U-Max™ THERMAL BREAK 150 x 50mm FRONT CAPPED DOUBLE GLAZED
U-Max Framing Systems: U150FCDG - 1

U-MAX™ 150 Front Capped Double Glazed

FEATURES:

- 150mm Frame Depth
- 50mm Sight Line generally
- Glass Plane-Front
- Compatible with 150mm Front Glazed
- Optional Low profile 44mm Outer Frame
- Improved head & sill detail over conventional front capped systems.
- Suitable in some configurations for use with sub heads
- Optional cap profiles
- Structural Glazed infil cap vertically or horizontally
- Adapts to 50mm face dimension box sections
- Designed for Thermal Break Applications
- Can be offered Non-broken
- Accepts 24mm to 28mm IGU's
- External glazed only
- Hinged & Pivot doors
- Dry Glazed with High performance Santoprene Gaskets
  - o Anti Stretch Gaskets
  - o Anti-Dropout Gasket Design
- Suited to wet glazed if preferred

FABRICATION:

- Easy Screw Flute Joinery Fabrication
- Simple Panelized Assembly

PRODUCT APPLICATIONS:

- Shopfront, Ribbon Windows, Large fixed panels
- Generally Single Span, limited to 6.5 metre high applications

Whilst principally used as a fixed glazing system it is ideally suited to glazing large panels as the front cap allows full access to the glazing rebate.

This system may also be ordered without polyurethane filled cavities for non-thermal applications & is completely compatible with other Max framing systems

LIMITATIONS:

- External Glazed only
- May be used as 2 sided structural glazed. Not recommended for 4 sided structural glazed.

Interactive HQ in Port Melbourne
U-MAX™ 150mm Front Capped Double Glazed thermally broken framing
The U-MAX™ back adaptor and cap were fixed to a 200mm self-mating mullion to create the glazed cubes. The project also utilised U-MAX™ 150mm Front Glazed frames with structural mullion for the strip window sections, and the U-MAX™ 150mm Front Glazed framing system.

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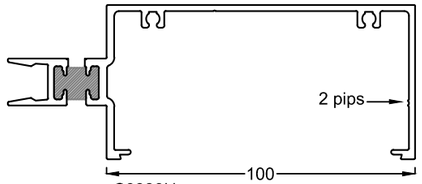
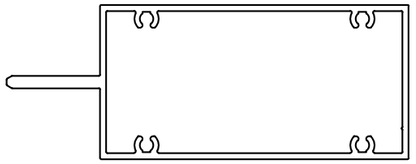
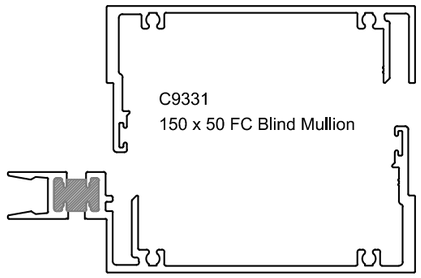
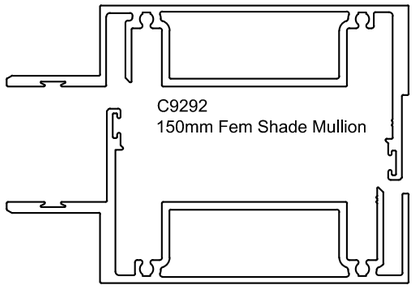
U-Max™ THERMAL BREAK 150 x 50mm FRONT CAPPED DOUBLE GLAZED
U-Max Framing Systems: U150FCDG - 2
Extrusion ID

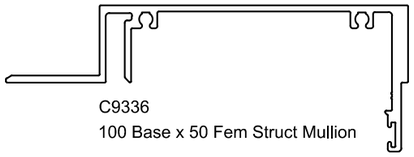


C9330U
100 Base x 50 Front Cap Frame


C9338
100 Base x 50 Struct Transom


C9331
150 x 50 FC Blind Mullion
C9332U
100 Base x 50 FC Male Mullion


C9292
150mm Fem Shade Mullion
C9293
150mm Male Shade Mullion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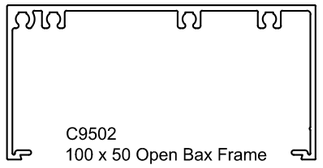
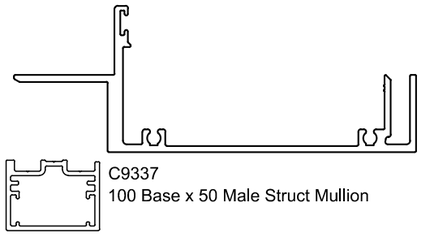
100 Base x 50 Fem Struct Mullion


C9502
100 x 50 Open Bax Frame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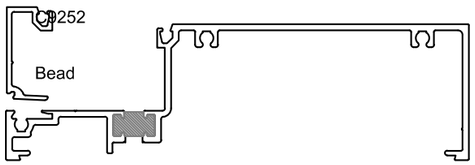
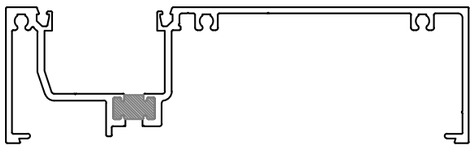
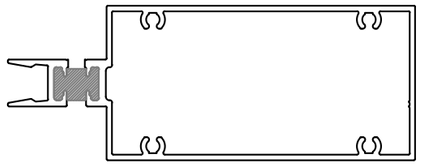
100 Base x 50 Male Struct Mullion
C9477
Rebate Adaptor

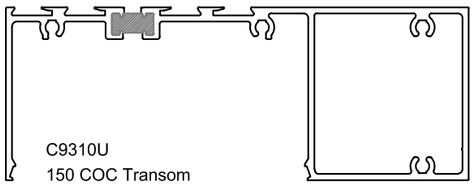


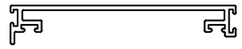
C9280U
150 x 44 External Sill

C9573
Splice - suits 50mm wide Mullions

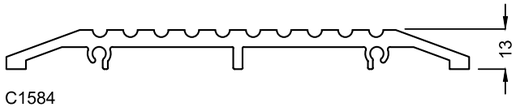

C9279U
150 x 44 Frame


C9341U
100 Base One Piece Transom

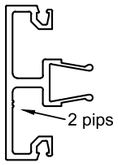

C9310U
150 COC Transom


C9290
Plant On Door Stop

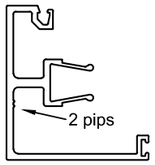
C669
150 x 13 Wheelchair Threshold



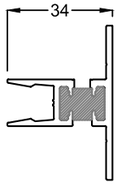
C1584
150mm Ramp Threshold



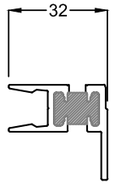
C9333
FC 50 x15 Cap



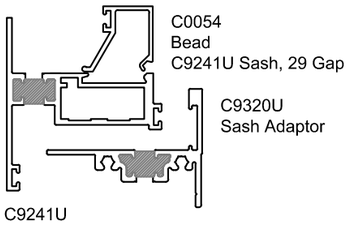
C9334
FC 50 x15 Return Cap

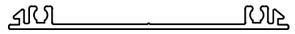


C9335U
Back Adaptor

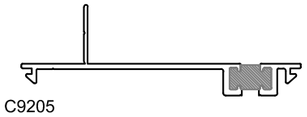


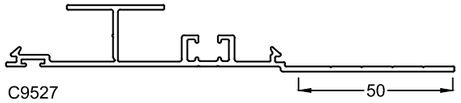
C9328U
Half Back Adaptor


C0054
Bead
C9241U Sash, 29 Gap
C9320U
Sash Adaptor
C9241U
Overlap Sash

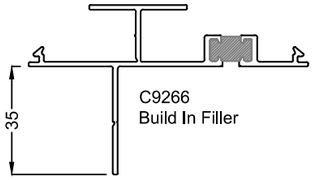

C9321
Flat Filler - screw flutes

C405
Flat Filler

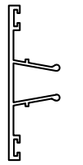

C9205
100 Nailing Fin

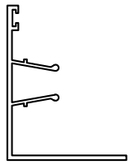


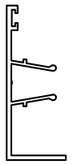
C9527
Build In Bracket

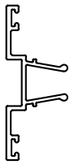


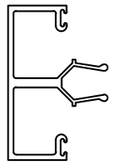
C9266
Build In Filler


C243
Flat Cap

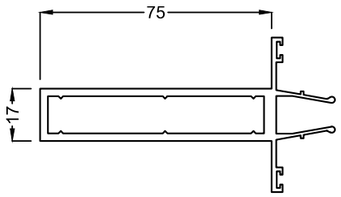

C254
D/Glazed
Flat Return Cap


C244
Single Glazed
Flat Return Cap

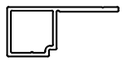

C4826
Shadowline Bead


C1598
20mm
Expressed Cap

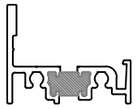
C9325
Infil Cap

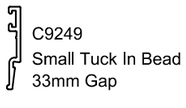


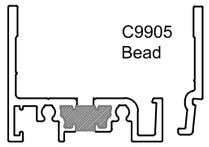
C1828
75mm
Expressed Cap


C9767
Plant on
Spandrel Adaptor

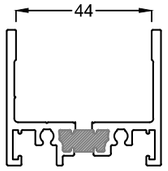
SCH0161615
Channel as
Spandrel Adaptor


C9339U
40 x 32mm Glazing Adaptor


C9249
Small Tuck In Bead
33mm Gap



C9904U
50 x 44mm Glazing Adaptor



C9903U
50 x 44mm Glazing Channel

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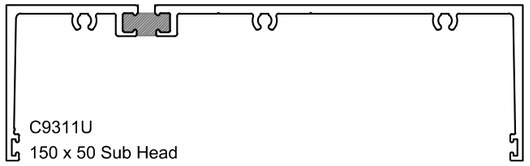
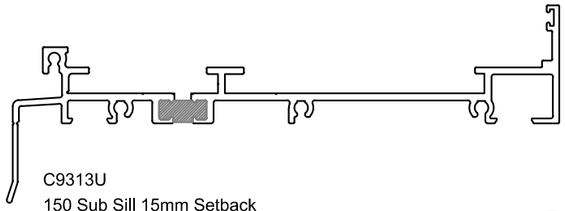
U-Max™ THERMAL BREAK 150 x 50mm FRONT CAPPED DOUBLE GLAZED

U-Max Framing Systems: U150FCDG - 3

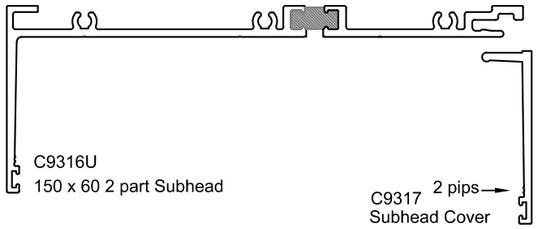
Extrusion ID



C9311U
150 x 50 Sub Head

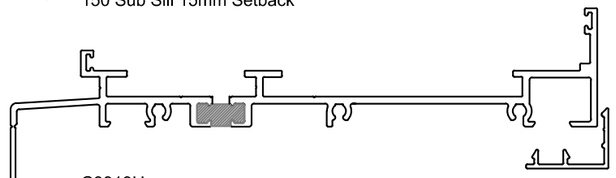


C9313U
150 Sub Sill 15mm Setback



C9316U
150 x 60 2 part Subhead

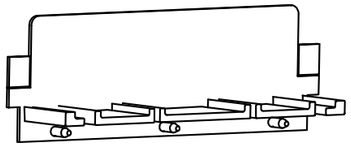
C9317 2 pips
Subhead Cover



C9319U
150 Sub Sill 25mm Setback

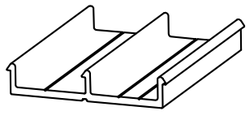
C9269
Subsill Trim Adaptor

Component ID

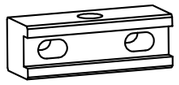


CH9571
150 Subsill Stop end (non handed)

CH9574
Shallow Watershed

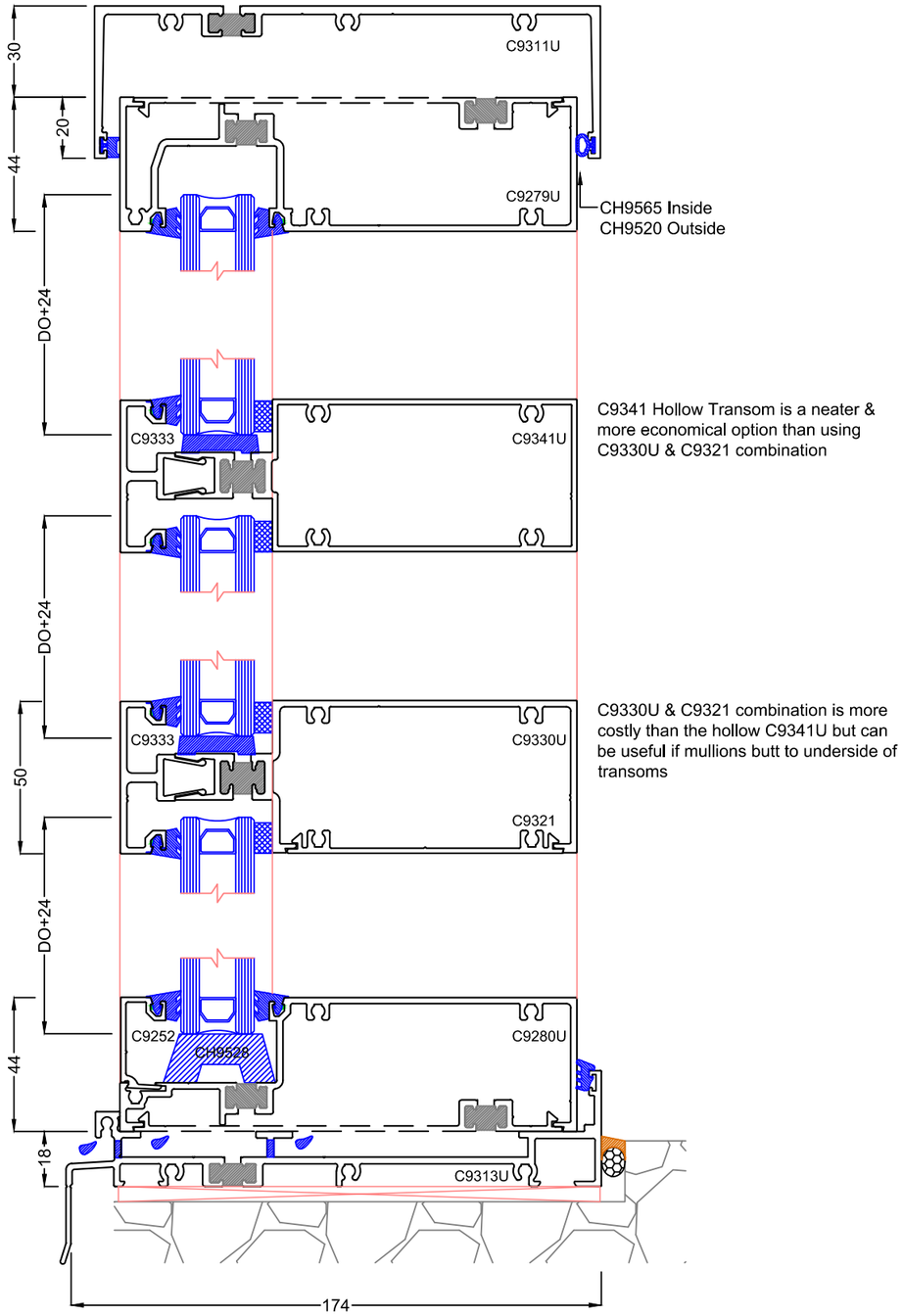


CH9581
RPVC Door Stop Base (3.0m)



CH9663
Fixing Block

44mm Front Glaze Head & Sill



Front Glaze sills in 44mm or 60mm face dimensions are recommended as the complete frame is contained within a 150mm subsill & the glazing leg is fully supported. This also allows a take off bead at sill level. Front Glaze Heads in 44mm or 60mm face dimensions are recommended when a subhead is required.

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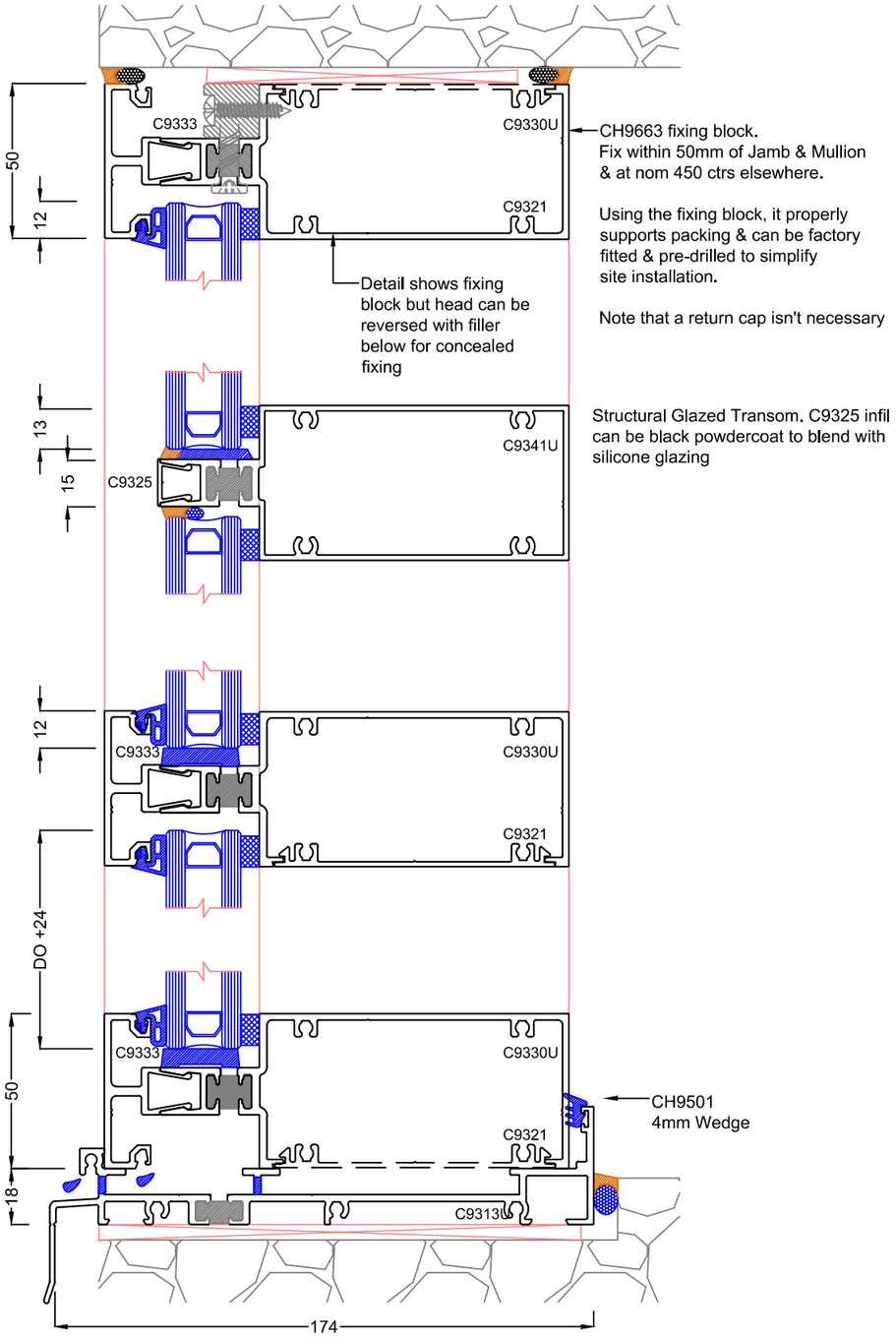
U-Max™ THERMAL BREAK 150 x 50mm FRONT CAPPED DOUBLE GLAZED

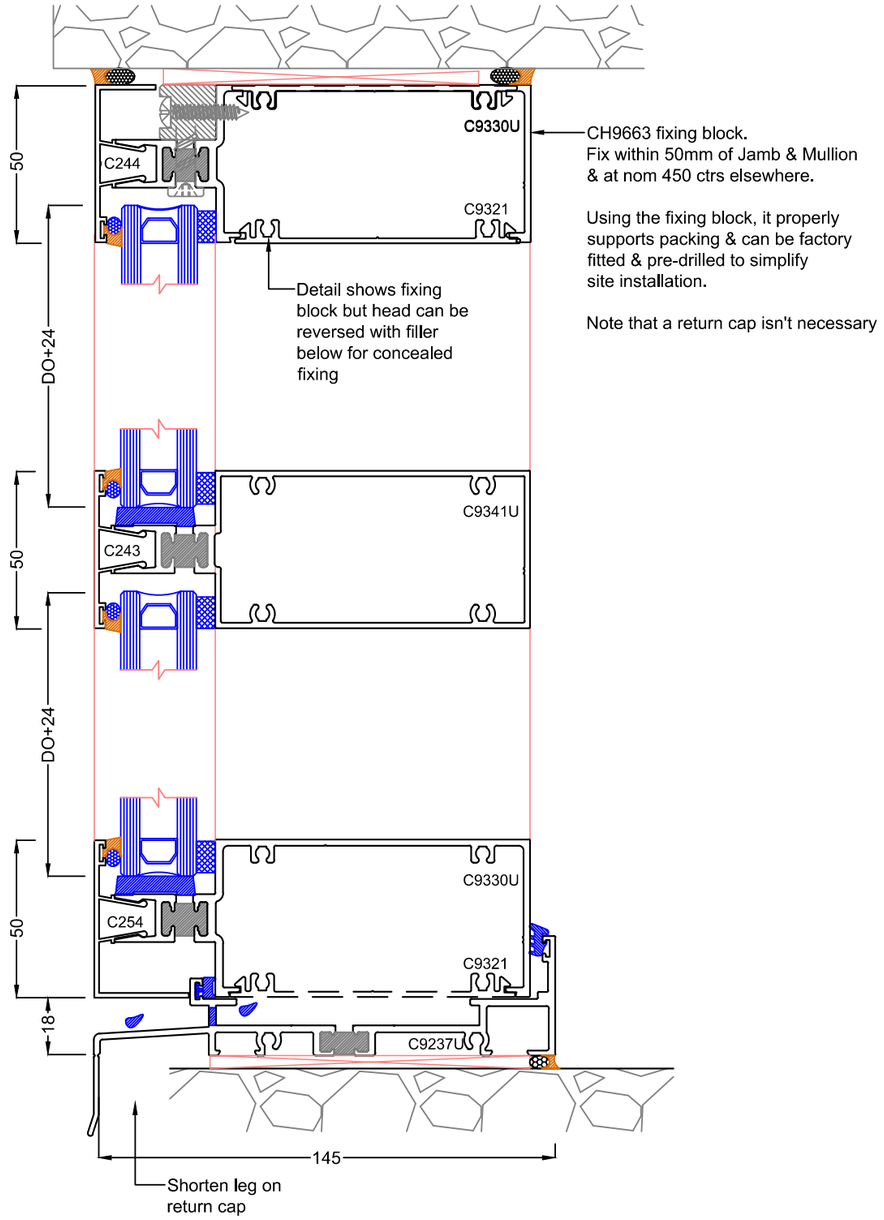
U-Max Framing Systems: U150FCDG - 4

50mm Front Capped Head & Sill



Front Capped Head & Sill, contained within a 150mm subsill & the glazing leg is fully supported. The bead is captivated in the subsill & must use Front Capped jambs to allow correct glazing. In this arrangement, a subhead must never be used.

Alternative Flat Front Cap



The flat front cap option is limited in application with double glazed
The glazing leg is not supported & can sag which causes the bottom cap to rotate outward at best.
Additionally this detail, if not adequately supported in the subsill can rotate & lift up at the back.
The 100 extended subsill C9237U aligns with the outer face of the cap.
This configuration must never be used with a subhead.

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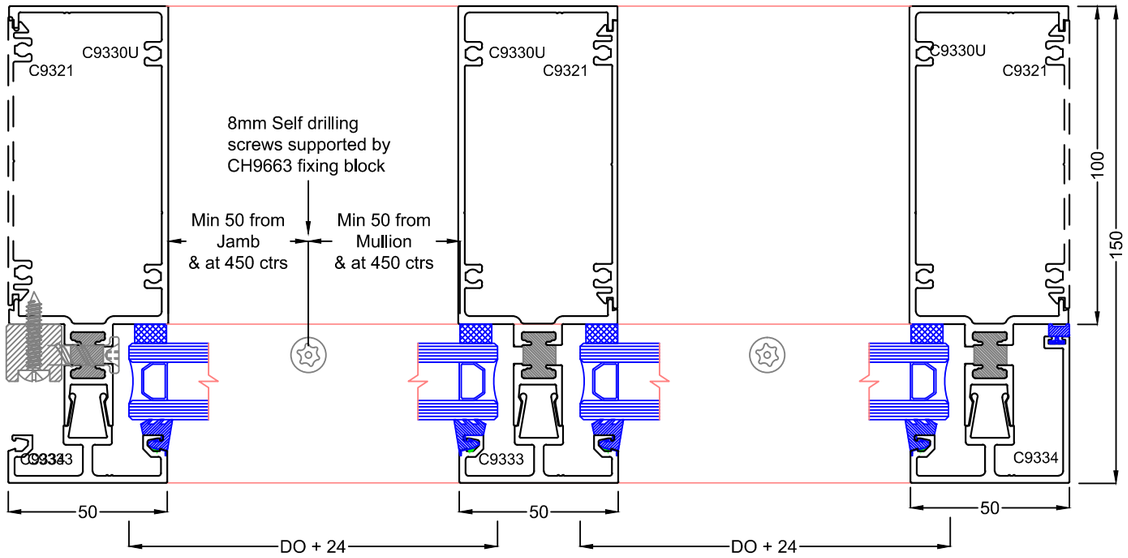
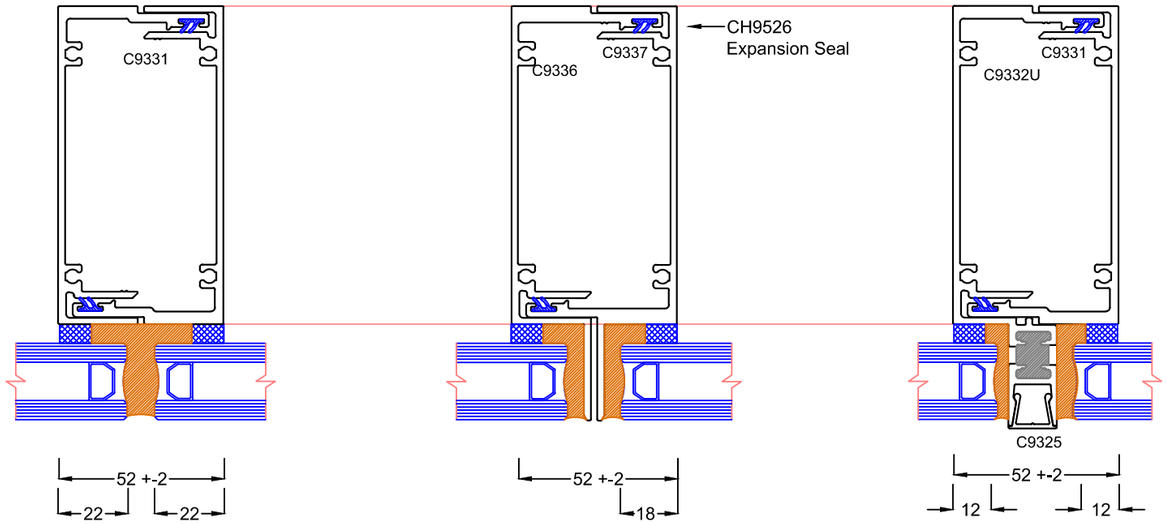
U-Max™ THERMAL BREAK 150 x 50mm FRONT CAPPED DOUBLE GLAZED
U-Max Framing Systems: U150FCDG - 5

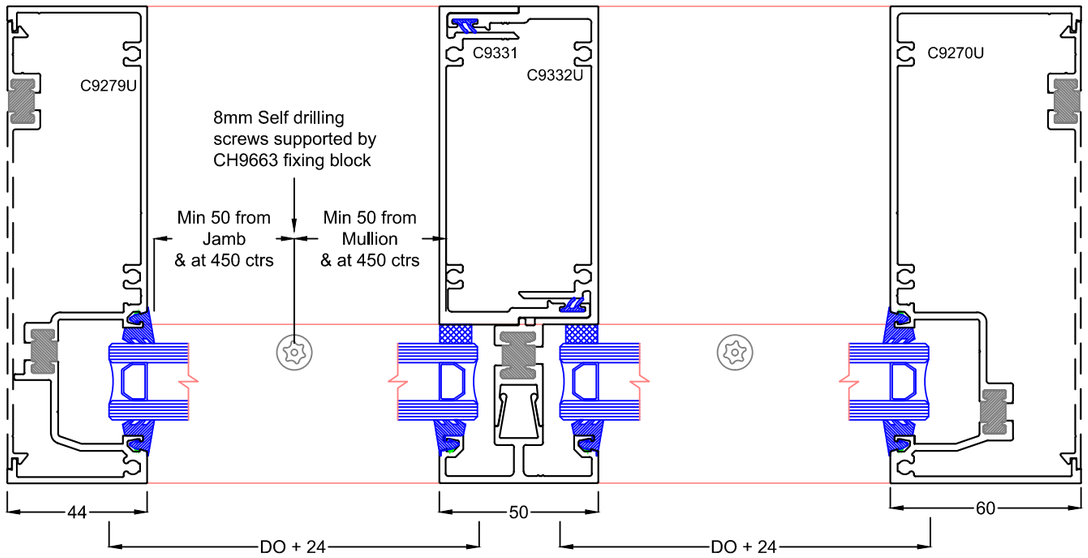
50mm Jamb / Standard Mullion / 50mm Jamb



Blind Mullion / Structural Glazed Mullion / Mullion with Infil



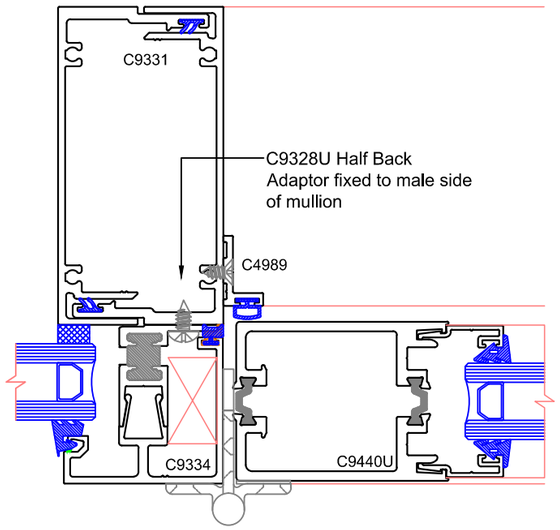
44mm Front Glaze Jamb / Split Mullion / 60mm Front Glaze Jamb



Front Glaze Jambs in 44mm or 60mm face dimensions can be used as alternate jambs but limit the key benefit of front capped systems. The rebate is more limited especially on large panels. They can however assist in frame fixing.

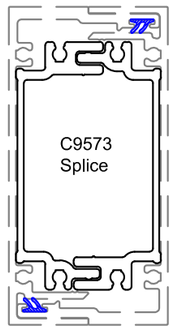
C9328U Blind Mullion Adaptor

Half Back Adaptor fixed to blind mullion.
This situation can occur when using a blind mullion & a hinge door below a transom which then requires a cap to be fitted



Splice Detail

Splices are used for additional strength usually or as means of strengthening a joined mullion.
C9573 Splice suits 50mm wide Mullions.
C9284 is designed to suit 150 x 60mm Front Glazed however it can be machined to suit 50mm wide split mullion assemblies.



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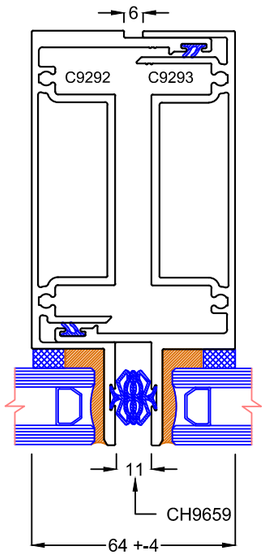
U-Max™ THERMAL BREAK 150 x 50mm FRONT CAPPED DOUBLE GLAZED

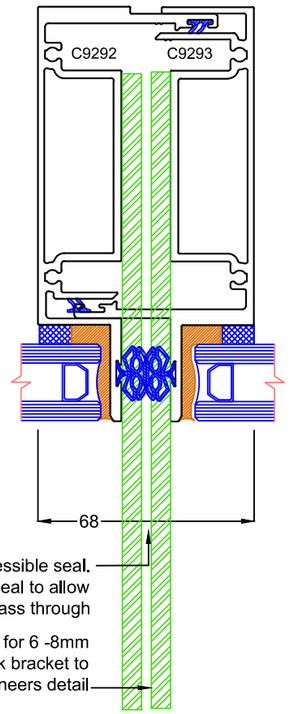
U-Max Framing Systems: U150FCDG - 6

Structural Shadescreen Mullion

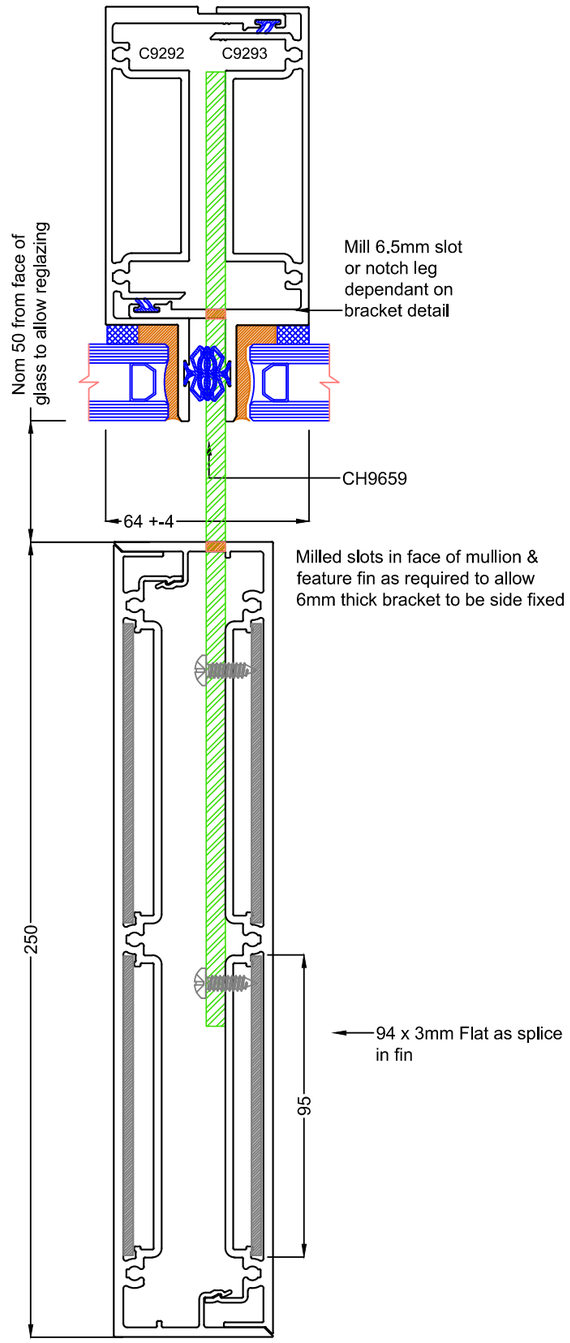
May be used for additional strength over the standard split mullion but allows one or two vertical fins or brackets to be fitted.



Double Bracket suit shelf

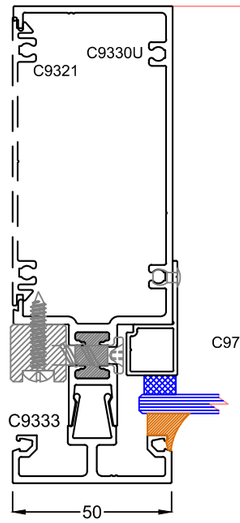


Single Bracket suit fin



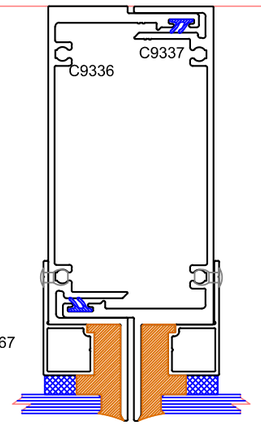
Spandrel Glazing

Jamb with Cap



Structural Mullion

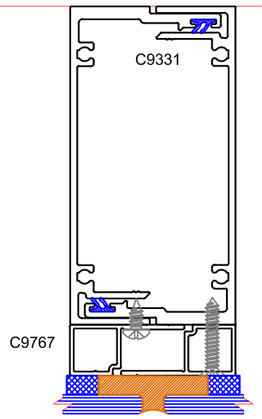
with plant on adaptor



In non visible areas C9767 Spandrel adaptor is ideal as it side fixes & eliminates issues caused when using a plant on channel on the face of a structural mullion or transom

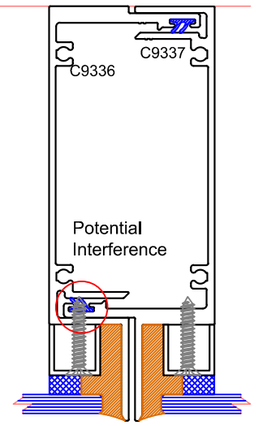
Blind Mullion

with plant on adaptor



Structural Mullion

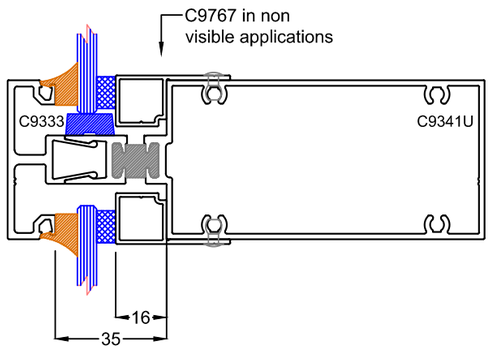
with plant on channel

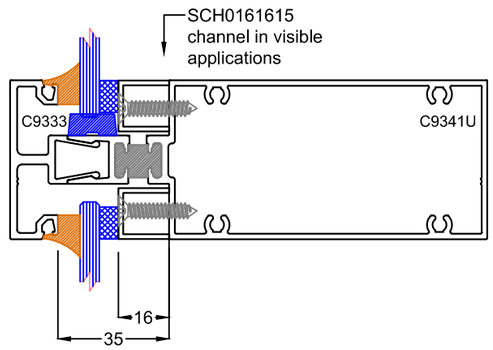


SCH0161615
16 x 16 x 1.5 channel

In visible areas a plant on channel is necessary. It may be necessary to machine the male mullion leg to clear face fixing in the channel

Spandrel Glazed Transom





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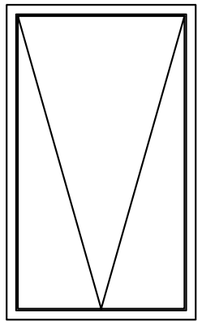
U-Max™ THERMAL BREAK 150 x 50mm FRONT CAPPED DOUBLE GLAZED

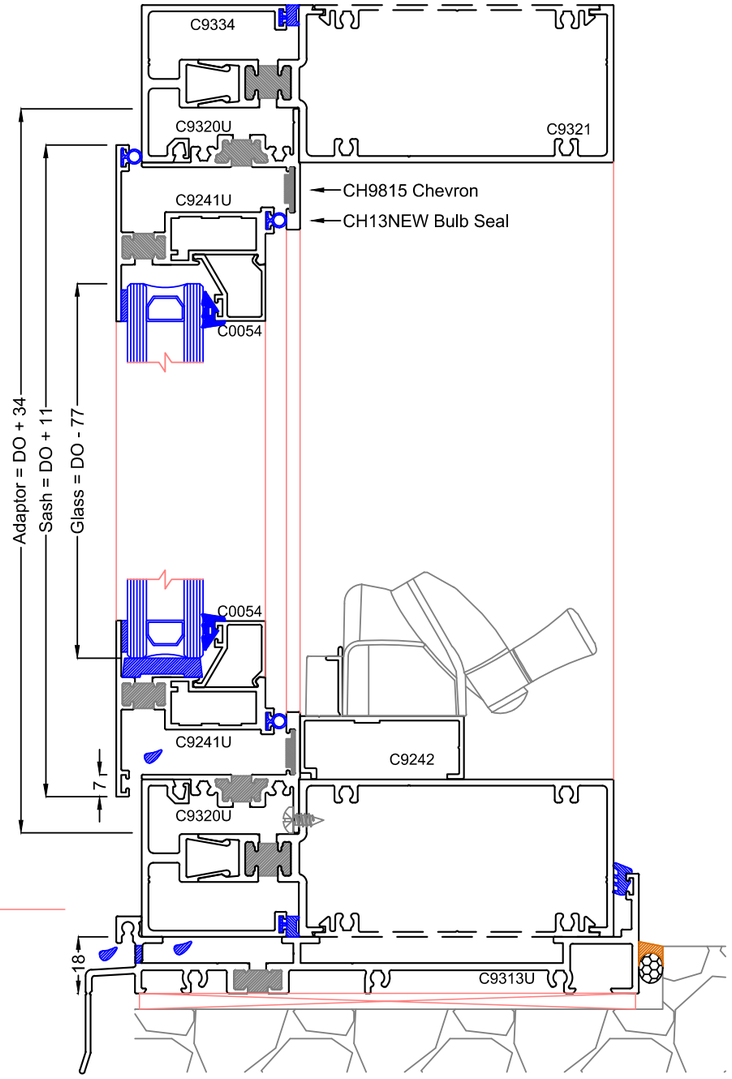
U-Max Framing Systems: U150FCDG - 7

46mm Overlap Sash

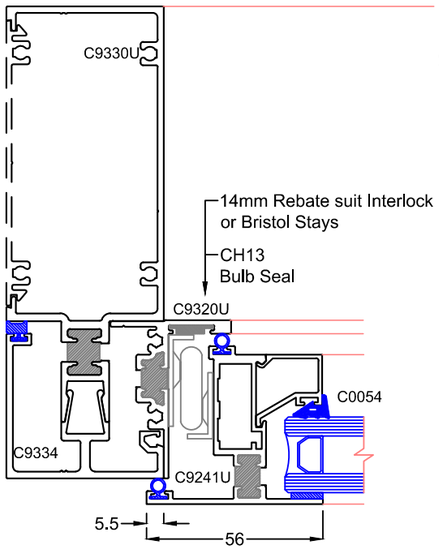


- Maximum sash weights generally up to 70kg, limited by the hardware.
- Maximum sash height 1800mm.
- Glass: 6mm - 32mm glass.
- Please refer the Sashes segment in the catalogue for hardware limits & options.
- Sash Adaptor assembled & inserted into rebate as a frame

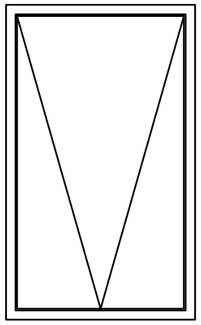
46mm Overlap Sash with 50mm Head & Sill



Jamb Detail



Structural Glazed Sash

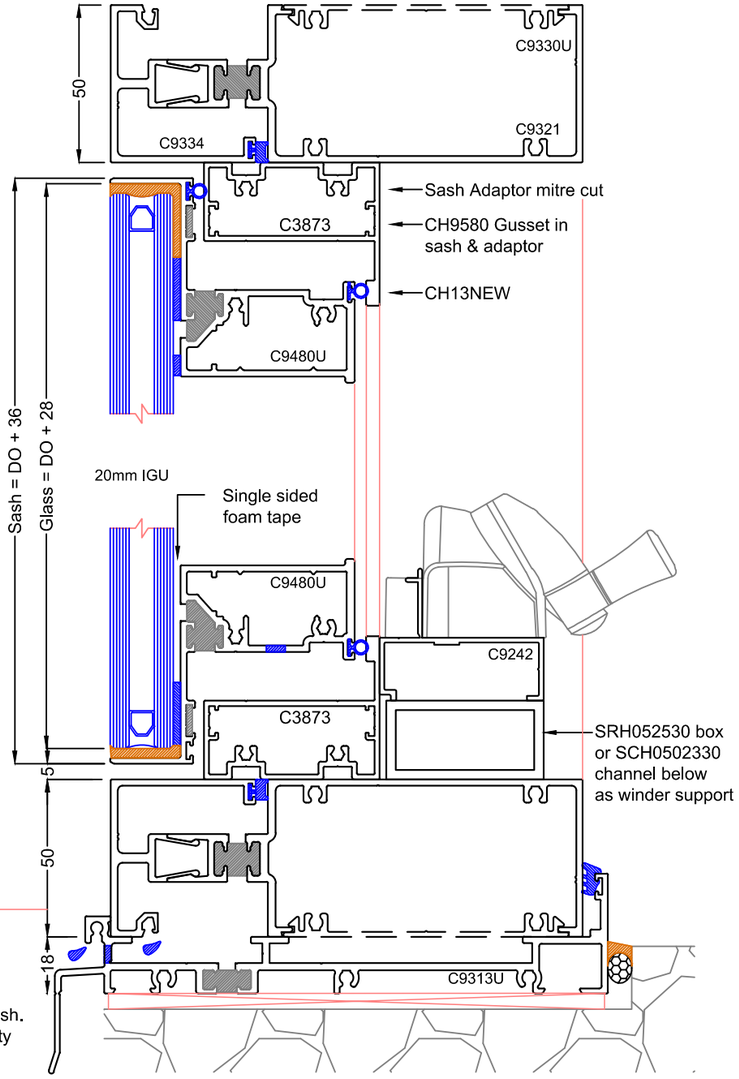


Maximum sash weights generally up to 70kg, limited by the hardware.

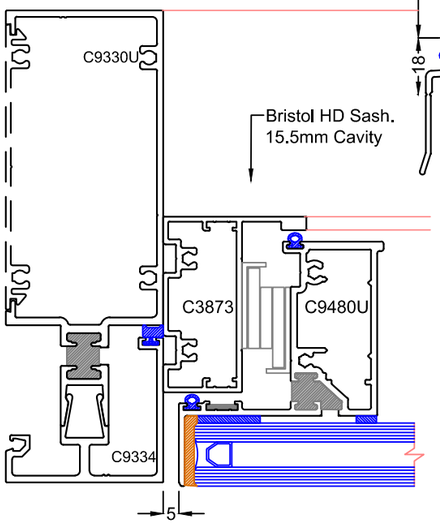
- Maximum sash height 1800mm.
- This sash only suited to Bristol HD Stays
- Glass: 20mm with VHB Tape.

Please refer the Sashes segment in the catalogue for further information on sash limits & hardware selection.

Structural Glazed Sash with 50mm Head & Sill



Jamb Detail



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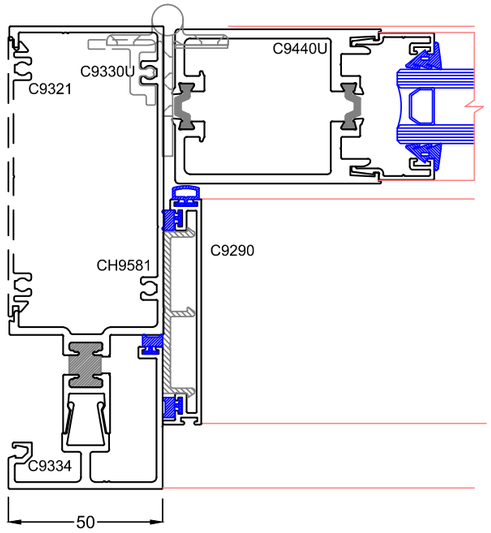
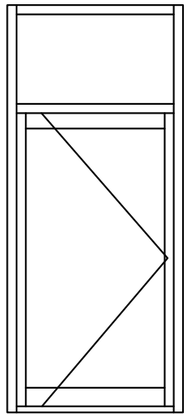
U-Max™ THERMAL BREAK 150 x 50mm FRONT CAPPED DOUBLE GLAZED
U-Max Framing Systems: U150FCDG - 8

Jamb Detail Open IN Door

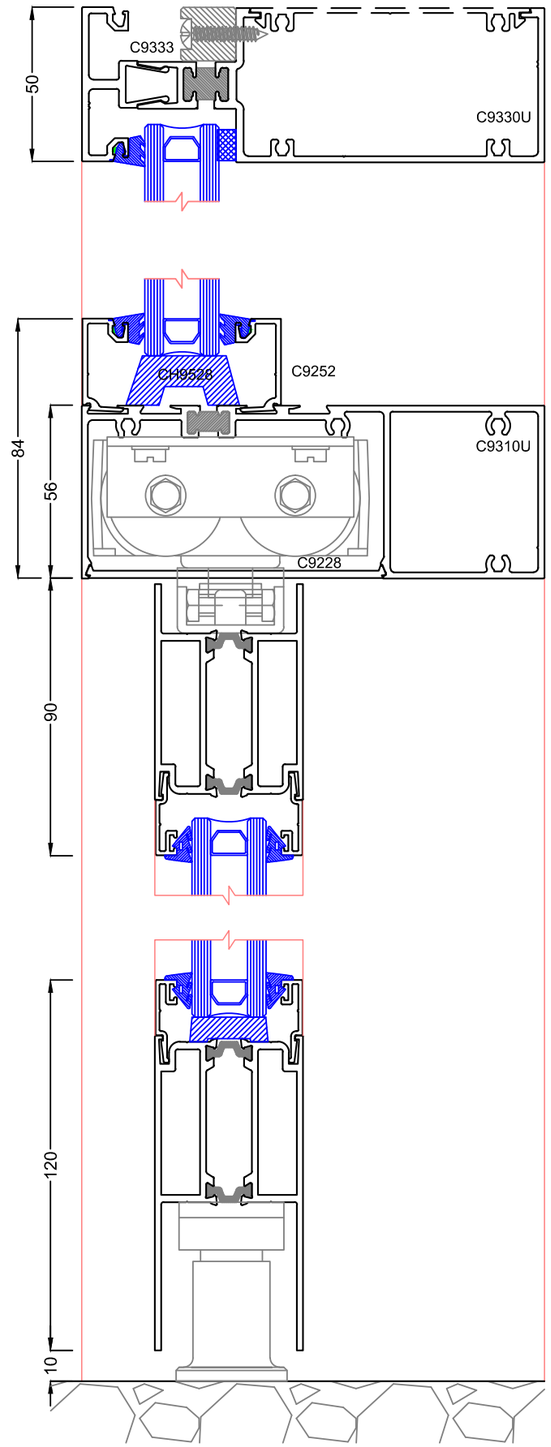


Pivot Doors

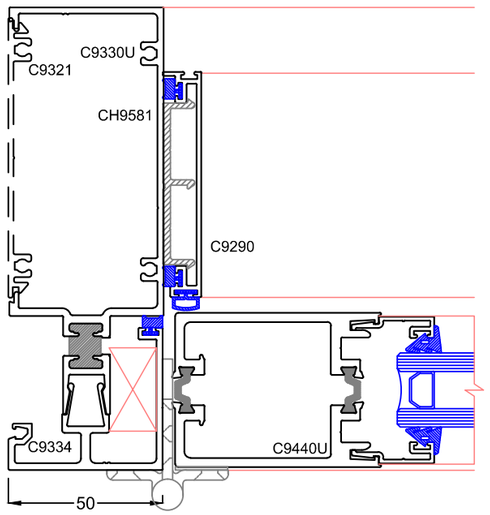


Maximum Door height 2700mm
Maximum Panel width 1000mm
Pivot point usually 100mm

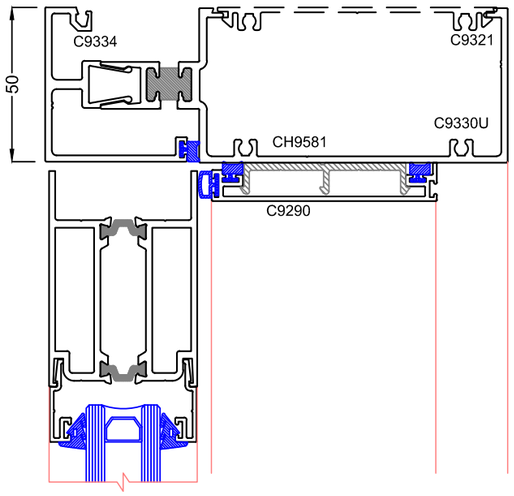
Pivot Door & Highlight



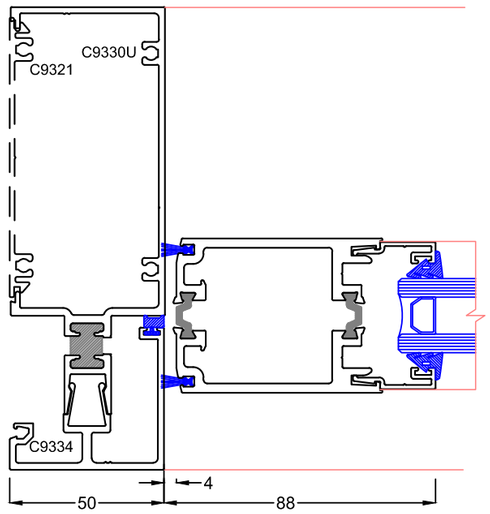
Jamb Detail Open OUT Door



Head Detail Open OUT Door



Jamb Detail



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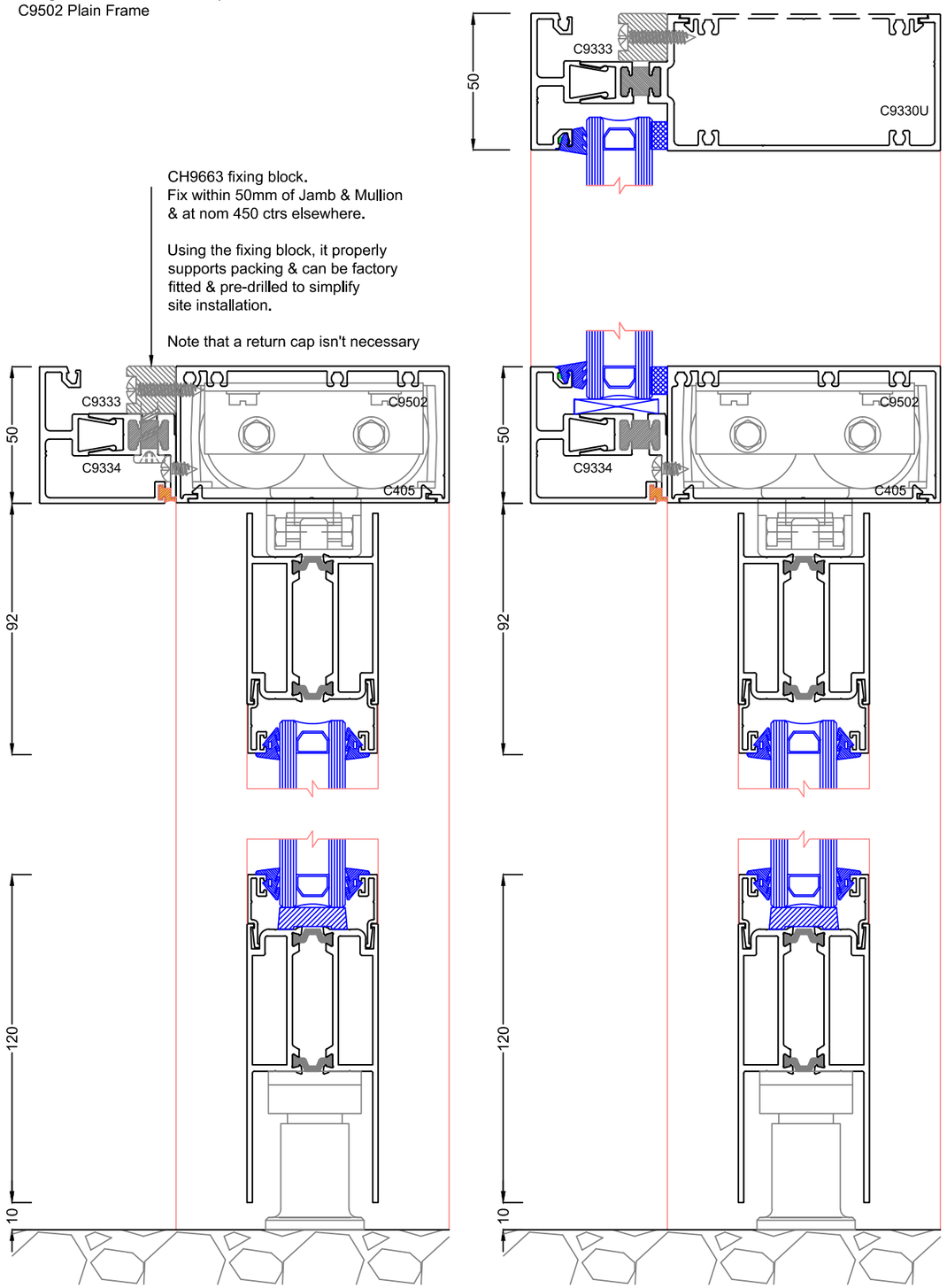
U-Max™ THERMAL BREAK 150 x 50mm FRONT CAPPED DOUBLE GLAZED

U-Max Framing Systems: U150FCDG - 9

Alternate Head Detail with Pivot Door

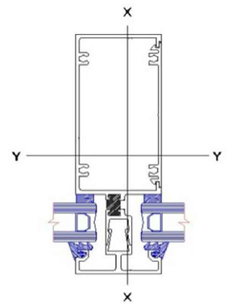
Using C9328U Half Back Adaptor fixed to the face of C9502 Plain Frame

Alternate Pivot Door & Highlight



Mullion Structural Tables

Mullion Combination: U-Max 150 STD Capped C9321, C9330, C9333



These tables use theoretical section properties. The resulting Serviceability and Ultimate should be read in conjunction with the requirements of AS1170.

Note the following:
- Maximum Stress = 110Mpa
- Serviceability based on Span/250
- Italics indicate where Serviceability is limited by Ulltimate.

This chart is to be used as a guide only. Where Serviceability exceeds 3kPa or for more information, contact Capral.

Frame Height (mm)		Design Wind Pressure (Pa)							
2200	S	*3193*	*2623*	*2259*	*2017*	*1853*	*1746*	*1685*	*1665*
	U	*3193*	*2623*	*2259*	*2017*	*1853*	*1746*	*1685*	*1665*
2400	S	*2651*	*2168*	*1857*	*1645*	*1498*	*1396*	*1329*	*1290*
	U	*2651*	*2168*	*1857*	*1645*	*1498*	*1396*	*1329*	*1290*
2600	S	2122	1735	1485	1315	1195	1110	1051	1012
	U	2236	1822	1554	1370	1239	1145	1079	1034
2800	S	1690	1378	1175	1035	936	864	811	774
	U	1911	1553	1320	1159	1043	958	896	851
3000	S	1368	1113	946	830	747	686	641	607
	U	1652	1340	1135	993	891	814	757	714
3200	S	1123	912	773	677	607			
	U	1441	1167	987	861	770			
3400	S	934	757	640					
	U	1269	1026	866					
3600	S	785	635						
	U	1125	908						
3800	S	666							
	U	1004							
Mullion Centres (mm)		800	1000	1200	1400	1600	1800	2000	2200

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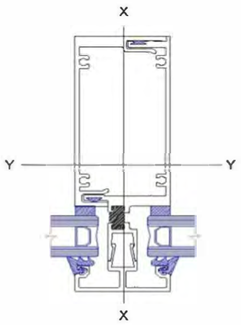
U-Max™ THERMAL BREAK 150 x 50mm FRONT CAPPED DOUBLE GLAZED
U-Max Framing Systems: U150FCDG - 10
Mullion Structural Tables

Mullion Combination: U-Max 150 Split Capped C9331, C9332, C9333



These tables use theoretical section properties. The resulting Serviceability and Ultimate should be read in conjunction with the requirements of AS1170.

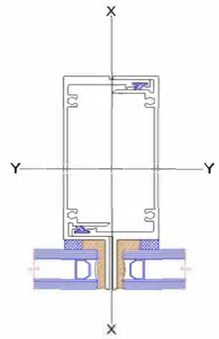
Note the following:
- Maximum Stress = 110Mpa
- Serviceability based on Span/250
- Italics indicate where Serviceability is limited by Ulltimate.

This chart is to be used as a guide only. Where Serviceability exceeds 3kPa or for more information, contact Capral.

Frame Height (mm)		Design Wind Pressure (Pa)							
2200	S	*4574*	*3456*	*3236*	*2888*	*2654*	*2501*	*2414*	*2385*
	U	*4574*	*3756*	*3236*	*2888*	*2654*	*2501*	*2414*	*2385*
2400	S	3519	2888	2485	2213	2026	1898	1815	1767
	U	3796	3104	2658	2356	2145	1999	1902	1846
2600	S	2749	2248	1924	1704	1549	1438	1362	1311
	U	3200	2608	2224	1960	1773	1639	1544	1480
2800	S	2189	1785	1522	1341	1212	1119	1051	1003
	U	2734	2222	1888	1658	1492	1371	1282	1218
3000	S	1772	1441	1225	1076	968	889	830	786
	U	2362	1915	1624	1421	1274	1164	1083	1022
3200	S	1455	1181	1002	877	786	719	668	629
	U	2060	1668	1411	1231	1100	1002	928	871
3400	S	1210	980	830	724	648			
	U	1813	1466	1237	1078	960			
3600	S	1017	823	695	606				
	U	1607	1297	1094	951				
3800	S	863	697						
	U	1433	1156						
4000	S	738							
	U	1286							
4200	S	637							
	U	1161							
Mullion Centres (mm)		800	1000	1200	1400	1600	1800	2000	2200

Mullion Structural Tables

Mullion Combination: Max 150 FDG Struct C9336, C9337



These tables use theoretical section properties. The resulting Serviceability and Ultimate should be read in conjunction with the requirements of AS1170.

Note the following:
- Maximum Stress = 110Mpa
- Serviceability based on Span/250
- Italics indicate where Serviceability is limited by Ulltimate.

This chart is to be used as a guide only. Where Serviceability exceeds 3kPa or for more information, contact Capral.

Frame Height (mm)		Design Wind Pressure (Pa)							
2200	S	*5032*	*4133*	*3560*	*3178*	*2920*	*2752*	*2656*	*2624*
	U	*5032*	*4133*	*3560*	*3178*	*2920*	*2752*	*2656*	*2624*
2400	S	3851	3161	2720	2423	2218	2078	1986	1935
	U	4174	3413	2923	2591	2359	2199	2092	2030
2600	S	3009	2460	2106	1865	1695	1575	1490	1435
	U	3517	2867	2445	2155	1949	1802	1697	1627
2800	S	2396	1953	1666	1468	1327	1225	1150	1097
	U	3004	2441	2075	1821	1639	1506	1408	1338
3000	S	1940	1578	1341	1178	1060	973	908	861
	U	2594	2104	1783	1560	1399	1279	1189	1122
3200	S	1593	1293	1096	960	861	787	731	689
	U	2262	1831	1549	1352	1208	1100	1019	956
3400	S	1324	1073	908	793	709	646		
	U	1989	1608	1358	1183	1054	957		
3600	S	1113	900	761	663				
	U	1762	1423	1200	1043				
3800	S	944	763	644					
	U	1572	1268	1068					
4000	S	808	652						
	U	1410	1137						
4200	S	697							
	U	1272							
4400	S	606							
	U	1153							
Mullion Centres (mm)		800	1000	1200	1400	1600	1800	2000	2200

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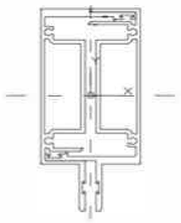
U-Max™ THERMAL BREAK 150 x 50mm FRONT CAPPED DOUBLE GLAZED
U-Max Framing Systems: U150FCDG - 11
Mullion Structural Tables

Mullion Structural Table

Mullion Combination: 150 Shade Mullion (C9492,C9493)



These tables use theoretical section properties. The resulting Serviceability and Ultimate should be read in conjunction with the requirements of AS1170.

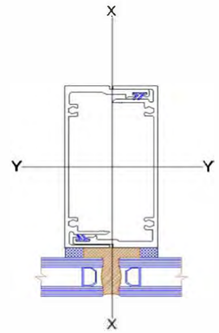
Note the following:
- Maximum Stress = 110Mpa
- Serviceability based on Span/250
- Italics indicate where Serviceability is limited by Ulltimate.

This chart is to be used as a guide only. Where Serviceability exceeds 3kPa or for more information, contact Capral.

2200	S	*10079*	*8278*	*7131*	*6365*	*5849*	*5512*	*5319*	*5256*
	U	*10079*	*8278*	*7131*	*6365*	*5849*	*5512*	*5319*	*5256*
2400	S	8337	6817	5838	5174	4712	4391	4178	4055
	U	8337	6817	5838	5174	4712	4391	4178	4055
2600	S	6523	5333	4566	4043	3674	3413	3231	3110
	U	7006	5709	4869	4292	3882	3589	3381	3240
2800	S	5195	4234	3611	3183	2877	2655	2493	2379
	U	5966	4849	4121	3618	3256	2991	2797	2657
3000	S	4205	3420	2908	2553	2297	2109	1969	1866
	U	5138	4168	3533	3091	2771	2534	2356	2223
3200	S	3453	2802	2377	2080	1866	1706	1585	1493
	U	4469	3619	3061	2671	2387	2174	2012	1889
3400	S	2871	2326	1968	1719	1537	1400	1296	1216
	U	3920	3170	2676	2331	2077	1886	1740	1626
3600	S	2412	1952	1649	1437	1282	1165	1075	1004
	U	3465	2798	2359	2051	1824	1652	1519	1415
3800	S	2047	1654	1396	1214	1081	980	901	840
	U	3082	2487	2094	1818	1614	1459	1338	1243
4000	S	1752	1414	1192	1035	920	832	764	710
	U	2759	2224	1871	1622	1438	1297	1188	1101
4200	S	1511	1219	1026	890	790	713	654	606
	U	2482	2000	1680	1455	1288	1161	1061	981
4400	S	1313	1058	890	771	683	616		
	U	2244	1807	1517	1313	1161	1045		
4600	S	1147	924	777	672				
	U	2038	1640	1376	1189				
4800	S	1009	812	682					
	U	1858	1494	1253					
5000	S	892	718	602					
		1700	1367	1146					
Mullion Centres (mm)		800	1000	1200	1400	1600	1800	2000	2200

Mullion Structural Tables

Mullion Combination: Max 100 SM Blind C9331, C9331



These tables use theoretical section properties. The resulting Serviceability and Ultimate should be read in conjunction with the requirements of AS1170.

Note the following:
- Maximum Stress = 110Mpa
- Serviceability based on Span/250
- Italics indicate where Serviceability is limited by Ulltimate.

This chart is to be used as a guide only. Where Serviceability exceeds 3kPa or for more information, contact Capral.

2200	S	*4106*	*3388*	*2933*	*2633*	*2434*	*2306*	*2234*	*2211*
	U	*5907*	*4852*	*4179*	*3730*	*3428*	*3231*	*3118*	*3080*
2400	S	*3136*	*2574*	*2215*	*1972*	*1806*	*1692*	*1617*	*1575*
	U	*4896*	*4003*	*3429*	*3039*	*2767*	*2579*	*2454*	*2381*
2600	S	*2450*	*2003*	*1715*	*1518*	*1380*	*1282*	*1213*	*1168*
	U	*4122*	*3360*	*2865*	*2525*	*2285*	*2112*	*1989*	*1907*
2800	S	*1951*	*1590*	*1356*	*1195*	*1080*	*997*	*937*	*894*
	U	*3518*	*2859*	*2430*	*2133*	*1920*	*1764*	*1649*	*1567*
3000	S	*1580*	*1284*	*1092*	*959*	*863*	*792*	*740*	*701*
	U	*3035*	*2462*	*2087*	*1826*	*1637*	*1497*	*1392*	*1313*
3200	S	*1297*	*1053*	*893*	*781*	*701*	*641*		
	U	*2645*	*2142*	*1812*	*1581*	*1413*	*1287*		
3400	S	*1078*	*874*	*739*	*646*				
	U	*2325*	*1879*	*1587*	*1382*				
3600	S	*906*	*733*	*619*					
	U	*2058*	*1662*	*1401*					
3800	S	*769*	*621*						
	U	*1834*	*1480*						
4000	S	*658*							
	U	*1645*							
Mullion Centres (mm)		800	1000	1200	1400	1600	1800	2000	2200

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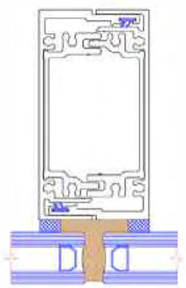
U-Max™ THERMAL BREAK 150 x 50mm FRONT CAPPED DOUBLE GLAZED
U-Max Framing Systems: U150FCDG - 12
Mullion Structural Tables

Mullion Combination: Max 100 SM Blind with Splice (C9331,C9573)



These tables use theoretical section properties. The resulting Serviceability and Ultimate should be read in conjunction with the requirements of AS1170.

Note the following:
- Maximum Stress = 110Mpa
- Serviceability based on Span/250
- Italics indicate where Serviceability is limited by Ulltimate.

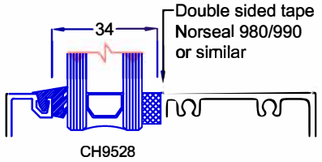
This chart is to be used as a guide only. Where Serviceability exceeds 3kPa or for more information, contact Capral.

2200	S	5764	4755	4117	3696	3416	3237	3136	3104
	U	8071	6629	5710	5097	4683	4414	4260	4208
2400	S	4401	3613	3108	2768	2534	2374	2270	2211
	U	6680	5462	4678	4146	3776	3519	3348	3249
2600	S	3439	2812	2407	2131	1937	1799	1703	1639
	U	5617	4577	3904	3441	3113	2877	2711	2598
2800	S	2738	2232	1904	1678	1517	1399	1314	1254
	U	4786	3890	3307	2903	2612	2400	2244	2132
3000	S	2217	1803	1533	1346	1211	1112	1038	984
	U	4125	3346	2836	2481	2225	2034	1891	1784
3200	S	1820	1477	1253	1097	983	899	836	787
	U	3590	2907	2459	2146	1917	1747	1617	1517
3400	S	1513	1226	1038	906	810	738	683	641
	U	3151	2548	2151	1873	1670	1516	1398	1307
3600	S	1272	1029	869	758	676	614		
	U	2786	2250	1897	1649	1467	1329		
3800	S	1079	872	736	640				
	U	2480	2001	1685	1463				
4000	S	924	746	628					
	U	2221	1791	1506					
4200	S	797	643						
	U	2000	1611						
4400	S	692							
	U	1809							
4600	S	605							
	U	1644							
4800	S								
	U								
5000	S								
	U								
Mullion Centres (mm)		800	1000	1200	1400	1600	1800	2000	2200

Glazing charts for U-MAX Front Capped Framing

The following chart has been prepared to depict suggested tape & wedge combinations for U-MAX Front Capped glazing.

There are a number of different glazing methods for this system, however the use of a double sided tape like Norseal 980 or 990 is ideally suited to for this system.



CH9506
3mm Co-ex wedge
Yellow backing
SANT

CH9507
5mm Co-ex wedge
Green backing
SANT

CH9508
6mm Co-ex wedge
Red backing
SANT

CH9509
7mm Co-ex wedge
Blue backing
SANT

	Glass thickness	Example	Rebate Tape	Gap	External wedge	Gap
U-Max Front Capped Framing	22mm	5/12/5	12 x 4.8	5mm	CH9509	7mm
	23mm	6/12/5	12 x 4.8	5mm	CH9509	7mm
	24mm	6/12/6	12 x 4.8	5mm	CH9507	5mm
	25mm	6.38/12/6	12 x 4.8	5mm	CH9507	5mm
	26mm	8/12/6	12 x 3.2	3mm	CH9507	5mm
	27mm	8.38/12/6	12 x 3.2	3mm	CH9507	5mm
	28mm	8/12/8	12 x 3.2	3mm	CH9506	3mm

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