



# TSN 3 & TSN 4

TSN SERIES | schröders system







## MODELS

**TSN 3**  
single hinged leaf

**TSN 4**  
double hinged leaf



MODELS

**TSN 3**

**TSN 4**

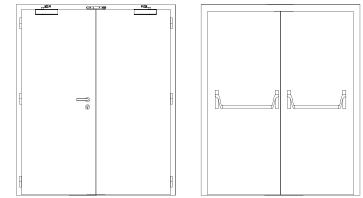
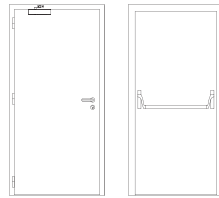
## description

Hinged metal door with electro-zinc coated steel frame (1,5 mm thickness), cold-formed and construction by welding. An intumescent seal is embedded in the frame, which ensures the necessary tightness against flames and hot gases.

The leaf, with a door stop edge in all three sides of the frame, is made of two electro-zinc coated steel panels, ranging from 1 to 1,5 mm thick, and contains thermal insulating and acoustic materials according to Schröders constructive system.

The pivoting behavior of the door is ensured by two welded hinges of the system (per leaf), with a 16 mm diameter solid steel pin and movement on thrust ball bearings, allowing an opening up to 180°.

## specification



model | typology

**TSN 3** | single hinged leaf

**TSN 4** | double hinged leaf

## classification achieved when tested

FR integrity (EN 1634-1) <sup>(1)</sup>	E 60	E 60
FR integrity and insulation (EN 1634-1) <sup>(1)</sup>	EI <sub>2</sub> 60	EI <sub>2</sub> 60
radiation control (EN 1634-1) <sup>(1)</sup>	EW 60	EW 60
cold sealing (EN 1634-3)	Sa / S200	Sa/ S200
thermal coefficient (EN ISO 10077-1)	1.6 W/(m <sup>2</sup> .°C)	1.5 W/(m <sup>2</sup> .°C)
air permeability (EN 1026)	up to classe 4 (optional)	up to Classe 3 (Optional)
watertightness (EN 1027)	up to classe 8A (optional)	up to Classe 3A (Optional)
wind resistance (EN 12211)	up to classe C5 (optional)	up to Classe C4 (Optional)
acoustics (EN 20140-3)	up to 53 dB	up to 48 dB
burglar resistance (EN 1627)	up to RC4	up to RC4
pressure (EN 12211)	up to 5000 Pa	up to 3800 Pa

<sup>(1)</sup> classification according to standard EN 13501-2

## dimensions (mm)

W x H (standard) <sup>(2)</sup>	800 / 900 x 2000 / 2100	1400 / 1600 / 1800 x 2000 / 2100
W maximum	1602	3352
H maximum	3426	3426
external frame (standard)	L + 148 x H + 74	L + 148 x H + 74
other dimensions	upon request	upon request

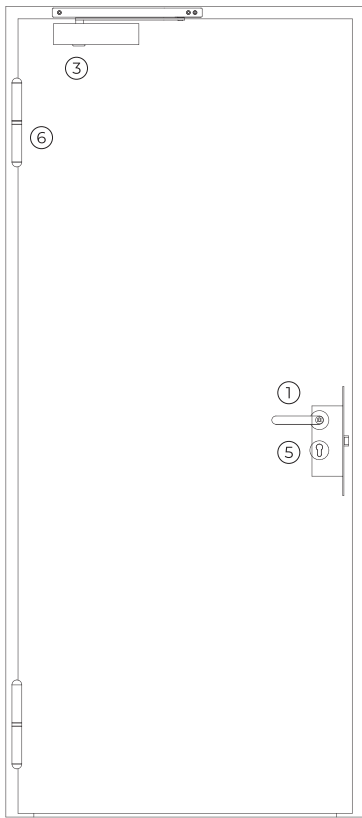
<sup>(2)</sup> W x H = width x height = free passage

## construction

leaf thickness (mm)	68	68
leaf weight (kg / m <sup>2</sup> )	45	45
hinges (per leaf)	2	2
vision panel (mm)	Ø 300 / 450 x 450 / L ≤ 942 / H ≤ 2155 <sup>(3)</sup>	Ø 300 / 450 x 450 / L ≤ 942 / H ≤ 2155 <sup>(3)</sup>
finishing (standard)	electro-zinc coated steel for painting / lacquering in standard RAL color <sup>(4)</sup>	electro-zinc coated steel for painting / lacquering in standard RAL color <sup>(4)</sup>

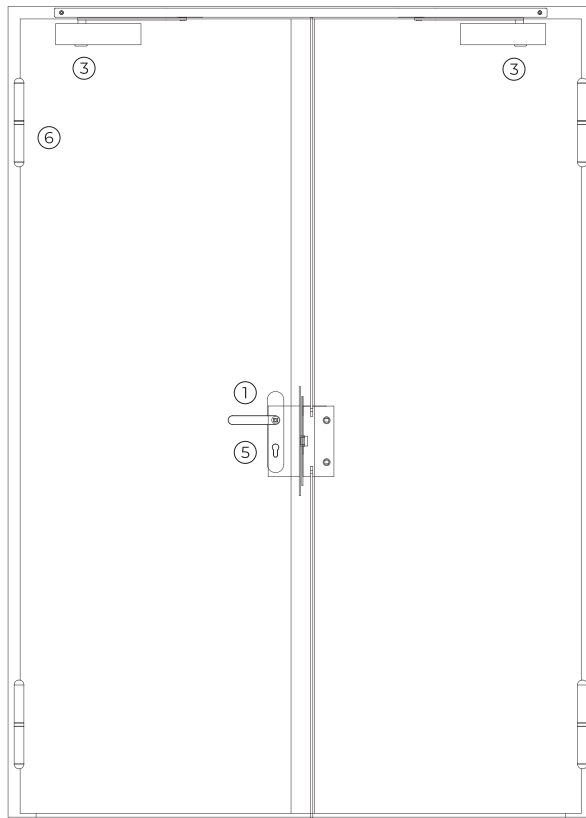
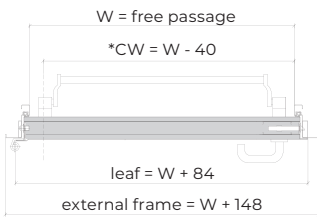
<sup>(3)</sup> minimum border dimension= 130 mm / Central glazing bar (optional)

<sup>(4)</sup> standard RAL colors= 7035, 7038, 9005 e 9010



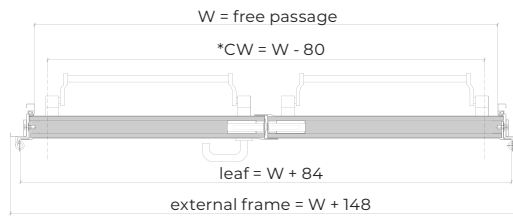
TSN 3

exterior view

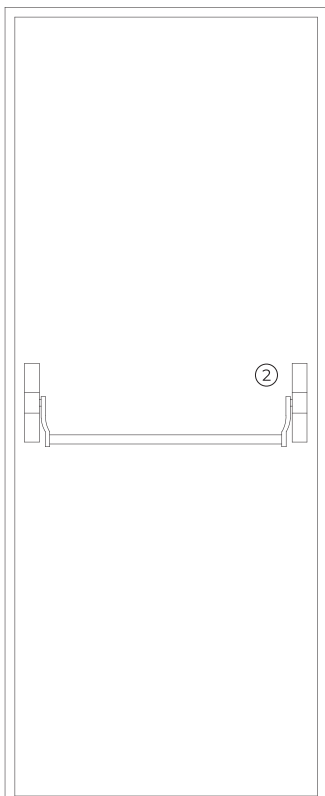


TSN 4

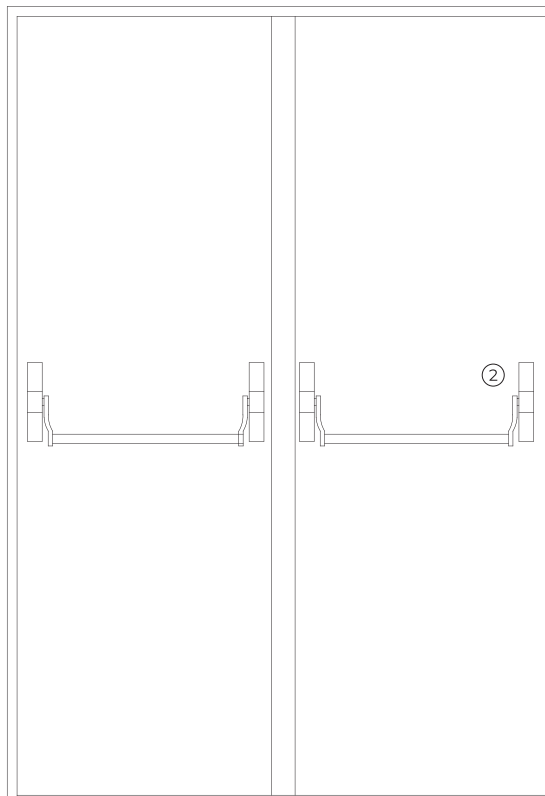
exterior view



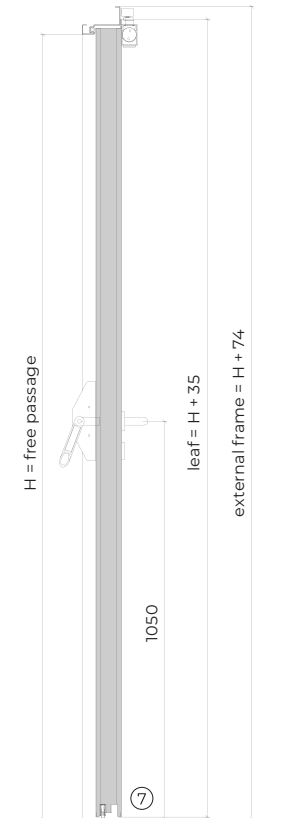
\*CLEAR WIDTH, measured with the door leaf in a 90-degree open position excluding panic push bar and handles.



interior view



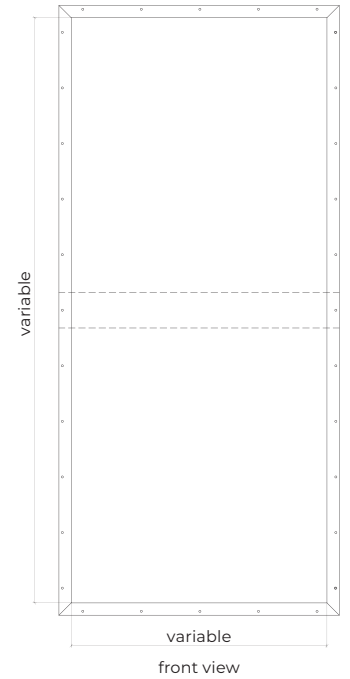
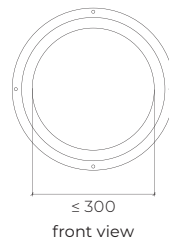
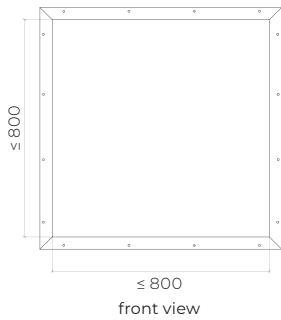
interior view



vertical section

# optionals

## vision panels



## accessories and hardware

TSN 3

TSN 4

### handle / anti-panic bar <sup>(5)</sup>

- |   |          |  |  |
|---|----------|--|--|
| 1 | standard | anti-panic lever handle with drill finished in black (standard) or stainless steel.  |  |
| 2 | standard | anti-panic bar with gear unit, tube, cover caps and arms finished in nylon black (standard) or stainless steel alternatively, the door may be equipped with a pair of handles. |  |

<sup>(5)</sup> alternatively, the door may be equipped with a pair of handles.

### hidraulic door closer <sup>(6)</sup>

- |   |          |                                      |                                     |
|---|----------|--------------------------------------|-------------------------------------|
| 3 | standard | door closer with an articulated arm. | door closers with articulated arms. |
|   | optional | door closer with sliding rail.       | door closer with sliding rail.      |

<sup>(6)</sup> with electromagnetic hold-open (optional).

### lock / counter lock

- |   |          |                                       |  |
|---|----------|---------------------------------------|--|
| 4 | standard | anti-panic lock with 1 locking point. | anti-panic lock with 1 locking point + counter lock. |
|---|----------|---------------------------------------|--|

### cylinder

- |   |          |                                  |  |
|---|----------|----------------------------------|--|
| 5 | standard | 1/2 cylinder (european profile). |  |
|---|----------|----------------------------------|--|

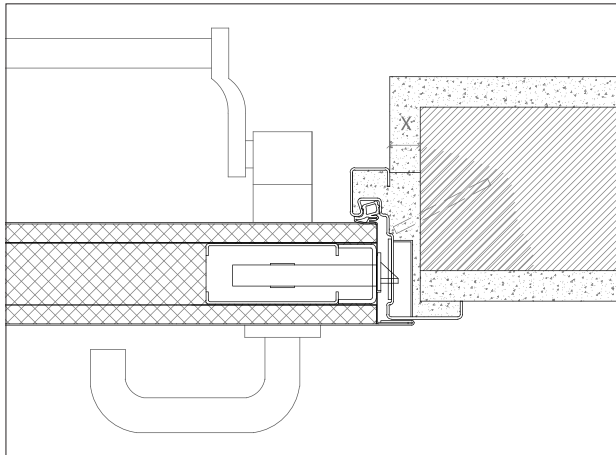
### hinges

- |   |          |                                    |                                    |
|---|----------|------------------------------------|------------------------------------|
| 6 | standard | 2 exclusive hinges of this series. | 2 exclusive hinges of this series. |
|---|----------|------------------------------------|------------------------------------|

### others

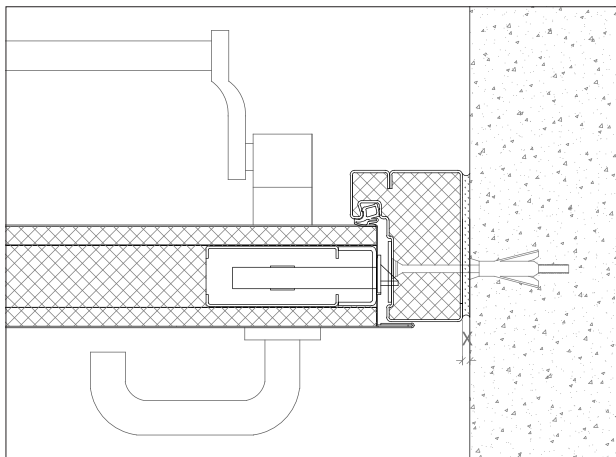
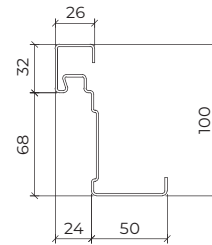
- |   |          |                             |                             |
|---|----------|-----------------------------|-----------------------------|
| 7 | optional | automatic seal (VAS).       | automatic seal (VAS).       |
|   | optional | optical door viewer (180°). | optical door viewer (180°). |
|   | optional | acoustic kit.               | acoustic kit.               |

# details



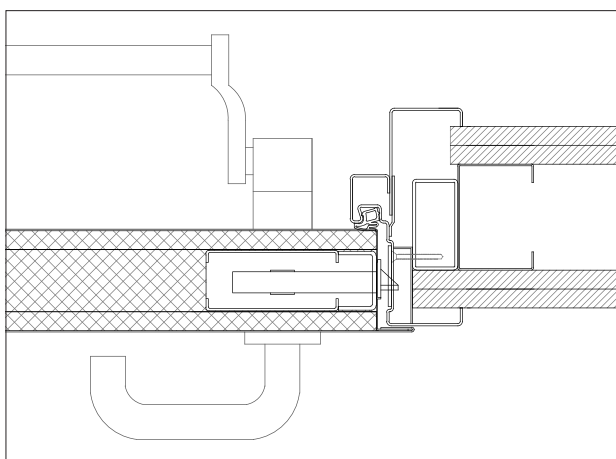
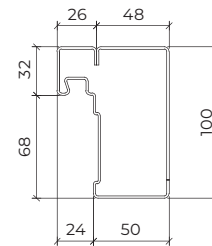
x > 20 mm (steel rod fixation)

F1 frame – standard frame | masonry wall mounting | steel rod fixation | plaster finish.



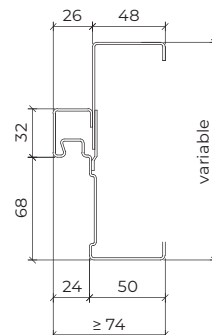
X ≥ 5-10 mm (for fixing with metal wall plugs according to wall type)

F2 frame – Closed frame | concrete wall mounting | metal wall plugs fixation.

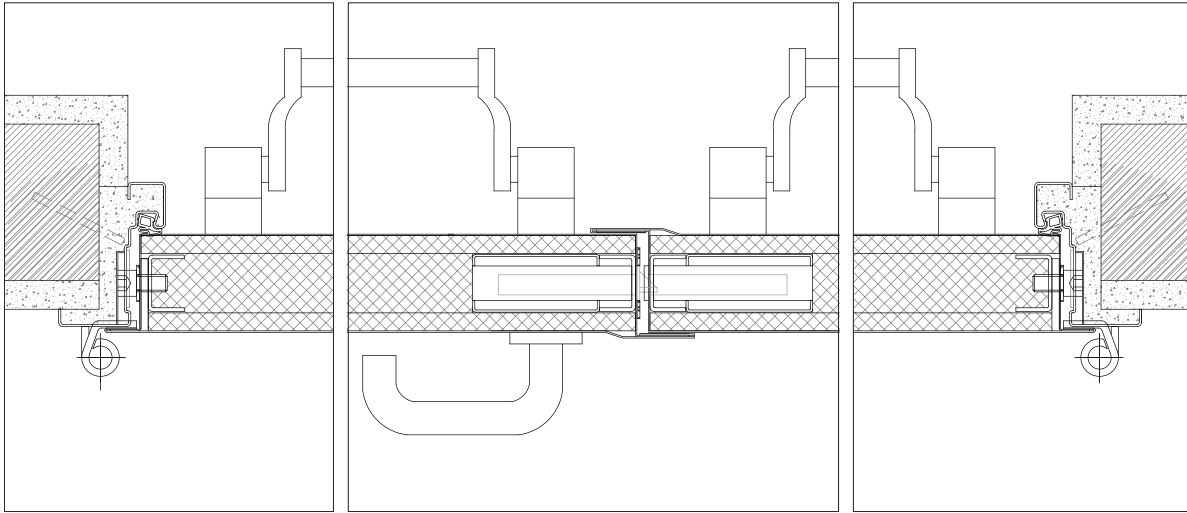


**Note:** there are certain elements – namely intumescent and acoustic seals and / or leaf and frame fillings – shown in details, that can be suppressed depending on the technical requirements of the door.

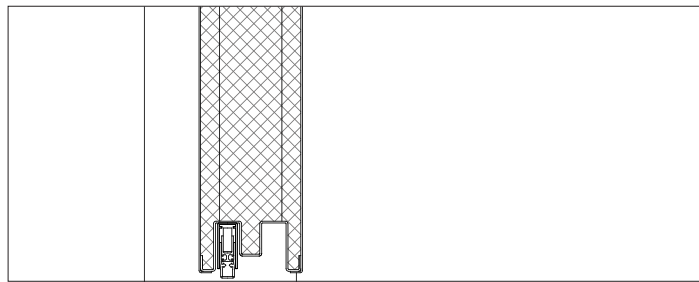
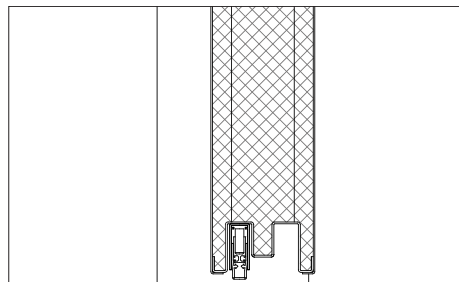
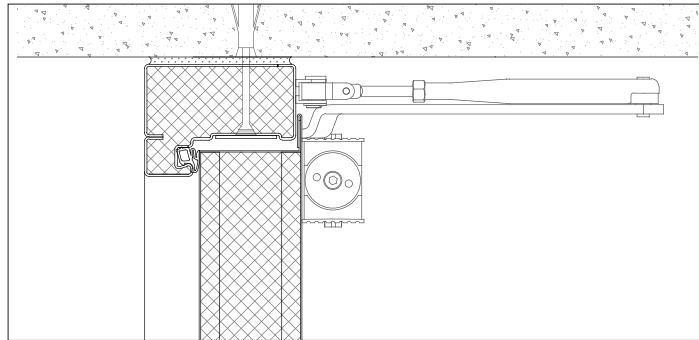
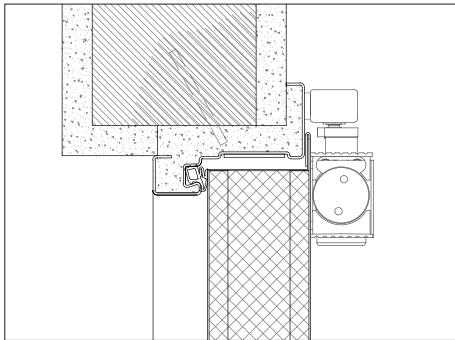
F3 frame – frame + counter-frame | gypsum wall mounting | metal portico fixation.







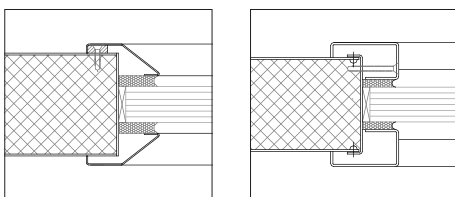
F1 frame – standard frame | masonry wall mounting | steel rod fixation | plaster finish



F1 frame – standard frame | masonry wall mounting | steel rod fixation | plaster finish | door closer with sliding rail

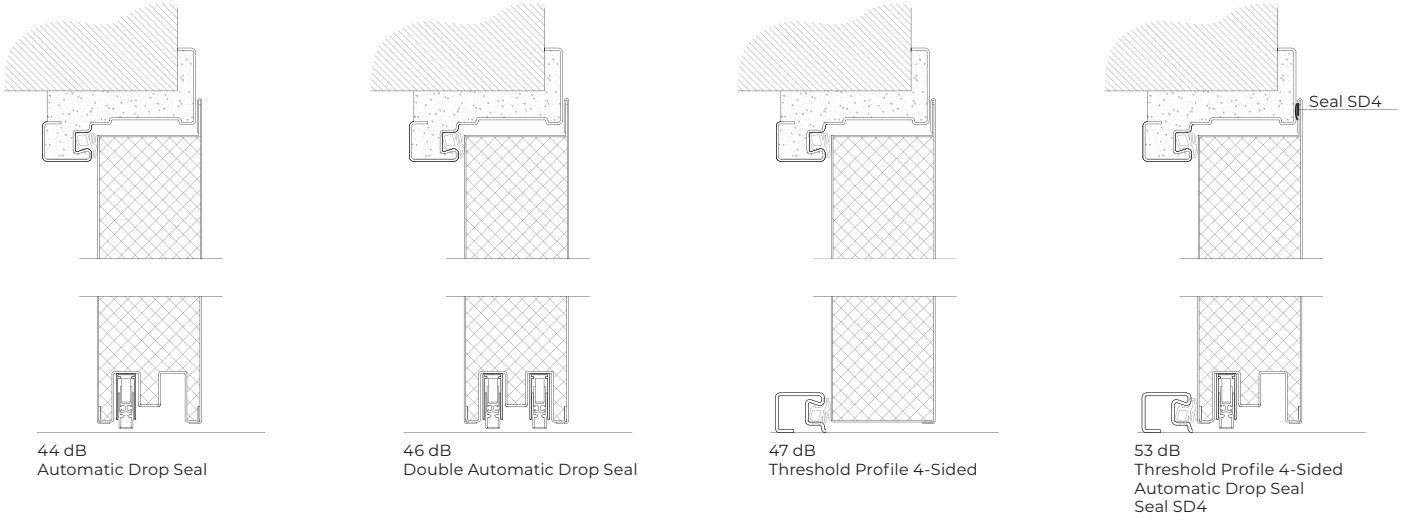
F2 frame – standard frame | masonry wall mounting | steel rod fixation | plaster finish | door closer with articulated arms

## types of vision panels

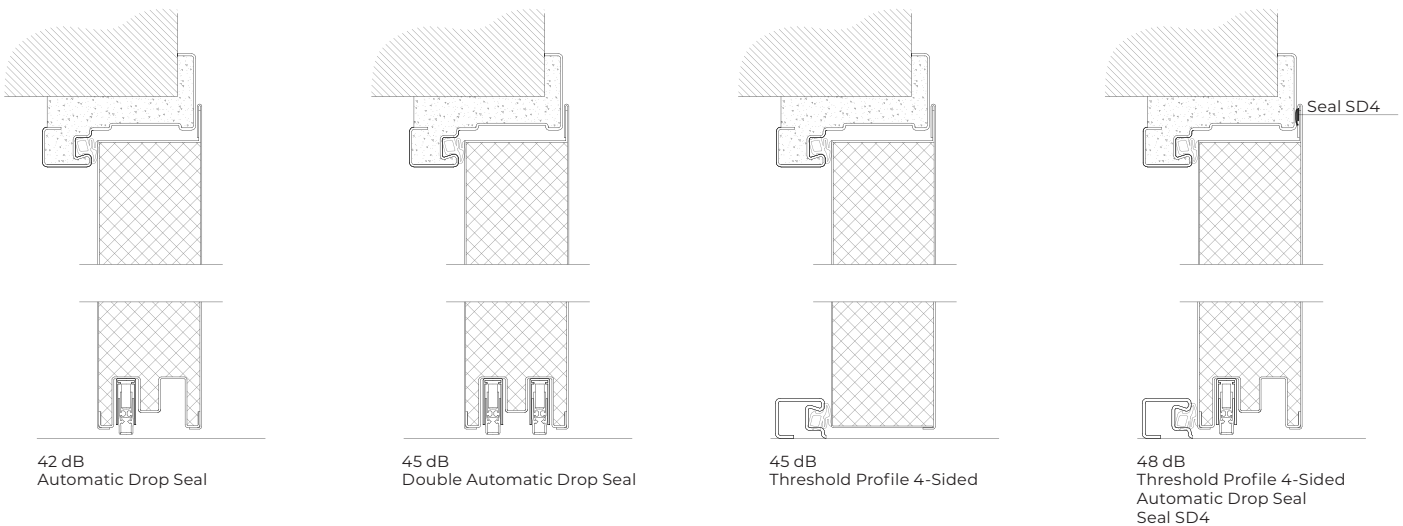


# acoustic

## single-leaf door



## double-leaf door





GROUP COMPANY



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