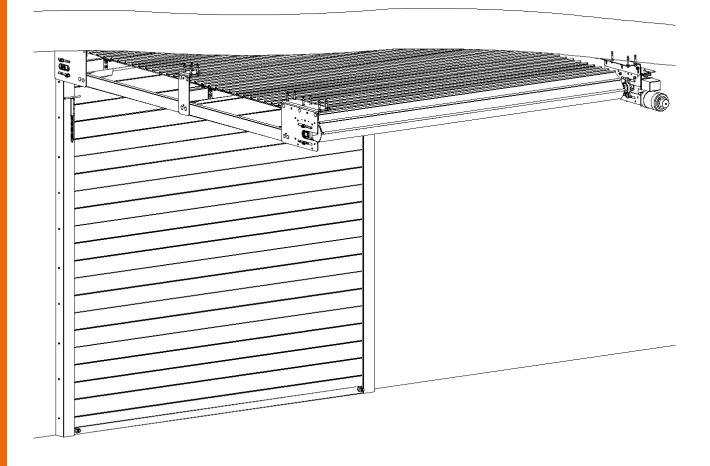


# Installation manual RGS-H 60 EI 60 DP1 and RGS-H 120 EI 120 DP1









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### 1. NOTICE BEFORE INSTALLATION

Dear customers,

we are pleased, you have decided for rolling fire shutters from the company Somati system s.r.o.

Please, read the instructions carefully and follow them step by step. You will obtain important information on the safe installation and operation of your gates and proper maintenance and repairs.

Professional use and proper maintenance significantly influence the performance and serviceability of the gate system. Errors in operating and improper maintenance lead to operating malfunctions, which can be normally avoided. Your satisfaction and long-term operational safety is ensured only in case of professional use and proper maintenance.

#### **Important guidelines:**

- Follow instructions mentioned in this manual.
- Improper installation or maintenance of the gate can lead to life-threatening injuries. For your own safety, have the installation done by a qualified company.
- Transport gate leaves only on a special pallet. During transportation without pallet you can damage the gate surface.
- These gates open and close vertically. For this reason, make sure that during the operation of the gate there are no persons in the area of the gate movement especially children and no objects blocking movement of the gate.
- Use gate system only if it is in perfect technical condition. Malfunction of the gate system can lead to life-threatening injuries.
- Make sure that during all inspections, repairs and cleaning, the gate system is not controlled by a third party.
- Do not change or remove any functional parts! This way you can put important safety components out of order.
- Do not install any additional structural parts. All structural parts are tailor-made and fit exactly to each other. Additional mounted parts can overload the gate structure and lead to life-threatening injuries.

#### **Work equipment:**

• Use only tools suitable for installation of gate system and appropriate equipment.

Gather all the following work equipment:

- Appropriate lifting equipment (forklift truck, crane) for lifting roller and placing it on the brackets (watch out for the total weight of the gate mentioned at the installation drawings)
- Appropriate lifting platform or scaffolding
- Drill
- Grinder
- Set of spanners
- Optical levelling devices
- ACCU screwdriver
- Screw taps (in case of installation on steel structure)





# 2. CHECK OF DELIVERY

Before starting the installation, remove the technical drawing and pacing list from the packaging and make sure that the delivery corresponds to the packing list.

W = opening width H = opening height

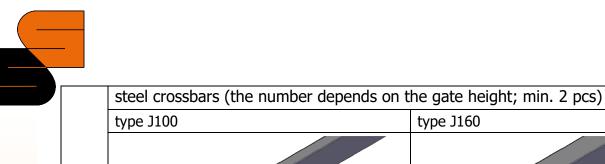
type J100: W  $\leq$  5,0 m, or W x H  $\leq$  15 m<sup>2</sup> type J160: W > 5,0 m, or W x H > 15 m<sup>2</sup>

STEE	TEEL STRUCTURE					
	L-profile of the transmission roller (2 pcs	)				
	type J100	type J160				
1.1	258	540 540				
	bracket of the transmission roller, adjusta	able (2 pcs)				
	type J100	type J160				
1.2	450	540				
	L-profile of the main roller (2 pcs)					
	type J100	type J160				
1.3	520	540				



	bracket of the main roller, adjustable (2 pcs)					
	type J100	type J160				
1.4	520	540				
	centre L-profile (the number depends on t	he gate height; min. 2 pcs)				
	type J100	type J160				
1.5	150	150				
	centre bracket (the number depends on the gate height; min. 2 pcs)					
	type J100	type J160				
1.6	150	150				
	steel longitudinal bars (2 pcs)					
	type J100	type J160				
1.7						
	profile 100x40x2	profile 160x80x4				





steel crossbars (the number depends on the gate height; min. 2 pcs)				
	type J100	type J160		
1.8				
	profile 100x40x2	profile 160x80x4		
	wheel tracks (the number depends on the	gate width; min. 3 pcs)		
1.9	The state of the s			
	mounting bracket MW			
1.10				
1.11	fasteners			

SET	OF TRANSMISSION ROLLER	
	transmission roller	
	type J100	type J160
2.1		



١.			
4		Bearings for transmission roller (2 pcs)	
		UCFL 208	UCFL 210
		(for shaft Ø40 mm)	(for shaft Ø50 mm)
	2.2		
	2.3	fasteners	

SET	ET OF THE MAIN ROLLER						
3.1	Main roller including non-in	sulated slats and min. 2 pcs	of insulated slats				
	number of insulated slats a	ccording to the gate height					
	slat with the riveted counterpart of the lathing	bottom slat with two pins o	f the tensioner				
		without OSE	with OSE				
3.2							
		andardly 2 pcs, for gates with					
	UCFL 208 (for shaft of the main roller Ø40mm)	UCFL 210 (for shaft of the main roller Ø50mm)	UCFL 212 (for shaft of the main roller Ø60mm)				
3.3		40					



	T				
3.4	fasteners				
	safety brake (only for gates with chain transmission) (the number behind the dash indicates the diameter of the main roller shaft)				
	FG 80-40 FG 120-50				
3.5					
	bracket of the safety brake (on	ly for gates	with chain tra	nsmission)	
3.6		Only for gates with chain transmission)			
	motor				
	motor on the shaft	motor with chain transr		ission	
3.7	SI 17.15, 25.10, SI63 25.15, SI 40.10, 40.15, 55.10, 55.15, 75.10, 75.15, 100.10, 140.7, 180.6	FS 15.20, 25.20, 50.20, 110.18		KE 9.24, 20.24, 30.24, 40.24, 60.24, 80.24, 120.24	
	bracket of the motor				
	for motor on the shaft		for motor with	n chain transmission	
3.8					



3.9	underlay of the motor				
	small chain whool of the motor (only for gates with chain transmission)				
	small chain wheel of the motor (only for gates with chain transmission)				
2.10	internal diameter according to the motor s				
3.10				(10 B-1)	
	3,0	3/4" x 7/1 1" x 17,02		(12 B-1)	
	big chain wheel (only for gates			(16 B-1)	
	wheel for Taper Lock, type according to the chain				
2.11			5/8" x 3/8"	(10 B-1)	
3.11	A CONTRACTOR OF THE PARTY OF TH		3/4" x 7/16"	(12 B-1)	
			1" x 17,02 mr	n (16 B-1)	
	clamping sleeve Taper Lock (only for gates with chain transmission)			ansmission)	
		type	of chain	Taper Lock	
2.42	100	10 B-1		2012 / 40, 50	
3.12	10 B 12 B- 16 B-				
				2517 / 40,50,60	
				3020 / 60, 75	
	chain (only for gates with chain transmission)				
	10B-1 (g = 14,73 mm)	12B-1 <i>(g = 16,13 mm)</i>		16B-1 <i>(g = 21,08 mm)</i>	
3.13					
	chain link				
3.14		#			
	threaded block for the chain tensioning (only for gates with chain transmission) (for motors FS 1 pc, for motors KE 2 pcs)			vith chain transmission)	
3.15					
3.13					



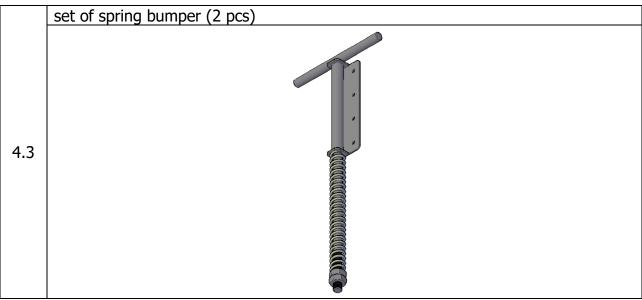


	spacer of the motor	(2 pcs)	(only for gate	s with chain tra	ansmis	sion)
	KE 9.24	KE 20	KE 20.24 - 40.24   KE 60.24 - 12		20.24	FS 25.20
3.16						
	shaft key for fixing the main roller shaft with the motor (variant with motor on the shaft) or for fixing the shaft with the big chain wheel + key for the safety brake (for gates with chain transmission)					
3.17			diameter of the shaff		dimer key b	nsions of the shaft x h
		40 mm		12 x 8	3 mm	
		50 mm		14 x 9 mm		
	J D H		60 mm		18 x 11 mm	
	fasteners					

GUIE	complete left and right guide	
	for gates RGS-H 60	for gates RGS-H 120 and for gates RGS-H 60 width ≥ 6m
4.1	112 35 5 1 4 3 2 115	157 35 5 1 160
	part 1 – body of the guide part 2 – body of the guide part 3 – covering of the guide countersunk screw M6x20 + flanged nut N groove for anchoring to the wall garage profile *  * - only in case of frame sealing	detail of the garage profile 3
4.2	fasteners	







HOR	RIZONTAL LATHIN	G		
	lathing profile			
	for gates RGS-H 60		for gates RGS-H 120	
	without frame sealing	with frame sealing	without frame sealing	with frame sealing
5.1	26	97	141	141 (164)
	1 – sealing profile Do	OCO for gates with f	rame sealing	
5.2	fasteners			

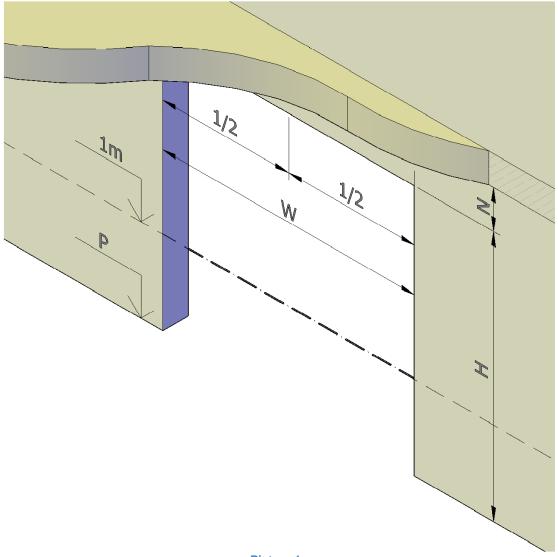


CON	CONTROL			
control box + installation manual				
	FSTRONIC DES-FS	FSTRONIC DES-FI	TS 97x	
6.1	ESCOPE TO SECONDARY OF THE PROPERTY OF THE PRO			
6.2	cabel of motor			

ОТН	OTHER			
7.1	additional accessories – according to the order specification			
	installation material – standard delivery does not include bolts for installation into supporting structure – possible to order according to the type of supporting structure (wall, steel structure)			
	recommended anchor material			
	wall material	brackets	guides	lathing
	concrete	anchor to concrete M12x110 (e.g. Hilti HSA)	wall plug (e.g. Fisher SX) 8x65 mm + buttonhead screw 6x80 mm	wall plug (e.g. Fisher SX) 8x65 mm + countersunk screw 6x80 mm
7.2	steel structure	screw M12x min. 30	TEX 6,3x45 mm with hexagon head	TEX 5,5x45 mm with countersunk head
	ceramic wall	anchoring with		
	(Porotherm)	threaded rod M12	wall plug (e.g. Fisher SX) 8x65 mm + buttonhead screw	wall plug (e.g. Fisher SX) 8x65 mm + countersunk screw 6x80 mm
	gas-silicate (Ytong)	through wall + spreading plates		
	wall from solid	threaded rod M12 +	6x80 mm	
	bricks	chemical anchor		
exam	mple of optional electrical accessories			
	optional battery module for FSTRONIC DES-FS			
7.3				
	connection box with spiral cable for optical safety edge OSE, including grommet			
7.4	S S S S S S S S S S S S S S S S S S S			18



# 3. CHECK OF CONTRUCTION READINESS ACCORDING TO THE **DRAWING**



Picture 1

#### RGS-H EI 60

opening width  $W \le 5000 \text{ mm} - \text{minimum height of lintel } \mathbf{N} = 450 \text{ mm}$ opening width W > 5000 mm - minimum height of lintel N = 500 mm

#### RGS-H EI 120

opening width  $W \le 5000 \text{ mm} - \text{minimum height of lintel } \mathbf{N} = 500 \text{ mm}$ opening width W > 5000 mm - minimum height of lintel N = 550 mm

Height of the brackets is adjustable, which enables tolerance of the lintel height to +40 mm.

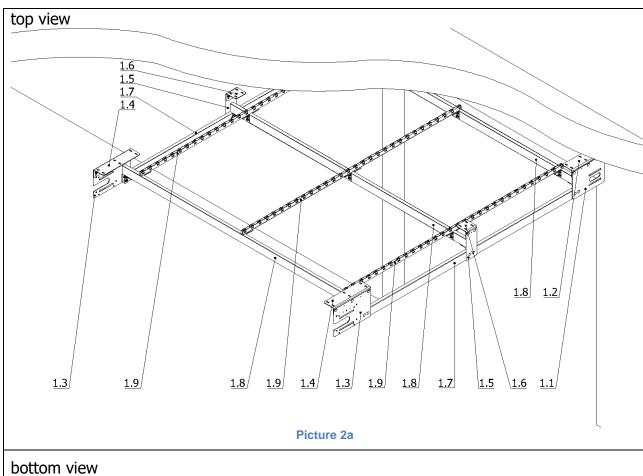
- See dimensions in the enclosed drawings.
- Mark centre of the opening.
- Make a level line on the wall (horizontal line at height 1m above clear floor level).
- If any of the dimensions are bigger than in the documentation, it is not possible to install the gate.

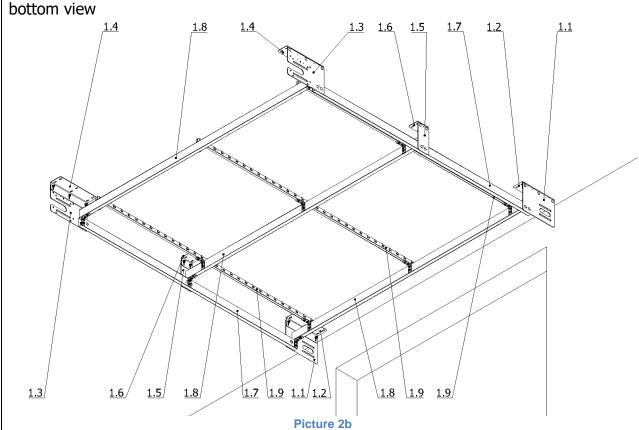




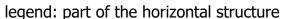
# 4. INSTALLATION

# 4.1 Horizontal structure

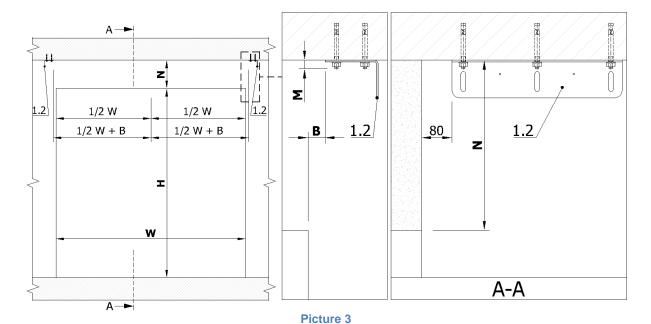








9	
1.1	L-profile of the transmission roller
1.2	bracket of the transmission roller, adjustable
1.3	L-profile of the main roller
1.4	bracket of the main roller, adjustable
1.5	centre L-profile
1.6	centre bracket
1.7	steel longitudinal bars
1.8	steel crossbars
1.9	wheel track
1.10	mounting bracket MW



Picture 4

According to the enclosed installation drawings anchor adjustable brackets of the transmission roller [1, 2] to the ceiling

the transmission roller [1.2] to the ceiling structure (or alternatively to the prepared secondary structure).

Distance of the bracket from the lintel is standardly 80 mm.

Distance B from the edge of opening: RGS-H 60

for width  $W \le 5000 \text{ mm } \mathbf{B} = 45 \text{ mm}$  for width  $W > 5000 \text{ mm } \mathbf{B} = 50 \text{ mm}$ 

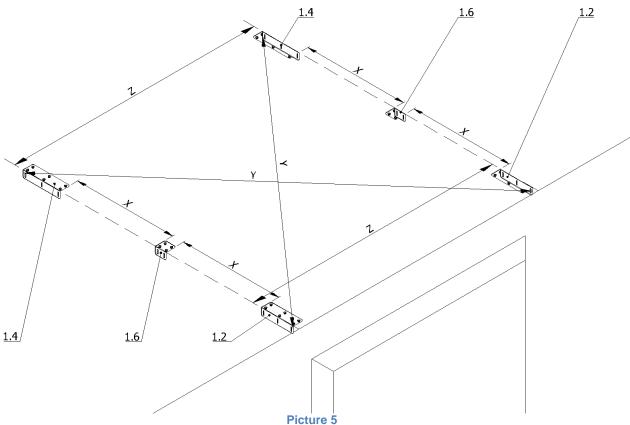
**RGS-H 120** 

for width  $W \le 5000 \text{ mm } \mathbf{B} = 90 \text{ mm}$  for width  $W > 5000 \text{ mm } \mathbf{B} = 95 \text{ mm}$ 

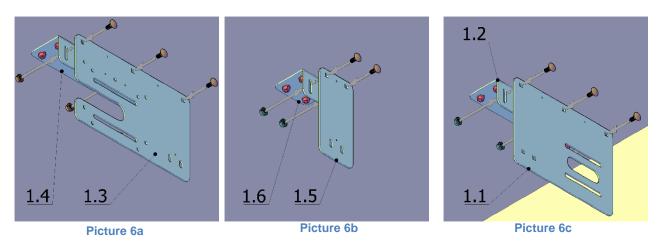
Maximum allowed overlap of anchor material  $\mathbf{M} = 25$  mm. Longer anchors must be shortened!





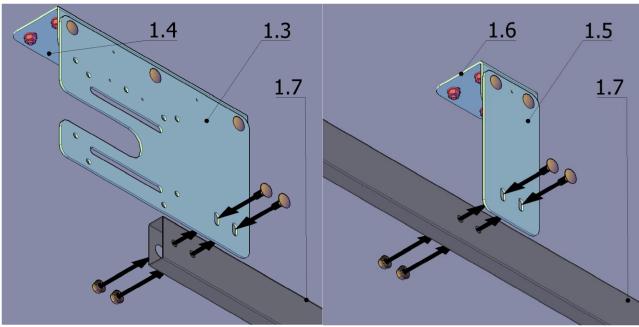


To the ceiling structure, anchor the centre brackets [1.6] and brackets of the main roller [1.4] on the right and the left side of the opening. The pitch X and the number of centre brackets [1.6] vary depending on the gate height. The vertical part of the brackets must be in one plane. The rows of the left and right brackets must be parallel to each other (distance Z among all brackets must be the same). Verify alignment of diagonals Y.

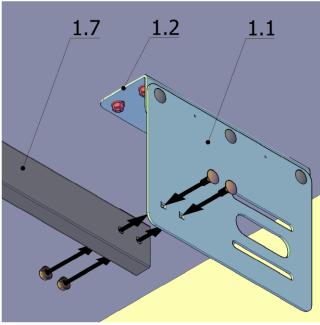


Mount L-profiles [1.1, 1.3, 1.5] on the brackets [1.2, 1.4, 1.6] using the bolts M12x30 and flanged nuts. Insert squares on the bolts into the square cut-outs in the L-profiles. Adjust the L-profiles to the same height level. The L-profile of the main roller [1.3] is mounted with the longitudinal cut-out away from the wall (see pic. 6a). The L-profile of the transmission roller [1.1] is mounted with the longitudinal grooves closer to the wall (see pic. 6c).





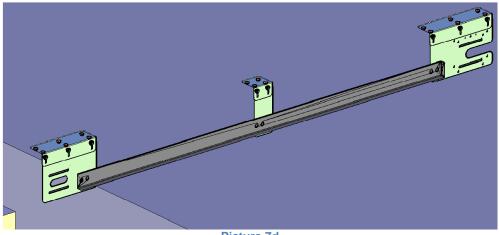
Picture 7a Picture 7b



Picture 7c

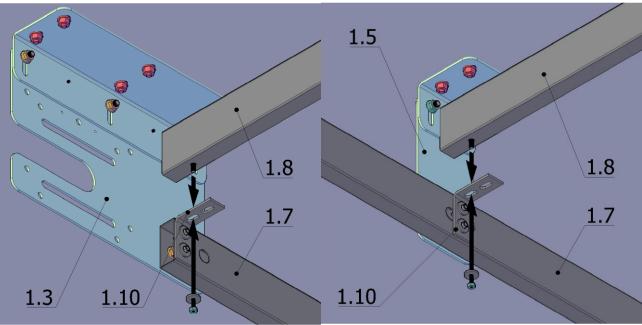
To the L-profiles of the brackets [1.3, 1.5, 1.1] mount steel longitudinal bars [1.7] for the left and right side using bolts M12x30 and flanged nuts. Insert squares of the bolts into the grooves in the L-profiles. Mount nuts using the larger holes in the longitudinal bars. Before tightening of the nuts, check if both longitudinal bars are in the horizontal plane and in the same height position (measured from the level line).

After aligning, fix the L-profiles [1.1, 1.5, 1.3] to the brackets [1.2, 1.6, 1.4] and longitudinal bars [1.7] by drilling through the prepared holes in the L-profiles and securing with threaded bolts M6x16 with washer Ø6.

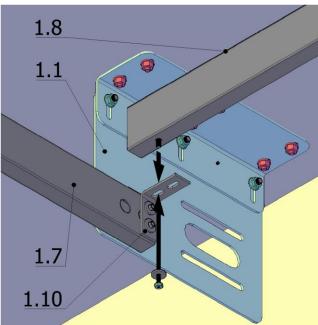




Picture 7d



Picture 8b Picture 8a

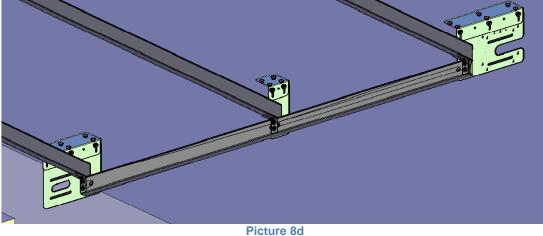


Picture 8c

According to the installation drawing anchor mounting brackets MW [1.10] to the longitudinal bars [1.7] using self-drilling screws TEX 6,3x32 with large washer. The top surface of the mounting brackets must be aligned with the top face of the longitudinal bar.

Fix crossbars [1.8] to the brackets [1.10] and secure with nut M8 used for screws, which are part of the longitudinal bars.

Check rectangularity of the assembled structure by measuring the diagonals.

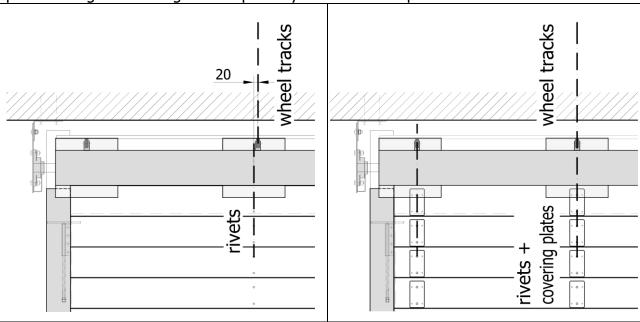


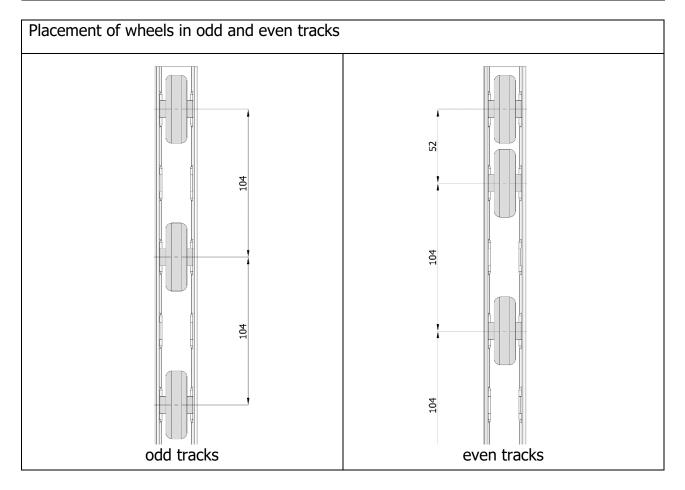


# Wheel tracks

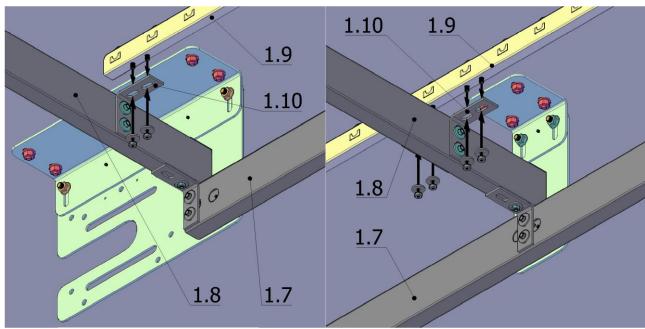
The spacing of the pulley beams is indicated on the door assembly drawing. In general:

- galvanised slats: the wheel tracks are located approx. 20 mm from the axis of the rivets on the slats
- painted slats: the wheel tracks are located in the axis of the rivets. The slats are protected against damage to the paint by stainless steel plates

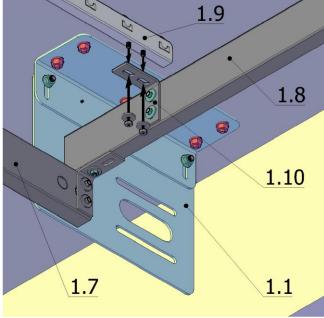








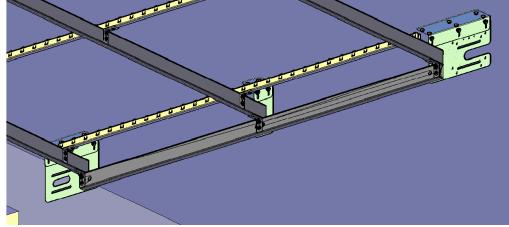
Picture 9a



Picture 9b

Anchor mounting brackets [1.10] to the crossbars [1.8] using self-drilling screws TEX 6,3x22 with large washer. Then to the mounting brackets fix wheel track [1.9] with the flat-headed rail bolts inserted from the top. Insert the bolts into the holes in the mounting brackets and secure them with nuts with large washers.





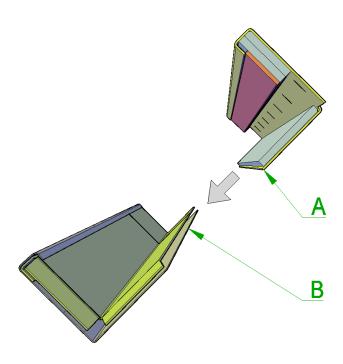
Picture 9d





## 4.2 Installation of the vertical guides

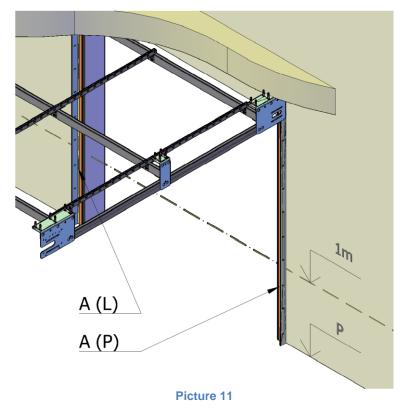
Side guides are delivered in the left and right variant. The design differs according to the fire resistance (see pic. 12a - 12d). The guide is consisting of two parts, connected with countersunk screws M6 and flanged nuts. On the inner upper edge of the part B is made a bevel for better guidance of the slats.



Part A – body of the guide (wall-mounted – standardly anchored through every second pre-prepared hole. Must be always anchored to the first hole from the top and the first hole from the bottom.)

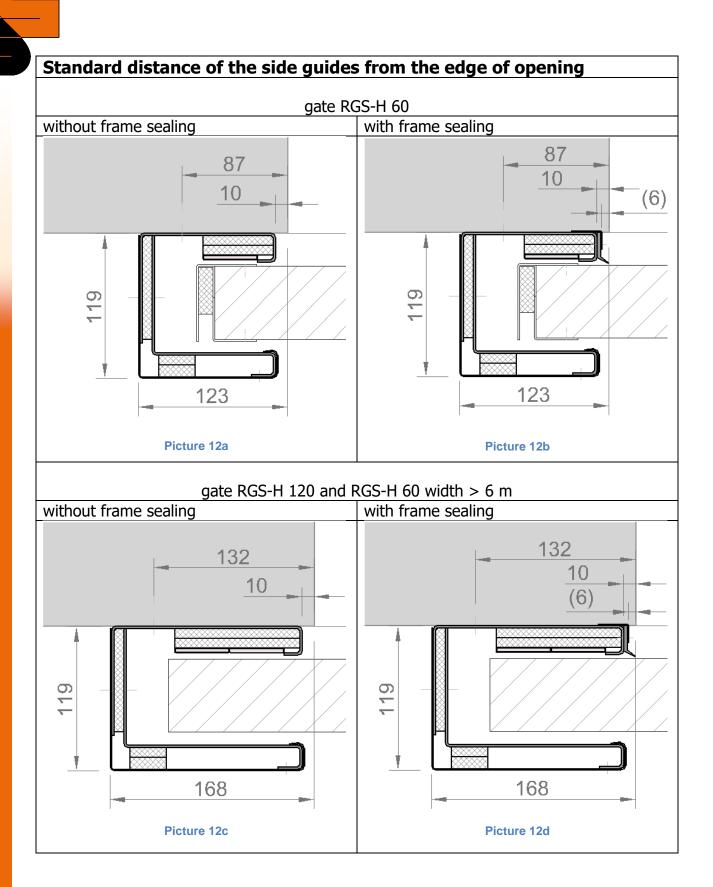
Part B – covering of the guide





- 1. Mark on the guides distance 1m from the bottom edge.
- 2. Mount part A (P right, L-left) on the wall at a distance from the edge of the opening indicated in the installation drawing. The vertical pitch of the anchor points must be max. 1 m.
- 3. Check the correct distance of the guides by inserting horizontal lathing between the guides. The lathing should fit tightly to the guides on both sides.
- 4. Align the guides to the vertical plane and tighten the anchor material.



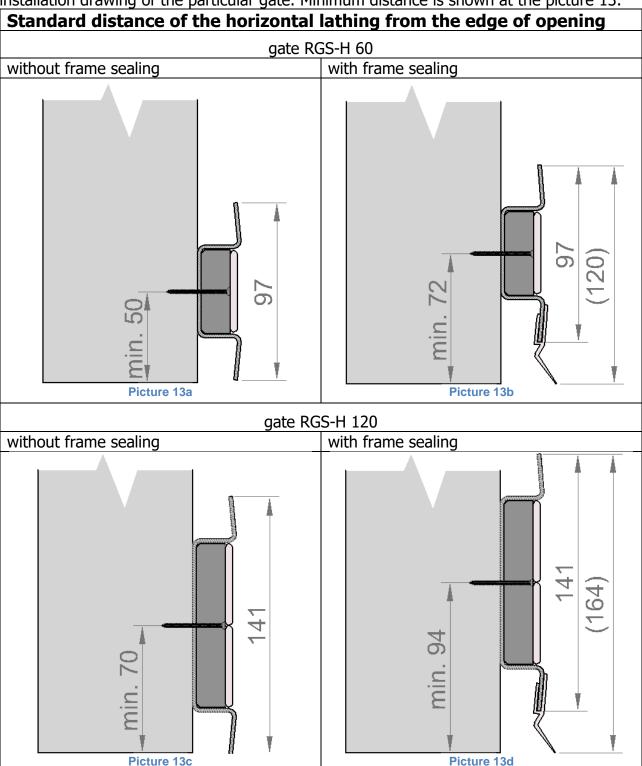




# 4.3 Installation of the horizontal lathing

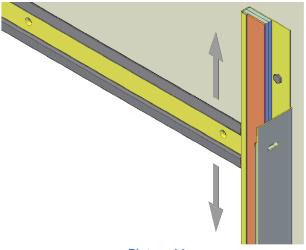
Picture 13c

The horizontal lathing is placed above the edge of the opening, between side guides. The design differs according to the fire resistance (to EI 60 and to EI 120) and according to the requirement for frame sealing. It is delivered without the glued intumescent tape, which is standardly glued after anchoring of the lathing to the wall. The lathing must be placed in a position when Z-profile, riveted on the second insulated slat from the top, fits in the lathing when gate is closed. Distance of the anchoring axis of the opening edge is indicated in the installation drawing of the particular gate. Minimum distance is shown at the picture 13.



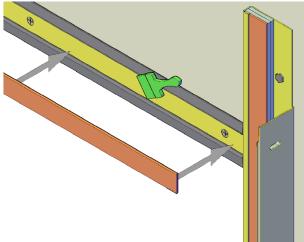






Picture 14a

- 1. Place horizontal lathing between side guides in height according to the installation drawing. Height can be adjusted if necessary.
- 2. Anchor the lathing to the wall through the pre-prepared holes.



Picture 14b

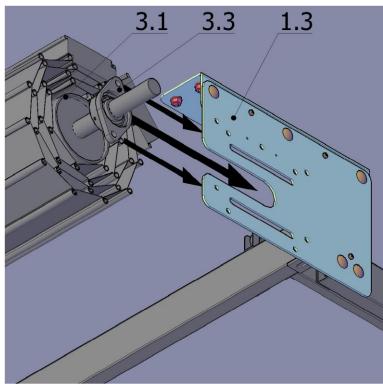
- 1. Apply glue (e.g. Colgel, Mamut Glue).
- 2. Glue intumescent tape to the silicate board in the lathing (gates with fire resistance RGS 120 have two intumescent tapes parallel to each other).





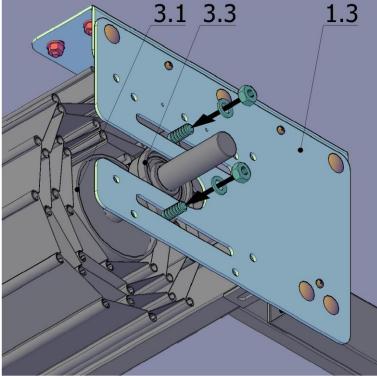
### 4.4 Installation of the main roller

#### Version with motor on the shaft of main roller



Picture 15a

- 1. During the installation keep the slats on the roller tied up.
- 2. Place the bearings UCFL [3.3] on the roller shafts.
- 3. Push the roller with the shafts into the longitudinal cut-outs in the L-profiles of the main roller [1.3].



Picture 15b

1. Fix bearings [3.3] to the Lprofiles [1.3] using buttonhead screws with internal hexagon.

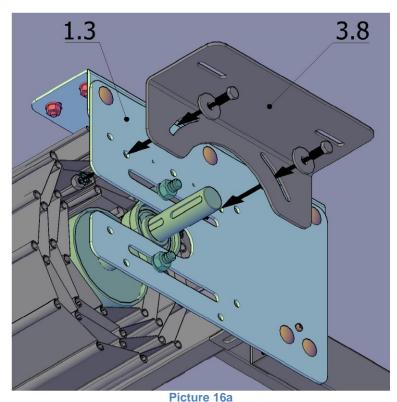
Mount the screws with their head towards the roller.





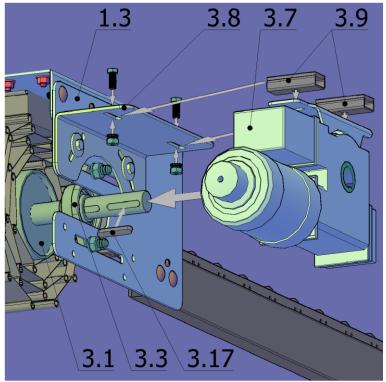
#### 4.5 Installation of the motor

### Version with motor on the shaft of main roller

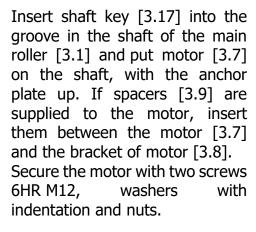


Mount bracket of the motor [3.8] to the L-profile of the main roller [1.3] using two screws 6HR M 12x30, large washers, washers with indentation and nuts.





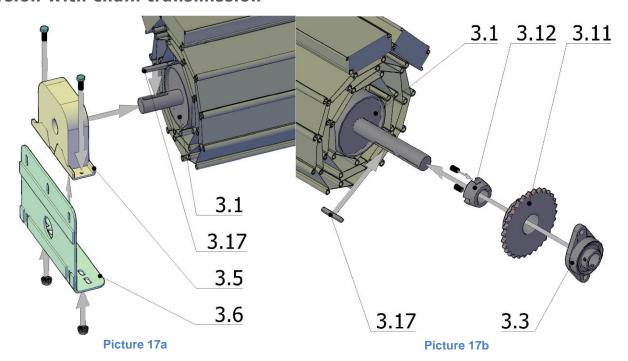
Picture 16b





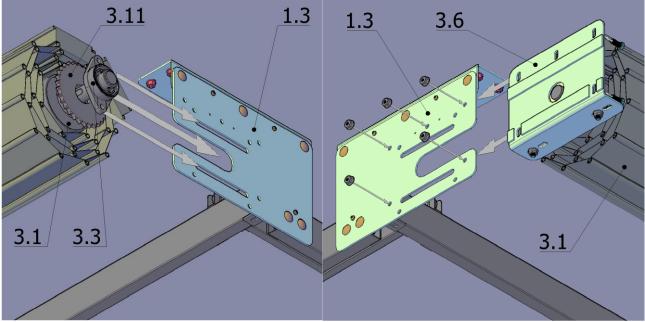


#### Version with chain transmission



According to the installation drawing place shaft key [3.17] and safety brake [3.5] with bracket [3.6] on one of the shafts of the main roller [3.1]. Safety brake is fixed to the bracket with two screws 6HR M12x30 and flanged nuts (see picture 17a).

Insert shaft key [3.17] into the second shaft of the main roller [3.1] (into the groove closer to the roller). On the shaft install big chain wheel with clamping sleeve Taper Lock (see pic. 19c). Then place the bearing UCFL (see pic. 17b) on the shaft.



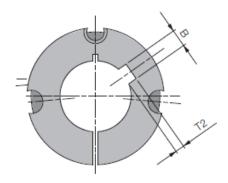
Picture 18a Picture 18b



Place the main roller [3.1] between the L-profiles of the main roller [1.3]. On the side of the safety brake, assemble bracket of the safety brake [3.6] with L-profile [1.3] using five screws 6HR M12x30 and flanged nuts (see pic. 18a). On the side of the motor fix bearing [3.3] to the L-profile [1.3] using buttonhead bolts with internal hexagon and nuts with washer (see pic. 18b).

**Taper lock** – clamping sleeve for fixing of the main chain wheel to the shaft of the main roller. It is supplied with 2 pcs of setting screws (see pic. 19a). On the perimeter of the socket are three holes, one of them is threaded (see pic. 19b). In chain wheel are also three holes, two threaded.

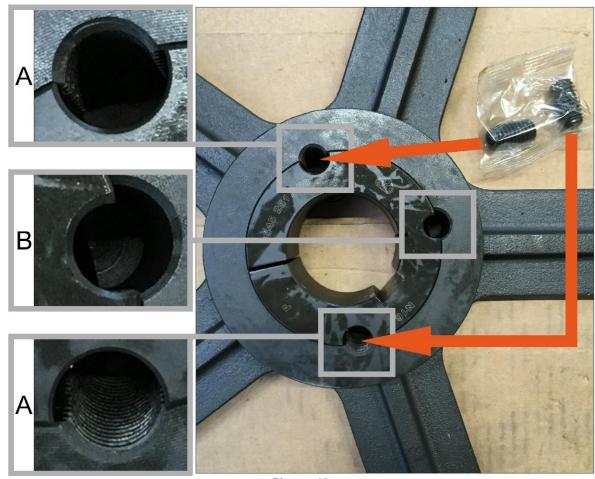




Picture 19a

Picture 19b

- before mounting, clean properly the socket
- place the socket into the wheel the way that the threaded hole aligns the unthreaded one
- manually tighten the screws
- put wheel on the shaft with shaft key, place it in the vertical plane with the small chain wheel on the motor and in turns tighten both setting screws



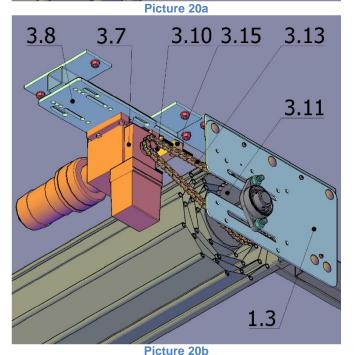


A - threaded hole in the chain wheel, opposite to the hole in Taper Lock without thread B - threaded hole in Taper Lock, opposite to the hole in chain wheel without thread (used only during disassembly of Taper Lock)



3.8 3.11 3.3 1.3

According to the installation drawing anchor the motor bracket [3.8] to the ceiling structure.

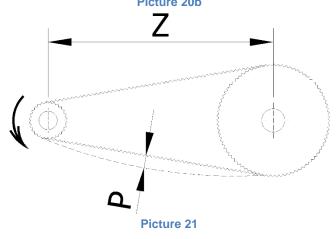


Install threaded block for motor tensioning [3.15] on the motor bracket [3.8].

In case the motor [3.7] is supplied together with spacer, mount it on the motor and then the motor with the spacer mount on the bracket [3.8]. Leave the nuts slightly loosen.

Place the chain [3.13] on both wheels [3.10, 3.11] and connect with joint.

Tension the chain using bolts on the threaded block [3.15].



Chain must freely run on the chain wheel.

Free branch of the chain must be slack not less than 1% and not more than 3% of the axial distance Z.

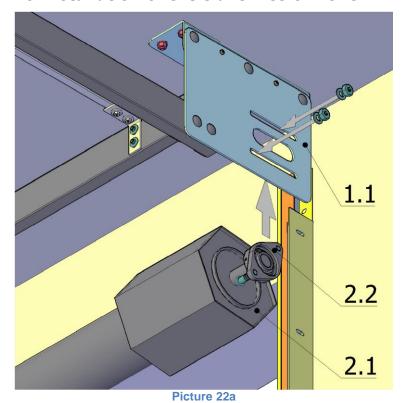
(P = Z\*0.01 to Z\*0.03)

Operating load causes the chain to slowly extend, which must not exceed 2% of its length. Record position of motor on the bracket into the installation report. It is necessary due to the check of chain running performance during service inspections.



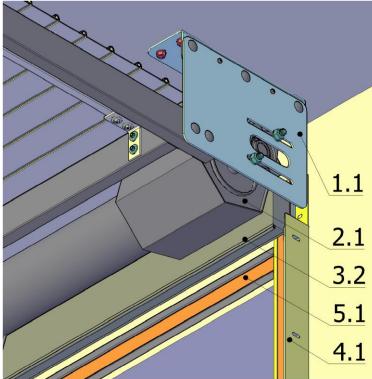


#### 4.6 Installation of the transmission roller



Place bearings UCFL [2.2] on the shafts of the transmission roller [2.1] and fit the set between the L-profiles of the transmission roller [1.1].

Assemble the bearing with the L-profiles using buttonhead screws and nuts with washers.



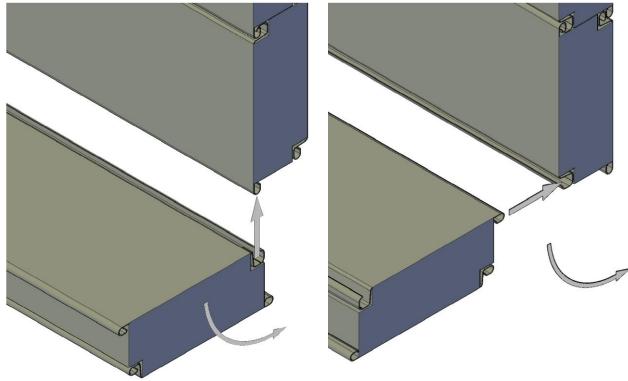
After connection of the motor to the control box and connecting to the power supply, untie the slats rolled-up on the main roller and spread them over the wheel track [1.9] and transmission roller [2.1]. Place the lowest slat into such a height to be able to mount another slat.





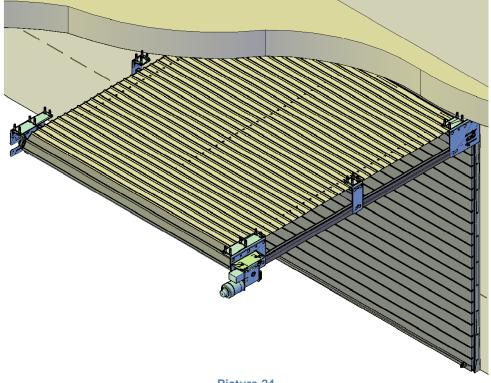
# 4.7 Installation of the slats

new way of slats setting since 10th May 2019:



Picture 23b

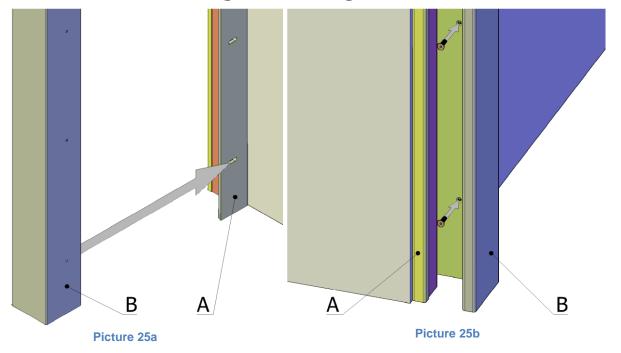
Slats has to be snapped into each other one by one from the roller downwards. Put the slats with the joints to each other at an angle of 90 degrees (see pic. 23), after snapping, the slats are joined and straightened. The last slat has a riveted U profile from the bottom side, or also safety edge OSE.

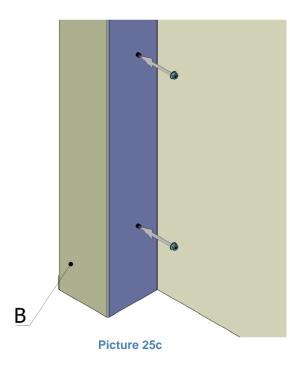






# 4.8 Installation of the coverings of the side guides





During installation of the coverings of the side guides the slats must be in upper (open) position. Mount right/left part B (covering) on the right/left part A (see pic. 25a).

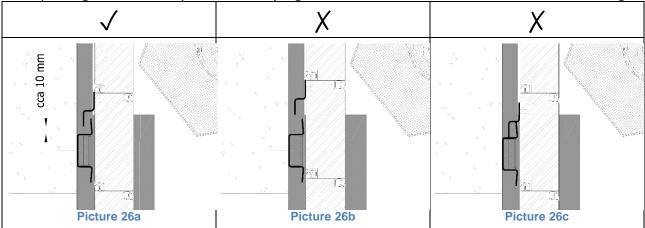
From the internal side of the guides insert into the holes the countersunk screws with internal hexagon M6x20 (see pic. 25b) and from the external side fix them with the flanged nuts M6 (see pic. 25c).

Before tightening of the nuts adjust the part B so that the gap for the slat guidance is the same over the whole height of the guides. Grooves in part A allow to set the internal width of the guide within approx. 12 mm. It is recommended to choose a larger internal width, to enable the slats to move freely in the guides. Particular attention needs to be paid to the top of the guides – there must not occur jamming of the slats against the guide edge. If necessary, the position of the transmission roller has to be adjusted.

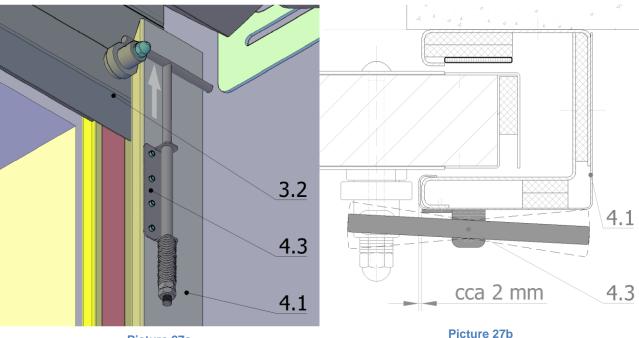


After closing the gate, check the correct position of the counterpart against the horizontal lathing (pic. 26a). During opening and closing of the gate the transmission roller should rotate.

After placing into correct position firmly tighten screws of the transmission roller bearings.



# 4.9 Installation of the spring bumpers



Picture 27a

Install assembled spring bumpers [4.3] on the left and right guide [4.1] with self-drilling buttonhead screws TEX 4,2x13. Place them to such a height that when the gate is open the spring bumper is pressed as much as possible. However, the bottom edge of the slat [3.2], or the safety edge OSE cannot be lower than the clear opening height. Pressure of the spring bumper can be adjusted with the nuts.





# 5. COMPLETION OF THE INSTALLATION

# 5.1 Final adjustment

Perform at least 10 full open and close cycles to check smooth running of the gate. Make record about the installation into the handover documentation.

# **5.1 Warranty information**

According to the regulation No. 305/2011 of the European parliament and of the council, Article 13 for warranty information, please, contact local importer in your country. Local warranty conditions can be updated according to the local law regulations.

