

WHAT MAKES THEM SPECIAL?

“Quality first”

- Fully galvanized door, including the “hidden” parts
- Made of “Sendzimir” processed hot-galvanized sheet metal
- Corrosion protection also provided along cut edges of the metal sheets
- Painted with epoxy-polyester thermoset powders in a 180 degrees (Celsius) oven
- Substantial paint layer (70 microns plus)
- Optimal corrosion resistance demonstrated by 500 hour salt-fog test
- Unaffected by severe climate changes, demonstrated by 2000 hours with +60° to -10° cycles at 75% humidity
- Finishing with high-quality aesthetics
- Orange skin anti-scratch structured paint
- Customizable with wide selection of RAL colors

“Practicality of use”

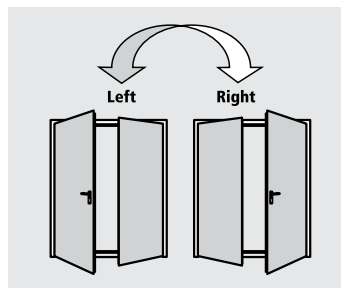
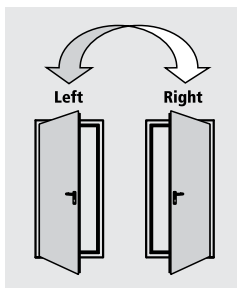
- Door reversibility*
- Indication of door opening direction not necessary
- Reduction of stock for retailers
- Simplifies choices for end-customers
- Multiple installation methods for each door
- Type approvals for anchors for mortar fixing or expansion screws

“Conformity to standards”

- In-house Ninz R&D with specialized testing equipment
- Fire testing in accordance with UNI 9723 and EN 1634-1
- Mechanical testing for the **CE** marking of accessories
- **CE**-marked door accessories studied and sized to meet standard European requirements
- Careful selection of materials and manufacturing methods
- Strict product testing for conformity to declared technical standards
- Absolute functional certainty over time
- Doors “type approved” in compliance with M.D. 21 June 2004
- Products delivered with the documentation required by current regulations

“Manufacturing technology”

- Manufacturing in modern and functional facilities which employ the latest technologies to maintain high quality levels and product uniformity
- The entire production process - from raw materials to painted and packaged products - takes place inside Ninz’s own facilities, ensuring a 360 degree door control



One-leaved doors available in the following classes:

EW 60 EI_{2,30} EI_{2,60} - Sm - C5 EI_{2,90} RE 90 REI 60 - 120



Two-leaved doors available in the following classes:

EI_{2,60} - Sm - C5 EI_{2,90} RE 90 REI 60 REI 120



*except in combination with certain optional accessories

STANDARD ELEMENTS

which comprise Univer fire doors:

Door leaf

- Made of "Sendzimir" processed hot-galvanized sheet metal, press folded and electro welded
- Perimetral rebate on 4 sides
- Internally reinforced with hot-galvanized steel profiles
- Heat-insulated with treated mineral wool
- Internal stiffeners for overhead door closer and panic bar
- 50 or 60 mm thickness, depending on fire rating

Doorframe

- Made of "Sendzimir" processed hot-galvanized sheet metal
- Grooves for thermo expansive sealing and rebate sealing
- Suitable for anchors for mortar fixing or expansion screws
- Detachable rebate for application on finished flooring
- Removable threshold for thresholdless installation (except for doors with environmental characteristics)
- Strike plates in black plastic for lock bolt and safety bolts
- Assembled doorframes for one-leaved doors
- Assembly required for two-leaved doorframes

Thermo expansive sealing

- Mounted on vertical doorframe profiles and central vertical profiles on two-leaved doors
- For on-site mounting on the doorframe's upper cross-beam
- Mounted above and below the EI₂90 and REI 120 leaves



Hinges

- Nr. 2 three-wing hinges for each leaf
- of which one ball-bearing hinge with screws for vertical adjustment of the leaf, CE marked as per EN 1935, classified for up to 160 kg load, 200.000 cycles durability, suitable for fire door use
- and one hinge with self-closing spring

Safety bolts

- Nr. 2 safety bolts on hinge side leaf edge

Locking mechanism

- Reversible locking mechanism with bolt and central lock
- CE marked in conformity with EN 12209 standard
- Insert with patent key, Euro profile cylinder ready

Handle

- Fire rated handle in black plastic with steel core
- Steel installation plate with cylinder hole
- Backplate in black plastic
- Fastener screws and patent key insert

INCLUDED ACCESSORIES

which are part of the Univer fire doors:

Closing regulator

- Two-leaved doors include an RC/STD closing regulator to ensure the correct closing sequence of the leaves
- CE marking in conformity with EN 1158 standard

Locking mechanism for inactive leaf

- "Flush-bolt" automatic locking of the inactive leaf
- Lever control for unlocking

Upper coupling system for the inactive leaf

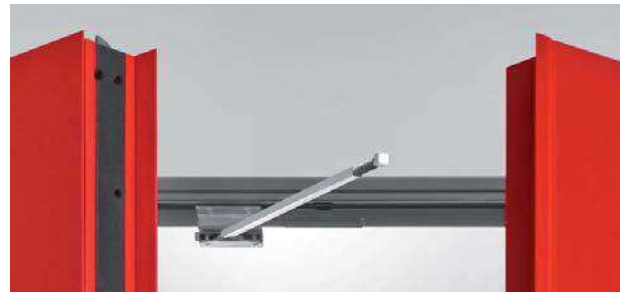
- Inactive leaf lock activated device which inserts rod into the upper strike box
- Upper strike box in black plastic with steel roller

Lower coupling system for the inactive leaf

- Vertical rod with steel point which inserts into lower strike box
- Floor catch (floor-mounted floor catch) made of self-extinguishing black plastic, for doors without threshold
- Floor catch in black plastic with a steel roller, for doors with threshold

Identification plate

- Metal tag with door identification data, in accordance with current regulations



Standard paint - group 01:

leaf color NCS 4020-B50G

frame color NCS 5020-B50G



Finishing

- Standard painted with epoxy-polyester thermoset powders in a 180 degrees oven, orange skin, anti-scratch finishing
- Standard pastel turquoise color, lighter tone for the leaf (NCS4020-B50G), darker tone for the frame (NCS5020-B50G)

Standard packaging

- Single door wrapped into stretchable polyethylene (PE) film
- Assembled doorframes for one-leaved doors
- Assembly required for doorframes for two-leaved doors
- Palletized on wooden pallets

Door weight

class	kg/m ² of wall opening	
	1 leaf	2 leaves
EW 60	23	-
EI,30	34	-
EI,60	36	35
RE 90, REI 60	34	33
EI,90, REI 120	43	41

NOTE

If the door ever needs to be repainted, follow the precise instructions on the "Painting" section.

OPTIONAL ACCESSORIES

A wide variety of accessories and surface finishes are available on request for maximum value enhancement of Univer doors to your own specific needs.

The proper accessories can help resolve:

Safety-related needs

- Doors for panic exits (see panic bars)
- Doors for emergency exits (see emergency exit handles)
- Open doors which must be closed in case of fire (see leaf holding systems)

Installation and utilization needs

- Frame extensions
- Drip steel-profile
- Special fastener screws
- Kick and protection plates in stainless steel
- Windows
- Roofing

Access-related control issues

- Electrically-activated lock mechanisms
- Electric handle mechanisms
- Magnetic blocking mechanisms

Performance enhancing

- Sealing
- Cylinders
- Door closers
- Special closing regulators
- Special handles



Customized finishing

- Select finishing from a wide variety of RAL colours
- NDD – Ninz Digital Decor, graphic images applied with special ink jets and protected by a transparent topcoat. Infinite varieties of customizable decorations in harmony with specific door settings
- Stainless steel handles
- Colored handles

Packaging for maximum protection

Sturdy wooden crates protect all doors and related accessories

- For NDD decorated doors
- On construction sites
- During shipping abroad
- For special transport

NOTE

Details on the optional accessories may be found in the following chapters of this brochure:

- Painting and NDD decorations
- Accessories for metal doors
- Emergency handles and panic bars

Right-opening doors are the default selection if opening direction is not specified.

The following optional accessories make Univer doors irreversible, requiring the indication of the door opening direction when the order is placed:

- SLASH panic bar
- Panic bar for inactive leaves
- Windows
- MAC lock
- ELM/cisa and ELM/mt electric handle
- Special locks (016 tir- Stel 15)

Specific optional accessories

UNIVER Fire doors



WINDOW WITH FIRE RATED GLASS

Upon request all one- and two-leaved fire doors, excluding those EW 60 and EI₂30 rated, may be equipped with round or rectangular windows with fire rated stratified glass and respective window frames fixed with screws. The window frame carters are included for round window and available as an optional accessory for the rectangular one. Windows not possible for one-leaved REI doors with FM L (wall opening) above 1167mm.

Limits prescribed by standard

According to standards UNI 9723 and EN 1634-1, windows may be smaller but not larger than the test sample size, and the reverse holds true for the border strip around the window which may be wider but not thinner. The following limits correspond with these restrictions.

Borders, window position

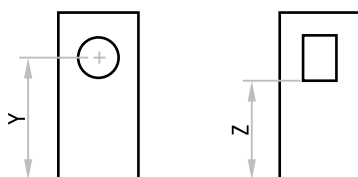
"Border measurement" refers to the distance from the edge of the window to the wall opening of the door.

Elevation for round windows

window size	FM H	position
Ø 300	minimum 2050	Y=1600
Ø 300	less than 2050	Y=FM H - 450
Ø 400	minimum 2150	Y=1600
Ø 400	from 2050 to 2149	Y=1550
Ø 400	less than 2050	Y=FM H - 500

Elevation for rectangular windows

window dimensions L x H	FM H	position
250/300 x 400	minimum 2150	Z=1450
250/300 x 400	from 2050 to 2149	Z=1350
250/300 x 400	less than 2050	Z=FM H - 700



NOTE

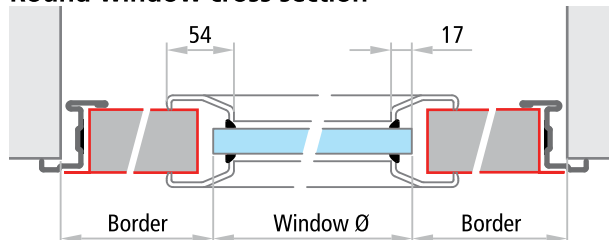
The positions indicated above are those standard. Different positions may be considered as long as they respect the minimum "a" and "b" border strips. The window itself may not be supplied separately except for replacements. It is always advisable for doors with windows to be equipped with door closers for controlled closing.



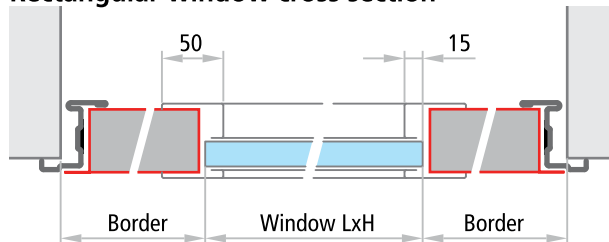
NOTE

For the rectangular windows the frame carters are an optional accessory

Round window cross section



Rectangular window cross section



ATTENTION

In case of external installation use windows designed for this purpose.







For special instructions and recommendations for glazed fire-rated products, see the "Notices" section on the last page of the present brochure.







Specific optional accessories

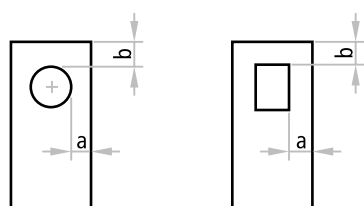
UNIVER Fire doors



UNIVER fire door

Window dimensions	min. border EI ₂		min. border RE, REI		dimensions FM L min.	
	a	b	a	b		
	Ø 300	220	300	220	300	740
	Ø 400	220	300	220	300	840
	Ø 300	220	300	220	300	L1 740 + L2 min.
	Ø 400	220	300	220	300	L1 840 + L2 min.
	Ø 300	220	300	220	300	L1 740 + L2 740
	Ø 400	220	300	220	300	L1 840 + L2 840

Window dimensions	min. border EI ₂		min. border RE, REI		dimensions FM L min.	
	a	b	a	b		
	250 x 400	250	300	300	300	EI ₂ =750 RE, REI=850
	300 x 400	250	300	300	300	EI ₂ =800 RE, REI=900
	250 x 400	300	300	300	300	L1 850 + L2 min.
	300 x 400	300	300	300	300	L1 900 + L2 min.
	250 x 400	300	300	300	300	L1 850 + L2 850
	300 x 400	300	300	300	300	L1 900 + L2 900



NOTE

Round and rectangular windows not possible for one-leaved REI doors with FM L (wall opening) above 1167mm.

FRAME EXTENSIONS FOR UNIVER DOORS

IM 11 - IM 12

Frame extensions to be mounted in addition to the Univer frame acting as a wall cladding. Made of "Sendzimir" processed hot-galvanized sheet metal and painted the same color as the doorframe with epoxy-polyester powders. Profile on three sides, upper corners with 45 degree joint, fixing with screws and plugs (screws and plugs not included).

IM 11: for 50mm door thickness, for installation on 70mm (min.) wall thickness

IM 12: for 60mm door thickness, for installation on 80mm (min.) wall thickness

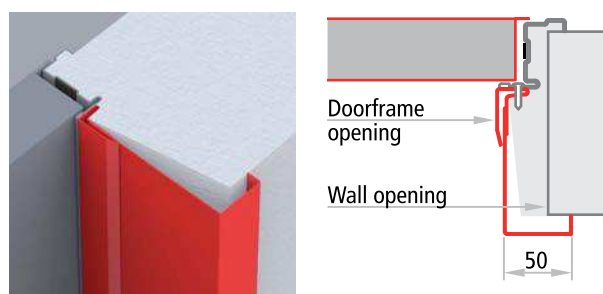
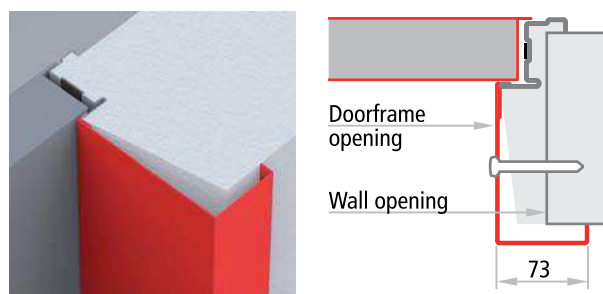
IM 13 - IM 14

Telescopic frame extensions to be screwed to the Univer door-frame acting as a wall cladding. Consists of two overlapping profiles with a 25mm adjustable range. Made of "Sendzimir" processed hot-galvanized sheet metal painted the same color as the doorframe with epoxy-polyester powders. Profile on three sides, upper corners with 90 degree joint.

Complete with fastener screws. To mount the frame extension, fixing holes need to be drilled into doorframe on site. Combine with sealing to conceal the screw heads.

IM 13: for 50mm door thickness, for installation on 125mm (min.) wall thickness

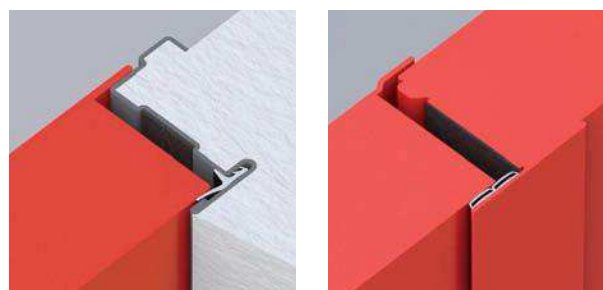
IM 14: for 60mm door thickness, for installation on 135mm (min.) wall thickness



REBATE SEALING

FF/CR sealing (for EW and EI₂ doors) and FF sealing (for RE and REI doors) in black extruded profile to cut and to be pressed into the dedicated groove in the perimetral frame.

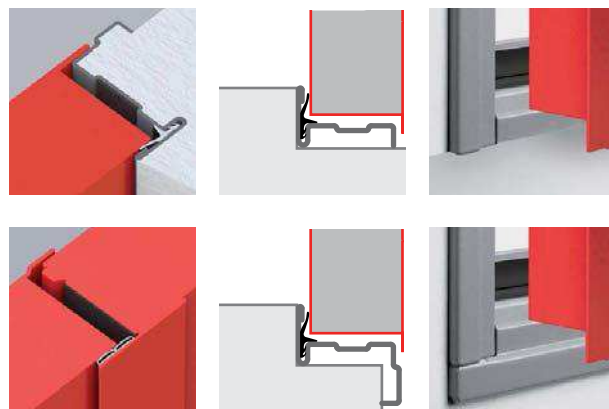
FF sealing in black extruded profile self-adhesive to cut for application to the central joint of two-leaved doors.



ENVIRONMENTAL CHARACTERISTICS OF FIRE DOORS

The norms EN 14351-1 (external doors) and EN 14351-2 (internal doors) are not applicable for fire rated doors, nevertheless they may be taken as a reference to determine the environmental characteristics of the latter. CE marking is not mandatory, tests for their classification are purely provided on a voluntarily basis.

The Univer pricelist lists Kits which add this environmental characteristic to the door.



ATTENTION






For the dimensional limits according to the certificates and homologations of the fire rated doors and regarding the minimum borders please refer to the specific pages of this brochure.

The values for the thermal transmittance W/m^2K shown in the table on the next page are given by the calculation according to the norm EN ISO 10077-1 done on samples of the dimensions 1,23x2,18 for areas $\leq 3,6m^2$ and on samples of the dimensions 2,00x2,18 for areas $> 3,6m^2$.

All performance values indicated in the table are valid only in presence of the following accessories or enhancements:

- installation of the lower threshold
- in case the door is installed onto an emergency exit route it is necessary to raise the finished floor on the push side of the door in such a way as to compensate entirely the difference of the floor level and the lower threshold
- isolation of the door frame with the filling of cement
- installation of rubber seals FF along the entire perimeter of the door frame including the central rebate for double leaved doors.

Performance requirements and classification

	FM L x H dimensions	class	air permeability according to EN 1026:2001	thermal transmittance according to EN 10077-1:2007	water-tightness according to EN 1027:2001	resistance to windload according to EN 12211:2001
without window 	≤ 3,6 m ²	EW 60, EI ₂ 30, RE 90, REI 60	class 2	1,58 W/m ² K	class 2A	
	≤ 3,6 m ²	EI ₂ 60, EI ₂ 90, REI 120	class 2	1,49 W/m ² K	class 2A	
	540 - 900 x 1780 - 2150	ALL				class C2
with window 300x400 	≤ 3,6 m ²	EI ₂ 60	class 2	2,01 W/m ² K	class 2A	
	≤ 3,6 m ²	EI ₂ 90, REI 120	class 2	1,94 W/m ² K	class 2A	
	≤ 3,6 m ²	RE 90, REI 60	class 2	2,09 W/m ² K	class 2A	
	900 x 1780 - 2150	ALL				class C2
without windows 	≤ 3,6 m ²	EI ₂ 60	class 3	1,88 W/m ² K	class 3A, 9B	
	> 3,6 m ²	EI ₂ 60	class 3	1,52 W/m ² K	class 3A, 9B	
	≤ 3,6 m ²	EI ₂ 90, REI 120	class 3	1,88 W/m ² K	class 3A, 9B	
	> 3,6 m ²	EI ₂ 90, REI 120	class 3	1,51 W/m ² K	class 3A, 9B	
	≤ 3,6 m ²	RE 90, REI 60	class 3	1,99 W/m ² K	class 3A, 9B	
	> 3,6 m ²	RE 90, REI 60	class 3	1,62 W/m ² K	class 3A, 9B	
	940 - 2000 x 1780 - 2150	ALL				class C2
with windows 300x400  	≤ 3,6 m ²	EI ₂ 60	class 3	2,91 W/m ² K	class 3A, 9B	
	> 3,6 m ²	EI ₂ 60	class 3	2,15 W/m ² K	class 3A, 9B	
	≤ 3,6 m ²	EI ₂ 90, REI 120	class 3	2,78 W/m ² K	class 3A, 9B	
	> 3,6 m ²	EI ₂ 90, REI 120	class 3	2,06 W/m ² K	class 3A, 9B	
	≤ 3,6 m ²	RE 90, REI 60	class 3	2,92 W/m ² K	class 3A, 9B	
	> 3,6 m ²	RE 90, REI 60	class 3	2,19 W/m ² K	class 3A, 9B	
	1300 * - 2000 x 1780 - 2150	ALL				class C2

* = only for single leaf with window

Sm, C5 ENHANCED PERFORMANCES

Mandatory accessories

Enhanced performance	features	type	mandatory optional accessories	reference in brochure
EI ₂ 60-Sm	Smoke control Door	1 leaf	- rubber seal FF/CR - Nr. 1 automatic door sweep	UNIVER fire door ACCESSORIES
		2 leaves	- rubber seal FF/CR - Nr. 2 automatic door sweep	UNIVER fire door ACCESSORIES
EI ₂ 60-C5	Durability: 200,000 cycles	1 leaf	- Nr. 1 door closer	ACCESSORIES
		2 leaves	- Nr. 2 door closers	ACCESSORIES



MECHANICAL STRENGTH PERFORMANCES

Performance requirements and classifications

class	tested FM L X H dimensions	type	description of the performance	reached class	standard reference
EI ₂ 60	2000 (1000 + 1000) x 2125	2 leaves	resistance to vertical load	4	EN 1192:2002
			resistance to static torsion	4	EN 1192:2002
			resistance to soft and heavy body impact	4	EN 1192:2002
			resistance to hard body impact	3	EN 1192:2002

Door cross sections - Measurements

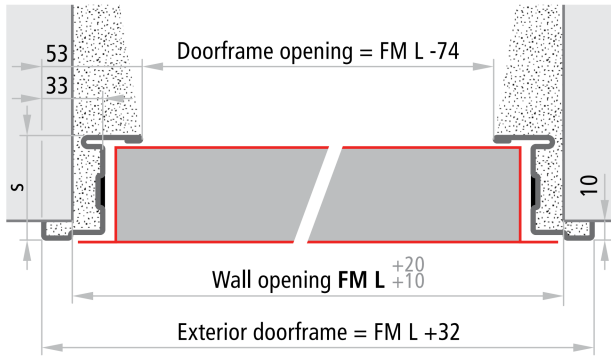
UNIVER Fire doors



UNIVER fire door

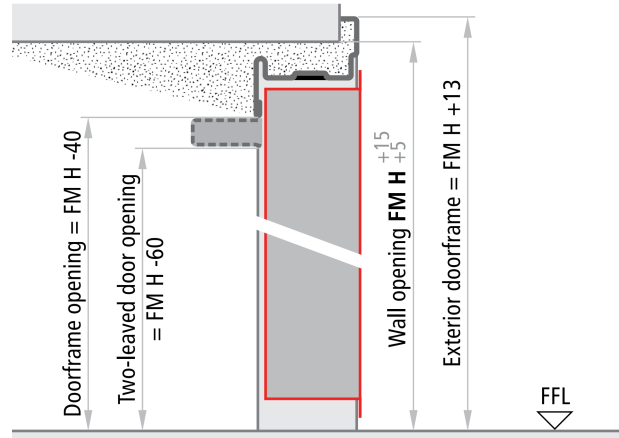
One-leaved doors

Horizontal cross section



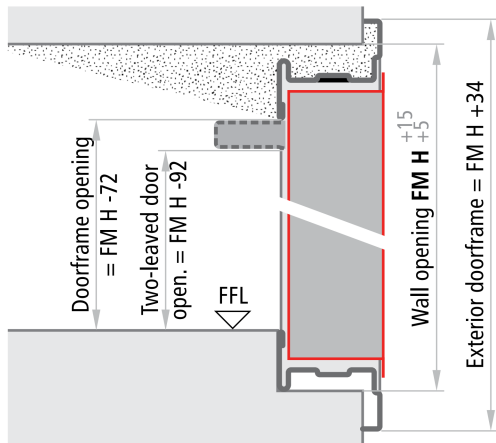
Doors without lower threshold

Vertical cross section



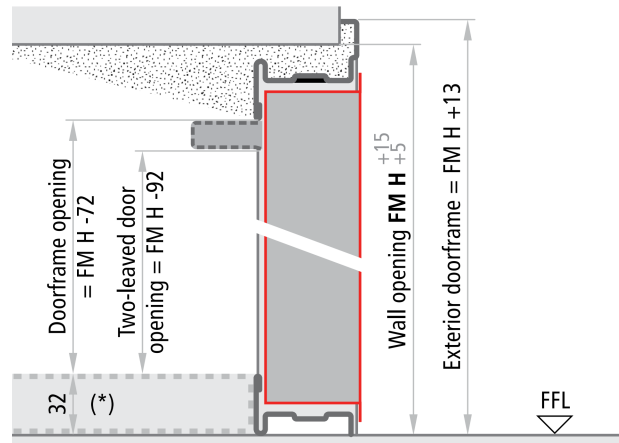
Doors with internal and external lower thresholds

Vertical cross section



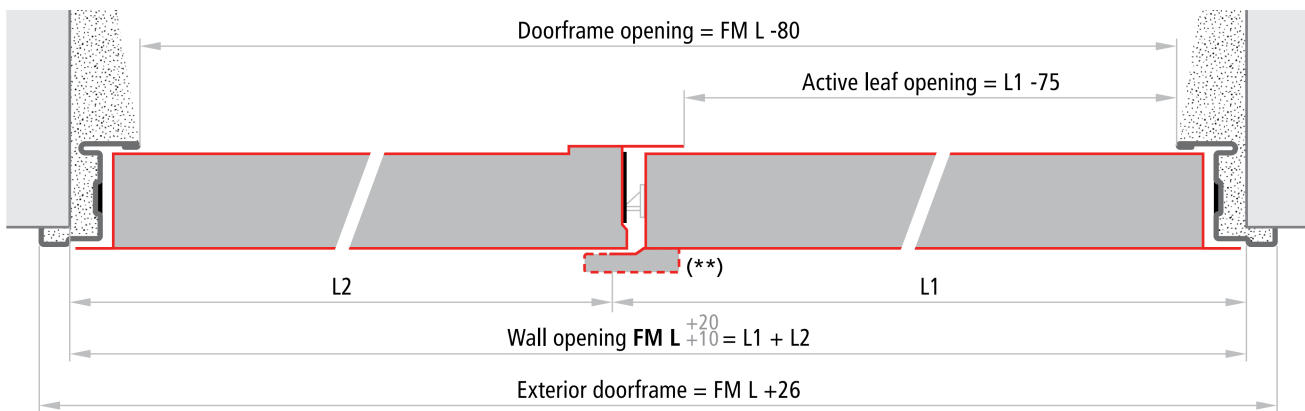
Doors with internal lower threshold

Vertical cross section



Two-leaved doors

Horizontal section



Thicknesses

class	leaves	doorframe
EW 60, EI ₂ 30, RE 90, REI 60	50 mm	s = 55 mm
EI ₂ 60, EI ₂ 90, REI 120	60 mm	s = 65 mm

NOTE

The tolerances FM L +20, FM H +15 of the indicated measurements make it easier to fill the gap between the wall and the doorframe with cement mortar.

(*) Shimming to be done, mandatory in case of installation onto emergency exit routes.

(**) Only for EI₂90 fire rated doors

Installation methods

UNIVER Fire doors

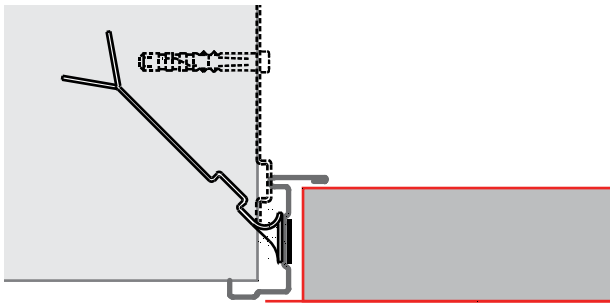


UNIVER fire door

INSTALLATION WITH ANCHORS FOR MORTAR FIXING

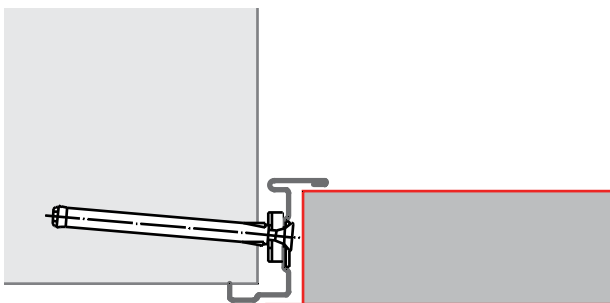


For mortar fixing, appropriate cuts will need to be created in the walls (section 80 x 200 mm). The anchors should be bent and blocked inside the wall. For fire sealing purposes and a perfect mechanical fit, the space between the doorframe and the masonry shall always be filled with concrete mortar.



INSTALLATION FOR EXPANSION SCREWS FIXING

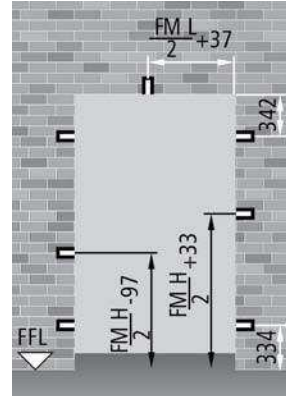
For the installation with expansion screws, the anchors serve as spacers and should not be bent. Using Würth type art. 0910436112 plugs or similar (supplied at the customer's expense), installation requires holes to be drilled through the thermo expansive sealing. The doorframe has pre-drilled holes. For fire sealing purposes and a perfect mechanical fit, the space between the doorframe and the masonry shall always be filled with concrete mortar.



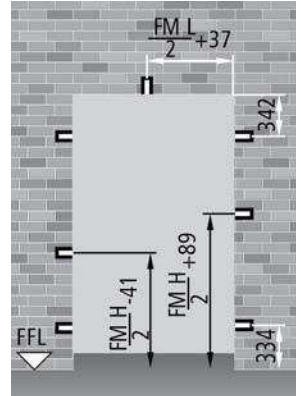
ANCHOR POSITIONING

One-leaved doors

Right opening

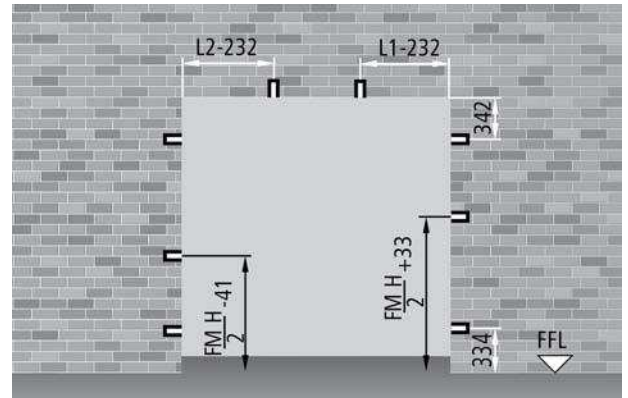


Left opening

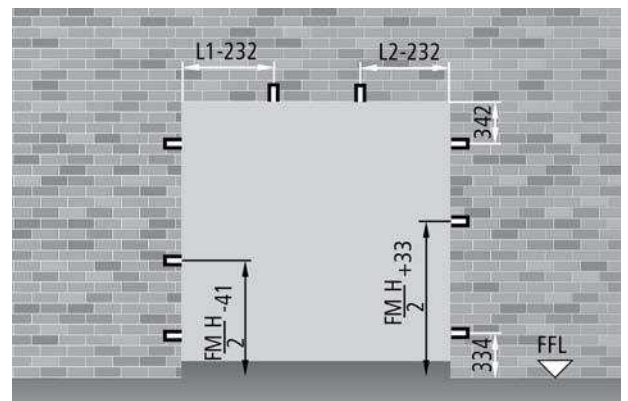


Two-leaved doors

Right opening



Left opening

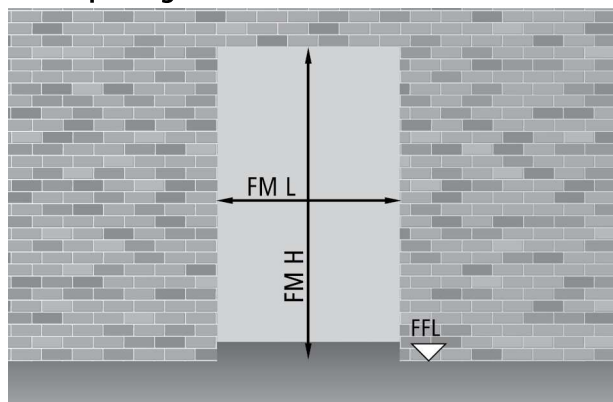


NOTE

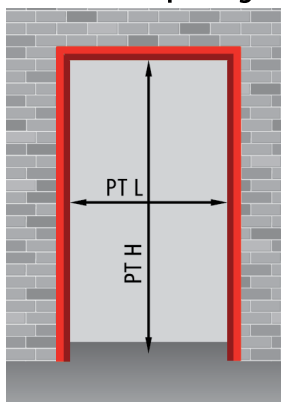
Proper installation requires 80 x 200 mm holes to be dug into the masonry.

ORDER MEASUREMENTS

Wall opening



Doorframe opening



One-leaved doors

$$PT L = FM L - 74$$

$$PT H = FM H - 40$$

Two-leaved doors

$$PT L = FM L - 80$$

$$PT H = FM H - 40$$

EW, EI one-leaved doors FM L x FM H

standard dimensions			PT L x PT H doorframe opening		fire-rating class
800	x	2050 / 2100 / 2150 2200*	726	x 2010 / 2060 / 2110	EW 60, EI ₂ 30, EI ₂ 60, EI ₂ 90
			726	x 2160	EW 60, EI ₂ 30, EI ₂ 60
900	x	2050 / 2100 / 2150 2200*	826	x 2010 / 2060 / 2110	EW 60, EI ₂ 30, EI ₂ 60, EI ₂ 90
			826	x 2160	EW 60, EI ₂ 30, EI ₂ 60
1000	x	2050 / 2100 / 2150 2200*	926	x 2010 / 2060 / 2110	EW 60, EI ₂ 30, EI ₂ 60, EI ₂ 90
			926	x 2160	EW 60, EI ₂ 30, EI ₂ 60
1100	x	2050 / 2100* / 2150 / 2200*	1026	x 2010 / 2060 / 2110 / 2160	EW 60, EI ₂ 30, EI ₂ 60
semi standard dimensions					
from 540 to 1150	x	2050 / 2150	from 466 to 1076	x 2010 / 2110	EW 60, EI ₂ 30, EI ₂ 60
from 540 to 995	x	2050 / 2150	from 466 to 921	x 2010 / 2110	EI ₂ 90
non-standard dimensions					
from 540 to 1150	x	from 1780 to 2150	from 466 to 1076	x from 1740 to 2110	EW 60, EI ₂ 30, EI ₂ 60
from 540 to 1000	x	from 1780 to 2150	from 466 to 926	x from 1740 to 2110	EI ₂ 90

RE and REI one-leaved doors FM L x FM H

standard dimensions			PT L x PT H doorframe opening		fire-rating class
800	x	2050 / 2100 / 2150	726	x 2010 / 2060 / 2110	RE 90, REI 60, REI 120
900	x	2050 / 2100 / 2150 / 2200*	826	x 2010 / 2060 / 2110 / 2160	RE 90, REI 60, REI 120
1000	x	2050 / 2100 / 2150 / 2200*	926	x 2010 / 2060 / 2110 / 2160	RE 90, REI 60, REI 120
1100	x	2050 / 2100 / 2150 / 2200*	1026	x 2010 / 2060 / 2110 / 2160	RE 90, REI 60, REI 120
1200	x	2050 / 2100 / 2150 / 2200*	1126	x 2010 / 2060 / 2110 / 2160	REI 60, REI 120
1300	x	2050 / 2100* / 2150 / 2200*	1226	x 2010 / 2060 / 2110 / 2160	REI 60, REI 120
1350	x	2050 / 2100* / 2150 / 2200*	1276	x 2010 / 2060 / 2110 / 2160	REI 60, REI 120
semi standard dimensions					
from 540 to 1345	x	2050 / 2150	from 466 to 1271	x 2010 / 2110	REI 60, REI 120
from 540 to 1167	x	2050 / 2150	from 466 to 1093	x 2010 / 2110	RE 90
non-standard dimensions					
from 540 to 1330	x	from 1780 to 2150	from 466 to 1256	x from 1740 to 2110	REI 60, REI 120
from 1331 to 1350	x	from 1938 to 2150	from 1257 to 1276	x from 1898 to 2110	REI 60, REI 120
from 540 to 1167	x	from 1780 to 2150	from 466 to 1093	x from 1740 to 2110	RE 90

* limited dimensions available - see the price list