

**"bare minimum, maximum performance!"**





## **NINZ REVER multipurpose doors**

FEATURES	42 - 45
SPECIFIC OPTIONAL ACCESSORIES	46 - 47
DOOR CROSS SECTIONS - MEASUREMENTS	48
INSTALLATION METHODS	49
ORDER MEASUREMENTS	50
OPENING MEASUREMENTS - OVERALL DIMENSIONS	51

# Features

## REVER multipurpose doors

### THE ECONOMICAL MULTIPURPOSE YOU ALWAYS WISHED FOR

#### “Quality first”

- Fully galvanized, including the “hidden” parts
- Made of “Sendzimir” processed hot-galvanized sheet metal
- Corrosion protection also provided along the cut edges of the metal
- Painted with epoxy-polyester thermoset powders in a 180 degree (Celsius) oven
- Extra-thick paint layer (over 70 microns)
- Optimal corrosion resistance as demonstrated by 500 hour salt-fog testing
- 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
- Especially well-suited for indoor use
- Light but still sturdy
- Easy installation

#### “Versatility”

- Very wide field of application
- Can be combined with various frame types
- Installable onto any wall type
- Application with a block frame
- Can be combined with over-head frame panel with or without ventilating perforation
- Available with upper/lower crack enlargement
- Vast assortment of accessories
- Customized measurements also available

#### “Manufacturing technology”

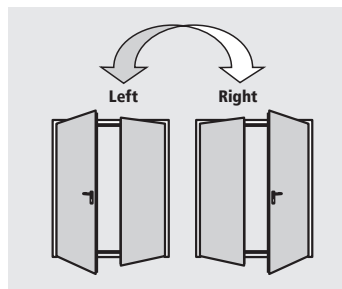
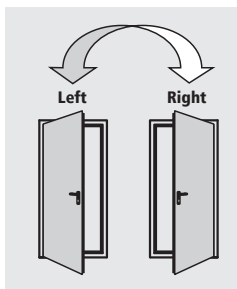
- Manufacturing in modern and functional facilities which employ the latest technologies to maintain high quality levels and product uniformity
- The entire production process - from raw materials to painted and packaged products - takes place inside Ninz’s own facilities, ensuring a 360 degree door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



One-leaved doors



Two-leaved doors



# Features

## REVER multipurpose doors

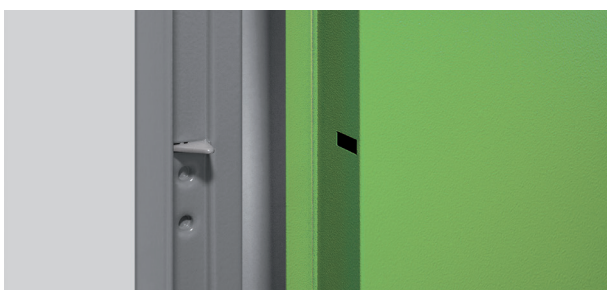
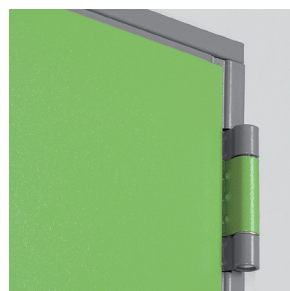
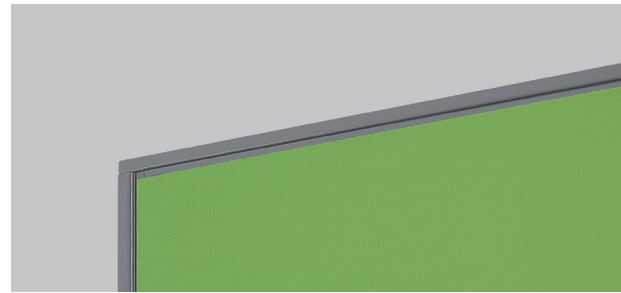
### STANDARD ELEMENTS

#### Door

- Made of "Sendzimir" processed hot-galvanized sheet metal, press folded
- Perimetral rebate on 4 sides
- Internal corrugated honeycomb fiber structure fixed firmly to the sheet metal

#### Doorframe

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



#### Hinges

- Nr. 2 three-wing hinges for each leaf

#### Locking mechanism

- Reversible locking mechanism with bolt and central latch
- Insert with patent key, Euro profile cylinder ready

#### Handle

- Black plastic handle
- Fastener screws to pass
- Insert for patent-type key

#### Safety bolts

- Nr. 3 safety bolts applied on hinge side doorframe edge

# Features

## REVER multipurpose doors



### INCLUDED ACCESSORIES

#### Safety lock

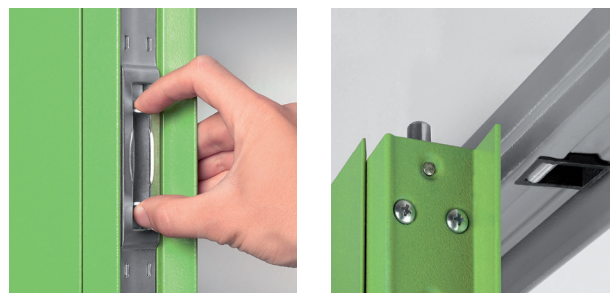
- Central latch for blocking and unblocking the inactive leaf
- Lever control for unlocking vertical rods

#### Upper coupling system for the inactive leaf

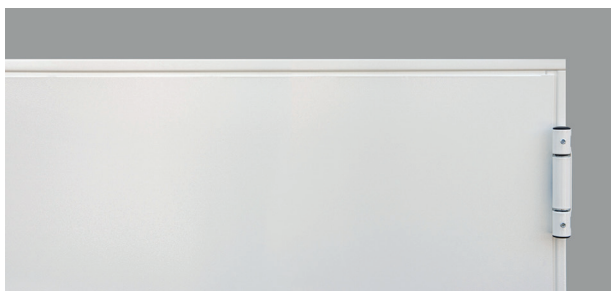
- Vertical rod with steel point which inserts into the upper strike box
- Upper strike box in black plastic with steel roller

#### Lower coupling system for the inactive leaf

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



Standard paint - group 01: RAL 9010



#### Finishing

- Standard painted with epoxy-polyester thermoset powders in a 180 degrees oven, orange skin, anti-scratch finishing
- Standard paint RAL 9010

#### 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

#### Pre-settings

- The main lock and upper rod housing on the inactive leaf are ready for installation of the latching mechanism for panic bars

Door weight	kg/m <sup>2</sup> of wall opening
1 leaf	15
2 leaves	14

#### NOTE

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

# Features

## REVER multipurpose doors

### OPTIONAL ACCESSORIES

A wide variety of accessories and surface finishes are available on request for maximum value enhancement of Rever 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)

#### Installation and utilization needs

- Embracing or telescopic frames
- Frame extensions
- Drip steel-profile
- Kick and protection plates in stainless steel
- Ventilating perforation

#### Access-related control issues

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

#### Performance enhancing

- Rebate sealings
- Cylinders
- Door closers
- Special handles



#### NOTE

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

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

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

#### Customized finishing

- Select finishing from a wide variety of RAL colours
- Stainless steel handles
- Colored handles

#### Packaging for maximum protection

Sturdy wooden crates protect all doors and related accessories

- On construction sites
- During shipping abroad
- For special transport

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

- Special doorframes (SPEED, SOLID, TESCOP)

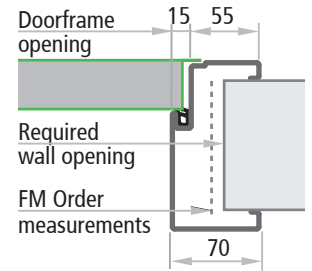
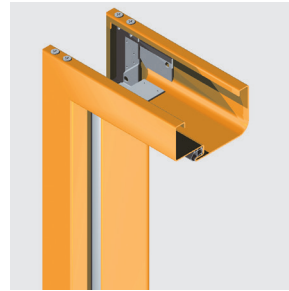
# Specific optional accessories

## REVER multipurpose doors

### SPECIAL ,SPEED' DOORFRAME FOR REVER DOORS

SPEED on three sides embracing doorframe with 45 deg. joints, made of 1,25 mm thick galvanized „Sendzimir“ processed sheet metal, assembly required. For installation onto finished walls using 6 integrated clamps and two adjustable spacers with plugs or screws. Includes rebate sealing and RAL painting with thermoset epoxy-polyester powders. Minimum 75mm wall thickness, 55/70 frames.

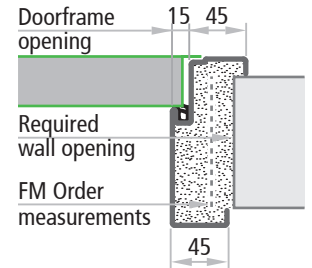
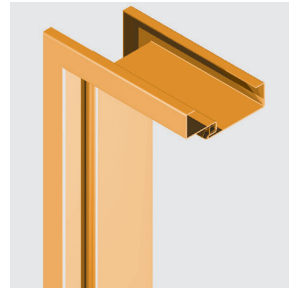
Order measurements	required wall opening	doorframe opening
FM L (width)	FM L + 20	FM L - 64
FM H (height)	FM H + 10	FM H - 34



### SPECIAL ,SOLID' DOORFRAME FOR REVER DOORS

SOLID on three sides embracing doorframe with 45 deg. joints, made of 1,25 mm thick galvanized „Sendzimir“ processed sheet metal, assembly required. For installation with anchors for mortar fixing or with fastening profiles to fix with plugs or screw on, including removable threshold spacer, sealing and RAL painting with thermoset epoxy-polyester powders. Minimum 50mm wall thickness, 45/45 frames.

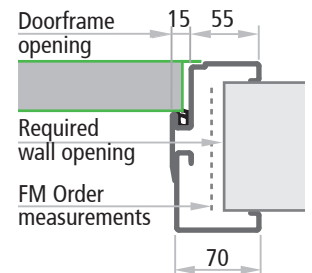
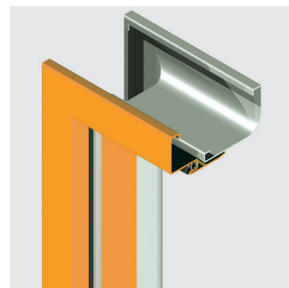
Order measurements	required wall opening	doorframe opening
FM L (width)	FM L + 40	FM L - 64
FM H (height)	FM H + 20	FM H - 34



### SPECIAL ,TESCOP' DOORFRAME FOR REVER DOORS

Two-pieced TESCOP on three sides embracing doorframe with 45 deg. joints, made of 1,25 mm thick galvanized „Sendzimir“ processed sheet metal, assembly required. To be fixed to finished wall with screws, including removable threshold spacer, sealing and RAL painting with thermoset epoxy-polyester powders. Minimum 70mm wall thickness, adjustment range of +25mm, frames 55/70.

Order measurements	required wall opening	doorframe opening
FM L (width)	FM L + 20	FM L - 64
FM H (height)	FM H + 10	FM H - 34

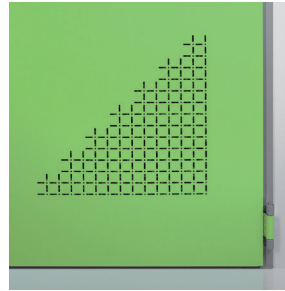
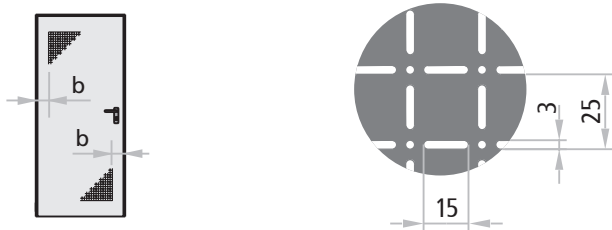


# Specific optional accessories

## REVER multipurpose doors

### VENTILATING PERFORATIONS

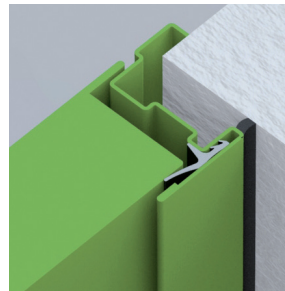
Ventilating perforation for one-leaved Rever doors made by perforating the illustrated pattern into the sheet metal. Rever doors with ventilating perforations remain reversible.



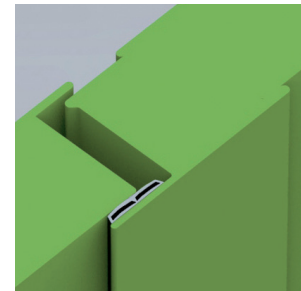
FM L / FM L1	perforation	aeration	borders (b)
700 mm	300 x 300 mm	156 cm <sup>2</sup>	100 mm
800, 900 or 1000 mm	350 x 350 mm	208 cm <sup>2</sup>	100 mm

### REBATE SEALING

Rebate sealing in black extruded profile to cut and to be pressed into the dedicated groove of the perimetral frame.  
 Rebate sealing in black extruded profile self-adhesive to cut for application to the central joint of two-leaved doors.



perimetral frame

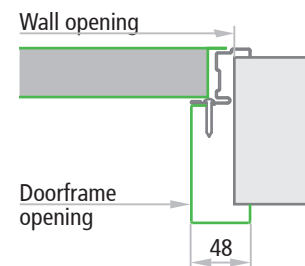
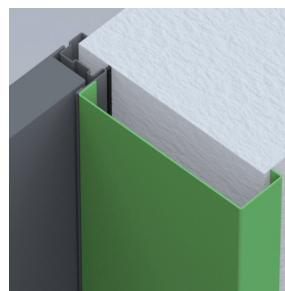


central joint for two-leaved doors

### IM21 FRAME EXTENSION FOR REVER DOORS

Frame extension to be screwed to the Rever doorframe acting as a wall cladding. 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.  
 To mount the frame extension, fixing holes need to be drilled into doorframe on site. Combine with sealing to conceal the screw heads.

Minimum 60mm wall thickness.





# Door cross sections - Measurements

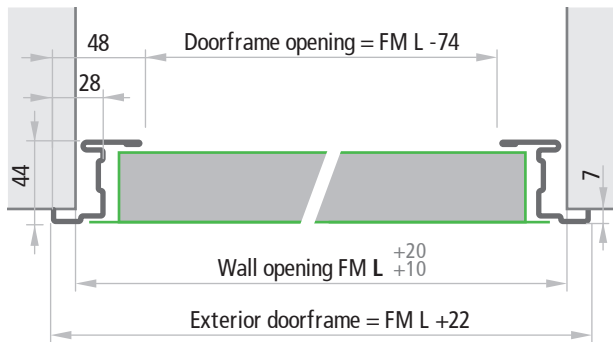
REVER multipurpose doors



REVER multipurpose

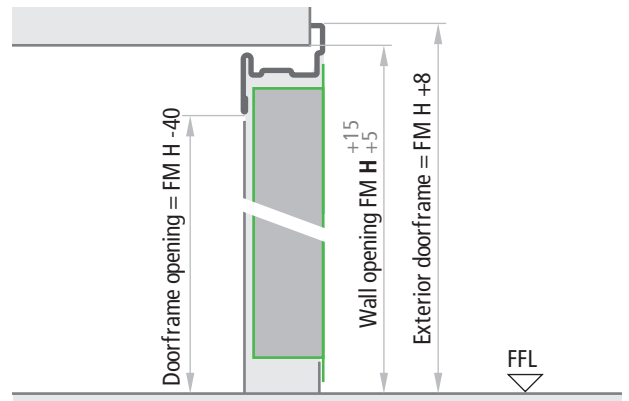
## One-leaved doors

Horizontal cross section



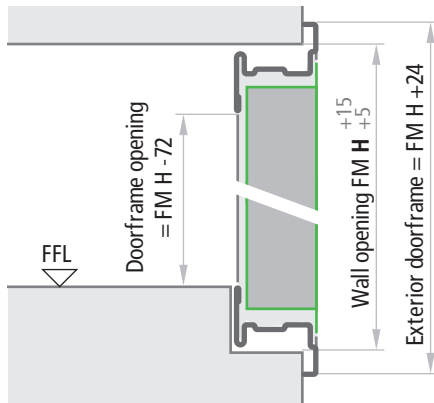
## Doors without lower threshold

Vertical cross section



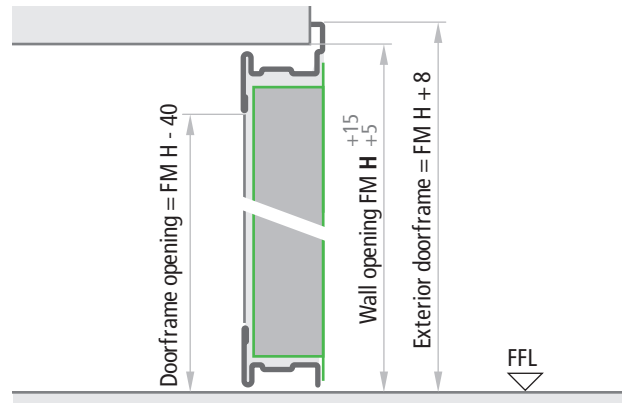
## Doors with internal and external lower threshold

Vertical cross section



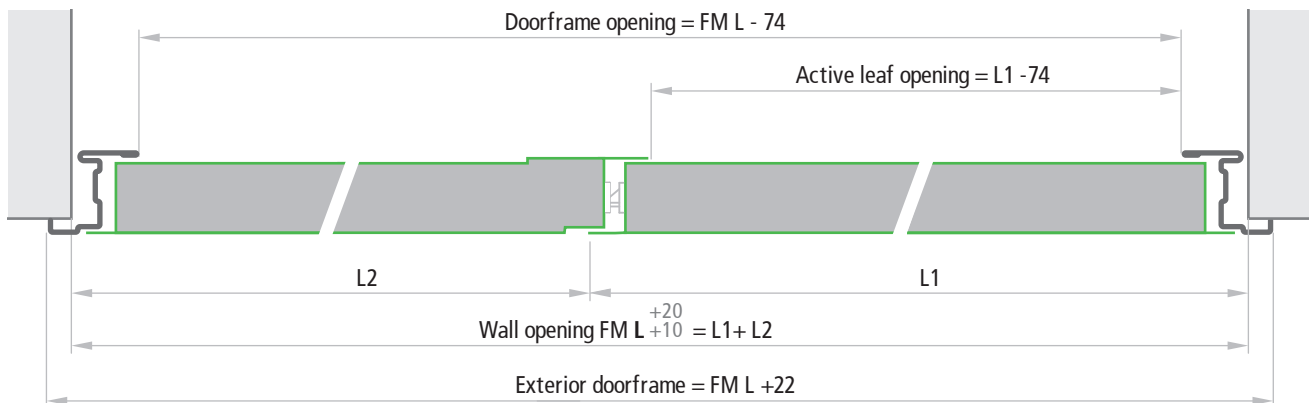
## Doors with internal lower threshold

Vertical cross section



## Two-leaved doors

Horizontal cross section



### Leaves thickness

**MULTIPURPOSE** 40 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. For dry wall installation, the holes must be precise and greater tolerance ranges should not be employed.

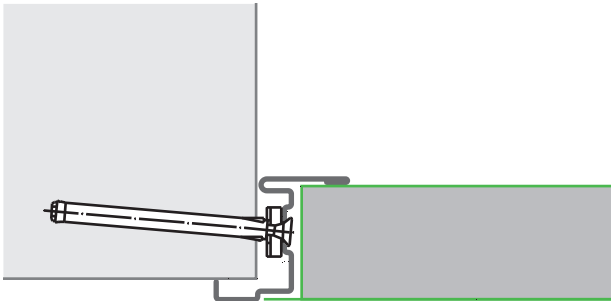
## INSTALLATION WITH ANCHORS FOR MORTAR FIXING

For mortar fixing, appropriate cuts will need to be created in the walls (section 80 x 160 mm) or the anchors should be fixed with expansion screws. The anchors should be bent and blocked inside the wall. For a perfect mechanical fit, the space between the doorframe and the masonry shall always be filled with concrete mortar or polyurethane foam.



## INSTALLATION FOR EXPANSION SCREWS FIXING

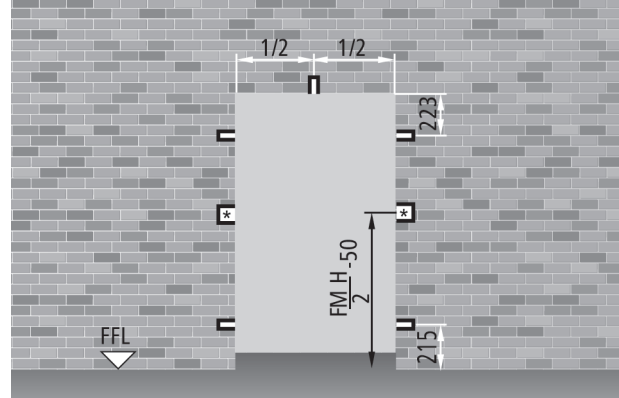
For the installation with expansion screws, the anchors serve as spacers and should not be bent. Using Würth type art. 0910436112 plugs or similar (supplied at the customer's expense), installation is done with expansion screws into the pre-drilled holes present on the frame. For a perfect mechanical fit, the space between the doorframe and the masonry shall always be filled with concrete mortar or polyurethane foam.



## ANCHOR POSITIONING

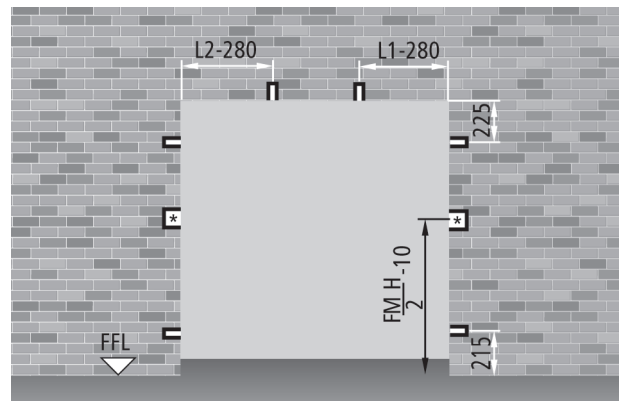
### One-leaved doors

Right opening and Left opening

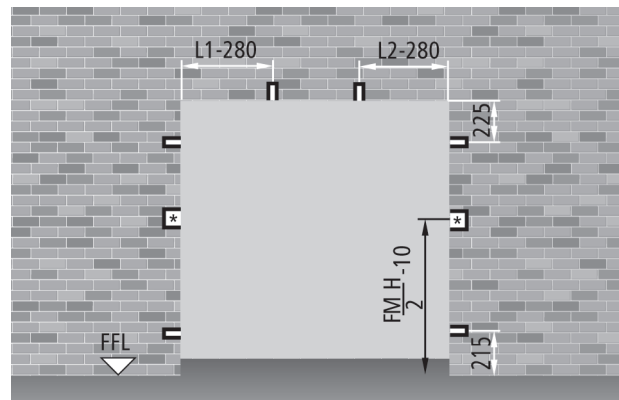


### Two-leaved doors

Right opening



Left opening



(\*) For proper installation, the cuts for the anchors should be 200 x 160 mm in size.

# Order measurements

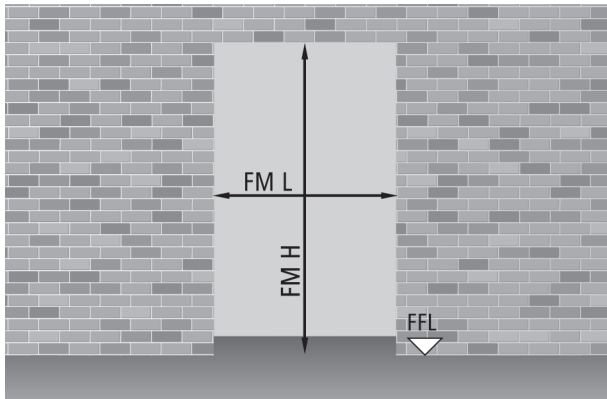
## REVER multipurpose doors



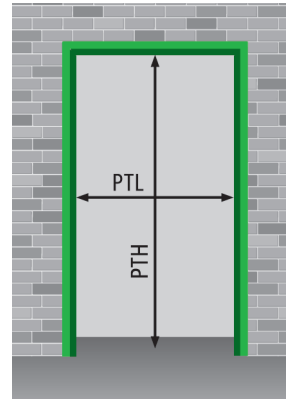
REVER multipurpose

### ORDER MEASUREMENTS

#### Wall Opening



#### Doorframe opening



#### One-leaved doors

$$PTL = FML - 74$$

$$PTH = FMH - 40$$

#### Two-leaved doors

$$PTL = FML - 74$$

$$PTH = FMH - 40$$

#### One-leaved door FM L x FM H

##### standard dimensions

700	x	2050 / 2150
800	x	2050 / 2100 / 2150
900	x	2050 / 2100 / 2150
1000	x	2050 / 2100 / 2150
1100	x	2050 / 2150
1200	x	2050 / 2150
1300	x	2150
1350	x	2150

#### PT L x PT H

##### doorframe opening

626	x	2010 / 2110
726	x	2010 / 2060 / 2110
826	x	2010 / 2060 / 2110
926	x	2010 / 2060 / 2110
1026	x	2010 / 2110
1126	x	2010 / 2110
1226	x	2110
1276	x	2110

#### Two-leaved doors FM L (L1+L2) x FM H

##### standard dimensions

1200	(800 + 400)	x	2050 / 2150
1300	(900 + 400)	x	2050 / 2150
1400	(1000 + 400)	x	2050 / 2150
1600	(800 + 800)	x	2050
1800	(900 + 900)	x	2050
2000	(1000 + 1000)	x	2050 / 2150

#### PT L x PT H

##### doorframe opening

1126	x	2010 / 2110
1226	x	2010 / 2110
1326	x	2010 / 2110
1526	x	2010
1726	x	2010
1926	x	2010 / 2110

#### NOTE

Unless specified otherwise by the customer, two-leaved doors are supplied with a right-pull opening direction.

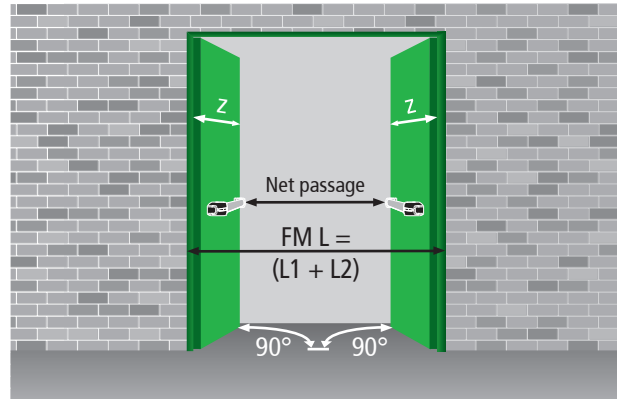
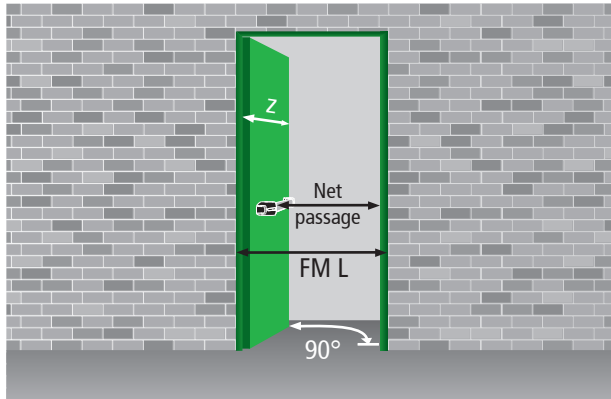
# Opening measurements - Overall dimensions

REVER multipurpose doors



REVER multipurpose

## OPENING MEASUREMENTS AND OVERALL DIMENSIONS WITH 90 DEGREE OPENING



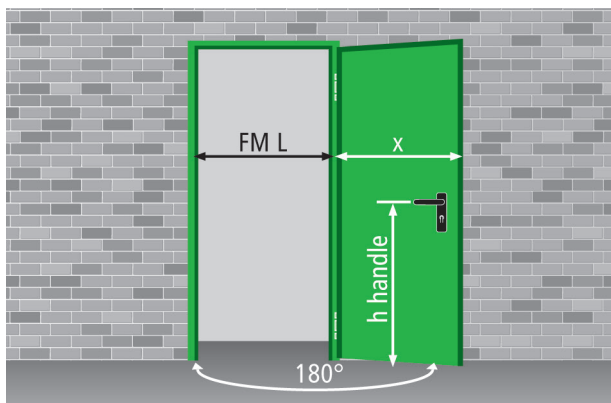
### Net passage calculation

panic bar type	protrusion	one-leaved door	two-leaved door
EXUS	125	FML - 209	FML - 344
TWIST	100	FML - 184	FML - 294
SLASH	75	FML - 159	FML - 244
FAST TOUCH	75	FML - 159	FML - 244
without panic bar	-	FML - 84	FML - 94
z = leaf protrusion relative to the wall		FML + 11	L1 + 11 L2 + 56

## OVERALL DIMENSIONS WITH 180 DEGREE OPENING - HANDLE HEIGHT

### One-leaved door

$x = FML - 4$   
 $h \text{ handle} = FMH/2 + 50$



### Two-leaved door

$x = L1 - 4$      $y = L2 + 42$   
 $h \text{ handle} = FMH/2 + 50$

