and prepped, and that, where required, the HR50176 EPDM membrane carrier has been fitted.
- Apply transom end seals as required.
- Using suitable means temporarily fix to structure two adjacent mullions at the required centres.
- Offer up transom from front face, and secure to mullion using No 8 x 16mm pan head stainless steel self tap screws through transom fixing holes.
- Apply next mullion and repeat where applicable.

14. Fix water deflectors and expansion sleeves as required, and continue with next level.
15. A tourniquet should be used to ensure all transom to mullion joints are closed evenly. The tourniquet should be tightened from the interior side of the curtain wall screen to ensure that the back of the mullions are pulled onto the transoms. Check and adjust curtain wall screen to ensure all members are plumb, square, level and aligned.
16. Site drill bracket fixings as required. Securely fix curtain wall screen in position, adjusting and tightening all fixings in strict accordance with the manufacturers recommendations.
17. When screen has been fully installed, check plumb, square, level and alignment, and adjust accordingly before final fixing.

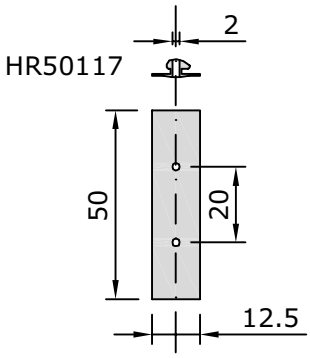
Transom End Seal Application

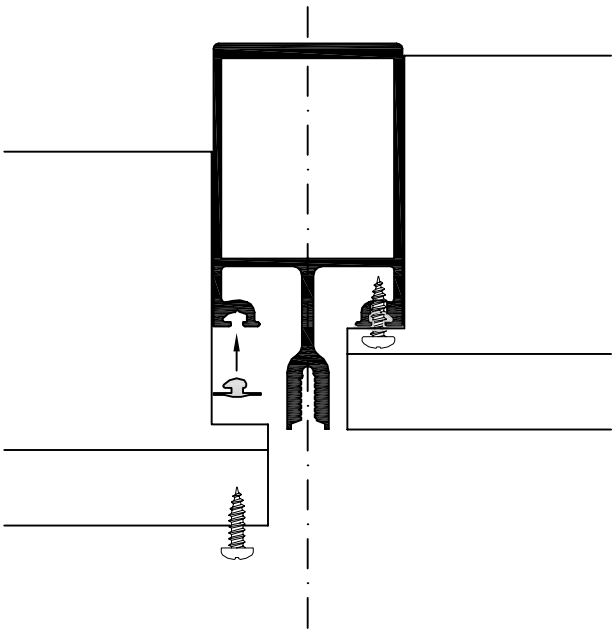
System 17

50mm HIGH RISE
CURTAIN WALLING

Application of HR50117 EPDM transom end seal:

- Prep mullion and transom as per standard details.
- Push moulded EPDM gasket HR50117 into mullion gasket groove ensuring gasket foot engages correctly, is correctly orientated and that the holes within the gasket align with the pilot holes in the mullion.
- Offer transom into position (over transom cleat as required).
- Secure transom to mullion using No 8 x 16mm stainless steel pan head self tapping screws (as per standard application).





Scale 1:2

HR50113 Expansion Sleeve Detail

(Sold as a set with water deflector)

System 17

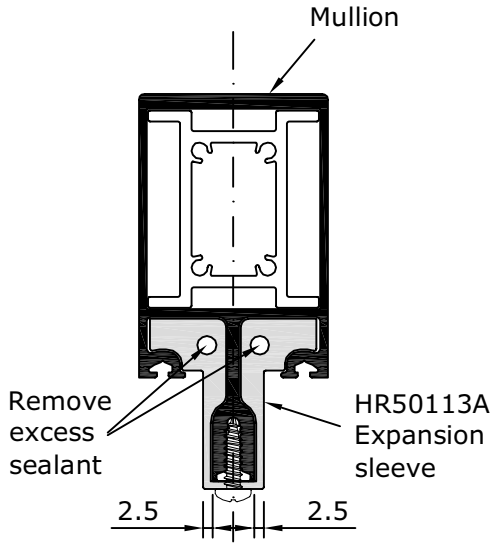
50mm HIGH RISE CURTAIN WALLING

Not suitable for use with screens façetted over 5°
Metal Technology recommends that the joints in pressure plates occur above the water deflector and that joints in cover caps occur below the expansion joint.

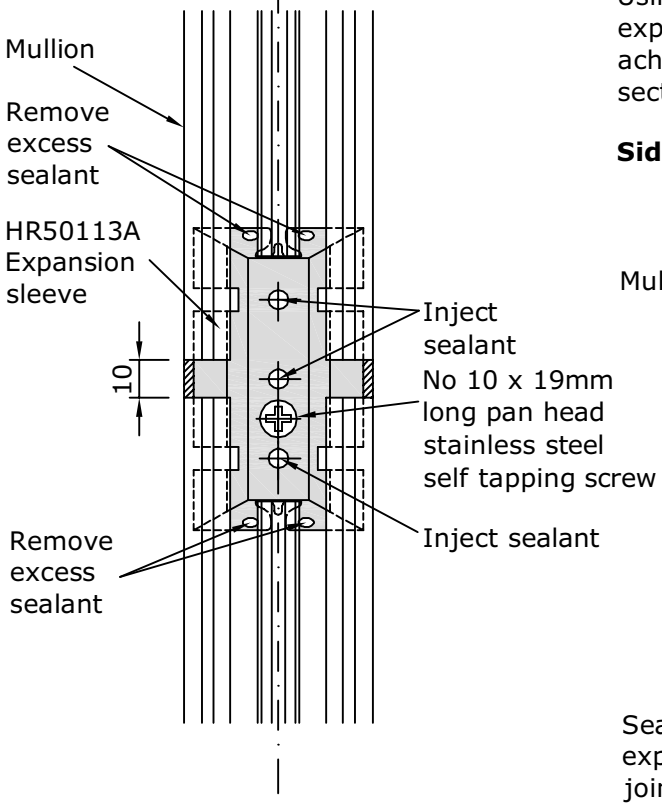
The HR50113A expansion sleeve has been designed to slide into position within the mullion section and is located, prior to sealing, using a No 10 x 19mm self tapping screw as indicated. An expansion joint should be located between two transoms, adjacent to a structural fixing point. All expansion joints should be designed and approved by a qualified Structural Engineer prior to application on site.

Slide the HR50113A expansion sleeve into the lower mullion section prior to positioning the mullions on site. Ensure it sits below the end of the mullion to prevent damage while manoeuvring mullions into position.

Horizontal Section



Front Elevation



Locate mullions over jointing spigot and lower into position to obtain the desired expansion gap (i.e. 10mm)

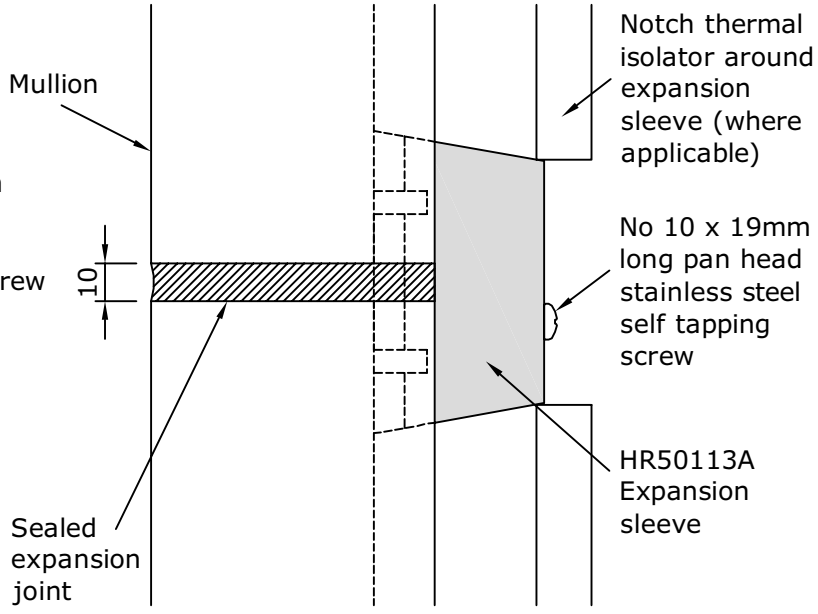
Slide the HR50113A expansion sleeve up over the expansion gap in order that the central injection hole aligns with the middle of the expansion gap.

Secure the HR50113A expansion sleeve to the 'fixed' mullion using a No 10 x 19mm pan head stainless steel self tapping screw.

Insert thermal isolator into nose of mullion. Inject silicone sealant into the injection holes as indicated. Check to ensure sealant has fully sealed cavities within the joint sleeve. This can be observed by using a black silicone which is then visible through the white joint sleeve. Excess sealant will become evident at the junctions with the sides of the profile. DO NOT overfill joint sleeve as back pressure will cause sealant to be forced back out of the injection holes after the nozzle is removed.

Using suitable non gassing, closed cell backing rod point the expansion gap between the mullions with a suitable sealant to achieve expansion seal to the full perimeter of mullion sections.

Side Elevation



Scale 1:2

HR50113 Water Deflector Detail

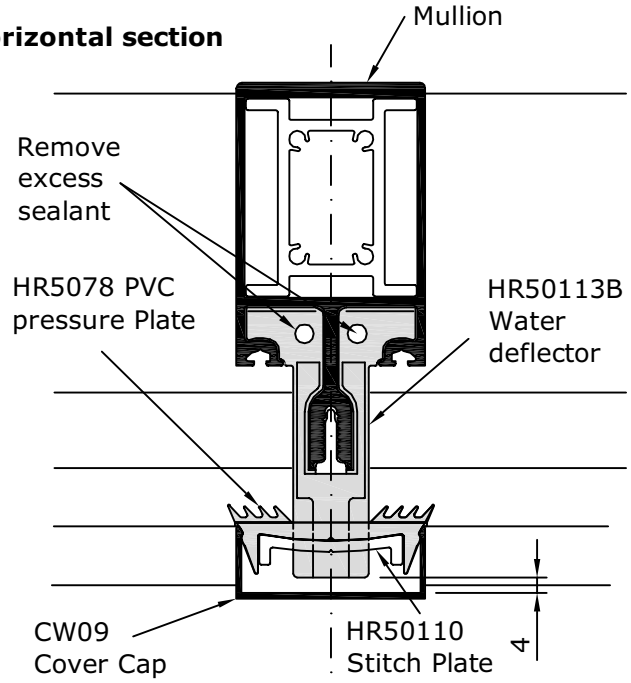
(Sold as a set with expansion sleeve)

Not suitable for use with screens façetted over 5°
Metal Technology recommends that the joints in pressure plates occur above the water deflector and that joints in cover caps occur below the expansion joint.

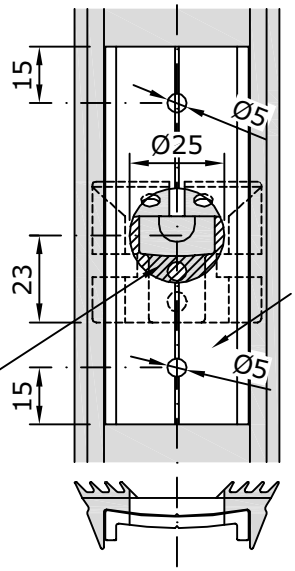
System 17

50mm HIGH RISE CURTAIN WALLING

Horizontal section



Pressure plate prep



The HR50113B water deflector is designed to be used in conjunction with the HR50113A expansion sleeve in pressure plate applications only. It should be positioned at the transom to mullion intersection immediately above an expansion joint.

HR50113B has been designed for use with 28mm and 32mm glazing, using either aluminium or co-extruded pressure plates. For other unit thicknesses please contact Metal Technology's Technical Department.

The HR50113B should be used in conjunction with the HR50113A expansion sleeve.

Slide the HR50113B water deflector into position prior to fixing transoms. Align bottom edge of water deflector with bottom edge of transom. This will ensure the transom fixing screws align with the grooves within the water deflector, preventing damage.

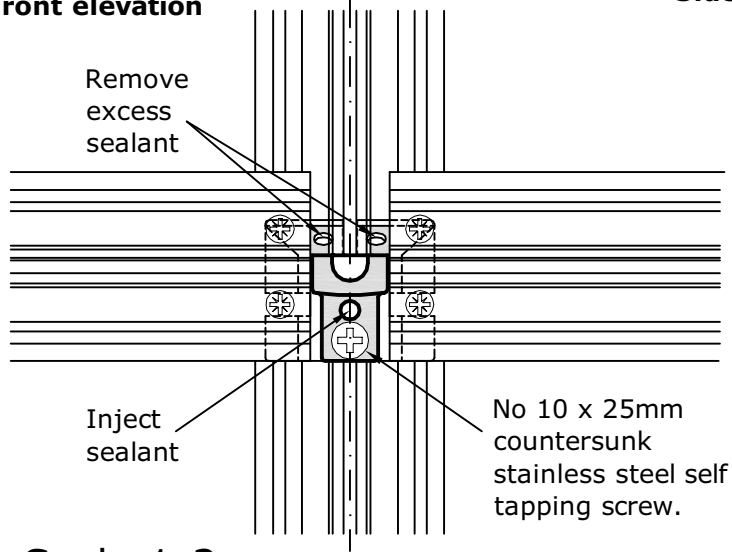
Fix HR50113B water deflector into position using No 10 x 25mm countersunk screw as indicated.

Insert thermal isolator into nose of mullion.

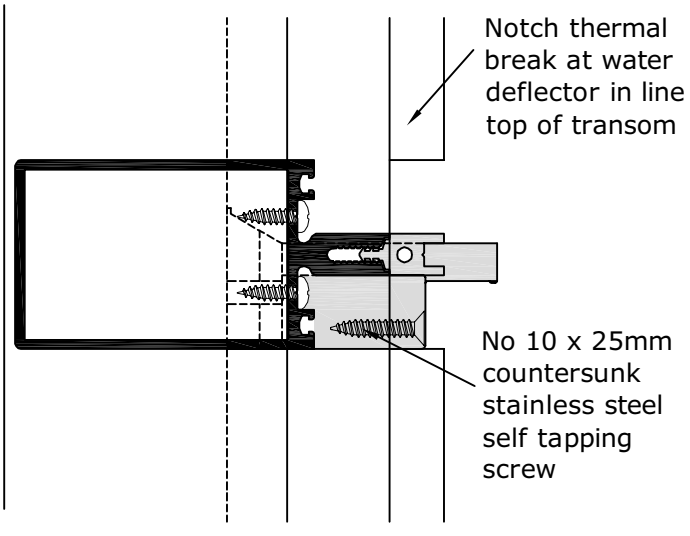
Fix transoms into position ensuring the transom screwport and thermal isolator are sealed against the side of the water deflector.

Inject silicone sealant into the injection holes as indicated. Check to ensure the sealant has fully sealed the cavities within the water deflector. This can be observed by using a black silicone which is then visible through the water deflector. Excess sealant will become evident at the junctions with the sides of the profile. DO NOT overfill the water deflector as back pressure will cause excess sealant to be forced back out the injection holes after the nozzle has been removed.

Front elevation



Side Elevation



Scale 1:2

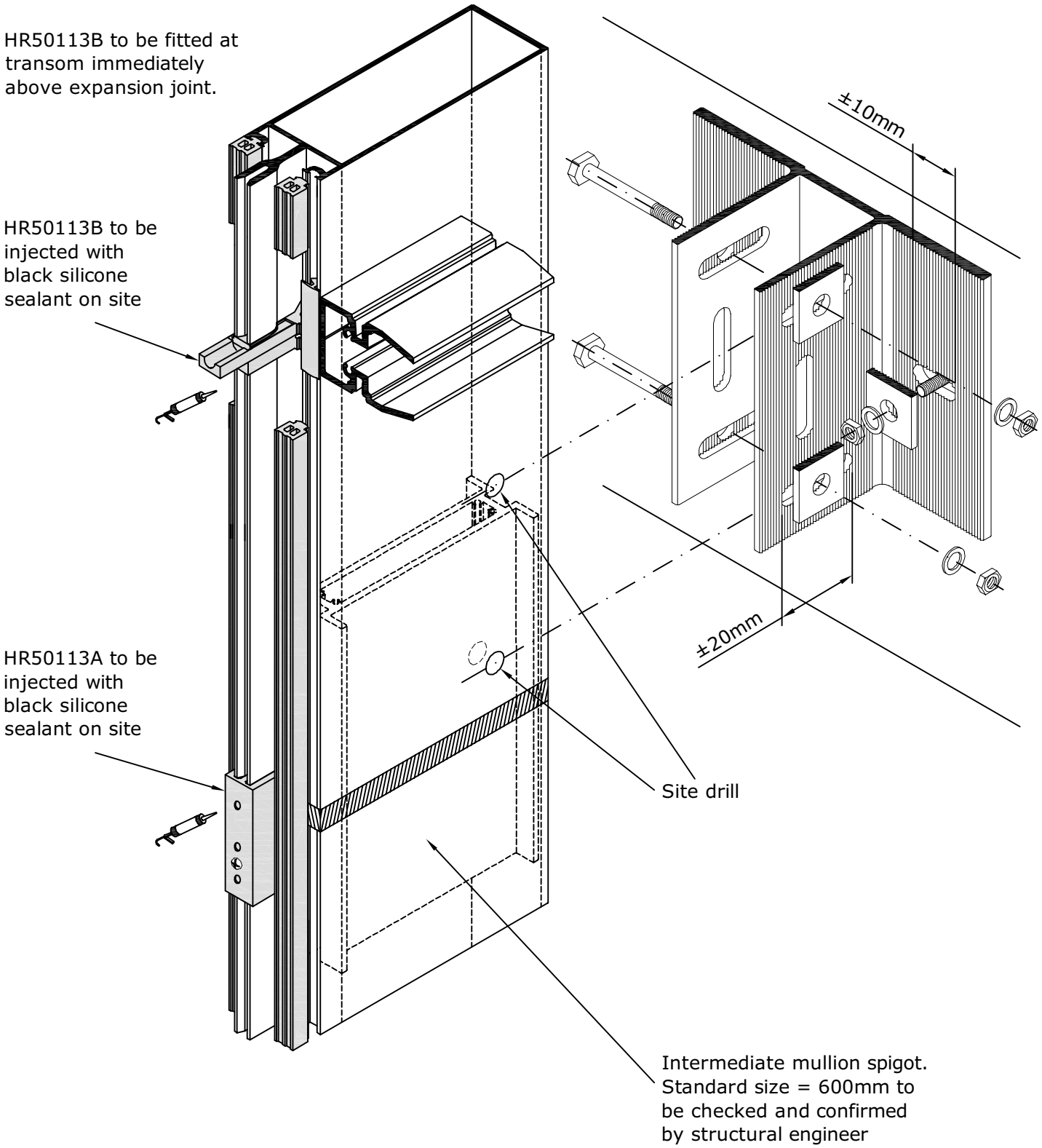
Expansion Joint Assembly Detail

With dead loading bracket assembly

System 17

50mm HIGH RISE
CURTAIN WALLING

All sections, spigots, brackets and fixings to be sized by a structural engineer to suit site conditions.



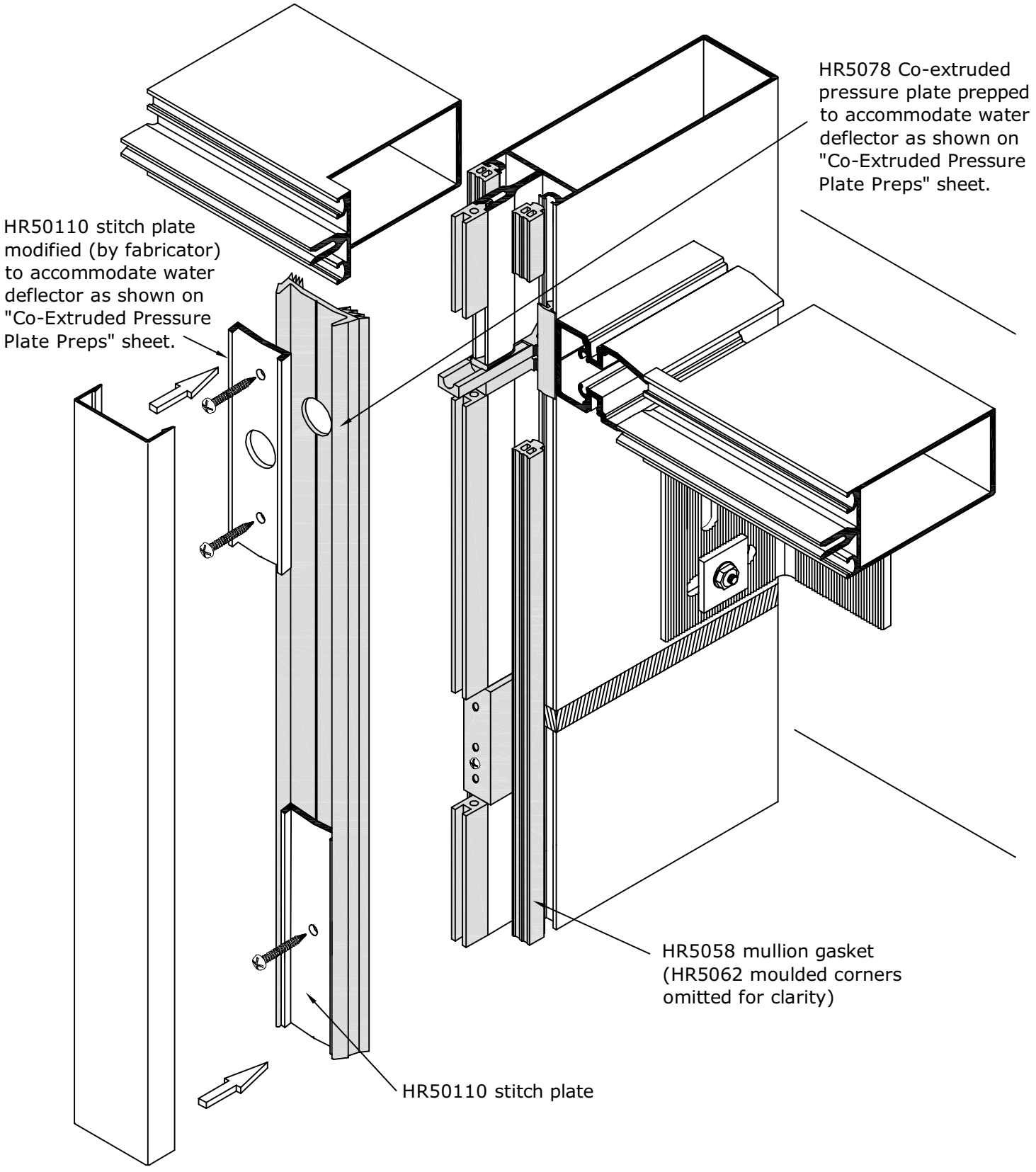
Not to scale

Expansion Joint Assembly Detail

Transom, Pressure Plate, and Cover Cap Installation

System 17

50mm HIGH RISE CURTAIN WALLING



Not to scale

Butt Joint Assembly Detail

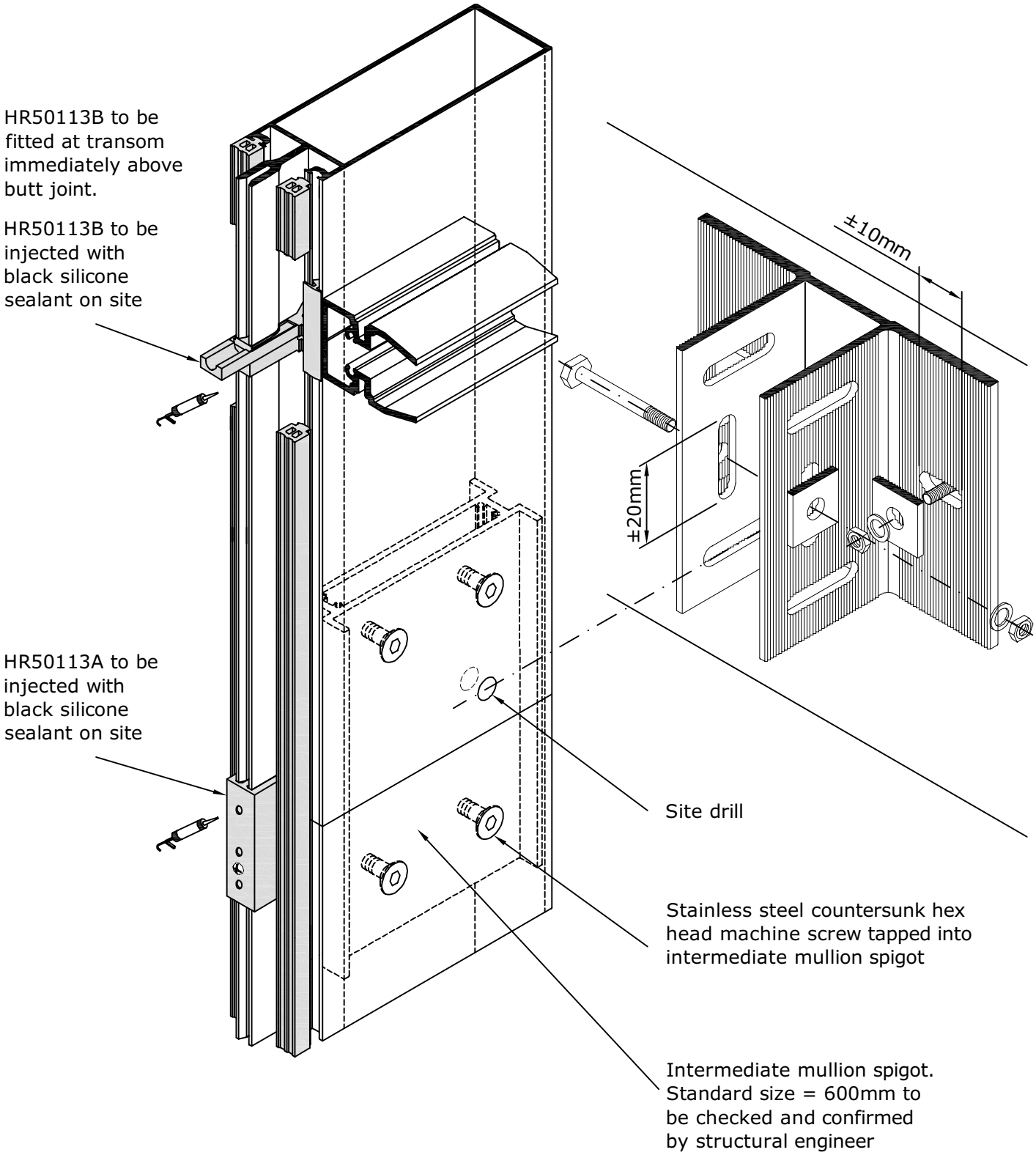
With intermediate tie back bracket assembly

System 17

50mm HIGH RISE
CURTAIN WALLING

All sections, spigots, brackets and fixings to be sized by a structural engineer to suit site conditions.

When applying this detail the fabricator should design his screen such that the accumulated expansion, contraction and building movement can be accommodated at the head interface. All dead load will normally be transferred to the base of screen. This detail is only suitable for screens of a limited height (approx. 12m subject to the approval of a structural engineer).



Not to scale

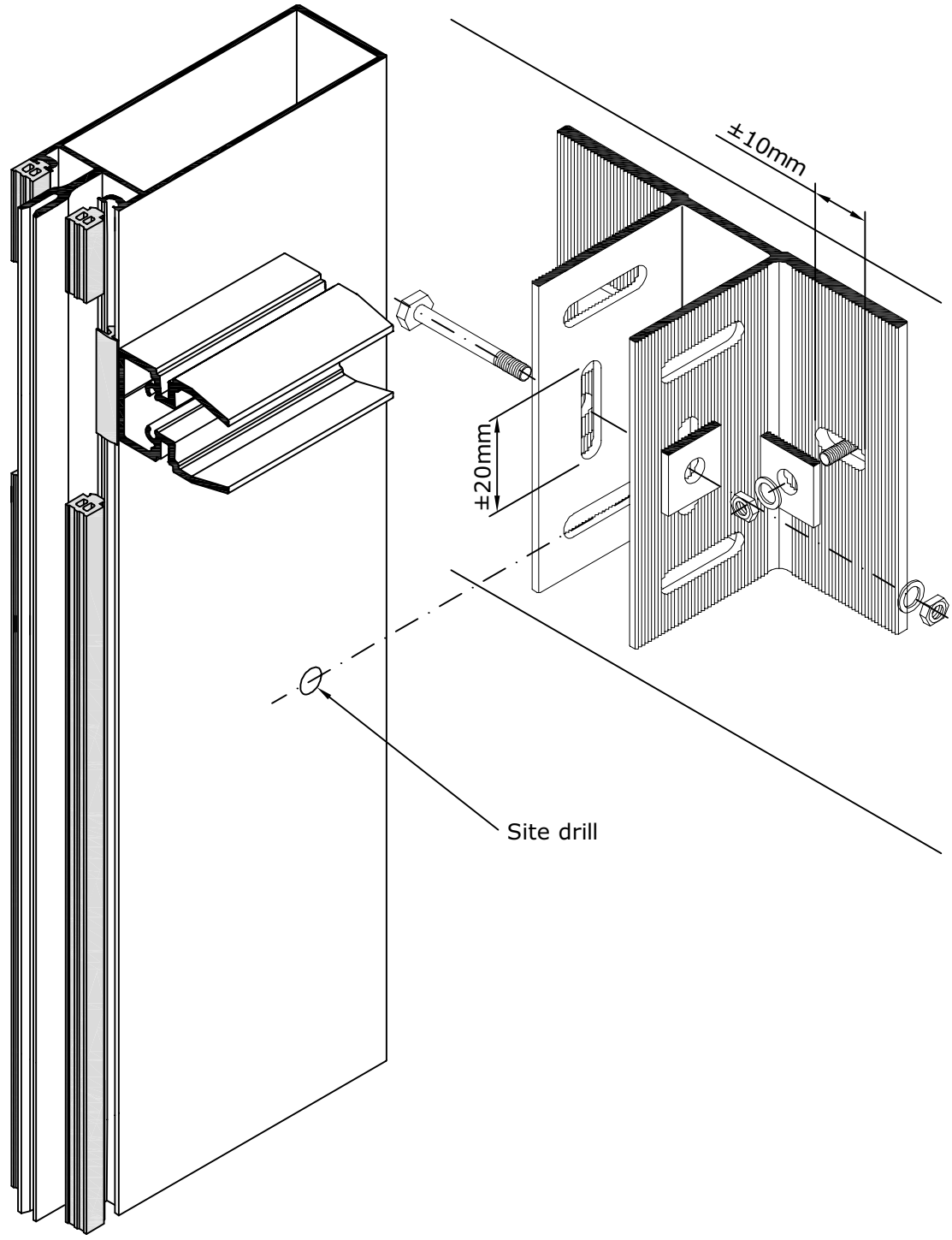
Intermediate Expansion Assembly Detail

With tie back bracket assembly

System 17

50mm HIGH RISE
CURTAIN WALLING

All sections, spigots, brackets and fixings to be sized by a structural engineer to suit site conditions.



Not to scale

HR5065 Water Deflector Detail

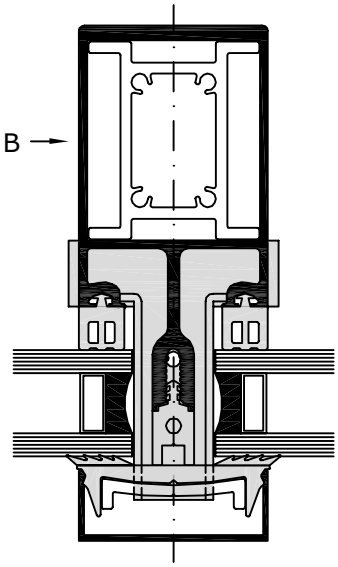
System 17

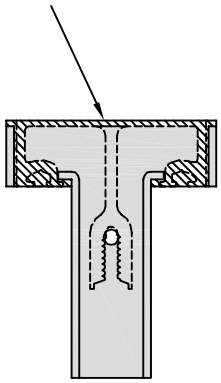
50mm HIGH RISE CURTAIN WALLING

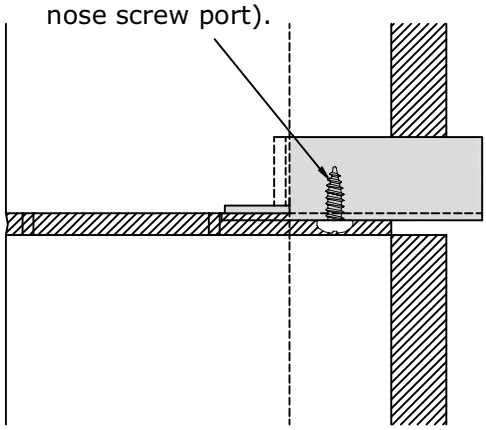
HR5065 is suitable for use with 24mm and 28mm glazing only, using either aluminium or co-extruded pressure plates. For other unit thicknesses please contact Metal Technology's Technical Department.

The HR5065 has been designed to be fitted and sealed to the underside of the upper mullion at an expansion joint in pressure plate situations only. The expansion joint should be located between two transoms adjacent to a structural fixing point. All expansion joints should be designed and approved by a qualified structural engineer prior to application on site.
Apply sealant to the underside of the drainage zone of the upper mullion. Fix HR5065 water deflector using No 10 x 12mm pan head stainless steel self tapping screw.
Locate mullions over jointing spigot and lower into position to obtain required expansion gap (ie 10mm).
Using suitable non gassing closed cell backing rod point to achieve expansion seal to the full perimeter of mullion sections.
Metal Technology recommends that the joints in pressure plates occur above the water deflector and that joints in cover caps occur below the expansion joint.

HR5065 water deflector at vertical mullion joints



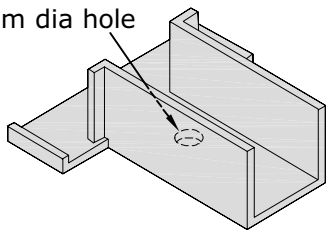




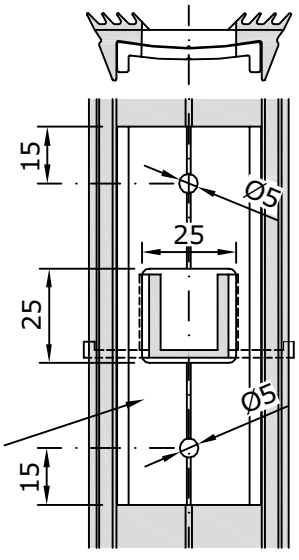
View on arrow 'B' (mullion cap, pressure plate and isolator omitted for clarity).

Isometric view of water deflector

Water deflector channels water from drainage groove in mullion profile to void between cover cap and pressure plate.



Stitch plate modified with 1No x 25mm square hole centrally and 2No x 5mm diameter holes as indicted



View on arrow 'A' (mullion cap, pressure plate and isolator omitted for clarity).

View on arrow 'A' illustrating prep to the pressure plate and stitch plate

Scale 1:2

Glazing Procedure

System 17

50mm HIGH RISE
CURTAIN WALLING

1. Clean gasket races and mounting surfaces. Ensure glazing cavity is clean and free from debris and swarf.
2. Check that the gaskets are clean and in a relaxed condition. If gaskets have been stretched they should be left for a sufficient period to allow them to return to their natural state. Where gaskets are found to be short they should be replaced with ones that are cut 1-3% oversized, and compacted in place.
3. Push fit internal gaskets into mullions and transoms. If required, insert vulcanised corners. If the gaskets show visible imperfections, such as cuts or abrasions, they should be changed.
4. Using suitable sealant seal all gasket to gasket joints as required.
5. If not already applied in the factory, insert the appropriate push-in thermal isolator.
6. Insert glazing supports and setting blocks in accordance with "Glazing Support" sheet and BS 6262.
7. Clean the perimeter of the glass and check for any imperfections and/or damage.
8. Insert the glass, panels or inserts and centralise within the frame. Check perimeter details on contract drawings and insert DPC's/DPM's, perimeter infils/closer channels and flashings, as required. When inserting other Metal Technology products refer to the relevant system literature.
9. Glass, panels, infils and perimeter details may be temporarily held in position using 100mm cuttings of pressure plate and gasket at approximately 600mm centres. Units held in position using temporary pressure plates should not be left unattended on site or used during inclement, exposed or windy conditions.
10. When using co-extruded pressure plate apply HR5064 foil-backed sealant tape where required in accordance with "Transom Junction Detail" sheet.
11. Apply HR5064 foil-backed sealant tape at all vertical pressure plate joints in accordance with "Vertical Pressure Plate Joint Details" sheet.
12. If using foil-backed sealant tape throughout the screen apply as detailed on "HR5064 Foil-Backed Sealant Tape" sheet.
13. When using aluminium pressure plate, insert external gaskets. Once the gasket has been pulled into position allow it to relax to its natural state, and cut 1-3% oversized as required, to be compressed into position to accommodate shrinkage.
14. Use the correct austenitic stainless steel screws at the specified centres and apply full lengths of the prepped pressure plate to mullions, removing temporary pressure plates as you go. When using Metal Technology's co-extruded thermal pressure plate, stitch plates (HR50110) must be used in conjunction with the pressure plate screws. Repeat with transoms.
15. Set torque for pressure plate screws to 3.5Nm. Torque settings should be determined by inserting a screw using a calibrated manual torque wrench. Once the torque has been set with a manual wrench adjust the setting on your drill to match. Do not set torque using predetermined settings on drill. Regularly check torque using calibrated manual wrench and re-adjust drill settings accordingly. Once torque has been checked mark screws with paint and do not re-check. Screws will relax; constantly checking and tightening the torque will damage them or cause them to shear.
16. Once correct torque has been applied ensure that the pressure plate and gaskets force the glass onto the internal gasket and are not loose.
17. Ensure that there are no gaps at the gasket corners. Seal joints between pressure plates and gaskets, using a suitable black sealant.
18. Apply a suitable seal/sealant to the perimeter of the frame as per the contract drawings and in accordance with sealant manufacturers recommendations and instructions. Locally remove any 'low tack' tape which may interfere with the application of the sealant or damage it if removed at a later stage. Tool sealant to achieve acceptable finish and ensure correct adhesion.
19. Apply snap-on cover caps to mullions. Cover caps are a tight fit and may require 'tapping' into postion using a rubber mallet or a block of wood to protect the paint finish. Repeat with transom cover caps. Cover caps should fit squarely onto the pressure plates and meet at right angles to each other at the mullion/transom cruciforms. Avoid using excessive force which may cause the cover caps to over-engage and sit at an angle.

Glazing Requirements

System 17

50mm HIGH RISE CURTAIN WALLING

The torque for the pressure plate screws should be 3.5Nm.
All screws to be number 10 type AB pan head pozidrive austenitic stainless steel self tapping DIN 7981, grade A2 or A4 class 70. Where noted * type B screws must be used.
If glazing thickness is not listed below it currently is not achievable using existing components. The following glazing combinations are not applicable for use with façetted mullion adaptors. Refer to Metal Technology's Technical Department for further details.

 # Screws indicated thus to be countersunk head
**** Deflectors indicated thus may require their nose to be trimmed back subject to cover cap used.**
† Notch nose of transom in accordance with "Transom Prep for Single Glazing" sheet.

GLAZING OPTIONS
(using aluminium pressure plate)

Thickness (mm)	Inner Gaskets	Outer Gasket	Thermal Break	Glazing Adaptor	Pressure Plate	Glazing Support	Screw Length (mm)	Foil-Backed Sealant Tape HR5064	Water deflector/ expansion sleeve	
									HR50113	HR5065
4†	HR5057/8	CW11	NONE	NONE	HR5029	BY FABRICATOR	19	Optional	N/A	Yes**
6†	HR5057/8	CW12	NONE	NONE	HR5029	BY FABRICATOR	19	Optional	N/A	Yes**
8†	HR5057/8	CW11	NONE	NONE	CW04	BY FABRICATOR	19	Required	Yes**	Yes**
10†	HR5057/8	CW12	NONE	NONE	CW04	BY FABRICATOR	19	Required	Yes**	Yes**
12	HR5057/8	CW12	HR50120	HR50116	CW04	BY FABRICATOR	38	Required	Yes**	Yes**
14	HR5057/8	CW11	HR50122	NONE	HR5029	BY FABRICATOR	25*	Optional	Yes**	Yes**
16	HR5057/8	CW12	HR50122	NONE	HR5029	BY FABRICATOR	25*	Optional	Yes**	Yes**
18	HR5057/8	CW11	HR50122	NONE	CW04	BY FABRICATOR	25*	Optional	Yes**	Yes**
20	HR5057/8	CW12	HR50122	NONE	CW04	BY FABRICATOR	25*	Optional	Yes**	Yes**
22	HR5057/8	CW11	HR5033	NONE	CW04	BY FABRICATOR	32	Optional	Yes**	Yes
24	HR5057/8	CW12	HR5033	NONE	CW04	BY FABRICATOR	32	Optional	Yes**	Yes
26	HR5057/8	CW11	HR50120	NONE	CW04	HR50104	38	Optional	Yes**	Yes
28	HR5057/8	CW12	HR50120	NONE	CW04	HR50104	38	Optional	Yes	Yes
32	HR5057/8	CW12	HR50208	NONE	CW04	HR50104	38	Optional	Yes	N/A
34	HR5057/8	CW12	HR5034	NONE	CW04	HR50106	45	Optional	Yes	N/A

GLAZING OPTIONS
(using co-extruded pressure plate)

Thickness (mm)	Inner Gaskets	Outer Gasket	Thermal Break	Glazing Adaptor	Pressure Plate	Glazing Support	Screw Length (mm)	Foil-Backed Sealant Tape HR5064	Water deflector/ expansion sleeve	
									HR50113	HR5065
6	HR5057/8	NONE	HR50122	HR50116	HR5078	BY FABRICATOR	32	Optional	N/A	Yes**
10	HR5057/8	NONE	HR5033	HR50116	HR5078	BY FABRICATOR	38	Optional	Yes**	Yes**
10.8	HR5057/8	NONE	HR5033	HR50116	HR5078	BY FABRICATOR	38	Optional	Yes**	Yes**
11.5	HR5057/8	NONE	HR5033	HR50116	HR5078	BY FABRICATOR	38	Optional	Yes**	Yes**
24	HR5057/8	NONE	HR50122	NONE	HR5078	BY FABRICATOR	32	Optional	Yes**	Yes
28	HR5057/8	NONE	HR5033	NONE	HR5078	HR50104	38	Optional	Yes**	Yes
32	HR5057/8	NONE	HR50120	NONE	HR5078	HR50104	38	Optional	Yes	N/A
38	HR5057/8	NONE	HR5034	NONE	HR5078	HR50106	45*	Optional	N/A	N/A

ROOF APPLICATIONS

Thickness (mm)	Inner Gaskets	Outer Gasket	Thermal Break	Glazing Adaptor	Pressure Plate	Glazing Support	Screw Length (mm)	Foil-Backed Sealant Tape HR5064
24mm Sloped	HR5057/8	HR5057 and CW12	HR5033	NONE	HR5035	BY FABRICATOR	32#	Required
28mm Sloped	HR5057/8	HR5057 and HR5059	HR50120	NONE	HR5036	HR50104	38#	Required

Internal Gasket Details

System 17

50mm HIGH RISE
CURTAIN WALLING

Internal Glazing Gasket Options

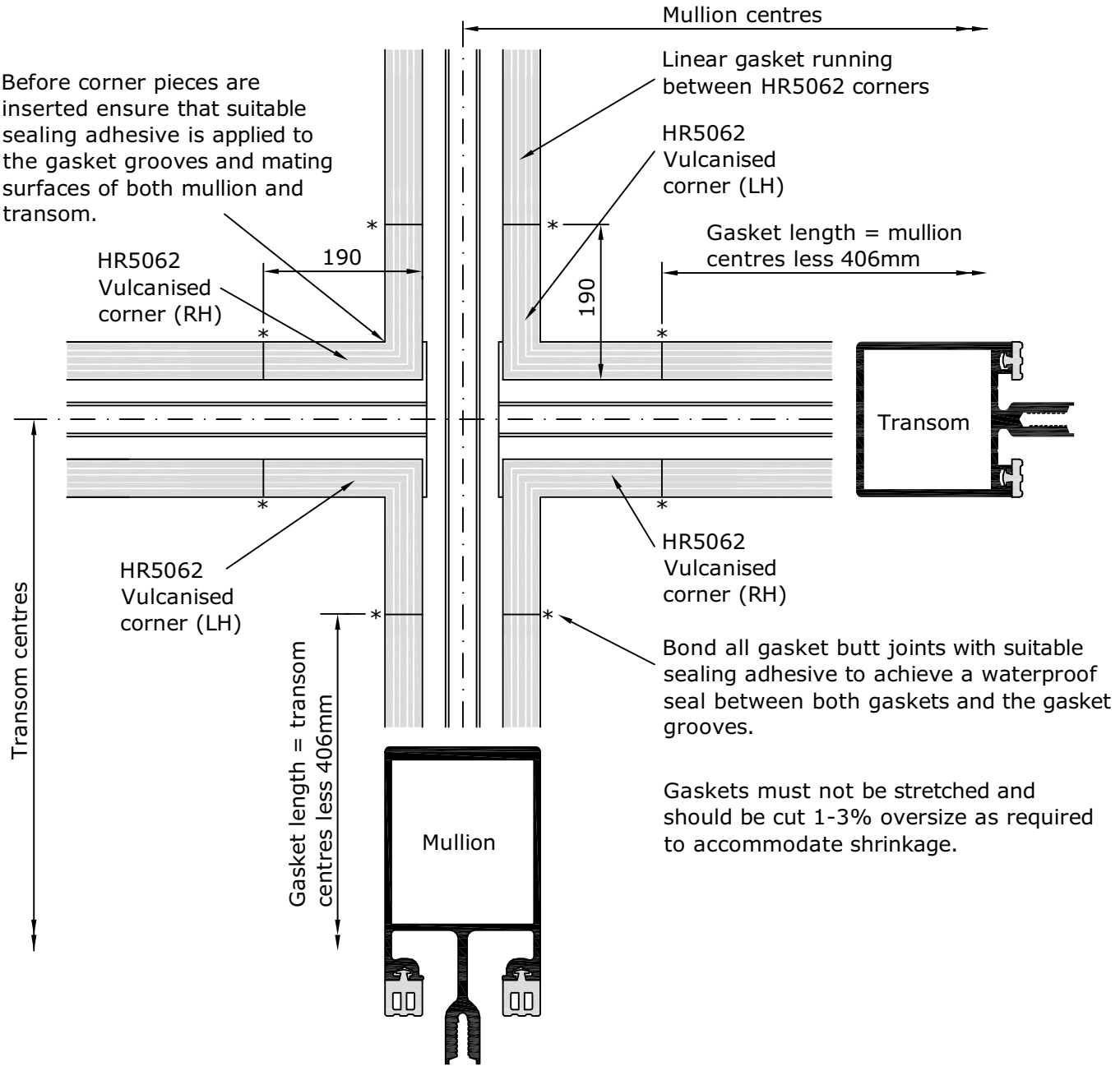
There are three methods available for the internal glazing gasket.

1. For the best level of performance a pre-formed "Picture frame" gasket should be used. Refer to Metal Technology's Technical Department for further details.
2. Alternatively vulcanised corners (HR5062) can be fitted with lengths of gasket running between, as detailed below.
3. Alternatively lengths of gasket may be butt jointed and sealed at the corners of the frame as shown on sheet "Internal Gasket Details - Butt joint corners".

Methods 2 and 3 rely heavily on a good quality of workmanship and therefore method 1 is to be recommended where possible.

Vulcanised Corners

HR5062: Unit = Pair



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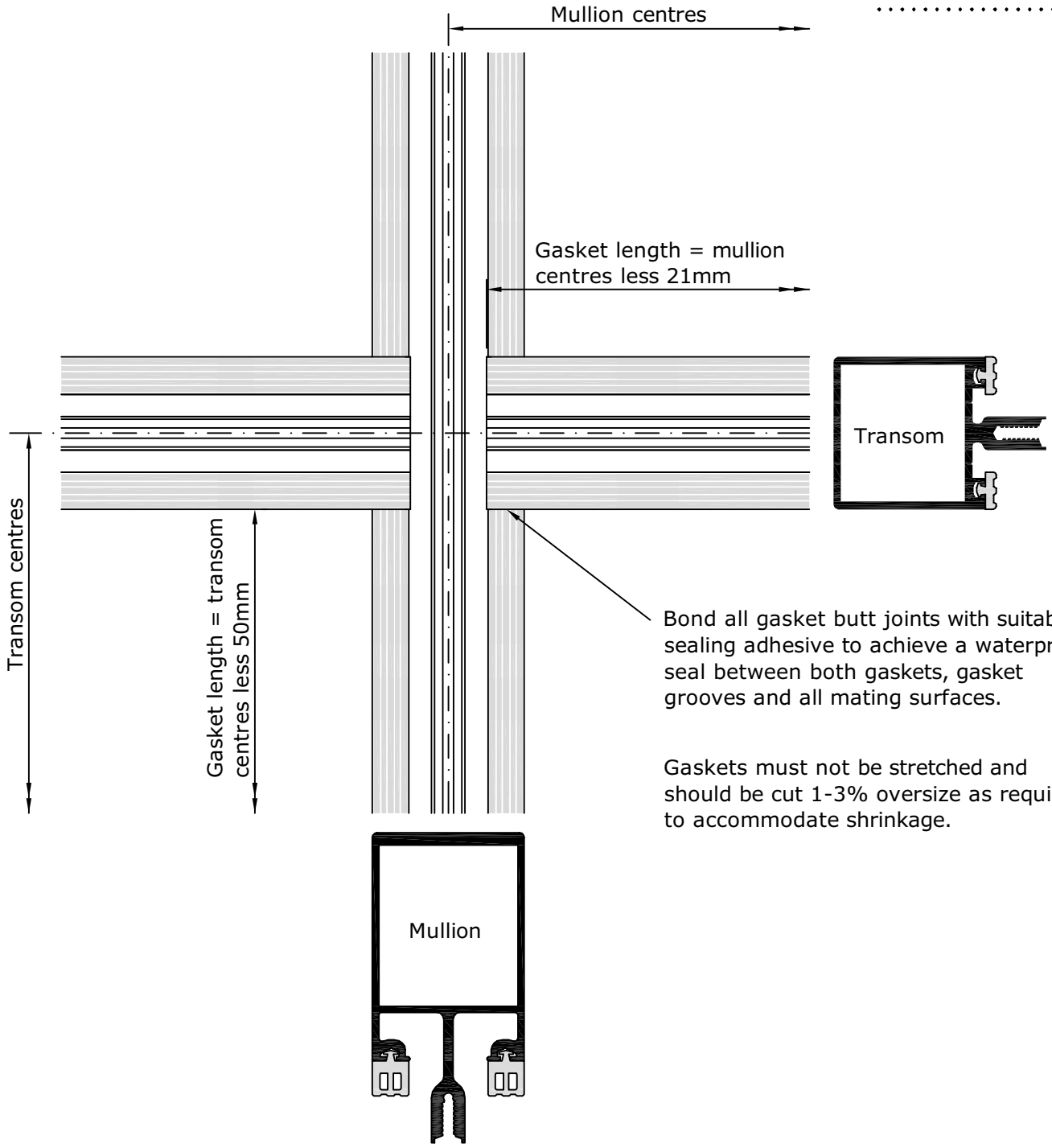
Internal Gasket Details

Butt Jointed Corners

System 17

50mm HIGH RISE
CURTAIN WALLING



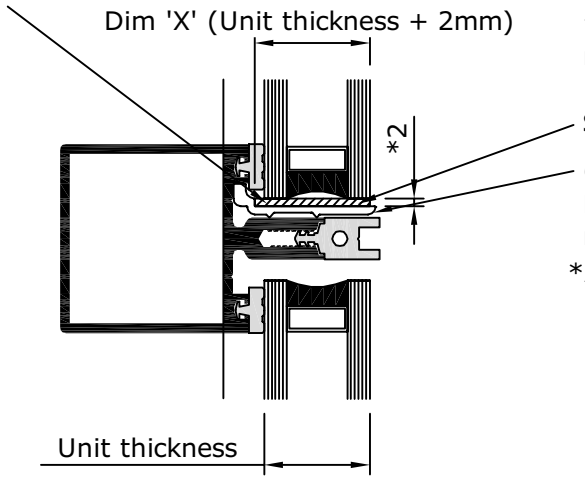
Bond all gasket butt joints with suitable sealing adhesive to achieve a waterproof seal between both gaskets, gasket grooves and all mating surfaces.

Gaskets must not be stretched and should be cut 1-3% oversize as required to accommodate shrinkage.

Scale 1:2

Glazing Support

The following glazing support detail assumes a maximum unit size of 4m². Where units exceed this, please refer to Metal Technology's Technical Department.



All glazing to be carried out in accordance with BS6262 and CWCT recommendations. Refer to "Glazing Requirements" sheet for glazing support details. When glazing up to 24mm the units must be located directly on to 'bridging' setting blocks (by fabricator) to facilitate drainage, bearing directly on the nose of the transom.

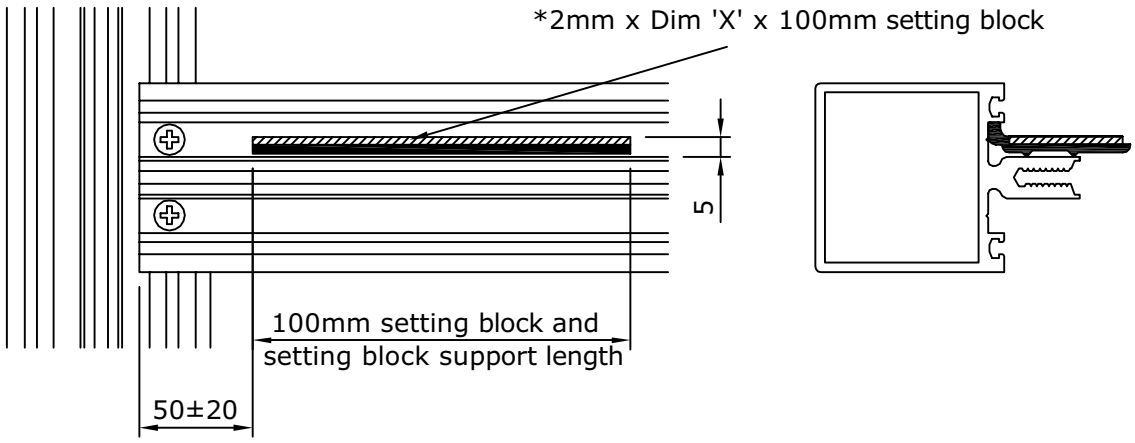
Suitable pvc setting block

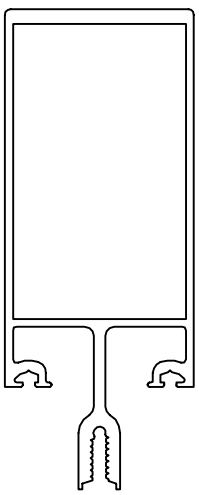
Glazing support - Refer to "Glazing Requirements" sheet for glazing support required.

*Additional pvc setting block by window installer. Approximate thickness 2mm, adjusted to suit glass tolerance.

On long transom spans the position of the setting block/glazing support will affect the deflection of the transom. This must be checked to ensure deflection does not exceed 3mm at mid point.

*2mm x Dim 'X' x 100mm setting block





Scale 1:2

Transom Junction Detail

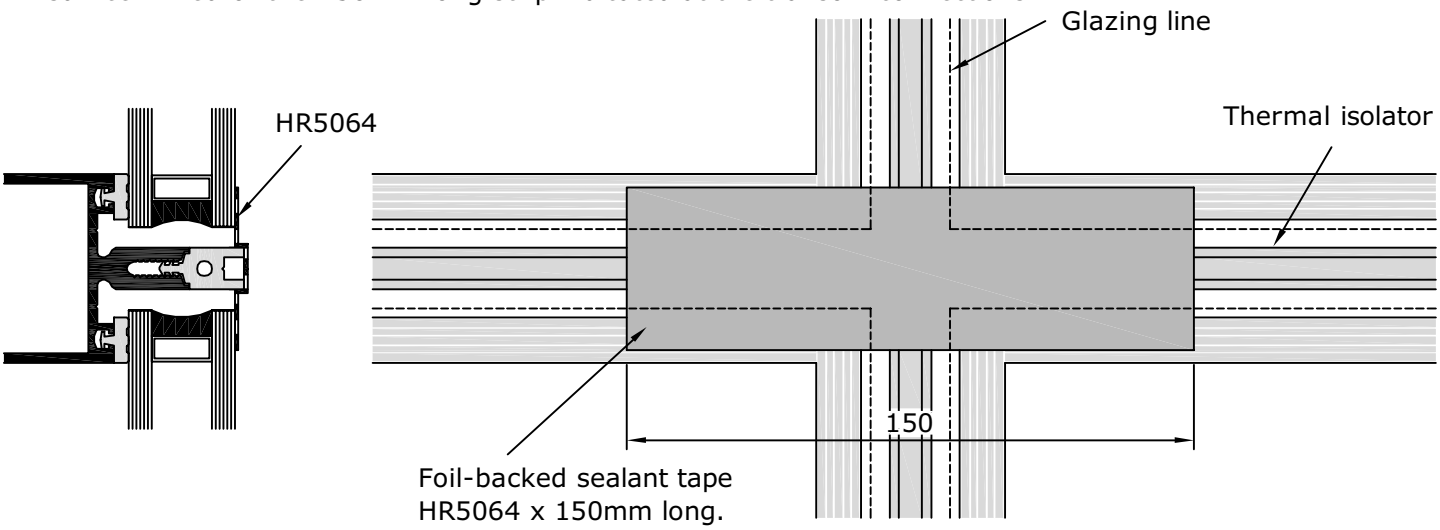
System 17

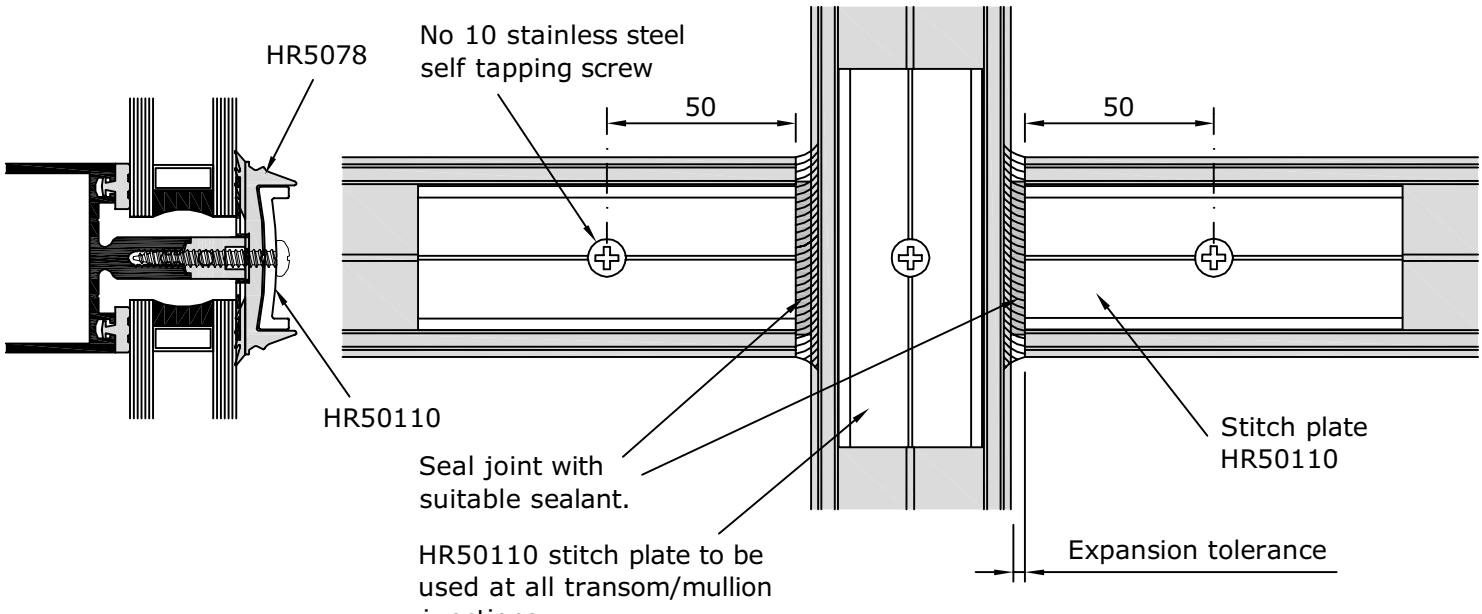
50mm HIGH RISE
CURTAIN WALLING

All pressure plate transom to mullion connections must be sealed with a suitable sealant. The torque setting for all pressure plate screws should be 3.5Nm.

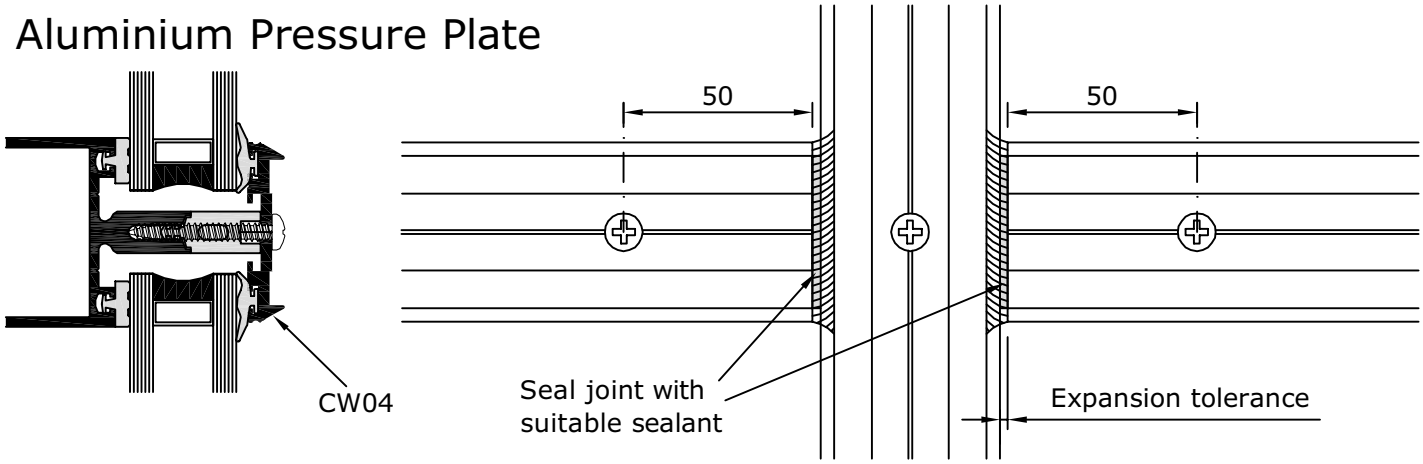
Co-Extruded Pressure Plate

Where design wind pressure does not exceed 1000 Pa the use of the foil-backed sealant tape is optional, but recommended.
Maximum design wind pressure for the co-extruded pressure plate = 1500 Pa
Where HR5064 foil-backed sealant tape is to be used throughout the curtain walling screen, this will suffice in lieu of the 150mm long strip indicated at the transom connections.





Aluminium Pressure Plate



Scale 1:2

Vertical Pressure Plate Joint Details

Mullion junction detail

System 17

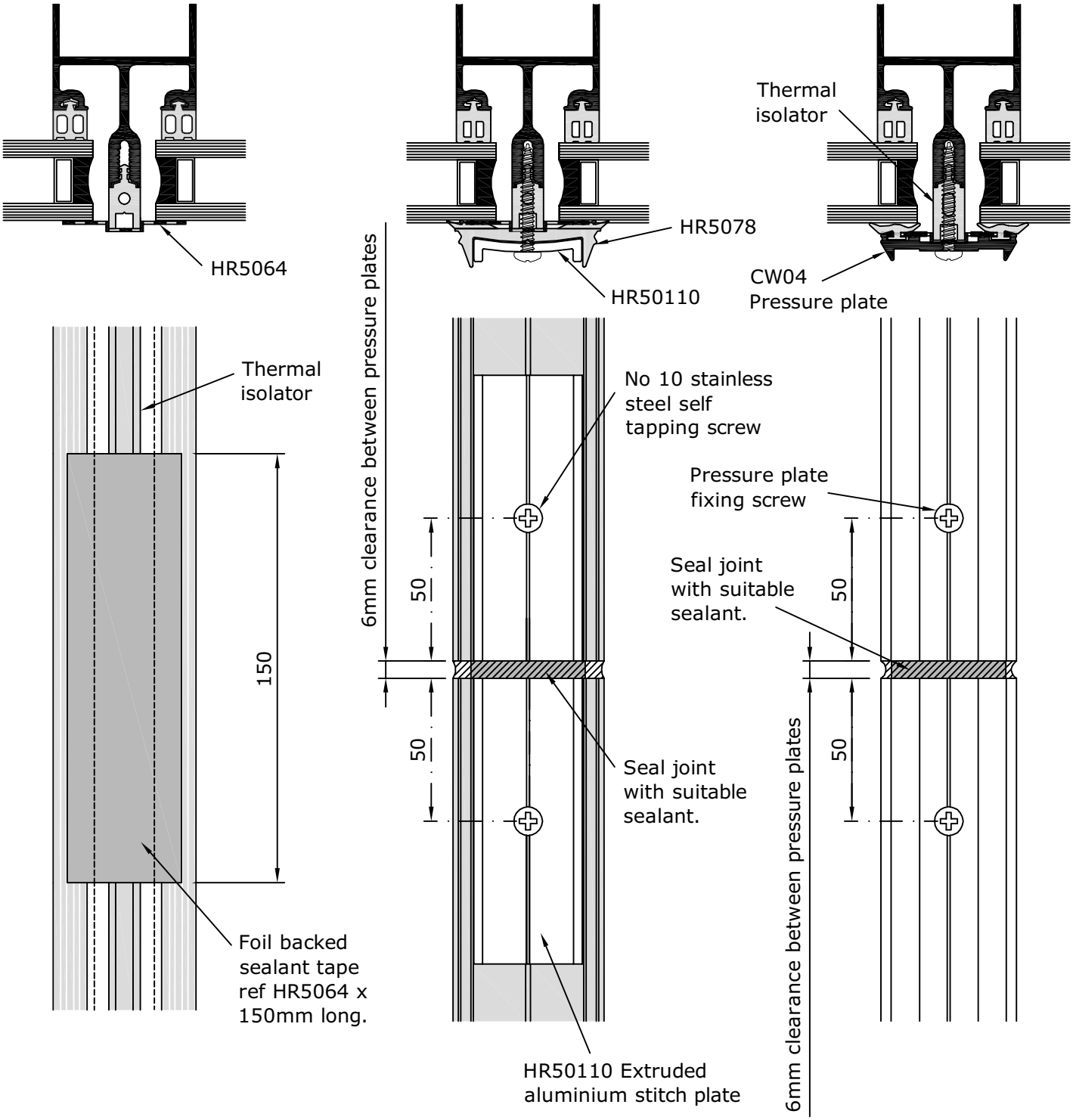
50mm HIGH RISE
CURTAIN WALLING

Maximum design wind pressure for the co-extruded pressure plate = 1500 Pa.

Where pressure plate junctions are required care should be exercised to ensure:

1. They occur approximately midway between transoms.
2. They do not occur at expansion/water deflector locations.
3. They do not coincide with cover cap joints.

Where HR5064 foil backed sealant tape is be used throughout the curtain wall screen this will suffice in lieu of the 150mm long strip indicated at the mullion pressure plate junction.



Scale 1:2

HR5064 Foil-Backed Sealant Tape

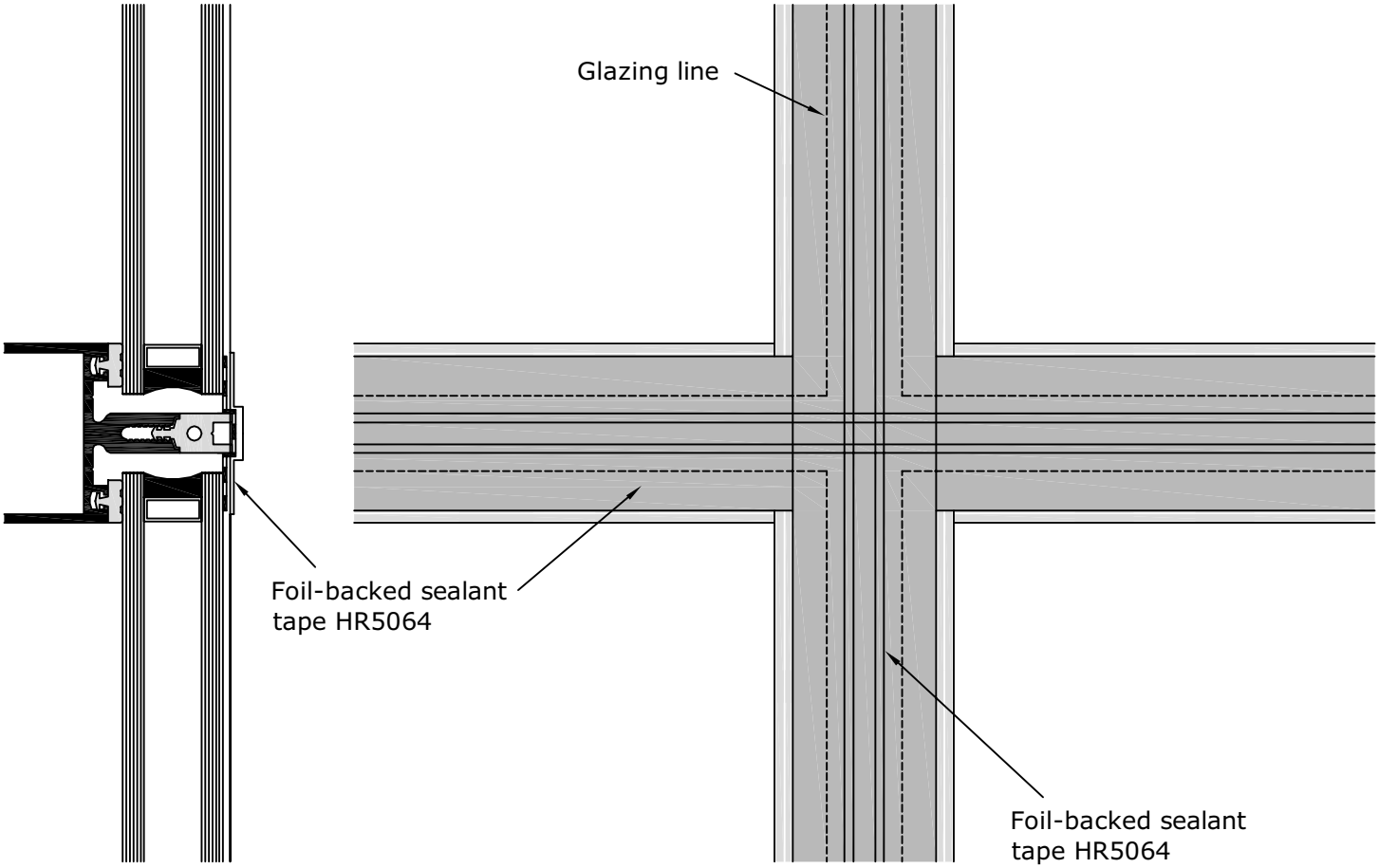
Application Detail

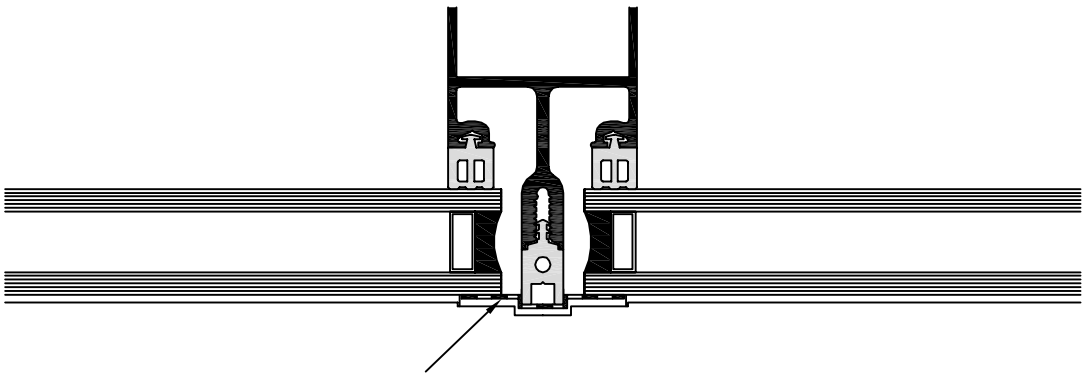
System 17

50mm HIGH RISE
CURTAIN WALLING

Metal Technology offers the option of HR5064 foil-backed sealant tape for exposed applications, or where there may be restricted access.
HR5064 foil-backed sealant tape must be used in all sloped applications

- Clean perimeter of glass and ensure surfaces are free from grease and dust.
- Apply HR5064 foil-backed sealant tape continuously to all transoms.
- Apply HR5064 foil-backed sealant tape to all mullions running continuously over transom tape at cruciform joints.
- Centre foil-backed sealant tape on thermal isolators.
- If foil-backed sealant tape needs to be joined, ensure the joint occurs at a cruciform location. Avoid joints in the horizontal and vertical tapes occuring at the same cruciform.
- Notch foil-backed sealant tape locally around water deflectors when required.
- Tape should not be re-used after screws have been removed.





Scale 1:2

System 17 50mm High Rise Curtain Walling

APPENDIX

Section 0: Specification, Profile Index and Component ID

17/0/10 rev 8	Specification
17/0/20 rev 8	Profile Index
17/0/30 rev 9	Profile Index
17/0/40 rev 5	Profile Index
17/0/50 rev 6	Profile Index
17/0/60 rev 4	Component Identification
17/0/70 rev 3	Component Identification
17/0/80 rev 3	Component Identification

Section 1: Section Drawings

17/1/10 rev 2	Section Drawings
17/1/20 rev 3	Section Drawings
17/1/30 rev 3	Section Drawings
17/1/40 rev 4	Section Drawings
17/1/50 rev 3	Section Drawings
17/1/60 rev 2	Section Drawings
17/1/70 rev 2	Section Drawings
17/1/80 rev 2	Section Drawings
17/1/90 rev 2	Section Drawings
17/1/100 rev 2	Section Drawings
17/1/110 rev 3	Section Drawings
17/1/120 rev 2	Section Drawings
17/1/130 rev 1	Section Drawings
17/1/140 rev 5	Section Drawings
17/1/150 rev 1	Section Drawings
17/1/160 rev 3	Section Drawings

Section 2: General Arrangement Drawings

17/2/10 rev 6	General Arrangement - 3-Dimensional Assembly Detail
17/2/15 rev 0	General Arrangement - 3-Dimensional Assembly Detail
17/2/20 rev 9	Typical Elevation
17/2/30 rev 5	General Arrangement - Head, Jamb and Intermediate Mullion Details
17/2/40 rev 7	General Arrangement - Intermediate Transom and Cill Details
17/2/50 rev 4	General Arrangement - Panel Insert Details
17/2/60 rev 4	General Arrangement - Window Insert Details
17/2/70 rev 4	General Arrangement - System 10 Framed Pivot Door Details
17/2/80 rev 5	General Arrangement - System 10 Rebated Door Details
17/2/90 rev 5	General Arrangement - System 5-20D Door Details
17/2/100 rev 5	General Arrangement - System 5-20D Door Details
17/2/110 rev 4	General Arrangement - Single Glaze Adaptor Details
17/2/120 rev 5	General Arrangement - Façetted Mullions
17/2/130 rev 1	General Arrangement - Façetted Mullions
17/2/140 rev 4	General Arrangement - Façetted Mullions
17/2/150 rev 4	General Arrangement - Façetted Mullions / 90° Corner Detail
17/2/160 rev 4	General Arrangement - Unsupported Glass to Glass Corner Detail
17/2/170 rev 6	General Arrangement - Supported Glass to Glass Corner Detail
17/2/180 rev 5	General Arrangement - Capped Roof Glazing Details
17/2/185 rev 1	General Arrangement - Silicone Pointed Roof Glazing Details
17/2/190 rev 6	General Arrangement - Eaves Detail
17/2/200 rev 5	General Arrangement - 25° Ridge Bar
17/2/210 rev 1	General Arrangement - Variable Ridge Detail

Section 3: Fabrication Details

17/3/10 rev 5	General Notes
17/3/20 rev 5	Fabrication Information
17/3/30 rev 5	System 17 Checklist
17/3/40 rev 4	Glass and Fabrication Sizes
17/3/50 rev 4	Head and Cill Prep Details
17/3/60 rev 6	Mullion Spigot Details
17/3/70 rev 5	Mullion Preps for Extruded Cleats

17/3/80 rev 6	Mullion Preps for Cast Spring Loaded Cleats HR50212
17/3/90 rev 5	Mullion Preps for Extruded Spring Loaded Cleats
17/3/100 rev 4	Mullion to Transom T-junction - Water Deflector HR50113
17/3/110 rev 3	Mullion to Transom T-junction - Water Deflector HR5065
17/3/120 rev 5	Water Deflector at Mitred Eaves
17/3/130 rev 3	Façetted Mullion Adaptor Preps
17/3/140 rev 2	Transom End Preps
17/3/150 rev 7	Transom Prep for Single Glazing
17/3/160 rev 3	Cast Spring Loaded Cleat Installation
17/3/170 rev 3	Extruded Spring Loaded Cleat Installation
17/3/180 rev 5	Extruded Spring Loaded Cleat Installation
17/3/190 rev 4	Transom Fabrication Details for Façetted Applications
17/3/200 rev 3	Transom End Prep Details for Façetted Applications
17/3/210 rev 4	Transom Fixing Cleats for Façetted Applications
17/3/220 rev 4	Glass to Glass Corner Support Details
17/3/230 rev 0	25° Ridge Bar and Rafter Preps
17/3/240 rev 0	Co-Extruded Pressure Plate Preps
17/3/250 rev 2	Aluminium Pressure Plate Preps
17/3/260 rev 2	Perimeter Spacer Details
17/3/270 rev 0	HR50116 Single Glaze Adaptor
17/3/280 rev 1	HR50156 Single Glaze Adaptor

Section 4: Curtain Walling Inserts

17/4/10 rev 2	Curtain Walling Inserts

Section 5: Installation and Assembly

17/5/10 rev 4	General Installation Information
17/5/20 rev 3	General Installation Information
17/5/30 rev 4	General Installation Information
17/5/40 rev 3	Installation Procedure
17/5/50 rev 3	Installation Procedure
17/5/60 rev 5	Transom End Seal Application
17/5/70 rev 3	HR50113 Expansion Sleeve Detail
17/5/80 rev 5	HR50113 Water Deflector Detail

17/5/90 rev 2	Expansion Joint Assembly Detail - With dead loading bracket assembly
17/5/100 rev 2	Expansion Joint Assembly Detail - Transom, Pressure Plate, and Cover Cap Installation
17/5/110 rev 2	Butt Joint Assembly Detail - With intermediate tie back bracket assembly
17/5/120 rev 1	Intermediate Expansion Assembly Detail - With tie back bracket assembly
17/5/130 rev 2	HR5065 Water Deflector Detail

Section 6: Gaskets and Glazing

17/6/10 rev 0	Glazing Procedure
17/6/20 rev 3	Glazing Requirements
17/6/30 rev 0	Internal Gasket Details - HR5062 Vulcanised Corners
17/6/40 rev 0	Internal Gasket Details - Butt Jointed Corners
17/6/50 rev 2	Glazing Support
17/6/60 rev 0	Transom Junction Detail
17/6/70 rev 1	Vertical Pressure Plate Joint Details
17/6/80 rev 1	HR5064 Foil-Backed Sealant Tape - Application Detail