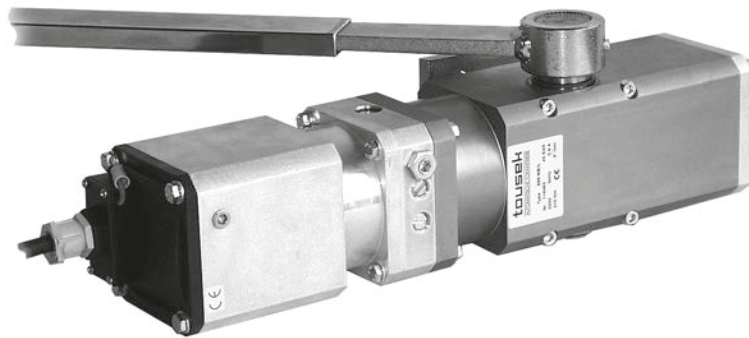


# Connection and installation guide

## Folding gate operator FOLD 330/L-R





## Important warning and safety notes

- The installation and operating instructions form an integral part of the product “gate operator”. They have been specifically written for professional and should be carefully read in their full length before carrying out the installation. They refer to the gate operator only, not to the “automatic gate”. After the installation this manual has to be handed over to the user.
- **Installation, connection, adjustments, putting into operation, and servicing may only be carried out by trained professionals in full accordance with these installation- and operating instructions.**
- Before carrying out works at the gate-system, please turn off the power supply.
- The EU Machine Directive, laws and rules concerning the prevention of accidents, and laws and standards which are in force in the EU and in the individual countries have to be strictly followed.
- The TOUSEK Ges.m.b.H. cannot be held liable for any claims resulting from disregards of the laws and standards in force during the installation and operation.
- The packaging materials (cardboard, plastic, EPS foam parts and filling material etc.) have to be properly disposed of in accordance with the applying recycling- and environmental protection laws. They may be hazardous to children and therefore have to be stored out of children’s reach.
- The product is not suitable for installation in explosion-hazardous areas.
- The product may only be used in accordance with its original purpose, for which it has been exclusively designed, and which is described in these installation and operating instructions. The TOUSEK Ges.m.b.H. rejects any liability if the product is used in any way not fully conforming to its original purpose as stated herein.
- **Children have to be instructed, that the gate facility as well as the belonging parts may not be used improperly, e.g. for playing.** Furthermore handheld transmitters have to be kept in safe places and other impulse emitters as buttons and switches have to be installed out of children’s reach.
- Before beginning with the installation the installer has to make sure that all mechanical components of the gate facility, like carrier profile/rail, gate frame and panels, guiding elements etc. are sufficiently supportive and resistant for the purpose of gate automation.
- All electrical installations have to be made in full conformity with the applying rules and laws (e.g. using a fault current circuit breaker, proper grounding etc.).
- **An all-pole disconnecting main switch with a contact opening-gap of minimum 3 mm has to be foreseen.**
- The electric motor heats up during operation. Therefore the device should only be touched after it has cooled off.
- **After installation the proper function of the gate facility and the safety devices has to be checked!**
- The TOUSEK Ges.m.b.H. rejects any liability for claims resulting from usage of the product in combination with components or devices which do not fully conform to the applying safety laws and rules.
- Only original spare- and replacement parts may be used for repair of the product.
- The installer has to inform the user about all aspects of the automatic operation of the complete gate facility, as well as about emergency operation. The installer further has to supply to the user all instructions relating to the safe operation of the gate facility. The installation and operating instructions also have to be handed over to the user.
- **Please notice that the warranty will not be applicable if the label with the engine number has been removed or damaged!**

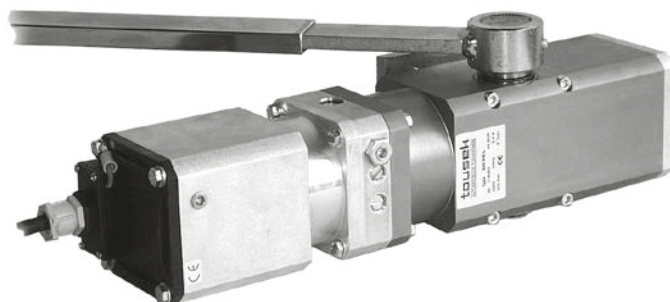


## Maintenance

- **Maintenance works may only be carried out by qualified personnel.**
- **Check the proper function of the emergency release mechanism periodically.**
- **Check if all mounting screws are securely fastened periodically.**
- **Remove dirt deposits from the operator and from the gear rack periodically.**
- **Maintenance has to be carried out according to the gate builder’s/installer’s instructions.**

### Electrohydraulic folding gate operator

- 230Va.c. Folding gate operator with hydraulic blockage system
- for double wing folding doors
- Special case: Use as swing gate operator with max. wing width of 1.3m
- with emergency release
- closed hydraulic system
- opening and closing force can be adjusted separately
- with mounting accessories



### General features

The operator TOUSEK 330 consists of a massive aluminium block with a closed electrohydraulic system.

Due to its precise design and construction the oil pump is extremely quiet.

The operator FOLD 330 is to be mounted on the gate leaf. It is therefore also ideal for subsequent installation.

Motors with hydraulic lock normally don't need the electric lock.

In order to achieve a fixed locking of the door in the end positions, also in case of blocking operators, it can be necessary to use an additional locking mechanism, such as an electronic lock (depending on fitting situation).

Motors without hydraulic lock need an electric lock to fix the doors in the closed position.

### Accessories

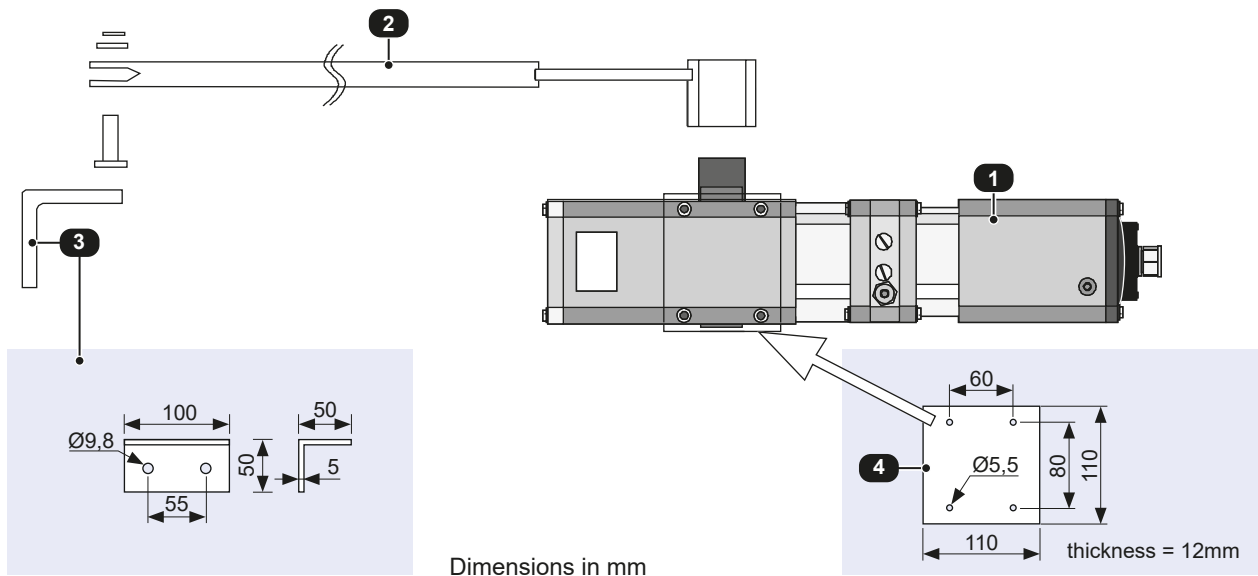
Telescopic arm, key switch, radio systems, buttons, photocells, safety edges and lights

### Technical data

Gate operator FOLD-330/L-R AEB (/L: left operator, /R: right operator)				
Power supply	230Va.c. 50Hz	Rotation angle		190°
Power consumption	150W	Duty cycle operating mode S3		40%
Max. leaf width	1,3m	Blocking in the end positions		■
Angular velocity	11,4°/s	Article nr.	left (/L)	11410010
Torque	280Nm		right (/R)	11410020
Other features	opening and closing force freely adjustable • closed hydraulic system • emergency release			

## Operator and mounting material

- 1 Operator TOUSEK 330/R (right)
- 2 Telescopic arm
- 3 Mounting bracket
- 4 Base plate



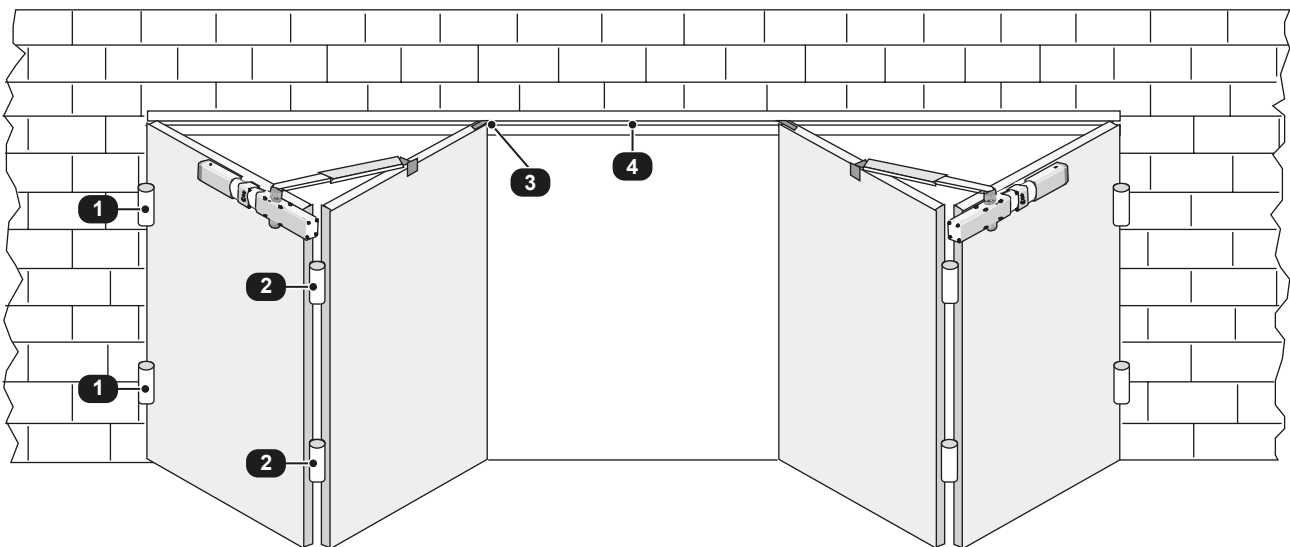
## Before mounting:

With the Tousek 300 you can automatize a bi-fold gate.

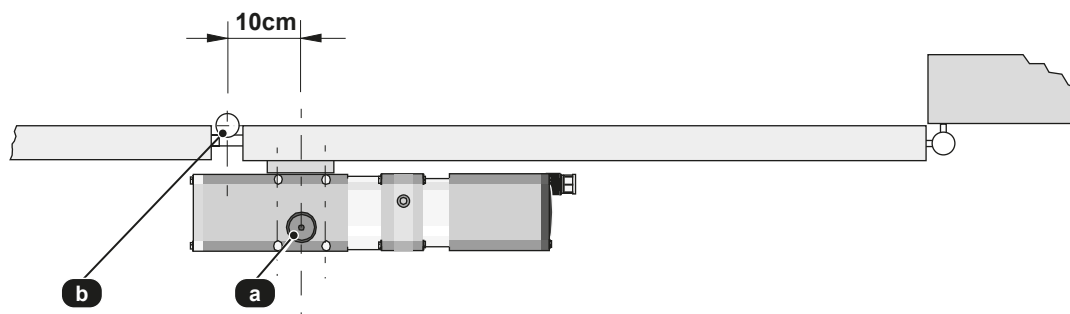
Before mounting the motor, please make sure that the gate is sturdy and torsion free.

Please notice that the hinges (1 and 2) have to be as free of tension and play as possible and that the second door leaf has to have a roller guide (3).

Both door leaves have to be provided with an upper limit stops (4) for the closed position.

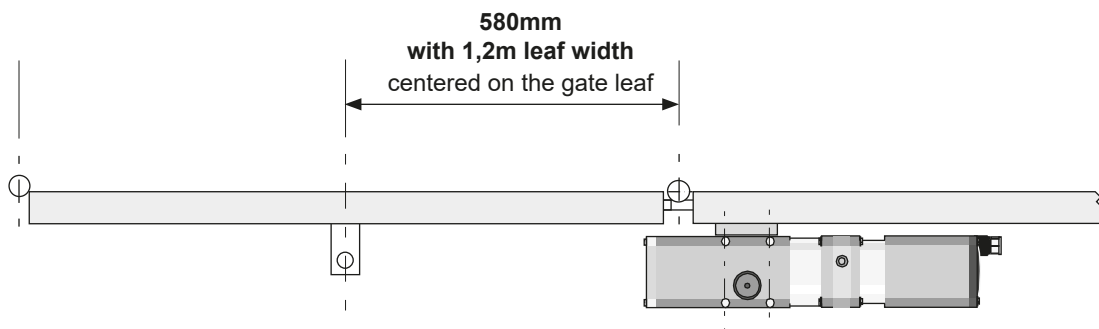


Before mounting the operator please make sure that the driving shaft (a) and pivotal point of the gate (b) are at a distance of **10 cm** from each other.



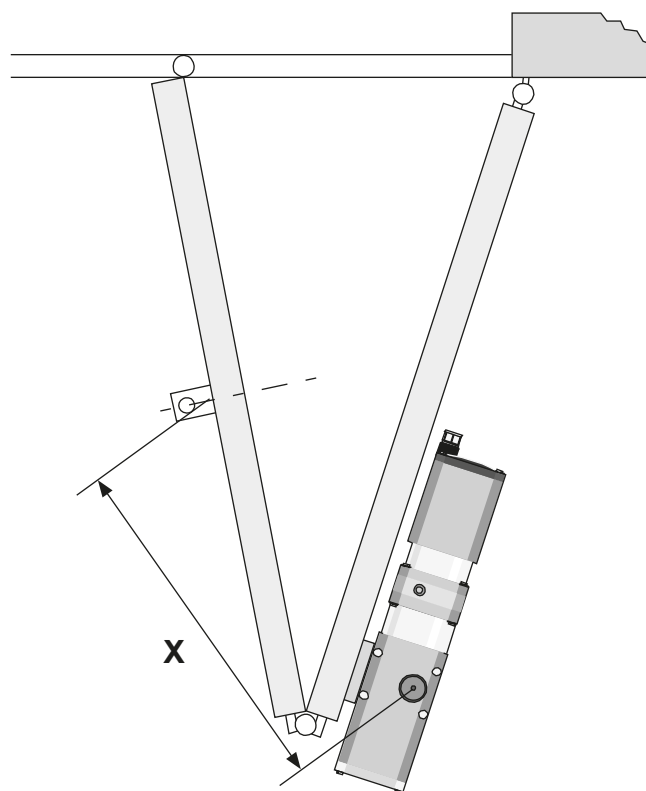
### Defining mounting point for the telescopic arm:

The mounting bracket is to be placed 580mm away from the hinge of the second leaf. If the leaf width is bigger than 1,2m (from hinge to hinge, middlepoint to middlepoint) please position and fix the mounting bracket centered on the gate leaf.



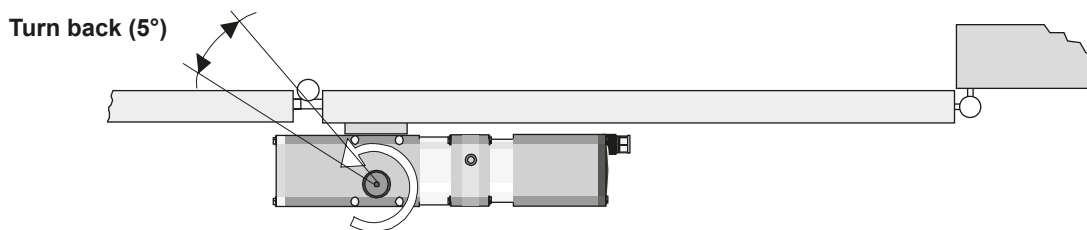
Insert the drive sleeve in the crown shaft of the operator. Insert the connecting shaft and cut to length if necessary. Determine the length **X** of the telescopic arm with opened leaf. If necessary shorten the telescopic arm (both: forming tube and flat iron)

*To avoid tensions, when in the retracted state, the lengths of the telescopic arm has to be approx. 5cm shorter than the length mentioned above.*

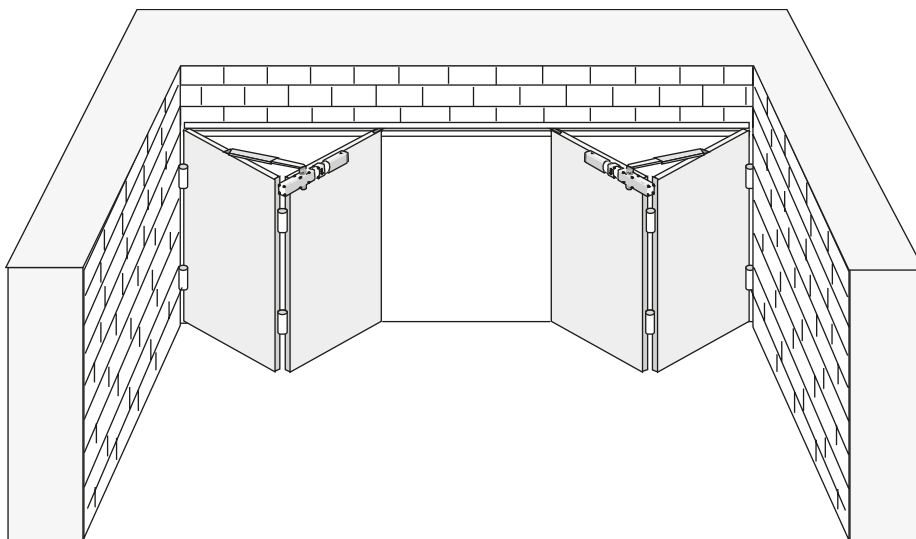


Before inserting the telescopic arm please unlock the automation (emergency release) and turn it (as far as it goes) in the direction of the arrow. Turn the shaft back of about 5°. With the door closed push the telescopic arm onto the shaft of the motor and secure it with the worm screw.

Make sure that the doors open and close completely.



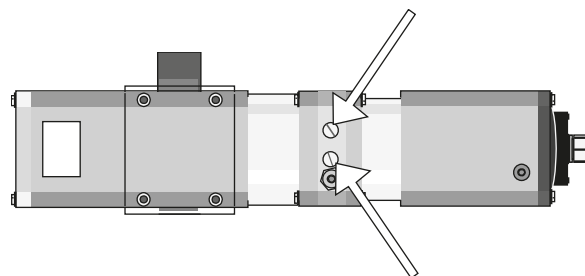
If this procedure is not possible due to an inside wall, you can also choose another mounting procedure (see below), where the automation is mounted in the entrance width of the gate.



### Setting of the power

Using the two bypass screws on the front side of the operator you can separately adjust the opening and the closing force.

**Clockwise rotation** > bigger force  
**Anticlockwise rotation** > smaller force

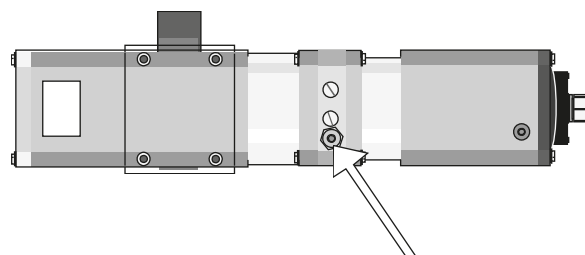


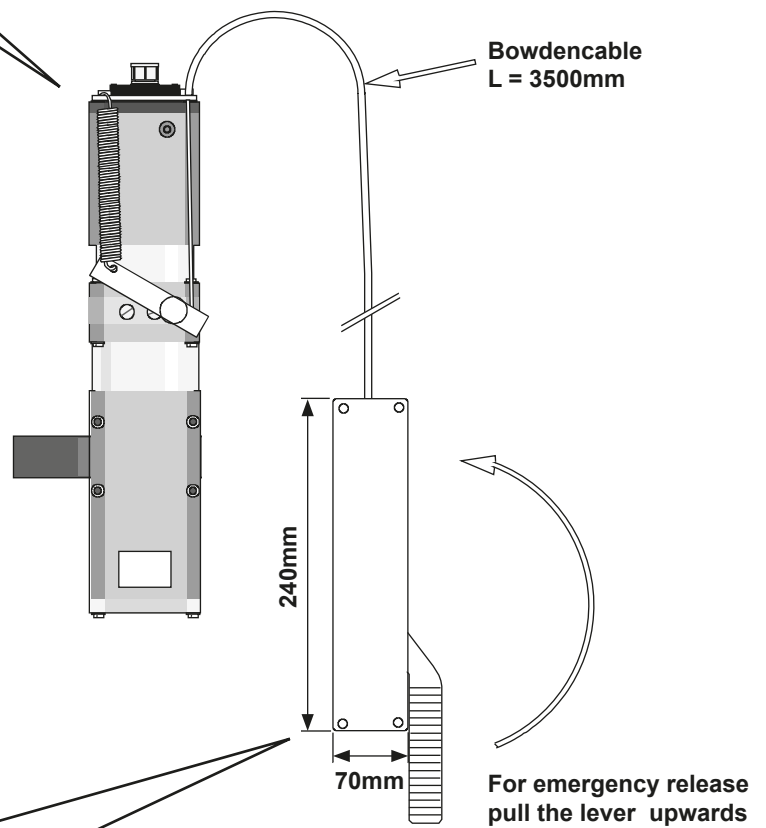
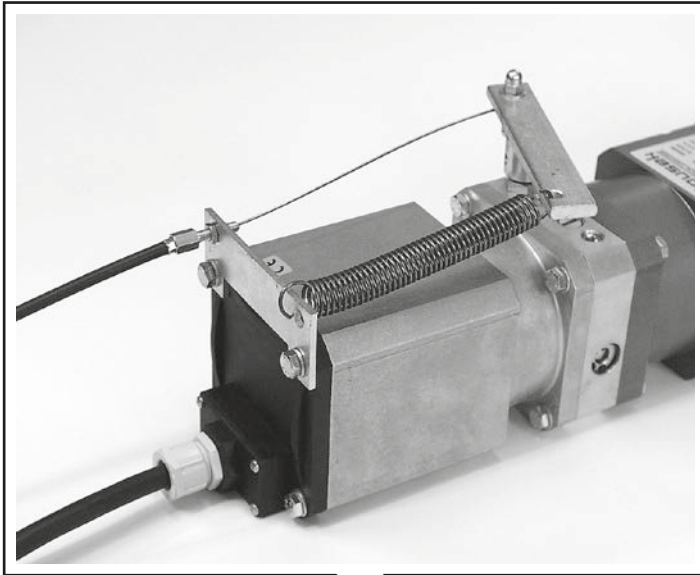
### Emergency release

Insert the emergency release key in the emergency unlocking device (on the front of the automation) and turn it up to the end in a counterclockwise direction.

The automation is now unlocked and can be moved manually.

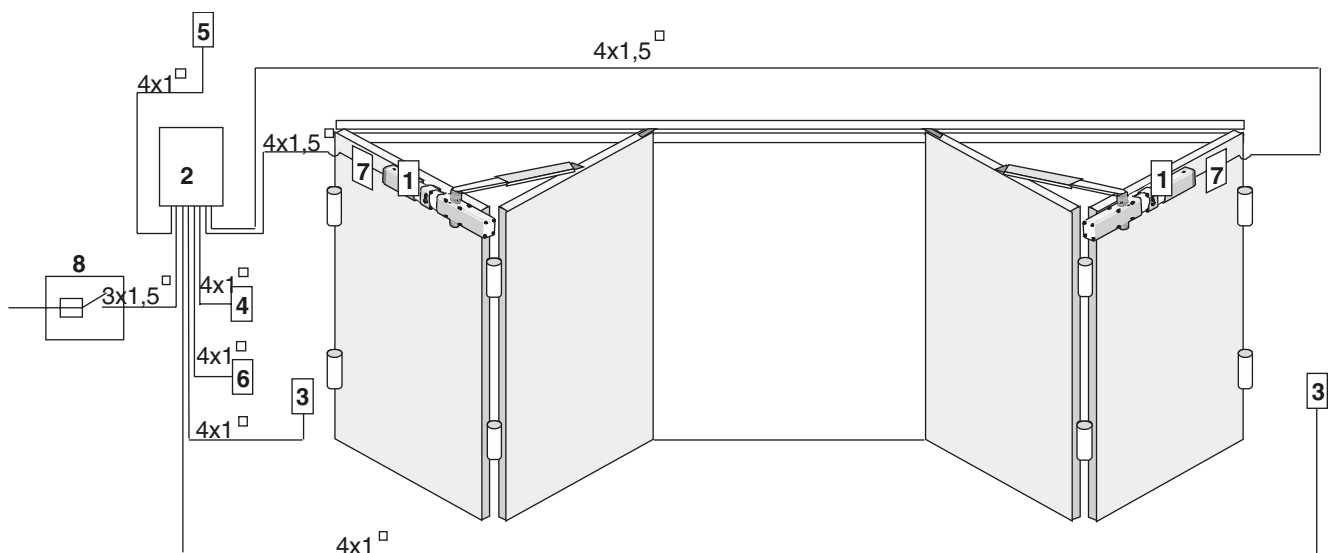
To restore the working condition simply turn the key clockwise up to the end.





1. TOUSEK operator 330
2. Control unit
3. Photocells
4. Pushbutton
5. Receiver (in the version "ST" integrated in the control)
6. Key switch
7. Junction box
8. Main switch and fuse 6A

The number of wires in the control lines (1 mm<sup>2</sup>) is given without ground wire.  
Due to connection reasons we recommend to use flexible wires and not to use any stronger control lines.



### Warning notices

Please note: the picture above shows only an example representation. Not all the security components, which are possibly required for your specific application, are included.

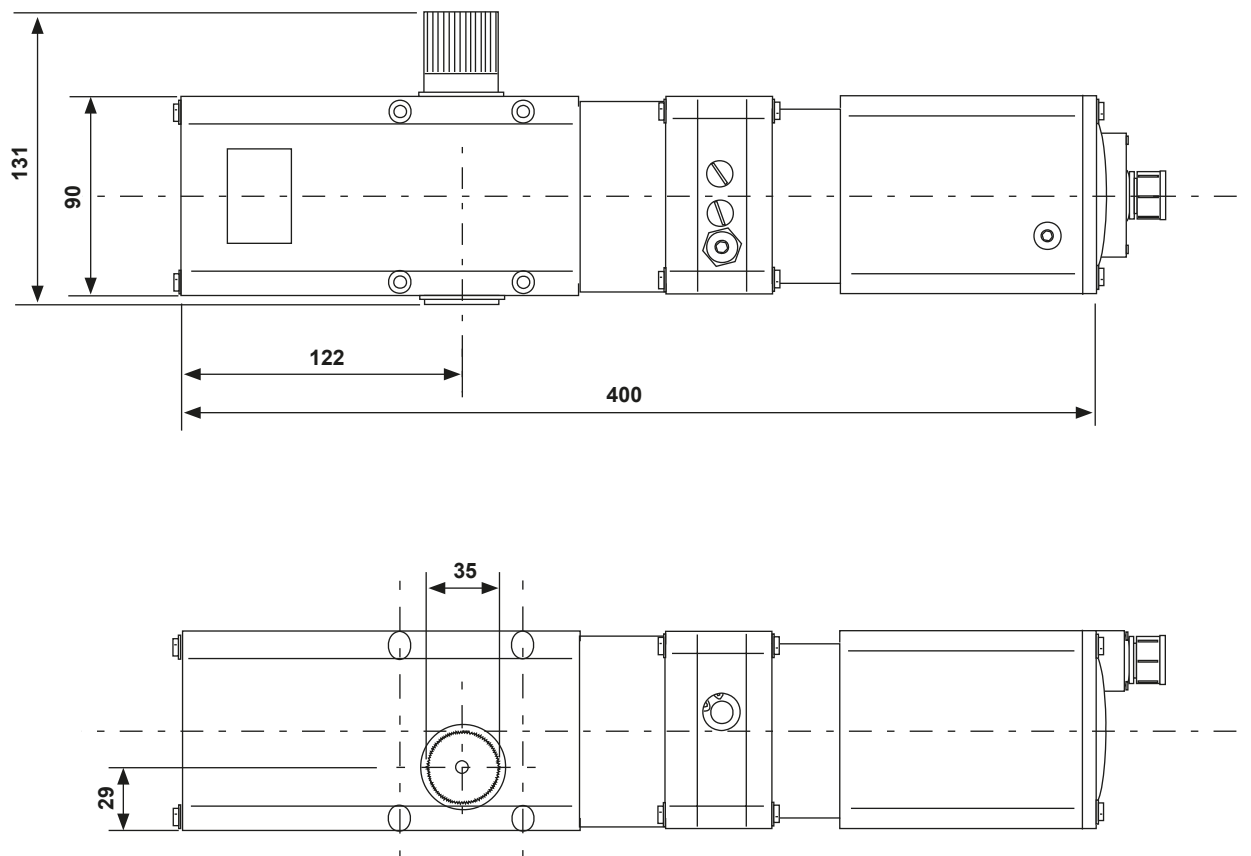
In order to guarantee complete safety and security it is extremely important to ensure that all safety devices (which are required in accordance with the relevant regulations depending on the respective purposes) and accessories (such as photocells, induction loops, safety edges, signal lights or traffic lights, main switch, emergency stop buttons, etc.) are used.

We refer to the machinery Directive as well as accident prevention regulations EC and national standards in their current version.

The TOUSEK Ges.m.b.H. cannot be held liable for any claims resulting from disregards of the laws and standards in force during the installation and operation.

**FOLD 330/R** (right operator)

Dimensions in mm





We reserve the right to change dimensions and technical specifications without prior notice.

## 6. Special case: Use as swing gate operator

operator FOLD 330/L-R

In special cases, the FOLD 330 can also be used as a swing gate operator for a max. gate leaf width of 1.3m. Depending on the local conditions, the drive can be mounted on the door leaf or on the lintel. For a 2-leaf door, a second drive is used.

door leaf	Required type of operator by installation			
	option 1: on door lintel	connection ST51	option 2: on door	connection ST51 (cross linked)
LEFT	FOLD 330/L (1L)	brown → term.20 blue (gray) → term.21 black → term.22	FOLD 330/R (1R)	 brown → term.22 blue (gray) → term.21 black → term.20
RIGHT	FOLD 330/R (1R)	brown → term.26 blue (gray) → term.25 black → term.24	FOLD 330/L (1L)	 brown → term.24 blue (gray) → term.25 black → term.26



- Please note that depending on the installation option and the opening direction of your door suitable drive (type left or right) should be selected and mounted.
- If the drives for outdoor opening gates are mounted outdoors, then for the drives and rails a weather protection (roof / cover) should be provided !
- A distance of **100mm** between drive shaft and door hinge (4) must be strictly observed.
- Depending on the mounting position of the drive, the rail profile (3) must then be mounted!
- Before attaching the drive arm (2), turn the drive shaft in the unlocked state until it stops (FOLD 330/L (1L) → **to the right** or FOLD 330/R (1R) → **to the left**) and then **approx. 5 ° back in the opposite direction!**
- Then insert the roller (2a) of the drive arm into the rail (3), push the arm when in closed gate on the drive shaft and fix it with a worm screw.
- Afterwards it must be checked whether the gate can be completely opened and closed.

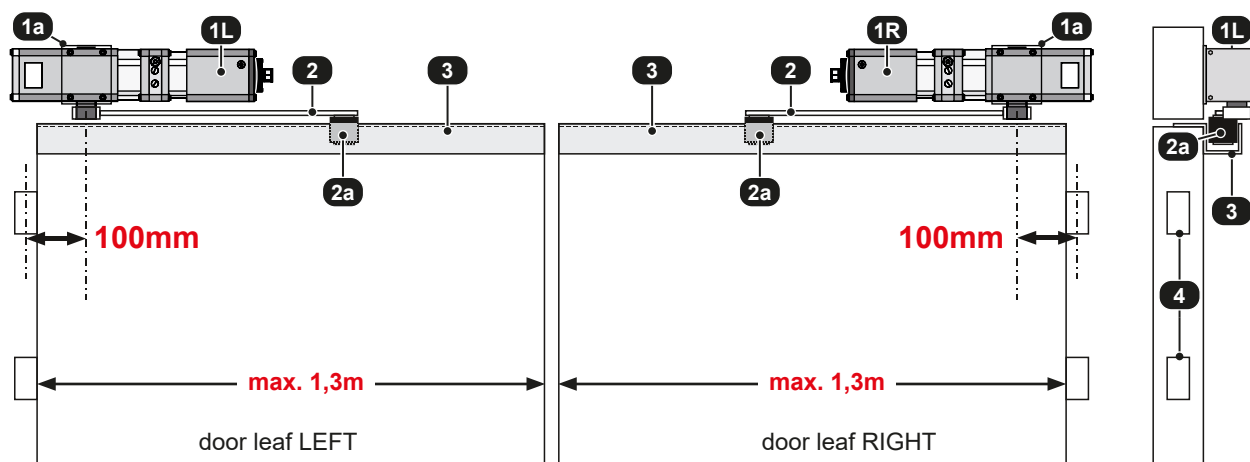
(1) Operator FOLD 330 (L: left, R: right) mounted on operator mounting plate (1a)

(2) Operator arm (length: 440mm) with plastic roller (2a)

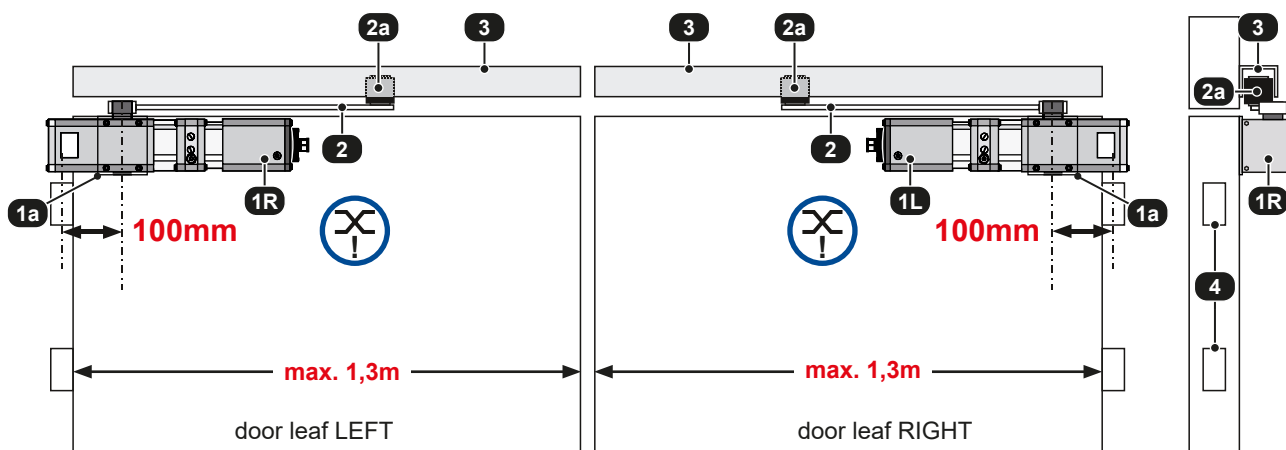
(3) Rail profile for drive arm (length: 700mm)

(4) Hinges

### Option 1: Operator installation on gate lintel / masonry (rail on door leaf)



### Option 2: Operator installation on door leaf (rail on masonry e.g. gate frame)



## Declaration of incorporation

In compliance with EC Machine Directive 2006/42/EC, Annex II B for the installation of an incomplete machine.

We hereby declare that the following product, as well as its version, put by us into circulation, complies with the essential requirements of the Machinery Directive (2006/42/EC), due to its design and type of construction.

The validity of this declaration will cease in case of any unauthorized modifications to the products.

### The product:

#### **Folding gate operator FOLD 330 AEB, FOLD 330 NB**

is developed, designed and manufactured in accordance with:

Machinery Directive 2006/42/EG  
Low Voltage directive 2014/35/EU  
Electromagnetic compatibility 2014/30/EU

#### Applied and used standards and specifications:

EN ISO 13849-1, PL-,c“, Cat 2  
EN 60335-1 as applicable  
EN 60335-2-103  
EN 61000-6-3  
EN 61000-6-2

Following requirements of Annex I of the EC Directive 2006/42/EC are met:

1.1.2, 1.1.3, 1.1.5, 1.2.1, 1.2.2, 1.2.3, 1.2.6, 1.3.2, 1.3.4, 1.3.7, 1.5.1, 1.5.4, 1.5.6, 1.5.8, 1.7

The relevant technical documentation is compiled in accordance with Annex VII, Part B of the EC Machinery Directive 2006/42/EC.

We undertake to submit it in electronic form and within a reasonable time to the market surveillance authorities in response to a duly substantiated request.

**TOUSEK Ges.m.b.H., A1230 Wien, Zetschegasse 1, Austria**

is authorized to compile the technical documentation.

The incomplete machine cannot be put into service, until it is determined that the machine, into which the incomplete machine has to be inserted, complies with the the Machine Directive 2006/42/EC.



Eduard Tousek, CEO

Vienna, 24. 04. 2016

## EC Declaration of Conformity

In compliance with EC Machine Directive 2006/42/EC, Annex II, Part 1 A.

When the described operators are connected to a gate they form a machine in the sense of the EC Machine Directive.

### Relevant EU directives:

Construction Products Directive 89/106/EWG  
Machinery Directive 2006/42/EG  
Electromagnetic compatibility 2004/108/EG  
Low Voltage directive 2006/95/EG

We hereby declare that the following product, in the version put by us into circulation, complies with the essential requirements of the Directives mentioned above. The validity of this declaration will cease in case of any unauthorized modifications to the products.

### Product:

Gate description

Motor description

The incomplete machine cannot be put into service, until it is determined that the machine, into which the incomplete machine has to be inserted, complies with the the Machine Directive 2006/42/EC.

Installation company

Address, ZIP code, Place

Date/ Signature

Motor number (Type plate):

Other components:

## **tousek PRODUCTS**

- sliding gate operators
- cantilever systems
- swing gate operators
- garage door operators
- folding door operators
- traffic barriers
- electronic controls
- radio remote controls
- key operated switches
- access control
- safety devices
- accessories

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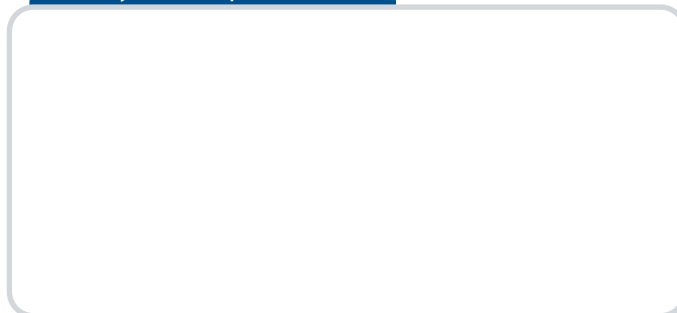
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31. 07. 2019

We reserve the right to change dimensions and/or technical specifications without prior notice. Claims resulting from misprints or errors cannot be accepted.