

# EURO COMFORT®

## DOĞRAMA SİSTEMLERİ TEKNİK KATALOG 2024

**Teknikal®**  
ALÜMİNYUM

**Gencer®**  
ALÜMİNYUM SİSTEMLERİ



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Katalogdaki profil ağırlıkları, ham profillerin teorik resim ağırlıklarıdır.

Katalogta yer alan profil ve aksesuarlarla ilgili haber vermeden her türlü değişiklik yapma hakkı firmamızca mahfuzdur.

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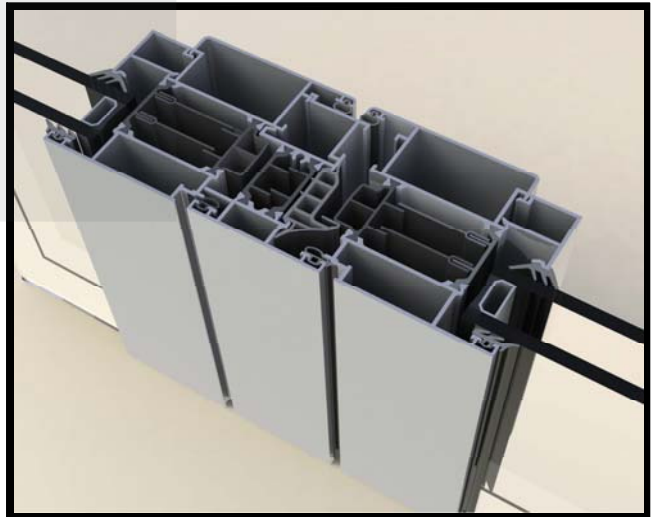
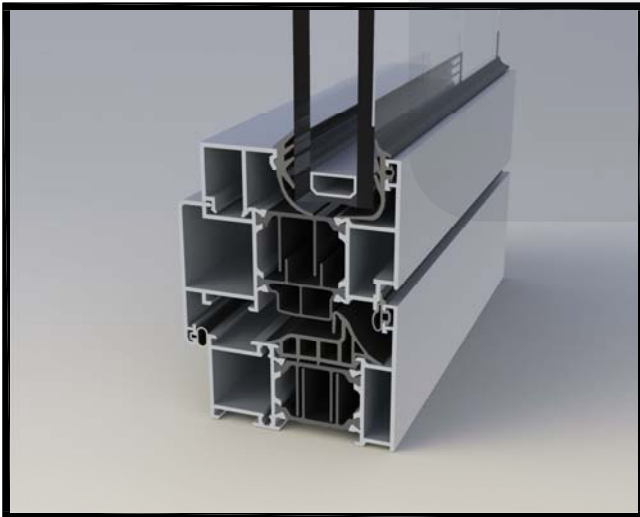
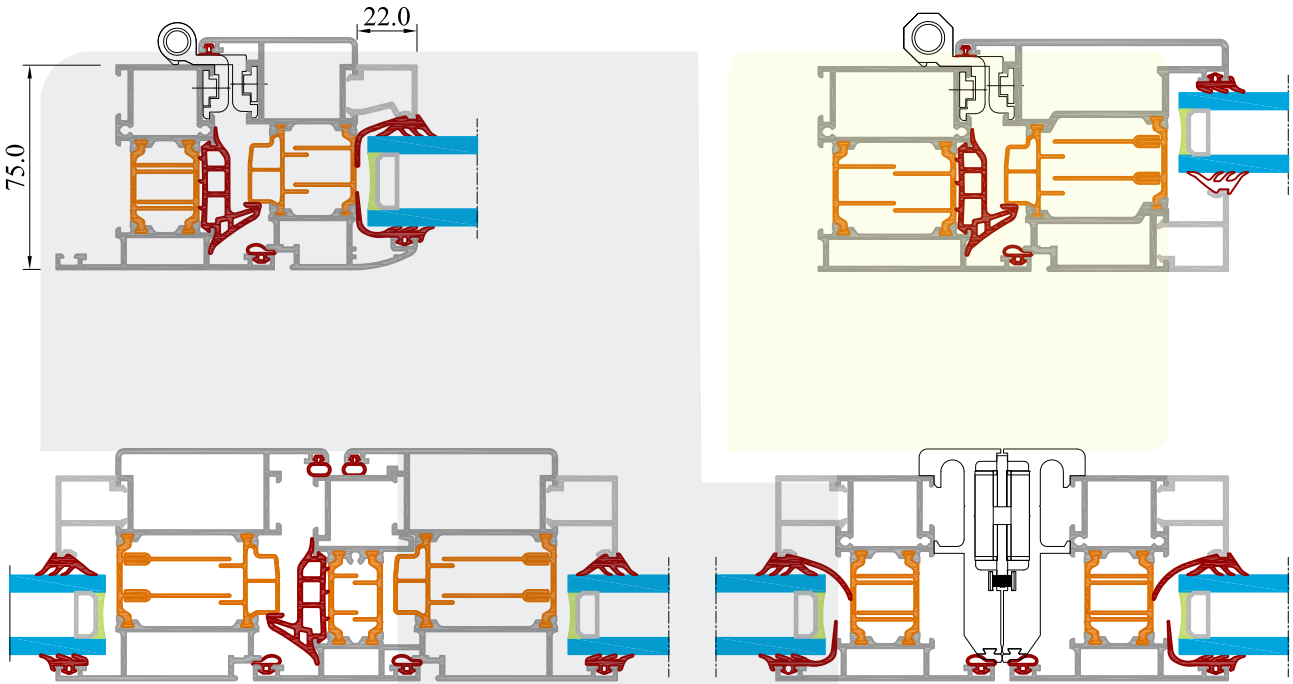


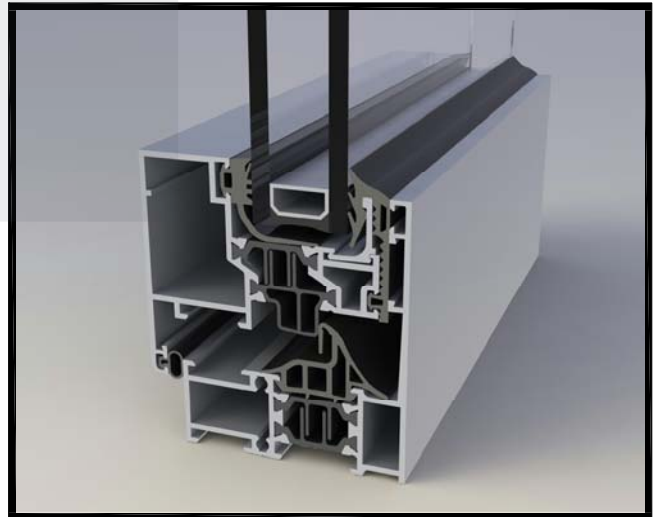
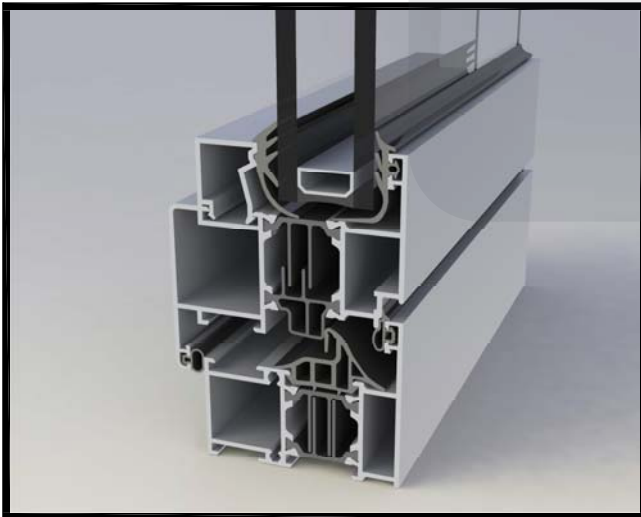
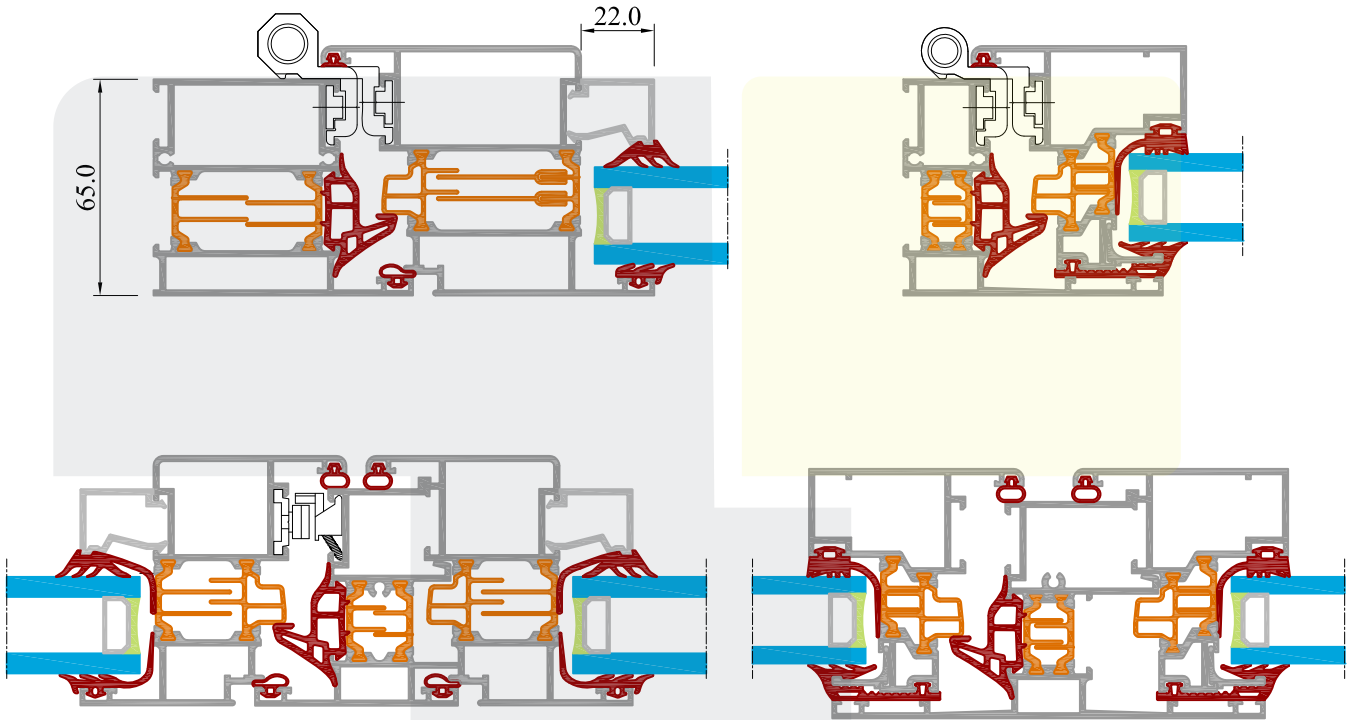
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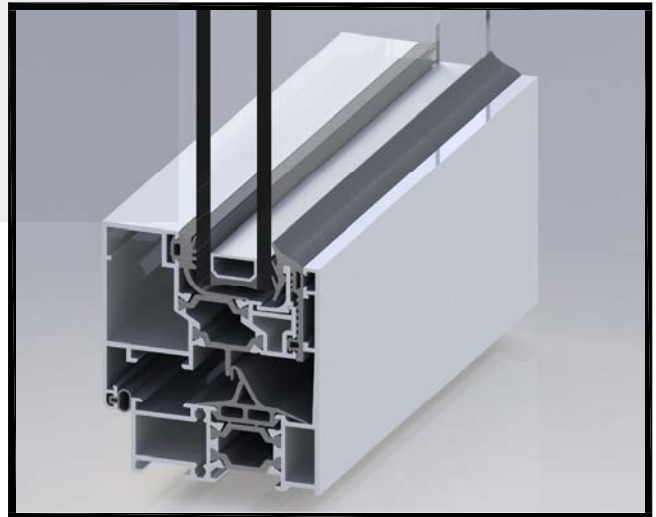
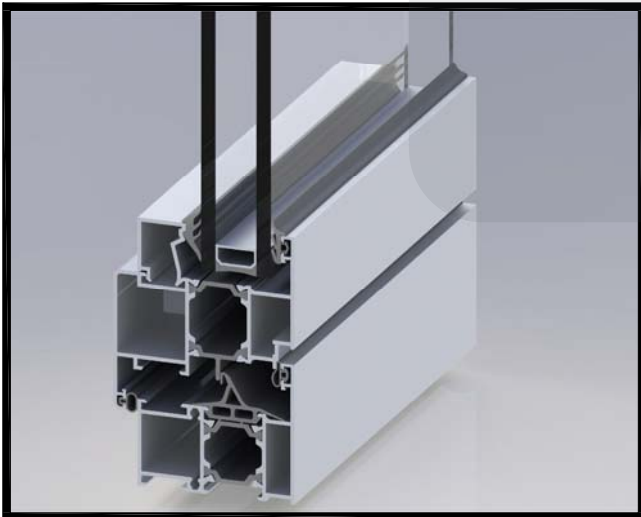
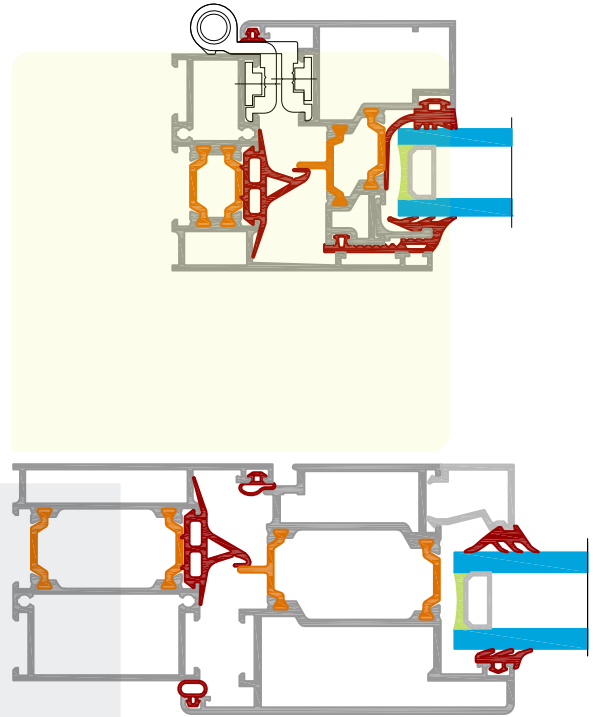
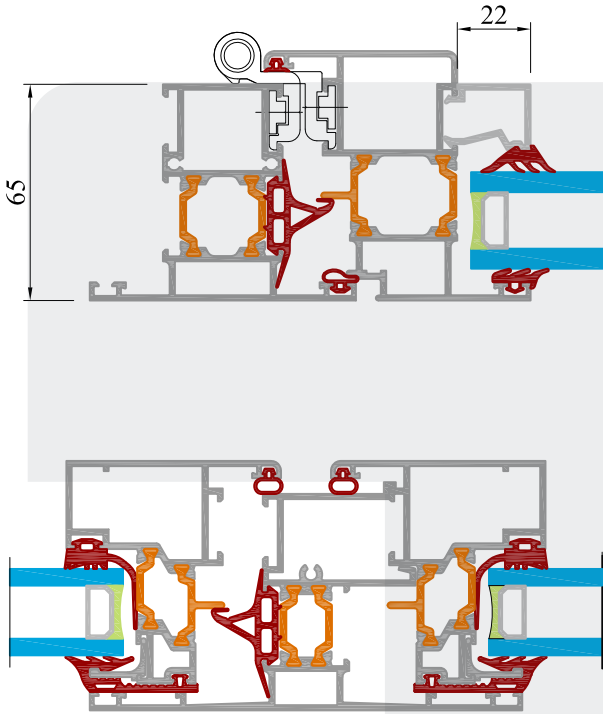
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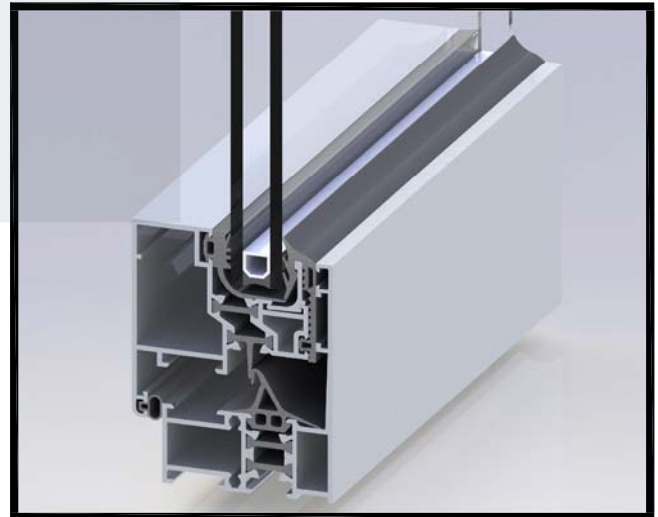
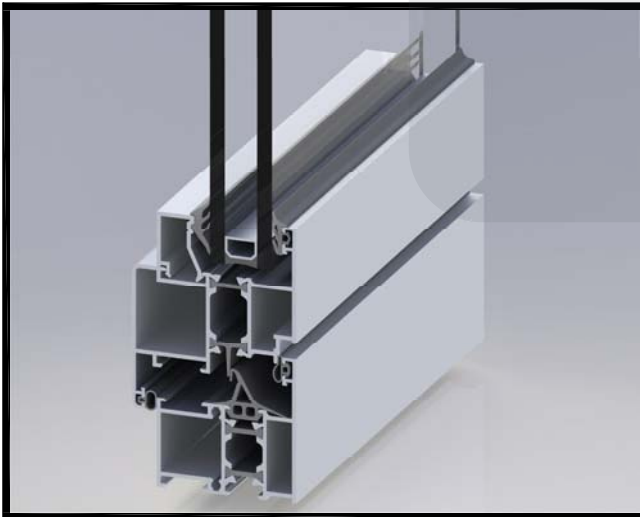
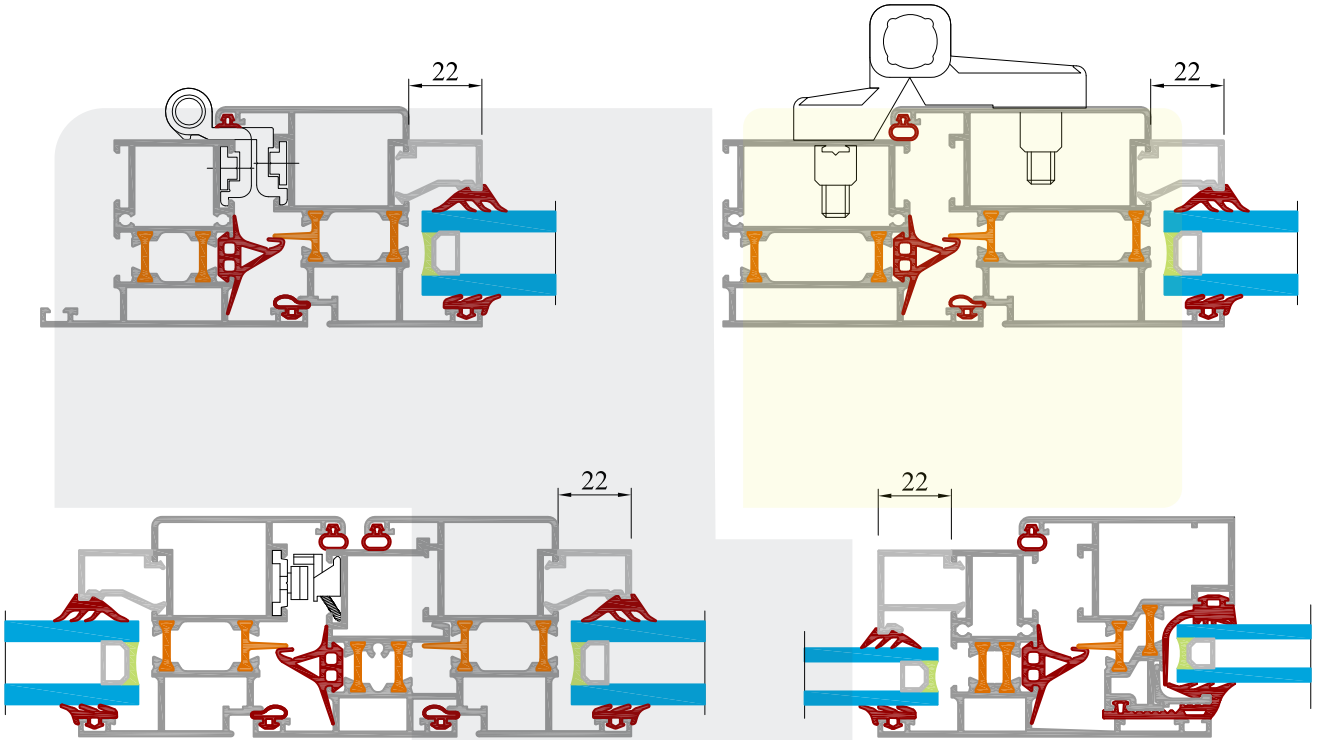
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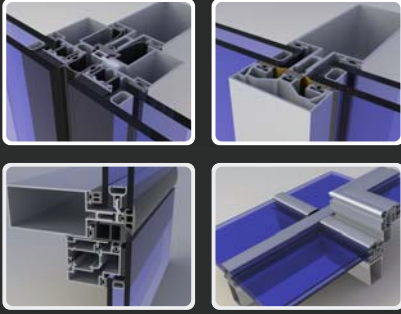
**W75****DOĞRAMA SİSTEMİ***Kasa / Kanat derinliği : 75mm / 85mm**Et kalınlığı : 1.6mm ve 2.0mm**Isı yalıtımlı : 34mm**Euro normlarında aksesuar kanalı*

**W65****DOĞRAMA SİSTEMİ***Kasa / Kanat derinliği : 65mm / 75mm**Et kalınlığı : 1.6mm ve 2.0mm**Isı yalıtımlı : 24mm**Euro normlarında aksesuar kanalı*



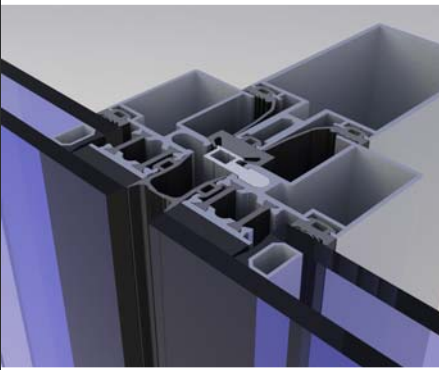
**WS65****DOĞRAMA SİSTEMİ***Kasa / Kanat derinliği : 65mm / 75mm**Et kalınlığı : 1.6mm ve 2.0mm**Isı yalıtımlı : 24mm**Euro normlarında aksesuar kanalı*

**WS14****DOĞRAMA SİSTEMİ***Kasa / Kanat derinliği : 56mm / 66mm**Et kalınlığı : 1.6mm ve 2.0mm**Isı yalıtımlı : 15mm**Euro normlarında aksesuar kanalı*

**EURO F50  
COMFORT**  
**CEPHE SİSTEMLERİ**TEKNİK  
KATALOG  
2 0 1 4

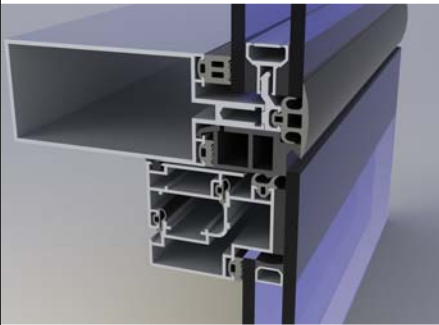
Detaylı **teknik**   
**kataloğumuzu** isteyiniz !

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



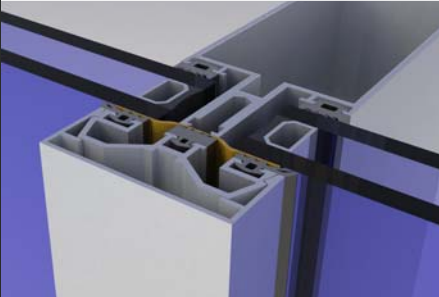
### ■ F50S - SİLİKON CEPHE

- 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 çıtalaları ile montaj
- Ek kaset profilleri kullanılmadığı için ekonomiktir
- Güvenlik çıtalaları 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

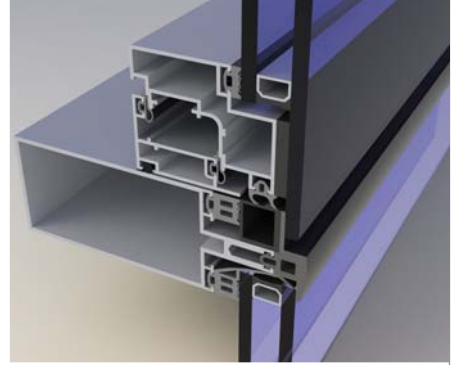


# F50 CEPHE SİSTEMLERİ

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

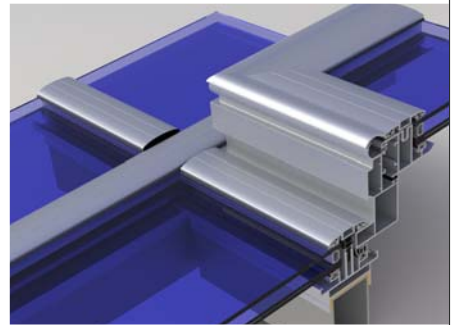
## ■ F50YK - YARI KAPAKLI CEPHE

- 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.



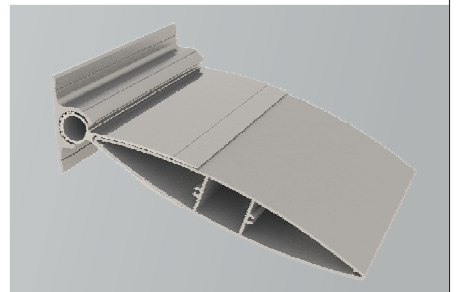
## ■ F50SKY - IŞIKLIK SİSTEMİ

- 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



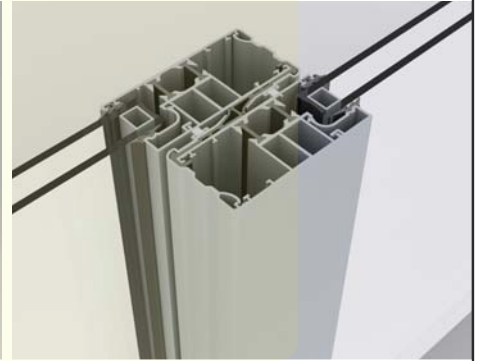
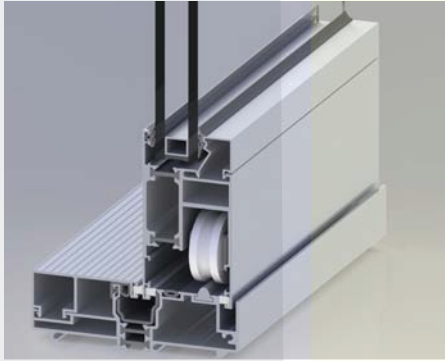
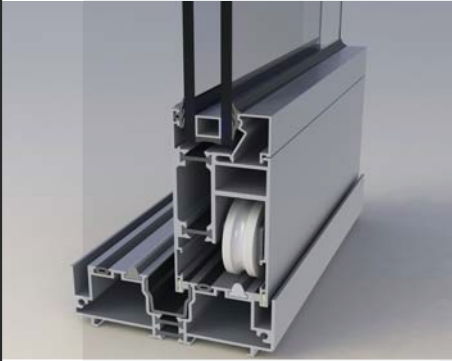
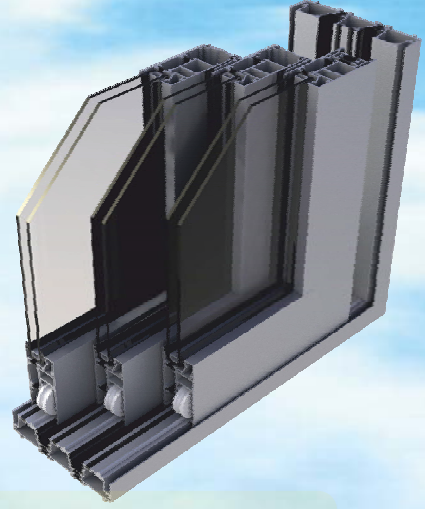
## ■ GÜNEŞ KIRICI SİSTEMİ

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





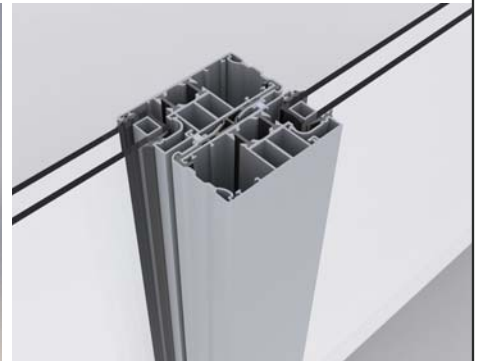
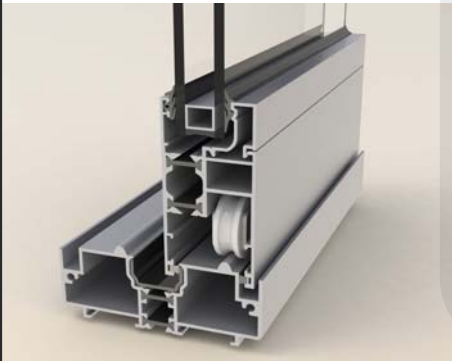
Detaylı teknik  
katalogumuzu  
isteyiniz !



## ■ S32 - GENİŞ SÜRME SİSTEMİ

- Kasa / Kanat derinliği : 107mm / 95mm
- Isı yalıtımlı : 15mm
- Hebe Schiebe uygulama imkanı
- 2 ve 3 raylı olarak dizayn edilebilir

- Sabit alanlarda çıtalı (kanatsız) çözüm
- Kolay montaj imkanı
- EPDM contalar ile yüksek sızdırmazlık
- 4mm - 30mm Cam Seçeneği



## ■ S32 - DAR SÜRME SİSTEMİ

- Kasa / Kanat derinliği : 93mm / 80mm
- Isı yalıtımlı : 15mm
- Hebe Schiebe uygulama imkanı
- 2 ve 3 raylı olarak dizayn edilebilir

- Ekonomik çözüm
- Kolay montaj imkanı
- EPDM Contalar ile yüksek sızdırmazlık
- 4mm - 24mm Cam Seçeneği



**EURO  
COMFORT****KAPI - CAMEKAN SİSTEMLERİ**

S54



S54

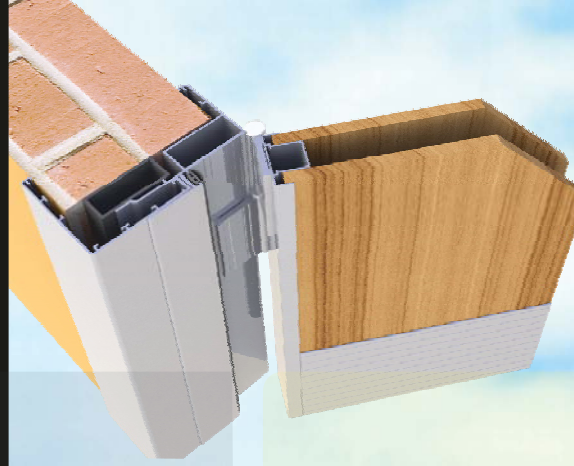
G60



G60

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KATALOG  
2024

Detaylı **teknik**   
katalogumuzu isteyiniz !

**S54 - DOĞRAMA SİSTEMİ**

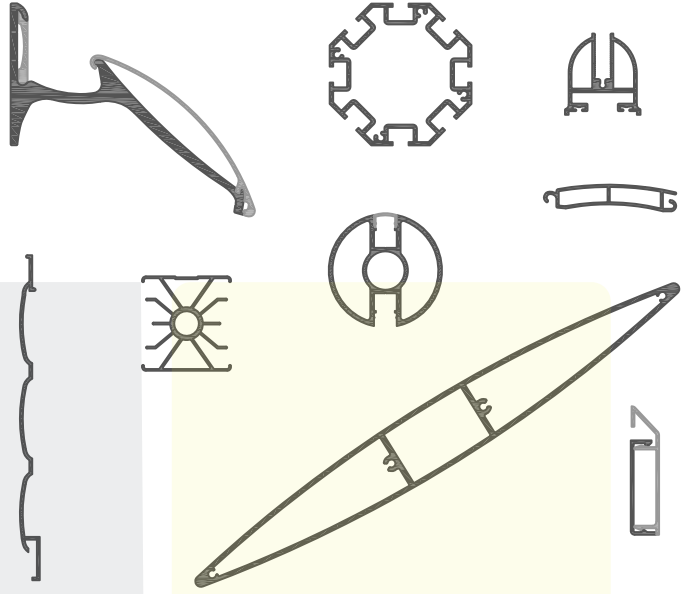
- 85mm ile 240mm arası duvara montaj imkanı
- Et kalınlığı : 1.5mm
- Cam ve Ahşap kapı alternatifi
- Sistem Seri (S12) ile entegre çalışabilme imkanı

**G60 - DOĞRAMA SİSTEMİ**

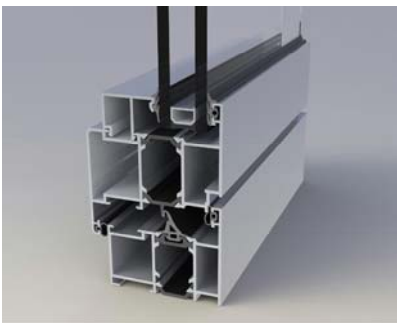
- Kasa / Kanat derinliği : 60mm
- Et kalınlığı : 1.5mm
- 4mm - 43mm cam seçeneği
- Euro normlarında aksesuar kanalı



Yanda görülen Gençer Alüminyum - TEKNİK KATALOG 2014, Gençer Alüminyum'un geçmişten günümüze bir çok saygın projede kullanılan doğrama sistem serilerini ve diğer tüm profil serilerini içerir. Sayfa 10-11'de bu katalogta yer alan profil ve sistemlerimizin öngörünümüne yer verilmiştir.

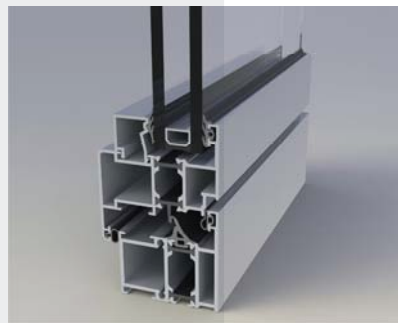


### Gencer® S65 PENCERE SİSTEMİ / WINDOW SYSTEM



Kasa derinliği: 65mm  
Kanat derinliği: 75mm  
Et kalınlığı: 1.3mm, 1.6mm  
1.8mm, 2.0mm  
Isı yalıtımı: 22.0mm  
Cam boşluğu: 12mm - 49mm

### Gencer® S14 PENCERE SİSTEMİ / WINDOW SYSTEM



Kasa derinliği: 55mm  
Kanat derinliği: 65mm  
Et kalınlığı: 1.2mm, 1.6mm  
1.8mm, 2.0mm, 3.0mm  
Isı yalıtımı: 15.0mm  
Cam boşluğu: 4mm - 39mm  
Gizli kanat seçeneği

### Gencer® G55 BALKON & VİTRİN SİSTEMİ BALCONY & SHOPWINDOW SYSTEM



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

### Gencer® S12 PENCERE SİSTEMİ / WINDOW SYSTEM

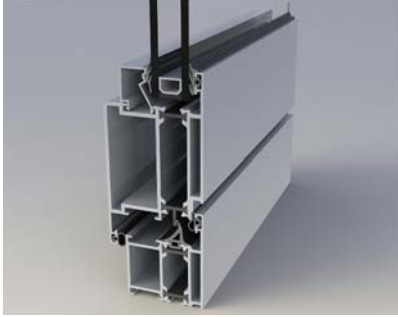


Kasa derinliği: 45mm  
Hem yüz kanat derinliği: 65mm  
Fugalı kanat derinliği: 58.5  
Et kalınlığı(mm): 1.2, 1.8, 2.0  
Cam boşluğu: 4mm - 39mm  
G55 balkon & vitrin sistemi ile entegre çalışır.



**Gencer® S45**

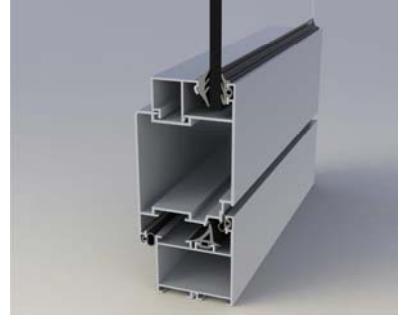
PENCERE SİSTEMİ / *WINDOW SYSTEM*



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

**Gencer® S44**

PENCERE SİSTEMİ / *WINDOW SYSTEM*



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

**Gencer® S35**

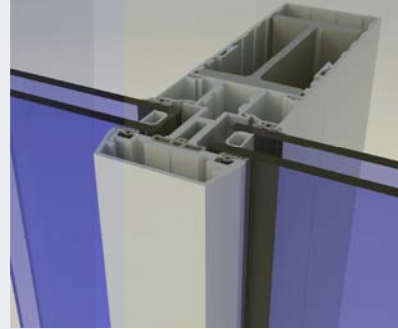
VİTRİN SERİSİ / *SHOPWINDOW SYSTEM*



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

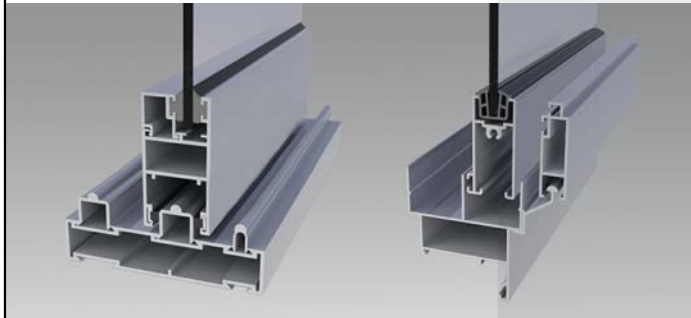
**Gencer® S23**

CEPHE SİSTEMİ / *FACADE SYSTEM*

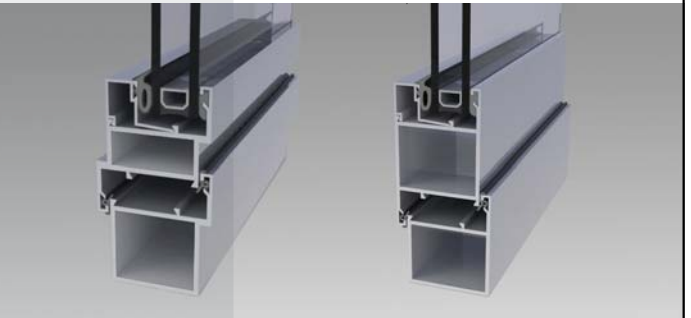


Çelik Takviyeli Sistem  
Taşıyıcı genişliği: 62mm

**TUBA (S31) & İZMİR (S33) SÜRME  
SERİLER**  
*NON-INSULATED SLIDING SERIE*



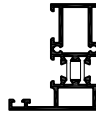
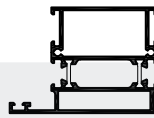
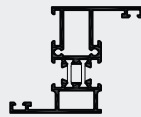
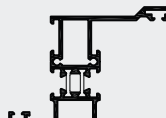
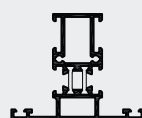
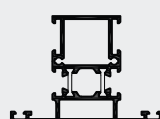
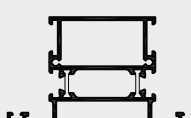
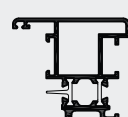
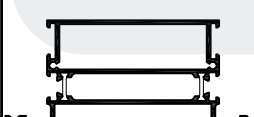
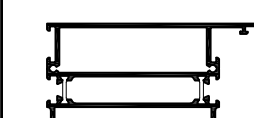
**FUGALI KLASİK & DÜZ KLASİK SERİLER**  
*ALDOX SERIE*



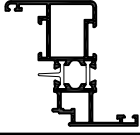
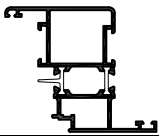
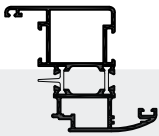
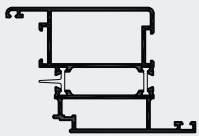
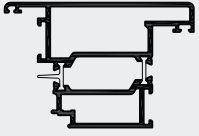
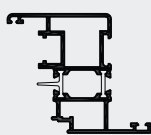
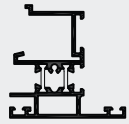
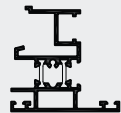
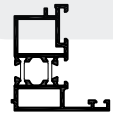
**STANDART PROFİLLER & ÇEŞİTLİ PROFİL SERİLERİ**

- |                      |                           |                             |                      |
|----------------------|---------------------------|-----------------------------|----------------------|
| - Lamalar            | - Küpeşteler              | - Süpürgelik Profilleri     | - Lambriler          |
| - Kare Çubuklar      | - Cam Balkon Sistemi      | - Sigma Profilleri          | - Kapatma Çıtalrı    |
| - Yuvarlak Çubuklar  | - Panjur Profilleri       | - Denizlik Profilleri       | - Pervaz Profilleri  |
| - Dikdörtgen Kutular | - Kapı Söve Profilleri    | - Damlalık Profilleri       | - Mobilya Profilleri |
| - Kare Kutular       | - Güneş Kırıcı Profilleri | - Kompozit Panel Profilleri | - Isıtma Profilleri  |
| - Borular            | - Kablo Kanal Profilleri  | - Dilatasyon Profilleri     | - Soğutma Profilleri |
| - Köşebentler        | - Menfez Profilleri       | - Cephe Kaplama Profilleri  |                      |
| - L Profiller        | - Bölme Profilleri        | - Sineklik Profilleri       |                      |
| - U Profiller        | - Sigma Profilleri        | - Bant Kol Profilleri       |                      |
| - T Profiller        | - Vitrin Profilleri       | - Reklam Profilleri         |                      |

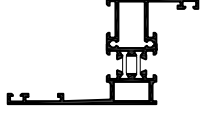
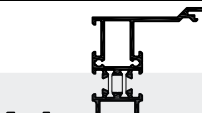
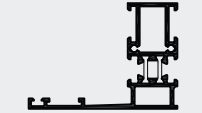
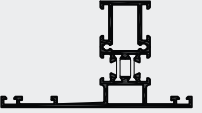
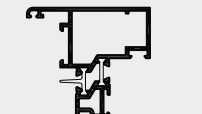
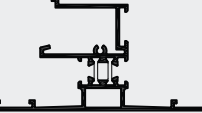
## WS14 Profil Endeksi

| Açıklamalar                                                                   | Profil Resmi                                                                        | Profil Kodu | Ağırlık Kg/m | I <sub>x</sub> | I <sub>y</sub> | Sayfa No |
|-------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------|--------------|----------------|----------------|----------|
| Kasa (Genişlik 48mm)<br><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)<br><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)<br><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)<br><i>Frame (Width 70mm)</i>                    |   | WS14015-16  | 1.364 Kg/m   | 18.61          | 9.35           | 157      |
| Pervazlı Kasa (Genişlik 85mm)<br><i>Frame (Width 85mm)</i>                    |  | WS14017-16  | 1.496 Kg/m   | 23.41          | 17.48          | 157      |
| Orta Kayıt (Genişlik 70mm)<br><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)<br><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)<br><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<br><i>Pivot Adapter</i>                                        |  | WS1451-16   | 1.466 Kg/m   | -              | -              | 158      |
| Orta Kayıt (Genişlik 135mm)<br><i>Transom - Mullion Profile (Width 135mm)</i> |  | WS14241-20  | 2.919 Kg/m   | 40.66          | 129.37         | 159      |
| Etek (Genişlik 135mm)<br><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)<br><i>Sash Profile (Width 70mm)</i>                                  |    | WS14351-16<br>WS14351-20 | 1.449 Kg/m<br>1.649 Kg/m | -<br>- | -<br>- | 160<br>160 |
| Kanat Profili (Genişlik 80mm)<br><i>Sash Profile (Width 80mm)</i>                                  |    | WS14361-16<br>WS14361-20 | 1.638 Kg/m<br>1.873 Kg/m | -<br>- | -<br>- | 160<br>160 |
| Oval Kanat Profili (Genişlik 80mm)<br><i>Sash Profile (Width 80mm)</i>                             |    | WS14363-16               | 1.680 Kg/m               | -      | -      | 160        |
| Kanat Profili (Genişlik 100mm)<br><i>Sash Profile (Width 100mm)</i>                                |   | WS14381-16<br>WS14381-20 | 1.969 Kg/m<br>2.299 Kg/m | -<br>- | -<br>- | 160<br>160 |
| Dışa Açılır Kapı Kanadı (Genişlik 100mm)<br><i>Door Sash Profile Opening Outside (Width 100mm)</i> |  | WS14391-20               | 2.462 Kg/m               | -      | -      | 161        |
| Kanat Profili (Genişlik 80mm)<br><i>Sash Profile (Width 80mm)</i>                                  |  | WS14362-16               | 1.724 Kg/m               | -      | -      | 161        |
| Damlalık Profili<br><i>Windowsill Profile</i>                                                      |  | 5711-20                  | 0.404 Kg/m               | -      | -      | 161        |
| Çift Kanat Adaptörü<br><i>Adjoining Sash Adapter</i>                                               |  | WS1452-16                | 1.380 Kg/m               | -      | -      | 162        |
| Çift Kanat Adaptörü<br><i>Adjoining Sash Adapter</i>                                               |  | WS14521-16               | 1.416 Kg/m               | -      | -      | 162        |
| Dışa Açılır Kapı Adaptörü<br><i>Outside Opening Door Adapter</i>                                   |  | WS1453-16                | 1.226 Kg/m               | 20.78  | 7.95   | 162        |
| 90°-135° Ayarlanabilir Köşe Dönüş Profili<br><i>90°-135° Corners Profiles</i>                      |  | WS14265-18               | 1.474 Kg/m               | -      | -      | 162        |

**WS14 Profil Endeksi**

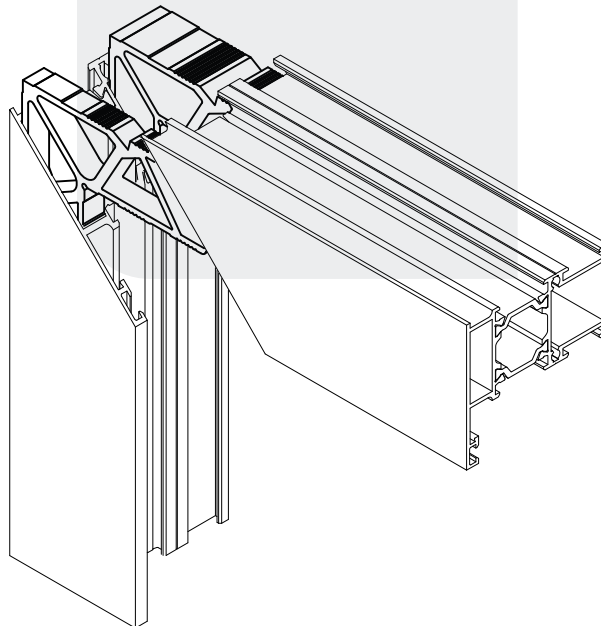
| Açıklamalar                                                                        | Profil Resmi                                                                        | Profil Kodu | Ağırlık Kg/m | Ix    | Iy    | Sayfa No |
|------------------------------------------------------------------------------------|-------------------------------------------------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

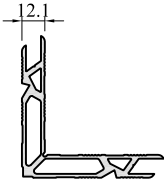
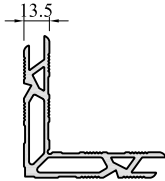
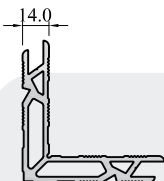
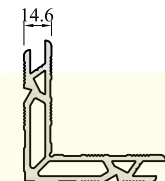
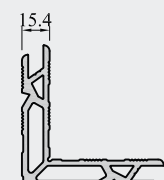
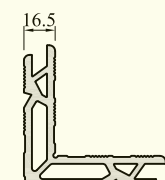
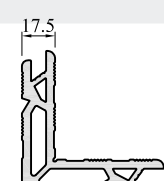
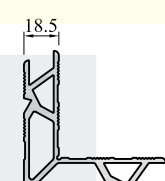
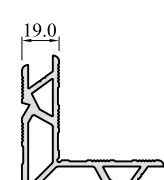
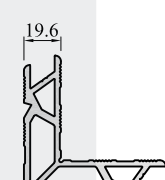
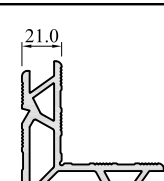
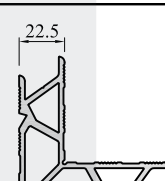
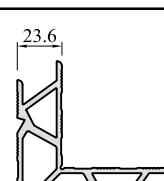
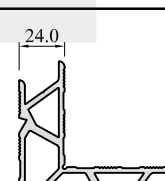
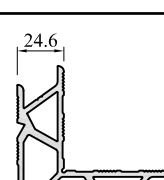
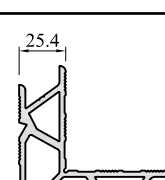


## PROFİLLER ve KULLANILAN TAKOZLAR LİSTESİ

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.

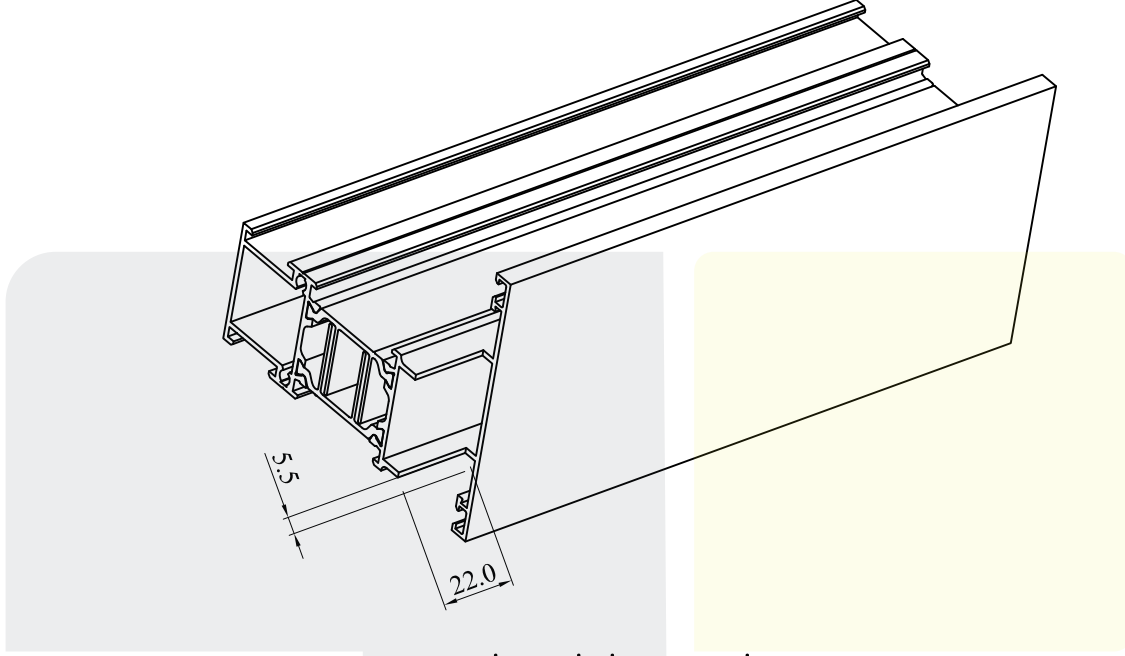
| Profil No | A/<br>Ü | Takoz Numarası /<br>Kesim Ölçüsü (mm) | Profil No | A/<br>Ü | Takoz Numarası /<br>Kesim Ölçüsü (mm) | Profil No | A/<br>Ü | Takoz Numarası /<br>Kesim Ölçüsü (mm) |
|-----------|---------|---------------------------------------|-----------|---------|---------------------------------------|-----------|---------|---------------------------------------|
| 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                        |



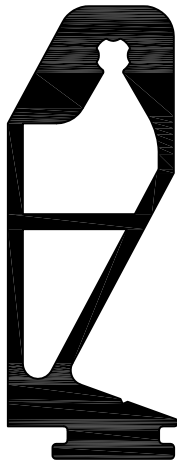
| 2D Resmi                                                                            | Özellikleri                       | 2D Resmi                                                                             | Özellikleri                       |
|-------------------------------------------------------------------------------------|------------------------------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

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

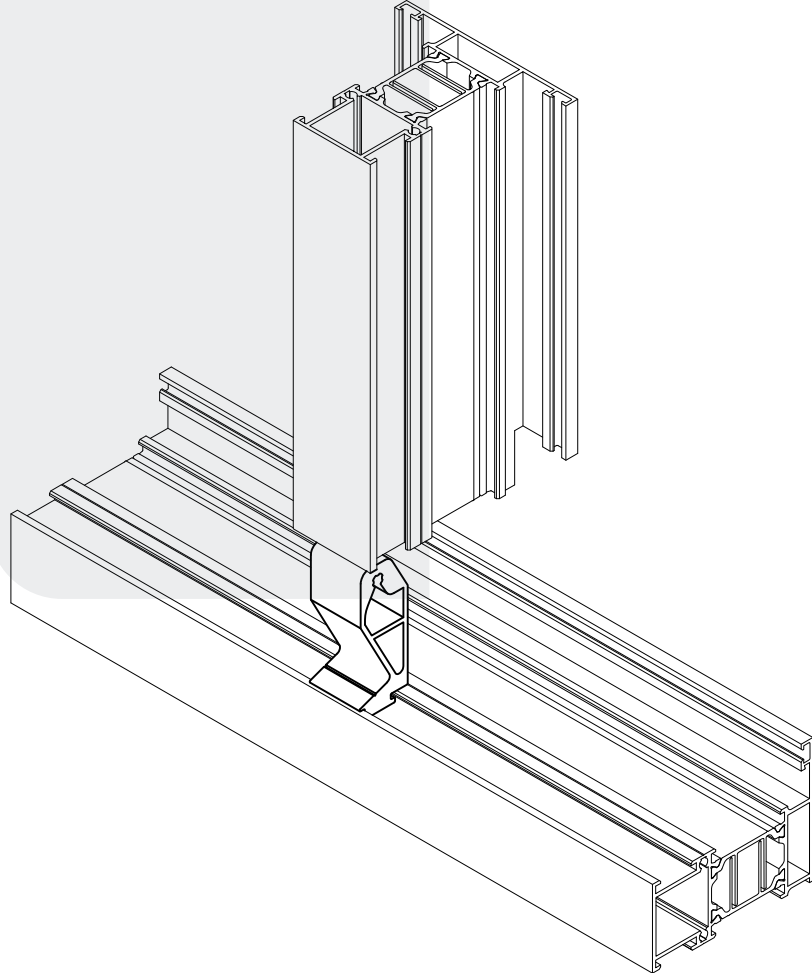
## EURO COMFORT SERİLER İÇİN ORTA KAYIT KERTME DETAYI



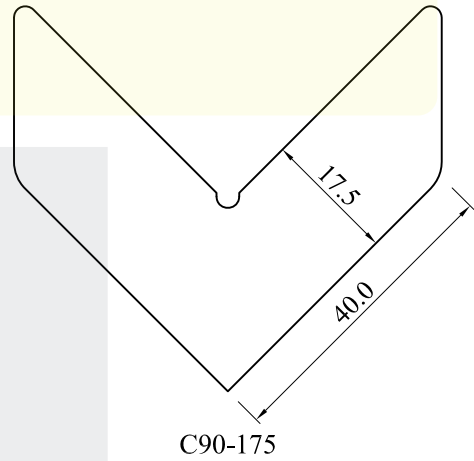
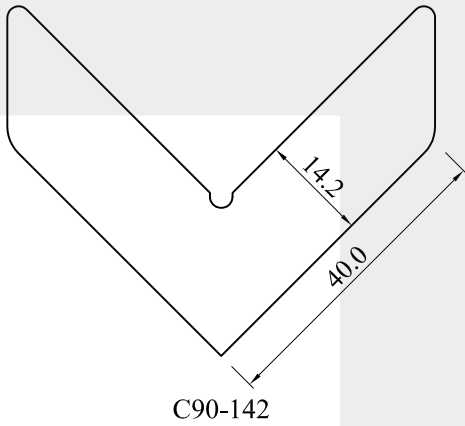
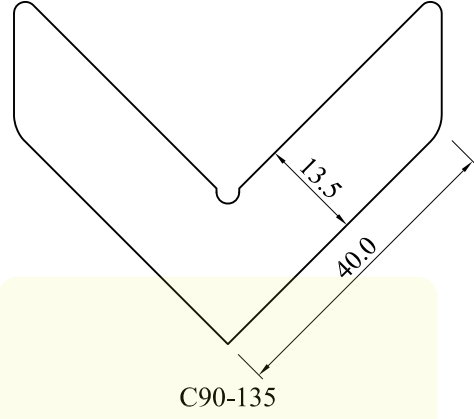
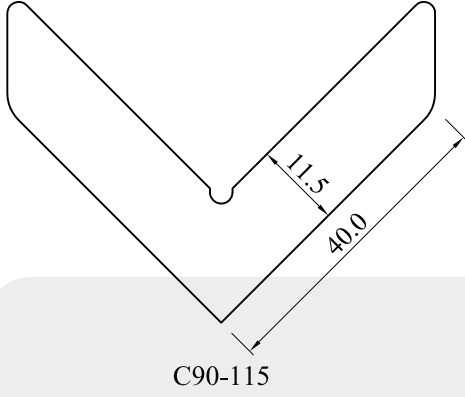
## EURO COMFORT SERİLER İÇİN GİRDİRME MONTAJ DETAYI



1486-00  
1.477 kg/m

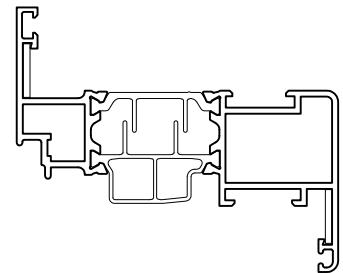
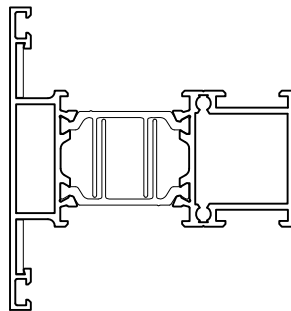
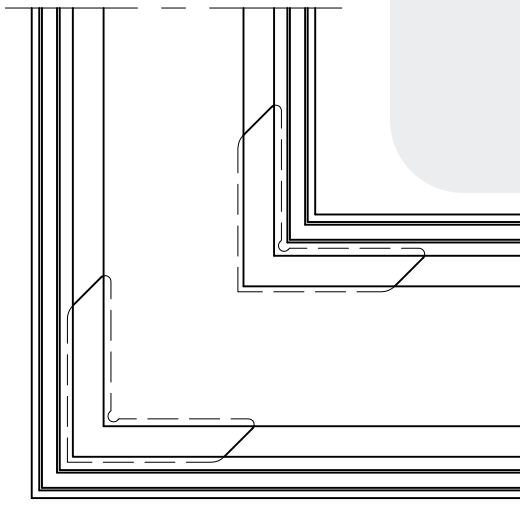


### Çavuş Gönyeler Set-Square

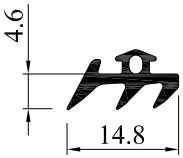
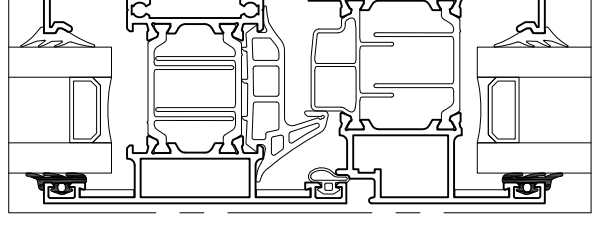
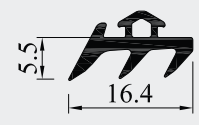
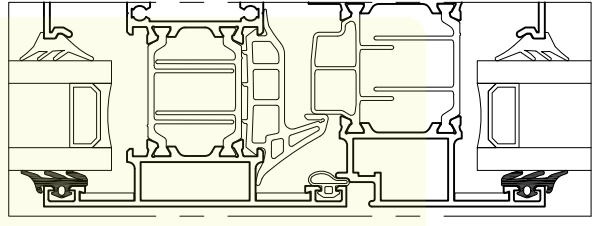
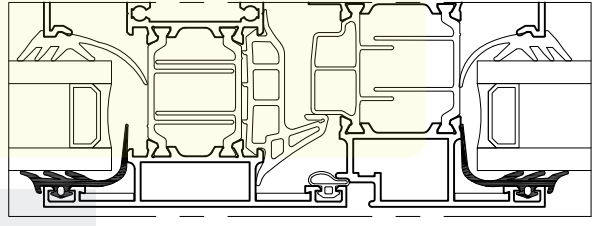
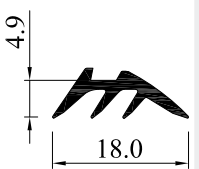
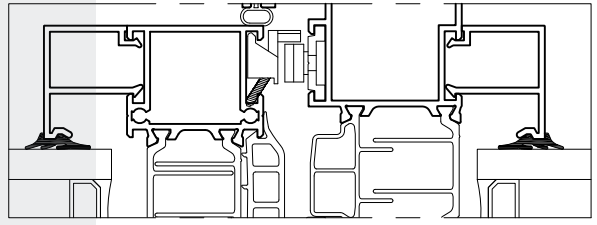
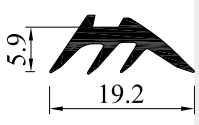
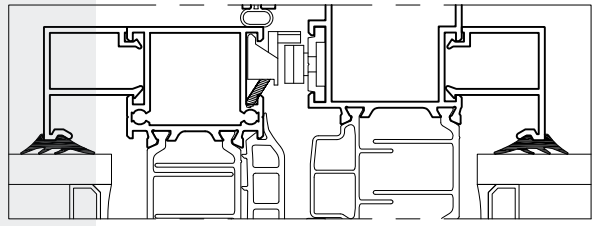
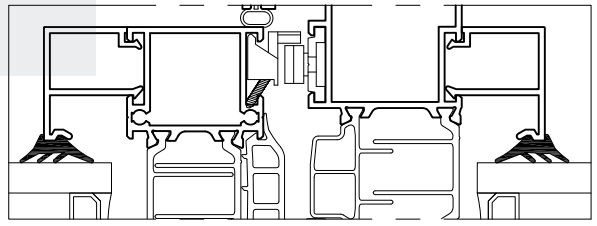
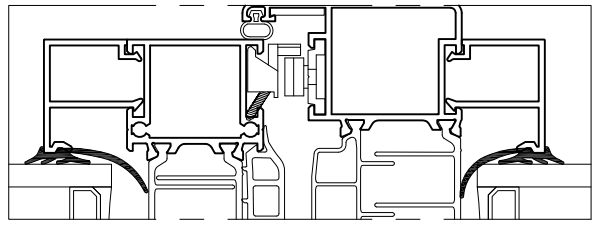


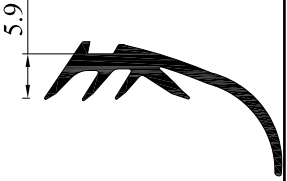
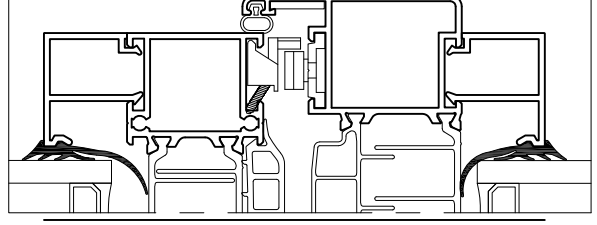
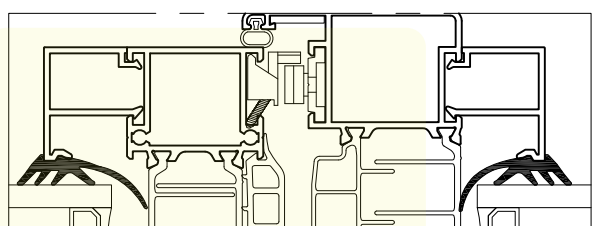
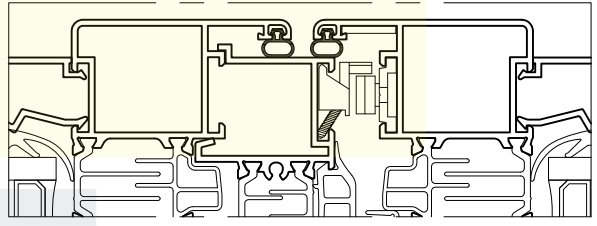
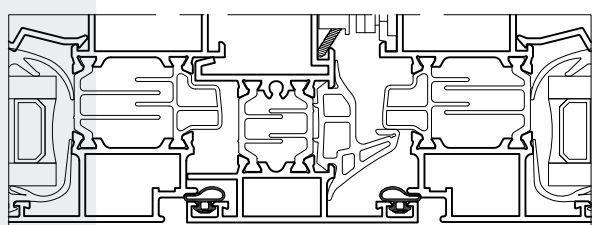
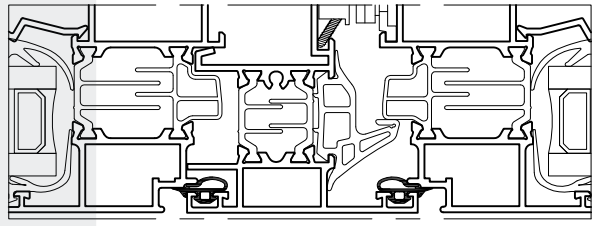
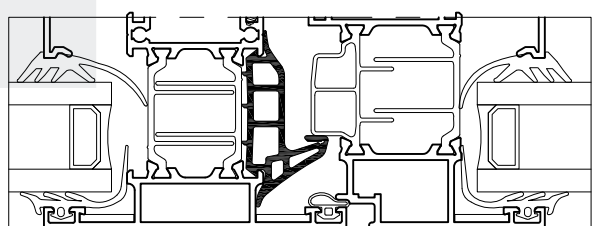
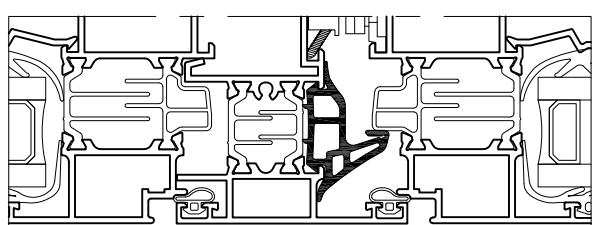
Ölçek: 1/1

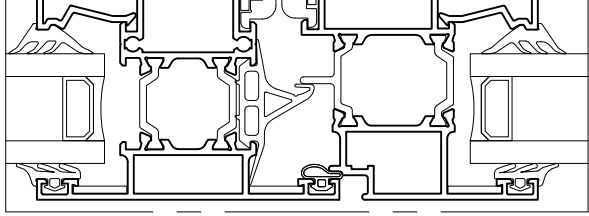
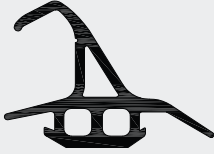
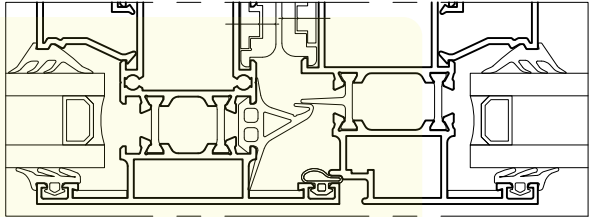
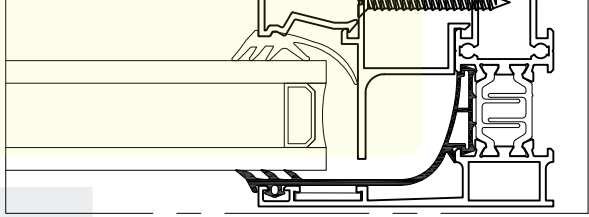
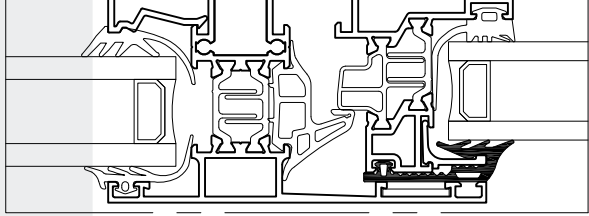
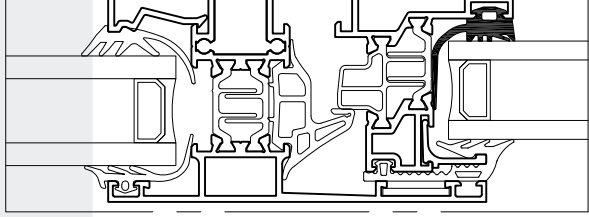
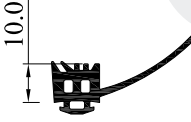
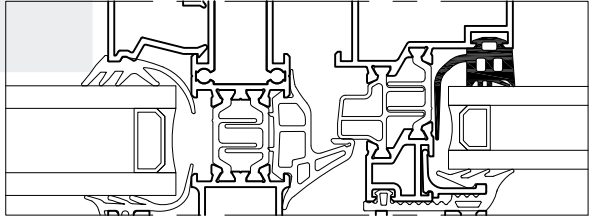
Tüm çavuşlar 1.3mm, 1.5mm ve 1.8mm olmak üzere 3 farklı kalınlıkta üretilmektedir.

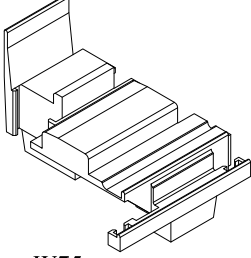
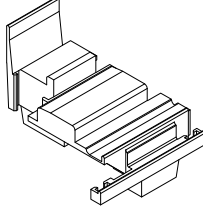
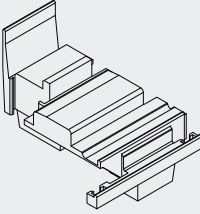
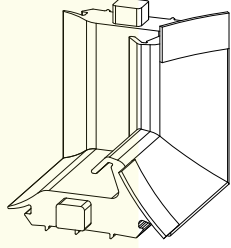
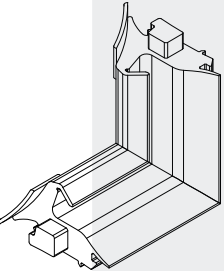
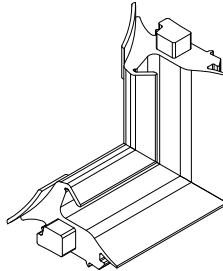
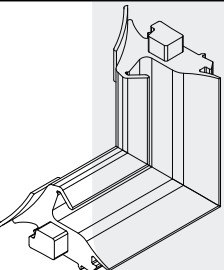


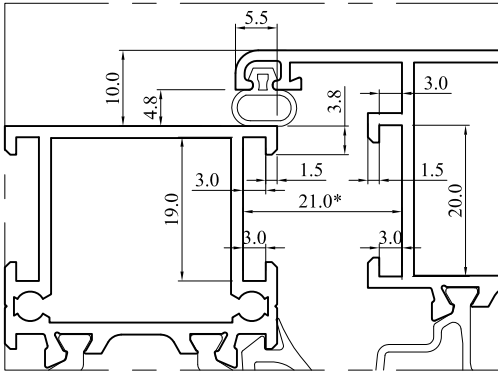


| Aksesuar Kodu                                      | Aksesuar Resmi                                                                      | Kullanılan Alan                                    | Montaj Çizimi                                                                        |
|----------------------------------------------------|-----------------------------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

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

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

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

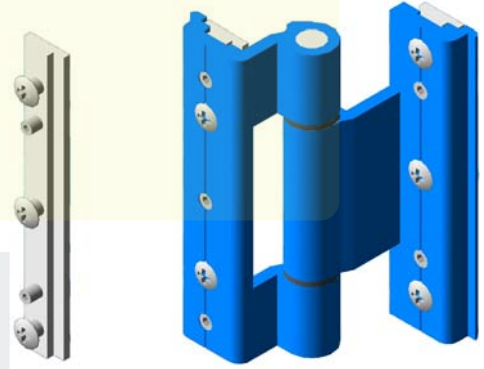
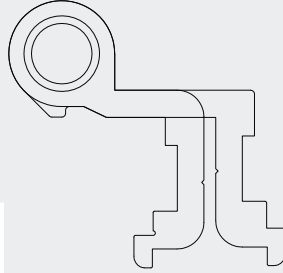


## AKSESUARLAR

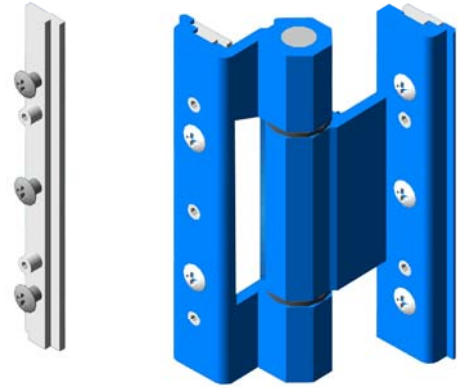
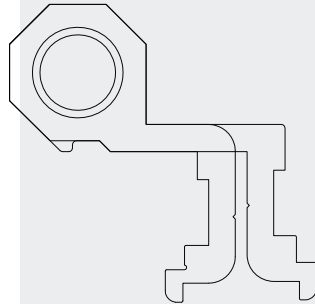
KASA KANAT İLİŞKİSİNDE EURO GROOVE  
STANDARTLARI DİKKATE ALINMIŞTIR

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.

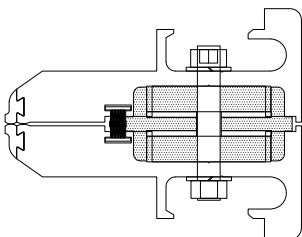
Euro Comfort  
Pencere Menteşesi



Euro Comfort  
Kapı Menteşesi

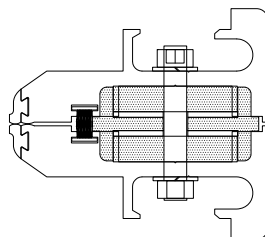


W75 Pivot Menteşe  
Detay için bkz. Sayfa 69



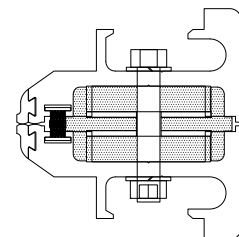
Ölçek 1/2

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



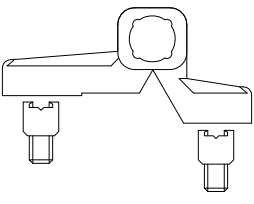
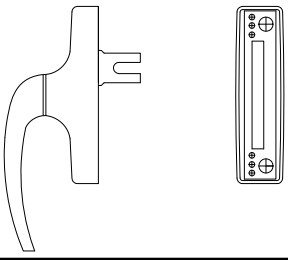
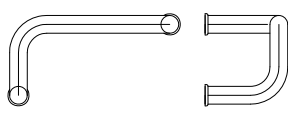
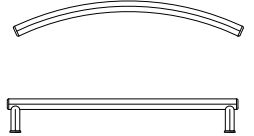
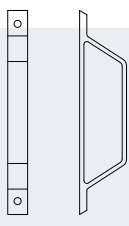
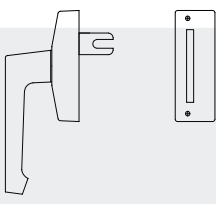
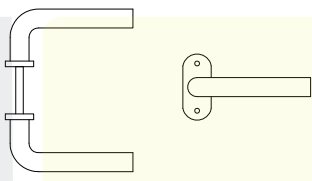
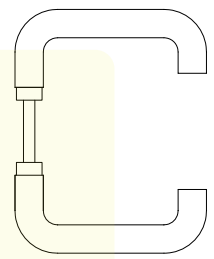
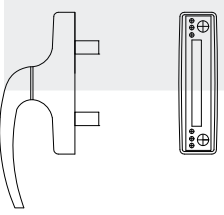
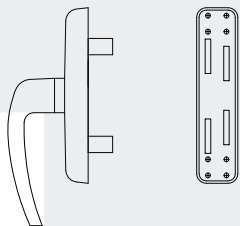
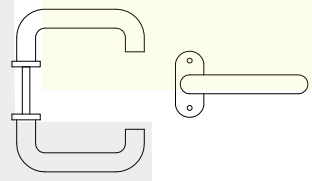
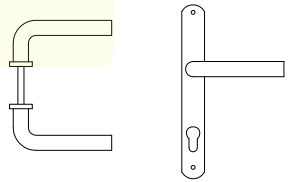
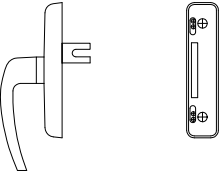
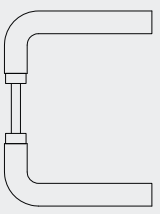
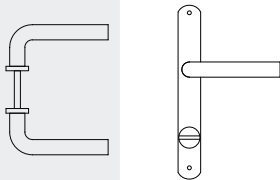
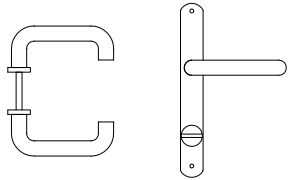
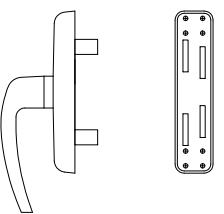
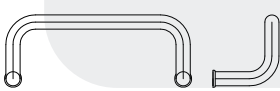
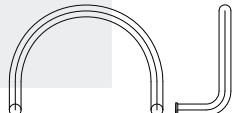
Ölçek 1/2

WS14 Pivot Menteşe  
Detay için bkz. Sayfa 170



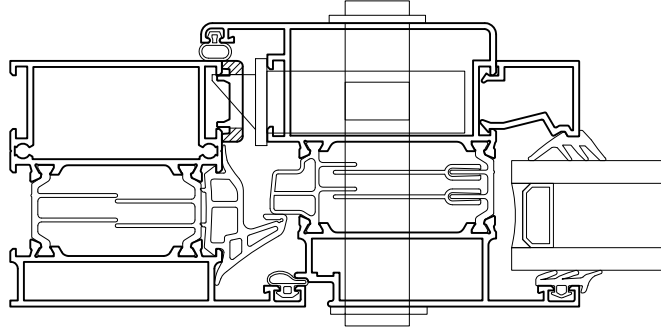
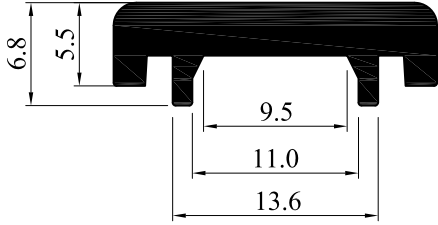
Ölçek 1/2



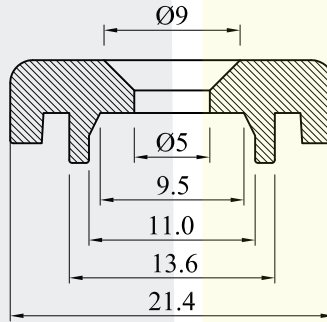
|                                                                                                                                              |                                                                                                                                   |                                                                                                                                      |                                                                                                                                    |
|----------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------|
| <p>CKR-50.03.03<br/>CKR-50.03.04</p>                        | <p>CKR-10.01.01<br/>Eksenel kol tekli</p>        | <p>CKR-40.04.00<br/>Baston kol</p>                 | <p>CKR-40.08.00</p>                             |
| <p>CKR-30.01.06<br/>D Kol</p>                               | <p>CKR-10.01.03<br/>Eksenel kol</p>              | <p>CKR-20.01.02<br/>Sosis kol düz rozetli</p>      | <p>CKR-20.01.03<br/>Sosis kol kıvrık</p>        |
| <p>CKR-10.01.02<br/>Eksenel kol çiftli</p>                 | <p>CKR-10.01.05<br/>Eksenel kol çift dilli</p>  | <p>CKR-20.01.04<br/>Sosis kol kıvrık rozetli</p>  | <p>CKR-20.01.05<br/>Sosis kol düz aynalı</p>   |
| <p>CKR-10.01.04<br/>Eksenel kol tek dilli</p>             | <p>CKR-20.01.01<br/>Sosis kol düz</p>          | <p>CKR-20.01.14<br/>WC kol aynalı</p>            | <p>CKR-20.01.27<br/>WC aynalı kıvrık kol</p>  |
| <p>CKR-10.01.07<br/>Eksenel kol çift dilli anahtarlı</p>  | <p>CKR-40.01.00<br/>Kıvrık boru kol</p>        | <p>CKR-40.02.00<br/>Yarım ay boru kol</p>        |                                                                                                                                    |
| <p>GB-01 Bant<br/>1 Rulo</p> <p>Alüminyum folyolu<br/>butil bant</p>                                                                         | <p>GB-02 Bant<br/>1 Rulo</p> <p>PVC köpük bant</p>                                                                                | <p>GB-03 Bant<br/>1 Rulo</p> <p>Yalıtım membran</p>                                                                                  | <p>GB-04 Bant<br/>1 Rulo</p> <p>Çift tarafı yapışkanlı<br/>PVC esaslı bant</p>                                                     |

Euro Comfort Serisinde Uygulanan Kilit Karşılığı Kesitleri ve Kullanım Detayı

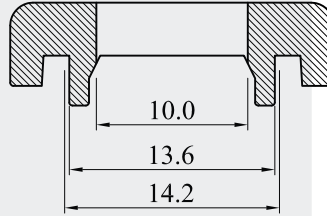
Dolu Kesit 14971-00 Ölçek: 2/1



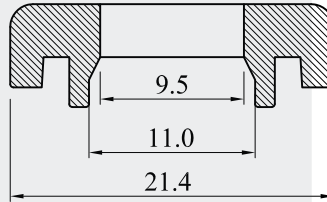
A Kesiti Ölçek: 2/1



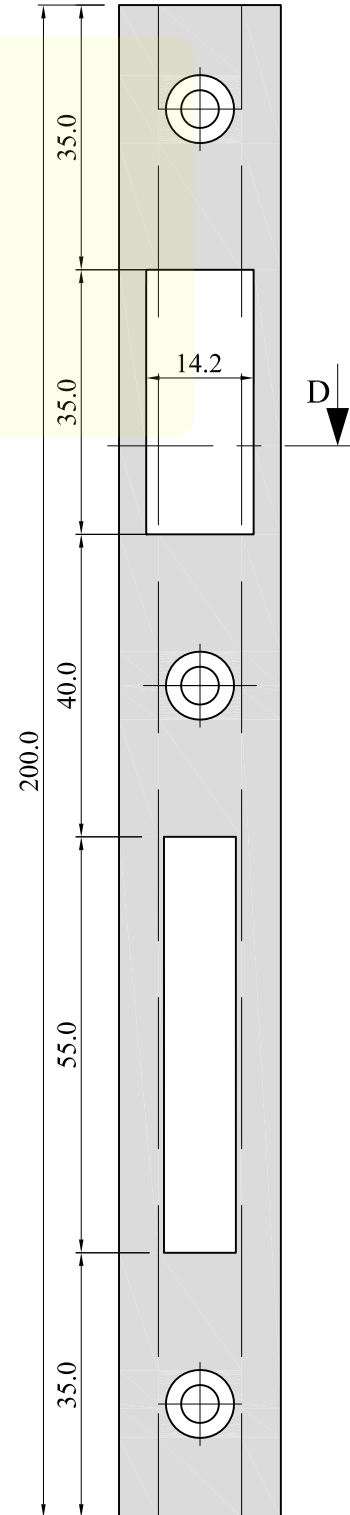
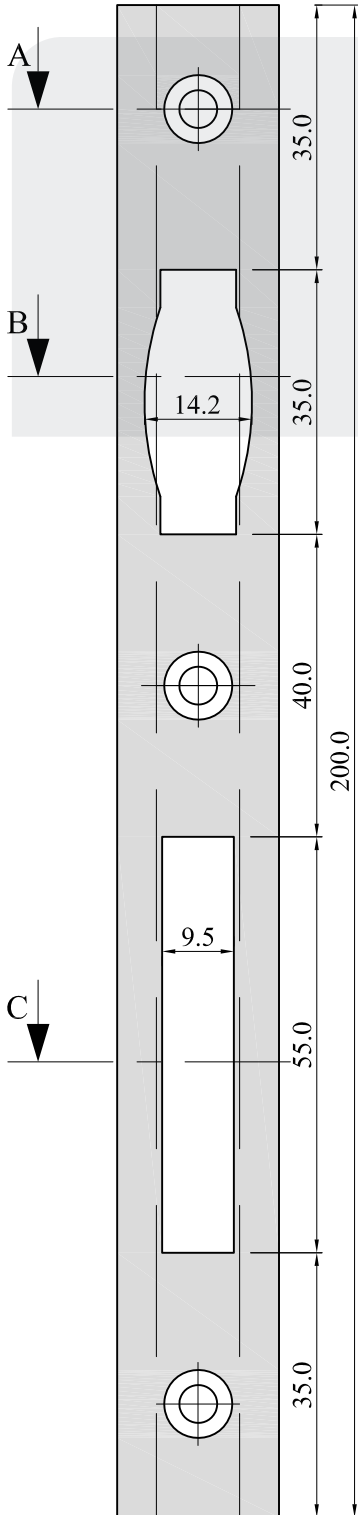
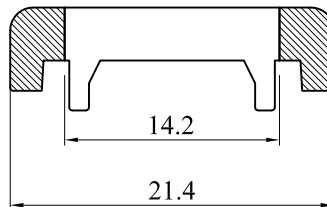
B Kesiti Ölçek: 2/1



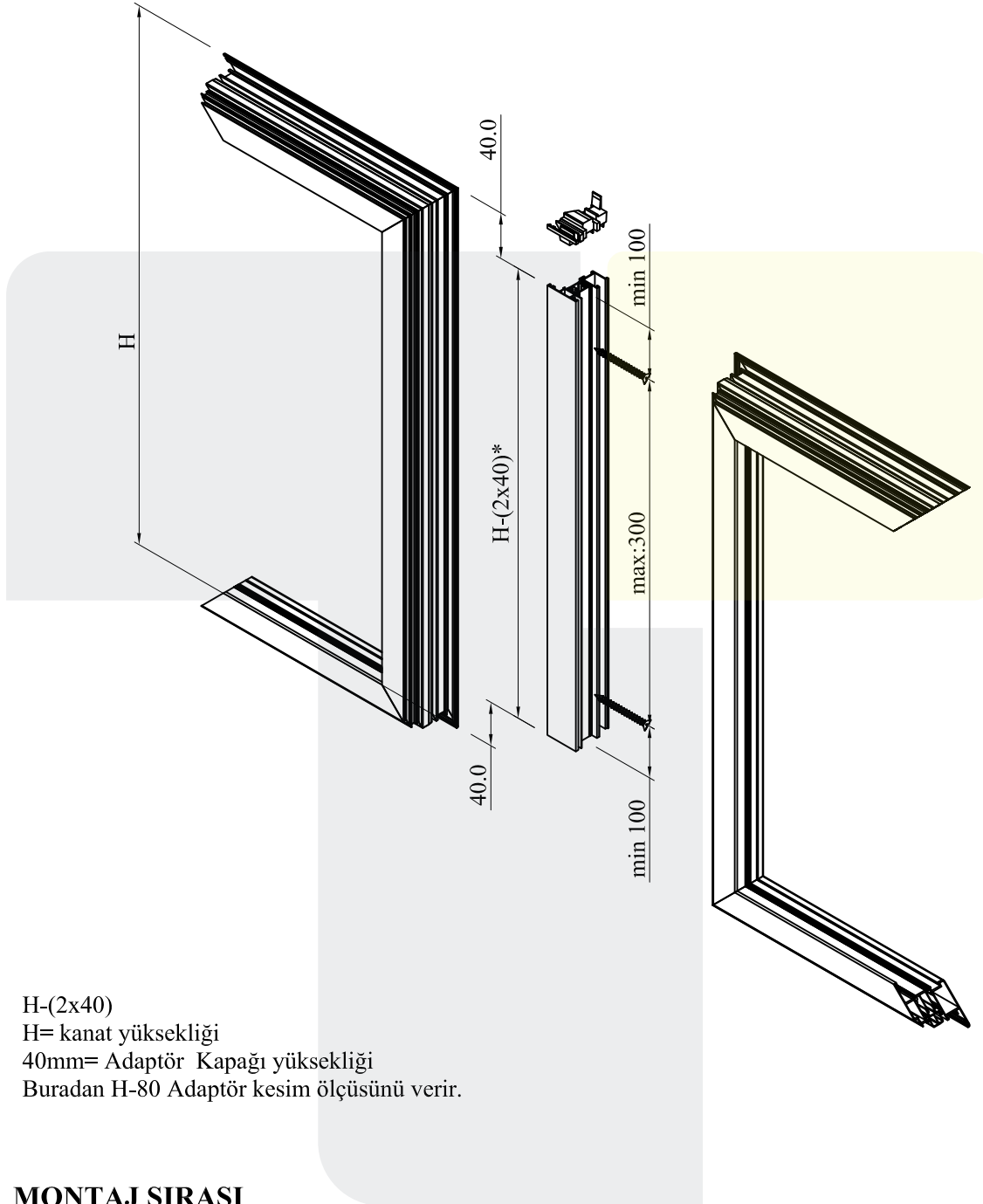
C Kesiti Ölçek: 2/1



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.

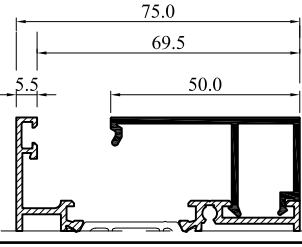
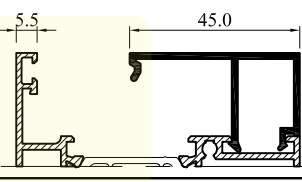
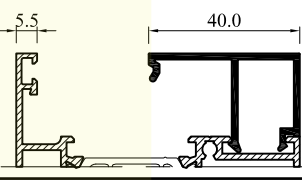
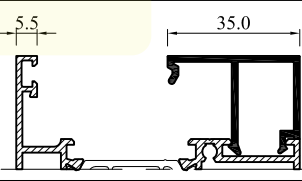
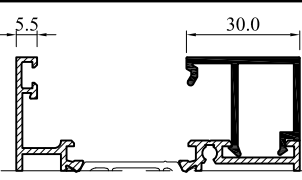
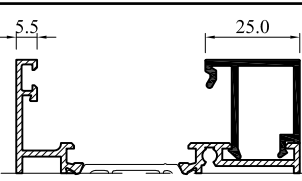
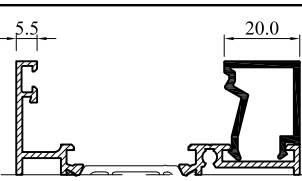
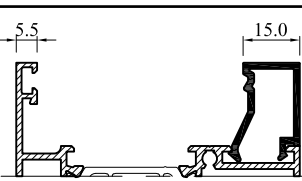
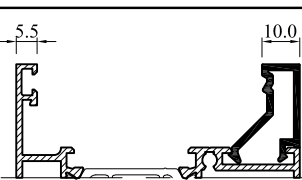
## Euro Comfort Doğrama Sistemleri Cam Çıtalı

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

Euro Comfort sistemlerinde kullanılan cam çıtaları 22mm yükleklıđındedir. Sürme sistemlerindeki ve diđer tüm Gençer sistemlerindeki cam çıtaları 19mm yükleklıđındedir dolayısıyla bu çıtalar Euro Comfort sistemlerinde kullanılmaz.

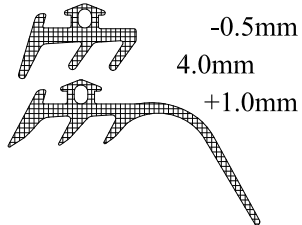
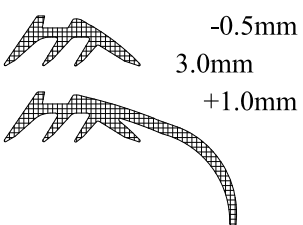
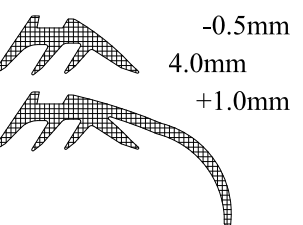
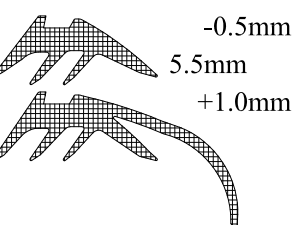
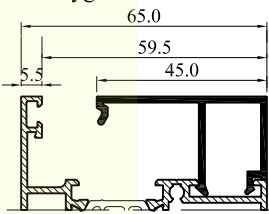
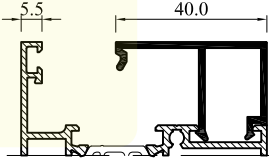
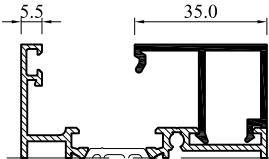
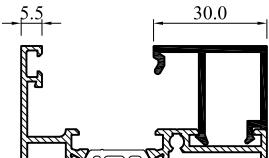
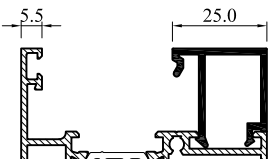
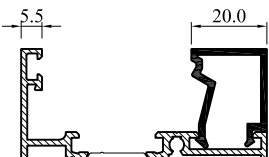
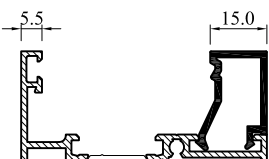
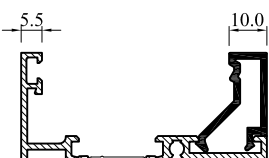
|                       |                       |      |      |                       |                       |      |
|-----------------------|-----------------------|------|------|-----------------------|-----------------------|------|
| W450-16<br>0.475 Kg/m | W450-12<br>0.366 Kg/m | 50.0 | 22.0 |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

**W75 Doğrama Sistemi Cam Fiti & Çıta Seçim Tablosu**

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

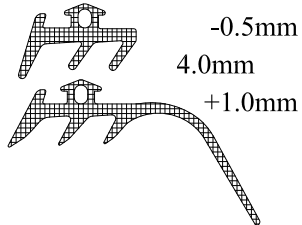
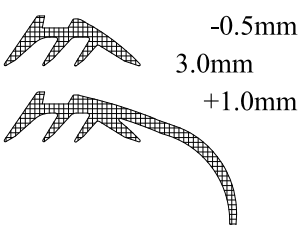
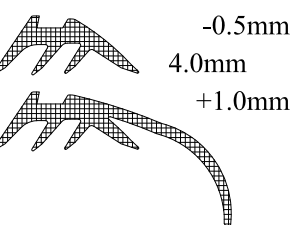
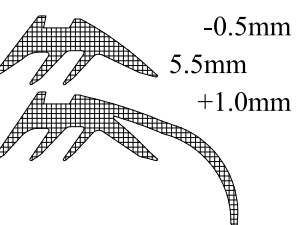
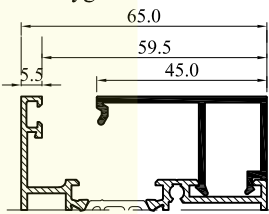
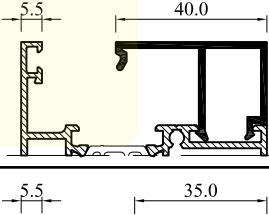
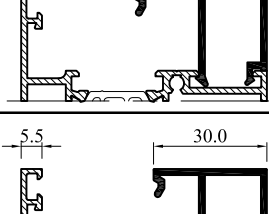
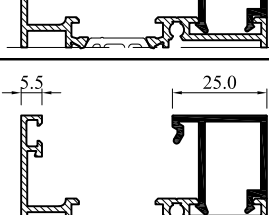
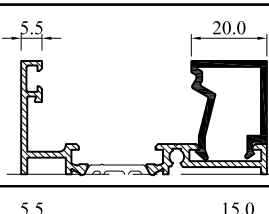
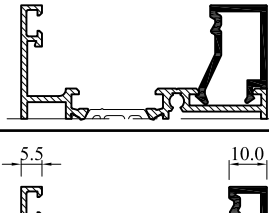
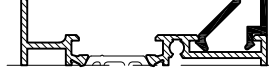
\* Fiti limitte sıkıştırılmıştır. Her iki fitilin limitte kullanılmış olması halinde dikkatli olunmalıdır.

**W65 Doğrama Sistemi Cam Fitili & Çıta Seçim Tablosu**

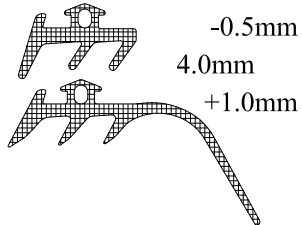
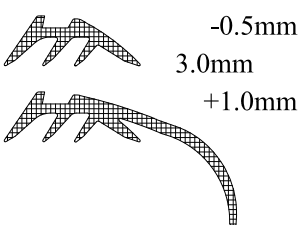
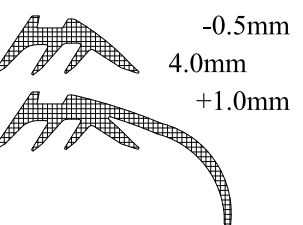
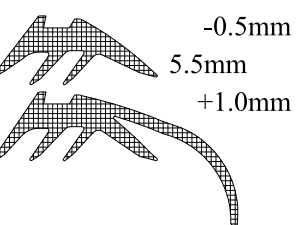
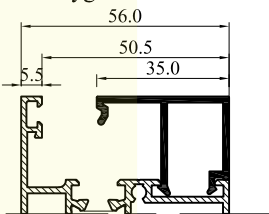
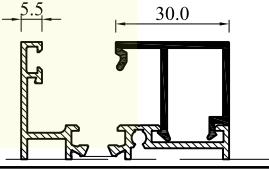
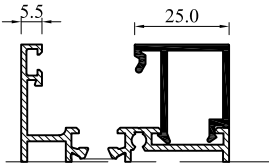
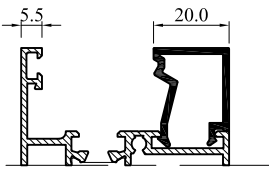
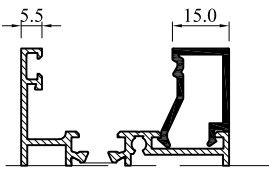
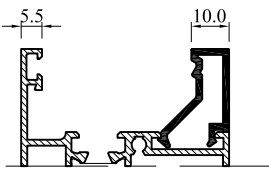
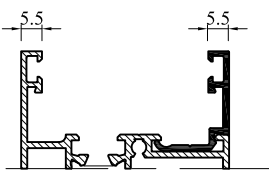
| DIŞ CAM FİTİLİ                                                                                                                   |                                |               | İÇ CAM FİTİLLERİ                                                                                                                 |                |                                                                                                                                 |            |                                                                                                                                  |                      |                                                                                       |
|----------------------------------------------------------------------------------------------------------------------------------|--------------------------------|---------------|----------------------------------------------------------------------------------------------------------------------------------|----------------|---------------------------------------------------------------------------------------------------------------------------------|------------|----------------------------------------------------------------------------------------------------------------------------------|----------------------|---------------------------------------------------------------------------------------|
| F-06A / FE-06A<br><br>-0.5mm<br>4.0mm<br>+1.0mm |                                |               | F-07A / FE-07A<br><br>-0.5mm<br>3.0mm<br>+1.0mm |                | F-07 / FE-07<br><br>-0.5mm<br>4.0mm<br>+1.0mm |            | F-08 / FE-08<br><br>-0.5mm<br>5.5mm<br>+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       |                                                                                                                                  | W440-16              |   |
| 9.0 mm                                                                                                                           | * F-06A                        | F-08          | 9.0                                                                                                                              | 4.0            | 6.5                                                                                                                             | 40.0       |                                                                                                                                  |                      |                                                                                       |
| 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       |                                                                                                                                  | W435-16              |  |
| 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       |                                                                                                                                  |                      |                                                                                       |
| 14.0 mm                                                                                                                          | * F-06A                        | F-08          | 14.0                                                                                                                             | 4.0            | 6.5                                                                                                                             | 35.0       |                                                                                                                                  | W430-16              |  |
| 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       |                                                                                                                                  | W425-16              |  |
| 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       |                                                                                                                                  | W420-16              |  |
| 21.0 mm                                                                                                                          | F-06A                          | F-08 / F-07   | 21.0                                                                                                                             | 4.0            | 4.5                                                                                                                             | 30.0       |                                                                                                                                  |                      |                                                                                       |
| 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       |                                                                                                                                  | W415-16              |  |
| 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       |                                                                                                                                  |                      |                                                                                       |
| 26.0 mm                                                                                                                          | F-06A                          | F-08 / F-07   | 26.0                                                                                                                             | 4.0            | 4.5                                                                                                                             | 25.0       |                                                                                                                                  | W410-16              |  |
| 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       |                                                                                                                                  |                      |                                                                                       |
| 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       |                                                                                                                                  |                      |                                                                                       |
| 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       |                                                                                                                                  |                      |                                                                                       |
| 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       |                                                                                                                                  |                      |                                                                                       |

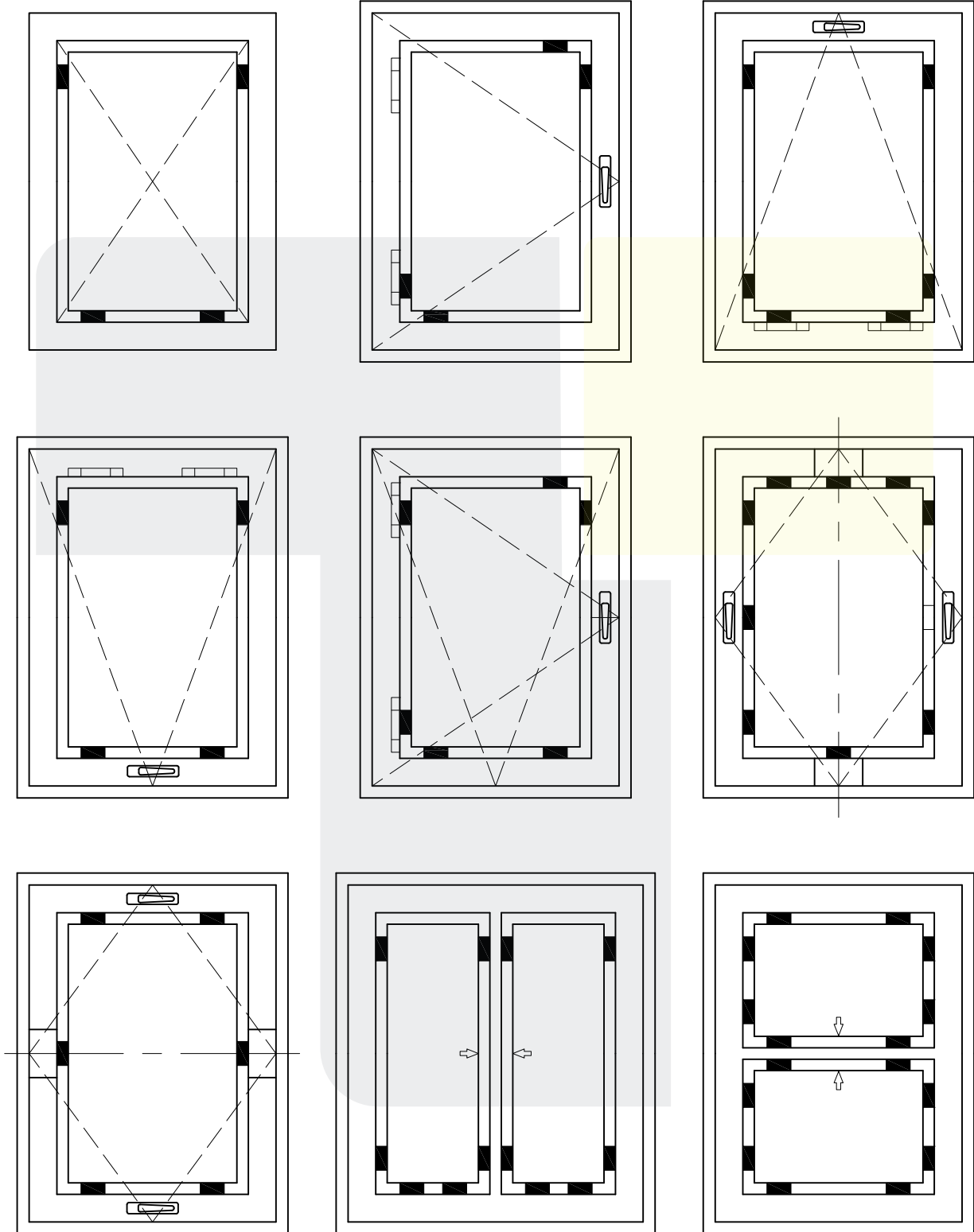


**WS65 Doğrama Sistemi Cam Fitili & Çıta Seçim Tablosu**

| DIŞ CAM FİTİLİ                                                                                                                   |                                |               | İÇ CAM FİTİLLERİ                                                                                                                 |                |                                                                                                                                 |            |                                                                                                                                  |                                                                                       |                                                                                       |
|----------------------------------------------------------------------------------------------------------------------------------|--------------------------------|---------------|----------------------------------------------------------------------------------------------------------------------------------|----------------|---------------------------------------------------------------------------------------------------------------------------------|------------|----------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| F-06A / FE-06A<br><br>-0.5mm<br>4.0mm<br>+1.0mm |                                |               | F-07A / FE-07A<br><br>-0.5mm<br>3.0mm<br>+1.0mm |                | F-07 / FE-07<br><br>-0.5mm<br>4.0mm<br>+1.0mm |            | F-08 / FE-08<br><br>-0.5mm<br>5.5mm<br>+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 |                                                                                                                                  |                                                                                       |                                                                                       |
| 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       |                                                                                                                                  |                                                                                       |                                                                                       |
| 14.0 mm                                                                                                                          | * F-06A                        | F-08          | 14.0                                                                                                                             | 4.0            | 6.5                                                                                                                             | 35.0       |                                                                                                                                  | W435-16                                                                               |  |
| 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       |                                                                                                                                  |                                                                                       |                                                                                       |
| 18.0 mm                                                                                                                          | F-06A                          | F-07A         | 18.0                                                                                                                             | 4.0            | 2.5                                                                                                                             | 35.0       |                                                                                                                                  | W430-16                                                                               |  |
| 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       |                                                                                                                                  |                                                                                       |                                                                                       |
| 22.0 mm                                                                                                                          | F-06A                          | F-07 / F-07A  | 22.0                                                                                                                             | 4.0            | 3.5                                                                                                                             | 30.0       |                                                                                                                                  | W425-16                                                                               |  |
| 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       |                                                                                                                                  |                                                                                       |                                                                                       |
| 26.0 mm                                                                                                                          | F-06A                          | F-08 / F-07   | 26.0                                                                                                                             | 4.0            | 4.5                                                                                                                             | 25.0       |                                                                                                                                  | W420-16                                                                               |  |
| 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       |                                                                                                                                  |                                                                                       |                                                                                       |
| 30.0 mm                                                                                                                          | F-06A                          | F-08          | 30.0                                                                                                                             | 4.0            | 5.5                                                                                                                             | 20.0       |                                                                                                                                  | W415-16                                                                               |  |
| 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       | 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       | W410-16                                                                                                                          |  |                                                                                       |
| 43.0 mm                                                                                                                          | F-06A                          | F-07A         | 43.0                                                                                                                             | 4.0            | 2.5                                                                                                                             | 10.0       |                                                                                                                                  |                                                                                       |                                                                                       |

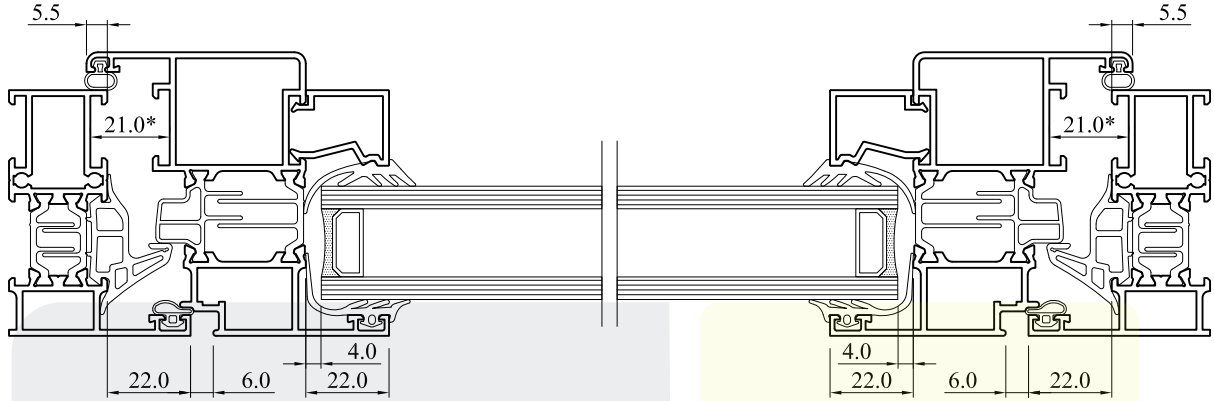
**WS14 Doğrama Sistemi Cam Fitili & Çıta Seçim Tablosu**

| DIŞ CAM FİTİLİ                                                                                                                   |                                |               | İÇ CAM FİTİLLERİ                                                                                                                 |                |                                                                                                                                 |            |                                                                                                                                  |                      |                                                                                       |
|----------------------------------------------------------------------------------------------------------------------------------|--------------------------------|---------------|----------------------------------------------------------------------------------------------------------------------------------|----------------|---------------------------------------------------------------------------------------------------------------------------------|------------|----------------------------------------------------------------------------------------------------------------------------------|----------------------|---------------------------------------------------------------------------------------|
| F-06A / FE-06A<br><br>-0.5mm<br>4.0mm<br>+1.0mm |                                |               | F-07A / FE-07A<br><br>-0.5mm<br>3.0mm<br>+1.0mm |                | F-07 / FE-07<br><br>-0.5mm<br>4.0mm<br>+1.0mm |            | F-08 / FE-08<br><br>-0.5mm<br>5.5mm<br>+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        |                                                                                                                                  |                      |                                                                                       |

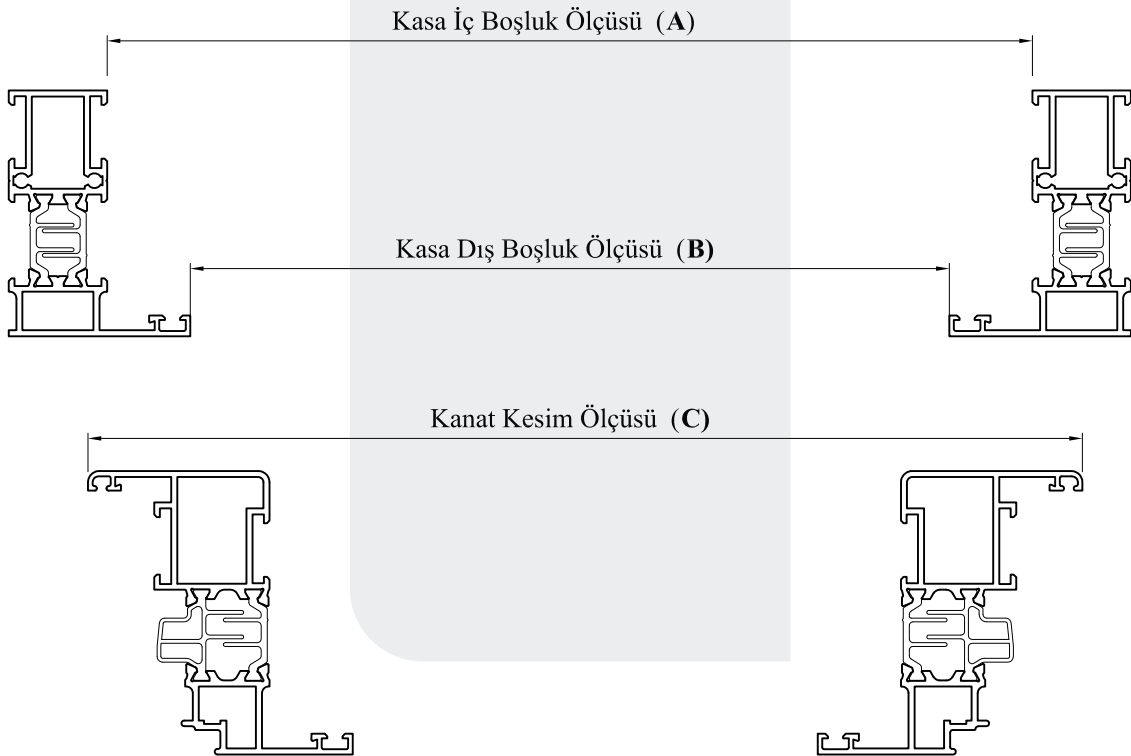
**CAM MONTAJI TAKOZLAMA PRENSİPLERİ**

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.

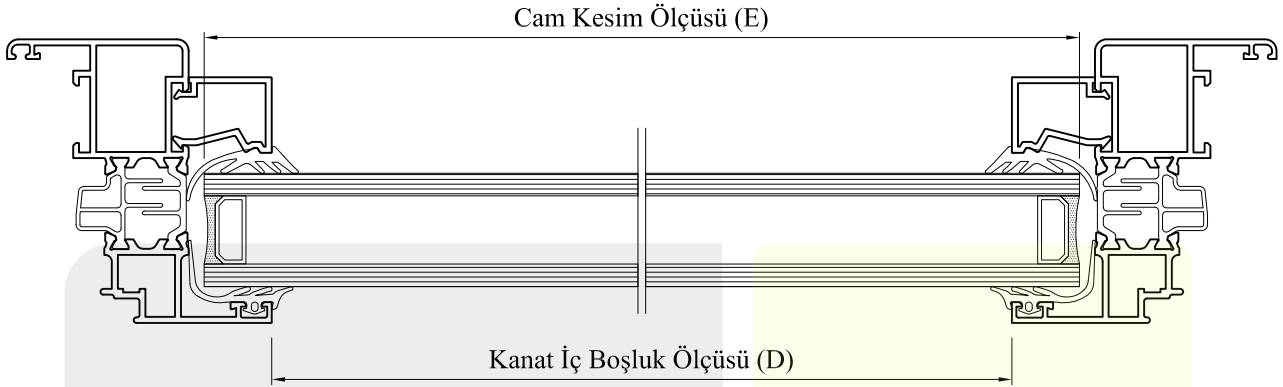
**EURO COMFORT DOĞRAMA SİSTEMLERİ PRENSİP ÖLÇÜLERİ**

\* İŞARETİYLE BELİRTİLEN 21mm ÖLÇÜSÜ TÜM ÇEVREDE MENTEŞE VE FİTİL İHTİYACI İÇİN SON DERECE ÖNEMLİ BİR ÖLÇÜ OLDUĞUNDAN TITİZLİK 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**

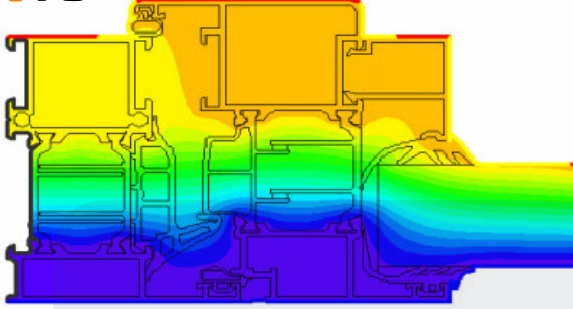
(D) Kanat İç Boşluk Ölçüsüne Göre;  $E = D + (22.0 \text{ mm}) \implies E = D + 22 \text{ mm}$   
\*Düşey yöndeki çıtalar için E=D

**EURO COMFORT SİSTEMLERİNDE ISI İLETİM DEĞERLERİ VE HESAPLAMALARI**

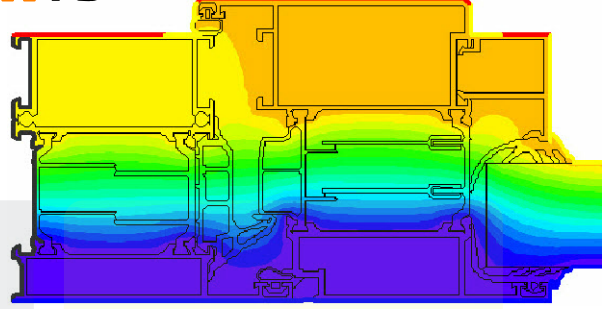
Uf : profilin ısı iletim katsayısı Ug : camın ısı iletim katsayısı Uw : pencerenin ısı iletim katsayısı

Uf ve Lf değerlerini kullanarak Uw hesaplamak için bkz. sayfa 47

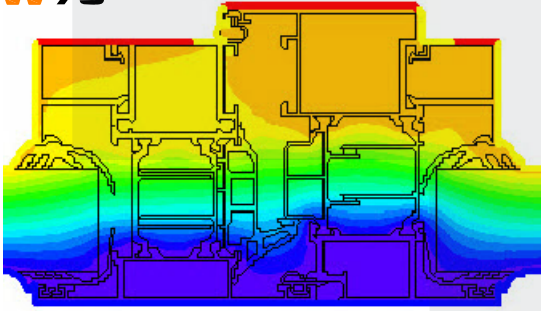
(Ug = 1.5 W/(m².K) olmak üzere alanca %75'i cam olan pencerenin Uw değeri aşağıda verilmiştir)

**W75**

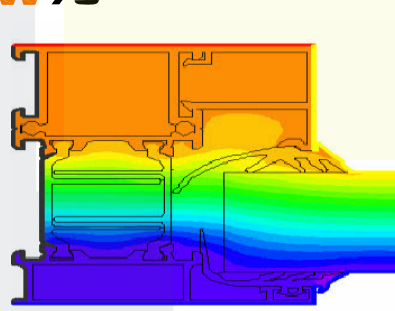
Kasa: 75021-16 Kanat: 75361-16  
Lf: 110.5 mm Uf: 1.778 W/(m².K)

**W75**

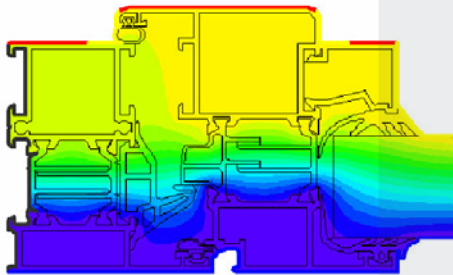
Kasa: 75031-16 Kanat: 75381-16  
Lf: 150.5 mm Uf: 1.744 W/(m².K)

**W75**

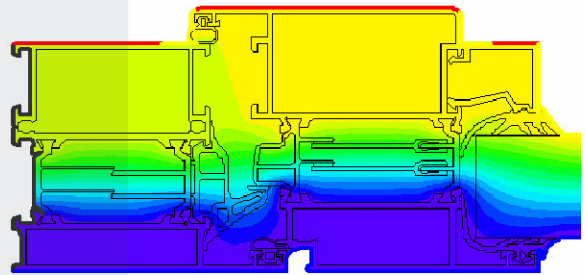
Kasa: 75221-16 Kanat: 75361-16  
Lf: 132.5 mm Uf: 1.852 W/(m².K)

**W75**

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

**W65**

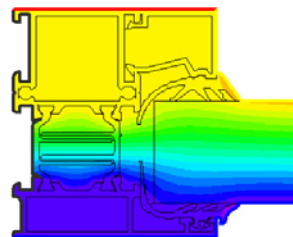
Kasa: 65021-16 Kanat: 65361-16  
Lf: 110.5 mm Uf: 2.156 W/(m².K)

**W65**

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

**W65**

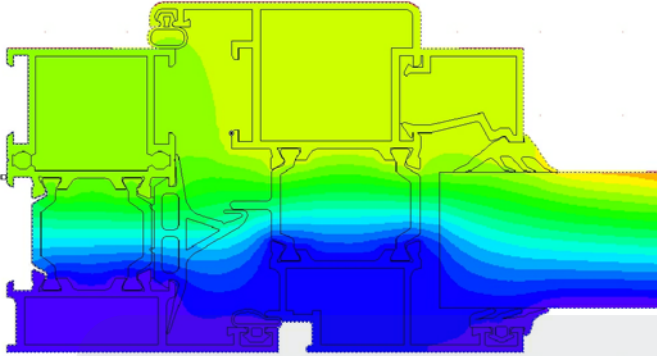
Kasa: 65221-16 Kanat: 65361-16  
Lf: 132.5 mm Uf: 2.198 W/(m².K)

**W65**

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

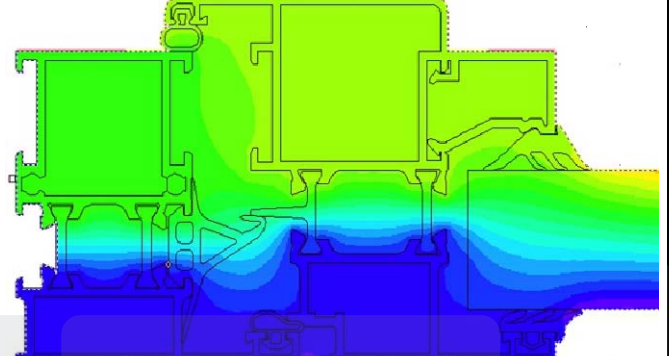


**WS65**



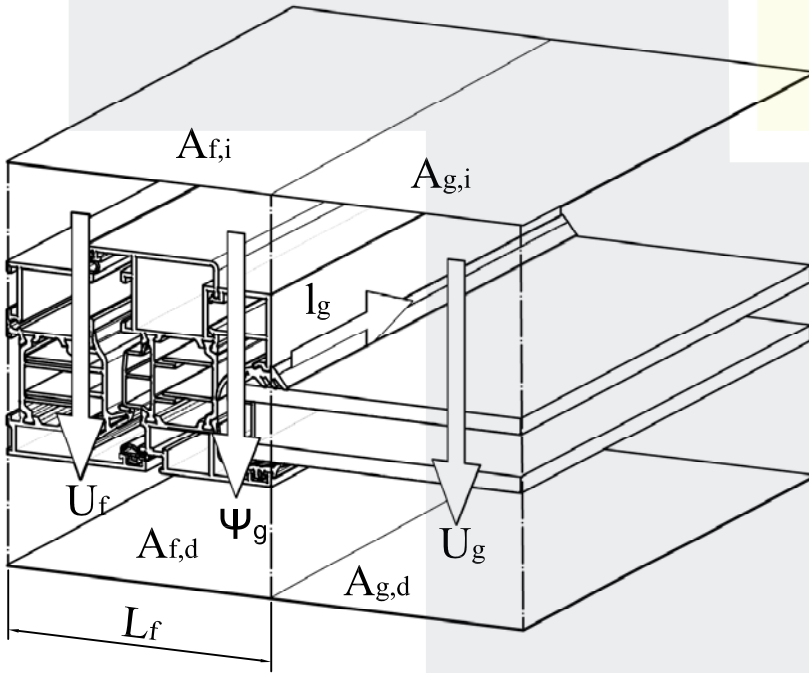
Kasa: 65021-16 Kanat: 65361-16  
Lf: 110.5 mm Uf: 2.647 W/(m².K)

**WS14**



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

**PENCERENİN ISIL İLETİM KATSAYISI (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)  
 $\Psi_g$  = Doğrusal Isıl İletim Katsayısı (W/mK)  
 $L_f$  = Profilin Uzunluğu (mm)

| $\Psi_g$ (W/mK) |               | ISICAM (II,III) |       |
|-----------------|---------------|-----------------|-------|
| Isıcam          | Standart      | Standart        | Low-E |
|                 | Geliştirilmiş | 0.08            | 0.11  |
| Çıtası          |               | 0.06            | 0.08  |

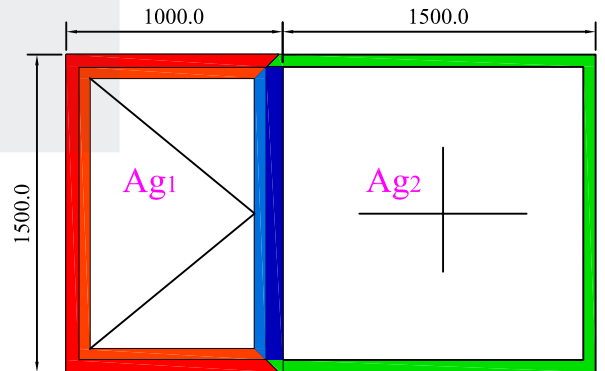
Tek cam kullanımında  $\Psi_g \times l_g = 1$  alınır.

(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.

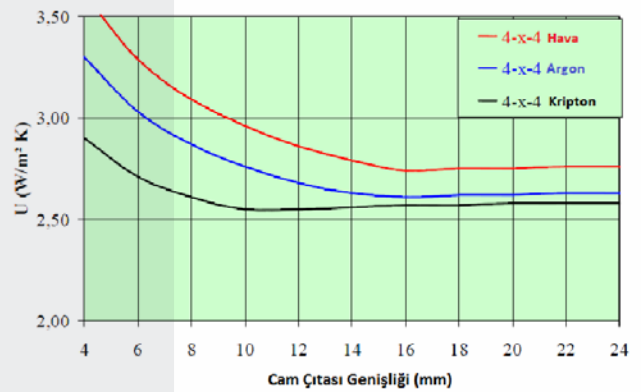
## CAM SEÇİMİ İÇİN GENEL BİLGİLENDİRME

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   |
| Isıcam Konfor                 | 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   |
|                               | 6 + 6 + 6                          | 70          | 13       | 0.48               | 0.56                | 2.5                                      | 2.1   |
|                               | 6 + 9 + 6                          |             |          |                    |                     | 2.0                                      | 1.6   |
| Triple Isıcam Konfor          | 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   |
| Triple Isıcam Konfor          | 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

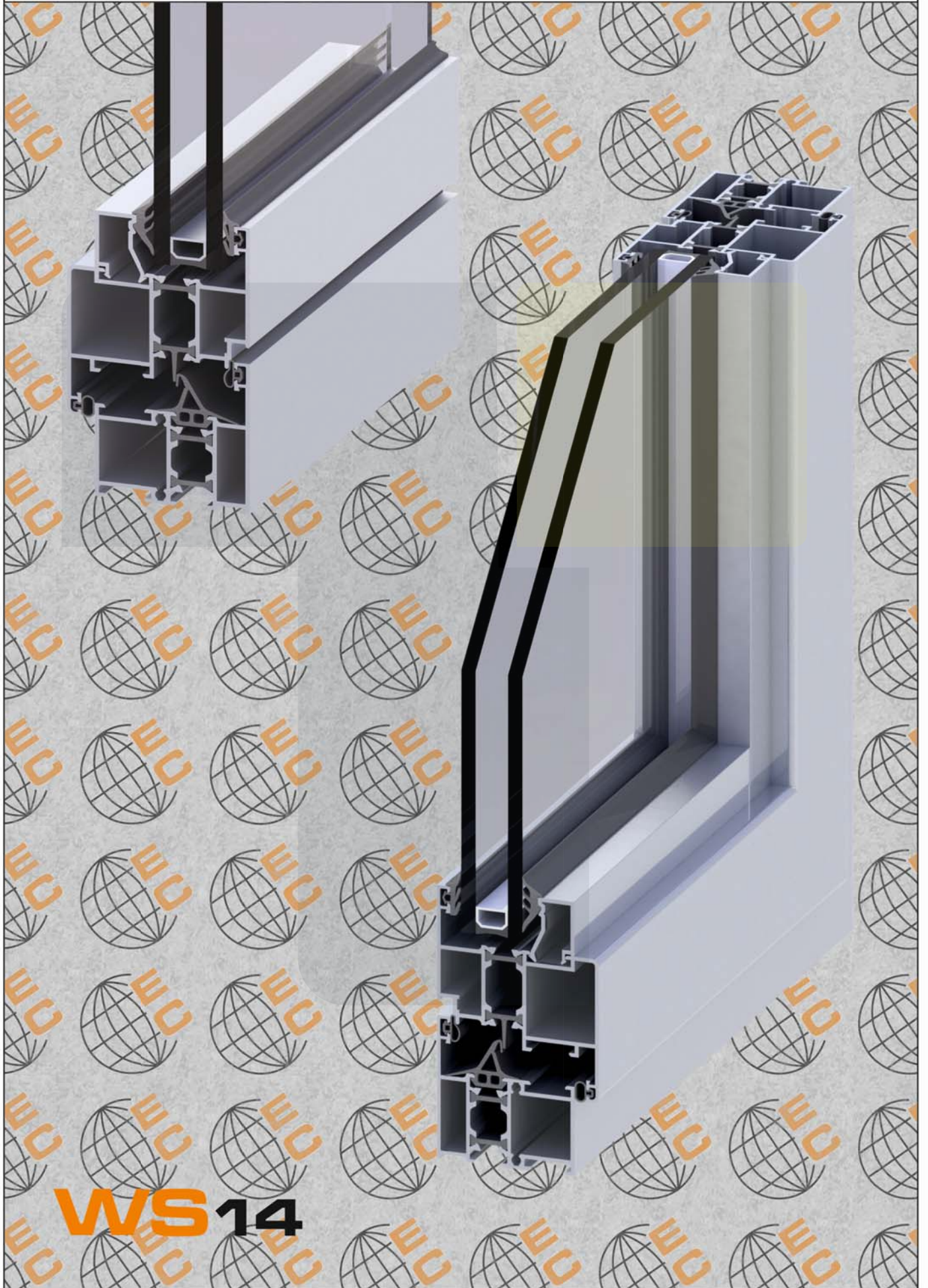
en fazla; 2300 x 3000 mm'dir.

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

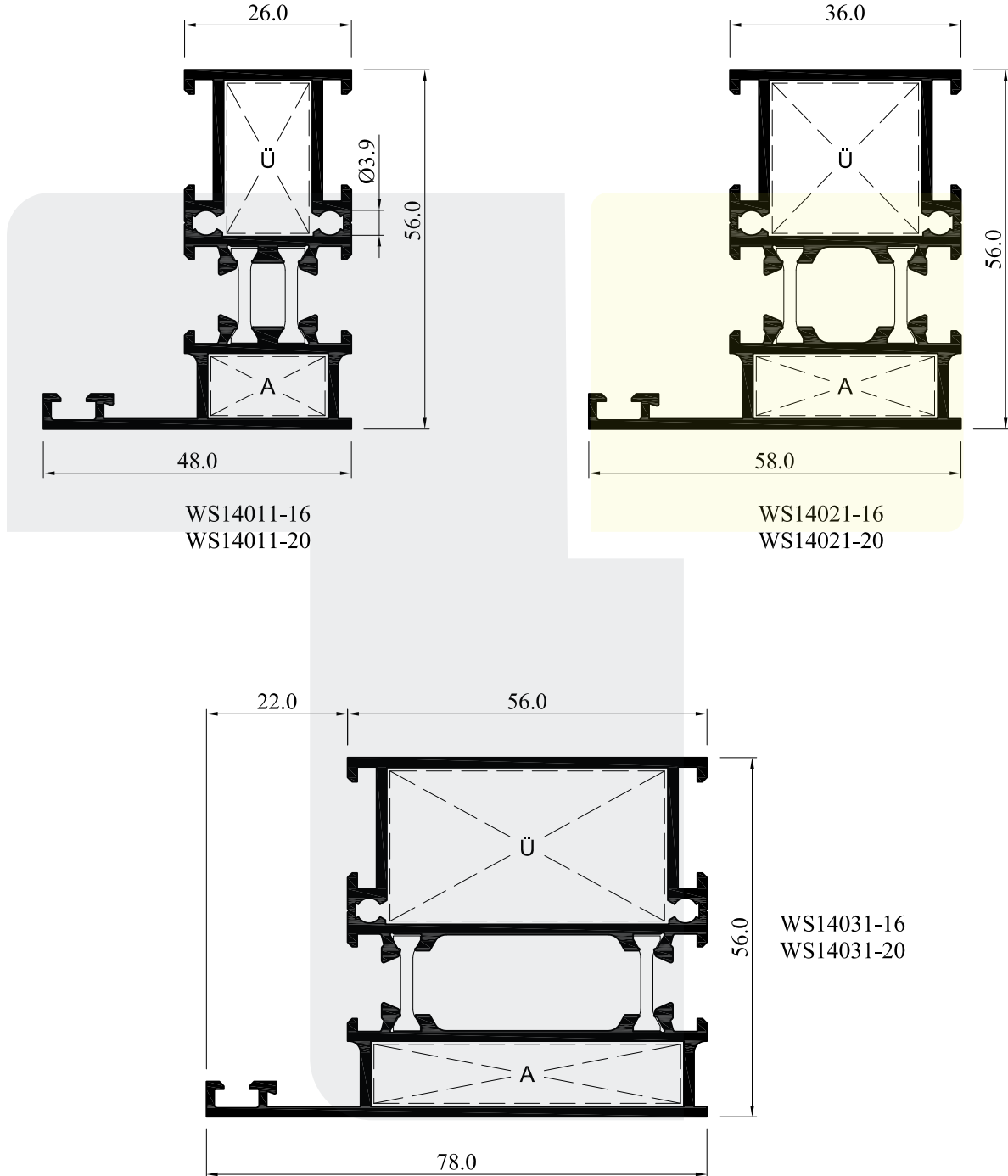
- Cam yuvası yeterli genişlikte ise ihtiyaca göre daha kalın cam ve daha geniş ara boşluk seçilebilir.

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





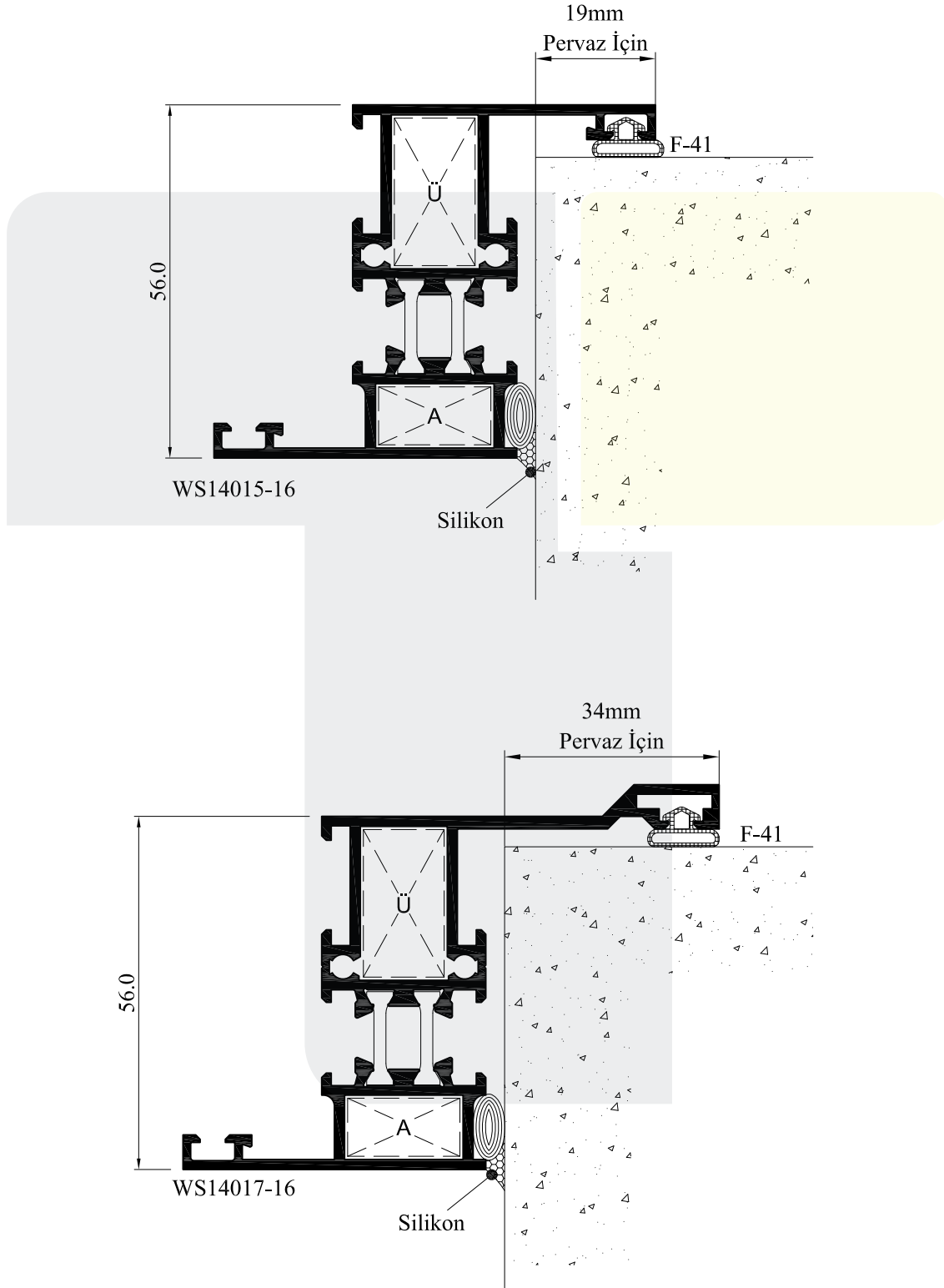
KASALAR / FRAMES



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.

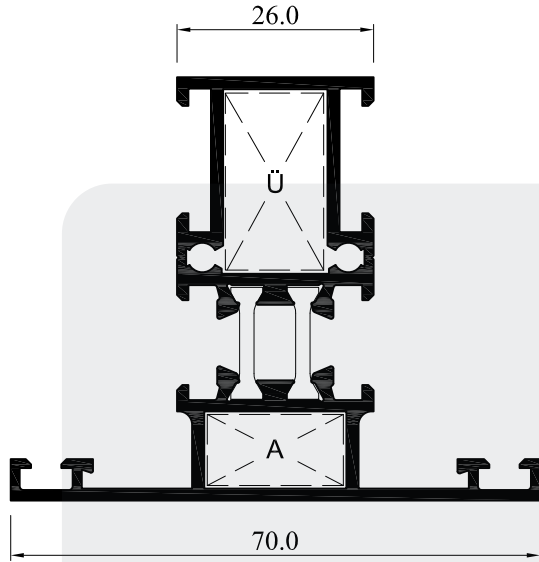
| PROFİL KODU | AĞIRLIK (kg/m) | ALT PROFİL İÇİN PRES TAKOZU/ KESİM ÖLÇÜSÜ (mm) | ÜST PROFİL İÇİN PRES TAKOZU/ KESİM ÖLÇÜSÜ (mm) | Ix cm4 | Iy cm4 | Wx cm <sup>3</sup> | Wy cm <sup>3</sup> |
|-------------|----------------|------------------------------------------------|------------------------------------------------|--------|--------|--------------------|--------------------|
| 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*

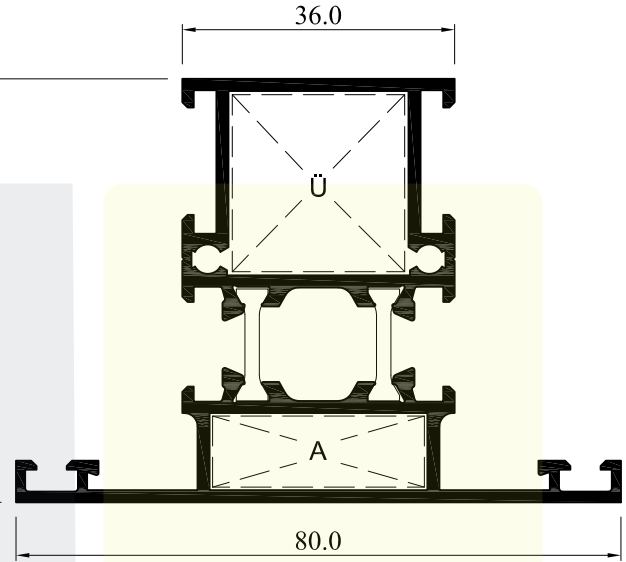


| PROFİL KODU | AĞIRLIK (kg/m) | ALT PROFİL İÇİN PRES TAKOZU/ KESİM ÖLÇÜSÜ (mm) | ÜST PROFİL İÇİN PRES TAKOZU/ KESİM ÖLÇÜSÜ (mm) | I <sub>x</sub> cm <sup>4</sup> | I <sub>y</sub> cm <sup>4</sup> | W <sub>x</sub> cm <sup>3</sup> | W <sub>y</sub> cm <sup>3</sup> |
|-------------|----------------|------------------------------------------------|------------------------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|
| 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                           |

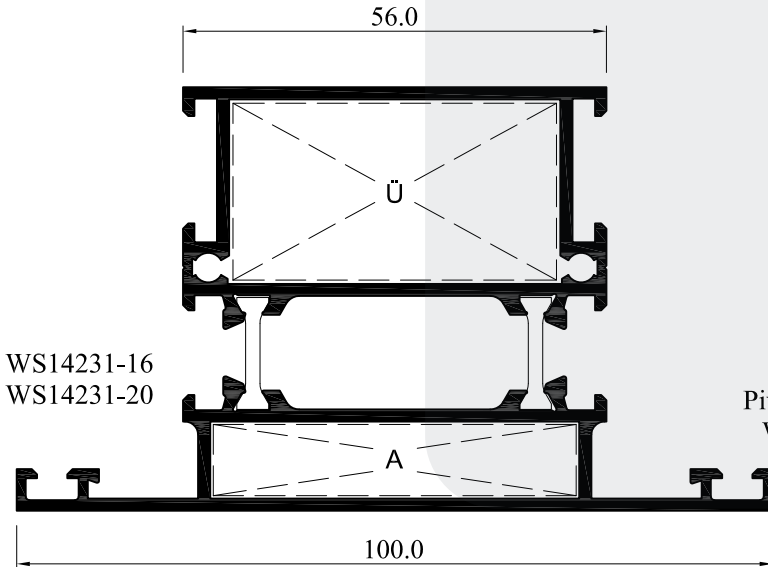
ORTA KAYITLAR / *TRANSOM-MULLION PROFILES*



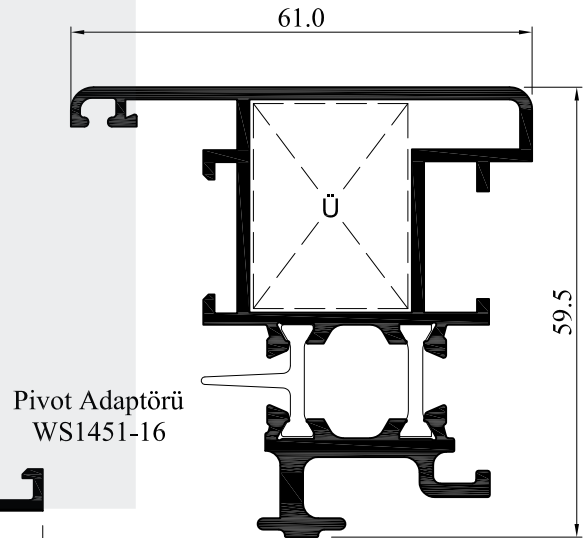
WS14211-16  
WS14211-20



WS14221-16  
WS14221-20



WS14231-16  
WS14231-20

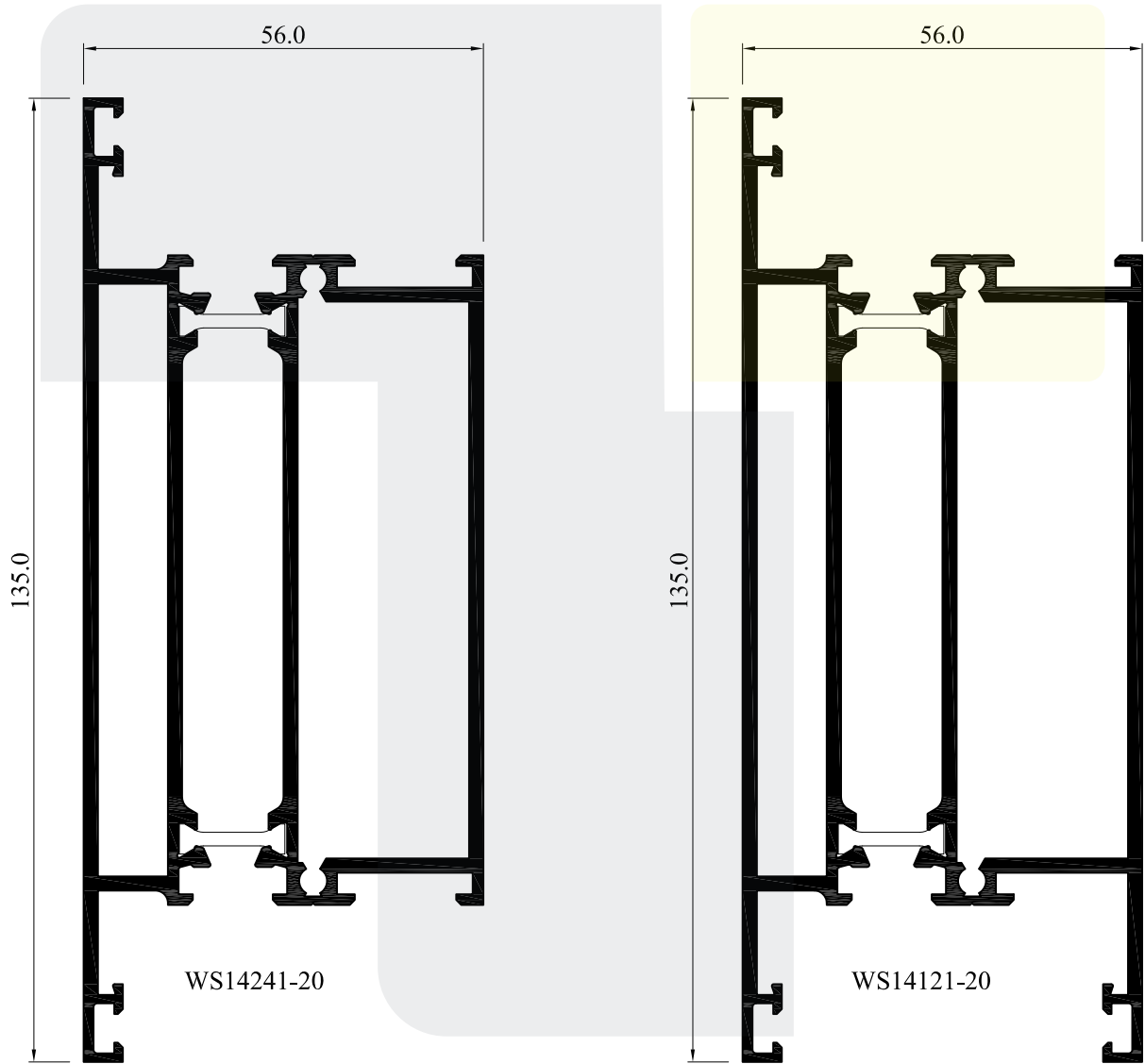


Pivot Adaptörü  
WS1451-16

| PROFİL KODU | AĞIRLIK (kg/m) | ALT PROFİL İÇİN PRES TAKOZU/ KESİM ÖLÇÜSÜ (mm) | ÜST PROFİL İÇİN PRES TAKOZU/ KESİM ÖLÇÜSÜ (mm) | Ix cm <sup>4</sup> | Iy cm <sup>4</sup> | Wx cm <sup>3</sup> | Wy cm <sup>3</sup> |
|-------------|----------------|------------------------------------------------|------------------------------------------------|--------------------|--------------------|--------------------|--------------------|
| 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*



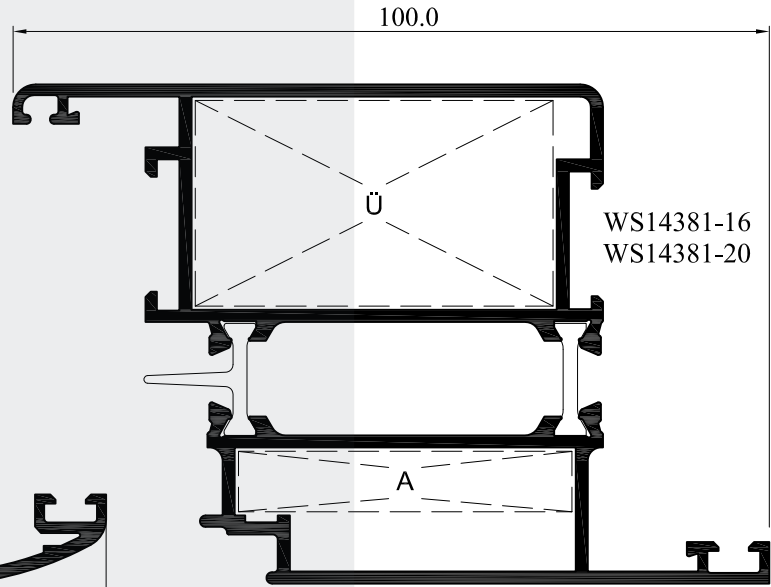
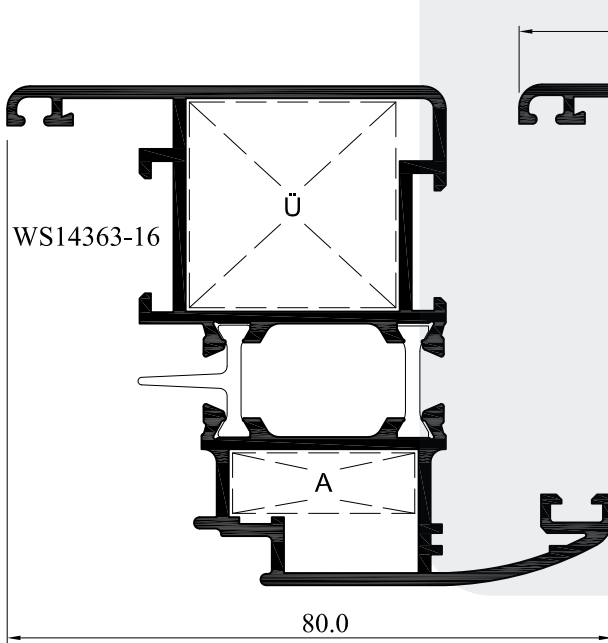
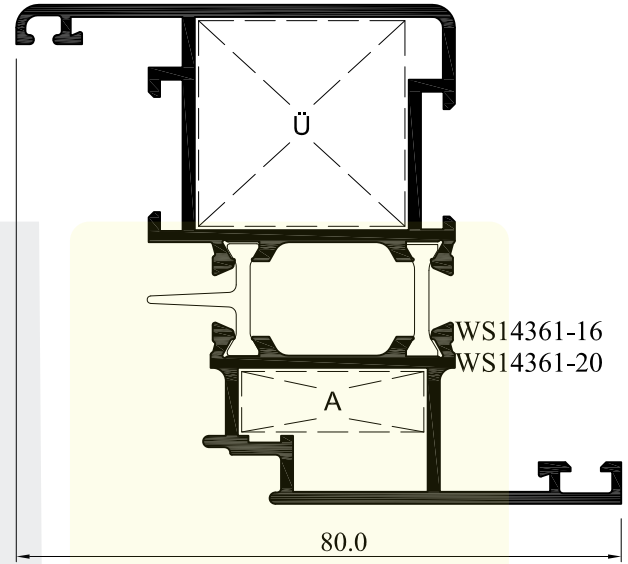
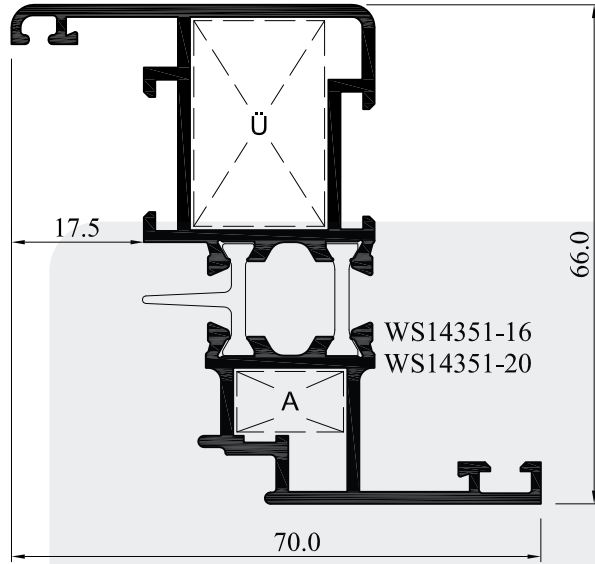
WS14241-20

WS14121-20

Etek detayı için bkz. Sayfa 170

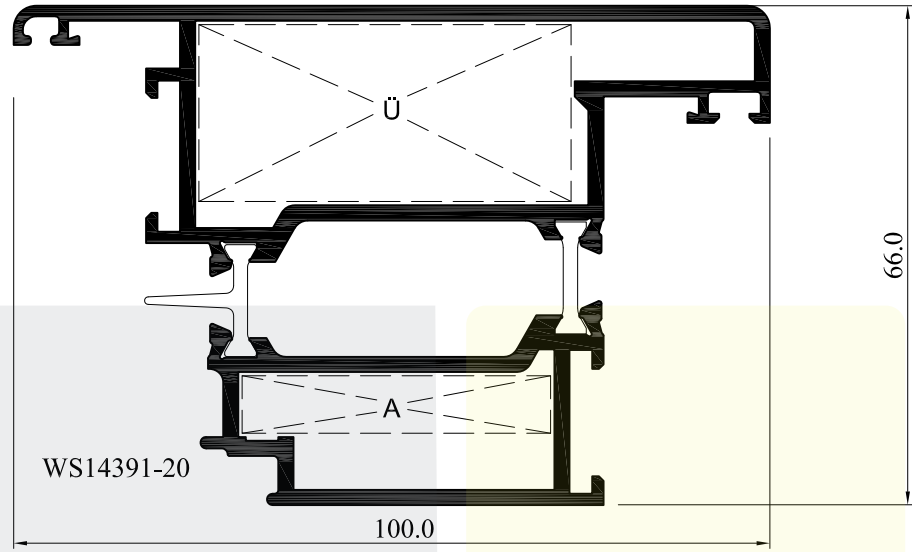
| PROFİL<br>KODU | AĞIRLIK<br>(kg/m) | I <sub>x</sub><br>cm <sup>4</sup> | I <sub>y</sub><br>cm <sup>4</sup> | W <sub>x</sub><br>cm <sup>3</sup> | W <sub>y</sub><br>cm <sup>3</sup> |
|----------------|-------------------|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|
| WS14241-20     | 2.919             | 40.66                             | 129.37                            | 17.65                             | 19.14                             |
| WS14121-20     | 3.061             | -                                 | -                                 | -                                 | -                                 |

KANATLAR / SASH PROFILES

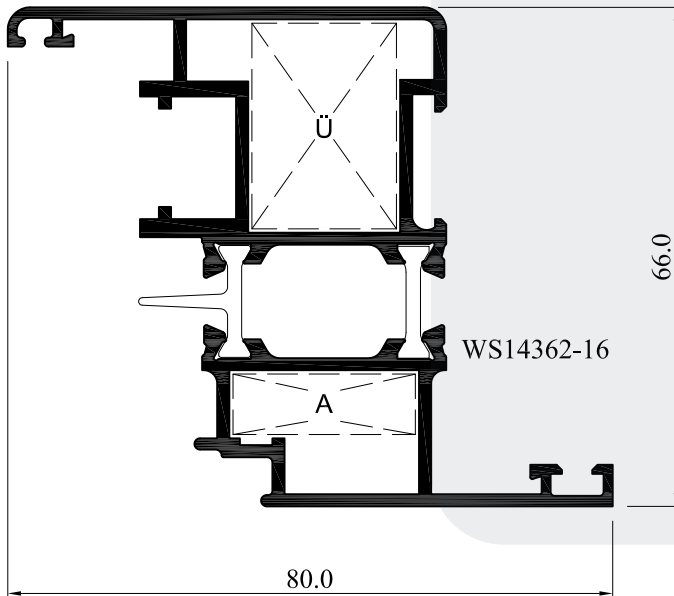


| PROFİL KODU | AĞIRLIK (kg/m) | ALT PROFİL İÇİN PRES TAKOZU/ KESİM ÖLÇÜSÜ (mm) | ÜST PROFİL İÇİN PRES TAKOZU/ KESİM ÖLÇÜSÜ (mm) |
|-------------|----------------|------------------------------------------------|------------------------------------------------|
| WS14351-16  | 1.449          | T851-146 / 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                                |

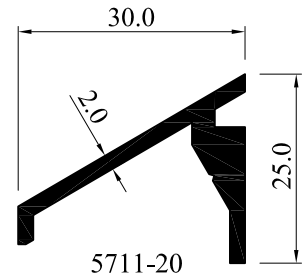
DIŞA AÇILIR KAPI KANADI / *DOOR SASH PROFILE OPENING OUTSIDE*



PVC AKSESUAR İÇİN KANAT  
SASH PROFILE FOR PVC ACCESSORIES

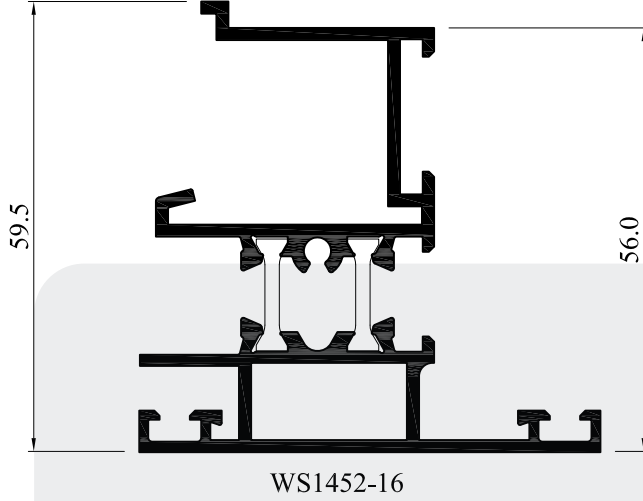


DAMLALIK PROFİLİ  
WINDOWSILL PROFILE

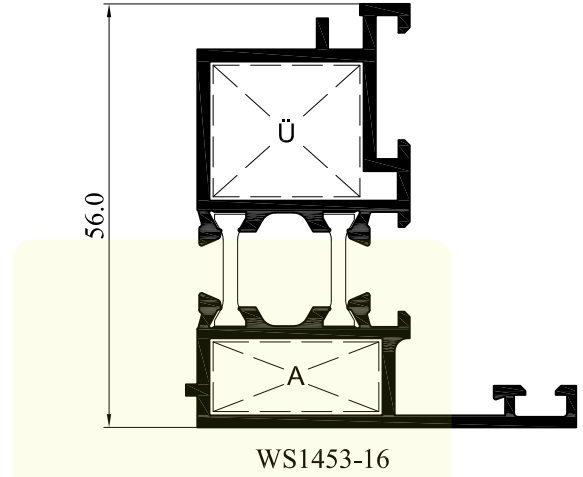


| PROFİL KODU | AĞIRLIK (kg/m) | ALT PROFİL İÇİN PRES TAKOZU/ KESİM ÖLÇÜSÜ (mm) | ÜST PROFİL İÇİN PRES TAKOZU/ KESİM ÖLÇÜSÜ (mm) | I <sub>x</sub> cm <sup>4</sup> | I <sub>y</sub> cm <sup>4</sup> |
|-------------|----------------|------------------------------------------------|------------------------------------------------|--------------------------------|--------------------------------|
| 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          | -                                              | -                                              | -                              | -                              |

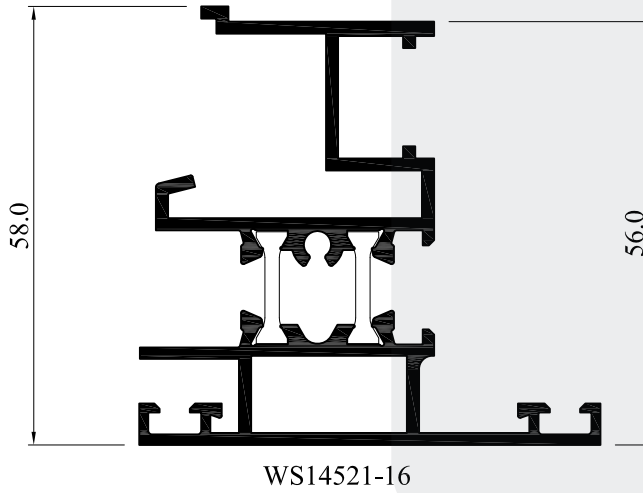
ÇİFT KANAT ADAPTÖRÜ  
ADJOINING SASH ADAPTER



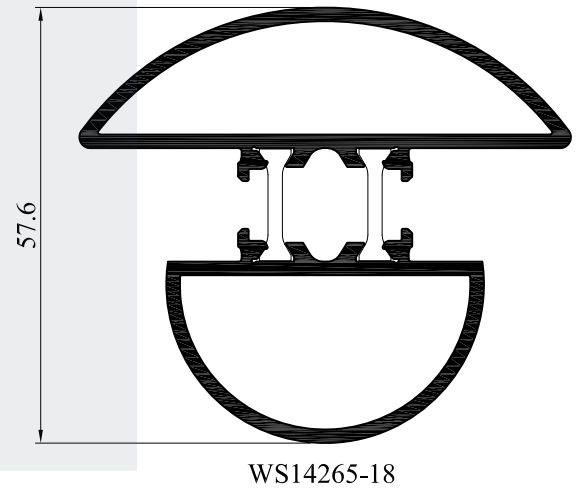
DIŞA AÇILIR KAPI ADAPTÖRÜ  
OUTSIDE OPENING DOOR ADAPTER



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

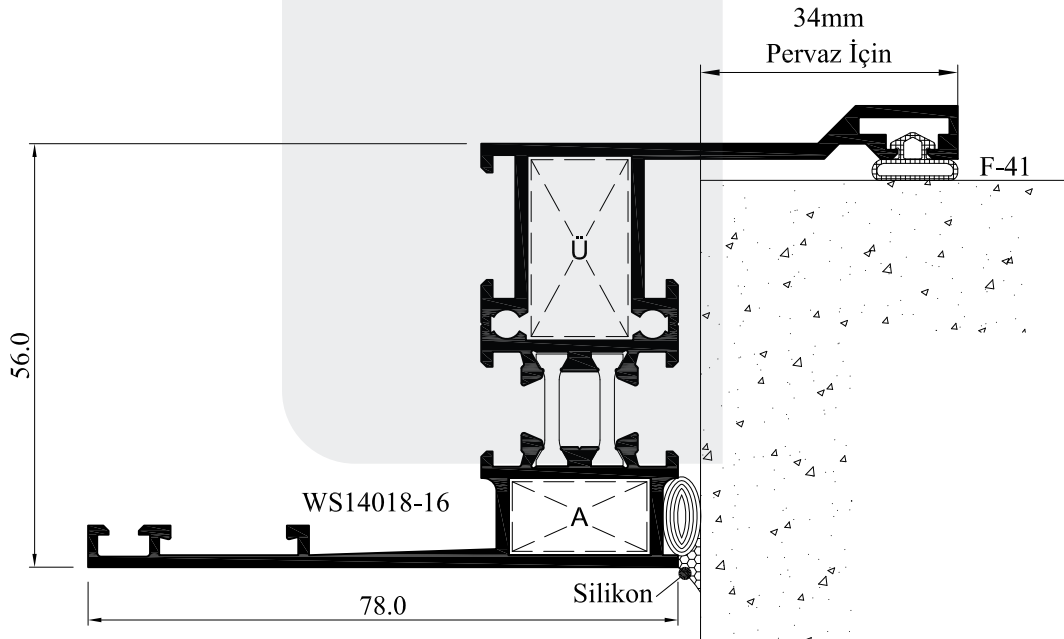
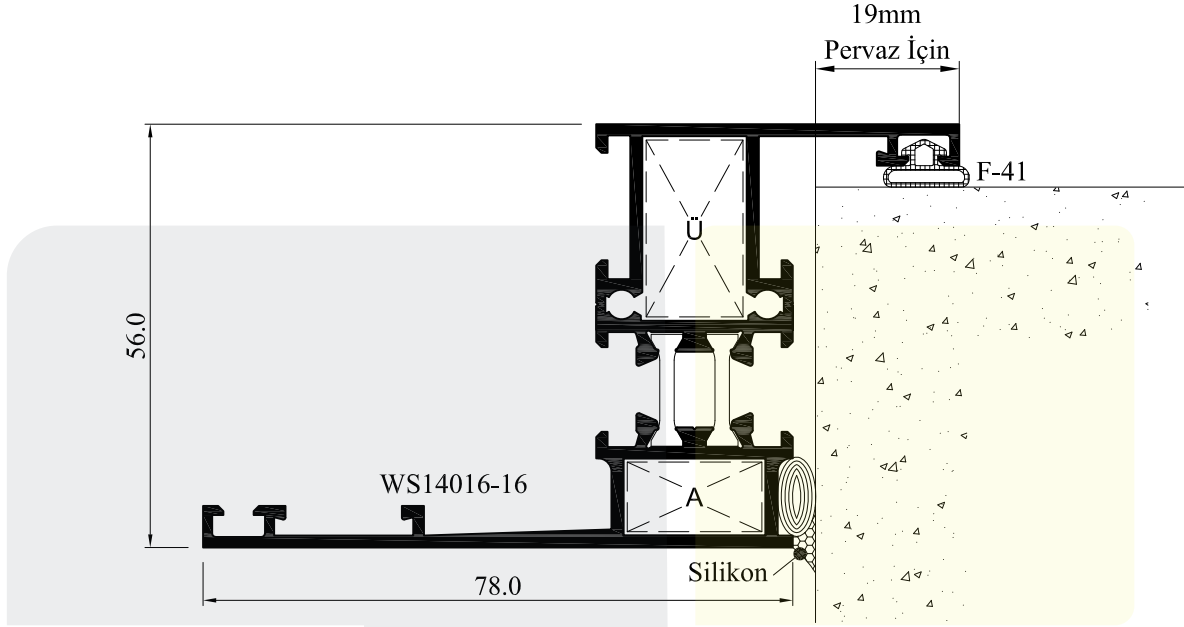


90°-135° AYARLANABİLİR KÖŞE DÖNÜŞ PROFİLİ  
90°-135° CORNERS PROFILES



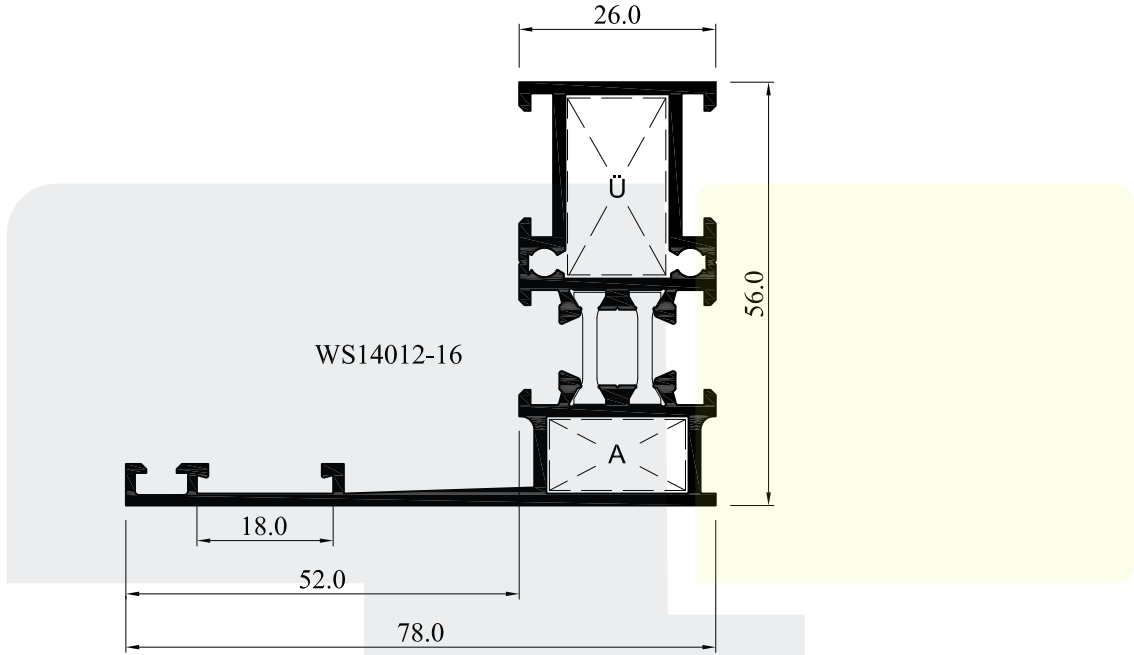
| PROFİL KODU | AĞIRLIK (kg/m) | ALT PROFİL İÇİN PRES TAKOZU/ KESİM ÖLÇÜSÜ (mm) | ÜST PROFİL İÇİN PRES TAKOZU/ KESİM ÖLÇÜSÜ (mm) | Ix cm4 | Iy cm4 | Wx cm³ | Wy cm³ |
|-------------|----------------|------------------------------------------------|------------------------------------------------|--------|--------|--------|--------|
| 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*

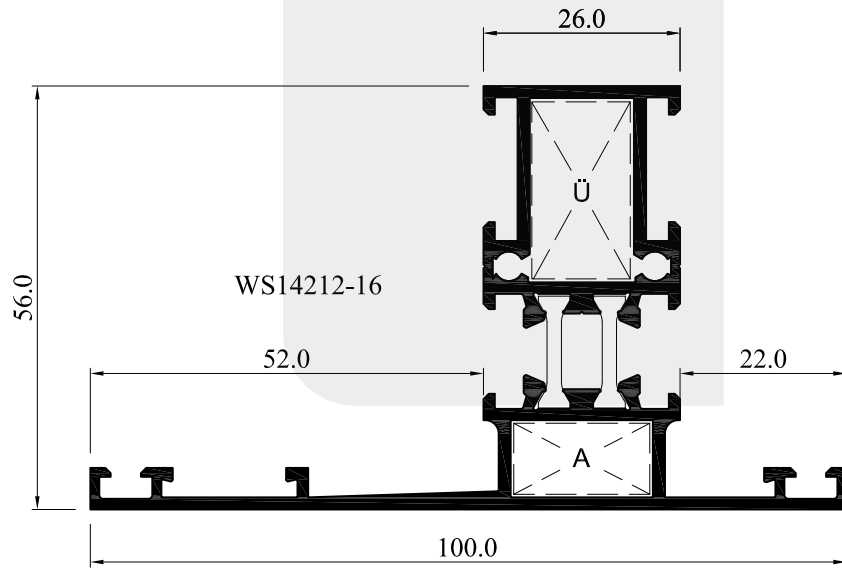


| PROFİL KODU | AĞIRLIK (kg/m) | ALT PROFİL İÇİN PRES TAKOZU/ KESİM ÖLÇÜSÜ (mm) | ÜST PROFİL İÇİN PRES TAKOZU/ KESİM ÖLÇÜSÜ (mm) | I <sub>x</sub> cm <sup>4</sup> | I <sub>y</sub> cm <sup>4</sup> | W <sub>x</sub> cm <sup>3</sup> | W <sub>y</sub> cm <sup>3</sup> |
|-------------|----------------|------------------------------------------------|------------------------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|
| 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*



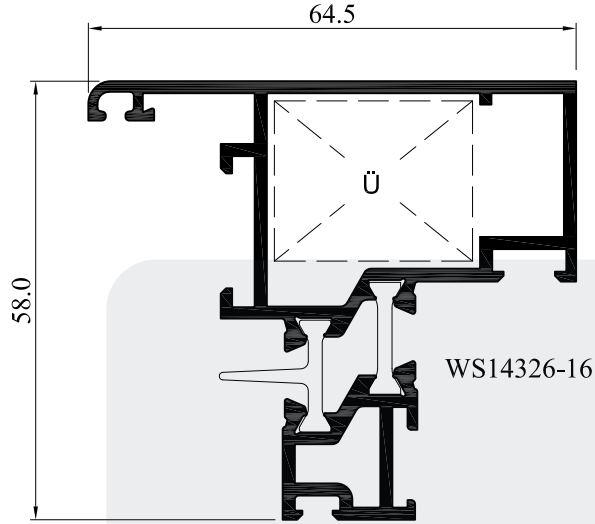
GİZLİ KANAT ORTA KAYIT / *TRANSOM-MULLION PROFILE FOR HIDDEN SASH*



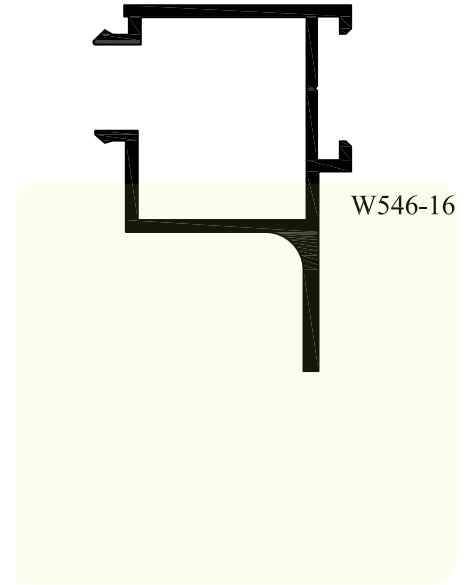
| PROFİL KODU | AĞIRLIK (kg/m) | ALT PROFİL İÇİN PRES TAKOZU/ KESİM ÖLÇÜSÜ (mm) | ÜST PROFİL İÇİN PRES TAKOZU/ KESİM ÖLÇÜSÜ (mm) | I <sub>x</sub> cm <sup>4</sup> | I <sub>y</sub> cm <sup>4</sup> | W <sub>x</sub> cm <sup>3</sup> | W <sub>y</sub> cm <sup>3</sup> |
|-------------|----------------|------------------------------------------------|------------------------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|
| 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                           |



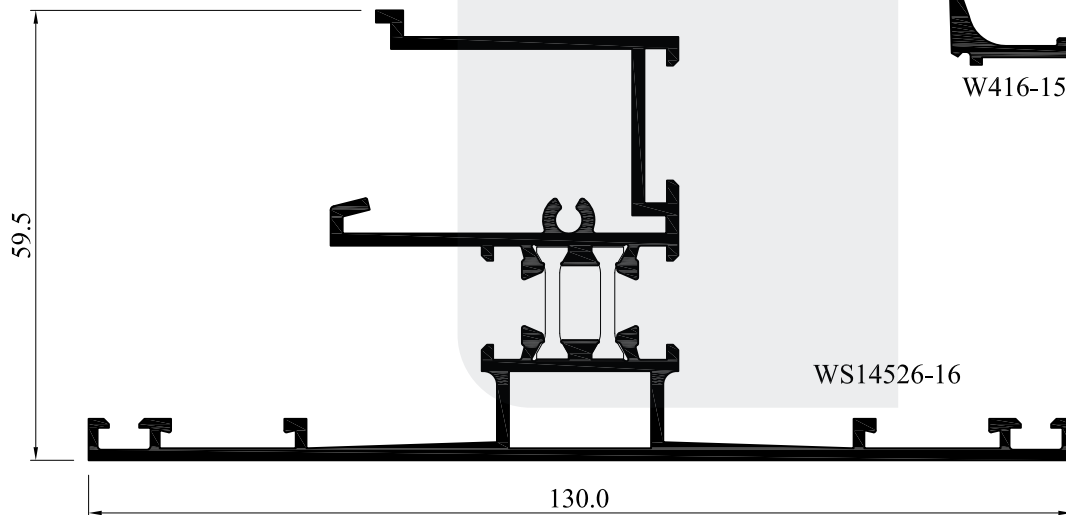
GİZLİ KANAT PROFİLİ  
HIDDEN SASH PROFILE



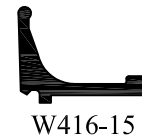
GİZLİ KANATTA SABİT CAM ADAPTÖRÜ  
FIX GLASS ADAPTOR FOR HIDDEN SASH



GİZLİ KANAT ÇİFT KANAT ADAPTÖRÜ  
ADJOINING SASH ADAPTER FOR HIDDEN SASH

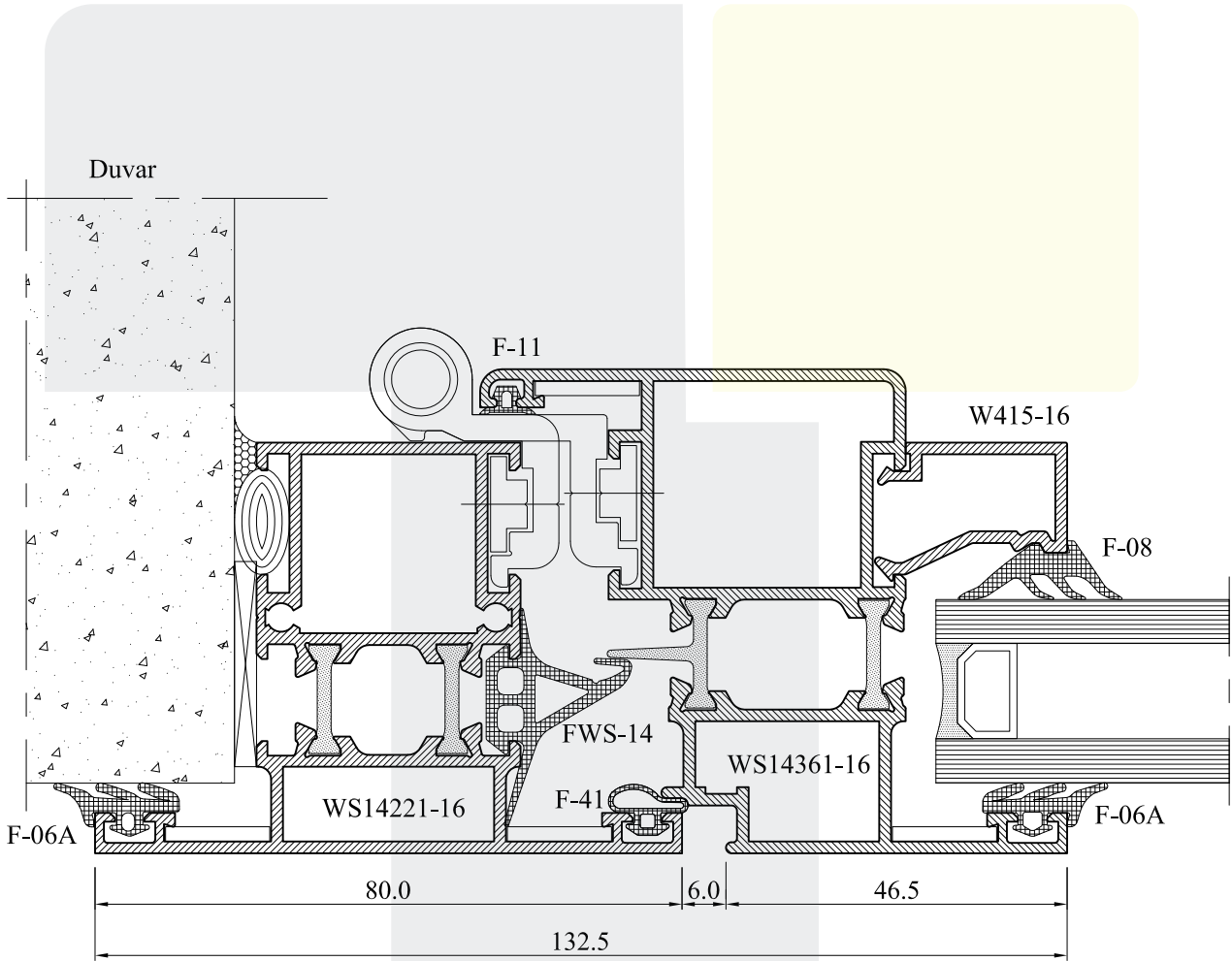
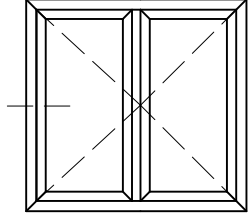


GİZLİ KANAT İÇİN CAM ÇITASI  
GLASS HOLDER FOR HIDDEN SASH

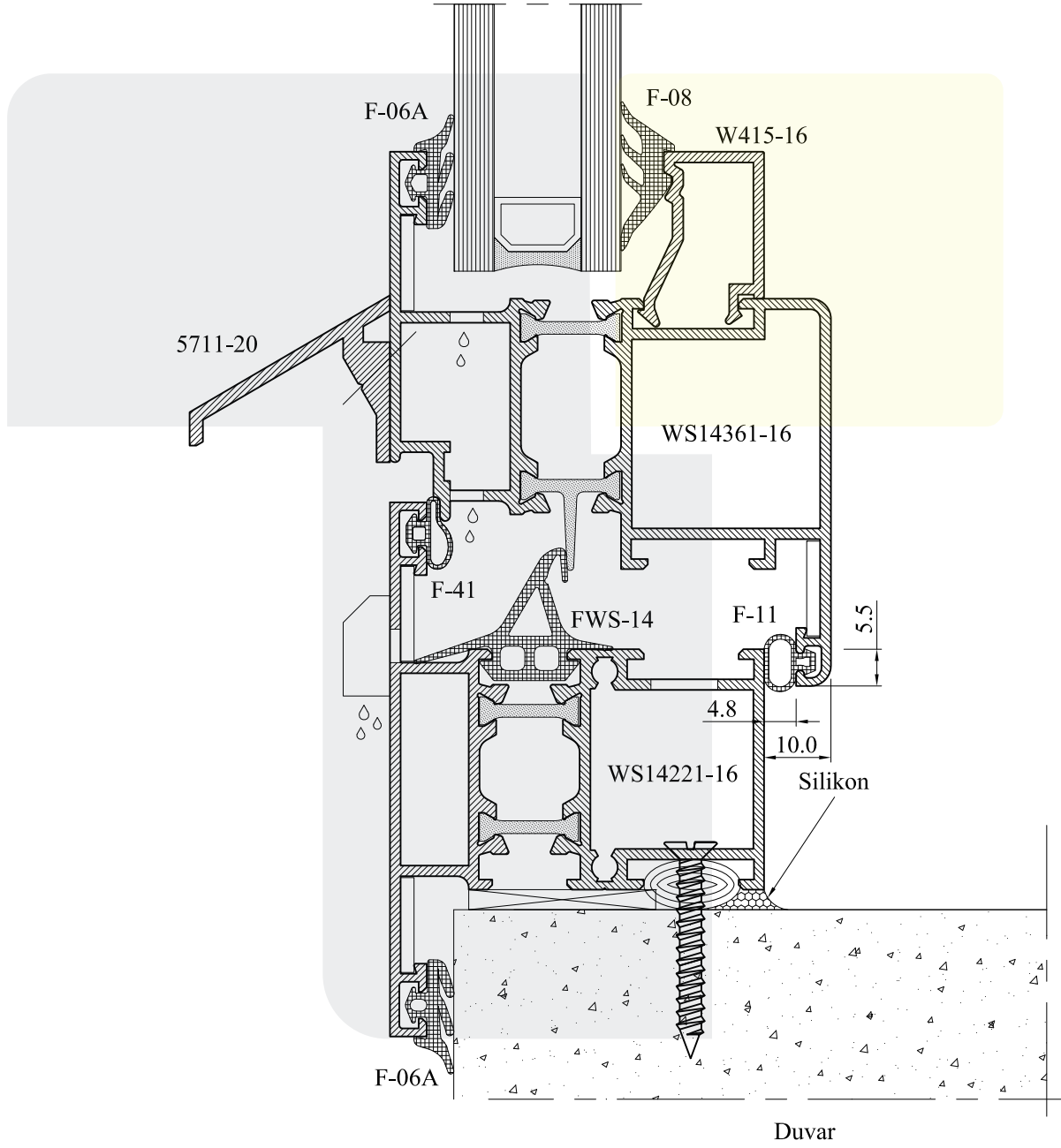
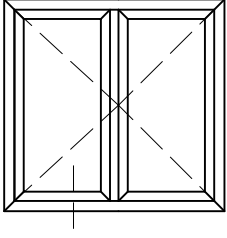


| PROFİL KODU | AĞIRLIK (kg/m) | ALT PROFİL İÇİN PRES TAKOZU/ KESİM ÖLÇÜSÜ (mm) | ÜST PROFİL İÇİN PRES TAKOZU/ KESİM ÖLÇÜSÜ (mm) |
|-------------|----------------|------------------------------------------------|------------------------------------------------|
| WS14326-16  | 1.366          | -    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

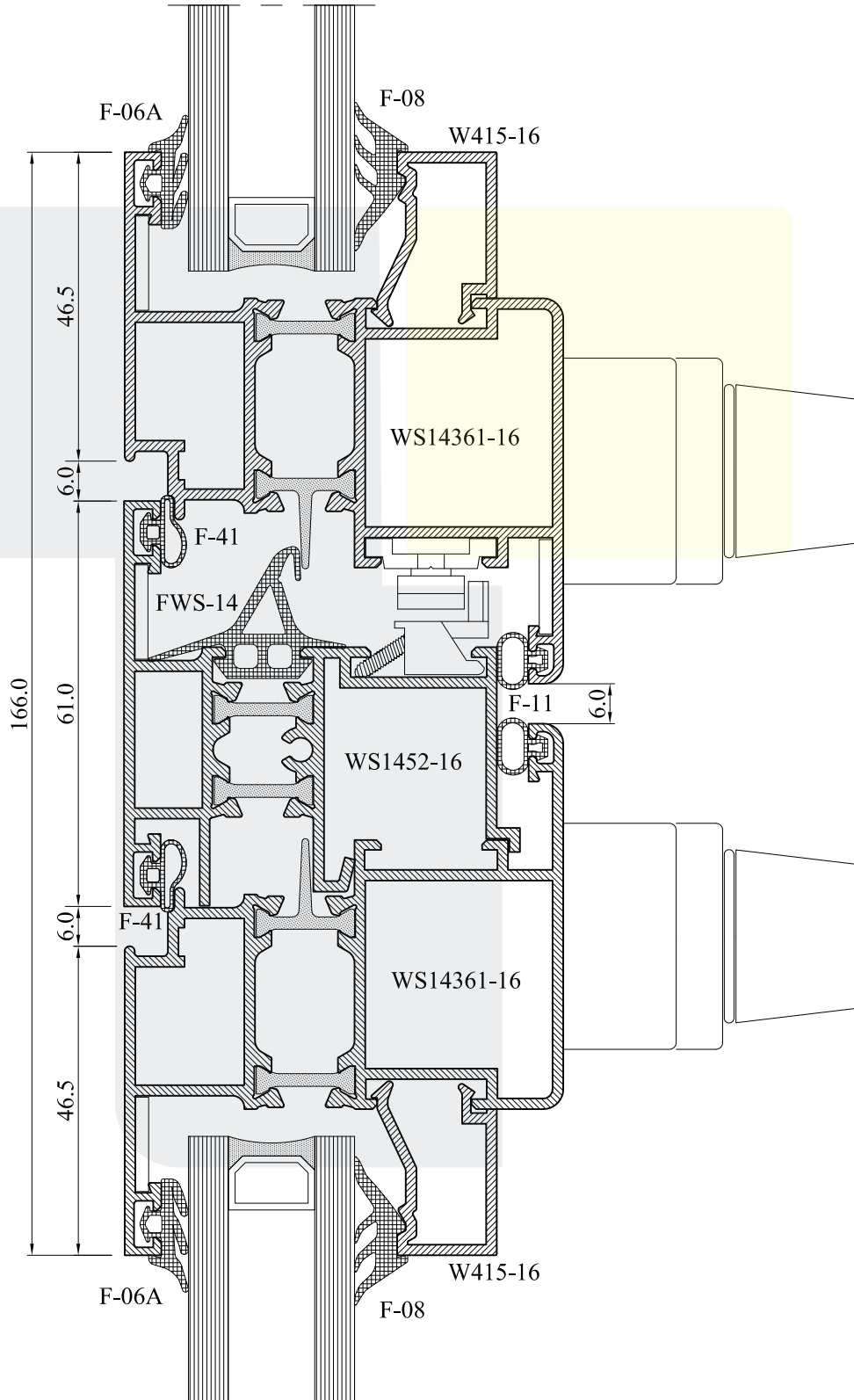
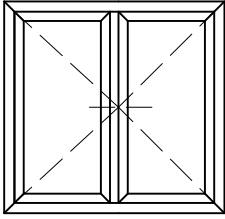
İçe Açılır Çift Kanat Pencere  
Yan Duvar Bitiş Detayı



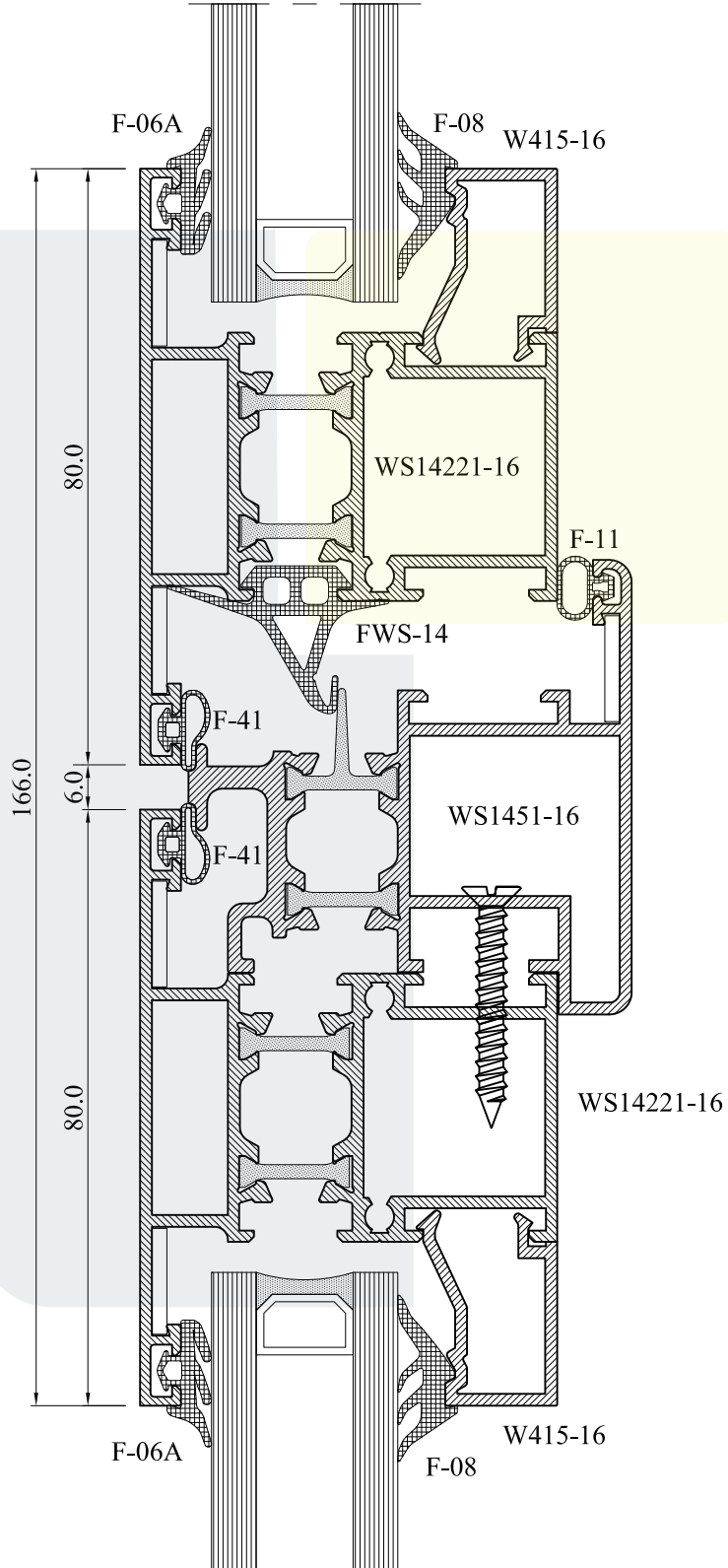
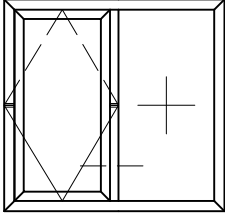
### İçe Açılır Çift Kanat Pencere Alt Duvar Bitiş Detayı

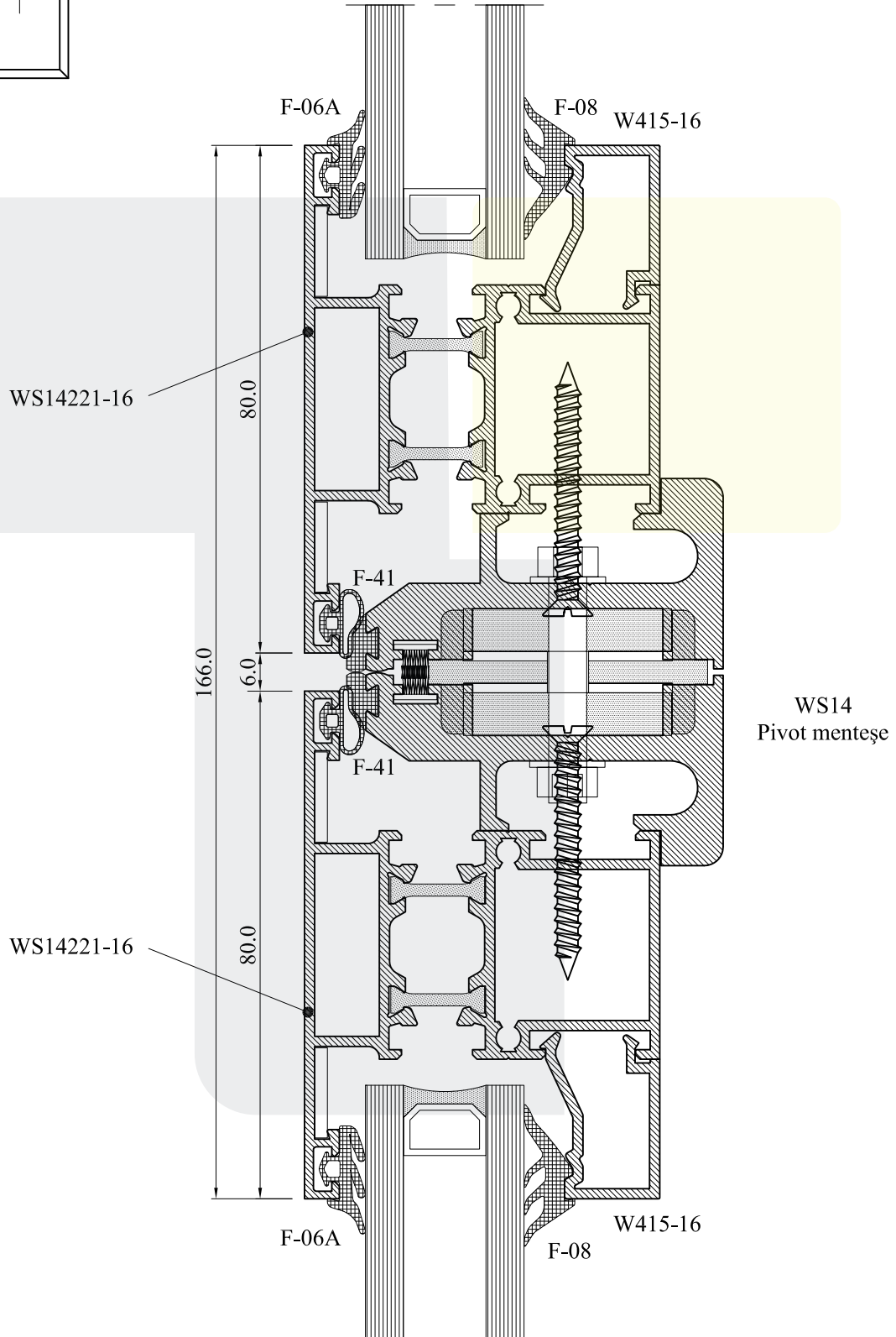
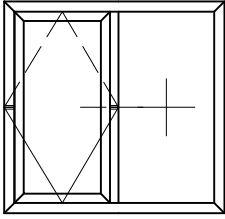


İçe Açılır Çift Kanat Pencere  
Orta Birleşim Detayı



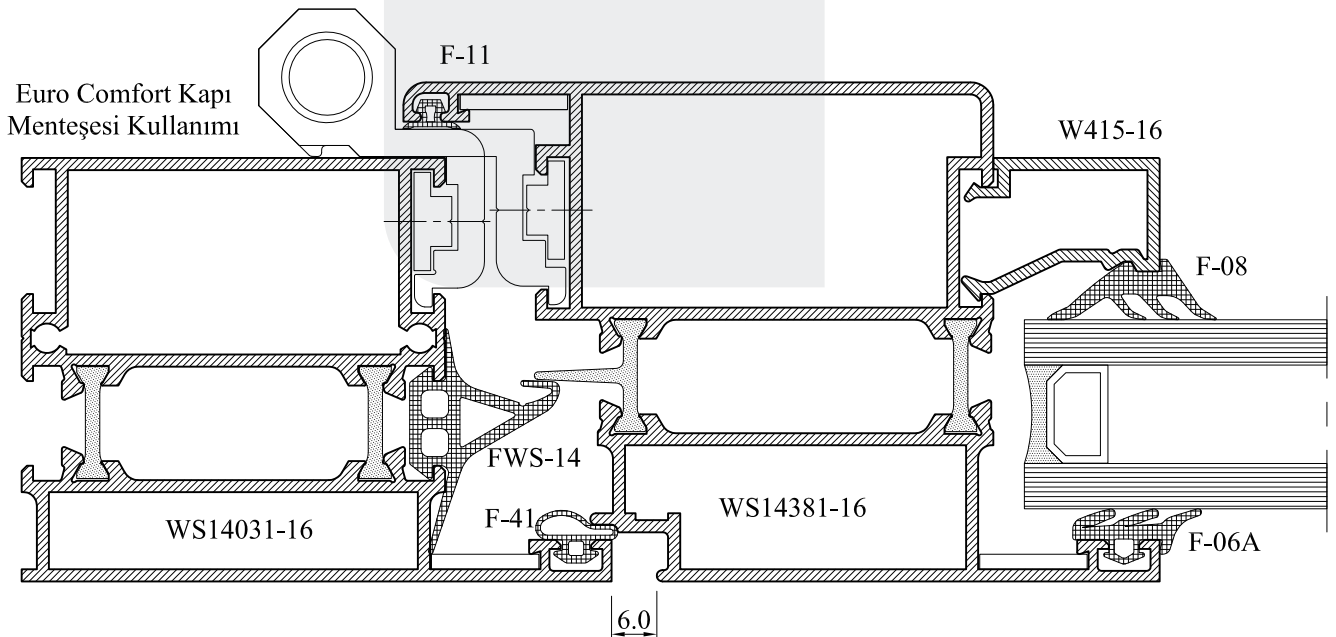
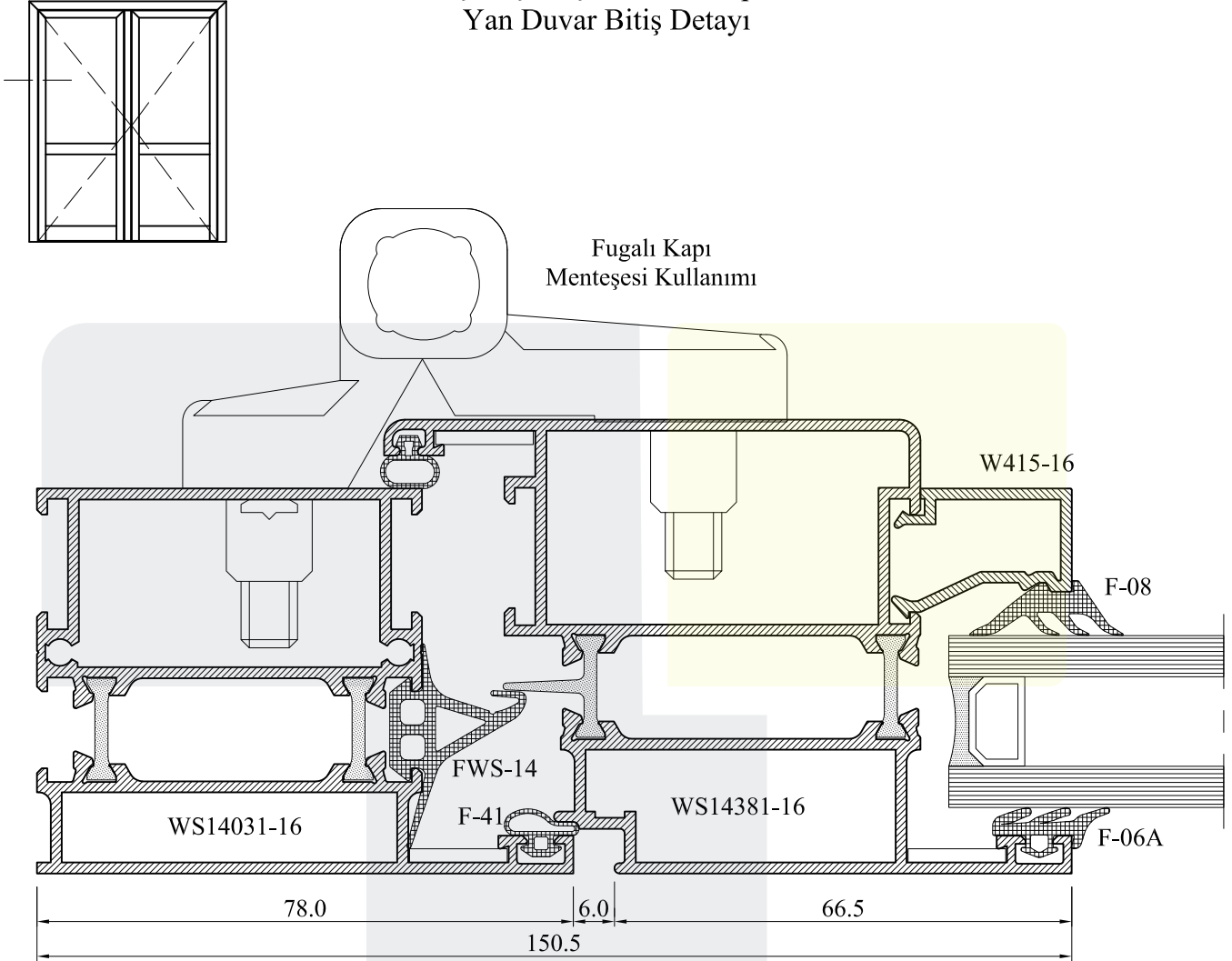
## Pivot Açılım Adaptör Detayı



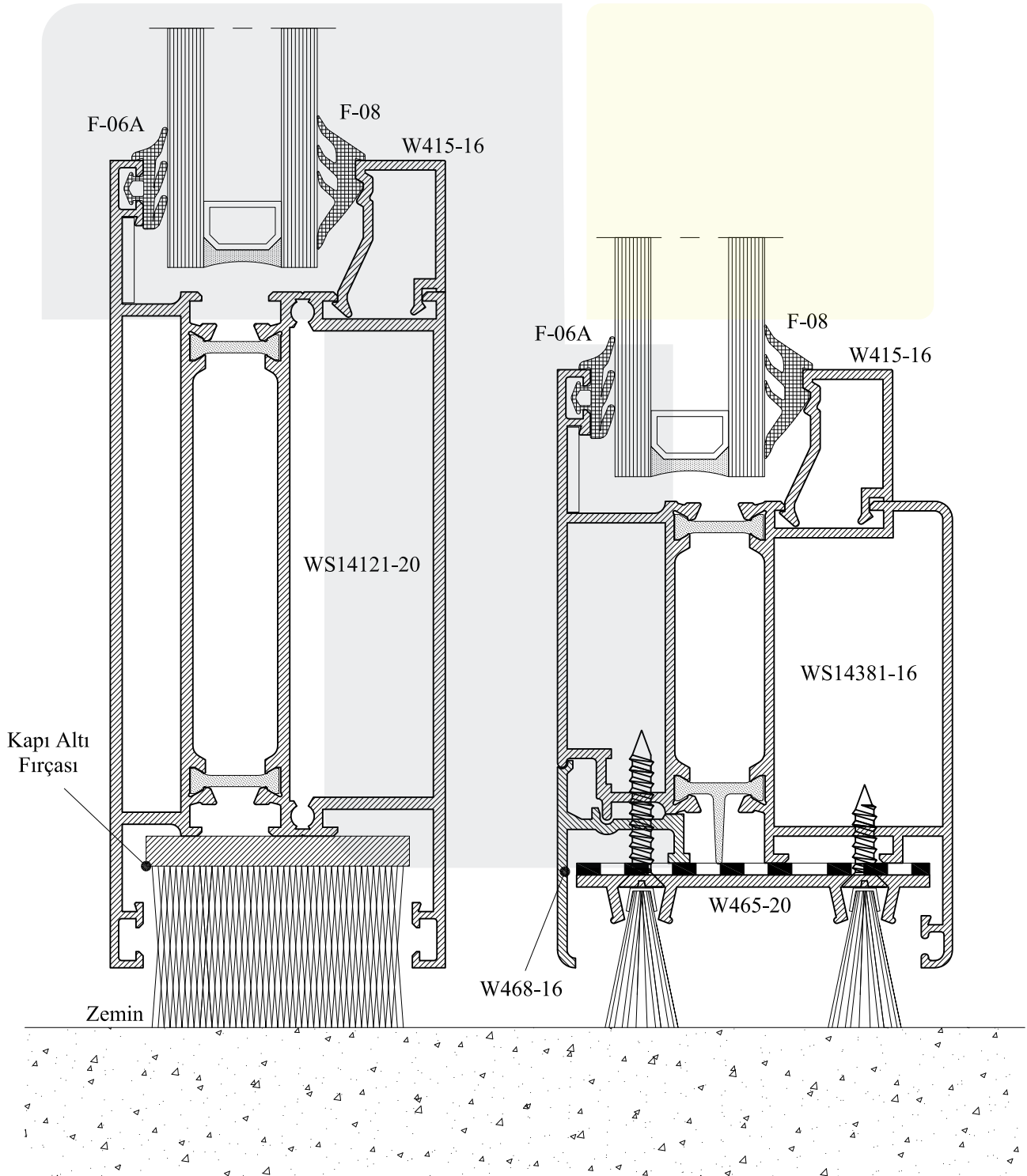
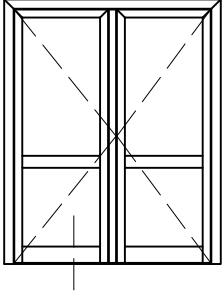
**Pivot Açılım Menteşe Detayı**



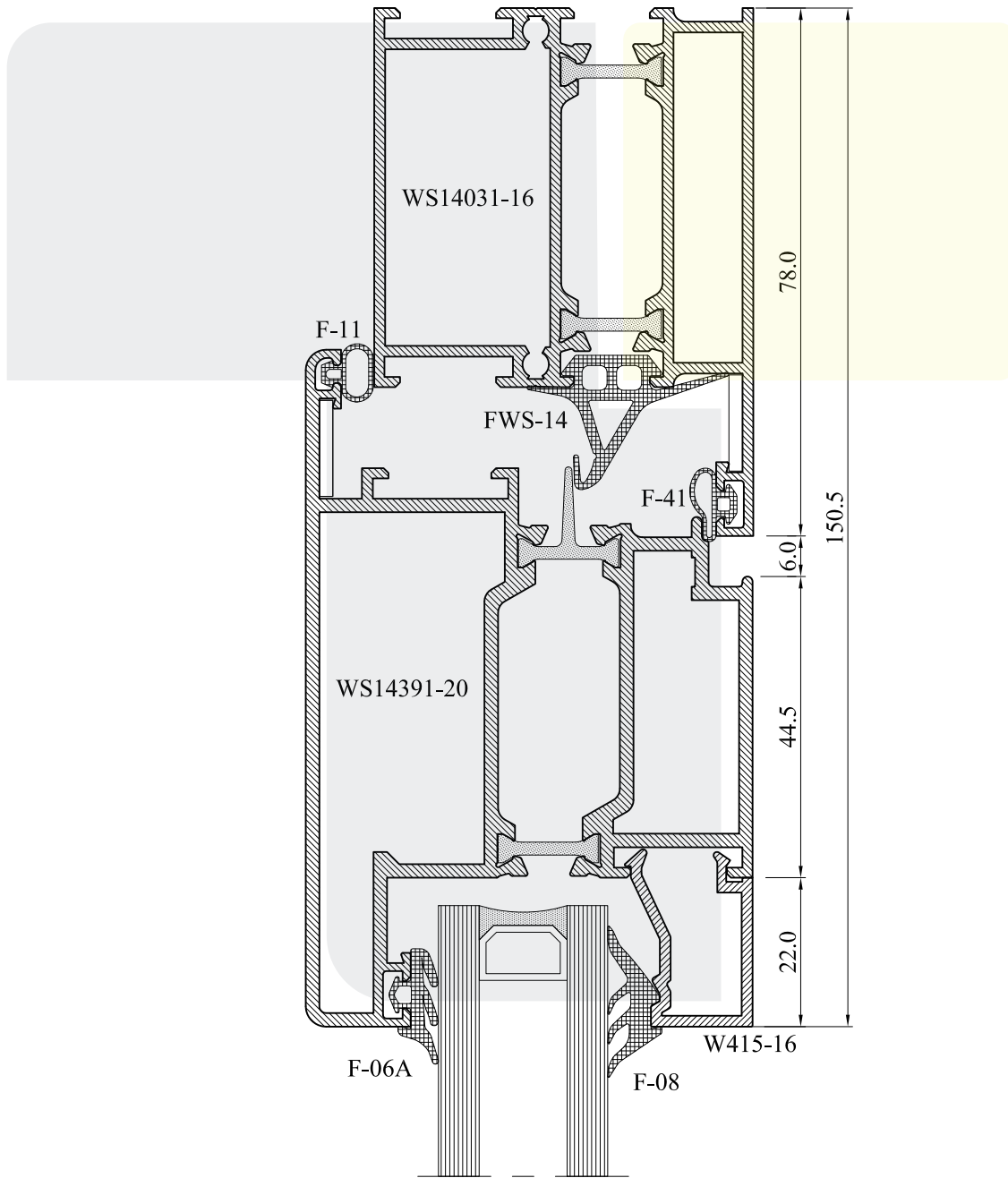
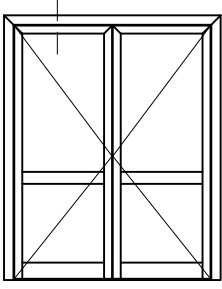
İçe Açılır Çift Kanat Kapı  
Yan Duvar Bitiş Detayı



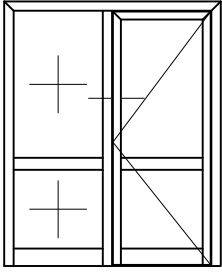
### İçe Açılır Çift Kanat Kapı Etek Detayı Alternatifleri



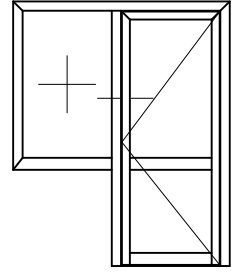
Dışa Açılır Çift Kanat Kapı  
Üst Duvar Bitiş Detayı



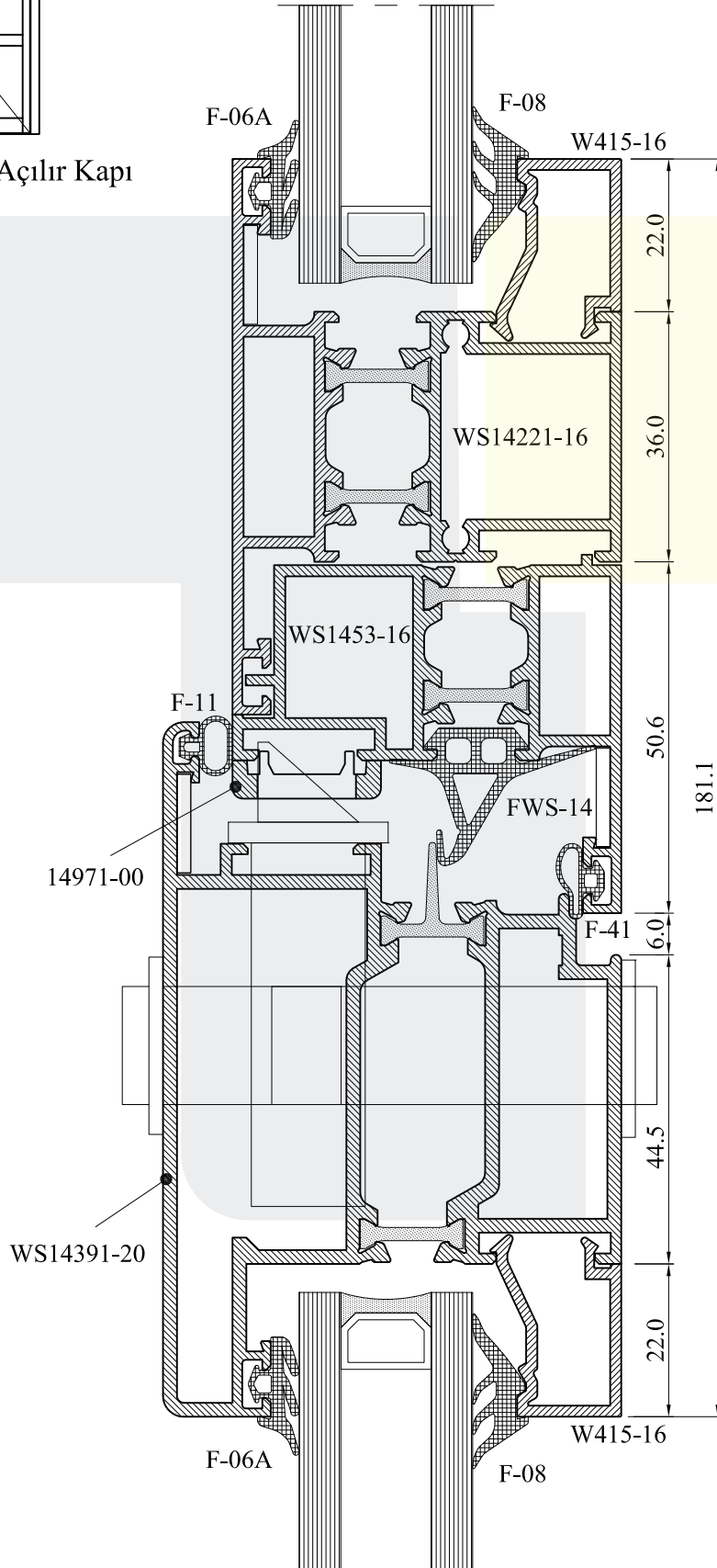
Sabit ve Açılır Kanat Birleşim Detayı



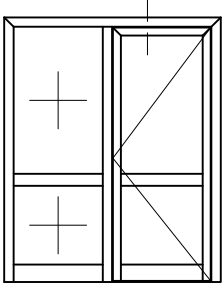
Sabitli Dışa Açılır Kapı



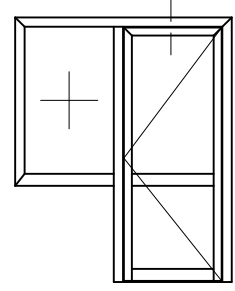
Dışa Açılır Topal Kapı



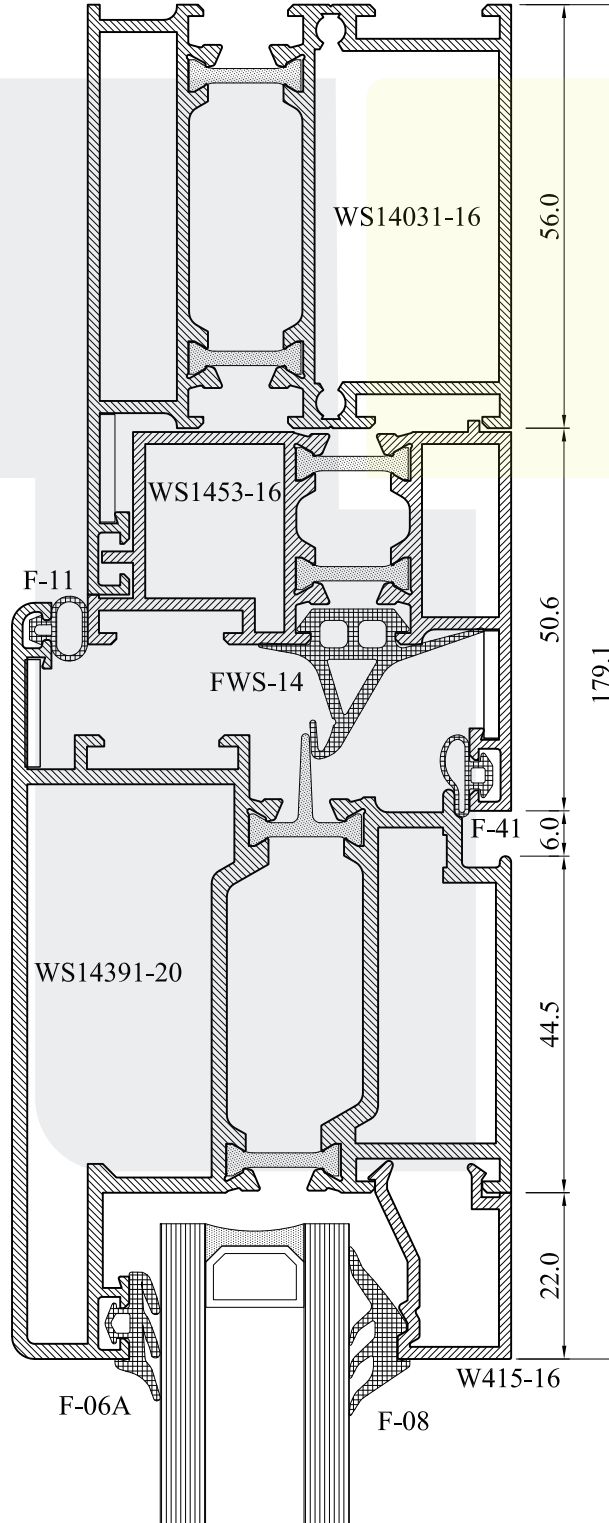
Sabit ve Açılır Kanat Birleşim Detayı



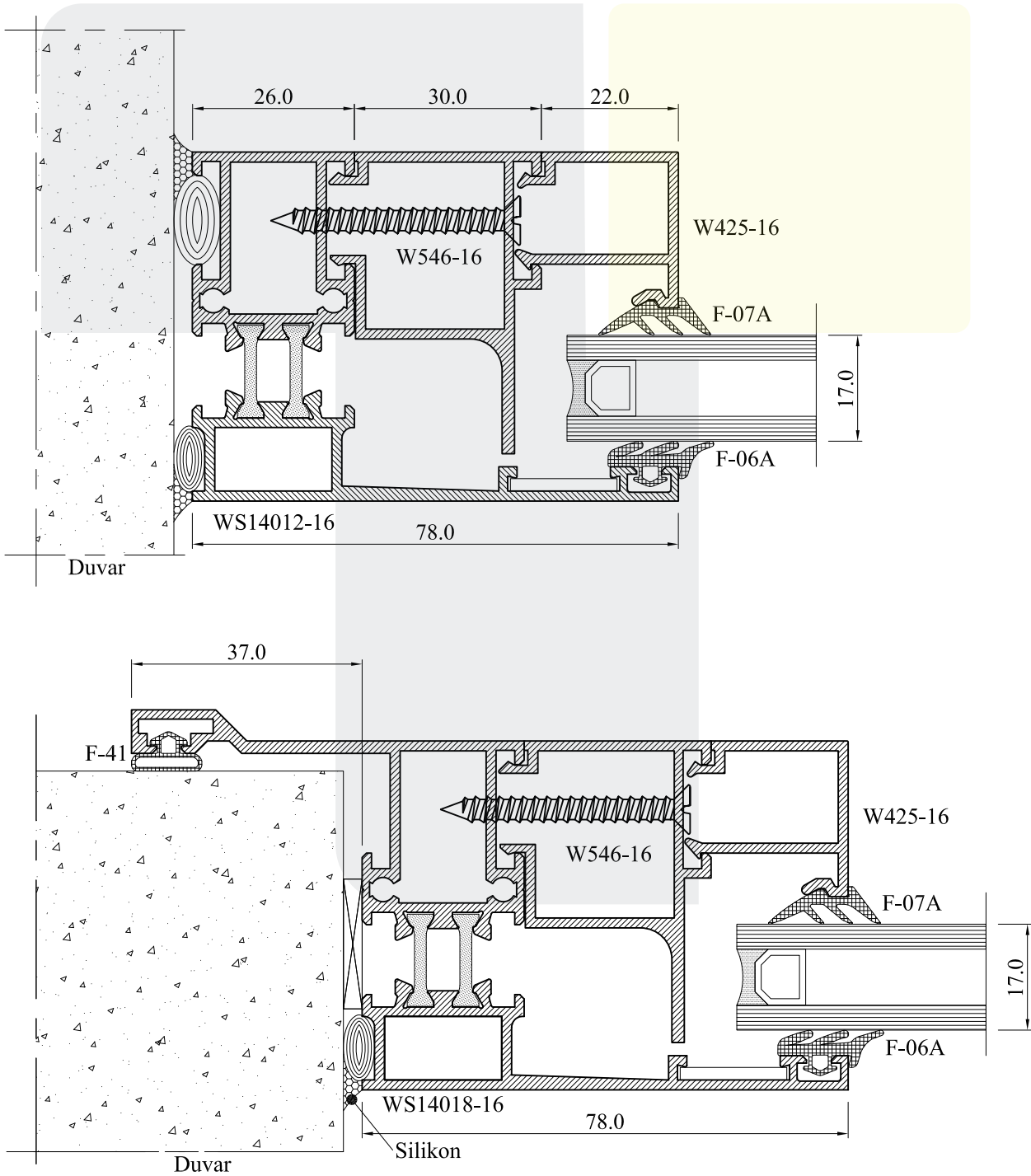
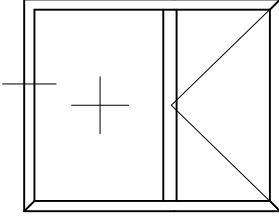
Sabitli Dışa Açılır Kapı

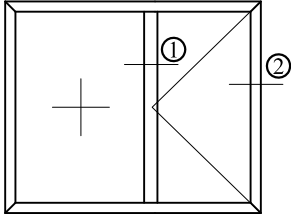


Dışa Açılır Topal Kapı

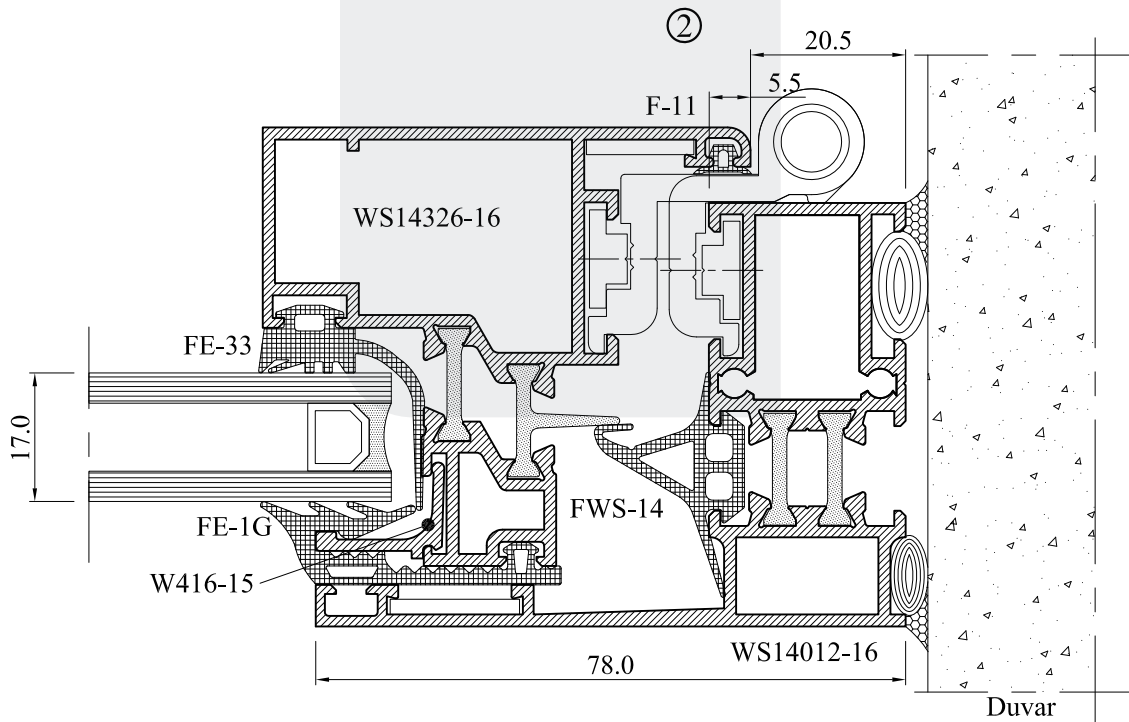
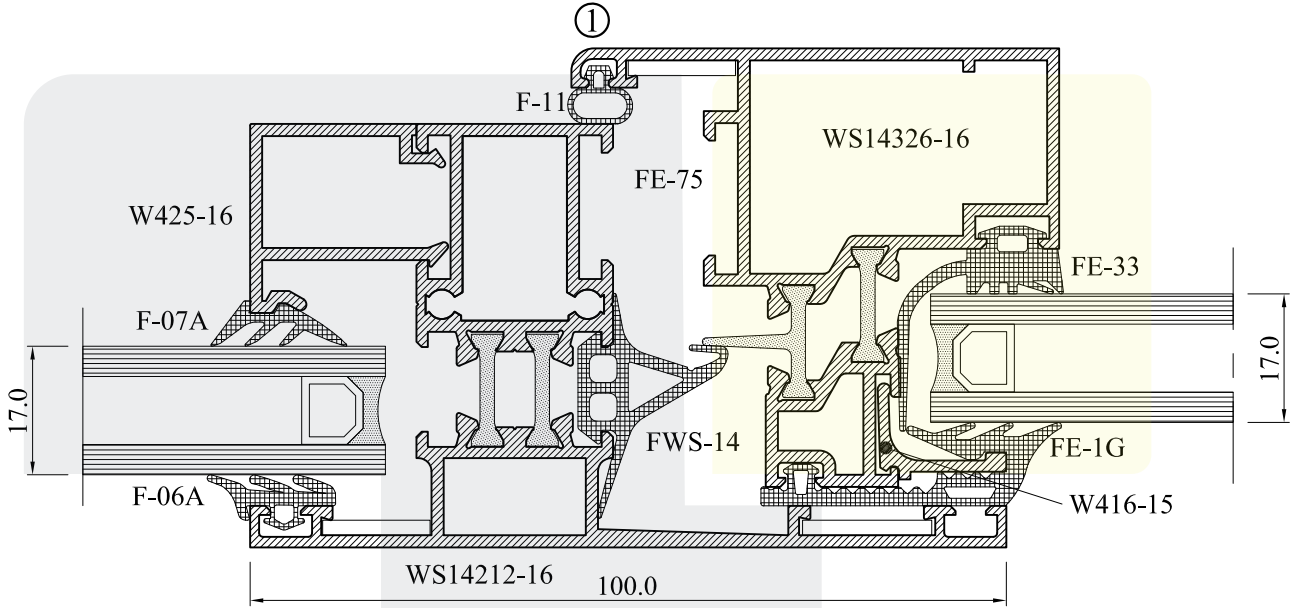


- 1)- Gizli Kanat Sabit - Yan Duvar Birleşim Detayı (Düz Kasa İle)  
2)- Gizli Kanat Sabit - Yan Duvar Birleşim Detayı (Pervazlı Kasa İle)



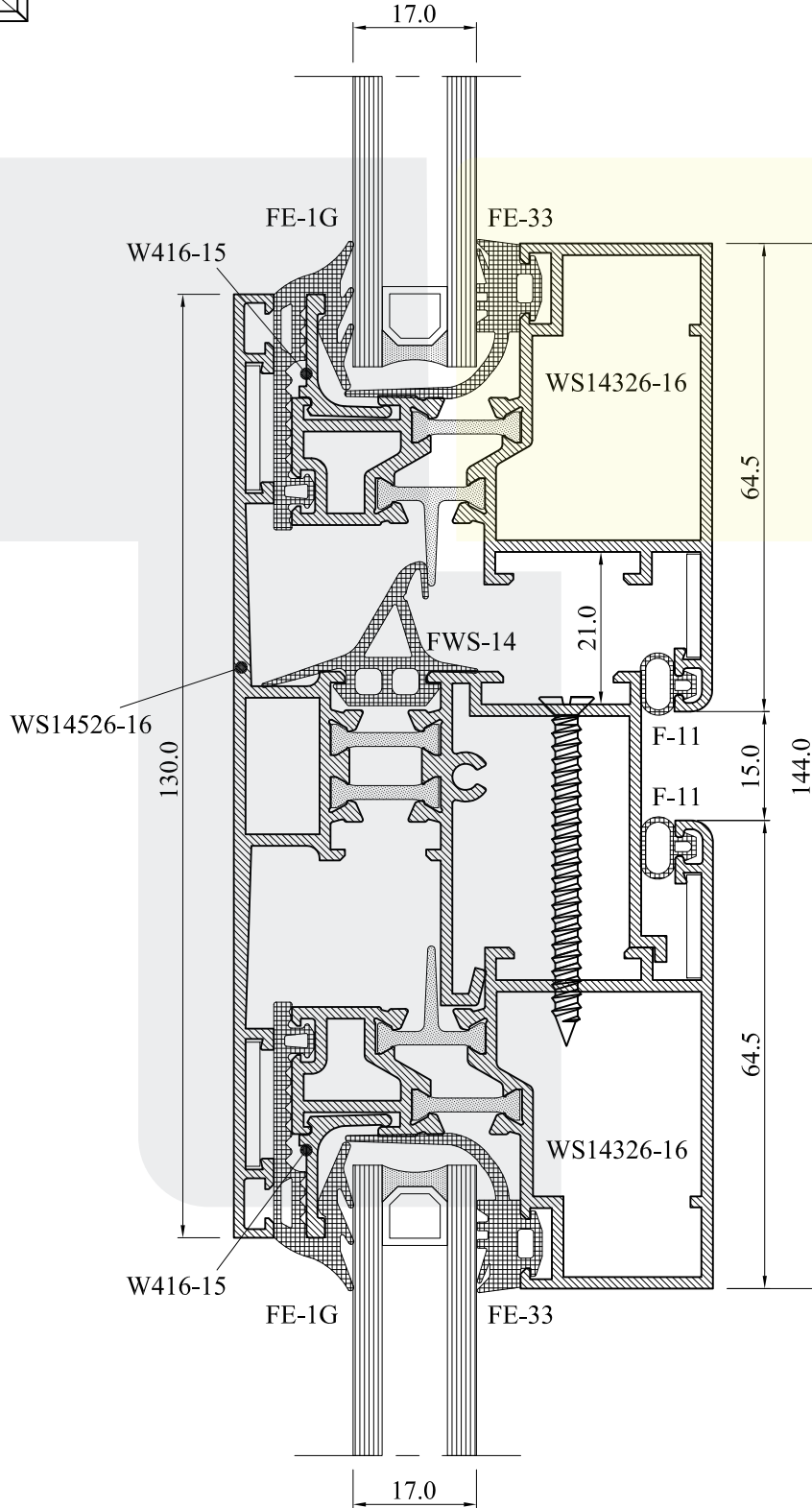
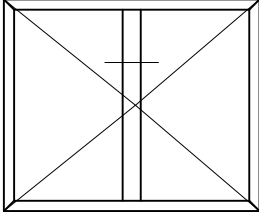


- 1)- Gizli Kanat Sabit ve Açılır Kanat Birleşim Detayı  
2)- Gizli Kanat Açılır Kanat - Duvar Birleşim Detayı





Gizli Kanat Orta Kayıtsız Çift Kanat Pencere  
Orta Birleşim Detayı



### Köşe Dönüş Detayı

