

DOORHAN FOLDING AND ROLLING GATES



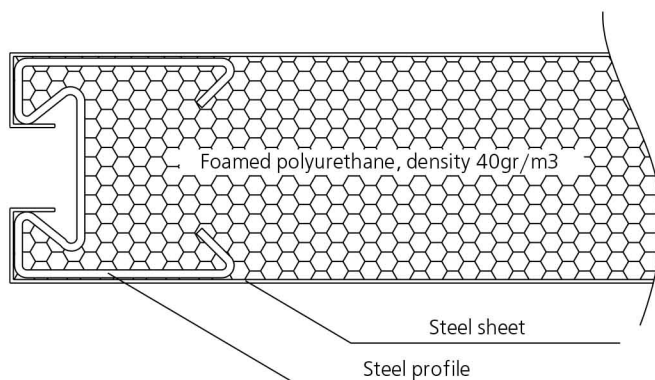
DoorHan folding and rolling gates are intended for installation in premises for industrial use, where it is necessary to close large-sized apertures – in storage and garage facilities, motor depots, aircraft hangars, motor shows etc.

The folding gate consists of vertical sections, which are connected to each other, and when opening it concertinas and can move in one direction or slide in opposite directions. The rolling gate also consists of vertical sections and can move either in parallel with the facade of the building or transversely to the aperture and positioning along the side walls of the premises. Such method of gate opening allows to use this gate in case of small near-wall distances.

Main advantages of DoorHan folding and rolling gates:

- can close large-sized apertures,
- corrosion resistance,
- easy-to-mount and easy-to-operate,
- no need in additional safety systems,
- easy and quick repair

SANDWICH PANEL SCHEME



The sandwich panels, used for the leaf of folding and rolling gates, consist of 0.8 mm thick steel sheets and a warmth-keeper – foamed polyurethane and 2 mm thick integrated bearing profile. Hinges are installed in the sandwich panel profile and multi-chamber rubber seal, resistant to ultraviolet radiation, low temperatures and moisture, is installed along the whole perimeter. Use of the integrated bearing profile allows to fasten and, when required, to move the hinge along the whole height of the gate leaves height, as well as make the gate structure more rigid and reliable.

Specifications

Water impermeability without bottom guide	class 0
Water impermeability with bottom guide	class 2
Wind resistance	class 4
Thermal-conductivity coefficient 55 mm thick panel up to h=6 m	1,61 (M ² · °C)/W
Thermal-conductivity coefficient 65 mm thick panel up to h=6-8,5 m	1,61 (M ² · °C)/W
Thermal-conductivity coefficient of gate	0,63 (M ² · °C)/W
Air impermeability	class 1
Amount of cycles	20 000
Gate weight 55 mm thick panel up to h=6 m	25 kg/m ²
Gate weight 65 mm thick panel up to h=6-8,5 m	30 kg/m ²
Burning quality group Γ2 as per GOST R 30244-94	moderate burning
Flammability group B2 as per GOST R 30402-96	moderate flammability

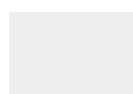
DESIGN FEATURES

Two types of leaf surface texture are available: flush and stucco 7 colors according to the international RAL-card (grey white (RAL 9002), grey brown (RAL 8019), gentian blue (RAL 5010), moss green (RAL 6005), flame red (RAL 3000), white aluminium (RAL 9006) and anthracite grey (RAL 7016)) and 1 wood imitating color (GOLDEN OAK).



The panels can be painted in any color according to the international RAL-card. The colors can be distorted by printing out, use the original RAL-card.

Panel textures



flush



stucco

7 standard colors



RAL 9002
Grey white



RAL 8019
Grey brown



RAL 5010
Gentian blue



RAL 6005
Moss green



RAL 3000
Flame red



RAL 9006
White
aluminium



RAL 7016
Anthracite
grey



Golden oak

FURNITURE

HANDLE "ANTI-PANIC"

If the system "anti-panic" is installed, you can open the door from inside without key, by pushing the door handle or the special strap.

WINDOWS

If a view of internal space, when the gate is closed, is required, the windows can be installed in the gate. Two types of windows for folding and rolling gates are available: with plastic edging and aluminium edging. Windows with aluminium edging are equipped with double glass and can be opened and closed.

Window dimensions

- 500 x 600 mm
- 500 x 800 mm
- 700 x 700 mm
- 580 x 880 mm
- 700 x 1000 mm
- 700 x 1500 mm
- 700 x 2000 mm

Round window with diameter 530 mm is also available.

BUILT-IN WICKET

Wickets can be installed in all sliding and folding gates. The wicket allows to leave or to enter the premises if the gate is closed. Both panoramic section wickets and sandwich panel wickets are available. A seal system and special profiles allow to avoid limpness of the gate leaf and to prevent heat losses.

The company DoorHan offers 2 types of built-in wickets for folding and rolling gates: with threshold and without it. The wicket without threshold can be used as an emergency exit. It is equipped with a special handle "anti-panic". The wicket and the gate will have common design and colors.

AUTOMATION

The company DoorHan offers 2 types of electric operators for automation of folding and rolling gates. They are chain operator and lever operator. Folding gates with bottom guide and rolling gates (1See Page 26 (operator model - DoorHan SE-1200).) are automated with chain electric operator. The lever electric operator is intended for opening and closing of folding gates without bottom guide.

All electric operators produced by the company DoorHan have low noise level and overheat protection,

they keep the gate in closed position effectively. The electric operator stops automatically in case, if any obstacle are detected. A 3-position control station, which is included in the base package, is connected to the control unit.

All types of the electric operators are supplied with releases. The release is fastened using an external mounting and serves for unblocking of the gate in case of power cut.

Main advantages of electric operators:

- it is possible to install on gates with bidirectional opening one electric operator;
- remote control of electric operator is available;
- convenient system of electric operator unblocking in case of power cut;
- electric operator control cards are resistant to voltage changes and unstable work of the mains;
- the package includes a three-position control station with 6 m cable.

Optional equipment and safety devices:

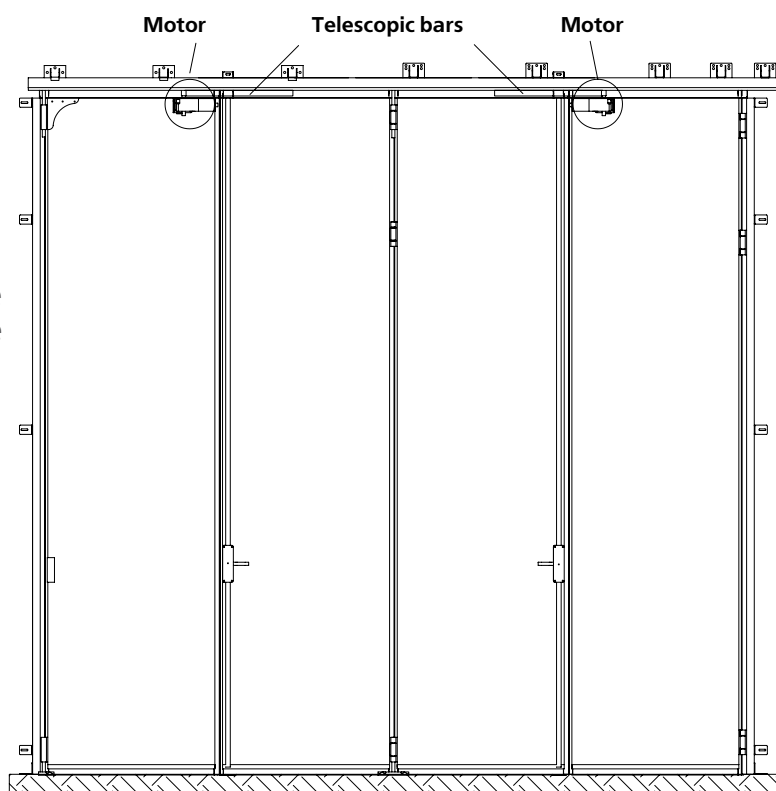
- external receiver
- photocells
- signal lamp
- remote control
- key-button for control
- light signal
- open wicket sensor

FOLDING GATES WITHOUT BOTTOM GUIDE (MODELS - 1004/MO (4+0), 2006/MO (4+2), 2008/MO (4+4))



O&O PL2

The electric operator is mounted on the leaf to enable its turn by 90° folding. For move the telescopic bar is used.

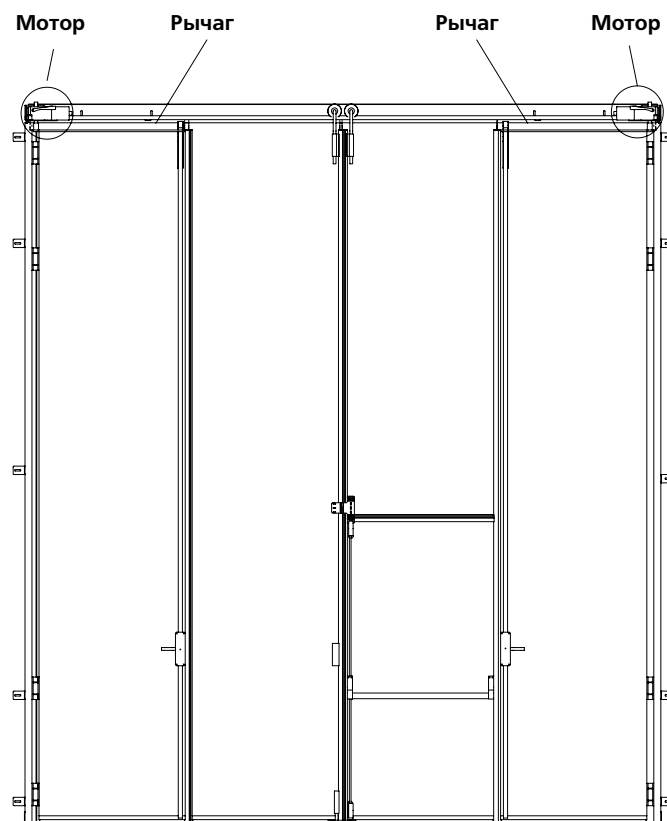


FOLDING GATES WITHOUT BOTTOM GUIDE (MODELS - 1002/MO(2+0), 2003/MO(2+1), 2004/MO(2+2))



O&O PL2

The electric operator is mounted on the support, installed on the upper guide, due to that the leaf can turn by 90° and 180°; For move levers is used.



SPECIFICATIONS	O&O PL2
Mains voltage	230V +/- 10% 50 Hz
Electric motor	4 outputs; 1400 rpm
Capacitors	14 mf
Capacity	220 W
Ratio	1:1178
Speed	1,18 rpm
Rotational moment	50 dNm (kilogram-force·m)
Intensity	20 %
Thermal protection	160 °C
Opening time by 90°	12 c
Opening time by 180°	24 c
Ingress protection rating	IP50
Ingress protection rating of casing	IP53

GATES WITHOUT BOTTOM GUIDE

Model and scheme	Installation of electric operator
1002/MO/90° -180° (2+0)	+
2002/MO/90° -180° (1+1)	+
1003/MA/90° -180° (3+0)	-
2003/MO/90° -180° (2+1)	+
1004/MO/90° -180° (4+0)	+
2004/MO/90° -180° (2+2)	+
2004/MO/90° (2+2)	+
2005/MA/90° -180° (3+2)	-
2005/MO/90° -180° (4+1)	+
2006/MA/90° -180° (3+3)	-
2006/MO/90° -180° (4+2)	+
2008/MA/90° -180° (4+4)	+

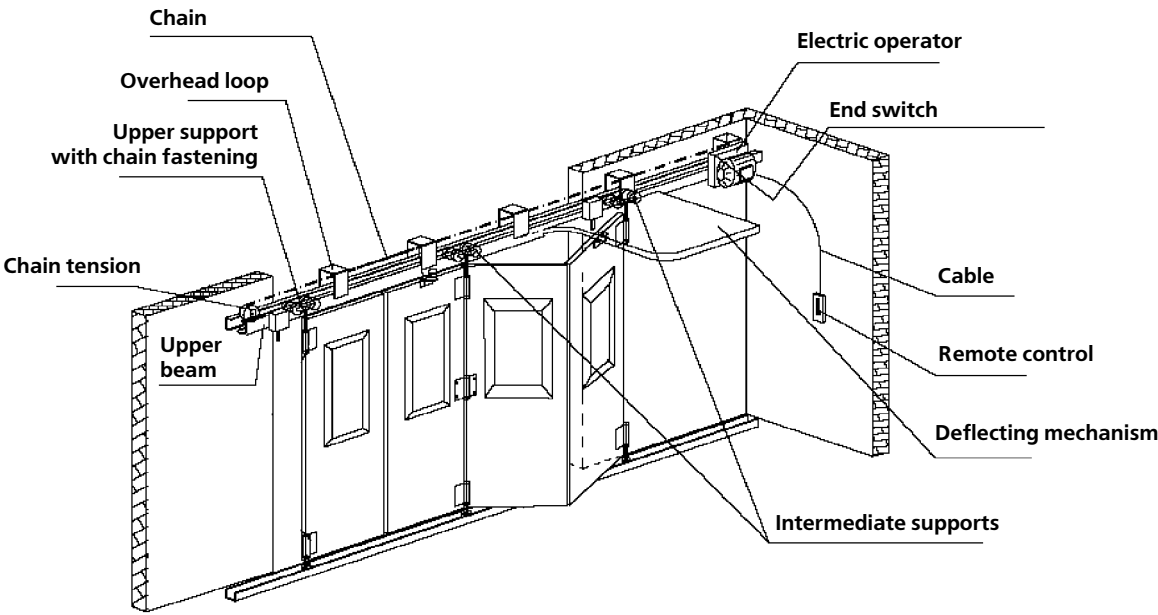
FOLDING GATES WITH BOTTOM GUIDE /ROLLING GATES

(MODELS - 1003/MO/S (3+0), 1004/MO/S (4+0), 1005/MO/S (5+0), 1006/MO/S (6+0), 1008/MO/S (8+0), 2006/MO/S (3+3), 2008/MO/S (4+4), 2012/MO/S (6+6), 2016/MO/S (8+8), EK1000, EK2000)



CASIT MR300-SEZ63

Electric operator with bidirectional rotation, it is fixed on the support installed on the upper guide.



SPECIFICATIONS		
	MR300-SEZ63 (monophase)	MR300-SEZ63 (three-phase)
Mains voltage	230 V, 60 Hz	400 V, 60 Hz
Consumption current	1,5 A	1,1 A
Capacity	300 W	350 W
Capacitor	20 mf	/
Rotational moment	25 Nm	40 Nm
Shaft speed	42 rpm	42 rpm
Opening speed	10 m/min	10 m/min
Gate are	up to 30 m²	more than 30 m²

REQUIREMENTS FOR MOUNTING SITE

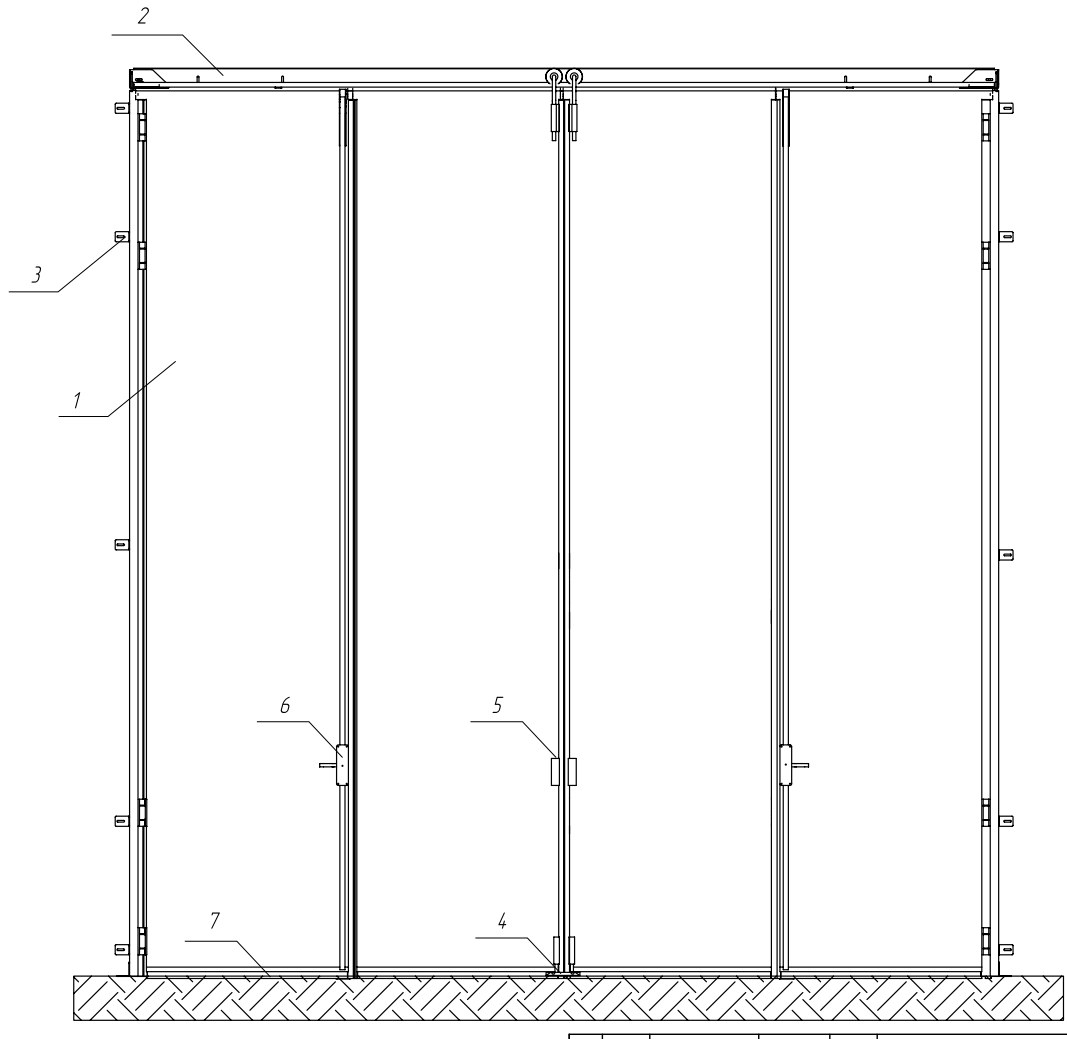
- 1. Low voltage control cable 3x0,5 mm².
- 2. Power cable 2x1,5mm2 or 4x1,5mm2 according to electric operator model.

DOORHAN FOLDING GATES

The company DoorHan produces two types of folding gates: folding gates with bottom guides and folding gates without bottom guides.

FOLDING GATES WITHOUT BOTTOM GUIDE

Models - 1002/MO/90°-180° (2+0), 1003/MA/90°-180° (3+0), 1004/MO/90° (4+0), 2002/MO (1+1), 2003/MO/90°-180° (2+1), 2004/MO/90°-180° (2+2), 2005/MA/90°-180° (3+2), 2005/MO/90° (4+1), 2006/MA/90°-180° (3+3), 2006/MO/90° (4+2), 2008/MO/90° (4+4).

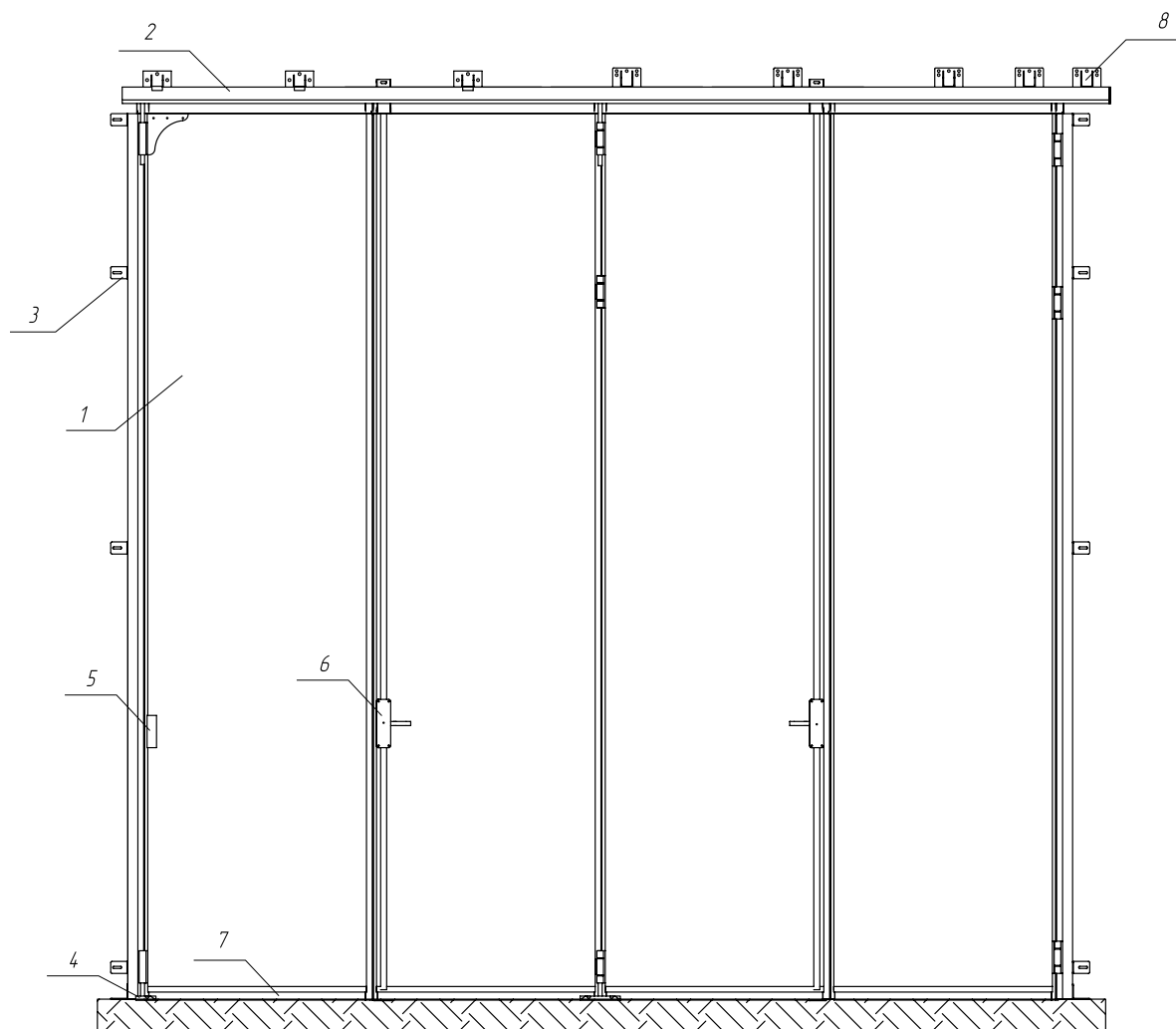


Base package:

1. Leaf consisting of steel 55 mm thick sandwich panels, hinges, rollers and rubber seals.
2. Upper guide.
3. Universal set of fastening elements.
4. Central catcher.
5. Handle.
6. Crossbar latches.
7. Brush seals.

FOLDING GATES WITHOUT BOTTOM GUIDE

Models - 1004/MO/180° (4+0), 2005/MO/180° (4+1), 2006/MO/180° (4+2), 2008/MO/180° (4+4).

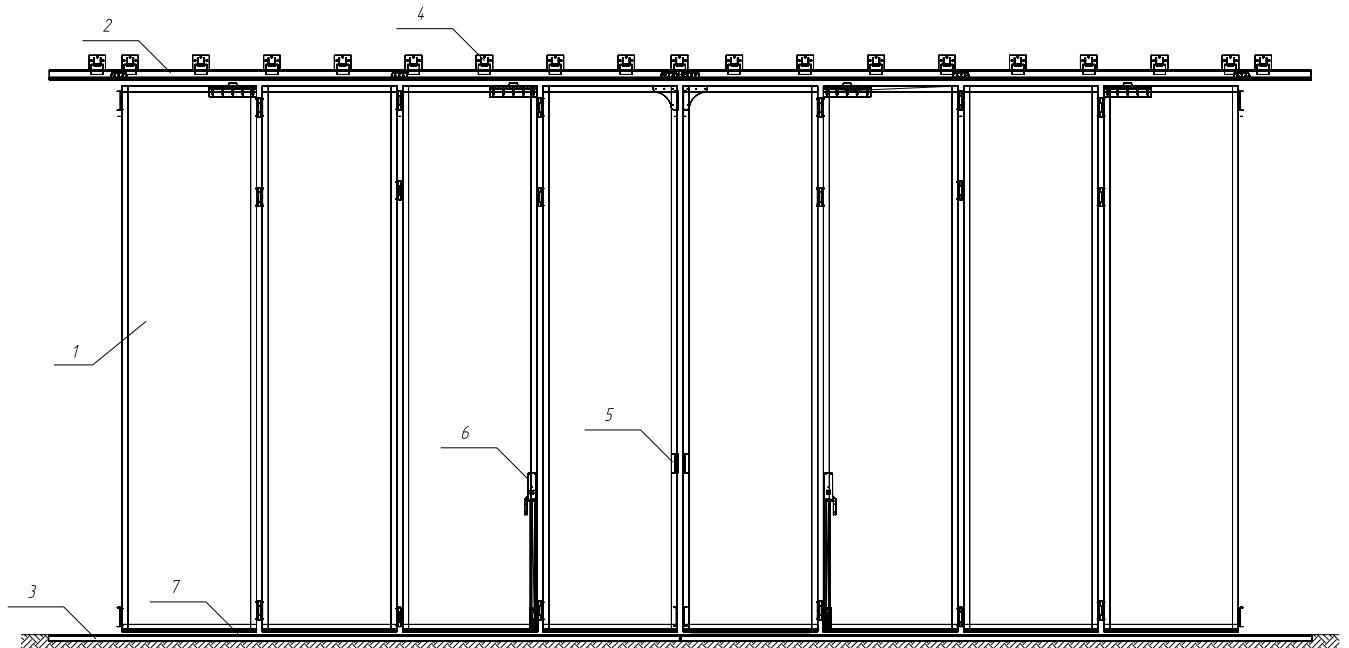


Base package

1. Leaf, assembled of steel 55 mm thick sandwich panels, hinges, rollers, rubber seals
2. Upper guide
3. Universal set of fastening elements
4. Central catcher
5. Handle
6. Crossbar latches
7. Brush seals
8. Bracket for beam fastening

FOLDING GATES WITH BOTTOM GUIDE

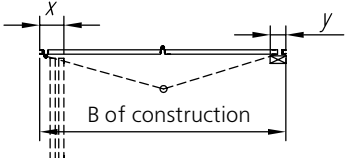
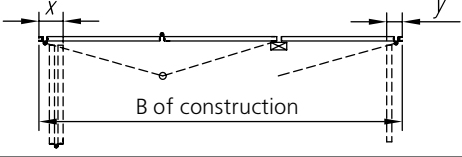
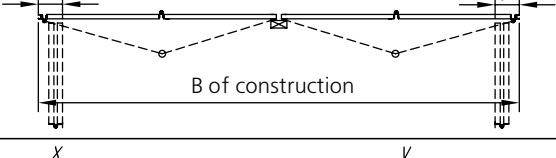
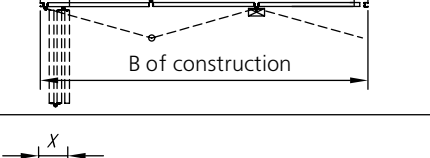
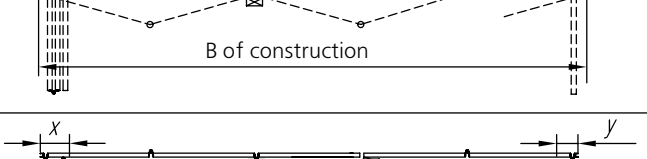
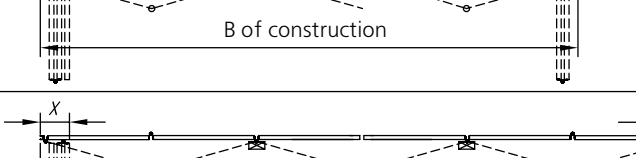
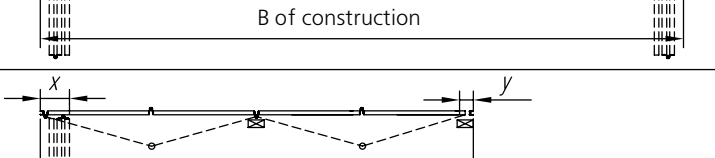
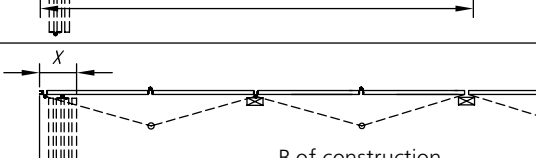
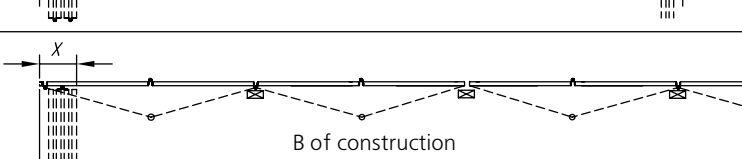

Models - 1003/MO/S (3+0), 1005/MO/S (5+0), 1006/MO/S (6+0), 1008/MO/S (8+0), 2006/MO/S (3+3), 2008/MO/S (4+4), 2012/MO/S (6+6), 2016/MO/S (8+8).

**Base package:**

1. Leaf, assembled of steel 55 mm thick sandwich panels, hinges, rollers, rubber seals
2. Upper guide
3. Universal set of fastening elements
4. Central catcher
5. Handle
6. Crossbar latches
7. Bruch seals

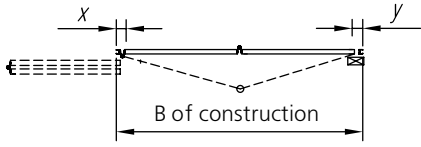
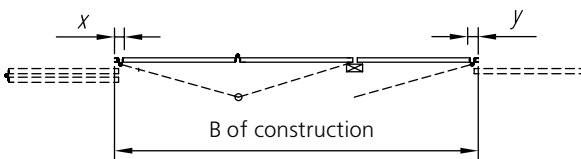
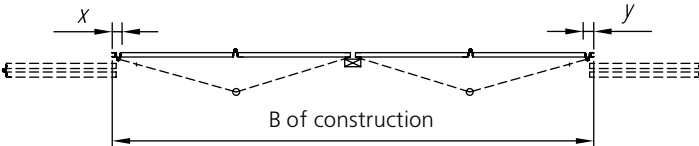
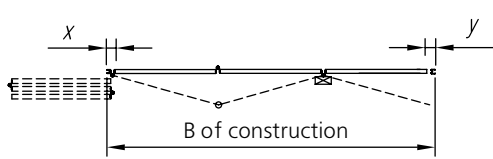
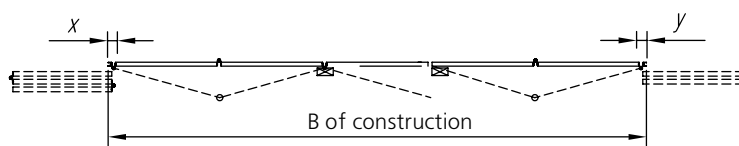
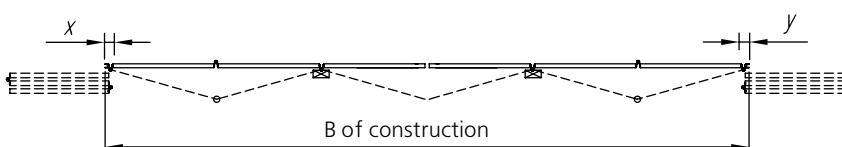
SUMMARY TABLE OF DIMENSIONS FOR FOLDING GATES WITHOUT BOTTOM GUIDES BY LAY-ON MOUNTING AND 90° OPENING

Models: - 1002/MO/90°-180° (2+0), 1003/MA/90°-180° (3+0), 1004/MO/90° (4+0),
2002/MO (1+1), 2003/MO/90°-180° (2+1), 2004/MO/90°-180° (2+2), 2005/MA/90°-180° (3+2),
2005/MO/90° (4+1), 2006/MA/90°-180° (3+3), 2006/MO/90° (4+2), 2008/MO/90° (4+4).

	2+0	$x = 290 \text{ mm}$	$y = 120 \text{ mm}$
	2+1	$x = 290 \text{ mm}$	$y = 120 \text{ mm}$
	2+2	$x = 290 \text{ mm}$	$y = 290 \text{ mm}$
	3+0	$x = 390 \text{ mm}$	$y = 120 \text{ mm}$
	4+1	$x = 490 \text{ mm}$	$y = 120 \text{ mm}$
	3+2	$x = 390 \text{ mm}$	$y = 290 \text{ mm}$
	3+3	$x = 390 \text{ mm}$	$y = 390 \text{ mm}$
	4+0	$x = 490 \text{ mm}$	$y = 120 \text{ mm}$
	4+2	$x = 490 \text{ mm}$	$y = 290 \text{ mm}$
	4+4	$x = 490 \text{ mm}$	$y = 490 \text{ mm}$

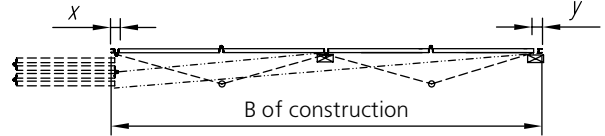
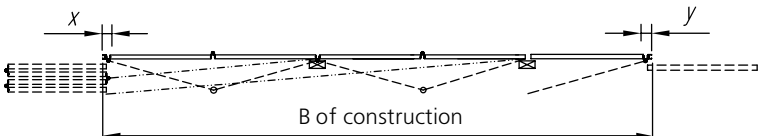
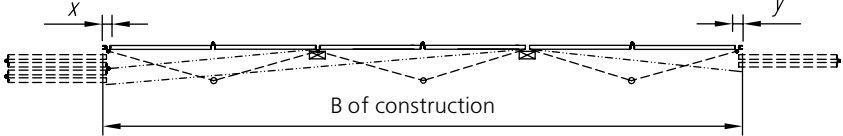
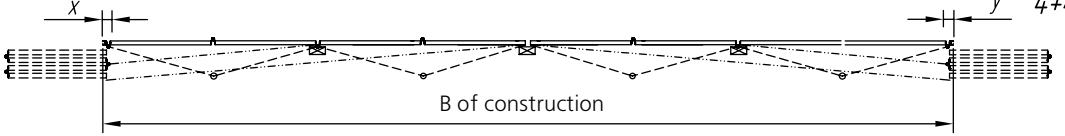
SUMMARY TABLE OF DIMENSIONS FOR FOLDING GATES WITHOUT BOTTOM GUIDES BY LAY-ON MOUNTING AND 180° OPENING

Models: - 1002/MO/90°-180° (2+0), 1003/MA/90°-180° (3+0), 1004/MO/90° (4+0), 2002/MO (1+1), 2003/MO/90°-180° (2+1), 2004/MO/90°-180° (2+2), 2005/MA/90°-180° (3+2), 2005/MO/90° (4+1), 2006/MA/90°-180° (3+3), 2006/MO/90° (4+2), 2008/MO/90° (4+4).

	2+0	$x = 120 \text{ mm}$	$y = 120 \text{ mm}$
	2+1	$x = 120 \text{ mm}$	$y = 120 \text{ mm}$
	2+2	$x = 120 \text{ mm}$	$y = 120 \text{ mm}$
	3+0	$x = 120 \text{ mm}$	$y = 120 \text{ mm}$
	3+2	$x = 120 \text{ mm}$	$y = 120 \text{ mm}$
	3+3	$x = 120 \text{ mm}$	$y = 120 \text{ mm}$

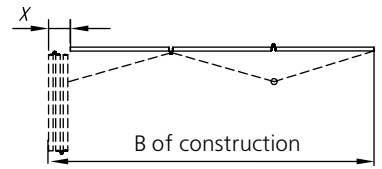
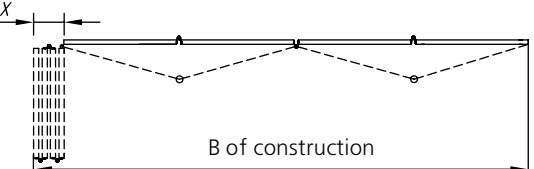
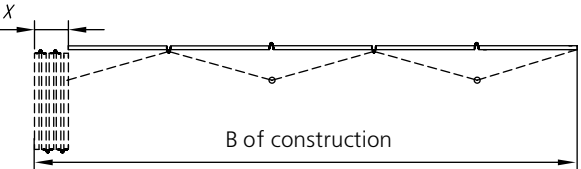
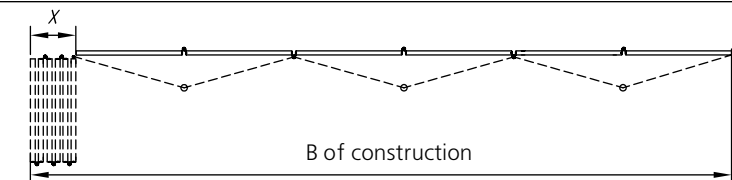
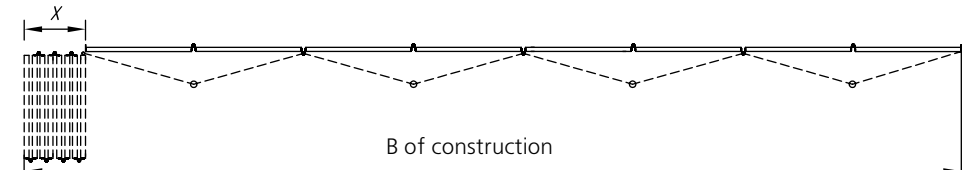
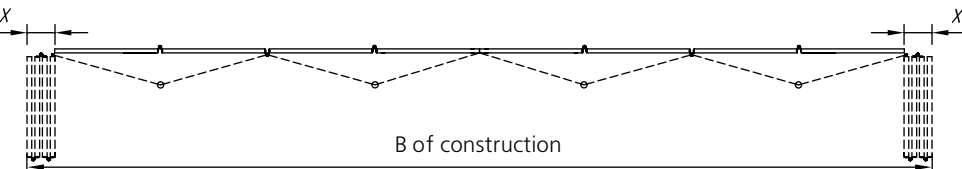
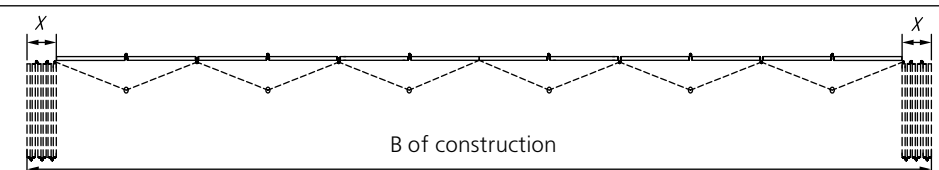
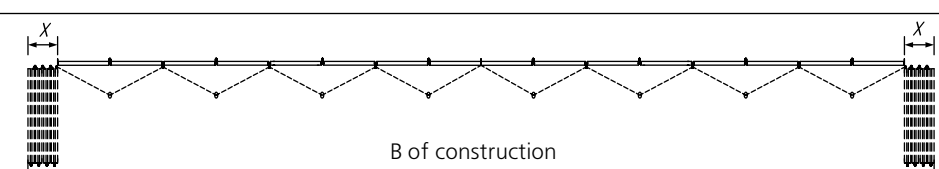
SUMMARY TABLE OF DIMENSIONS FOR FOLDING GATES WITHOUT BOTTOM GUIDES
BY LAY-ON MOUNTING AND 180° OPENING

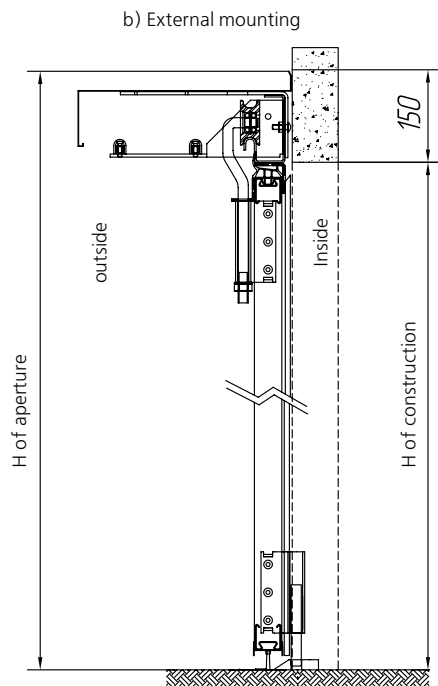
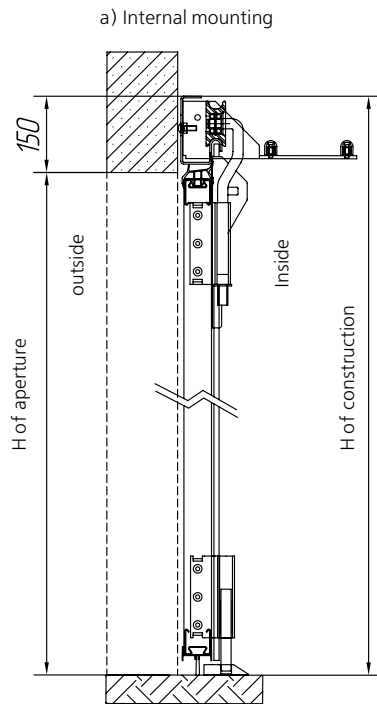
Models: - 1004/MO/180° (4+0), 2005/MO/180° (4+1), 2006/MO/180° (4+2),
2008/MO/180° (4+4).

	4+0	$x = 120\text{ mm}$	$y = 120\text{ mm}$
	4+1	$x = 120\text{ mm}$	$y = 120\text{ mm}$
	4+2	$x = 120\text{ mm}$	$y = 120\text{ mm}$
	4+4	$x = 120\text{ mm}$	$y = 120\text{ mm}$

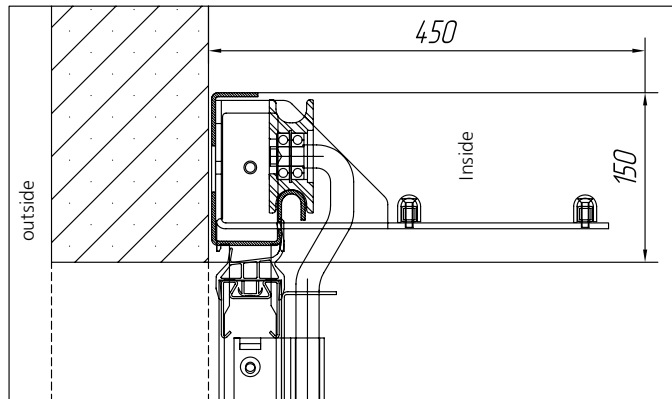
SUMMARY TABLE OF DIMENSIONS FOR FOLDING GATES WITH BOTTOM GUIDES

Models: - 1003/MO/S (3+0), 1005/MO/S (5+0), 1006/MO/S (6+0), 1008/MO/S (8+0),
2006/MO/S (3+3), 2008/MO/S (4+4), 1012/MO/S (6+6), 1016/MO/S (8+8).

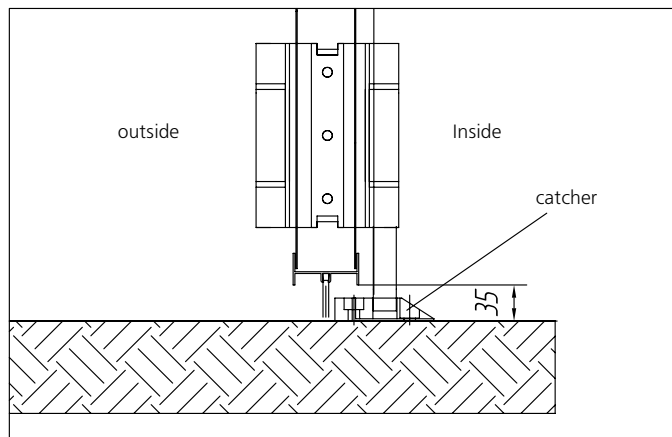
	3+0	X = 660 mm (460+200 operator)
	4+0	X = 660 mm (460+200 operator)
	5+0	X = 860 mm (660+200 operator)
	6+0	X = 860 mm (660+200 operator)
	8+0	X = 1060 mm (860+200 operator)
	4+4	X = 660 mm (460+200 operator)
	6+6	X = 860 mm (660+200 operator)
	8+8	X = 1060 mm (860+200 operator)



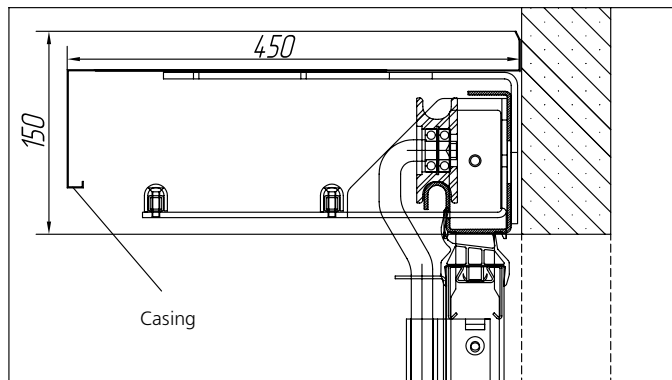
View of roller support



View of catcher



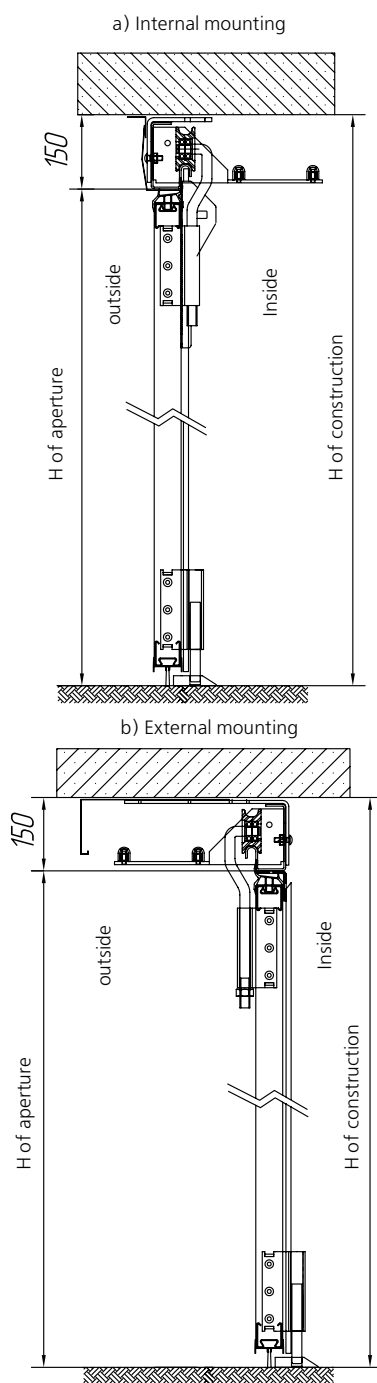
View of roller support



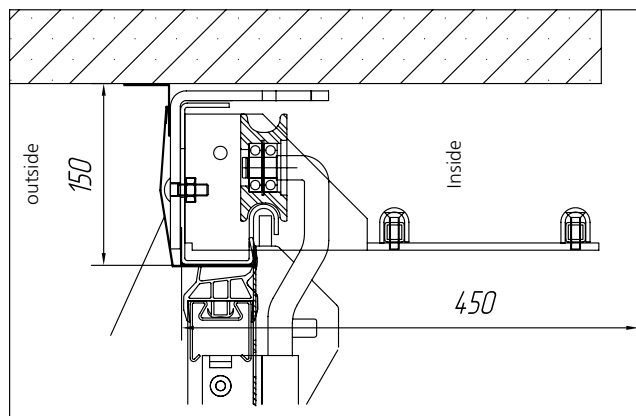
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MOUNTING DIMENSIONS FOR
LAY-ON MOUNTING OF FOLDING
GATES WITHOUT BOTTOM GUIDE

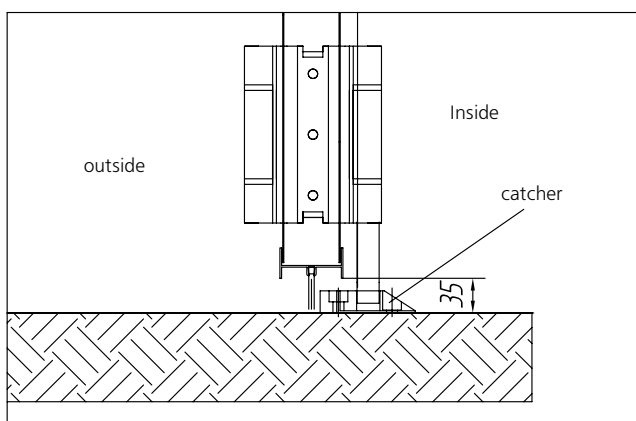




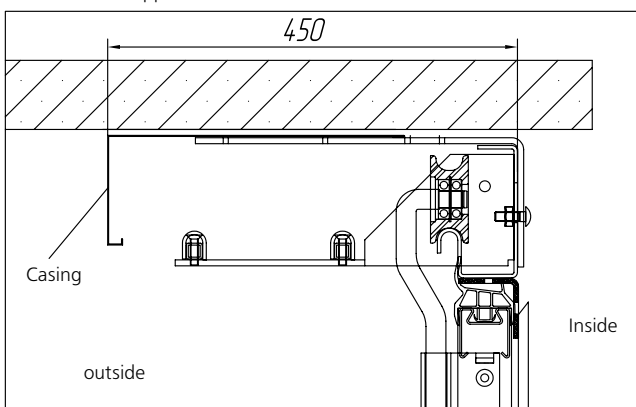
View of roller support



View of catcher



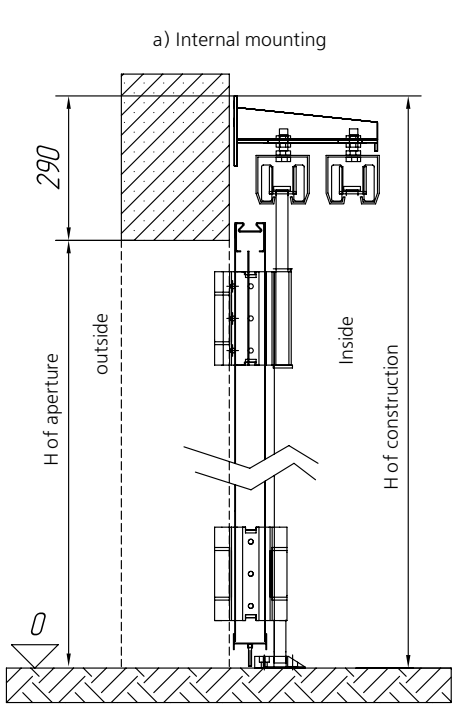
View of roller support



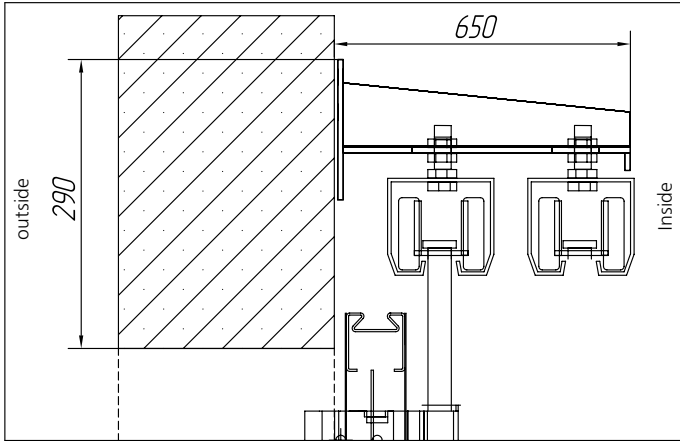
Models - 1002/MO/900-1800 (2+0),
1003/MA/900-1800 (3+0), 1004/MO/900 (4+0),
2002/MO (1+1), 2003/MO/900-1800 (2+1),
2004/MO/900-1800 (2+2), 2005/MA/900-1800 (3+2),
2005/MO/900 (4+1), 2006/MA/900-1800 (3+3),
2006/MO/900 (4+2), 2008/MO/900 (4+4).

MOUNTING DIMENSIONS FOR
CUT-IN MOUNTING OF FOLDING
GATES WITHOUT BOTTOM GUIDE

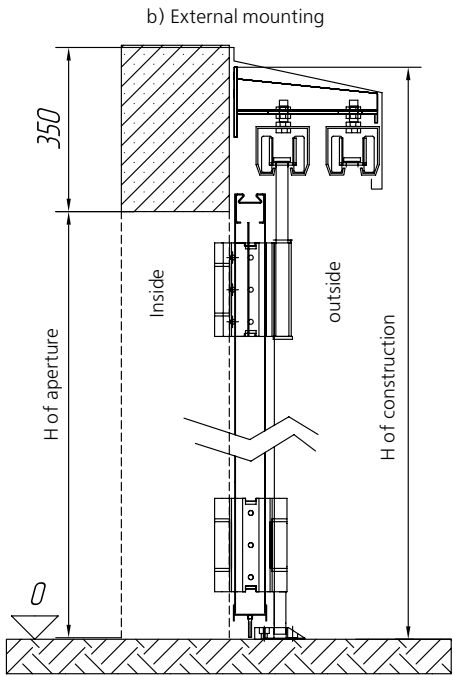
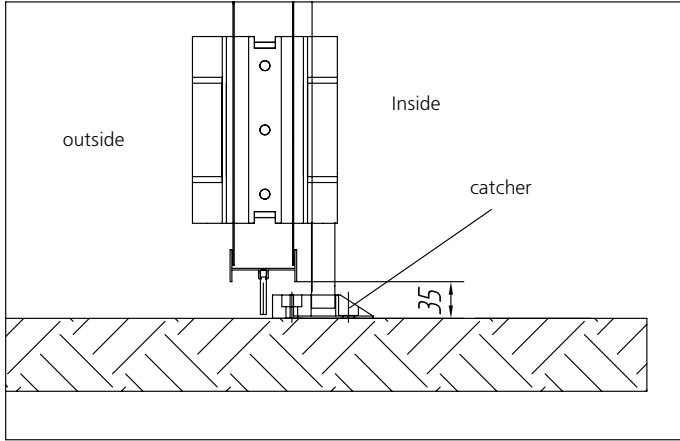




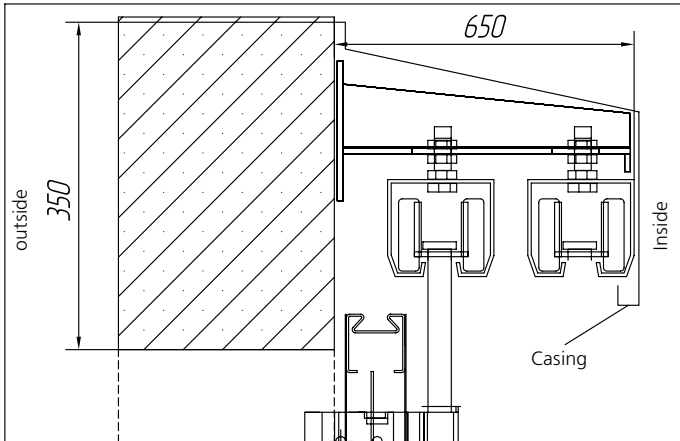
View of roller support



View of catcher



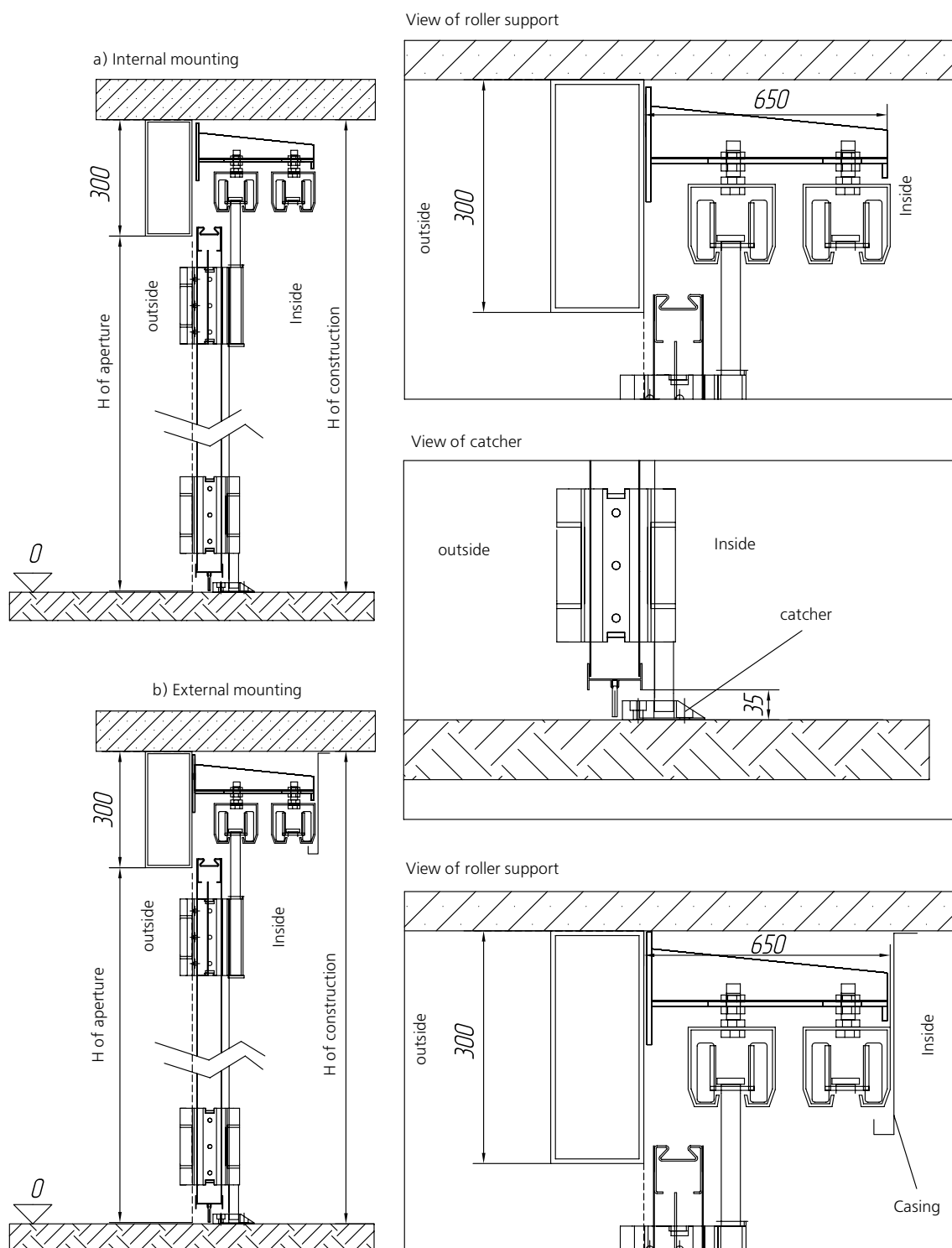
View of roller support



Models - 1004/MO/1800 (4+0),
2005/MO/1800 (4+1), 2006/MO/1800 (4+2),
2008/MO/1800 (4+4).

MOUNTING DIMENSIONS FOR
LAY-ON MOUNTING OF FOLDING
GATES WITHOUT BOTTOM GUIDE

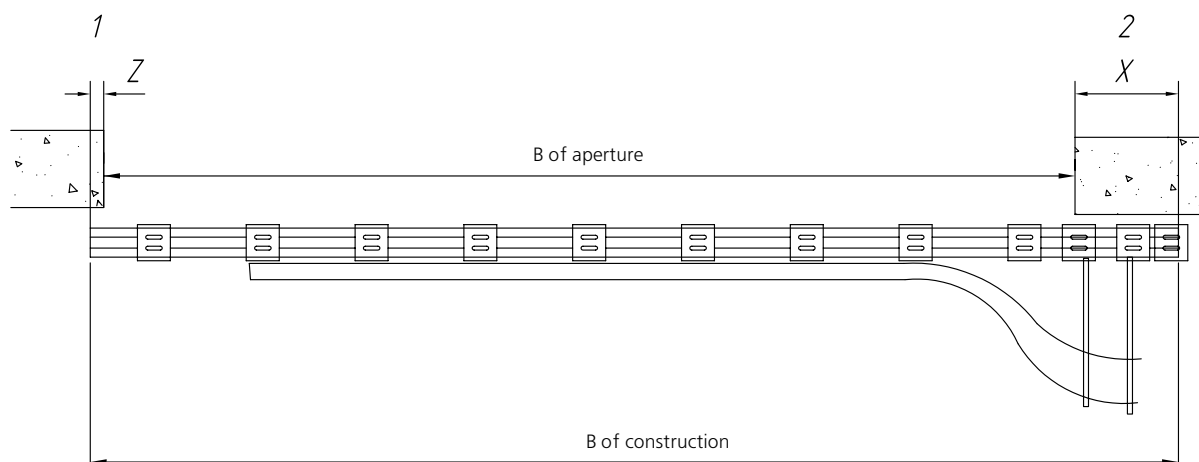




Models - 1004/MO/1800(4+0),
2005/MO/1800(4+1), 2006/MO/1800(4+2),
2008/MO/1800(4+4).

MOUNTING DIMENSIONS FOR
CUT-IN MOUNTING OF FOLDING
GATES WITHOUT BOTTOM GUIDE





1st variant of motor installation

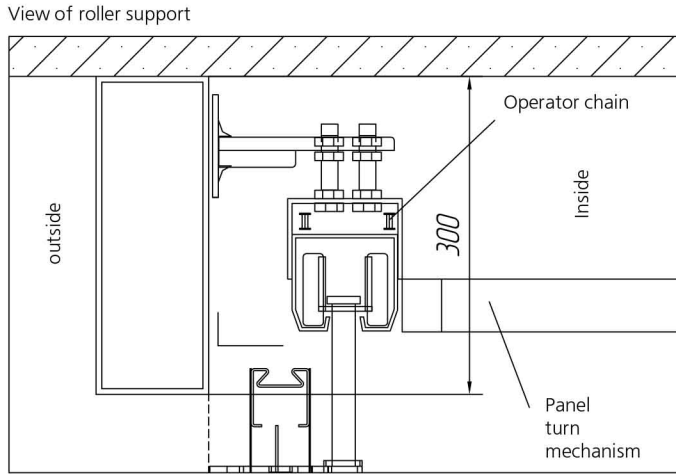
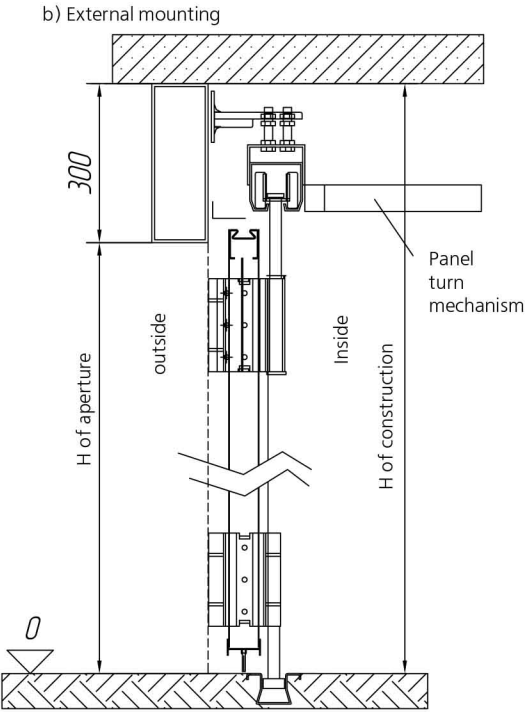
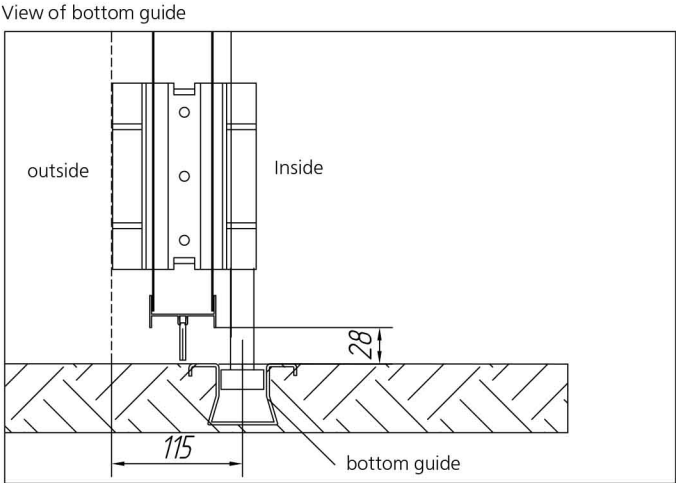
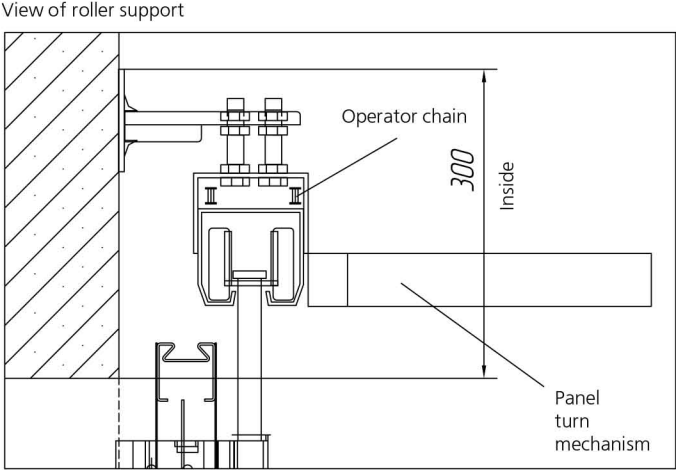
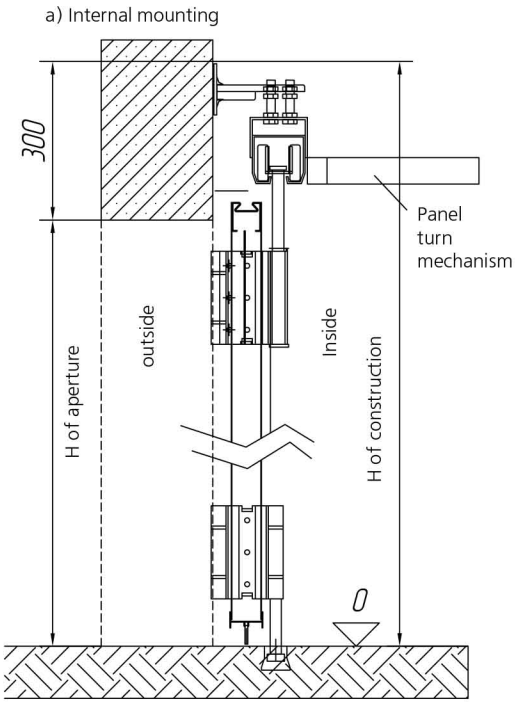
Quantity of leaves	X, mm	Z, mm
3	660	150
4	660	150
5	860	150
6	860	150
8	1060	150

2nd variant of motor installation

Quantity of leaves	X, mm	Z, mm
3	460	350
4	460	350
5	660	350
6	660	350
8	860	350

width of operator 200 mm

[illegible]



Models - 1003/MO/S (3+0), 1005/MO/S (5+0),
1006/MO/S (6+0), 1008/MO/S (8+0),
2006/MO/S (3+3), 2008/MO/S (4+4), 2012/M
O/S (6+6), 2016/MO/S (8+8).

MOUNTING DIMENSIONS FOR
LAY-ON AND CUT-IN MOUNTING
OF FOLDING GATES WITH
BOTTOM GUIDE

