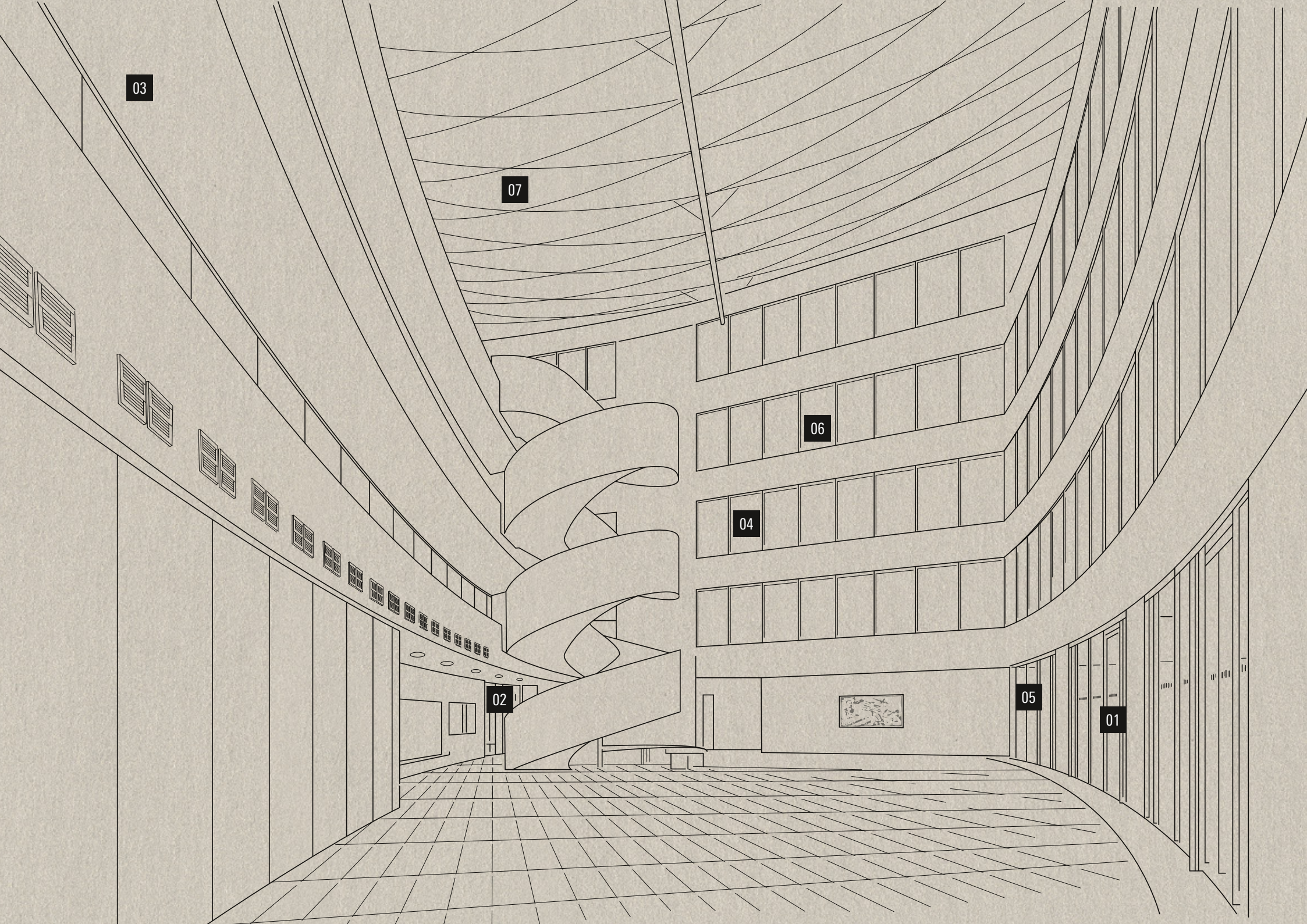
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FIRE AND SMOKE PROTECTION SYSTEMS

Today, the need for secure buildings which protect human life and property is of central importance worldwide. This applies to private homes as well as public and commercial projects. Efficient fire and smoke protection concept are therefore a top priority for architects, developers and clients. Schüco provides fully tested aluminium system solutions for façades, windows, doors and partition walls, including fittings and glazing, to meet a wide range of requirements. The compatibility of the Schüco systems allows elegant and visually uniform transitions between the fire protection and standard areas.

Fire doors and fire-resistant glazing for internal use – functionality and design combined with flexibility while adhering to building regulations.

Fire doors and fire-resistant glazing for external use – safety in the areas you need it most.

Fire-resistant façade – can be combined seamlessly with standard façades, for smooth transitions that do not affect the design of the façade.

Fire-resistant windows – tested system solution with CE marking for effective fire protection with an elegant design.

Smoke doors – non-insulated system solution that is more flexible, allowing unique safety requirements to be satisfied.

Schüco Deflame – fully integrated, fire-resistant parapet panel for protecting against flashover in standard façades.

Smoke and heat exhaust ventilation systems – fully tested window systems for vertical and skylight areas with concealed mechatronic fittings.

For more information, visit:
dc.schueco.com/cmafs

FIRE DOORS

The Schüco smoke door and wall range provides tested solutions in accordance with EN 1634, EN 1364 and DIN 4102 for 30, 60 or 90 minutes of fire resistance. Integrated closers and concealed door hinges make for an elegant design with clean lines. The optional use of glass or panel infills provides greater scope for customising the design. Thanks to the open-rebate profile geometry, changes of use can be implemented while the building is still in use, such as changing the locks or integrating electronic components.

SMOKE DOORS

The non-insulated smoke door system provides certified safety in accordance with DIN 18095. Together with the optimised attachment of fittings in the profile frame, the open-rebate profile geometry allows fast, efficient changes of use or retrofits, even while the building is still in use – for example, the integration of additional electronic functions, converting from single-point to multi-point locking or retrofitting burglar-resistant components.

FIRE-RESISTANT WINDOWS

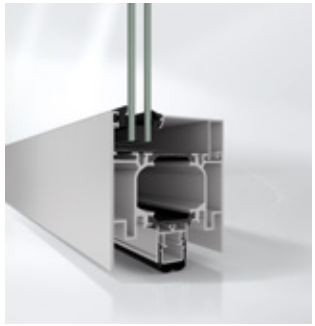
The fire-resistant side-hung window system is fully tested in accordance with EN 1364, EN 1634 and EN 16034 and fulfils the requirements of fire resistance classes EI30 and EW30. The system can be used simply as a punched opening in concrete or masonry or as an integrated window unit in fire-resistant Schüco façades. The concealed system fittings allow the window to self-lock. With the CE marking, the fire-resistant window can be used throughout Europe.

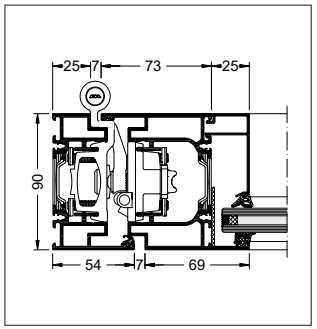
FIRE-RESISTANT FAÇADES

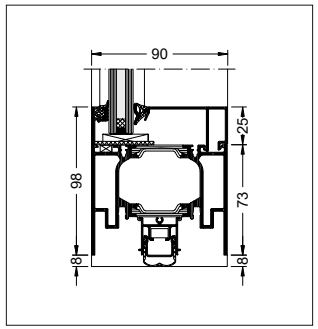
The fire-resistant façades are fully tested in accordance with EN 13643-3 and meet the requirements of fire resistance classes EI30, EI60, EW30 and EW60 – without compromising on the design. The façades are able to transition seamlessly into standard and unitised façades and can be combined with Schüco fire doors and fire-resistant windows and fitted with fire-resistant triple glazing. The fire-resistant façades can be used in the vertical area due to its CE marking in accordance with EN 13830. For the skylight area, there are country-specific approvals.

FIRE DOORS

Schüco Door System FireStop ADS 90 FR 30 (internal use)





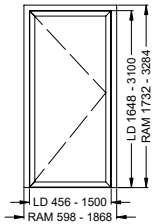


Glass or infill thicknesses	Glass 15 mm to 53 mm Panel 25 mm to 45 mm
Thermal insulation of glass with Psi value of 0.100 W/mK and U_g value of 0.5 W/(m²K)	Thermal insulation of unit (unit size W x H: 1300 mm x 2500 mm) U_d value of 1.2 W/(m²K)
Thermal insulation of panel with Psi value of 0.062 W/mK and U_p value of 0.658 W/(m²K)	Thermal insulation of unit (unit size W x H: 1300 mm x 2500 mm) U_d value of 1.2 W/(m²K)
Sound reduction of glass SchücoFlam 30 ISO C I14 R_w value for glass of 53 dB	Sound reduction of unit R_w value of 43 dB (single-leaf door W x H: 1230 mm x 2110 mm)
SchücoFlam 30 ISO C I14 R_w value for glass of 53 dB	R_w value of 43 dB (double-leaf door W x H: 2676 mm x 2500 mm)
SchücoFlam 30 ISO C I14 R_w value for glass of 53 dB	R_w value of 52 dB (fixed glazing W x H: 1230 mm x 1480 mm)
Burglar resistance	Up to class RC 2, with or without panic function
Maximum pane and panel sizes	Fire-resistant glass, portrait W x H: 1500 mm x 3000 mm Fire-resistant glass, landscape W x H: 3000 mm x 1500 mm Fire-resistant panel, portrait W x H: 1250 mm x 2500 mm Fire-resistant panel, landscape W x H: 2500 mm x 1250 mm
Options	Single and double-leaf doors, inward and outward-opening, with or without sidelight and with or without toplight, fixed glazing, 90° to 180° corner constructions for fixed glazing, attachment to Schüco FW 50+ BF and FW 60+ BF fire-resistant façades, T-cleat construction method, frame construction method, combined construction method and reverse rebate profile construction method, tested fire and smoke protection

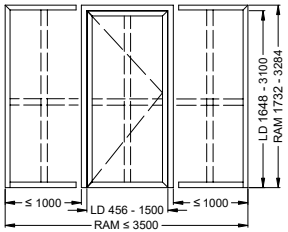
Design options for doors

(Take note of country-specific approvals)

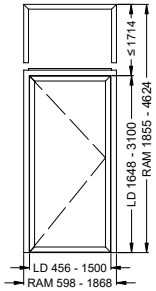
Single-leaf door



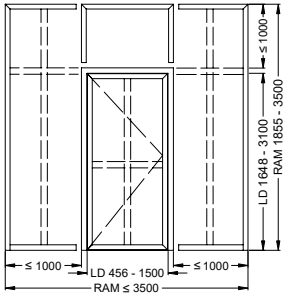
Single-leaf door with sidelights



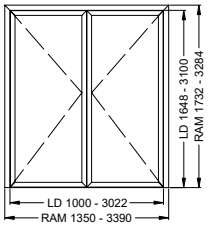
Single-leaf door with toplight



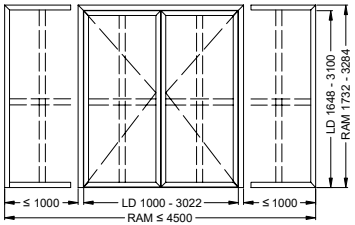
Single-leaf door with sidelights and toplights



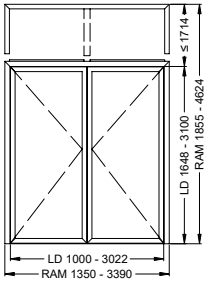
Double-leaf door



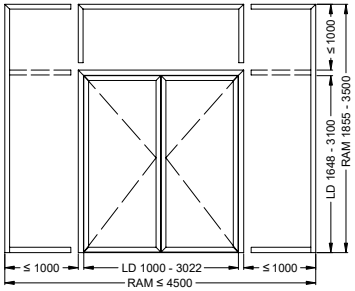
Double-leaf door with sidelights



Double-leaf door with toplight



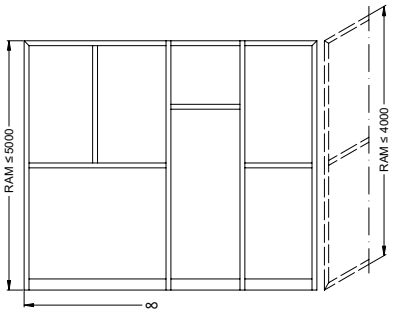
Double-leaf door with sidelights and toplights



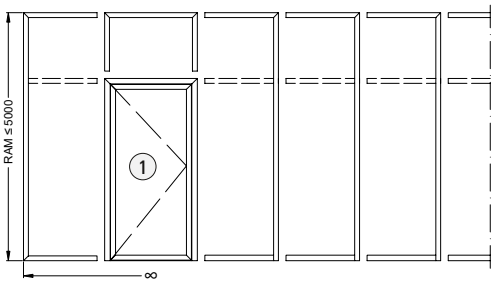
Design options for wall units

(Take note of country-specific approvals)

Wall unit



Wall unit with door



Key

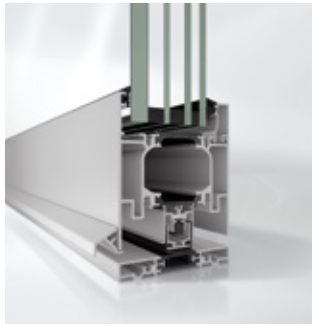
LD = Clear opening dimension

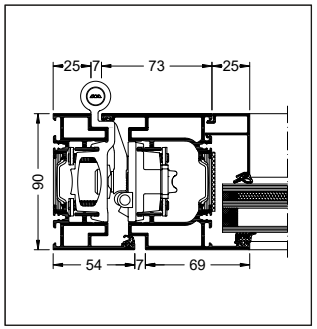
RAM = Outside frame dimension

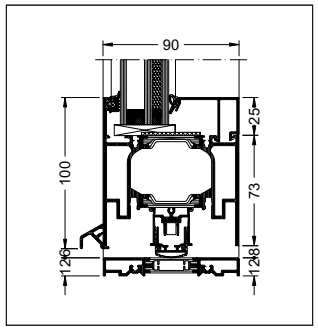
Dimensions of the double-leaf door without panic function in secondary leaf.

(1) The installation of single-leaf and double-leaf doors is possible.

Schüco Door System FireStop ADS 90 FR 30-CE (external use)



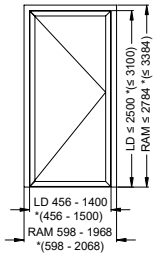




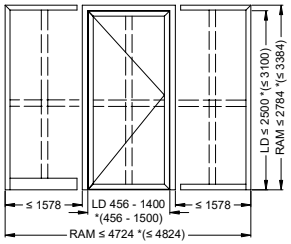
Glass or infill thicknesses	Glass 18 mm to 55 mm Panel 25 mm to 59 mm
Thermal insulation of glass with Psi value of 0.100 W/mK and U_g value 0.5 W/(m^2K)	Thermal insulation of unit (unit size W x H: 1300 mm x 2500 mm) U_d value of 1.2 W/(m^2K)
Thermal insulation of panel with Psi value of 0.062 W/mK and U_p value of 0.658 W/(m^2K)	Thermal insulation of unit (unit size W x H: 1300 mm x 2500 mm) U_d value of 1.2 W/(m^2K)
Sound reduction of glass SchücoFlam 30 ISO C I14 R_w value for glass of 53 dB	Sound reduction of unit R_w value of 43 dB (single-leaf door W x H: 1230 mm x 2110 mm)
SchücoFlam 30 ISO C I14 R_w value for glass of 53 dB	R_w value of 43 dB (double-leaf door W x H: 2676 mm x 2500 mm)
SchücoFlam 30 ISO C I14 R_w value for glass of 53 dB	R_w value of 52 dB (fixed glazing W x H: 1230 mm x 1480 mm)
Burglar resistance	Up to class RC 2, with or without panic function
Maximum pane and panel sizes	Fire-resistant glass, portrait W x H: 1500 mm x 3000 mm Fire-resistant glass, landscape W x H: 3000 mm x 1500 mm Fire-resistant panel, portrait W x H: 1250 mm x 2500 mm Fire-resistant panel, landscape W x H: 2500 mm x 1250 mm
Options	Single and double-leaf doors, inward and outward-opening, with or without sidelight and with or without toplight, fixed glazing, 90° to 180° corner constructions for fixed glazing, attachment to Schüco FW 50+ BF and FW 60+ BF fire-resistant façades, T-cleat construction method, frame construction method, combined construction method and reverse rebate profile construction method, tested fire and smoke protection

Design options for doors

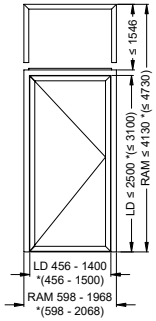
Single-leaf door



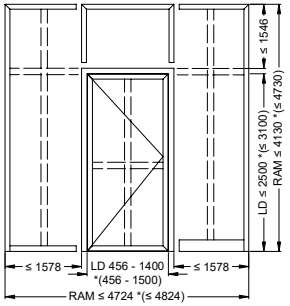
Single-leaf door with sidelights



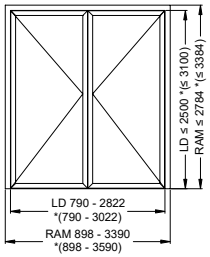
Single-leaf door with toplight



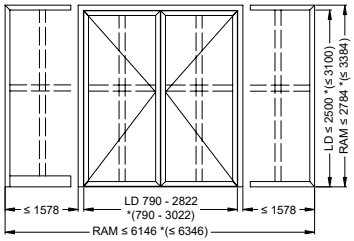
Single-leaf door with sidelights and toplights



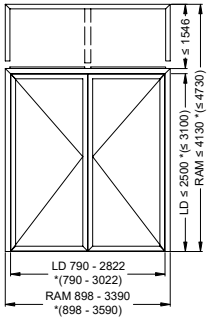
Double-leaf door



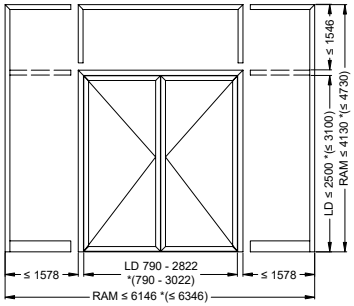
Double-leaf door with sidelights



Double-leaf door with toplight



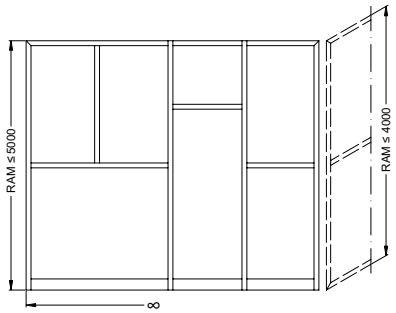
Double-leaf door with sidelights and toplights



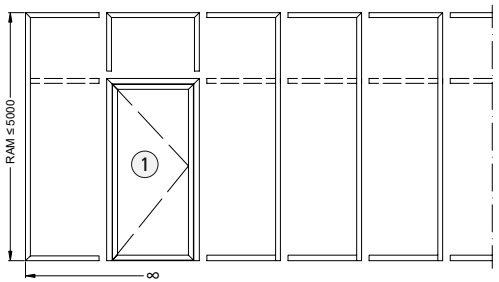
Design options for wall units

(Take note of country-specific approvals)

Wall unit



Wall unit with door



Permissible outer frame face widths
57 mm or 125 mm

Permissible mullion or transom face widths
82 mm, 150 mm or 250 mm (possible as profile coupling)

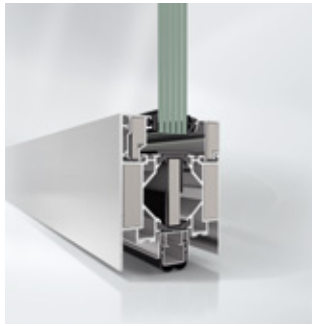
Key
LD = Clear opening dimension
RAM = Outside frame dimension

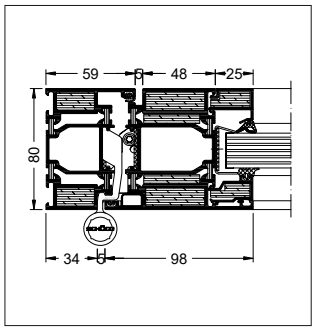
Unit sizes for single and double-leaf doors with properties $EI_2$30, S_a, S_{200}, and C5 in accordance with EN 16034,
in conjunction with requirements for air permeability, watertightness and wind load resistance in accordance with EN 14351-1.
* Dimensions in brackets do not have requirements for air permeability, watertightness and wind load resistance in accordance with EN 14351-1.

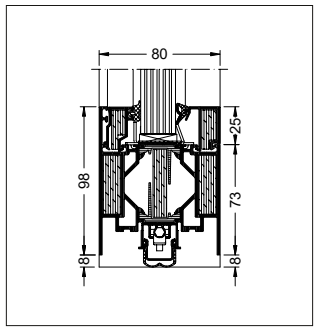
Dimensions of the double-leaf door without panic function in secondary leaf.

(1) The installation of single-leaf and double-leaf doors is possible.

Schüco Door System ADS 80 FR 60 (internal use)



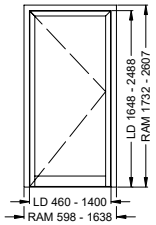




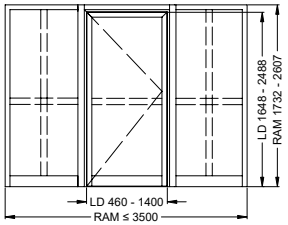
Glass or infill thicknesses	Glass 23 mm to 44 mm Panel 40,5 mm to 45 mm
Thermal insulation	Thermal insulation of unit –
Sound reduction of glass SchücoFlam 60 ISO C **R_w value for glass of 46 dB SchücoFlam 60 ISO C** **R_w value for glass of 46 dB SchücoFlam 60 ISO C** **R_w value for glass of 47 dB**	Sound reduction of unit R_w value of 42 dB (single-leaf door W x H: 990 mm x 2110 mm) R_w value of 42 dB (double-leaf door W x H: 2650 mm x 2500 mm) R_w value of 46 dB (fixed glazing W x H: 1230 mm x 1480 mm)
Burglar resistance	Up to class RC 2, with or without panic function
Maximum pane and panel sizes	Fire-resistant glass for door leaf W x H: 1280 mm x 2340 mm Fire-resistant glass for sidelight W x H: 1400 mm x 2490 mm Fire-resistant glass for toplight W x H: 2500 mm x 1250 mm Fire-resistant panel for door leaf W x H: 1250 mm x 2344 mm Fire-resistant panel for sidelight W x H: 1050 mm x 2418 mm Fire-resistant panel for toplight W x H: 2500 mm x 1250 mm
Options	Single-leaf and double-leaf doors, inward and outward-opening, with or without sidelight or toplight, can be installed in fire-resistant façade, basic protection against vandalism, mechanical strength class 4, resistance to repeated opening and closing of 1 million cycles

Design options for doors

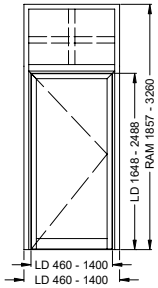
Single-leaf door



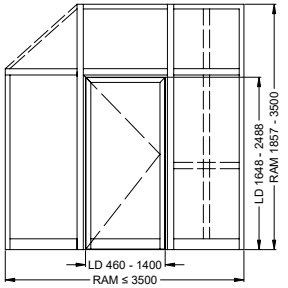
Single-leaf door with sidelights



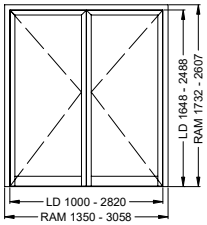
Single-leaf door with toplight



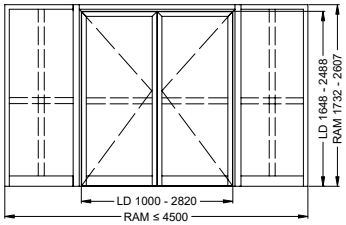
Single-leaf door with sidelights and toplights



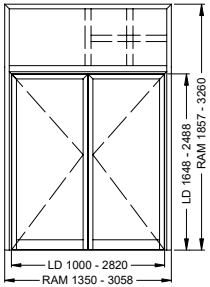
Double-leaf door



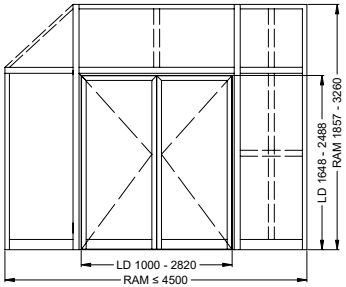
Double-leaf door with sidelights



Double-leaf door with toplight

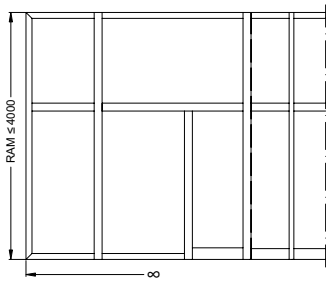


Double-leaf door with sidelights and toplights

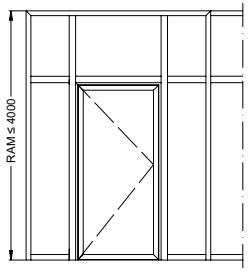


Design options for wall units

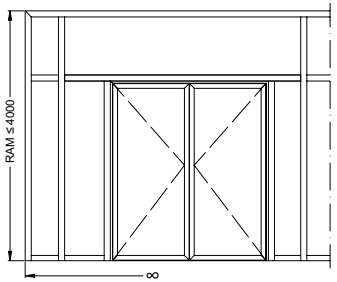
Wall unit with EI60 (F60) glazing



Wall unit with EI60 (F60) glazing and single-leaf door



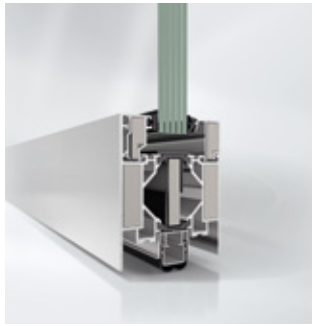
Wall unit with EI60 (F60) glazing and double-leaf door

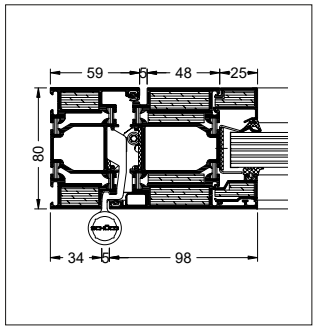


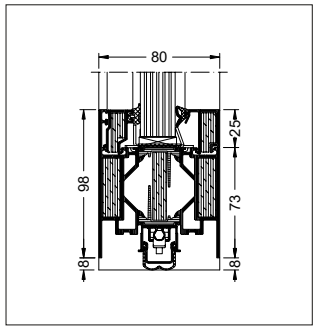
Key
LD = Clear opening dimensions
RAM = Outside frame dimension

Dimensions of the double-leaf door without panic function in secondary leaf.

Schüco Door System ADS 80 FR 60-CE (external use)



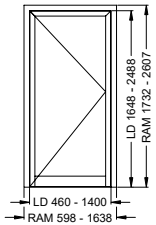




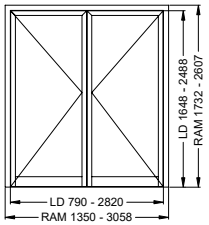
Glass or infill thicknesses	Glass 23 mm to 41 mm Panel 40,5 mm to 45 mm
Thermal insulation of glass with Psi value of 0.15 W/mK U_g value of 1.1 W/(m^2K)	Thermal insulation of fixed glazing (unit size W x H: 1230 mm x 2180 mm) U_d value of 2.7 W/(m^2K)
Sound reduction of glass SchücoFlam 60 ISO C R_w value for glass of 46 dB	Sound reduction of unit R_w value of 42 dB (single-leaf door W x H: 990 mm x 2110 mm)
SchücoFlam 60 ISO C R_w value for glass of 46 dB	R_w value of 42 dB (double-leaf door W x H: 2650 mm x 2500 mm)
SchücoFlam 60 ISO C R_w value for glass of 47 dB	R_w value of 46 dB (fixed glazing W x H: 1230 mm x 1480 mm)
Burglar resistance	–
Maximum pane and panel sizes	Fire-resistant glass, portrait W x H: 1280 mm x 2875 mm Fire-resistant panel, portrait W x H: 1250 mm x 2344 mm
Options	Single-leaf and double-leaf doors, inward and outward-opening, can be installed in fire-resistant façade, basic protection against vandalism, mechanical strength class 4, resistance to repeated opening and closing of 1 million cycles

Design options

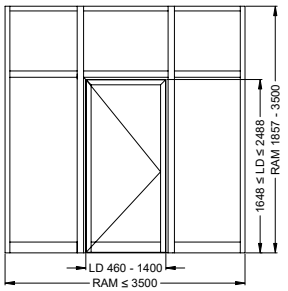
Single-leaf door



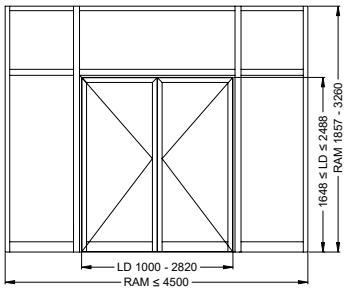
Double-leaf door



Single-leaf door with sidelights and toplights

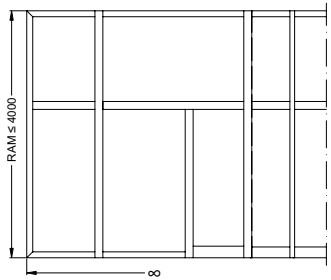


Double-leaf door with sidelights and toplights

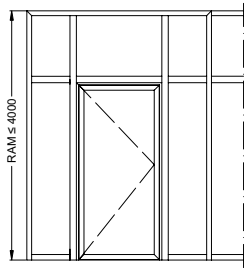


Design options for wall units

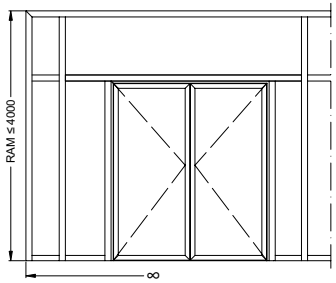
Wall unit with EI60 (F60) glazing



Wall unit with EI60 (F60) glazing and single-leaf door



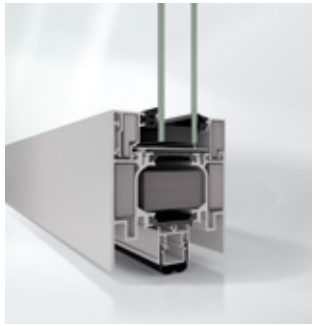
Wall unit with EI60 (F60) glazing and double-leaf door

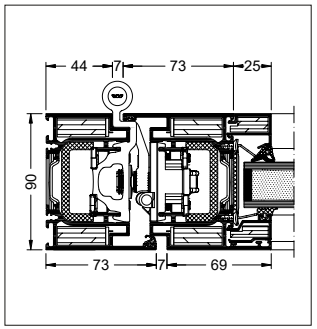


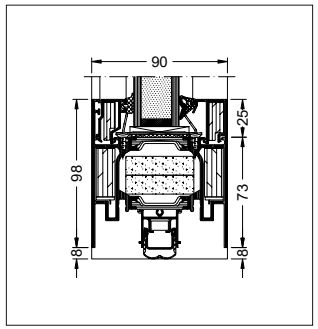
Key
LD = Clear opening dimensions
RAM = Outside frame dimension

Dimensions of the double-leaf door without panic function in secondary leaf.
For inward-opening double-leaf doors, a partial panic function is possible.

Schüco Door System FireStop ADS 90 FR 90 (internal use)



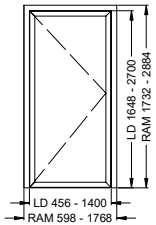




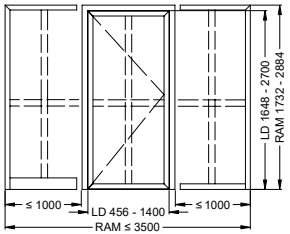
Glass or infill thicknesses	Glass 30 mm to 54 mm Panel 50 mm to 58 mm
Thermal insulation of glass with Psi value of 0.100 W/mK and U_g value 0.5 W/(m^2K)	Thermal insulation of unit (unit size W x H: 1300 mm x 2500 mm) U_d value of 1.2 W/(m^2K)
Thermal insulation of panel with Psi value of 0.026 W/mK and U_p value of 2.1 W/(m^2K)	Thermal insulation of unit (unit size W x H: 1300 mm x 2500 mm) U_d value of 2.4 W/(m^2K)
Sound reduction of glass SchücoFlam 90 C R_w value for glass of 46 dB	Sound reduction of unit R_w value of 42 dB (single-leaf door W x H: 1250 mm x 2120 mm)
Burglar resistance	Up to class RC 2, with or without panic function
Maximum pane and panel sizes	Fire-resistant glass, portrait W x H: 1500 mm x 3000 mm Fire-resistant glass, landscape W x H: 3190 mm x 1266 mm Fire-resistant panel, portrait W x H: 1250 mm x 3000 mm Fire-resistant panel, landscape W x H: 2500 mm x 1250 mm Fire-resistant panel made of Aestuver, portrait W x H: 1090 mm x 3000 mm Fire-resistant panel made of Aestuver, landscape W x H: 2500 mm x 1090 mm
Options	Single-leaf and double-leaf doors, inward and outward-opening, with or without sidelight or toplight, fixed glazing, F90 fixed glazing including door installation, T-cleat construction method, frame construction method, combined construction method, tested in accordance with fire and smoke protection requirements

Design options for doors

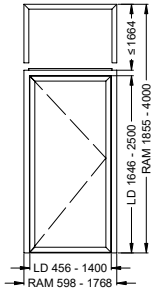
Single-leaf door



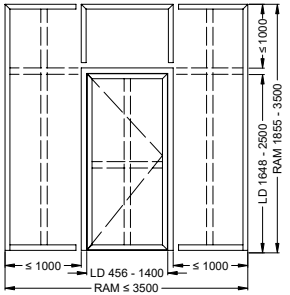
Single-leaf door with sidelights



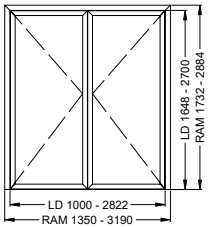
Single-leaf door with toplight



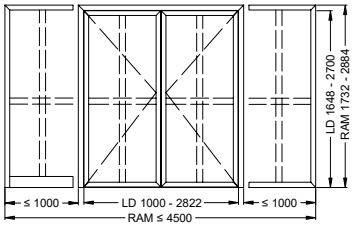
Single-leaf door with sidelights and toplights



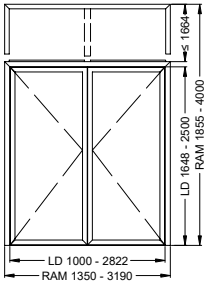
Double-leaf door



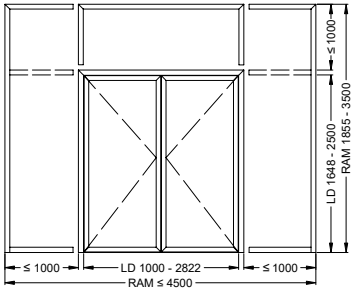
Double-leaf door with sidelights



Double-leaf door with toplight

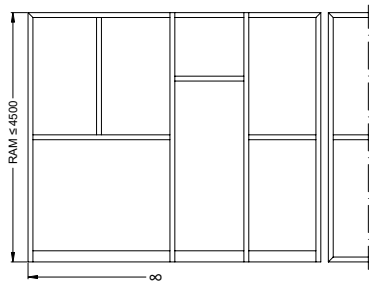


Double-leaf door with sidelights and toplights

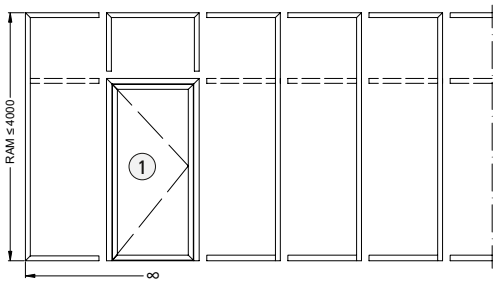


Design options for wall units

Wall unit



Wall unit with door



Key
LD = Clear opening dimension
RAM = Outside frame dimension

Dimensions of the double-leaf door without panic function in secondary leaf.

(1) The installation of single-leaf doors is possible. The installation of double-leaf doors is possible on request.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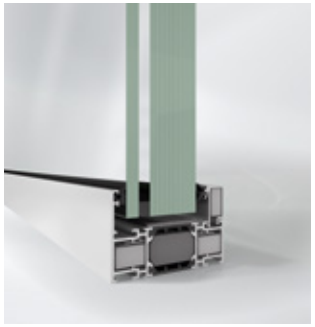
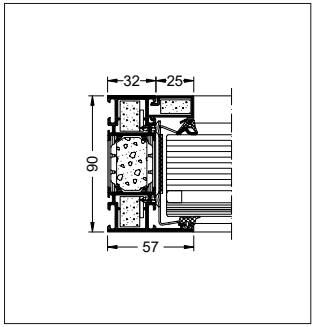
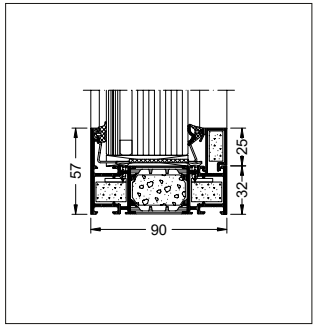
Schüco Door System FireStop ADS 90 FR 90 as fixed glazing (external use)



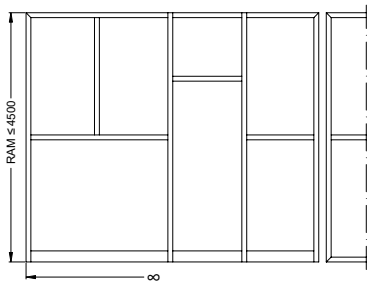




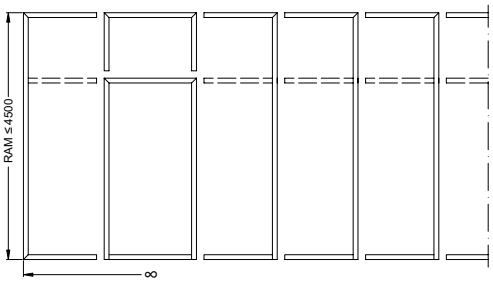
Glass or infill thicknesses	Fixed glazing with outer frame of 37 mm to 58 mm
Thermal insulation of glass with Psi value of 0.100 W/mK and U_g value of 1.0 W/(m^2K)	Thermal insulation of unit (unit size W x H: 1230 mm x 1480 mm) U_w value of 1.5 W/(m^2K)
Sound reduction of glass	Sound reduction of unit R_w value of 45 dB derived from F30 test (fixed glazing W x H: 1230 mm x 1480 mm)
Burglar resistance	Up to class RC 2
Maximum pane and panel sizes	Fire-resistant glass, portrait W x H: 1500 mm x 3000 mm Fire-resistant glass, landscape W x H: 2500 mm x 1500 mm Fire-resistant panels are not part of the approval
Options	Only as F90 fixed glazing, T-cleat construction, frame construction, combined construction, safety barrier upon request

Design options for wall units

Wall unit



Wall unit



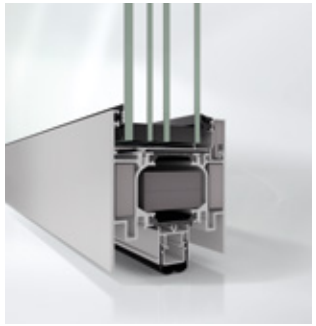
Permissible outer frame face widths
57 mm or 90 mm (possible as profile coupling)

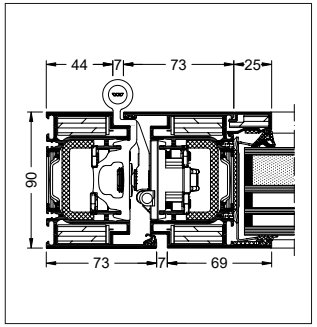
Permissible mullion or transom face widths
82 mm or 148 mm (possible as profile coupling)

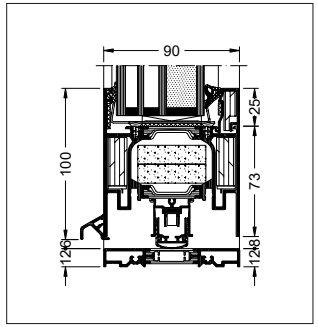
Key
RAM = Outside frame dimension

For further, up-to-date information, visit:
dc.schueco.com/cs8923

Schüco Door System FireStop ADS 90 FR 90-CE (external use)



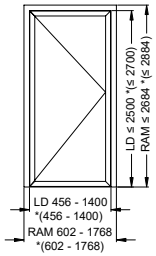




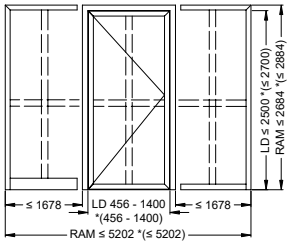
Glass or infill thicknesses	Glass 51 mm to 58 mm Panel 54 mm to 58 mm
Thermal insulation of glass with Psi value of 0.100 W/mK and U_g value of 0.5 W/(m²K)	Thermal insulation of unit (unit size W x H: 1300 mm x 2500 mm) U_d value of 1.2 W/(m²K)
Thermal insulation of panel with Psi value of 0.026 W/mK and U_p value of 2.1 W/(m²K)	Thermal insulation of unit (unit size W x H: 1300 mm x 2500 mm) U_d value of 2.4 W/(m²K)
Sound reduction of glass SchücoFlam 90 C R_w value for glass of 46 dB	Sound reduction of unit R_w value of 42 dB (single-leaf door W x H: 1250 mm x 2120 mm)
Burglar resistance	Up to class RC 2, with or without panic function
Maximum pane and panel sizes	Fire-resistant glass, portrait W x H: 1500 mm x 3000 mm Fire-resistant glass, landscape W x H: 3190 mm x 1266 mm Fire-resistant panels, portrait W x H: 1250 mm x 3000 mm Fire-resistant panel, landscape W x H: 2500 mm x 1250 mm Fire-resistant panel made of Aestuver, portrait W x H: 1090 mm x 3000 mm Fire-resistant panel made of Aestuver, landscape W x H: 2500 mm x 1090 mm
Options	Single-leaf and double-leaf doors, inward and outward-opening, with or without sidelight or toplight, fixed glazing, F90 fixed glazing including door installation, T-cleat construction method, frame construction method, combined construction method, tested in accordance with fire and smoke protection requirements

Design options for doors

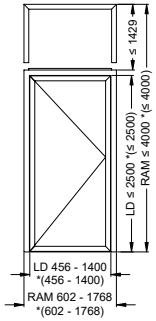
Single-leaf door



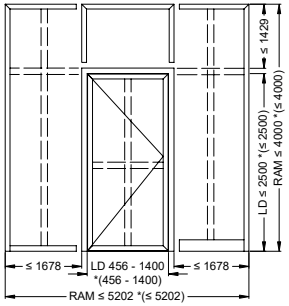
Single-leaf door with sidelights



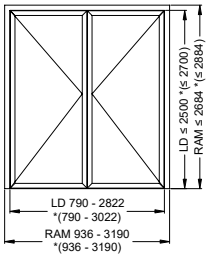
Single-leaf door with toplight



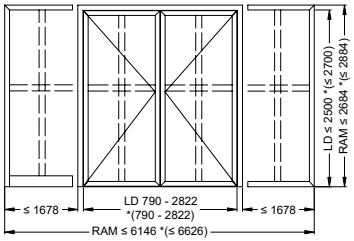
Single-leaf door with sidelights and toplights



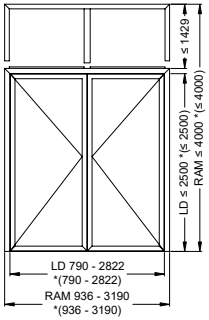
Double-leaf door



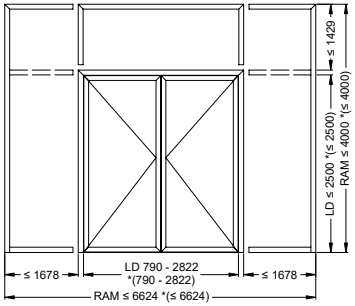
Double-leaf door with sidelights



Double-leaf door with toplight

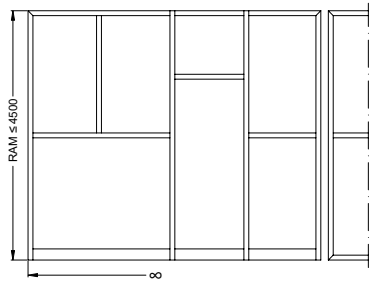


Double-leaf door with sidelights and toplight

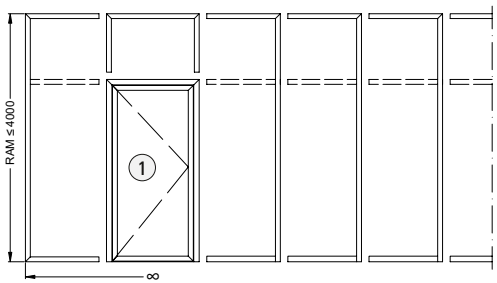


Design options for wall units

Wall unit



Wall unit with door



Key
LD = Clear opening dimension
RAM = Outside frame dimension

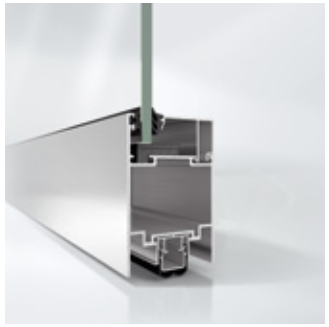
Unit sizes for single and double-leaf doors with properties EI230, Sa, S200, and C5 in accordance with EN 16034, in conjunction with requirements for air permeability, watertightness and wind load resistance in accordance with EN 14351-1.
* Dimensions in brackets do not have requirements for air permeability, watertightness and wind load resistance in accordance with EN 14351-1.

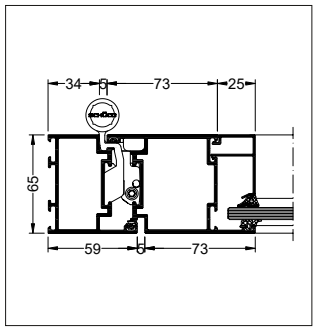
Dimensions of the double-leaf door without panic function in secondary leaf.

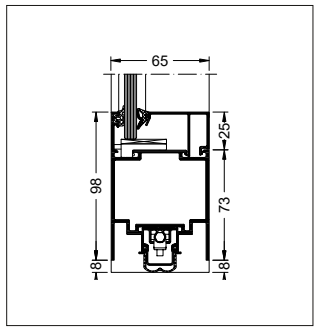
(1) The installation of single-leaf and double-leaf doors is possible.

SMOKE DOORS

Schüco Door System ADS 65.NI SP



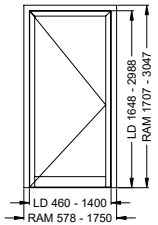




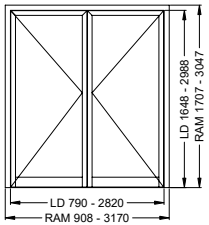
Glass or infill thicknesses	Outer frame of 4 mm to 38 mm Leaf frame of 4 mm to 38 mm
Thermal insulation	Thermal insulation of unit –
Sound reduction of glass	Sound reduction of unit R_w value of 40 dB (single-leaf door W x H: 990 mm x 2110 mm) R_w value of 41 dB (double-leaf door W x H: 2650 mm x 2500 mm) R_w value of 44 dB (fixed glazing W x H: 1230 mm x 1480 mm)
Burglar resistance	Up to class RC 2, with or without panic function
Maximum pane and panel sizes	–
Options	Single and double-leaf doors, inward and outward-opening, with or without sidelight and with or without toplight, opposed opening door, tested in accordance with smoke protection requirements

Design options

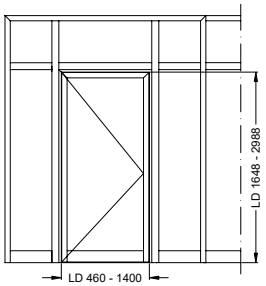
Single-leaf door



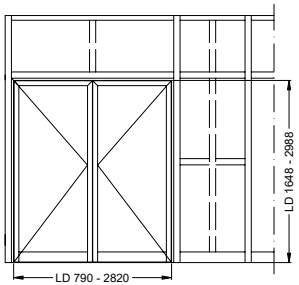
Double-leaf door



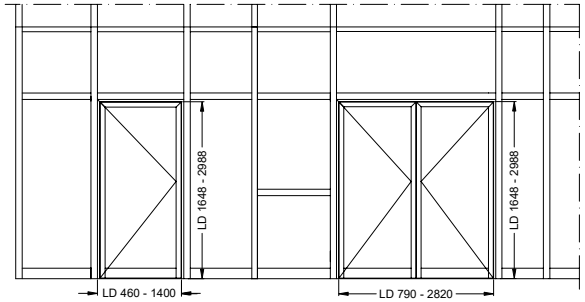
Single-leaf door with sidelights



Double-leaf door with sidelights and toplight



Installation of single-leaf and double-leaf smoke doors in the Schüco FWS 50 or FWS 60 façade system

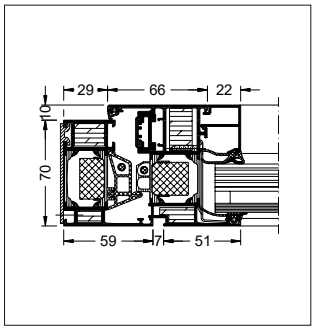


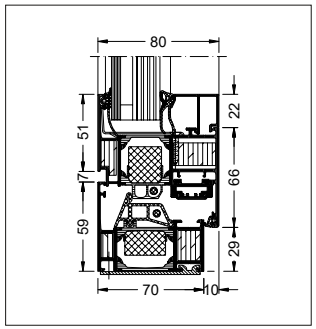
Key
LD = Clear opening dimension
RAM = Outside frame dimension

Dimensions of the double-leaf door without panic function in secondary leaf.

FIRE-RESISTANT WINDOWS

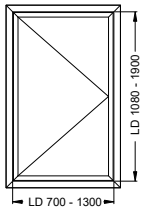
Schüco Window System AWS 70 FR 30-CE



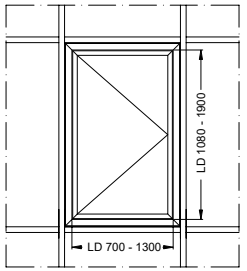


Design options

Punched opening



Insert unit in Schüco FW 50+ BF or FW 60+ BF

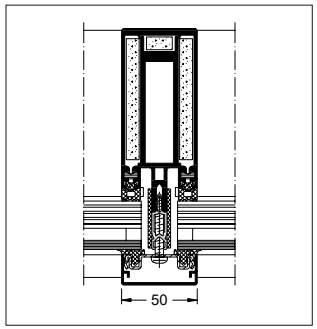


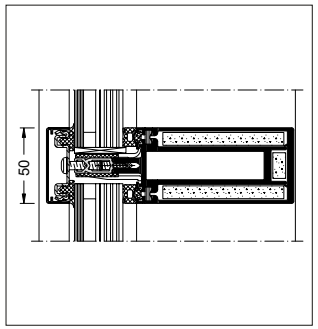
Key
LD = Clear opening dimensions

Glass or infill thicknesses	Vent frame of 28 mm to 38 mm
Thermal insulation of glass with Psi value of 0.15 W/mK and U_g value of 1.2 W/(m²K)	Thermal insulation (unit size W x H: 1230 mm x 1480 mm) U_w value of 2.0 W/(m²K)
Sound reduction of glass	Sound reduction of unit –
Burglar resistance	–
Maximum pane and panel sizes	Fire-resistant glass W x H: 1158 mm x 1758 mm
Options	Double insulating glass, monitoring of closing, fully concealed fittings, inward-opening side-hung windows, can be used in Schüco FW 50+ BF or FW 60+ BF vertical façade as EI30, window closer with free-swing facility not possible

FIRE-RESISTANT FAÇADES

Schüco Façade System FW 50+ BF (shown) and FW 60+ BF

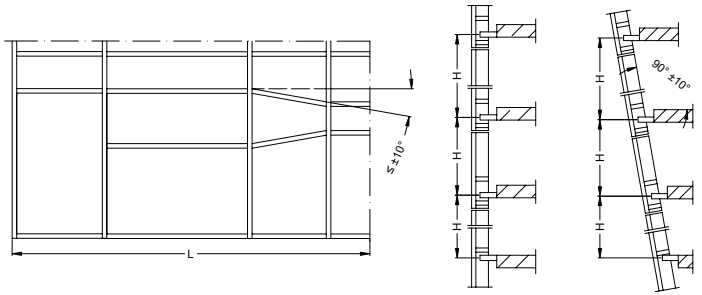




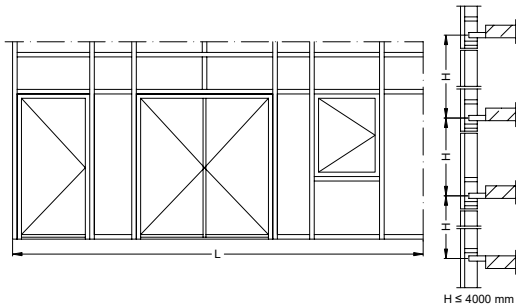
Glass or infill thicknesses	10 mm to 51 mm
Thermal insulation of glass with Psi value of 0.19 W/mK and **U_g value of 0.5 W/(m²K)** **U_g value of 0.6 W/(m²K)** **U_g value of 1.0 W/(m²K)**	Thermal insulation of unit (unit size W x H: 1350 mm x 3500 mm) U_{cw} value of 1.2 W/(m²K) (FW 50+ BF and FW 60+ BF) U_{cw} value of 1.3 W/(m²K) (FW 50+ BF and FW 60+ BF) U_{cw} value of 1.6 W/(m²K) (FW 50+ BF and FW 60+ BF)
Sound reduction of glass	Sound reduction of unit –
Burglar resistance	Up to class RC 2
Maximum pane and panel sizes	Fire-resistant glass, portrait W x H: 1500 mm x 3000 mm Fire-resistant glass, landscape W x H: 3000 mm x 1400 mm Fire-resistant panel, portrait W x H: 1370 mm x 1476 mm
Options	Vertical façade EI30 (CE) version, F30 / G30 skylight construction version (approval for Germany), Schüco fire doors and fire windows possible as insert units, double and triple insulating glass available, safety barrier

Design options

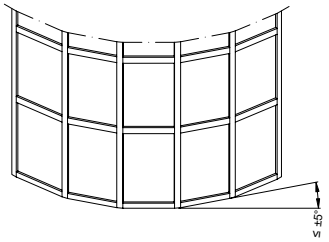
Schüco FW 50+ BF or FW 60+ BF as EI30 / EW30 curtain wall



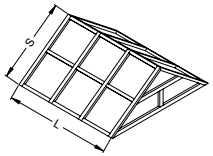
Schüco FW 50+ BF or FW 60+ BF as EI30 / EW30 curtain wall with insert units



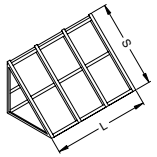
Schüco FW 50+ BF or FW 60+ BF as EI30 / EW30 faceted façade



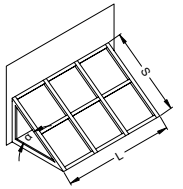
Schüco FW 50+ BF or FW 60+ BF as F30 / G30 skylight construction



Saddle roof



Mono-pitch roof

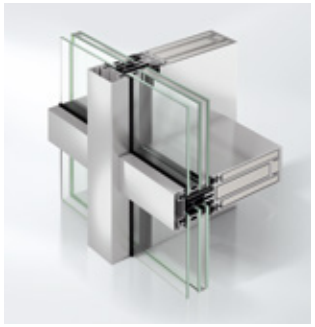


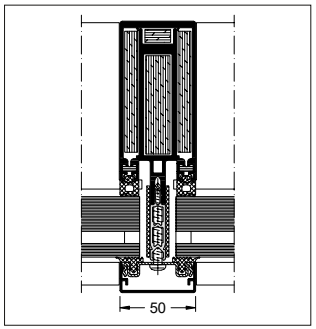
Lean-to structure

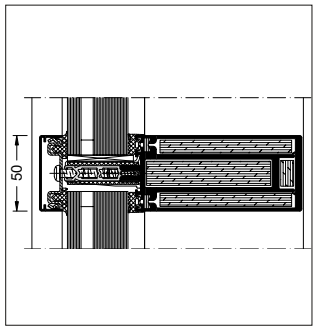
For further, up-to-date information, visit:
dc.schueco.com/cs66

For further, up-to-date information, visit:
dc.schueco.com/cs84

Schüco Façade System FW 50+ FR 60



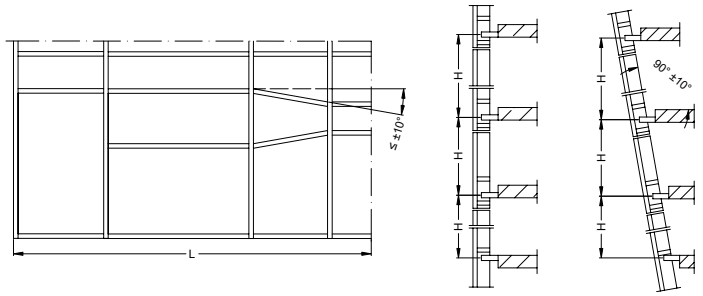




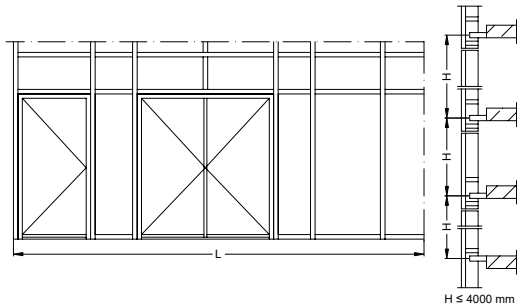
Glass or infill thicknesses	28 mm to 51 mm
Thermal insulation of glass with Psi value 0.19 W/mK and U_g value of 1.0 W/(m²K)	Thermal insulation of unit (unit size W x H: 1350 mm x 3500 mm) U_{cw} value of 1.8 W/(m²K)
Sound reduction of glass	Sound reduction of unit –
Burglar resistance	Up to class RC 2
Maximum pane and panel sizes	Fire-resistant glass, portrait W x H: 1400 mm x 3000 mm Fire-resistant glass, landscape W x H: 3000 mm x 1400 mm Fire-resistant panel, portrait W x H: 263 mm x 1400 mm Fire-resistant panel, landscape W x H: 1400 mm x 263 mm
Options	Can be configured as EI60 vertical façade (CE), installation of Schüco Door System ADS 80 FR 60-CE, double insulating glass can be used

Design options

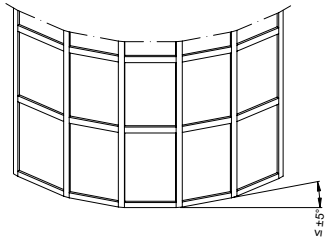
Schüco FW 50+ FR 60 as EI60 / EW60 curtain wall



Schüco ADS 80 FR 60-CE integrated in
Schüco FW 50+ FR 60 as EI60 / EW60 curtain wall

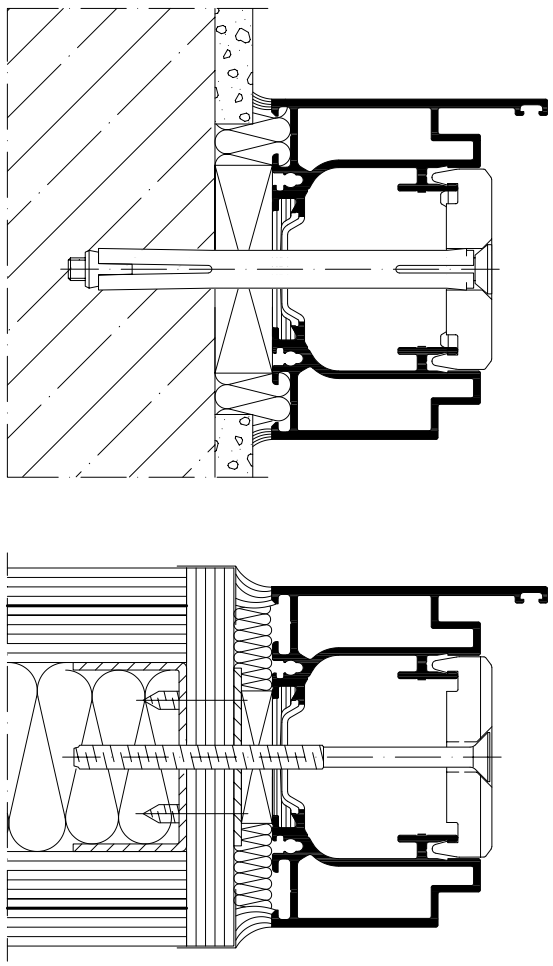


Schüco FW 50+ FR 60 as EI60 / EW60 faceted façade

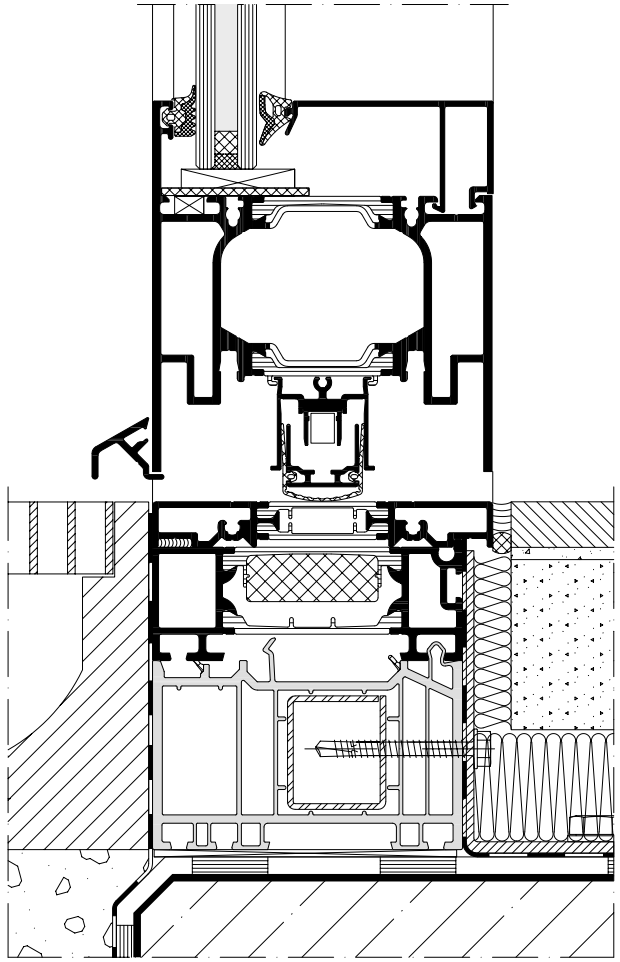


ATTACHMENTS TO BUILDING STRUCTURE

Schüco Door System FireStop ADS 90 FR 30

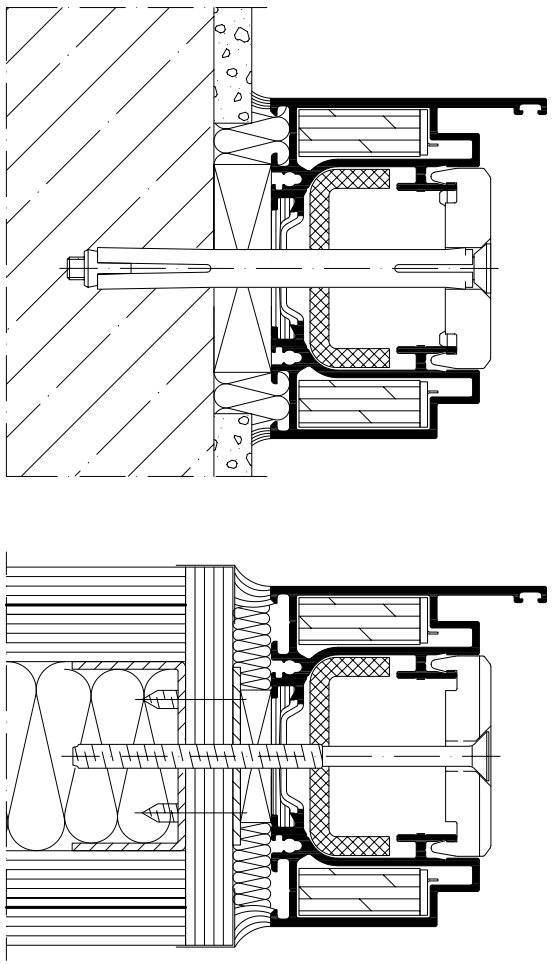


Scale 1:2



Scale 1:2

Schüco Door System FireStop ADS 90 FR 90



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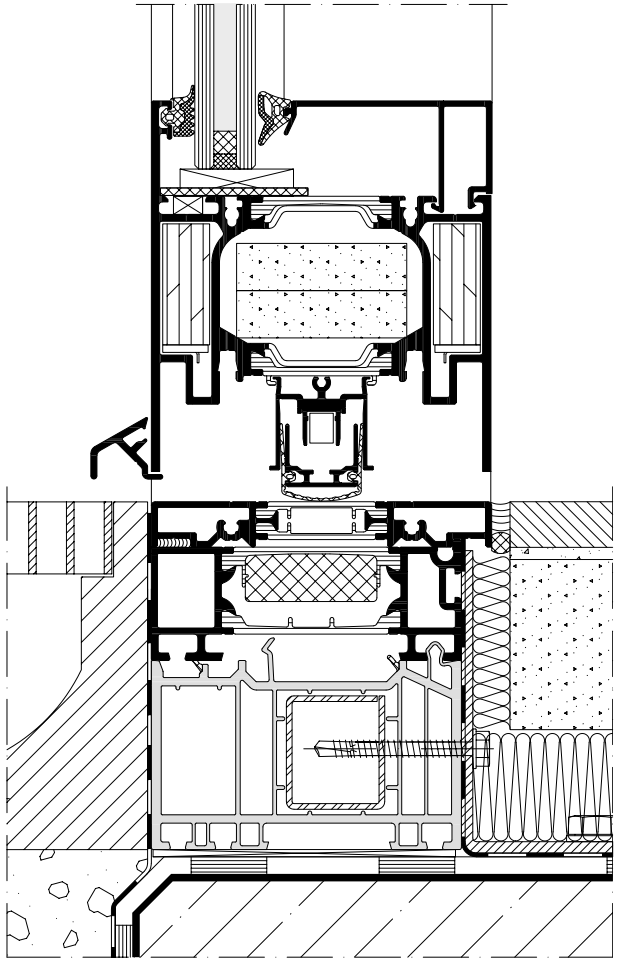

Scale 1:2

Further attachments to building structure can be found at:
dc.schueco.com/cmabs


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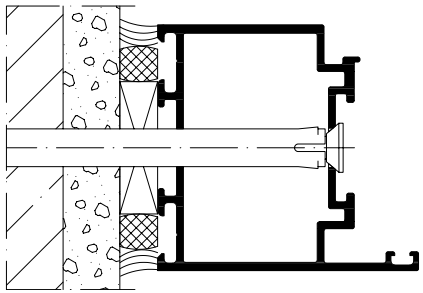
Schüco Door System ADS 65.NI SP



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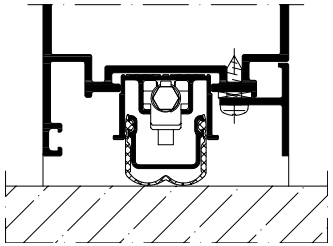

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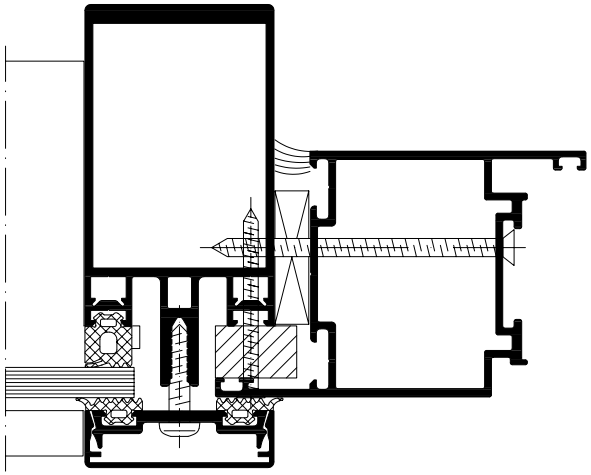
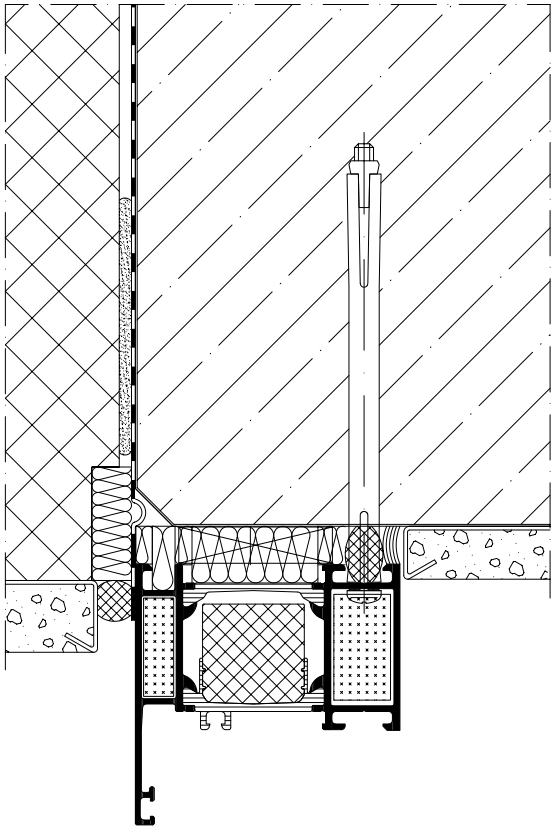


Scale 1:2

Further attachments to building structure can be found at:
dc.schueco.com/cmabs

Schüco Window System AWS 70 FR 30-CE



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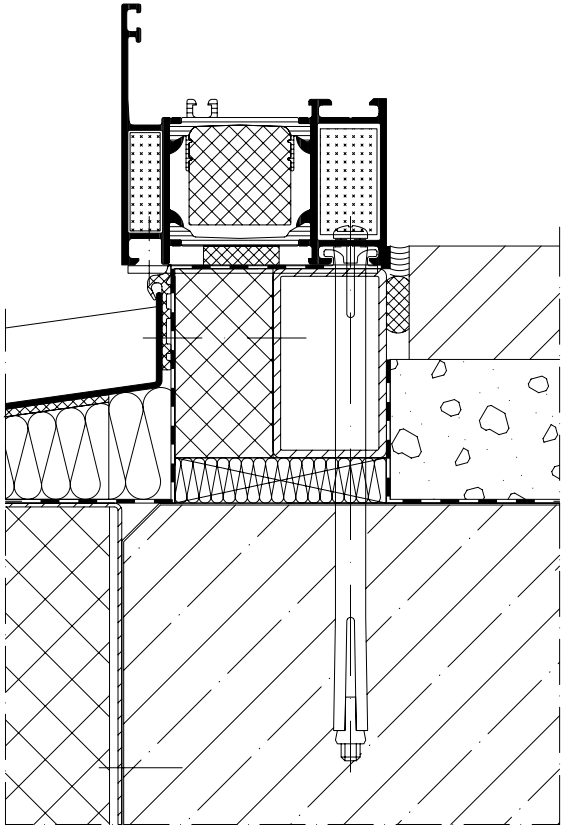
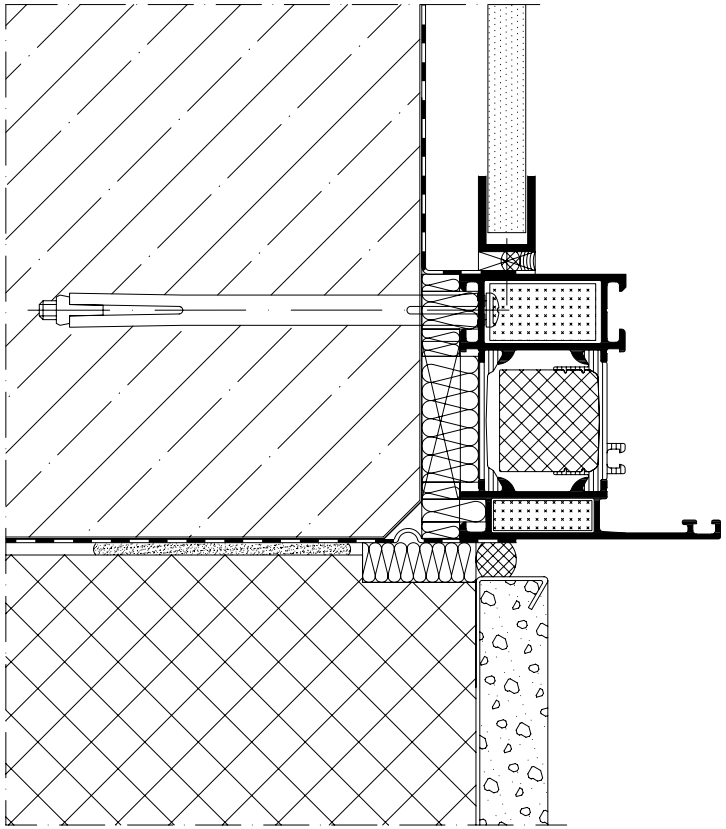


Scale 1:2



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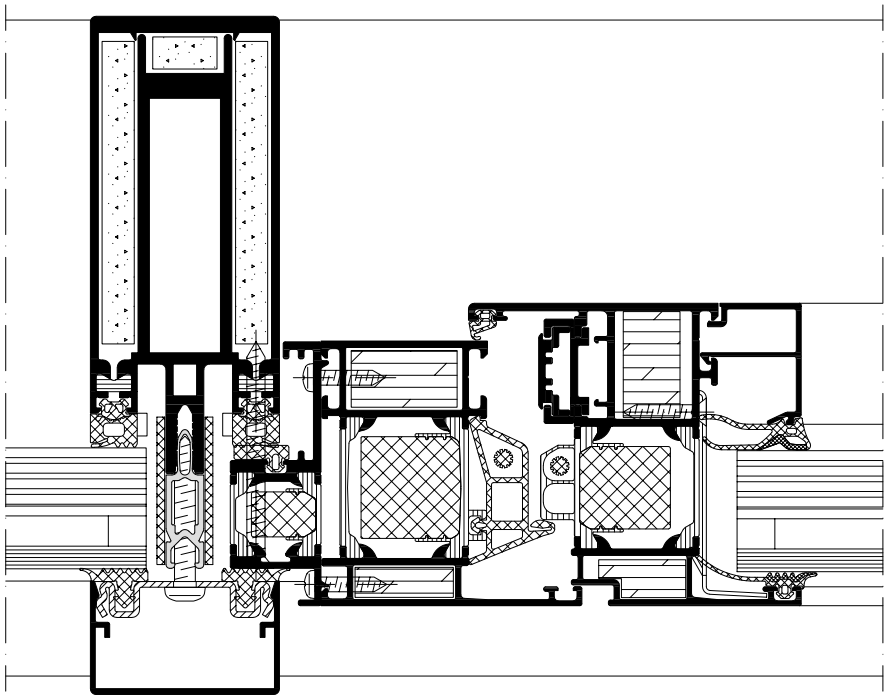
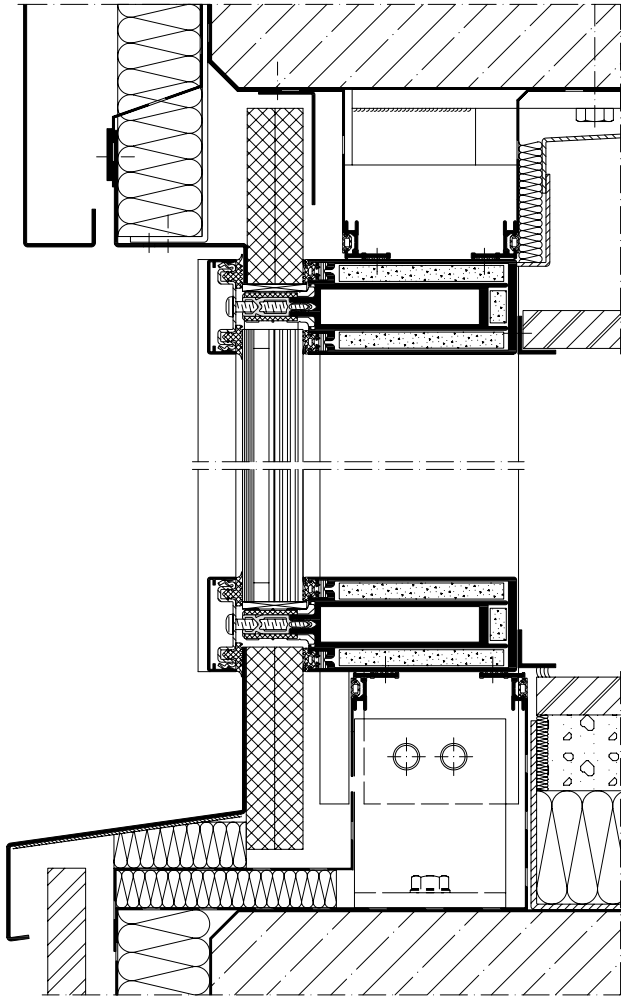


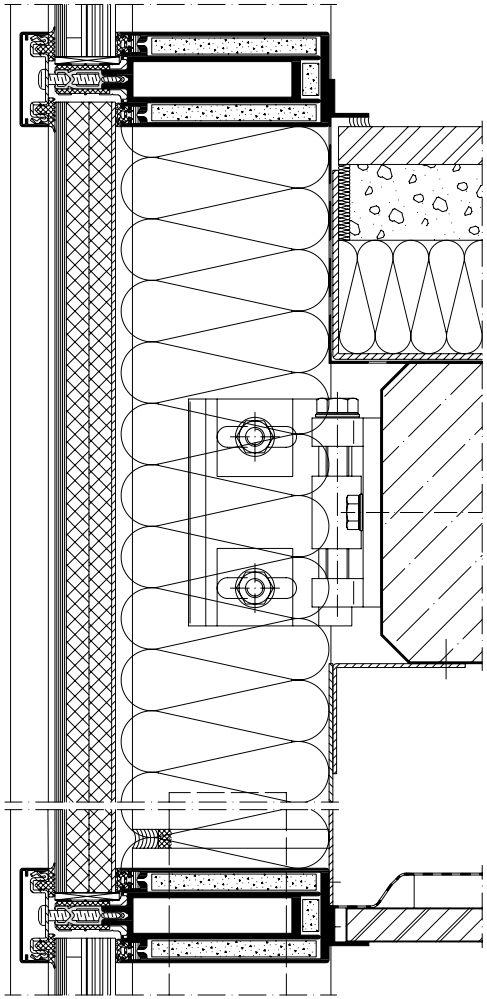
Scale 1:2

Further attachments to building structure can be found at:
dc.schueco.com/cmabs

Schüco Façade System FW 50+ BF (shown) and FW 60+ BF

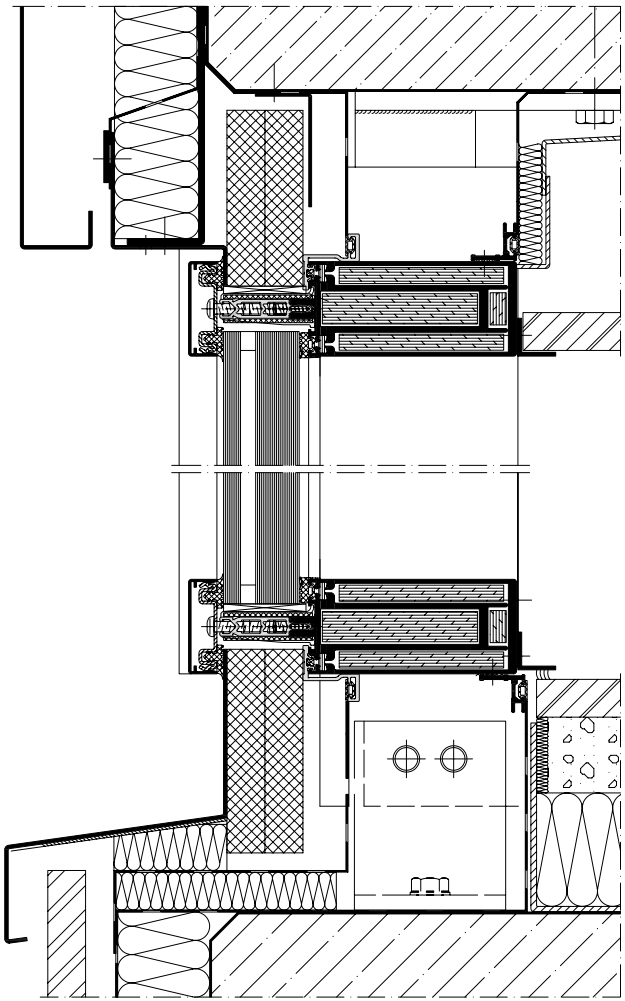


Scale 1:4



Scale 1:4

Schüco Façade System FW 50+ FR 60



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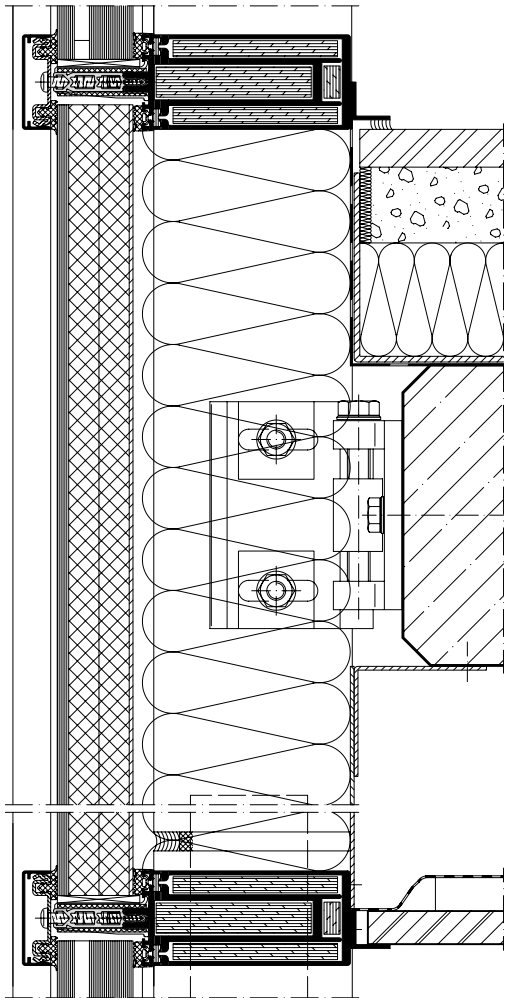
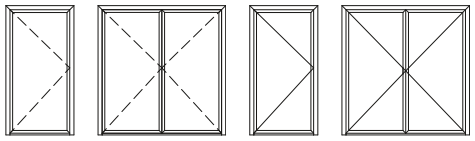


Scale 1:4

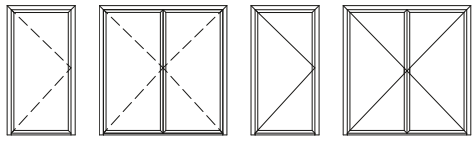
Further attachments to building structure can be found at:
dc.schueco.com/cmabs

DOOR FITTINGS

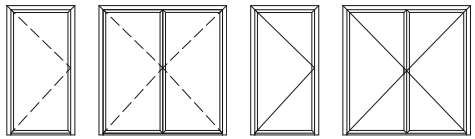
Concealed door hinges

Features and benefits	▪ High level of security due to the fully concealed fitting ▪ Opening angle of 107° (Schüco FireStop ADS 90 FR 30 and FireStop ADS 90 FR 90), opening angle of 100° (Schüco ADS 65.NI SP) ▪ Maximum leaf weight of 220 kg (Schüco FireStop ADS 90 FR 30 and FireStop ADS 90 FR 90), maximum leaf weight of 120 kg (Schüco ADS 65.NI SP) ▪ Burglar resistance up to class RC 2 ▪ Can be used in the Schüco FireStop ADS 90 FR 30, FireStop ADS 90 FR 90 and ADS 65.NI SP door systems
Opening types	

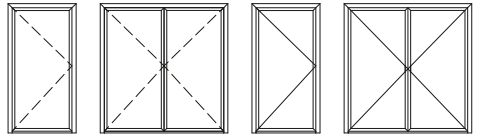
Aluminium barrel hinges

Features and benefits	▪ Aluminium barrel hinge ▪ Opening angle 180° ▪ Maximum leaf weight of 210 kg (Schüco FireStop ADS 90 FR 30 and FireStop ADS 90 FR 90), maximum leaf weight of 180 kg (Schüco ADS 80 FR 60), maximum leaf weight of 120 kg (Schüco ADS 65.NI SP) ▪ Burglar resistance up to class RC 2 ▪ Can be used in the Schüco FireStop ADS 90 FR 30, ADS 80 FR 60, FireStop ADS 90 FR 90 and ADS 65.NI SP door systems
Opening types	

Stainless steel barrel hinges

Features and benefits	▪ Stainless steel barrel hinge ▪ Opening angle of 180° ▪ Maximum leaf weight of 300 kg (Schüco FireStop ADS 90 FR 30 and FireStop ADS 90 FR 90), maximum leaf weight of 210 kg (Schüco ADS 80 FR 60), maximum leaf weight of 120 kg (Schüco ADS 65.NI SP) ▪ Can be used in the Schüco FireStop ADS 90 FR 30, ADS 80 FR 60, FireStop ADS 90 FR 90 and ADS 65.NI SP door systems
Opening types	

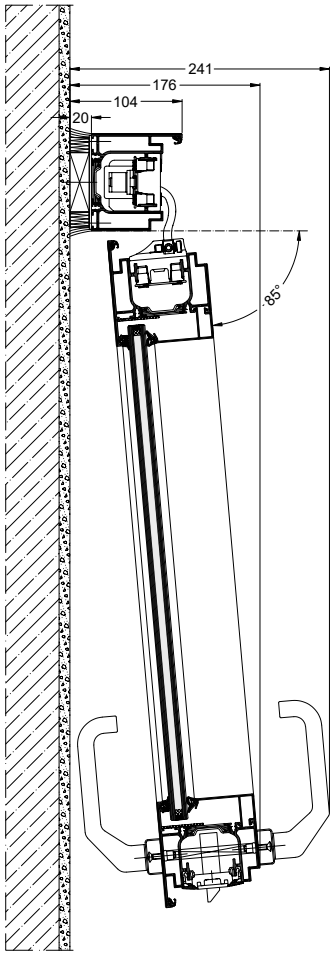
Surface-mounted door hinges

Features and benefits	▪ A continuous, solid hinge pin made of stainless steel provides a high level of hinge stability ▪ Opening angle of 180° ▪ Maximum leaf weight of 350 kg (Schüco FireStop ADS 90 FR 30 and FireStop ADS 90 FR 90), maximum leaf weight of 280 kg (Schüco ADS 80 FR 60), maximum leaf weight of 120 kg (Schüco ADS 65.NI SP) ▪ Burglar resistance up to class RC 2 ▪ Can be used in the Schüco FireStop ADS 90 FR 30, ADS 80 FR 60, FireStop ADS 90 FR 90 and ADS 65.NI SP door systems
Opening types	

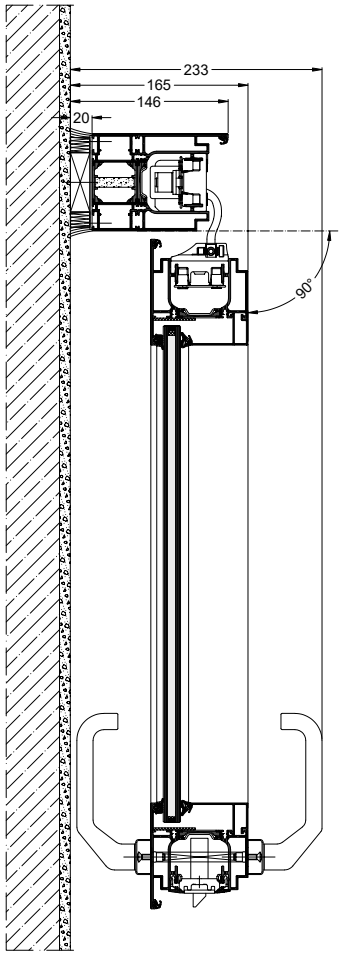
PLANNING INFORMATION

Installation type and space requirements for door hinges, using Schüco FireStop ADS 90 FR 30 as an example

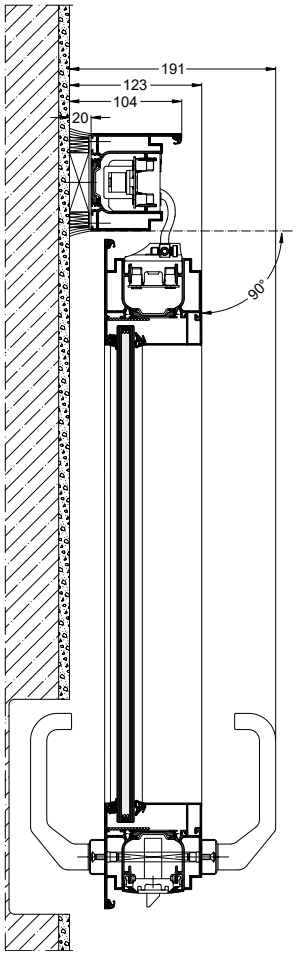
Concealed door hinge
with standard design



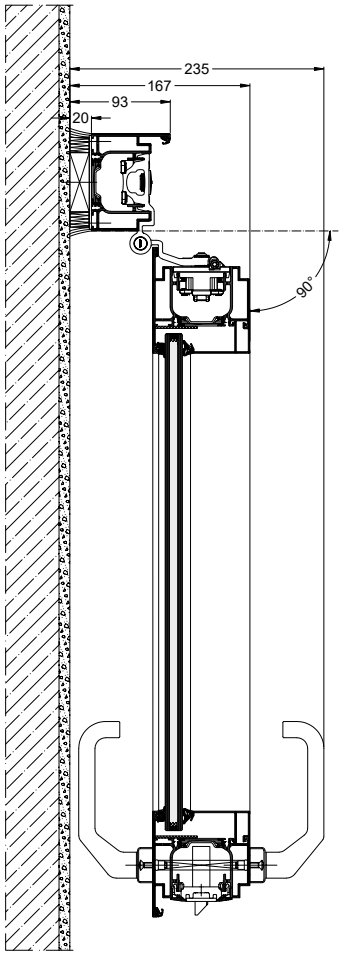
Concealed door hinge
with 44 mm frame extension



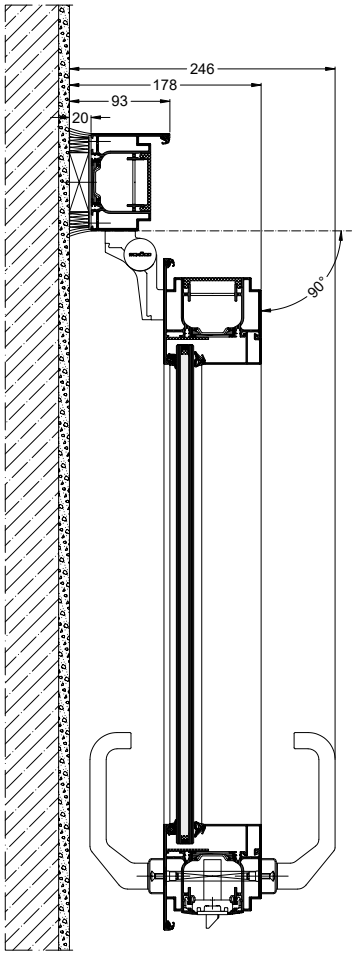
Concealed door hinge
with flush pull grip



Barrel hinge

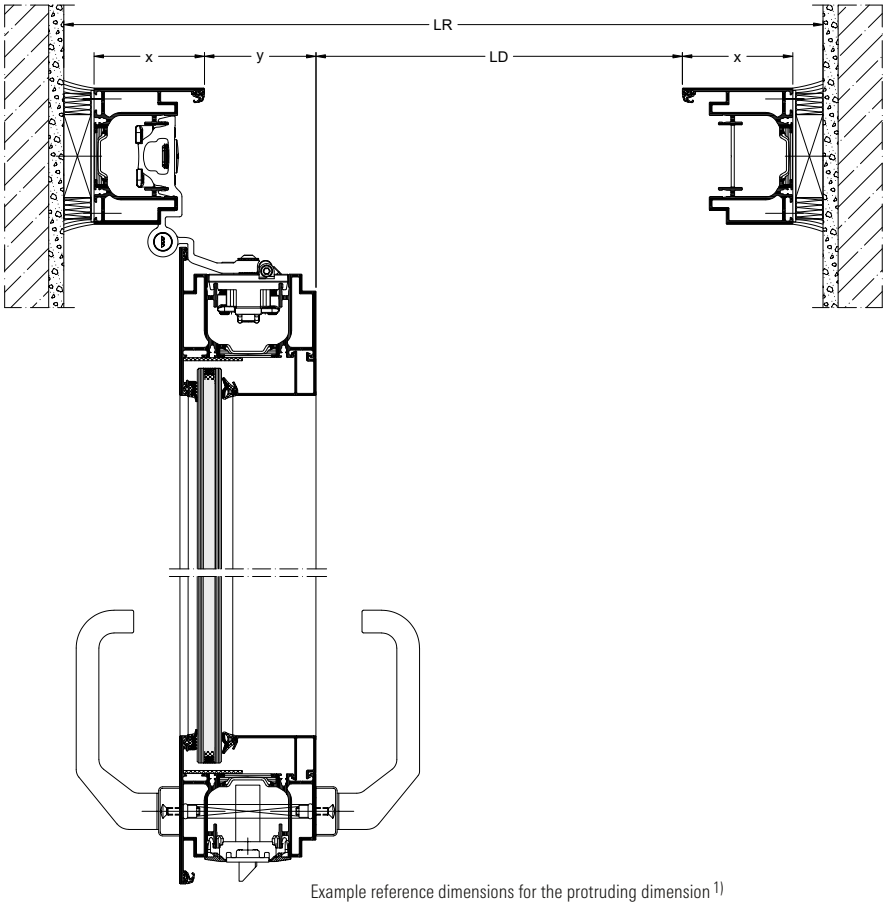


Surface-mounted door hinge



Determining the clearance width

Shown: Schüco FireStop ADS 90 FR 30, door with barrel hinge, leaf opened 90°



Example reference dimensions for the protruding dimension [1)]
Door handle: z = 71 mm
Touch bar: z = 137 mm
Pushbar: z = 99.5 mm

To calculate the usable clearance width, the installation allowance for the door, the face width of the used outer frame and the protruding dimension of the relevant door hinge must be subtracted from the clear building shell dimension.

Formula

For single-leaf doors: "LD" = "LR" – [2 * installation allowance] – [2 * "x"] – "y"
For single-leaf doors: "LD" = "LR" – [2 * installation allowance] – [2 * "x"] – [2 * "y"]
If required, take into account the additional dimension "z" when performing the calculation.

Key

LR = Clear building shell dimensions
LD = Usable clearance width
x = Face width of outer frame profile
y = protruding dimension of the leaf frame
z = protruding dimension of the handle kit [1)]

Fixed deductions

Basic depth of the door series	Basic depth x of the outer frame profile	Door hinge	Protruding dimension y of the leaf frame
90 mm	84 mm	Concealed hinge	18,3 mm
90 mm	54 mm, 73 mm or 84 mm	Aluminium barrel hinge	76 mm
90 mm	73 mm or 84 mm	Surface-mounted door hinge	87 mm
80 mm	59 mm, 69 mm or 73 mm	Aluminium barrel hinge	70 mm
80 mm	59 mm, 69 mm or 73 mm	Surface-mounted door hinge	80 mm
65 mm	69 mm or 73 mm	Concealed hinge	2 mm
65 mm	59 mm, 69 mm or 73 mm	Aluminium barrel hinge	55 mm
65 mm	59 mm, 69 mm or 73 mm	Surface-mounted door hinge	65 mm

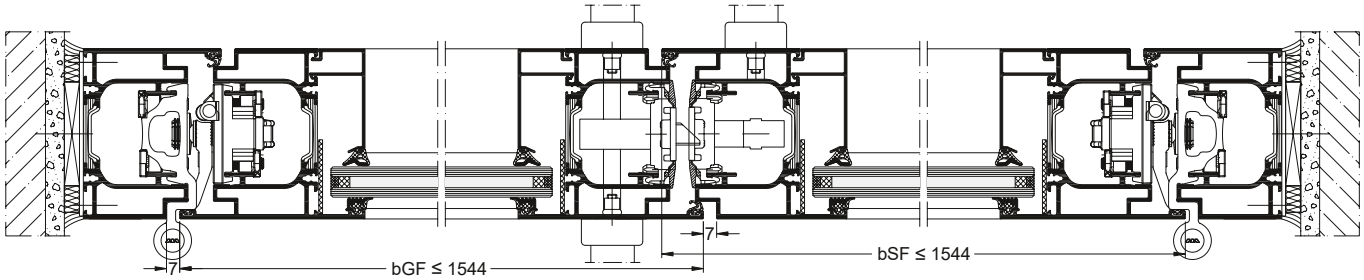
1) The effective clearance width in accordance with DIN EN 12519 is dependent on the opening angle of the door leaf and the protruding fittings components, such as handles or handle kits.

SIZE OPTIONS

Schüco FireStop ADS 90 FR 30 – leaf widths for double-leaf doors with panic function in the access and secondary leaf

With double-leaf panic doors, it is essential to ensure that there is no restraint if both door leaves (access leaf and secondary leaf) are opened simultaneously. Restraints can lead to impairment of the panic function and damage to the door. For this reason, pay special attention to the width proportions of the access leaf and the secondary leaf. The widths are dependent on which door hinges are used.

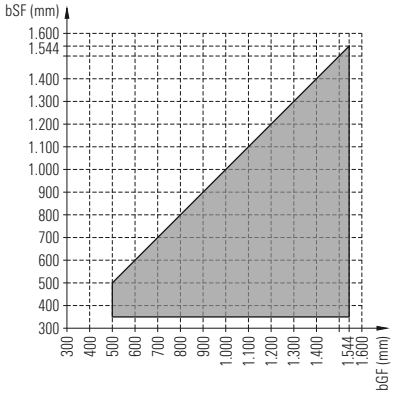
Door with barrel hinge



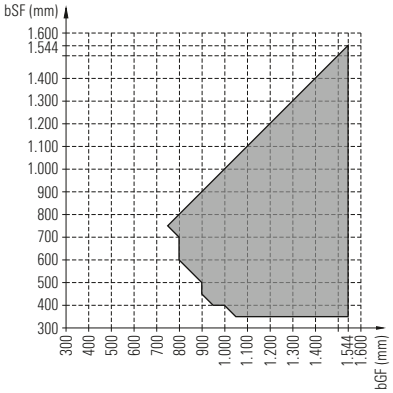
Key
bSF = Width of secondary leaf
bGF = Width of access leaf

The following diagrams set out the minimum and maximum dimensions for each leaf combination.

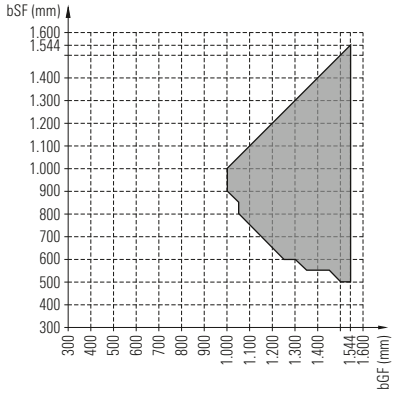
Concealed door hinge



Barrel hinge



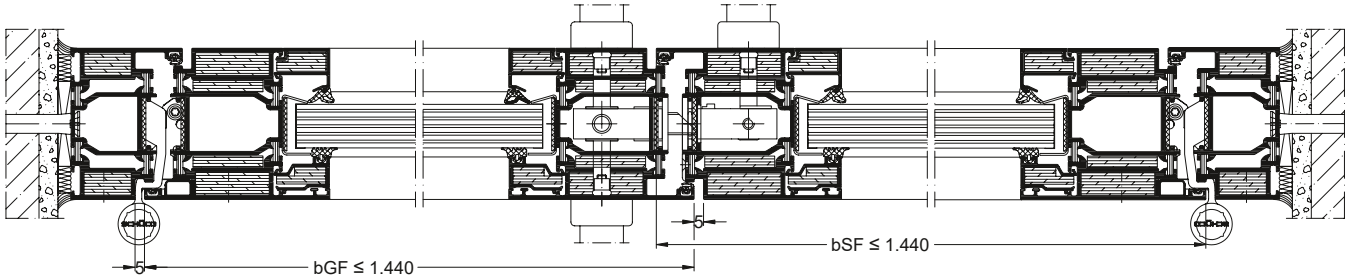
Surface-mounted door hinge



Schüco ADS 80 FR 60 – leaf widths for double-leaf doors with panic function in the access and secondary leaf

With double-leaf panic doors, it is essential to ensure that there is no restraint if both door leaves (access leaf and secondary leaf) are opened simultaneously. Restraints can lead to impairment of the panic function and damage to the door. For this reason, pay special attention to the width proportions of the access leaf and the secondary leaf. The widths are dependent on which door hinges are used.

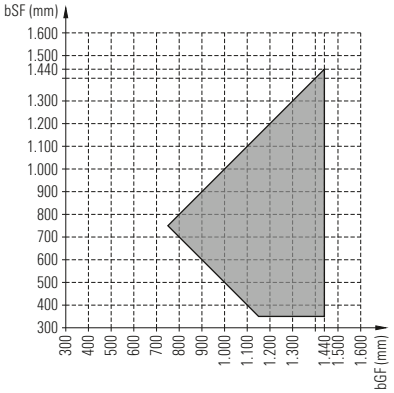
Door with barrel hinge



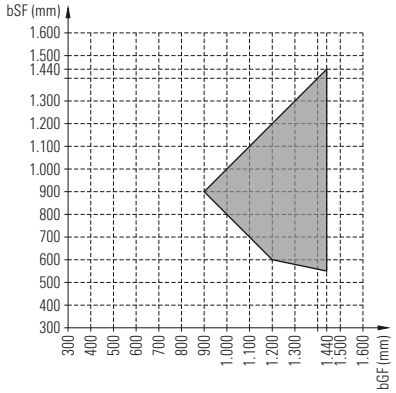
Key
bSF = Width of secondary leaf
bGF = Width of access leaf

The following diagrams set out the minimum and maximum dimensions for each leaf combination.

Barrel hinge



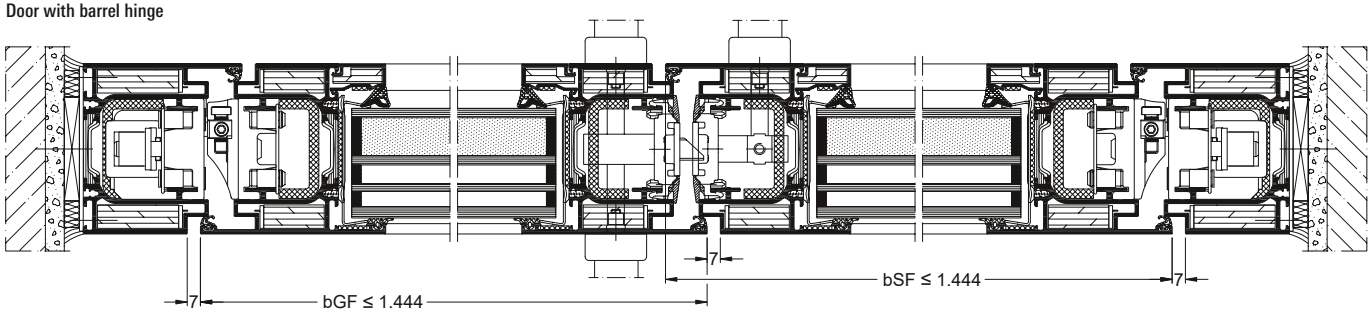
Surface-mounted door hinge



Schüco FireStop ADS 90 FR 90 – leaf widths for double-leaf doors with panic function in the access and secondary leaf

With double-leaf panic doors, it is essential to ensure that there is no restraint if both door leaves (access leaf and secondary leaf) are opened simultaneously. Restraints can lead to impairment of the panic function and damage to the door. For this reason, pay special attention to the width proportions of the access leaf and the secondary leaf. The widths are dependent on which door hinges are used.

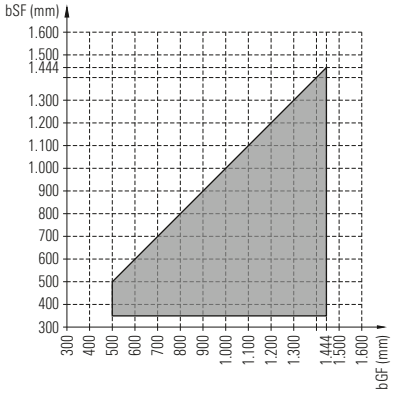
Door with barrel hinge



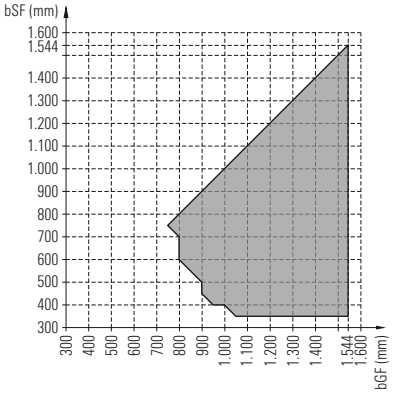
Key
bSF = Width of secondary leaf
bGF = Width of access leaf

The following diagrams set out the minimum and maximum dimensions for each leaf combination.

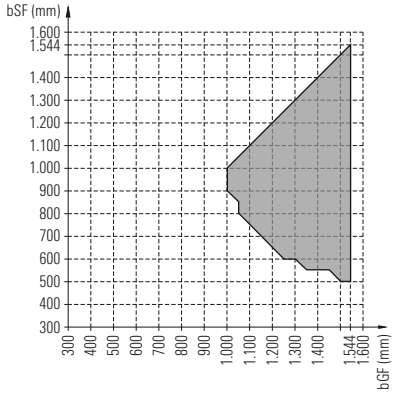
Concealed door hinge



Barrel hinge



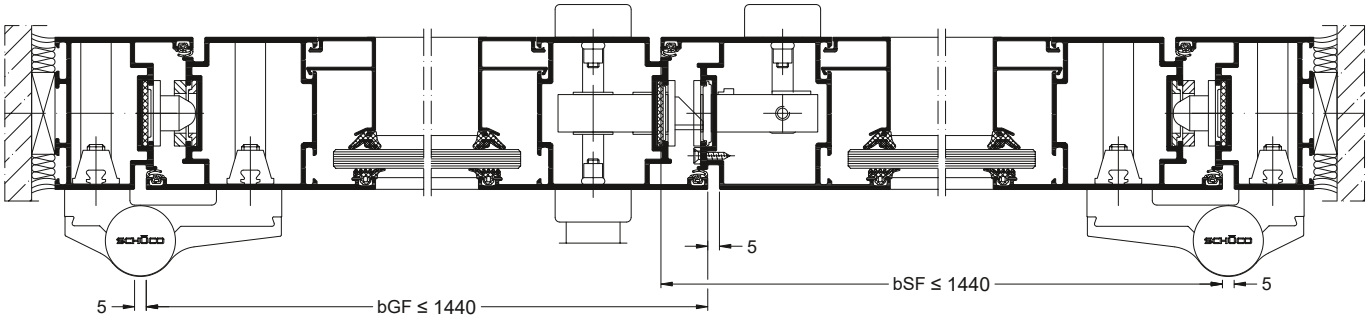
Surface-mounted door hinge



Schüco ADS 65.NI SP – leaf widths for double-leaf doors with panic function in the access and secondary leaf

With double-leaf panic doors, it is essential to ensure that there is no restraint if both door leaves (access leaf and secondary leaf) are opened simultaneously. Restraints can lead to impairment of the panic function and damage to the door. For this reason, pay special attention to the width proportions of the access leaf and the secondary leaf. The widths are dependent on which door hinges are used.

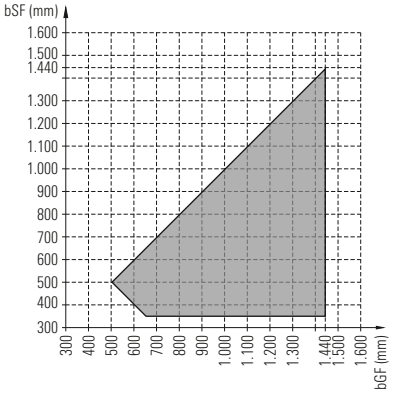
Door with barrel hinge



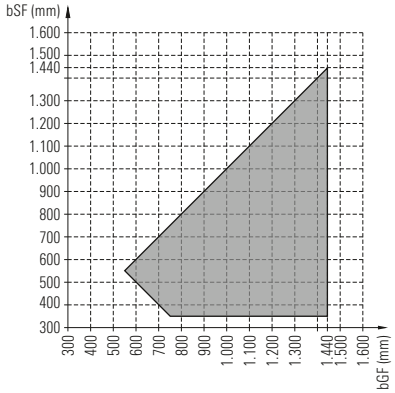
Key
bSF = Width of secondary leaf
bGF = Width of access leaf

The following diagrams set out the minimum and maximum dimensions for each leaf combination.

Concealed door hinge



Barrel hinge



Surface-mounted door hinge