

# Curtain Wall 50mm

11-2017-V.05

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# Curtain Wall 50mm

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# GULF EXTRUSIONS

Gulf Extrusions Co. LLC, the flagship company of the Al Ghurair Group of Companies, was founded in 1976, Dubai, UAE where it has over the years earned the reputation known as one of the most innovative and reliable companies in the Middle East.

Located close to its raw material supplier Dubai Aluminium Company Ltd (DUBAL), the world's largest single smelter site, Gulf Extrusions has become one of the largest extrusion plants in the region.

Gulf Extrusions quality products can be seen in many of today's progressive structures. The company was formed with the sole purpose to meet the increasing demands for aluminium extrusions in domestic, regional and international markets.

Gulf Extrusions six presses and highly skilled workforce are able to produce 65,000 metric tonnes per annum with a rated capacity of 24,000 tonnes for powder coated finish, 6,000 tonnes for anodized finish and can offer more than 20,000 profile designs. These extrusions cover numerous industries ranging from architectural to transportation, engineering to structural sections, components for household items, HVAC and customized products.

During the progressive stages of Gulf Extrusions, from its inception to expansion, the company not only has acquired a majority share in the local market, it has also made its presence felt globally throughout the GCC countries, Indian sub -continent, South East Asia, Australia, Africa, Europe and Canada.

Our commitment and utmost priority is to provide customers with the finest quality of aluminium extrusions.

Gulf Extrusions looks ahead to inevitable challenges and product advancements of the new era.

Quality is an inseparable element of all activities carried out at Gulf Extrusions. Gulf Extrusions is dedicated to respond and deliver on time, high quality, tailor-made and cost effective products. The management and staff are committed to implement a comprehensive and integrated Quality Management System in accordance with the International Quality Standards of ISO 9001 and ISO 14001.

### INTERNATIONAL STANDARD COMPLIANCE

#### Extrusions Dimensions Tolerances:

- BS EN 755 - 9:2008
- BS EN 12020 - 2:2008
- DIN 1748, DIN 17615
- ASTM B221

#### Powder Coated Finish:

- BS:6496 Clause: 10.4, 10.5, 10.6, 10.7 & 10.8
- ISO 2360 / 2813 / 2409 / 2931
- Minimum Film Thickness – 60 Microns

#### Anodizing Finish:

- BS EN 12373-1 2001 Clause 7 (BS:6161 Part 6)
- BS:3987 Clause 2, 3, 5, 6
- Appendix- A, B, C, D, E, F, G, H, J, K, L Minimum Film Thickness- 16 Microns



### PRODUCT QUALITY CERTIFICATES



#### Qualicoat (European Powder Coaters Association):

- A quality label for coating on metal for Architectural Applications
- A product license under the control of EWAA (European Wrought Aluminium Association) in Zurich Switzerland



#### Qualanod (European Anodizers Association):

- A quality label organization to guarantee high quality Aluminium Anodizing.
- A product license under the control of EWAA (European Wrought Aluminum Association) in Zurich Switzerland



- SASO



- ESMA



#### Management:

- ISO 9001 (Quality Management System)



- ISO/TS 16949:2009 (Management System)



#### Environment:

- ISO 14001 (Environment Management System)



#### Membership in International Organization:



- AAC member (Aluminium Anodizers Council - USA)
- AEC member (Aluminum Extruders Council - USA)



- DIN EN 15088

**CHEMICAL COMPOSITIONS**

**ALLOY 6005A**

Element	Minimum	Maximum
Si	0.50	0.90
Fe	-	0.35
Cu	-	0.30
Mn	-	0.50
Mg	0.40	0.70
Cr	-	0.30
Zn	-	0.20
Ti	-	0.10
Other Each	-	0.05
Other Total	-	0.15
Aluminium	Remainder	

**ALLOY 6060**

Element	Minimum	Maximum
Si	0.30	0.60
Fe	0.10	0.30
Cu	-	0.10
Mn	-	0.10
Mg	0.35	0.60
Cr	-	0.05
Zn	-	0.15
Ti	-	0.10
Other Each	-	0.05
Other Total	-	0.15
Aluminium	Remainder	

**ALLOY 6063**

Element	Minimum	Maximum
Si	0.20	0.60
Fe	-	0.35
Cu	-	0.10
Mn	-	0.10
Mg	0.45	0.90
Cr	-	0.10
Zn	-	0.10
Ti	-	0.10
Other Each	-	0.05
Other Total	-	0.15
Aluminium	Remainder	

**ALLOY 6082**

Element	Minimum	Maximum
Si	0.70	1.30
Fe	-	0.50
Cu	-	0.10
Mn	0.40	1.00
Mg	0.60	1.20
Cr	0.04	0.15
Zn	-	0.20
Ti	-	0.10
Other Each	-	0.05
Other Total	-	0.15
Aluminium	Remainder	

**ALLOY 6061**

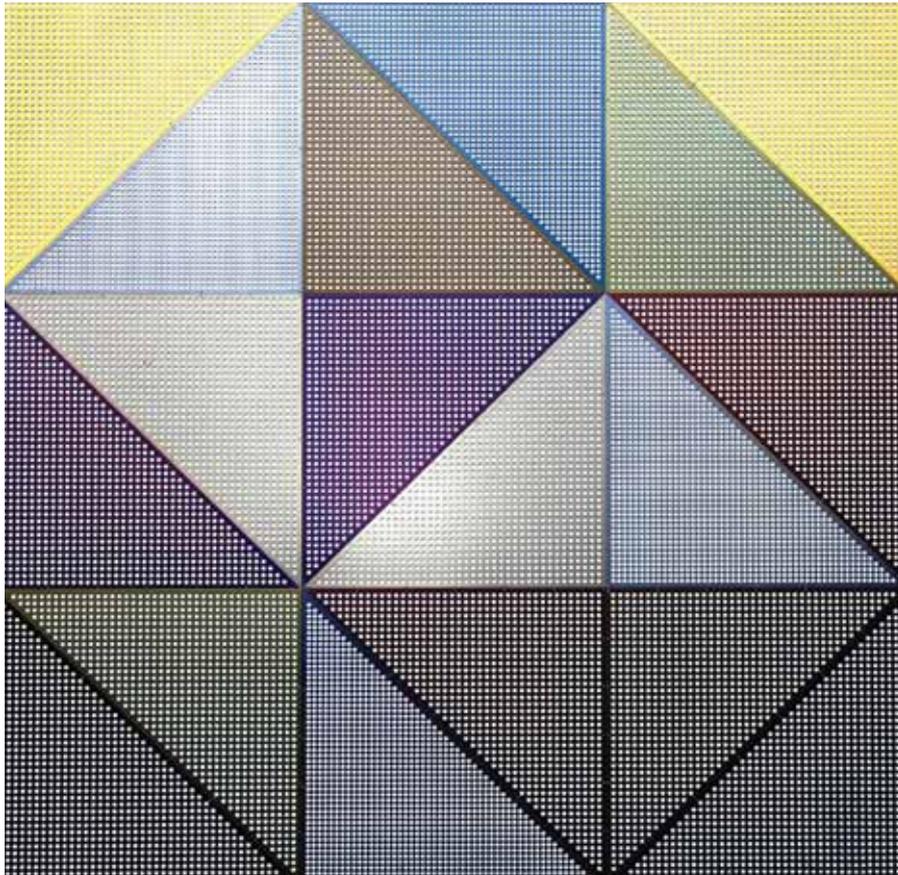
Element	Minimum	Maximum
Si	0.40	0.80
Fe	-	0.70
Cu	0.15	0.40
Mn	-	0.15
Mg	0.8	1.20
Cr	0.04	0.35
Zn	-	0.25
Ti	-	0.15
Other Each	-	0.05
Other Total	-	0.15
Aluminium	Remainder	

### **ANODIZING**

A wide range of anodizing treatment options are possible for the aluminium profile sections of this system. The color choices from Gulf Extrusions range from Natural, Gold, and Bronze to Spectro colors (Red, Blue, Green, and Gray).

This surface treatment process involves first pre-treatment with scotch brite brushing for the unfinished profiles, and then subsequently fully immersing the aluminium profiles in an acidic electrolyte solution through which electric current is passed creating an anodic film on the profiles ranging from 5-30MICs.

The process is guaranteed and certified for use by QUALANOD - A quality label Organization to guarantee high quality aluminium anodizing and the company's ISO 9001 certification.



**Authorization to use the quality sign**



This is to certify that

**GULF EXTRUSIONS CO. LLC**

P.O. BOX 5598  
AE – Dubai

**Licence number: 2000**

is authorized to use the quality sign which is shown above, according to the regulations for the use of the quality label for ARCHITECTURAL ANODIZING as described in the current edition of the Specifications for the QUALANOD quality label for sulfuric acid-based anodizing of aluminium (Edition 01.07.2010).

**Date of issue of the licence:** 10.03.2000  
**Period of validity of the licence:** until 31.12.2017

Zurich, 15 November 2016

**QUALANOD**

José Arenas  
President

**CERTIFICATION BODY**

Josef Schoppig  
AC-Fiduciaire SA



Mailing address:  
QUALANOD, P.O. Box 1507, CH-8027 Zurich  
Domicile:  
QUALANOD c/o AC-Fiduciaire SA, Tödistrasse 47, CH-8002 Zurich

Phone: +41 (0)43 305 09 70  
Fax: +41 (0)43 305 09 98  
E-mail: info@qualanod.net  
Internet: www.qualanod.net

**POWDER COATING**

- Horizontal & Vertical Powder coating lines with an Annual Capacity of 24 000 MT  
Powder Coating BS: 6496 Clause: 10.4, 10.5, 10.6, 10.7, & 10.8  
ISO 2360/2813/2409/2931  
Minimum Film Thickness - 60 Microns

A wide choice of colors for powder coating can be used for the aluminium profile sections.

From Gulf Extrusions the following powder types are available

- Polyester Façade (PE-F)
- Super Durable Façade (SDF) & Hyper Durable Façade (HDF) (Where SDF & HDF are equivalent to Poly-Vinylidene DiFluoride (PVDF) in terms of corrosion performance)
- Anti Bacterial (recommended to be used in Hospitals)
- Anti Static (recommended for laboratories, electronics assembly buildings) and Heat Resistant in nature.

This surface treatment process involves the following pre-treatment

1. Degreasing
2. Washing
3. Etching
4. Washing
5. Chromatising
6. Double washing in dematerialized water

Once completed, powder is applied using an electrostatic spraying process with charged powder particles, followed by curing in an oven under a controlled temperature of 180-200C for paint polymerization where the paint layer is at least 60mic.

This whole process is certified for use from QUALICOAT - A quality label for coating on metal for Architectural Applications.

**GUARANTEE PERIOD:**

10 years for PE-F Quality

25 years for PE-SDF

## Authorization to use the quality sign



This is to certify that

### GULF EXTRUSIONS CO. LLC

P.O. BOX 5598  
AE – Dubai

### Licence number: 1901

is authorized to use the quality sign which is shown above according to the REGULATIONS FOR THE USE OF THE QUALICOAT QUALITY SIGN FOR PAINT, LACQUER AND POWDER COATINGS ON ALUMINIUM FOR ARCHITECTURAL APPLICATIONS.

**Date of issue of the licence:** 15.03.2000  
**Period of validity of the licence:** until 31.12.2017

Zurich, 15 November 2016

#### QUALICOAT

Mohammed C. Panam  
President

#### CERTIFICATION BODY

Josef Schoppig  
AC-Fiduciaire SA



Mailing address:  
QUALICOAT, P.O. Box 1507, CH-8027 Zurich  
Domicile:  
QUALICOAT c/o AC-Fiduciaire SA, Tödistrasse 47, CH-8002 Zurich

Phone: 70/79  
Fax: +41 (0)43 305 09 98  
E-mail: info@qualicoat.net  
Internet: www.qualicoat.net

# INTRODUCTION TO THE SYSTEM

CW 50 is a unique curtain wall structure that combines multi-structural grid to create various aspects, starting by the conventional curtain wall system passing through the two way horizontal capping curtain wall systems to the four way structural curtain wall systems.

CW 50 has proven to be a curtain wall solution perfectly tailored to the Middle East market requirement.

## FEATURES:

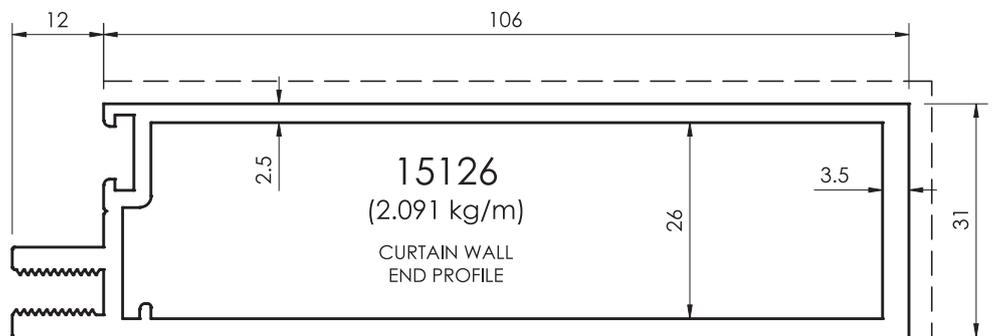
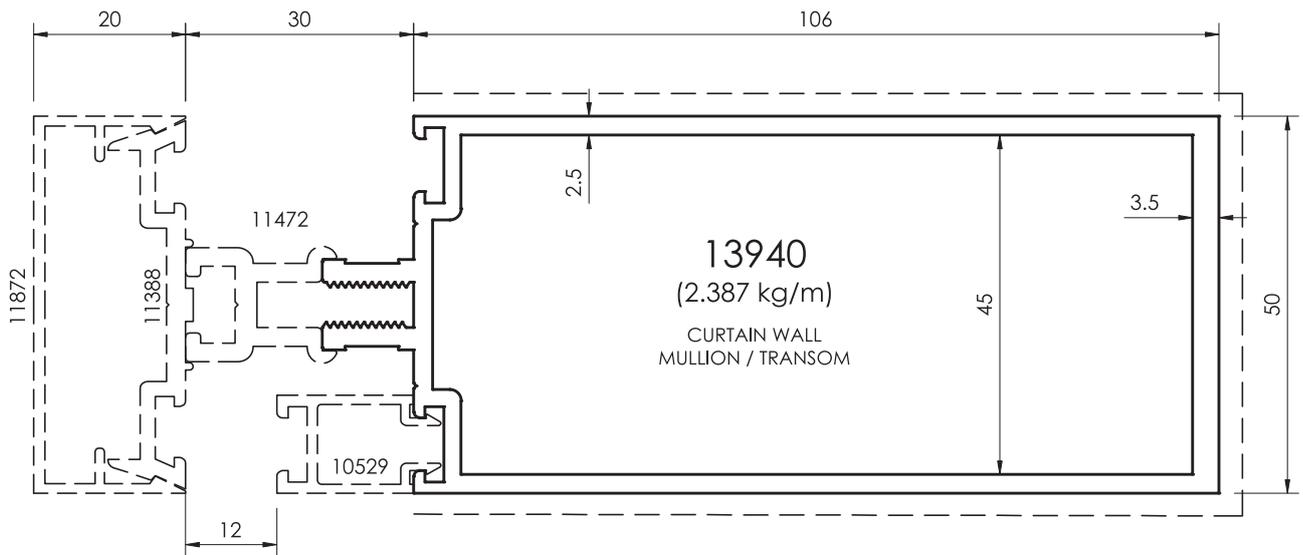
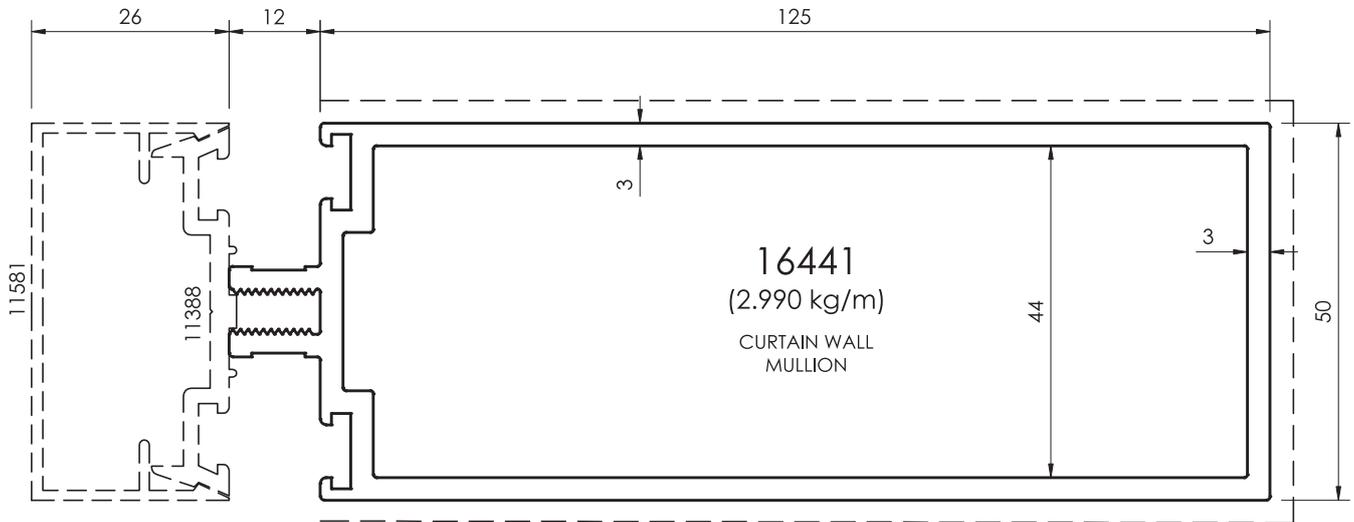
The CW 50 system consists of 50mm width structure components allowing several external appearances. It is fast to manufacture and to install. With the wide range of profile selection, the system can provide the possibility of large glass panels, maintaining the stiffness and rigidity of the curtain wall structure. Mullions can be reinforced by Aluminium or Steel tubes to enhance the free span area, making it possible to be used in high structures. In CW 50 system, Casements are Italian openings with selected stay arms to ensure the tightness and stability of the opening.

CW 50 uses the same structures for multifunctional applications:

- Conventional application is obtained by applying horizontal and vertical caps, clipped to horizontal and vertical pressure plates screwed to the structure holding the glass panels. Two EPDM gaskets, one to the inside fixed on the structure, the second to the outside fixed on the pressure plate; provide the grip on the glass panels.  
Glass thickness ranges between 6mm –32 mm
- Two way or horizontal capping application is obtained by applying horizontal caps only, clipped to a horizontal pressure plate screwed to the structure and holding the glass panels. Two EPDM gaskets applied horizontally one to the inside fixed to the structure; the second to the outside fixed to the pressure plate provide the grip on the glass panels. Vertically only a vertical sealant is applied between the glass panels for aesthetic and water tightness  
Glass thickness ranges between 6mm – 32mm
- Four way structural aspects is a curtain wall aspect which conceals that conceals the aluminium structure from the outside making it completely invisible. Concealed openings are designed in order to keep the external appearance of the structure uniform even in the presence of the opening. The four way structural applications is obtained by fixing a glass toggle to the glass holding the panel by a specially designed aluminium spacer, well sealed by a structural sealant to ensure the rigidity of panel. The space between glass panels is sealed by a neutral sealant for aesthetic and water tightness purposes; this application is the most common application in the MENA region.  
Glass thickness is of 32 mm if panel is composed of Xmm inside- 20 mm airspace-8 mm outside the glass thickness can vary if we change the outer glass thickness uniformly on the façade.

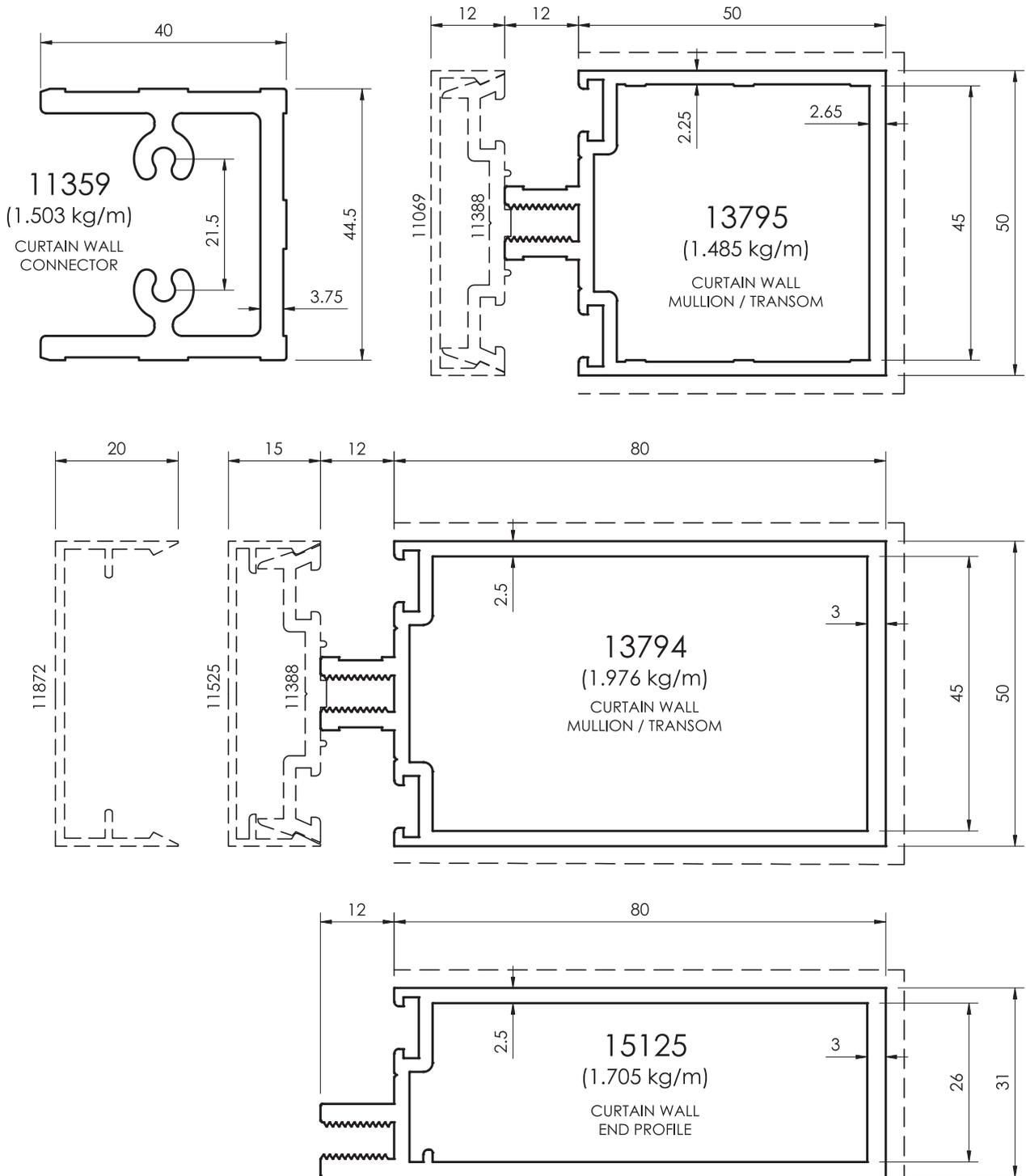
# PROFILES

Mullion / Transom Profiles



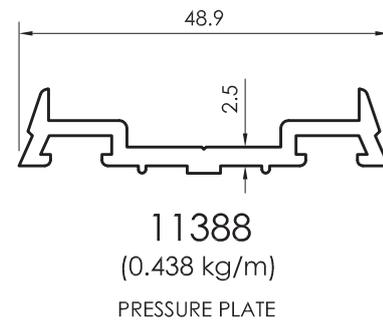
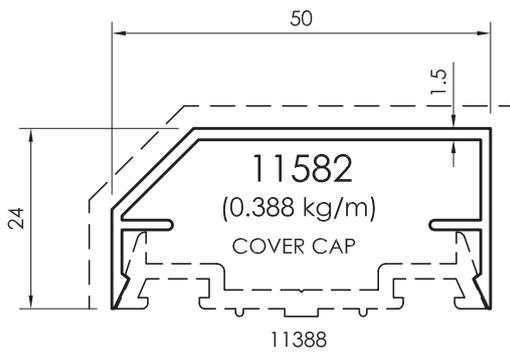
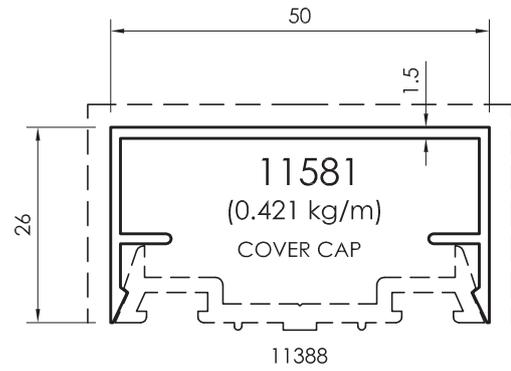
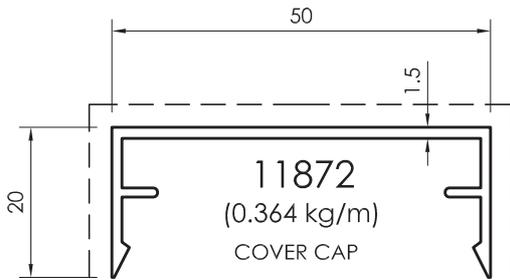
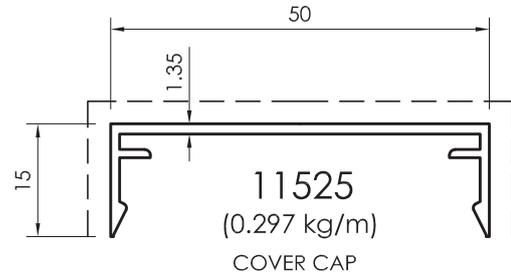
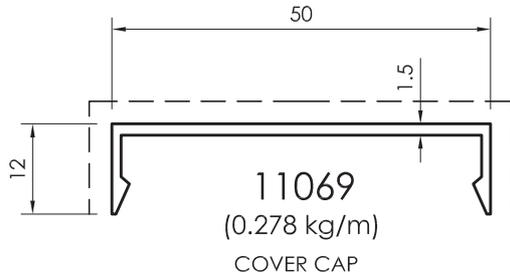
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Visible area\_-----

Mullion / Transom Profiles



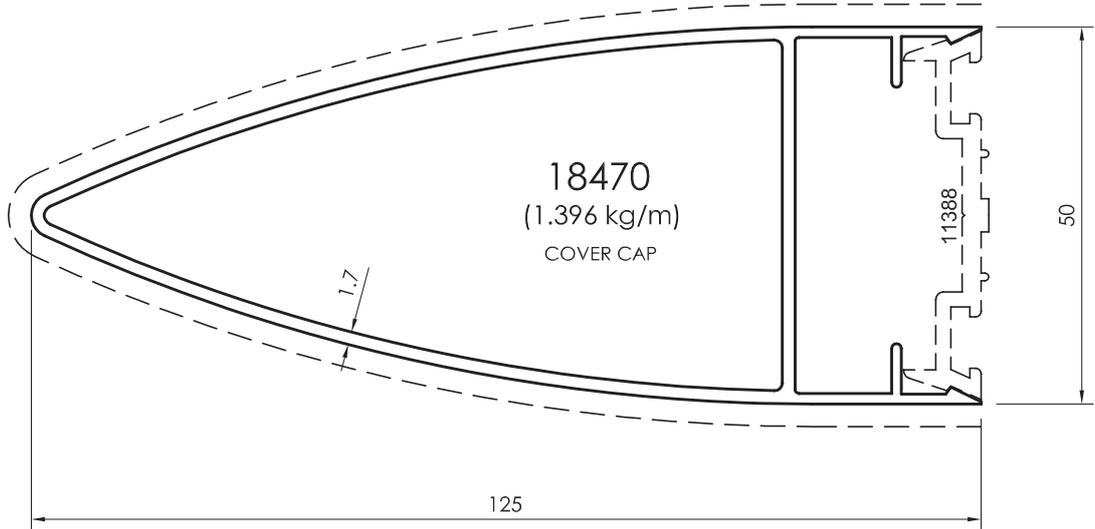
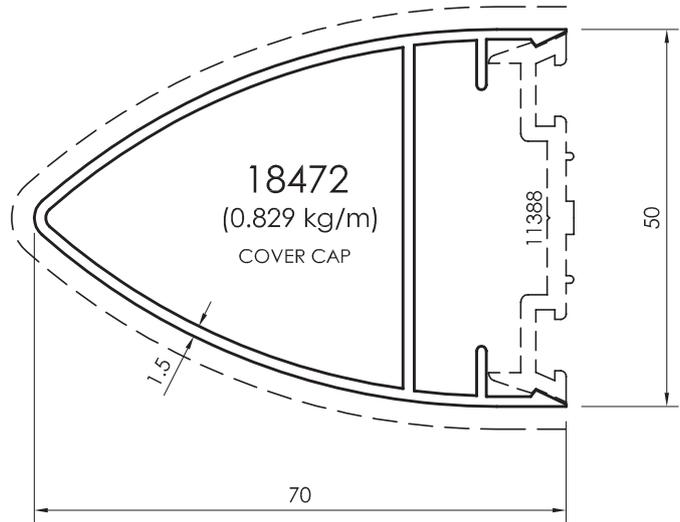
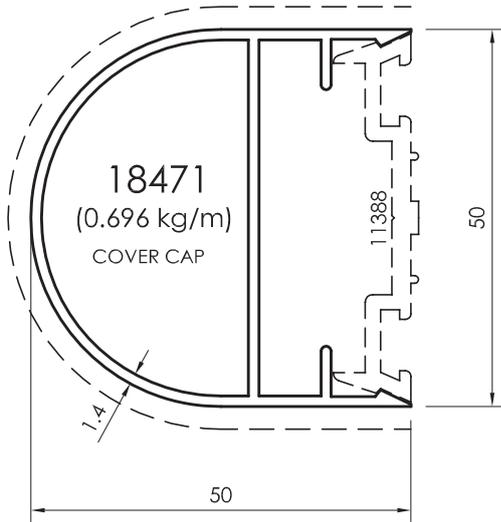
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 - - - - - Visible area

Complementary Profiles



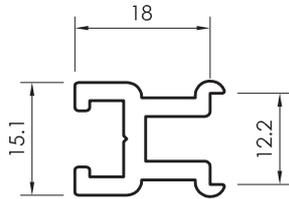
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Complementary Profiles

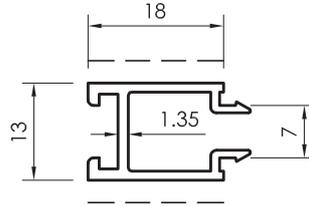


All dimensions in mm  
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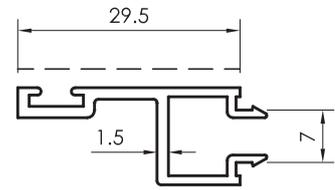
## Complementary Profiles



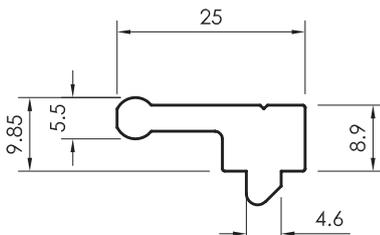
**11472**  
(0.365 kg/m)  
CURTAIN WALL  
PRESSURE PLATE  
ADAPTOR PROFILE



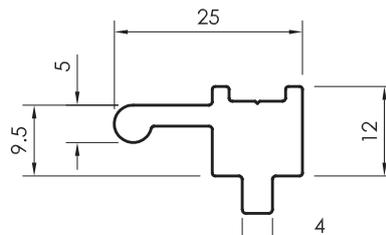
**10529**  
(0.213 kg/m)  
CURTAIN WALL  
CLIP PROFILE



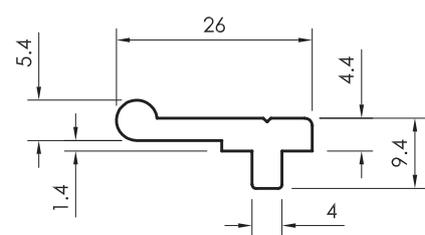
**11618**  
(0.257 kg/m)  
TRANSOM COVER  
CLIP PROFILE



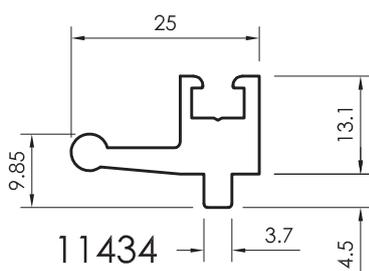
**21926**  
(0.456 kg/m)  
GLASS TOGGLER



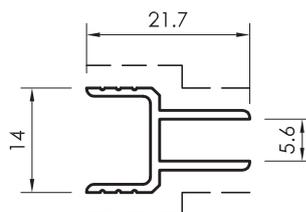
**23389**  
(0.519 kg/m)  
GLASS TOGGLER



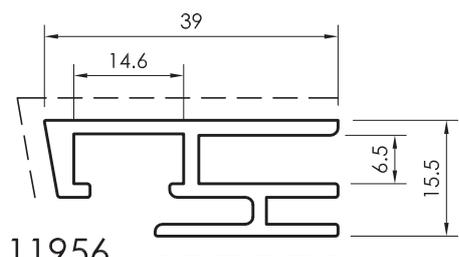
**21074**  
(0.331 kg/m)  
GLASS TOGGLER



**11434**  
(0.454 kg/m)  
GLASS TOGGLER



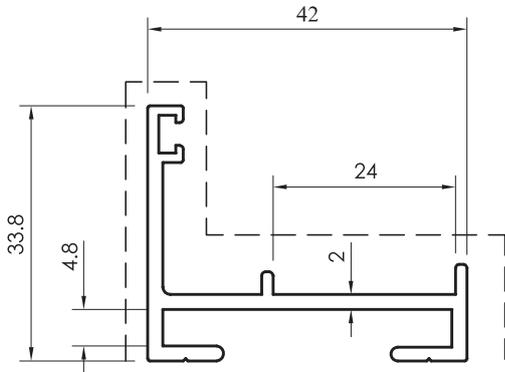
**21073**  
(0.167 kg/m)  
GLASS SPACER



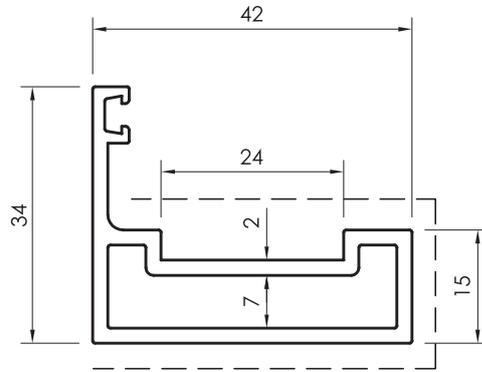
**11956**  
(0.541 kg/m)  
GLASS SPACER  
(SINGLE GLASS)

All dimensions in mm  
Visible area\_\_\_\_\_

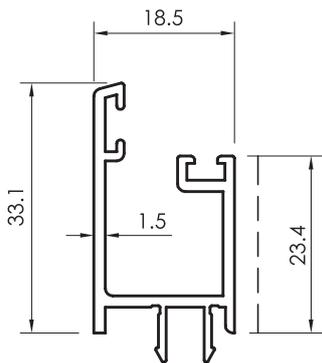
Frame & Sash Profiles



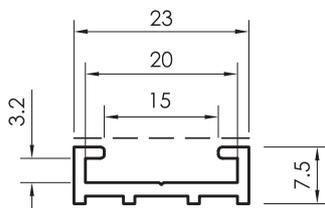
**22405**  
(0.560 kg/m)  
CURTAIN WALL  
FRAME PROFILE



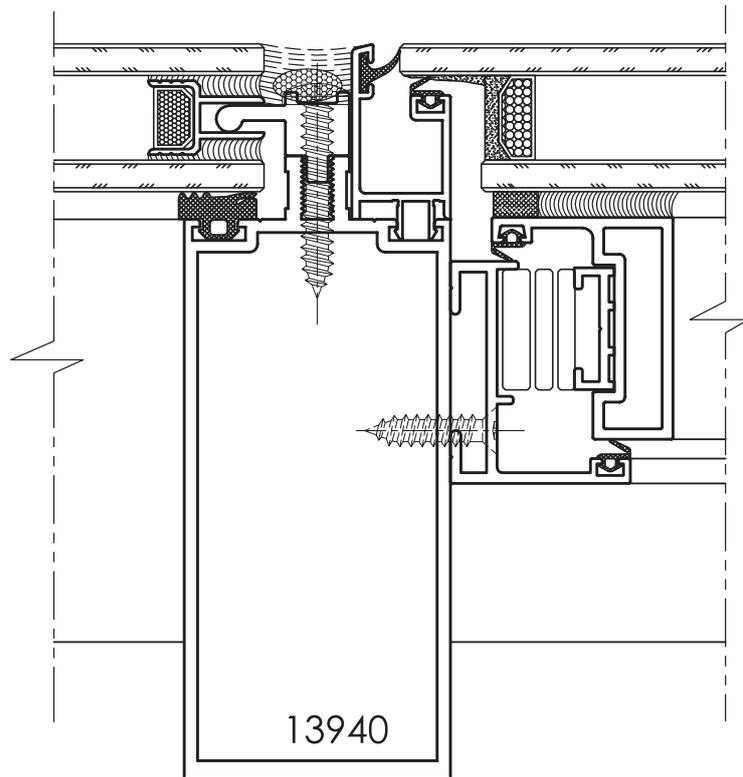
**15907**  
(0.740 kg/m)  
CURTAIN WALL  
SASH PROFILE



**24372**  
(0.386 kg/m)  
GLAZING CLIP

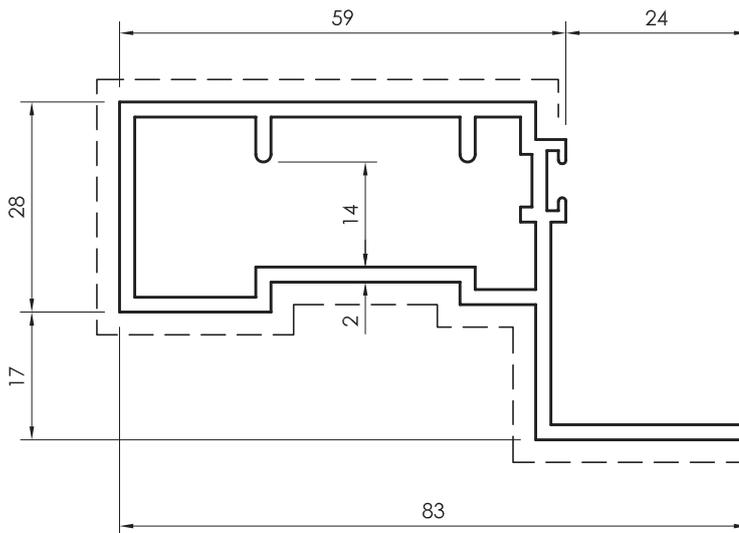
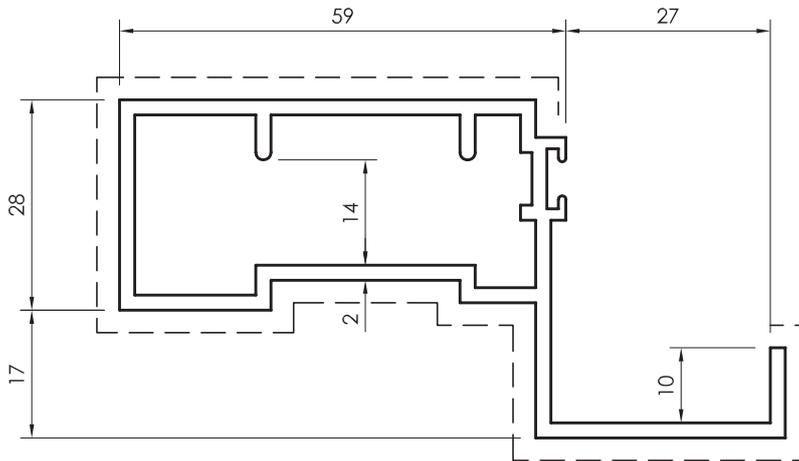
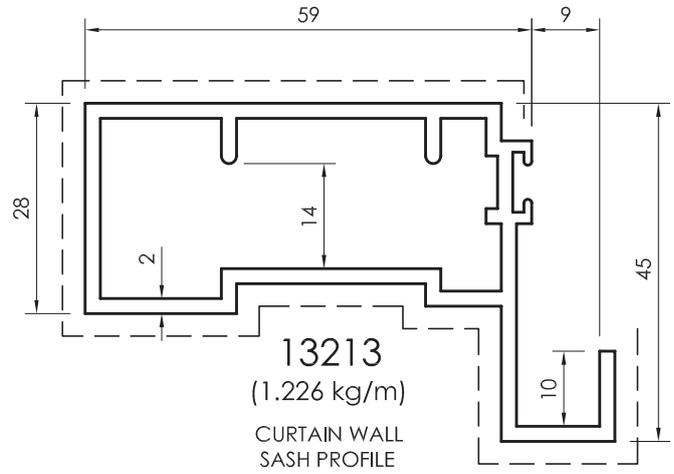
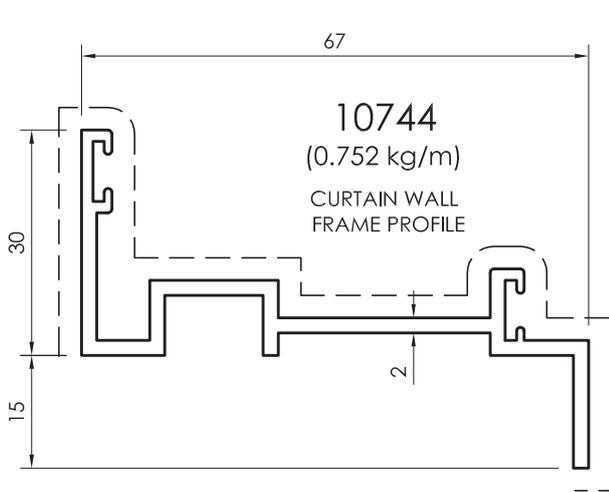


**11053**  
(0.185 kg/m)



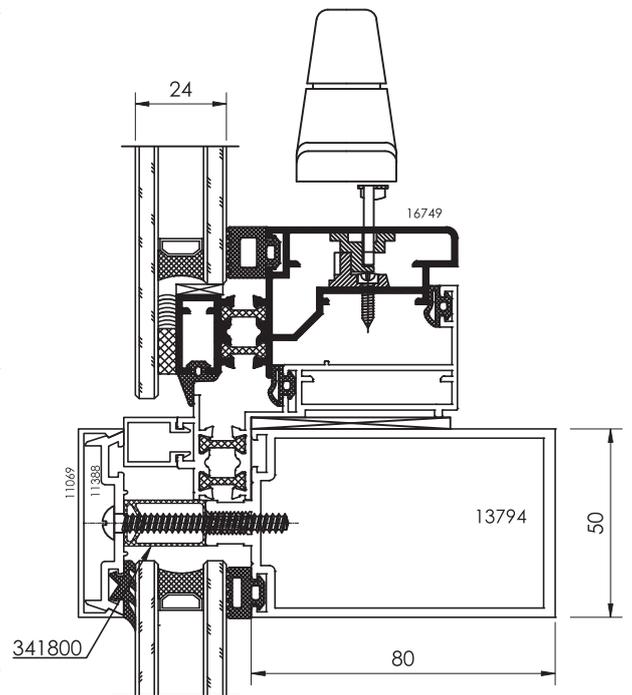
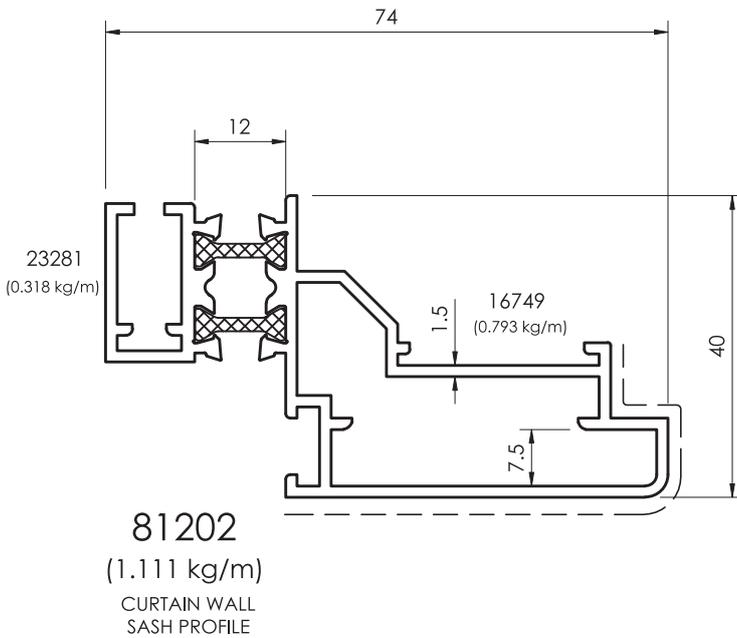
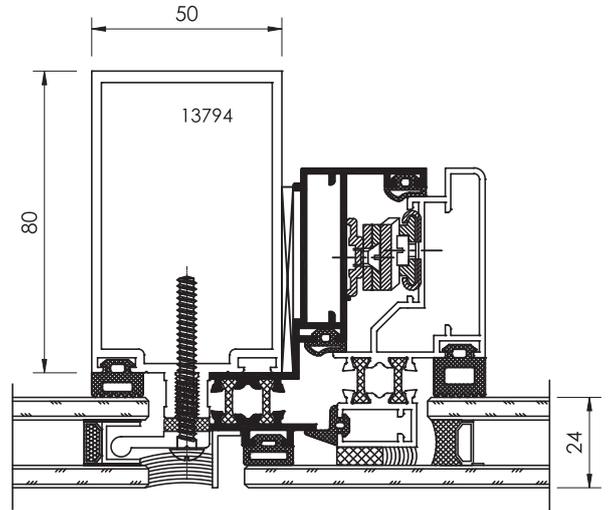
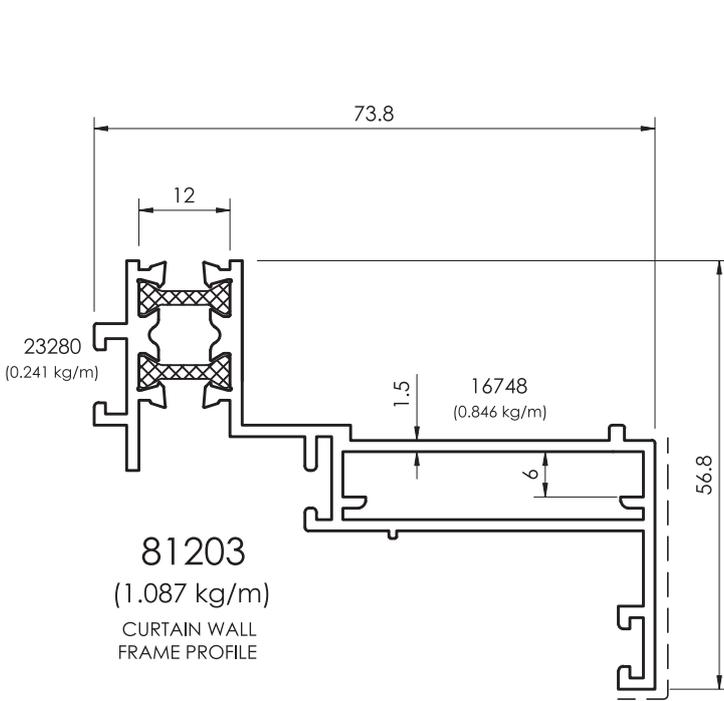
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Frame & Sash Profiles



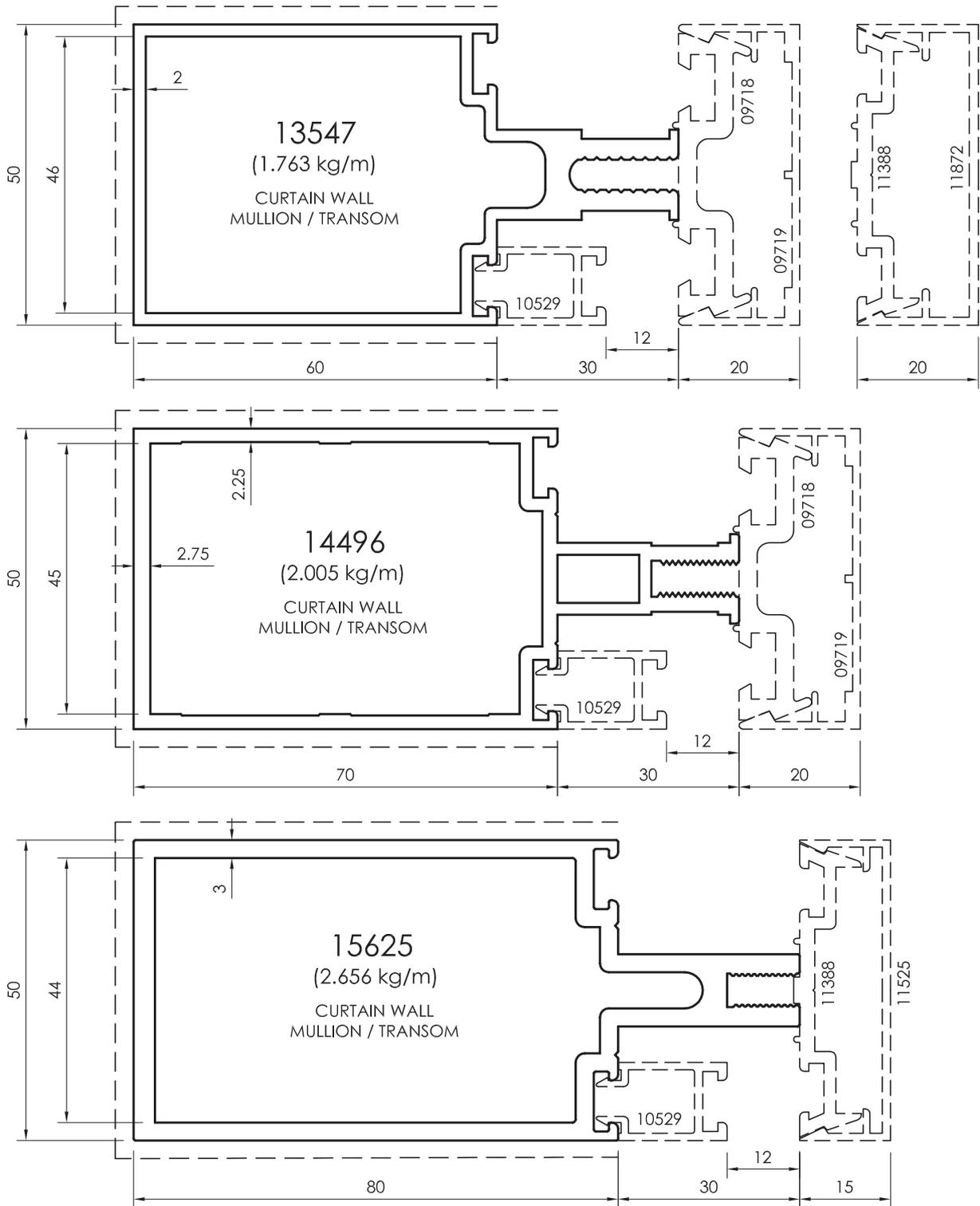
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Frame & Sash Profiles



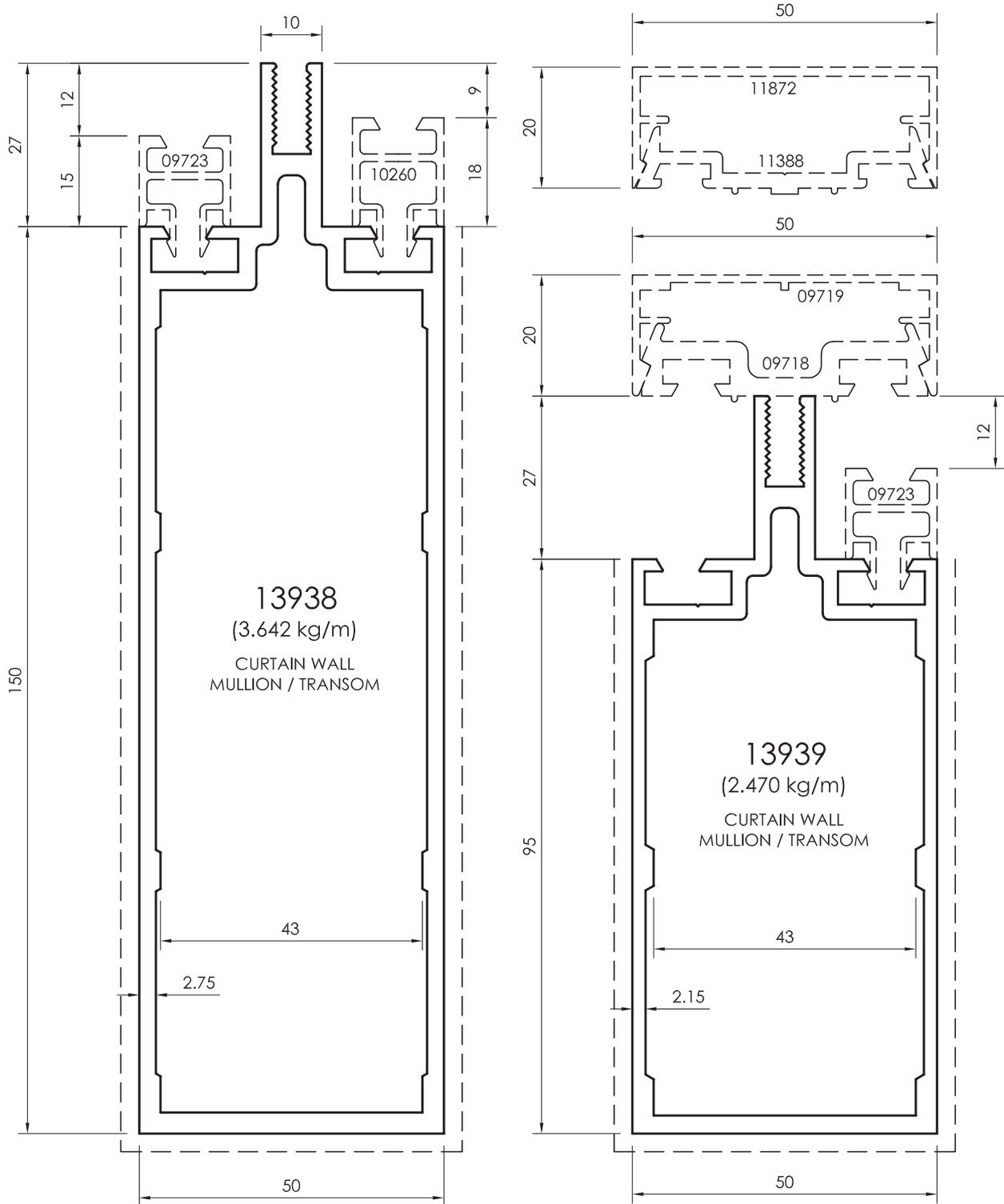
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Mullion / Transom Profiles



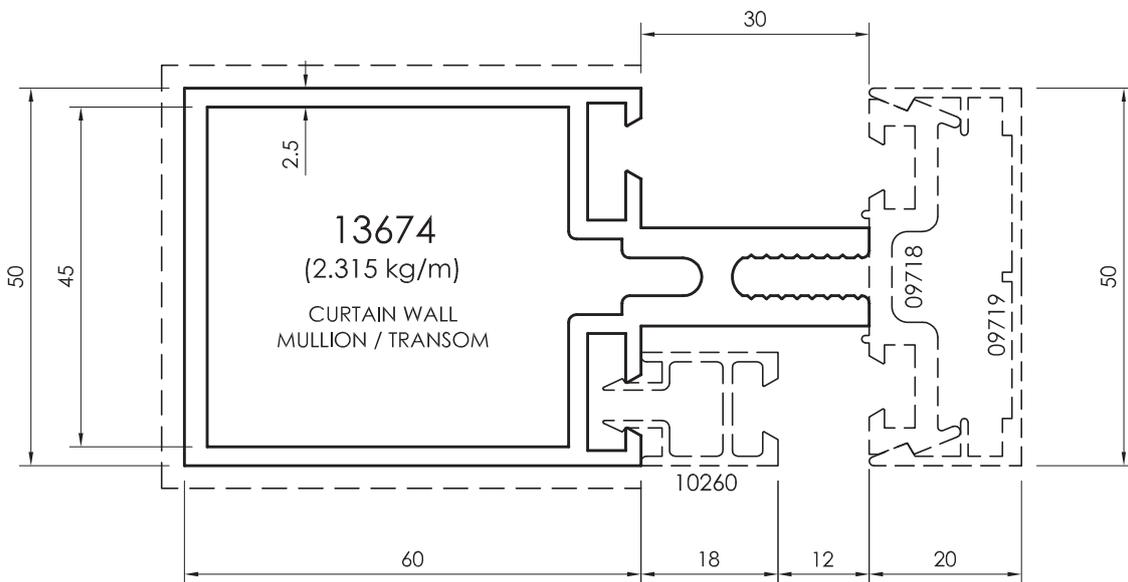
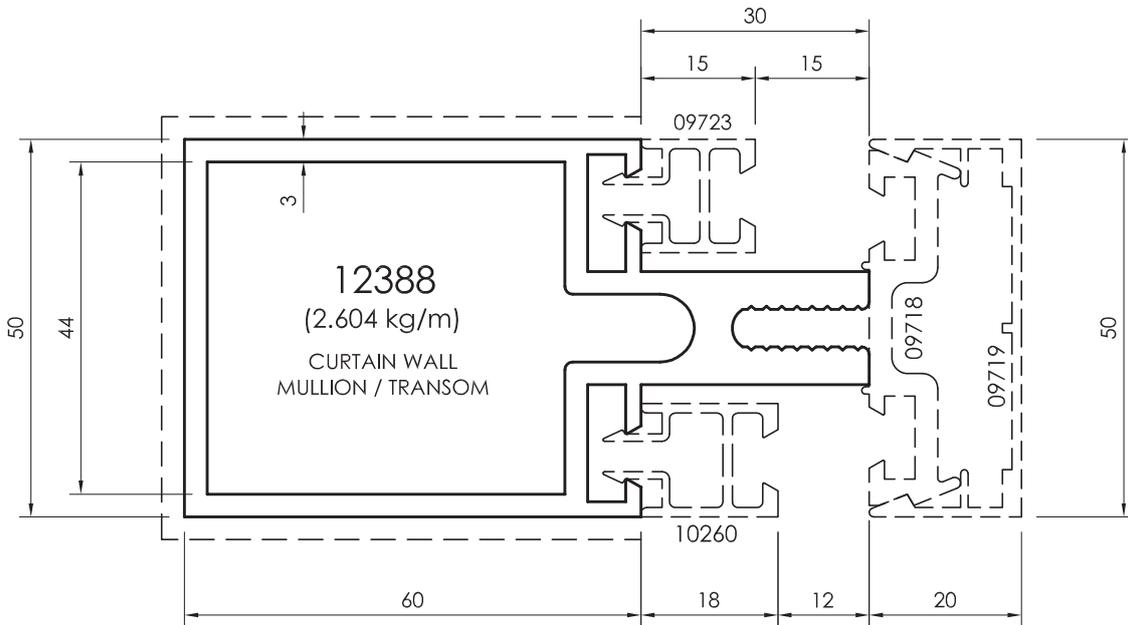
All dimensions in mm  
Visible area\_\_\_\_\_

Mullion / Transom Profiles



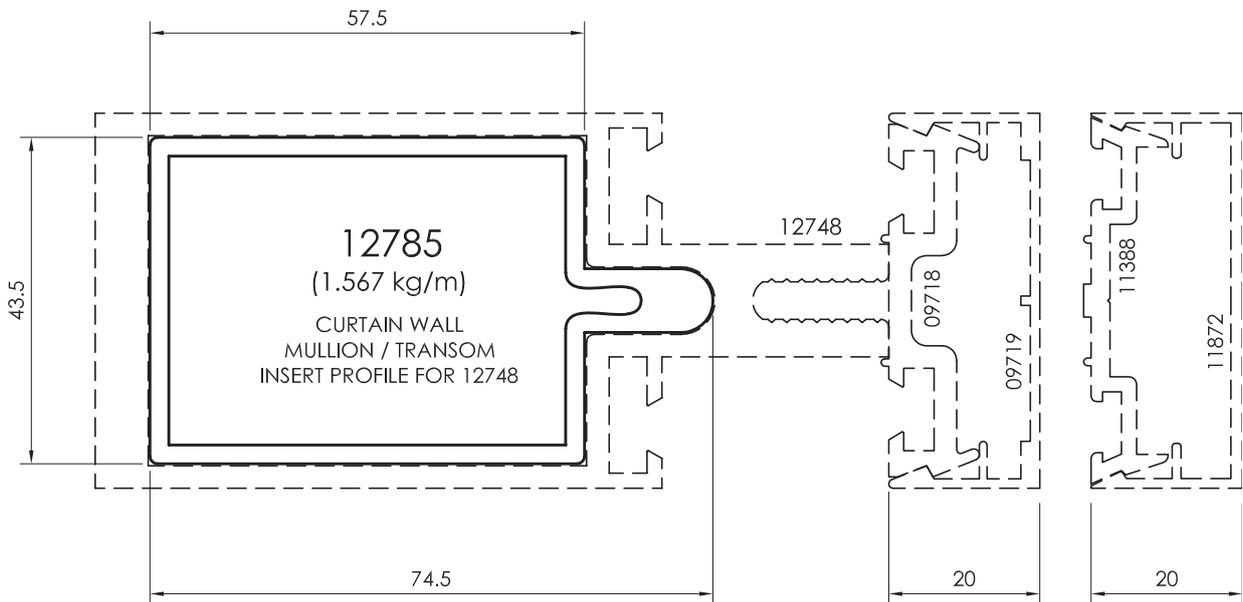
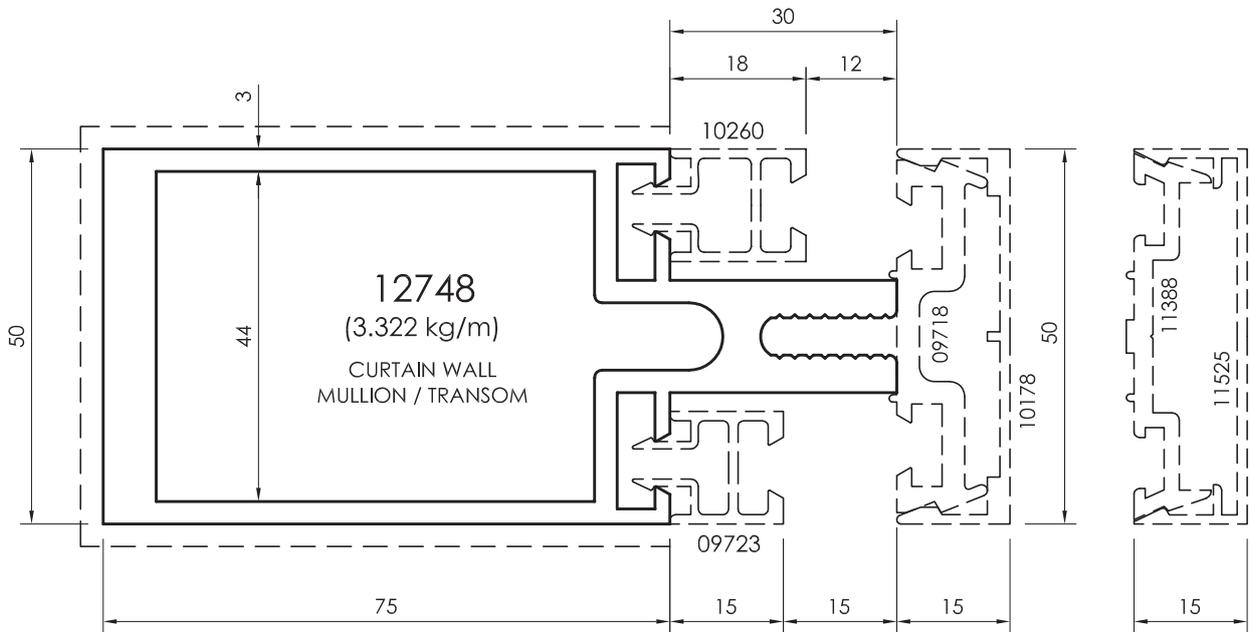
All dimensions in mm  
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Mullion / Transom Profiles



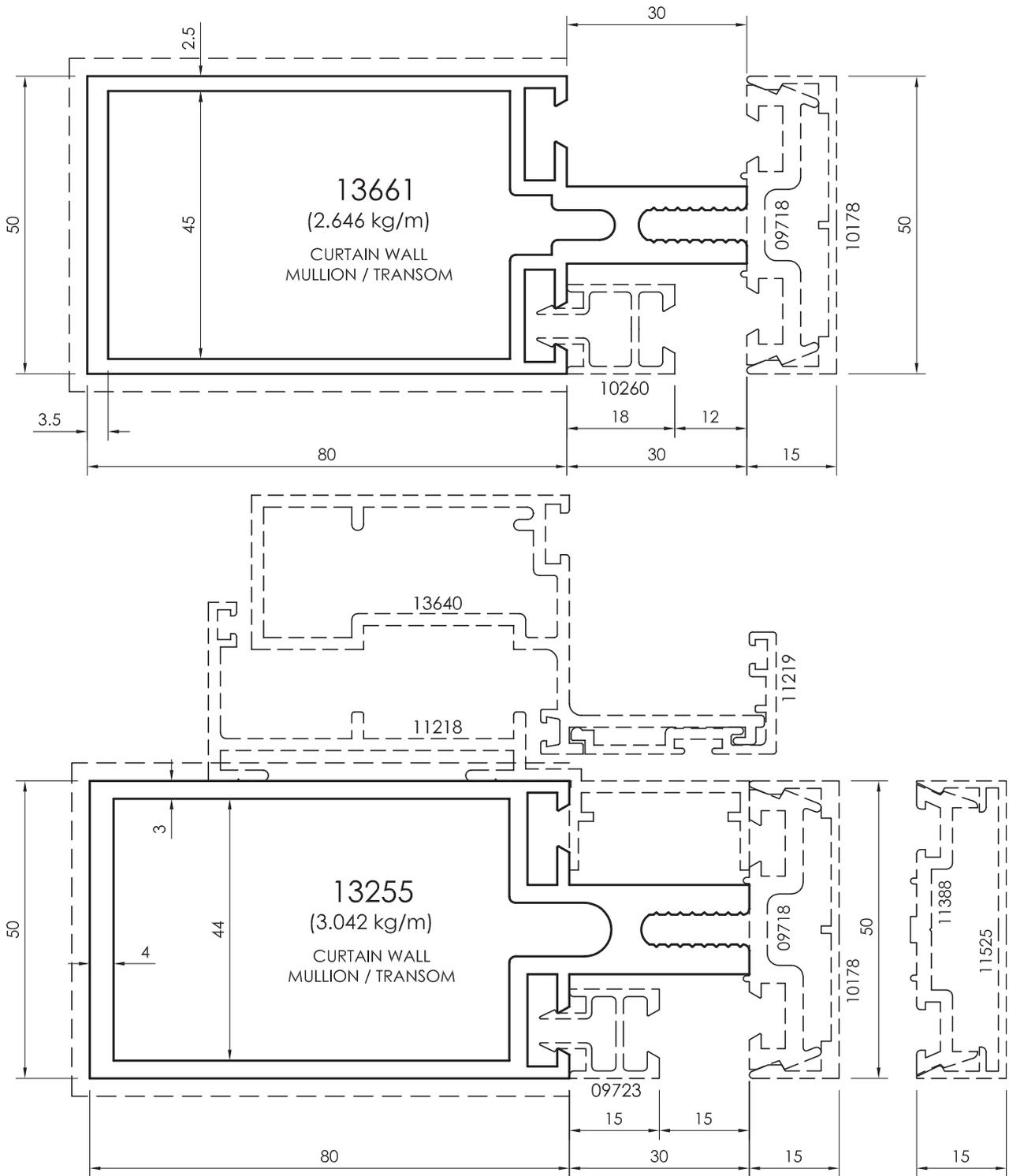
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Visible area\_\_\_\_\_

Mullion / Transom Profiles



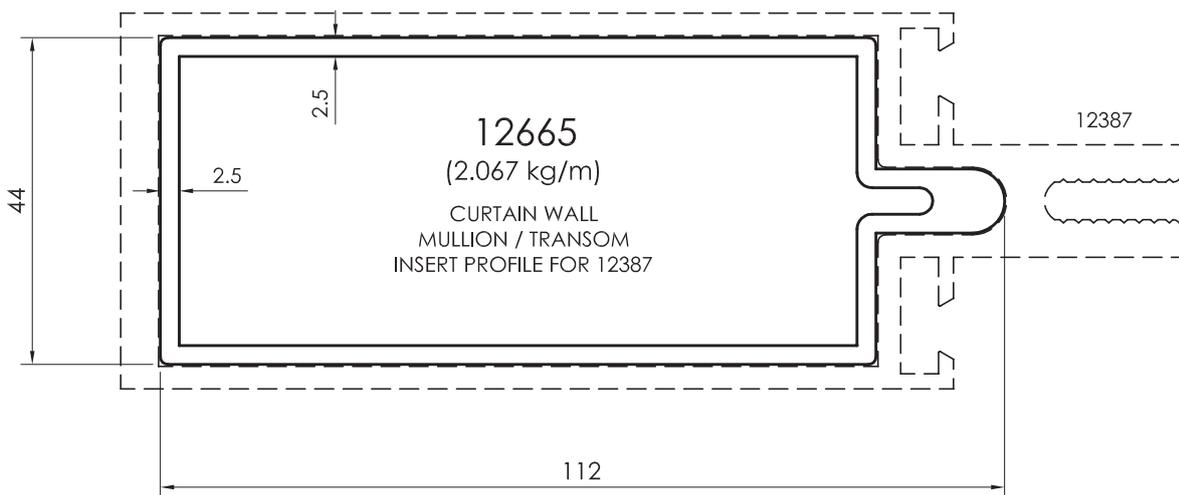
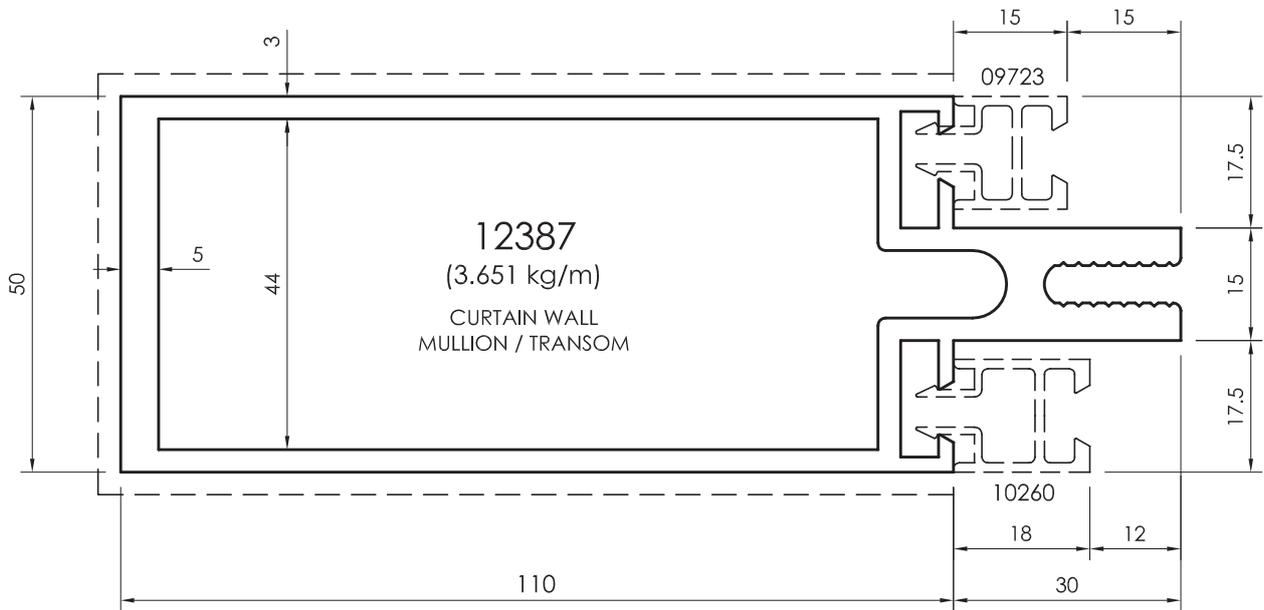
All dimensions in mm  
 - - - - - Visible area

Mullion / Transom Profiles



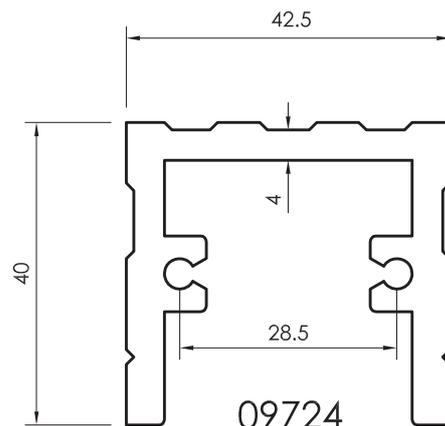
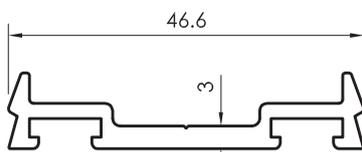
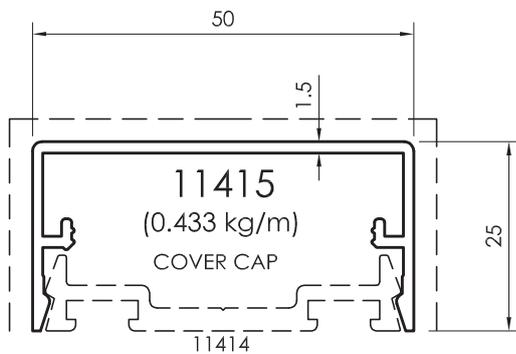
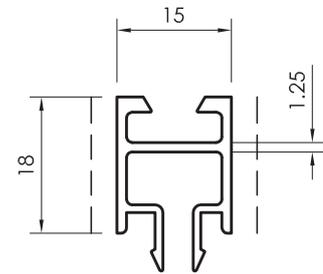
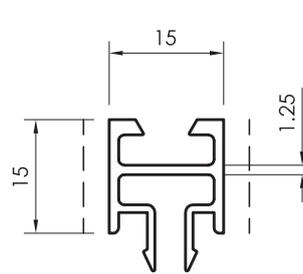
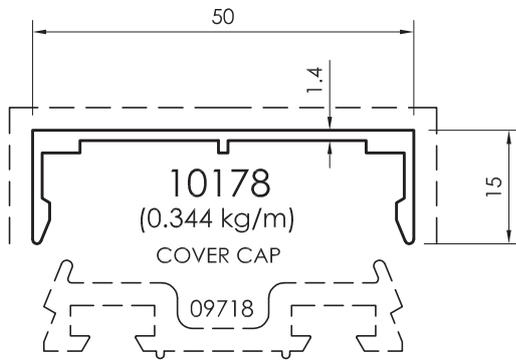
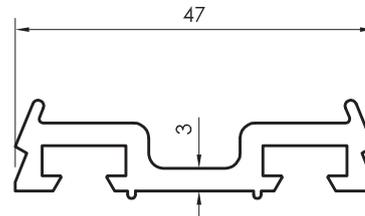
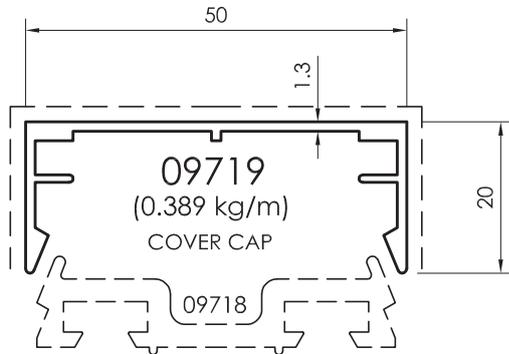
All dimensions in mm  
 Visible area\_\_\_\_\_

Mullion / Transom Profiles



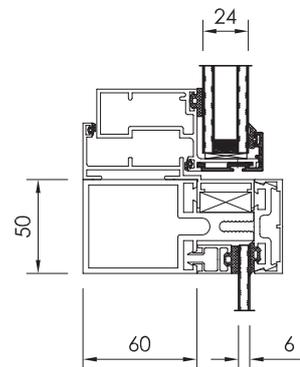
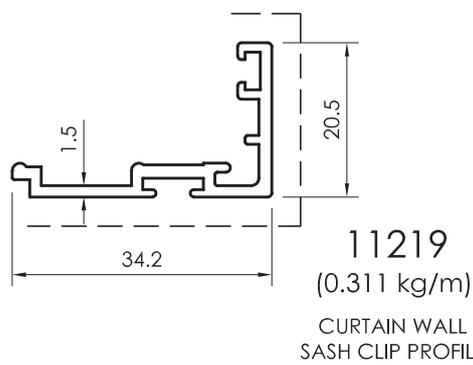
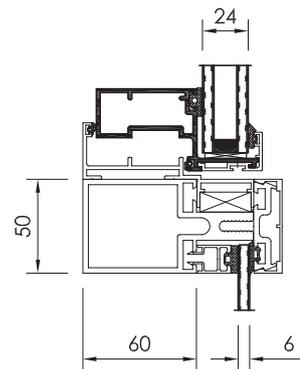
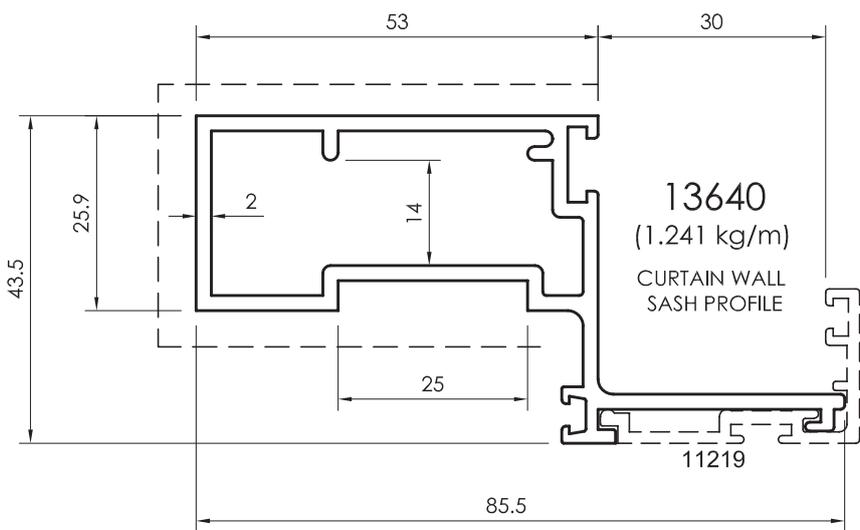
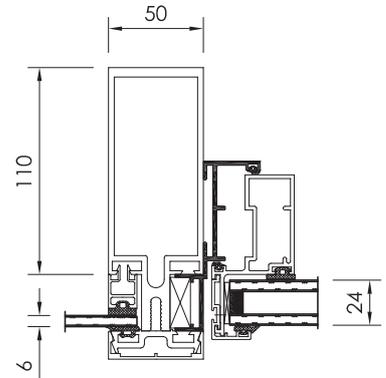
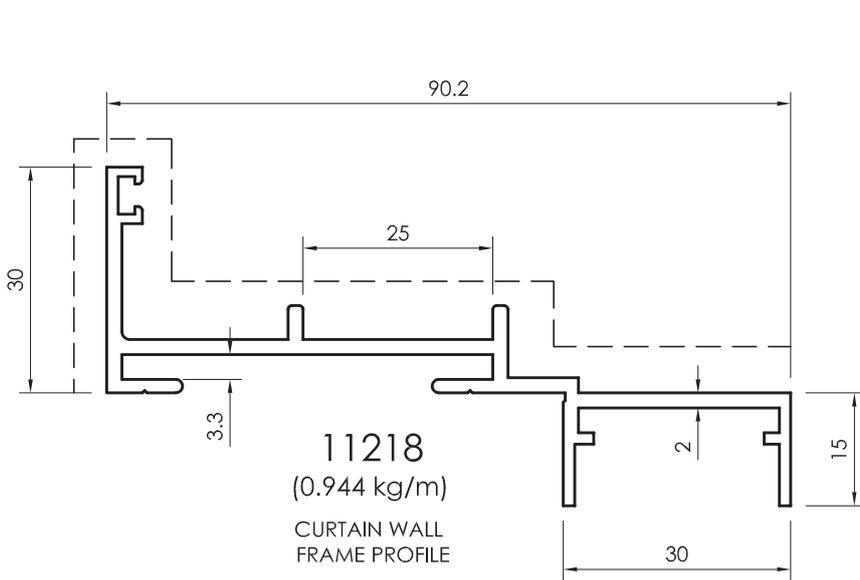
All dimensions in mm  
----- Visible area

Complementary Profiles



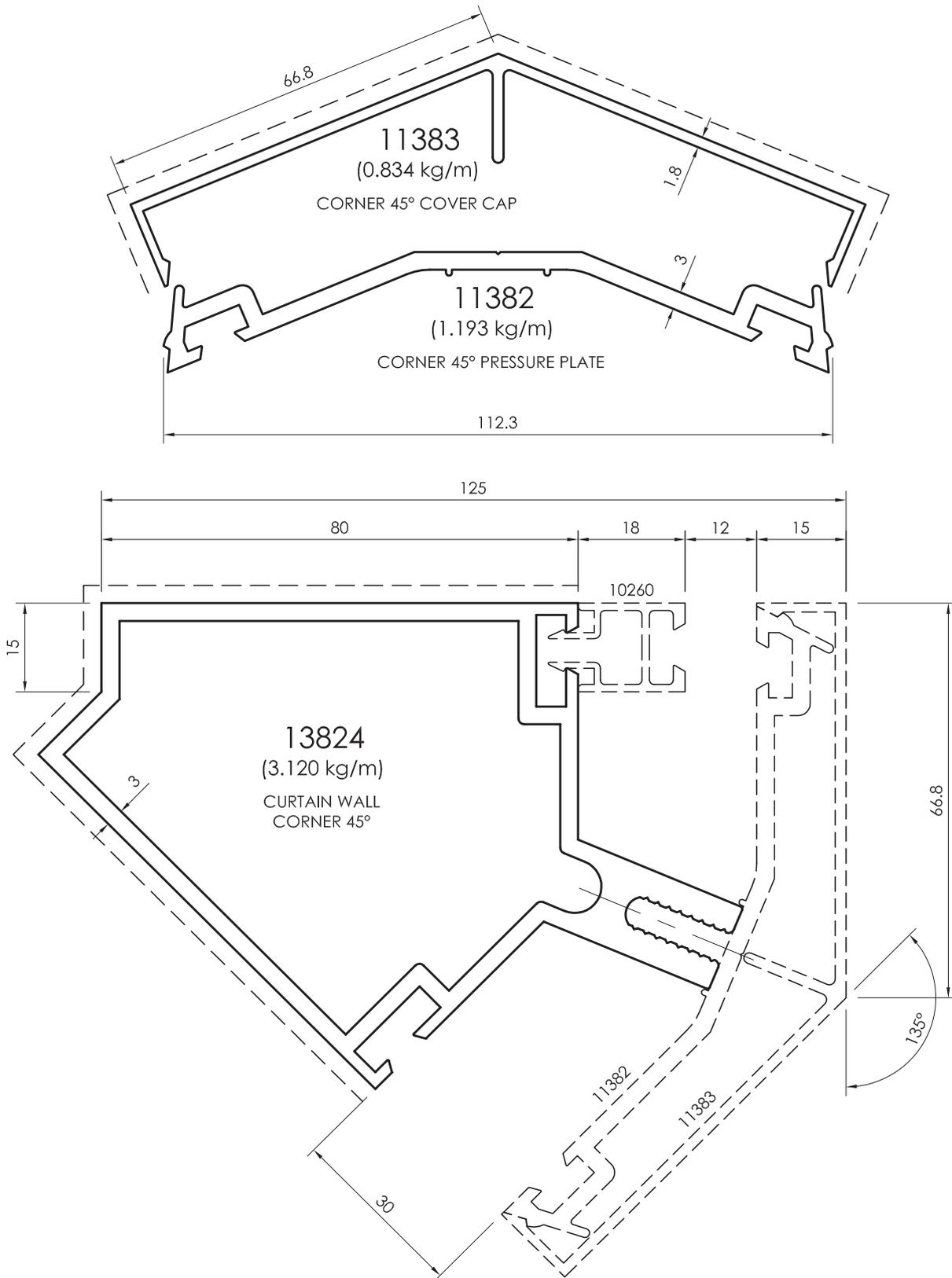
All dimensions in mm  
Visible area\_\_\_\_\_

Frame & Sash Profiles



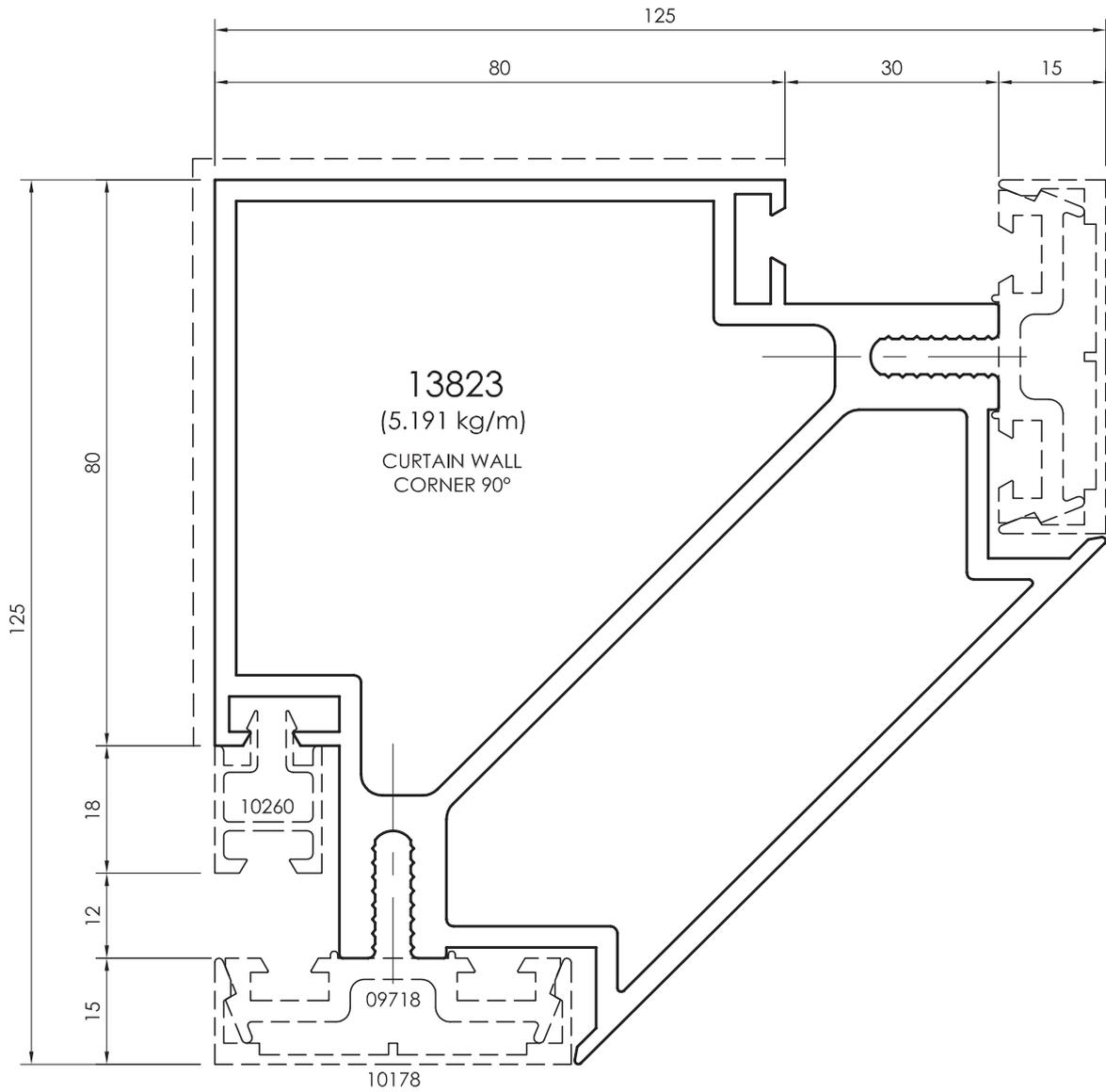
All dimensions in mm  
----- Visible area

Corner Profiles



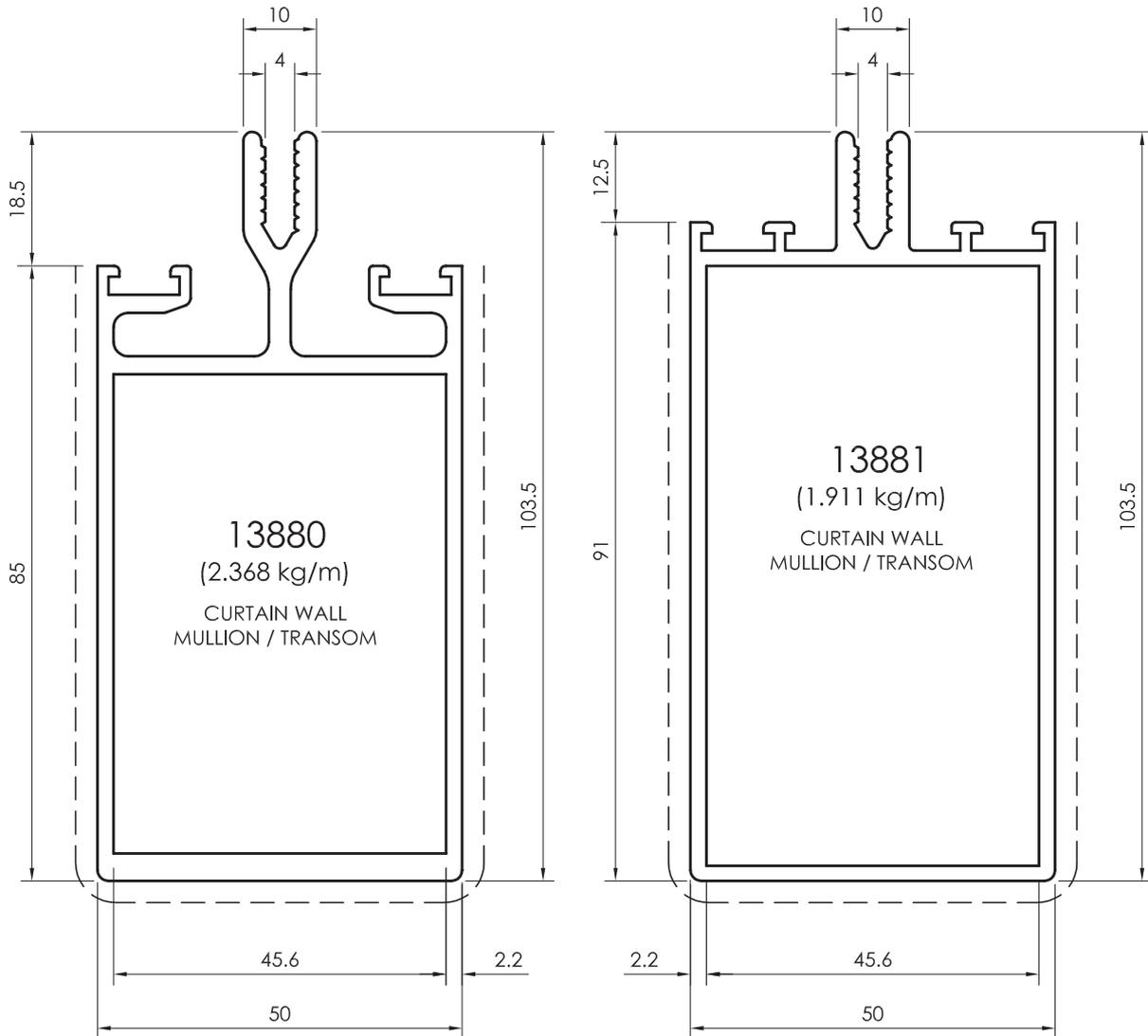
All dimensions in mm  
Visible area\_\_\_\_\_

Corner Profiles



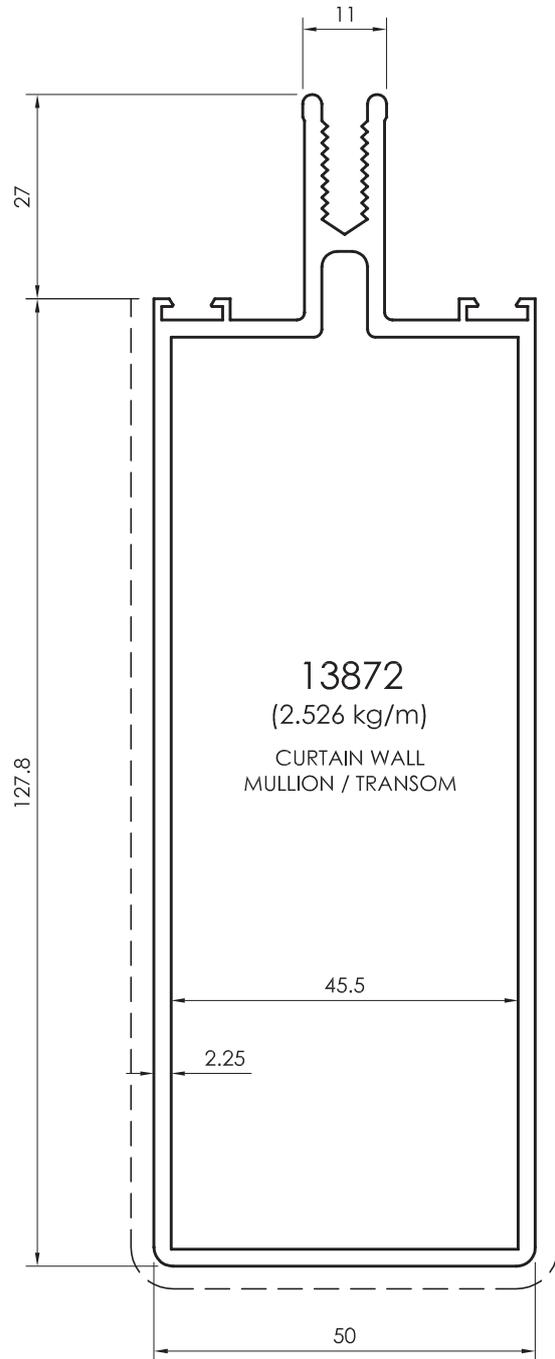
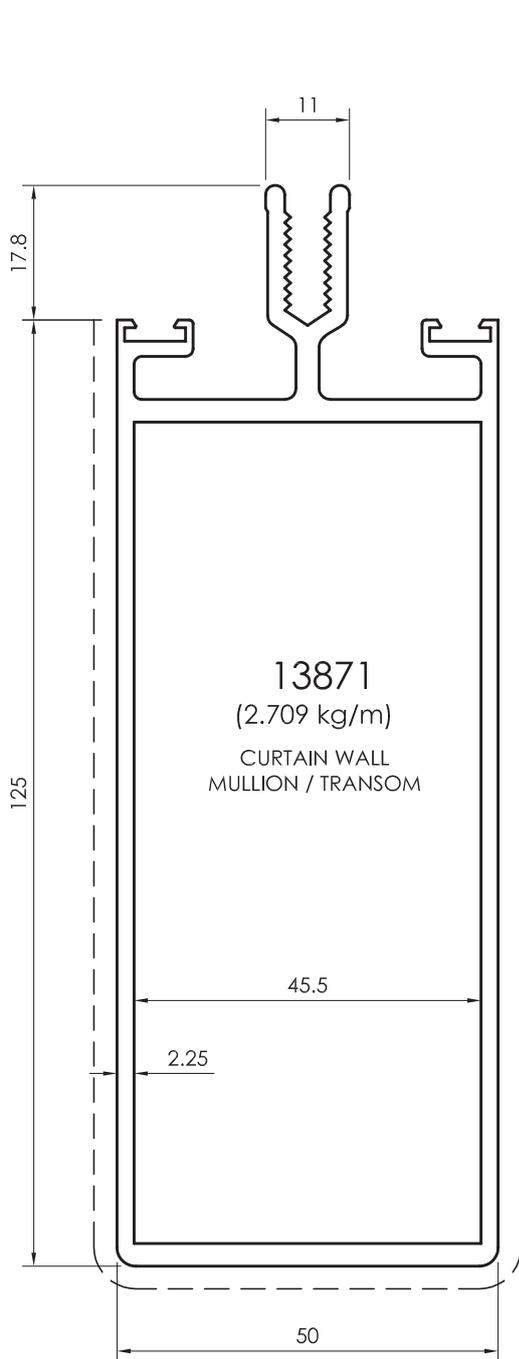
All dimensions in mm  
----- Visible area

Mullion / Transom Profiles



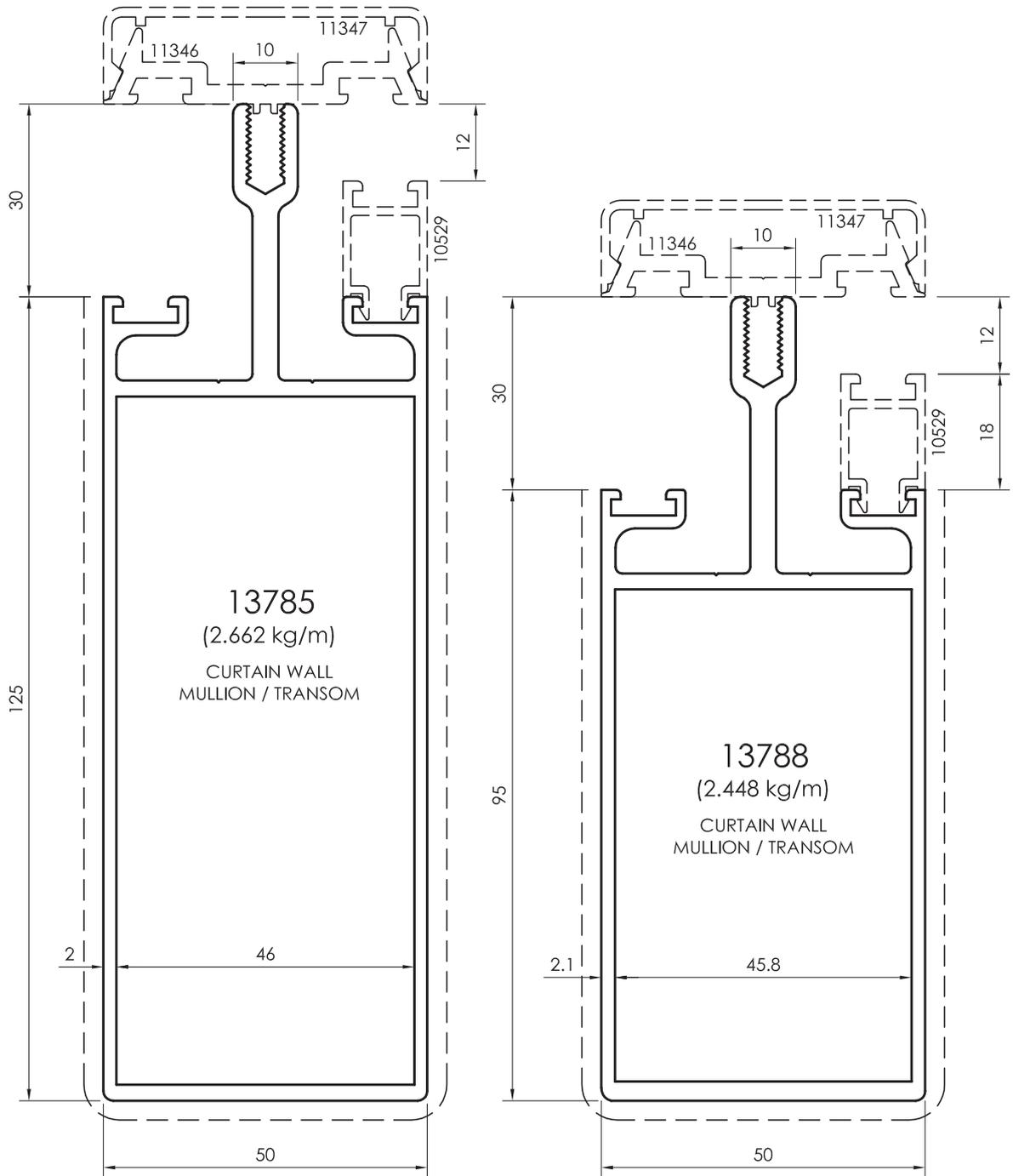
All dimensions in mm  
Visible area\_\_\_\_\_

Mullion / Transom Profiles



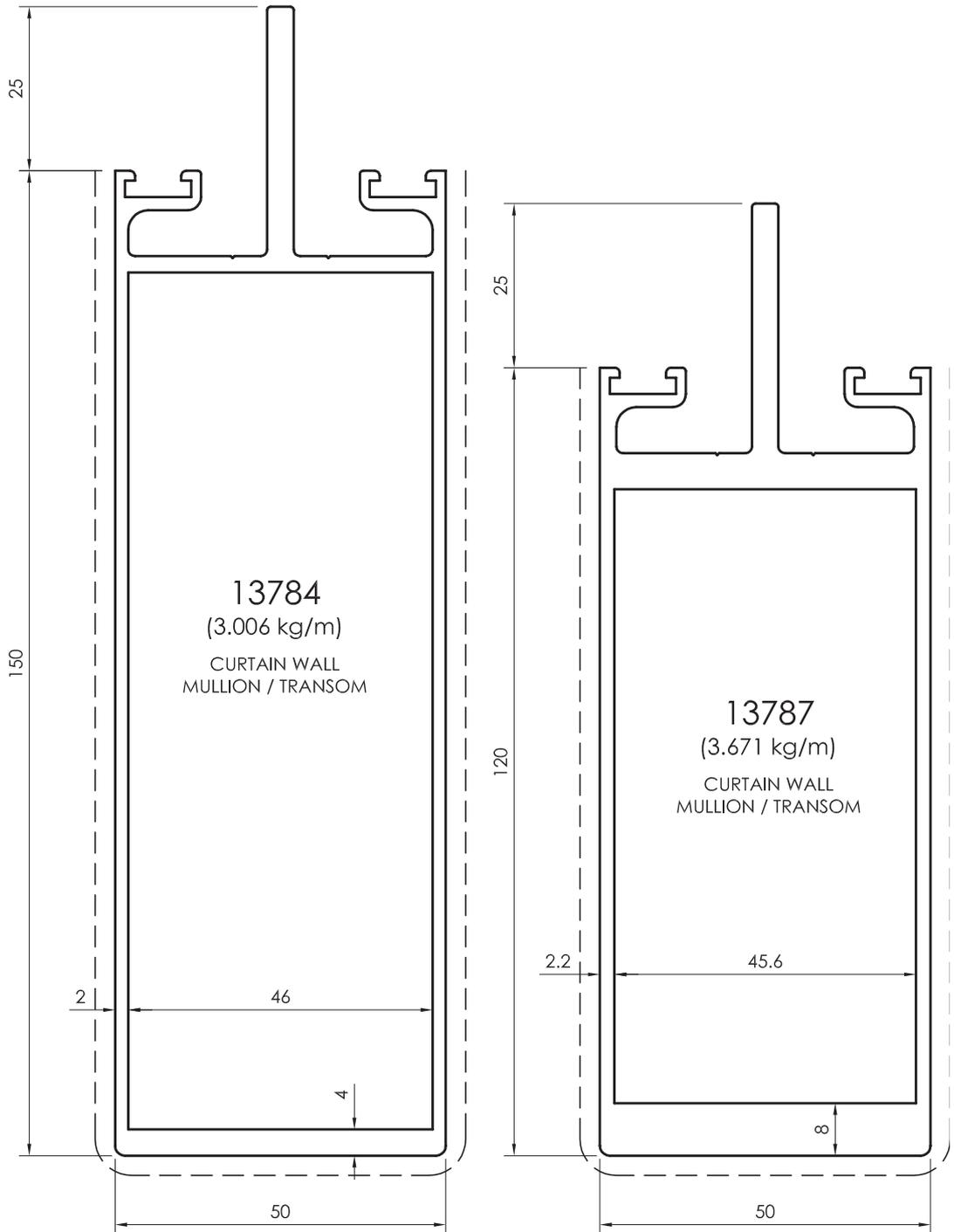
All dimensions in mm  
----- Visible area

Mullion / Transom Profiles



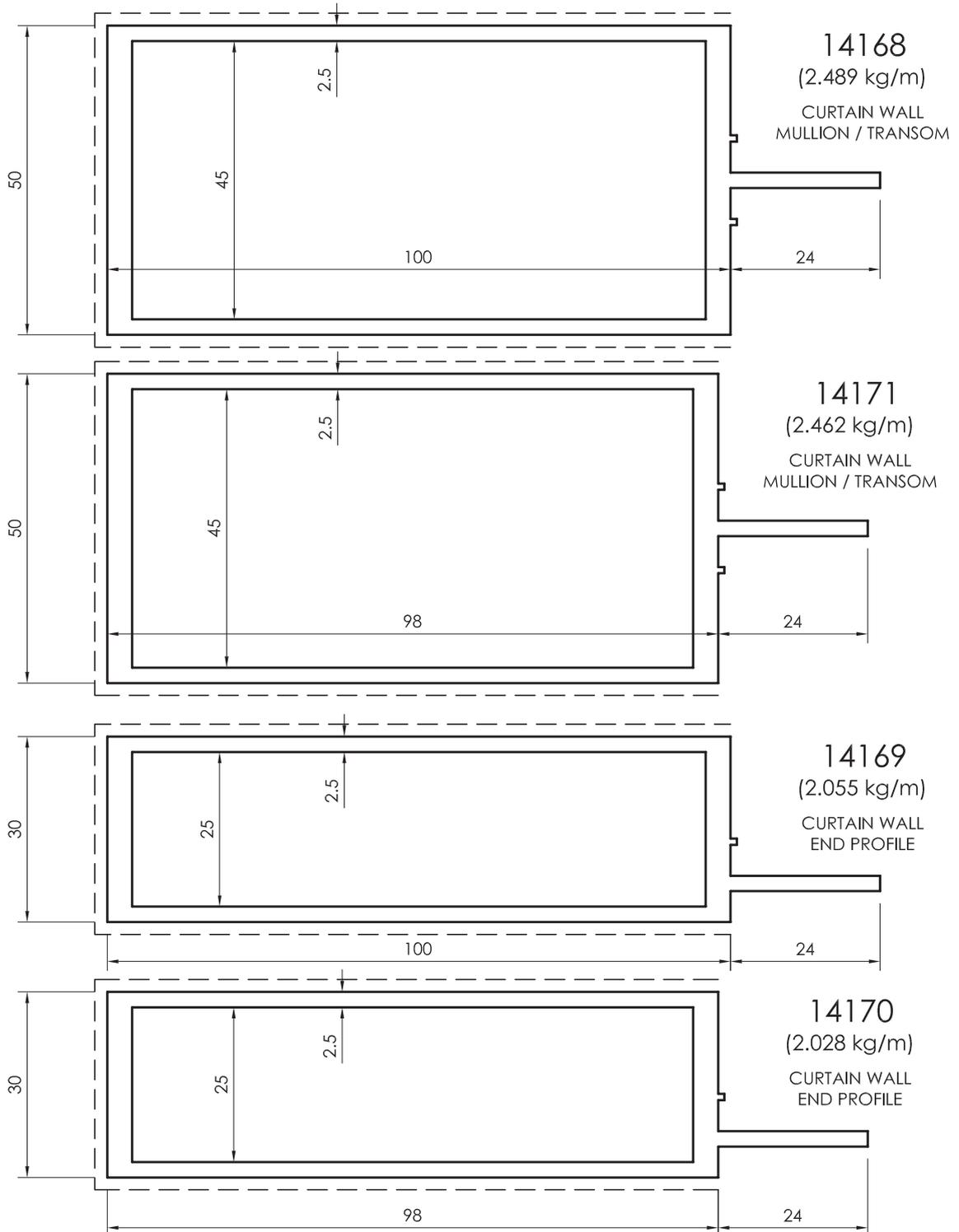
All dimensions in mm  
 Visible area\_-----

Mullion / Transom Profiles



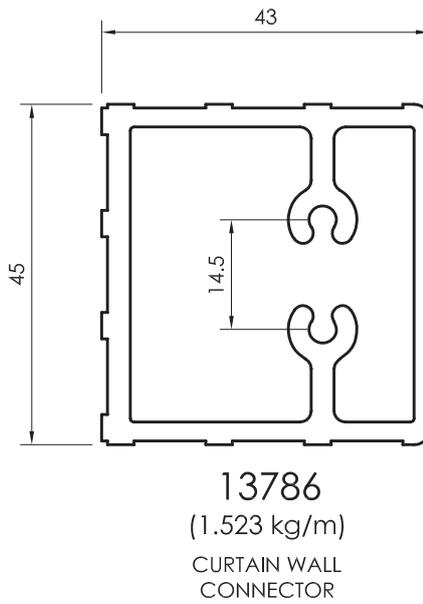
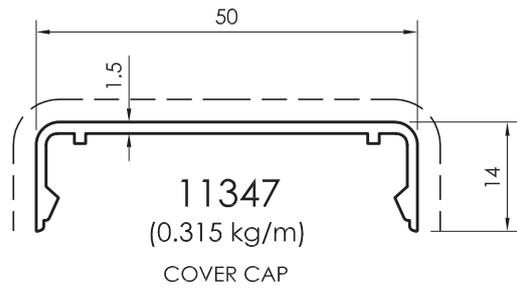
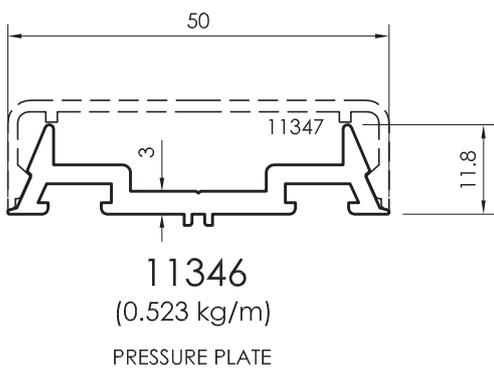
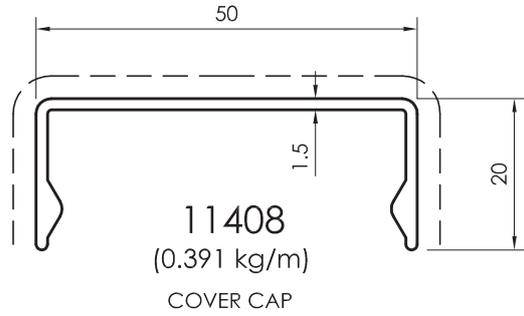
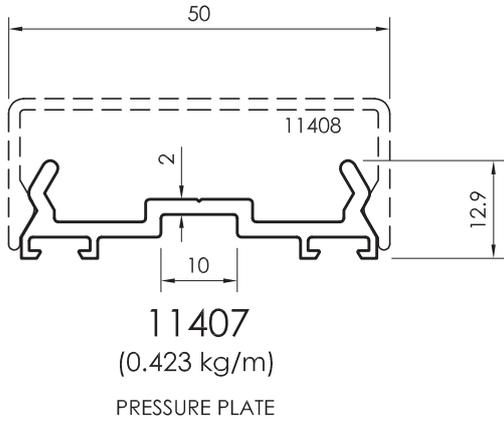
All dimensions in mm  
 ----- Visible area

## Mullion / Transom Profiles



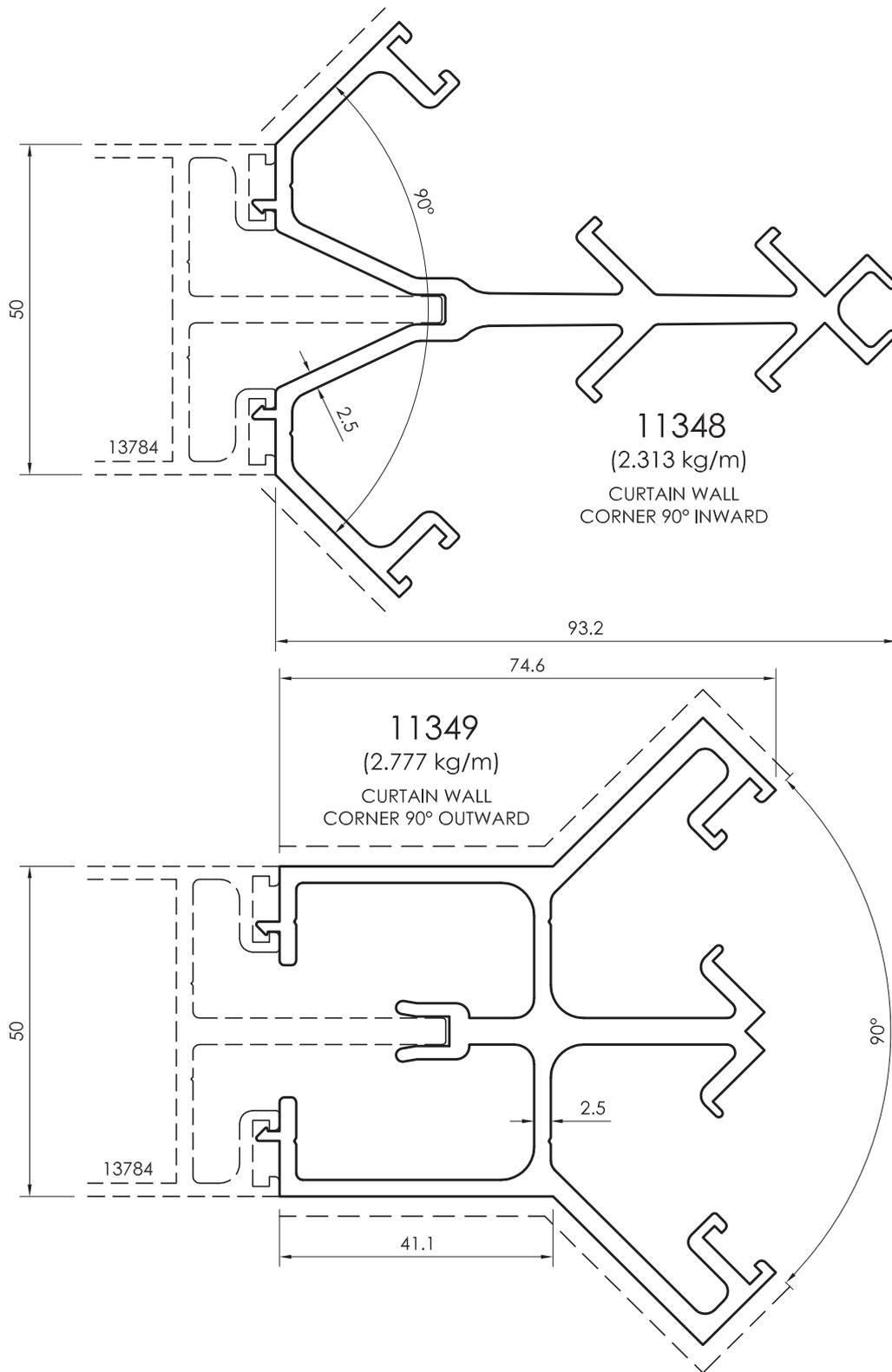
All dimensions in mm  
Visible area\_\_\_\_\_

Complementary Profiles



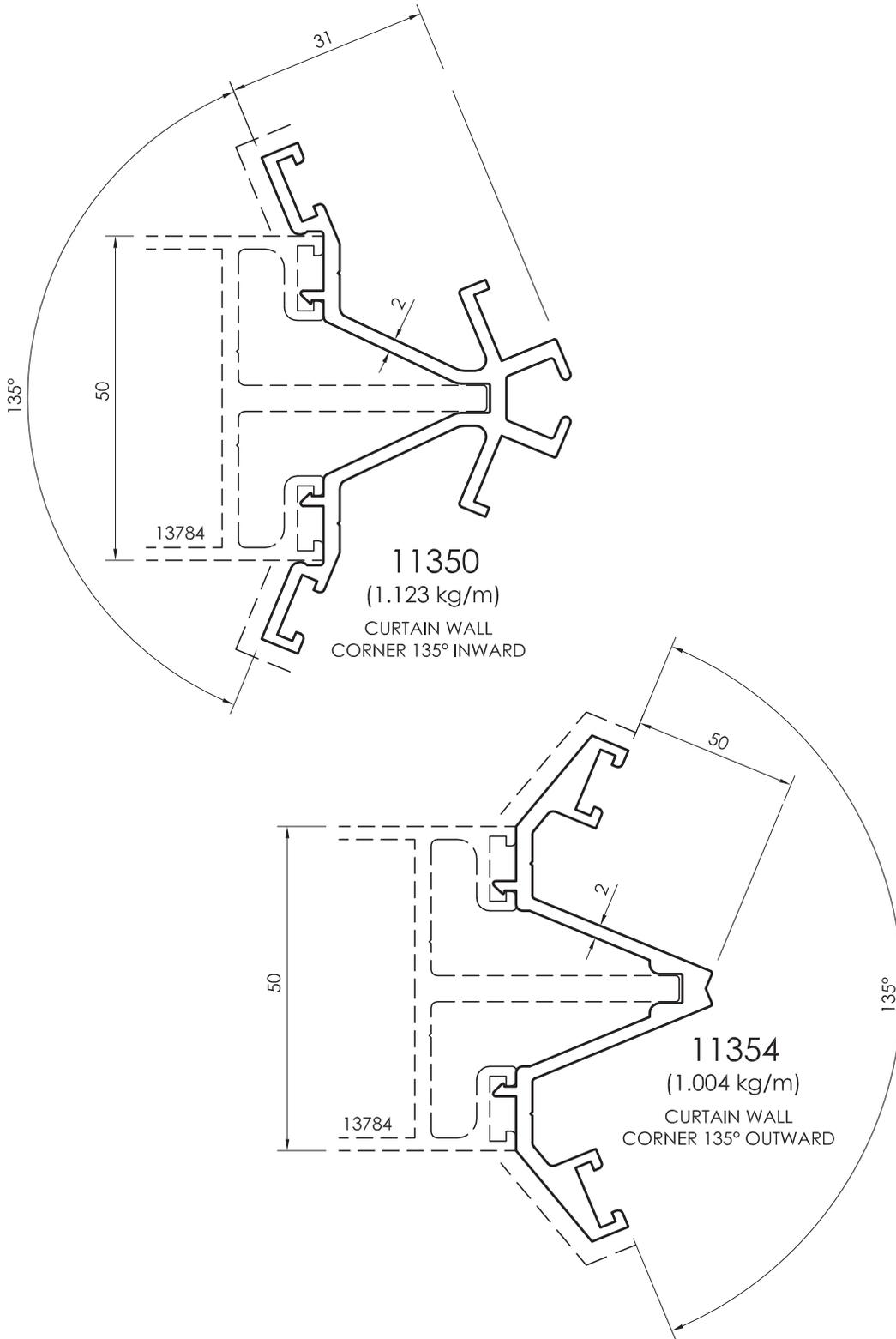
All dimensions in mm  
----- Visible area

Complementary Profiles



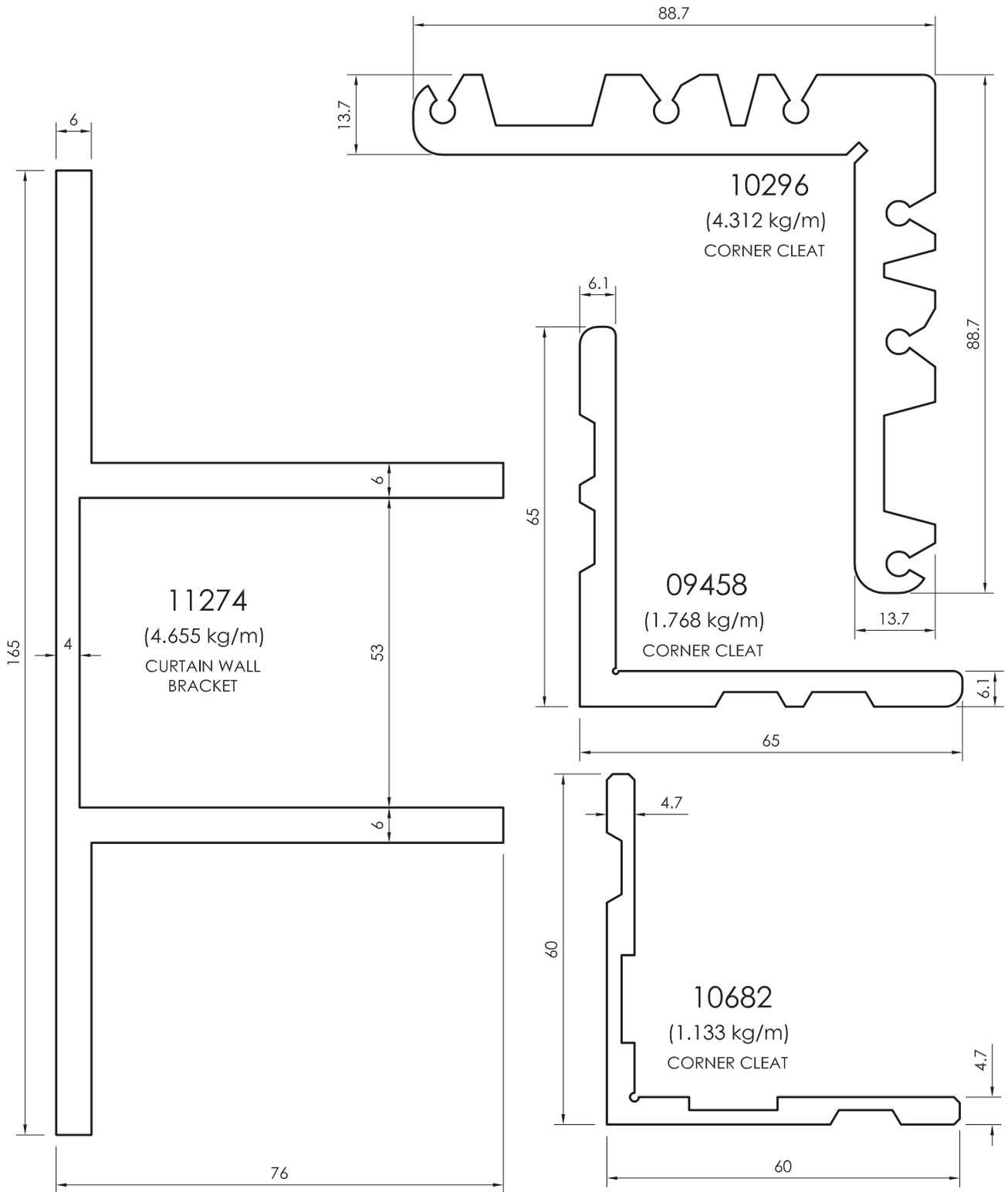
All dimensions in mm  
Visible area\_\_\_\_\_

Complementary Profiles



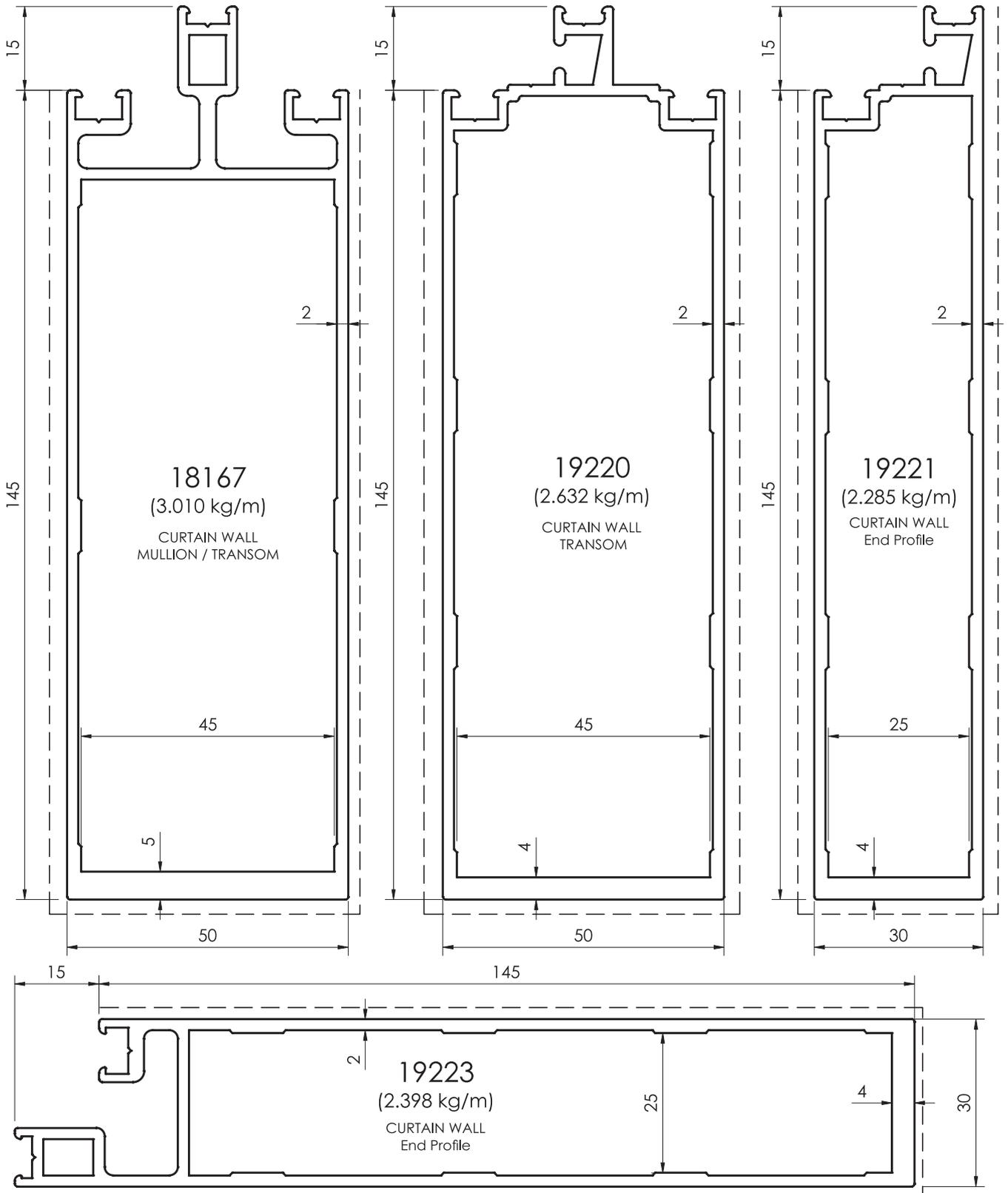
All dimensions in mm  
----- Visible area

Complementary Profiles



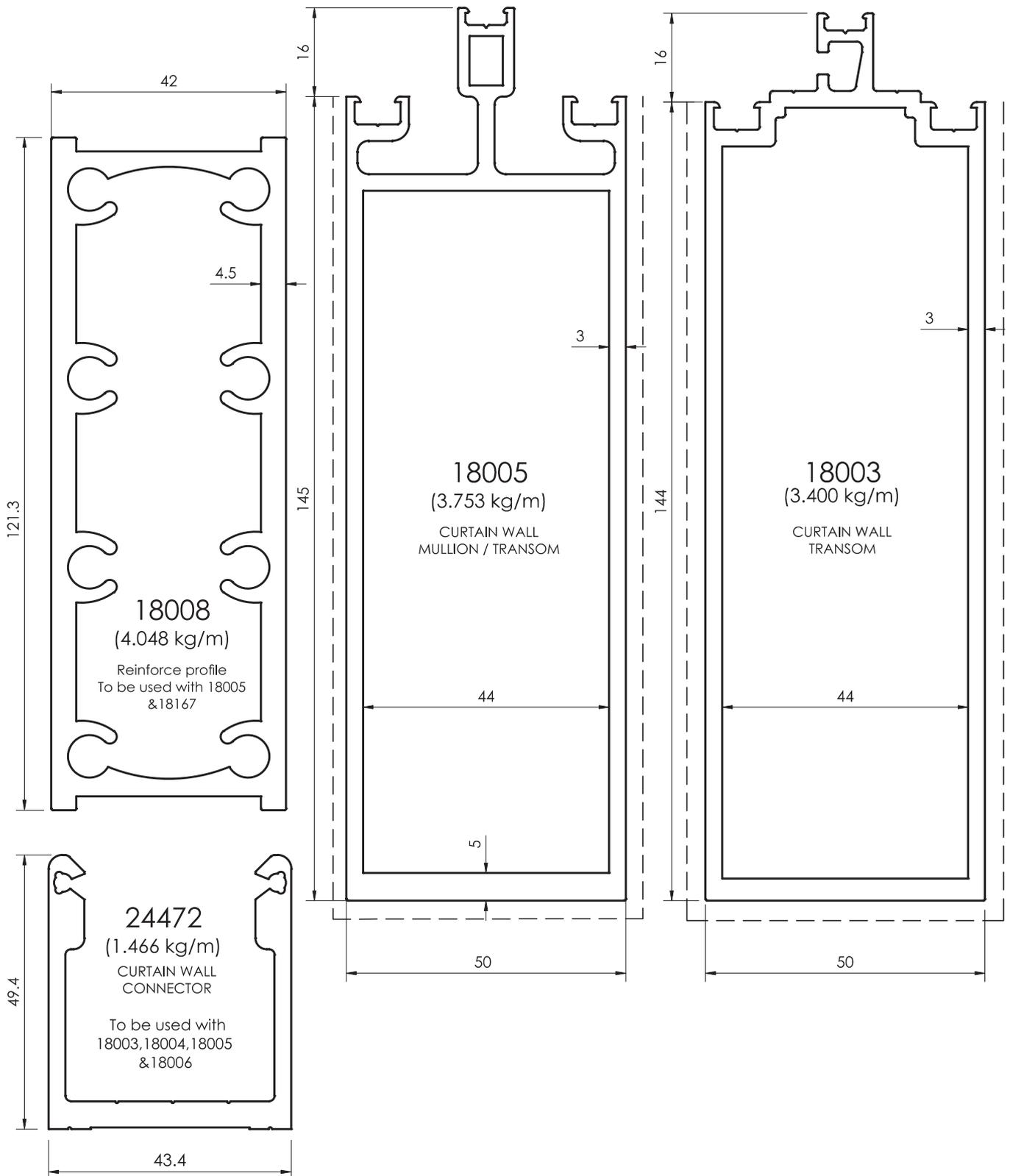
All dimensions in mm  
Visible area\_\_\_\_\_

Curtain Wall - 50mm



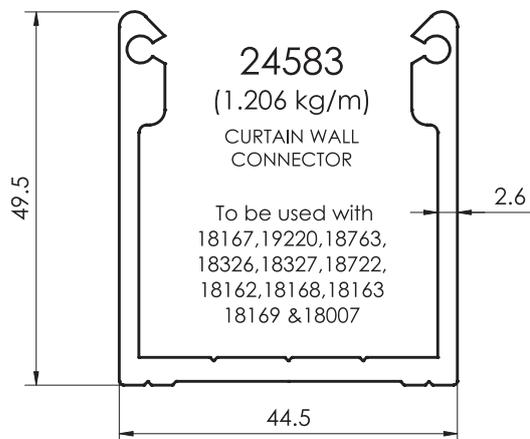
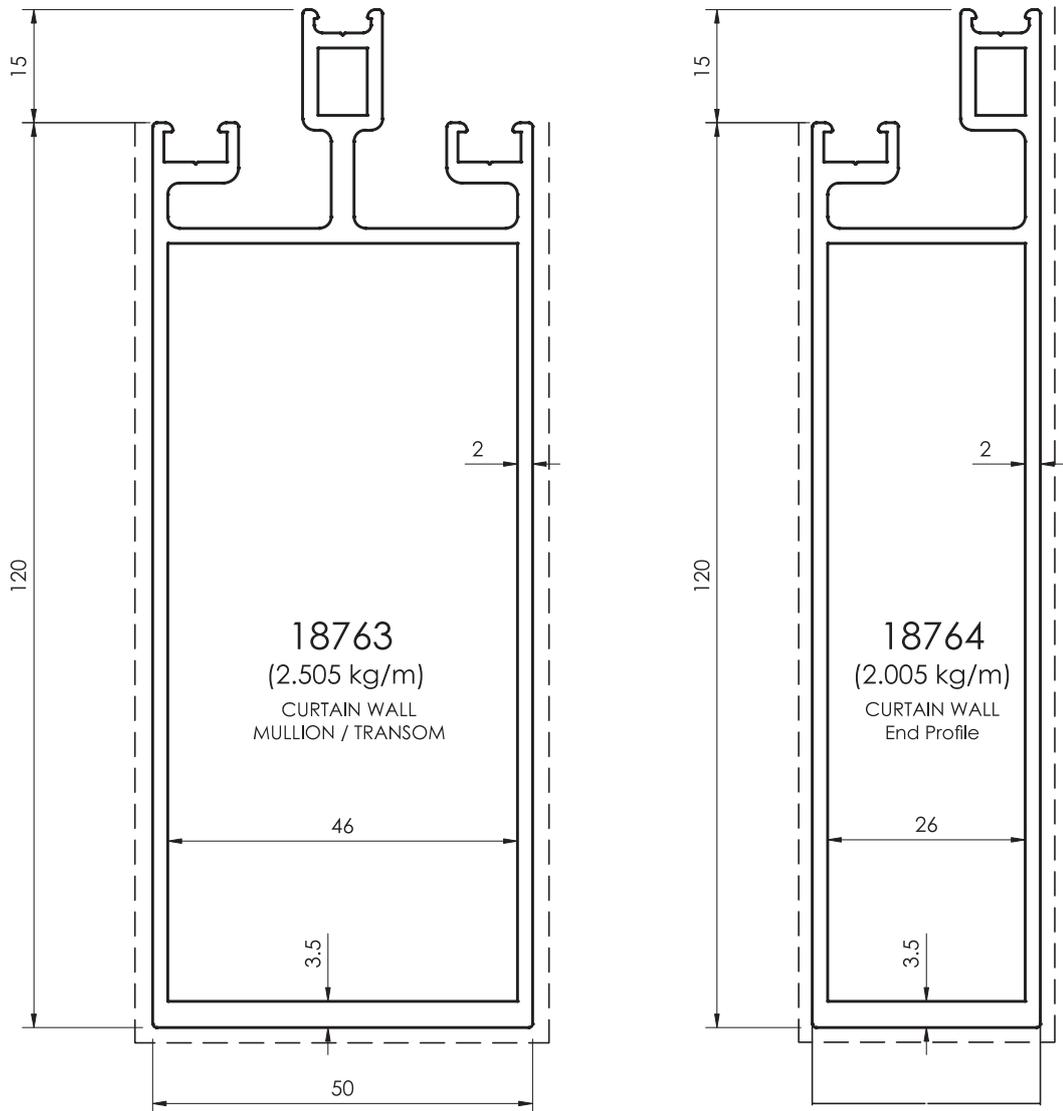
All dimensions in mm  
 - - - - - Visible area

Curtain Wall - 50mm



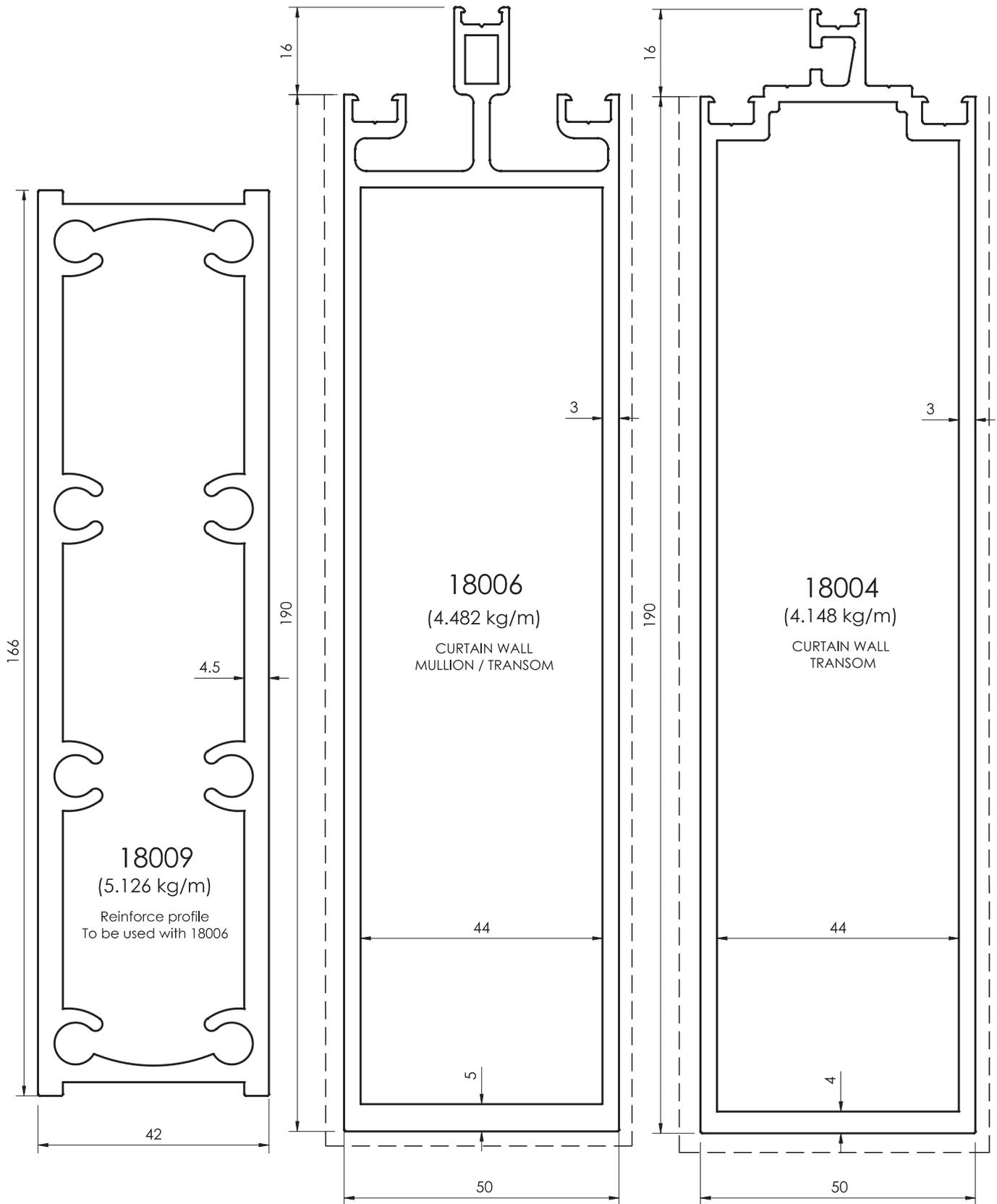
All dimensions in mm  
Visible area\_\_\_\_\_

Curtain Wall - 50mm



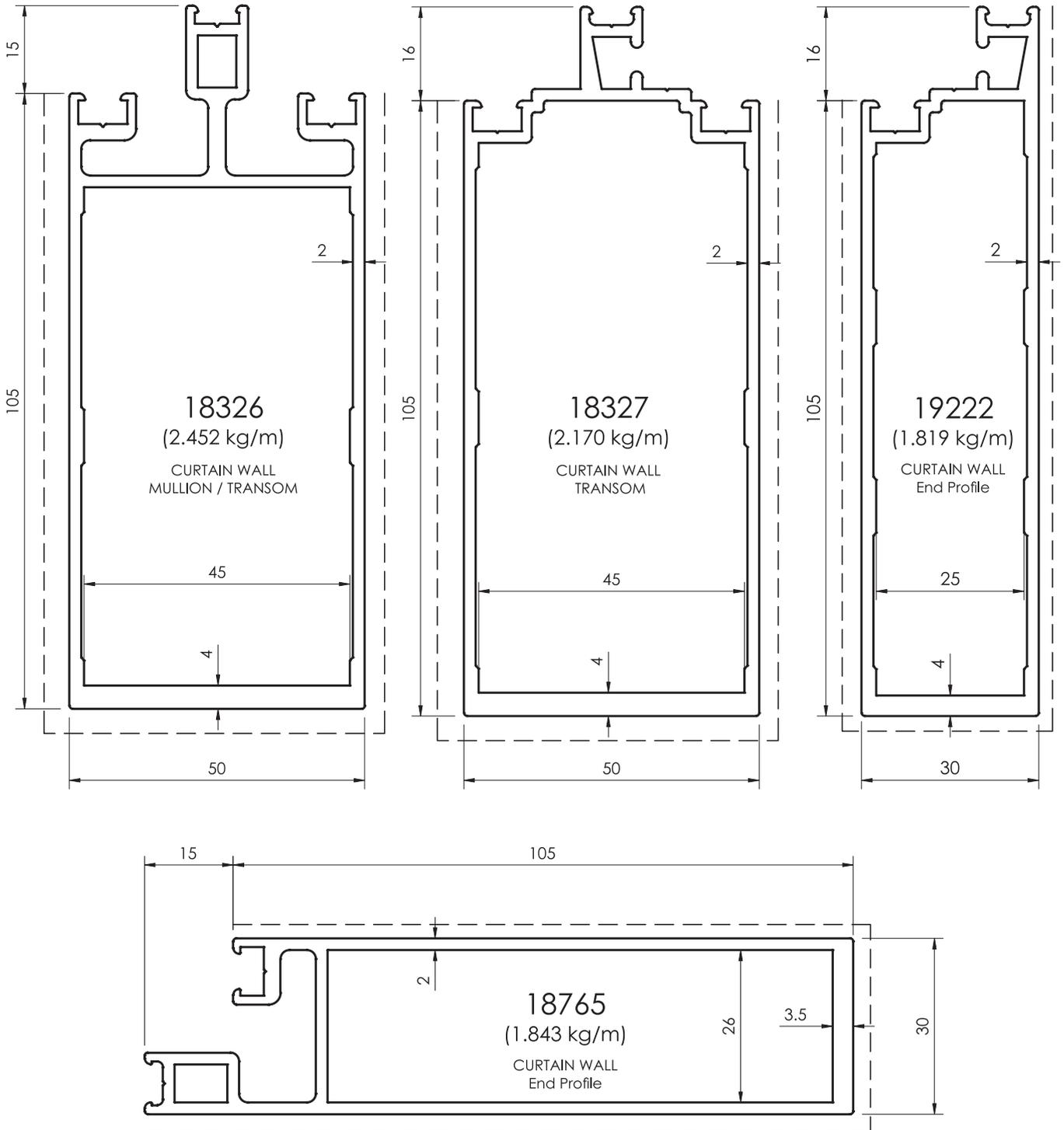
All dimensions in mm  
----- Visible area

Curtain Wall - 50mm



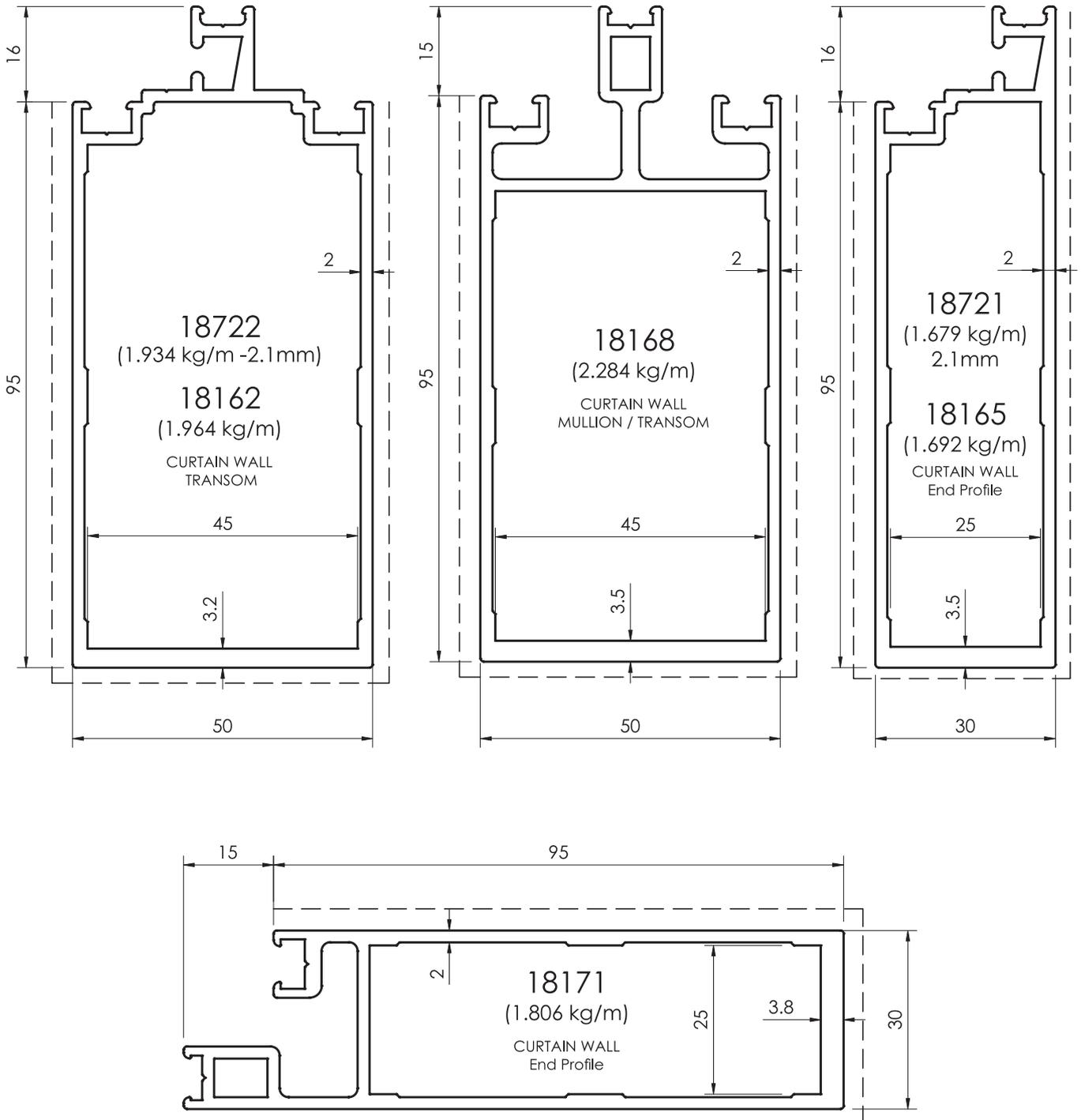
All dimensions in mm  
Visible area\_\_\_\_\_

Curtain Wall - 50mm



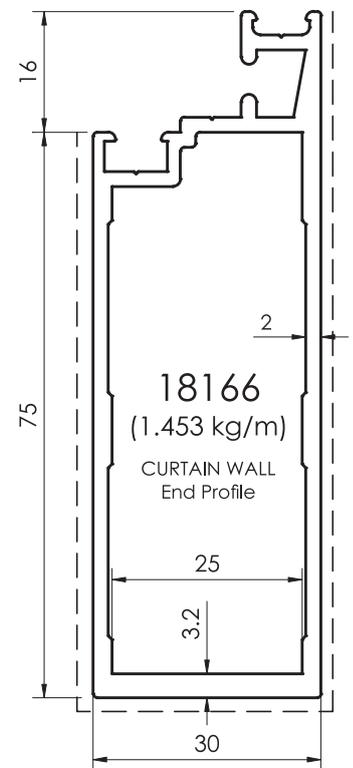
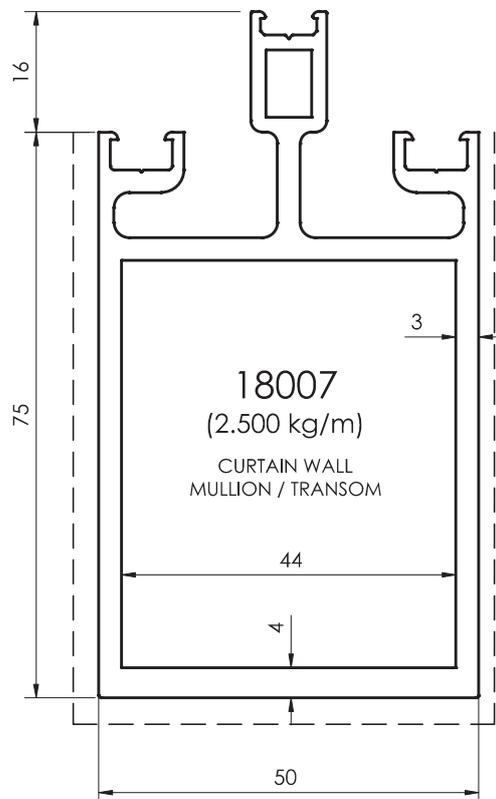
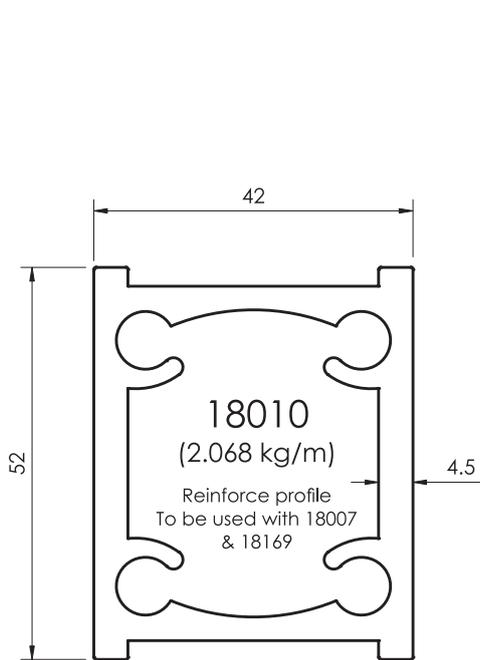
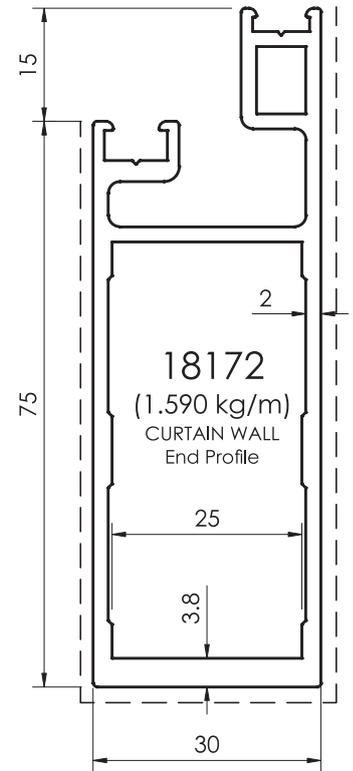
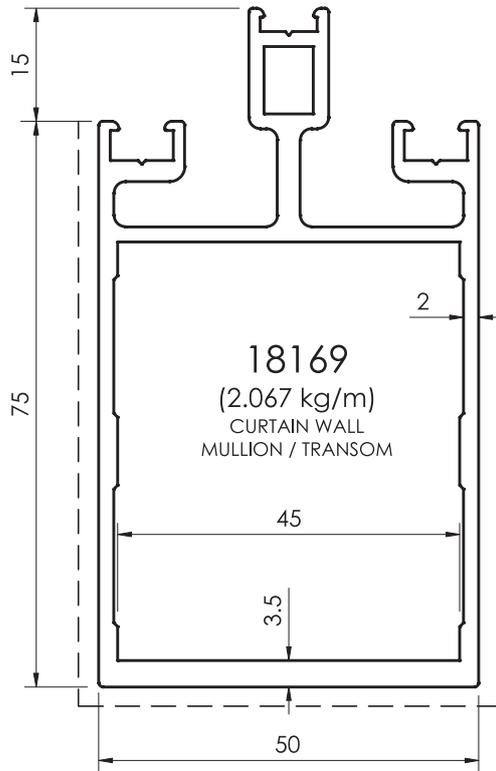
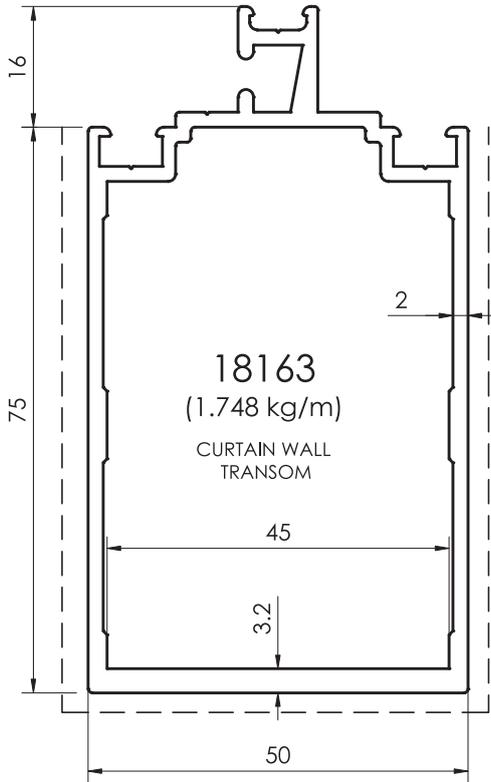
All dimensions in mm  
 - - - - - Visible area

Curtain Wall - 50mm



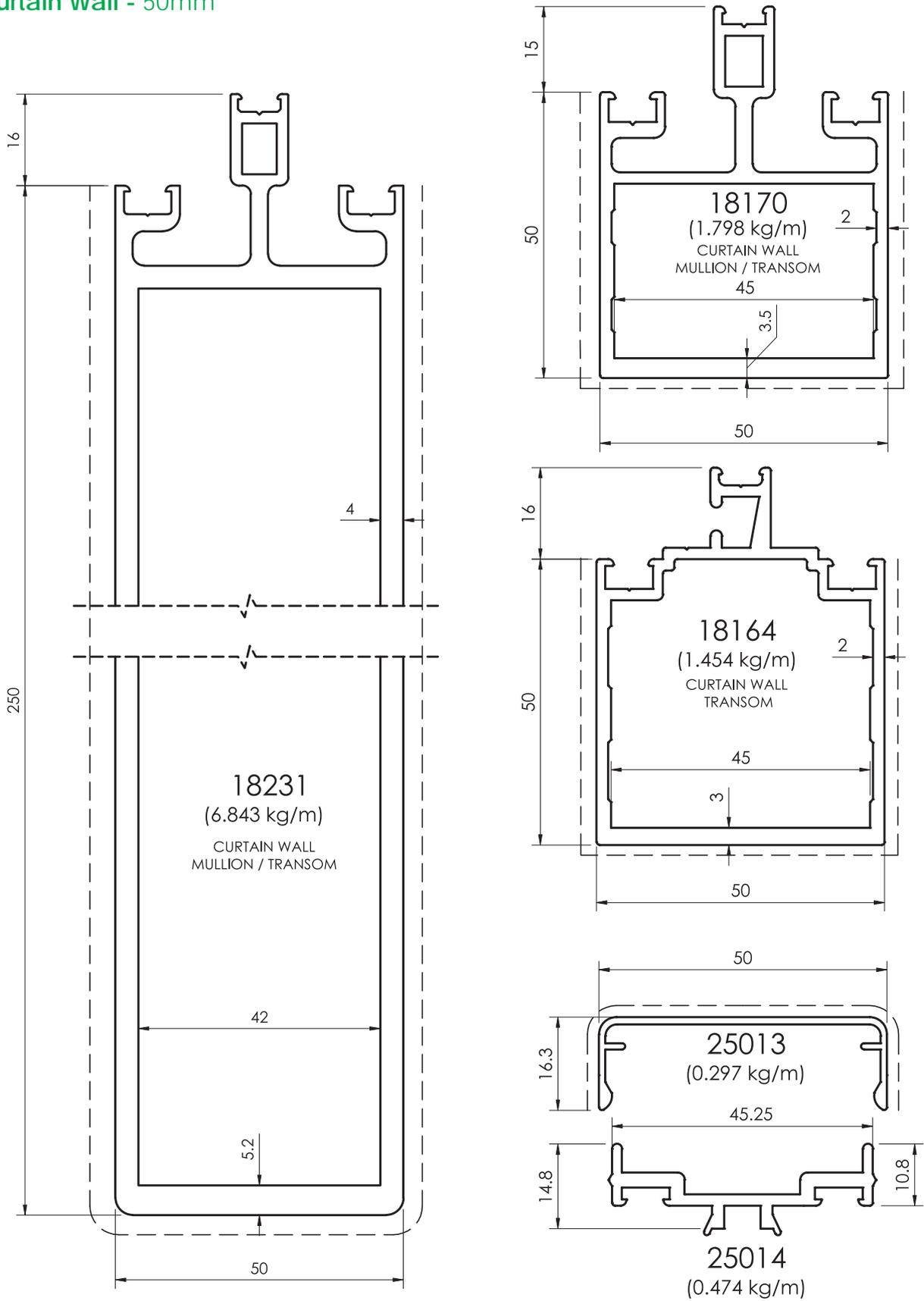
All dimensions in mm  
Visible area\_\_\_\_\_

Curtain Wall - 50mm



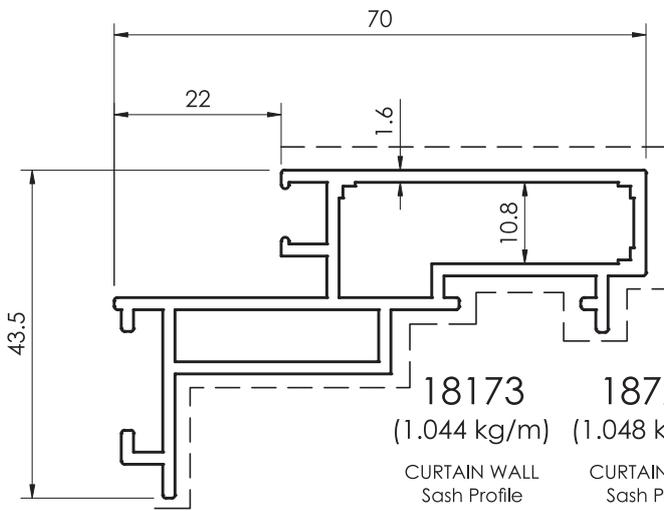
All dimensions in mm  
----- Visible area

Curtain Wall - 50mm



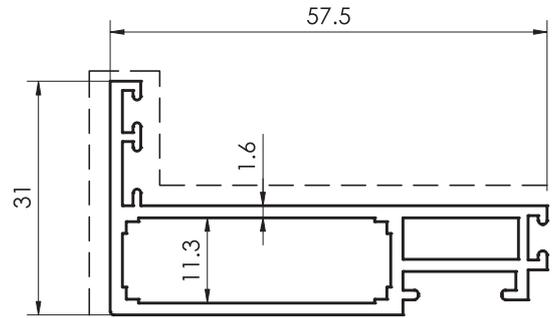
All dimensions in mm  
Visible area-----

Curtain Wall - 50mm

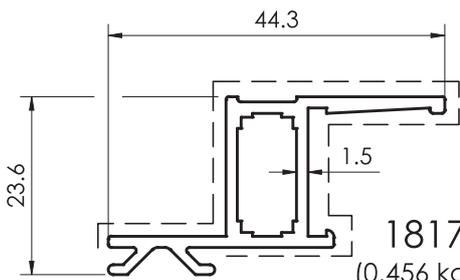


**18173**  
(1.044 kg/m)  
CURTAIN WALL  
Sash Profile

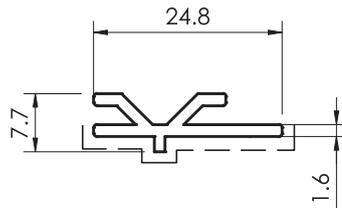
**18720**  
(1.048 kg/m)  
CURTAIN WALL  
Sash Profile



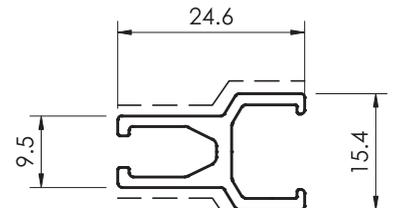
**18174**  
(0.768 kg/m)  
CURTAIN WALL  
Frame Profile



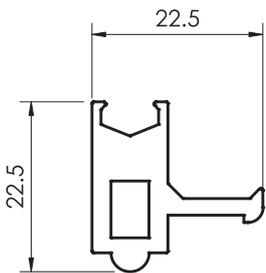
**18175**  
(0.456 kg/m)  
CURTAIN WALL  
Sub frame



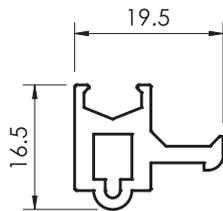
**24582**  
(0.183 kg/m)  
CURTAIN WALL  
Holder glass



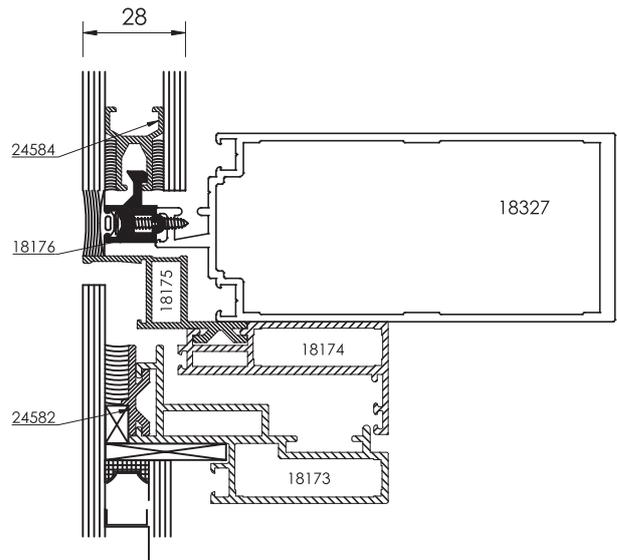
**24584**  
(0.279 kg/m)  
Spacer



**18177**  
(0.478 kg/m)  
Glass Toggler



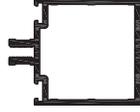
**18176**  
(0.306 kg/m)  
Glass Toggler



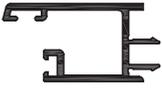
All dimensions in mm  
----- Visible area

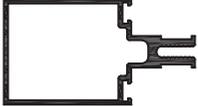
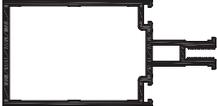


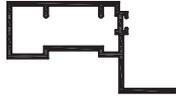
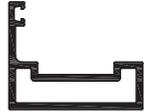
# PROFILE LIST

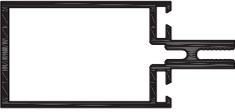
Profile Reference	Profile Section	Page	Weight KG/M	IX cm <sup>4</sup>	IY cm <sup>4</sup>	WX cm <sup>3</sup>	WY cm <sup>3</sup>
13795		13	1.485	24.082	17.332	7.303	6.933
13794		13	1.976	73.03	26.872	15.145	10.749
13940		12	2.387	147.08	34.591	23.636	13.837
16441		12	2.990	231.35	45.895	33.462	18.358
15125		13	1.705	58.295	9.723	12.511	5.797
15126		12	2.091	118.21	12.461	19.645	7.536
11069		14	0.278	0.098	3.204	0.101	1.281

Profile Reference	Profile Section	Page	Weight KG/M	IX cm <sup>4</sup>	IY cm <sup>4</sup>	WX cm <sup>3</sup>	WY cm <sup>3</sup>
11525		14	0.297	0.176	3.834	0.149	1.533
11388		14	0.438	0.091	3.604	0.126	1.476
11581		14	0.421	0.989	6.066	0.537	2.426
11872		14	0.364	0.441	4.951	0.294	1.980
11582		14	0.388	0.725	5.164	0.436	1.953
11359		13	1.503	7.341	15.465	2.991	6.951
11472		16	0.365	0.371	0.337	0.349	0.435

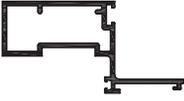
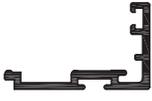
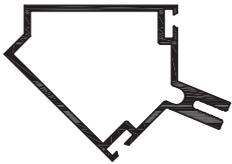
Profile Reference	Profile Section	Page	Weight KG/M	IX cm <sup>4</sup>	IY cm <sup>4</sup>	WX cm <sup>3</sup>	WY cm <sup>3</sup>
10529		16	0.213	0.314	0.197	0.255	0.303
11618		16	0.257	0.181	0.812	0.215	0.459
24372		17	0.386	0.726	1.368	0.735	0.676
21926		16	0.456	0.180	0.811	0.197	0.531
23389		16	0.519	0.284	0.802	0.281	0.500
21074		16	0.331	0.070	0.695	0.102	0.483
11434		16	0.454	0.234	0.775	0.249	0.483

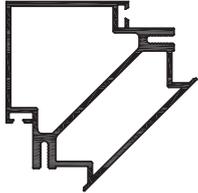
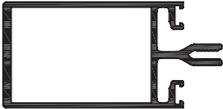
Profile Reference	Profile Section	Page	Weight KG/M	IX cm <sup>4</sup>	IY cm <sup>4</sup>	WX cm <sup>3</sup>	WY cm <sup>3</sup>
11956		16	0.541	0.572	2.583	0.649	1.244
21073		16	0.167	0.130	0.187	0.185	0.170
13547		20	1.763	54.465	17.939	11.926	7.175
14496		20	2.005	76.781	22.899	14.347	9.160
15625		20	2.656	122.01	31.553	20.75	12.621
10744		18	0.752	16.516	1.945	4.489	0.809
13213		18	1.226	21.987	8.809	6.218	3.238

Profile Reference	Profile Section	Page	Weight KG/M	IX cm <sup>4</sup>	IY cm <sup>4</sup>	WX cm <sup>3</sup>	WY cm <sup>3</sup>
13913		18	1.242	24.125	9.744	5.157	3.663
13212		18	1.323	31.25	11.10	6.417	4.391
22405		17	0.560	4.926	1.563	1.895	0.665
15907		17	0.740	5.962	2.059	2.451	0.859
13938		21	3.642	434.51	53.26	47.42	21.303
13939		21	2.470	139.1	31.381	21.688	12.552
11414		26	0.436	0.084	3.463	0.124	1.486

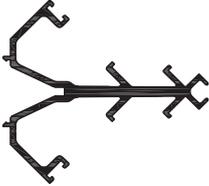
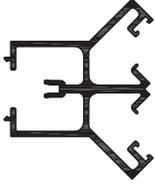
Profile Reference	Profile Section	Page	Weight KG/M	IX cm <sup>4</sup>	IY cm <sup>4</sup>	WX cm <sup>3</sup>	WY cm <sup>3</sup>
11415		26	0.433	0.974	6.349	0.560	2.537
12388		22	2.604	75.164	25.136	16.525	10.055
13674		22	2.315	67.253	22.159	14.516	8.863
12748		23	3.322	150.51	32.953	25.634	13.181
12785		23	1.567	35.182	14.509	9.031	6.671
13255		24	3.042	143.10	32.482	25.547	12.993
13661		24	2.646	123.71	28.184	22.111	11.274

Profile Reference	Profile Section	Page	Weight KG/M	IX cm <sup>4</sup>	IY cm <sup>4</sup>	WX cm <sup>3</sup>	WY cm <sup>3</sup>
12387		25	3.651	295.39	43.146	41.195	17.258
12665		25	2.067	104.79	22.29	18.5	10.25
09719		26	0.389	0.531	5.580	0.366	2.232
10178		26	0.344	0.228	4.575	0.198	1.830
09718		26	0.642	0.225	4.999	0.311	2.127
09723		26	0.239	0.243	0.253	0.209	0.335
10260		26	0.259	0.382	0.289	0.288	0.382

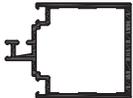
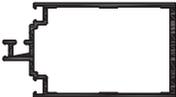
Profile Reference	Profile Section	Page	Weight KG/M	IX cm <sup>4</sup>	IY cm <sup>4</sup>	WX cm <sup>3</sup>	WY cm <sup>3</sup>
09724		26	1.615	8.642	15.887	3.603	7.476
11218		27	0.944	30.965	2.530	6.147	0.982
13640		27	1.241	24.499	8.933	5.023	3.643
11219		27	0.311	1.321	0.409	0.575	0.274
11383		28	0.834	2.781	43.287	1.177	7.016
11382		28	1.193	1.061	58.296	0.848	10.378
13824		28	3.120	140.96	59.582	22.211	13.397

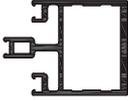
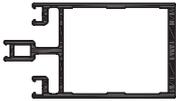
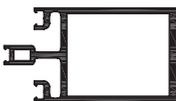
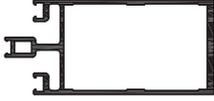
Profile Reference	Profile Section	Page	Weight KG/M	IX cm <sup>4</sup>	IY cm <sup>4</sup>	WX cm <sup>3</sup>	WY cm <sup>3</sup>
13823		29	5.191	256.13	256.13	36.711	36.711
13880		30	2.368	100.506	29.378	18.516	11.351
13881		30	1.911	85.755	26.523	16.171	10.605
13871		31	2.709	221.85	37.915	30.67	15.166
13872		31	2.526	231.97	36.391	29.66	14.556
13785		32	2.662	233.13	34.8	29.528	13.919
13788		32	2.448	135.22	29.222	20.807	11.685

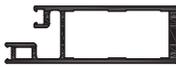
Profile Reference	Profile Section	Page	Weight KG/M	IX cm <sup>4</sup>	IY cm <sup>4</sup>	WX cm <sup>3</sup>	WY cm <sup>3</sup>
13784		33	3.006	375.91	41.678	41.466	16.671
13787		33	3.671	313.34	42.754	38.306	17.102
14168		34	2.489	146.94	34.316	21.034	13.727
14171		34	2.462	140.34	33.752	20.376	13.501
14169		34	2.055	109.51	10.947	15.861	6.976
14170		34	2.028	104.45	10.757	15.347	6.851
11407		35	0.423	0.115	3.746	0.149	1.608

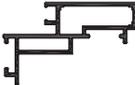
Profile Reference	Profile Section	Page	Weight KG/M	IX cm <sup>4</sup>	IY cm <sup>4</sup>	WX cm <sup>3</sup>	WY cm <sup>3</sup>
11408		35	0.391	0.602	5.557	0.433	2.223
11346		35	0.523	0.138	4.227	0.168	1.691
11347		35	0.315	0.200	3.903	0.182	1.561
13786		35	1.523	12.280	14.268	5.626	6.341
11348		36	2.313	65.674	26.89	11.615	6.172
11349		36	2.777	46.122	59.212	10.188	12.464
11350		37	1.123	8.022	13.765	3.119	3.494

Profile Reference	Profile Section	Page	Weight KG/M	IX cm <sup>4</sup>	IY cm <sup>4</sup>	WX cm <sup>3</sup>	WY cm <sup>3</sup>
11354		37	1.004	2.516	18.922	1.285	4.850
18470		15	1.396	17.080	67.357	6.832	10.001
18472		15	0.829	9.421	11.219	3.768	2.973
18471		15	0.696	9.112	4.926	3.645	1.881
11274		38	4.655	97.529	295.477	17.859	35.815
10296		38	4.312	--	--	--	--
09458		38	1.768	--	--	--	--

Profile Reference	Profile Section	Page	Weight KG/M	IX cm <sup>4</sup>	IY cm <sup>4</sup>	WX cm <sup>3</sup>	WY cm <sup>3</sup>
10682		38	1.133	--	--	--	--
18164		44	1.454	25.67	17.04	6.76	6.79
18163		45	1.748	62.55	22.96	12.35	9.15
18162		44	1.964	105.81	27.57	17.50	10.99
18327		43	2.170	142.04	30.49	20.96	12.16
18003		40	3.400	351.78	52.86	41.34	21.12
18004		42	4.148	696.39	68.18	64.5	27.26

Profile Reference	Profile Section	Page	Weight KG/M	IX cm <sup>4</sup>	IY cm <sup>4</sup>	WX cm <sup>3</sup>	WY cm <sup>3</sup>
18166		45	1.453	48.01	7.80	9.86	4.76
18165		44	1.692	84.14	9.44	14.25	5.82
18170		45	1.798	26.13	19.14	7.0	7.66
18169		45	2.067	65.92	24.91	13.69	9.96
18007		45	2.500	74.09	30.72	14.76	12.29
18168		44	2.284	114.37	29.52	20.04	11.81
18326		43	2.452	151.29	32.20	24.02	12.88

Profile Reference	Profile Section	Page	Weight KG/M	IX cm <sup>4</sup>	IY cm <sup>4</sup>	WX cm <sup>3</sup>	WY cm <sup>3</sup>
18167		39	3.010	348.46	42.26	41.10	16.90
18005		40	3.753	369.54	53.94	44.52	21.58
18006		42	4.482	726.72	68.87	69.41	27.55
18231		44	6.843	1800.24	111.68	131.82	44.67
18172		45	1.590	49.08	8.12	10.12	5.08
18171		44	1.806	85.41	9.7	14.76	6.11
18010		45	2.068	22.55	19.37	8.67	9.22

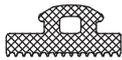
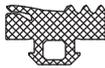
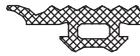
Profile Reference	Profile Section	Page	Weight KG/M	IX cm <sup>4</sup>	IY cm <sup>4</sup>	WX cm <sup>3</sup>	WY cm <sup>3</sup>
18008		40	4.048	222.99	43.09	36.56	20.52
18009		40	5.126	518.26	57.27	62.24	27.27
24583		41	1.206	12.41	14.90	4.23	6.70
24472		40	1.466	14.41	16.09	4.76	7.41
18173		47	1.044	16.87	4.51	4.66	1.61
18174		47	0.768	10.5	1.58	3.25	0.75
18175		47	0.456	1.76	1.17	0.75	0.93

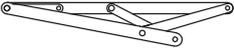
Profile Reference	Profile Section	Page	Weight KG/M	IX cm <sup>4</sup>	IY cm <sup>4</sup>	WX cm <sup>3</sup>	WY cm <sup>3</sup>
24582		47	0.183	--	--	--	--
24584		47	0.279	--	--	--	--
18177		47	0.478	--	--	--	--
18176		47	0.306	--	--	--	--
11053		17	0.185	--	--	--	--
19222		43	1.819	106.292	10.345	16.566	6.415
19221		39	2.285	233.040	13.610	27.595	8.605

Profile Reference	Profile Section	Page	Weight KG/M	IX cm <sup>4</sup>	IY cm <sup>4</sup>	WX cm <sup>3</sup>	WY cm <sup>3</sup>
19223		39	2.398	241.547	13.898	29.315	8.873
19220		39	2.632	297.052	40.423	34.072	16.131
81203		19	1.087	6.748	25.253	2.104	2.502
81202		19	1.111	5.567	19.415	2.532	2.171



# ACCESSORIES

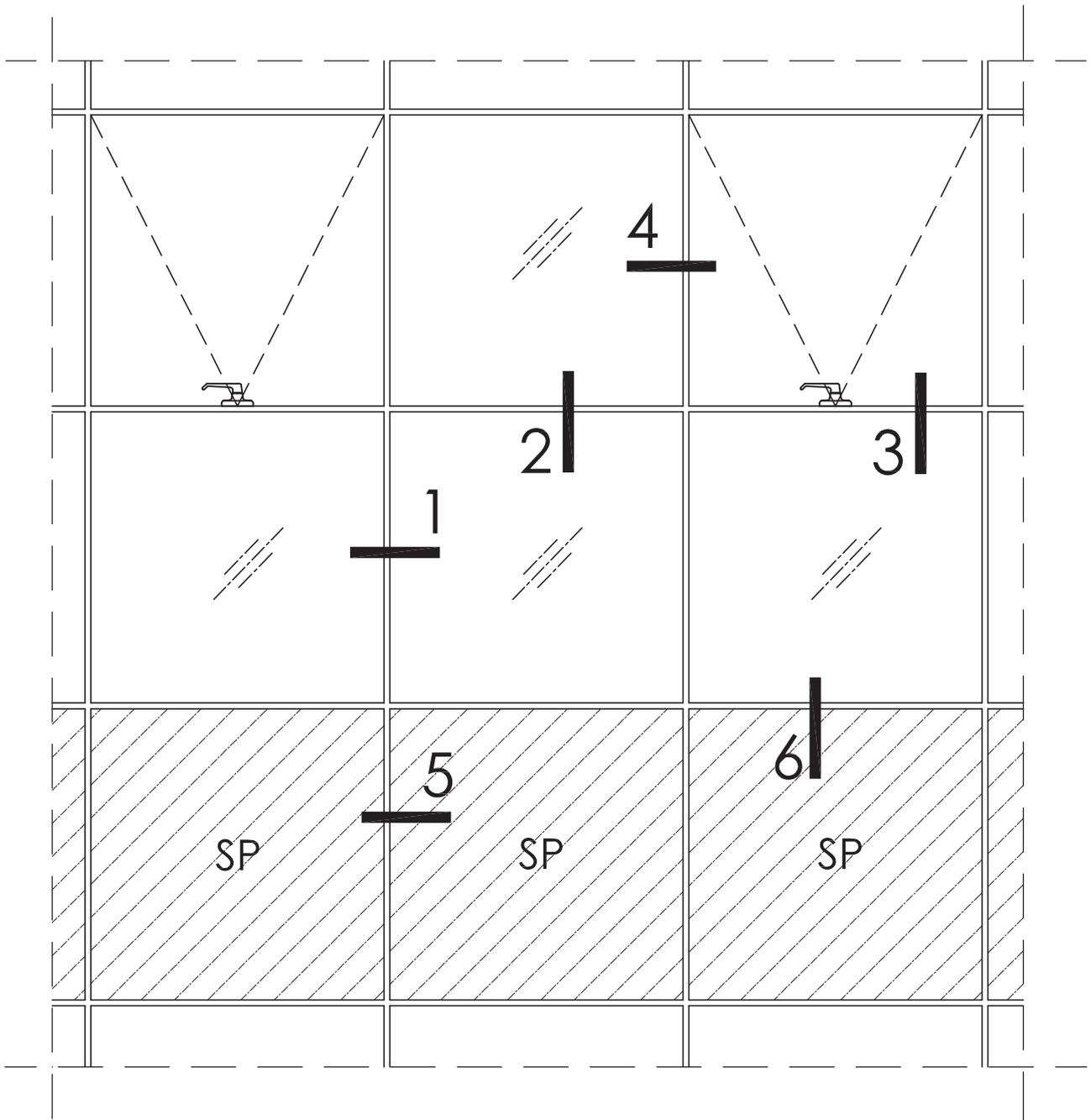
Gasket / Accessories Reference	Section	Description	Unit
GE-G-034		EPDM RUBBER USED WITH SASH 13212	Linear Meter
GE-G-021		EPDM RUBBER USED WITH MULLION / TRANSOM	Linear Meter
GE-G-048		EPDM RUBBER USED WITH FRAME	Linear Meter
GE-G-047		EPDM RUBBER USED WITH FRAME	Linear Meter
GE-G-055		EPDM RUBBER USED WITH MULLION / TRANSOM	Linear Meter
GE-G-033		EPDM RUBBER USED WITH PRESSURE 801203	Linear Meter
GE-G-039		EPDM RUBBER USED WITH MULLION / TRANSOM	Linear Meter
GE-G-015		EPDM RUBBER USED WITH FRAME & SASH	Linear Meter

Gasket / Accessories Reference	Section	Description	Unit
GE-G-056		EPDM RUBBER FOR OPENING USED WITH MULLION / TRANSOM	Linear Meter
GE-G-060		EPDM RUBBER FOR TRANSOM COVER CLIP	Linear Meter
GE-LOCKING SYSTEM		LOCKING SYSTEM	Piece
GE-STAY ARM		FRICTION STAY ARM	Piece



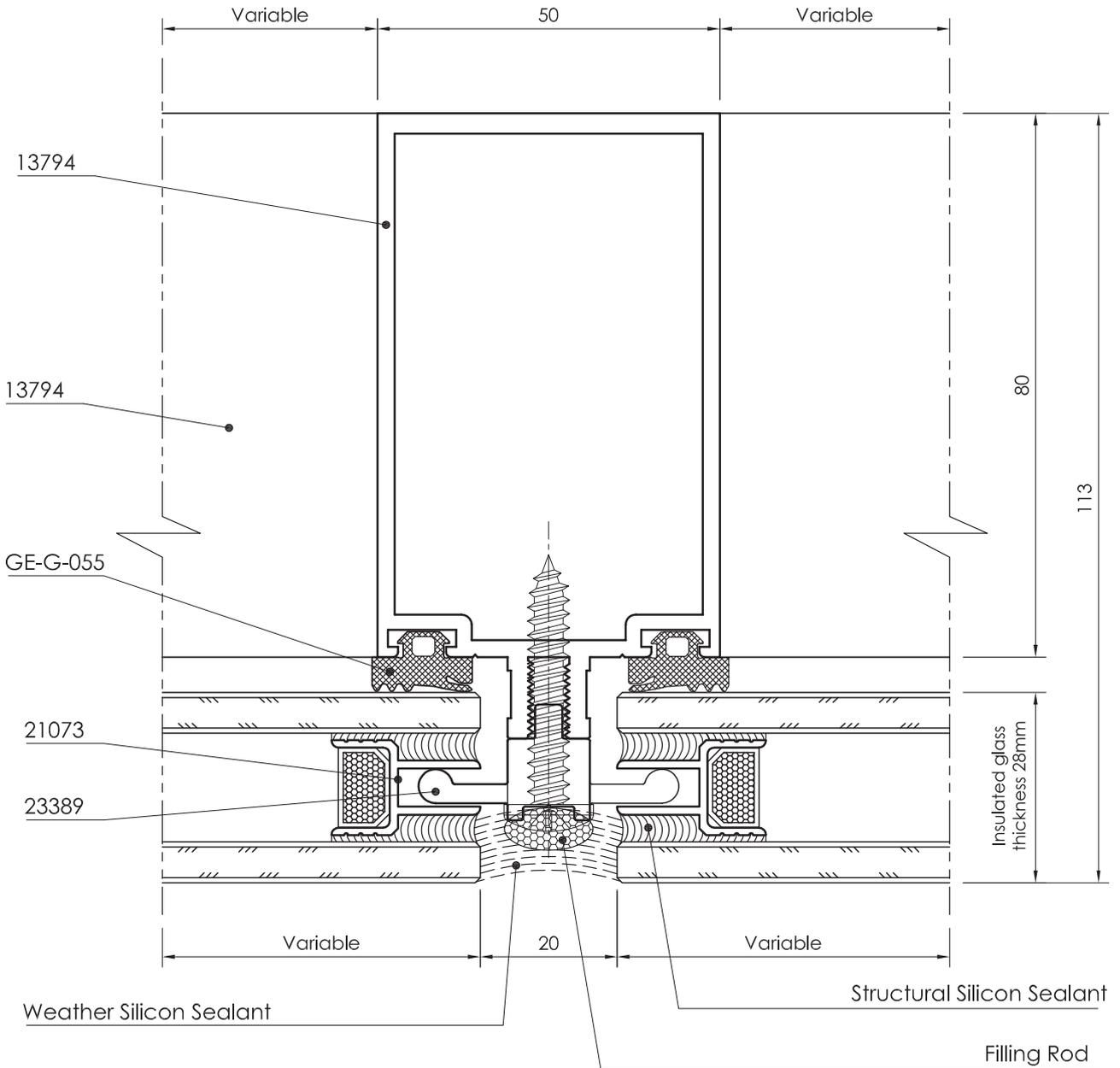
# ASSEMBLY DRAWINGS

## 50mm 4-way Structural Glazing



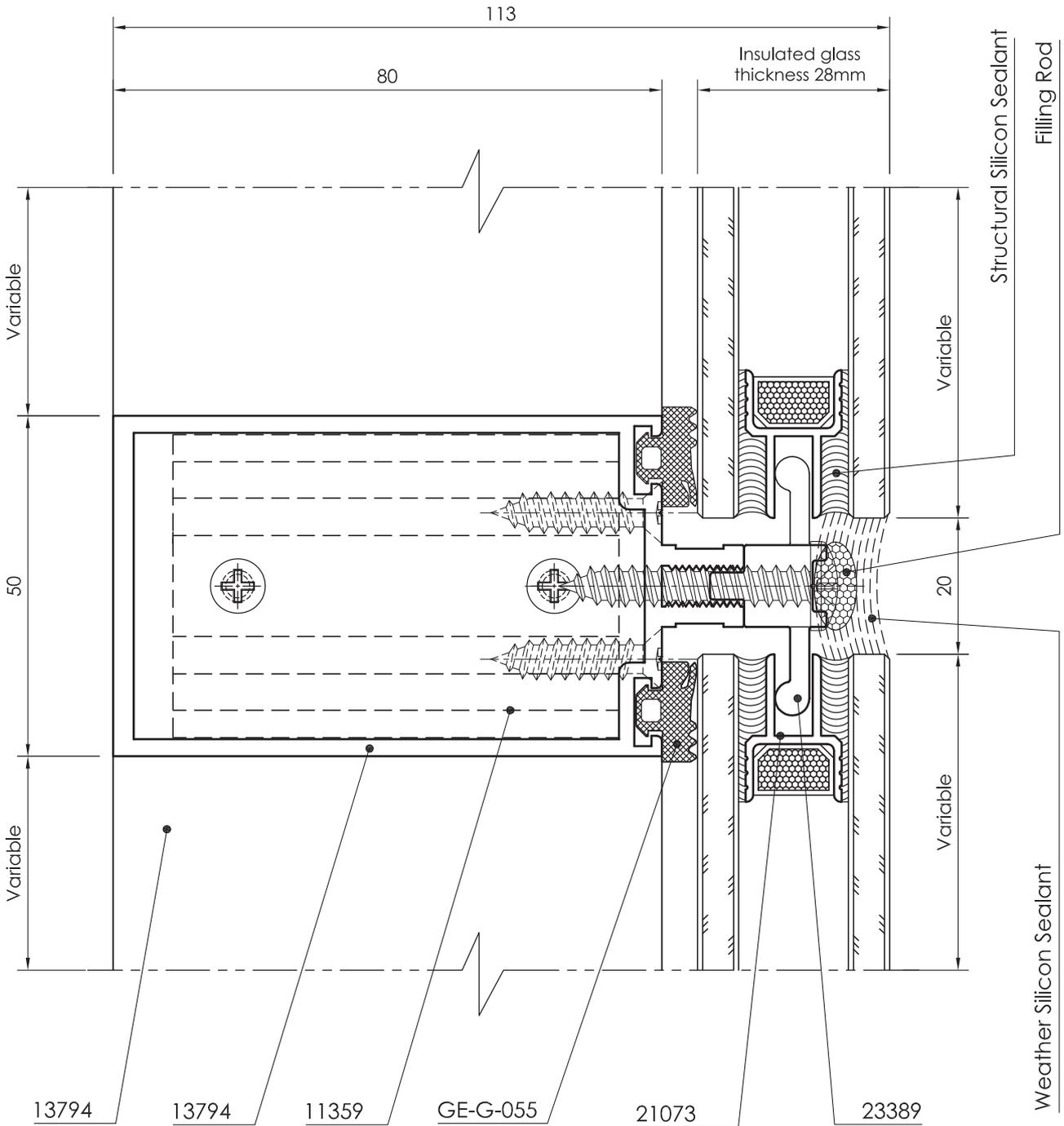
All dimensions in cross sections are shown in mm  
Profile are not necessarily shown to scale

**50mm 4-way Structural Glazing**  
Detail - 1



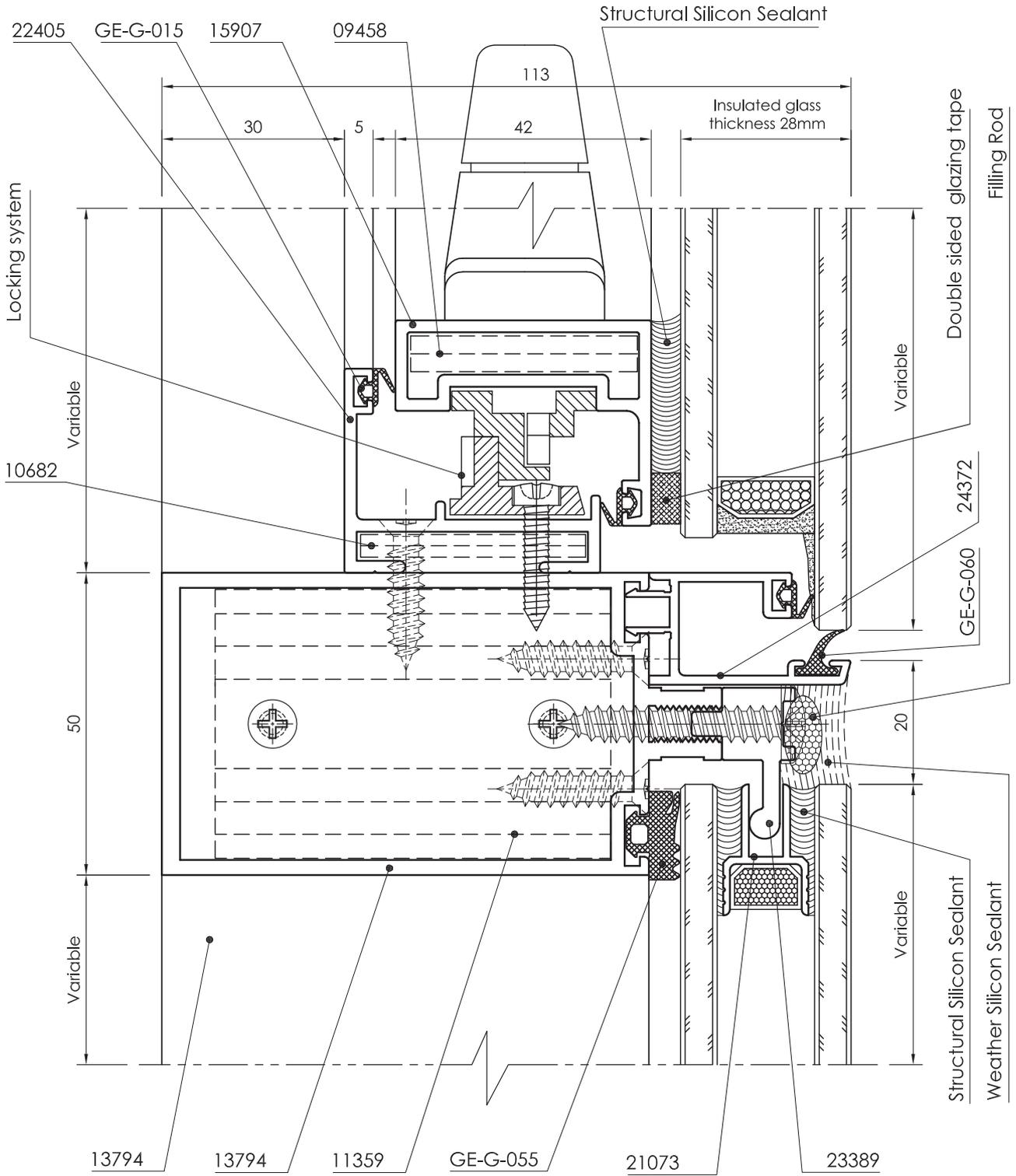
All dimensions in mm  
----- Visible area

**50mm 4-way Structural Glazing**  
Detail - 2



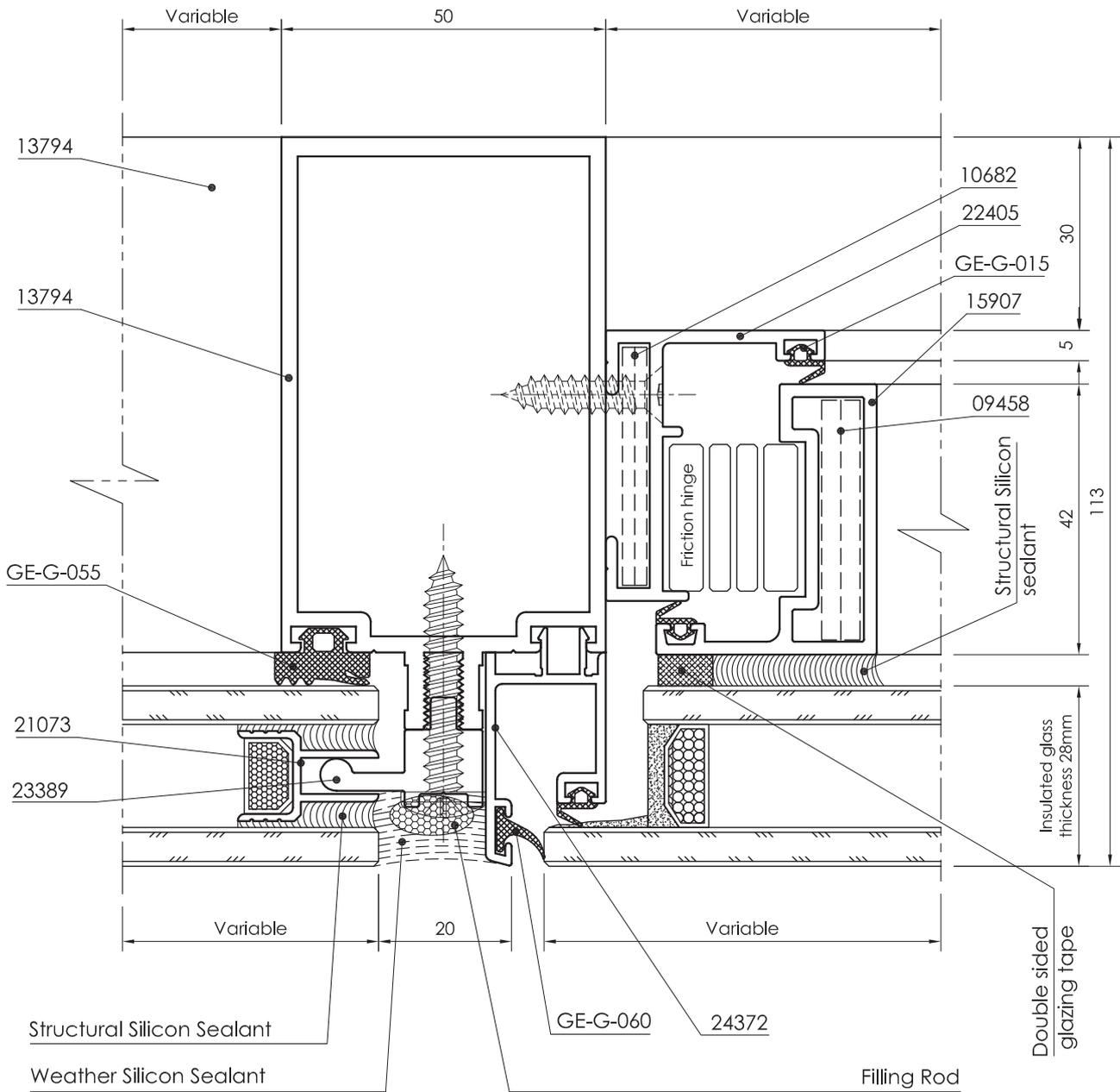
All dimensions in mm  
Visible area\_\_\_\_\_

**50mm 4-way Structural Glazing**  
Detail - 3



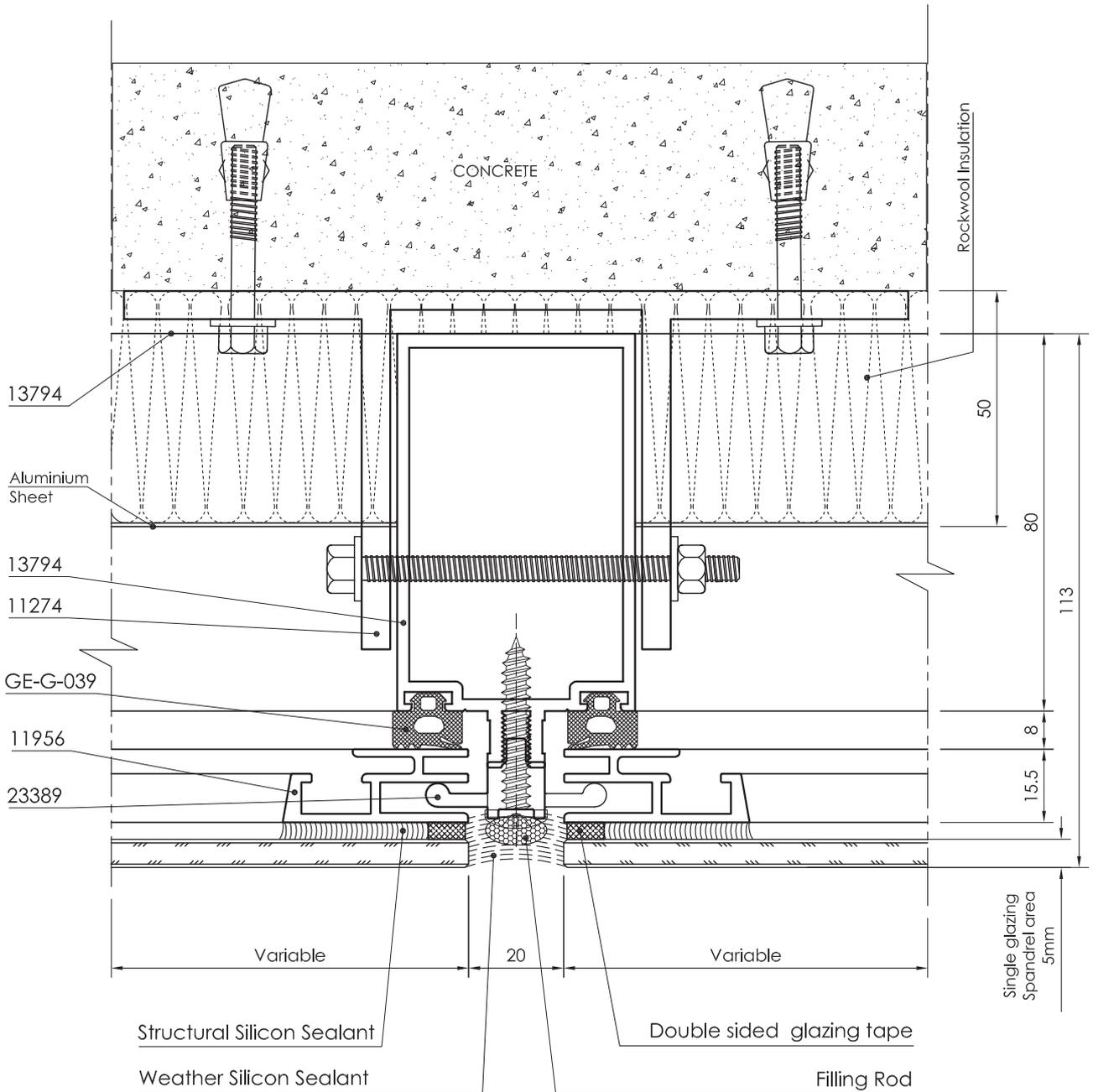
All dimensions in mm  
----- Visible area

**50mm 4-way Structural Glazing**  
Detail - 4



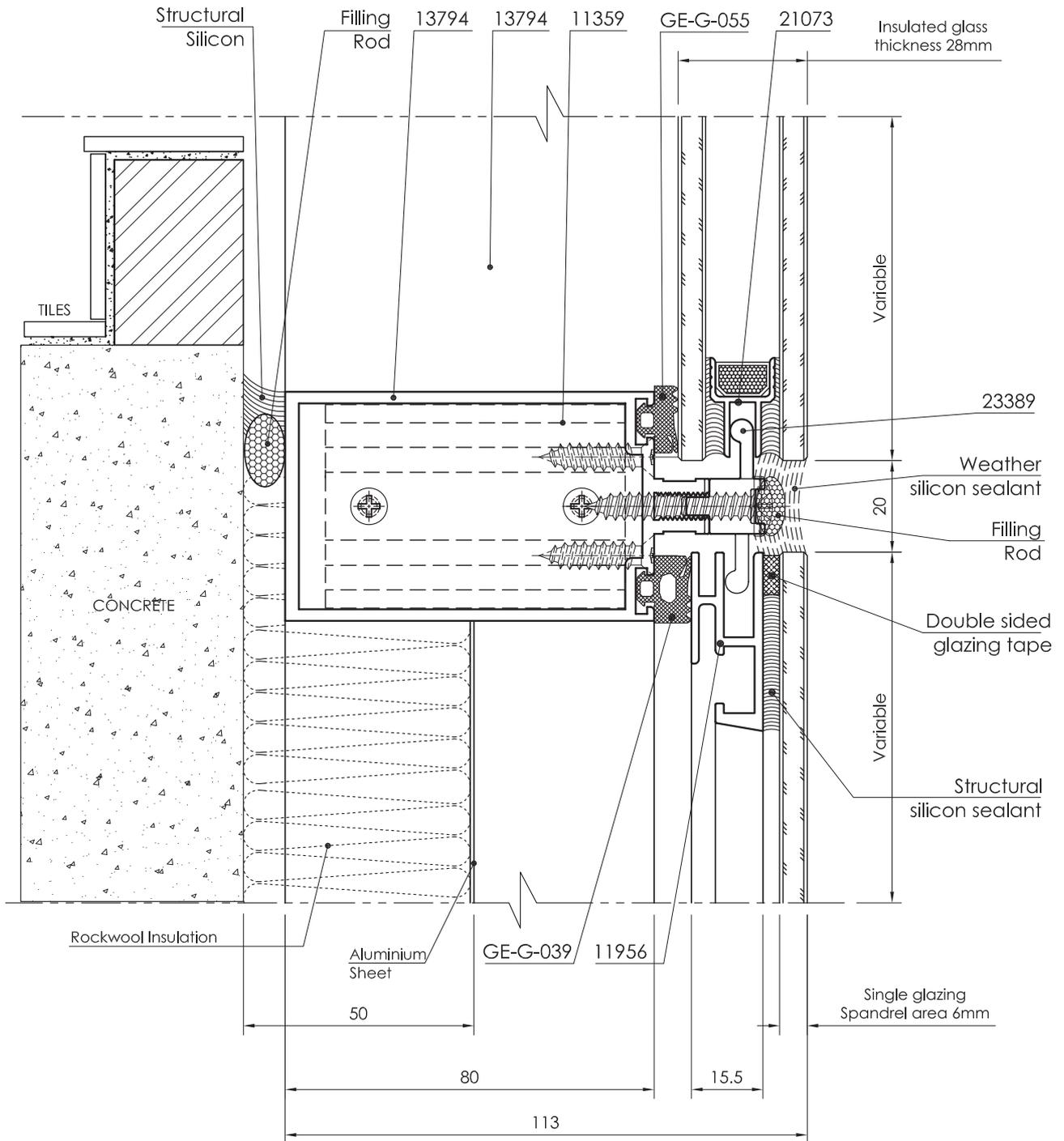
All dimensions in mm  
Visible area\_\_\_\_\_

50mm 4-way Structural Glazing  
Detail - 5



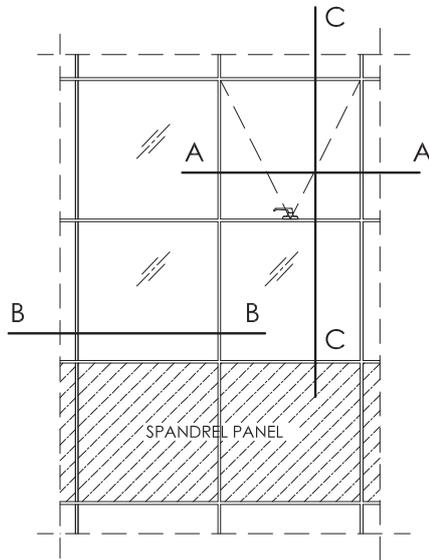
All dimensions in mm  
----- Visible area

50mm 4-way Structural Glazing  
Detail - 6



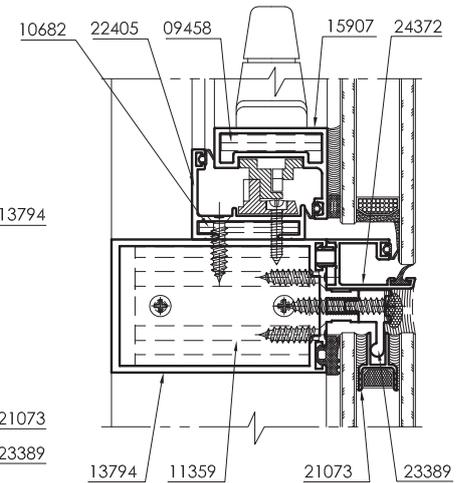
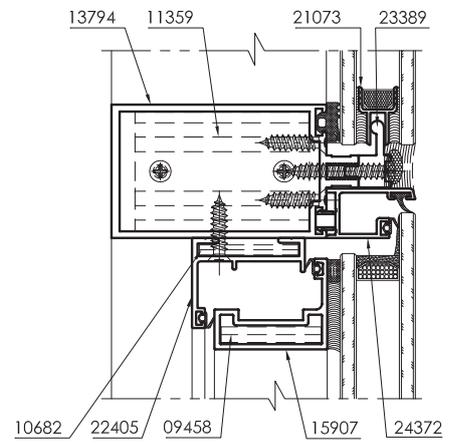
All dimensions in mm  
Visible area\_\_\_\_\_

50mm 4-way Structural Glazing

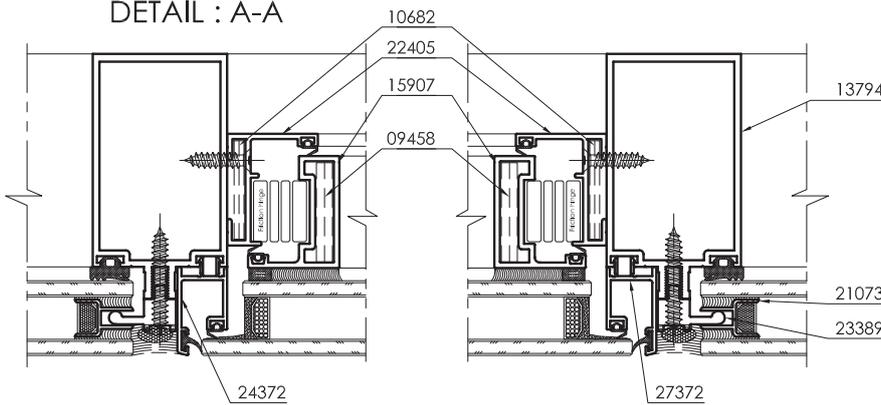


Profiles		
Description	Shape	Section No.
Curtain wall		13794
Frame		22405
Sash		15907
Connector		11359
Corner cleat		09458
Corner cleat		10682
Glass spacer		21073
Glass spacer		11956
Glass Toggler		23389
Glazing clip		24372
Bracket		11274

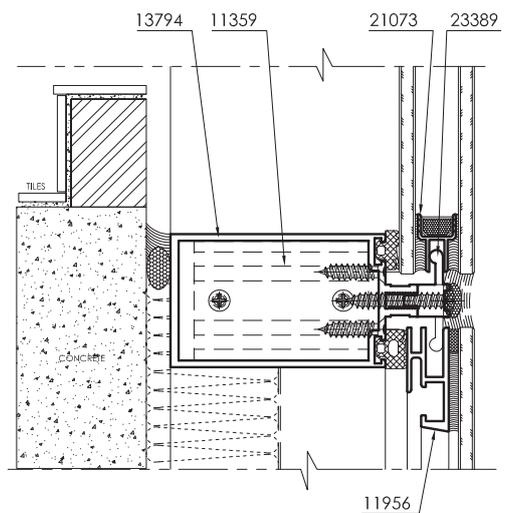
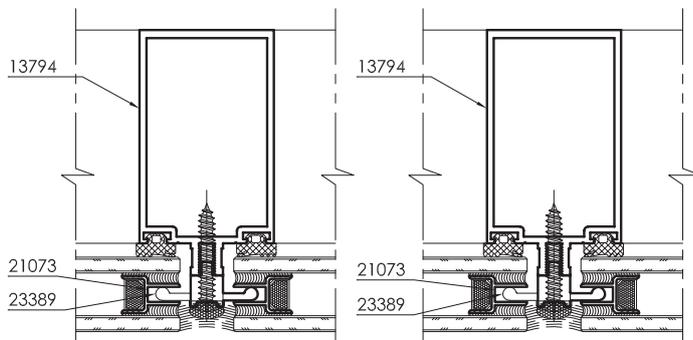
DETAIL : C-C



DETAIL : A-A

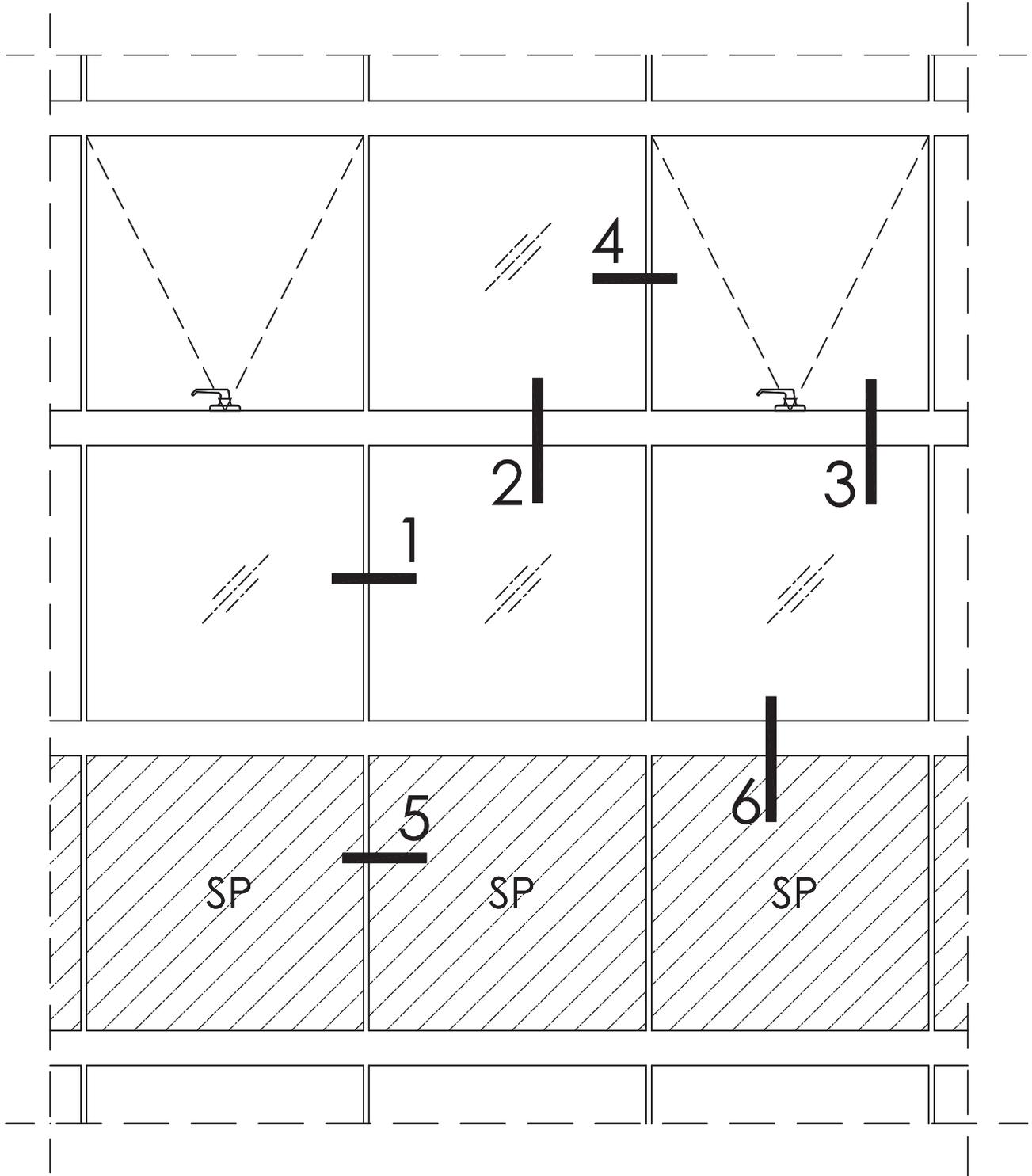


DETAIL : B-B



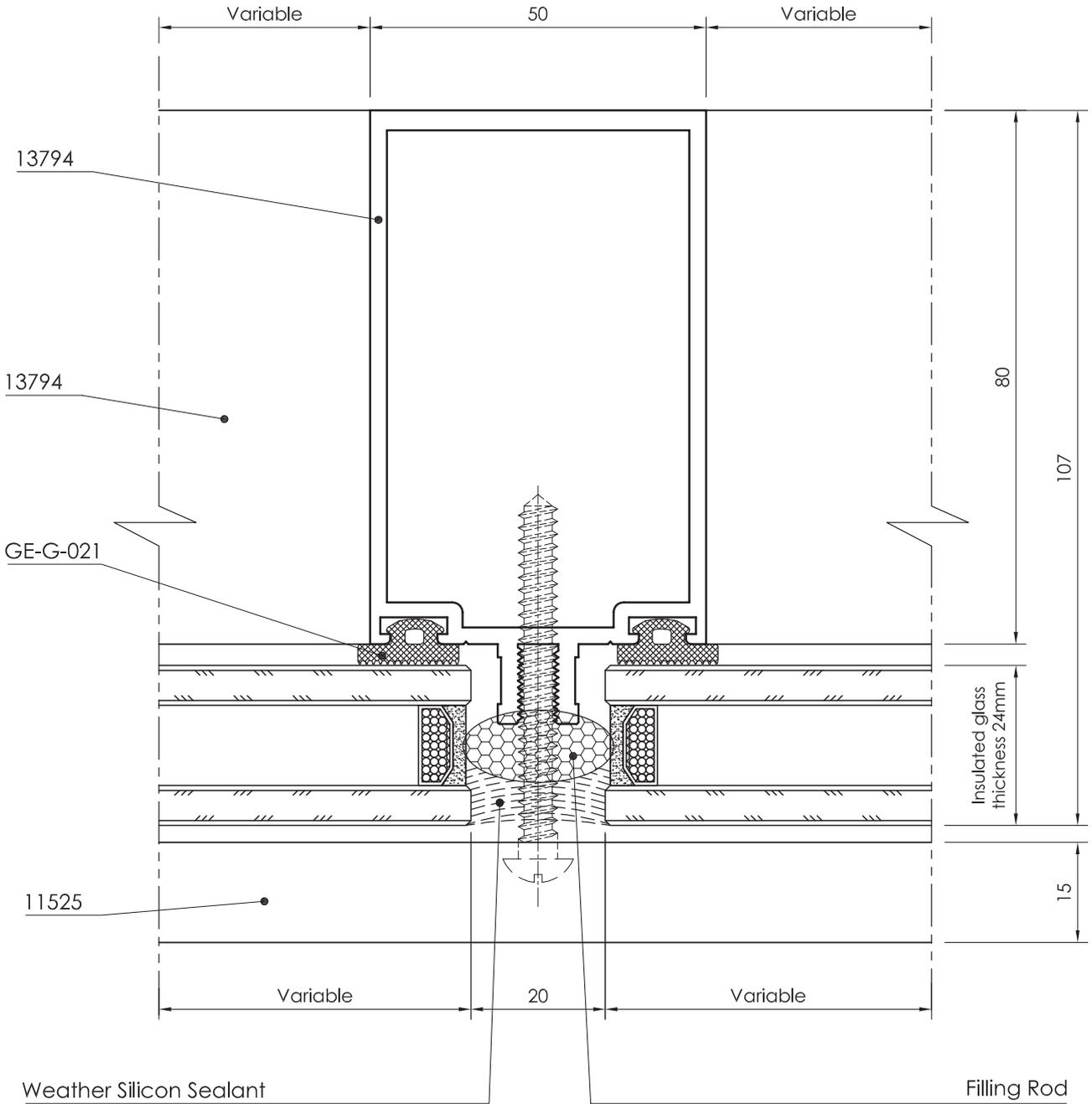
All dimensions in mm  
 - - - - - Visible area

## 50mm 2-way Structural Glazing

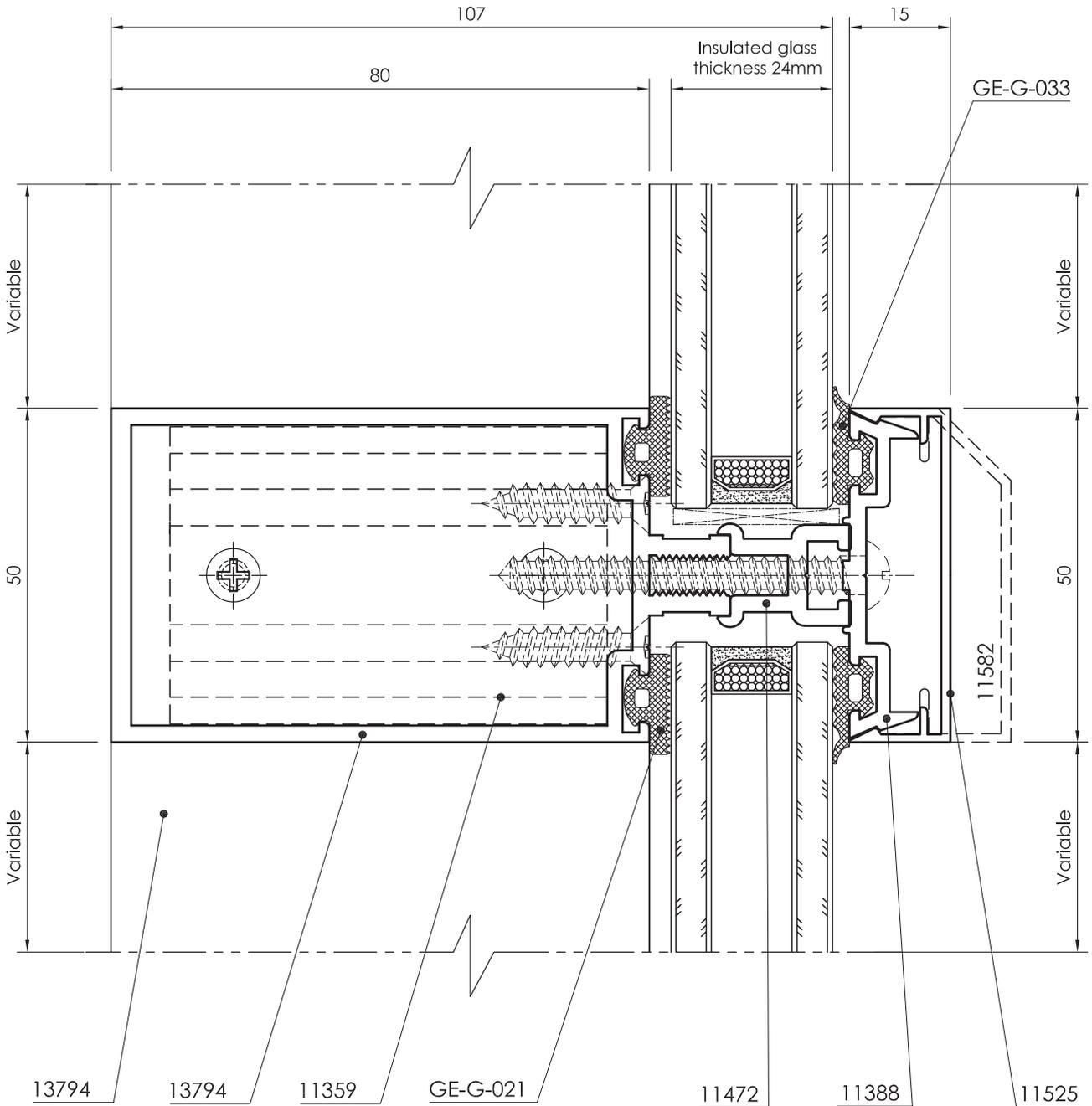


All dimensions in cross sections are shown in mm  
Profile are not necessarily shown to scale

50mm 2-way Structural Glazing  
Detail - 1



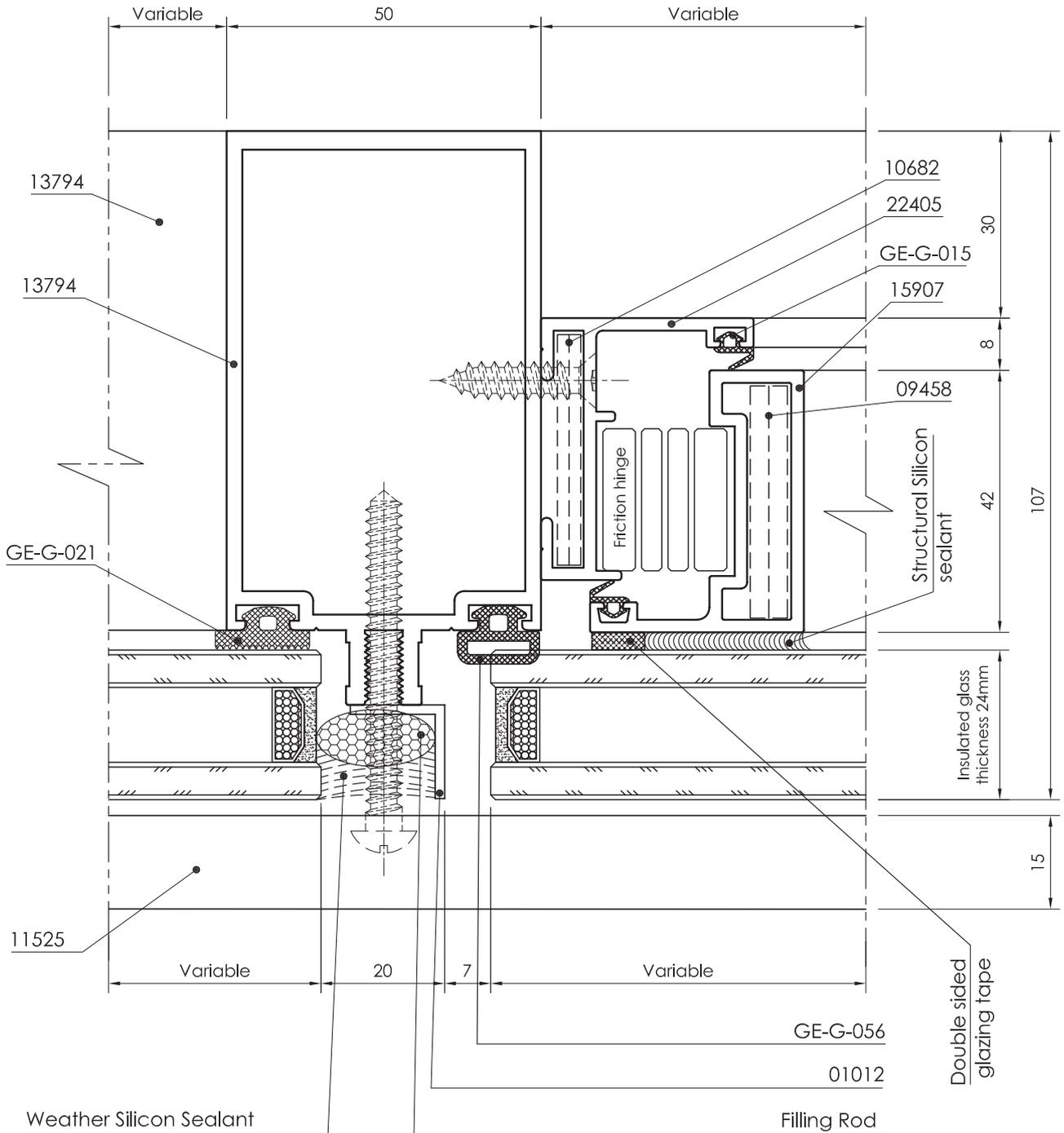
**50mm 2-way Structural Glazing**  
Detail - 2



All dimensions in mm  
Visible area\_\_\_\_\_

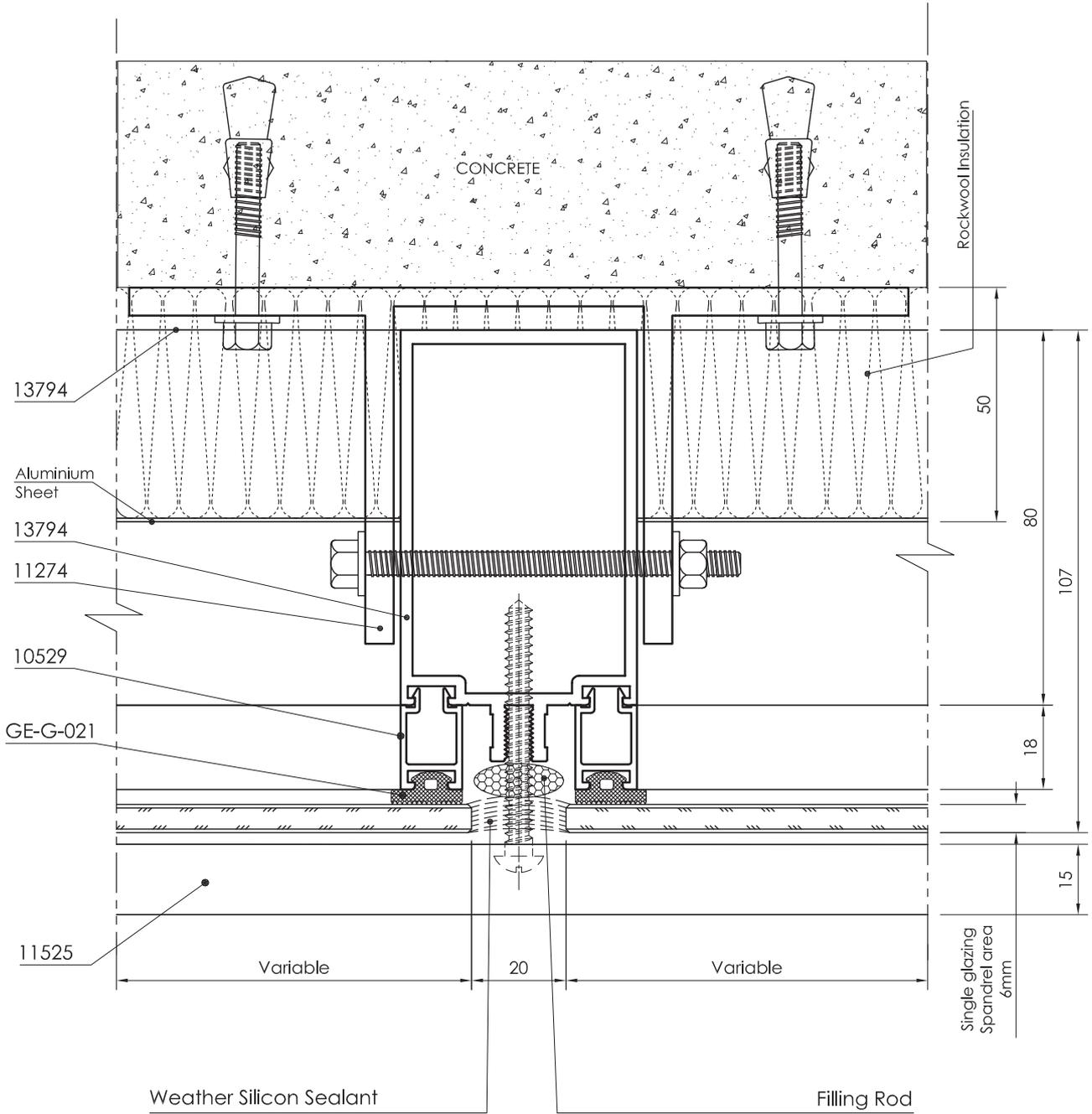


50mm 2-way Structural Glazing  
Detail - 4



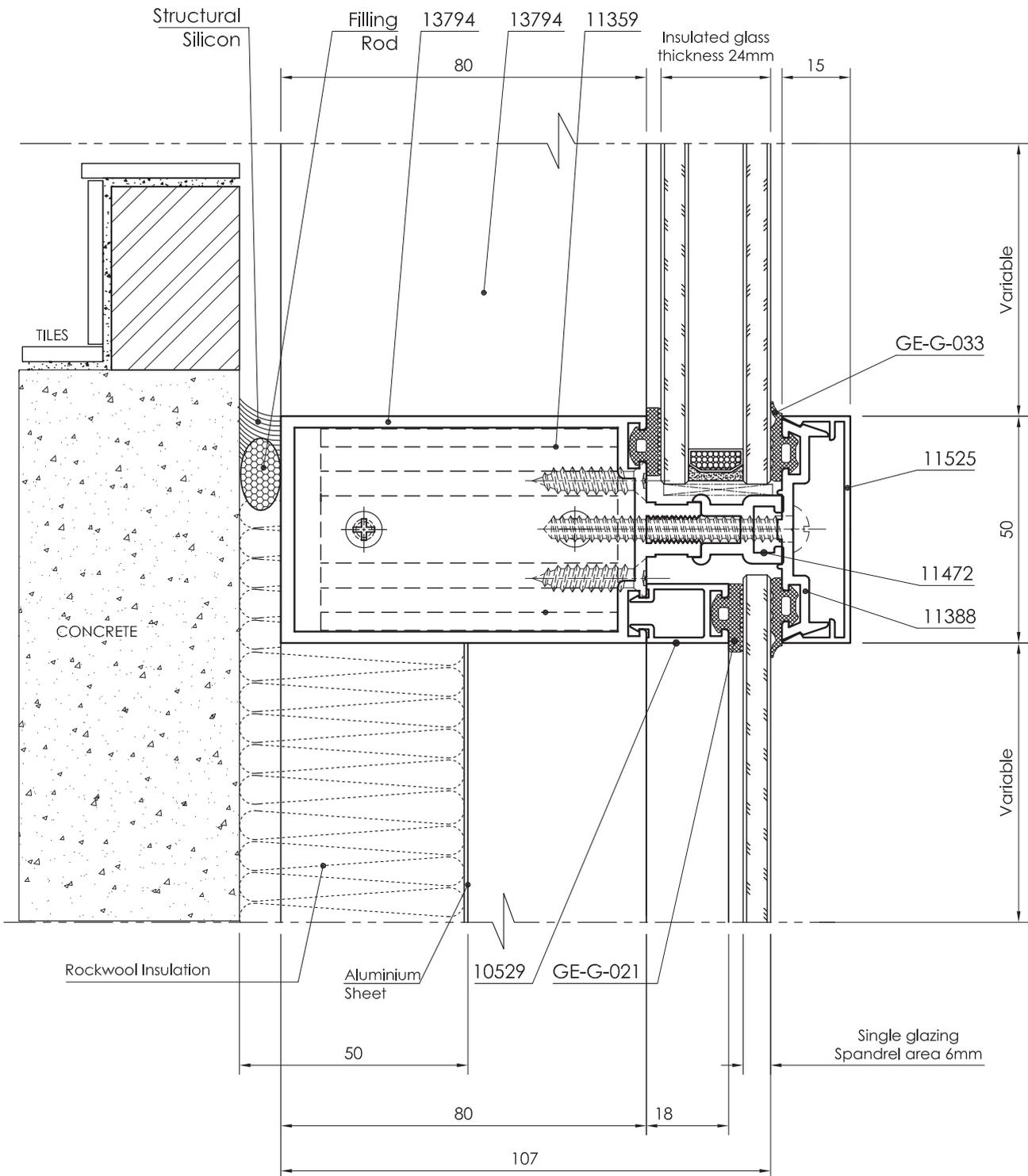
All dimensions in mm  
Visible area\_\_\_\_\_

50mm 2-way Structural Glazing  
Detail - 5



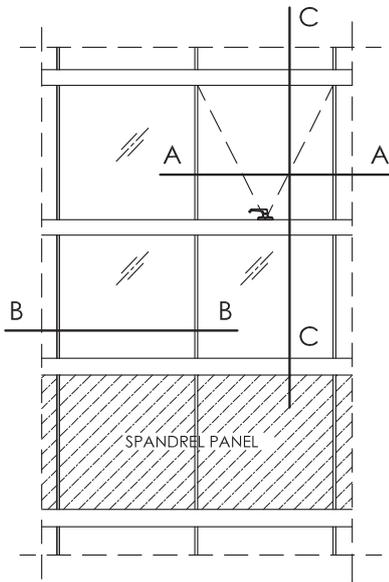
All dimensions in mm  
----- Visible area

50mm 2-way Structural Glazing  
Detail - 6



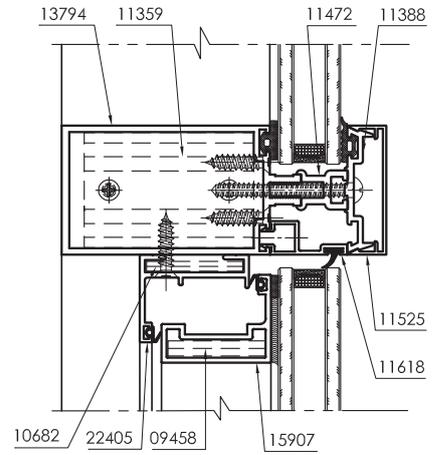
All dimensions in mm  
Visible area\_\_\_\_\_

50mm 2-way Structural Glazing

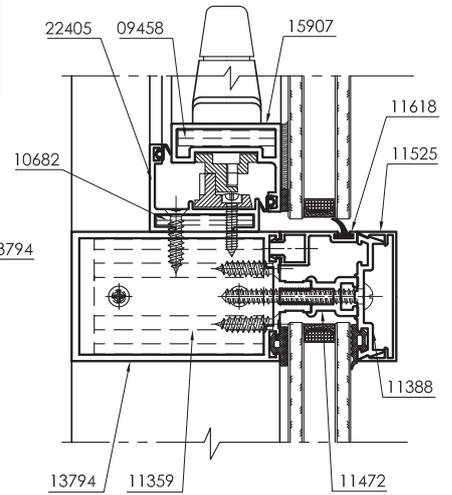
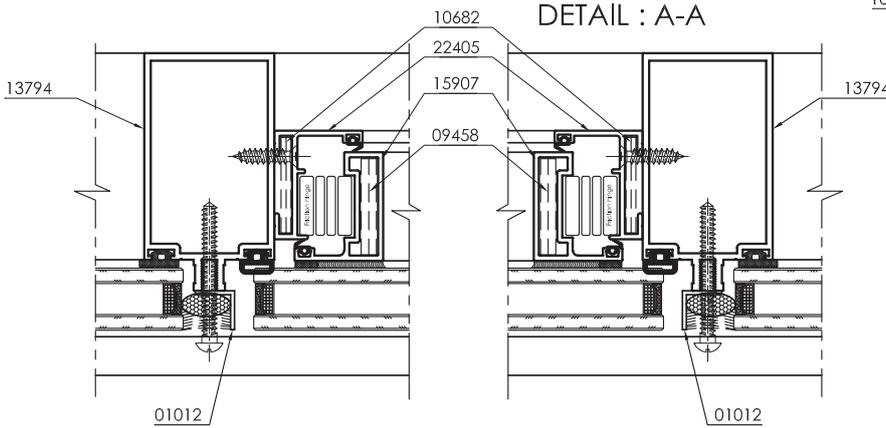


Profiles		
Description	Shape	Section No.
Curtain wall		13794
Frame		22405
Sash		15907
Connector		11359
Adaptor		11472
Transom cover clip		11618
Cover cap		11525
Pressure plate		11388
Corner cleat		09458
Corner cleat		10682
15x15x1.5 Angle		01012
Bracket		11274

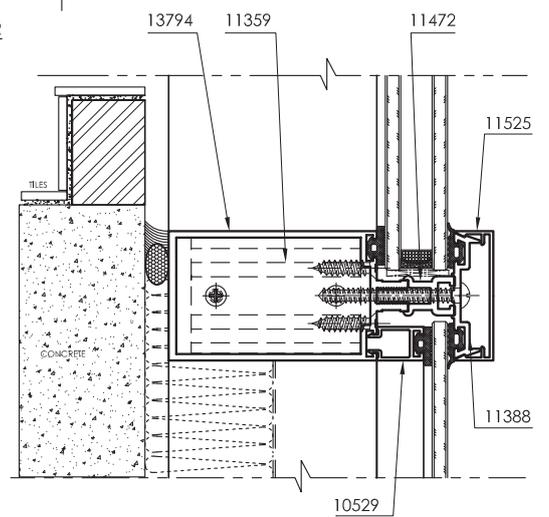
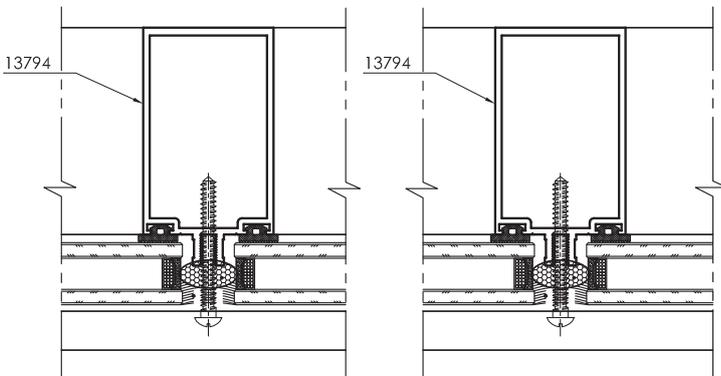
DETAIL : C-C



DETAIL : A-A

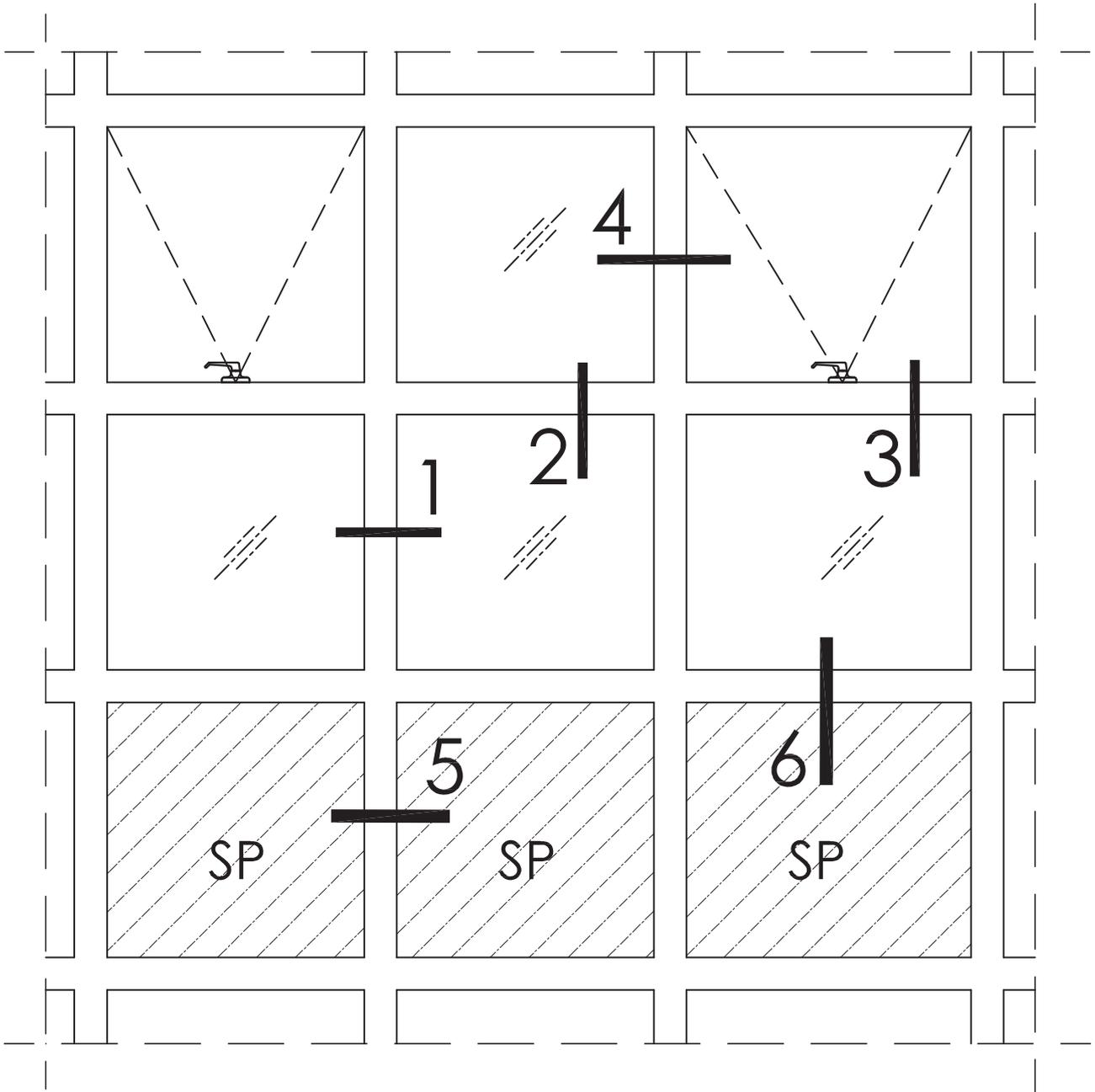


DETAIL : B-B



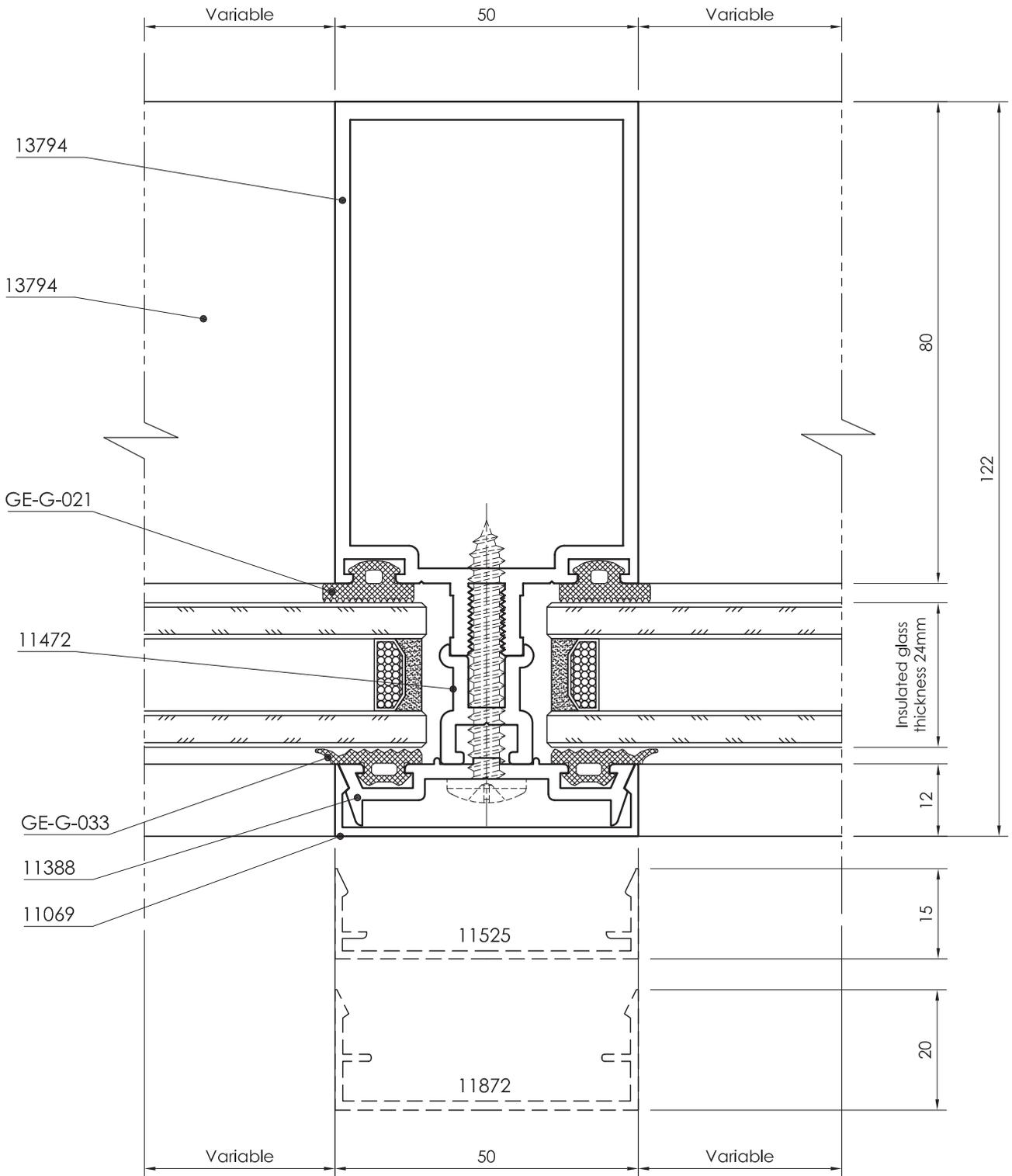
All dimensions in mm  
 - - - - - Visible area

## 50mm Conventional



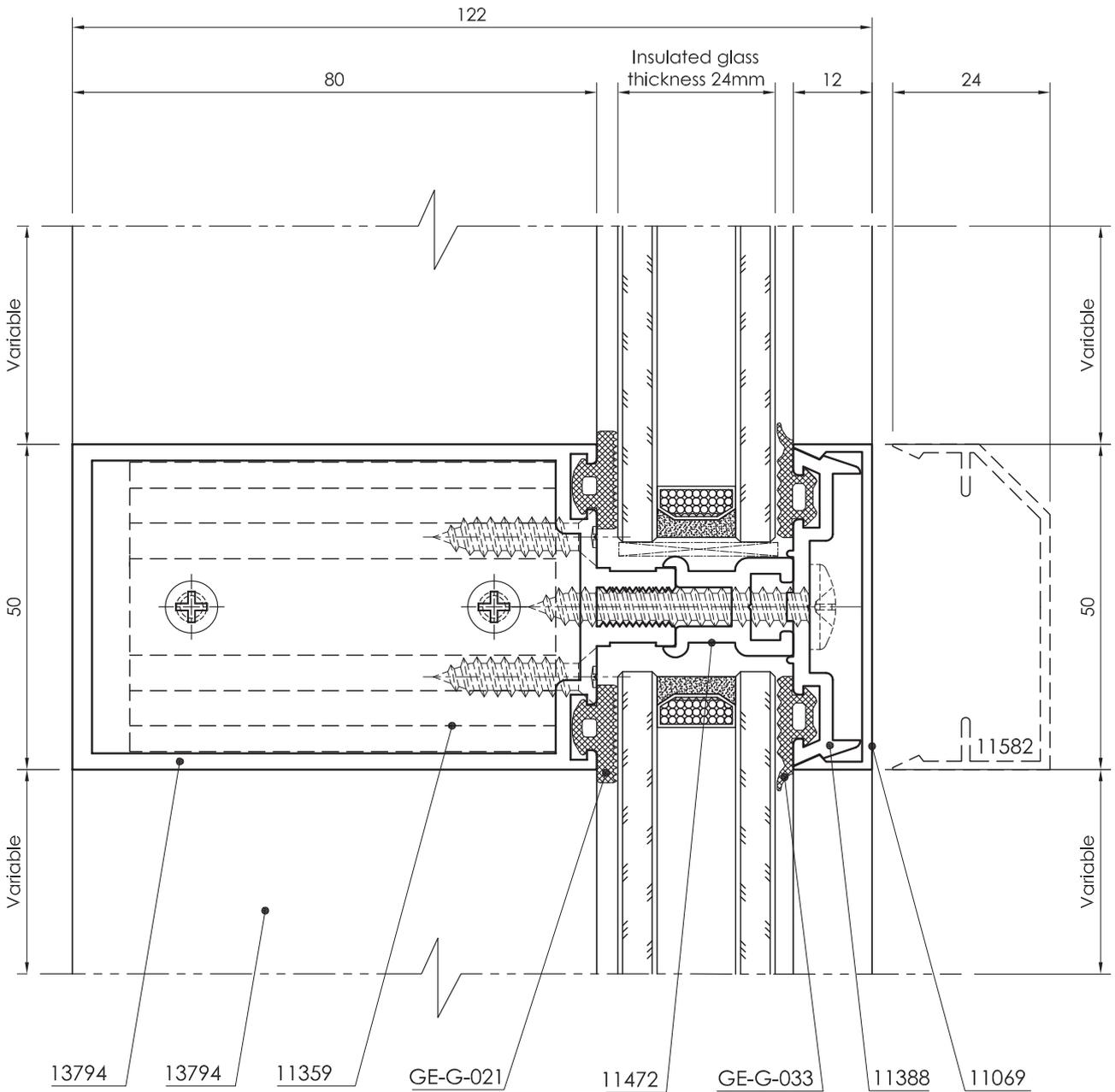
All dimensions in cross sections are shown in mm  
Profile are not necessarily shown to scale

50mm Conventional  
Detail - 1



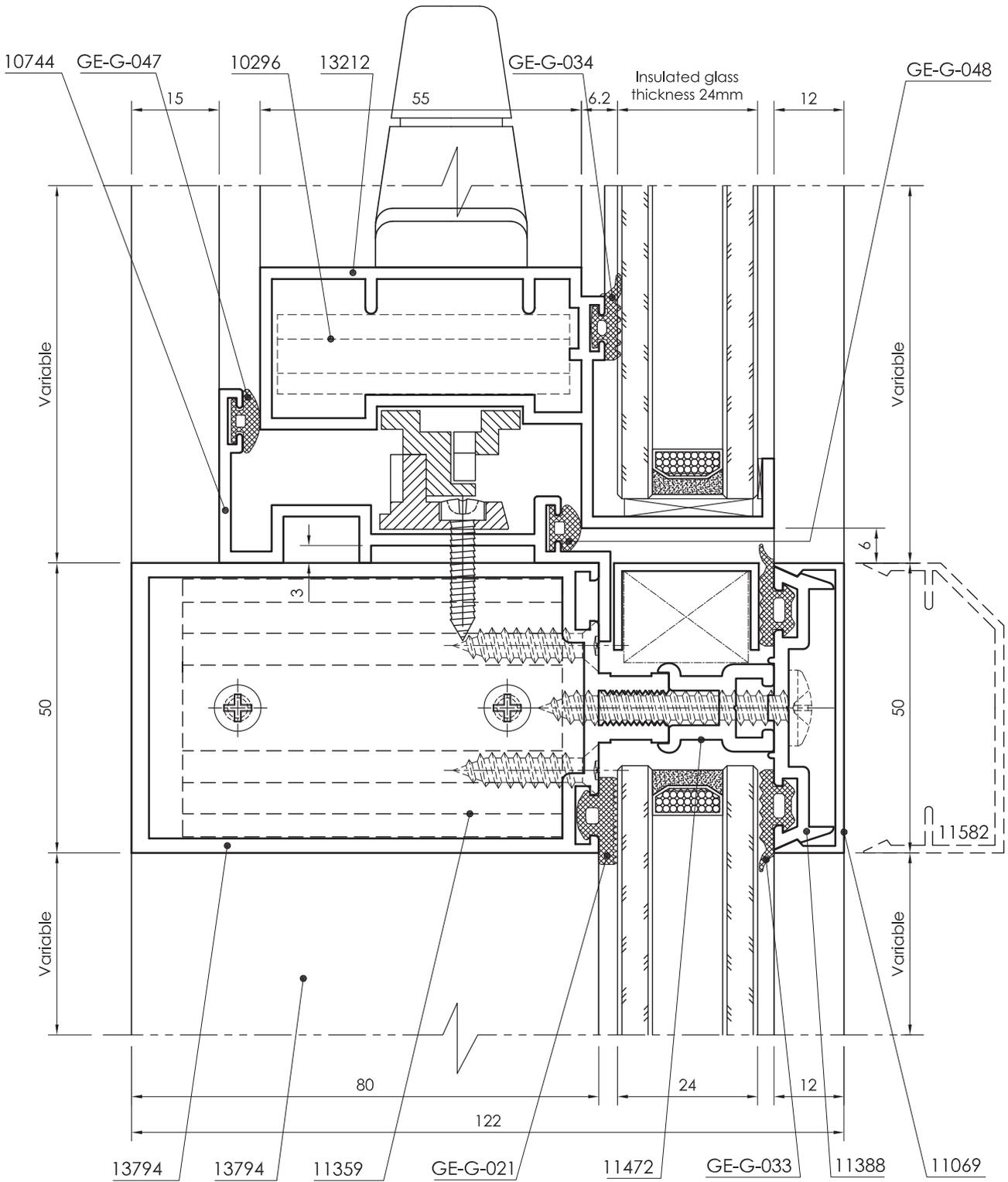
All dimensions in mm  
----- Visible area

50mm Conventional  
Detail - 2



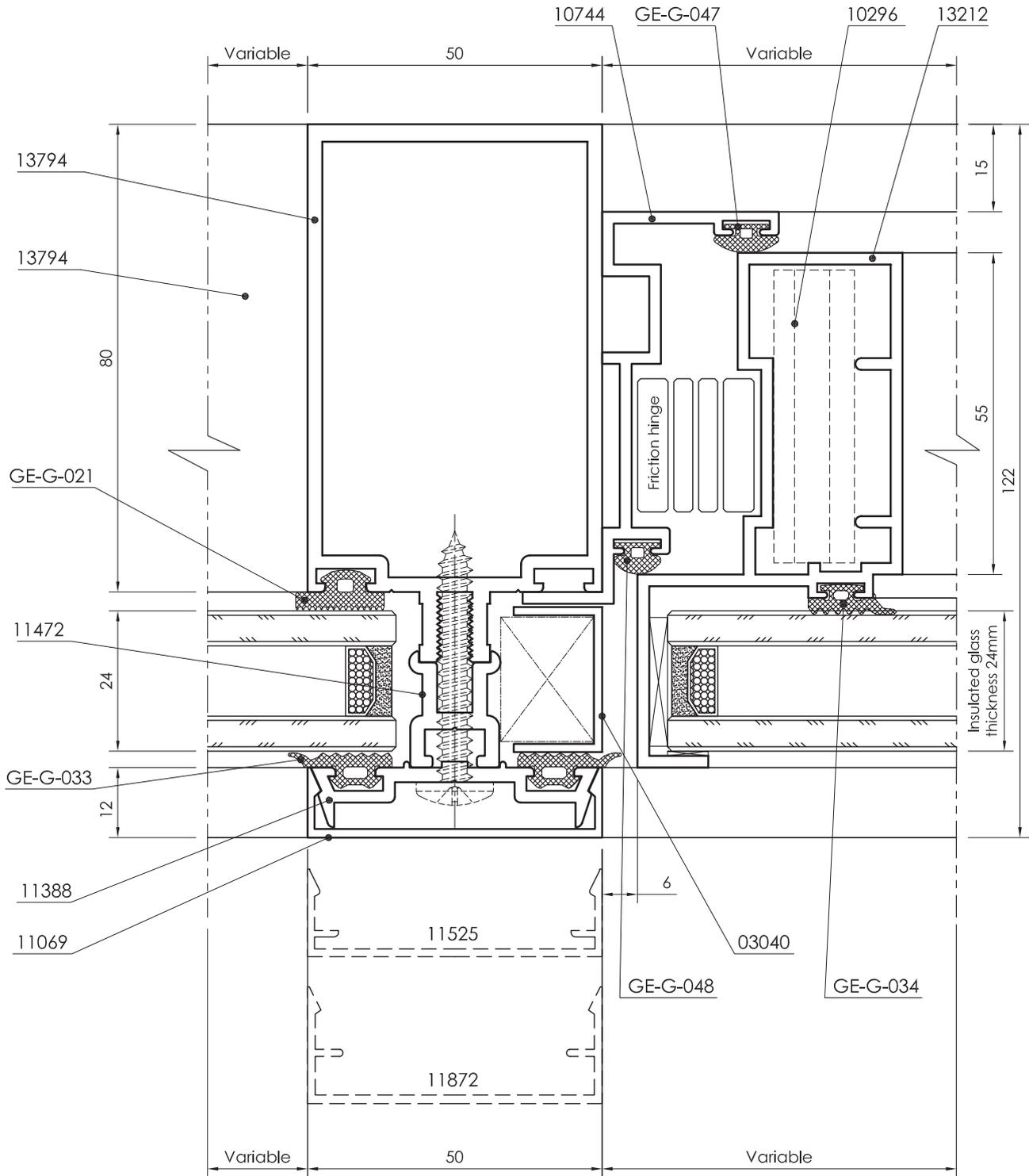
All dimensions in mm  
Visible area\_\_\_\_\_

50mm Conventional  
Detail - 3



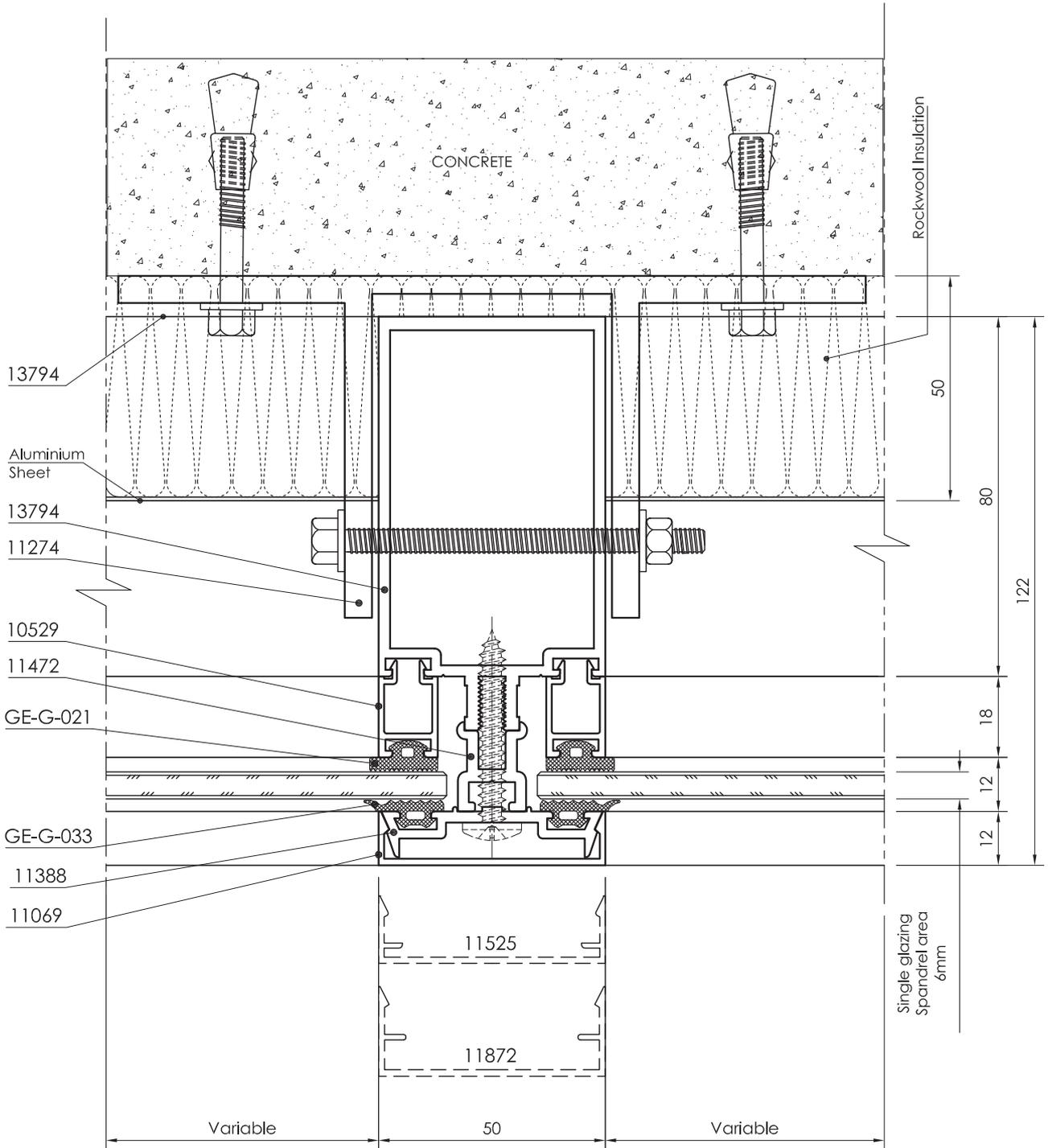
All dimensions in mm  
--- Visible area

50mm Conventional  
Detail - 4



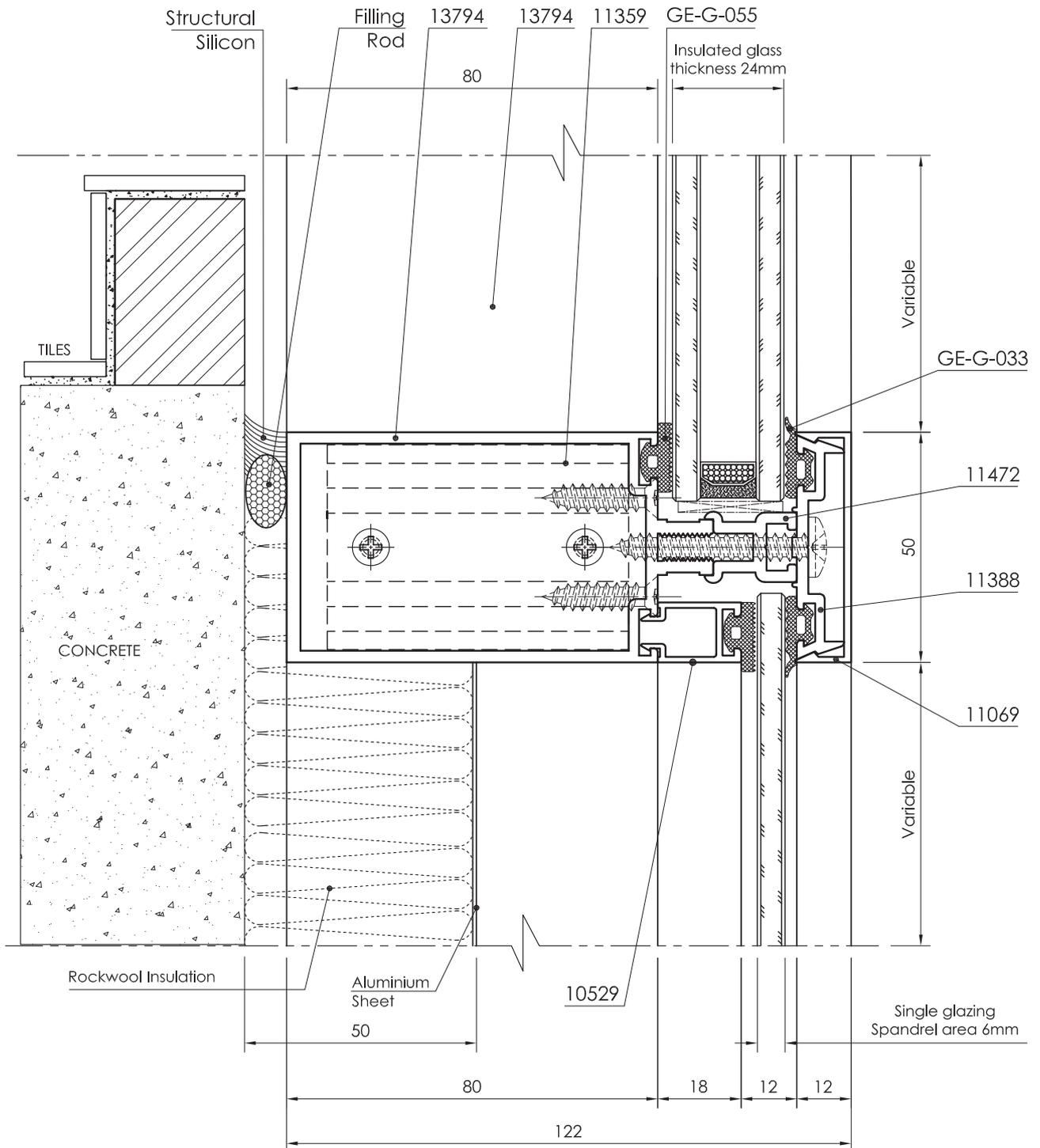
All dimensions in mm  
Visible area\_\_\_\_\_

50mm Conventional  
Detail - 5



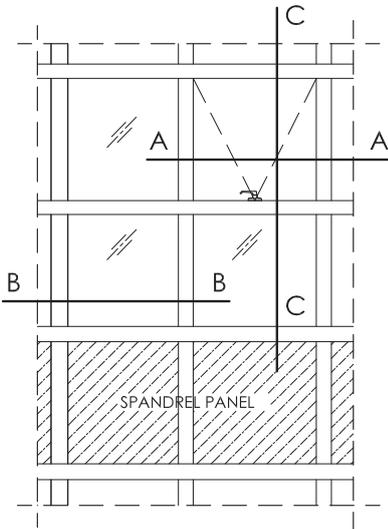
All dimensions in mm  
----- Visible area

50mm Conventional  
Detail - 6



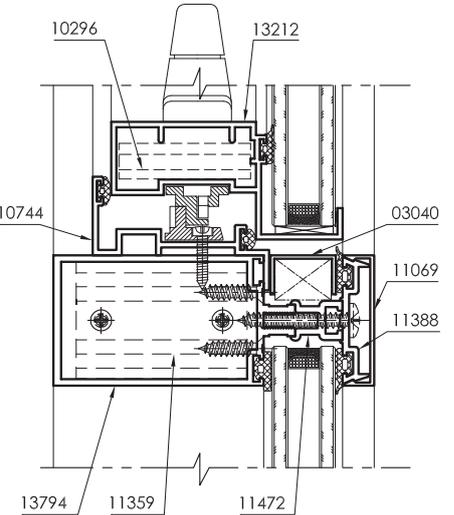
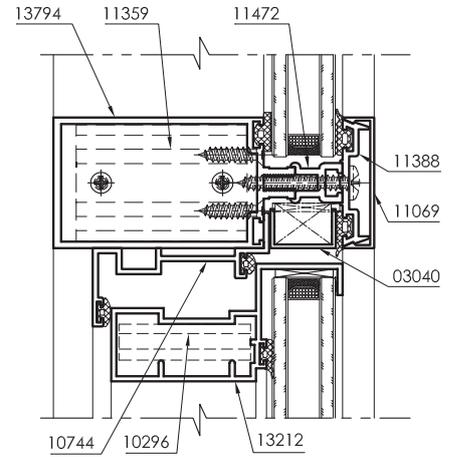
All dimensions in mm  
Visible area\_\_\_\_\_

50mm Conventional

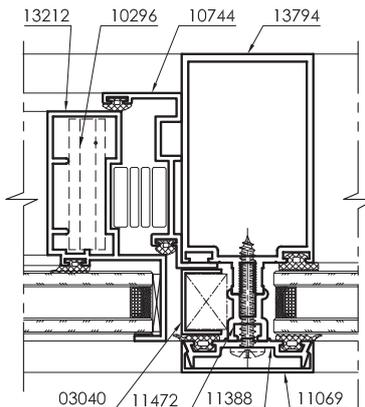
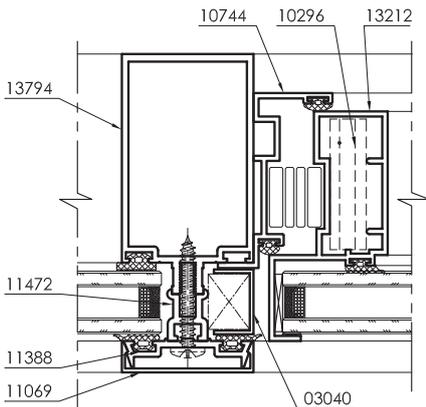


Profiles		
Description	Shape	Section No.
Curtain wall		13794
Frame		10744
Sash		13212
Connector		11359
Adaptor		11472
Cover cap		11525
Pressure plate		11388
Corner cleat		10296
Curtain wall clip		10529
Bracket		11274
Channel 24.8 x 15x1.4		03040

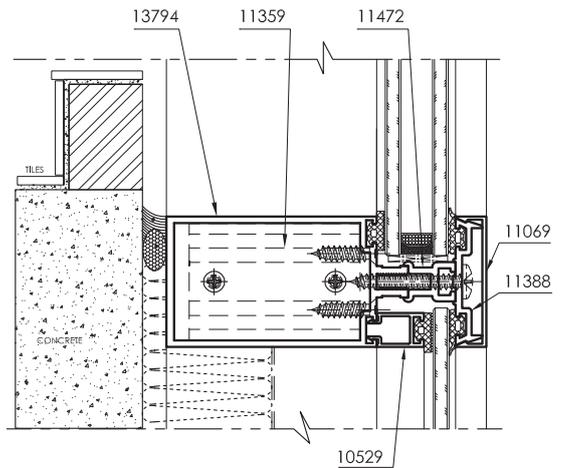
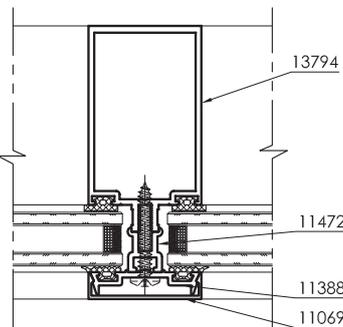
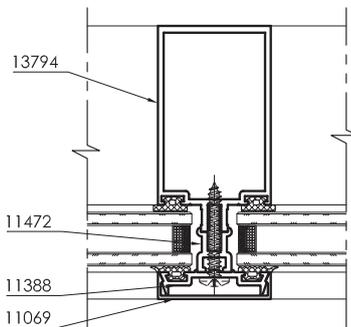
DETAIL : C-C



DETAIL : A-A



DETAIL : B-B

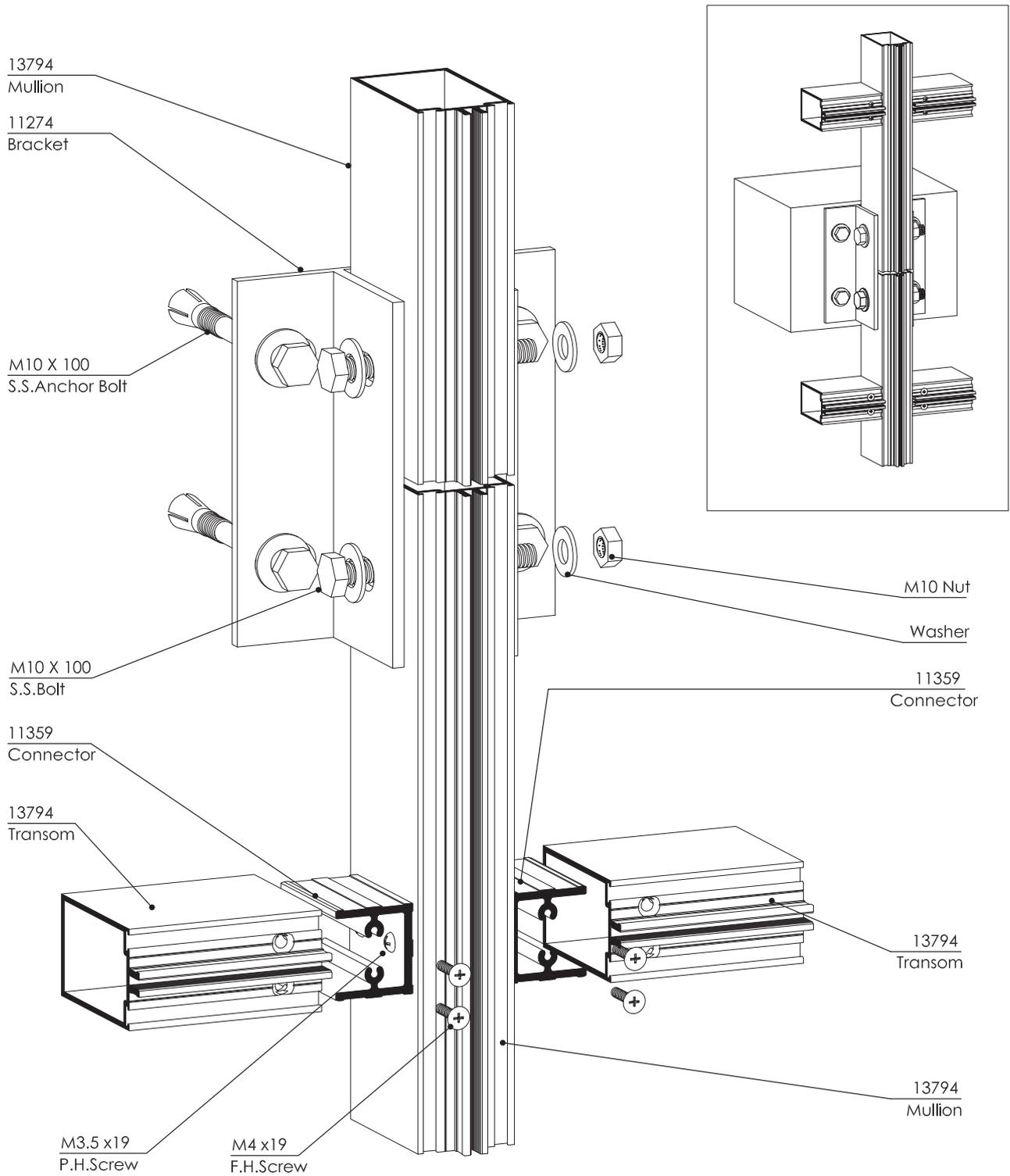


All dimensions in mm  
 ----- Visible area

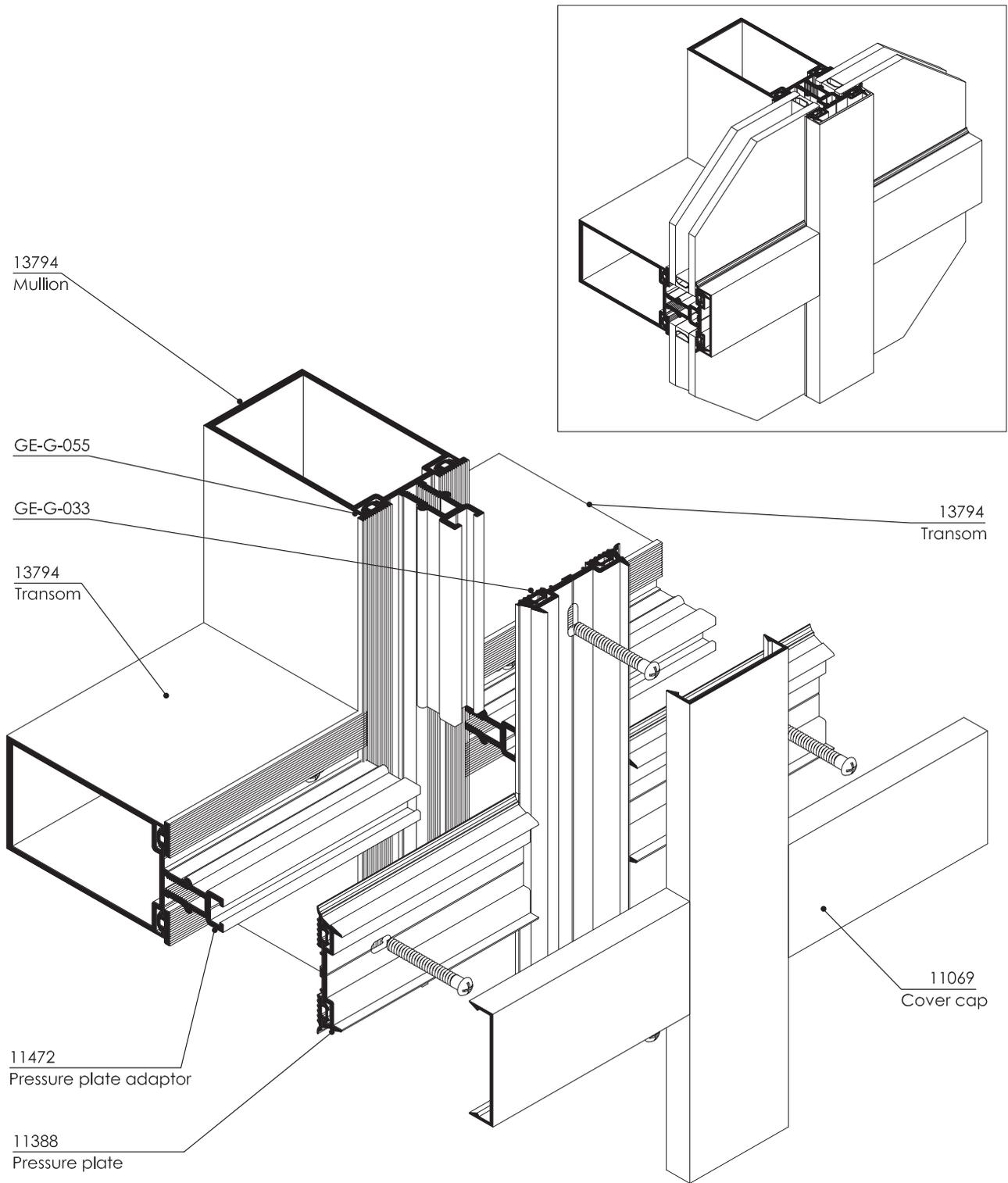


# 3D SECTIONS

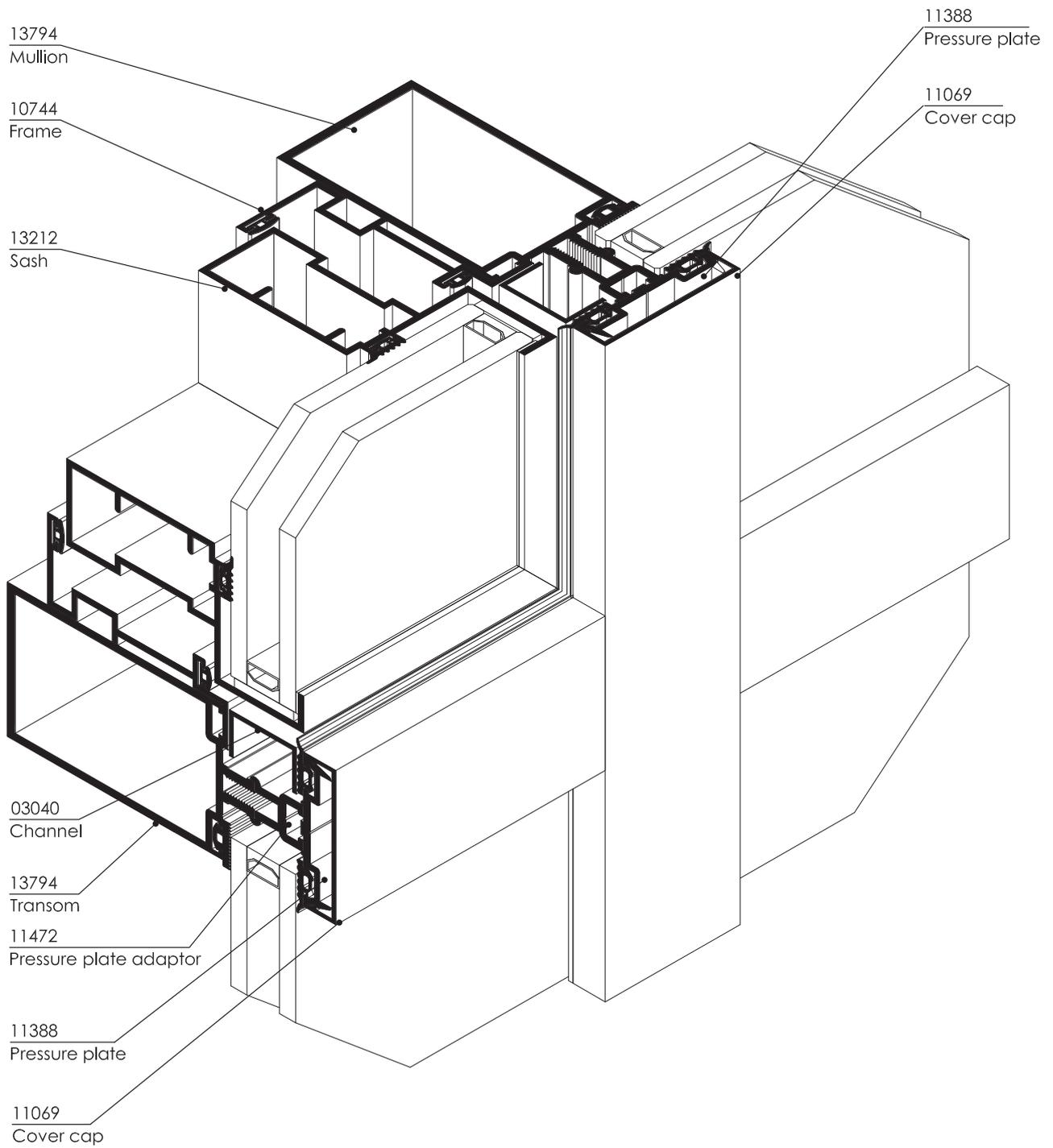
50mm Mullion / Transom



50mm Curtain Wall



## 50mm Curtain Wall







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