



**Alumil**

**Alumil**  **SMARTIA**  
S440

**“Modern Architecture  
does not mean the use  
of immature new  
materials; the main  
thing is to refine  
materials in a more  
human direction.”**

**“Arhitectura moderna  
nu inseamna utilizarea  
unor materiale noi,  
neajunse la maturitate;  
principala directie este  
de a oferi materialelor  
o atingere umana”**

Alvar Aalto

Sliding windows redefined  
Ferestre glisante redefinite

At ALUMIL, we are building excellence every day. Through our modern production facilities and strict quality controls along the entire production line, we ensure the creation of smart products of high added value. Our continuous research and development leads to offering unique solutions with many innovative features, which meet completely the needs of our customers.

ALUMIL has decided to redefine sliding windows by creating the new SMARTIA S440, an innovative insulated system for elegant sliding windows which incorporates all the modern architectural trends and meets the requirements for high energy-efficiency. It is an ideal option for demanding markets that require high performance in terms of air permeability, water tightness and resistance to wind load.

La ALUMIL, noi construim excelenta in fiecare zi. Prin intermediul facilitatilor noastre de productie moderne si prin controlul strict al calitatii, de-a lungul intregii linii de productie, asiguram crearea unor produse superioare, cu valoare adaugata ridicata. Preocuparea constanta pentru cercetare si dezvoltare conduce la posibilitatea de a oferi solutii unice, cu caracteristici inovatoare, care vin in intampinarea nevoilor clientilor nostri.

ALUMIL a decis sa redefineasca ferestrele glisante, prin proiectarea SMARTIA S440, un sistem inovator cu bariera termica, pentru ferestre glisante elegante, ce incorporeaza trendurile arhitecturii moderne si ce intruneste cerintele privind eficienta energetica. Este o optiune ideala pentru pietele cu standarde inalte, ce solicita performante ridicate privind permeabilitatea aerului, etanseitatea la apa si rezistenta la incarcările generate de vant.



|                                                                                        |    |
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ALUMIL's thermally insulated sliding system SMARTIA S440 is the smart solution for projects requiring middle range spans and a minimal touch. Clear lines, elegant and sophisticated design are achieved while maintaining high functionality and performance with a minimalist architectural approach.

- / Basic sash width: 44 mm.
- / Two interlocking profiles available: a slim one of only 39 mm width, so as to maximize visibility and natural light and a regular one of 78,5 mm width.
- / Safety and increased burglary resistance thanks to concealed locking points.
- / Smooth and easy gliding thanks to anodized rails.
- / Max Glass thickness up to 32 mm.
- / Weight per sash up to 180 Kg.
- / For all parallel sliding typologies including meeting stile, pocket & corner constructions.
- / Special profiles for the implementation of multi-sash typologies.
- / Wide range of sill profiles available.
- / Certified performance by the IFT Rosenheim Institute.

Thanks to its innovative design, SMARTIA S440 can improve noticeably the living conditions, because it was developed to function as a shield against the exterior environment in terms of thermal insulation, sound reduction, air permeability, water tightness and resistance to wind pressure.

Moreover, SMARTIA S440 can definitely meet the needs of the most demanding architectural needs, thanks to its vast range of different typologies.

#### Technical characteristics

|                              |                                                |
|------------------------------|------------------------------------------------|
| Visible aluminium face width | 111,5 mm                                       |
| Frame height                 | 49 mm                                          |
| Frame width                  | 103 mm                                         |
| Sash height                  | 75 mm                                          |
| Sash width                   | 44 mm                                          |
| Interlocking profile width   | 39/78,5 mm                                     |
| Sash weight                  | Up to 180 Kg                                   |
| Glazing                      | 32 mm                                          |
| Insulation                   | Polyamides with 40 mm & 32 mm width, PVC parts |

Sistemul glisant ALUMIL cu bariera termica SMARTIA S440 este solutia inspirata pentru proiecte ce necesita o deschidere medie ca dimensiune si o abordare minimalista. Liniile clare, design-ul sofisticat si elegant sunt obtinute, pastrand o functionalitate ridicata si o performanta de top, cu o abordare arhitecturala minimalista.

- / Latimea de baza a cercevelei: 44 mm.
- / Doua profile cu inchidere cap in cap: unul ingust, cu latime de doar 39 mm, pentru maximizarea vizibilitatii si a luminii naturale si unul normal de 78,5 mm latime.
- / Siguranta si rezistenta crescuta anti-efractie, multumita punctelor de inchidere ascunse.
- / Glisare lina si facila, multumita cailor de rulare anodizate.
- / Grosimea maxima a sticlei de 32 mm.
- / Greutatea pe cercevea de pana la 180 kg.
- / Pentru toate tipologiile glisante paralele, inclusiv pentru constructiile cu colt liber, cu retragere in zid si cu inchidere de tipul "cap in cap".
- / Profile speciale pentru implementarea tipologiilor cu cercevele multiple.
- / Gama variata de profile pentru pervaz.
- / Performante certificate de catre Institutul IFT Rosenheim.

Multumita design-ului inovator, SMARTIA S440 poate imbunatati simtitor conditiile de locuire, deoarece a fost proiectat pentru a functiona ca o bariera contra mediului exterior, in ceea ce priveste izolarea termica, atenuarea fonica, permeabilitatea aerului, etanseitatea la apa si rezistenta la presiunea vantului.

Mai mult decat atat, SMARTA S440 poate satisface cele mai inalte pretentii arhitecturale, multumita gamei sale vaste de tipologii.

#### Caracteristici tehnice

|                                     |                                                      |
|-------------------------------------|------------------------------------------------------|
| Suprafata vizibila din aluminiu     | 111,5 mm                                             |
| Inaltimea tocului                   | 49 mm                                                |
| Latimea tocului                     | 103 mm                                               |
| Inaltimea cercevelei                | 75 mm                                                |
| Latimea cercevelei                  | 44 mm                                                |
| Latimea profilor in zona de by-pass | 39/78,5 mm                                           |
| Greutatea cercevelei                | De pana la 180 Kg                                    |
| Grosimea geamului termoizolant      | 32 mm                                                |
| Izolare                             | Poliamida cu latime de 40 mm si 32 mm, parti din PVC |

Attention to design and energy efficiency  
Atentia la design si eficienta energetica



SMARTIA S440 is the new very elegant sliding system that was created by ALUMIL's engineers in accordance to the modern architectural trends and the very high requirements for energy efficiency.

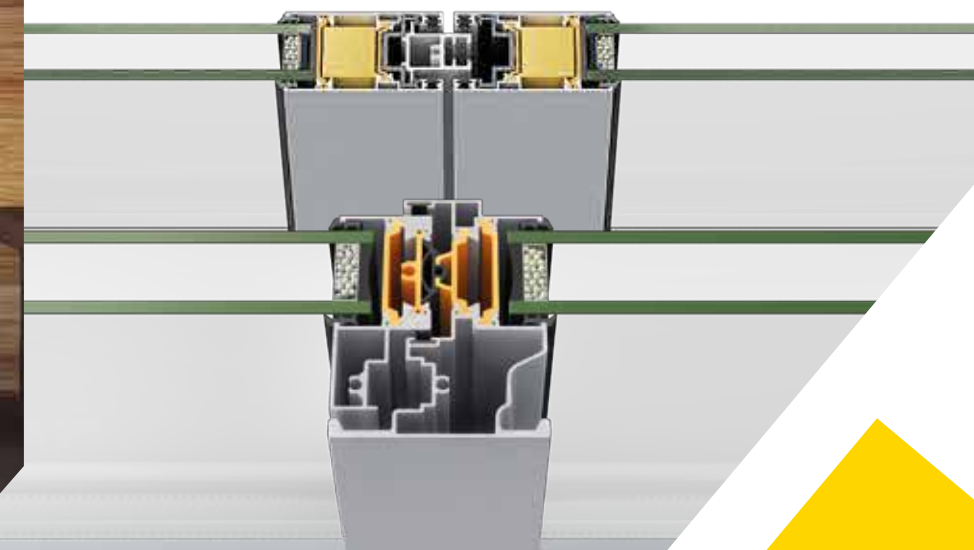
It was specifically designed so as to minimize both the visible aluminum frame and the depth of the system. This was accomplished by combining a 90° interlocking profile of only 39 mm width with a track of only 13 mm depth.

At the same time, besides the stylish design and the implementation of a vast range of typologies, the system was designed to contribute significantly to the upgrading of buildings' energy efficiency and, furthermore, to offer safety against air, water and wind, as well as burglaries.

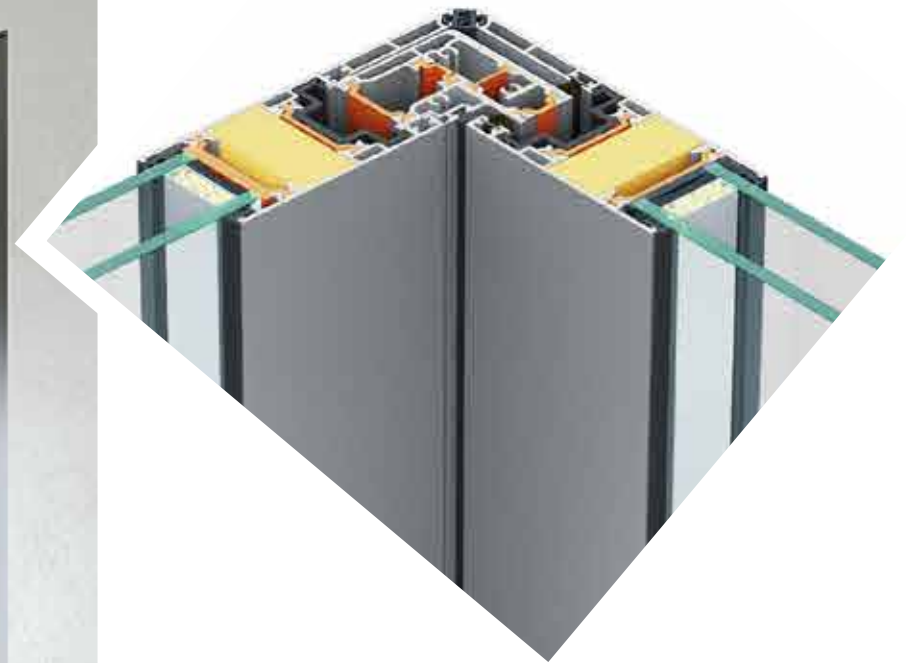
SMARTIA S440 este noul sistem glisant, foarte elegant, ce a fost proiectat de catre inginerii ALUMIL, in concordanta cu trendurile arhitecturale moderne si standardele foarte ridicate de eficienta energetica.

A fost proiectat special pentru a minimiza atat suprafata vizibila de aluminiu, precum si adancimea sistemului. Acest lucru a fost obtinut in urma imbinarii la 90° de grade a profilului de by-pass de numai 39 mm si folosirea unei cai de rulare de numai 13 mm.

In acelasi timp, pe langa design-ul modern si implementarea unei game vaste de tipologii, sistemul a fost proiectat pentru a aduce o contributie semnificativa in incercarea de a imbunatati eficienta energetica si, mai mult decat atat, de a oferi etanseitate contra aerului, apei si vantului, precum si rezistenta anti-efractie.

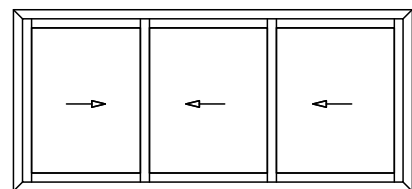


Sense of total comfort and freedom  
Sensul confortului si libertatii totale



The special sliding window's design highlights the integrated architectural philosophy of the product. ALUMIL put great effort into creating a sliding system that combines minimal design to high performance so as to offer total comfort to end-users.

Design-ul special al ferestrelor glisante accentueaza filosofia arhitecturala integrata a produsului. ALUMIL a investit mult efort in a crea un sistem glisant ce combina un design minimalist cu performanta de top, pentru a oferi confort total clientilor finali.

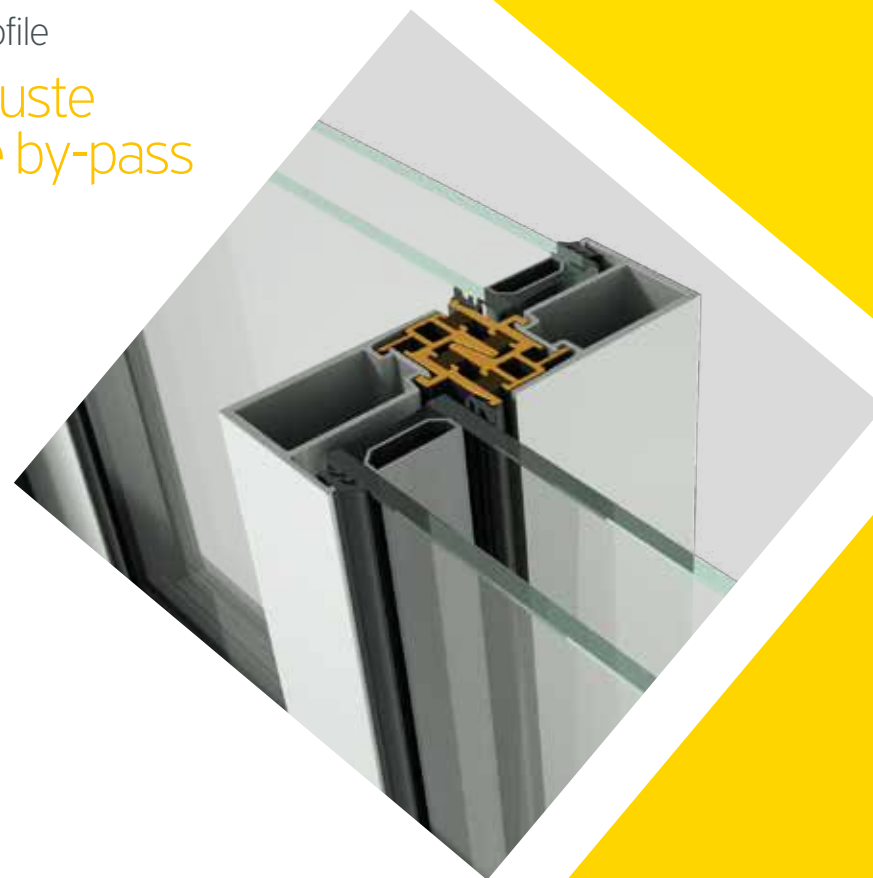


Narrow  
interlocking profile

Profile inguste  
in zona de by-pass

SMARTIA S440 offers besides the standard version of double or triple parallel sliding windows, an alternative version with a narrow interlock of just 39 mm, which is available for double or triple parallel sliding typologies, as well as for exceptional meeting stile typologies.

SMARTIA S440 ofera, pe langa versiunea standard de ferestre glisante cu 2 sau 3 canate paralele, o versiune alternativa cu profile inguste, de numai 39 mm in zona de by-pass, disponibil pentru tipologiile glisante cu doua sau trei canate paralele, precum si tipologii exceptionale cu inchidere "cap in cap".

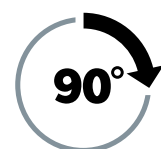
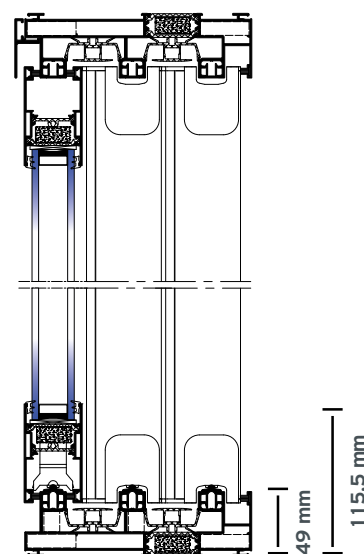
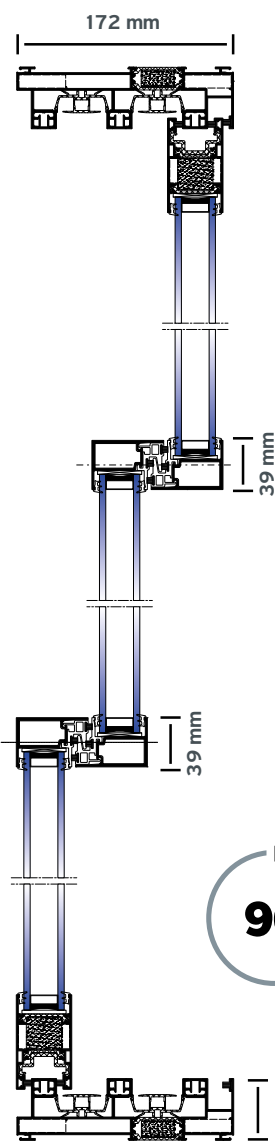
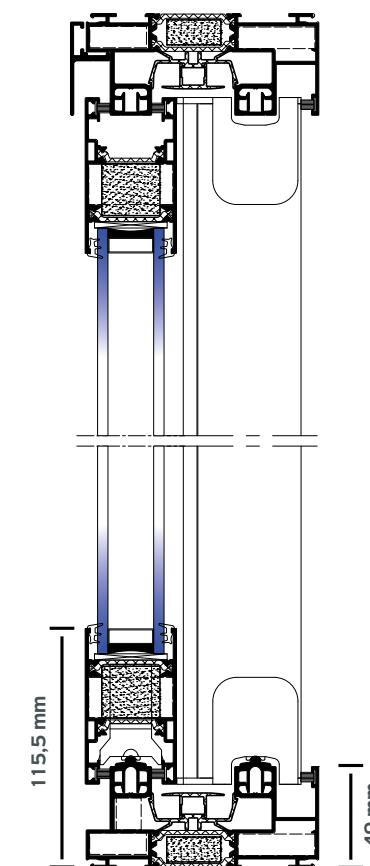
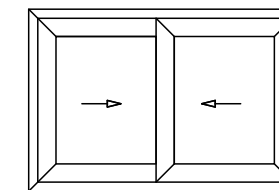


2 cercevele / 2 cai de rulare

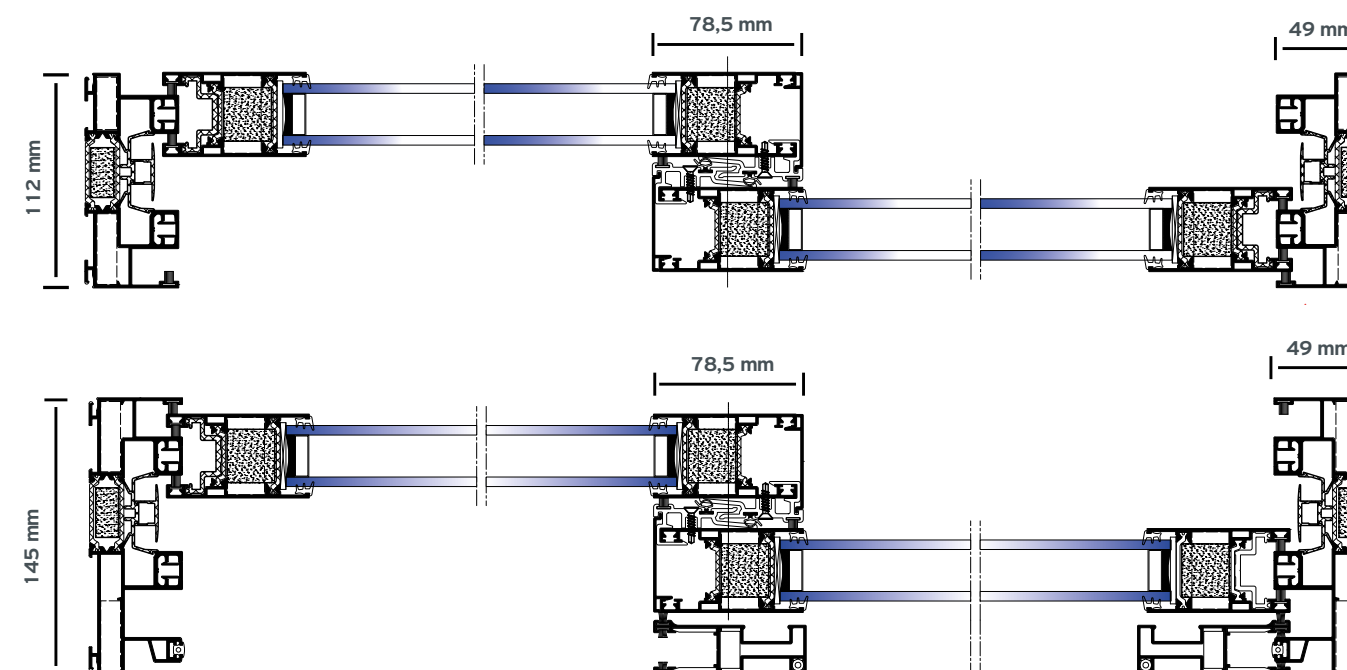
Asamblare cu profile taiate la 45°

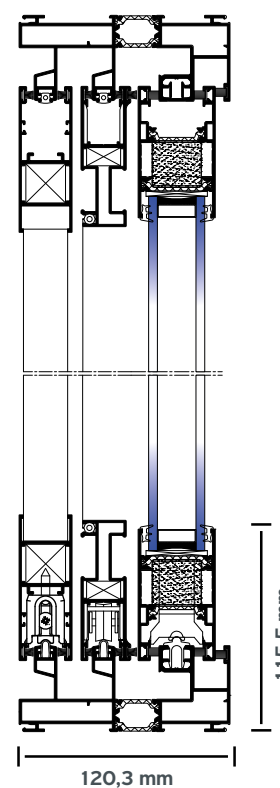
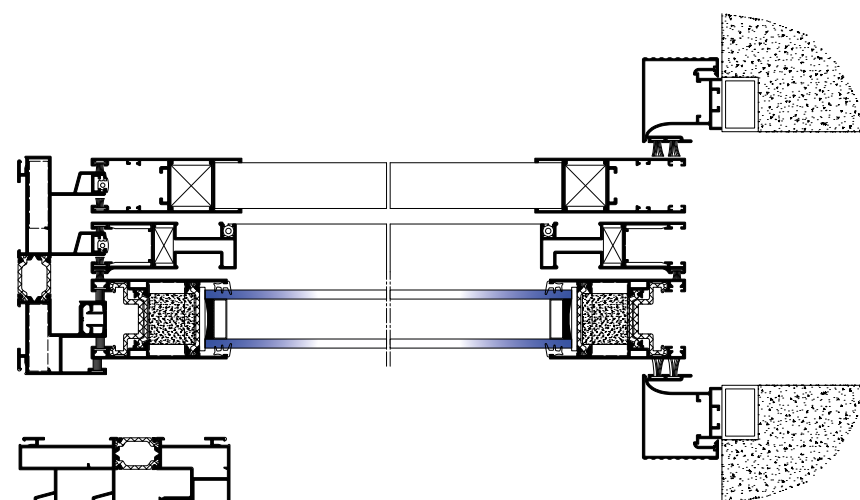
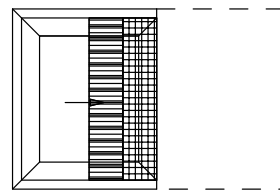
2 sashes / 2 track

45° assembly



3 sashes / 3 track  
90° assembly  
Asamblare cu profile taiate la 90°  
3 cercevele / 3 cai de rulare



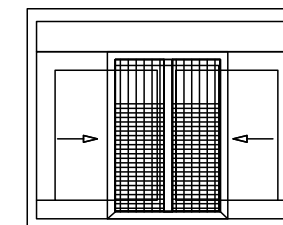


1 sash / 3 track  
with insect screen  
& sliding shutter  
45° assembly

1 cercevea / 3 cai de rulare  
cu plasa contra insectelor si oblon glisant  
Asamblare cu profile taiate la 45°

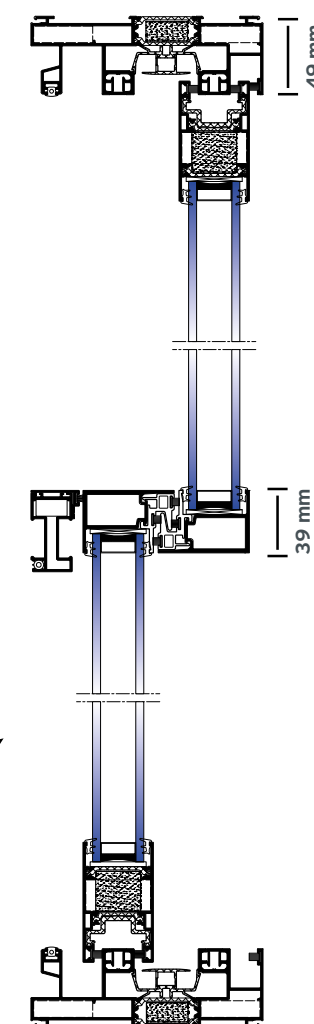
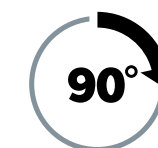
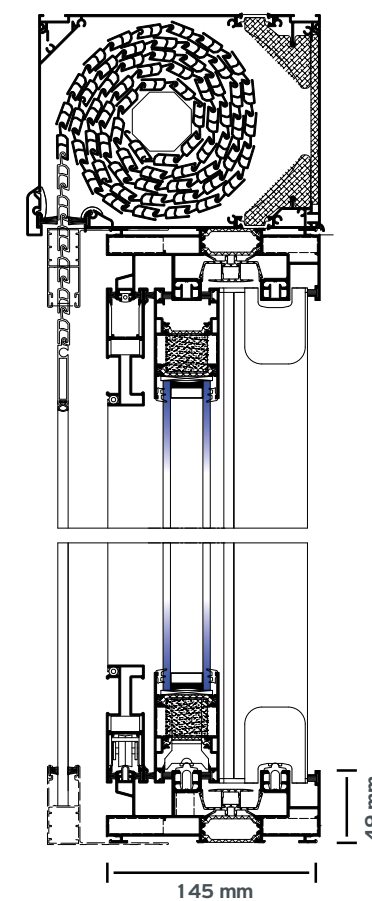
2 cercevele / 2 cai de rulare  
cu plasa de protectie contra insectelor si rulouri  
Asamblare cu profile taiate la 90°

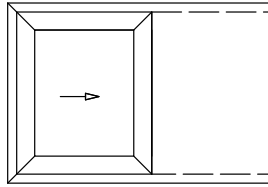
2 sashes / 2 track  
with insect screen & rolling shutter  
90° assembly



Finally, the comfort level can be improved even more, by using a fly screen in combination with a rolling shutter, so as to offer better natural ventilation, effective shading and enhanced security.

In final, nivelul confortului poate fi imbunatatit chiar si mai mult, folosind plase de protectie contra insectelor, in combinatie cu rulouri, pentru a oferi o ventilare naturala mai buna, umbrire eficienta si siguranta sporita.



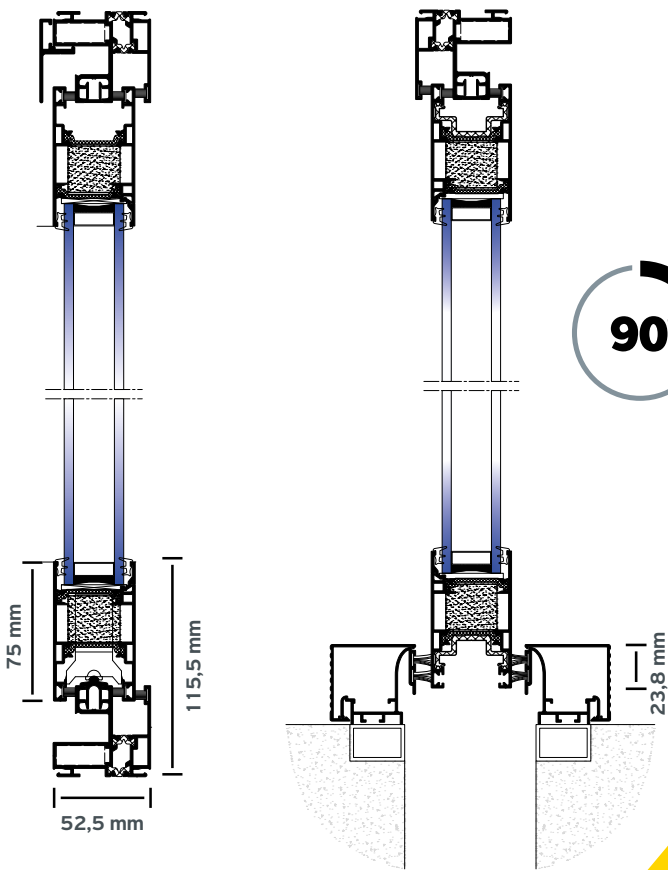


One sash pocket sliding  
45° assembly

O cercevea cu retragere in perete  
Asamblare cu profile taiate la 45°

The sophisticated design of SMARTIA S440 minimizes the visible aluminium frame and the visible depth of the system. Special emphasis has been given to the minimal design, especially regarding the following typologies:

- / Pocket windows (sashes hidden into the wall) and double-sash meeting stile windows with extremely narrow profiles (64 mm) for impressive wide windows, which increase the visual field.
- / Pocket windows (sash hidden into the wall) with a single track for single-sash or two sashes, with fly screen.

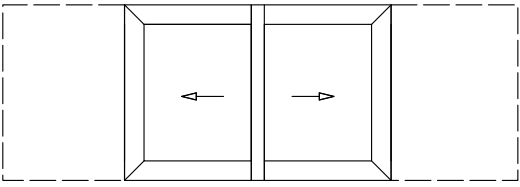


Design-ul sofisticat al SMARTIA S440 minimizeaza suprafata vizibila din aluminiu si adancimea vizibila a sistemului. Atentie speciala a fost acordata design-ului minimalist, in special privind urmatoarele tipologii:

- / Ferestre cu glisare in perete (cerceveaua este ascunsa in perete) si ferestre cu cercevea dubla si inchidere cap in cap, cu profile extrem de inguste (64 mm) pentru ferestre largi, cu extinderea vizibilitatii.
- / Ferestre cu glisare in perete (cerceveaua este ascunsa in perete) cu o singura cale de rulare pentru o cercevea sau doua cercevele, cu plasa de protectie contra insectelor.

1 sash pocket windows  
45° assembly  
1 cercevea  
cu retragere in perete  
Asamblare cu profile taiate la 45°

Inchidere cap in cap cu retragere in perete  
Asamblare cu profile taiate la 45°  
Meeting stile pocket sliding  
45° assembly



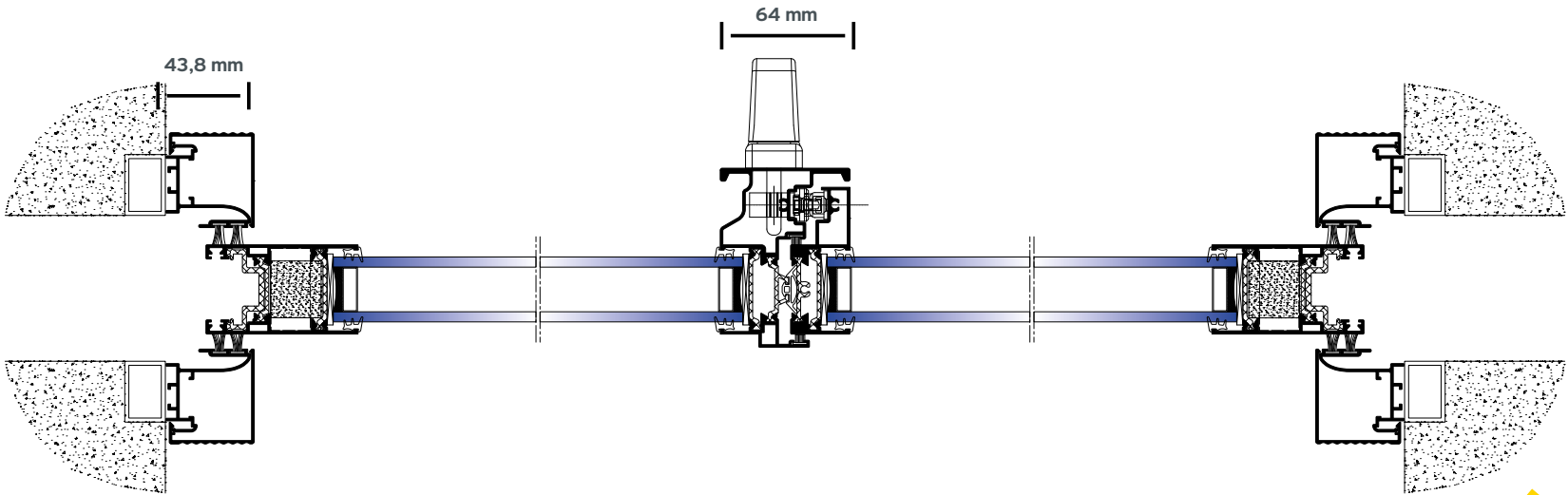
## Attention to detail Atentie la detalii

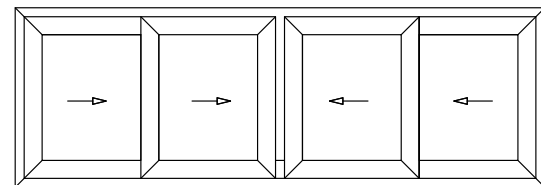
Details can transform a simple system to an ingenious one. SMARTIA S440 includes many details that upgrade sliding windows, such as the innovative profile for meeting stile typologies of just 64 mm width, ideal for single track sliding windows.

Moreover, depending of the requirements of the project, the system offers safety and increased burglary resistance by using concealed locking points and smart U-channel sashes or a sashes with glazing bead.

Detaliile pot transforma un sistem simplu in unul de-a dreptul inovator. SMARTIA S440 include multe detalii ce imbunatatesc ferestrele glisante, precum profilele inovatoare pentru tipologii de inchideri cap in cap cu latime de doar 64 mm, ideale pentru ferestre glisante cu o singura cale de rulare.

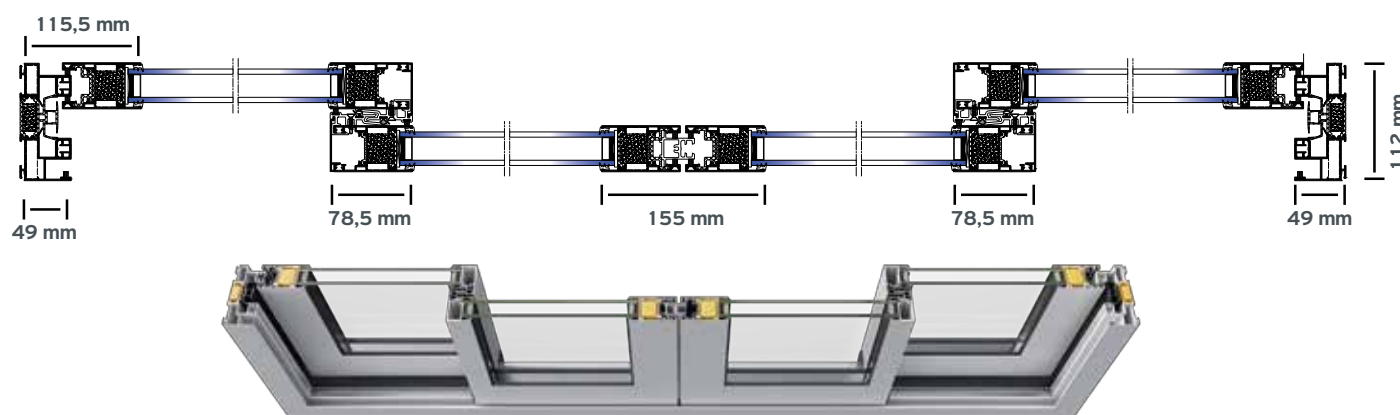
Mai mult, depinzand de cerintele proiectului, sistemul ofera siguranta si rezistenta crescuta anti-efractie, folosind puncte de blocare ascunse si cercevele clasice (forma U) sau cercevele cu bagheta.



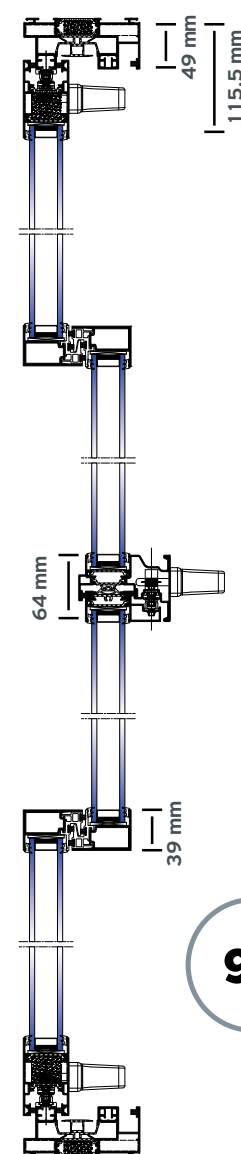
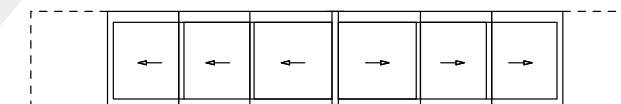


Four sashes meeting stile sliding  
45° assembly

4 cercevele glisante cu inchidere cap in cap  
Asamblare cu profile taiate la 45°

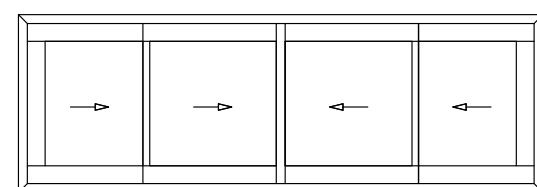


6 cercevele / 3 cai de rulare  
6 sashes / 3 track



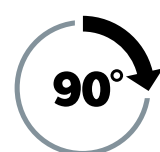
Four sashes parallel horizontal sliding meeting stile windows, for large spans, with a regular (155 mm) or an extremely narrow profile (64 mm) and an interlocking profile of 39 mm, so as to increase the visual field.

Ferestre cu patru cercevele, cu inchidere cap in cap, glisante orizontal, pentru deschideri largi, cu profile normale (155 mm) sau extrem de inguste (64 mm) si un profil de by-pass de 39 mm, pentru a spori vizibilitatea.

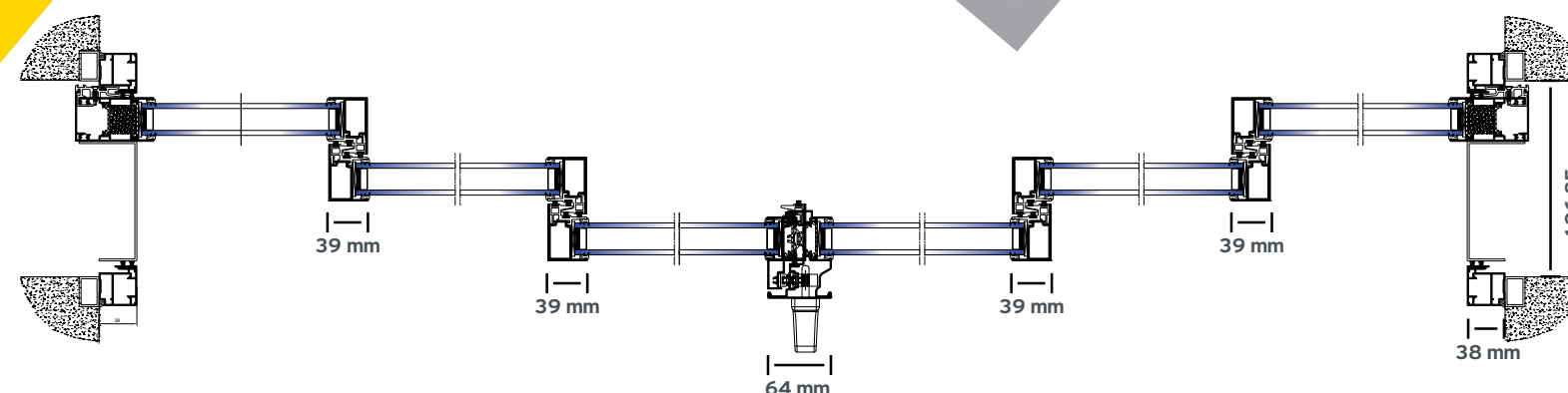


Four sashes meeting stile sliding  
90° assembly

4 cercevele glisante cu inchidere cap in cap  
Asamblare cu profile taiate la 90°



45° assembly  
90° assembly  
meeting stile windows  
Asamblare cu profile taiate la 45°  
Asamblare cu profile taiate la 90°  
Ferestre cu inchidere cap in cap



Corner constructions with narrow profiles and no intermediate mullions offer:

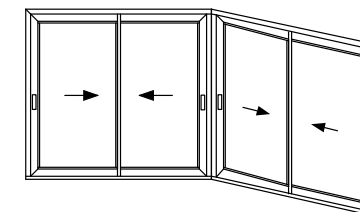
- / Maximum natural light.
- / Minimal design.
- / High functionality.

Construcțiile cu colt liber cu profile înguste și fără montanți intermediari oferă:

- / Maximizarea volumului de lumină naturală.
- / Design minimalist.
- / Funcționalitate ridicată.

Colt interior sau exterior  
(90° și/sau 270°)

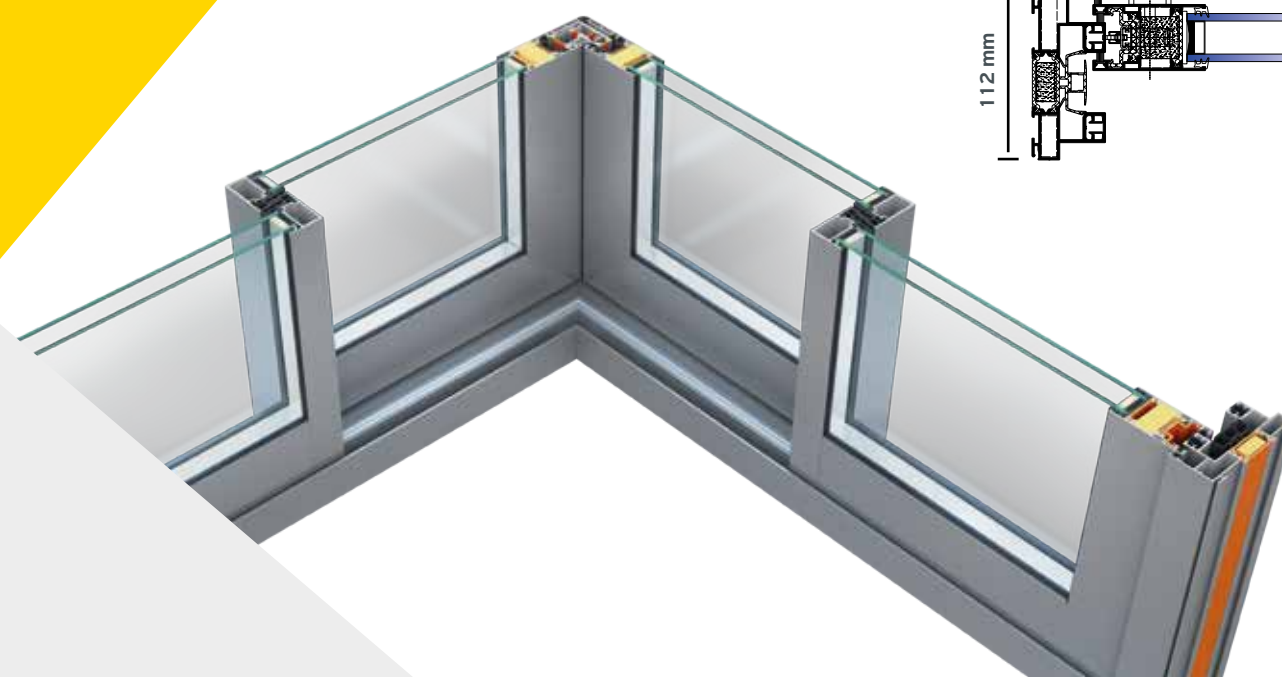
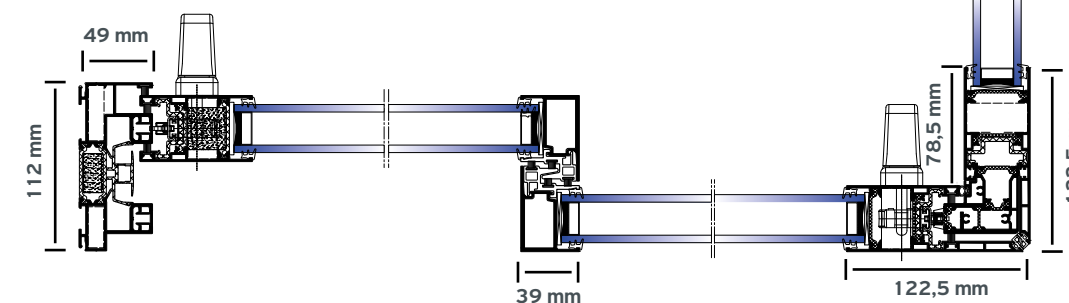
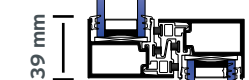
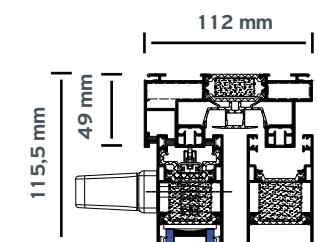
External or internal corner  
(90° and/or 270°)



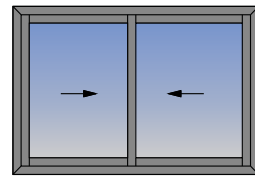
## The corner window Fereastra cu colt liber

As we believe that there should not be any limits regarding design when the improvement of better living conditions comes into question, we have designed a corner typology that can implement double tracks, so as to maximize the view and the natural light.

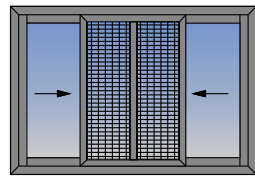
Noi credem că nu trebuie să existe niciun fel de limitare privind design-ul, atunci când vine vorba de îmbunătățirea condițiilor de locuire, așa că am proiectat o tipologie cu colt liber, pentru toc cu 2 cai de rulare, pentru maximizarea volumului de lumină naturală și sporirea vizibilității.



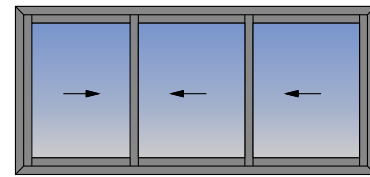
## Applications Aplicatii



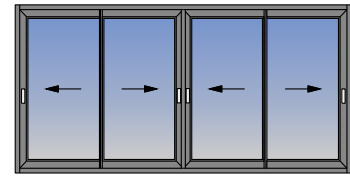
2 sashes, 2-track  
2 cercevele, 2 cai de rulare



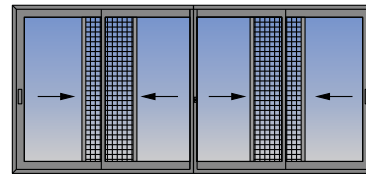
2 sashes, 2-track  
with insect screen  
2 cercevele, 2 cai de rulare  
cu plasa pentru insecte



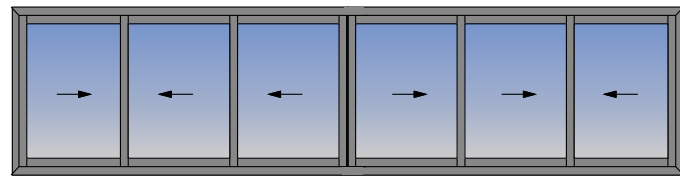
3 sashes, 3-track  
3 cercevele, 3 cai de rulare



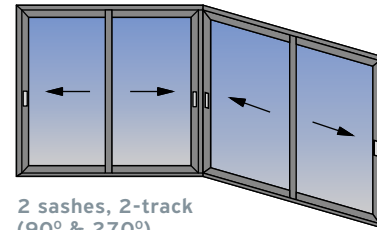
4 sashes, 2-track  
4 cercevele, 2 cai de rulare



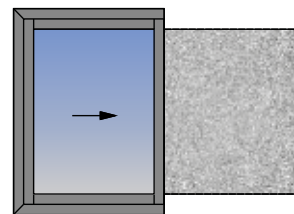
4 sashes, 2-track  
with insect screen  
4 cercevele, 2 cai de rulare  
cu plasa pentru insecte



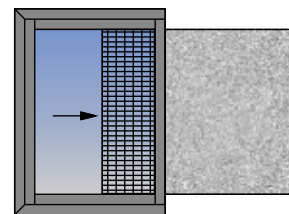
6 sashes, 3-track  
6 cercevele, 3 cai de rulare



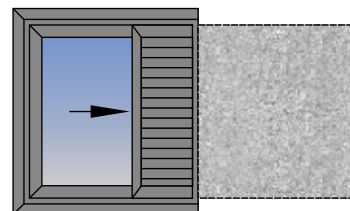
2 sashes, 2-track  
(90° & 270°)  
2 cercevele, 2 cai de rulare  
(90° & 270°)



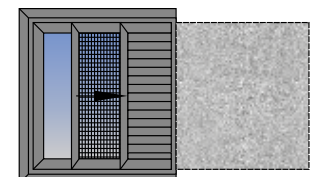
1 sash, 1-track  
1 cercevea, 1 cale de rulare



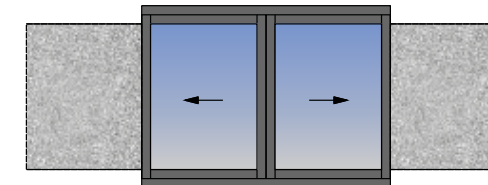
1 sash, 2-track  
with insect screen  
1 cercevea, 2 cai de rulare  
cu plasa contra insectelor



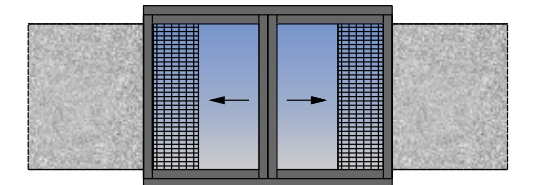
1 sash, 2-track  
with sliding shutter  
1 cercevea, 2 cai de rulare  
cu oblon glisant



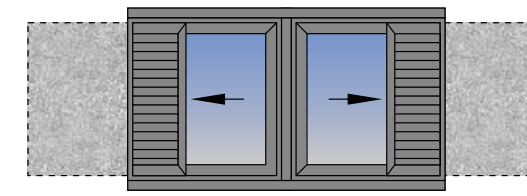
1 sash, 3-track  
with insect screen & sliding shutter  
1 cercevea, 3 cai de rulare cu plasa  
pentru insecte si oblon glisant



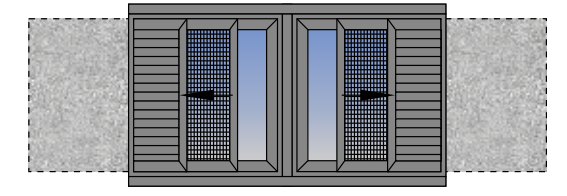
2 sashes, 1-track  
2 cercevele, 1 cale de rulare



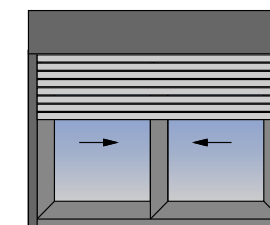
2 sashes, 2-track with insect screen  
2 cercevele, 2 cai de rulare  
cu plasa pentru insecte



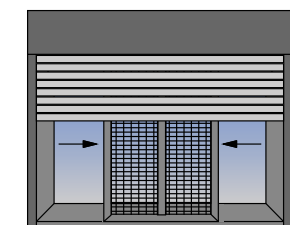
2 sashes, 2-track with sliding shutter  
2 cercevele, 2 cai de rulare cu oblon glisant



2 sashes, 3-track with  
insect screen & sliding shutter  
2 cercevele, 3 cai de rulare cu plasa  
contra insectelor si oblon glisant



2 sashes, 2-track  
with rolling shutter  
2 cercevele,  
2 cercevele cu oblon glisant



2 sashes, 2-track  
with insect screen  
& rolling shutter  
2 cercevele, 2 cai  
de rulare cu plasa  
contra insectelor  
si oblon glisant

All typologies are available for:  
45° mounting  
90° mounting with narrow interlocking profile

Toate tipologiile sunt disponibile pentru:  
montare la 45°  
montare la 90° cu profil de by-pass ingust

Performances

Performante

| CERTIFICATION<br>CERTIFICARI                                                                                                                | CLASSIFICATION<br>CLASIFICARI |               |    |    |                |    |                |    |                |                  |
|---------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------|---------------|----|----|----------------|----|----------------|----|----------------|------------------|
|  Water tightness<br>EN 12208                               | 1A                            | 2A            | 3A | 4A | 5A             | 6A | 7A             | 8A | 9A             | E750<br>(750 Pa) |
|  Air permeability<br>EN 12207                              | 1                             |               |    | 2  |                |    | 3              |    |                | 4                |
|  Wind load resistance,<br>max. test pressure<br>EN 12210   | 1<br>(400 Pa)                 | 2<br>(800 Pa) |    |    | 3<br>(1200 Pa) |    | 4<br>(1600 Pa) |    | 5<br>(2000 Pa) |                  |
|  Wind load resistance<br>to frontal deflection<br>EN 12210 | A<br>(≤ 1/150)                |               |    |    | B<br>(≤ 1/200) |    |                |    |                | C<br>(≤ 1/300)   |

ALUMIL has also certified the system SMARTIA S440 according to **AAMA & AS** standards which are available upon request.

ALUMIL a certificat sistemul SMARTIA S440, in concordanta cu cu standardele **AAMA & AS**, ce sunt disponibile la solicitarea clientului.

| THERMAL PERFORMANCE<br>PERFORMANTA TERMICA                            | Dimensions in mm (W x H)<br>DIMENSIUNI IN MM | U <sub>w</sub> (U <sub>g</sub> = 1,0)<br>psi = 0,034 | U <sub>w</sub> (U <sub>g</sub> = 1,3)<br>psi = 0,034 |
|-----------------------------------------------------------------------|----------------------------------------------|------------------------------------------------------|------------------------------------------------------|
| 2 sashes / 2-track                                                    | 3000 x 2200                                  | 1,45                                                 | 1,52                                                 |
| 2 sashes / 2-track                                                    | 2200 x 1200                                  | 1,68                                                 | 1,74                                                 |
| 2 sashes / 2-track<br>(narrow interlocking profile,<br>low threshold) | 3000 x 2200                                  | 1,43                                                 |                                                      |
| 2 sashes / 2-track<br>(narrow interlocking profile,<br>low threshold) | 2200 x 1200                                  | 1,67                                                 |                                                      |

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