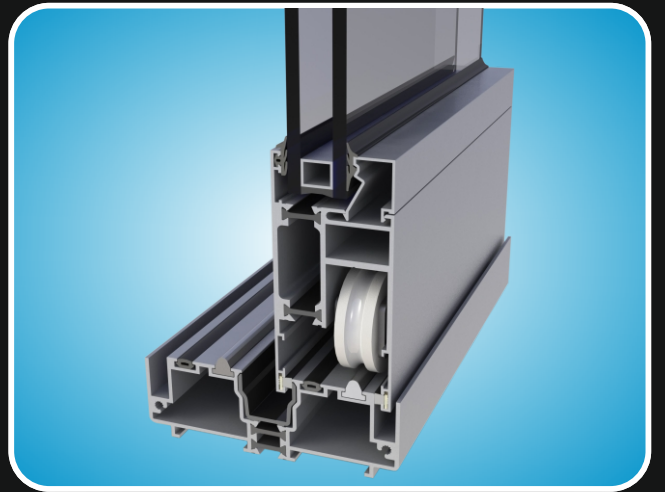
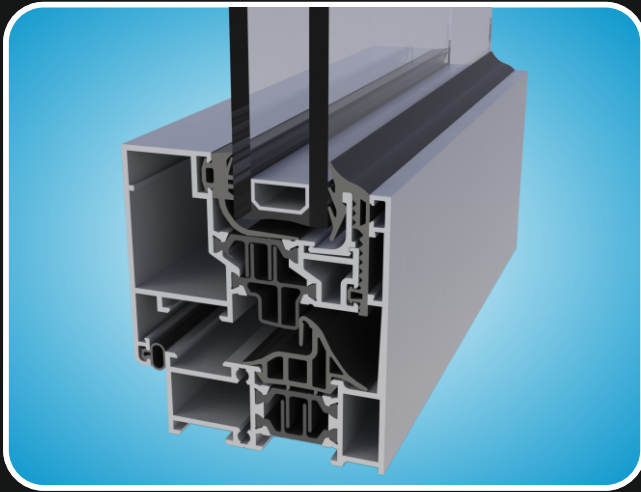
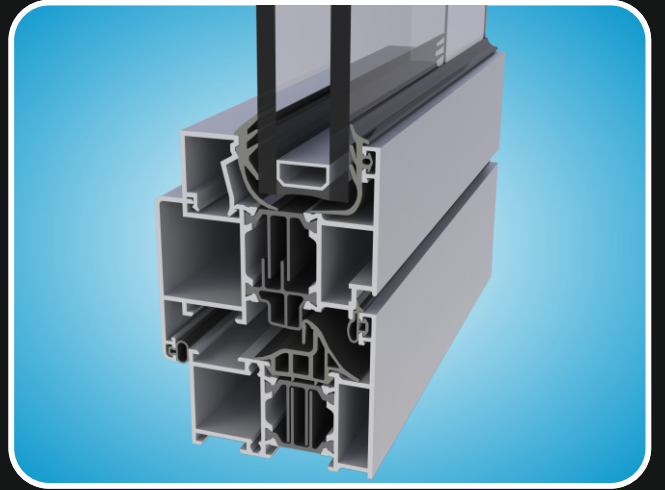




DOĞRAMA SİSTEMLERİ



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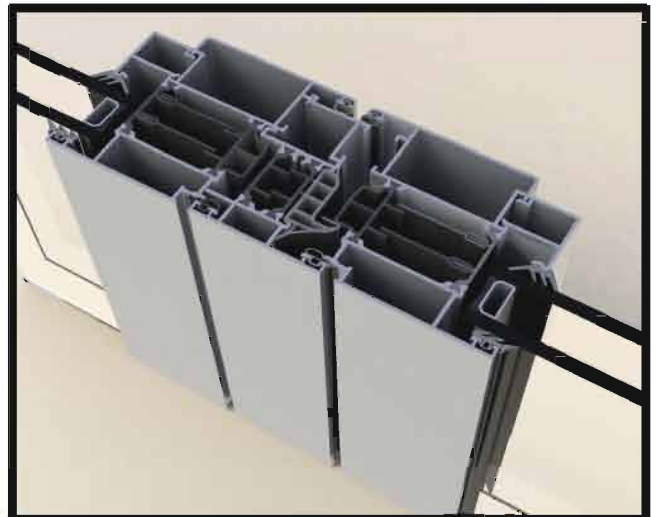
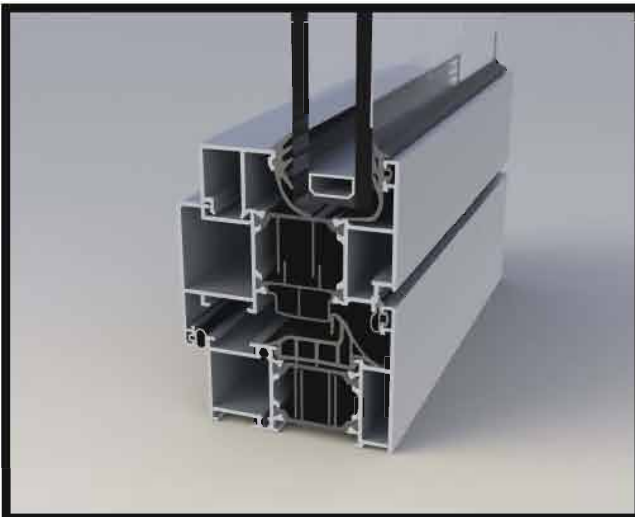
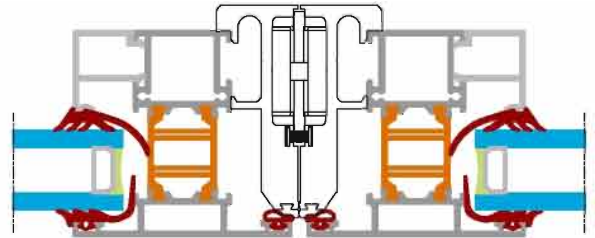
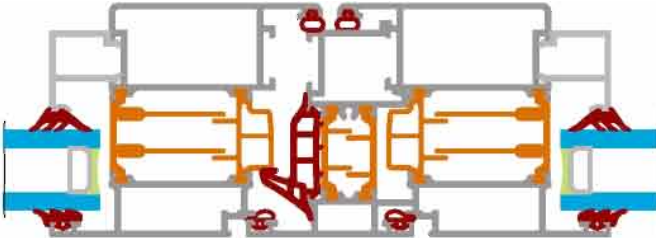
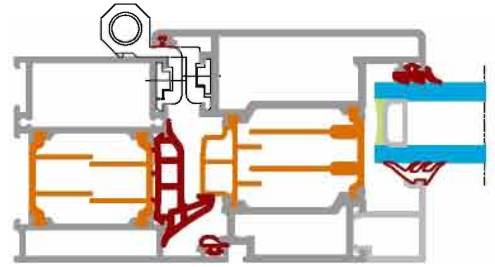
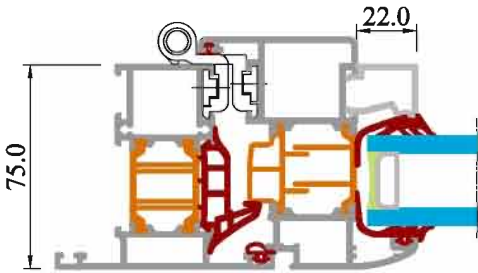


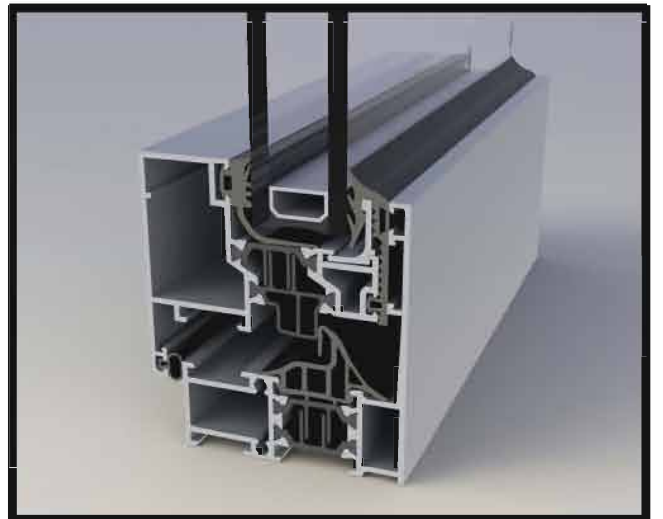
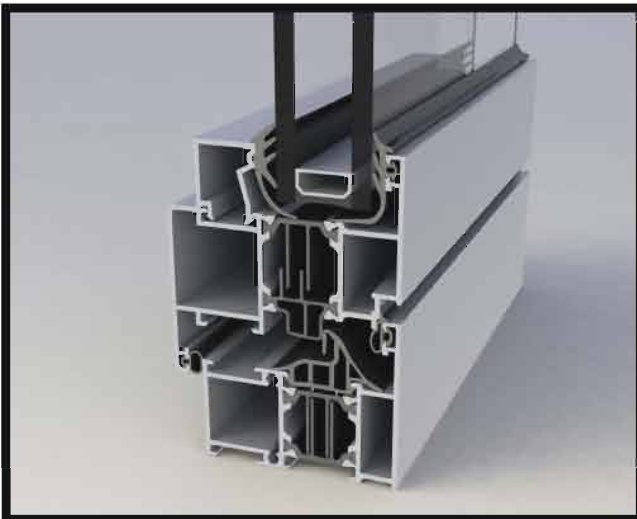
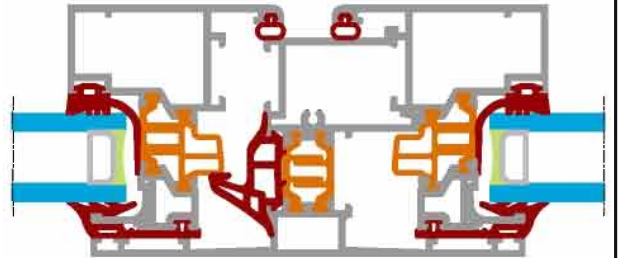
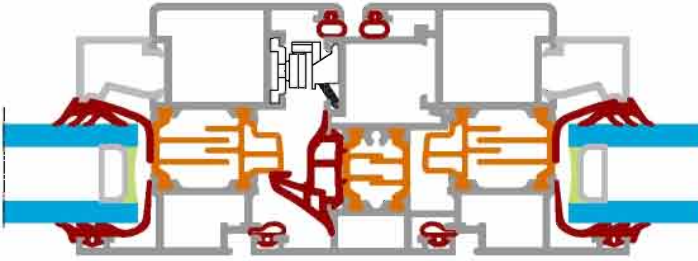
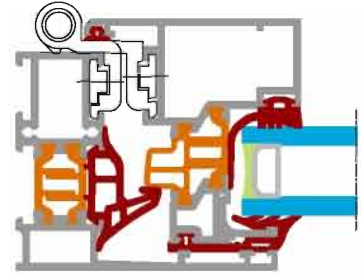
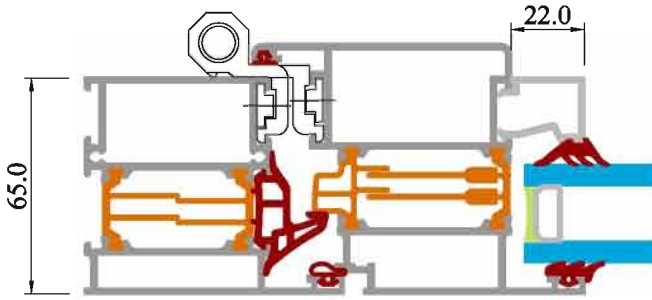
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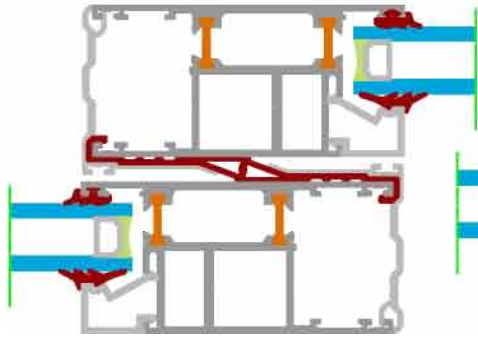
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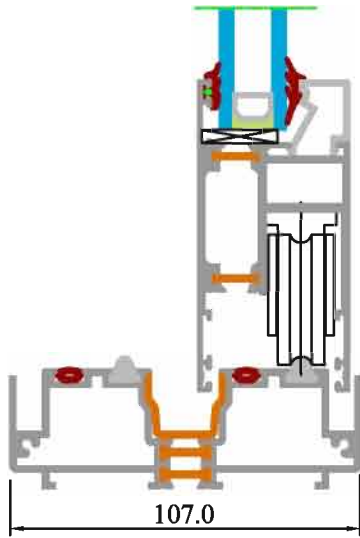
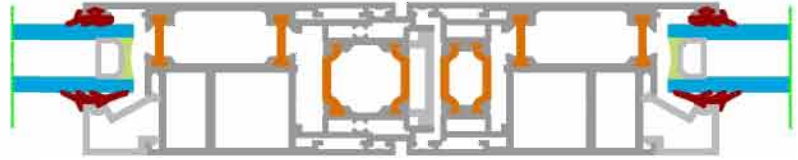
Current version of Euro Comfort catalog is available at www.eurocomfort.com.tr
Please don't hesitate to e-mail gencer@gencer.com.tr for any question.

W75**DOĞRAMA SİSTEMİ***Kasa / Kanat derinliği : 75mm / 85mm**Et kalınlığı : 1.6mm ve 2.0mm**Isı yalıtımlı : 34mm ($U_f=1.79, U_w=1.57 \text{ W/m}^2\text{K}$)**Euro normlarında aksesuar kanalı*

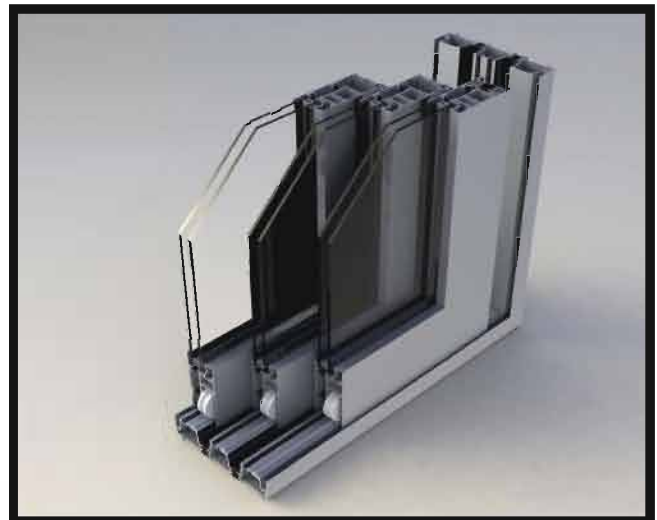
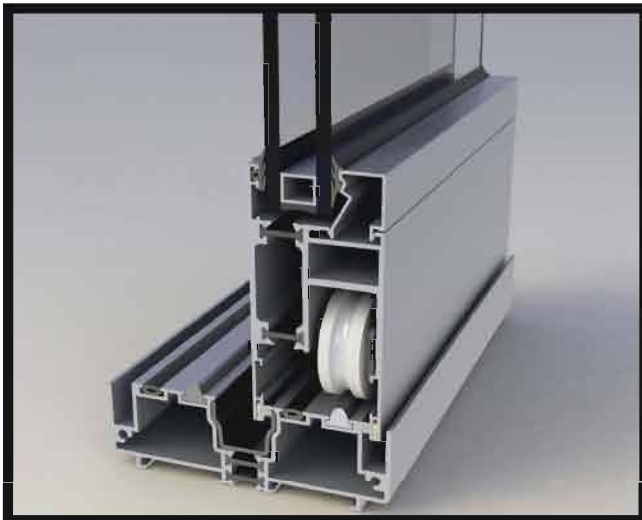
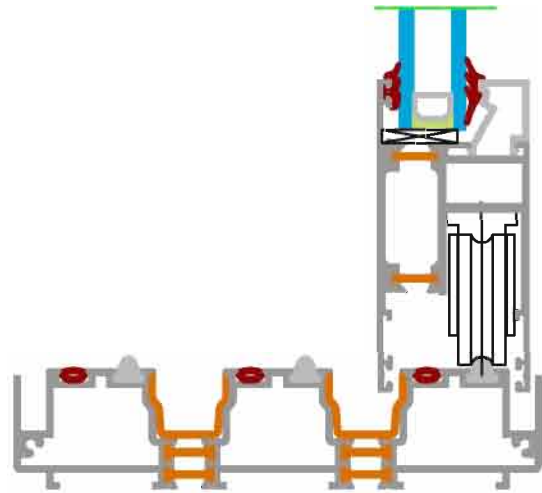
W65**DOĞRAMA SİSTEMİ***Kasa / Kanat derinliği : 65mm / 75mm**Et kalınlığı : 1.6mm ve 2.0mm**Isı yalıtımlı : 24mm ($U_f=2.016, U_w=1.66W/m^2K$)**Euro normlarında aksesuar kanalı*

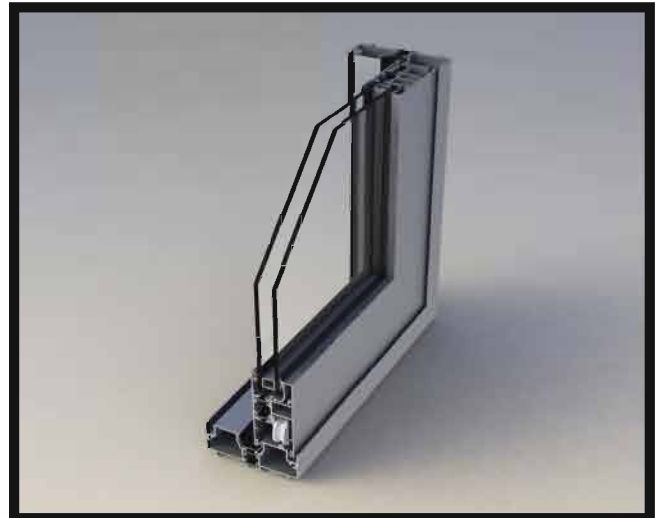
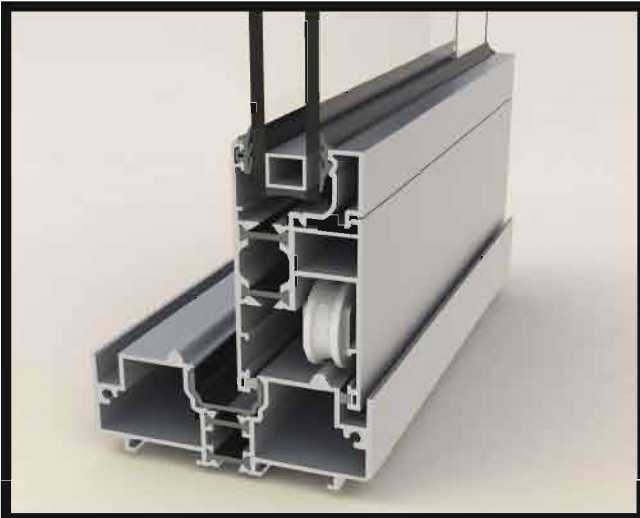
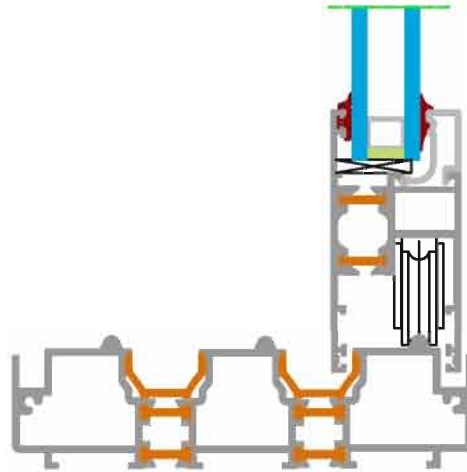
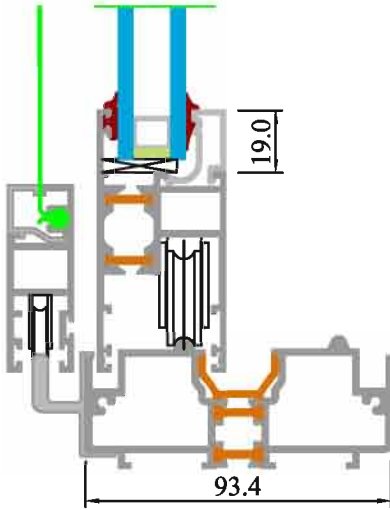
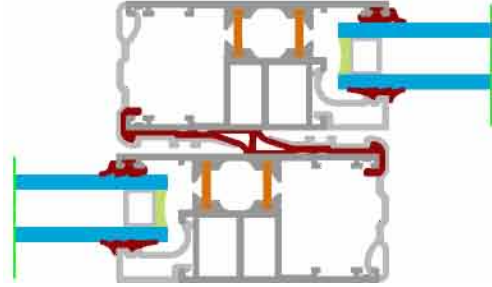
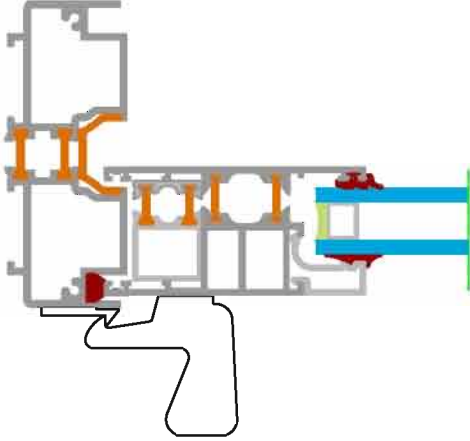
S32**GENİŞ SÜRME SERİ***Kasa / Kanat derinliği : 107mm / 95mm**Isı yalıtımlı : 15mm**Hebe schiebe uygulama imkanı**2 ve 3 raylı olarak dizayn edilebilir*

19.0



107.0

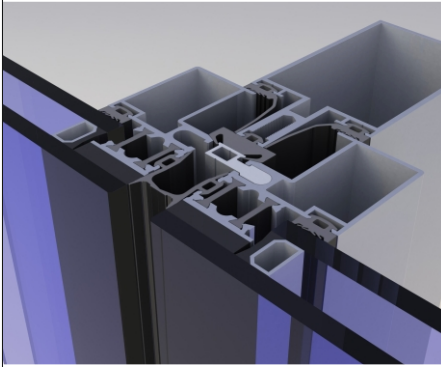


S32**DAR SÜRME SERİ***Kasa / Kanat derinliği : 93mm / 80mm**Isı yalıtımlı (pvc/ polyamid)**Hebe schiebe uygulama imkanı**2 ve 3 raylı olarak dizayn edilebilir*



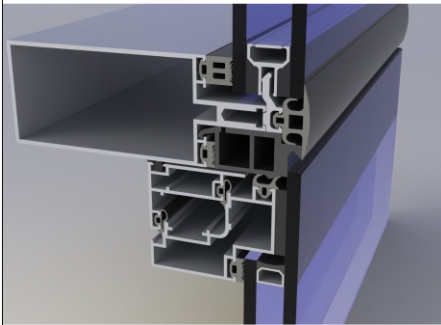
Detaylı **teknik** 
kataloğumuzu isteyiniz !

Sistemlerimiz FTI testlerinde
1050 PA hava geçirimsizlik
ve 1050 PA su **sızdırmazlık**
performansı göstermiştir.



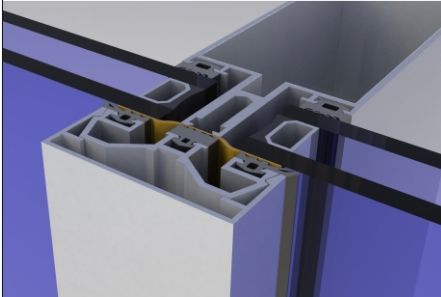
■ F50S - SİLİKON CEPHE

- Tamamen cam görünümlü giydirme cepheler için kullanılır
- Isı yalıtım ihtiyacına göre 4 farklı altsistem uygulanır;
F50S/I, F50S/I+, F50S/HI, F50S/HI+
- 6 farklı kaset seçeneği vardır



■ F50KS - KENETLİ SİLİKON CEPHE

- Kenetlenmeye olanak veren özel ısıcam çıtaları ile montaj
- Ek kaset profilleri kullanılmadığı için ekonomiktir
- Güvenlik çıtaları ile desteklenir
- Derz örtüsü için 3 farklı alternatif bulunur



■ F50K - KAPAKLI CEPHE

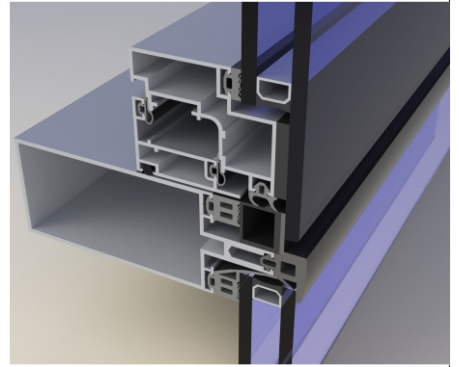
- Yatay ve düşeyde alüminyum çizgiler görülmek istendiğinde;
- Ekonomik yada yalıtımlı sistem seçenekleri bulunur
- Dışa açılan gizli kanat uygulaması ile havalandırılır
- Düz, açılı ve badem kapak seçenekleri bulunur
- Menteşeli doğrama açılımı yapılabilir

F50 CEPHE SİSTEMLERİ

50mm genişliğinde 24 farklı yatay ve düşey taşıyıcı profiller
Bindirmeli veya hemiyüz montaj için farklı yatay taşıyıcı profiller
Düşük ısı geçirim değerleri ve hava, su, rüzgar test performansları
PVC tamamlayıcı aksesuarlar, geniş yelpazede silikon ve EPDM fitiller

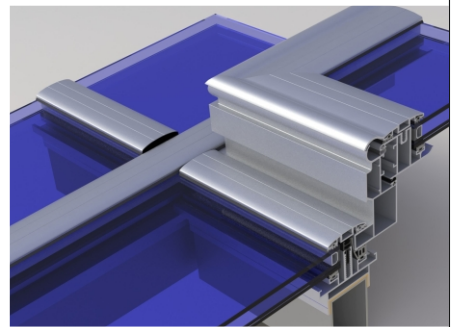
■ F50YK - YARI KAPAKLI CEPHE

- Sadece yatayda yada sadece düşeyde, paralel alüminyum çizgiler görülmek istendiğinde kullanılır
- Ekonomik yada yalıtımlı sistem seçenekleri bulunur
- Dışa açılan gizli kanat uygulaması ile havalandırılır
- Düz, açılı ve badem kapak seçenekleri bulunur.



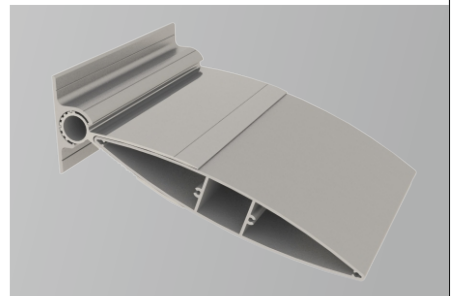
■ F50SKY - IŞIKLIK SİSTEMİ

- Geniş açıklıktaki çatı ışıklıklarında, doğal ışığın istendiği mekanlarda, estetik ve fonksiyonelliği ile tercih edilen güvenilir sistem
- Motorlu açılımlara uygun dizayn edilmiştir
- Geniş drenaj kanalları bulunur



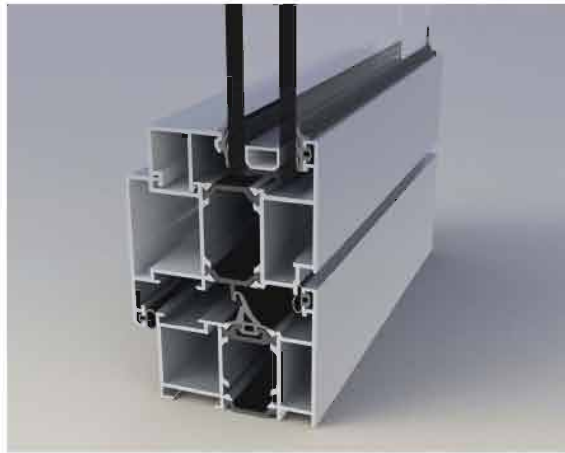
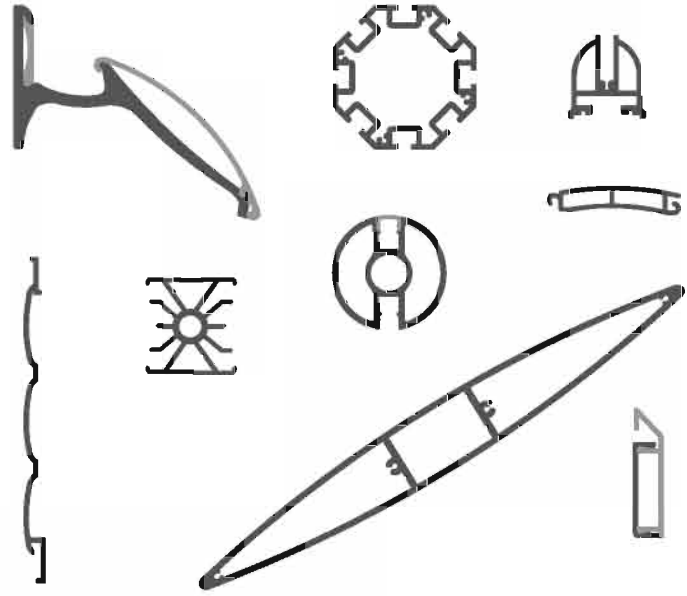
■ GÜNEŞ KIRICI SİSTEMİ

- Güneş ışığının etkilerini en aza indirirken özellikle giydirme cephelerde estetik bir görünüm sağlar
- İstediğiniz montaj tipine cevap verebilecek, ayarlı başlıklar ve farklı ölçülerde taşıyıcılar bulunur
- 30 cm'e kadar farklı boyutlarda çeşitlilik gösterir.





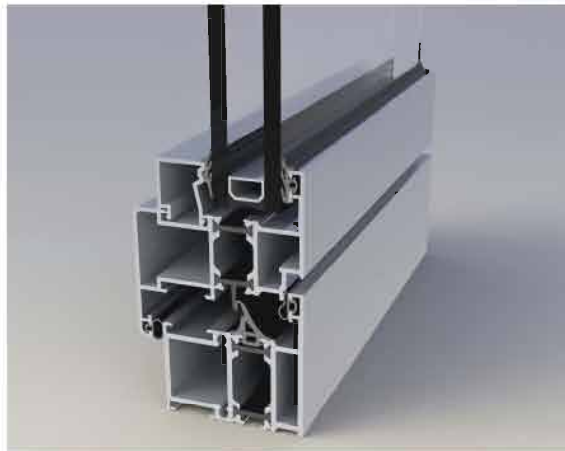
Yanda görülen Gençer Alüminyum - TEKNİK KATALOG 2010, Gençer Alüminyum'un geçmişten günümüze bir çok saygın projede kullanılan doğrama sistem serilerini ve diğer tüm profil serilerini içerir. Sayfa 8-9-10'da bu katalogta yer alan profil ve sistemlerimizin öngörünümüne yer verilmiştir.



GENÇER S65

PENCERE SİSTEMİ / WINDOW SYSTEM

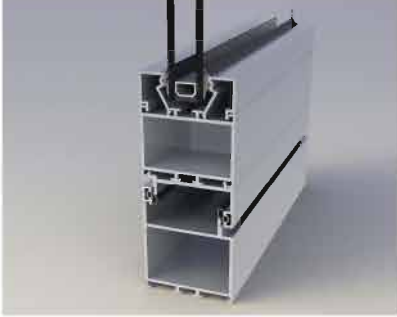
Kasa derinliği: 65mm
 Kanat derinliği: 75mm
 Et kalınlığı: 1.3mm, 1.6mm, 1.8mm, 2.0mm
 Isı yalıtımlı (PVC / polyamid): 22.0mm
 Cam boşluğu 12 - 49mm arasında



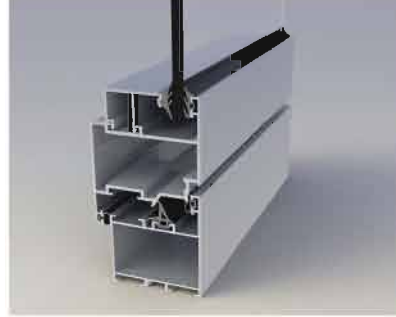
GENÇER S14

PENCERE SİSTEMİ / WINDOW SYSTEM

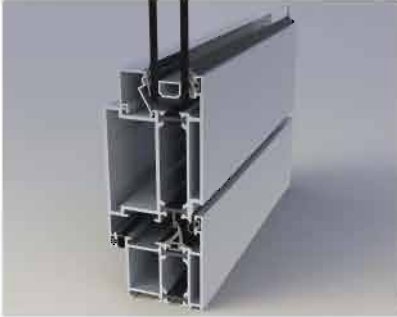
Kasa derinliği: 55mm
 Hemyüz kanat derinliği: 65mm
 Fugalı kanat derinliği: 58.5
 Et kalınlığı: 1.2mm, 1.6mm, 1.8mm, 2.0mm, 3.0mm
 Isı yalıtımlı (PVC / polyamid): 15.0mm
 Cam boşluğu 4 - 39mm arasında
 Gizli kanat seçeneği

BENÇER G55
 BALKON & VİTRİN SİSTEMİ
 BALCONY & SHOPWINDOW SYSTEM


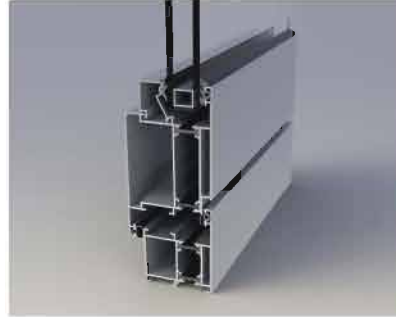
Kasa derinliği: 55mm
 Kanat derinliği: 55mm
 Et kalınlığı(mm): 1.8mm
 Cam boşluğu 4-35mm arasında
 Hemyüz menteşe uygulanabilir

BENÇER S12
 PENCERE SİSTEMİ / WINDOW SYSTEM


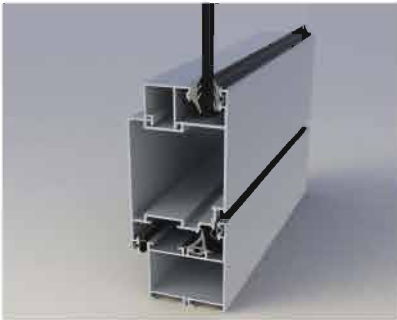
Kasa derinliği: 45mm
 Hem yüz kanat derinliği: 65mm
 Fugalı kanat derinliği: 58.5
 Et kalınlığı(mm): 1.2, 1.8, 2.0
 Cam boşluğu 4-39mm arasında
 G55 balkon & vitrin sistemi ile entegre çalışır.

BENÇER S45
 PENCERE SİSTEMİ / WINDOW SYSTEM


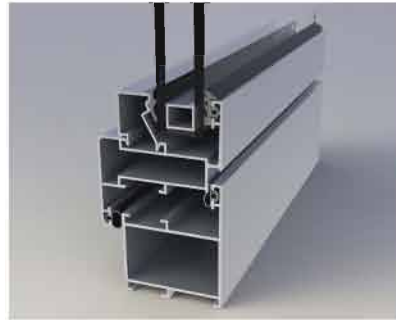
Ekonomik Sistem
 Kasa derinliği: 45mm
 Kanat derinliği: 55mm
 Et kalınlığı(mm): 1.2, 1.6
 Isı yalıtımlı : 15mm
 Cam boşluğu 4-30mm arasında

BENÇER S14/45
 PENCERE SİSTEMİ / WINDOW SYSTEM


Ekonomik Sistem
 Kasa derinliği: 45mm
 Kanat derinliği: 55mm
 Et kalınlığı(mm): 1.2, 1.6
 Isı yalıtımlı : 15mm

BENÇER S44
 PENCERE SİSTEMİ / WINDOW SYSTEM


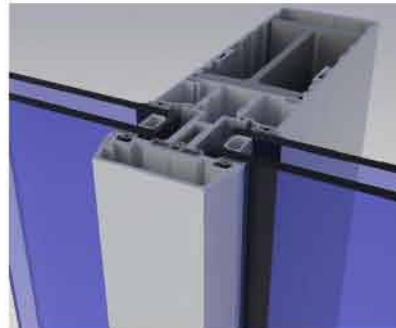
Ekonomik Sistem
 Kasa derinliği: 45mm
 Kanat derinliği: 55mm
 Et kalınlığı(mm): 1.2, 1.6

BENÇER S12/45
 PENCERE SİSTEMİ / WINDOW SYSTEM


Ekonomik Sistem
 Kasa derinliği: 45mm
 Kanat derinliği: 55mm
 Et kalınlığı(mm): 1.2, 1.6

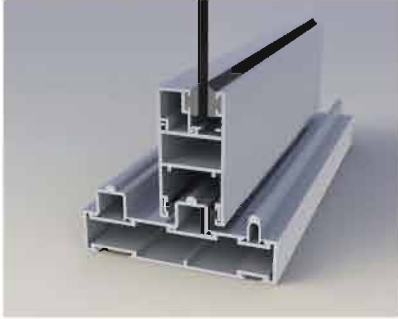
BENÇER S35
 VİTRİN SERİSİ / SHOPWINDOW SYSTEM


Oval Seri
 Kasa derinliği: 66mm
 Kanat derinliği: 66mm
 Et kalınlığı(mm): 1.4, 1.6

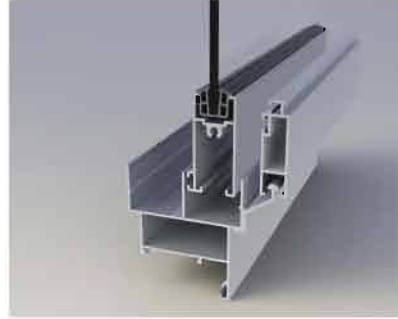
BENÇER S23
 CEPHE SİSTEMİ / FACADE SYSTEM


Çelik Takviyeli Sistem
 Taşıyıcı genişliği: 62mm

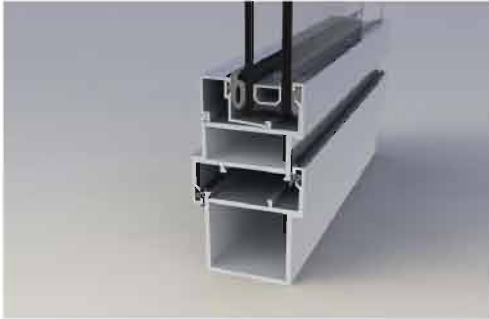
TUBA SÜRME SERİ S31
NON-INSULATED SLIDING SERIE



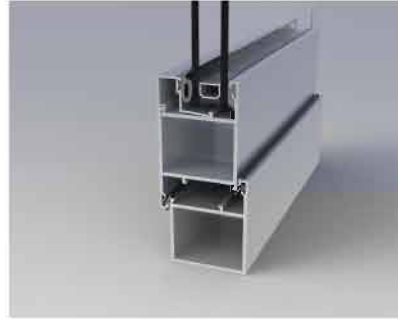
İZMİR SÜRME SERİ S33
NON-INSULATED SLIDING SERIE



FUGALI KLASİK SERİ S15
ALDOX SERIE



DÜZ KLASİK SERİ S17
ALDOX SERIE



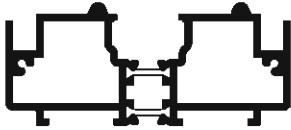
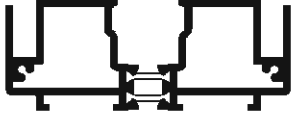
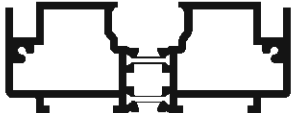
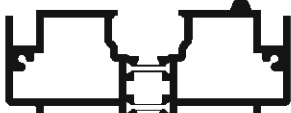
STANDART PROFİLLER / STANDARD PROFILES

- | | | | |
|----------------------|---------------------|---------------|------------------------------------|
| - Lamalar | - Flat Profiles | - Borular | - Round Tubes |
| - Kare Çubuklar | - Square Bars | - Köşebentler | - Angle Profiles with equal legs |
| - Yuvarlak Çubuklar | - Round Bars | - L Profiller | - Angle Profiles with unequal legs |
| - Dikdörtgen Kutular | - Rectangular Tubes | - U Profiller | - Channel Profiles |
| - Kare Kutular | - Square Tubes | - T Profiller | - "T" Profile |

ÇEŞİTLİ PROFİL SERİLERİ / VARIOUS PROFILE SERIES

- | | | | |
|---------------------------|--------------------------|-----------------------------|----------------------------|
| - Küpeşteler | - Handrail Profiles | - Süpürgelik Profilleri | - Baseboard Profiles |
| - Cam Balkon Sistemi | - Glass Balcony System | - Sigma Profilleri | - Sigma Profiles |
| - Panjur Profilleri | - Shutter Profiles | - Denizlik Profilleri | - Fensterbank Profiles |
| - Kapı Söve Profilleri | - Doorjamb Profiles | - Damlalık Profilleri | - Water Cap Profiles |
| - Güneş Kırıcı Profilleri | - Sun Screen Profiles | - Kompozit Panel Profilleri | - Composite Panel Profiles |
| - Kablo Kanal Profilleri | - Cable Trays | - Dilatasyon Profilleri | - Dilatation Profiles |
| - Menfez Profilleri | - Ventilation Profiles | - Cephe Kaplama Profilleri | - Facade Cladding Profiles |
| - Bölme Profilleri | - Office Partition Walls | - Sineklik Profilleri | - Flyswatter Profiles |
| - Sigma Profilleri | - Sigma Profiles | - Bant Kol Profilleri | - Handle Profiles |
| - Vitrin Profilleri | - Shopwindow Profiles | - Reklam Profilleri | - Picture Frames |
| - Lambriler | - Paneling Profiles | - Mobilya Profilleri | - Furnishing Profiles |
| - Kapatma Çıtalari | - Wall Connection Beads | - Isıtma Profilleri | - Heating Profiles |
| - Pervaz Profilleri | - Rug-End Profiles | - Soğutma Profilleri | - Cooler Profiles |

S32 Dar Sürme Profil Endeksi

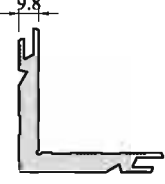
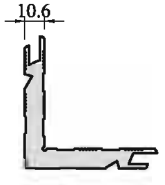
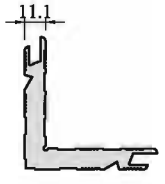
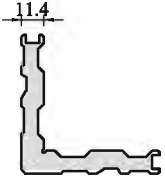
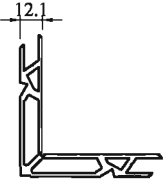
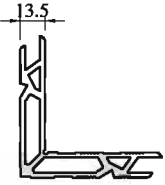
Açıklamalar	Profil Resmi	Profil Kodu	Ağırlık Kg/m	Sayfa No
Dar Sürme Alt Kasa		32011-16	1.824 Kg/m	160
Dar Sürme Üst Kasa		32012-16	1.770 Kg/m	160
Dar Sürme Yan Kasa		32013-16	1.726 Kg/m	160
Dar Sürme Alt Kasa		32014-16	1.775 Kg/m	160
Dar Sürme 3'lü Alt Kasa		32021-16	2.692 Kg/m	161
Dar Sürme 3'lü Üst ve Yan Kasa		32022-16	2.575 Kg/m	161
Dar Sürme Kanat (Rulman Yuvalı)		32311-16	1.269 Kg/m	162
Dar Sürme Kanat (Rulman Uygulaması Kertmeli)		32312-16	1.332 Kg/m	162
Dar Sürme Kanat Alın Kapatma (kenet) Profili		32511-12	0.358 Kg/m	162
Dar Sürme Kilit Adaptör		32531-12	0.530Kg/m	162
Dar Sürme Kanat Birleşim Adaptör		32532-12	0.999 Kg/m	162

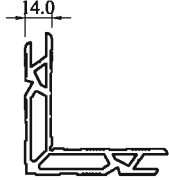
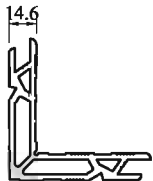
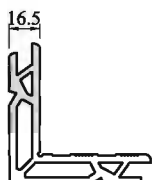
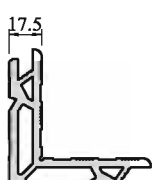
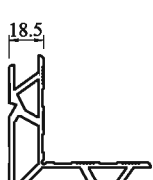
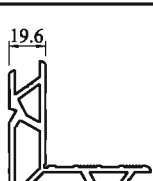
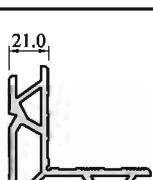
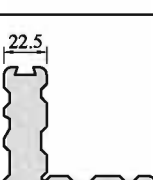
S32 Dar Sürme Profil Endeksi

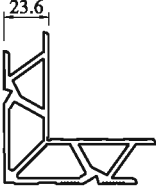
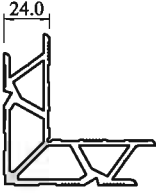
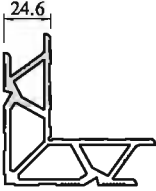
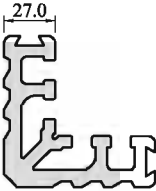
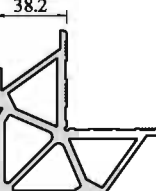
[illegible]

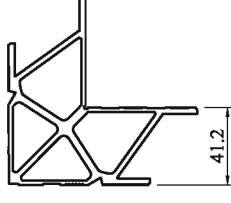
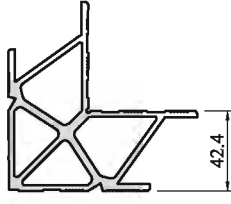
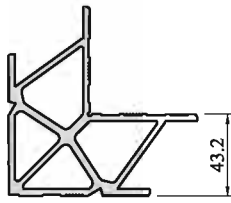
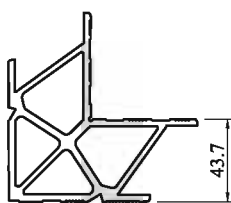
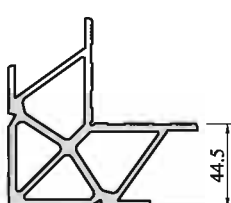
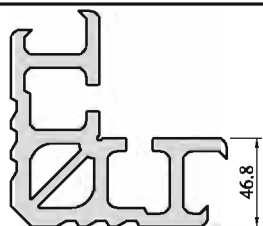
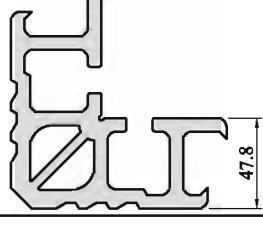
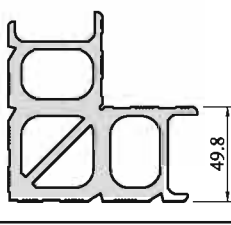
Köşe Takozları
Pres Corners

W65 sisteminin profilleri ile W75 sisteminin 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 ile de çalışmaktadır.

3D Resmi	2D Resmi	Özellikleri	Kullanıldığı Profiller
		T851-098 9.8 mm 2.759 Kg/m	32312-16 / 2
		T851-106 10.6 mm 2.953 Kg/m	3213-20
		T851-111 11.1 mm 3.074 Kg/m	3209-16 3210-16 3211-16
		T851-114 11.4 mm 3.111 Kg/m	32311-16 32312-16 / 1
		T851-121 12.1 mm 1.846 Kg/m	W75011-20-ÜST W75211-20-ÜST 32142-16 32143-16 / 1
		T851-135 13.5 mm 2.256 Kg/m	W75011-16-ÜST W65012-16-ÜST W75015-16-ÜST W65212-16-ÜST W75017-16-ÜST W65018-16-ÜST W75211-16-ÜST W65016-16-ÜST W65213-16-ÜST

3D Resmi	2D Resmi	Özellikleri	Kullanıldığı Profiller
		T851-140 14.0 mm 2.432 Kg/m	W75351-20-ALT
		T851-146 14.6 mm 2.633 Kg/m	W75351-16-ALT
		T851-165 16.5 mm 3.261 Kg/m	W75351-20-ÜST
		T851-175 17.5 mm 3.576 Kg/m	W75011-20-ALT W75211-20-ALT W75351-16-ÜST W65326-16-ÜST
		T851-185 18.5 mm 2.512 Kg/m	W75011-16-ALT W65012-16-ALT W75015-16-ALT W65212-16-ALT W75017-16-ALT W65016-16-ALT W75211-16-ALT W65018-16-ALT W65213-16-ALT
		T851-196 19.6 mm 2.859 Kg/m	W7553-16-ÜST
		T851-210 21.0 mm 3.308 Kg/m	W7551-16
		T85-225 22.5 mm 7.242 Kg/m	W75021-20-ÜST W75221-20-ÜST W7553-16-ALT 32143-16/2

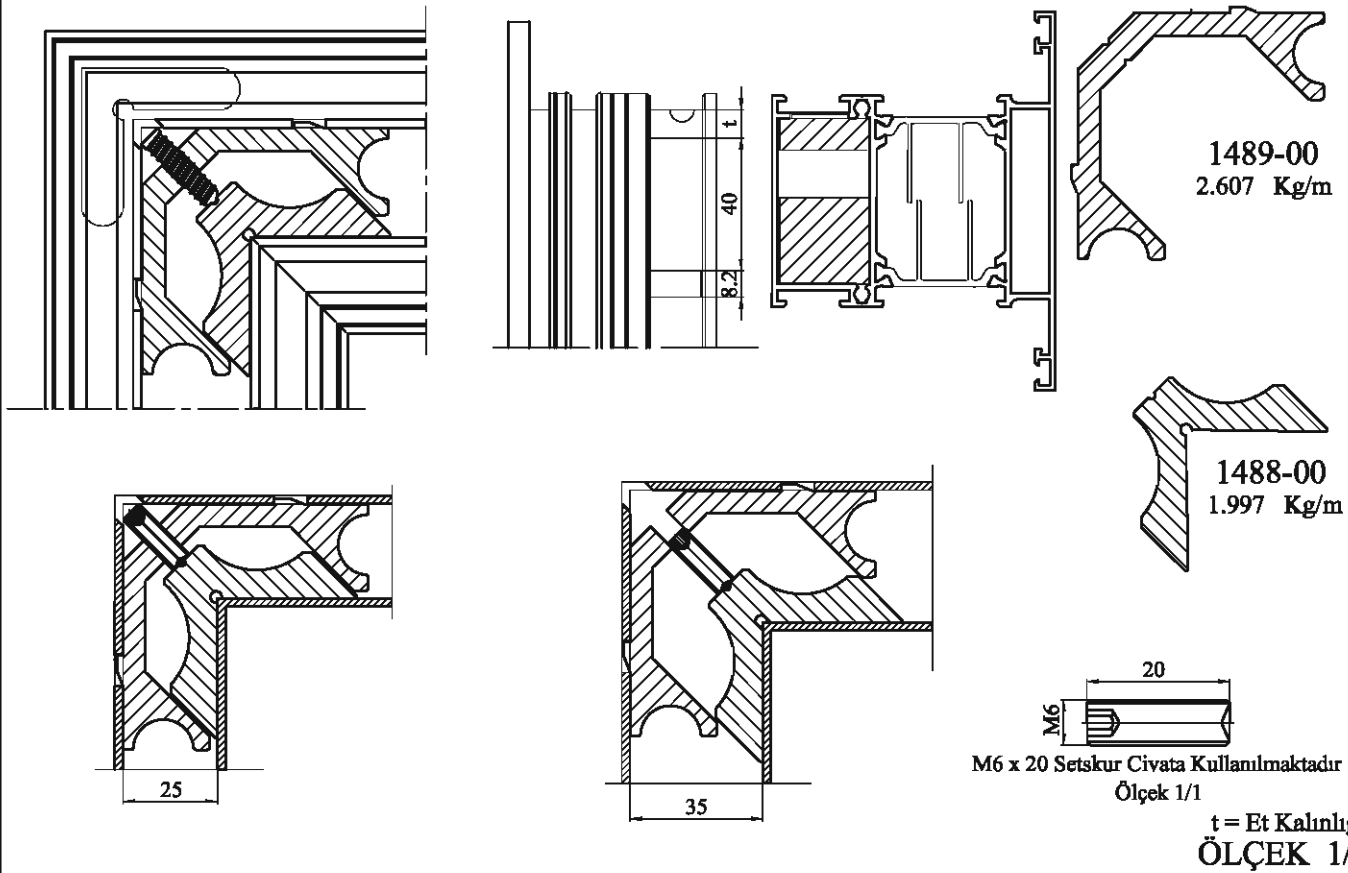
3D Resmi	2D Resmi	Özellikleri	Kullanıldığı Profiller
		T851-236 23.6 mm 2.897 Kg/m	W75021-16-ÜST W75221-16-ÜST
		T851-240 24.0 mm 2.948 Kg/m	W75361-20-ALT W65223-16-ALT 32111-16 32112-16 32121-16 32131-16 32132-16
		T851-246 24.6 mm 3.140 Kg/m	W75361-16-ALT W75363-16-ALT
		T851-270 27.0 mm 5.513 Kg/m	W75021-20-ALT 32012-16 W75221-20-ALT 32013-16 W75361-20-ÜST 32014-16 32011-16 32021-16 32022-16
		T851-280 28.0 mm 3.025 Kg/m	W75361-16-ÜST W75363-16-ÜST
		T851-286 28.6 mm 3.217 Kg/m	W75021-16-ALT W75221-16-ALT
		T851-334 33.4 mm 3.423 Kg/m	W65223-16-ÜST
		T851-382 38.2 mm 4.758 Kg/m	W65223-16-ALT

3D Resmi	2D Resmi	Özellikleri	Kullanıldığı Profiller
		T851-412 41.2 mm 3.863 Kg/m	W75391-20-ALT
		T851-424 42.4 mm 4.158 Kg/m	W75031-20-ÜST W75231-20-ÜST
		T851-432 43.2 mm 4.354 Kg/m	W75031-16-ÜST W75231-16-ÜST
		T851-437 43.7 mm 4.480 Kg/m	W75381-20-ALT
		T851-445 44.5 mm 4.677 Kg/m	W75381-16-ALT
		T85-468 46.8 mm 9.748 Kg/m	W75381-20-ÜST
		T85-478 47.8 mm 9.807 Kg/m	W75031-16-ALT W75031-20-ALT W75231-16-ALT W75231-20-ÜST W75381-16-ÜST
		T85-498 49.8 mm 8.230 Kg/m	W75391-20-ÜST

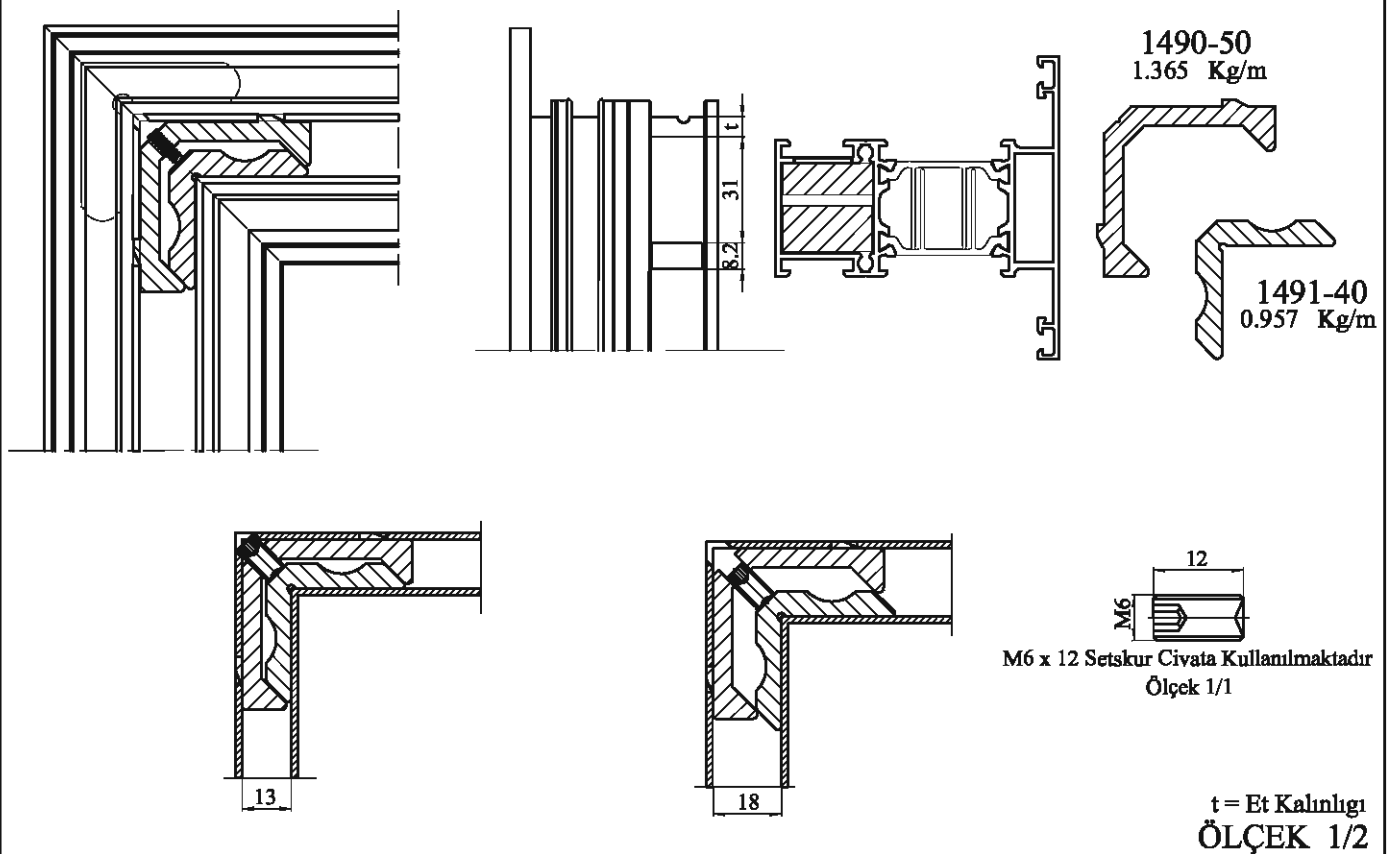
PROFİLLER ve KULLANILAN TAKOZLAR LİSTESİ

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)
3211-16	-	T851-111 / 22.1	W65021-16	A	T851-286 / 9.7	W75011-16	A	T851-185 / 9.7
3213-20	-	T851-106 / 26.5	W65021-16	Ü	T851-236 / 23.9	W75011-16	Ü	T851-135 / 23.9
3209-16 (1)	-	T851-111 / 42.2	W65021-20	A	T85-270 / 8.9	W75011-20	A	T851-175 / 8.9
3209-16 (2)	-	T851-111 / 22.1	W65021-20	Ü	T85-225 / 23.5	W75011-20	Ü	T851-121 / 23.5
3210-16 (1)	-	T851-111 / 22.1	W65031-16	A	T85-478 / 9.7	W75015-16	A	T851-185 / 9.7
3210-16 (2)	-	T851-111 / 42.2	W65031-16	Ü	T851-432 / 23.9	W75015-16	Ü	T851-135 / 23.9
32011-16	-	T851-270 / 20.5	W65031-20	A	T85-478 / 8.9	W75017-16	A	T851-185 / 9.7
32012-16	-	T851-270 / 20.5	W65031-20	Ü	T851-424 / 23.5	W75017-16	Ü	T851-135 / 23.9
32013-16	-	T851-270 / 20.5	W65211-16	A	T851-185 / 9.7	W75021-16	A	T851-286 / 9.7
32014-16	-	T851-270 / 20.5	W65211-16	Ü	T851-135 / 23.9	W75021-16	Ü	T851-236 / 23.9
32021-16 (1)	-	T851-270 / 20.5	W65211-20	A	T851-175 / 8.9	W75021-20	A	T85-270 / 8.9
32021-16 (2)	-	T851-270 / 18.5	W65211-20	Ü	T851-121 / 23.5	W75021-20	Ü	T85-225 / 23.5
32022-16 (1)	-	T851-270 / 20.5	W65212-16	A	T851-185 / 9.7	W75031-16	A	T85-478 / 9.7
32022-16 (2)	-	T851-270 / 18.5	W65212-16	Ü	T851-135 / 23.9	W75031-16	Ü	T851-432 / 23.9
32111-16	-	T851-236 / 27.3	W65221-16	A	T851-286 / 9.7	W75031-20	A	T85-478 / 8.9
32112-16	-	T851-236 / 27.3	W65221-16	Ü	T851-236 / 23.9	W75031-20	Ü	T851-424 / 23.5
32121-16	-	T851-236 / 27.3	W65221-20	A	T85-270 / 8.9	W75211-16	A	T851-185 / 9.7
32131-16 (1)	-	T851-236 / 27.3	W65221-20	Ü	T85-225 / 23.5	W75211-16	Ü	T851-135 / 23.9
32131-16 (2)	-	T851-236 / 25.3	W65231-16	A	T85-478 / 9.7	W75211-20	A	T851-175 / 8.9
32132-16 (1)	-	T851-236 / 27.3	W65231-16	Ü	T851-432 / 23.9	W75211-20	Ü	T851-121 / 23.5
32132-16 (2)	-	T851-236 / 25.3	W65231-20	A	T85-478 / 8.9	W75221-16	A	T851-286 / 9.7
32142-16	-	T851-121 / 23.2	W65231-20	Ü	T851-424 / 23.5	W75221-16	Ü	T851-236 / 23.9
32143-16 (1)	-	T851-121 / 23.2	W65213-16	A	T851-185 / 9.7	W75221-20	A	T85-270 / 8.9
32143-16 (2)	-	T851-225 / 23.2	W65213-16	Ü	T851-135 / 23.9	W75221-20	Ü	T85-225 / 23.5
32311-16	-	T851-114 / 18.2	W65223-16	A	T851-382 / 9.7	W75231-16	A	T85-478 / 9.7
32312-16 (1)	-	T851-114 / 18.2	W65223-16	Ü	T851-334 / 23.9	W75231-16	Ü	T851-432 / 23.9
32312-16 (2)	-	T851-098 / 18.2	W65351-16	A	T851-146 / 8.5	W75231-20	A	T85-478 / 8.9
32531-12	-	T851-236 / 45.9	W65351-16	Ü	T851-175 / 27.7	W75231-20	Ü	T851-424 / 23.5
W6553-16	A	T85-225 / 9.7	W65351-20	A	T851-140 / 8.1	W75351-16	A	T851-146 / 8.5
W6553-16	Ü	T851-196 / 17.9	W65351-20	Ü	T851-165 / 26.9	W75351-16	Ü	T851-175 / 27.7
W65011-16	A	T851-185 / 9.7	W65361-16	A	T851-246 / 8.5	W75351-20	A	T851-140 / 8.1
W65011-16	Ü	T851-135 / 23.9	W65361-16	Ü	T851-280 / 27.7	W75351-20	Ü	T851-165 / 26.9
W65011-20	A	T851-175 / 8.9	W65361-20	A	T851-240 / 8.1	W75361-16	A	T851-246 / 8.5
W65011-20	Ü	T851-121 / 23.5	W65361-20	Ü	T85-270 / 26.9	W75361-16	Ü	T851-280 / 27.7
W65015-16	A	T851-185 / 9.7	W65363-16	A	T851-246 / 8.5	W75361-20	A	T851-240 / 8.1
W65015-16	Ü	T851-135 / 23.9	W65363-16	Ü	T851-280 / 27.7	W75361-20	Ü	T85-270 / 26.9
W65016-16	A	T851-185 / 9.7	W65381-16	A	T851-445 / 8.5	W75363-16	A	T851-246 / 8.5
W65016-16	Ü	T851-135 / 23.9	W65381-16	Ü	T85-478 / 27.7	W75363-16	Ü	T851-280 / 27.7
W65012-16	A	T851-185 / 9.7	W65381-20	A	T851-437 / 8.1	W75381-16	A	T851-445 / 8.5
W65012-16	Ü	T851-135 / 23.9	W65381-20	Ü	T85-468 / 26.9	W75381-16	Ü	T85-478 / 27.7
W65016-16	A	T851-185 / 9.7	W65391-20	A	T851-412 / 8.1	W75381-20	A	T851-437 / 8.1
W65016-16	Ü	T851-135 / 23.9	W65391-20	Ü	T85-498 / 23.9	W75381-20	Ü	T85-468 / 26.9
W65018-16	A	T851-185 / 9.7	W7553-16	A	T85-225 / 9.7	W75391-20	A	T851-412 / 8.1
W65018-16	Ü	T851-135 / 23.9	W7553-16	Ü	T851-196 / 17.9	W75391-20	Ü	T85-498 / 23.9

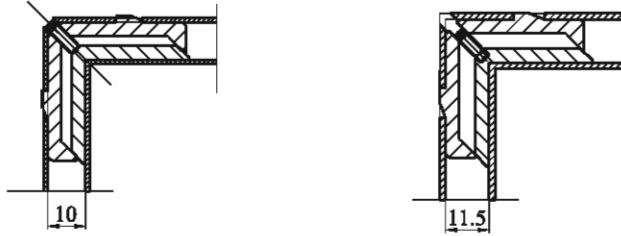
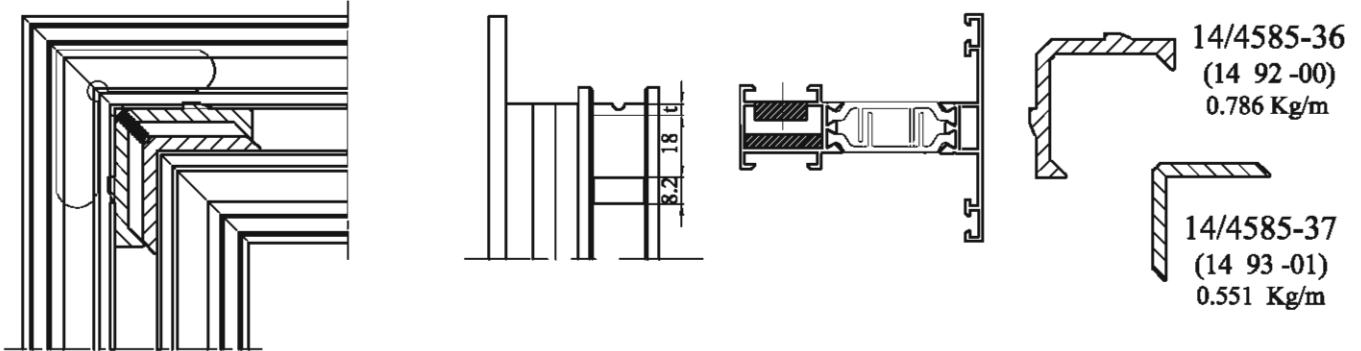
T90 -1 KÖŞE TAKOZU UYGULAMASI (25-35mm Arası)



T90-2 KÖŞE TAKOZU UYGULAMASI (13-18mm Arası)



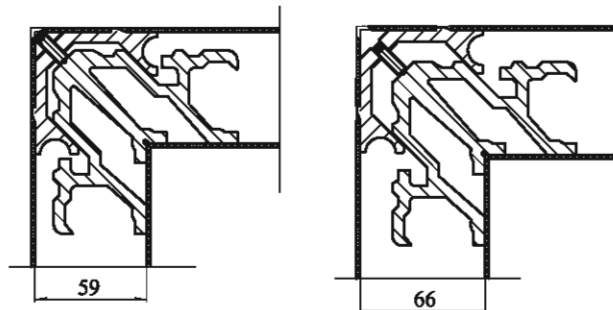
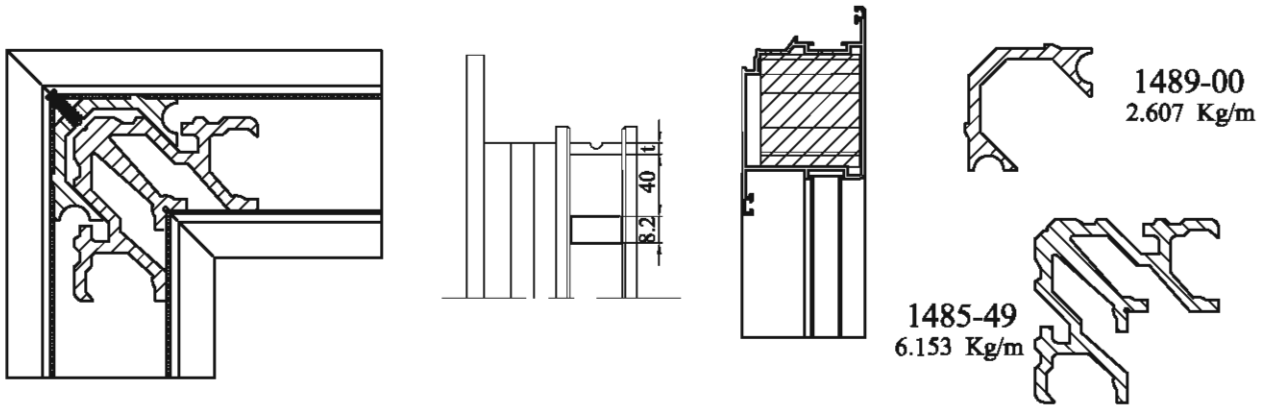
T90 -3 KÖŞE TAKOZU UYGULAMASI (10-11.5mm Arası)



M3 x 10 Setskur Civata Kullanılmaktadır
Ölçek 1/1

t = Et Kalınlığı
ÖLÇEK 1/2

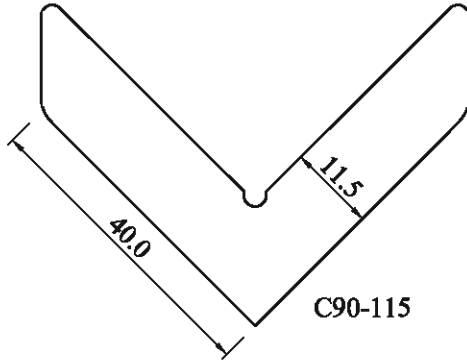
T90-4 KÖŞE TAKOZU UYGULAMASI (59-66mm Arası) (1238-20 ve 1239-20 profilleri ile kullanılır)



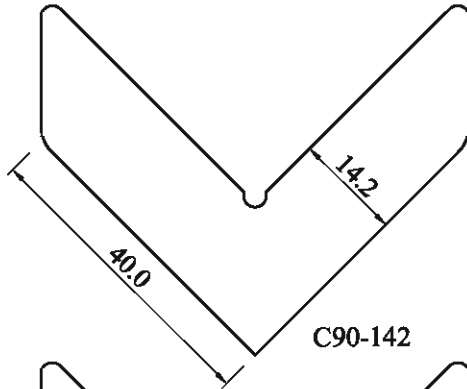
M6 x 20 Setskur Civata Kullanılmaktadır
Ölçek 1/1

t = Et Kalınlığı
ÖLÇEK 1/4

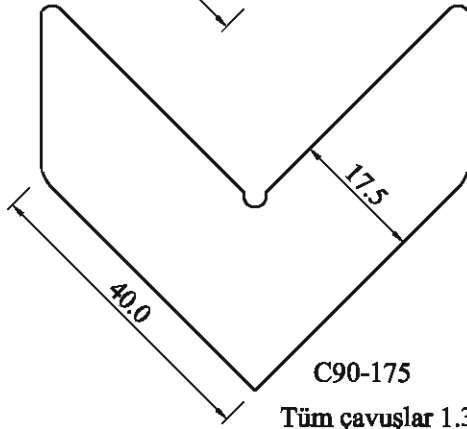
Çavuş Gönyeler Set-Square



C90-115



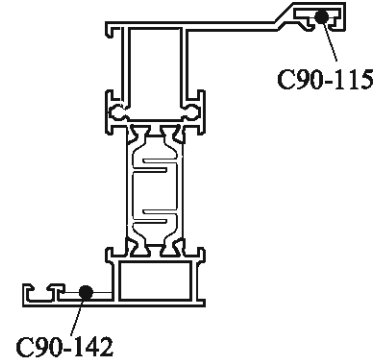
C90-142



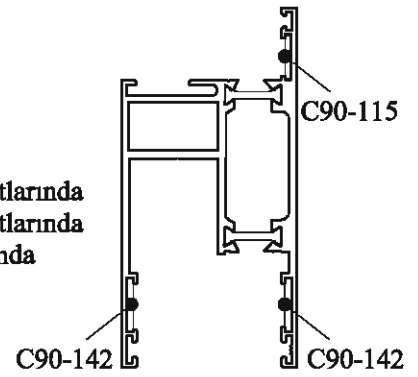
C90-175

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

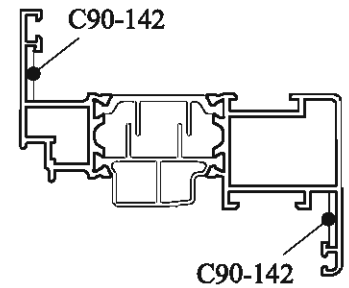
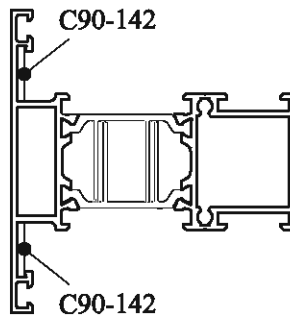
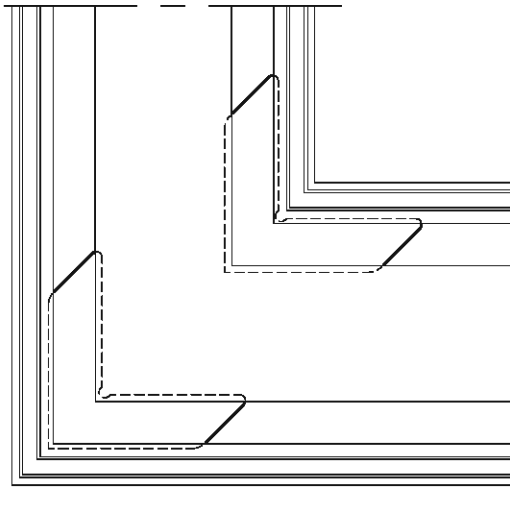
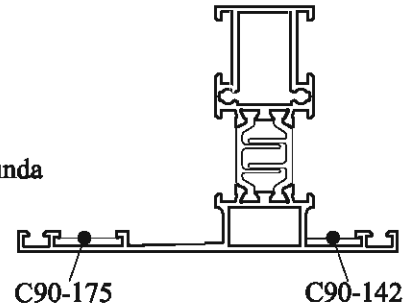
32142-16 (İç)
32143-16 (İç)
32311-16
32312-16
W75017-16 (Dış)

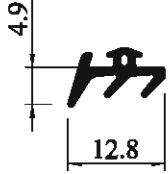
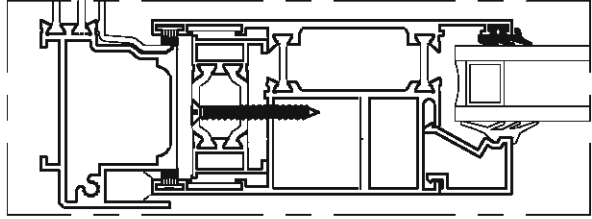
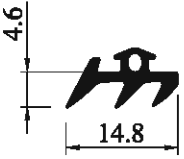
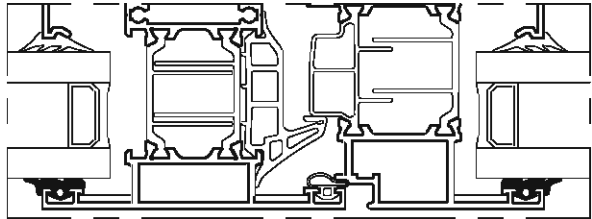
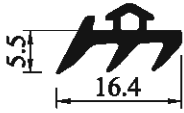
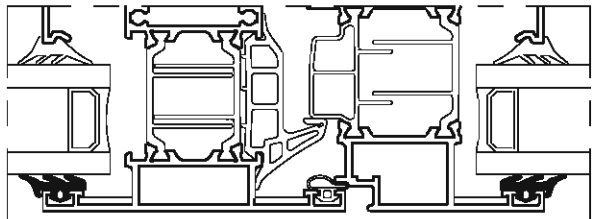
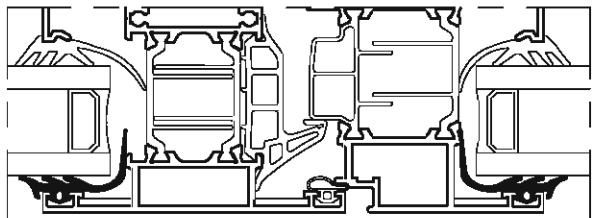
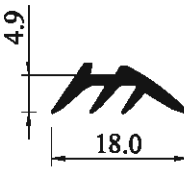
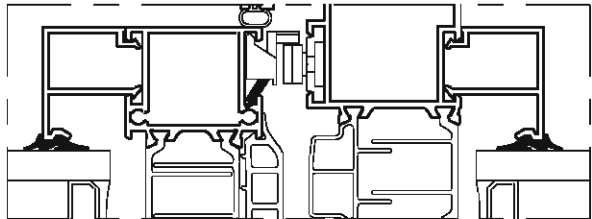
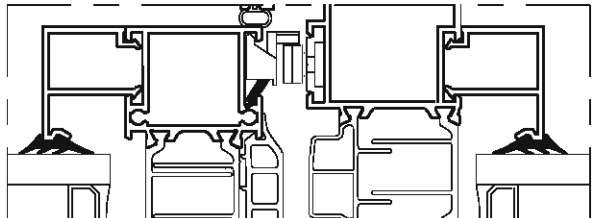
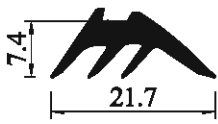
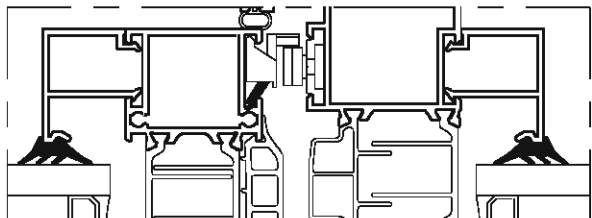


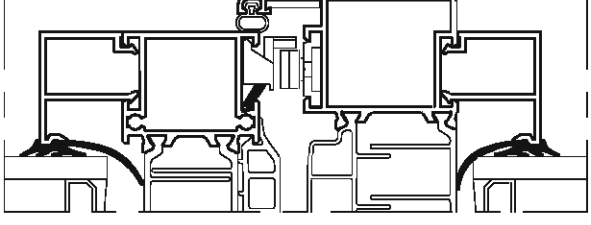
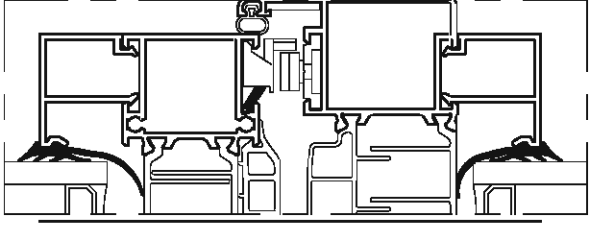
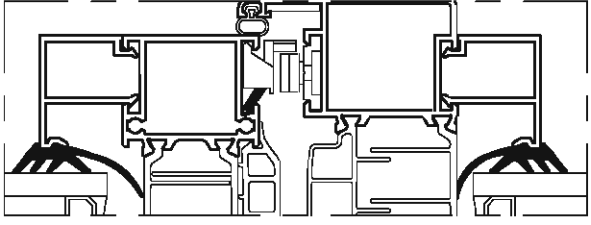
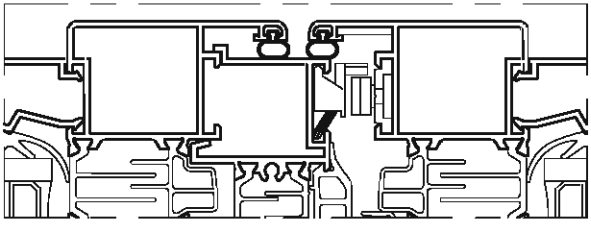
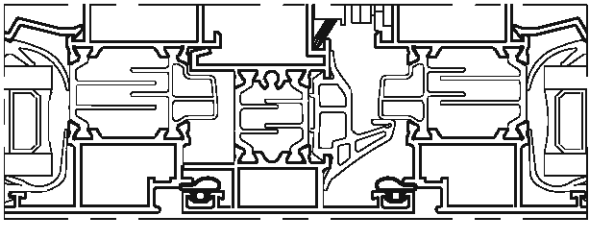
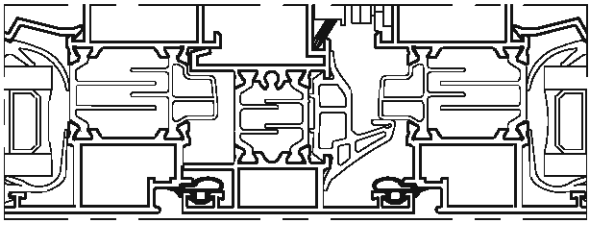
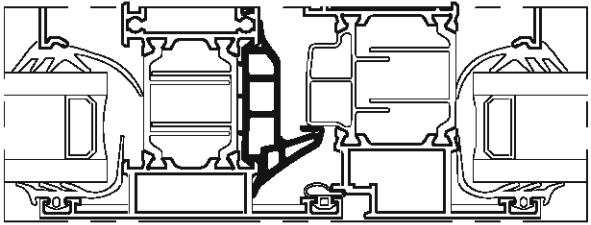
32142-16 (Dış)
32143-16 (Dış)
W75 Sistem: Kasa, kanat ve orta kayıtlarında
W65 Sistem: Kasa, kanat ve orta kayıtlarında
W65 Sistem: Gizli kanat kasalarında

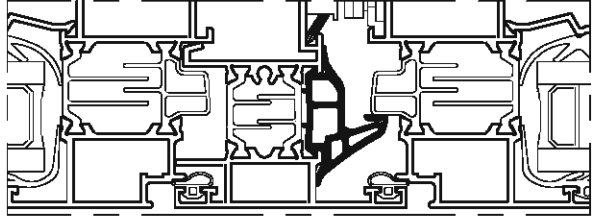
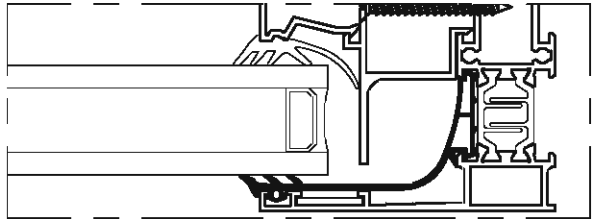
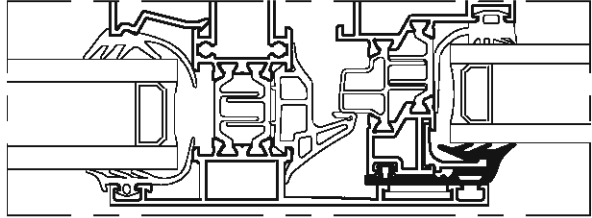
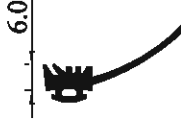
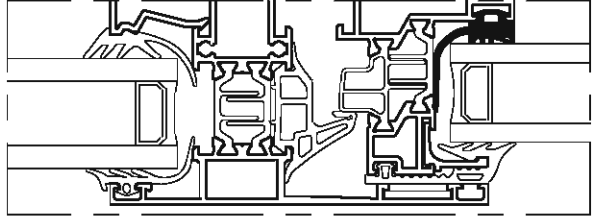
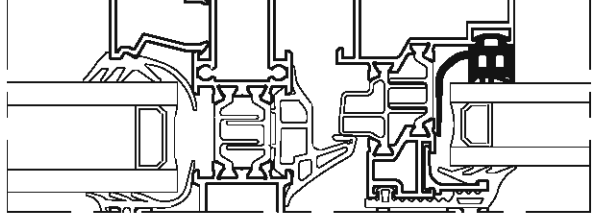
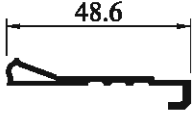
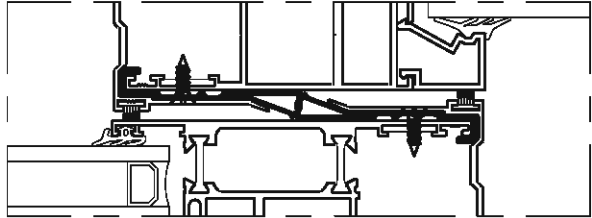
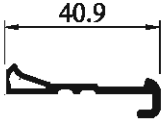
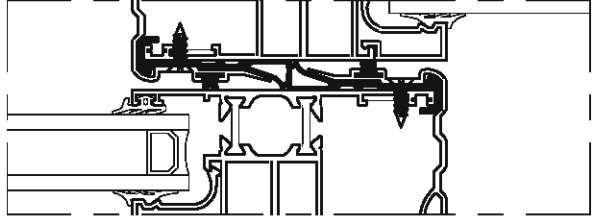


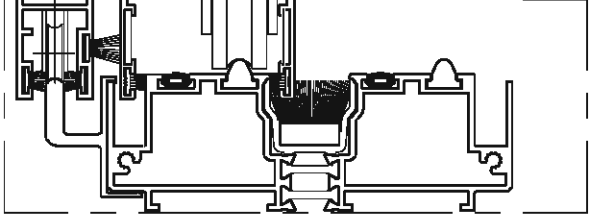
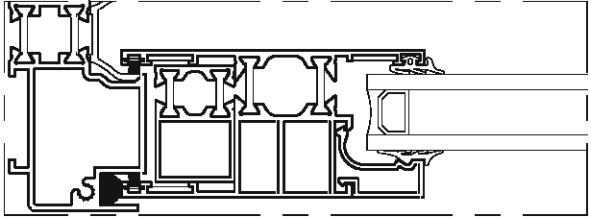
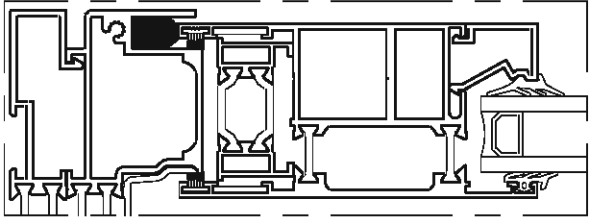
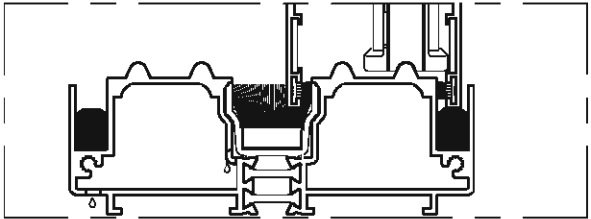
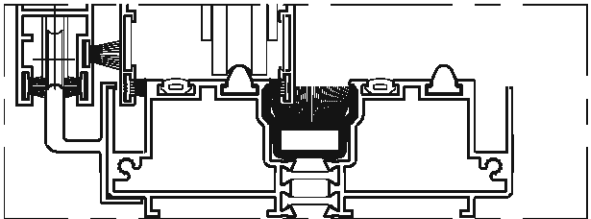
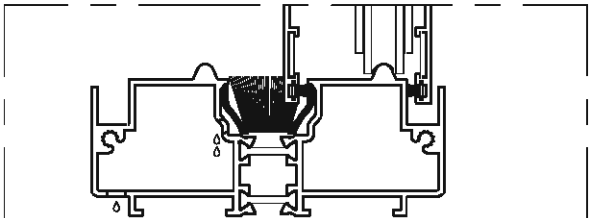
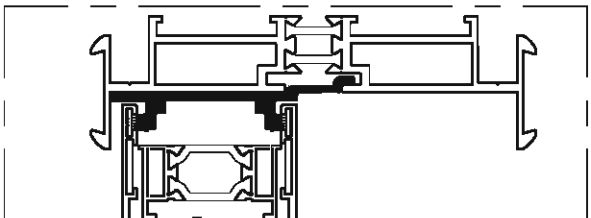
W65 Sistem: Gizli kanat kasalarında

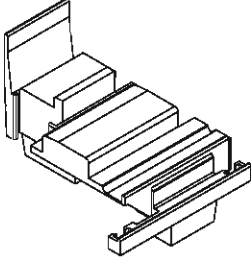
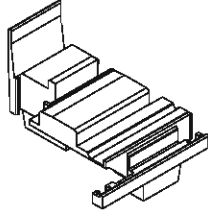
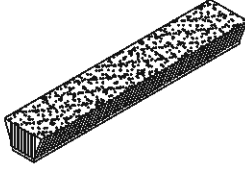
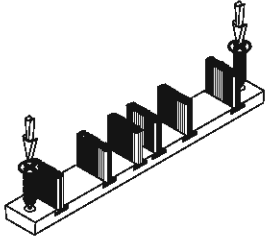
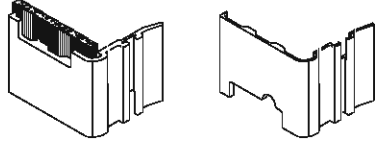
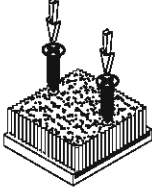
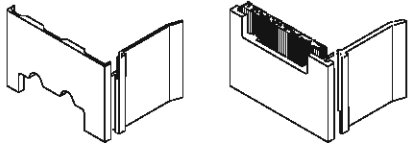
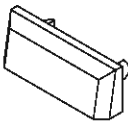


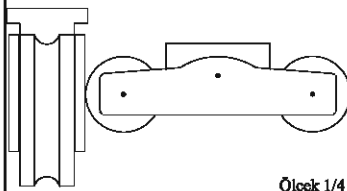
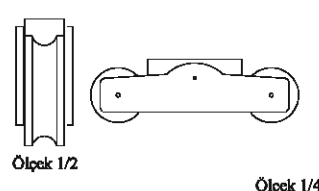
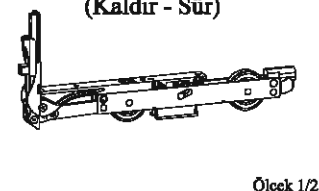
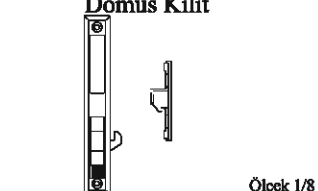
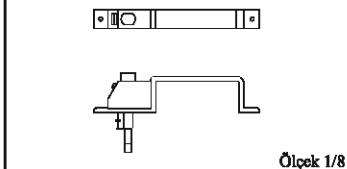
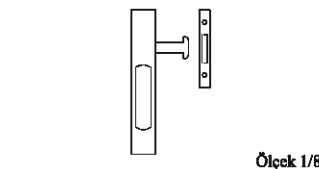
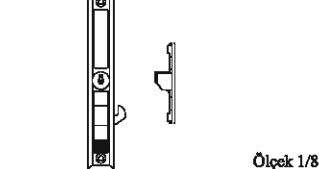
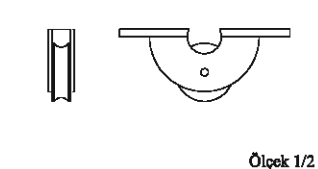
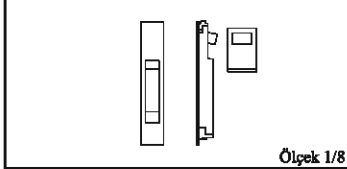
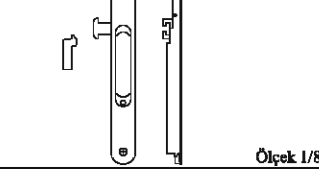
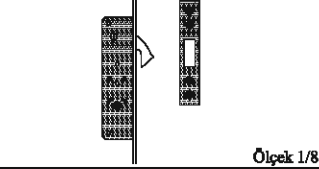
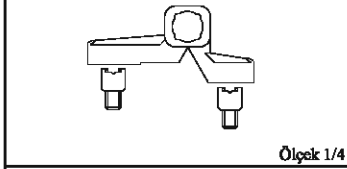
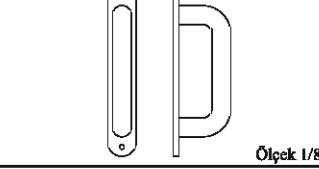
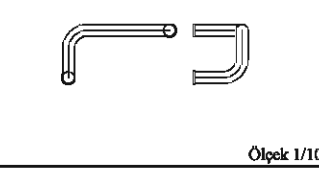
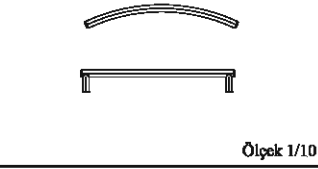
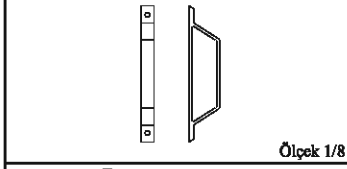
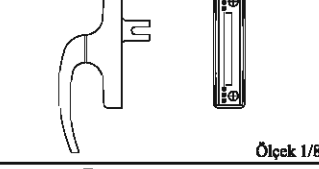
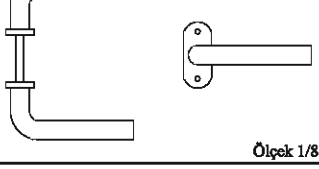
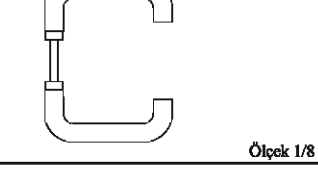
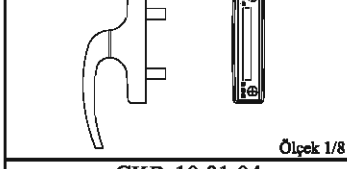
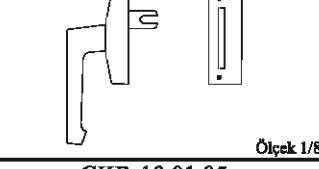
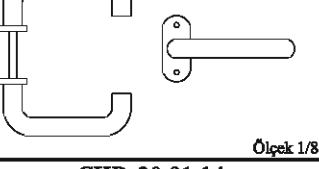
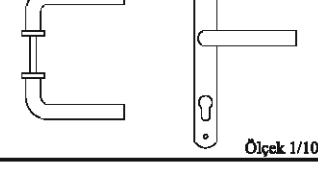
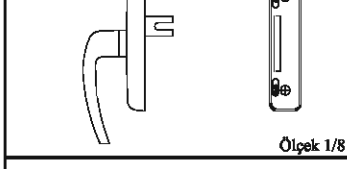
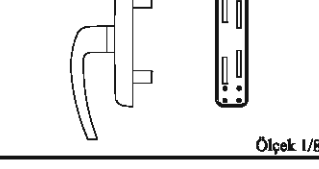
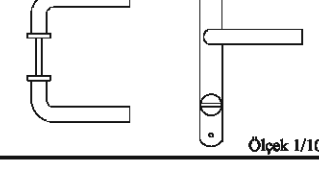
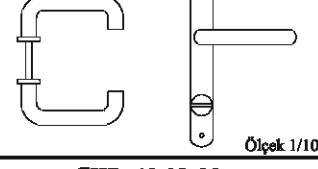
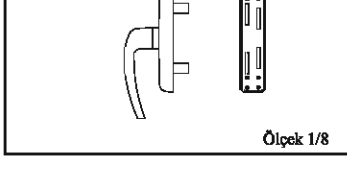
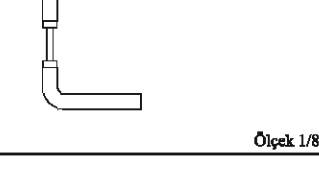
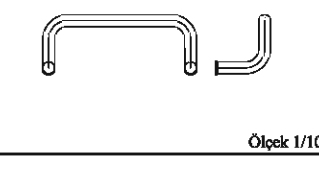
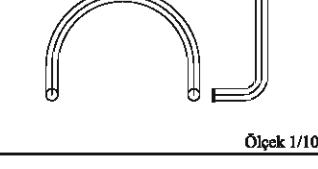
Aksesuar Kodu	Aksesuar Resmi	Kullanılan Alan	Montaj Çizimi
SF-06 1Koli 15kg / 333m = 45gr/m		Sürme Seri Dış Cam Fiteli (2.5mm - 3.5 mm)	
F-06 1Koli 15kg / 272m = 55.0gr/m		Dış Cam Fiteli (2.5mm - 3.5mm)	
F-06A 1Koli 15kg / 223m = 67gr/m		Dış Cam Fiteli (3.5mm - 5.0mm)	
FE-06A 1Koli 15kg / 147m = 102gr/m		Isı Yalıtımlı Dış Cam Fiteli (3.5mm - 5.0mm)	
F-07A 1Koli 15kg / 294m = 51gr/m		İç Cam Fiteli (2.5mm - 4.0mm)	
F-07 1Koli 15kg / 227m = 66gr/m		İç Cam Fiteli (3.5mm - 5.0mm)	
F-08 1Koli 15kg / 167m = 90.0gr/m		İç Cam Fiteli (5.0mm - 6.5mm)	

Aksesuar Kodu	Aksesuar Resmi	Kullanılan Alan	Montaj Çizimi
FE-07A 1Koli 15kg / 153m = 98gr/m		Isı Yalıtımlı İç Cam Fiteli (2.5mm - 4.0mm)	
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		W75 Toz Fiteli	

Aksesuar Kodu	Aksesuar Resmi	Kullanılan Alan	Montaj Çizimi
FE-65 1Koli 15kg / 61m = 242gr/m	 Ölçek 1/2	W65 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	 Ölçek 1/2	Gizli Kanat Kanat Cam fitili	
FE-35 1Koli 15kg / 77m = 194gr/m	 Ölçek 1/2	Gizli Kanat Kanat Cam Fitili	
SF-232 1Koli 15kg / 112m = 133gr/m	 Ölçek 1/2	Geniş Sürme Kenet İzolasyon Fitili	
SF-233 1Koli 15kg / 116m = 129gr/m	 Ölçek 1/2	Dar Sürme Kenet İzolasyon Fitili	

Aksesuar Kodu	Aksesuar Resmi	Kullanılan Alan	Montaj Çizimi
SF-112 1Koli 15kg / 517m = 29gr/m		Kanal Kapatma Fitolu (Geniş sürmede kullanılır.)	
SF-311 1Koli 15kg / 300m = 50gr/m		Dar Sürme E.P.D.M. Tampon (5cm) (Yan kasada kullanılır.)	
SF-312 1Koli 15kg / 122m = 123gr/m		Geniş Sürme E.P.D.M. Tampon (5cm) (Yan kasada kullanılır.)	
SF-313 1Koli 15kg / 138m = 109gr/m		Geniş Sürme (HEBE - SCHIEBE) E.P.D.M. Tespit Tamponu (Kanal boyunca kullanılır.)	
SF-211 1 Adet = 6m		Kanal Plastiği (Geniş sürme alt, yan ve üst kasada kullanılır.) (Dar sürme üst ve yan kasada kullanılır.)	
SF-213 1 Adet = 6m		Kanal Plastiği (Geniş sürme alt ve yan kasada kullanılır.) (Dar sürme üst ve yan kasada kullanılır.)	
SF-221 1 Adet = 6m		Kanat Kapatma Plastiği (Geniş Sürme Alternatif Yan Kasa)	

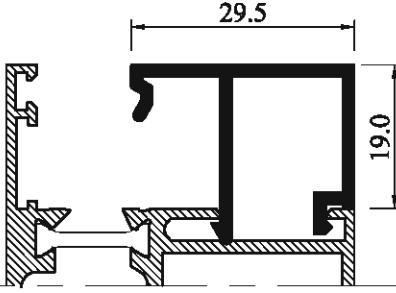
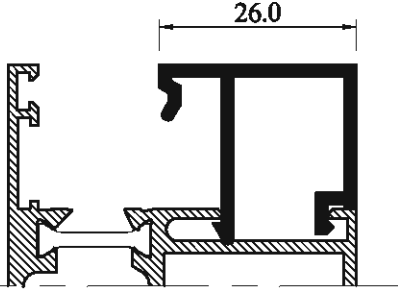
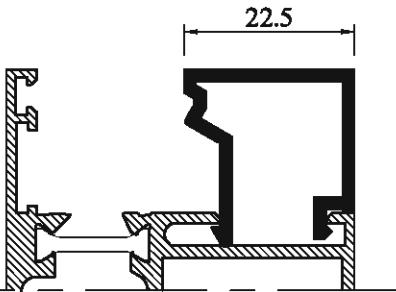
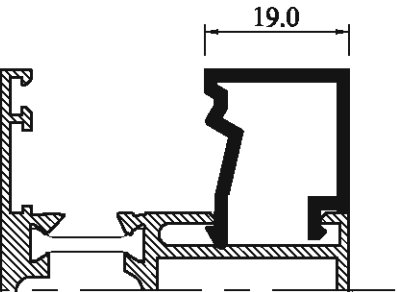
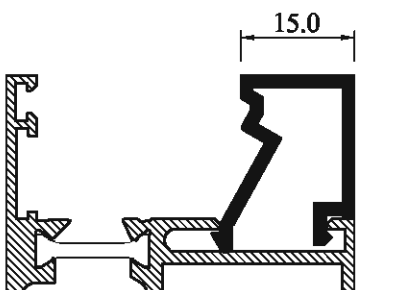
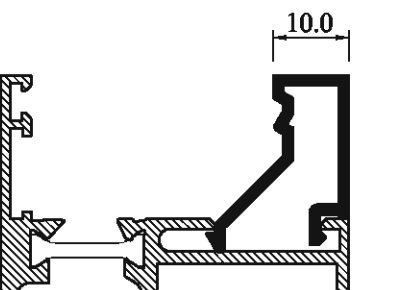
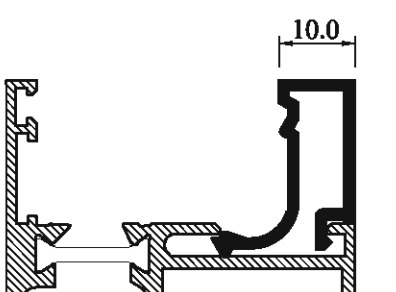
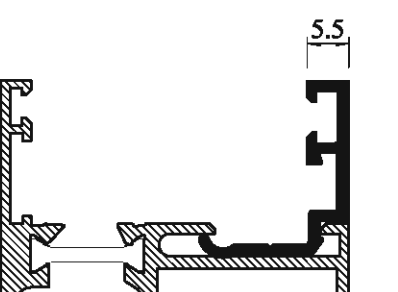
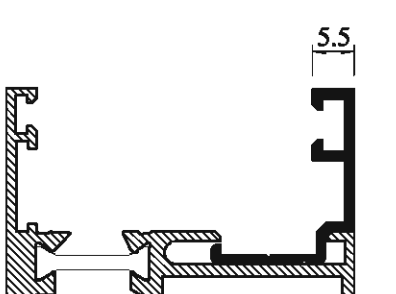
Aksesuar Kodu	Aksesuar Resmi	Aksesuar Kodu	Aksesuar Resmi
<u>FP-75</u>	 W75 Çift Kanat Pencere Adaptör Plastiği	<u>FP-65</u>	 W65 Çift Kanat Pencere Adaptör Plastiği
<u>SPF-011</u>	 Dar Sürme Kanat Alın Kapatma Kıl Fiteli (Alt kasada kullanılır.)	<u>SPF-012</u>	 Dar ve Geniş Sürme Kanat Alın Kapatma Kıl Fitel Plastiği (Dar sürmede üst kasada kullanılır. Geniş sürmede ise hem alt hemde üst kasada kullanılır.)
<u>SPF-532</u>	 Dar Sürme Kanat Birleşim Kıl Fitel Plastiği (32532-12 ile kullanılır.)	<u>SPF-511</u>	 Dar Sürme Kanat Alın Kapatma (Kenet) Kıl Fitel Plastiği (32511-12 ile kullanılır.)
<u>SPF-15</u>	 Geniş Sürme Kanat Birleşim Kıl Fitel Plastiği (3215-12 ile kullanılır.)	<u>SPF-17</u>	 Geniş Sürme Kanat Alın Kapatma (Kenet) Kıl Fitel Plastiği (3217-12 ile kullanılır.)
<u>FP-01</u>	 Yağmur Tahliye Tapası		

S32 Geniş Sürme Makara  Ölçek 1/4	S32 Dar Sürme Makara  Ölçek 1/2	Hebe -Schiebe Mekanizma (Kaldır - Sür)  Ölçek 1/2	KL-301B / 301S / 301K / 301G Domus Kilit  Ölçek 1/8
CKR-30.01.05 Tetik Kol  Ölçek 1/8	CKR-30.01.03 Havuzlu Kilit  Ölçek 1/8	KL-302B / 302S / 302K / 302G Domus Kilit  Ölçek 1/8	DLR-1557 Sineklik Makara  Ölçek 1/2
CKR-30.01.04 Havuzlu Kilit  Ölçek 1/8	CKR-30.01.07 Havuzlu Kilit  Ölçek 1/8	KL-201F Silindirli Gömme Kilit (Dar Tip)  Ölçek 1/8	CKR-80.04.05 Klepsli Kol  Ölçek 1/2
CKR-50.03.03 CKR-50.03.04  Ölçek 1/4	CKR-30.01.02 Sürme Çekme Kol  Ölçek 1/8	CKR-40.04.00 Baston kol  Ölçek 1/10	CKR-40.08.00 Yay kol  Ölçek 1/10
CKR-30.01.06 D Kol  Ölçek 1/8	CKR-10.01.01 Eksenel kol tekli  Ölçek 1/8	CKR-20.01.02 Sosis kol düz rozetli  Ölçek 1/8	CKR-20.01.03 Sosis kol kıvrık  Ölçek 1/8
CKR-10.01.02 Eksenel kol çiftli  Ölçek 1/8	CKR-10.01.03 Eksenel kol  Ölçek 1/8	CKR-20.01.04 Sosis kol kıvrık rozetli  Ölçek 1/8	CKR-20.01.05 Sosis kol düz aynalı  Ölçek 1/10
CKR-10.01.04 Eksenel kol tek dilli  Ölçek 1/8	CKR-10.01.05 Eksenel kol çift dilli  Ölçek 1/8	CKR-20.01.14 WC kol aynalı  Ölçek 1/10	CKR-20.01.27 WC aynalı kıvrık kol  Ölçek 1/10
CKR-10.01.07 Eksenel kol çift dilli anahtarlı  Ölçek 1/8	CKR-20.01.01 Sosis kol düz  Ölçek 1/8	CKR-40.01.00 Kıvrık boru kol  Ölçek 1/10	CKR-40.02.00 Yarım ay boru kol  Ölçek 1/10

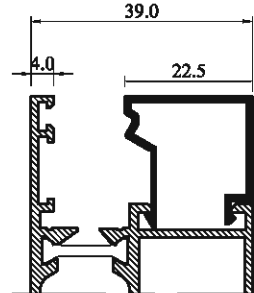
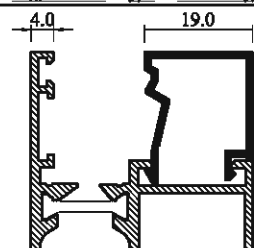
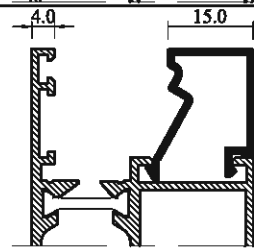
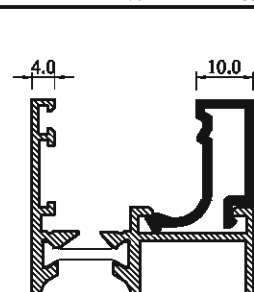
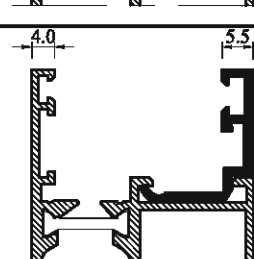
Euro Comfort Sürme Sistemleri (S32) Cam Çıtalı

"-" işaretinden sonraki 2 hane et kalınlıđını gösterir. (1445-15 Çıtası 1.5mm et kalınlıđındadır.)

W75 ve W65 sistemlerinde kullanılan cam çıtalrı 22mm yüksekliđindedir. Sürme sistemlerindeki ve diđer tüm Gençer sistemlerindeki cam çıtalrı 19mm yüksekliđindedir dolayısıyla bu çıtalr W75 ve W65 sistemlerinde kullanılmaz.

1443-10 0.236 Kg/m		1442-10 0.226 Kg/m	
1443-13 0.301 Kg/m		1442-13 0.288 Kg/m	
1443-15 0.345 Kg/m		1442-15 0.330 Kg/m	
1443-20 0.429 Kg/m		1442-20 0.424 Kg/m	
1441-10 0.207 Kg/m		1440-10 0.196 Kg/m	
1441-13 0.264 Kg/m		1440-13 0.249 Kg/m	
1441-15 0.302 Kg/m		1440-15 0.286 Kg/m	
1441-20 0.394 Kg/m		1440-20 0.359 Kg/m	
1448-10 0.188 Kg/m			1449-13 0.195 Kg/m
1448-13 0.240 Kg/m			
1448-15 0.275 Kg/m			
1448-20 0.351 Kg/m			
14491-13 0.240 Kg/m			14471-16 0.199 Kg/m
1447-12 0.169 Kg/m			

S32 DAR SÜRME Cam Fitili & Çıta Seçim Tablosu

DIŞ CAM FİTİLİ			İÇ CAM FİTİLLERİ						
SF-06 -0.5mm 4.0mm +1.0mm 			F-07A -0.5mm 3.0mm +1.0mm 		F-07 -0.5mm 4.0mm +1.0mm 		F-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			
4.0 mm	SF-06	F-08	3.0	4.0	5.5	22.5	35.0 mm	1441-00	
5.0 mm	SF-06	F-07	3.0	5.0	4.5	22.5			
6.0 mm	SF-06	F-07A	3.0	6.0	3.5	22.5			
7.0 mm	SF-06	F-07A	2.5	7.0	3.0	22.5			
8.0 mm	SF-06	F-08 / F-07	3.0	8.0	5.0	19.0		1440-00	
9.0 mm	SF-06	F-07 / F-07A	3.0	9.0	4.0	19.0			
10.0 mm	SF-06	F-07A	3.0	10.0	3.0	19.0			
11.0 mm	SF-06	F-07A	2.5	11.0	2.5	19.0			
12.0 mm	SF-06	F-08 / F-07	3.0	12.0	5.0	15.0		1448-00	
13.0 mm	SF-06	F-07 / F-07A	3.0	13.0	4.0	15.0			
14.0 mm	SF-06	F-07A	3.0	14.0	3.0	15.0			
15.0 mm	SF-06	F-07A	2.5	15.0	2.5	15.0			
16.0 mm	SF-06	F-08	3.0	16.0	6.0	10.0		14491-13	
17.0 mm	SF-06	F-08 / F-07	3.0	17.0	5.0	10.0			
18.0 mm	SF-06	F-07 / F-07A	3.0	18.0	4.0	10.0			
19.0 mm	SF-06	F-07A	3.0	19.0	3.0	10.0			
20.0 mm	SF-06	F-07A	2.5	20.0	2.5	10.0		14471-16	
21.0 mm	SF-06	F-08	3.0	21.0	5.5	5.5			
22.0 mm	SF-06	F-07A	3.0	22.0	4.5	5.5			
23.0 mm	SF-06	F-07A	3.0	23.0	3.5	5.5			
24.0 mm	SF-06	F-07A	2.5	24.0	3.0	5.5			

* Fitil limitte sıkıştırılmıştır. Her iki fitilin limitte kullanılmış olması halinde dikkatli olunmalıdır.

W75-W65 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



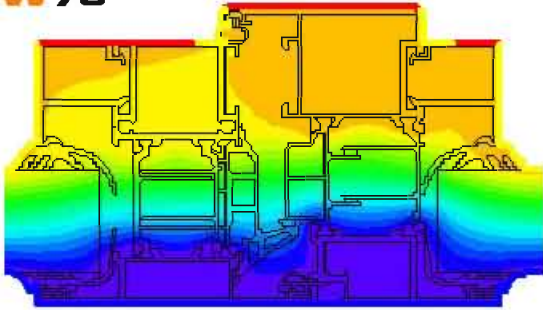
Kasa: 75021-16 Kanat: 75361-16
Lf: 110.5 mm Uf: 1.778 W/(m².K) Uw: 1.57 W/(m².K)

W75



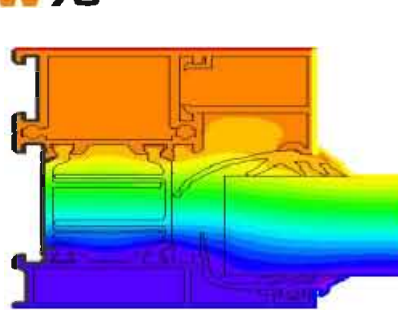
Kasa: 75031-16 Kanat: 75381-16
Lf: 150.5 mm Uf: 1.744 W/(m².K) Uw: 1.56 W/(m².K)

W75



Kasa: 75221-16 Kanat: 75361-16
Lf: 132.5 mm Uf: 1.852 W/(m².K) Uw: 1.59 W/(m².K)

W75



Kasa: 75021-16
Lf: 58 mm Uf: 1.487 W/(m².K) Uw: 1.50 W/(m².K)

W65



Kasa: 65021-16 Kanat: 65361-16
Lf: 110.5 mm Uf: 2.156 W/(m².K) Uw: 1.66 W/(m².K)

W65



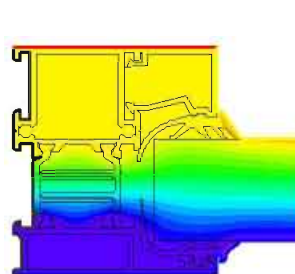
Kasa: 65031-16 Kanat: 65381-16
Lf: 150.5 mm Uf: 2.053 W/(m².K) Uw: 1.64 W/(m².K)

W65



Kasa: 65221-16 Kanat: 65361-16
Lf: 132.5 mm Uf: 2.198 W/(m².K) Uw: 1.67 W/(m².K)

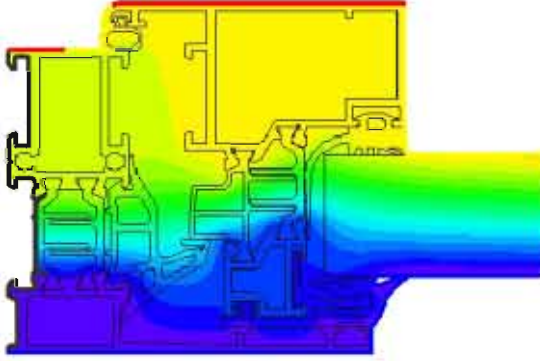
W65



Kasa: 65021-16
Lf: 58 mm Uf: 1.925 W/(m².K) Uw: 1.61 W/(m².K)

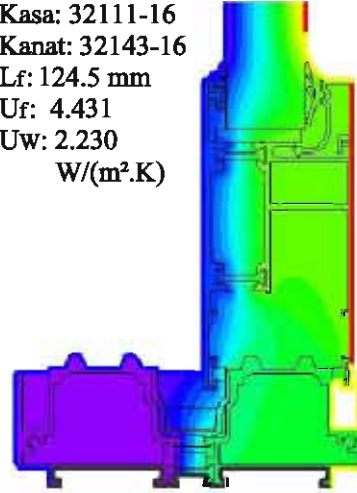
W65

Kasa: 65012-16 Kanat: 65326-16
Lf: 85.0 mm Uf: 2.286 W/(m².K)
Uw: 1.170 W/(m².K)



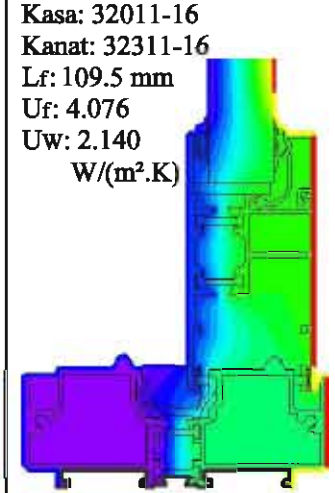
S32 GENİŞ

Kasa: 32111-16 Kanat: 32143-16
Lf: 124.5 mm Uf: 4.431
Uw: 2.230 W/(m².K)

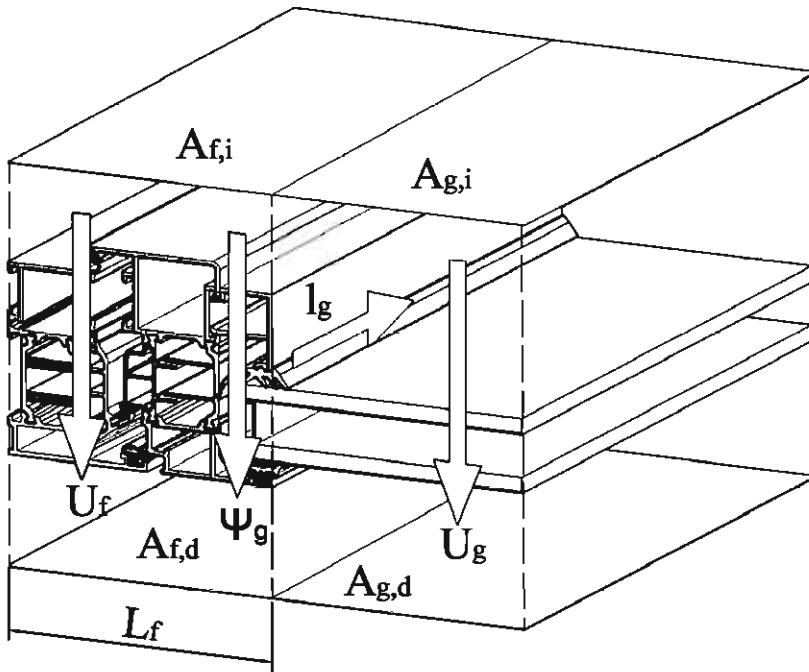


S32 DAR

Kasa: 32011-16 Kanat: 32311-16
Lf: 109.5 mm Uf: 4.076
Uw: 2.140 W/(m².K)



PENCERENİN ISIL İLETİM KATSAYISI (Uw)



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

U_w = Pencerenin Isıl İletim Katsayısı (W/m²K)
 A_g = Cam (Panel) Alanı (m²)
 U_g = Camın (Panel) Isıl İletim Katsayısı (W/m²K)
 A_f = Profilin Alanı (m²)
 U_f = Profilin Isıl İletim Katsayısı (W/m²K)
 l_g = Cam Çıtası uzunluğu (m)
 Ψ_g = Doğrusal Isıl İletim Katsayısı (W/mK)
 L_f = Profilin Uzunluğu (mm)

Ψ_g (W/mK)		ISICAM (II,III)	
		Standart	Low-E
Isıcam	Standart	0.08	0.11
Çıtası	Geliştirilmiş	0.06	0.08

Tek cam kullanımında $\Psi_g \times l_g = 1$ 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 $A_y = 0.26 \text{ m}^2$, $U_{fy} = 1.49 \text{ W/m}^2\text{K}$

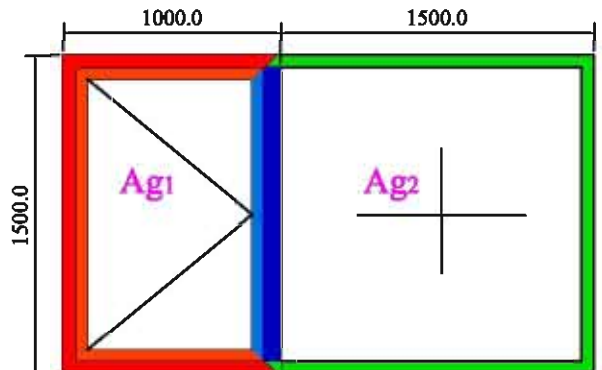
Kırmızı profil alanı $A_k = 0.35 \text{ m}^2$, $U_{fk} = 1.78 \text{ W/m}^2\text{K}$

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 L_f değerleri kullanılarak da çerçeve alanı yaklaşık olarak hesaplanabilir. Farklı detay ve sistemlerin ısı iletim katsayıları ve sorularınız için AR-GE bölümü ile görüşebilirsiniz.

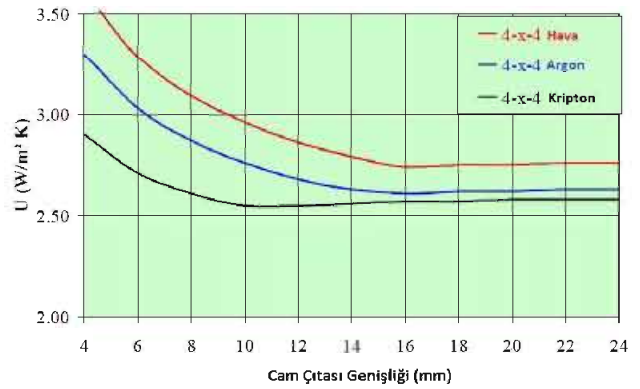
CAM SEÇİMİ İÇİN GENEL BİLGİLENDİRME

TABLO 1: Isıcam Performans Tablosu

Dış Cam + Ara Boşluk + İç Cam		Gün Işığı		Güneş Enerjisi		Isı Geçirgenlik Katsayısı (W/m²K 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 (m²)
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; 300 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.

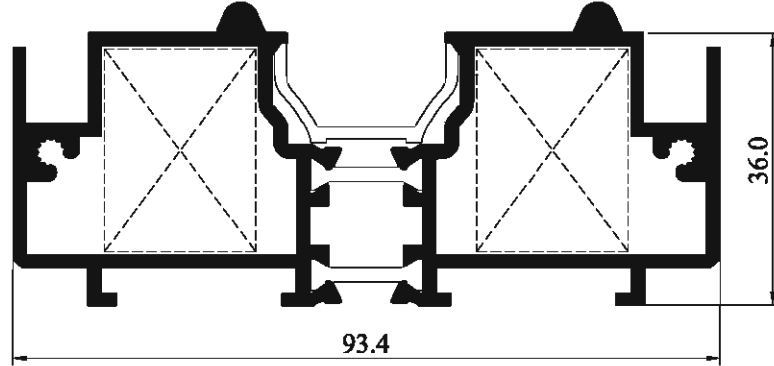
- Camın ağırlığı her mm kalınlık için 2.5 kg/m²'dir



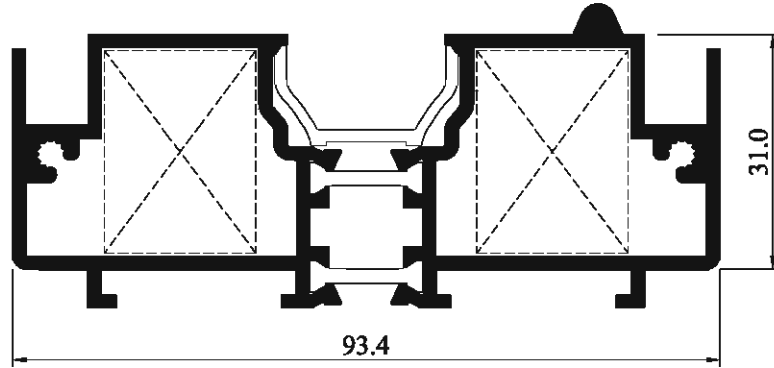
**S32
DAR**

KASALAR / FRAMES

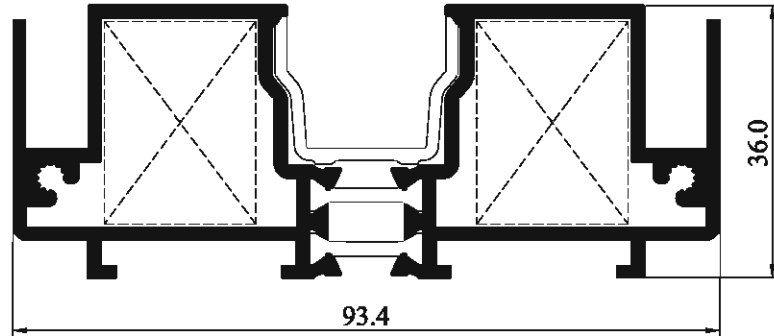
32011-16
Alt Kasa
(Çift taraf Sürmede kullanılır.)



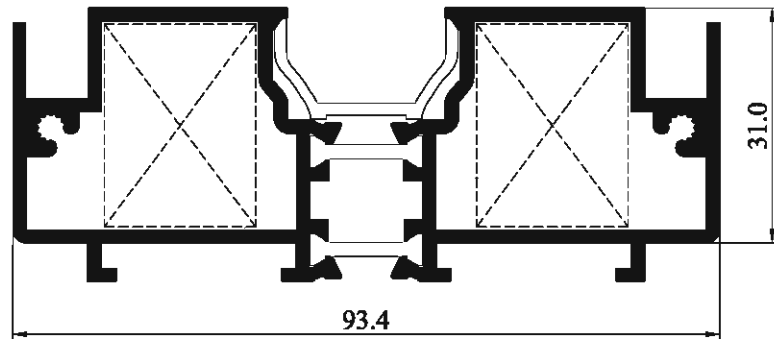
32014-16
Alt Kasa
(Sadece Tek Taraf Sürmede Kullanılır.)



32012-16
Üst Kasa
(Üst ve Yan Kasa Olarak Kullanılabilir.)

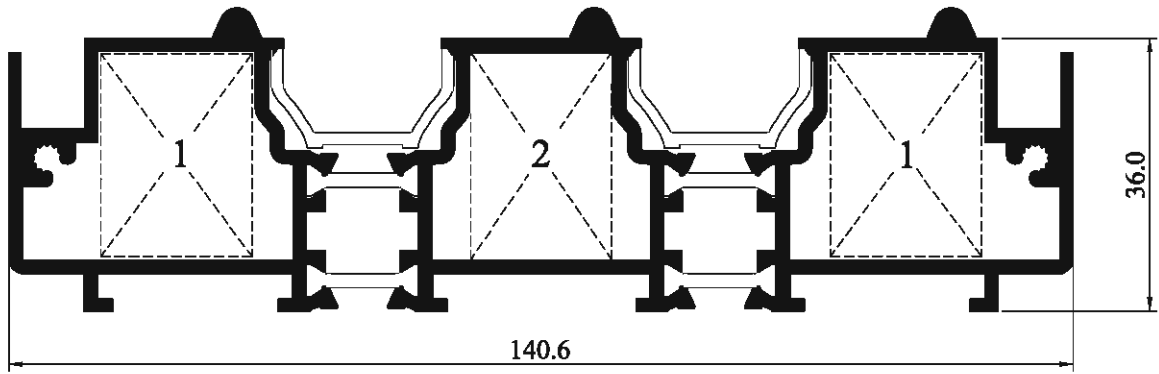


32013-16
Yan Kasa
(Üst Kasa olarak Kesinlikle Kullanılmaz.)

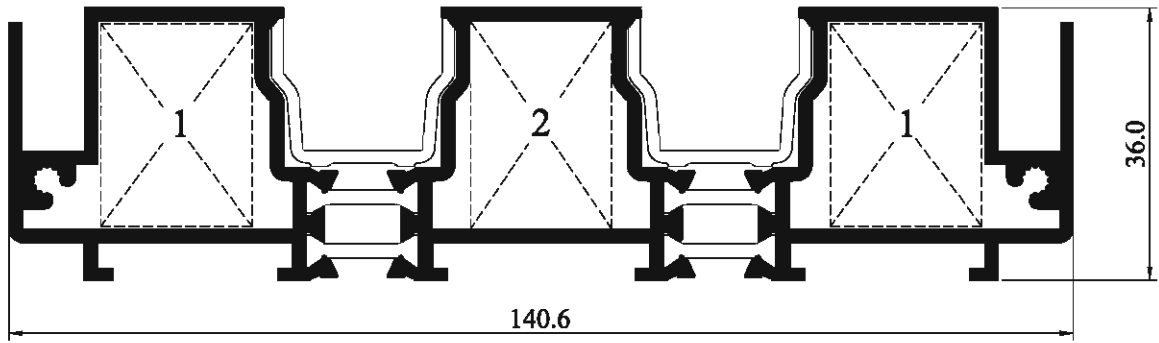


PROFİL KODU	AĞIRLIK (kg/m)	PROFİL İÇİN PRES TAKOZU/ KESİM ÖLÇÜSÜ (mm)
32011-16	1.824	1 ⇒ T85-270 / 20.5
32012-16	1.770	1 ⇒ T85-270 / 20.5
32013-16	1.726	1 ⇒ T85-270 / 20.5
32014-16	1.775	1 ⇒ T85-270 / 20.5

KASALAR / FRAMES

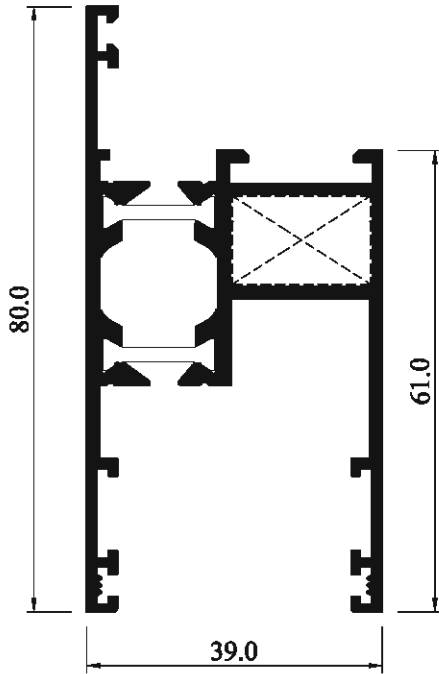


32021-16
Alt Kasa
(Üç'lü Sürmede kullanılır.)

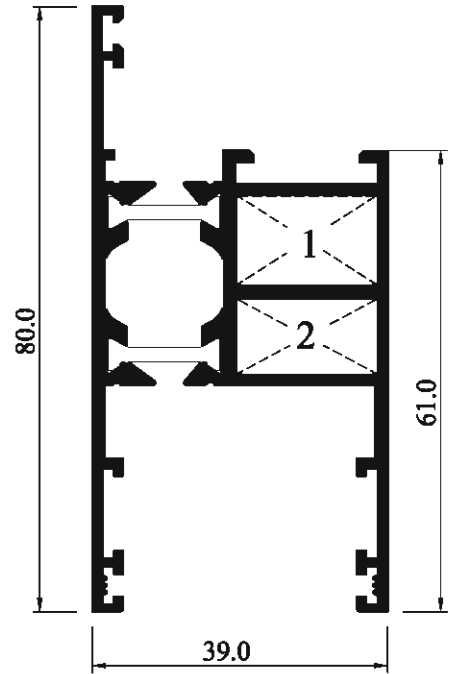


32022-16
Üst ve Yan Kasa
(Üç'lü Sürmede kullanılır.)

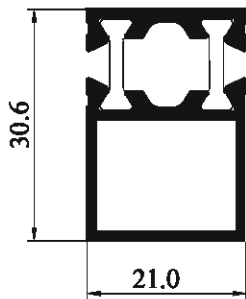
PROFİL KODU	AĞIRLIK (kg/m)	PROFİL İÇİN PRES TAKOZU/ KESİM ÖLÇÜSÜ (mm)
32021-16	2.308	1 => T85-270 / 20.5
		2 => T85-270 / 18.5
32022-16	2.481	1 => T85-270 / 20.5
		2 => T85-270 / 18.5

KANATLAR / SASH PROFILES


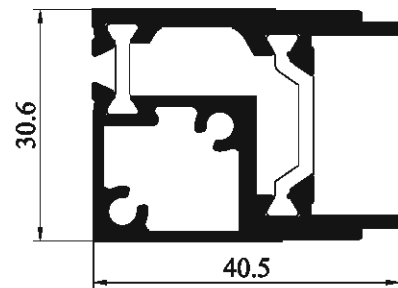
32311-16
Yalıtımlı Dar Kanat



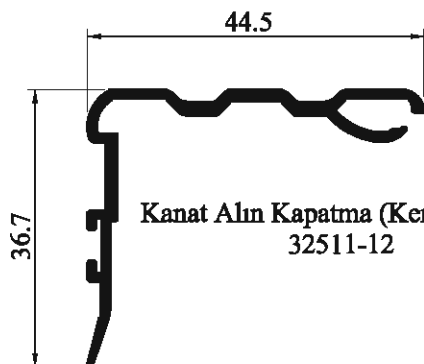
32312-16
Yalıtımlı Dar Kanat
 (Alt kenarda kертmesiz kullanım için
 32311-16 tercih edilebilir.)



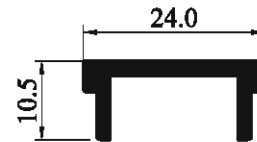
Kilit Adaptör Profili
32531-12



Kanat Birleşim
32532-12



Kanat Alın Kapatma (Kenet) Profili
32511-12



Kilit Karşılık Profili
32971-00

PROFİL KODU	AĞIRLIK (kg/m)	PROFİL İÇİN PRES TAKOZU/ KESİM ÖLÇÜSÜ (mm)
32311-16	1.269	1 ⇒ T85-114 / 18.2
32312-16	1.332	1 ⇒ T85-114 / 18.2
		2 ⇒ T851-098 / 18.2
32531-12	0.530	—
32532-12	0.999	—
32971-00	0.229	—
32511-12	0.358	—

SİNEKLİK PROFİLLERİ / FLYSWATTER PROFİLES



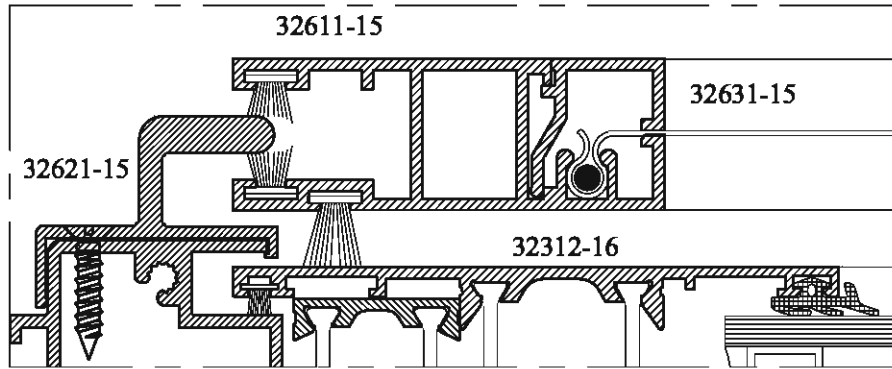
Sineklik
32611-15



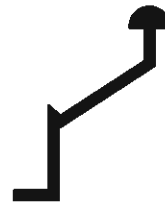
Sineklik Rayı
32621-15



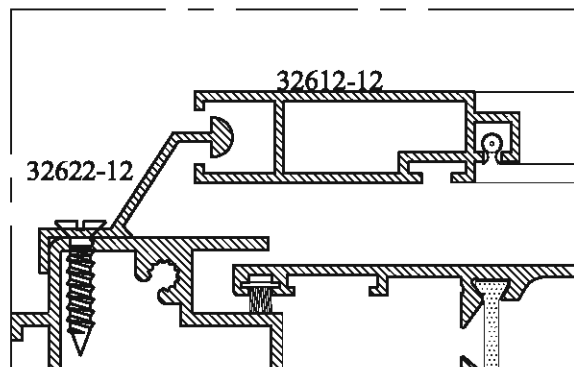
Sineklik Çıtası
32631-15



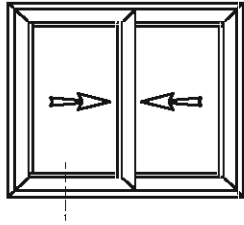
Sineklik
32612-12



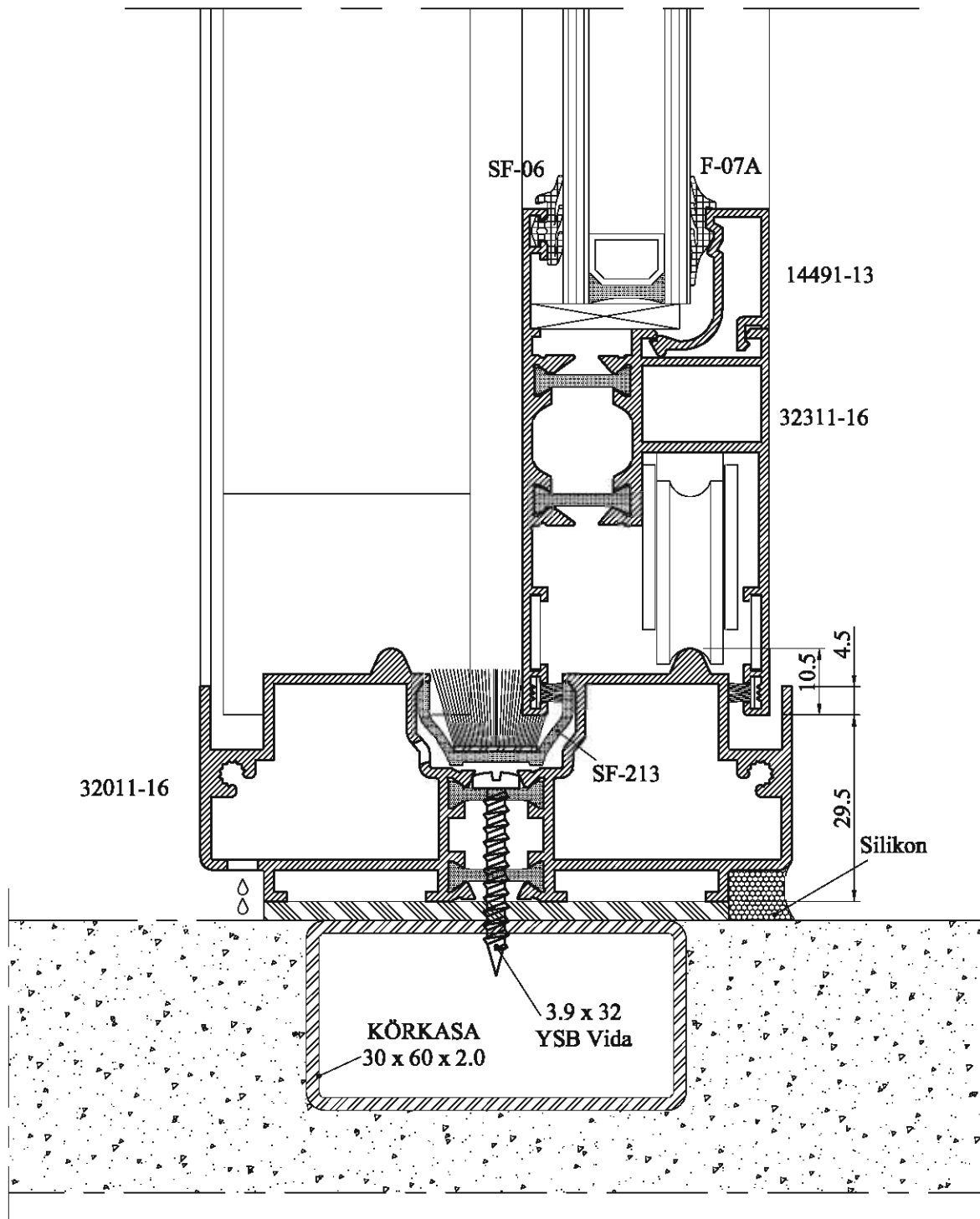
Sineklik Rayı
32622-12

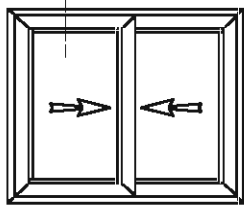


PROFİL KODU	AĞIRLIK (kg/m)
32611-15	0.732
32621-15	0.466
32631-15	0.179
32612-12	0.376
32622-12	0.147

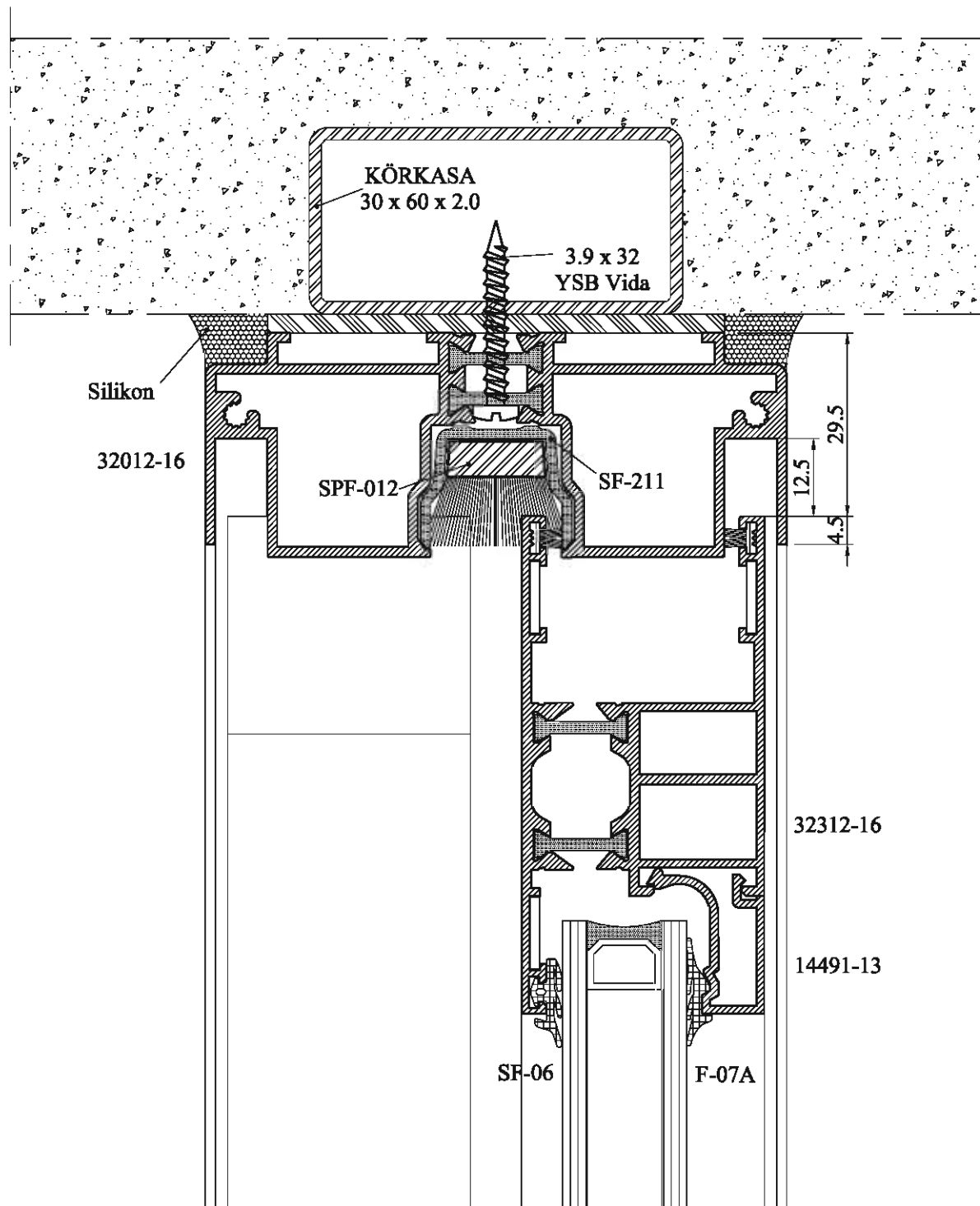


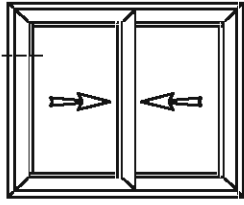
DÜŞEY KESİT ALT DETAYI





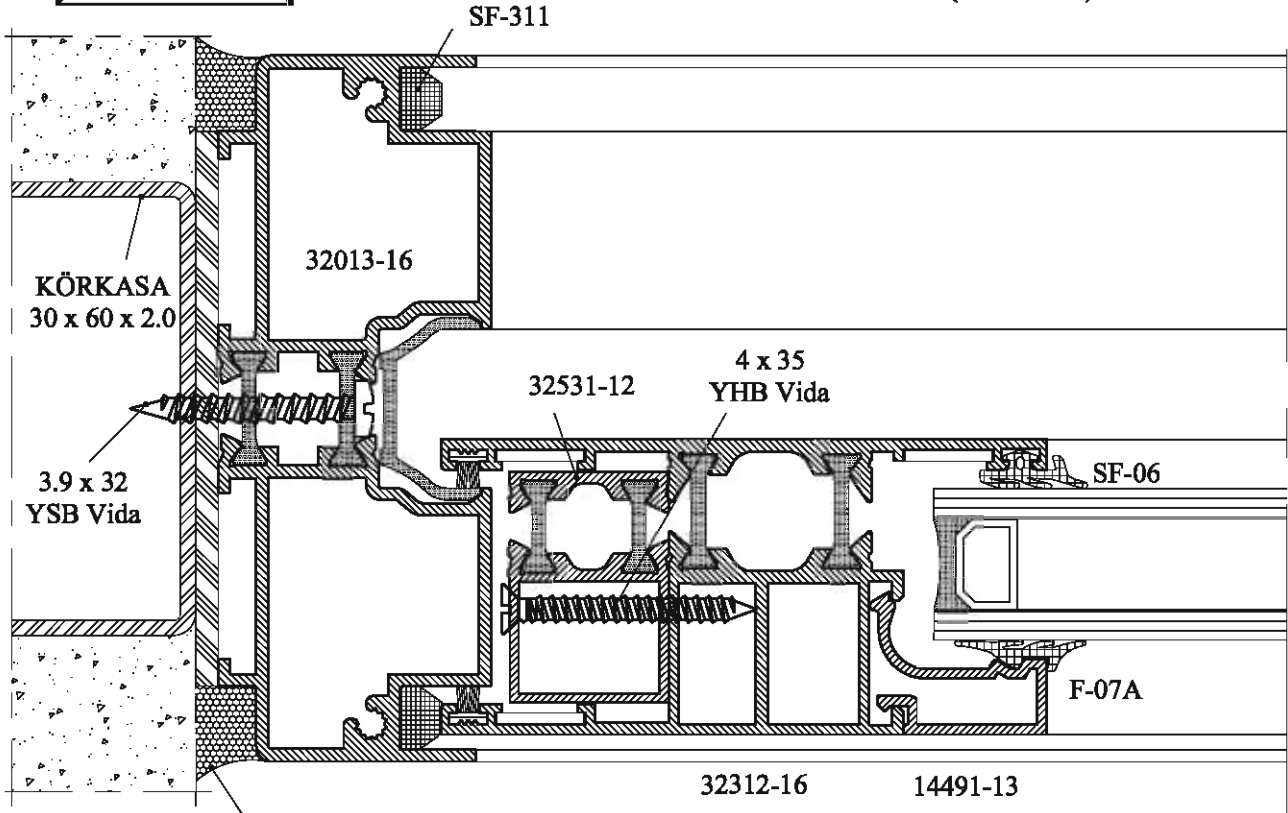
DÜŞEY KESİT ÜST DETAYI



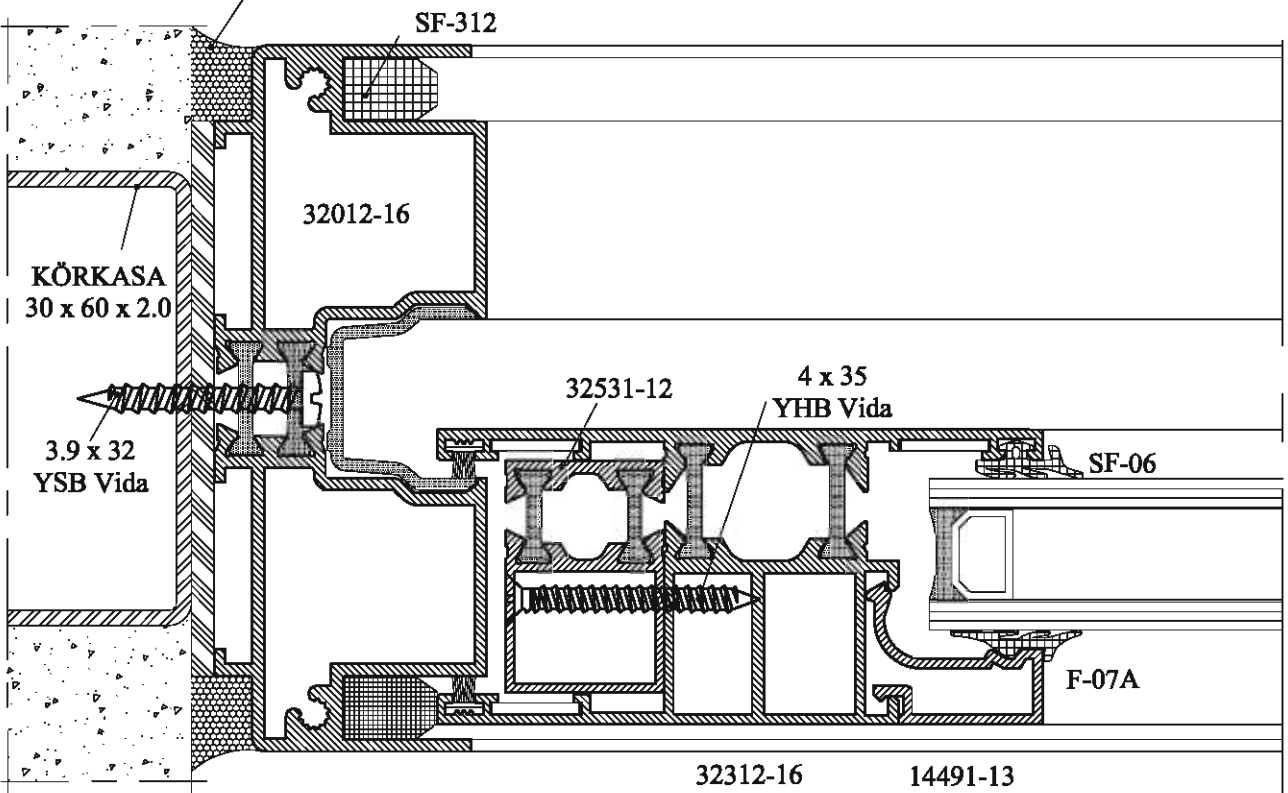


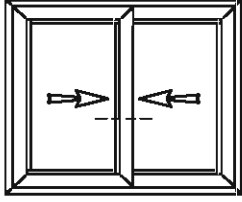
YATAY KESİT YAN KASA DETAYI

YAN KASA PROFİLİ İLE (32013-16)

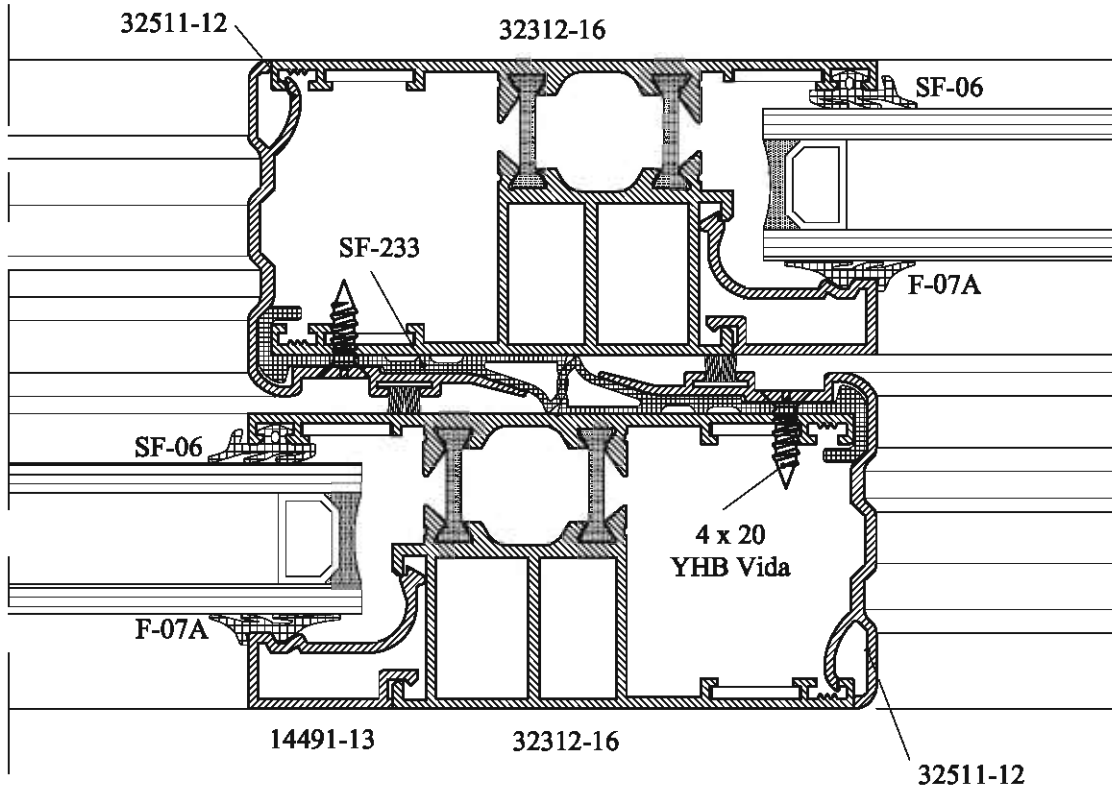


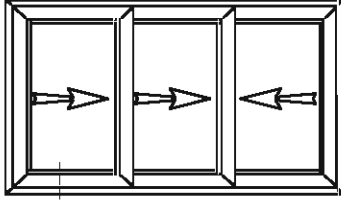
ÜST KASA PROFİLİ İLE ALTERNATİF KULLANIM (32012-16)



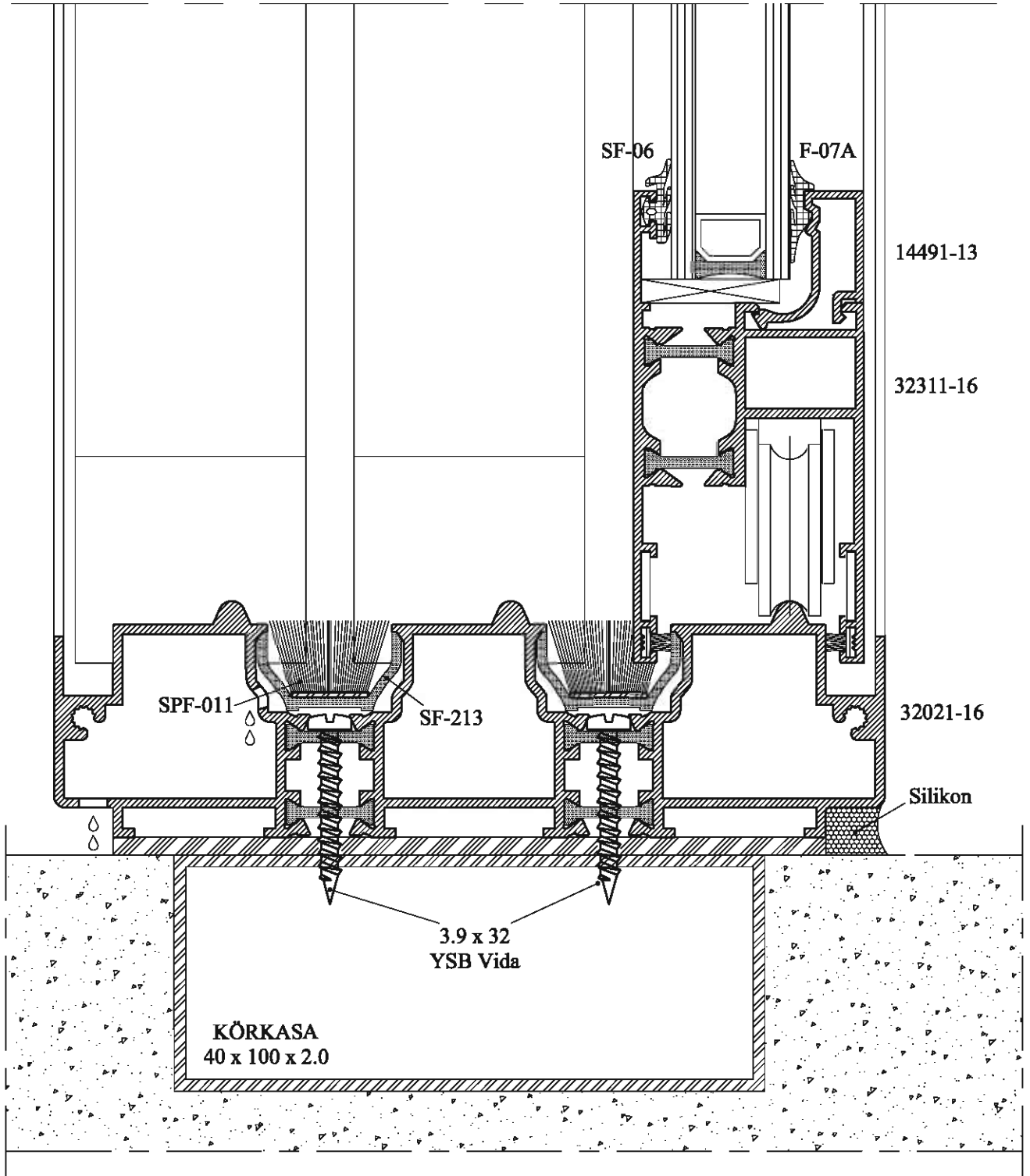


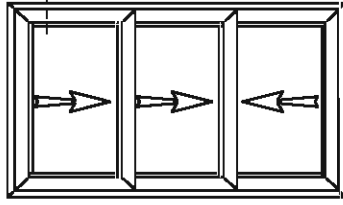
YATAY KESİT KANAT ALIN KAPATMA (KENET)
MONTAJ DETAYI



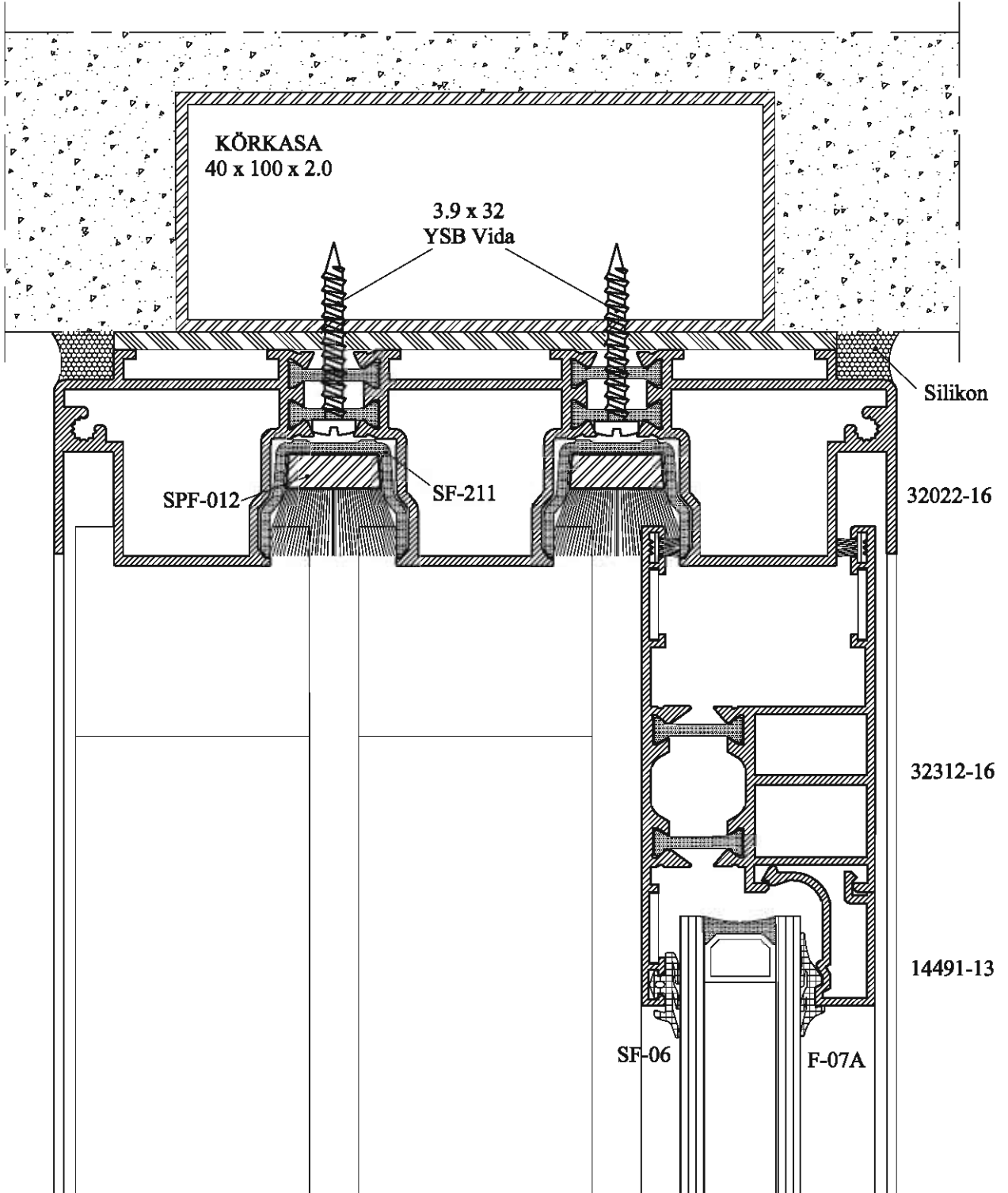


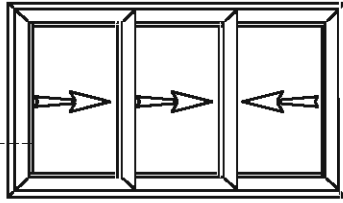
**DÜŞEY KESİT ALT DETAYI
(3 RAYLI SİSTEMDE)**



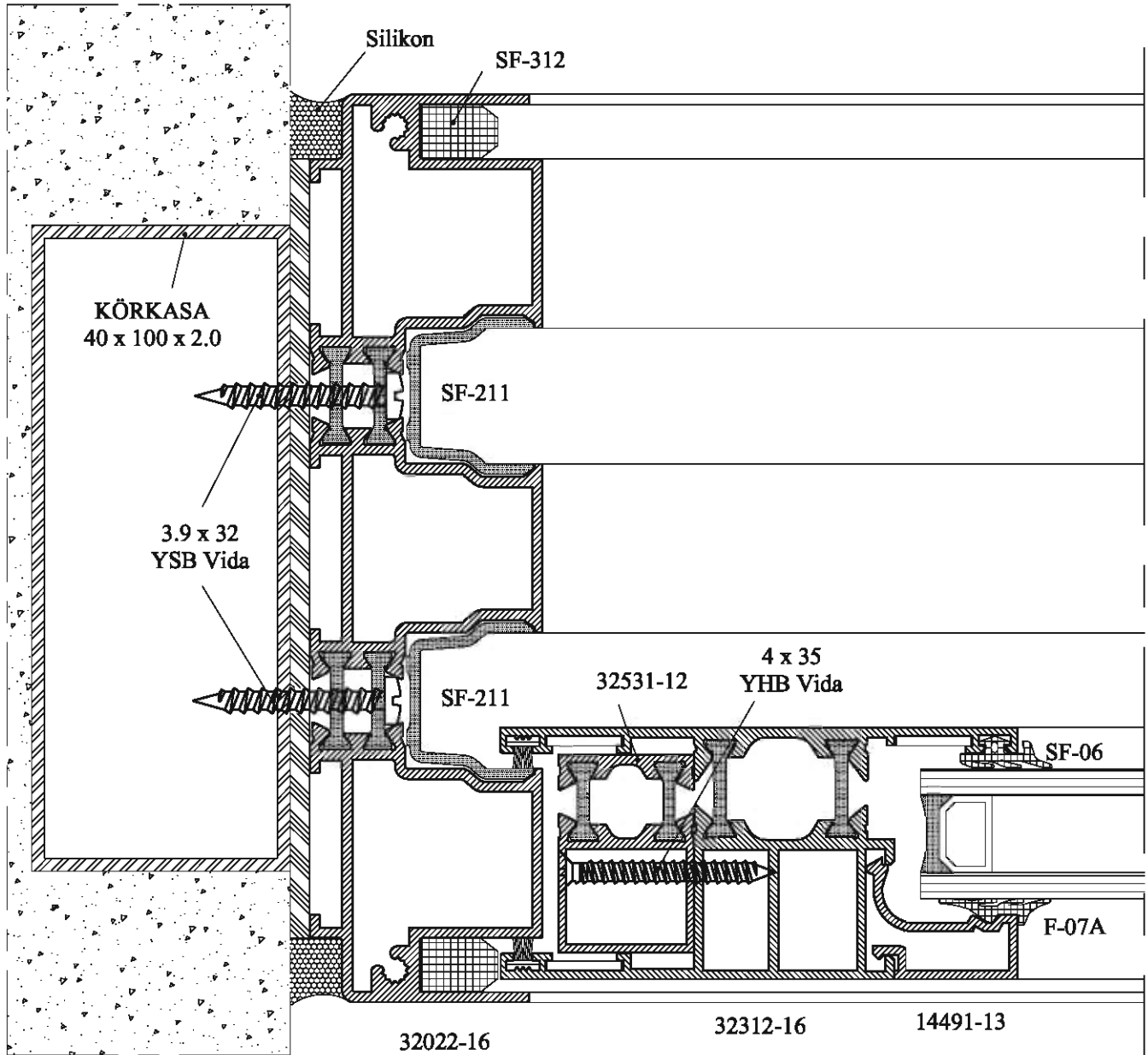


**DÜŞEY KESİT ÜST DETAYI
(3 RAYLI SİSTEMDE)**

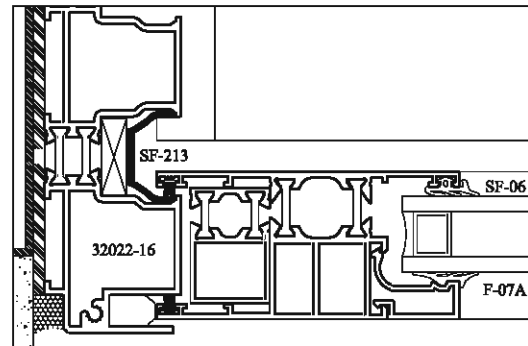


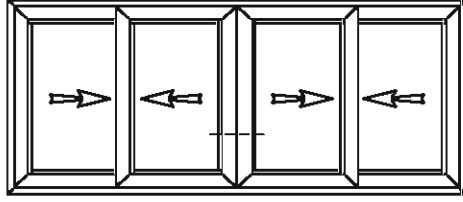


**DÜŞEY KESİT YAN DETAYI
(3 RAYLI SİSTEMDE)**

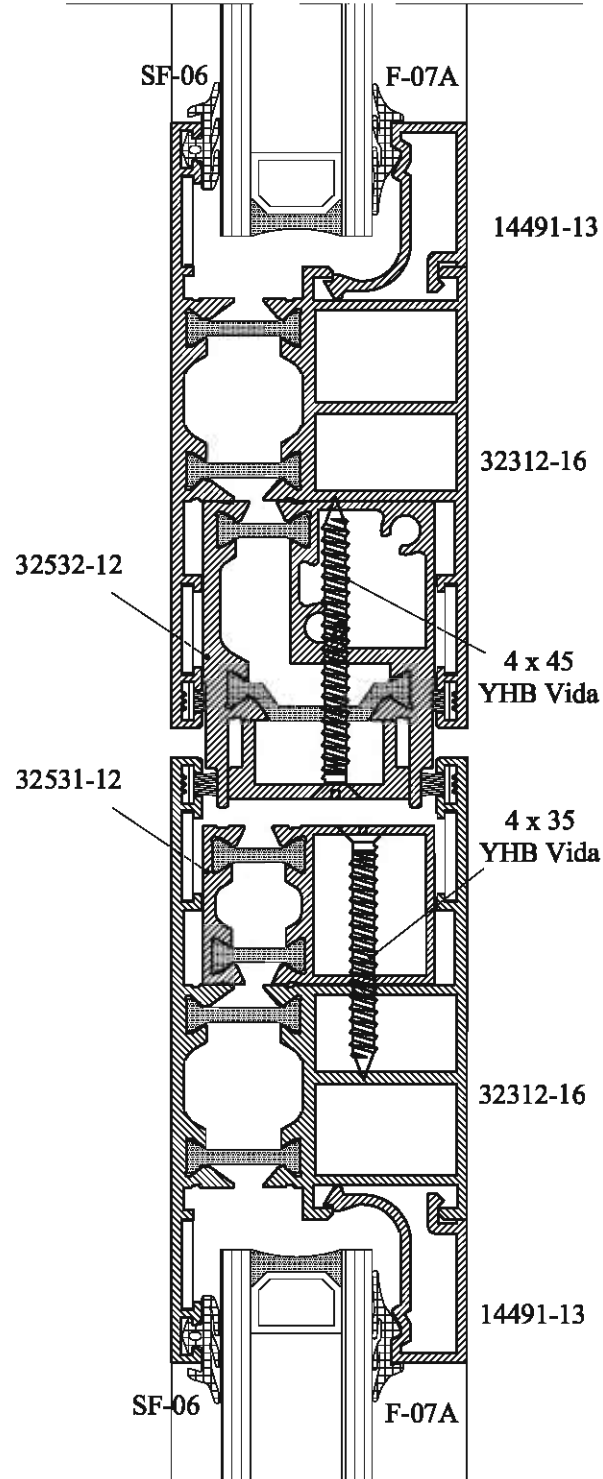


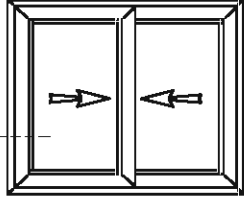
Yan kasa (32022-16) profilinin kanal plastiğine alternatif olarak SF-213'de kullanılabilir.



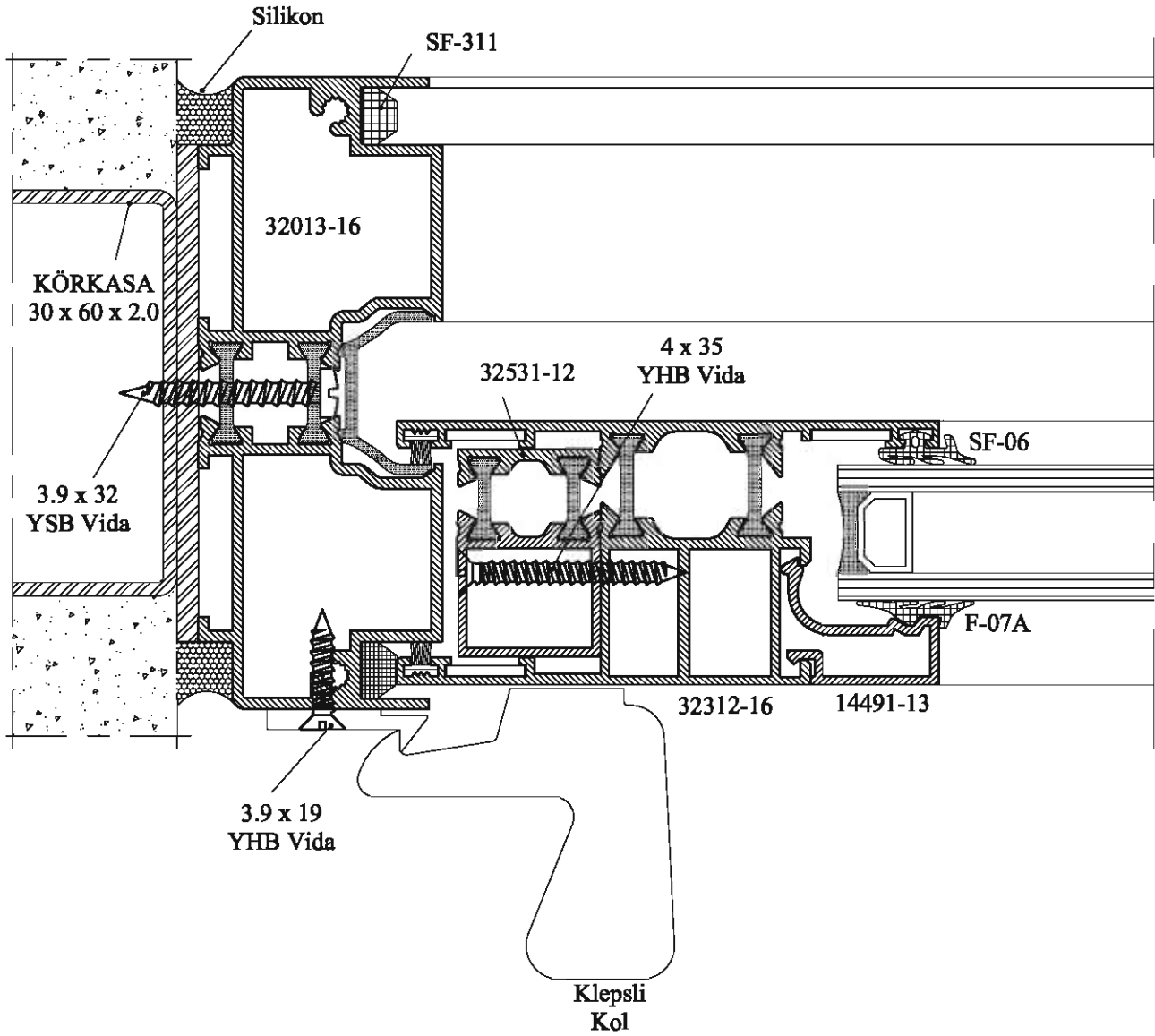


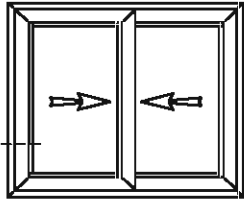
**YATAY KESİT ORTA BİRLEŞİM
MONTAJ DETAY**



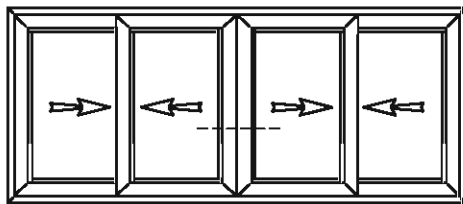
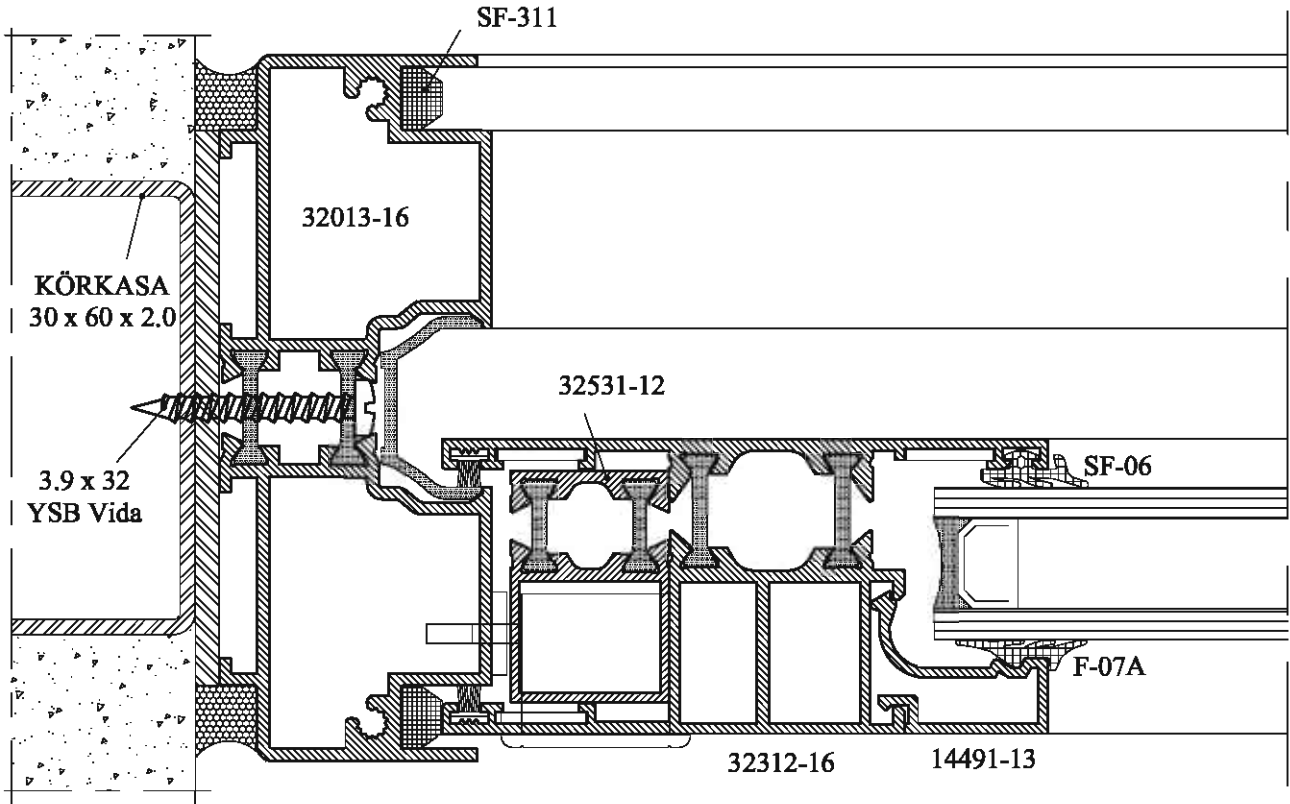


**YATAY KESİT KLEPSLİ KOL İLE
YAN KASA DETAYI**

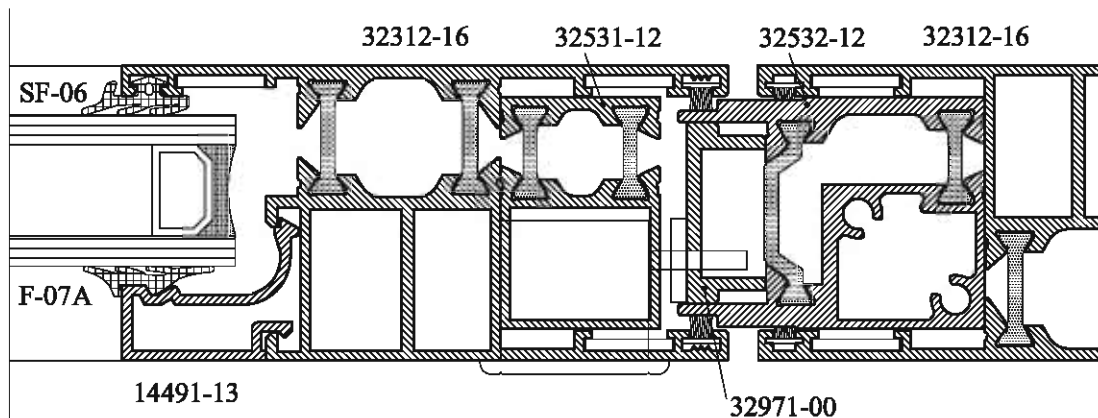


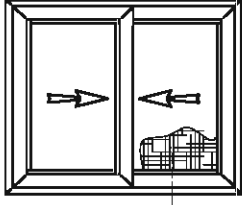


YATAY KESİT HAVUZLU KİLİT İLE YAN KASA DETAYI

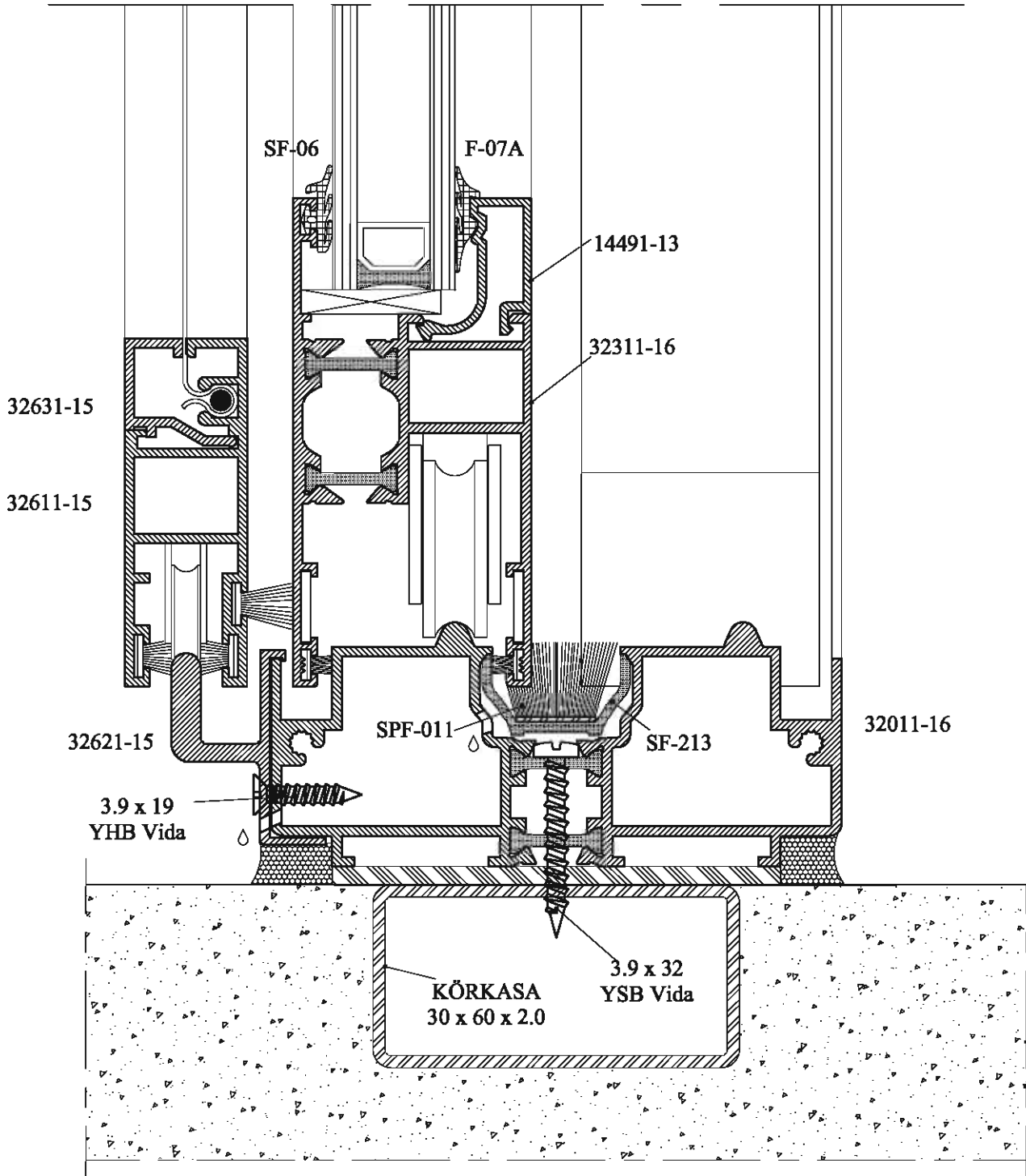


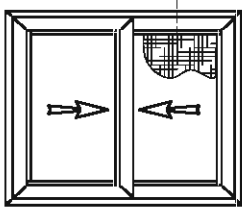
YATAY KESİT HAVUZLU KİLİT İLE ORTA KENET DETAYI



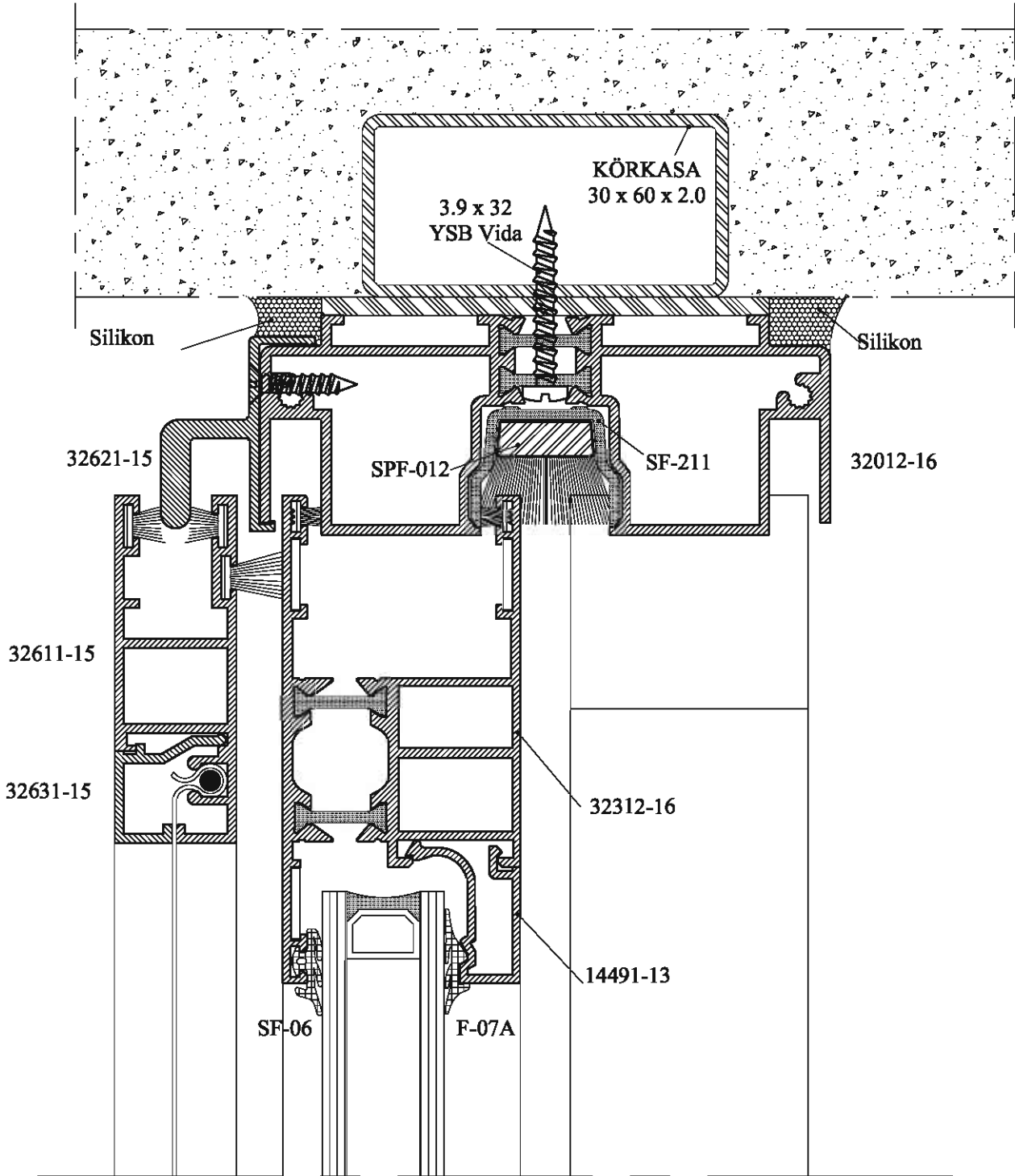


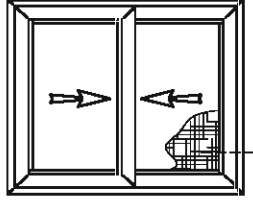
DÜŞEY KESİT ALT SİNEKLİK DETAYI



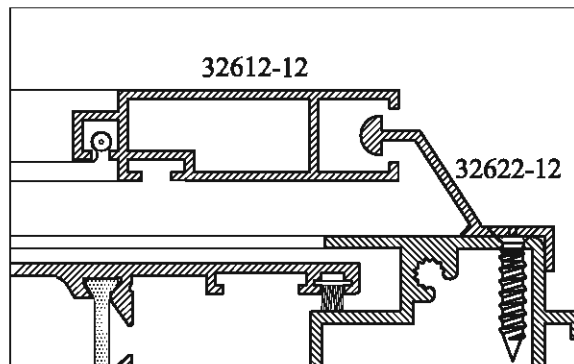
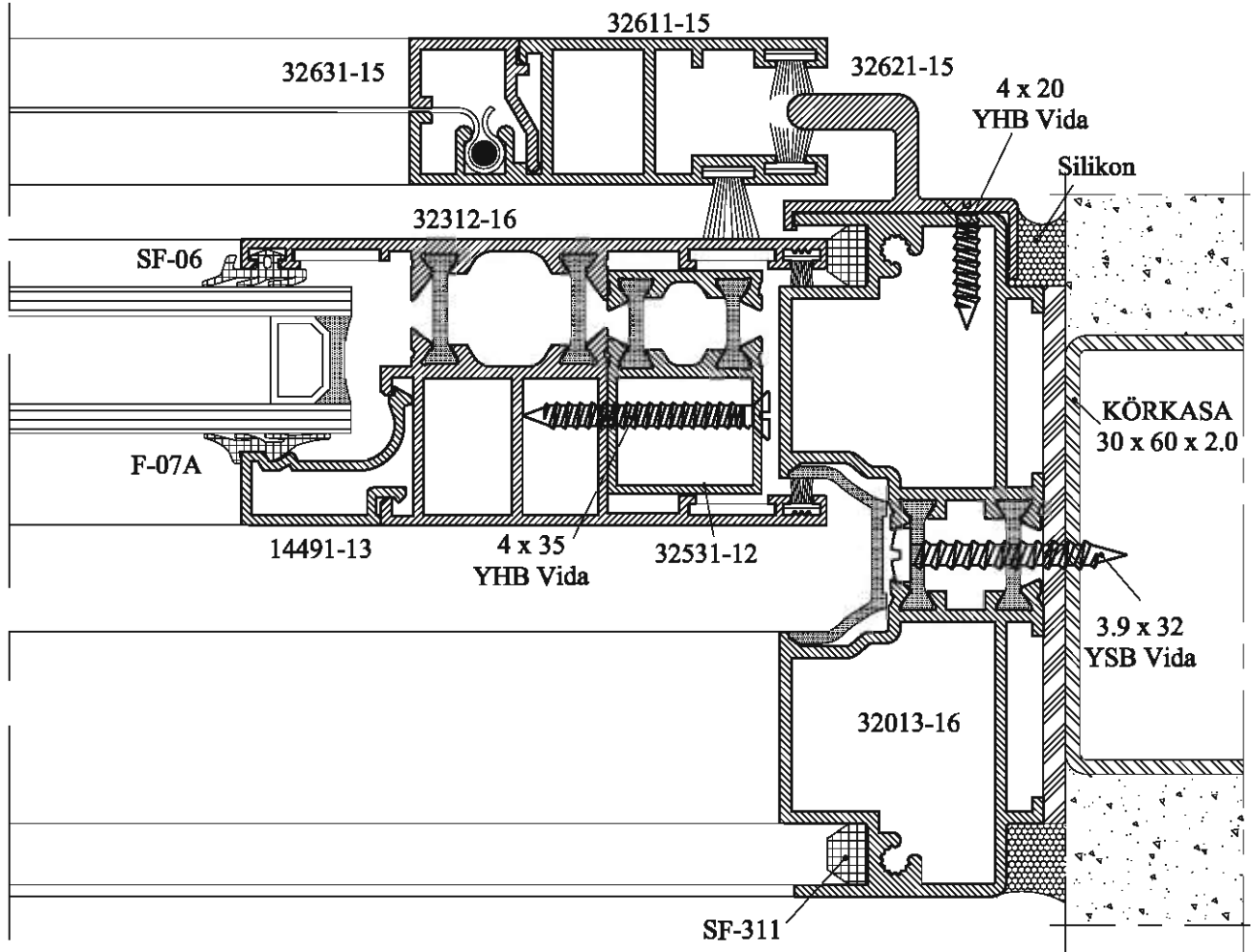


DÜŞEY KESİT ÜST SİNEKLİK DETAYI



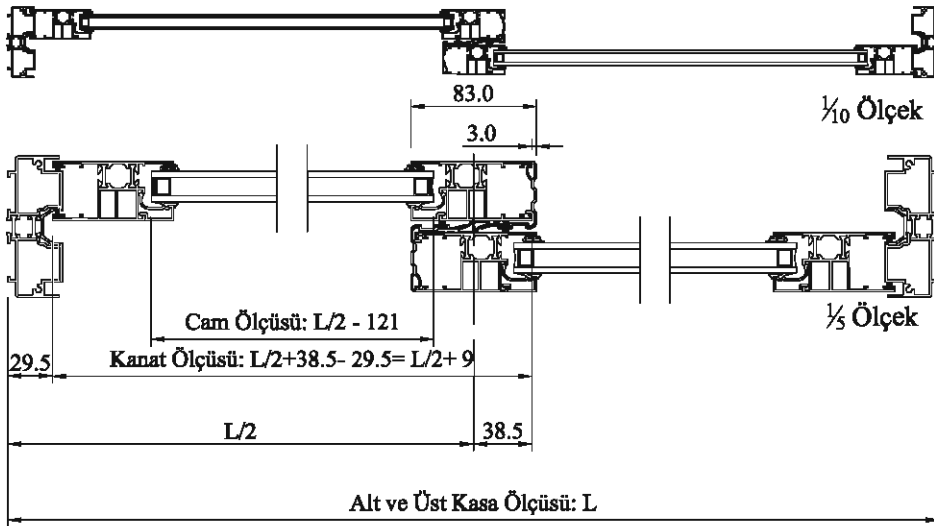
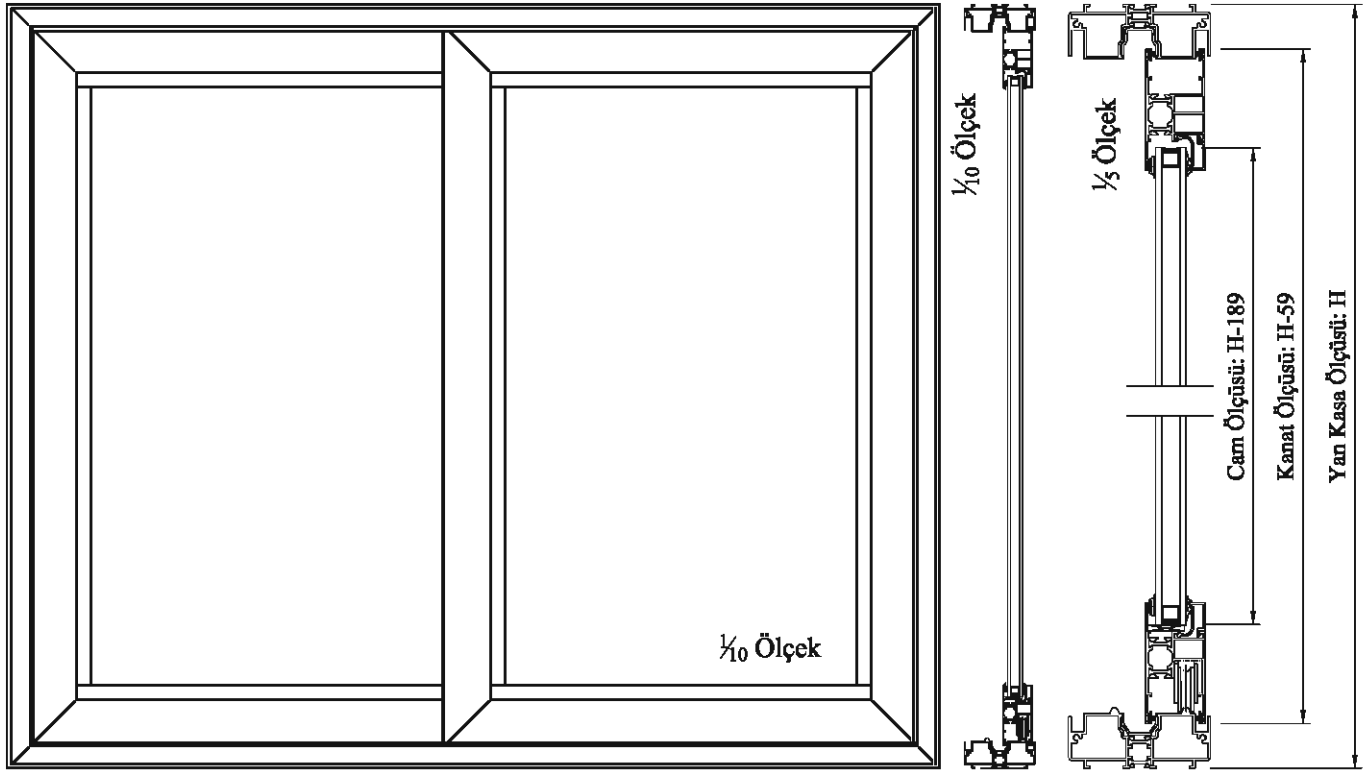


YATAY KESİT YAN KASA SİNEKLİK DETAYI



Alternatif Sineklik Profili

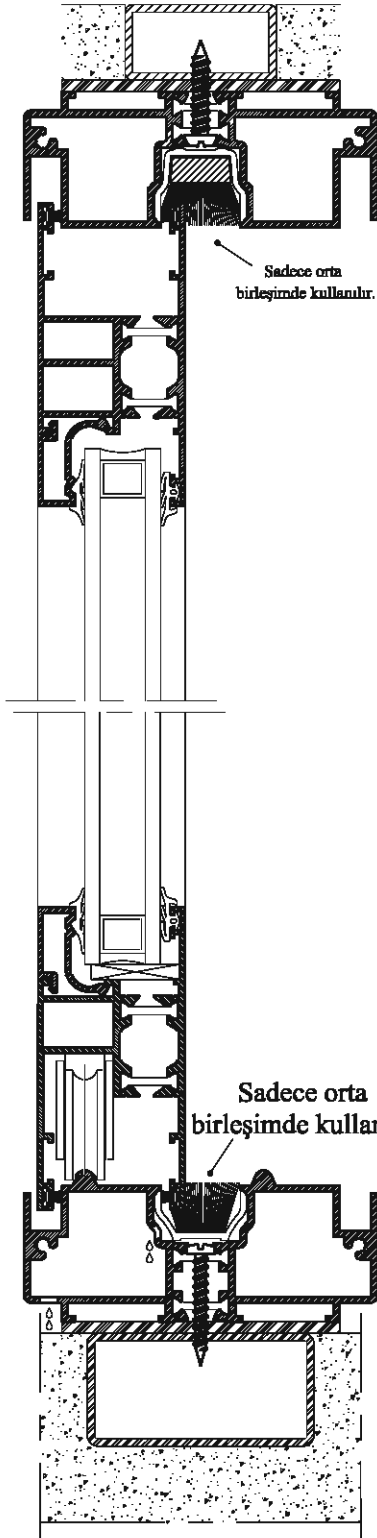
GÖNYELİ KASA, KANAT VE CAM KESİM ÖLÇÜLERİ



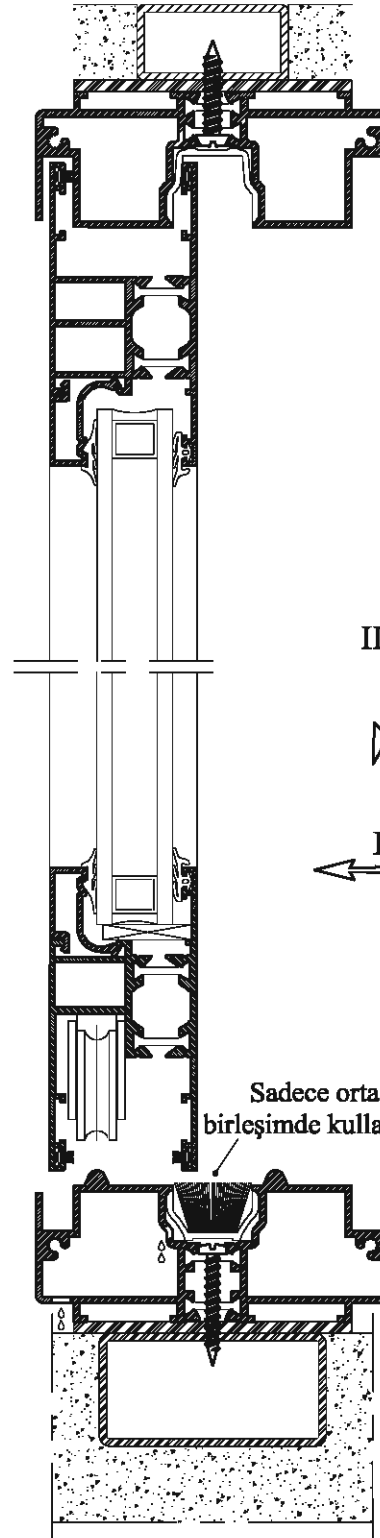
PROFİL ADI	PROFİL KODU	KESİM ÖLÇÜSÜ	ADET
ÜST KASA	32012-16	L	1
ALT KASA	32011-16 / 32014-16	L	1
YAN KASA	32013-16	H	2
KANAT (Yatay)	32311-16 / 32312-16	L/2 + 9	4
KANAT (Düşey)	32311-16 / 32112-16	H - 59	4

CAM ÖLÇÜSÜ	YATAY ÖLÇÜ	DÜŞEY ÖLÇÜ	ADET
	L/2 - 121	H - 189	4

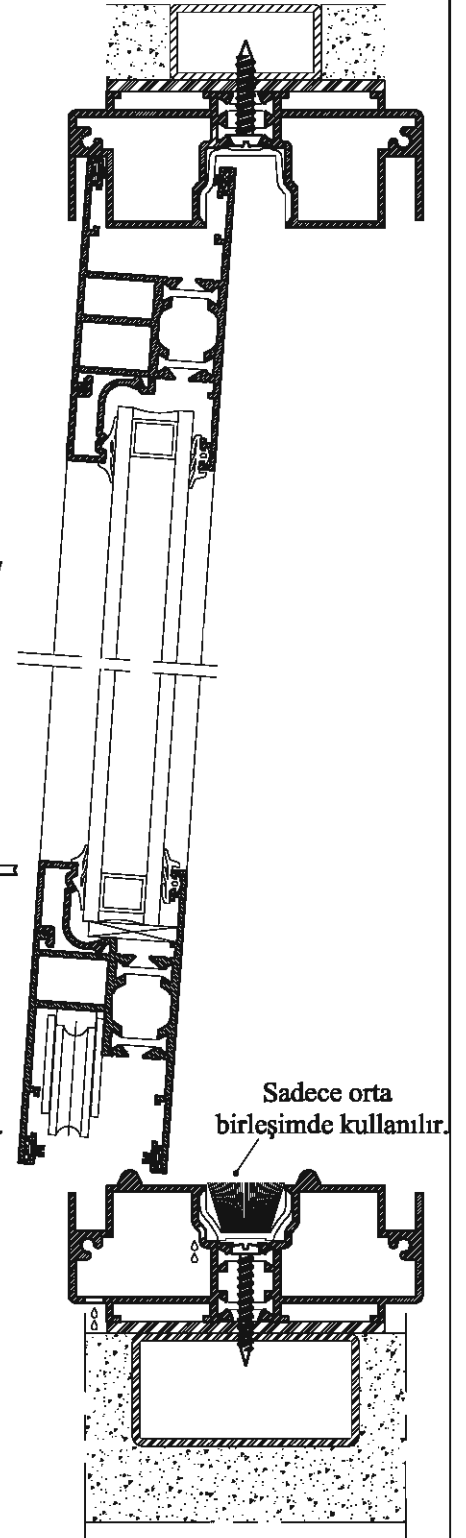
1.) NORMAL ÇALIŞMA
DURUMU



2.) KANAT SÖKÜLMESİ İÇİN
KALDIRILMIŞ HALİ



3.) KANAT SÖKÜLMESİ

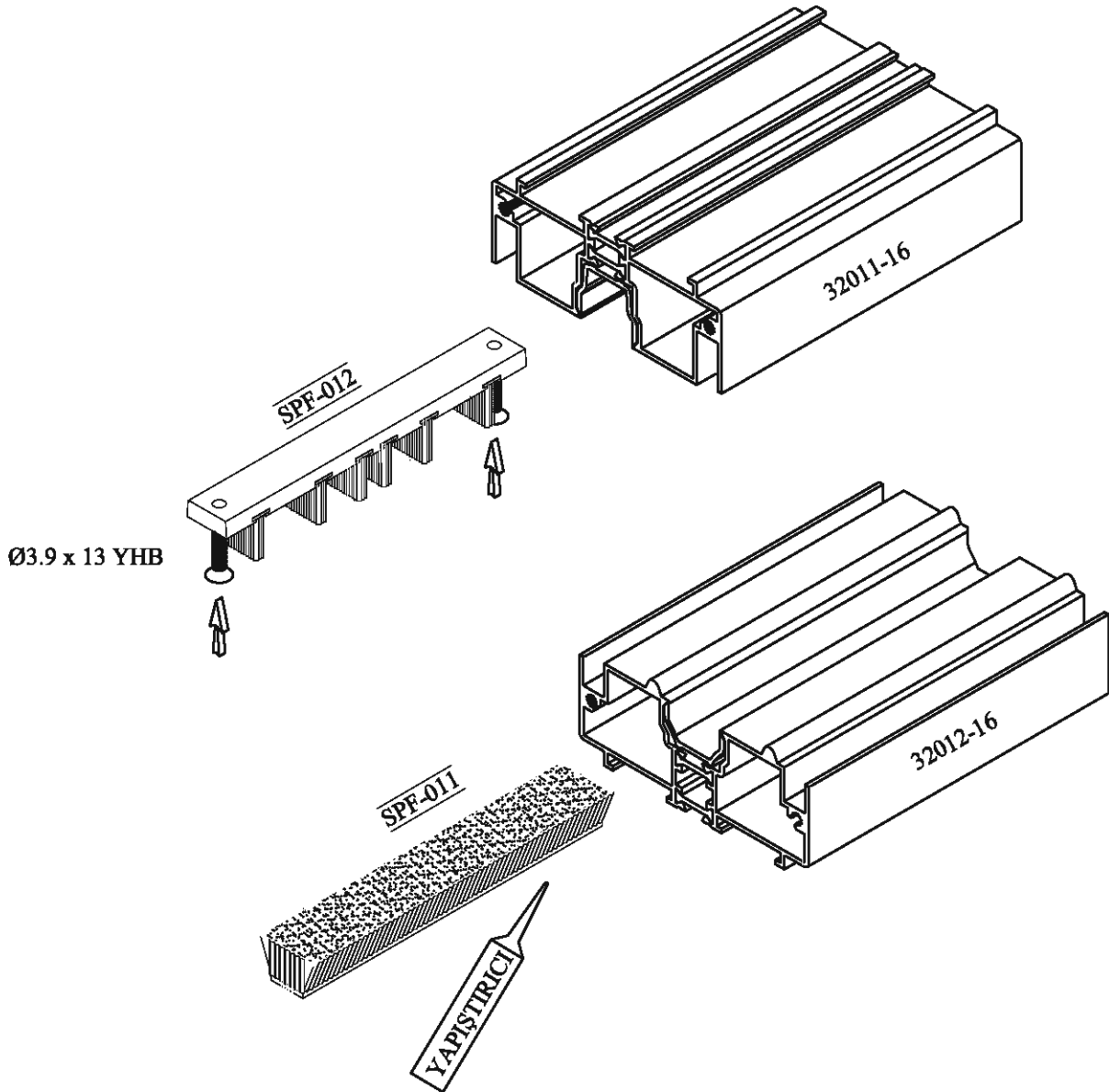


MONTAJ SIRASI

- 1) Montajı yapılmış olan kasaya; kanat profillerinden oluşturulmuş sürme kanat çerçeveleri, önce üst raya takılıp daha sonra alt ray üzerine oturtulur.
- 2) Kanatların çalışması kontrol edilir.
- 3) Orta kenet kısım eksenini belirlendikten sonra üst kasa ray profili (32012-16) içine SPF-012 kıl fitil plastiği Ø3.9 x 13 YHB vida ile montajı sağlanır.

SÖKÜLME SIRASI

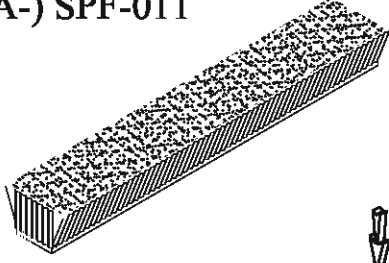
- 1) Orta kenet kısmında bulunan SPF-012 kıl fitil plastiğinin Ø3.9 x 13 YHB vida sökülür. (Sökme işleminin kolay yapılabilmesi için her iki kanat aynı tarafa sürülmelidir.)
- 2) SPF-012 kıl fitil plastiği çıkartılmasından sonra oluşturulmuş sürme kanatlar kasadan çıkartılır. (Bkz. Sayfa:178)



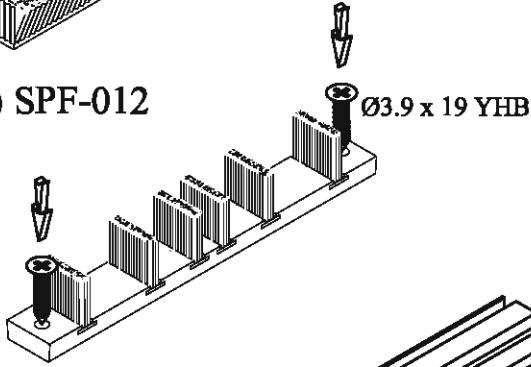
MONTAJ SIRASI

- 1) İki kanadın eksenini tespit edilerek alt kasa ray profiline (32011-16) SPF-011 kıl fitili yapıştırılır.
- 2) Montajı yapılmış olan kasada; kanat çerçevesini alt raya oturtmak için çerçeve önce yukarı itilerek üst raya takılmalıdır. Bunu takiben kanat çerçevesinin altındaki tekerleklerin alt ray hizasına gelmesiyle kanat serbest bırakılır.
- 3) Kanatların çalışması kontrol edilir.

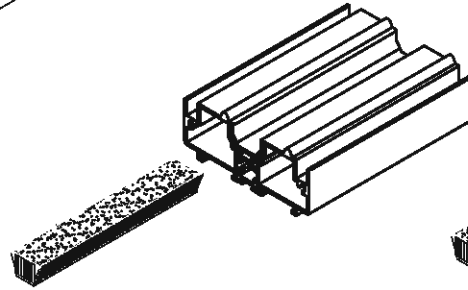
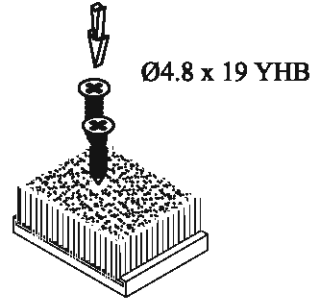
A-) SPF-011



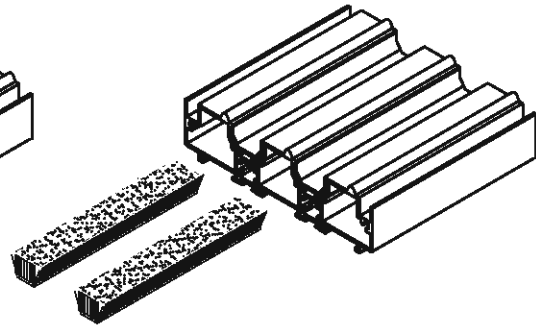
B-) SPF-012



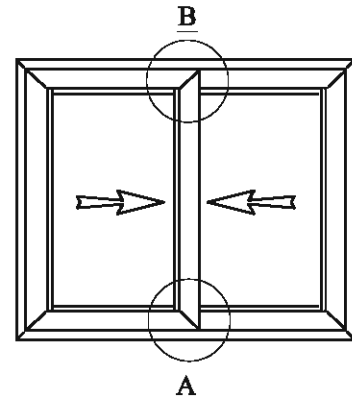
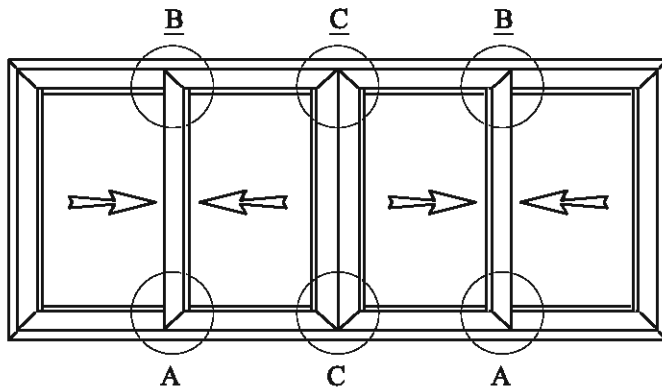
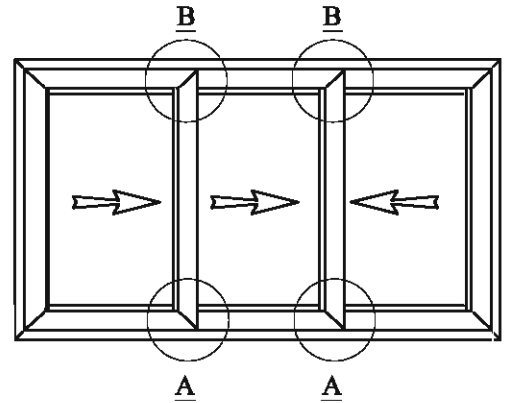
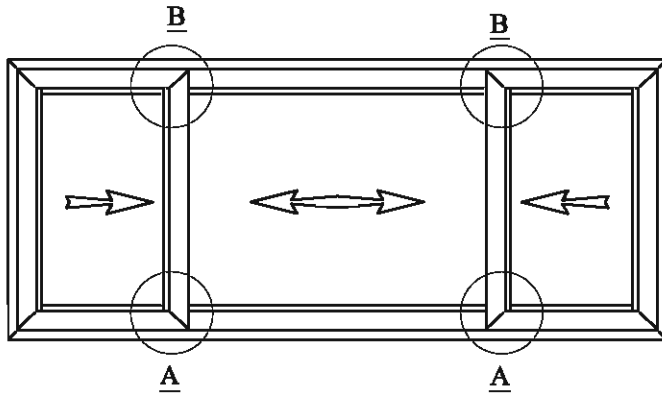
C-) SPF-532

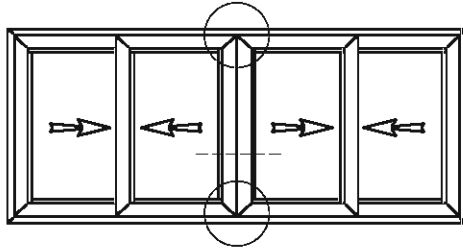


İKİLİ SÜRME
KİL FİTİL PLASTİK KULLANIMI

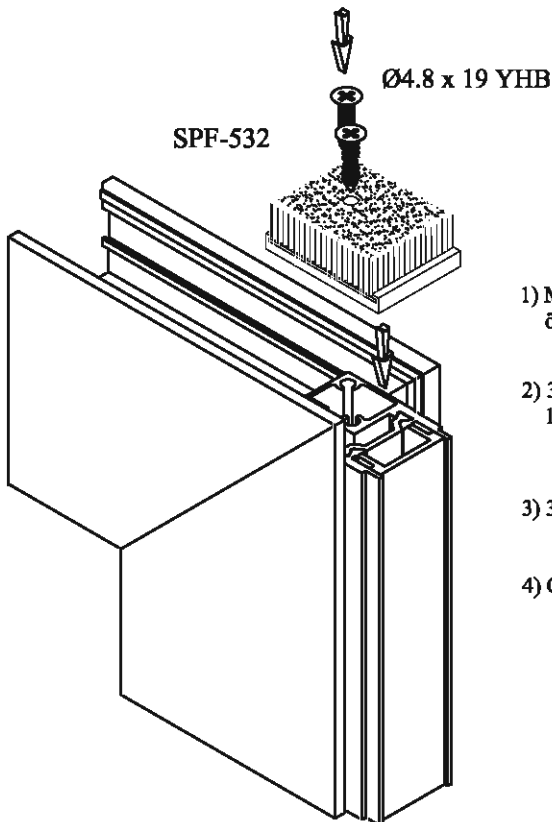
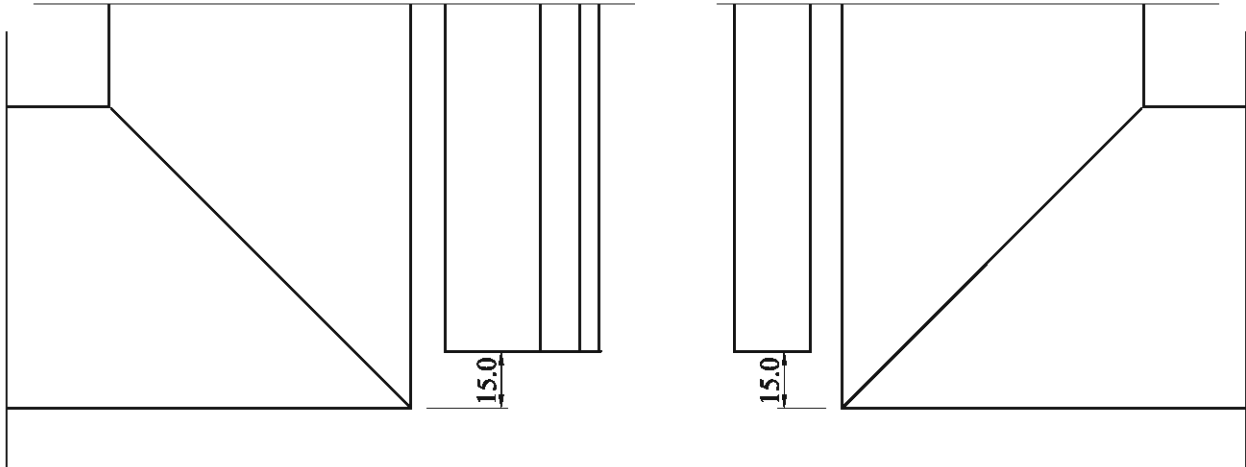
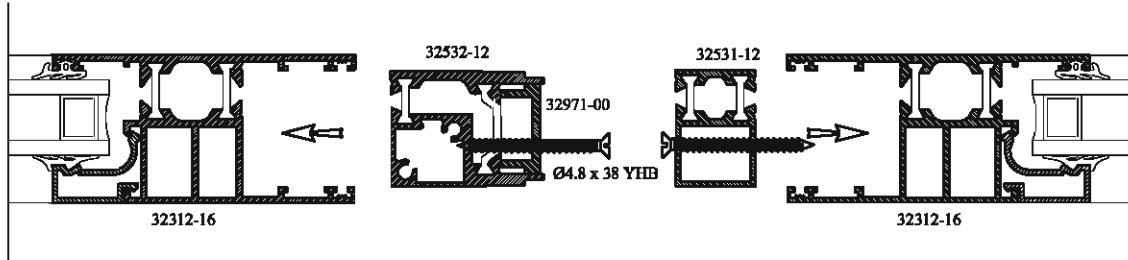


ÜÇLÜ SÜRME
KİL FİTİL PLASTİK KULLANIMI



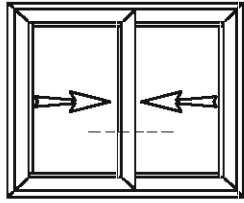


DÖRT KANATLI SÜRME ORTA BİRLEŞİM

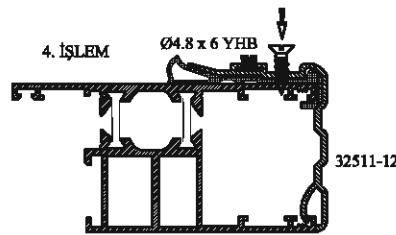
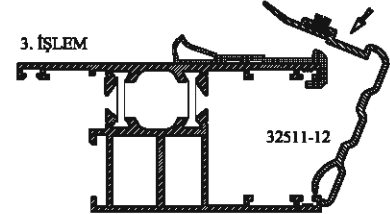
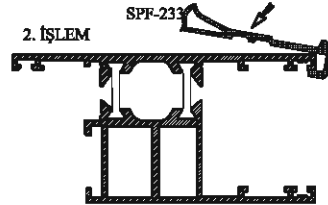
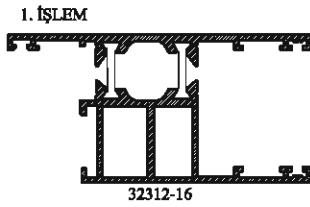


MONTAJ SIRASI

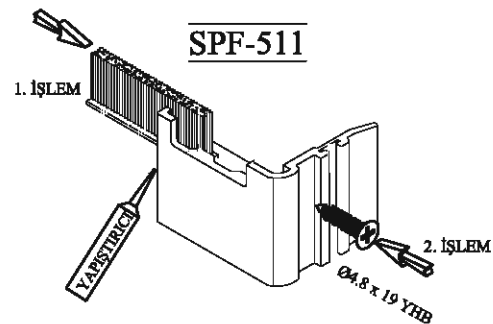
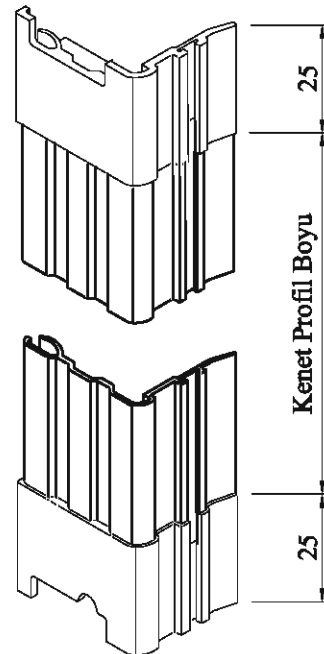
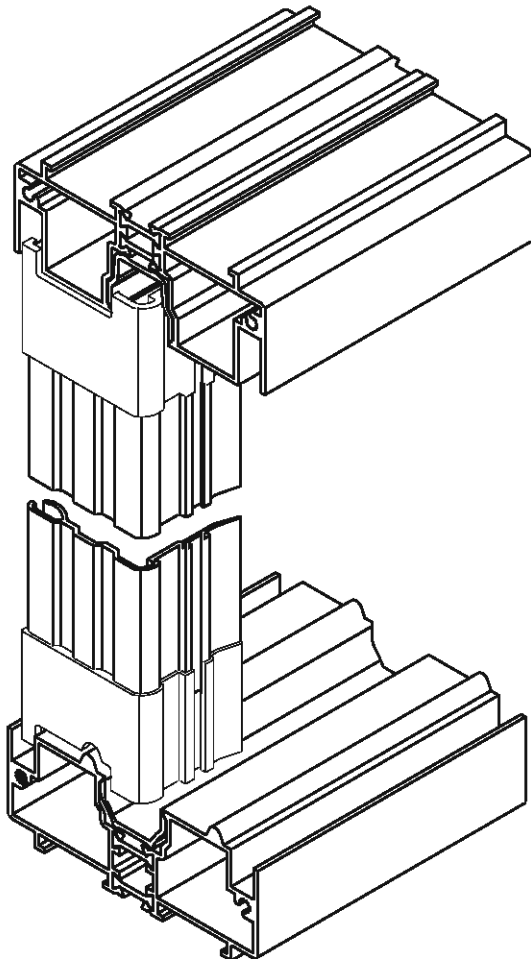
- 1) Montajı yapılmış olan kasaya; 32312-16 profilileri ile oluşturulan sürme kanatlar, önce üst raya geçirilip daha sonra alt ray üzerine oturtulur.
- 2) 32531-12 ve 32532-12 adaptör profilleri kanat altından ve üstünden 15mm +15mm = 30mm kısa kesilir.
- 3) 32532-12 adaptör profilinin alt ve üstüne SPF-532 tıpaları Ø4.8 x19 YHB ile vidalanır.
- 4) Orta birleşim adaptörleri sağ ve sol orta kanatlara Ø4.8 x 38 YHB ile vidalanır.



KANAT ALIN KAPATMA (KENET) PROFİL MONTAJ DETAYLARI

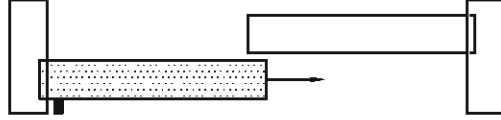


NOT: Oluşturulmuş kanat çerçevesine takılan Kanat Alın Kapatma(Kenet) Profilli kanat hizasından $25 + 25 = 50$ mm kısa kesilir. (Kenet plastiğinin yüksekliği 25 mm'dir.)

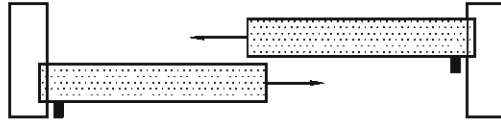


UYGULANABİLECEK ŞEMALAR

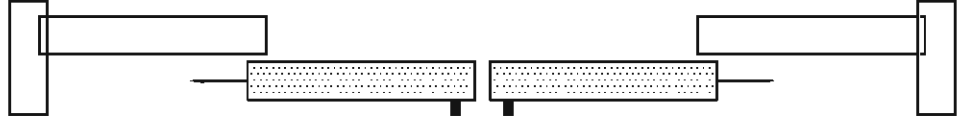
ŞEMA A



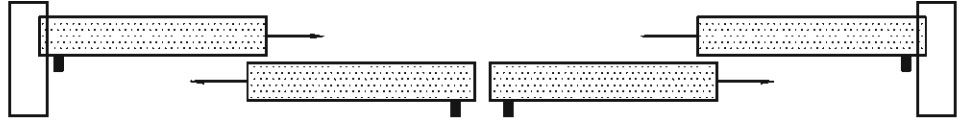
ŞEMA B



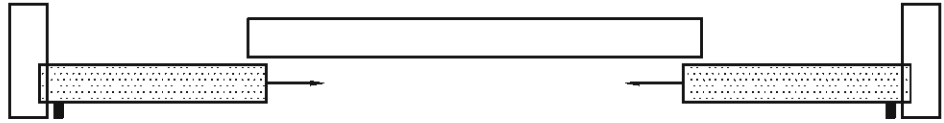
ŞEMA C



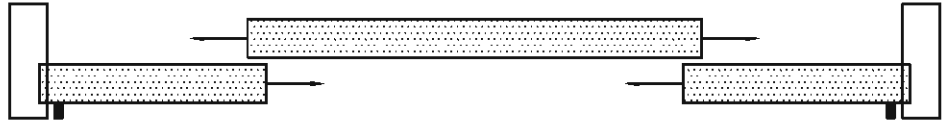
ŞEMA D



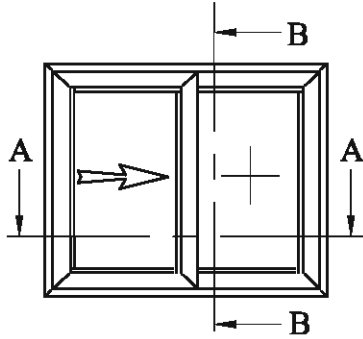
ŞEMA E



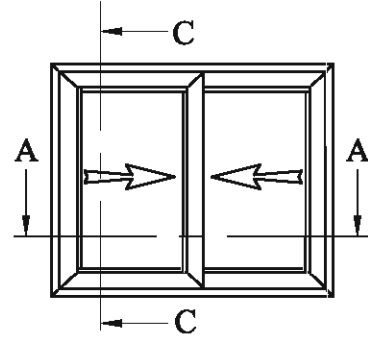
ŞEMA F



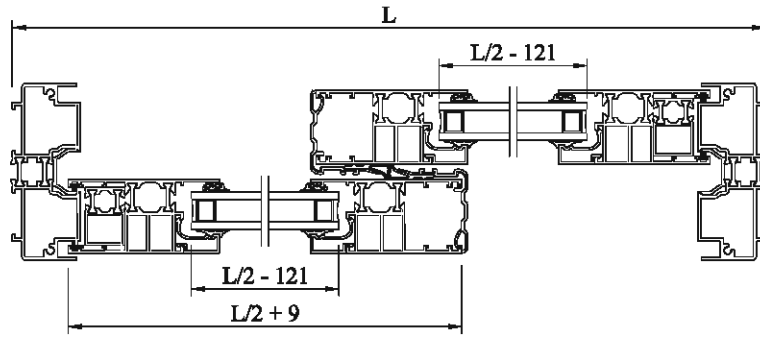
ŞEMA A



ŞEMA B

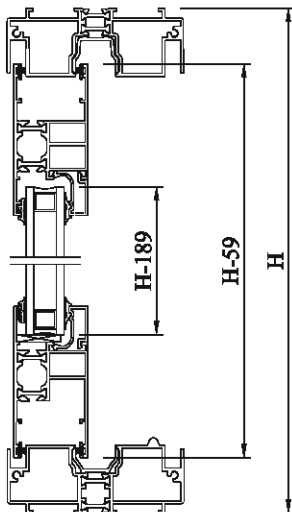


A-A Kesiti



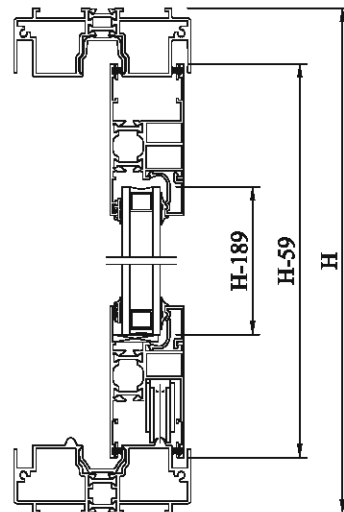
¼ Ölçek

B-B Kesiti



¼ Ölçek

C-C Kesiti



¼ Ölçek

ŞEMA A

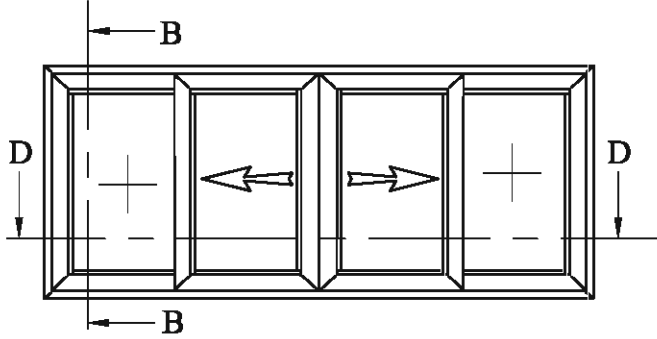
PROFİL	PROFİLLERİN KODU	PROFİLLERİN RESMİ	KESİM FORMÜLÜ	KULLANIM ADEDİ
Üst Kasa	32012-16		L	1
Alt Kasa	32014-16		L	1
Yan Kasa	32012-16 / 32013-16	 / 	H	2
Kanat (Yatay)	32311-16 / 32312-16	 / 	L/2 + 9	4
Kanat (Düşey)	32311-16 / 32312-16	 / 	H - 59	4
Kanat Kapatma Çıtası	32511-12		H - 109	2
Çıta	Çıta seçimi için çıta seçim tablosuna bakınız (Sayfa: 42)		---	4
Çıta	Çıta seçimi için çıta seçim tablosuna bakınız (Sayfa: 42)		---	4
Kilit Adaptörü	32531-12		H - 89	2

ŞEMA B

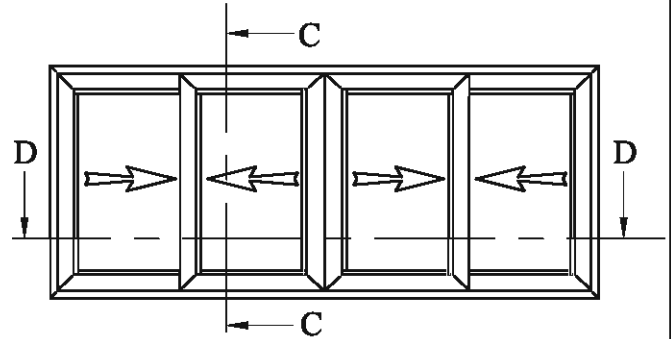
PROFİL	PROFİLLERİN KODU	PROFİLLERİN RESMİ	KESİM FORMÜLÜ	KULLANIM ADEDİ
Üst Kasa	32012-16		L	1
Alt Kasa	32011-16		L	1
Yan Kasa	32012-16 / 32013-16	 / 	H	2
Kanat (Yatay)	32311-16 / 32312-16	 / 	L/2 + 9	4
Kanat (Düşey)	32311-16 / 32312-16	 / 	H - 59	4
Kanat Kapatma Çıtası	32511-12		H - 109	2
Çıta	Çıta seçimi için çıta seçim tablosuna bakınız (Sayfa: 42)		---	4
Çıta	Çıta seçimi için çıta seçim tablosuna bakınız (Sayfa: 42)		---	4
Kilit Adaptörü	32531-12		H - 89	2

Cam kesim ölçüsü		Adet
Yatay ölçü	L/2 - 121	2
Düşey ölçü	H - 189	
Camın her 2 tarafında da 4mm'den toplam 8mm'lik takoz boşluğu bırakılmıştır. Plastik takoz kullanmanızı ve zorunluluk haricinde 4mm boşluğu korumanızı öneririz.		

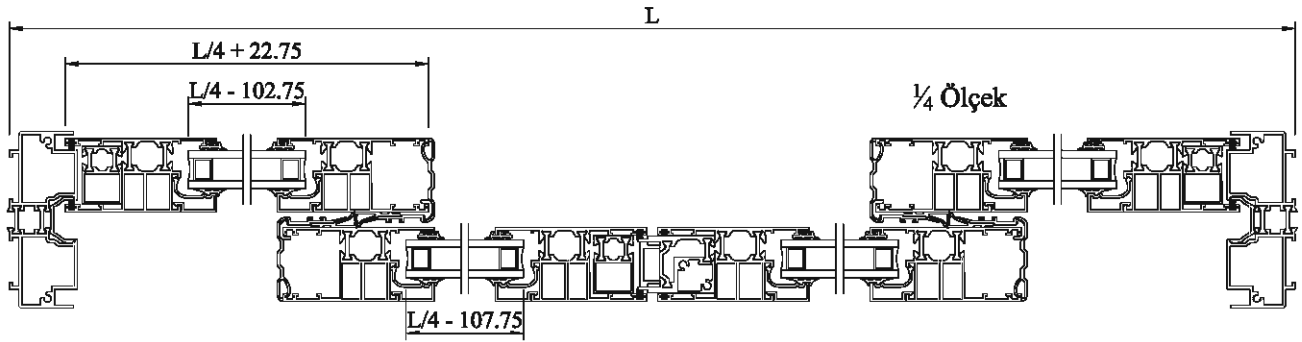
ŞEMA C



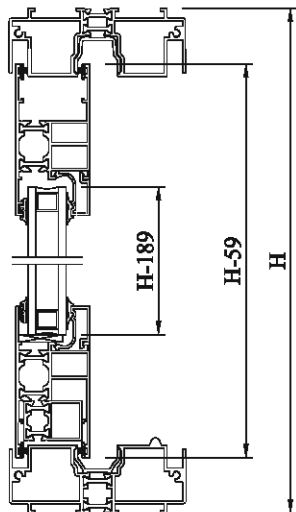
ŞEMA D



D-D Kesiti

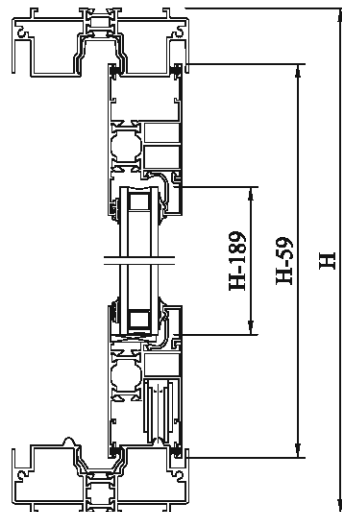


B-B Kesiti



1/4 Ölçek

C-C Kesiti



1/4 Ölçek

ŞEMA C

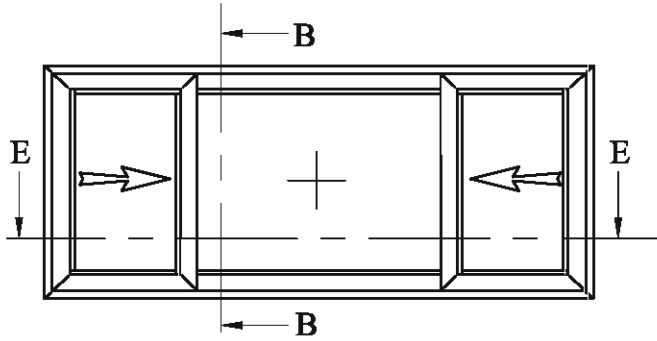
PROFİL	PROFİLLERİN KODU	PROFİLLERİN RESMİ	KESİM FORMÜLÜ	KULLANIM ADEDİ
Üst Kasa	32012-16		L	1
Alt Kasa	32014-16		L	1
Yan Kasa	32012-16 / 32013-16		H	2
Kanat (Yatay)	32311-16 / 32312-16		L/4 + 22.75	8
Kanat (Düşey)	32311-16 / 32312-16		H - 59	8
Kanat Kapatma Çıtası	32511-12		H - 109	4
Çıta	Çıta seçimi için çıta seçim tablosuna bakınız (Sayfa: 42)		---	8
Çıta	Çıta seçimi için çıta seçim tablosuna bakınız (Sayfa: 42)		---	8
Kilit Adaptörü	32531-12		H - 89	3
Kanat Birleşim	32532-12		H - 89	1
Kilit Karşılığı	32971-00		H - 89	1

ŞEMA D

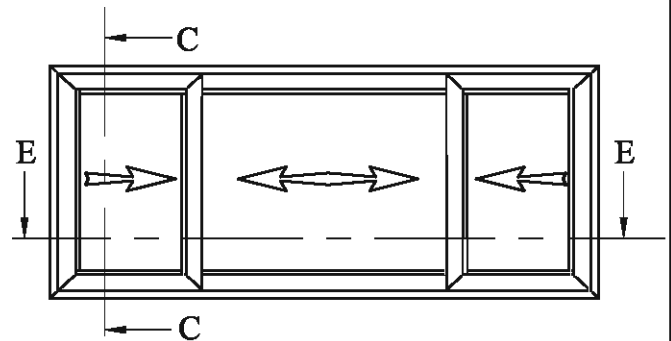
PROFİL	PROFİLLERİN KODU	PROFİLLERİN RESMİ	KESİM FORMÜLÜ	KULLANIM ADEDİ
Üst Kasa	32012-16		L	1
Alt Kasa	32011-16		L	1
Yan Kasa	32012-16 / 32013-16		H	2
Kanat (Yatay)	32311-16 / 32312-16		L/4 + 22.75	8
Kanat (Düşey)	32311-16 / 32312-16		H - 59	8
Kanat Kapatma Çıtası	32511-12		H - 109	4
Çıta	Çıta seçimi için çıta seçim tablosuna bakınız (Sayfa: 42)		---	8
Çıta	Çıta seçimi için çıta seçim tablosuna bakınız (Sayfa: 42)		---	8
Kilit Adaptörü	32531-12		H - 89	3
Kanat Birleşim	32532-12		H - 89	1
Kilit Karşılığı	32971-00		H - 89	1

Cam kesim ölçüsü		Adet
Yatay ölçü	L/4 - 107.25	4
Düşey ölçü	H - 189	
Camın her 2 tarafında da 4mm'den toplam 8mm'lik takoz boşluğu bırakılmıştır. Plastik takoz kullanmanızı ve zorunluluk haricinde 4mm boşluğu korumanızı öneririz.		

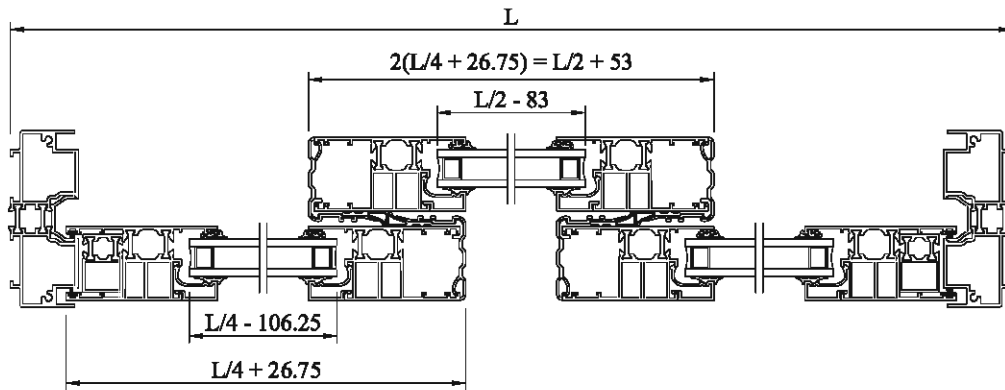
ŞEMA E



ŞEMA F

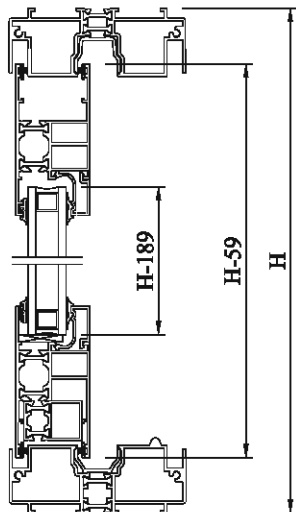


E-E Kesiti



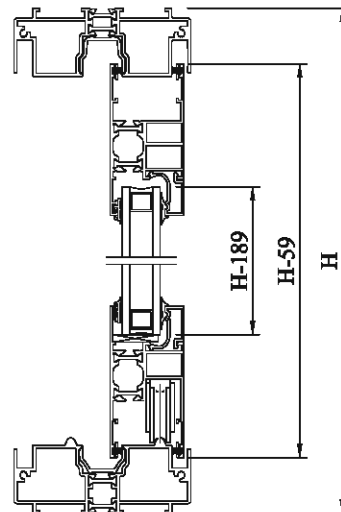
¼ Ölçek

B-B Kesiti



¼ Ölçek

C-C Kesiti



¼ Ölçek

ŞEMA E

PROFİL	PROFİLLERİN KODU	PROFİLLERİN RESMİ	KESİM FORMÜLÜ	KULLANIM ADEDİ
Üst Kasa	32012-16		L	1
Alt Kasa	32014-16		L	1
Yan Kasa	32012-16 / 32013-16	 / 	H	2
Kanat (Yatay)	32311-16 / 32312-16	 / 	L/4 + 26.75	4
Kanat (Yatay)	32311-16 / 32312-16	 / 	L/2 + 53	2
Kanat (Düşey)	32311-16 / 32312-16	 / 	H - 59	6
Kanat Kapatma Çıtası	32511-12		H - 109	4
Çıta	Çıta seçimi için çıta seçim tablosuna bakınız (Sayfa: 42)		---	6
Çıta	Çıta seçimi için çıta seçim tablosuna bakınız (Sayfa: 42)		---	6
Kilit Adaptörü	32531-12		H - 89	2

ŞEMA F

PROFİL	PROFİLLERİN KODU	PROFİLLERİN RESMİ	KESİM FORMÜLÜ	KULLANIM ADEDİ
Üst Kasa	32012-16		L	1
Alt Kasa	32011-16		L	1
Yan Kasa	32012-16 / 32013-16	 / 	H	2
Kanat (Yatay)	32311-16 / 32312-16	 / 	L/4 + 26.75	4
Kanat (Yatay)	32311-16 / 32312-16	 / 	L/2 + 53	2
Kanat (Düşey)	32311-16 / 32312-16	 / 	H - 59	6
Kanat Kapatma Çıtası	32511-12		H - 109	4
Çıta	Çıta seçimi için çıta seçim tablosuna bakınız (Sayfa: 42)		---	6
Çıta	Çıta seçimi için çıta seçim tablosuna bakınız (Sayfa: 42)		---	6
Kilit Adaptörü	32531-12		H - 89	2

Cam kesim ölçüsü		Adet
Yatay ölçü	L/4 - 106.25 / L/2-83	2 / 1
Düşey ölçü	H - 189	2
Camın her 2 tarafında da 4mm'den toplam 8mm'lik takoz boşluğu bırakılmıştır. Plastik takoz kullanmanızı ve zorunluluk haricinde 4mm boşluğu korumanızı öneririz.		