

WS14

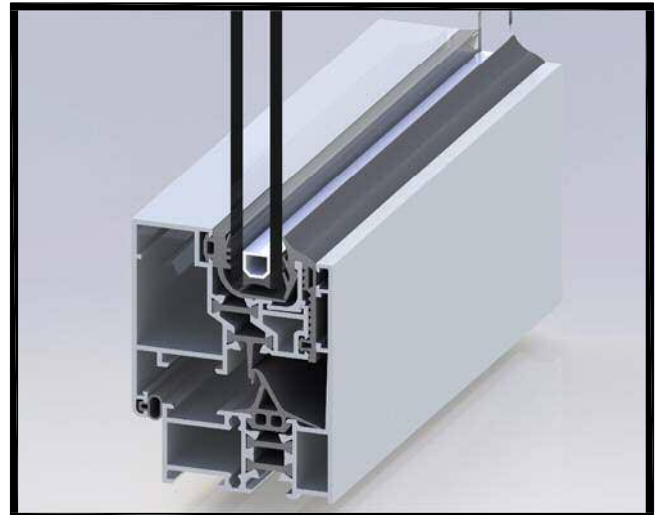
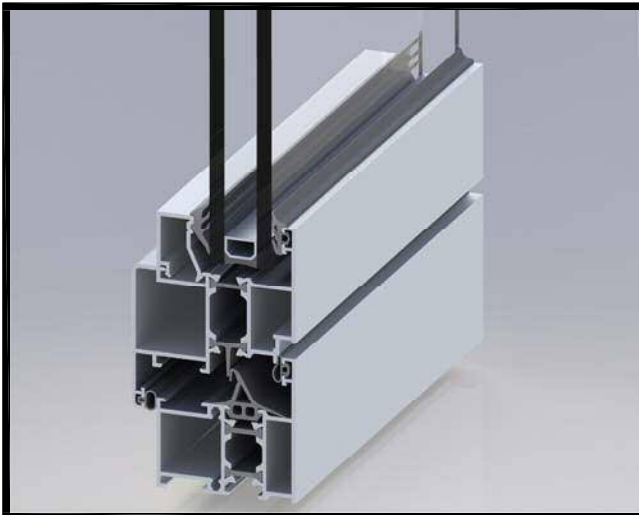
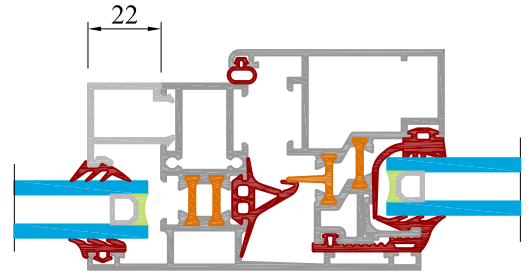
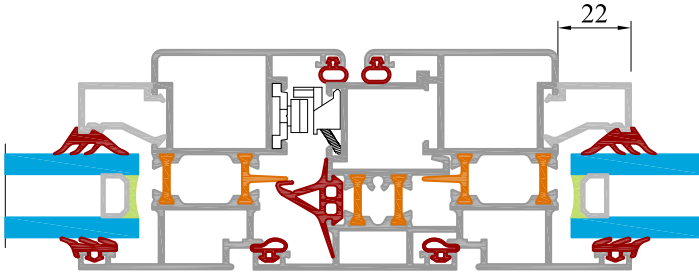
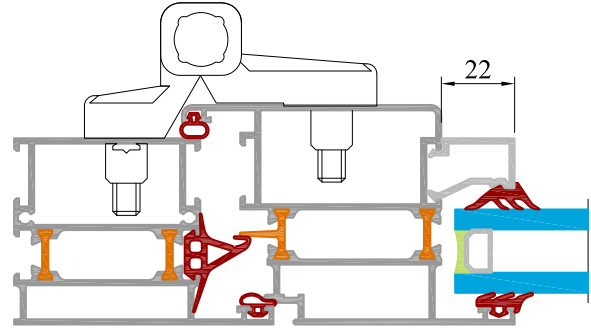
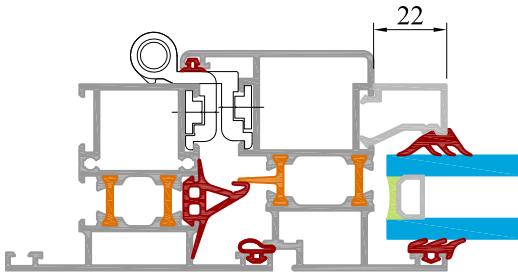
DOĞRAMA SİSTEMİ

Kasa / Kanat derinliği : 56mm / 66mm

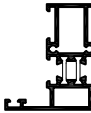
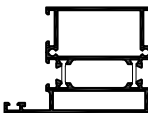
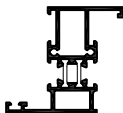
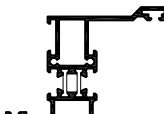
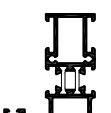
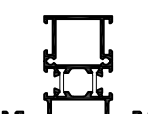
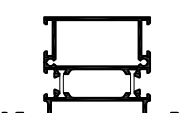
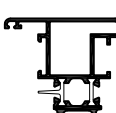
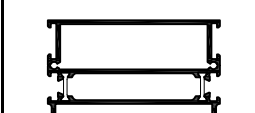
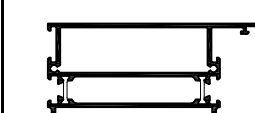
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Isı yalıtımlı : 15mm

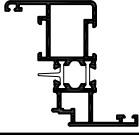
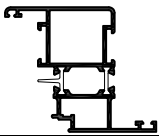
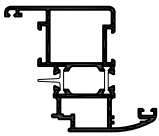
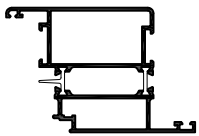
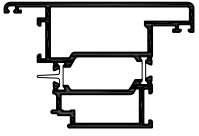
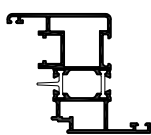
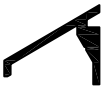
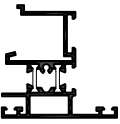
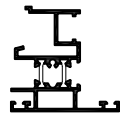
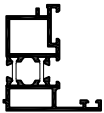
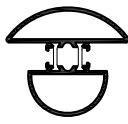
Euro normlarında aksesuar kanalı



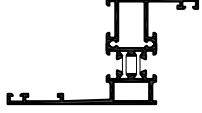
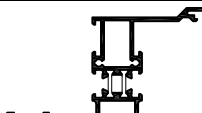
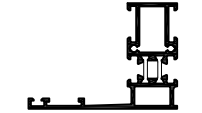
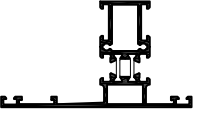
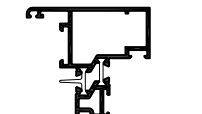
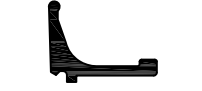
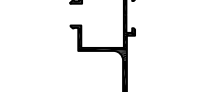
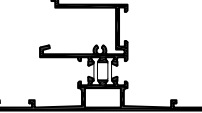
WS14 Profil Endeksi

Açıklamalar	Profil Resmi	Profil Kodu	Ağırlık Kg/m	I _x	I _y	Sayfa No
Kasa (Genişlik 48mm) <i>Frame (Width 48mm)</i>		WS14011-16	1.238 Kg/m	14.64	5.70	156
		WS14011-20	1.372 Kg/m	16.81	6.07	156
Kasa (Genişlik 58mm) <i>Frame (Width 58mm)</i>		WS14021-16	1.427 Kg/m	17.35	11.21	156
		WS14021-20	1.602 Kg/m	20.15	12.07	156
Kasa (Genişlik 78mm) <i>Frame (Width 78mm)</i>		WS14031-16	1.774 Kg/m	22.69	30.94	156
		WS14031-20	2.036 Kg/m	26.76	33.82	156
Pervazlı Kasa (Genişlik 70mm) <i>Frame (Width 70mm)</i>		WS14015-16	1.364 Kg/m	18.61	9.35	157
Pervazlı Kasa (Genişlik 85mm) <i>Frame (Width 85mm)</i>		WS14017-16	1.496 Kg/m	23.41	17.48	157
Orta Kayıt (Genişlik 70mm) <i>Transom - Mullion Profile (Width 70mm)</i>		WS14211-16	1.371 Kg/m	16.79	9.39	158
		WS14211-20	1.518 Kg/m	19.19	9.93	158
Orta Kayıt (Genişlik 80mm) <i>Transom - Mullion Profile (Width 80mm)</i>		WS14221-16	1.560 Kg/m	19.54	16.35	158
		WS14221-20	1.748 Kg/m	22.47	17.49	158
Orta Kayıt (Genişlik 100mm) <i>Transom - Mullion Profile (Width 100mm)</i>		WS14231-16	1.907 Kg/m	24.94	39.71	158
		WS14231-20	2.182 Kg/m	29.24	43.17	158
Pivot Adaptörü <i>Pivot Adapter</i>		WS1451-16	1.466 Kg/m	-	-	158
Orta Kayıt (Genişlik 135mm) <i>Transom - Mullion Profile (Width 135mm)</i>		WS14241-20	2.919 Kg/m	40.66	129.37	159
Etek (Genişlik 135mm) <i>Kickplate Profile (Width 135mm)</i>		WS14121-20	3.061 Kg/m	-	-	159

WS14 Profil Endeksi

Açıklamalar	Profil Resmi	Profil Kodu	Ağırlık Kg/m	Ix	Iy	Sayfa No
Kanat Profili (Genişlik 70mm) <i>Sash Profile (Width 70mm)</i>		WS14351-16	1.449 Kg/m	-	-	160
		WS14351-20	1.649 Kg/m	-	-	160
Kanat Profili (Genişlik 80mm) <i>Sash Profile (Width 80mm)</i>		WS14361-16	1.638 Kg/m	-	-	160
		WS14361-20	1.873 Kg/m	-	-	160
Oval Kanat Profili (Genişlik 80mm) <i>Sash Profile (Width 80mm)</i>		WS14363-16	1.680 Kg/m	-	-	160
Kanat Profili (Genişlik 100mm) <i>Sash Profile (Width 100mm)</i>		WS14381-16	1.969 Kg/m	-	-	160
		WS14381-20	2.299 Kg/m	-	-	160
Dışa Açılır Kapı Kanadı (Genişlik 100mm) <i>Door Sash Profile Opening Outside (Width 100mm)</i>		WS14391-20	2.462 Kg/m	-	-	161
Kanat Profili (Genişlik 80mm) <i>Sash Profile (Width 80mm)</i>		WS14362-16	1.724 Kg/m	-	-	161
Damlalık Profili <i>Windowsill Profile</i>		5711-20	0.404 Kg/m	-	-	161
Çift Kanat Adaptörü <i>Adjoining Sash Adapter</i>		WS1452-16	1.380 Kg/m	-	-	162
Çift Kanat Adaptörü <i>Adjoining Sash Adapter</i>		WS14521-16	1.416 Kg/m	-	-	162
Dışa Açılır Kapı Adaptörü <i>Outside Opening Door Adapter</i>		WS1453-16	1.226 Kg/m	20.78	7.95	162
90°-135° Ayarlanabilir Köşe Dönüş Profili <i>90°-135° Corners Profiles</i>		WS14265-18	1.474 Kg/m	-	-	162

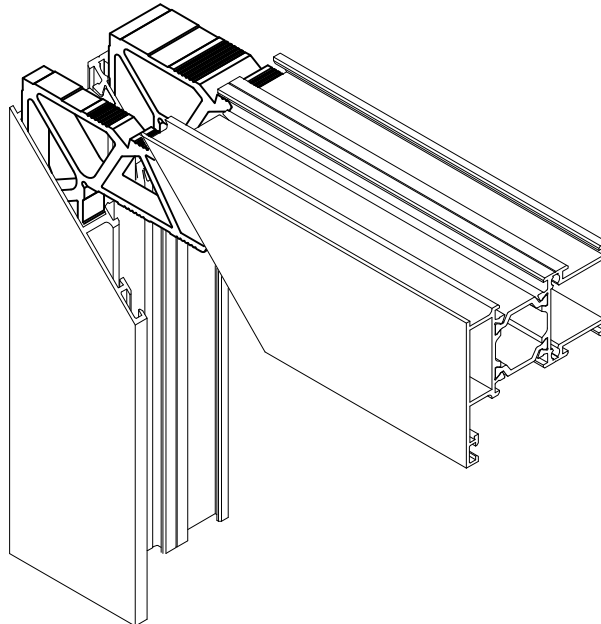
WS14 Profil Endeksi

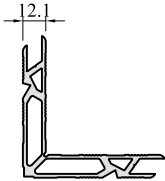
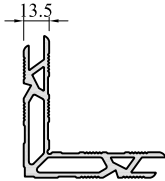
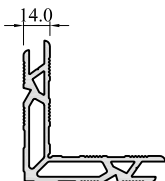
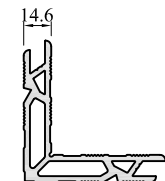
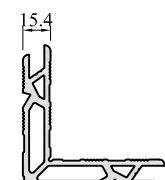
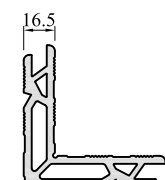
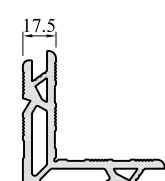
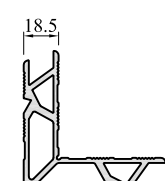
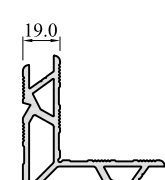
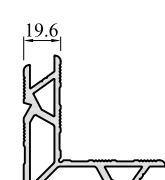
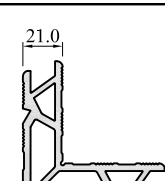
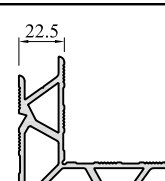
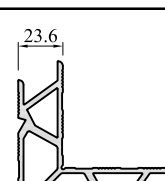
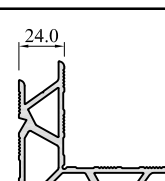
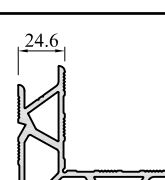
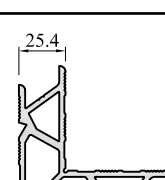
Açıklamalar	Profil Resmi	Profil Kodu	Ağırlık Kg/m	Ix	Iy	Sayfa No
Gizli Kanat Pervazlı Kasa <i>Frame Profile For Hidden Sash</i>		WS14016-16	1.542 Kg/m	22.28	25.02	163
Gizli Kanat Pervazlı Kasa <i>Frame Profile For Hidden Sash</i>		WS14018-16	1.674 Kg/m	27.97	35.43	163
Gizli Kanat Kasası <i>Frame Profile For Hidden Sash</i>		WS14012-16	1.416 Kg/m	17.55	19.84	164
Gizli Kanat Orta Kayıt <i>Transom - Mullion Profile For Hidden Sash</i>		WS14212-16	1.549 Kg/m	19.24	25.14	164
Gizli Kanat Profili <i>Hidden Sash Profile</i>		WS14326-16	1.366 Kg/m	-	-	165
Gizli Kanat İçin Cam Çıtası <i>Glass Holder For Hidden Sash</i>		W416-15	0.142 Kg/m	-	-	165
Gizli Kanatta Sabit Cam Adaptörü <i>Fix Glass Adapter For Hidden Sash</i>		W546-16	0.592 Kg/m	-	-	165
Gizli Kanatta Çift Kanat Adaptörü <i>Adjoining Sash Adapter For Hidden Sash</i>		WS14526-16	1.819 Kg/m	-	-	165

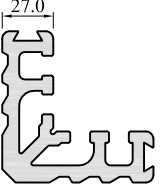
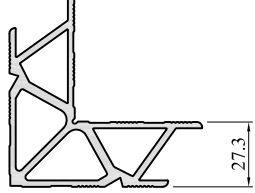
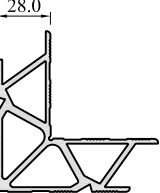
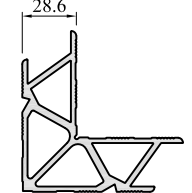
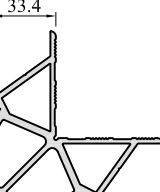
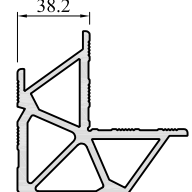
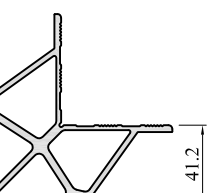
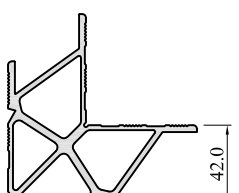
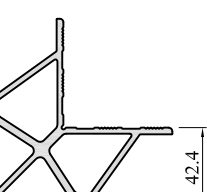
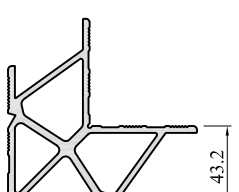
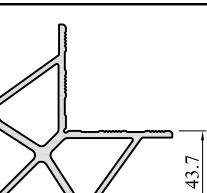
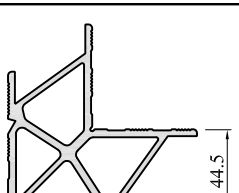
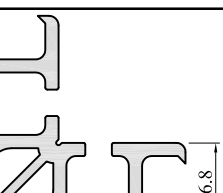
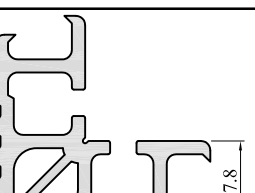
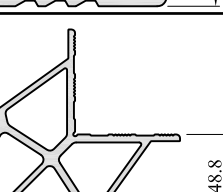
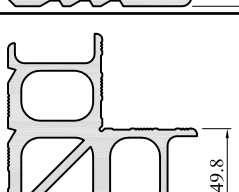
PROFİLLER ve KULLANILAN TAKOZLAR LİSTESİ

Euro Comfort Doğrama sistemlerinin profilleri arasındaki tek fark ısı bariyerleridir. Dolayısı ile W75XYZ-AB ile W65XYZ-AB için aynı köşe takozu seçilmelidir. Örneğin T851-121 takozunun aşağıda W75011-20-ÜST ile çalıştığı yazılmıştır. Bu takoz aynı zamanda W65011-20-ÜST, WS65011-20-ÜST ve WS14011-20-ÜST ile de çalışmaktadır.

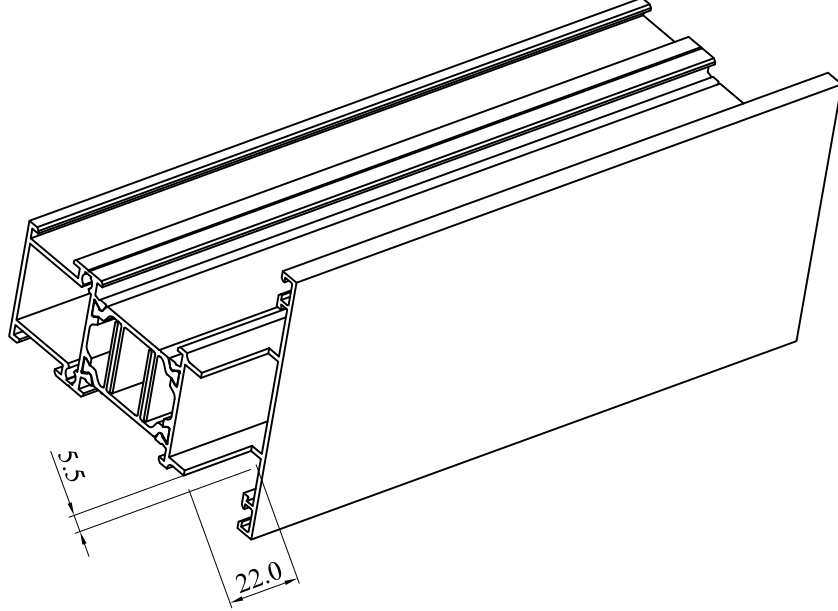
Profil No	A/ Ü	Takoz Numarası / Kesim Ölçüsü (mm)	Profil No	A/ Ü	Takoz Numarası / Kesim Ölçüsü (mm)	Profil No	A/ Ü	Takoz Numarası / Kesim Ölçüsü (mm)
W7553-16	A	T85-225 / 9.7	W75031-16	A	T85-478 / 9.7	W75231-20	A	T85-478 / 8.9
W7553-16	Ü	T851-196 / 17.9	W75031-16	Ü	T851-432 / 23.9	W75231-20	Ü	T851-424 / 23.5
W75011-16	A	T851-185 / 9.7	W75031-20	A	T85-478 / 8.9	W75351-16	A	T851-146 / 8.5
W75011-16	Ü	T851-135 / 23.9	W75031-20	Ü	T851-424 / 23.5	W75351-16	Ü	T851-175 / 27.7
W75011-20	A	T851-175 / 8.9	W75211-16	A	T851-185 / 9.7	W75351-20	A	T851-140 / 8.1
W75011-20	Ü	T851-121 / 23.5	W75211-16	Ü	T851-135 / 23.9	W75351-20	Ü	T851-165 / 26.9
W75012-16	A	T851-185 / 9.7	W75211-20	A	T851-175 / 8.9	W75361-16	A	T851-246 / 8.5
W75012-16	Ü	T851-135 / 23.9	W75211-20	Ü	T851-121 / 23.5	W75361-16	Ü	T851-280 / 27.7
W65015-16	A	T851-185 / 9.7	W75212-16	A	T851-185 / 9.7	W75361-20	A	T851-240 / 8.1
W65015-16	Ü	T851-135 / 23.9	W75212-16	Ü	T851-135 / 23.9	W75361-20	Ü	T85-270 / 26.9
W65016-16	A	T851-185 / 9.7	W65213-16	A	T851-185 / 9.7	W75362-16	A	T851-246 / 8.5
W65016-16	Ü	T851-135 / 23.9	W65213-16	Ü	T851-135 / 23.9	W75362-16	Ü	T851-196 / 27.7
W75017-16	A	T851-185 / 9.7	W75221-16	A	T851-286 / 9.7	W75363-16	A	T851-246 / 8.5
W75017-16	Ü	T851-135 / 23.9	W75221-16	Ü	T851-236 / 23.9	W75363-16	Ü	T851-280 / 27.7
W75018-16	A	T851-185 / 9.7	W75221-20	A	T85-270 / 8.9	W75381-16	A	T851-445 / 8.5
W75018-16	Ü	T851-135 / 23.9	W75221-20	Ü	T85-225 / 23.5	W75381-16	Ü	T85-478 / 27.7
W75021-16	A	T851-286 / 9.7	W65223-16	A	T851-382 / 9.7	W75381-20	A	T851-437 / 8.1
W75021-16	Ü	T851-236 / 23.9	W65223-16	Ü	T851-334 / 23.9	W75381-20	Ü	T85-468 / 26.9
W75021-20	A	T85-270 / 8.9	W75231-16	A	T85-478 / 9.7	W75391-20	A	T851-412 / 8.1
W75021-20	Ü	T85-225 / 23.5	W75231-16	Ü	T851-432 / 23.9	W75391-20	Ü	T85-498 / 23.9



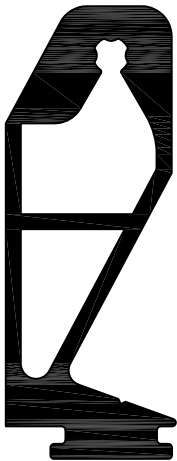
2D Resmi	Özellikleri	2D Resmi	Özellikleri
	T851-121 12.1 mm 1.846 Kg/m		T851-135 13.5 mm 2.256 Kg/m
	T851-140 14.0 mm 2.432 Kg/m		T851-146 14.6 mm 2.633 Kg/m
	T851-154 15.4 mm 2.900 Kg/m		T851-165 16.5 mm 3.261 Kg/m
	T851-175 17.5 mm 3.576 Kg/m		T851-185 18.5 mm 2.512 Kg/m
	T851-190 19.0 mm 2.670 Kg/m		T851-196 19.6 mm 2.859 Kg/m
	T851-210 21.0 mm 3.308 Kg/m		T851-225 22.5 mm 2.850 Kg/m
	T851-236 23.6 mm 2.897 Kg/m		T851-240 24.0 mm 2.948 Kg/m
	T851-246 24.6 mm 3.140 Kg/m		T851-254 25.4 mm 3.404 Kg/m

2D Resmi	Özellikleri	2D Resmi	Özellikleri
	T85-270 27.0 mm 5.513 Kg/m		T85-273 27.3 mm 3.154 Kg/m
	T851-280 28.0 mm 3.025 Kg/m		T851-286 28.6 mm 3.217 Kg/m
	T851-334 33.4 mm 3.423 Kg/m		T851-382 38.2 mm 4.758 Kg/m
	T851-412 41.2 mm 3.863 Kg/m		T851-420 42.0 mm 4.059 Kg/m
	T851-424 42.4 mm 4.158 Kg/m		T851-432 43.2 mm 4.354 Kg/m
	T851-437 43.7 mm 4.480 Kg/m		T851-445 44.5 mm 4.677 Kg/m
	T85-468 46.8 mm 9.748 Kg/m		T85-478 47.8 mm 9.807 Kg/m
	T85-488 48.8 mm 4.231 Kg/m		T85-498 49.8 mm 8.230 Kg/m

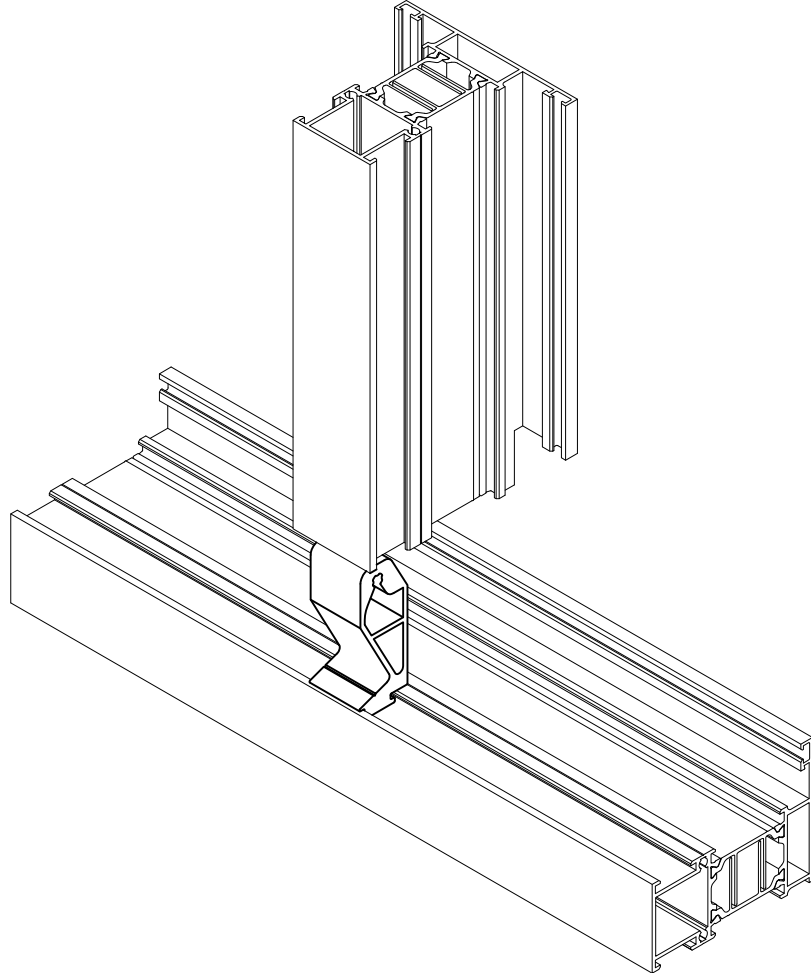
EURO COMFORT SERİLER İÇİN ORTA KAYIT KERTME DETAYI



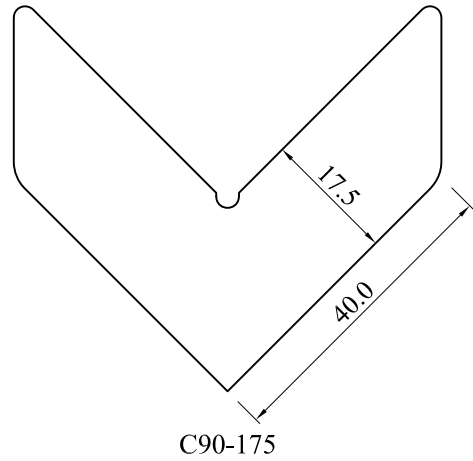
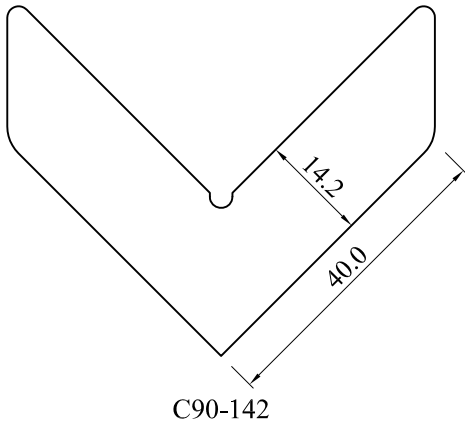
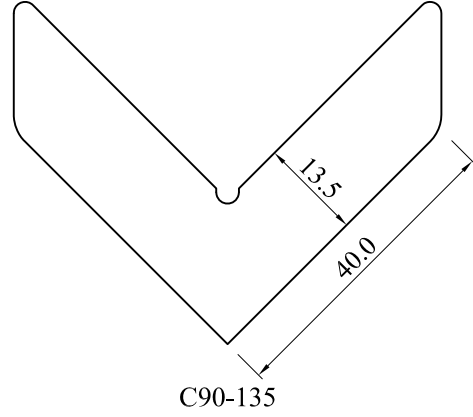
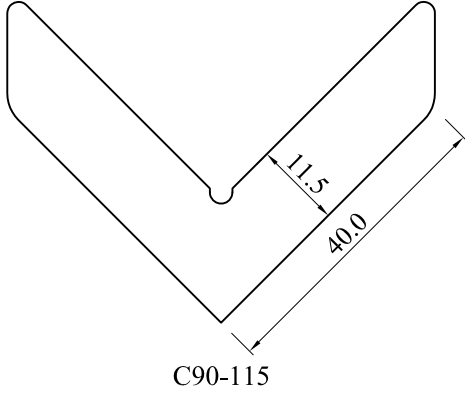
EURO COMFORT SERİLER İÇİN GERDİRME MONTAJ DETAYI



1486-00
1.477 kg/m

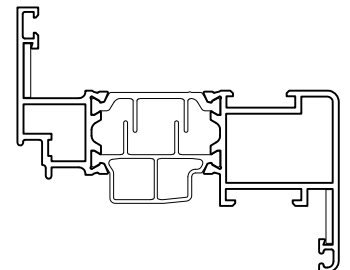
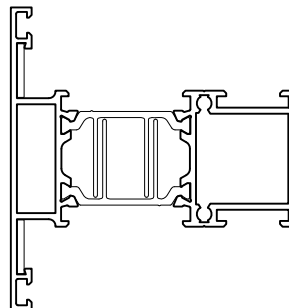
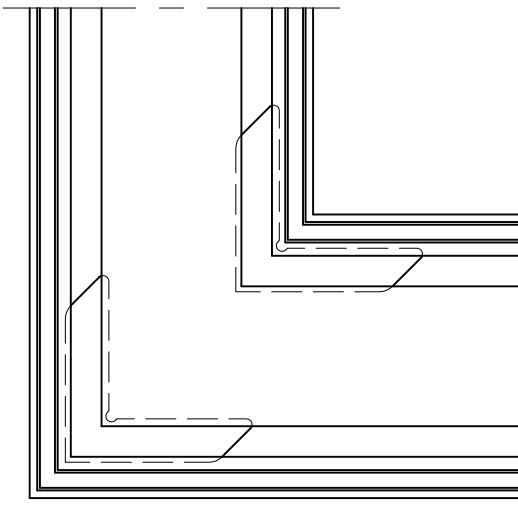


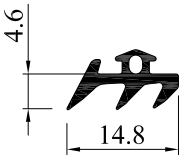
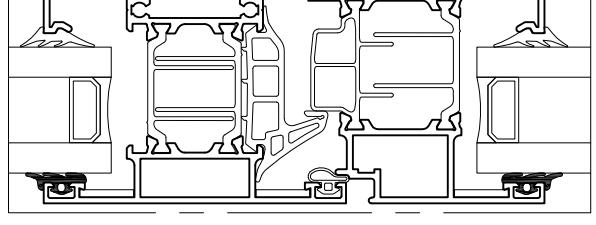
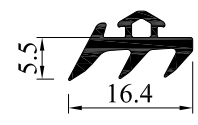
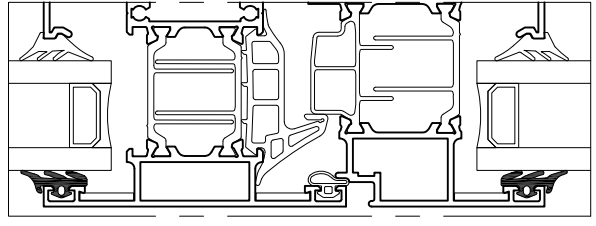
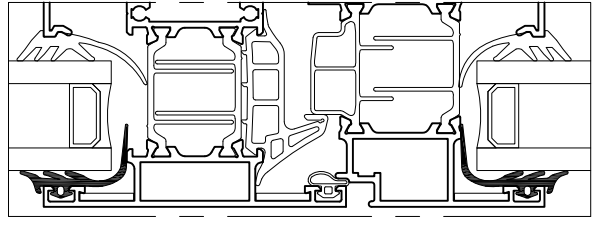
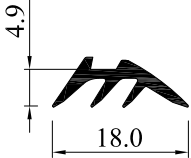
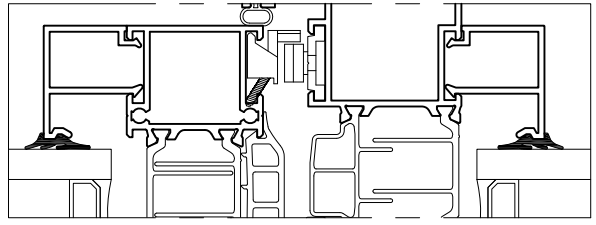
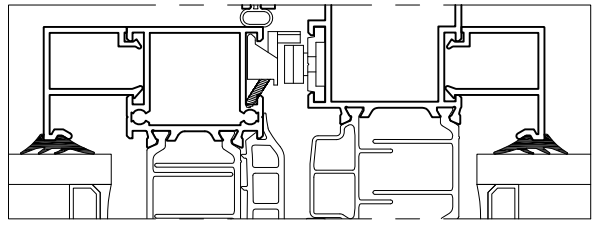
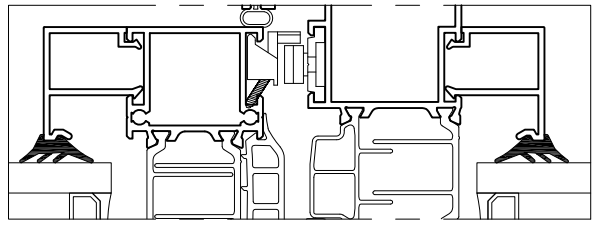
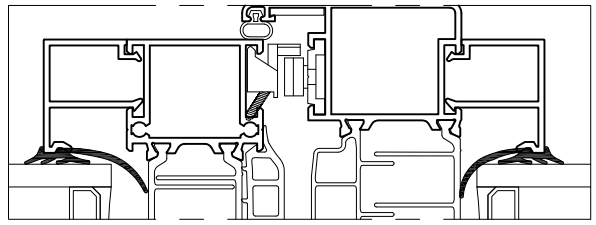
Çavuş Gönyeler
Set-Square

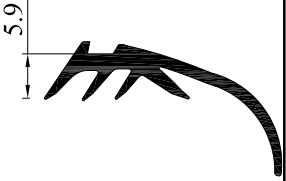
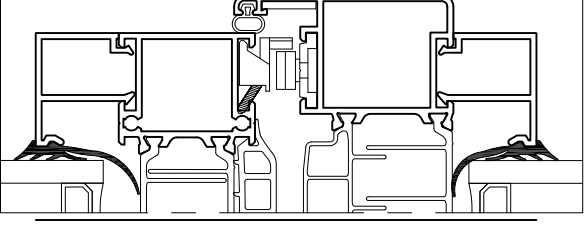
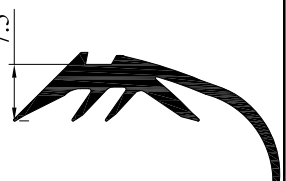
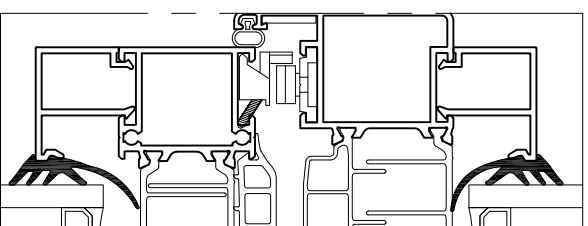
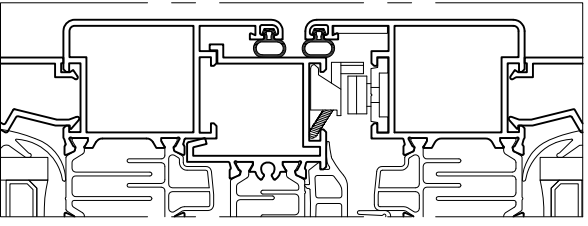
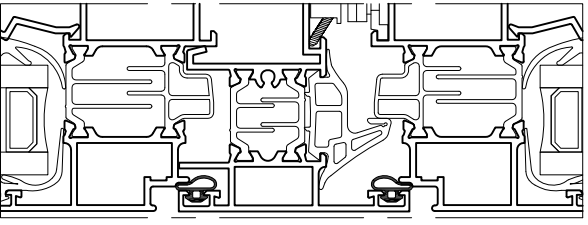
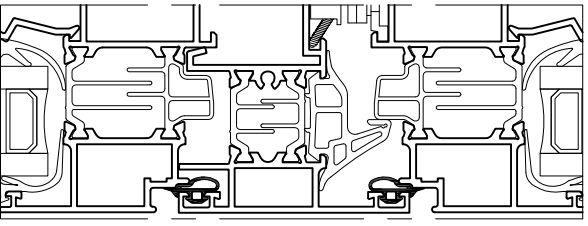
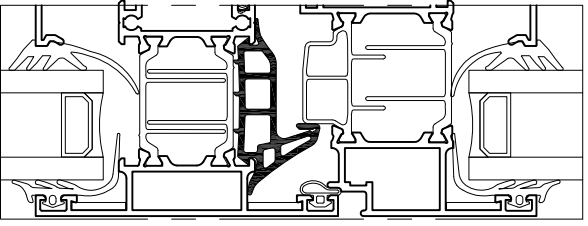
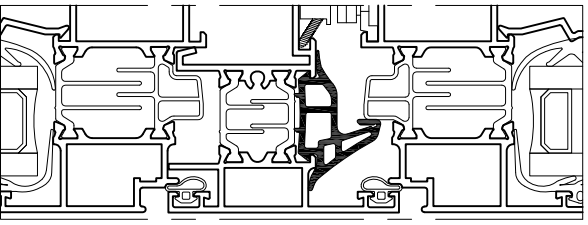


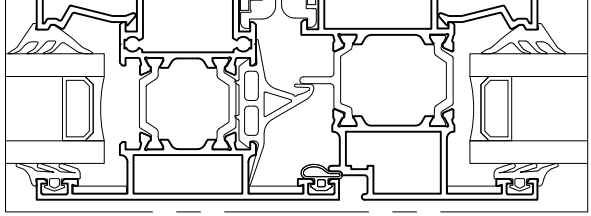
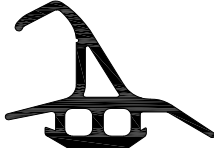
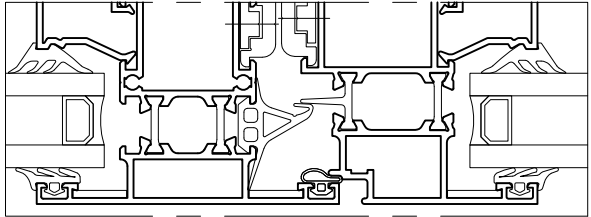
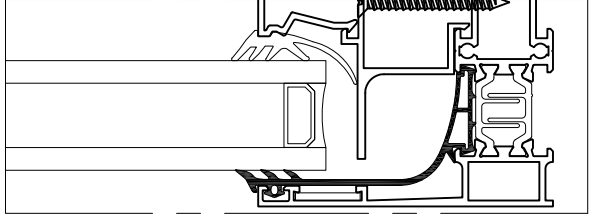
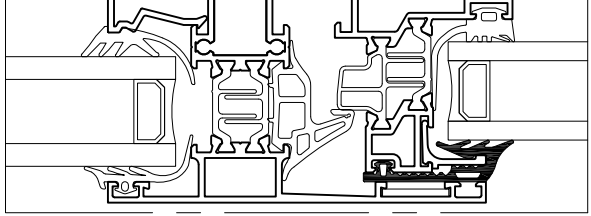
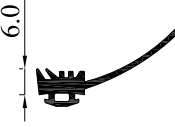
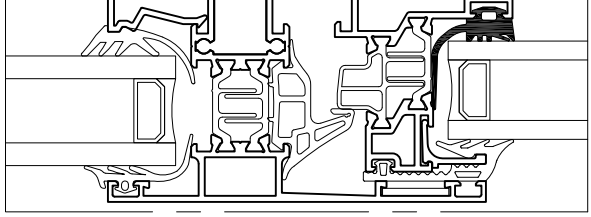
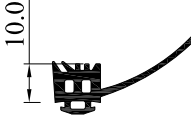
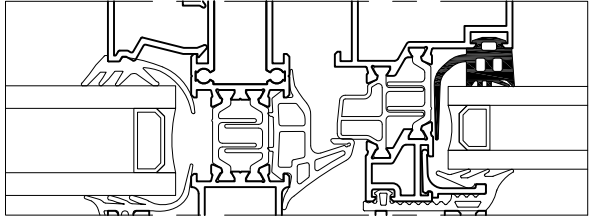
Ölçek: 1/1

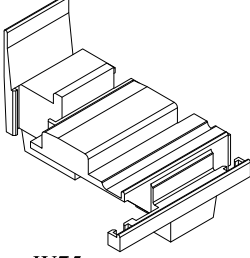
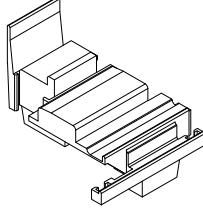
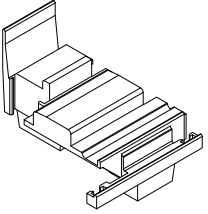
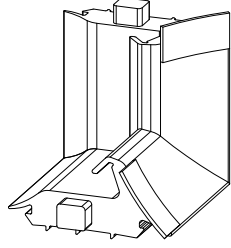
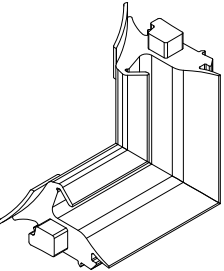
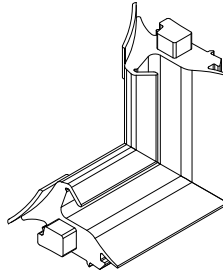
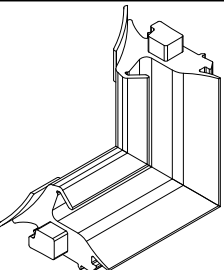
Tüm çavuşlar 1.3mm, 1.5mm ve 1.8mm olmak üzere 3 farklı kalınlıkta üretilmektedir.

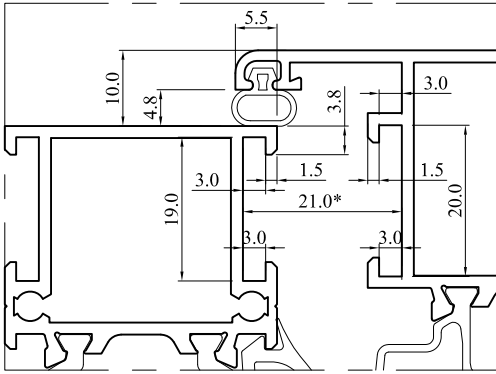


Aksesuar Kodu	Aksesuar Resmi	Kullanılan Alan	Montaj Çizimi
F-06 1Koli 15kg / 272m = 55.0gr/m		Dış Cam Fitili (2.5mm - 3.5mm)	
F-06A 1Koli 15kg / 223m = 67gr/m		Dış Cam Fitili (3.5mm - 5.0mm)	
FE-06A 1Koli 15kg / 147m = 102gr/m		Isı Yalıtımlı Dış Cam Fitili (3.5mm - 5.0mm)	
F-07A 1Koli 15kg / 294m = 51gr/m		İç Cam Fitili (2.5mm - 4.0mm)	
F-07 1Koli 15kg / 227m = 66gr/m		İç Cam Fitili (3.5mm - 5.0mm)	
F-08 1Koli 15kg / 167m = 90.0gr/m		İç Cam Fitili (5.0mm - 6.5mm)	
FE-07A 1Koli 15kg / 153m = 98gr/m		Isı Yalıtımlı İç Cam Fitili (2.5mm - 4.0mm)	

Aksesuar Kodu	Aksesuar Resmi	Kullanılan Alan	Montaj Çizimi
FE-07 1Koli 15kg / 131m = 114gr/m		Isı Yalıtımlı İç Cam Fiteli (3.5mm - 5.0mm)	
FE-08 1Koli 15kg / 108m = 138gr/m		Isı Yalıtımlı İç Cam Fiteli (5.0mm - 6.5mm)	
F-11 1Koli 12kg / 500m = 24gr/m		Kanat Fiteli	
F-41 1Koli 12kg / 333m = 36.0gr/m		Kasa Fiteli	
F-42 1Koli 12kg / 279m = 43.0gr/m		Kasa Fiteli	
FE-75 1Koli 15kg / 50m = 298gr/m	 Ölçek 1/2	W75 Toz Fiteli	
FE-65 1Koli 15kg / 61m = 242gr/m	 Ölçek 1/2	W65 Toz Fiteli	

Aksesuar Kodu	Aksesuar Resmi	Kullanılan Alan	Montaj Çizimi
FWS-65 1Koli 15kg / 87m = 172.0gr/m	 Ölçek 1/2	WS65 Toz Fitili	
FWS-14 1Koli 15kg / 113m = 132.0gr/m	 Ölçek 1/2	WS14 Toz Fitili	
FE-65G 1Koli 15kg / 63m = 235gr/m	 Ölçek 1/2	W65 Gizli Kanat Sabit Cam Toz Fitili	
FE-1G 1Koli 15kg / 64m = 233gr/m.	 Ölçek 1/2	Gizli Kanat Dış Cam Fitili	
FE-33 1Koli 15kg / 98m = 152gr/m	 6.0 Ölçek 1/2	Gizli Kanat Kanat Cam fitili	
FE-35 1Koli 15kg / 77m = 194gr/m	 10.0 Ölçek 1/2	Gizli Kanat Kanat Cam Fitili	

Aksesuar Kodu	Aksesuar Resmi	Aksesuar Kodu	Aksesuar Resmi
<u>FP-75</u>	 W75 Çift Kanat Pencere Adaptör Plastiği	<u>FP-65</u>	 W65 ve WS65 Çift Kanat Pencere Adaptör Plastiği
<u>FPW-14</u>	 WS14 Çift Kanat Pencere Adaptör Plastiği	<u>FV-75</u>	 W75 FE-75 Tozluk Fitili için vulkanize fitil
<u>FV-65</u>	 W65 FE-65 Tozluk Fitili için vulkanize fitil	<u>FVWS-65</u>	 WS65 FWS-65 Tozluk Fitili için vulkanize fitil
<u>FVWS-14</u>	 WS14 FWS-14 Tozluk Fitili için vulkanize fitil		

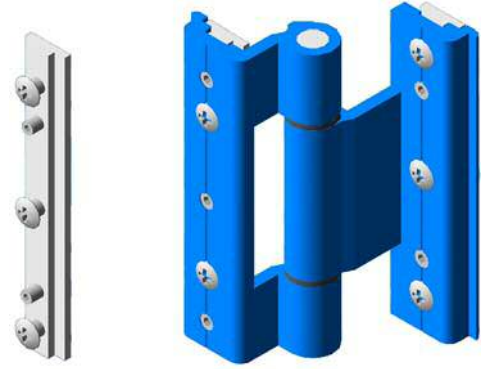
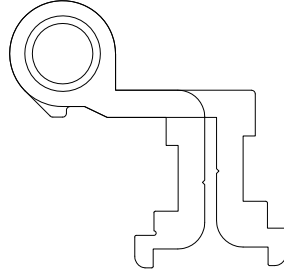


AKSESUARLAR

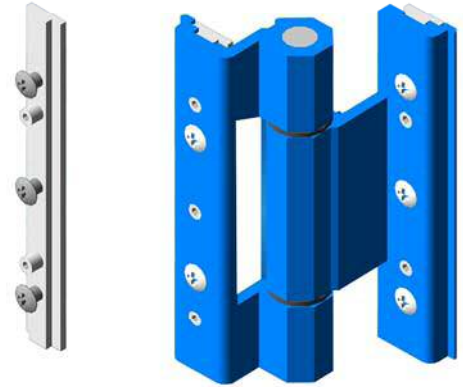
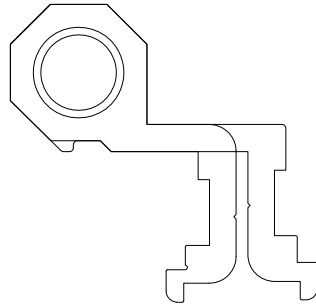
KASA KANAT İLİŞKİSİNDE EURO GROOVE
STANDARTLARI DİKKATE ALINMIŞTIR

TS EN 1935 (bkz. sayfa 182) gereğince 25000 çevrimde 60 kg yük altında (tek menteşe) test edilmiş, statik, dayanıklılık, korozyon ve kesme mukavemet deneylerinde başarılı olup 14301309 kodu ile sertifikalandırılmıştır.

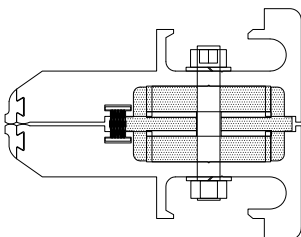
Euro Comfort
Pencere Menteşesi



Euro Comfort
Kapı Menteşesi

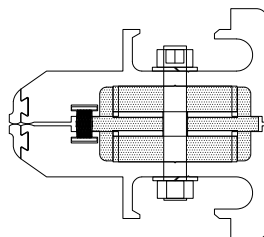


W75 Pivot Menteşe
Detay için bkz. Sayfa 69



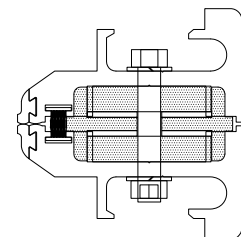
Ölçek 1/2

W65-WS65 Pivot Menteşe
Detay için bkz. Sayfa 115-143

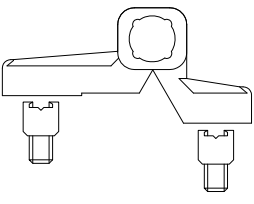
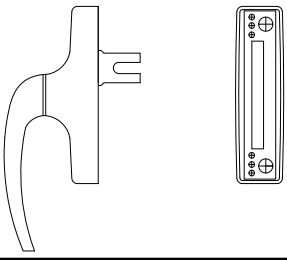
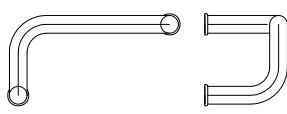
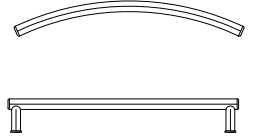
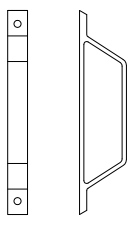
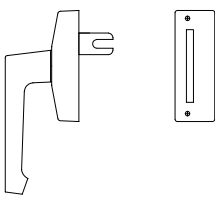
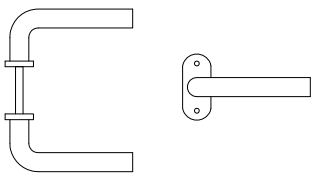
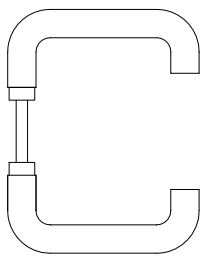
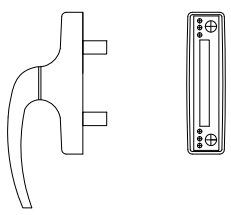
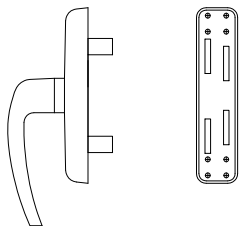
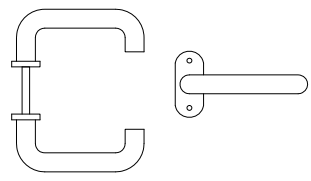
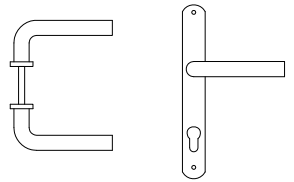
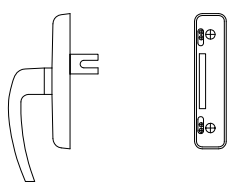
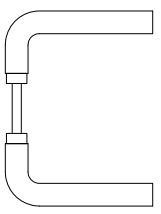
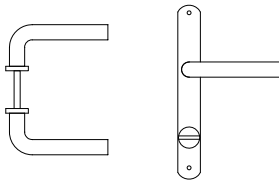
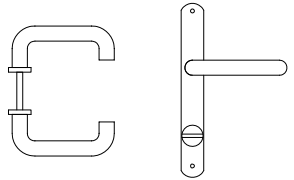
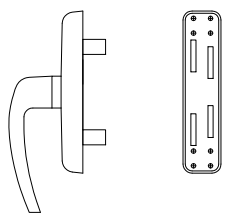
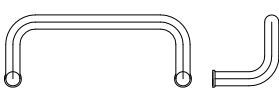
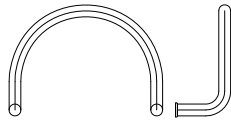


Ölçek 1/2

WS14 Pivot Menteşe
Detay için bkz. Sayfa 170

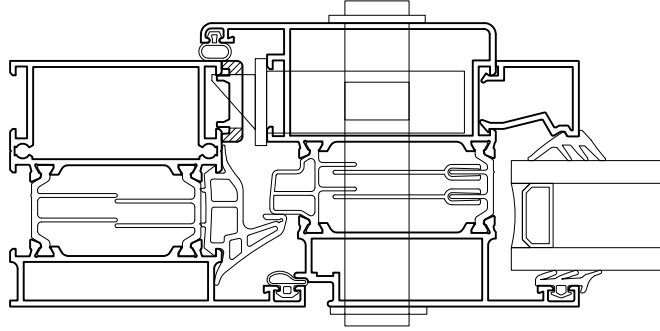
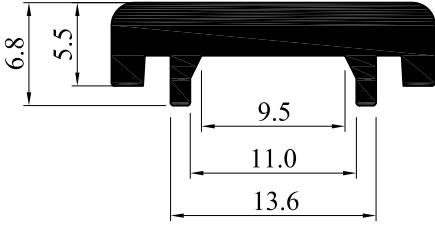


Ölçek 1/2

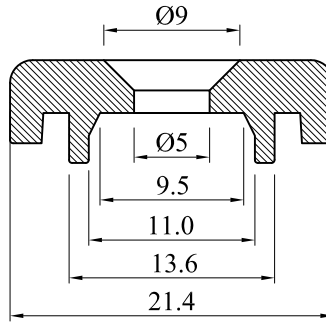
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CKR-30.01.06 D Kol 	CKR-10.01.03 Eksenel kol 	CKR-20.01.02 Sosis kol düz rozetli 	CKR-20.01.03 Sosis kol kıvrık 
CKR-10.01.02 Eksenel kol çiftli 	CKR-10.01.05 Eksenel kol çift dilli 	CKR-20.01.04 Sosis kol kıvrık rozetli 	CKR-20.01.05 Sosis kol düz aynalı 
CKR-10.01.04 Eksenel kol tek dilli 	CKR-20.01.01 Sosis kol düz 	CKR-20.01.14 WC kol aynalı 	CKR-20.01.27 WC aynalı kıvrık kol 
CKR-10.01.07 Eksenel kol çift dilli anahtarlı 	CKR-40.01.00 Kıvrık boru kol 	CKR-40.02.00 Yarım ay boru kol 	
GB-01 Bant 1 Rulo Aluminyum folyolu butil bant	GB-02 Bant 1 Rulo PVC köpük bant	GB-03 Bant 1 Rulo Yalıtım membran	GB-04 Bant 1 Rulo Çift tarafı yapışkanlı PVC esaslı bant

Euro Comfort Serisinde Uygulanan Kilit Karşılığı Kesitleri ve Kullanım Detayı

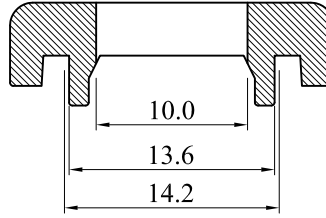
Dolu Kesit 14971-00 Ölçek: 2/1



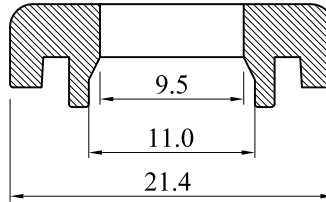
A Kesiti Ölçek: 2/1



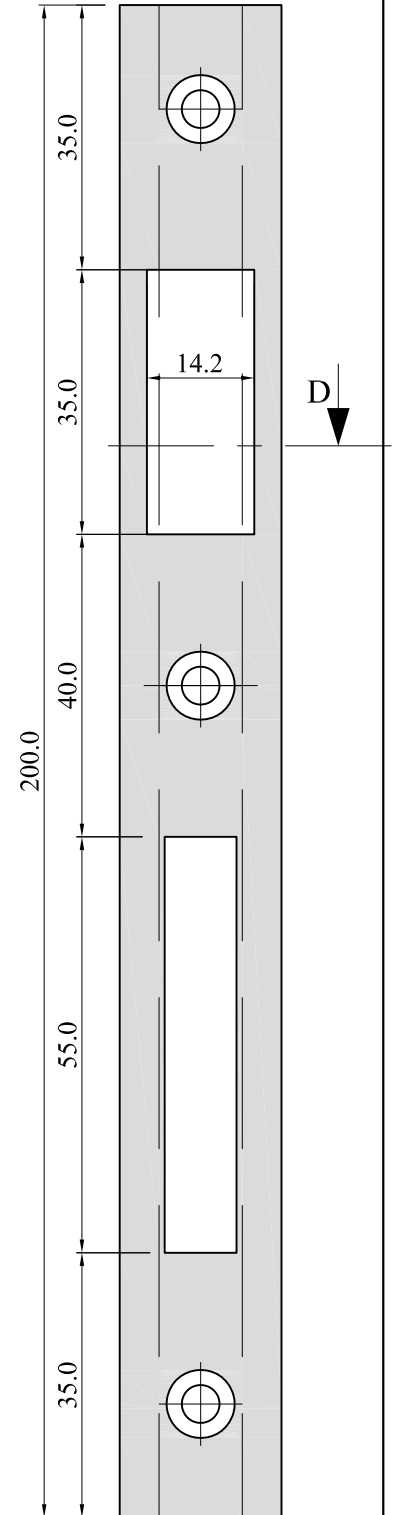
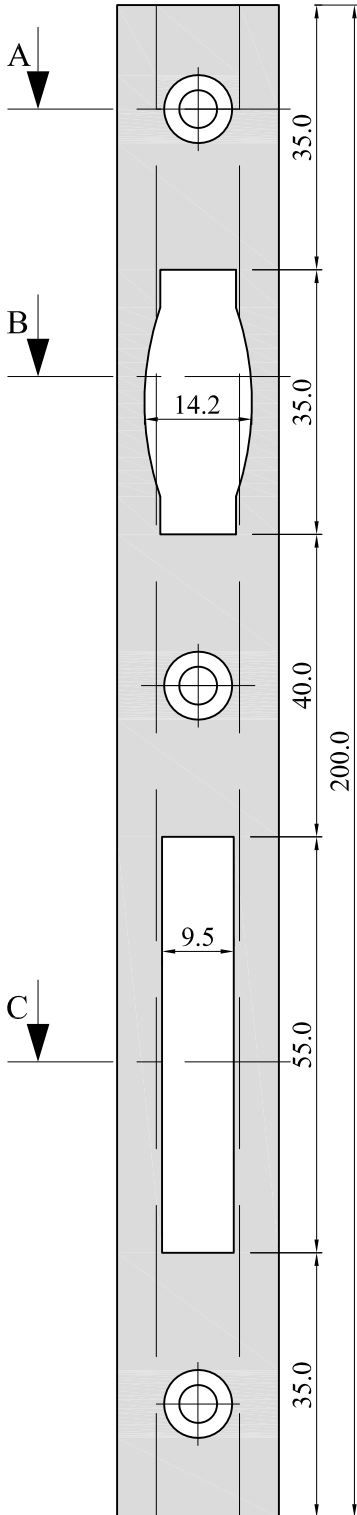
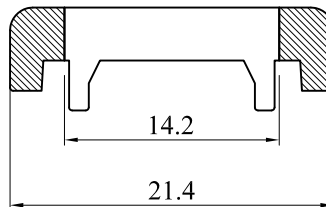
B Kesiti Ölçek: 2/1



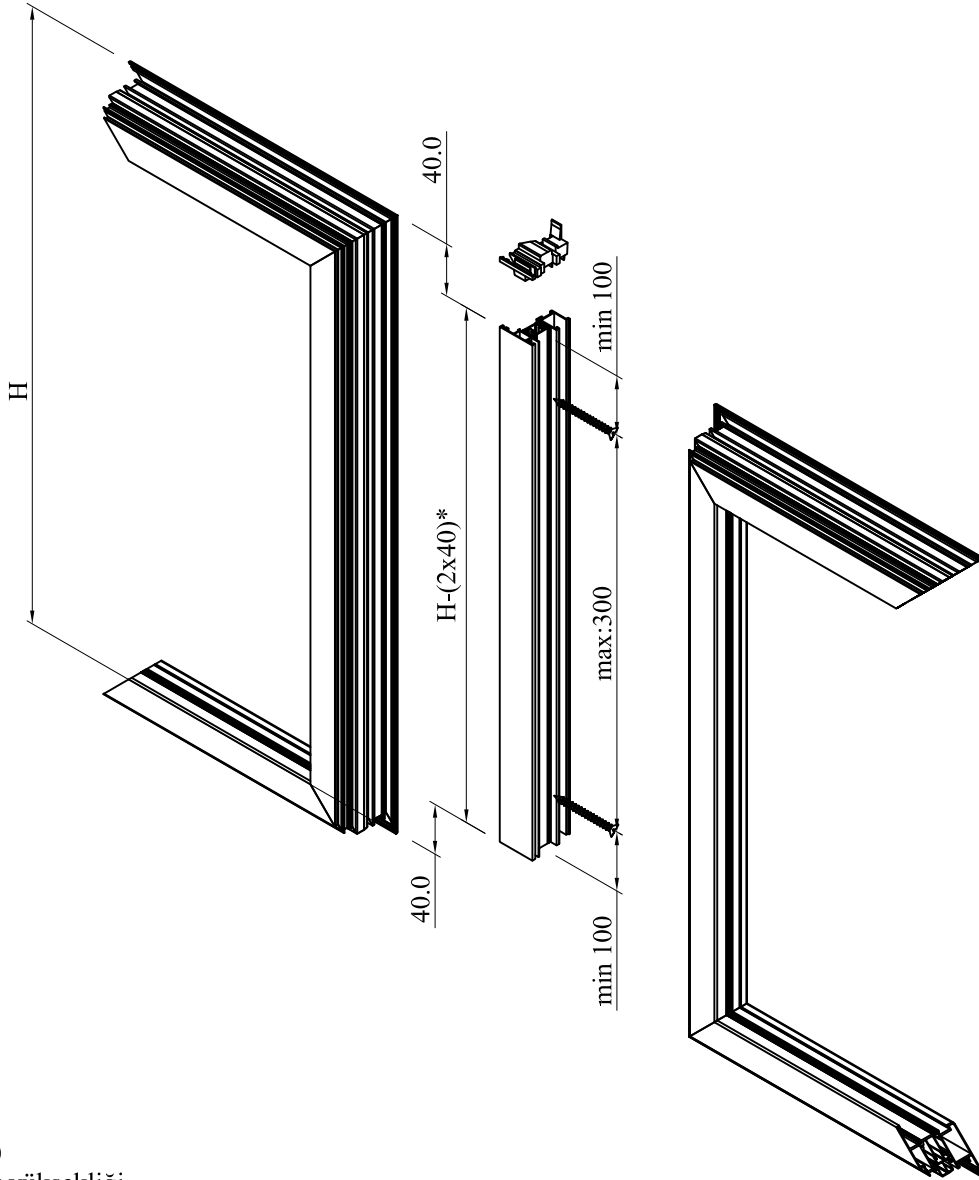
C Kesiti Ölçek: 2/1



D Kesiti Ölçek: 2/1



Çift Kanat Pencere Adaptör Plastiği
(Euro Comfort serisinde çift kanat adaptörünü kертmeden kullanmak için)



* H-(2x40)
H= kanat yüksekliği
40mm= Adaptör Kapağı yüksekliği
Buradan H-80 Adaptör kesim ölçüsünü verir.

MONTAJ SIRASI

- 1)- Sabit ve Hareketli kanatlar oluşturulur.
- 2)- Kanat yüksekliği ölçülür. Bu ölçüden 80 mm çıkarılarak Çift kanat adaptör profilinin ölçüsü bulunur.
- 3)- Adaptör profili sabit kanada montajı yapılır.
- 4)- FP-75 (yada FP-65) plastiği çift kanat adaptör profilinin altına ve üstüne takılır.
- 5)- İsteğe göre FP-75 (yada FP-65) plastiği adaptör profile vidalanır.

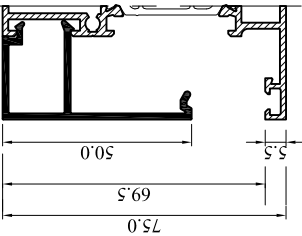
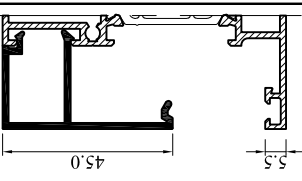
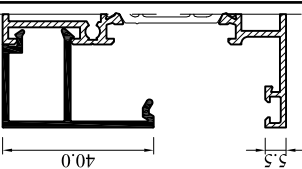
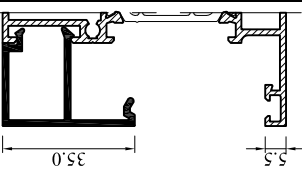
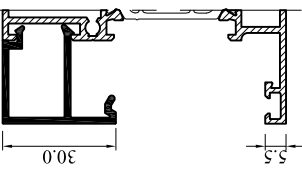
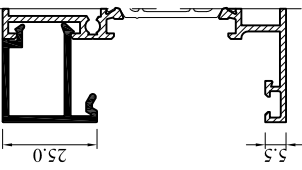
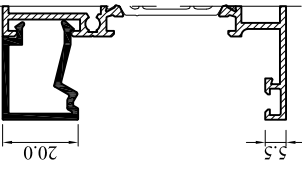
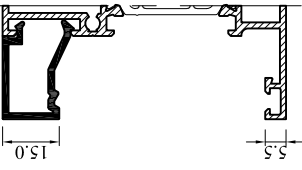
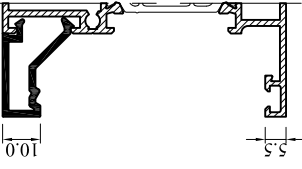
Euro Comfort Doğrama Sistemleri Cam Çıtalı

"-" işaretinden sonraki 2 hane et kalınlıđını gösterir. (W445-16 Çıtası 1.6mm et kalınlıđındadır.)

Euro Comfort sistemlerinde kullanılan cam çıtalrı 22mm yüksekliđindedir. Sürme sistemlerindeki ve diđer tüm Gençer sistemlerindeki cam çıtalrı 19mm yüksekliđindedir dolayısıyla bu çıtalr Euro Comfort sistemlerinde kullanılmaz.

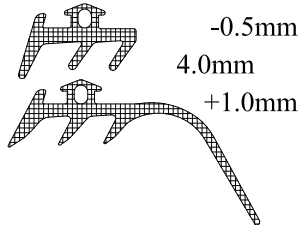
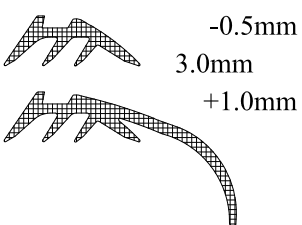
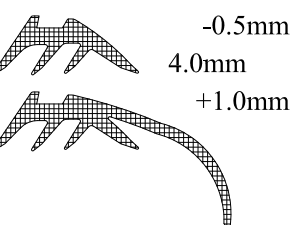
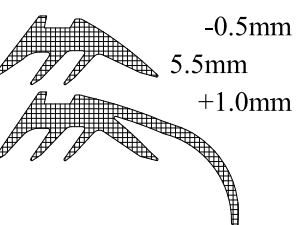
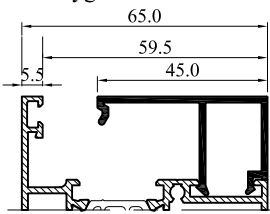
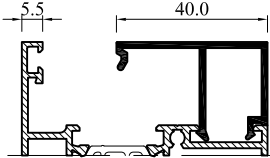
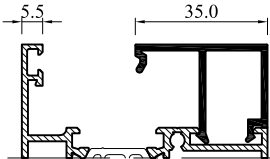
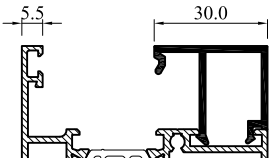
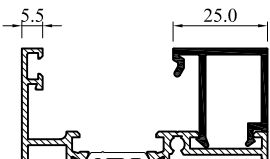
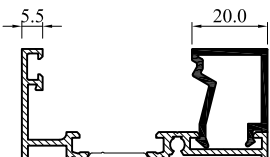
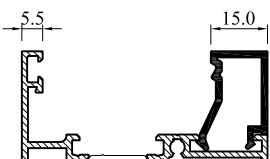
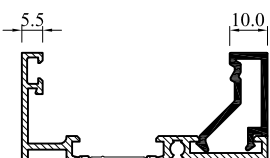
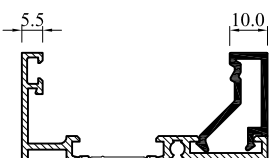
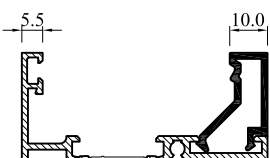
W450-16 0.475 Kg/m	W450-12 0.366 Kg/m	50.0	22.0	W445-16 0.453 Kg/m	W445-12 0.350 Kg/m	45.0
W440-16 0.431 Kg/m	W440-12 0.334 Kg/m	40.0		W435-16 0.410 Kg/m	W435-12 0.318 Kg/m	35.0
W430-16 0.388 Kg/m	W430-12 0.302 Kg/m	30.0		W425-16 0.366 Kg/m	W425-12 0.286 Kg/m	25.0
W420-16 0.333 Kg/m	W420-12 0.260 Kg/m	20.0		W415-16 0.305 Kg/m	W415-12 0.240 Kg/m	15.0
W410-16 0.296 Kg/m	W410-12 0.233 Kg/m	10.0		W405-16 0.213 Kg/m		5.5

W75 Doğrama Sistemi Cam Fitiği & Çita Seçim Tablosu

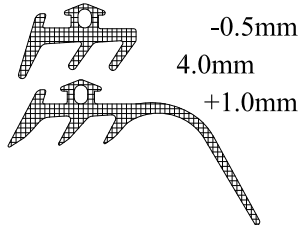
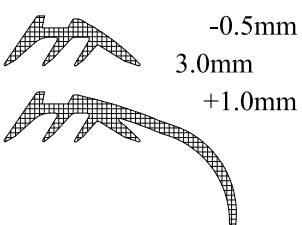
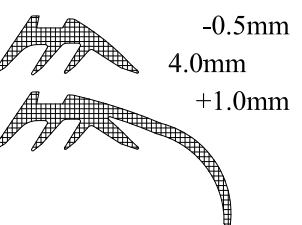
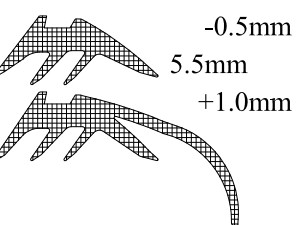
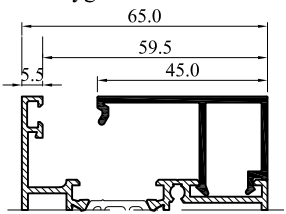
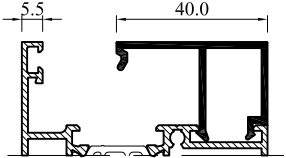
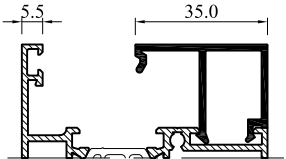
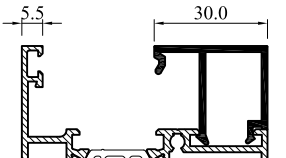
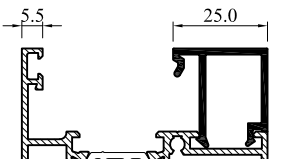
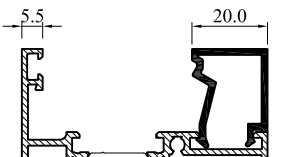
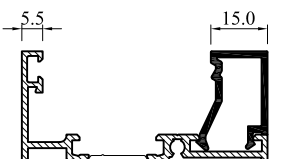
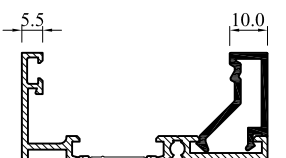
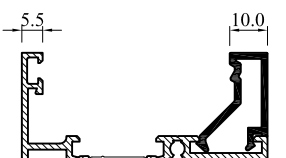
Cam Ölçüsü	Kullanılabilircek Cam Fitipleri		Elemenların Ölçüleri					Toplam	Kullanılan Çita Kodu	Uygulama Resmi
	Dış Cam Fitiği	İç Cam Fitiği	Cam (mm)	Dış Cam Fitiği	İç Cam Fitiği	Cam (mm)	Çitası			
9.0 mm	F-06A	F-08	9.0	4.0	6.5	50.0	50.0	69.5 mm	W450-16	
10.0 mm	F-06A	F-08	10.0	4.0	5.5	50.0	50.0			
11.0 mm	F-06A	F-08 / F-07	11.0	4.0	4.5	50.0	50.0			
12.0 mm	F-06A	F-07 / F-07A	12.0	4.0	3.5	50.0	50.0			
13.0 mm	F-06A	F-07A	13.0	4.0	2.5	50.0	50.0			
14.0 mm	* F-06A	F-08	14.0	4.0	6.5	45.0	45.0			
15.0 mm	F-06A	F-08	15.0	4.0	5.5	45.0	45.0			
16.0 mm	F-06A	F-08 / F-07	16.0	4.0	4.5	45.0	45.0		W445-16	
17.0 mm	F-06A	F-07 / F-07A	17.0	4.0	3.5	45.0	45.0			
18.0 mm	F-06A	F-07A	18.0	4.0	2.5	45.0	45.0			
19.0 mm	* F-06A	F-08	19.0	4.0	6.5	40.0	40.0			
20.0 mm	F-06A	F-08	20.0	4.0	5.5	40.0	40.0		W440-16	
21.0 mm	F-06A	F-08 / F-07	21.0	4.0	4.5	40.0	40.0			
22.0 mm	F-06A	F-07 / F-07A	22.0	4.0	3.5	40.0	40.0			
23.0 mm	F-06A	F-07A	23.0	4.0	2.5	40.0	40.0			
24.0 mm	* F-06A	F-08	24.0	4.0	6.5	35.0	35.0		W435-16	
25.0 mm	F-06A	F-08	25.0	4.0	5.5	35.0	35.0			
26.0 mm	F-06A	F-08 / F-07	26.0	4.0	4.5	35.0	35.0			
27.0 mm	F-06A	F-07 / F-07A	27.0	4.0	3.5	35.0	35.0			
28.0 mm	F-06A	F-07A	28.0	4.0	2.5	35.0	35.0		W430-16	
29.0 mm	* F-06A	F-08	29.0	4.0	6.5	30.0	30.0			
30.0 mm	F-06A	F-08	30.0	4.0	5.5	30.0	30.0			
31.0 mm	F-06A	F-08 / F-07	31.0	4.0	4.5	30.0	30.0			
32.0 mm	F-06A	F-07 / F-07A	32.0	4.0	3.5	30.0	30.0		W425-16	
33.0 mm	F-06A	F-07A	33.0	4.0	2.5	30.0	30.0			
34.0 mm	* F-06A	F-08	34.0	4.0	6.5	25.0	25.0			
35.0 mm	F-06A	F-08	35.0	4.0	5.5	25.0	25.0			
36.0 mm	F-06A	F-08 / F-07	36.0	4.0	4.5	25.0	25.0		W420-16	
37.0 mm	F-06A	F-07 / F-07A	37.0	4.0	3.5	25.0	25.0			
38.0 mm	F-06A	F-07A	38.0	4.0	2.5	25.0	25.0			
39.0 mm	* F-06A	F-08	39.0	4.0	6.5	20.0	20.0			
40.0 mm	F-06A	F-08	40.0	4.0	5.5	20.0	20.0		W415-16	
41.0 mm	F-06A	F-08 / F-07	41.0	4.0	4.5	20.0	20.0			
42.0 mm	F-06A	F-07 / F-07A	42.0	4.0	3.5	20.0	20.0			
43.0 mm	F-06A	F-07A	43.0	4.0	2.5	20.0	20.0			
44.0 mm	* F-06A	F-08	44.0	4.0	6.5	15.0	15.0		W410-16	
45.0 mm	F-06A	F-08	45.0	4.0	5.5	15.0	15.0			
46.0 mm	F-06A	F-08 / F-07	46.0	4.0	4.5	15.0	15.0			
47.0 mm	F-06A	F-07 / F-07A	47.0	4.0	3.5	15.0	15.0			
48.0 mm	F-06A	F-07A	48.0	4.0	2.5	15.0	15.0			
49.0 mm	* F-06A	F-08	49.0	4.0	6.5	10.0	10.0			
50.0 mm	F-06A	F-08	50.0	4.0	5.5	10.0	10.0			
51.0 mm	F-06A	F-08 / F-07	51.0	4.0	4.5	10.0	10.0			
52.0 mm	F-06A	F-07 / F-07A	52.0	4.0	3.5	10.0	10.0			
53.0 mm	F-07A		53.0	4.0	2.5	10.0	10.0			

* Fitiği limitte sıkıştırılmıştır. Her iki fitiğin limitte kullanılmış olması halinde dikkatli olunmalıdır.

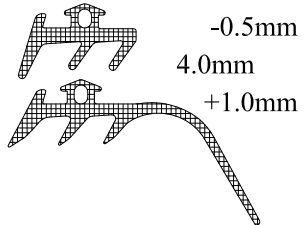
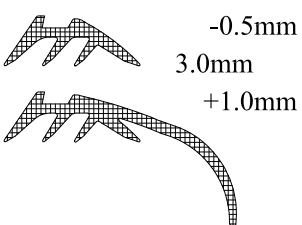
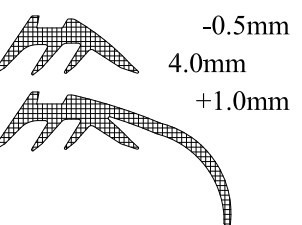
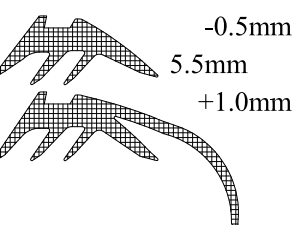
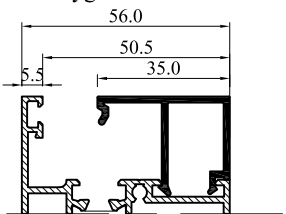
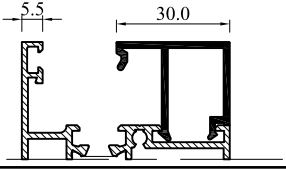
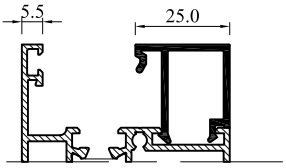
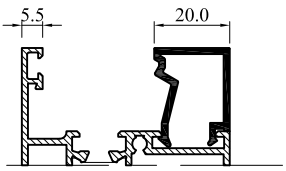
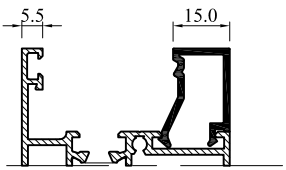
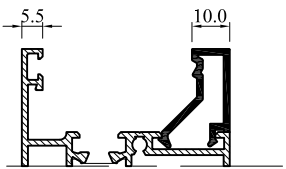
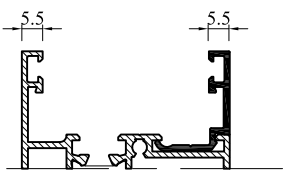
W65 Doğrama Sistemi Cam Fitili & Çıta Seçim Tablosu

DIŞ CAM FİTİLİ			İÇ CAM FİTİLLERİ						
F-06A / FE-06A  -0.5mm 4.0mm +1.0mm			F-07A / FE-07A  -0.5mm 3.0mm +1.0mm		F-07 / FE-07  -0.5mm 4.0mm +1.0mm		F-08 / FE-08  -0.5mm 5.5mm +1.0mm		
Cam Ölçüsü	Kullanılabilecek Cam Fitilleri		Elemanların Ölçüleri				Toplam	Kullanılan Çıta Kodu	Uygulama Resmi
	Diş Cam Fitili	İç Cam Fitili	Cam (mm)	Diş Cam Fitili	İç Cam Fitili	Cam Çıtası			
5.0 mm	F-06A	F-08	5.0	4.0	5.5	45.0	59.5 mm	W445-16	
6.0 mm	F-06A	F-08 / F-07	6.0	4.0	4.5	45.0			
7.0 mm	F-06A	F-07 / F-07A	7.0	4.0	3.5	45.0			
8.0 mm	F-06A	F-07A	8.0	4.0	2.5	45.0			
9.0 mm	* F-06A	F-08	9.0	4.0	6.5	40.0		W440-16	
10.0 mm	F-06A	F-08	10.0	4.0	5.5	40.0			
11.0 mm	F-06A	F-08 / F-07	11.0	4.0	4.5	40.0			
12.0 mm	F-06A	F-07 / F-07A	12.0	4.0	3.5	40.0			
13.0 mm	F-06A	F-07A	13.0	4.0	2.5	40.0		W435-16	
14.0 mm	* F-06A	F-08	14.0	4.0	6.5	35.0			
15.0 mm	F-06A	F-08	15.0	4.0	5.5	35.0			
16.0 mm	F-06A	F-08 / F-07	16.0	4.0	4.5	35.0			
17.0 mm	F-06A	F-07 / F-07A	17.0	4.0	3.5	35.0		W430-16	
18.0 mm	F-06A	F-07A	18.0	4.0	2.5	35.0			
19.0 mm	* F-06A	F-08	19.0	4.0	6.5	30.0			
20.0 mm	F-06A	F-08	20.0	4.0	5.5	30.0			
21.0 mm	F-06A	F-08 / F-07	21.0	4.0	4.5	30.0		W425-16	
22.0 mm	F-06A	F-07 / F-07A	22.0	4.0	3.5	30.0			
23.0 mm	F-06A	F-07A	23.0	4.0	2.5	30.0			
24.0 mm	* F-06A	F-08	24.0	4.0	6.5	25.0		W420-16	
25.0 mm	F-06A	F-08	25.0	4.0	5.5	25.0			
26.0 mm	F-06A	F-08 / F-07	26.0	4.0	4.5	25.0			
27.0 mm	F-06A	F-07 / F-07A	27.0	4.0	3.5	25.0		W415-16	
28.0 mm	F-06A	F-07A	28.0	4.0	2.5	25.0			
29.0 mm	* F-06A	F-08	29.0	4.0	6.5	20.0			
30.0 mm	F-06A	F-08	30.0	4.0	5.5	20.0		W410-16	
31.0 mm	F-06A	F-08 / F-07	31.0	4.0	4.5	20.0			
32.0 mm	F-06A	F-07 / F-07A	32.0	4.0	3.5	20.0			
33.0 mm	F-06A	F-07A	33.0	4.0	2.5	20.0			
34.0 mm	* F-06A	F-08	34.0	4.0	6.5	15.0		W410-16	
35.0 mm	F-06A	F-08	35.0	4.0	5.5	15.0			
36.0 mm	F-06A	F-08 / F-07	36.0	4.0	4.5	15.0			
37.0 mm	F-06A	F-07 / F-07A	37.0	4.0	3.5	15.0			
38.0 mm	F-06A	F-07A	38.0	4.0	2.5	15.0			
39.0 mm	* F-06A	F-08	39.0	4.0	6.5	10.0		W410-16	
40.0 mm	F-06A	F-08	40.0	4.0	5.5	10.0			
41.0 mm	F-06A	F-08 / F-07	41.0	4.0	4.5	10.0			
42.0 mm	F-06A	F-07 / F-07A	42.0	4.0	3.5	10.0			
43.0 mm	F-06A	F-07A	43.0	4.0	2.5	10.0			

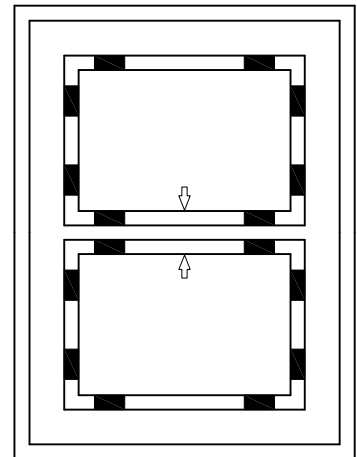
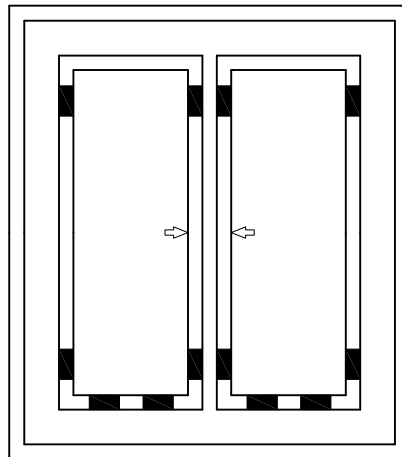
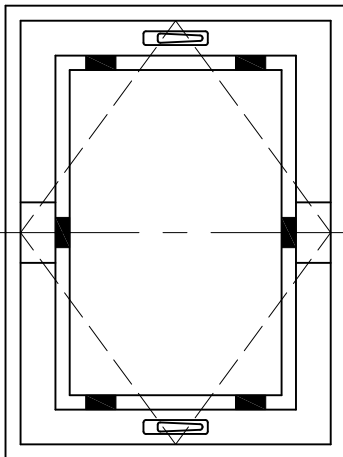
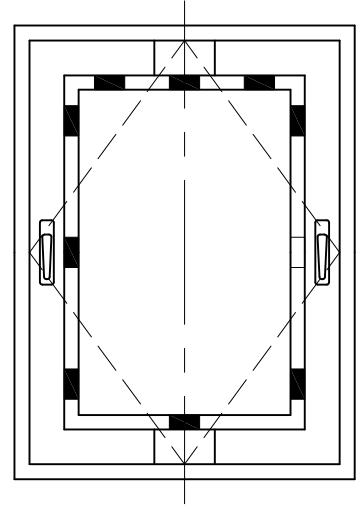
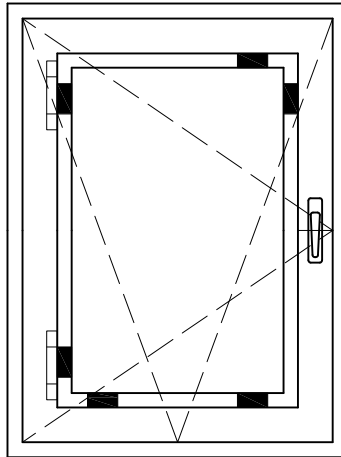
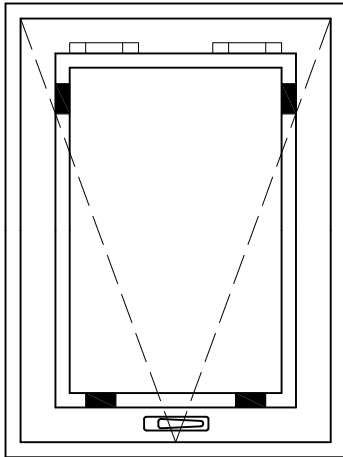
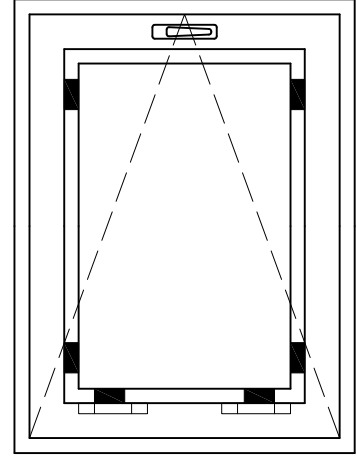
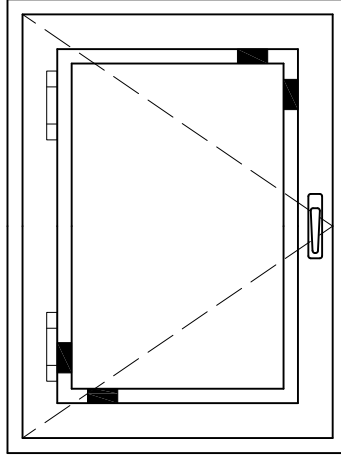
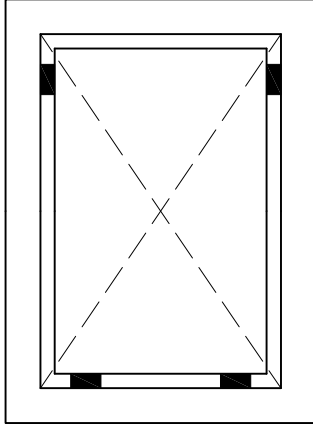
WS65 Doğrama Sistemi Cam Fitili & Çıta Seçim Tablosu

DIŞ CAM FİTİLİ			İÇ CAM FİTİLLERİ						
F-06A / FE-06A 			F-07A / FE-07A 		F-07 / FE-07 		F-08 / FE-08 		
Cam Ölçüsü	Kullanılabilecek Cam Fitilleri		Elemanların Ölçüleri				Toplam	Kullanılan Çıta Kodu	Uygulama Resmi
	Diş Cam Fitili	İç Cam Fitili	Cam (mm)	Diş Cam Fitili	İç Cam Fitili	Cam Çıtası			
5.0 mm	F-06A	F-08	5.0	4.0	5.5	45.0	59.5 mm	W445-16	
6.0 mm	F-06A	F-08 / F-07	6.0	4.0	4.5	45.0			
7.0 mm	F-06A	F-07 / F-07A	7.0	4.0	3.5	45.0			
8.0 mm	F-06A	F-07A	8.0	4.0	2.5	45.0			
9.0 mm	* F-06A	F-08	9.0	4.0	6.5	40.0		W440-16	
10.0 mm	F-06A	F-08	10.0	4.0	5.5	40.0			
11.0 mm	F-06A	F-08 / F-07	11.0	4.0	4.5	40.0			
12.0 mm	F-06A	F-07 / F-07A	12.0	4.0	3.5	40.0			
13.0 mm	F-06A	F-07A	13.0	4.0	2.5	40.0		W435-16	
14.0 mm	* F-06A	F-08	14.0	4.0	6.5	35.0			
15.0 mm	F-06A	F-08	15.0	4.0	5.5	35.0			
16.0 mm	F-06A	F-08 / F-07	16.0	4.0	4.5	35.0			
17.0 mm	F-06A	F-07 / F-07A	17.0	4.0	3.5	35.0		W430-16	
18.0 mm	F-06A	F-07A	18.0	4.0	2.5	35.0			
19.0 mm	* F-06A	F-08	19.0	4.0	6.5	30.0			
20.0 mm	F-06A	F-08	20.0	4.0	5.5	30.0			
21.0 mm	F-06A	F-08 / F-07	21.0	4.0	4.5	30.0		W425-16	
22.0 mm	F-06A	F-07 / F-07A	22.0	4.0	3.5	30.0			
23.0 mm	F-06A	F-07A	23.0	4.0	2.5	30.0			
24.0 mm	* F-06A	F-08	24.0	4.0	6.5	25.0			
25.0 mm	F-06A	F-08	25.0	4.0	5.5	25.0		W420-16	
26.0 mm	F-06A	F-08 / F-07	26.0	4.0	4.5	25.0			
27.0 mm	F-06A	F-07 / F-07A	27.0	4.0	3.5	25.0			
28.0 mm	F-06A	F-07A	28.0	4.0	2.5	25.0			
29.0 mm	* F-06A	F-08	29.0	4.0	6.5	20.0		W415-16	
30.0 mm	F-06A	F-08	30.0	4.0	5.5	20.0			
31.0 mm	F-06A	F-08 / F-07	31.0	4.0	4.5	20.0			
32.0 mm	F-06A	F-07 / F-07A	32.0	4.0	3.5	20.0			
33.0 mm	F-06A	F-07A	33.0	4.0	2.5	20.0		W410-16	
34.0 mm	* F-06A	F-08	34.0	4.0	6.5	15.0			
35.0 mm	F-06A	F-08	35.0	4.0	5.5	15.0			
36.0 mm	F-06A	F-08 / F-07	36.0	4.0	4.5	15.0			
37.0 mm	F-06A	F-07 / F-07A	37.0	4.0	3.5	15.0			
38.0 mm	F-06A	F-07A	38.0	4.0	2.5	15.0		W410-16	
39.0 mm	* F-06A	F-08	39.0	4.0	6.5	10.0			
40.0 mm	F-06A	F-08	40.0	4.0	5.5	10.0			
41.0 mm	F-06A	F-08 / F-07	41.0	4.0	4.5	10.0			
42.0 mm	F-06A	F-07 / F-07A	42.0	4.0	3.5	10.0			
43.0 mm	F-06A	F-07A	43.0	4.0	2.5	10.0			

WS14 Doğrama Sistemi Cam Fitili & Çıta Seçim Tablosu

DIŞ CAM FİTİLİ			İÇ CAM FİTİLLERİ							
F-06A / FE-06A  -0.5mm 4.0mm +1.0mm			F-07A / FE-07A  -0.5mm 3.0mm +1.0mm		F-07 / FE-07  -0.5mm 4.0mm +1.0mm		F-08 / FE-08  -0.5mm 5.5mm +1.0mm			
Cam Ölçüsü	Kullanılabilecek Cam Fitilleri		Elemanların Ölçüleri				Toplam	Kullanılan Çıta Kodu	Uygulama Resmi	
	Dış Cam Fitili	İç Cam Fitili	Cam (mm)	Dış Cam Fitili	İç Cam Fitili	Cam Çıtası				
6.0 mm	F-06A	F-08	6.0	4.0	5.5	35.0	50.5 mm	W435-16		
7.0 mm	F-06A	F-08 / F-07	7.0	4.0	4.5	35.0				
8.0 mm	F-06A	F-07 / F-07A	8.0	4.0	3.5	35.0				
9.0 mm	F-06A	F-07A	9.0	4.0	2.5	35.0				
10.0 mm	* F-06A	F-08	10.0	4.0	6.5	30.0		W430-16		
11.0 mm	F-06A	F-08	11.0	4.0	5.5	30.0				
12.0 mm	F-06A	F-08 / F-07	12.0	4.0	4.5	30.0				
13.0 mm	F-06A	F-07 / F-07A	13.0	4.0	3.5	30.0				
14.0 mm	F-06A	F-07A	14.0	4.0	2.5	30.0				
15.0 mm	* F-06A	F-08	15.0	4.0	6.5	25.0		W425-16		
16.0 mm	F-06A	F-08	16.0	4.0	5.5	25.0				
17.0 mm	F-06A	F-08 / F-07	17.0	4.0	4.5	25.0				
18.0 mm	F-06A	F-07 / F-07A	18.0	4.0	3.5	25.0				
19.0 mm	F-06A	F-07A	19.0	4.0	2.5	25.0		W420-16		
20.0 mm	* F-06A	F-08	20.0	4.0	6.5	20.0				
21.0 mm	F-06A	F-08	21.0	4.0	5.5	20.0				
22.0 mm	F-06A	F-08 / F-07	22.0	4.0	4.5	20.0				
23.0 mm	F-06A	F-07 / F-07A	23.0	4.0	3.5	20.0		W415-16		
24.0 mm	F-06A	F-07A	24.0	4.0	2.5	20.0				
25.0 mm	* F-06A	F-08	25.0	4.0	6.5	15.0				
26.0 mm	F-06A	F-08	26.0	4.0	5.5	15.0				
27.0 mm	F-06A	F-08 / F-07	27.0	4.0	4.5	15.0		W410-16		
28.0 mm	F-06A	F-07 / F-07A	28.0	4.0	3.5	15.0				
29.0 mm	F-06A	F-07A	29.0	4.0	2.5	15.0				
30.0 mm	* F-06A	F-08	30.0	4.0	6.5	10.0				
31.0 mm	F-06A	F-08	31.0	4.0	5.5	10.0		W405-16		
32.0 mm	F-06A	F-08 / F-07	32.0	4.0	4.5	10.0				
33.0 mm	F-06A	F-07 / F-07A	33.0	4.0	3.5	10.0				
34.0 mm	F-06A	F-07A	34.0	4.0	2.5	10.0				
35.0 mm	F-06A	F-08	35.0	4.0	6.0	5.5				
36.0 mm	F-06A	F-08 / F-07	36.0	4.0	5.0	5.5				
37.0 mm	F-06A	F-07 / F-07A	37.0	4.0	4.0	5.5				
38.0 mm	F-06A	F-07A	38.0	4.0	3.0	5.5				

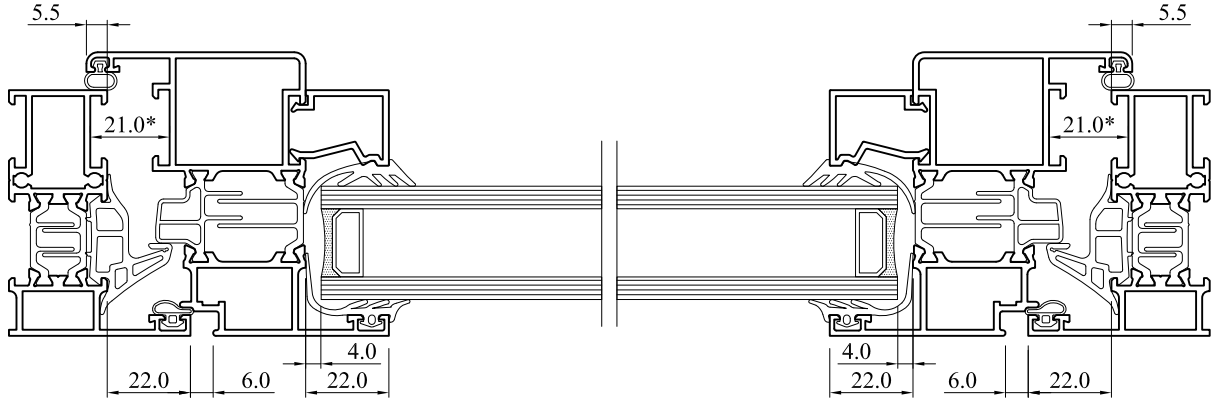
CAM MONTAJI TAKOZLAMA PRENSİPLERİ



Not 1: Taşıyıcı Takozlar normal olarak ünitenin köşelerinden bir takoz boyu içeriye yerleştirilir.

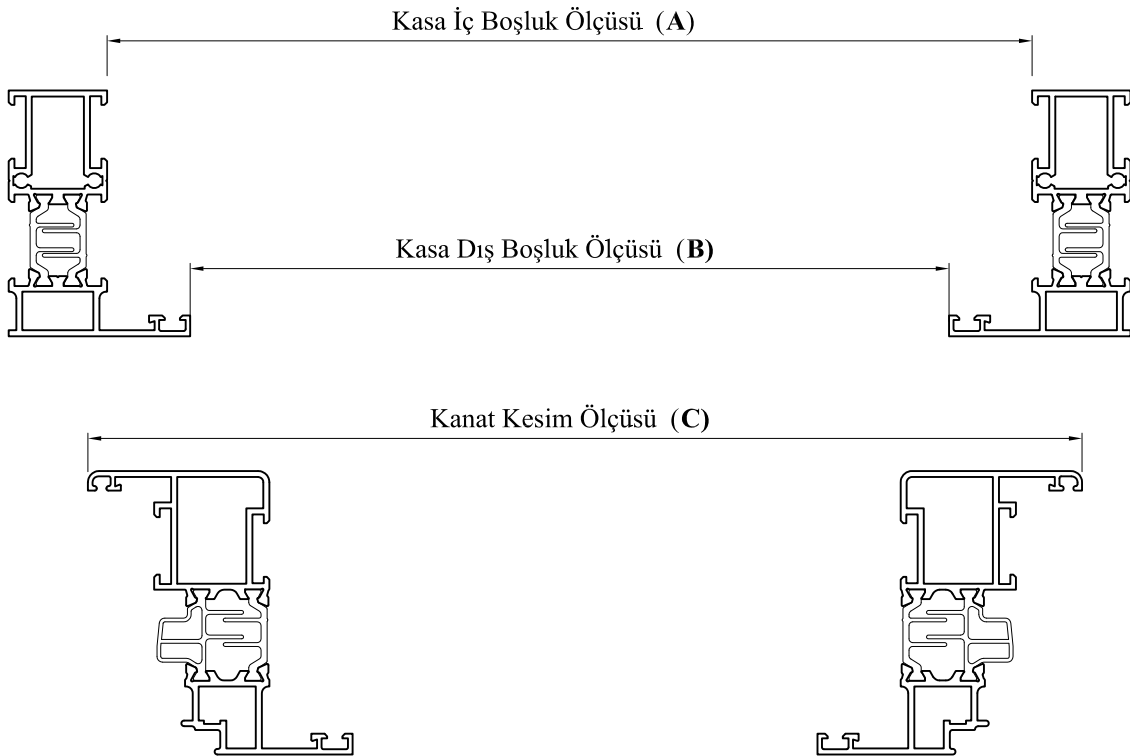
Not 2: Takozların uzunluğu ortalama 80-100mm; enleri ise, yalıtımlı camların her ikisinin de desteklenmesi bakımından cam kalınlığından 2mm fazla olmalıdır.

EURO COMFORT DOĞRAMA SİSTEMLERİ PRENSİP ÖLÇÜLERİ



* İŞARETİYLE BELİRTİLEN 21mm ÖLÇÜSÜ TÜM ÇEVREDE MENTEŞE VE FİTİL İHTİYACI İÇİN SON DERECE ÖNEMLİ BİR ÖLÇÜ OLDUĞUNDAN TITIZLIK GÖSTERİLMELİDİR.

EURO COMFORT SİSTEMLERİNDE KESİM ÖLÇÜLERİ BELİRLEME

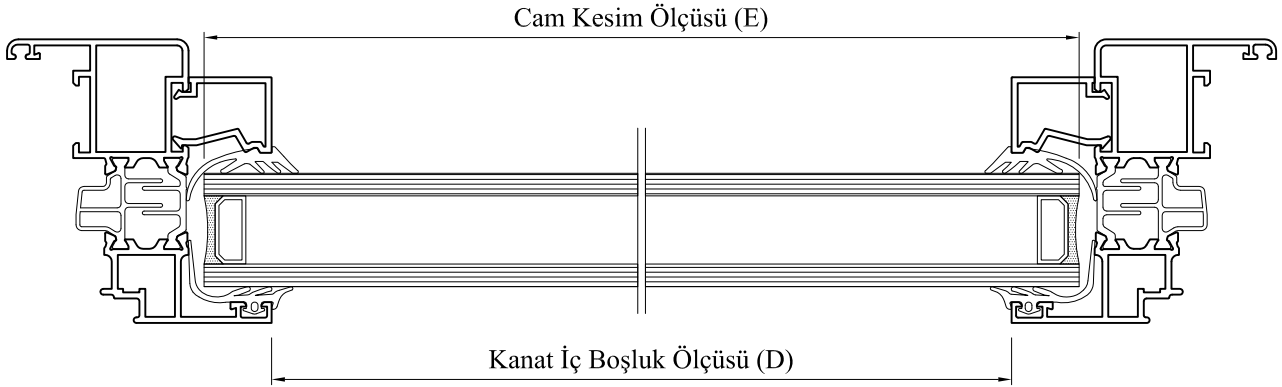


(C) KANAT KESİM ÖLÇÜSÜ

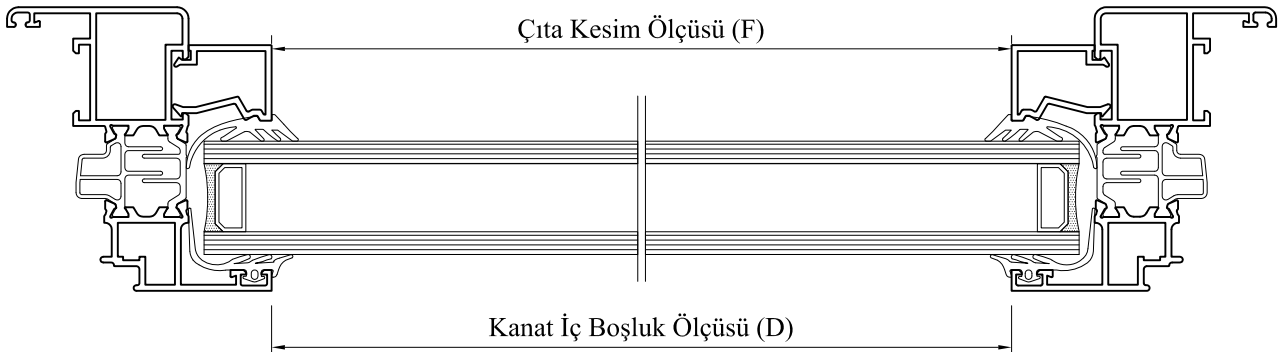
(A) Kasa İç Boşluk Ölçüsüne Göre; $C = A + (5.5\text{mm} \times 2) \implies C = A + 11\text{mm}$

(B) Kasa Dış Boşluk Ölçüsüne Göre; $C = B + (22.0\text{mm} \times 2) + (5.5\text{mm} \times 2) \implies C = B + 55\text{mm}$

EURO COMFORT SİSTEMLERİNDE KESİM ÖLÇÜLERİ BELİRLEME

(E) CAM KESİM ÖLÇÜSÜ

(D) Kanat İç Boşluk Ölçüsüne Göre; $E = D + (22.0 \text{ mm} \times 2) - (4.0 \text{ mm} \times 2) \implies E = D + 36 \text{ mm}$

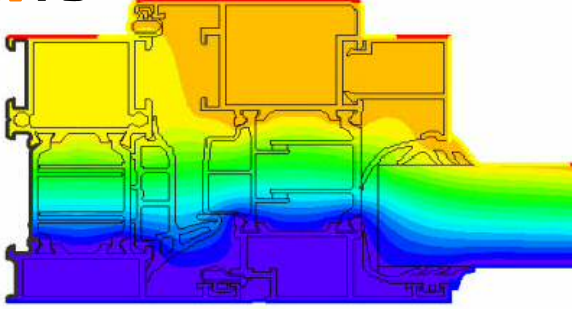
(F) ÇITA KESİM ÖLÇÜSÜ

(D) Kanat İç Boşluk Ölçüsüne Göre; $E = D + (22.0 \text{ mm}) \implies E = D + 22 \text{ mm}$
*Düşey yöndeki çıtalar için E=D

EURO COMFORT SİSTEMLERİNDE ISI İLETİM DEĞERLERİ VE HESAPLAMALARI

Uf : profilin ısı iletim katsayısı Ug : camın ısı iletim katsayısı Uw : pencerenin ısı iletim katsayısı
Uf ve Lf değerlerini kullanarak Uw hesaplamak için bkz. sayfa 47
(Ug = 1.5 W/(m².K) olmak üzere alanca %75'i cam olan pencerenin Uw değeri aşağıda verilmiştir)

W75



Kasa: 75021-16 Kanat: 75361-16
Lf: 110.5 mm Uf: 1.778 W/(m².K)

W75



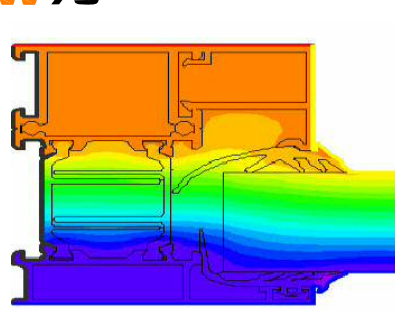
Kasa: 75031-16 Kanat: 75381-16
Lf: 150.5 mm Uf: 1.744 W/(m².K)

W75



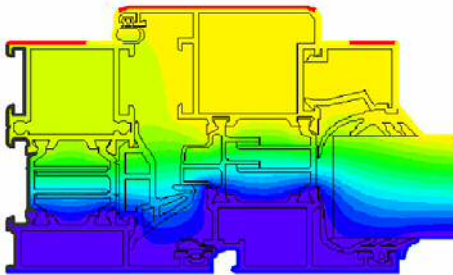
Kasa: 75221-16 Kanat: 75361-16
Lf: 132.5 mm Uf: 1.852 W/(m².K)

W75



Kasa: 75021-16
Lf: 58 mm Uf: 1.487 W/(m².K)

W65



Kasa: 65021-16 Kanat: 65361-16
Lf: 110.5 mm Uf: 2.156 W/(m².K)

W65



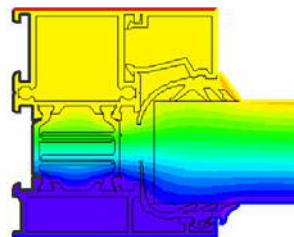
Kasa: 65031-16 Kanat: 65381-16
Lf: 150.5 mm Uf: 2.053 W/(m².K)

W65



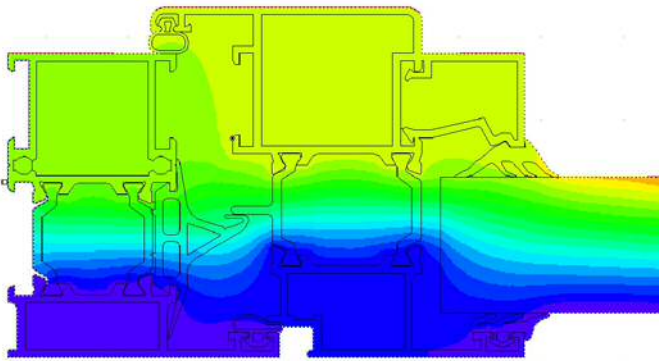
Kasa: 65221-16 Kanat: 65361-16
Lf: 132.5 mm Uf: 2.198 W/(m².K)

W65



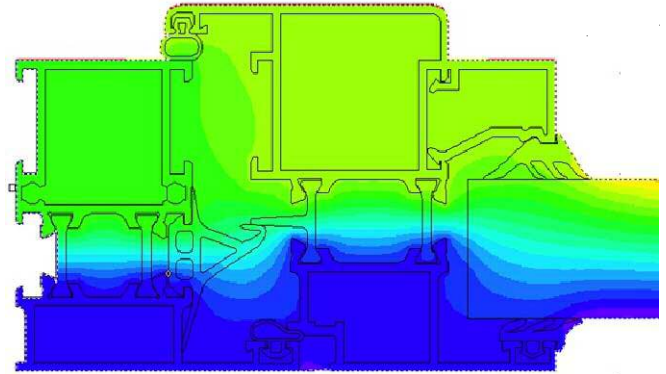
Kasa: 65021-16
Lf: 58 mm Uf: 1.925 W/(m².K)

WS65



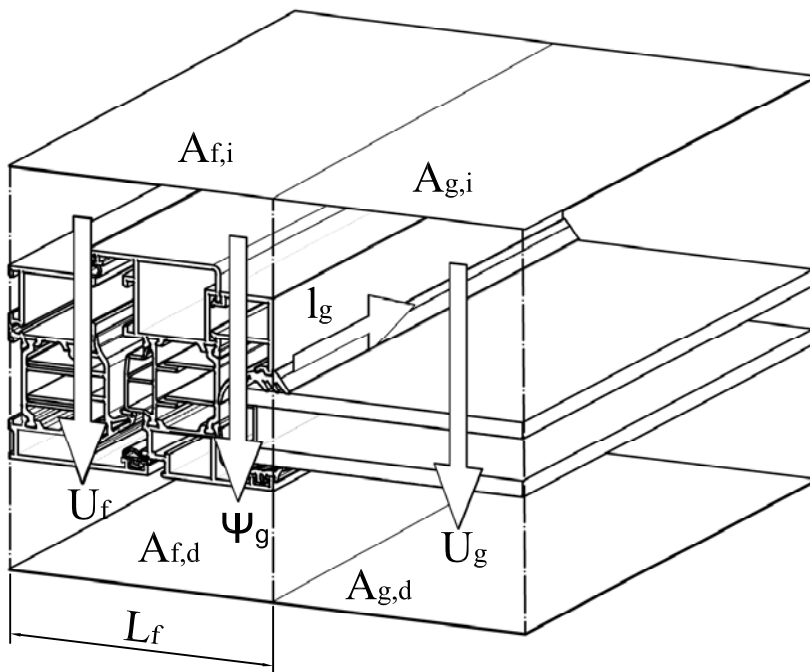
Kasa: 65021-16 Kanat: 65361-16
Lf: 110.5 mm Uf: 2.647 W/(m².K)

WS14



Kasa: 65021-16 Kanat: 65361-16
Lf: 110.5 mm Uf: 3.156 W/(m².K)

PENCERENİN ISIL İLETİM KATSAYISI (U_w)



$$U_w = \frac{A_g U_g + A_f U_f + I_g \Psi_g}{A_g + A_f}$$

$$U_w = \text{Pencerenin Isıl İletim Katsayısı (W/m}^2\text{K)}$$
$$A_g = \text{Cam (Panel) Alanı (m}^2\text{)}$$
$$U_g = \text{Camın (Panel) Isıl İletim Katsayısı (W/m}^2\text{K)}$$
$$A_f = \text{Profilin Alanı(m}^2\text{)}$$
$$U_f = \text{Profilin Isıl İletim Katsayısı (W/m}^2\text{K)}$$
$$l_g = \text{Cam Çıtası uzunluğu(m)}$$
$$\Psi_g = \text{Doğrusal Isıl İletim KatSayısı(W/mK)}$$

L_f= Profilin Uzunluğu(mm)

$\Psi_g(W/mK)$		ISICAM (II,III)	
		Standart	Low-E
Isicam	Standart	0.08	0.11
Çıtısı	Geliştirilmiş	0.06	0.08
Tek cam kullanımında $\Psi_g \times l_g=1$ alınır.			

Tek cam kullanımında $\Psi_g \times I_{g=1}$ alınır.

(TS EN 10077-1)

ÖRNEK

Yanda ölçüleri verilen pencere için U_w değeri hesaplanırken; Sayfa 46 dikkate alınarak çerçevede farklı profil detayları için alanlar ayrı ayrı hesaplanır. Buna göre;

Mavi profil alanı $A_m=0.18\text{m}^2$, $U_{fm}=1.85\text{ W/m}^2\text{K}$

Yeşil profil alanı $A_y=0.26\text{m}^2$, $U_{fy}=1.49\text{ W/m}^2\text{K}$

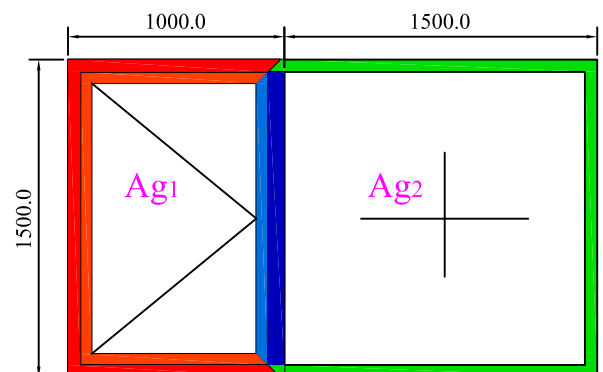
Kırmızı profil alanı $A_k=0.35\text{m}^2$, $U_{fk}=1.78\text{ W/m}^2\text{K}$

Formülde bu değerler yerlerine konulduğunda ;

($U_g=1.5 \text{ W/m}^2\text{K}$ olan 6+16+6 Low-E ısıcam için hesaplanacaktır)

Cam alanı: $A_{g1} + A_{g2} = 1 + 1.96 = 2.96 \text{ m}^2$

$$U_w = \frac{(0.18 \times 1.85) + (0.26 \times 1.49) + (0.35 \times 1.78) + (2.96 \times 1.5)}{0.18 + 0.26 + 0.35 + 2.96} = 1.54 \text{ W/m}^2\text{K}$$



Ayrıntılı alan hesaplamaları yerine, yine sayfa 46 da bulunan Lf değerleri kullanılarak da çerçeve alanı yaklaşık olarak hesaplanabilir. Farklı detay ve sistemlerin ısı iletim katsayıları ve sorularınız için AR-GE bölümü ile görüşebilirsiniz.

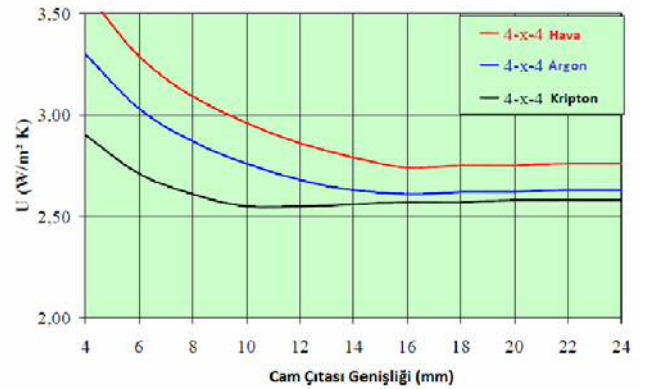
CAM SEÇİMİ İÇİN GENEL BİLGİLENDİRME

TABLO 1: Isıcam Performans Tablosu

Dış Cam + Ara Boşluk + İç Cam		Gün Işığı		Güneş Enerjisi		Isı Geçirgenlik Katsayısı (W/m ² K EN 673)	
		Geçirgenlik	Yansıtma	Toplam Geçirgenlik	Gölgeleme Katsayısı	Kuru Hava	Argon
Isıcam	6 + 6 + 6	76	14	0.69	0.81	3.3	3.0
	6 + 9 + 6					3.0	2.8
	6 + 12 + 6					2.8	2.7
	6 + 16 + 6					2.7	2.6
Triple Isıcam	6 + 6 + 4 + 6 + 6	70	19	0.62	0.72	2.0	1.9
	6 + 9 + 4 + 9 + 6					1.9	1.8
Isıcam Sinerji	6 + 6 + 6 (low-e #2)	73	11	0.54	0.63	2.5	2.1
	6 + 9 + 6 (low-e #2)					2.1	1.7
	6 + 12 + 6 (low-e #2)					1.8	1.4
	6 + 16 + 6 (low-e #2)					1.5	1.3
Triple Isıcam Sinerji	6 + 6 + 4 + 6 + 6 (low-e #2)	65	15	0.50	0.58	1.9	1.6
	6 + 9 + 4 + 9 + 6 (low-e #2)					1.6	1.3
	6 + 12 + 4 + 12 + 6 (low-e #2, #5)					1.3	1.1
	6 + 6 + 4 + 6 + 6 (low-e #2, #5)	51	13	0.43	0.50	1.6	1.3
	6 + 9 + 4 + 9 + 6 (low-e #2, #5)					1.3	1.0
	6 + 12 + 4 + 12 + 6 (low-e #2, #5)					1.0	0.8
Isıcam Konfor	6 + 6 + 6	70	13	0.48	0.56	2.5	2.1
	6 + 9 + 6					2.0	1.6
	6 + 12 + 6					1.7	1.4
	6 + 16 + 6					1.4	1.2
Triple Isıcam Konfor	6 + 6 + 4 + 6 + 6	63	17	0.43	0.50	1.9	1.6
	6 + 9 + 4 + 9 + 6					1.5	1.3
	6 + 12 + 4 + 12 + 6					1.3	1.1
	6 + 6 + 4 + 6 + 6 (low-e #5)	50	15	0.38	0.44	1.6	1.3
	6 + 9 + 4 + 9 + 6 (low-e #5)					1.2	1.0
	6 + 12 + 4 + 12 + 6 (low-e #5)					1.0	0.8

Isıcam Sinerji; ısı kontrol (Low-E) kaplamalı yalıtım camı ünitesinin markasıdır. Gün ışığını engellemez.
Isıcam Konfor; ısı yalıtımı ve güneş kontrol özelliklerini bir arada sağlayan yalıtım camı ünitesinin markasıdır.

Yandaki grafikte; Ara boşlukta hava, argon veya kripton kullanıldığı durumlar için ısıcam ara boşluk genişliğinin ısı iletim katsayısı ile ilişkisi gösterilmiştir.



TABLO 2: Isıcam'da Ünite Alanına Göre En Az Cam Kalınlığı ve Ara Boşlukların Saptanması

Cam Kalınlıkları	Ara Boşluklar	Cam Ünitesinde En Uzun Kenar (mm)	Alan (m ²)
3 + 3	6	1500	1.0
	9	1600	1.2
	12	1600	1.4
4 + 4	6	1600	1.5
	9	1800	2.0
	12	2000	2.6
5 + 5	6	2100	3.0
	9	2300	3.8
	12	2500	4.2
6 + 6	6	2500	5.0
	9	2700	5.8
	12	3000	6.9

- Isıcam'da standart boyut;

en az; 180 x 350 mm

en fazla; 2300 x 3000 mm'dir.

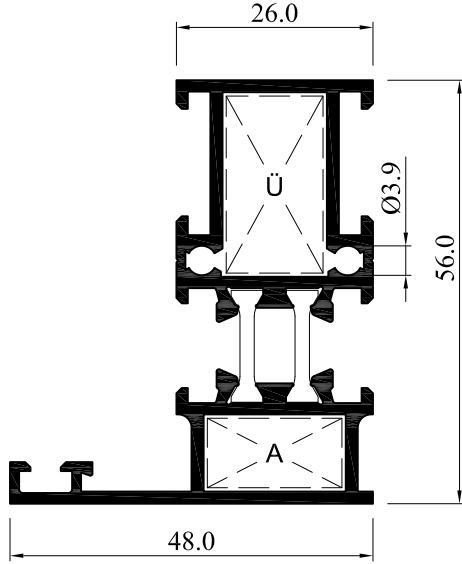
- Tablodaki cam kalınlıkları alan ve kenar uzunluğuna göre en az olması gerekenlerdir.

- Cam yuvası yeterli genişlikte ise ihtiyaca göre daha kalın cam ve daha geniş ara boşluk seçilebilir.

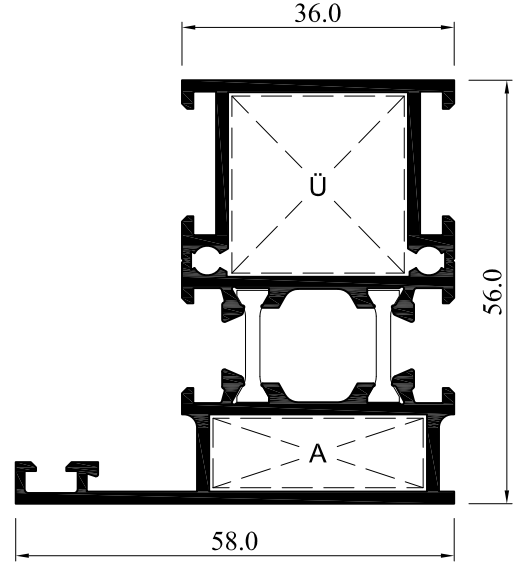
- Camın ağırlığı her mm kalınlık için 2.5 kg/m²'dir



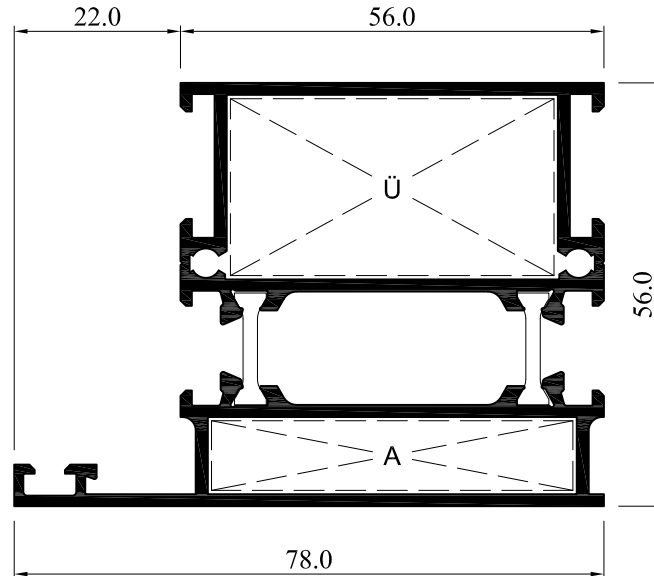
KASALAR / FRAMES



WS14011-16
WS14011-20



WS14021-16
WS14021-20

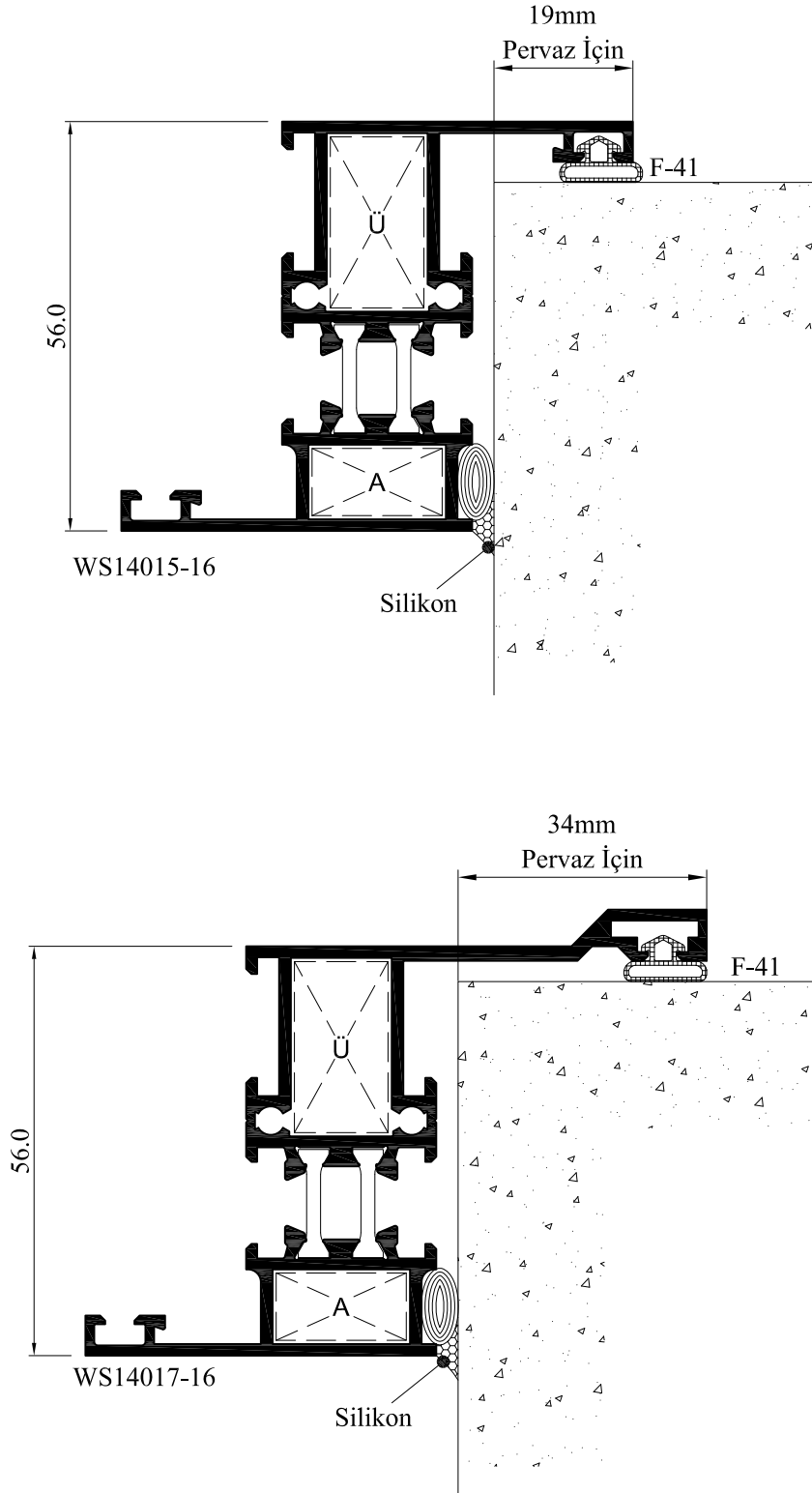


WS14031-16
WS14031-20

Farklı et kalınlığında mevcut olan profiller için 1.6 mm et kalınlığı resmedilmiştir. WS14XYZ-AB profil kodu olmak üzere; Profilin et kalınlığı A.B mm'dir.

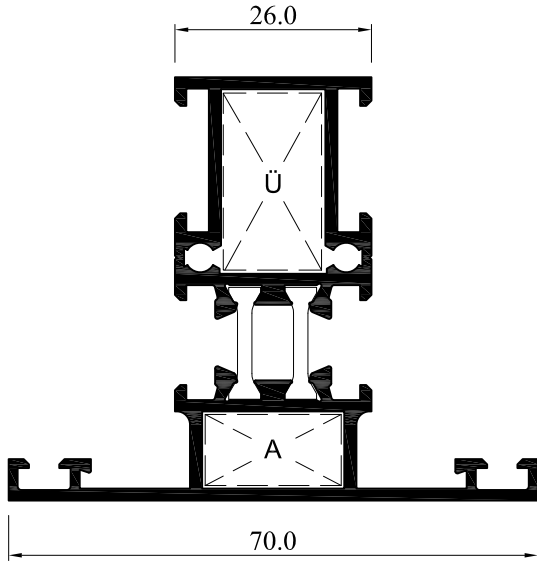
PROFİL KODU	AĞIRLIK (kg/m)	ALT PROFİL İÇİN PRES TAKOZU/ KESİM ÖLÇÜSÜ (mm)	ÜST PROFİL İÇİN PRES TAKOZU/ KESİM ÖLÇÜSÜ (mm)	I _x cm ⁴	I _y cm ⁴	W _x cm ³	W _y cm ³
WS14011-16	1.238	T851-185 / 9.7	T851-135 / 23.9	14.64	5.70	6.18	3.68
WS14011-20	1.372	T851-175 / 8.9	T851-121 / 23.5	16.81	6.07	7.10	3.92
WS14021-16	1.427	T851-286 / 9.7	T851-236 / 23.9	17.35	11.21	7.30	5.46
WS14021-20	1.602	T851-273 / 8.9	T851-225 / 23.5	20.15	12.07	8.49	5.87
WS14031-16	1.774	T851-478 / 9.7	T851-432 / 23.9	22.69	30.94	9.50	10.02
WS14031-20	2.036	T851-478 / 8.9	T851-424 / 23.5	26.76	33.82	11.21	11.00

PERVAZLI KASALAR / *FRAMES*

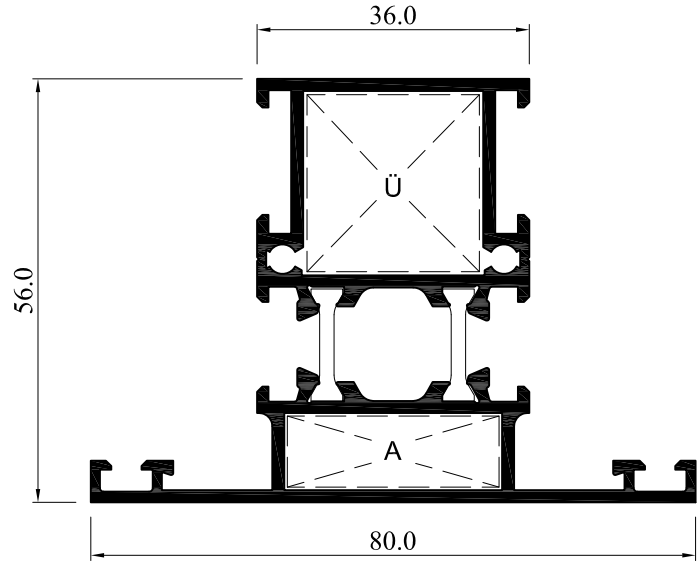


PROFİL KODU	AĞIRLIK (kg/m)	ALT PROFİL İÇİN PRES TAKOZU/ KESİM ÖLÇÜSÜ (mm)	ÜST PROFİL İÇİN PRES TAKOZU/ KESİM ÖLÇÜSÜ (mm)	I _x cm ⁴	I _y cm ⁴	W _x cm ³	W _y cm ³
WS14015-16	1.364	T851-185 / 9.7	T851-135 / 23.9	18.61	9.35	7.06	2.68
WS14017-16	1.496	T851-185 / 9.7	T851-135 / 23.9	23.41	17.48	8.05	3.75

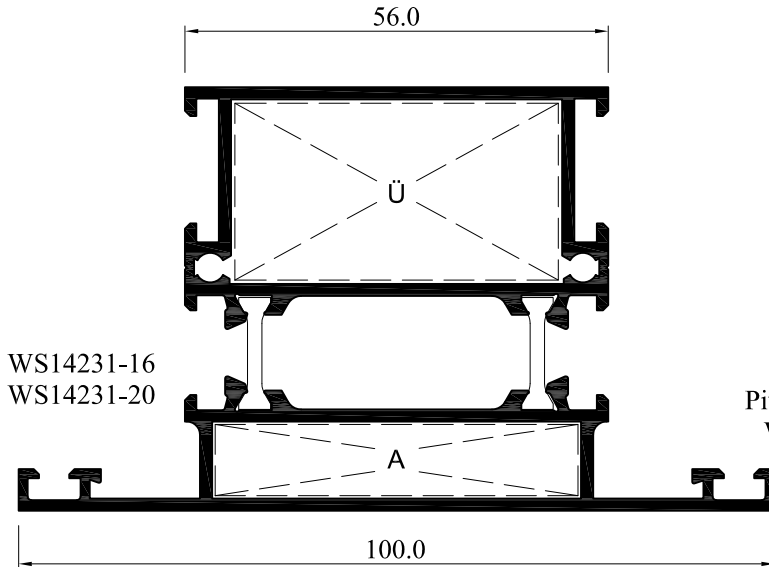
ORTA KAYITLAR / TRANSOM-MULLION PROFILES



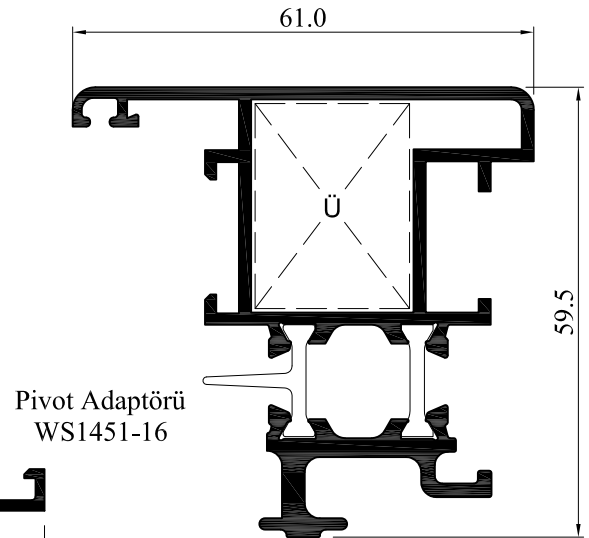
WS14211-16
WS14211-20



WS14221-16
WS14221-20



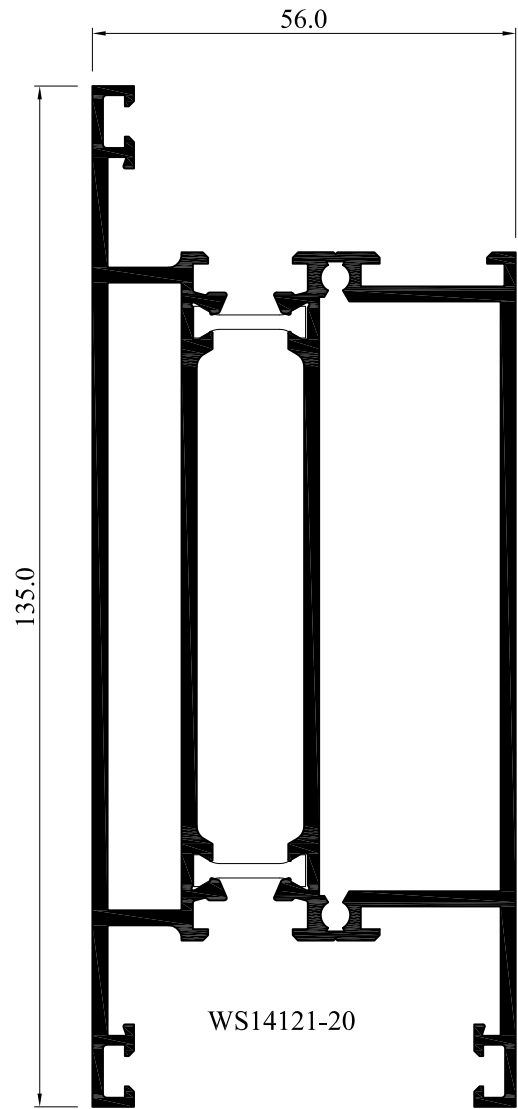
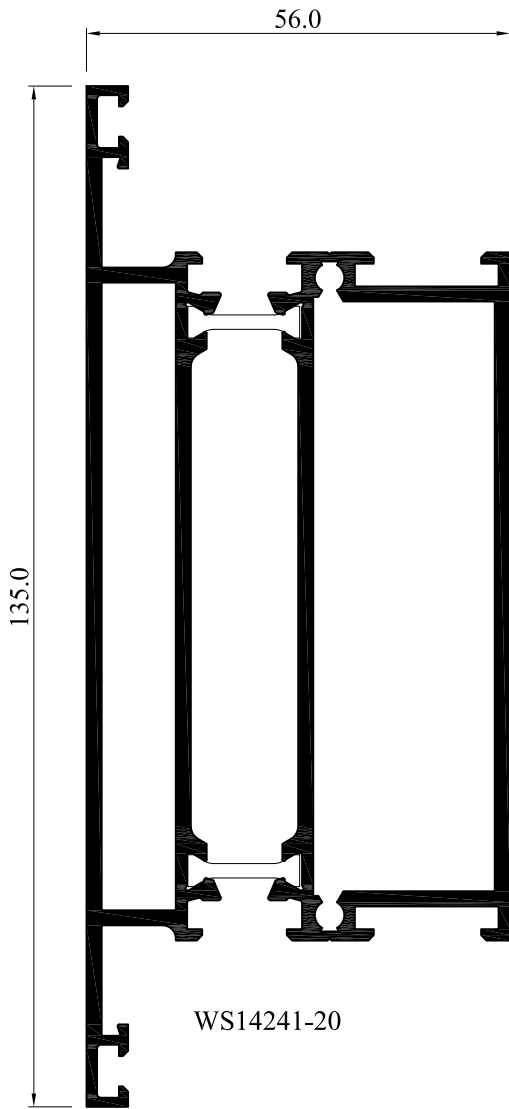
WS14231-16
WS14231-20



Pivot Adaptörü
WS1451-16

PROFİL KODU	AĞIRLIK (kg/m)	ALT PROFİL İÇİN PRES TAKOZU/ KESİM ÖLÇÜSÜ (mm)	ÜST PROFİL İÇİN PRES TAKOZU/ KESİM ÖLÇÜSÜ (mm)	Ix cm ⁴	Iy cm ⁴	Wx cm ³	Wy cm ³
WS14211-16	1.371	T851-185 / 9.7	T851-135 / 23.9	16.79	9.39	7.73	2.69
WS14211-20	1.518	T851-175 / 8.9	T851-121 / 23.5	19.19	9.93	8.85	2.83
WS14221-16	1.560	T851-286 / 9.7	T851-236 / 23.9	19.54	16.35	8.89	4.10
WS14221-20	1.748	T851-273 / 8.9	T851-225 / 23.5	22.47	17.49	10.27	4.37
WS14231-16	1.907	T851-478 / 9.7	T851-432 / 23.9	24.94	39.71	11.12	7.94
WS14231-20	2.182	T851-478 / 8.9	T851-424 / 23.5	29.24	43.17	13.02	8.70
WS1451-16	1.466	-	T851-210 / 27.7	-	-	-	-

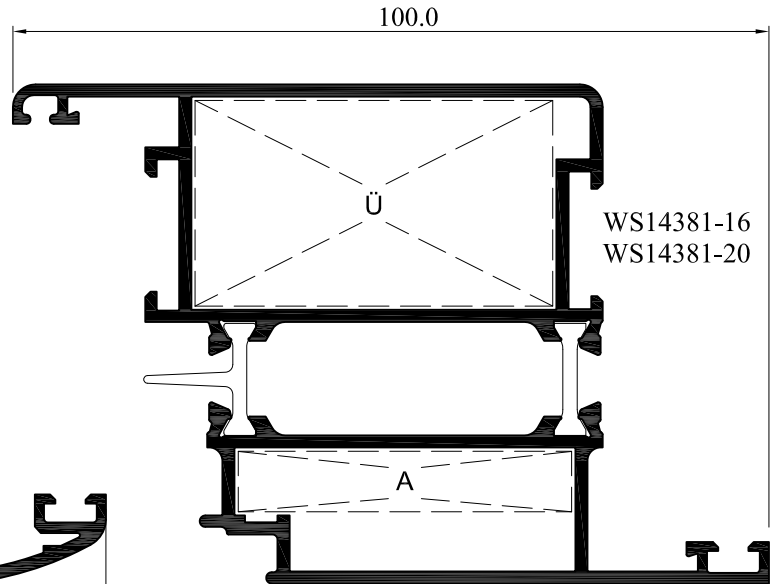
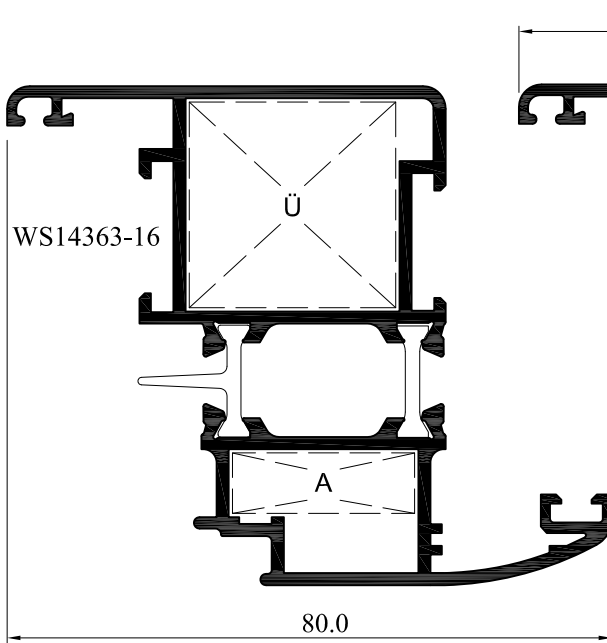
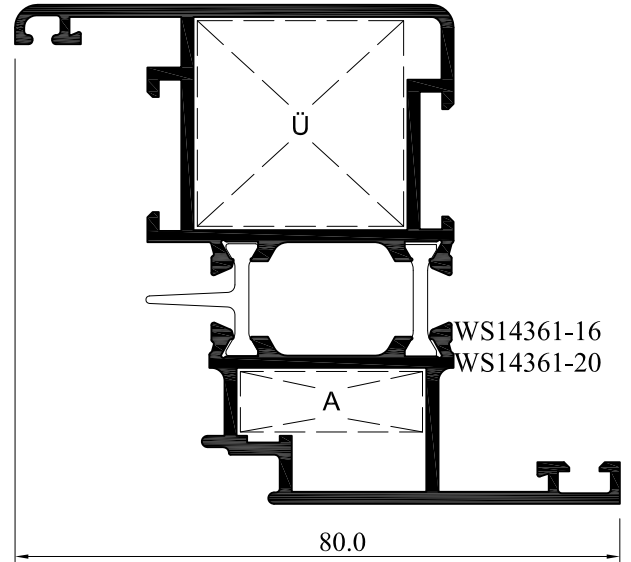
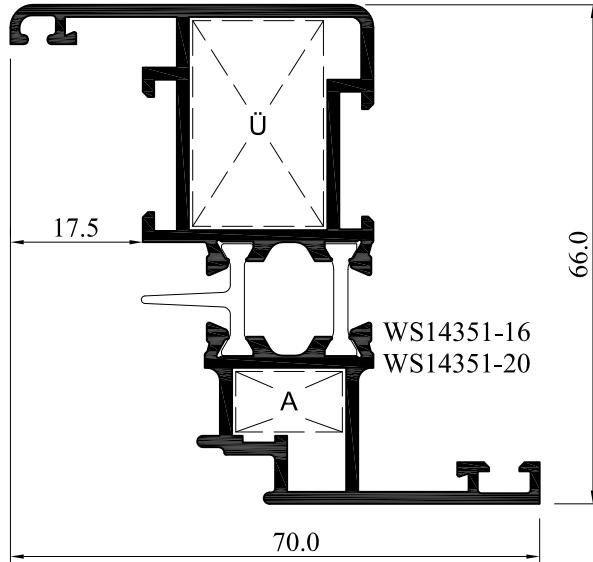
ORTA KAYITLAR ve ETEK TEŞKİL PROFİLLERİ
TRANSOM-MULLION PROFILES and KICKPLATE PROFILES



Etek detayı için bkz. Sayfa 170

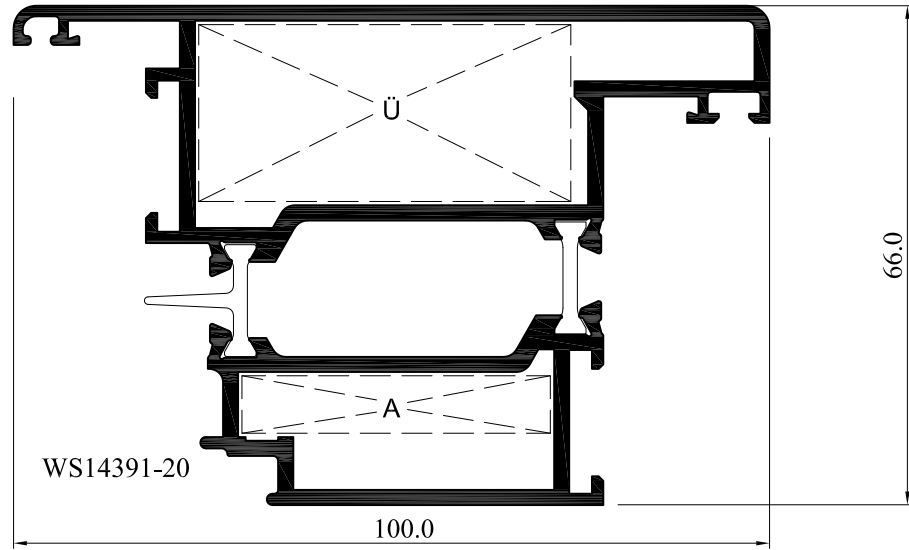
PROFİL KODU	AĞIRLIK (kg/m)	I _x cm ⁴	I _y cm ⁴	W _x cm ³	W _y cm ³
WS14241-20	2.919	40.66	129.37	17.65	19.14
WS14121-20	3.061	-	-	-	-

KANATLAR / SASH PROFILES

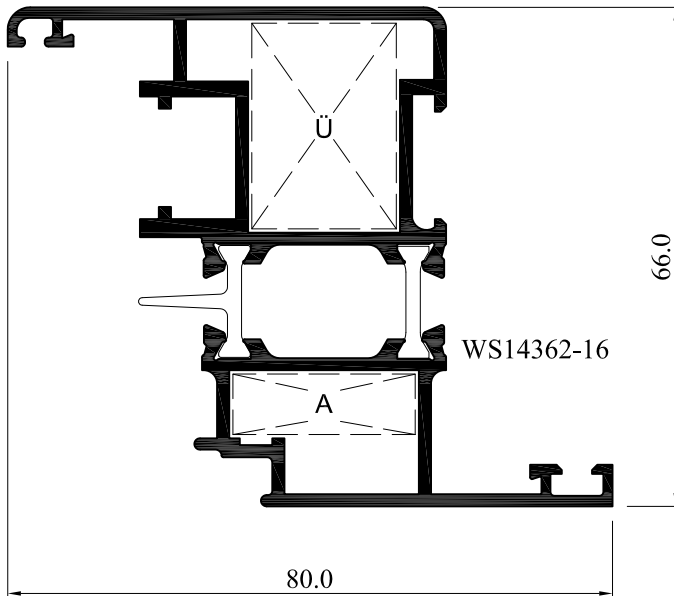


PROFİL KODU	AĞIRLIK (kg/m)	ALT PROFİL İÇİN PRES TAKOZU/ KESİM ÖLÇÜSÜ (mm)	ÜST PROFİL İÇİN PRES TAKOZU/ KESİM ÖLÇÜSÜ (mm)
WS14351-16	1.449	T851-146 / 8.5	T851-175 / 27.7
WS14351-20	1.649	T851-140 / 8.1	T851-165 / 26.9
WS14361-16	1.638	T851-246 / 8.5	T851-280 / 27.7
WS14361-20	1.873	T851-240 / 8.1	T851-273 / 26.9
WS14363-16	1.680	T851-246 / 8.5	T851-280 / 27.7
WS14381-16	1.969	T851-445 / 8.5	T851-478 / 27.7
WS14381-20	2.299	T851-437 / 8.1	T851-468 / 26.9

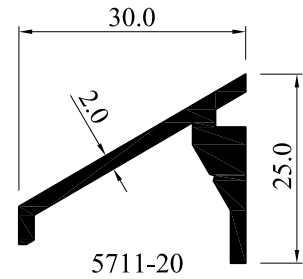
DIŞA AÇILIR KAPI KANADI / *DOOR SASH PROFILE OPENING OUTSIDE*



PVC AKSESUAR İÇİN KANAT
SASH PROFILE FOR PVC ACCESSORIES

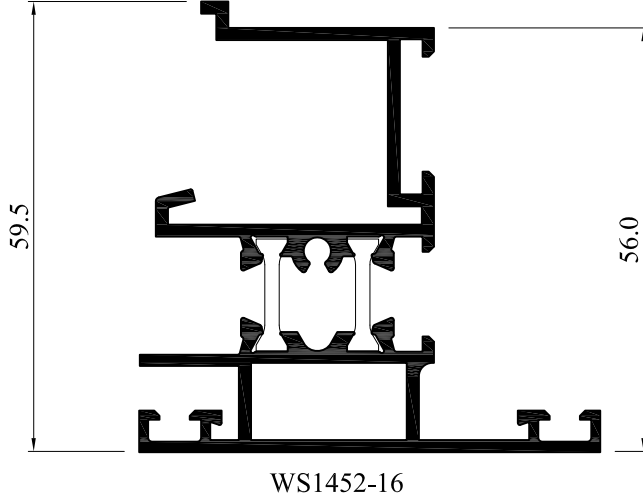


DAMLALIK PROFİLİ
WINDOWSILL PROFILE

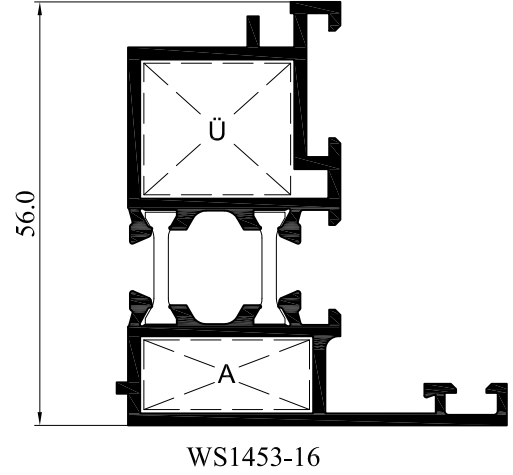


PROFİL KODU	AĞIRLIK (kg/m)	ALT PROFİL İÇİN PRES TAKOZU/ KESİM ÖLÇÜSÜ (mm)	ÜST PROFİL İÇİN PRES TAKOZU/ KESİM ÖLÇÜSÜ (mm)	Ix cm4	Iy cm4
WS14362-16	1.724	T851-246 / 8.5	T851-196 / 27.7	-	-
WS14391-20	2.462	T851-412 / 8.1	T85-498 / 23.9	-	-
5711-20	0.404	-	-	-	-

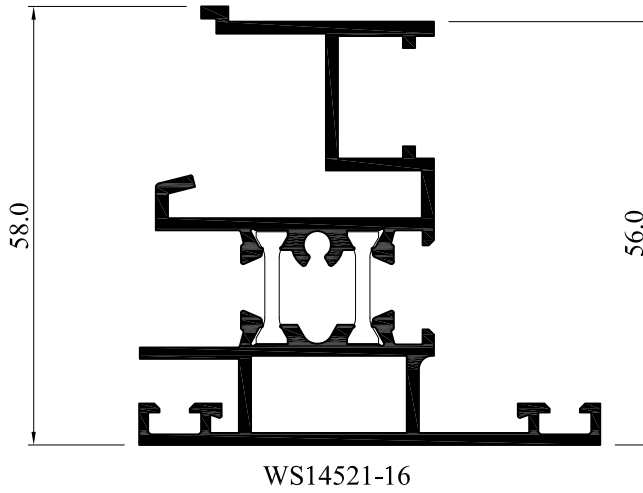
ÇİFT KANAT ADAPTÖRÜ
ADJOINING SASH ADAPTER



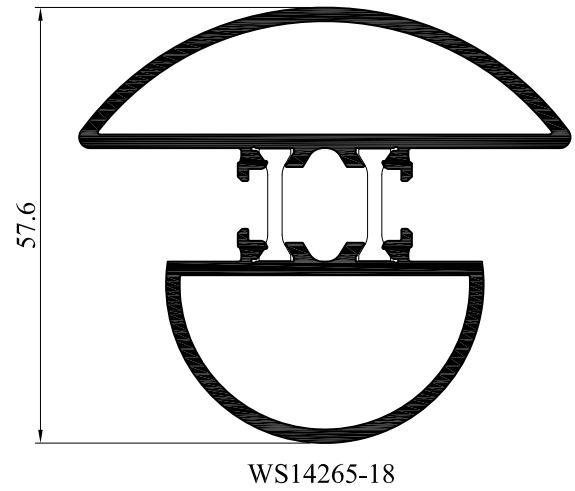
DIŞA AÇILIR KAPI ADAPTÖRÜ
OUTSIDE OPENING DOOR ADAPTER



ÇİFT KANAT ADAPTÖRÜ (PVC AKSESUAR)
ADJOINING SASH ADAPTER (PVC ACCESSORIES)

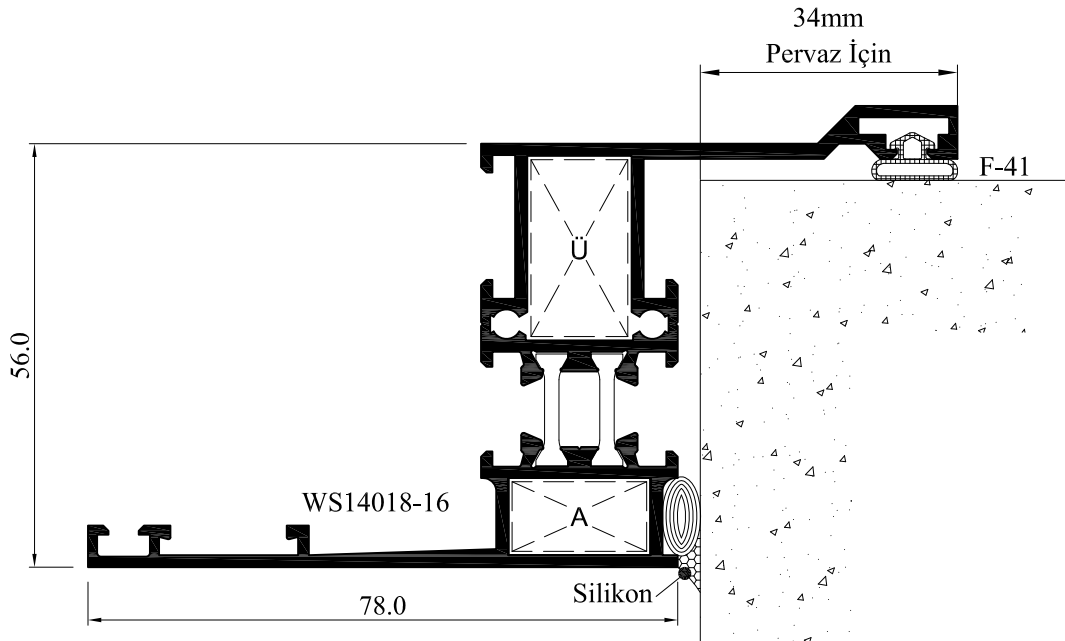
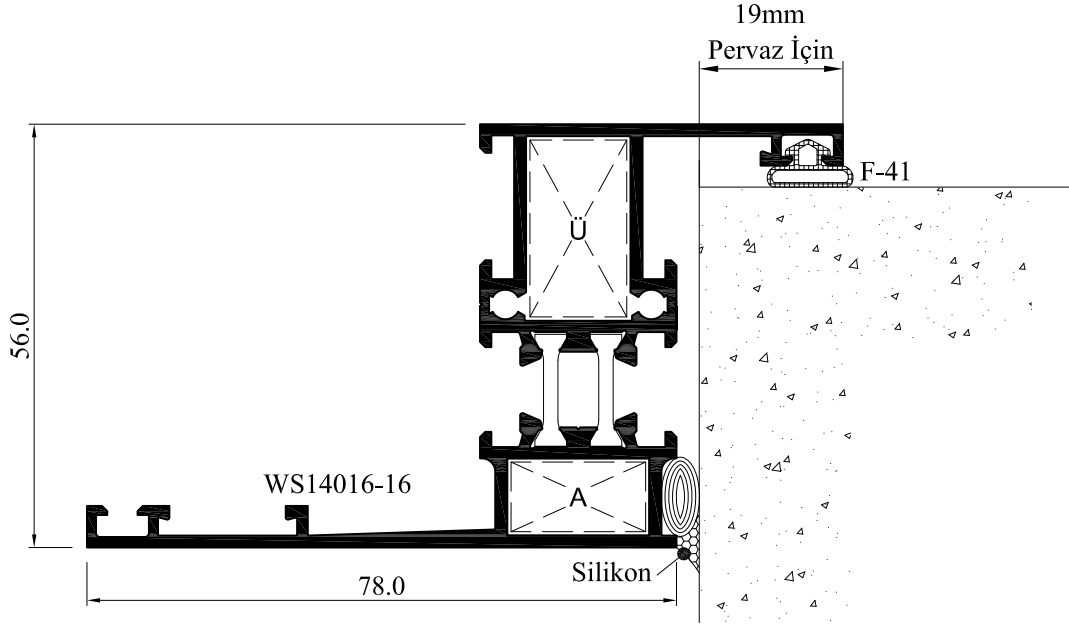


90°-135° AYARLANABİLİR KÖŞE DÖNÜŞ PROFİLİ
90°-135° CORNERS PROFILES



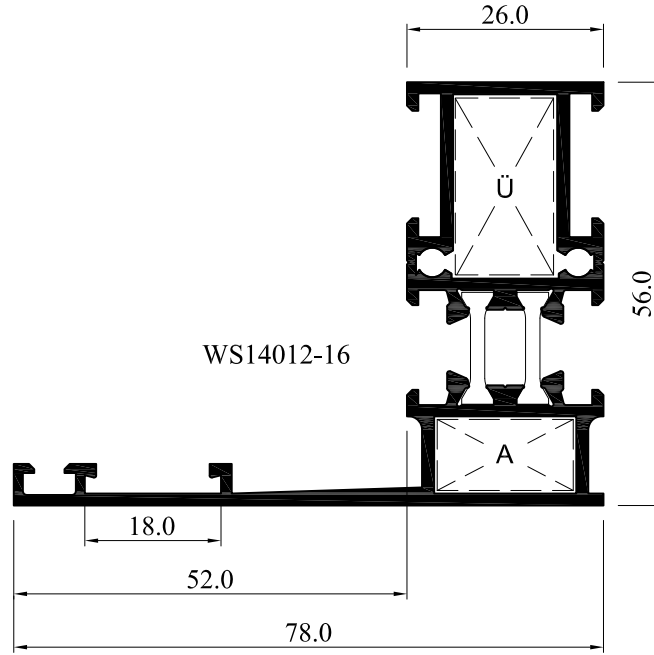
PROFİL KODU	AĞIRLIK (kg/m)	ALT PROFİL İÇİN PRES TAKOZU/ KESİM ÖLÇÜSÜ (mm)	ÜST PROFİL İÇİN PRES TAKOZU/ KESİM ÖLÇÜSÜ (mm)	Ix cm4	Iy cm4	Wx cm ³	Wy cm ³
WS1452-16	1.380	-	-	-	-	-	-
WS1453-16	1.226	T85-225 / 9.7	T851-196 / 17.9	13.42	7.16	5.95	4.00
WS14265-18	1.474	-	-	-	-	-	-
WS14521-16	1.416	-	-	-	-	-	-

GİZLİ KANAT PERVAZLI KASALARI / *HIDDEN FRAME PROFILE*

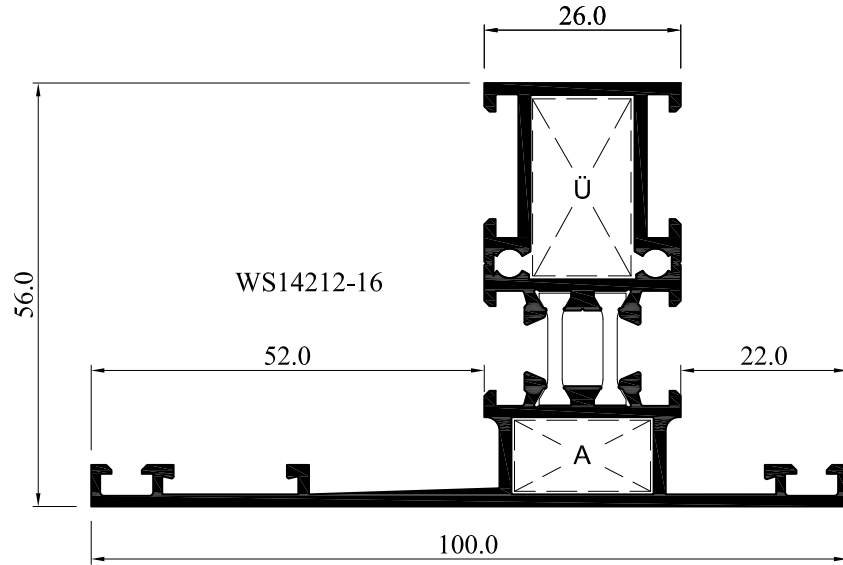


PROFİL KODU	AĞIRLIK (kg/m)	ALT PROFİL İÇİN PRES TAKOZU/ KESİM ÖLÇÜSÜ (mm)	ÜST PROFİL İÇİN PRES TAKOZU/ KESİM ÖLÇÜSÜ (mm)	I _x cm ⁴	I _y cm ⁴	W _x cm ³	W _y cm ³
WS14016-16	1.542	T851-185 / 9.7	T851-135 / 23.9	22.28	25.02	9.44	6.17
WS14018-16	1.674	T851-185 / 9.7	T851-135 / 23.9	27.97	35.43	10.65	6.81

GİZLİ KANAT KASASI / *FRAME PROFILE FOR HIDDEN SASH*

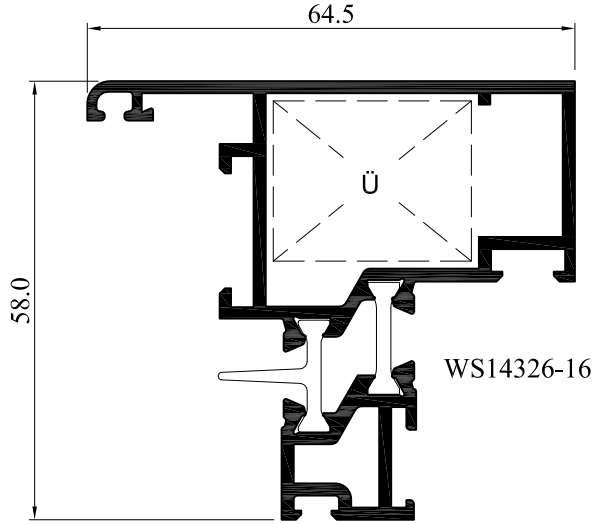


GİZLİ KANAT ORTA KAYIT / *TRANSOM-MULLION PROFILE FOR HIDDEN SASH*

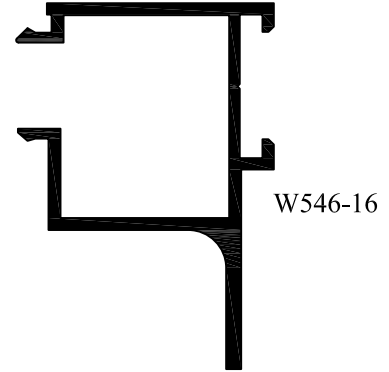


PROFİL KODU	AĞIRLIK (kg/m)	ALT PROFİL İÇİN PRES TAKOZU/ KESİM ÖLÇÜSÜ (mm)	ÜST PROFİL İÇİN PRES TAKOZU/ KESİM ÖLÇÜSÜ (mm)	I _x cm ⁴	I _y cm ⁴	W _x cm ³	W _y cm ³
WS14012-16	1.416	T851-185 / 9.7	T851-135 / 23.9	17.55	19.84	8.35	9.36
WS14212-16	1.549	T851-185 / 9.7	T851-135 / 23.9	19.24	25.14	9.88	6.21

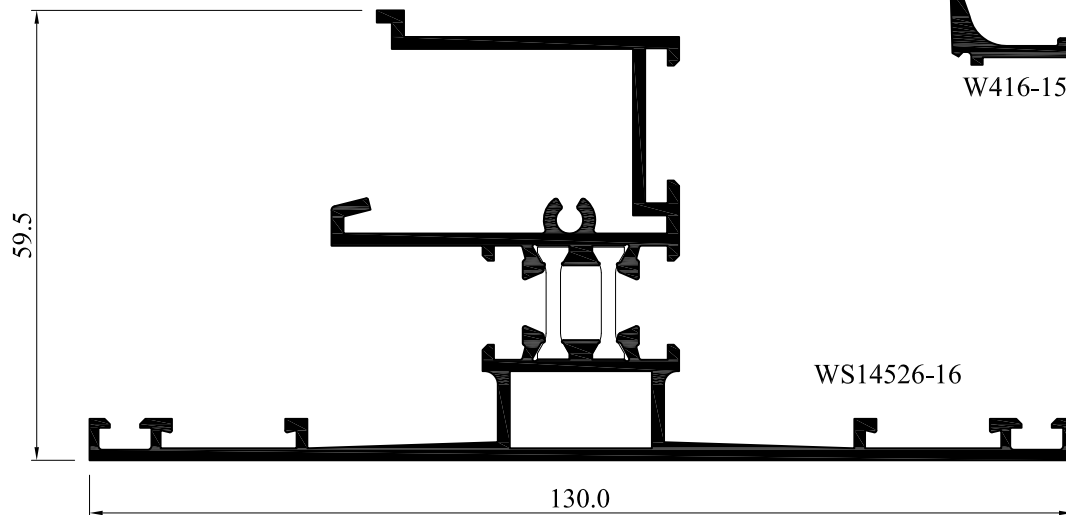
GİZLİ KANAT PROFİLİ
HIDDEN SASH PROFILE



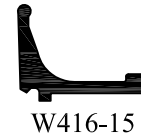
GİZLİ KANATTA SABİT CAM ADAPTÖRÜ
FIX GLASS ADAPTOR FOR HIDDEN SASH



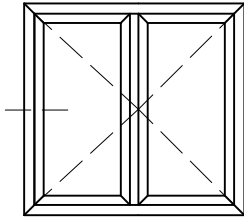
GİZLİ KANAT ÇİFT KANAT ADAPTÖRÜ
ADJOINING SASH ADAPTER FOR HIDDEN SASH



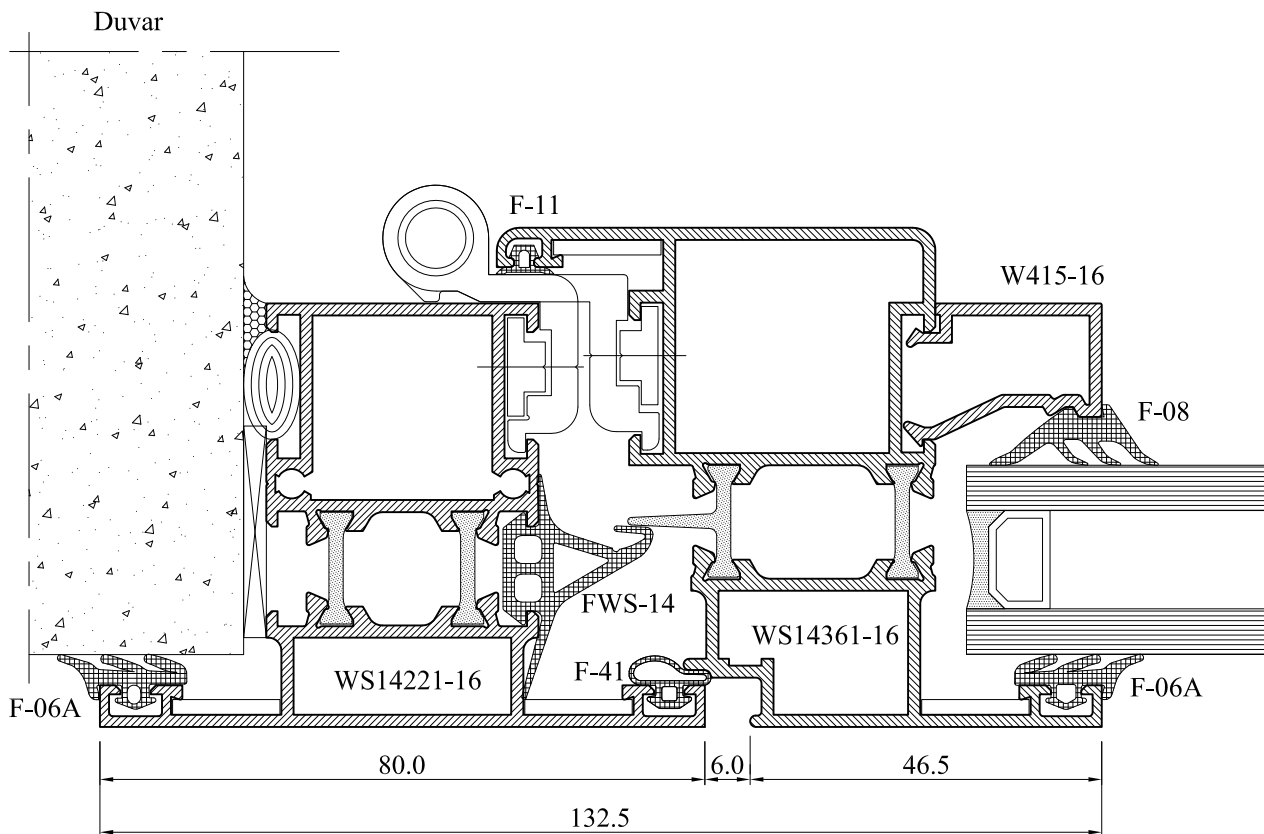
GİZLİ KANAT İÇİN CAM ÇITASI
GLASS HOLDER FOR HIDDEN SASH

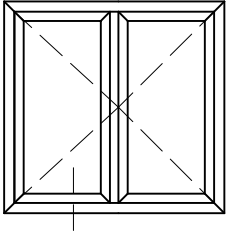


PROFİL KODU	AĞIRLIK (kg/m)	ALT PROFİL İÇİN PRES TAKOZU/ KESİM ÖLÇÜSÜ (mm)	ÜST PROFİL İÇİN PRES TAKOZU/ KESİM ÖLÇÜSÜ (mm)
WS14326-16	1.366	-	T851-280 / 22.7
W416-15	0.142	-	-
W546-16	0.592	-	-
WS14526-16	1.819	-	-

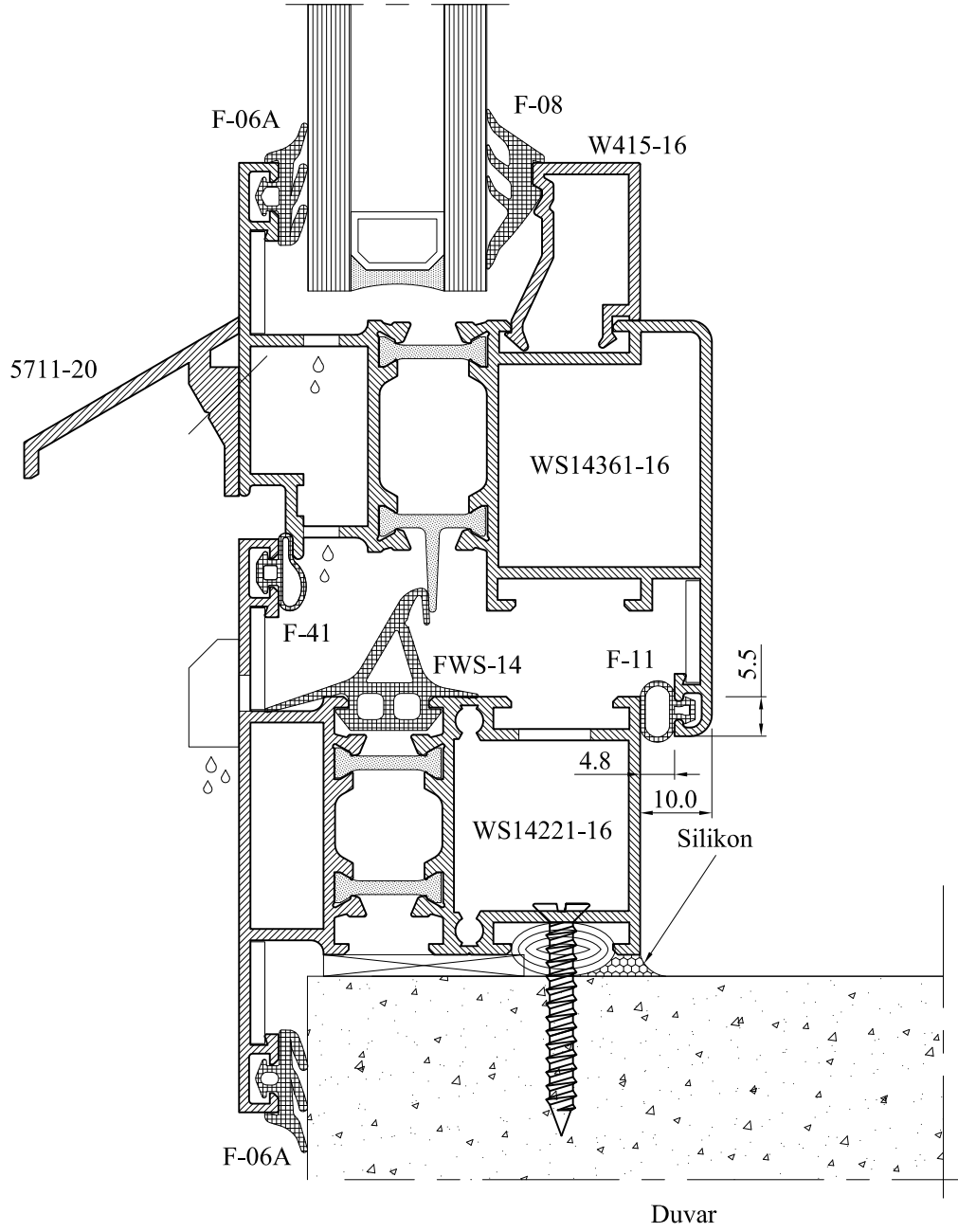


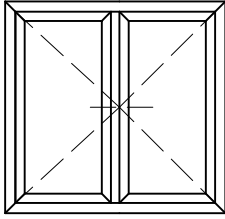
İçe Açılır Çift Kanat Pencere Yan Duvar Bitiş Detayı



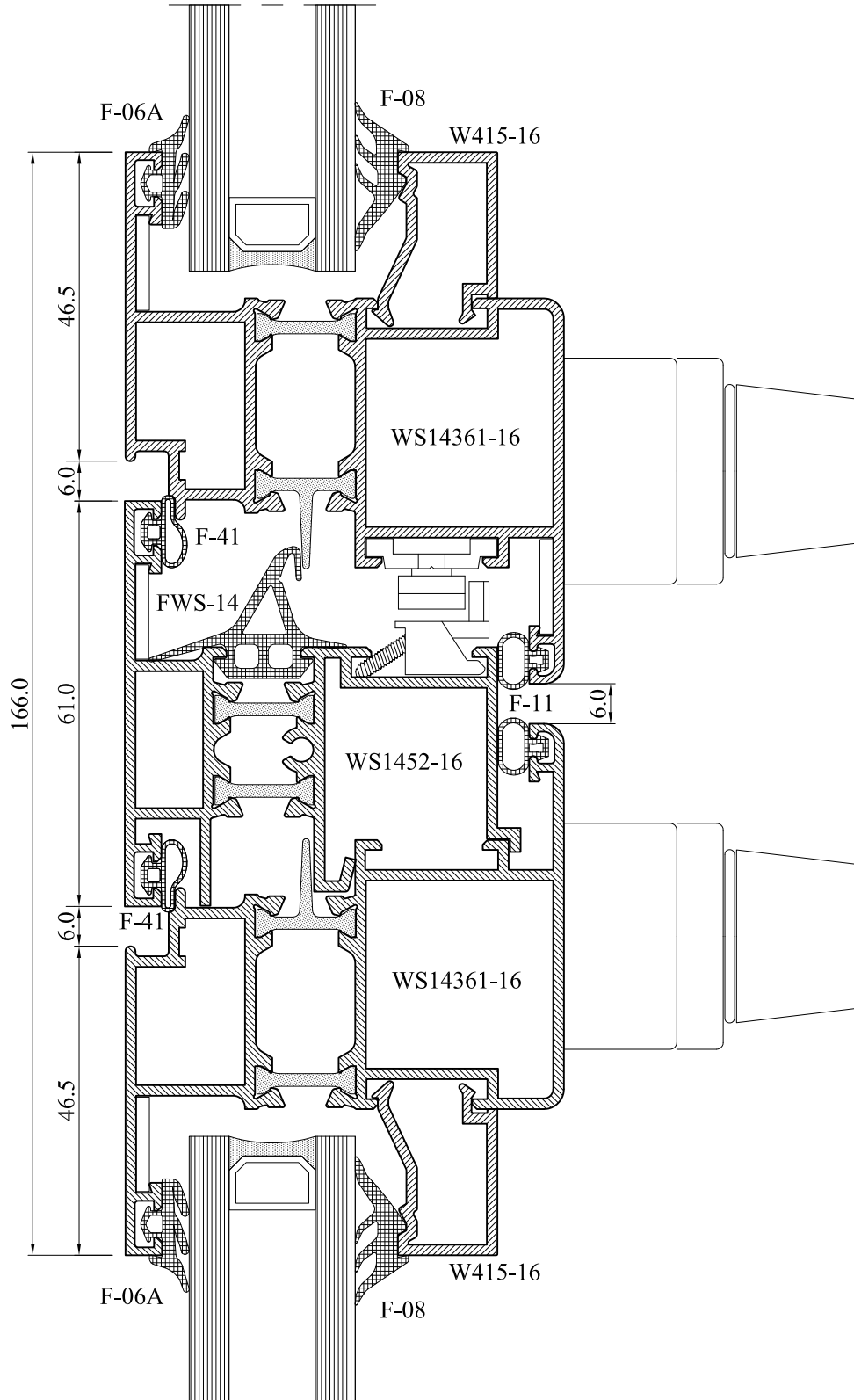


İçe Açılır Çift Kanat Pencere
Alt Duvar Bitiş Detayı

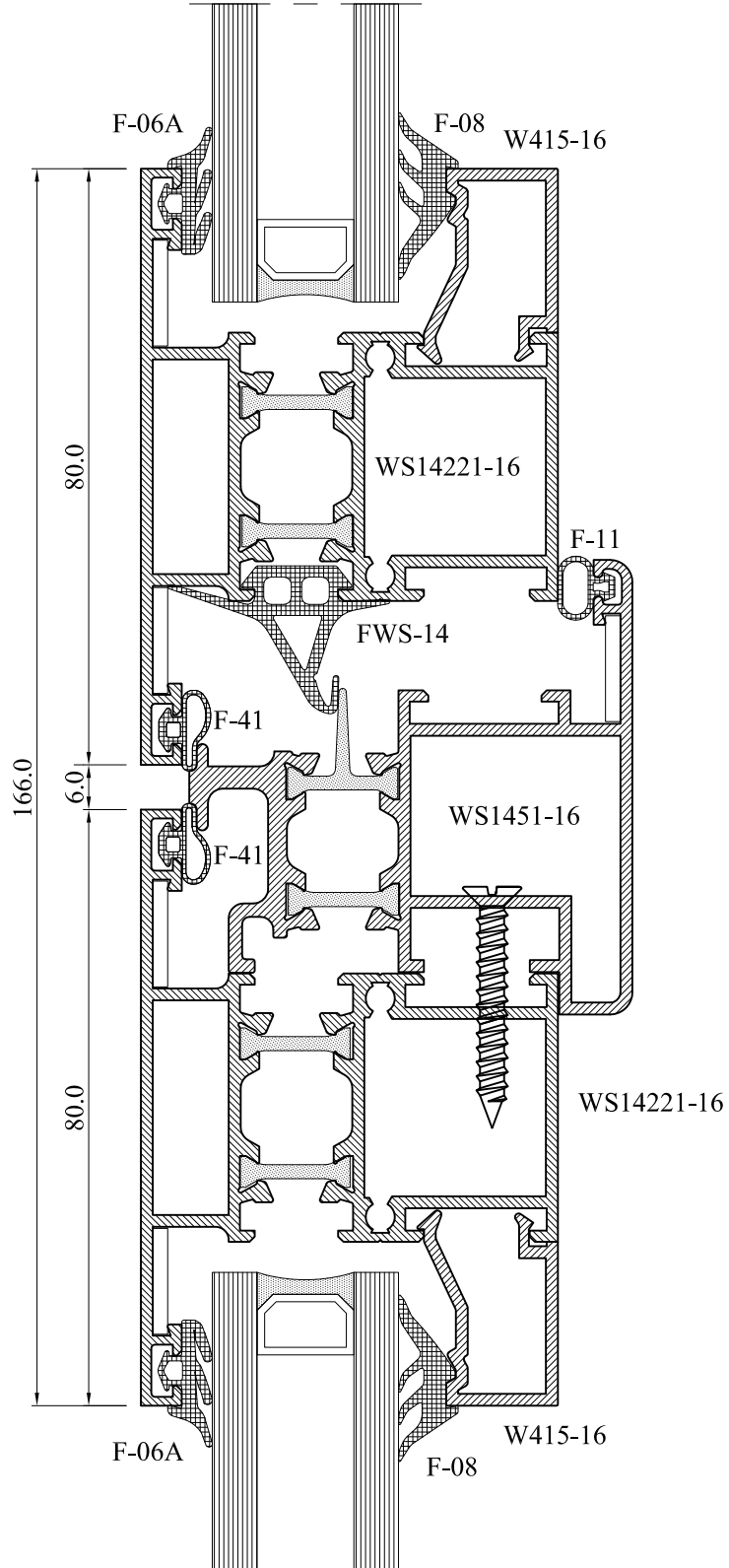
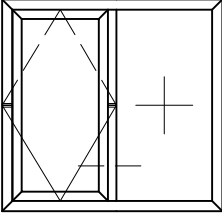




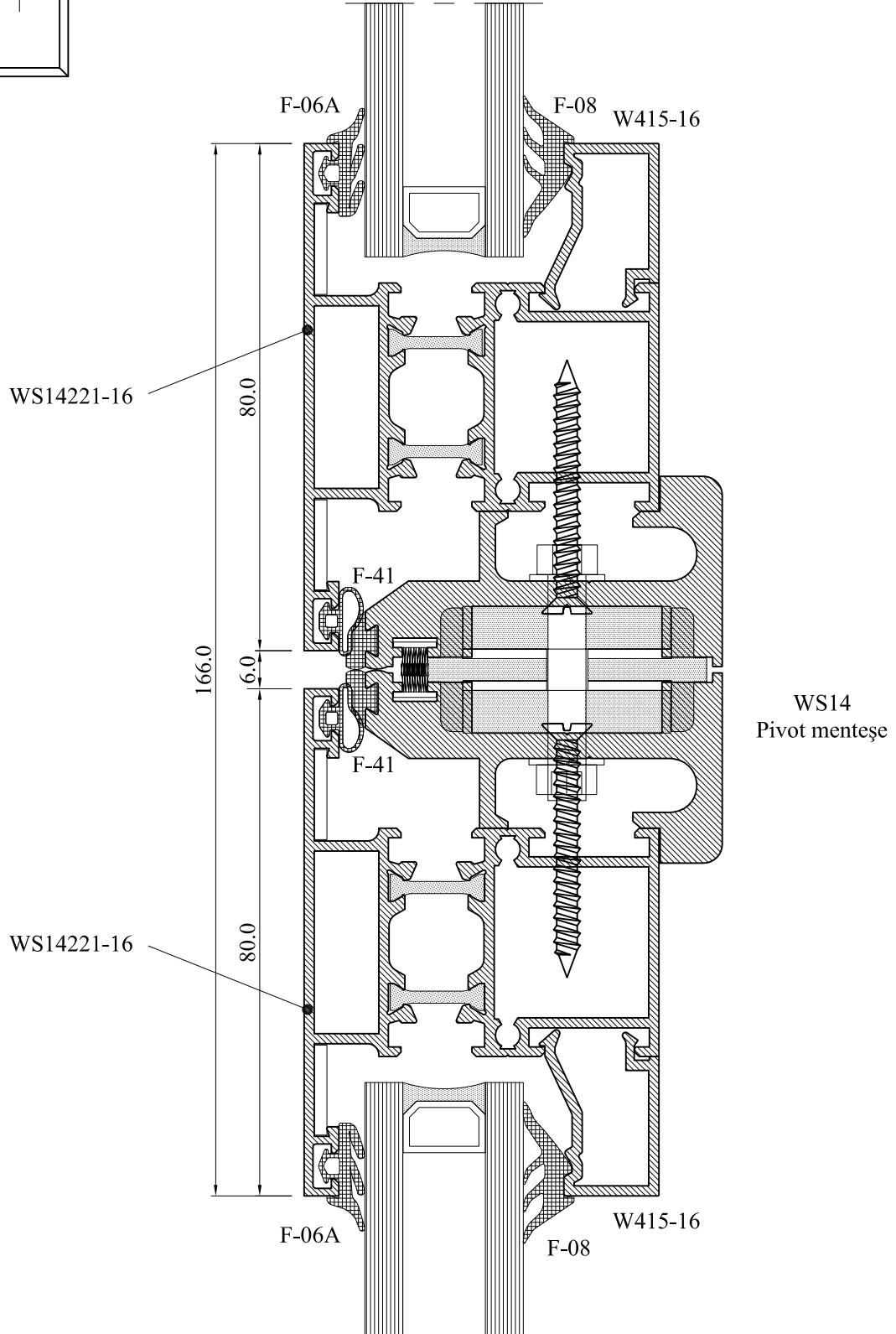
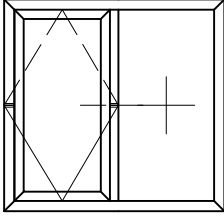
İçe Açılır Çift Kanat Pencere
Orta Birleşim Detayı



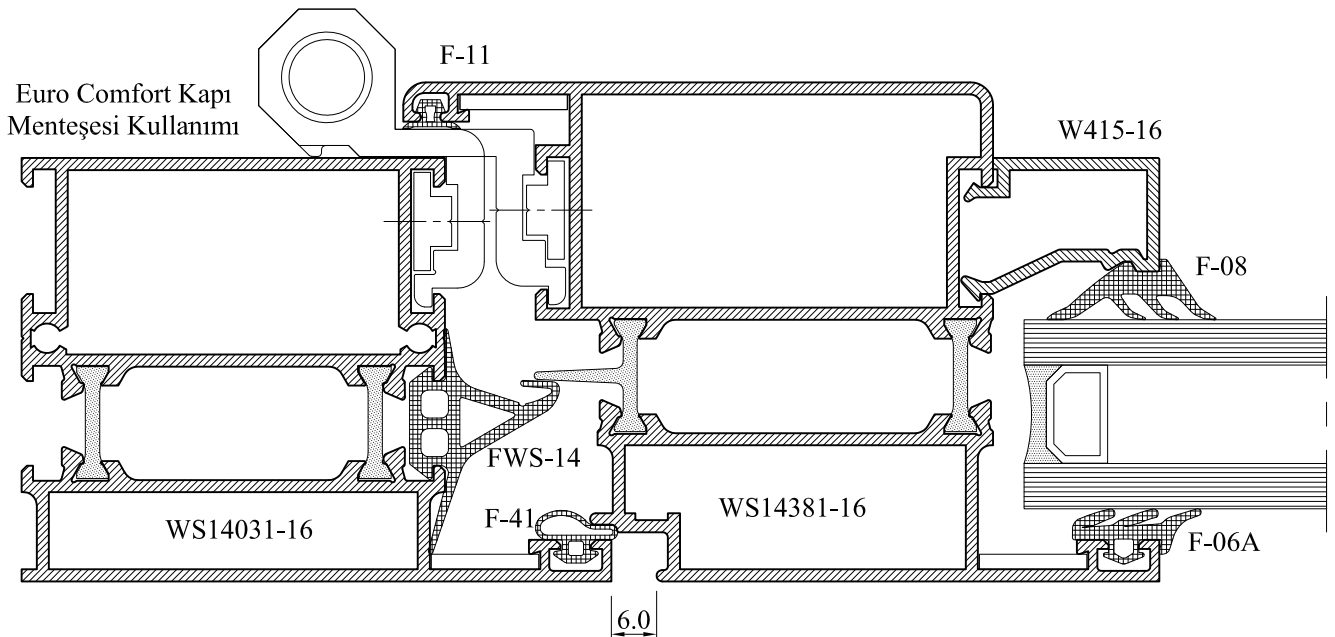
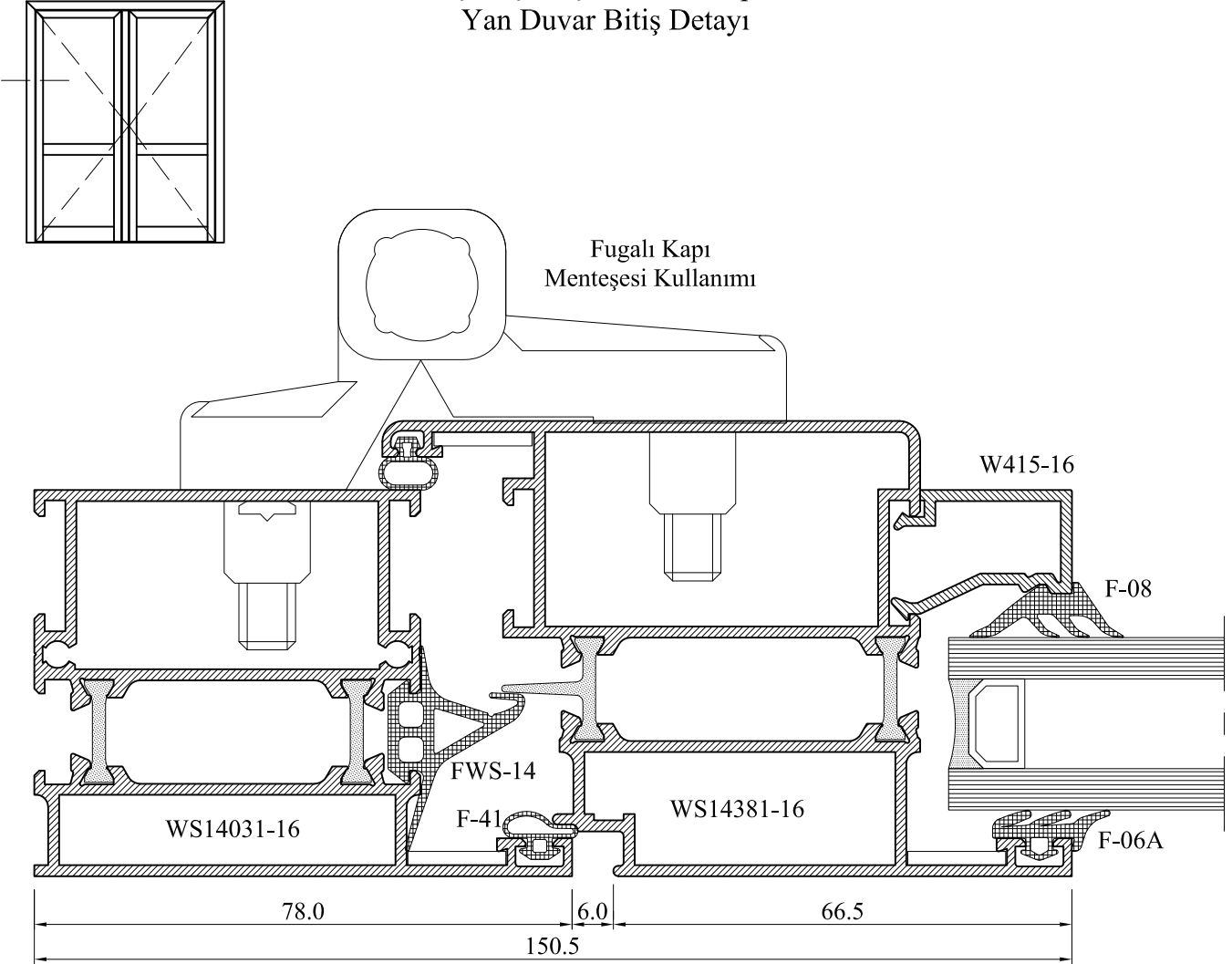
Pivot Açılım Adaptör Detayı



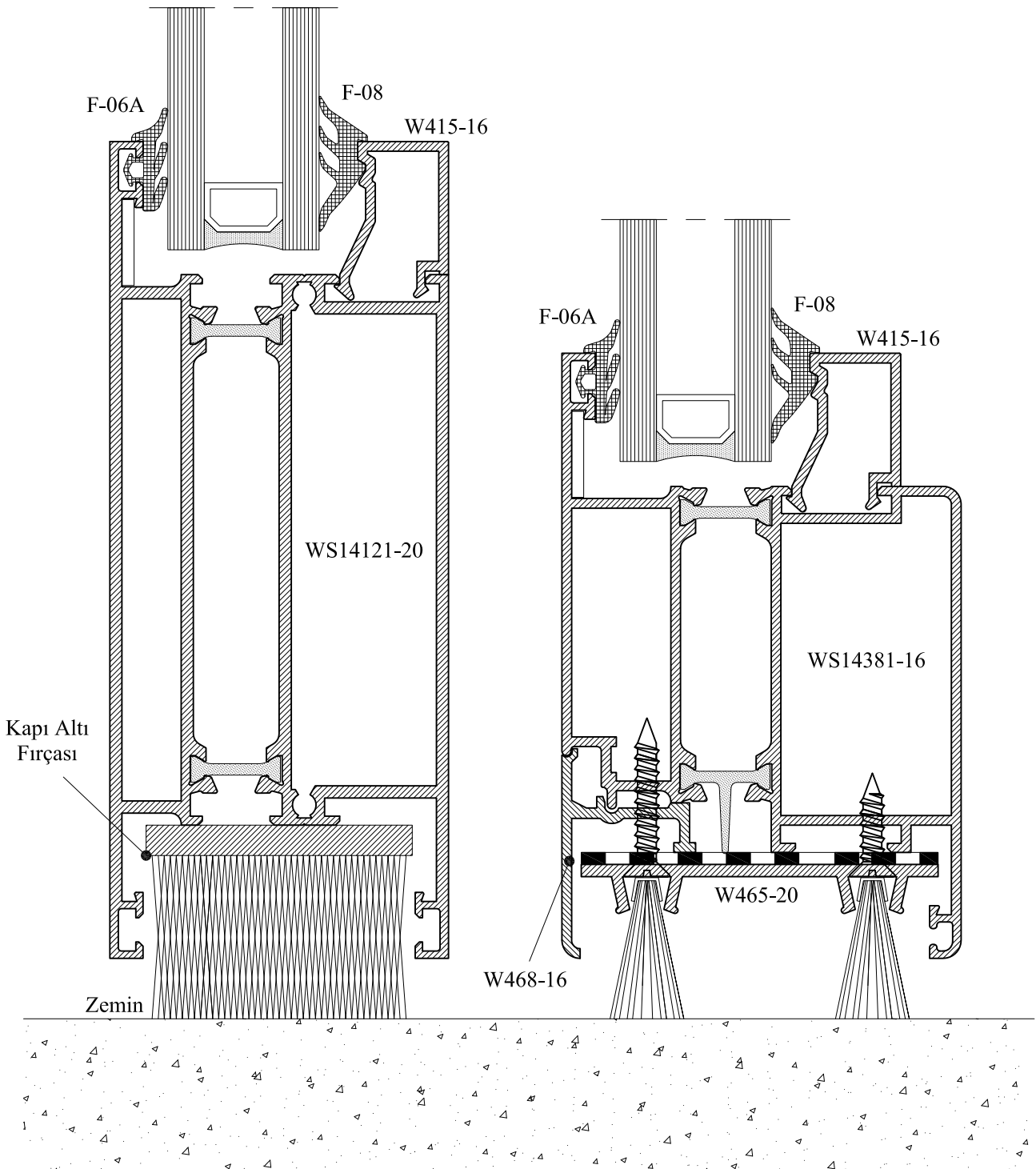
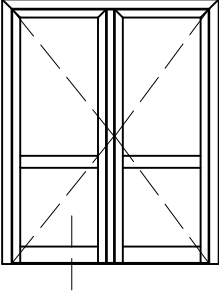
Pivot Açılım Menteşe Detayı

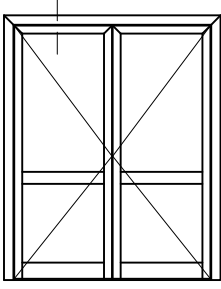


İçe Açılır Çift Kanat Kapı
Yan Duvar Bitiş Detayı

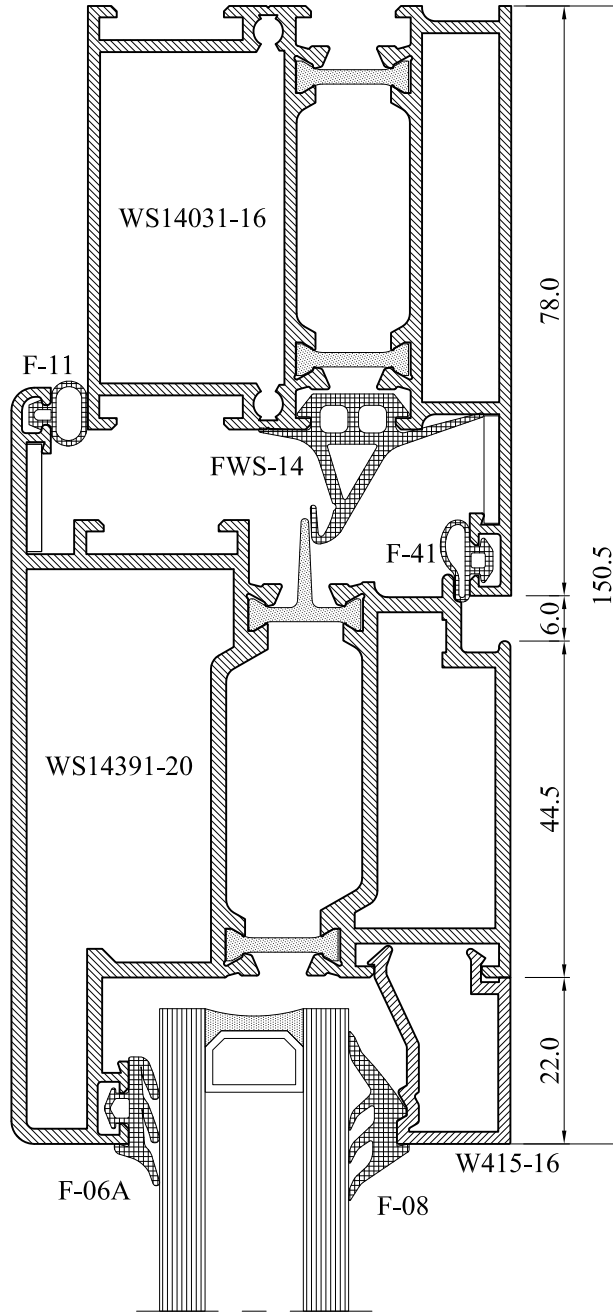


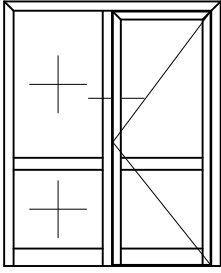
İçe Açılır Çift Kanat Kapı
Etek Detayı Alternatifleri





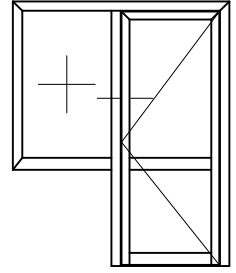
Dışa Açılır Çift Kanat Kapı
Üst Duvar Bitiş Detayı



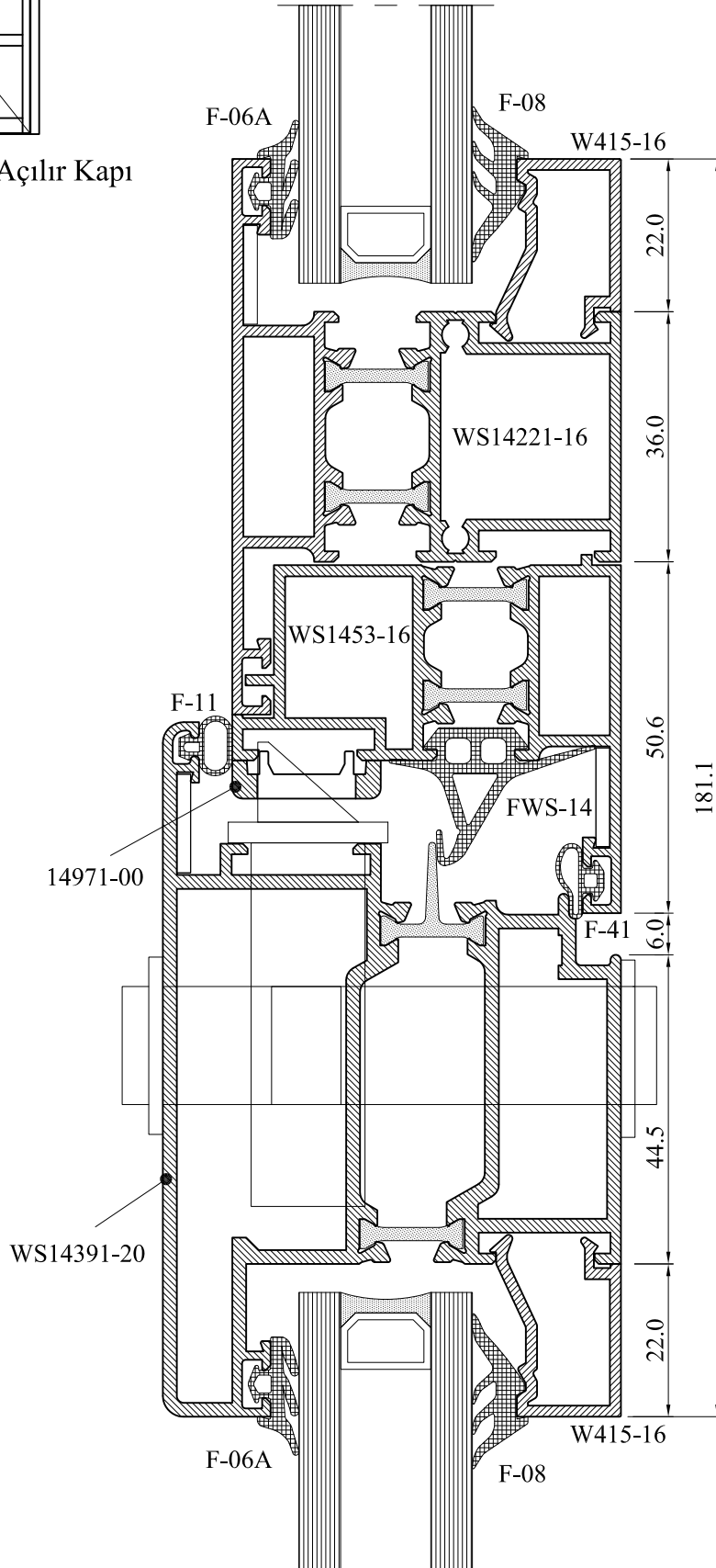


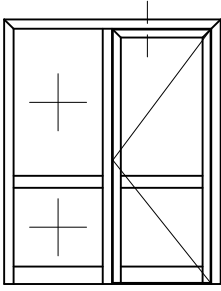
Sabitli Dışa Açılır Kapı

Sabit ve Açılır Kanat Birleşim Detayı



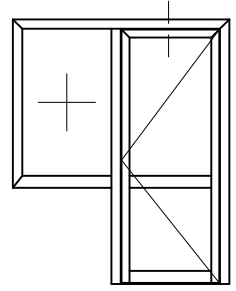
Dışa Açılır Topal Kapı



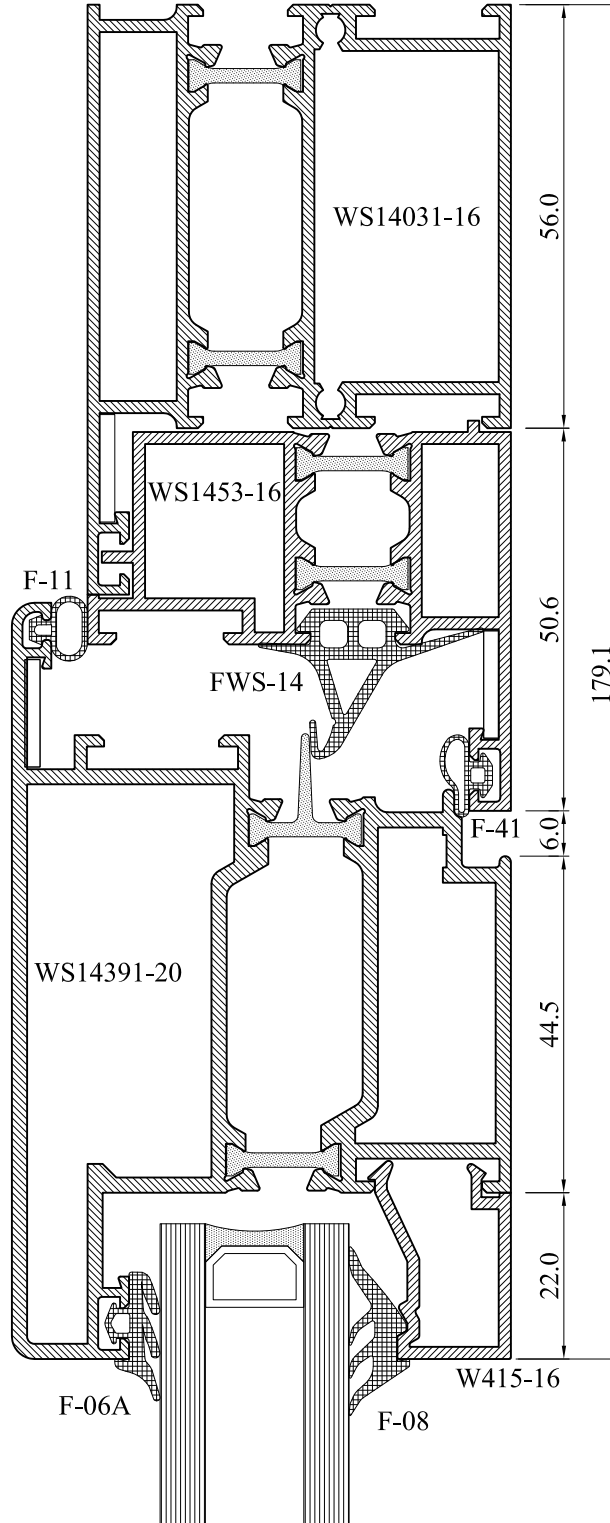


Sabitli Dışa Açılır Kapı

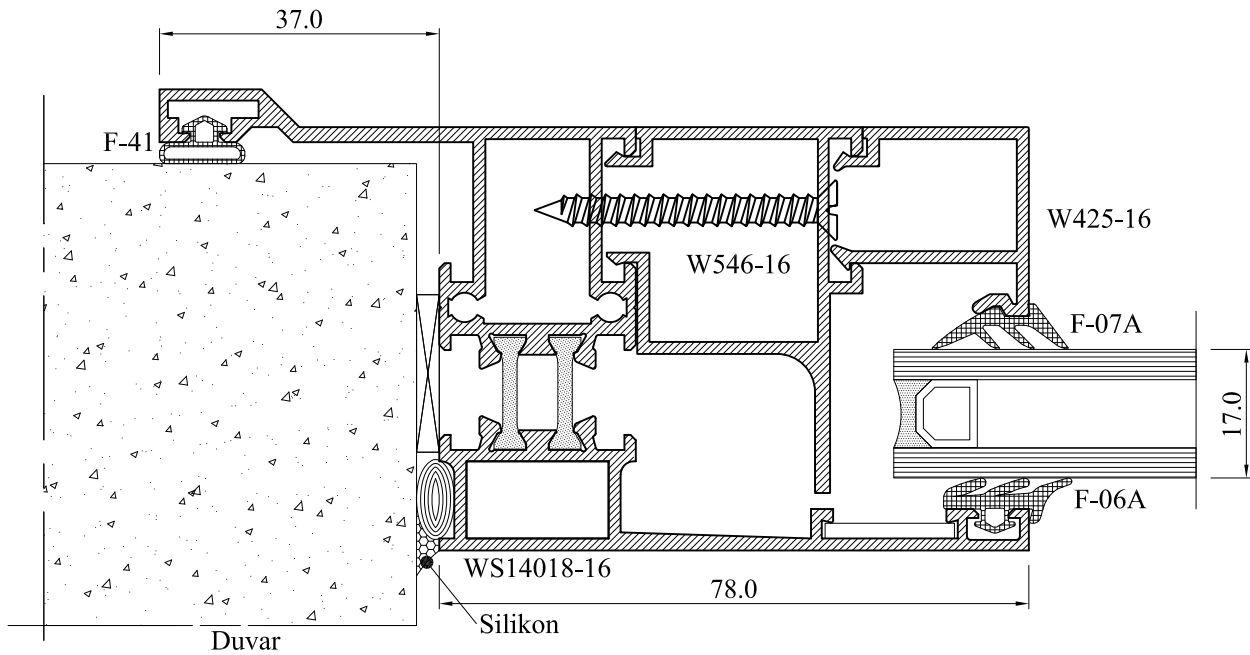
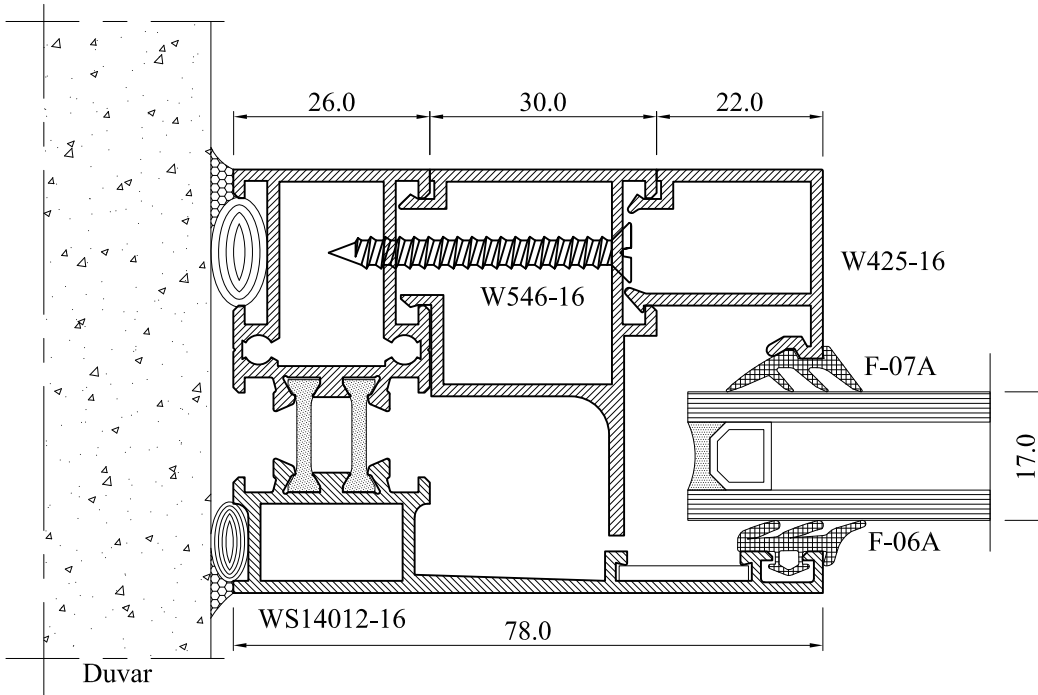
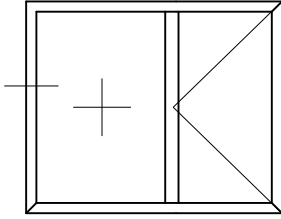
Sabit ve Açılır Kanat Birleşim Detayı

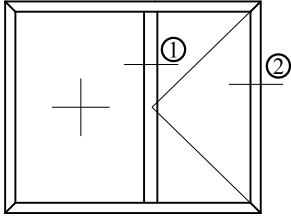


Dışa Açılır Topal Kapı

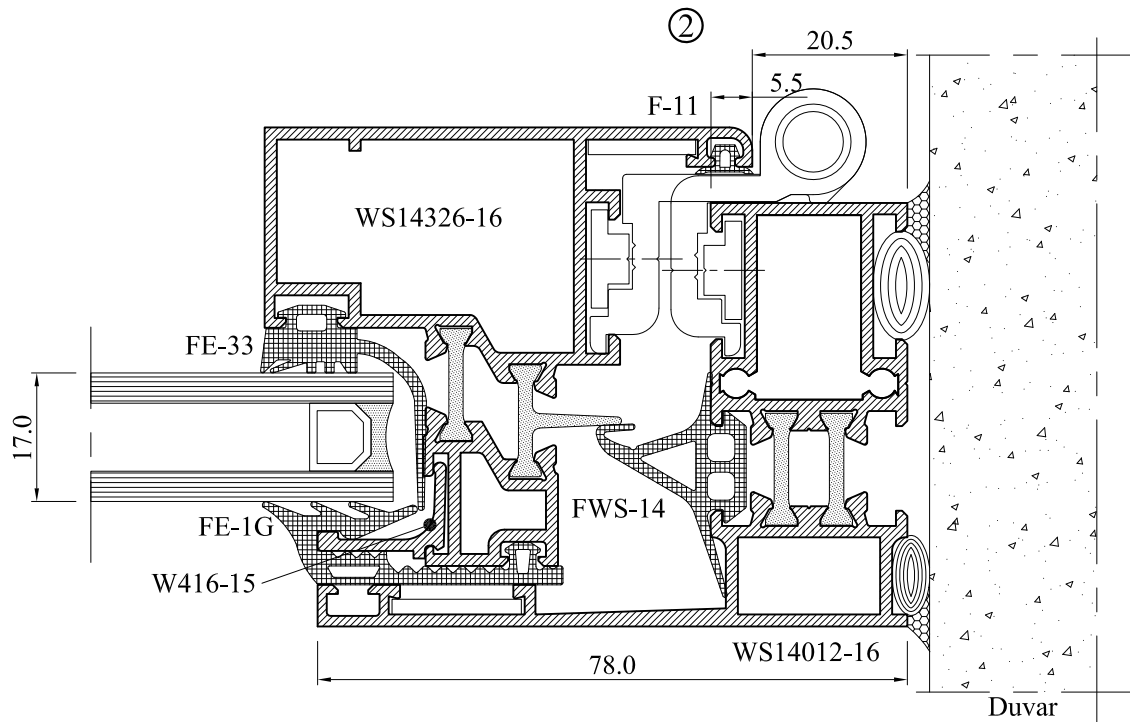
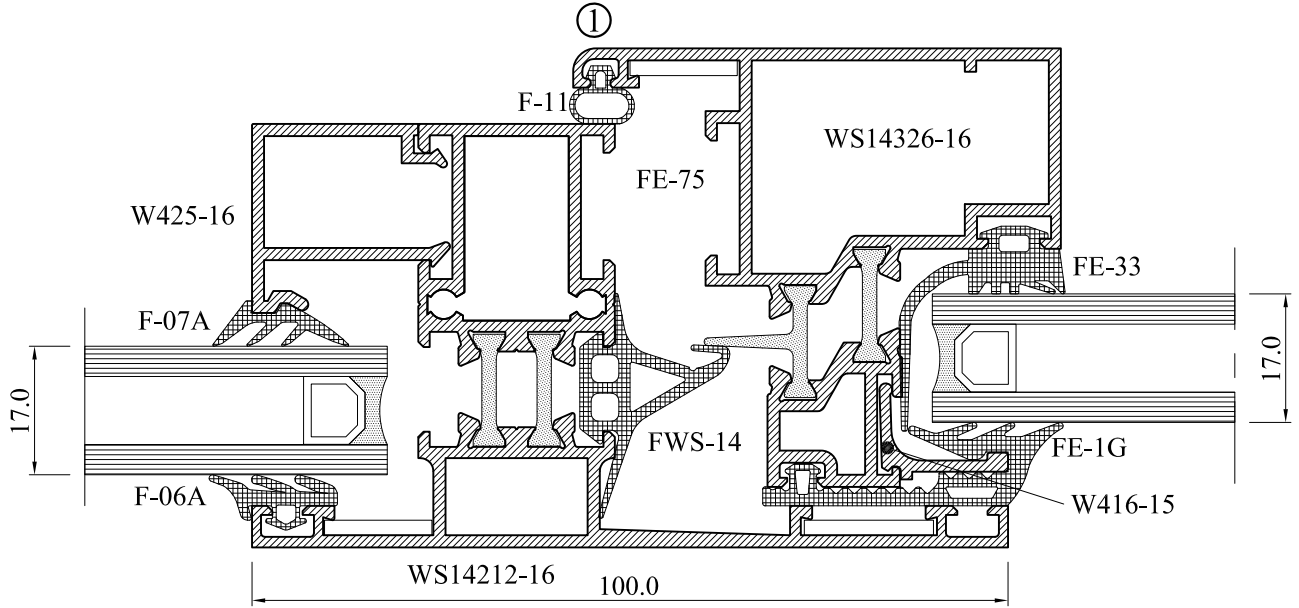


- 1)- Gizli Kanat Sabit - Yan Duvar Birleşim Detayı (Düz Kasa İle)
2)- Gizli Kanat Sabit - Yan Duvar Birleşim Detayı (Pervazlı Kasa İle)

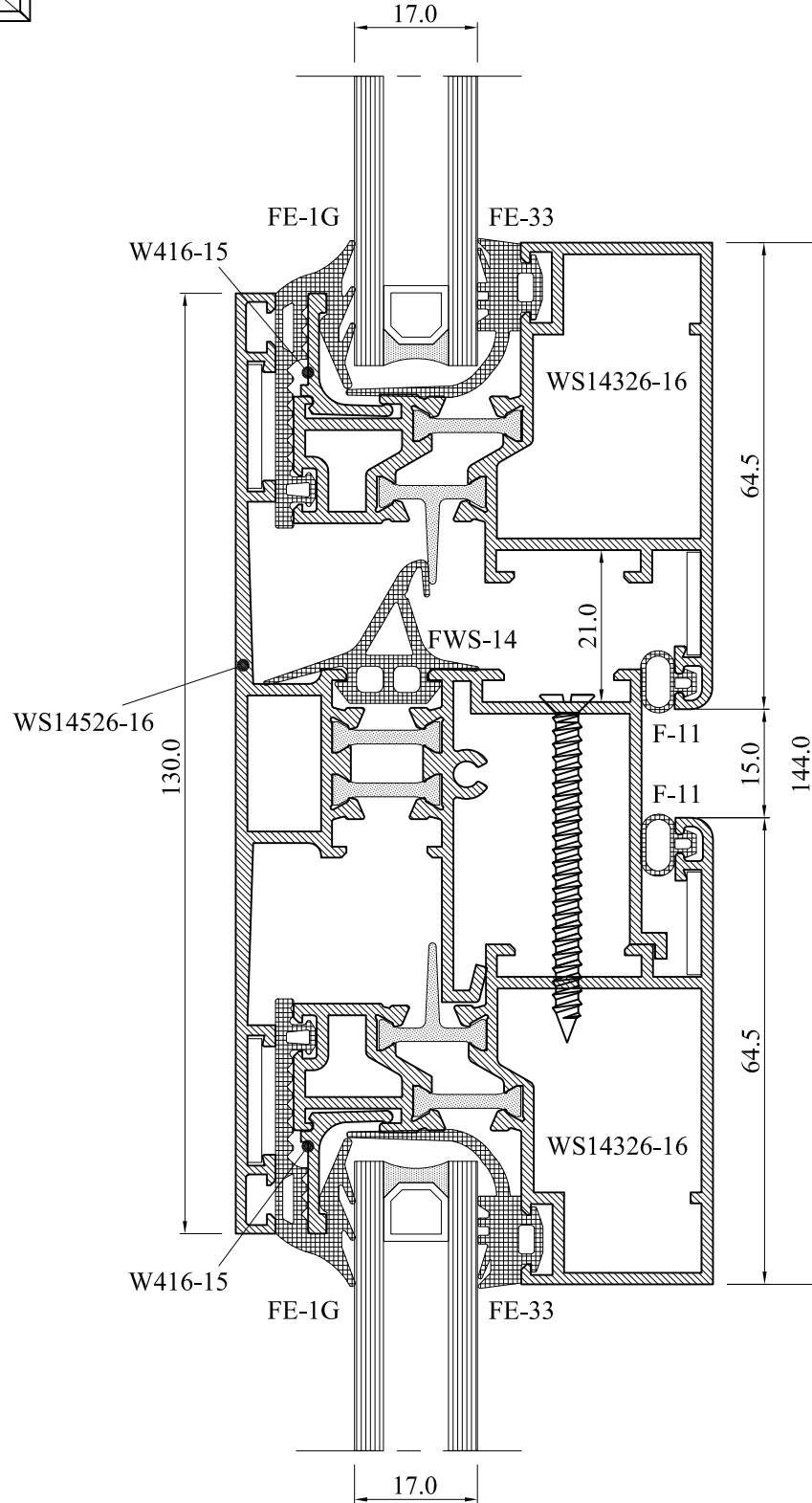
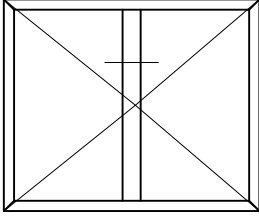




- 1)- Gizli Kanat Sabit ve Açılır Kanat Birleşim Detayı
2)- Gizli Kanat Açılır Kanat - Duvar Birleşim Detayı



Gizli Kanat Orta Kayıtsız Çift Kanat Pencere
Orta Birleşim Detayı



Köşe Dönüş Detayı

